

 www.sangeo.com.tr


Sangeo
cutting tools

2025/2026

**PRODUCT
CATALOG**

TURKEY'S
FASTEST
GROWING
CUTTING TOOL
SUPPLIER



Sangeo
cutting tools

 www.sangeo.com.tr



See more cutting tools

TURNING /
GROOVING /
THREADING /
MILLING /
DRILLING /
ENDMILLS /
DRILLS /
HSS DRILLS & TAPS /
HSS REAMERS
SPARE PARTS /
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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



TURNING /

- carbide /5**
- PCBN /65**
- diamond /85**
- ceramic /101**
- holders /125**

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



TURNING/**CARBIDE**

CARBIDE /TURNING

C

N

M

G

12

04

08

1

2



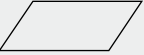
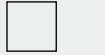

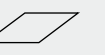

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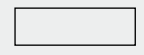
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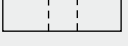
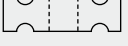
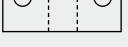
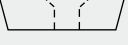
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






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1	GEOMETRY
C	 80°
D	 55°
K	 55°
S	 90°
T	 60°
V	 35°
W	 80°

2	CLEARANCE ANGLE
B	 5°
C	 7°
P	 11°
N	 0°

3	TOLERANCE	
		
G	±0,025	±0,13
M	±0,05 ±0,15	±0,13
U	±0,08 ±0,25	±0,13

4	SHAPE
A	
G	
M	
W	
X	SPECIAL

5	SHAPE (mm)
C	06 09 12 16 19 25 
D	07 11 15 
K	16 
S	09 12 15 19 25 
T	09 11 16 22 
V	11 16 22 
W	06 08 

6	THICKNESS (mm)
02	2,38
03	3,18
T3	3,97
04	4,76
06	6,35
09	9,52

7	CORNER RADIUS
02	0,20 mm
04	0,40 mm
08	0,80 mm
12	1,20 mm
16	1,60 mm
24	2,40 mm

CARBIDE /TURNING

U	M
8	9

CS	5	2	25
10	11	12	13

8	SERIES OF C/B
H	Huskar Series
U	Undying Series
S	Spirit Series
T	Tusk Series
A	Aluminium

9	ISO GRADE	
Heavy Machining	P	H. Roughing
	R	Roughing
	F	Functional
Turning	R	Roughing
	M	Medium
	F	Finishing
	J	Ultra Finishing
Stainless Steel	S	Standart
	K	Roughing
Aluminium	LU	Functional

10	COATING & MATERIAL
CS	CVD Coated Carbide
CD	Double CVD Coated
PS	PVD Coated Carbide
PB	New PVD Coating
KS	Ceramic
SS	Cermet
US	Uncoated

11	WORKPIECE MATERIAL
2	Non-Ferrous Material
4	Hardened Steel
5	Steel
7	Stainless Steel
8	Cast Iron
9	General Machining

12	MACHINING
1~3	Turning
4	Threading
5	Grooving
9	Milling

13	ISO GRADE
05	
10	
15	
20	
25	
30	
35	
40	
45	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS















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CARBIDE /TURNING

GRADES

ISO DIN 513	K					P					M					N					S					H		
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40	S01	S10	S20	S30	S40	H01	H10	H20
CARBIDE CVD	CS8205					CS5205																						
	CS8115					CS5210																						
	CS8215					CS5215																						
	CS8315					CS5215S																						
						CS5220					CS7125																	
						CS5225																						
						CS5225S																						
						CD5125																						
	CS8125					CS5235																						
	CS8325					CS5235S																						
					CS5240																							
CARBIDE PVD						PS7110S					PS7110S																	
						PS7220S					PS7220S																	
						PS5125					PS7120					PS7220S												
						PS7120										PS7315S					PS7220S							
						PS7315S					PS7315S					PS7315S					PS7315S							
						PS7320S					PS7320S					PS7320S					PS7320S							
CARBIDE UNCOATED																US2115												
CERMET UNCOATED	SS9115					SS9115					SS9115																	
	SS9115C					SS9115C					SS9115C																	
	SS9125					SS9125					SS9125																	
	SS9125C					SS9125C					SS9125C																	

CVD TURNING GRADES

MATERIAL	GRADE	ISO	Color	Operation
P	CS5205	P05-P10	BLACK	MT-TiCN+Al2O3+TiN
				Wear-resistance materials coated on the gradient sintered substrate which has both good hardness and toughness. Can bear high temperatures. For steel and casting steel finishing to roughing processing. Continue cutting to light interrupted cutting.
	CS5210	P10-P20	YELLOW - BLACK	MT-TiCN+TiC+Al2O3+TiN
				Stable conditions for steel finishing can obtain high metal removal rate. Excellent resistance to crater wear and plastic deformation resistance. Recommended for stable conditions. Wet and dry processing
	CS5215	P05-P25	BLACK	MT-TiCN+TiC+Al2O3+TiN
	CS5215S	P05-P25	BLACK	MT-TiCN+TiC+Al2O3+TiN
				Optimization for high speed machining due to combining the substrate of superior wear resistance and toughness with the coating of excellent thermal crack/plastic deformation
	CS5220	P15-P35	YELLOW - BLACK	MT-TiCN+TiC+Al2O3+TiN
	CS5225	P15-P35 M10-M20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				stable conditions for steel semi-finishing to roughing, can obtain high metal removal rate. Excellent resistance to crater wear and plastic deformation. Recommended for stable conditions. Wet and dry processing.
	CS5225S	P15-P35 M10-M20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				First recommended grade for general machining with the use of high toughness substrate and coating layer with improved welding/chipping resistance
CD5125	P15-P35	YELLOW - BLACK	MT-TiCN+TiC+Al2O3+TiN	
CS5235	P25-P40	YELLOW - BLACK	weld / chip resistance	
			Medium to low speed machining of steel	
CS5235S	P25-P40	YELLOW - BLACK	MT-TiCN+TiC+Al2O3+TiN	
			High-strength alloy substrate with thick wear-resistant coating has good toughness and plastic deformation. Machining steel and cast steel in bad conditions, Edge line security for interrupted cutting and roughing operations high metal removal rate.	
CS5240	P30-P40	YELLOW - BLACK	MT-TiCN+TiC+Al2O3+TiN	
			Medium to high speed machining of stainless steel	
M	CS7125S	M20-M30	BLACK	MT-TiCN+TiC+Al2O3
				For high speed machining of stainless steel
K	CS8205	K01-K10	BLACK	MT-TiCN+TiC+Al2O3+TiN
	CS8115	K10-K20	BLACK	As adopting highly hard substrate with superior CVD coated which has excellent resistance for thermal oxidation, Excellent performance in casting iron continuous machining
				Medium speed machining of cast iron
	CS8215	K10-K20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				Medium speed machining of cast iron
	CS8315	K10-K25	YELLOW - BLACK	MT-TiCN+Al2O3+TiN
			The excellent combination of high wear resistance substrate and MT-TiCN, thick Al2O3, TiN coating is the first choice of ductile iron and gray cast iron, which allows a higher cutting speed.	
CS8125	K20-K30	BLACK	MT-TiCN+TiC+Al2O3+TiN	
			Interrupted cutting for gray iron and ductile cast iron	
CS8325	K20-K35	YELLOW - BLACK	MT-TiCN+Al2O3+TiN	
				The excellent combination of good wear resistance and toughness substrate and MT-TiCN, thick Al2O3, TiN coating is the first choice of ductile iron and gray cast iron for roughing cutting high metal remove rate.

CS5225







Universal grade especially for machining forged automobile components and bearing steel both in continuous and interrupted cutting. Available for all kinds of steels - carbon steel, alloy steel, rolled steel, tool steel, mild steel, bearing steel and other special kinds of steel. New coating technology increases welding resistance and chipping resistance, which leads to longer tool life




TiN coating layer with superior welding resistance
TiC + Al2O3 coating layer with superior heat resistance
TiCN coating layer with superior chipping resistance
Exclusive substrate material for coating with improved wear resistance.

CARBIDE /TURNING





PVD TURNING GRADES

MATERIAL	GRADE	ISO	Color	Operation
P	PS5125	P05-P25	BLACK	2-4 micron Nano TiAlN PVD Coating
				Stable machinability with chipping resistance fracture resistance and welding resistance, Medium, roughing and heavy interrupted cutting for stainless steel and forged steel
M	PS7110S	M20-M30	COPPER	PVD(Cotated) - TiAlSiN, Premium grade
				As adapting highly hard substrate, Excellent in medium speed machining of stainless steel. As adapting Salina coating which has excellent resistance for thermal & oxidation
	PS7120	M15-M25	YELLOW	2-4 micron Nano AlCrN AlCrSiN Coating
				Medium, roughing and heavy interrupted cutting for st. steel and forged steel
	PS7220S	M10-M30	COPPER	PVD(Cotated) - TiAlSiN, Premium grade
				Excellent in medium speed machining of stainless steel. As adapting Salina coating which has excellent resistance for thermal & oxidation
PS7315S	M10-M15	GRAY	PVD (Cotated)-AlTiN, Premium grade	
			High Co content and fine WC grain substrate, gives wonderful cutting edge strength, combines with new AlTiN coating, it has very small coefficient of friction,high antioxidant temperature, and good nano hardness.	
PS7320S	M10-M30	GRAY	PVD (Cotated)-AlTiN, Premium grade	
			High Co content and fine WC grain substrate, gives wonderful cutting edge strength, combines with new AlTiN coating, it has very small coefficient of friction,high antioxidant temperature, and good nano hardness.	

UNCOATED CARBIDE GRADES









































































MATERIAL	GRADE	ISO	Color	Operation
N	US2115	K05-K25	Silver	Ultra fine substrate
				Increased wear & chipping resistance as using a ultra fine substrate, Excellent tool life with special surface treatment & and sharp cutting edge of ALU chip breaker

CERMET CARBIDE GRADES

MATERIAL	GRADE	ISO	Color	Operation
UNI	SS9115	P05-P25	SILVER	For continuous machining of cold/hot forged steel and Sintered ferrous alloy at high speed and low depth of cut
				
	SS9115C	P05-P30	YELLOW	Superior wear and adhesion resistant TiC coating on the special reinforcement cermet Application: The 1st choice PVD coated cermet for steel machining provides high efficient machining and high quality surface finish
				
SS9125	P05-P25	SILVER	For continuous machining of cold/hot forged steel and Sintered ferrous alloy at high speed and low depth of cut	
				
SS9125C	P05-P30	YELLOW	Superior wear and adhesion resistant TiC coating on the special reinforcement cermet Application: The 1st choice PVD coated cermet for steel machining provides high efficient machining and high quality surface finish	
				

CARBIDE /TURNING

CHIPBREAKERS SELECTION (NEGATIVE)

	□□CN	□□DN	□□SN	□□TN	□□VN	WN
MA FLAT	21 	29 	35 	42 		53 
MG BOX	21 	29 	35 	42 	51 	53 
ALU	21 	29 	35 	42 		53 
HQ	21 	29 		43 	51 	53 
PM	22 			43 	51 	54 
ST		29 		43 		54 
TK	22 	29 	36 	43 		54 
TM		30 				54 
TS	23 	30 	36 	44 	51 	54 
UF		30 	36 	44 	51 	54 
UM	23 	30 	36 	44 	51 	55 
UR	24 	31 	37 	45 		55 
US	25 	31 	37 	45 		55 
OTHERS	22 (TF) 		35 (TF) 	42 (R/L-P) 		55 (HA) 
			37 (ZR) 	43 (R/L-C) 		55 (UT) 
			37 (HTR) 	44 (UH) 		
				45 (VQ) 		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS













DRILLS

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DRILLS & TAPSSPARE
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CARBIDE /TURNING

CHIPBREAKERS SELECTION (POSITIVE)

	□□CC	□□DC	□□SC	□□TC	□□VB	□□VC
ER/L-U	18 	26 				
L-F	18 					
L/R-W	18 					
L-Y					47 	
ALU	19 	26 	34 	40 	47 	49 
CG	19 	26 		40 	47 	50 
HF	19 	26 	34 	40 		
HM	19 	26 	34 	40 		
HQ	20 	27 		40 	47 	
HR					47 	
TS	20 	28 		41 	48 	
VM	20 	28 		41 	48 	
VQ	20 	28 				
VW		28 			48 	

MACHINING EXAMPLES

P Carbon Steel (1.1040)

• Workpiece	Hub	
• Cutting Conditions	Vc (m/min)=250	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
• Designation	Insert	CNMG120408-UM CS5225
	Toolholder	DCLNR2525-M12

• Test Result

CS5225	120
competitor	80

P Alloy Steel (2379)

• Workpiece	Automobile Part	
• Cutting Conditions	Vc (m/min)=250	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
• Designation	Insert	CNMG120408-UM CS5215S
	Toolholder	DCLNR2525-M12

• Test Result

CS5215S	60
competitor	40

M Stainless Steel (316L)

• Workpiece	Valve	
• Cutting Conditions	Vc (m/min)=120	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
• Designation	Insert	CNMG120408-TS PS7220S
	Toolholder	DCLNR2525-M12

• Test Result

PS7220S	30
competitor	20

K Gray Cast Iron (GG25)

• Workpiece	Disc	
• Cutting Conditions	Vc (m/min)=350	fn (mm/rev)= 0.25
	ap (mm)= 1,5	Wet
• Designation	Insert	CNMA120408 CS8215
	Toolholder	DCLNR2525-M12

• Test Result

CS8215	15
competitor	11

TURNING

GROOVING

THREADING

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DRILLING

ENDMILLS

DRILLS

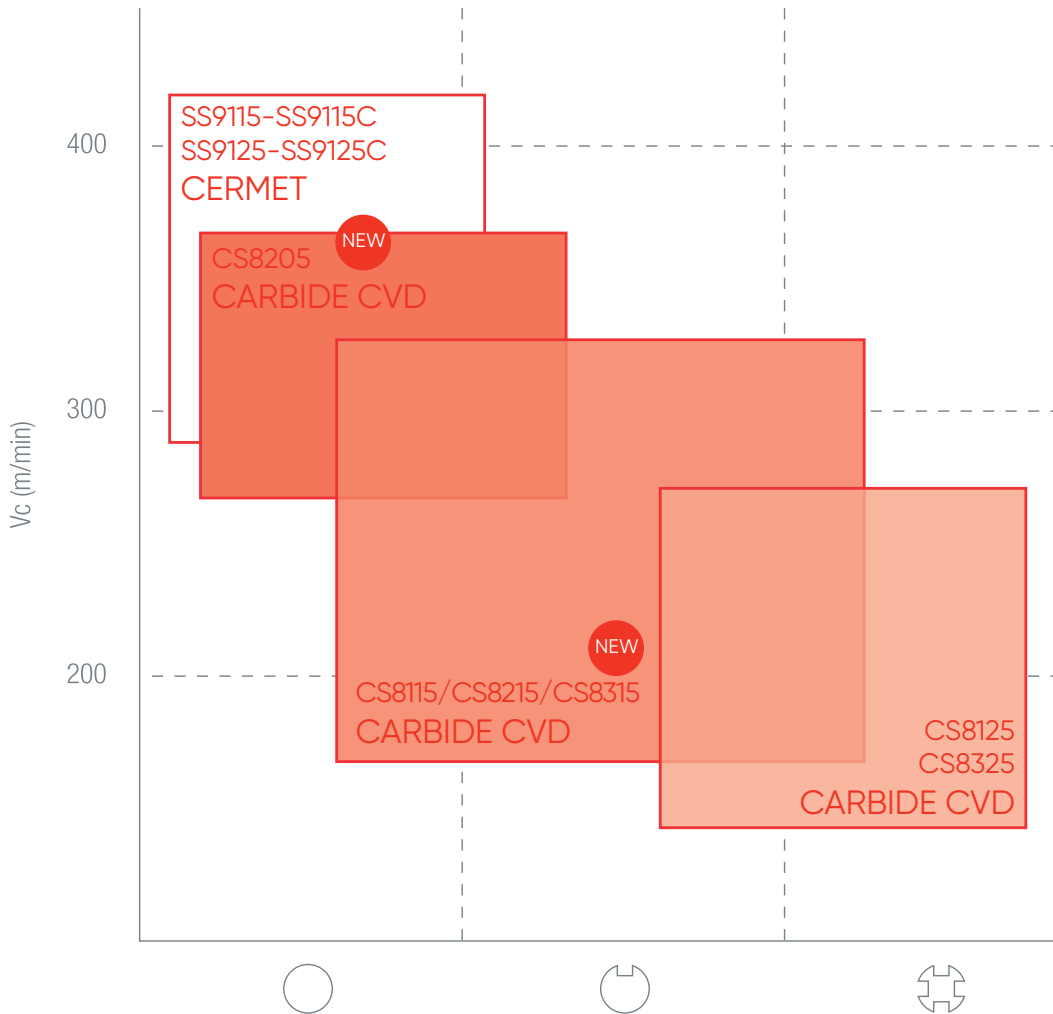
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Range ISO **K**



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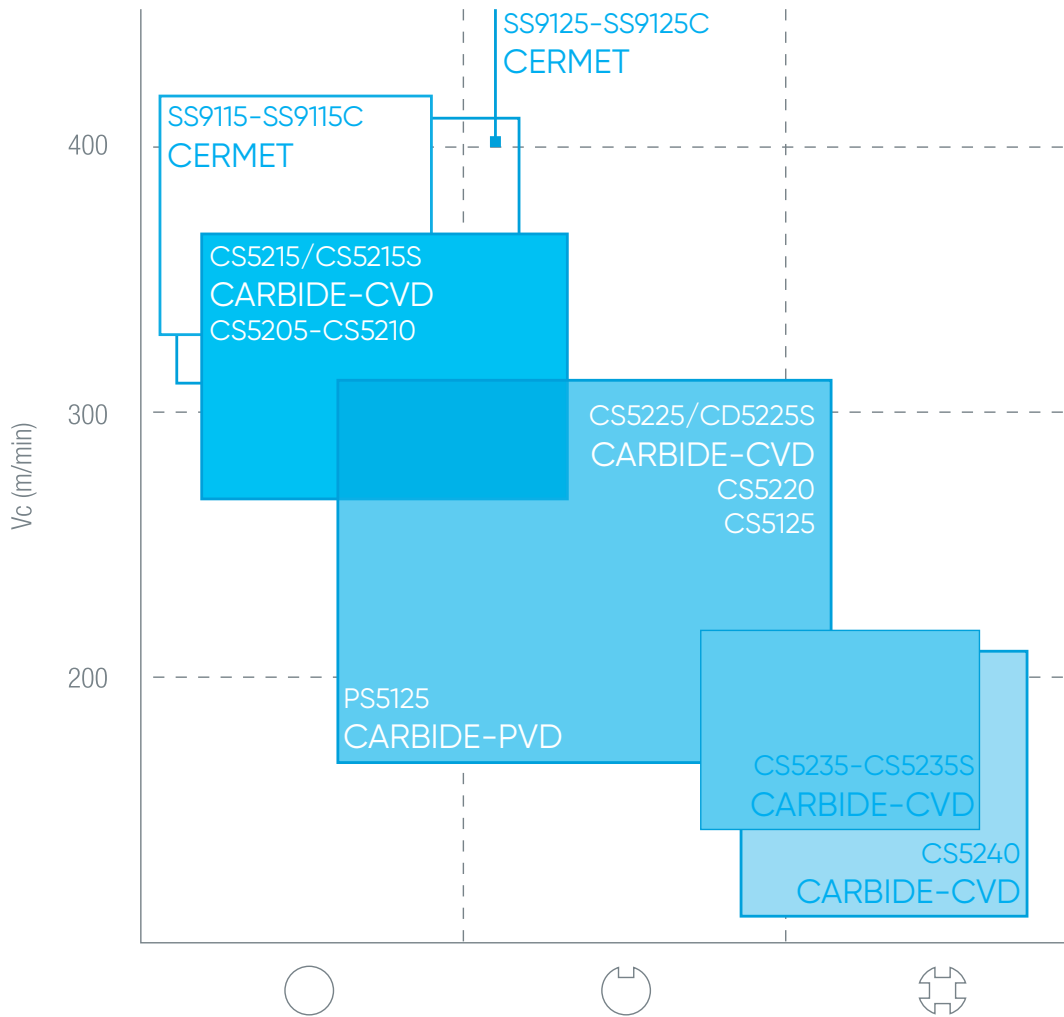
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CARBIDE /TURNING

Range ISO **P**

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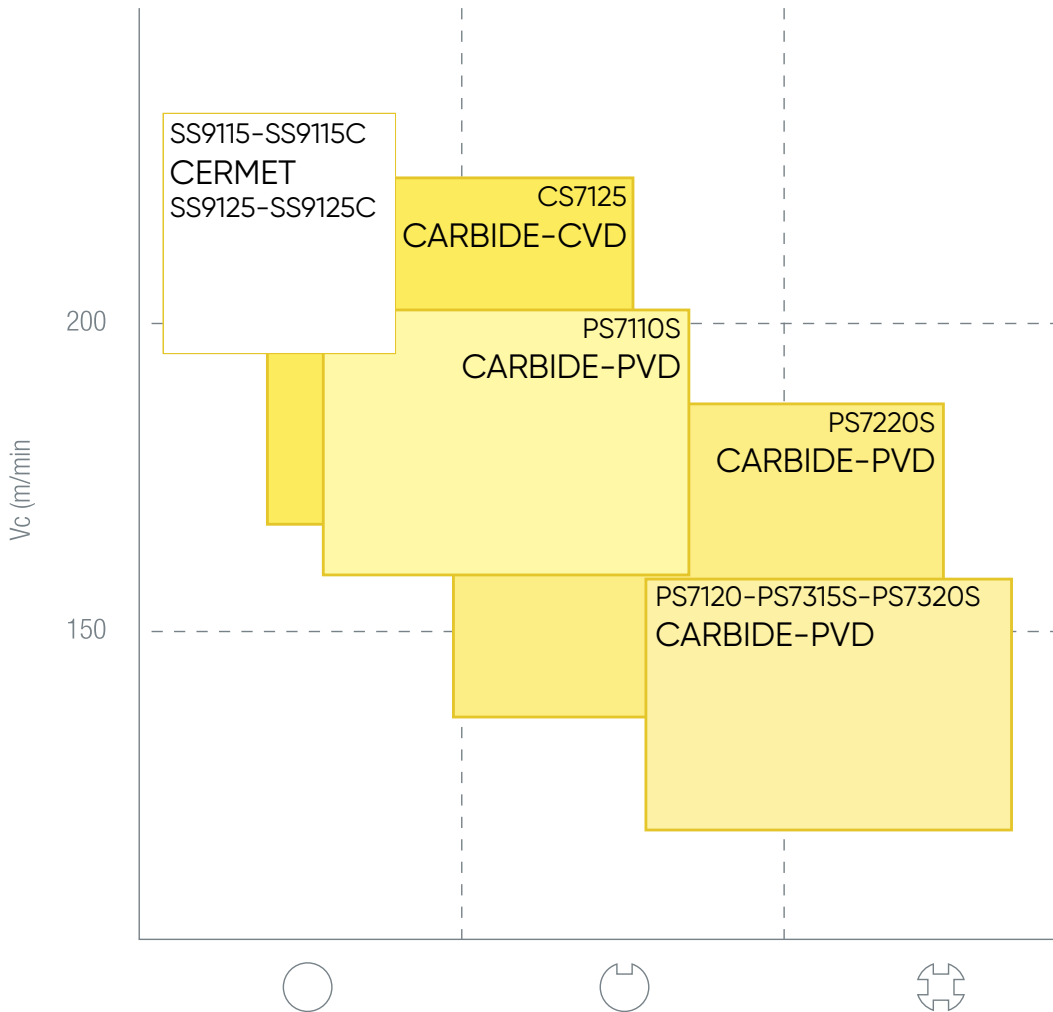
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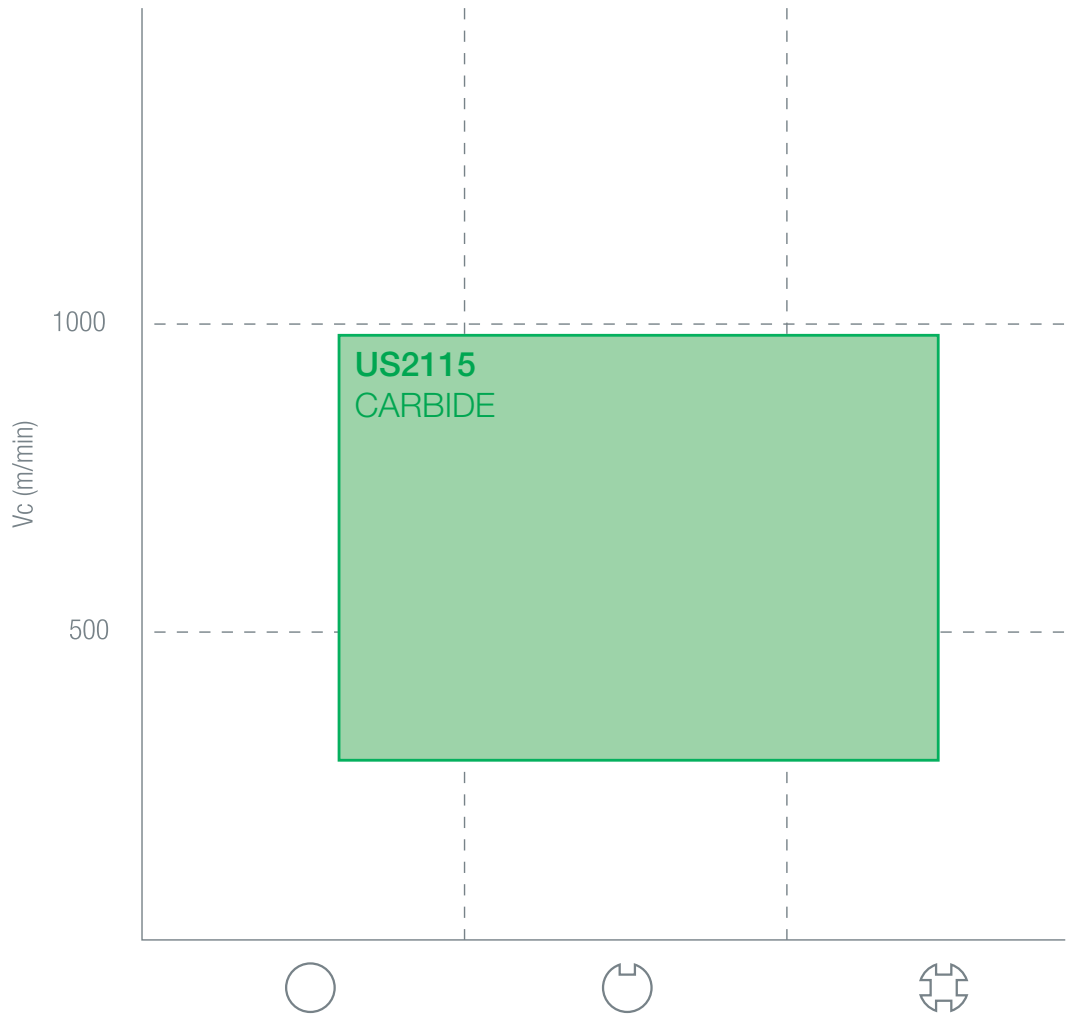
Range ISO **M**



CARBIDE /TURNING

Range ISO **N**

GRADES



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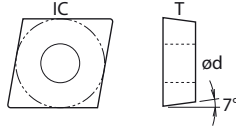
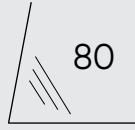
SPARE
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CARBIDE /TURNING

POSITIVE 7°
with hole

CC □ □



CC□□	0602□□	09T3□□	1204□□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	134	134	134

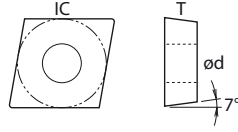
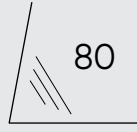
DESCRIPTION	CARBIDE-CVD														CARBIDE-PVD				CERMET			CARBIDE									
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
 	CCGT060202EL-U																														
	CCGT060204EL-U																														
	CCGT09T302EL-U																														
	CCGT09T304EL-U																														
	CCGT060202ER-U																														
	CCGT060204ER-U																														
	CCGT09T302ER-U																														
	CCGT09T304ER-U																														
 	CCGT030102L-F																														
	CCGT030104L-F																														
	CCGT040102L-F																														
	CCGT040104L-F																														
 	CCGT060202L-W15																														
	CCGT060204L-W15																														
	CCGT060202R-W15																														
	CCGT060204R-W15																														
 	CCGT09T302L-W20																														
	CCGT09T304L-W20																														
	CCGT09T302R-W20																														
	CCGT09T304R-W20																														

 FINISHING
  MEDIUM
  ROUGHING
  Vc • fn • ap  56

CARBIDE /TURNING

POSITIVE 7°
with hole

CC □ □



CC □ □	0602 □ □	09T3 □ □	1204 □ □
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
ød	2,80	4,40	5,50
Holder	134	134	134

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET		CARBIDE															
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS915C	SS9125	SS9125C	US2115			
	CCGT060202-ALU																														•	
	CCGT060204-ALU																														•	
	CCGT060208-ALU																														•	
	CCGT09T302-ALU																														•	
	CCGT09T304-ALU																														•	
	CCGT09T308-ALU																														•	
	CCGT09T312-ALU																														•	
	CCGT120402-ALU																															•
	CCGT120404-ALU																															•
	CCGT120408-ALU																															•
CCGT120412-ALU																															•	
	CCMT060202-CG																														•	
	CCMT060204-CG																														•	
	CCMT060208-CG																														•	
	CCMT09T304-CG																														•	
	CCMT09T308-CG																														•	
	CCMT060202-HF	•																												•		
	CCMT060204-HF	•					•				•	•	•											•	•					•		
	CCMT09T302-HF	•																												•		
	CCMT09T304-HF	•						•		•																				•		
	CCMT060204-HM	•					•				•	•	•																	•		
	CCMT060208-HM	•					•				•	•	•																	•		
	CCMT09T302-HM	•																												•		
	CCMT09T304-HM	•						•		•																				•		
	CCMT09T308-HM	•						•		•																				•		
	CCMT120404-HM	•						•		•																				•		
	CCMT120408-HM	•						•		•																				•		
CCMT120412-HM																														•		

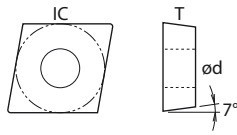
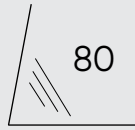
FINISHING
 MEDIUM
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TURNING
GROOVING
THREADING
MILLING
DRILLING
ENDMILLS
DRILLS
HSS DRILLS & TAPS
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CARBIDE /TURNING

POSITIVE 7°
with hole

CC □ □



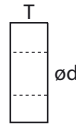
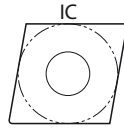
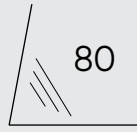
CC □ □	0602 □ □	09T3 □ □	1204 □ □
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	134	134	134

DESCRIPTION	CARBIDE-CVD												CARBIDE-PVD				CERMET			CARBIDE																						
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115													
CCMT060204-HQ CCMT09T304-HQ CCMT09T308-HQ																																										
CCMT060204-MF1 CCMT060204-MF2																																										
CCMT09T304-ST CCMT060204-TS CCMT060208-TS CCMT09T302-TS CCMT09T304-TS CCMT09T308-TS																																										
CCMT060204-VM CCMT060208-VM CCMT09T304-VM CCMT09T308-VM																																										
CCMT060204-VQ CCMT09T304-VQ																																										

FINISHING
 MEDIUM
 ROUGHING
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NEGATIVE
with hole

CN□□



CN□□	1204□□	1606□□	1906□□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
ød	5,16	6,35	5,50
Holder	137	137	137

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
	CNMA120408											•	•	•	•																
	CNMA120412											•	•	•	•																
	CNMA160608											•	•	•	•																
	CNMA160612											•	•	•	•	•															
	CNMA160616											•	•	•	•	•															
	CNMA190612											•	•	•	•	•															
	CNMA190616											•	•	•	•	•															
	CNMG120404				•		•				•	•							•	•											
	CNMG120408			•	•		•	•	•		•	•	•	•	•	•			•				•	•							
	CNMG120412			•	•		•	•	•		•	•	•	•	•	•			•				•	•							
	CNMG120416			•			•		•		•	•	•	•	•	•			•				•	•							
	CNMG160608			•	•		•	•	•		•	•	•	•	•	•			•	•			•	•							
	CNMG160612			•	•		•	•	•		•	•	•	•	•	•			•	•			•	•							
	CNMG160616				•			•					•	•	•	•			•	•			•	•							
	CNMG190608				•			•				•	•						•	•			•	•							
	CNMG190612											•	•		•	•			•	•			•	•							
CNMG190616				•			•				•	•	•	•	•			•	•			•	•								
	CNMG120402-ALU																													•	
	CNMG120404-ALU																														•
	CNMG120408-ALU																														•
	CNMG120404-HQ							•										•	•			•					•				
	CNMG120408-HQ																		•				•				•				
	CNMG190612-HR				•																										

FINISHING

MEDIUM

ROUGHING

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CARBIDE /TURNING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

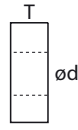
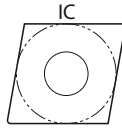
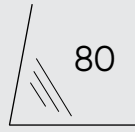
DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

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NEGATIVE
with hole

CN



CN	1204	1606	1906
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
Ød	5,16	6,35	5,50
Holder	137	137	137

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET		CARBIDE													
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
CNMG120404-MF2																				•											
CNMG120408-MF3																				•		•									
CNMG120408-MF4																							•								
CNMG120408-MM																					•										
CNMG120404-PM CNMG120408-PM																															
CNMG120404-TF CNMG120408-TF																															
CNMG120408-TK CNMG120412-TK																															



FINISHING



MEDIUM



ROUGHING

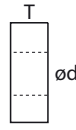
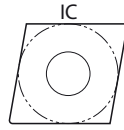
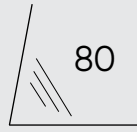
Vc • fn • ap



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NEGATIVE
with hole

CN□□



CN□□	1204□□	1606□□	1906□□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
ød	5,16	6,35	5,50
Holder	137	137	137

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
	CNMG090408-TS																		•	•											
	CNMG090412-TS																			•	•										
	CNMG120404-TS							•												•	•	•	•	•							
	CNMG120408-TS						•													•	•	•	•	•							
	CNMG120412-TS																			•	•										
	CNMG160608-TS																			•	•										
	CNMG160612-TS																			•	•										
	CNMG160616-TS																			•	•										
	CNMG190608-TS																			•	•										
	CNMG190612-TS																			•	•	•									
	CNMG190616-TS																			•	•										
	CNMG120404-UF						•																								
	CNMG120404-UM				•		•	•		•	•	•												•	•						
	CNMG120408-UM				•		•	•		•	•	•												•	•						
	CNMG120412-UM				•		•	•		•	•	•												•	•						
	CNMG120416-UM				•		•	•		•	•	•												•	•						
	CNMG160608-UM				•		•	•		•	•	•												•	•						
	CNMG160612-UM				•		•	•		•	•	•												•	•						
	CNMG160616-UM				•		•	•		•	•	•												•	•						
	CNMG190608-UM				•		•	•		•	•	•												•	•						
	CNMG190612-UM				•		•	•		•	•	•												•	•						
	CNMG190616-UM				•		•	•		•	•	•												•	•						

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

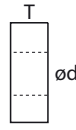
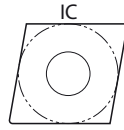
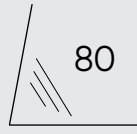
SPARE
PARTS

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CARBIDE /TURNING

NEGATIVE
with hole

CN□□



CN□□	1204□□	1606□□	1906□□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
ød	5,16	6,35	5,50
Holder	137	137	137

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE											
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
CNMG120404-US				•		•																								
CNMG120408-US			•			•															•									
CNMM250924-GR									•	•																				
CNMM250924-HTR										•																				

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

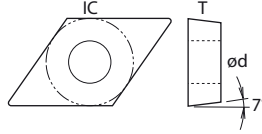
SPARE
PARTS

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CARBIDE /TURNING

POSITIVE 7°
with hole

DC □ □



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
Holder	143	143

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
DCGT070202-ALU																														•
DCGT070204-ALU																														•
DCGT070208-ALU																														•
DCGT11T302-ALU																														•
DCGT11T304-ALU																														•
DCGT11T308-ALU																														•
DCGT11T312-ALU																														•
DCGT11T302-SF																				•										
DCGT11T302-SF																				•										
DCGT11T304-SF																				•										
DCGT11T302EL-U																										•				
DCGT11T304EL-U																										•				
DCGT11T302ER-U																										•				
DCGT11T304ER-U																										•				
DCMT070204-CG																										•				
DCMT070208-CG																										•				
DCMT11T302-CG																										•	•			
DCMT11T304-CG																										•	•			
DCMT11T308-CG																										•				
DCMT070202-HF				•			•	•		•	•	•											•	•						
DCMT070204-HF				•			•	•		•	•	•												•	•					
DCMT11T304-HF				•			•	•		•	•	•												•	•					
DCMT070204-HM				•			•	•		•	•	•													•					
DCMT070208-HM				•			•	•		•	•	•													•					
DCMT11T302-HM				•			•	•		•	•	•													•					
DCMT11T304-HM				•			•	•		•	•	•													•					
DCMT11T308-HM				•			•	•		•	•	•													•					
DCMT11T312-HM				•			•	•																						

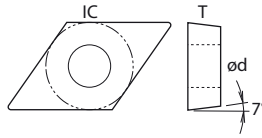
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


- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX








CARBIDE /TURNING


POSITIVE 7°
with hole

DC □ □



DC □ □	0702 □ □	11T3 □ □
IC	6,35	9,525
T	2,38	3,97
ød	2,80	4,40
 Holder		

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
 DCMT070202-HQ																															
 DCMT070204-HQ																															
DCMT11T302-HQ																															
DCMT11T304-HQ																															
DCMT11T308-HQ																															
 DCMT11T304-HR				●				●		●	●	●											●		●						
 DCMT070204-MF1																															
DCMT070208-MF1																															
DCMT11T302-MF1																															
DCMT11T304-MF1																															
DCMT11T308-MF1																															
 DCMT11T302-MM1																															
DCMT11T304-MM1																															
 DCMT11T304-SG																															
 DCMT11T304-ST																															

 FINISHING

 MEDIUM

 ROUGHING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

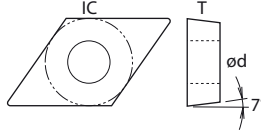
SPARE
PARTS

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CARBIDE /TURNING

POSITIVE 7°
with hole

DC□□



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
Holder ▶	143	143

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE																			
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115								
 DCMT070204-TS DCMT070208-TS DCMT11T302-TS DCMT11T304-TS DCMT11T308-TS																									●												
																									●												
																									●												
																									●												
																									●												
 DCMT11T304-VM					●				●											●	●		●														
 DCMT070204-VQ DCMT070208-VQ																																					
 DCMT11T304-VW DCMT11T308-VW																																					

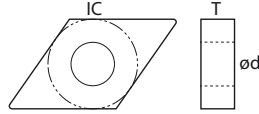
FINISHING
 MEDIUM
 ROUGHING
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 GROOVING
 THREADING
 MILLING
 DRILLING
 ENDMILLS
 DRILLS
 HSS
 DRILLS & TAPS
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CARBIDE /TURNING

NEGATIVE
with hole

DN□□



DN□□	1104□□	1504□□	1506□□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
ød	3,81	5,16	5,16
Holder	150	150	150

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
DNMA150608											•	•	•	•	•	•															
DNMA150612											•	•	•	•	•																
DNMA150616											•	•	•	•																	
DNMG110408					•		•				•	•							•	•											
DNMG150604			•			•		•		•	•	•	•	•						•				•	•						
DNMG150608			•	•		•	•	•		•	•	•	•	•	•					•	•			•	•						
DNMG150612			•	•		•	•	•		•	•	•	•	•	•					•	•			•	•						
DNMG150616															•	•															
DNMG150602-ALU																													•		
DNMG150604-ALU																													•		
DNMG150608-ALU																													•		
DNMG150608-HA																								•							
DNMG150608-HQ																											•				
DNMG150604L-ST					•		•													•	•										
DNMG150608L-ST					•		•														•										
DNMG150604R-ST					•		•														•										
DNMG150608R-ST					•		•														•										
DNMG110404-TK																									•	•					
DNMG110408-TK																									•						
DNMG150608-TK																									•						

FINISHING

MEDIUM

ROUGHING

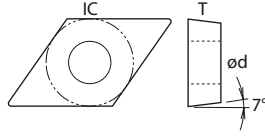
Vc • fn • ap

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CARBIDE /TURNING

NEGATIVE
with hole

DN □ □



DN □ □	1104 □ □	1504 □ □	1506 □ □
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
Ød	3,81	5,16	5,16
Holder	150	150	150

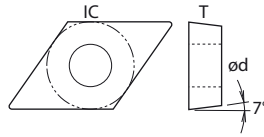
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	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
DNMG150608-TM					•			•											•	•		•									
DNMG150612-TM				•																											
DNMG110404-TS																				•				•	•						
DNMG110408-TS																				•				•	•						
DNMG110412-TS																			•	•											
DNMG150604-TS																								•	•						
DNMG150608-TS																								•	•						
DNMG150612-TS																								•	•						
DNMG150612-TR								•																							
DNMG150408-UF					•																										
DNMG150604-UF				•					•																						
DNMG110404-UM				•		•		•		•	•	•												•	•						
DNMG110408-UM				•		•		•		•	•	•												•	•						
DNMG110412-UM				•		•		•		•	•	•												•	•						
DNMG150604-UM		•		•		•		•		•	•	•												•	•						
DNMG150608-UM				•	•	•		•		•	•	•												•	•						
DNMG150612-UM				•		•		•		•	•	•												•	•						
DNMG110408-UM1								•																							

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
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- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

NEGATIVE
with hole

DN□□



DN□□	1104□□	1504□□	1506□□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
ød	3,81	5,16	5,16
Holder	150	150	150

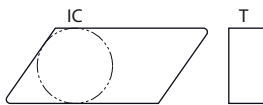
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET		CARBIDE														
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
DNMG150608-UMC 						•																									
	DNMG150612-UMC					•																									
DNMG150608-UR 				•			•		•																						
	DNMG150612-UR			•			•		•																						
DNMG150604-US 				•			•		•											•											
	DNMG150608-US				•		•		•											•											
DNMG150604-UT 																			•	•											
	DNMG150608-UT																			•	•										
	DNMG150612-UT																			•	•										

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap 56






CARBIDE /TURNING

NEGATIVE
with hole

KN□□



KN□□	1604□□
IC	9,525
T	4,76
Holder	157

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE													
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115			
  KNMX160405-L11				•	•	•	•		•	•	•	•							•	•												
 KNMX160405-R11				•	•	•	•		•	•	•	•							•	•												
  KNMX160405-R12								•																								



FINISHING



MEDIUM



ROUGHING

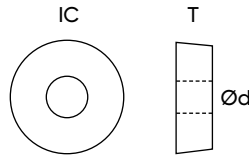
Vc • fn • ap



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POSITIVE 7°
with hole

RC□□



RC□□	0602□□	0803□□	10T3□□
IC	6,0	8,0	10,0
T	2,36	3,18	3,18
Ød	2,80	3,35	3,60
	158	158	158

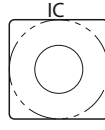
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
RCGT0602M0-ALU																															•
RCGT0803M0-ALU																															•
RCGT1003M0-ALU																															•
RCGT10T3M0-ALU																															•
RCGT1204M0-ALU																															•
RCGT1605M0-ALU																															•
RCMX0803M0																		•	•												
RCMX1003M0																		•	•												
RCMX1204M0																		•	•												
RCMX1606M0																		•	•												
RCMX2006M0																		•	•												
RCMX2507M0																		•	•												
RCMX3209M0																		•	•												
RCMX200600												•		•	•																
RCMX250700												•		•	•																

FINISHING
 MEDIUM
 ROUGHING
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CARBIDE /TURNING

POSITIVE 7°
with hole

SC□□



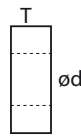
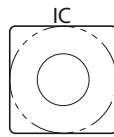
SC□□	09T3□□	1204□□
IC	9,525	12,7
T	3,97	4,76
ød	4,40	5,16

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE													
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
SCGT09T302-ALU																															●
SCGT09T304-ALU																															●
SCGT09T308-ALU																															●
SCGT09T312-ALU																															●
SCGT120404-ALU																															●
SCGT120408-ALU																															●
SCMT09T304-HF												●												●							
SCMT09T304-HM																								●							
SCMT09T308-HM						●		●		●		●	●	●										●	●						
SCMT120404-HM						●		●		●		●	●	●										●	●						
SCMT120408-HM						●		●		●		●	●	●										●	●						

FINISHING
 MEDIUM
 ROUGHING
 Vc ● fn ● ap
 ▶ 56

NEGATIVE
with hole

SN□□



SN□□	1204□□	1206□□	1506□□
IC	12,7	12,7	15,875
T	4,76	6,35	6,35
ød	5,16	5,16	6,35
	162	162	162

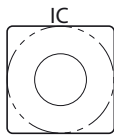
DESCRIPTION	CARBIDE-CVD											CARBIDE-PVD				CERMET			CARBIDE													
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	SNMG120408-UR				•		•		•																							
	SNMG120412-UR				•		•		•																							
	SNMG150612-UR				•		•		•		•	•	•											•	•							
	SNMG190612-UR				•		•		•		•	•	•											•	•							
	SNMG190616-UR				•		•		•		•	•	•											•	•							
	SNMG190624-UR				•		•		•		•	•	•											•	•							
	SNMG250724-UR				•																											
	SNMG250924-UR				•																				•							
	SNMG120404-US				•					•																						
	SNMG120408-US				•				•			•	•									•		•	•							
	SNMG120412-US				•				•																							
	SNMG120412-ZR																															
	SNMG120416-ZR																															
	SNMM250724-HTR				•				•		•																					
	SNMM250924-HTR								•		•																					
	SNMM250932-HTR				•																											

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap 56

CARBIDE /TURNING

NEGATIVE
with hole

SN□□



SN□□	1204□□	1206□□	1506□□
IC	12,7	12,7	15,875
T	4,76	6,35	6,35
ød	5,16	5,16	6,35
Holder	162	162	162

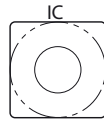
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE														
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115			
	SNMM150612-UR			●		●																										
	SNMM150616-UR			●		●																										
	SNMM190612-UR			●		●																										
	SNMM190616-UR			●		●																										
	SNMM190624-UR			●		●																										
	SNMM250724-UR								●		●																					
	SNMM250924-UR								●		●																					

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
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CARBIDE /TURNING

POSITIVE 11°
with hole

SP□□



SP□□	1203□□	1204□□
IC	12,7	12,7
T	3,18	4,76
Ød	5,16	5,16

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
SPMT120408																								•	•					
SPMT120412												•	•																	
SPMT120416												•	•																	
SPMT120420												•	•																	
SPMT120430												•	•																	
SPMT120408-HM				•																				•	•					
SPMT120408-MM										•																				

POSITIVE 5°
with hole

TB□□



TB□□	0601□□
IC	3,97
T	1,59
Ød	2,16

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE													
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115			
TBGT060102L																									•						
TBGT060104L																									•		•				



FINISHING



MEDIUM



ROUGHING

Vc • fn • ap



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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

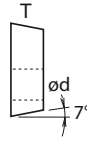
SPARE
PARTS

INDEX

CARBIDE /TURNING

POSITIVE 7°
with hole

TC □ □



TC □ □	0902 □ □	1102 □ □	16T3 □ □
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
Holder	164	164	164

DESCRIPTION	CARBIDE-CVD											CARBIDE-PVD				CERMET			CARBIDE															
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115					
	TCGT090202-ALU																																•	
	TCGT090204-ALU																																•	
	TCGT090208-ALU																																•	
	TCGT110202-ALU																																•	
	TCGT110204-ALU																																•	
	TCGT110208-ALU																																•	
	TCGT16T302-ALU																																•	
	TCGT16T304-ALU																																•	
	TCGT16T308-ALU																																	•
	TCGT16T312-ALU																																•	
	TCMT110204-CG																															•		
	TCMT090204-HF			•		•		•		•		•		•		•								•	•									
	TCMT110204-HF			•		•		•		•		•		•		•								•	•									
	TCMT16T304-HF			•		•		•		•		•		•		•								•	•									
	TCMT090204-HM			•		•		•		•		•		•		•								•	•									
	TCMT090208-HM			•		•		•		•		•		•		•								•	•									
	TCMT110204-HM			•		•		•		•		•		•		•									•									
	TCMT110208-HM			•		•		•		•		•		•		•								•	•									
	TCMT16T304-HM			•		•		•		•		•		•		•									•									
	TCMT16T308-HM			•		•		•		•		•		•		•									•									
	TCMT16T312-HM													•		•										•								

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

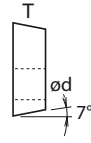
SPARE
PARTS

INDEX

CARBIDE /TURNING

POSITIVE 7°
with hole

TC □□



TC□□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
ød	2,50	2,80	4,40
Holder	164	164	164

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET		CARBIDE															
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115			
 TCMT090204-HQ TCMT110204-HQ TCMT110208-HQ TCMT16T304-HQ																																
 TCMT110208-HR																																
 TCMT16T312-MM1																																
 TCMT16T304-UM2 TCMT16T308-UM2																																
 TCMT110204-TS TCMT16T304-TS TCMT16T308-TS																																
 TCMT16T304-VM TCMT16T308-VM																																

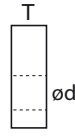
FINISHING
 MEDIUM
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 Vc • fn • ap
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TURNING
GROOVING
THREADING
MILLING
DRILLING
ENDMILLS
DRILLS
HSS DRILLS & TAPS
SPARE PARTS
INDEX

CARBIDE /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	168	168	168

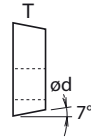
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE													
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	TNGG160402L-P																														
	TNGG160404L-P																														
	TNGG160402R-P																														
	TNGG160404R-P																														
	TNMA160404											•	•																		
	TNMA160408											•	•	•	•		•														
	TNMA160412											•	•	•	•																
	TNMA160416											•	•	•	•																
	TNMA220404											•	•																		
	TNMA220408											•	•	•	•																
	TNMA220412											•	•	•	•																
	TNMA220416											•	•	•	•																
	TNMG160404			•	•	•	•	•		•	•									•	•			•	•						
	TNMG160408			•	•	•	•	•		•	•	•	•	•	•		•			•	•			•	•						
	TNMG160412			•	•	•	•	•		•	•	•	•	•	•					•	•			•	•						
	TNMG160416														•	•															
	TNMG220408			•		•		•		•	•	•	•	•										•	•						
	TNMG220412				•		•					•	•	•	•						•	•									
	TNMG220416				•		•					•	•								•	•									
	TNMG330704												•																		
	TNMG330724						•		•																						
	TNMG160402-ALU																													•	
	TNMG160404-ALU																													•	
	TNMG160408-ALU																													•	
	TNMG160412-ALU																													•	
	TNMG220402-ALU																													•	
	TNMG220404-ALU																													•	
	TNMG220408-ALU																													•	
	TNMG220412-ALU																													•	

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap 56

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	168	168	168

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
TNMG160404-HA 																															
	TNMG160408-HA																						●								
TNMG160404-HQ 																										●	●				
	TNMG160408-HQ																									●					
TNMG160404L-C 	TNMG160404L-C																									●			●		
	TNMG160408L-C																										●				
	TNMG160404R-C																										●			●	
	TNMG160408R-C																									●				●	
TNMG160404-PM 	TNMG160404-PM				●		●											●	●												
	TNMG160408-PM				●		●											●	●												
	TNMG160412-PM				●		●											●	●												
TNMG160404-ST 	TNMG160404-ST																										●	●			
	TNMG160404L-ST				●		●																●	●							
	TNMG160408L-ST				●		●																●	●							
	TNMG160404R-ST				●		●																●	●							
	TNMG160408R-ST				●		●																●	●							
TNMG160404-TK 	TNMG160404-TK																									●	●				
	TNMG220408-TK																									●	●				

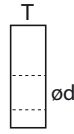
FINISHING
 MEDIUM
 ROUGHING
 Vc ● fn ● ap
 56

TURNING
GROOVING
THREADING
MILLING
DRILLING
ENDMILLS
DRILLS
HSS DRILLS & TAPS
SPARE PARTS
INDEX

CARBIDE /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	168	168	168

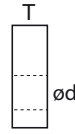
DESCRIPTION	CARBIDE-CVD														CARBIDE-PVD				CERMET			CARBIDE											
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115				
TNMG160404-TS																		•	•	•			•	•									
TNMG160408-TS																			•	•	•			•	•								
TNMG160412-TS																			•	•	•			•	•								
TNMG160416-TS																			•	•	•												
TNMG220404-TS																				•	•	•											
TNMG220408-TS																				•	•	•											
TNMG220412-TS																				•	•	•											
TNMG160404-UF				•			•		•																								
TNMG160408-UF				•			•		•																								
TNMG220412-UH													•	•																			
TNMG220416-UH													•	•																			
TNMG160404-UM				•			•		•			•	•	•										•	•								
TNMG160408-UM				•			•		•			•	•	•										•	•								
TNMG160412-UM				•			•		•			•	•	•										•	•								
TNMG160416-UM																																	
TNMG220404-UM				•			•		•			•	•	•										•	•								
TNMG220408-UM				•			•		•			•	•	•										•	•								
TNMG220412-UM				•			•		•			•	•	•										•	•								
TNMG160404-UMC				•			•		•																								
TNMG160408-UMC							•		•																								
TNMG160412-UMC							•		•																								

FINISHING
 MEDIUM
 ROUGHING
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- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
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- INDEX

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	168	168	168

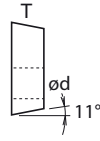
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE											
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
TNMG160408-UR				•		•		•		•	•	•												•	•					
TNMG160412-UR				•		•		•		•	•	•												•	•					
TNMG220412-UR				•		•		•		•	•	•												•	•					
TNMG220416-UR				•		•		•		•	•	•												•	•					
TNMG160404-US				•		•		•		•																				
TNMG160408-US				•		•		•		•																				
TNMG160404-VQ					•			•										•	•	•										
TNMG160408-VQ					•			•										•	•	•										

FINISHING
 MEDIUM
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CARBIDE /TURNING

POSITIVE 11°
with hole

TP □□



TP □□	0802□□	0902□□	1103□□
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,40
Holder	167	167	167

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS915C	SS9125	SS9125C	US2115		
 TPGH080202L TPGH080204L TPGH090202L TPGH090204L TPGH110302L TPGH110304L																			•	•						•	•				
																				•	•						•	•			
																				•	•						•	•			
																				•	•						•	•			
																				•	•						•	•			
																				•	•						•	•			
 TPMT110304-CG TPMT110304-HQ TPMT110308-HQ																										•					
																											•				
 TPUN220412 TPUN220408-FG											•													•	•						
												•													•	•					

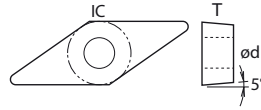
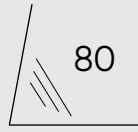
FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
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- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

CARBIDE /TURNING

POSITIVE 5°
with hole

VB□□



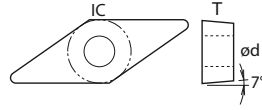
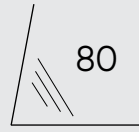
VB□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
ød	2,80	4,40
Holder	172	172

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE														
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115			
VBGT110302-ALU																															•	
VBGT110304-ALU																															•	
VBGT110308-ALU																															•	
VBGT160402-ALU																															•	
VBGT160404-ALU																															•	
VBGT160408-ALU																															•	
VBGT160412-ALU																															•	
VBGT110302L-Y																											•					
VBGT110304L-Y																											•					
VBGT110302R-Y																											•					
VBGT110304R-Y																											•					
VBMT160404				•			•		•		•	•	•											•	•							
VBMT160408				•			•		•		•	•	•											•	•							
VBMT110302-CG																											•					
VBMT110304-CG																											•					
VBMT110304-HQ																											•					
VBMT110308-HQ																											•					
VBMT160404-HQ																											•					
VBMT160408-HQ																											•					
VBMT160408-HR																										•	•					

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
 56

POSITIVE 7°
with hole

VC□□



VC□□	1103□□	1604□□	2205□□
IC	6,35	9,525	12,70
T	3,18	4,76	5,56
ød	2,80	4,40	5,60
Holder	17°	17°	17°

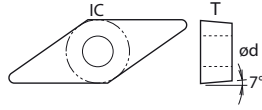
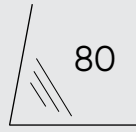
DESCRIPTION	CARBIDE-CVD												CARBIDE-PVD				CERMET			CARBIDE											
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115		
VCGT110302-ALU																															•
VCGT110304-ALU																															•
VCGT110308-ALU																															•
VCGT160402-ALU																															•
VCGT160404-ALU																															•
VCGT160408-ALU																															•
VCGT160412-ALU																															•
VCGT220530-ALU																															•
VCGT110304-VF																									•						
VCGX110302-SF																			•	•											
VCGX110304-SF																				•											
VCMT110304-MF1																				•											
VCMT160404-MF1																				•											
VCMT110304-MM1																				•											

FINISHING
 MEDIUM
 ROUGHING
 Vc • fn • ap
 60°

CARBIDE /TURNING

POSITIVE 7°
with hole

VC □ □



VC □ □	1103 □ □	1604 □ □	2205 □ □
IC	6,35	9,525	12,70
T	3,18	4,76	5,56
ød	2,80	4,40	5,60
Holder	176	176	176

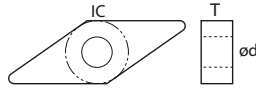
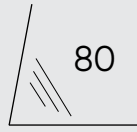
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE												
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
VCMT160404				•	•		•	•	•		•	•	•											•	•					
VCMT160408													•																	
VCMT110302-CG																											•			
VCMT110302-CG																										•				

FINISHING
 MEDIUM
 ROUGHING
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- TURNING
- GROOVING
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- MILLING
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- DRILLS
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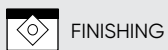
NEGATIVE
with hole

VN□□



VN□□	1604□□
IC	9,525
T	4,76
ød	3,81
Holder	177

DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD					CERMET			CARBIDE											
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
VNMG160404				•		•		•		•	•	•												•	•					
VNMG160408				•		•		•		•	•	•							•	•				•	•					
VNMG160412				•		•		•		•	•	•												•	•					
VNMG12T304-EM																						•								
VNMG160404-HQ																										•				
VNMG160408-HQ																										•				
VNMG160404-PM					•		•												•	•										
VNMG160408-PM					•		•												•	•										
VNMG160404-TS					•		•												•	•										
VNMG160404-UF				•		•		•																						
VNMG160408-UF				•		•		•																						
VNMG160404-UM				•		•		•		•	•	•												•	•					
VNMG160408-UM				•		•		•		•	•	•												•	•					
VNMG160412-UM				•		•		•		•	•	•												•	•					



FINISHING



MEDIUM



ROUGHING

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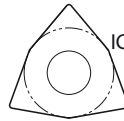
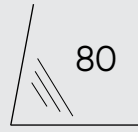


56















CARBIDE /TURNING



NEGATIVE
with hole

WN□□



WN□□	0604□□	0804□□
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
Holder	178	178

DESCRIPTION	CARBIDE-CVD											CARBIDE-PVD					CERMET			CARBIDE										
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS7110S	PS7220S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
 WNMA080404												•	•				•	•												
 WNMA080408												•	•	•	•	•	•				•									
WNMA080412												•	•	•	•	•	•													
WNMA080416												•	•				•													
 WNMG080404			•			•		•		•	•	•											•	•						
 WNMG080408			•			•		•		•	•	•	•	•									•	•						
WNMG080412			•			•		•		•	•	•	•	•									•	•						
WNMG080416												•	•																	
 WNMG080404-ALU																														•
 WNMG080408-ALU																														•
 WNMG060404-HA																								•						
 WNMG080408-HA																								•						
 WNMG080404-HQ																														•
 WNMG080408-HQ																														•
WNMG080412-HQ																														•
 WNMG060404-MF2																														•
 WNMG080404-MF2																														•
 WNMG080404-MF4																														•
 WNMG080408-MF4																														•
WNMG080412-MF4																														•

 FINISHING
  MEDIUM
  ROUGHING
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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

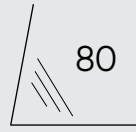
SPARE
PARTS

INDEX

CARBIDE /TURNING

NEGATIVE
with hole

WN□□



WN□□	0604□□	0804□□
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
	178	178

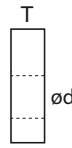
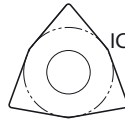
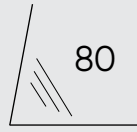
DESCRIPTION	CARBIDE-CVD										CARBIDE-PVD				CERMET			CARBIDE												
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WNMG080404-PM					•			•											•											
WNMG080408-PM	•				•			•											•	•										
WNMG080412-PM					•			•											•	•										
WNMG080404-ST																												•		
WNMG080408-ST																											•	•		
WNMG080404L-ST					•																									
WNMG080408L-ST					•																									
WNMG080404R-ST					•	•			•										•	•										
WNMG080408R-ST					•				•										•	•										
WNMG080408-TM					•				•		•								•	•		•								
WNMG080412-TM																			•	•										
WNMG080404-TK																								•	•					
WNMG080408-TK																								•	•					
WNMG080412-TK																								•						
WNMG080404-TS					•				•										•	•		•	•	•						
WNMG080408-TS					•	•			•										•	•		•	•	•						
WNMG060404-UF																														
WNMG080404-UF					•				•		•																			
WNMG080408-UF					•				•		•																			

FINISHING
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- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

NEGATIVE
with hole

WN□□



WN□□	0604□□	0804□□
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
Holder	178	178

DESCRIPTION	CARBIDE-CVD											CARBIDE-PVD			CERMET		CARBIDE													
	CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8115	CS8125	CS8205	CS8215	CS8315	CS8325	CS7125S	PS710S	PS720S	PS7315S	PS7320S	PS7120	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
WNMG060408-UM				•		•		•		•	•	•												•	•					
WNMG080404-UM				•		•		•		•	•	•												•	•					
WNMG080408-UM				•		•		•		•	•	•												•	•					
WNMG080412-UM				•		•		•		•	•	•												•	•					
WNMG080412-UM1																							•							
WNMG080408-UR				•		•		•																						
WNMG080412-UR				•		•		•																						
WNMG080408-UR1																														
WNMG080404-US				•		•		•														•								
WNMG080408-US				•		•		•														•								
WNMG080412-US																						•								
WNMG080412-UT																								•						

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CUTTING PARAMETERS Vc (m/min)

KG	GREY CAST IRON
KN	NODULAR CAST IRON
PL	LOCARBON AND FREE CUTTING STEEL
PM	MEDIUM CARBON STEEL
PH	HIGH CARBON STEEL
PA	ALLOY STEEL

MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
MA	AUSTENITIC STAINLESS STEEL
NA	ALUMINIUM ALLOYS
NH	ALUMINIUM ALLOYS AGED AND HARDENED
NB	BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

MATERIAL		CARBIDE-CVD																	
		CD5125	CS5205	CS5210	CS5215	CS5215S	CS5220	CS5225	CS5225S	CS5235	CS5235S	CS5240	CS8205	CS8215	CS8115	CS8125	CS8315	CS8325	CS7125S
K	KG												250-450	200-360	200-360	160-300	200-360	160-300	
	KN												180-300	150-280	150-280	120-250	150-280	120-250	
P	PL	250-350	200-320	200-320	250-350	200-320	250-350	200-320	200-320	160-250	160-250								
	PM	220-300	180-260	180-260	220-300	180-260	220-300	180-260	180-260	140-200	140-200								
	PH	200-280	160-250	160-250	200-280	160-250	200-280	160-250	160-250	120-180	120-180	100-160							
	PA	180-250	150-220	150-220	180-250	150-220	180-250	150-220	150-220	100-170	100-170	90-160							
M	MM																		160-260
	MA																		140-220

MATERIAL		CARBIDE-PVD					CERMET				CARBIDE	
		PS7110S	PS7220S	PS7120	PS7320S	PS5125	SS9115	SS9115C	SS9125	SS9125C	US2115	
K	KG						250-400	250-400	250-400	250-400		
	KN						180-300	180-300	180-300	180-300		
P	PL					100-180	280-380	280-380	280-380	280-380		
	PM					80-160	240-330	240-330	240-330	240-330		
	PH					80-140	220-300	220-300	220-300	220-300		
	PA					60-120	200-280	200-280	200-280	200-280		
M	MM	120-220	100-150	100-150	120-220		180-250	180-250	180-250	180-250		
	MA	100-180	80-120	80-120	100-180		160-220	160-220	160-220	160-220		
N	NA										600-1500	
	NH										300-700	
	NB										250-400	
	NC										150-250	

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

NEGATIVE



NEGATIVE INSERT SIZE		CN□□	-	1204..	1606..	1906..	2507.. 2509..
		DN□□	1104..	1504.. 1506..	-	-	-
		SN□□	0903..	1204..	-	1906..	2507.. 2509..
		TN□□	-	1604..	2204..	-	-
		VN□□	-	1604..	-	-	-
		WN□□	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
MA FLAT	R02										
	R04			2,00-4,00	0,20-0,35						
	R08			2,00-6,00	0,25-0,50	4,00-8,00	0,34-0,60				
	R12			2,00-6,00	0,33-0,58	4,00-10,0	0,40-0,70	5,00-11,0	0,43-0,76	8,00-16,0	0,45-1,00
	R16 / R24			2,00-7,00	0,37-0,65	4,00-10,0	0,45-0,78	5,00-13,0	0,49-0,8	8,00-18,0	0,50-1,10
MG BOX	R02										
	R04			1,00-4,00	0,16-0,25					8,00-16,0	0,45-0,89
	R08	1,00-4,00	0,23-0,40	1,00-4,00	0,22-0,38	4,00-7,00	0,34-0,58	5,00-10,0	0,42-0,76		
	R12			1,00-5,00	0,26-0,44	4,00-8,00	0,40-0,68	5,00-11,0	0,43-0,76		
	R16 / R24			1,00-5,00	0,29-0,50	4,00-8,00	0,45-0,76	5,00-11,0	0,49,0,85	8,00-18,0	0,50-1,10
ALU	R02				0,10-3,00	0,05-0,30					
	R04				0,80-3,50	0,10-0,40					
	R08				0,80-3,50	0,10-0,40					
	R12				0,80-3,50	0,10-0,42					
	R16 / R24										
HA	R02										
	R04										
	R08										
	R12			0,80-3,50	0,05-0,30						
	R16 / R24										
HQ	R02										
	R04			0,50-2,50	0,05-0,25						
	R08			0,50-4,00	0,10-0,50						
	R12			0,50-4,00	0,13-0,60						
	R16 / R24										
HTR	R02										
	R04										
	R08										
	R12										
	R16 / R24									1,80-10,00	0,30-0,80
PM	R02										
	R04										
	R08			1,00-5,00	0,10-0,50						
	R12										
	R16 / R24										

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

NEGATIVE 

NEGATIVE INSERT SIZE		CN□□	-	1204..	1606..	1906..	2507.. 2509..
		DN□□	1104..	1504.. 1506..	-	-	-
		SN□□	0903..	1204..	-	1906..	2507.. 2509..
		TN□□	-	1604..	2204..	-	-
		VN□□	-	1604..	-	-	-
		WN□□	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
ST	R02										
	R04			1,00-3,50	0,12-0,30						
	R08			1,80-7,00	0,15-0,50						
	R12										
	R16 / R24										
TF	R02										
	R04			0,05-1,00	0,04-0,28						
	R08			0,07-1,00	0,05-0,03						
	R12										
	R16 / R24										
TK	R02										
	R04	0,50-1,00	0,10-0,25	0,50-1,20	0,10-0,28						
	R08	0,50-1,20	0,10-0,28	0,50-1,50	0,10-0,30	0,80-2,00	0,10-0,35				
	R12			0,50-1,60	0,10-0,30						
	R16 / R24										
TM	R02										
	R04										
	R08			0,50-3,00	0,05-0,40						
	R12										
	R16 / R24										
TS	R02										
	R04	1,00-3,00	0,13-0,23	0,80-4,00	0,05-0,30						
	R08			0,80-4,00	0,10-0,40						
	R12			0,80-4,00	0,10-0,40						
	R16 / R24										
UF	R02										
	R04			0,30-1,80	0,05-0,35						
	R08			0,30-2,00	0,05-0,35						
	R12										
	R16 / R24										
UH	R02										
	R04										
	R08										
	R12					1,30-8,00	0,25-0,70				
	R16 / R24					1,80-8,00	0,30-0,80				

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

NEGATIVE



NEGATIVE INSERT SIZE		CN□□	-	1204..	1606..	1906..	2507.. 2509..
		DN□□	1104..	1504.. 1506..	-	-	-
		SN□□	0903..	1204..	-	1906..	2507.. 2509..
		TN□□	-	1604..	2204..	-	-
		VN□□	-	1604..	-	-	-
		WN□□	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
UM	R02										
	R04			1,00-4,50	0,10-0,33	2,00-7,50	0,13-0,33				
	R08			1,50-5,00	0,15-0,45	2,00-8,00	0,18-0,45	3,00-9,00	0,20-0,46		
	R12			1,50-5,50	0,15-0,50	2,00-8,00	0,22-0,50	3,00-10,0	0,24-0,50		
	R16 / R24			1,50-5,50	0,15-0,60	2,00-8,00	0,25-0,60	3,00-10,0	0,32-0,50		
UT	R02										
	R04										
	R08										
	R12					1,30-7,00	0,25-0,65				
	R16 / R24										
UR	R02										
	R04										
	R08			3,00-10,0	0,30-0,72	3,00-15,0	0,27-0,48	3,00-17,0	0,34-0,60		
	R12			3,00-15,00	0,30-0,80	3,00-15,5	0,32-0,50	3,00-18,0	0,38-0,68		
	R16 / R24					3,00-16,00	0,35-0,63	3,00-18,0	0,38-0,68	5,00-17,0	0,45-0,90
US	R02										
	R04			1,50-4,50	0,15-0,45						
	R08			1,50-5,00	0,15-0,5						
	R12			1,50-5,00	0,15-0,50						
	R16 / R24										
VQ	R02										
	R04										
	R08										
	R12										
	R16 / R24										
ZR	R02										
	R04										
	R08										
	R12			1,00-7,00	0,20-0,50						
	R16 / R24			1,80-7,00	0,32-0,75						
R/L-P R/L-C	R02			0,50-3,50	0,08-0,30						
	R04			1,00-3,50	0,12-0,30						
	R08			1,30-3,50	0,15-0,35						
	R12										
	R16 / R24										

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

POSITIVE



NEGATIVE INSERT SIZE		CC/CP□□	0602..	09T3.. 0903..	1204..	-	-
		DC□□	0702..	11T3..	..	-	-
		SC/SP□□	-	09T3..	1204..	-	-
		TC/TP□□	0902..	1102..	16T3..	2204..	-
		VB/VC□□	-	1103..	1604..	2205..	-
		WB□□	0601..	-	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
ER/L-U	R02	0,10-0,50	0,01-0,10	0,02-2,00	0,04-0,15						
	R04	0,10-0,50	0,01-0,10	0,50-3,00	0,08-0,30						
	R08										
	R12										
	R16 / R24										
L-F	R02	0,30-1,00	0,10-0,20	0,50-1,20	0,10-0,25						
	R04	0,50-1,00	0,10-0,25	0,70-1,50	0,12-0,30	0,20-4,00	0,02-0,30				
	R08					0,30-5,00	0,03-0,50				
	R12										
	R16 / R24										
L/R-W	R02	0,07-1,80	0,03-0,15	0,08-2,00	0,04-0,15						
	R04	0,1-2,00	0,05-0,2	0,1-2,20	0,08-0,2						
	R08										
	R12										
	R16 / R24										
L-Y	R02			0,06-1,70	0,03-0,13						
	R04			0,09-2,00	0,06-0,22						
	R08										
	R12										
	R16 / R24										
ALU	R02	0,03-3,00	0,01-0,12	0,05-4,00	0,02-0,30	0,05-4,00	0,02-0,30				
	R04	0,10-3,00	0,02-0,13	0,10-5,00	0,03-0,50	0,10-5,00	0,03-0,50				
	R08	0,10-4,00	0,02-0,20	0,10-5,00	0,03-0,50	0,10-5,50	0,04-0,80				
	R12			0,15-5,00	0,04-0,60	0,50-6,50	0,08-0,70	0,10-7,00	0,03-0,60		
	R16 / R24										
CG	R02	0,30-1,00	0,05-0,20								
	R04	0,30-1,00	0,10-0,25	0,30-1,5	0,10-0,25						
	R08	0,40-2,40	0,80-0,25	0,30-1,5	0,10-0,28						
	R12										
	R16 / R24										
HF	R02										
	R04										
	R08										
	R12										
	R16 / R24										

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

POSITIVE



NEGATIVE INSERT SIZE		CC/CP□□	0602..	09T3.. 0903..	1204..	-	-
		DC□□	0702..	11T3..	..	-	-
		SC/SP□□	-	09T3..	1204..	-	-
		TC/TP□□	0902..	1102..	16T3..	2204..	-
		VB/VC□□	-	1103..	1604..	2205..	-
		WB□□	0601..	-	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
HM	R02	1.0-6.0	0.10-0.70								
	R04										
	R08										
	R12										
	R16 / R24										
HQ	R02	0,06-1,70	0,06-0,19	0,10-2,00	0,07-0,22						
	R04	0,10-2,00	0,11-0,25	0,80-3,00	0,08-0,30	0,80-3,00	0,08-0,28				
	R08	0,20-2,00	0,08-0,30	1,00-3,00	0,10-0,30	1,00-3,00	0,10-0,33				
	R12										
	R16 / R24										
HR	R02										
	R04										
	R08										
	R12										
	R16 / R24										
TS	R02										
	R04										
	R08										
	R12										
	R16 / R24										
VM	R02										
	R04										
	R08										
	R12										
	R16 / R24										
VQ	R02										
	R04										
	R08										
	R12										
	R16 / R24										
VW	R02										
	R04										
	R08										
	R12										
	R16 / R24										

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TURNING PVD COMPARISON TABLE

MATERIAL	SANGEO	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	mitsubishi	WALTER	KORLOY
P	PS7110S	IC507	CP200		PR1005					
		IC808			PR915		KU10T			PC8110
					PR1115		KU25T			PC230
	PS7220S		CP250		PR930					
	PS7320S									
	PS7120					GC1025		VP15TF	WTA43	PC5300
		IC3028		TT5030	PR1025			VP20MF	WTA41	PC8115
		IC908			PR630	GC4125				
		IC830			PR660					PC3545
	PS5125		CP500							
M	PS7110S	IC808	CP200			GC1005		MP9005	WSM10S	PC8110
		IC907			PR915	GC1105	KC5010	VP19RT	WSM20S	PC8115
	PS7220S		CP250				KC5510			
		IC3028			PR930	GC1020	KC5025	VP15TF	WSM30S	PC5300
	PS7120	IC830		TT5030	PR1125	GC1025	KC5525	VP20MF	WSM40S	
					PR630	GC4125				PC9030
					PR660	GC2035				
PS5125		CP500	TT8020						PC5400	
S	PS7110S	IC808	TS2000					VP05RT	WSM10	PC8105
		IC907	CP500		PR915	GC1105				
	PS7120						KC5010			
	PS7220S	IC328	TS2500	TT5030	PR660	GC1025		VP10RT	WSM20S	PC8110
	PS7320S				PR1325	GC2035	KC5025	VP15TF	WSM30S	PC8115
										PC5300
										PC5400

TURNING CVD COMPARISON TABLE

MATERIAL	SANGE	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
P	CS5205			TT8105	CA5505	GC4305	KCP05(B)	UE6105	WPP10S	NC3010
	CS5210	IC8150		TT8110	CA510	GC4205		UE6110	WKP13S	
	CS5215		TP0500	TT8115	CA515	GC4315	KCP10(B)	MY5015		NC3215
	CS5215S		TP0501	TT8120		GC4215		MC6015		
	CS5220		TP1500			GC4325	KCP30(B)	UE6020		NC3220
	CS5225		TP2500		CA525	GC4225			WPP20S	
	CS5225S	IC8250	TP2501	LC025P	CA5525	GC4235	KCP40(B)		WKP23S	
	CD5125		T350M	TT8125						NC3225
	CS5235	IC8350	TP3500	TT5100	CA5535			UE6035	WPP30S	NC3030
	CS5235S			TT8135					WKP33S	NC500H
	CS5240		TGP45	TT7100						NC5330
M	CS7125S	IC6015	TM2000	TT9215	CA6515	GC2015	KCM15(M)	MC7015	WAM10	NC9020
			TM4000	TT9225	CA6525	GC2025	KCM25(B)	US7020	WAM20	NC9025
								US735	WAM30	
K	CS8205	IC5005	TK1001	TT7005	CA4505	GC3205	KCK05(B)	MC5005	WKK10S	
	CS8115	IC5015		TT7310	CA4510	GC3210		MC5015		
	CS8125		TK2001	TT7015					WKK20S	
	CS8215		TGK1500		CA4515	GC3215	KCK15(B)	UC5105		NC6210
	CS8315			TT7015	CA4115	GC3225		UC5115		NC6215
	CS8325								WKK20S	

TURNING CERMET

MATERIAL	SANGE	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
UNI	SS9115	IC20N	C15M	CT3000	TN60	CT525	KT125	NX2525		CC1500
	SS9115C			CT3000						
	SS9125	IC520N					HT5	NX3035		CN1500
	SS9125C									

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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



TURNING/**PCBN**

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C		80
D		55
R		360
S		90
T		60
V		35
W		80

2	CLEARANCE ANGLE	
B		5°
C		7°
P		11°
N		0°

3	TOLERANCE	
G	±0,025	±0,13
M	±0,05 ±0,15	±0,13
U	±0,08 ±0,25	±0,13

4	SHAPE
A	
G	
M	
W	
X	SPECIAL

5	SHAPE (mm)	
C	06 09 12	
	16 19 25	
D	07 11 15	
R	06 09 12	
	15 19 25	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6	THICKNESS (mm)
02	2,38
03	3,18
T3	3,97
04	4,76
06	6,35
07	7,94
09	9,52
10	10,00

7	CORNER RADIUS
02	0,20 mm
04	0,40 mm
08	0,80 mm
12	1,20 mm
16	1,60 mm
24	2,40 mm

4C

8

BC

9

420

10

8	NUMBER OF EDGES
1C	1 CORNER
2C	2 CORNER
3C	3 CORNER
4C	4 CORNER
6C	6 CORNER
8C	8 CORNER
FF	FULL FACE
SO	SOLID PcBN

9	
BC	PCBN
SC	TIN COATING PCBN

10	APPLICATION
1□□	HARDENED STEEL
2□□	CAST IRON
3□□	SUPER ALLOY
4□□	UNIVERSAL

PCBN /TURNING

GRADES

ISO DIN 513	K					H					S				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	S01	S10	S20	S30	S40
PCBN															

COATED

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

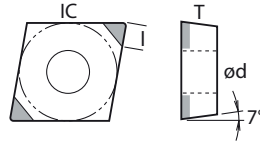
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

POSITIVE 7°
with hole

CC□□



CC□□	0602□□	09T3□□	1204□□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
ød	2,80	4,40	5,50
Holder	134	134	134

DESCRIPTION	EDGE	PCBN																			
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000										
	CCGW040102	1C																			
	CCGW060202	1C	•			•	•						•								
	CCGW060204	1C	•	•	•	•	•			•			•								
	CCGW060208	1C		•		•	•						•								
	CCGW09T302	1C	•			•	•						•								
	CCGW09T304	1C	•	•	•	•	•			•			•								
	CCGW09T308	1C		•		•	•						•								
	CCGW120404	1C	•	•	•	•	•						•								
	CCGW120408	1C		•		•	•			•			•								
	CCGW060202	2C	•			•	•	•				•			•						
	CCGW060204	2C	•	•	•	•	•	•			•	•			•						
	CCGW060208	2C		•		•	•	•				•			•						
	CCGW09T302	2C	•			•	•	•				•			•						
	CCGW09T304	2C	•	•	•	•	•	•			•	•			•						
	CCGW09T308	2C		•		•	•	•				•			•					•	
	CCGW120402	2C										•			•						
	CCGW120404	2C	•	•	•	•	•	•				•			•						
	CCGW120408	2C		•		•	•	•		•		•			•						

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

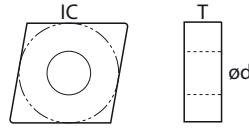
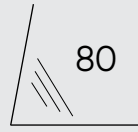
SPARE
PARTS

INDEX

PCBN /TURNING

NEGATIVE
with hole

CN□□



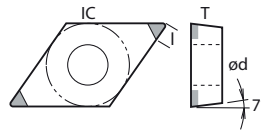
CN□□	1204□□
IC	12,7
T	4,76
ød	5,16
Holder	137

DESCRIPTION	EDGE	PCBN										
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000	
	CNGA120404	1C	•							•		
	CNGA120408	1C	•	•	•	•	•		•	•		
	CNGA120412	1C				•	•			•		
	CNGA120404	2C	•							•		
	CNGA120408	2C	•	•	•	•	•		•	•		
	CNGA120412	2C				•	•			•		
	CNGA120404	4C	•					•		•	•	
	CNGA120408	4C	•	•	•	•	•	•	•	•	•	
	CNGA120412	4C				•	•	•		•	•	

Vc • fn • ap 84

POSITIVE 7°
with hole

DC□□



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
ød	2,80	4,40
Holder	143	143

DESCRIPTION	EDGE	PCBN										
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000	
	DCGW070202	1C	•							•		
	DCGW070204	1C	•	•	•	•	•		•	•		
	DCGW070208	1C				•	•			•		
	DCGW11T302	1C	•							•		
	DCGW11T304	1C	•	•	•	•	•		•	•		
	DCGW11T308	1C				•	•			•		
	DCGW070202	2C	•					•		•	•	
	DCGW070204	2C	•	•	•	•	•	•	•	•	•	
	DCGW070208	2C				•	•	•		•	•	
	DCGW11T302	2C	•					•		•	•	
	DCGW11T304	2C	•	•	•	•	•	•	•	•	•	
	DCGW11T308	2C		•		•	•	•		•	•	

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

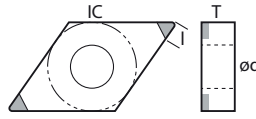
SPARE
PARTS

INDEX

PCBN /TURNING

NEGATIVE
with hole

DN□□



DN□□	1504□□	1506□□
IC	12,7	12,7
T	4,76	6,35
ød	5,16	5,16
Holder	150	150

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
	DNGA150404	1C	•						•		
	DNGA150408	1C	•	•	•	•	•		•	•	
	DNGA150412	1C							•		
	DNGA150604	1C	•						•		
	DNGA150608	1C	•	•	•	•	•		•	•	
	DNGA150612	1C		•	•	•	•			•	
	DNGA150404	2C	•						•		
	DNGA150408	2C	•	•	•	•		•	•		
	DNGA150604	2C	•						•		
	DNGA150608	2C	•	•	•	•		•	•		
	DNGA150612	2C		•	•	•	•			•	
	DNGA150404	4C	•					•	•	•	
	DNGA150408	4C	•	•	•	•	•	•	•	•	
	DNGA150412	4C						•		•	
	DNGA150604	4C	•					•	•	•	
	DNGA150608	4C	•	•	•	•	•	•	•	•	
	DNGA150612	4C		•	•	•	•	•		•	•


Vc • fn • ap 84


PCBN /TURNING

POSITIVE 7°
with hole

RC □□



RC□□	0603□□	0903□□	1204□□
IC	6,35	9,525	12,7
T	3,18	2,38	4,76
∅d	-	-	-
	158	158	158

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
 RCGX060300	FF	●	●						●		
RCGX090300	FF	●	●						●		
RCGX120400	FF	●	●						●		
RCGX191000	SO								●		

Vc ● fn ● ap  84 

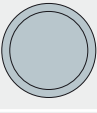
PCBN /TURNING

**POSITIVE 7°
with hole**

RC□□



RC□□	0603□□	0903□□	1204□□
IC	6,35	9,525	12,7
T	3,18	3,18	4,76
Ød	-	-	-
Holder	158	158	158

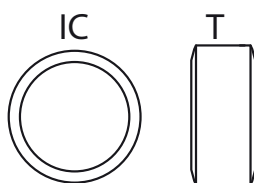
DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
 RCGX060300	SO								•		
RCGX090300	SO								•		
RCGX120400	SO								•		

Vc • fn • ap ▶ 84


- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS
DRILLS & TAPS
- SPARE PARTS
- INDEX

NEGATIVE
with hole

RN□□



RN□□	0603□□	0903□□	1204□□
IC	6,35	9,525	12,70
T	3,18	3,18	4,76
∅d	-	-	-

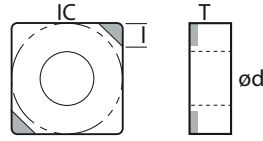
DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC3000	BC350	BC420	BC4000	BCX4000
 RNGN060300 RNGN090300 RNGN120400	SO								•		
	SO								•		
	SO								•		
RNGN190700	SO								•		

Vc • fn • ap ▶ 84

PCBN /TURNING

NEGATIVE
with hole

SN□□



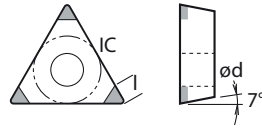
SN□□	1204□□
IC	12,7
T	4,76
ød	5,16
Holder	162

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
	SNGA120404	•							•		
	SNGA120408	•	•						•		
	SNGA120412		•						•		
	SNGA120404	•							•		
	SNGA120408	•	•						•		
	SNGA120412		•						•		
	SNGA120404	•							•		
	SNGA120408	•	•						•		
	SNGA120412		•						•		
	SNGA120404	•					•		•	•	
	SNGA120408	•	•				•		•	•	
	SNGA120412		•				•		•	•	

Vc • fn • ap 84

POSITIVE 7°
with hole

TC□□



TC□□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
ød	2,50	2,80	4,40
Holder	164	164	164

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
	TCGW090202	1C	•						•		
	TCGW090204	1C	•	•	•	•			•		
	TCGW110202	1C	•					•	•		
	TCGW110204	1C	•	•	•	•			•		
	TCGW110208	1C		•					•		
	TCGW16T304	1C	•						•		
	TCGW16T308	1C	•	•				•	•		
	TCGW090202	3C	•						•		
	TCGW090204	3C	•	•	•	•			•		
	TCGW110202	3C	•					•	•		
	TCGW110204	3C	•	•	•	•			•		
	TCGW110208	3C		•					•		
	TCGW16T304	3C	•						•		
	TCGW16T308	3C	•	•				•	•		

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

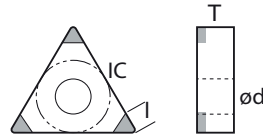
SPARE
PARTS

INDEX

PCBN /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□
IC	9,525
T	4,76
ød	3,81
Holder	168

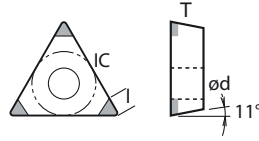
DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
TNGA160404	1C	•							•		
TNGA160408	1C	•	•	•	•	•		•	•		
TNGA160412	1C				•	•			•		
TNGA160404	3C	•							•		
TNGA160408	3C	•	•	•	•	•		•	•		
TNGA160412	3C				•	•			•		
TNGA160404	6C						•			•	
TNGA160408	6C						•			•	
TNGA160412	6C						•			•	

Vc • fn • ap

▶ 84

POSITIVE 11°
with hole

TP□□



TP□□	0902□□	1102□□	16T3□□
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,40
Holder	167	167	167

DESCRIPTION	EDGE	PCBN										
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000	
	TPGW080202	1C	•							•		
	TPGW080204	1C	•	•	•					•		
	TPGW090202	1C	•							•		
	TPGW090204	1C	•	•	•					•		
	TPGW110302	1C	•							•		
	TPGW110304	1C	•	•	•	•				•		
	TPGW110308	1C		•	•	•				•		
		TPGW080202	3C	•							•	
TPGW080204		3C	•	•	•					•		
TPGW090202		3C	•							•		
TPGW090204		3C	•	•	•					•		
TPGW110302		3C	•							•		
TPGW110304		3C	•	•	•	•				•		
TPGW110308		3C		•	•	•				•		

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

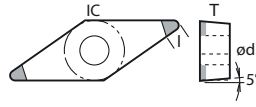
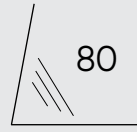
SPARE
PARTS

INDEX

PCBN /TURNING

POSITIVE 5°
with hole

VB□□



VB□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
Holder	172	172

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
	VBGW110302	1C	•						•		
	VBGW110304	1C	•	•	•	•			•		
	VBGW160402	1C	•			•		•	•		
	VBGW160404	1C	•	•	•				•		
	VBGW160408	1C	•						•		
	VBGW160412	1C							•		
	VBGW110302	2C	•						•		
	VBGW110304	2C	•	•	•	•			•		
	VBGW160402	2C	•			•	•	•	•	•	
	VBGW160404	2C	•	•	•		•		•	•	•
VBGW160408	2C	•	•			•		•	•		

Vc • fn • ap 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

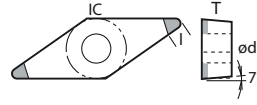
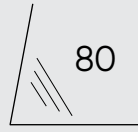
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

POSITIVE 7°
with hole

VC□□



VC□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
ød	2,80	4,40
Holder	17°	17°

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC3000	BC350	BC420	BC4000	BCX4000
	VCGW110302	1C	•						•		
	VCGW110304	1C	•	•	•	•			•		
	VCGW160404	1C	•		•			•	•		
	VCGW160408	1C	•	•	•				•		
	VCGW110302	2C	•						•		
	VCGW110304	2C	•	•	•	•			•		
	VCGW160402	2C					•			•	
	VCGW160404	2C	•			•		•	•	•	
VCGW160408	2C	•	•	•			•	•	•		

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

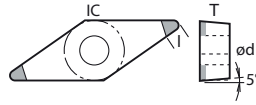
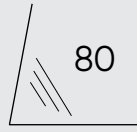
SPARE
PARTS

INDEX

PCBN /TURNING

NEGATIVE
with hole

VN□□



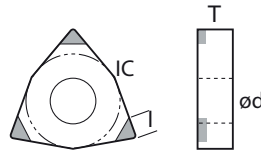
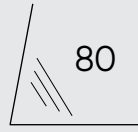
VN□□	1604□□
IC	9,525
T	4,76
ød	3,81
Holder	177

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC8000	BC350	BC420	BC4000	BCX4000
VNGA160404	1C	•							•		
VNGA160408	1C	•	•	•	•	•		•	•		
VNGA160404	2C	•							•		
VNGA160408	2C	•	•	•	•	•		•	•		
VNGA160404	4C	•							•	•	•
VNGA160408	4C	•	•	•	•	•		•	•	•	
VNGA160412	4C							•		•	

Vc • fn • ap

NEGATIVE
with hole

WN□□



WN□□	0604□□	0804□□
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
Holder	178	178

DESCRIPTION	EDGE	PCBN									
		BC150	BC170	SC150	BC250	SC250	BC3000	BC350	BC420	BC4000	BCX4000
	WNGA060404	1C	•						•		
	WNGA060408	1C	•						•		
	WNGA080404	1C	•						•		
	WNGA080408	1C	•	•		•		•	•		
	WNGA080412	1C		•					•		
	WNGA060404	3C	•						•		
	WNGA060408	3C	•						•		
	WNGA080404	3C	•						•		
	WNGA080408	3C	•	•		•		•	•		
	WNGA080412	3C		•					•		
	WNGA080404	6C	•					•	•	•	
	WNGA080408	6C	•	•		•		•	•	•	
	WNGA080412	6C		•				•	•	•	

Vc • fn • ap ▶ 84

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

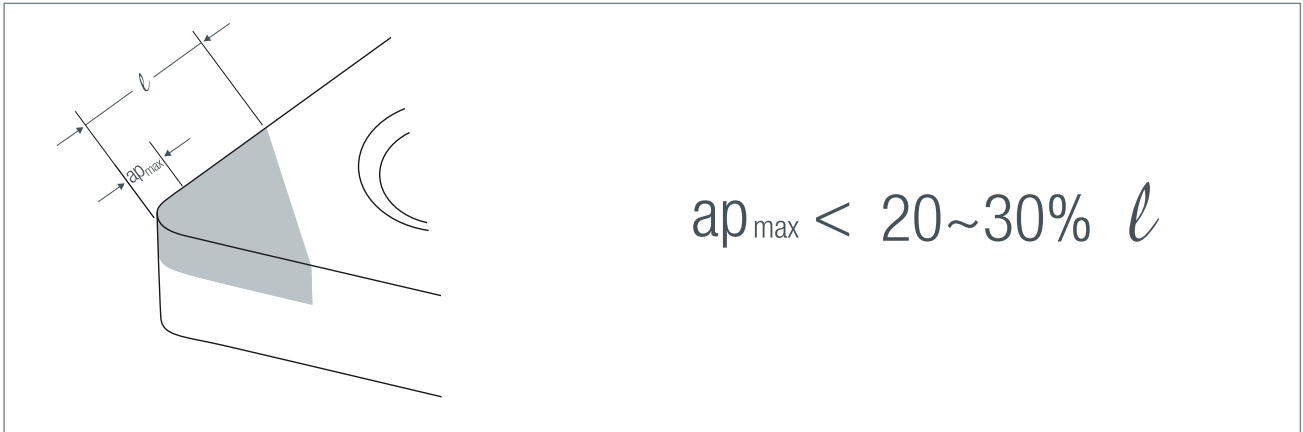
INDEX

PCBN /TURNING

CUTTING PARAMETERS

KG	GREY CAST IRON
KN	NODULAR CAST IRON
KW	WHITE CAST IRON
KS	SINTERED MATERIAL

HH	HARDENED STEEL
HC	CASE HARDENED STEEL
HB	BEARING STEEL
SA	SUPER ALLOYS (Ni Based)



MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITION	PCBN											
				BC150	BC170	SC150	BC250	SC250	SC250	BC350	BC420	BC4000	BCX4000		
H	HH	0,05-0,25	0,05-0,20	○ ○ ○	120-250	100-230	100-200						100-220	100-250	80-250
	HC	0,05-0,25	0,08-0,25	○ ○ ○			80-180						80-180	100-180	100-250
				⊕ ⊕ ⊕			100-180					100-200	100-200	100-250	
HB	0,05-0,25	0,05-0,20	○ ○ ○	120-220	100-200	100-180							100-200	100-250	100-250
			⊕ ⊕ ⊕			80-150							90-150	90-150	90-250
K	KG	0,10-0,50	0,10-0,30	○ ○ ○					400-1000	350-1000			400-1200	350-1200	350-1500
	KN	0,10-0,30	0,05-0,20	○ ○ ○				250-400		250-400			250-500	250-500	250-500
				⊕ ⊕ ⊕			150-300		150-300		200-400	200-400	200-400		
	KW	0,10-0,30	0,10-0,30	○ ○ ○					60-100	100-120			60-120	100-250	100-300
				⊕ ⊕ ⊕					50-80	60-100		50-100	100-250	100-300	
KS	0,05	0,05-0,25	○ ○ ○				160-250	160-250	160-250			160-280	150-280	150-300	
S	SA	0,05-0,20	0,10-0,20	○ ○ ○								120-300			120-300
				⊕ ⊕ ⊕											



TURNING/**DIAMOND**

DIAMOND /TURNING

D

C

G

W

11

T3

04

1

2

3

4

5

6

7

1	GEOMETRY	
C		80
D		55
R		360
S		90
T		60
V		35
W		80

2	CLEARANCE ANGLE	
B		5°
C		7°
P		11°
N		0°

3	TOLERANCE	
G	±0,025	±0,13
M	±0,05 ±0,15	±0,13
U	±0,08 ±0,25	±0,13

4	SHAPE
A	
G	
M	
W	
X	SPECIAL

5	SHAPE (mm)	
C	06 09 12 16 19 25	
D	07 11 15	
R	06 09 12 15 19 25	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6	THICKNESS (mm)
02	2,38
03	3,18
T3	3,97
04	4,76
06	6,35
07	7,94
09	9,52
10	10,00

7	CORNER RADIUS
02	0,20 mm
04	0,40 mm
08	0,80 mm
12	1,20 mm
16	1,60 mm
24	2,40 mm

DIAMOND /TURNING

1C

8

PC

9

150

10

8	NUMBER OF EDGES
1C	1 CORNER
2C	2 CORNER
3C	3 CORNER
FE	FULL EDGE

9	
PC	PCD

10	APPLICATION
1 □□ 3 □□	NON-FERROUS METAL

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

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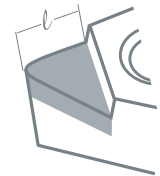
DIAMOND /TURNING

GRADES

ISO DIN 513	N				
	N01	N10	N20	N30	N40
PCD		PC100			
		PC150			
			PC200		
			PC300		

CUTTING EDGE STYLE

POSITIVE INSERTS



NEGATIVE INSERTS



TURNING

GROOVING

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ENDMILLS

DRILLS

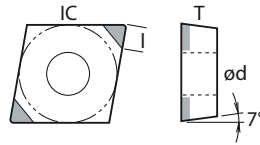
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DIAMOND /TURNING

POSITIVE 7°
with hole

CC□□



CC□□	0602□□	09T3□□	1204□□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
ød	2,80	4,40	5,50
Holder	134	134	134

DESCRIPTION	EDGE		PCD					
			PC100	PC150	PC200	PC300		
	CCGT060202	1C		•	•	•		
	CCGT060204	1C	•	•	•	•		
	CCGT060208	1C	•	•		•		
	CCGT09T302	1C		•	•	•		
	CCGT09T304	1C	•	•	•	•		
	CCGT09T308	1C	•	•		•		
	CCGT120404	1C		•	•	•		
	CCGT120408	1C	•	•		•		
	CCGT09T302	2C		•	•	•		
	CCGT09T304	2C	•	•	•	•		
	CCGT09T308	2C	•	•		•		
	CCGT120404	2C		•	•	•		
	CCGT120408	2C	•	•		•		
	CCGW060202	1C		•	•	•		
	CCGW060204	1C	•	•	•	•		
	CCGW060208	1C	•	•		•		
	CCGW09T302	1C		•	•	•		
	CCGW09T304	1C	•	•	•	•		
	CCGW09T308	1C	•	•		•		
	CCGW120404	1C		•	•	•		
	CCGW120408	1C	•	•		•		
	CCGW09T302	2C		•	•	•		
	CCGW09T304	2C	•	•	•	•		
	CCGW09T308	2C	•	•		•		
	CCGW120404	2C		•	•	•		
	CCGW120408	2C	•	•		•		
	CCGX060204R/L	FE		•		•		
	CCGX09T304R/L	FE		•		•		

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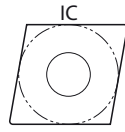
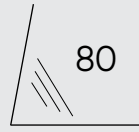
HSS
DRILLS & TAPS

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PARTS

INDEX

NEGATIVE
with hole

CN□□



CN□□ 1204□□

IC 12,7

T 4,76

ød 5,16

Holder ▶ 137

DESCRIPTION	EDGE	Image	PCD			
			PC100	PC150	PC200	PC300
 CNGA120404 CNGA120408	1C			•	•	•
	1C		•	•	•	
CNGA120404 CNGA120408	2C		•	•	•	
	2C		•	•	•	

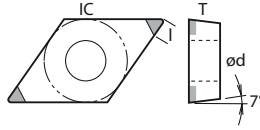
Vc • fn • ap ▶

99

DIAMOND /TURNING

POSITIVE 7°
with hole

DC□□



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
ød	2,80	4,40
Holder	143	143

DESCRIPTION	EDGE	Image	PCD						
			PC100	PC150	PC200	PC300			
	DCGT070202	1C		•	•	•			
	DCGT070204	1C	•	•	•	•			
	DCGT070208	1C	•	•		•			
	DCGT11T302	1C		•	•	•			
	DCGT11T304	1C	•	•	•	•			
	DCGT11T308	1C	•	•		•			
	DCGT11T302	2C		•	•	•			
	DCGT11T304	2C	•	•	•	•			
	DCGT11T308	2C	•	•		•			
		DCGW070202	1C		•	•	•		
		DCGW070204	1C	•	•	•	•		
DCGW070208		1C	•	•		•			
DCGW11T302		1C		•	•	•			
DCGW11T304		1C	•	•	•	•			
	DCGW11T308	1C	•	•		•			
	DCGW11T302	2C		•	•	•			
	DCGW11T304	2C	•	•	•	•			
	DCGW11T308	2C	•	•		•			
	DCGX070204R/L	FE		•		•			
		DCGX11T304R/L	FE		•		•		

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TURNING

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DRILLING

ENDMILLS

DRILLS


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DRILLS & TAPS

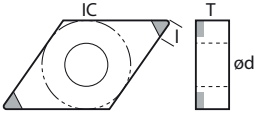
SPARE
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DIAMOND /TURNING

**NEGATIVE
with hole**

DN □□ 



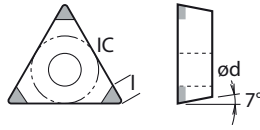
DN □□	1504 □□	1506 □□
IC	12,7	12,7
T	4,76	6,35
ød	5,16	5,16
		

DESCRIPTION	EDGE		PCD			
			PC100	PC150	PC200	PC300
 DNGA150604	1C			●	●	●
	DNGA150608		1C	●		●
 DNGA150604	2C			●	●	●
	DNGA150608		2C	●	●	●

DIAMOND /TURNING

POSITIVE 7°
with hole

TC□□



TC□□	0902□□	1102 □□	16T3 □□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
ød	2,50	2,80	4,40
Holder	164	164	164

DESCRIPTION	EDGE		PCD					
			PC100	PC150	PC200	PC300		
	TCGT090202	1C		•	•	•		
	TCGT090204	1C	•	•	•	•		
	TCGT110202	1C		•	•	•		
	TCGT110204	1C	•	•	•	•		
	TCGT110208	1C	•	•		•		
	TCGT110212	1C		•				
	TCGT16T304	1C	•	•	•	•		
	TCGT16T308	1C	•	•		•		
	TCGT16T304	3C	•	•	•	•		
	TCGT16T308	3C	•	•		•		
	TCGW090202	1C		•	•	•		
	TCGW090204	1C	•	•	•	•		
	TCGW110202	1C		•	•	•		
	TCGW110204	1C	•	•	•	•		
	TCGW110208	1C	•	•		•		
	TCGW16T304	1C	•	•	•	•		
	TCGW16T308	1C	•	•		•		
	TCGW16T304	3C	•	•	•	•		
	TCGW16T308	3C	•	•		•		
	TCGX090204R/L	FE		•		•		
	TCGX110204R/L	FE		•		•		
	TCGX16T304R/L	FE		•		•		

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

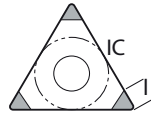
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DIAMOND /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□
IC	9,525
T	4,76
ød	3,81
Holder	168

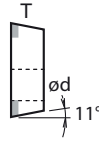
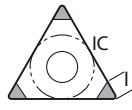
DESCRIPTION	EDGE	Image	PCD			
			PC100	PC150	PC200	PC300
 TNGA160404 TNGA160408	1C			•	•	•
	1C		•	•		•
 TNGA160404 TNGA160408	3C			•	•	•
	3C		•	•		•
 TNGA160404 TNGA160408	6C			•	•	•
	6C		•	•		•

Vc • fn • ap

DIAMOND /TURNING

POSITIVE 11°
with hole

TP□□



TP□□	0802□□	0902□□	1103□□
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
ød	2,30	3,00	3,40
Holder	167	167	167

DESCRIPTION	EDGE	Image	PCD					
			PC100	PC150	PC200	PC300		
 TPGT080202 TPGT080204 TPGT090202 TPGT090204 TPGT110302 TPGT110304	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
 TPGW080202 TPGW080204 TPGW090202 TPGW090204 TPGW110302 TPGW110304	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		
	1C			•	•	•		

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TURNING

GROOVING

THREADING

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DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

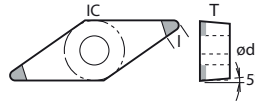
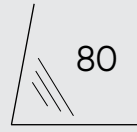
SPARE
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DIAMOND /TURNING

POSITIVE 5°
with hole

VB□□



VB□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
Holder	172	172

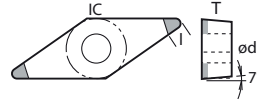
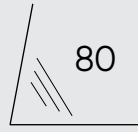
DESCRIPTION	EDGE		PCD					
			PC100	PC150	PC200	PC300		
	VBGT110302	1C		•	•	•		
	VBGT110304	1C	•	•	•	•		
	VBGT160402	1C		•	•	•		
	VBGT160404	1C	•	•	•	•		
	VBGT160408	1C	•	•		•		
	VBGT110302	2C		•	•	•		
	VBGT110304	2C	•	•	•	•		
	VBGT160402	2C		•	•	•		
	VBGT160404	2C	•	•	•	•		
	VBGT160408	2C	•	•		•		
	VBGW110302	1C		•	•	•		
	VBGW110304	1C	•	•	•	•		
	VBGW160402	1C		•	•	•		
	VBGW160404	1C	•	•	•	•		
	VBGW160408	1C	•	•		•		
	VBGW110302	2C		•	•	•		
	VBGW110304	2C	•	•	•	•		
	VBGW160402	2C		•	•	•		
	VBGW160404	2C	•	•	•	•		
	VBGW160408	2C	•	•		•		

Vc • fn • ap 99

DIAMOND /TURNING

POSITIVE 7°
with hole

VC□□



VC□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
ød	2,80	4,40
Holder	176	176

DESCRIPTION	EDGE	Image	PCD					
			PC100	PC150	PC200	PC300		
	VCGT110302	1C		•	•	•		
	VCGT110304	1C	•	•	•	•		
	VCGT160402	1C		•	•	•		
	VCGT160404	1C	•	•	•	•		
	VCGT160408	1C	•	•		•		
	VCGT110302	2C		•	•	•		
	VCGT110304	2C	•	•	•	•		
	VCGT160402	2C		•	•	•		
	VCGT160404	2C	•	•	•	•		
	VCGT160408	2C	•	•		•		
	VCGW110302	1C		•	•	•		
	VCGW110304	1C	•	•	•	•		
	VCGW160402	1C		•	•	•		
	VCGW160404	1C	•	•	•	•		
	VCGW160408	1C	•	•		•		
	VCGW110302	2C		•	•	•		
	VCGW110304	2C	•	•	•	•		
	VCGW160402	2C		•	•	•		
	VCGW160404	2C	•	•	•	•		
	VCGW160408	2C	•	•		•		
	VCGX110304R/L	FE		•		•		
	VCGX160404R/L	FE		•		•		

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

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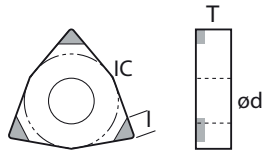
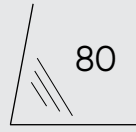
SPARE
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DIAMOND /TURNING

NEGATIVE
with hole

WN



WN	0604	0804
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
Holder	178	178

TURNING

GROOVING

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MILLING

DRILLING

ENDMILLS

DRILLS

HSS
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SPARE
PARTS

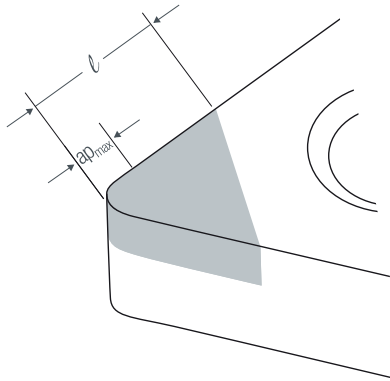
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DESCRIPTION	EDGE	Image	PCD			
			PC100	PC150	PC200	PC300
WNGA060404 WNGA080404	1C			•	•	•
	1C		•			•
WNGA080408	1C		•	•		•
WNGA080404 WNGA080408	3C		•		•	•
	3C		•	•		•
WNGA080404 WNGA080408	6C			•	•	•
	6C	•	•		•	

CUTTING PARAMETERS

NA	ALUMINIUM ALLOYS
NS	ALUMINIUM ALLOYS (Si≤15%)
NH	AL ALLOYS AGED AND HARDENED
NB	BRASS

NC	BRONZE AND ELECTROLYTIC COPPER
NG	GRAPHITE
HM	HARD METAL (Co≤16%)
ST	TITANIUM ALLOYS



$$ap_{\max} < 60\sim 70\% \ l$$

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITION	PCD							
				PC100	PC150	PC200	PC300				
N	NA	0,10~1,00	0,08~0,25	○ ⊕ ♀		600~2500		600~2500			
		1,00~2,50	0,15~0,50	○ ⊕ ♀		600~1600		600~1600			
	NS	0,10~1,00	0,05~0,20	○ ⊕ ♀			500~1800				
		1,00~2,50	0,08~0,35	○ ⊕ ♀			500~1200				
	NH	0,10~1,00	0,05~0,35	○ ⊕ ♀			400~1000				
		1,00~2,50	0,08~0,35	○ ⊕ ♀			400~800				
	NB	0,10~1,00	0,10~0,30	○ ⊕ ♀	400~1200	400~1200		400~1200			
		1,00~2,50	0,15~0,25	○ ⊕ ♀	400~1000	400~1000		400~1000			
	NC	0,10~1,00	0,10~0,30	○ ⊕ ♀	300~800	300~800		300~800			
		1,00~2,50	0,15~0,25	○ ⊕ ♀	300~500	300~500		300~500			
NG	0,10~1,00	0,08~0,25	○ ⊕ ♀		300~800	300~800	300~800				
	1,00~2,50	0,15~0,50	○ ⊕ ♀		300~600	300~600	300~600				
H	HM	0,10~0,50	0,08~0,25	○ ♀			10~40				
S	ST	0,10~1,00	0,05~0,20	○ ⊕ ♀	100~200	100~200	100~220	100~200			
		1,00~2,50	0,08~0,20	○ ⊕ ♀	100~150	100~150	100~220	100~150			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



TURNING/**CERAMIC**

CERAMIC /TURNING

TURNING

GROOVING

THREADING

MILLING

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ENDMILLS

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C

N

G

A

12

04

08

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4

5

6

7

1	GEOMETRY	
C		80
D		55
R		360
S		90
T		60
V		35
W		80

2	CLEARANCE ANGLE	
B		5°
C		7°
P		11°
N		0°

3	TOLERANCE	
G	±0,025	±0,13
M	±0,05 ±0,15	±0,13
U	±0,08 ±0,25	±0,13

4	SHAPE
A	
G	
M	
T	
X	SPECIAL

5	SHAPE (mm)	
C	06 09 12 16 19 25	
D	07 11 15	
R	06 09 12 15 19 25	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6	THICKNESS (mm)
02	2,38
03	3,18
T3	3,97
04	4,76
06	6,35
07	7,94
09	9,52
10	10,00

7	CORNER RADIUS
02	0,20 mm
04	0,40 mm
08	0,80 mm
12	1,20 mm
16	1,60 mm
24	2,40 mm

T	04	00	0	KS	81	50
8	9	10	11	12	13	14

8	CHAMFER	9	CHAMFER WIDTH 1	10	CF WIDTH 2 X DEGREE
T	Mono 20° Chamfer	01	0,05 mm	00	Mono Type
K	Mono 30° Chamfer	02	0,10 mm	01	0,20 x 25
D	Double 10° Chamfer	03	0,15 mm	02	0,10 x 30
S	Double 15° Chamfer	04	0,20 mm	03	0,20 x 30
AD	After Double 10° Chamfer	05	1,00 mm	04	0,15 x 30
AS	After Double 15° Chamfer	06	2,00 mm	05	0,45 x 25
		10	1,20 mm		
		20	1,50 mm		
		30	0,75 mm		
		40	1,25 mm		

11	HONING (µm)	12	GRADE	13	WORKPIECE	14	APPLICATION
0	No Honing	KS	Al ₂ O ₃ + TiC(N)	41	Cast Iron	10	
1	10	KSC	Al ₂ O ₃ +TiC(N)+TiN	71	Inconel & High Temp. Alloy	20	
2	20	KZ	Al ₂ O ₃ + ZrO ₂	81	Hardened Steel	30	
3	30	KN	Si ₃ N ₄			40	
5	50	KA	TiC + Al ₂ O ₃			50	
		KL	SiAlON			60	
		KW	Whisker			70	

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GRADES

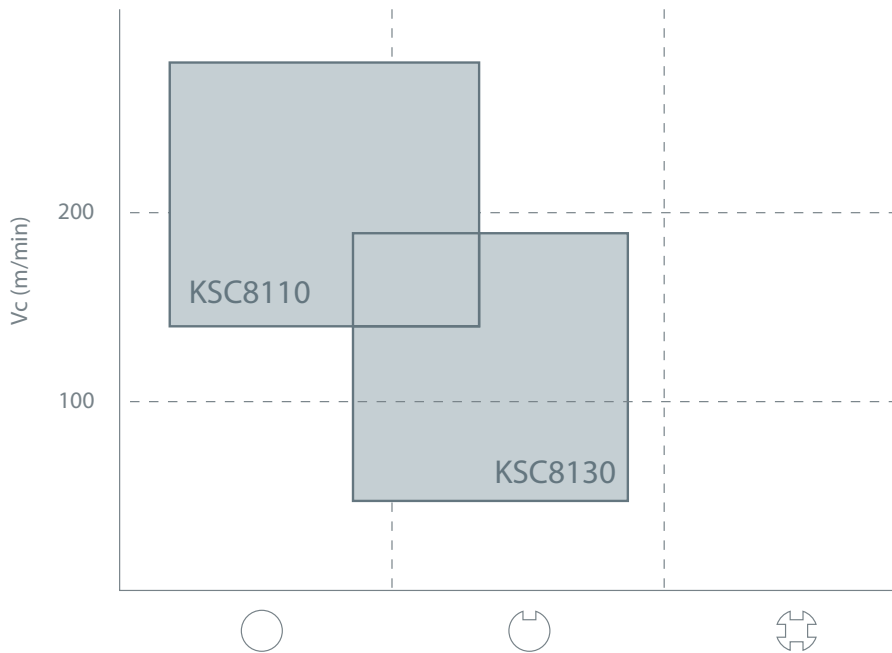
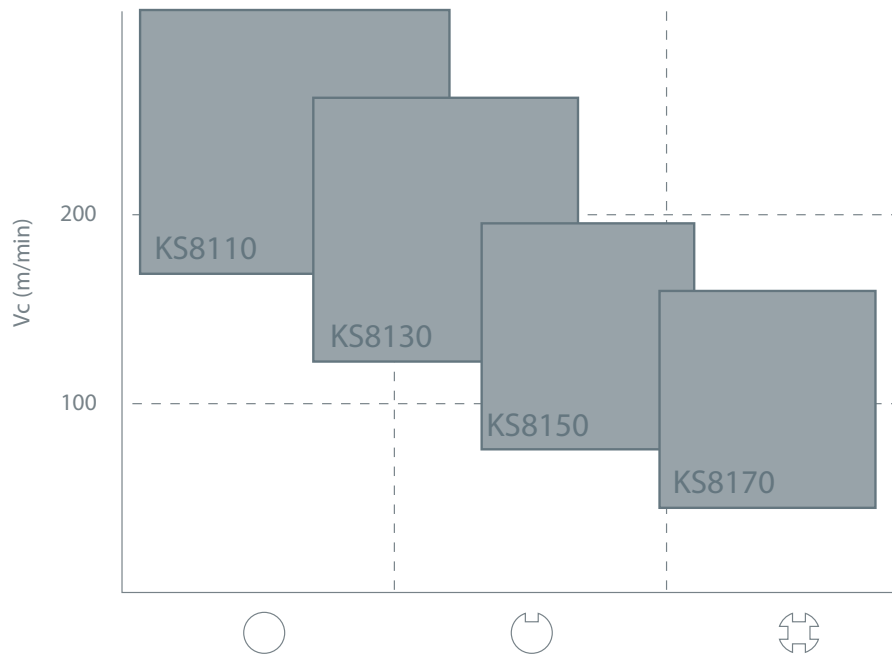
ISO DIN 513	K					H					S				
	K01	K10	K20	K30	K40	H01	H10	H20	H30	H40	S01	S10	S20	S30	S40
Al ₂ O ₃ + TiC(N)						KS8110									
							KS8130								
								KS8150							
									KS8170						
Al ₂ O ₃ + Ti- C(N) PVD						KSC8110									
							KSC8130								
Al ₂ O ₃ + ZrO ₂	KZ4120														
	KZ4130														
		KZ4180													
Si ₃ N ₄	KN4110														
	KN4120														
		KN4130													
			KN4140												
			KN4150												
				KN1000											
				KA4110											
TiC + Al ₂ O ₃															
SiAlON											KL7110				
											KL7120				
Whisker											KW7110				
											KW7120				

COATED

CERAMIC /TURNING

Range ISO **H**

GRADES



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DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

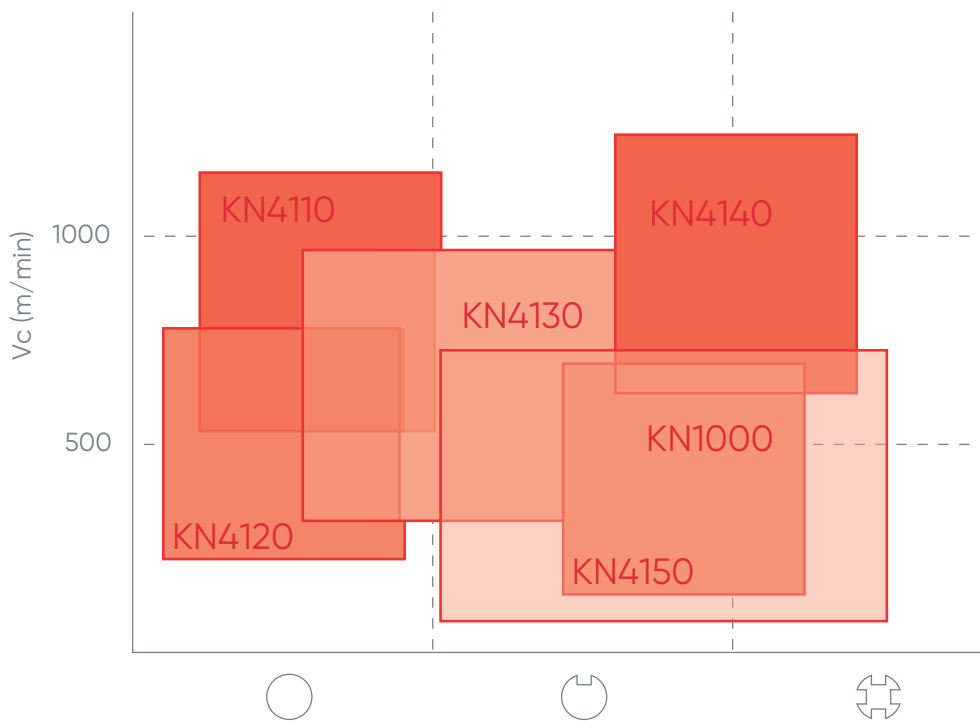
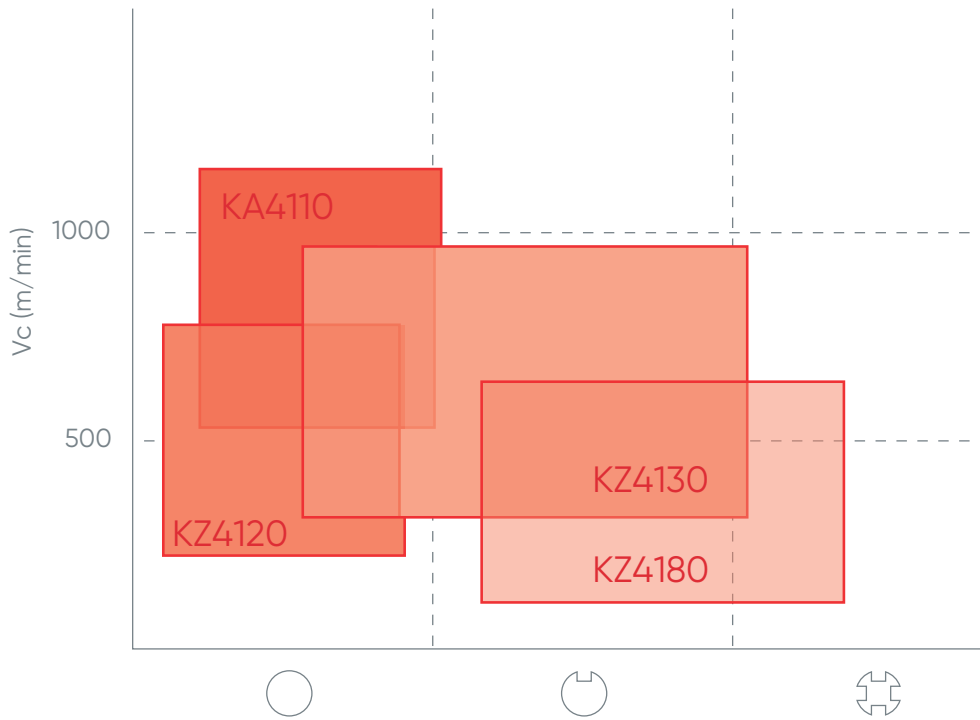
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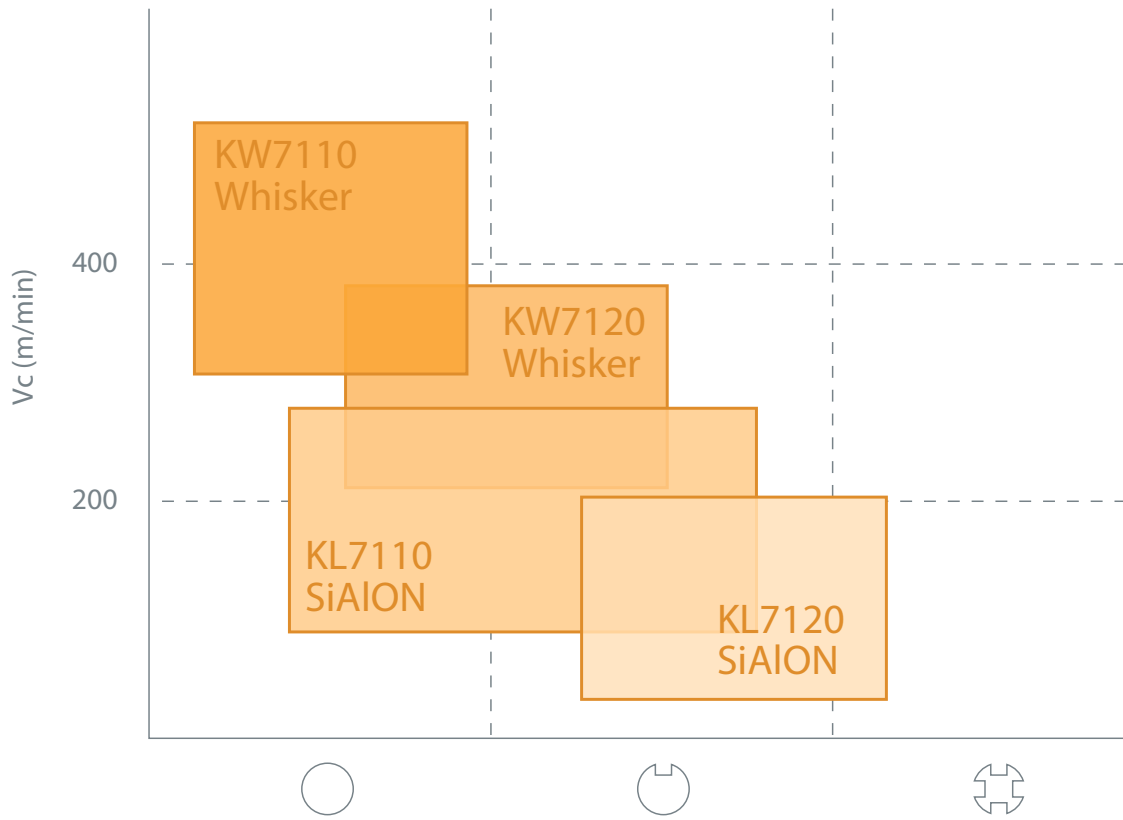
GRADES

Range ISO **K**



Range ISO **S**

GRADES



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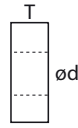
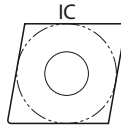
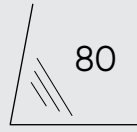
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CERAMIC /TURNING

NEGATIVE
with hole

CN□□



CN□□	1204□□	1606□□	1906□□
IC	12,7	15,875	19,05
T	4,76	6,35	6,35
ød	5,16	6,35	7,93
Holder	137	137	137

DESCRIPTION	Image	T	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
			KS8110	KS8130	KS8150	KS8170	KSC-8110	KSC-8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
CNGA120404		T04000	•	•	•		•	•															
CNGA120408		T04000	•	•	•		•	•															
CNGA120412		T04000	•	•	•		•	•															
CNGA160612		T04000	•	•	•		•	•															
CNGA160616		T04000	•	•	•		•	•															
CNGA120404		T04002	•	•	•		•	•															
CNGA120408		T04002	•	•	•		•	•															
CNGA120412		T04002	•	•	•		•	•															
CNGA120416		T04002	•	•	•		•	•															
CNGA160612		T04002	•	•	•		•	•															
CNGA160616		T04002	•	•	•		•	•															
CNGA190616		T04002	•	•	•		•	•															
CNGA160612		S20022	•	•	•		•	•															
CNGA160616		S20022	•	•	•		•	•															
CNGA190612		S20022		•																			
CNGA190616		S20022	•	•	•		•	•															

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TURNING

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MILLING

DRILLING

ENDMILLS

DRILLS

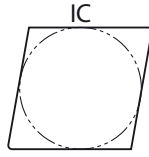
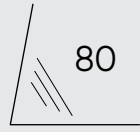
HSS
DRILLS & TAPS

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PARTS

INDEX

NEGATIVE
with hole

CN□□



CN□□	1204□□	1207□□
IC	12,7	12,7
T	4,76	7,94
Ød	-	-
Holder	137	137

DESCRIPTION	Image	T	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
CNGN120408		T04000																				•	
		T04000																					•
		T04000																					•
		T04000																					•
CNGN120402		T04002		•	•							•	•								•		
		T04002		•	•							•	•									•	
		T04002		•	•								•	•								•	
		T04002		•	•								•	•		•						•	
		T04002		•	•					•				•	•							•	
		T04002		•	•									•	•							•	
CNGX120712		T04000								•						•							
		T04002									•												
		T04000								•													
CNMX120712		T04000										•	•				•	•					
		T04000										•	•				•	•					
		T04002										•	•				•	•					
		T04002										•	•				•	•					

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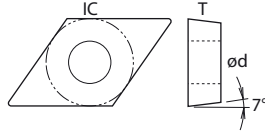
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CERAMIC /TURNING

NEGATIVE
with hole

DN□□



CN□□	1504□□	1506□□	1507□□
IC	12,7	12,7	12,7
T	4,76	6,35	7,94
Ød	5,16	5,16	5,16
Holder	150		

DESCRIPTION	IC	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
	DNGA150404	T04000	•	•	•																	
	DNGA150408	T04000	•	•	•	•		•			•	•	•								•	•
	DNGA150412	T04000	•	•	•	•							•	•	•				•		•	•
	DNGA150604	T04000	•	•	•	•																
	DNGA150608	T04000	•	•	•	•		•			•	•	•				•					
	DNGA150612	T04000	•	•	•	•					•	•	•				•					
	DNGA150616	T04000	•	•	•						•	•	•									
	DNGA150704	T04000	•	•								•	•	•								
	DNGA150708	T04000	•	•							•	•	•									
	DNGA150712	T04000	•	•								•	•				•	•				
	DNGA150404	T04002	•	•		•																
	DNGA150408	T04002	•	•	•	•		•			•	•	•								•	•
	DNGA150412	T04002	•	•	•	•							•	•	•				•		•	•
	DNGA150604	T04002	•	•	•	•																
	DNGA150608	T04002	•	•	•	•					•	•	•				•					
	DNGA150612	T04002	•	•	•	•					•	•	•				•					
	DNGA150616	T04002	•	•	•						•	•	•									
	DNGA150704	T04002	•	•								•	•	•								
	DNGA150708	T04002	•	•							•	•	•									
	DNGA150712	T04002	•	•								•	•	•		•	•	•				

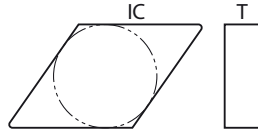
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DRILLS
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CERAMIC /TURNING

NEGATIVE
with hole

DN□□



DN□□	1507□□
IC	12,70
T	7,94
Ød	-
Holder	150

DESCRIPTION	Image	Grade	Al ₂ O ₃ + TiC(N)		+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110
	DNGN150708	T04000	•	•	•	•	•	•				•				•	•				
	DNGN150712	T04000	•	•	•	•	•	•				•				•	•				•
	DNGN150716	T04000	•	•	•	•	•	•				•				•	•				•
	DNGN150708	T04002	•	•	•	•	•	•				•				•	•				
	DNGN150712	T04002	•	•	•	•	•	•				•				•	•				
	DNGN150716	T04002	•	•	•	•	•	•				•				•	•				

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CERAMIC /TURNING

POSITIVE 7°
with hole

RC□□



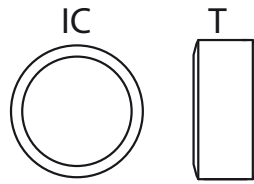
RC□□	0606□□	0607□□	0907□□	1207□□	1510□□	1910□□
IC	6,35	6,35	9,525	12,70	15,87	19,05
T	6,35	7,94	7,94	7,94	10,00	10,00
Ød	-	-	-	-	-	-
Holder	158	158	158	158	158	158

DESCRIPTION	IC	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
	RCGX 060600	T04000	•	•	•		•	•												•	•	
	RCGX 060700	T04000	•	•	•		•	•													•	•
	RCGX 090700	T04000	•	•	•		•	•													•	•
	RCGX 120700	T04000	•	•	•		•	•													•	•
	RCGX 151000	T04000	•	•	•		•	•													•	•
	RCGX 191000	T04000	•	•	•		•	•													•	•
	RCGX 251200	T04000	•	•	•		•	•													•	•
	RCGX 060600	S20022	•	•	•		•	•													•	•
	RCGX 060700	S20022	•	•	•		•	•													•	•
	RCGX 090700	S20022	•	•	•		•	•													•	•
	RCGX 120700	S20022	•	•	•		•	•													•	•
	RCGX 151000	S20022	•	•	•		•	•													•	•
	RCGX 191000	S20022	•	•	•		•	•													•	•
	RCGX 251200	S20022	•	•	•		•	•													•	•
	RCGX 060600	S06032	•	•	•		•	•													•	•
	RCGX 060700	S06032	•	•	•		•	•													•	•
	RCGX 090700	S06032	•	•	•		•	•													•	•
	RCGX 120700	S06032	•	•	•		•	•													•	•
	RCGX 151000	S06032	•	•	•		•	•													•	•
	RCGX 191000	S06032	•	•	•		•	•													•	•
	RCGX 251200	S06032	•	•	•		•	•													•	•
	RCGX 060600	AS06032	•	•	•		•	•													•	•
	RCGX 060700	AS06032	•	•	•		•	•													•	•
	RCGX 090700	AS06032	•	•	•		•	•													•	•
	RCGX 120700	AS06032	•	•	•		•	•													•	•
	RCGX 151000	AS06032	•	•	•		•	•													•	•
	RCGX 191000	AS06032	•	•	•		•	•													•	•
	RCGX 251200	AS06032	•	•	•		•	•													•	•
RCGX060600	AS20022		•																	•	•	

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NEGATIVE
with hole

RN□□



RN□□	1204 □□	1207 □□	1907 □□
IC	12,70	12,70	19,05
T	4,76	7,94	7,94
∅d			

DESCRIPTION	Image	Material	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
	RNGN 120400	T04000	•	•	•															•	•	
	RNGN 120700	T04000	•	•	•																•	•
	RNGN 190700	T04000	•	•	•																•	•
	RNGN 120400	S20022	•	•	•																•	•
	RNGN 120700	S20022	•	•	•																•	•
	RNGN 190700	S20022	•	•	•																•	•
	RNGN 120400	S06032	•	•	•																•	•
	RNGN 120700	S06032	•	•	•																•	•
	RNGN 190700	S06032	•	•	•																•	•
	RNGN250700	S06032																			•	•
	RNGN 120400	AS20022	•	•	•																•	•
	RNGN 120700	AS20022	•	•	•																•	•
	RNGN 190700	AS20022	•	•	•																•	•
	RNGN250700	AS20022																			•	•
	RNGN 120400	AS06032	•	•	•																•	•
	RNGN 120700	AS06032	•	•	•																•	•
	RNGN 190700	AS06032	•	•	•																•	•

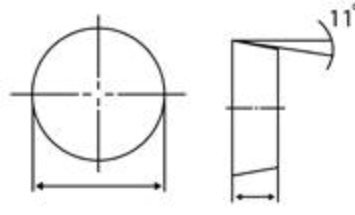
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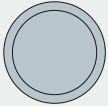
CERAMIC /TURNING

POSITIVE
with hole

RP 



RP	0903	1204
IC	9,52	12,70
T	3,18	4,76
Ød	-	-

DESCRIPTION		Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
 RPGN090300	T04000																					•
RPGN120400	T04000																					•

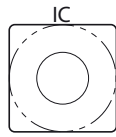
Vc • fn • ap



122

NEGATIVE
with hole

SN□□



SN□□	0904□□	1204□□	1207□□
IC	9,52	12,70	12,70
T	4,76	4,76	7,94
ød	3,81	5,16	5,16
Holder	162	162	

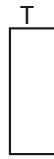
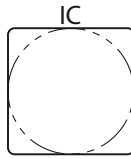
DESCRIPTION	Image	T04000	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
SNGA090304	T04000	•	•																			
SNGA090308	T04000	•	•																			
SNGA120404	T04000	•		•						•						•						
SNGA120408	T04000	•	•	•	•					•	•		•			•				•	•	
SNGA120412	T04000	•	•	•	•			•		•	•	•				•	•	•				
SNGA120416	T04000									•						•	•	•				
SNGA120708	T04000	•																				
SNGA120712	T04000	•								•	•											
SNGA120716	T04000	•						•		•	•								•			
SNGA120412	S20022	•	•	•	•			•		•	•	•				•	•	•				
SNGA120416	S20022									•						•	•	•				
SNGA120708	S20022	•																				
SNGA120712	S20022	•								•	•											
SNGA120716	S20022	•						•		•	•								•			

Vc • fn • ap ▶ 122

CERAMIC /TURNING

NEGATIVE
with hole

SN□□



SN□□	0904□□	1204□□	1207□□
IC	9,52	12,70	12,70
T	4,76	4,76	7,94
Ød	3,81	5,16	5,16
Holder	162	162	162

DESCRIPTION	Image	T04000	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
SNGN090304		T04000	•	•																		
SNGN090308		T04000	•	•																		
SNGN090312		T04000	•		•					•							•					
SNGN120408		T04000	•	•	•	•				•	•		•				•			•	•	
SNGN120412		T04000	•	•	•	•		•		•	•	•					•	•	•			
SNGN120416		T04000								•							•	•	•			
SNGN120708		T04000	•																			
SNGN120712		T04000	•							•	•											
SNGN120716		T04000	•					•		•	•									•		
SNGN120412		S20022	•	•	•	•		•		•	•	•					•	•	•			
SNGN120416		S20022								•							•	•	•			
SNGN120708		S20022	•																			
SNGN120712		S20022	•							•	•											
SNGN120716		S20022	•					•		•	•									•		
SNGX120708		T04000	•									•		•								
SNGX120712		T04000	•	•								•	•	•					•	•		
SNGX120716		T04000										•	•	•	•				•	•		
SNGX120708		T04002	•									•		•								
SNGX120712		T04002	•	•								•	•	•					•	•		
SNGX120716		T04002										•	•	•	•				•	•		

Vc • fn • ap 122

CERAMIC /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	168	168	168

DESCRIPTION	IC	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄						SiAlON		Whisker			
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
	TNGA160404	T04000	•	•	•			•									•					
	TNGA160408	T04000	•	•	•	•		•	•					•	•		•					
	TNGA160412	T04000	•	•	•	•		•						•	•						•	•
	TNGA160416	T04000	•	•	•	•								•	•							
	TNGA220408	T04000		•	•													•			•	•
	TNGA220412	T04000		•	•													•			•	•
	TNGA270608	T04000	•	•																		
	TNGA270612	T04000	•	•																		
	TNGA270616	T04000		•														•				
	TNGA160404	T04002	•	•				•									•					
	TNGA160408	T04002	•	•	•	•		•	•					•	•		•					
	TNGA160412	T04002	•	•	•	•		•						•	•					•	•	
	TNGA160416	T04002	•	•	•	•				•	•	•										
	TNGA220408	T04002		•	•													•			•	•
	TNGA220412	T04002		•	•													•			•	•
	TNGA270608	T04002	•	•																		
	TNGA270612	T04002	•	•																		
	TNGA270616	T04002		•														•				

Vc • fn • ap ▶ 122

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

CERAMIC /TURNING

NEGATIVE
with hole

TN□□



TN□□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
Ød	-	-	-
Holder	168	168	168

DESCRIPTION	Image	T02020	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
TNGN160708		T02020								•												
TNGN160712		T02020								•												
TNGN160404		T04000	•	•				•			•					•						
TNGN160408		T04000	•	•	•	•		•	•		•	•	•		•	•						
TNGN160412		T04000	•	•	•	•		•			•	•	•							•	•	
TNGN160416		T04000	•	•	•	•					•	•	•									
TNGN220408		T04000		•	•						•		•					•		•	•	
TNGN220412		T04000		•	•						•		•					•		•	•	
TNGN270608		T04000	•	•																		
TNGN270612		T04000	•	•																		
TNGN270616		T04000		•														•				
TNGN160404		T04002	•	•				•			•					•						
TNGN160408		T04002	•	•	•	•		•	•		•	•	•		•	•						
TNGN160412		T04002	•	•	•	•		•			•	•	•							•	•	
TNGN160416		T04002	•	•	•	•					•	•	•									
TNGN220408		T04002		•	•						•		•					•		•	•	
TNGN220412		T04002		•	•						•		•					•		•	•	
TNGN270608		T04002	•	•																		
TNGN270612		T04002	•	•																		
TNGN270616		T04002		•														•				

Vc • fn • ap 122

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

POSITIVE 11°
with hole

TP□□



TP□□	1103□□	1603□□
IC	6,35	9,525
T	3,18	3,18
ød	-	-
Holder	167	167

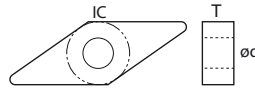
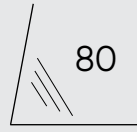
DESCRIPTION	IC	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
TPGN110304	T04000	•	•							•		•				•					
TPGN110308	T04000	•	•							•	•	•				•				•	•
TPGN160304	T04000	•	•	•				•		•		•				•					
TPGN160308	T04000	•	•					•		•	•	•	•			•				•	•
TPGN160312	T04000	•	•									•	•							•	•
TPGN160404	T04000	•		•																	
TPGN160408	T04000	•	•														•				
TPGN160412	T04000	•															•				
TPGN220404	T04000	•	•																		
TPGN220408	T04000	•	•							•										•	•
TPGN220412	T04000	•	•								•	•									
TPGN220416	T04000	•	•	•																	
TPGN110304	T04002	•	•							•		•				•					
TPGN110308	T04002	•	•							•	•	•				•				•	•
TPGN160304	T04002	•	•	•				•		•		•				•					
TPGN160308	T04002	•	•					•		•	•	•	•			•				•	•
TPGN160312	T04002	•	•									•	•							•	•
TPGN160404	T04002	•		•																	
TPGN160408	T04002	•	•														•				
TPGN160412	T04002	•															•				
TPGN220404	T04002	•	•																		
TPGN220408	T04002	•	•							•										•	•
TPGN220412	T04002	•	•								•	•									
TPGN220416	T04002	•	•	•																	

Vc • fn • ap ▶ 122

CERAMIC /TURNING

NEGATIVE
with hole

VN□□



VN□□	1604□□
IC	9,525
T	4,76
ød	3,81
Holder	177

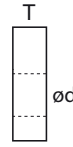
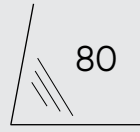
DESCRIPTION	Image	T	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker			
			KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120
VNGA160404		T04000	•	•	•						•											
VNGA160408		T04000	•	•	•	•		•		•	•	•	•					•				
VNGA160412		T04000	•	•	•	•				•	•	•	•									
VNGA160404		T04002	•	•	•						•											
VNGA160408		T04002	•	•	•	•		•		•	•	•	•					•				
VNGA160412		T04002	•	•	•	•				•	•	•	•									

Vc • fn • ap 122

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

NEGATIVE
with hole

WN□□



WN□□	0804□□
IC	12,7
T	4,76
ød	5,16
Holder	178

DESCRIPTION	IC	Al ₂ O ₃ + TiC(N)				+ PVD		ZrO ₂			Si ₃ N ₄					SiAlON		Whisker				
		KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KZ4120	KZ4130	KZ4180	KN4110	KN4120	KN4130	KN4140	KN4150	KN1000	KA4110	KL7110	KL7120	KW7110	KW7120	
WNGA080404	T04000	•	•	•																		
WNGA080408	T04000	•	•	•						•	•	•	•	•			•			•	•	
WNGA080412	T04000	•	•	•						•	•	•	•	•			•					
WNGA080404	T04002	•	•	•																		
WNGA080408	T04002	•	•	•						•	•	•	•	•			•			•	•	
WNGA080412	T04002	•	•	•						•	•	•	•	•			•					

Vc • fn • ap ▶ 122

CERAMIC /TURNING

CUTTING PARAMETERS

HH	HARDENED STEEL
HC	CASE HARDENED STEEL
HB	BEARING STEEL

KG	GREY CAST IRON
KN	NOCULAR CAST IRON
SA	SUPER ALLOYS (Ni Based)

MATERIAL	ap (mm)	fn (mm/rev)	CUTTING CONDITION	Al ₂ O ₃ + TiC(N)				+ PVD		SiAlON		Whisker			
				KS8110	KS8130	KS8150	KS8170	KSC8110	KSC8130	KL7110	KL7120	KW7110	KW7120		
H	HH	0,10-0,50	0,05-0,20	○	∅	130-250	120-240	110-230	100-220	100-220	120-240				
		0,50-2,00	0,10-0,30	○	∅	110-180	100-170	90-160	80-150	80-160	100-180				
	HC	0,10-0,50	0,05-0,20	○	∅	110-210	100-200	90-190	80-180	80-180	100-200				
		0,50-2,00	0,10-0,30	○	∅	90-150	80-140	70-130	60-120	60-120	80-140				
	HB	0,10-0,50	0,05-0,20	○	∅	110-230	100-220	90-210	80-200	80-200	100-220				
		0,50-2,00	0,10-0,30	○	∅	80-160	70-150	60-140	60-140	60-140	80-160				
K	KG	0,20-0,50	0,10-0,30	○	∅			300-700							
				⊕	∅										
		1,00-4,00	0,25-0,50	⊕	∅										
	KN	0,20-0,50	0,10-0,30	○	∅			300-600							
				⊕	∅						250-500				
		1,00-4,00	0,25-0,50	⊕	∅						350-700				
S	SA	0,50-1,00	0,10-0,30	○	∅						200-350		250-500		
				⊕	∅						180-300	150-280	200-350	200-350	
	1,00-4,00	0,15-0,40	⊕	∅						150-250		200-400			
				⊕	∅					140-240	120-220				

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

CUTTING PARAMETERS

HH	HARDENED STEEL
HC	CASE HARDENED STEEL
HB	BEARING STEEL

KG	GREY CAST IRON
KN	NOCULAR CAST IRON
SA	SUPER ALLOYS (Ni Based)

MATERIAL		ap (mm)	fn (mm/rev)	CUTTING CONDITION		ZrO ₂		Si ₃ N ₄					
						KZ4120	KZ4130	KN4110	KN4120	KN4130	KN4140	KN4150	KA4110
H	HH	0,10~0,50	0,05~0,20	○	∅								
		0,50~2,00	0,10~0,30	○	∅								
	HC	0,10~0,50	0,05~0,20	○	∅								
		0,50~2,00	0,10~0,30	○	∅								
	HB	0,10~0,50	0,05~0,20	○	∅								
		0,50~2,00	0,10~0,30	○	∅								
K	KG	0,20~0,50	0,10~0,30	○	∅	350~750	400~800	650~1200	600~1200	600~1200	500~1000		
				⊕	∅			550~1100	500~1000	500~1000	450~800		
		○	∅			650~1200	600~1200	600~1200	500~1000	450~800			
	KN	1,00~4,00	0,25~0,50	⊕	∅			550~1100	500~1000	500~1000	450~800	400~600	
				○	∅			450~800	400~800	400~800	350~700		450~800
		○	∅			350~650	300~600	300~600	250~500			400~600	
SA	0,50~1,00	0,10~0,30	○	∅			450~900	400~800	400~800	350~700			
			⊕	∅			300~600	300~600	300~600	250~500			
	○	∅											
S	SA	1,00~4,00	0,15~0,40	○	∅								
				⊕	∅								

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter 'e'. Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

Sangeo
cutting tools



TURNING/**HOLDERS**

HOLDERS /TURNING



P C L N R 25 25 M 12

1 2 3 4 5 6 7 8 9

1	CLAMPING SYSTEM	2	GEOMETRY	3	LEAD ANGLE	4	CLEARANCE ANGLE
C		C		A		B	
D		D		B		C	
M		K		D		P	
P		S		F		N	
S		T		G			
		V		J			
		W		K			
				L			
				N			

5	DIRECTION	6	SHANK	7	8	TOTAL LENGHT	9	EDGE LENGHT
L		(H)		(B)			C	06 09 12 16 19 25
N					H	100	D	07 11 15
R					K	125	K	16
					M	150	S	09 12 15 19 25
					P	170	T	09 11 16 22
					S	250	V	11 16 22
							W	06 08

HOLDERS /TURNING

INTERNAL



S 16 K - S C L C R - 06

1	2	3	4	5	6	7	8	9	
A	Steel + Coolant			E	70	D			
C	Carbide			F	80				M
S	Steel			H	100				
				K	125	P			
				M	150				
				Q	170	S			
				R	200				
				S	250				
				T	300				
				U	350				
				V	400				

5	9	6	LEAD ANGLE	7	CLEARANCE ANGLE	8	DIRECTION
C	 06 09 12 16 19 25	A	 90°	B	 5°	L	
D	 07 11 15	F	 90°	C	 7°		
K	 16	J	 93°	P	 11°	R	
S	 09 12 15 19 25	K	 75°	N	 0°		
T	 09 11 16 22	L	 95°				
V	 11 16 22	Q	 107.5°				
W	 06 08	U	 93°				
		Z	 93°				

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

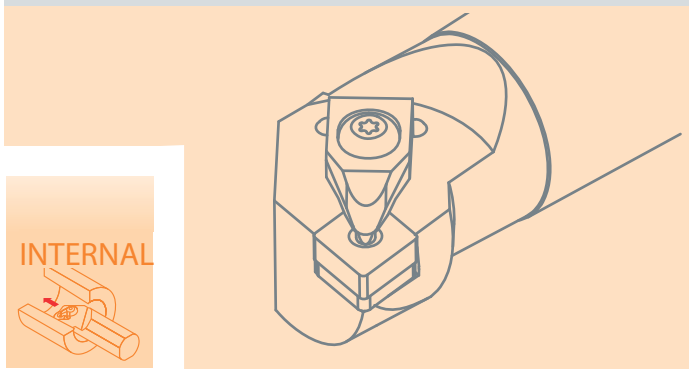
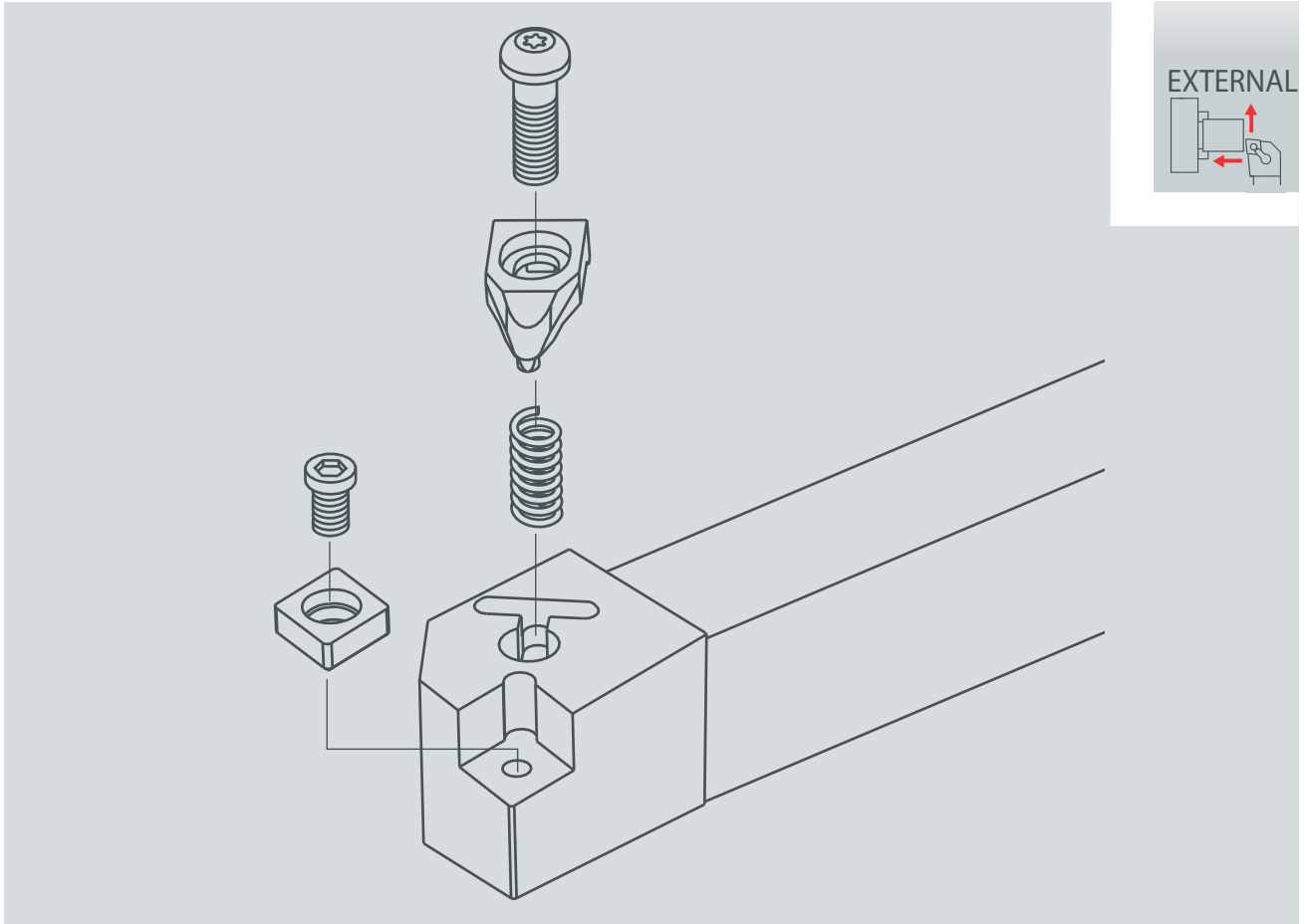
INDEX

HOLDERS /TURNING

CLAMPING SYSTEM (NEGATIVE)

Fast Clamping - Ideal for short chip materials

D



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

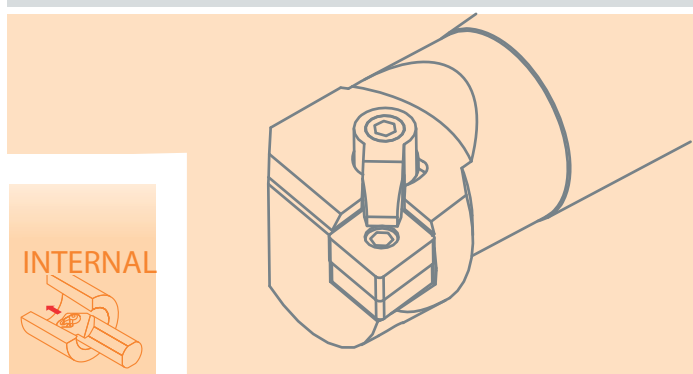
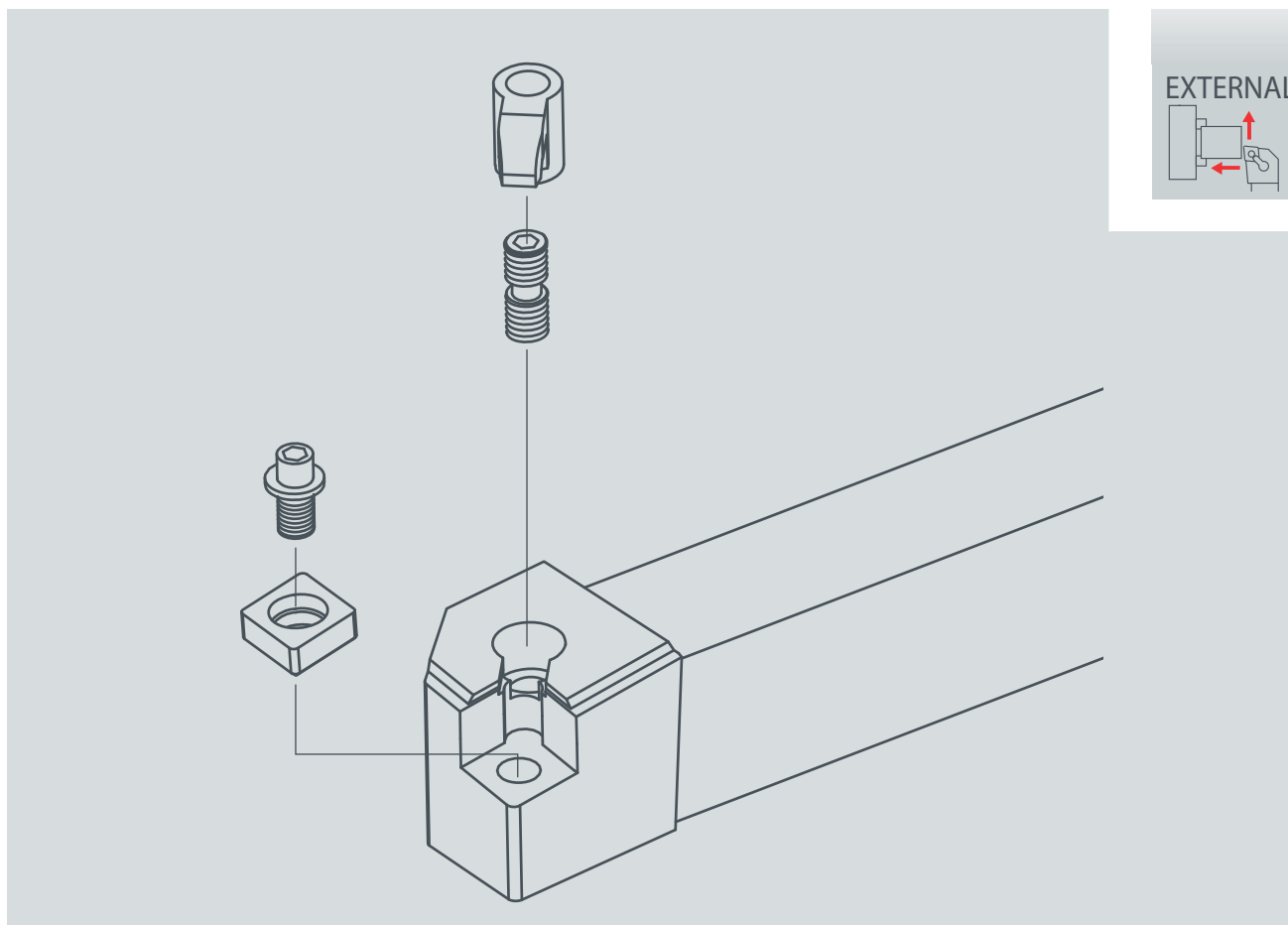
SPARE
PARTS

INDEX

M

CLAMPING SYSTEM (NEGATIVE)

High Clamping Strength - First choice for ceramic inserts



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

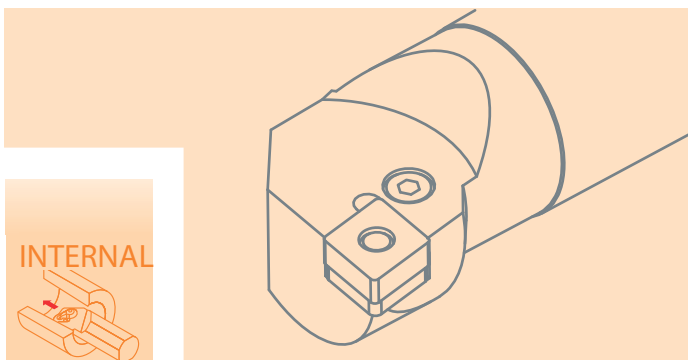
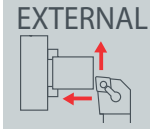
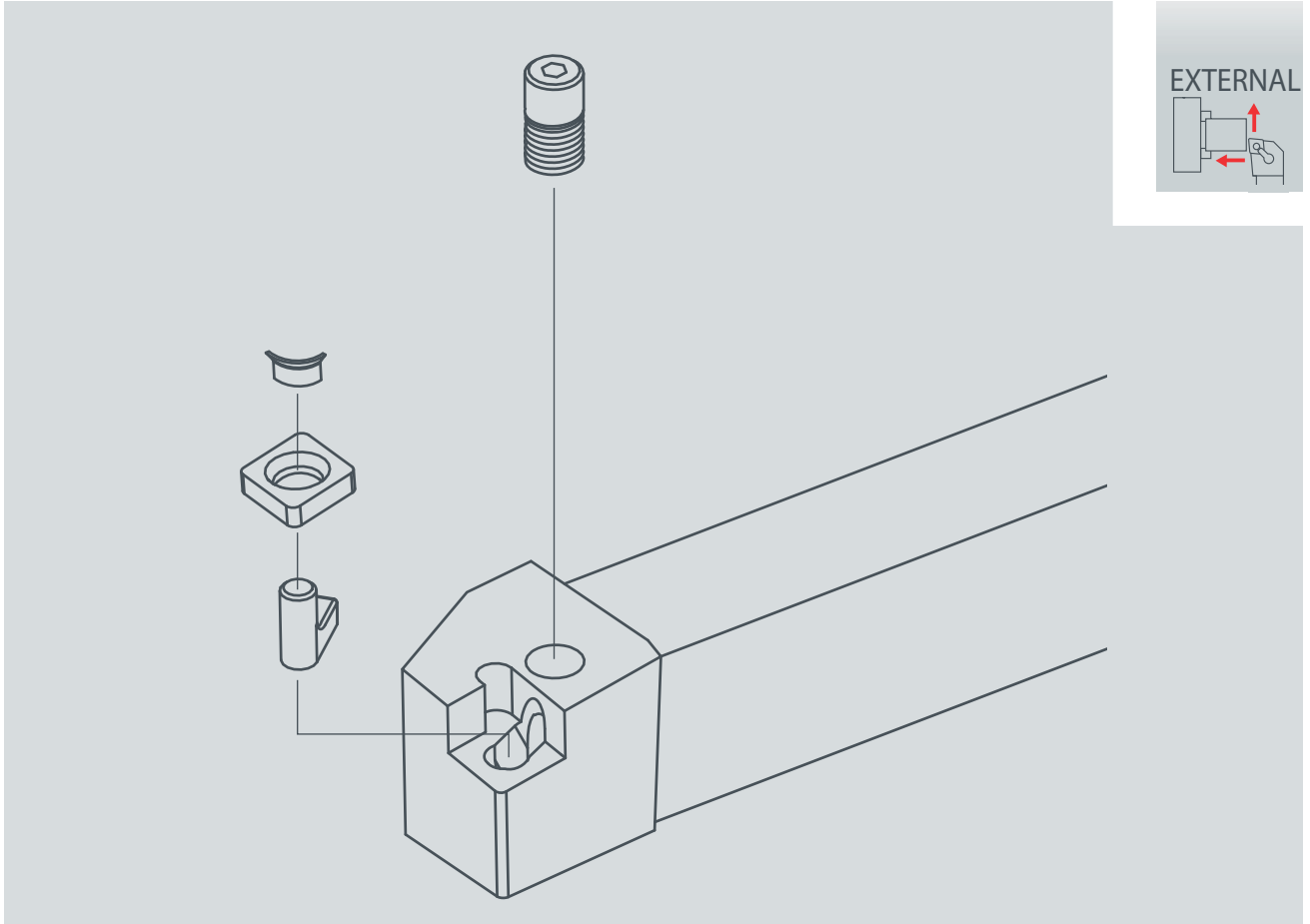
INDEX

HOLDERS /TURNING

CLAMPING SYSTEM (NEGATIVE)

Easy to use - Excellent chip ejection

P



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

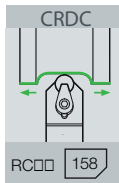
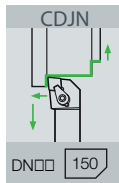
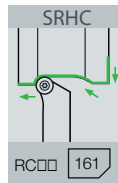
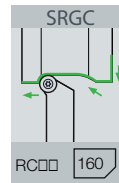
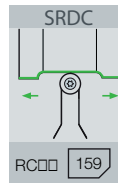
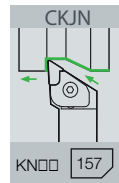
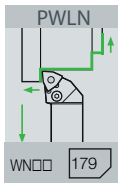
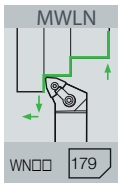
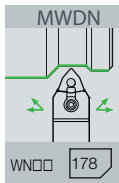
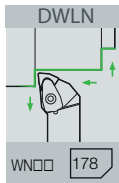
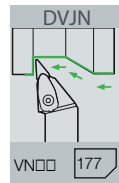
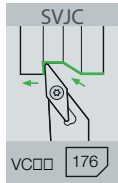
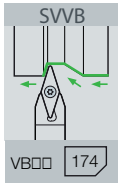
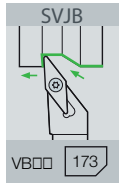
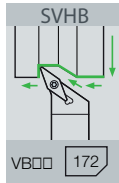
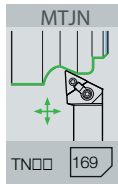
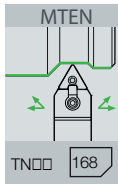
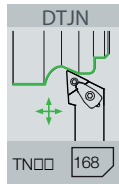
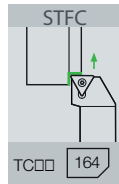
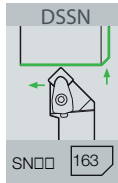
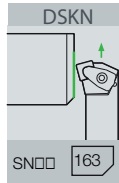
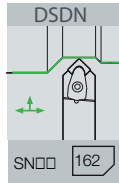
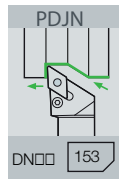
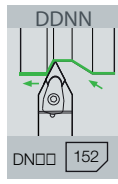
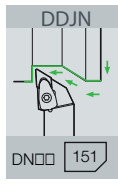
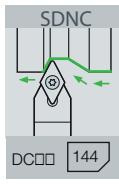
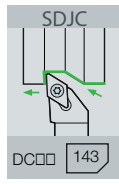
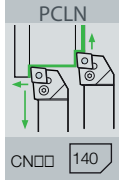
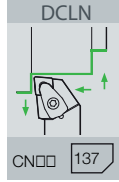
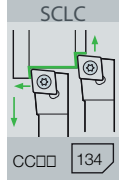
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 TC□□ 165

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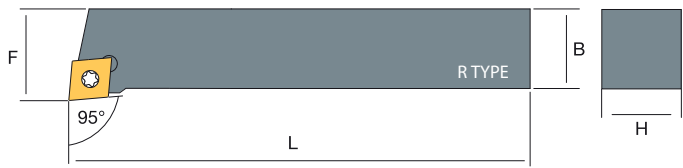
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HOLDERS /TURNING

SCLC



POSITIVE 7°
with hole

CC□□



CC□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F						
CC□□0602	SCLCR/L	0808	E06	•	•	8	8	70	10	ST-SC0257	ST-WRT08				
		1010	E06	•	•	10	10	70	12	ST-SC0257	ST-WRT08				
		1212	F06	•	•	12	12	80	16	ST-SC0257	ST-WRT08				
CC□□09T3	SCLCR/L	1212	F09	•	•	12	12	80	16	ST-SC3511	ST-WRT15				
		1616	H09	•	•	16	16	100	20	ST-SC3514	ST-WRT15	ST-SHCC09	ST-SC5011		
		2020	K09	•	•	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHCC09	ST-SC5011		
CC□□1204	SCLCR/L	2020	K12	•	•	20	20	125	25	ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011		
		2525	M12	•	•	25	25	150	32	ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011		

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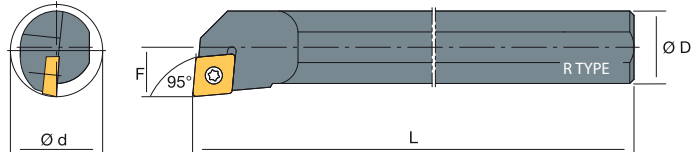
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HOLDERS /TURNING

S^SSCLC

POSITIVE 7°
with hole

CC□□



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CC□□	DESCRIPTION			STOCK		DIMENSIONS												
				R	L	ØD	Ød	L	F									
CC□□0602	S06H08	SCLCR/L	06	●	●	06	>08	100	4.5		ST-SC0257	ST-WRT08						
	S08H		06	●	●	08	>11	100	06		ST-SC0257	ST-WRT08						
	S10K		06	●	●	10	>13	125	07		ST-SC0257	ST-WRT08						
	S10K16X10		06	●	●	10	>13	125	07		ST-SC0257	ST-WRT08						
	S12K		06	●	●	12	>16	125	09		ST-SC0257	ST-WRT08						
	S12K16		06	●	●	16	>13	150	09		ST-SC0257	ST-WRT08						
	S12K16X12		06	●	●	12	>16	125	09		ST-SC0257	ST-WRT08						
	S12M		06	●		12	>16	150	09		ST-SC0257	ST-WRT08						
CC□□09T3	S12K	SCLCR/L	09	●	●	12	>16	125	09		ST-SC3511	ST-WRT15						
	S12M		09	●		12	>16	150	09		ST-SC3511	ST-WRT15						
	S16P		09	●	●	16	>21	170	11		ST-SC3511	ST-WRT15						
	S16Q		09	●		16	>20	170	11		ST-SC0407	ST-WRT15						
	S20R		09	●	●	20	>25	200	13		ST-SC3511	ST-WRT15						
	S25S		09	●	●	25	>32	250	17		ST-SC3511	ST-WRT15						
	S32T		09	●	●	32	>40	300	22		ST-SC3514	ST-WRT15	ST-SHCC09	ST-SC5011				
	S32T	SCLCR/L	12	●	●	32	>40	300	22		ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011				
S40T		12	●	●	40	>50	350	27		ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011					

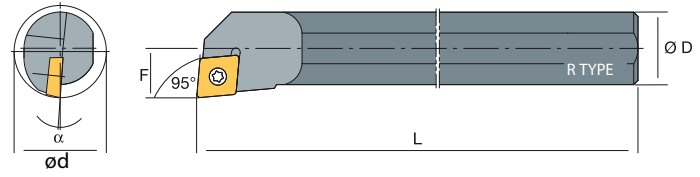
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HOLDERS /TURNING

°SCLC



POSITIVE 7°
with hole

CC□□



CC□□	DESCRIPTION		STOCK		DIMENSIONS												
			R	L	ØD	Ød	L	F									
CC□□0301	C04G	SCLCR/L	03	● ●	04	5	90	3.8	ST-SC01635	ST-WRT06							
	C05H		03	● ●	05	6	100	4.4	ST-SC01635	ST-WRT06							
CC□□0401	C06H	SCLCR/L	04	●	06	7	100	3,5	ST-SC0235	ST-WRT06							
	C07K		04	●	07	8	125	4	ST-SC0235	ST-WRT06							
CC□□0602	C08K	SCLCR/L	06	●	08	11	125	6	ST-SC02545	ST-WRT08							
	C10K		06	●	10	13	125	7	ST-SC02545	ST-WRT08							
	C12M		06	●	12	16	150	9	ST-SC02545	ST-WRT08							
CC□□09T3	C12Q		06	●	12	16	170	9	ST-SC02545	ST-WRT08							
	C12M	SCLCR/L	09	●	12	16	150	8	ST-SC0407	ST-WRT15							
	C16R		09	●	16	20	200	11	ST-SC0407	ST-WRT15							
	C20R		09	●	20	25	200	13	ST-SC0407	ST-WRT15							
	C25T		09	●	25	32	300	17	ST-SC0407	ST-WRT15							

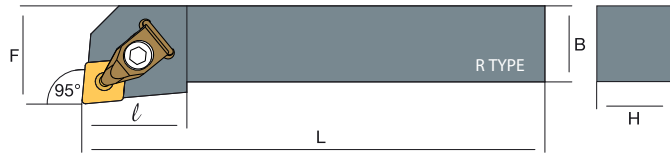
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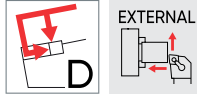
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DCLN



NEGATIVE
with hole

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CC□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F						
CN□□1204	DCLNR/L	2020	K12	•	•	20	20	125	25	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		2525	M12	•	•	25	25	150	32	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P12	•	•	32	32	170	40	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		4040	S12	•	•	40	40	250	50	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
CN□□1606	DCLNR/L	2525	M16	•	•	25	25	150	32	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
		3232	P16	•	•	32	32	170	40	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
		4040	S16	•	•	40	40	250	50	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
CN□□1906	DCLNR/L	3232	P19	•	•	32	32	170	40	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040
		4040	S19	•	•	40	40	250	50	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040
		4040	R19	•		40	40	200	50	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040

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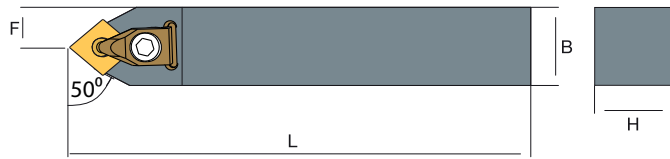
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Diamond ▶ 90

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DCMNN



NEGATIVE
with hole

CN□□



CC□□	DESCRIPTION				STOCK	DIMENSIONS									
						H	B	L	F						
CN□□1204	DCMNN	2020	K12	•	20	20	125	10	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
		2525	M12	•	25	25	150	12.5	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
		3232	P12	•	32	32	170	16	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	

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Diamond 90

Ceramic 108

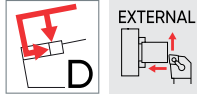
HOLDERS /TURNING

DCZNN



NEGATIVE
with hole

CN□□



CC□□	DESCRIPTION	STOCK	DIMENSIONS												
			H	B	L	F									
CN□□1204	DCZNN														
	2020	K12	•	20	20	125	10	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030		
	2525	M12	•	25	25	150	12.5	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030		
	3232	P12	•	32	32	170	16	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030		
CN□□1906	DCZNN	3232	P19	•	32	32	170	16	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040	
		4040	S19	•	40	40	250	20	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040	

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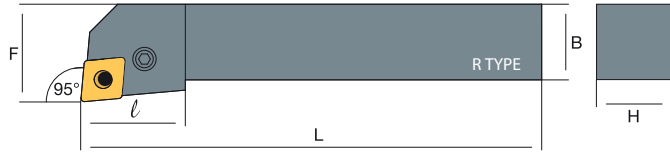
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NEGATIVE
with hole

CN□□



CC□□	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F					
CN□□1204	PCLNR/L	2020	K12	●	●	20	20	125	25	ST-SHCN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M12	●	●	25	25	150	32	ST-SHCN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P12	●	●	32	32	170	40	ST-SHCN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
CN□□1606	PCLNR/L	2525	M16	●	●	25	25	150	32	ST-SHCN16	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
		3232	P16	●	●	32	32	170	40	ST-SHCN16	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
CN□□1906	PCLNR/L	3232	P19	●	●	32	32	170	40	ST-SHCN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060
		4040	S19	●	●	40	40	250	50	ST-SHCN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060

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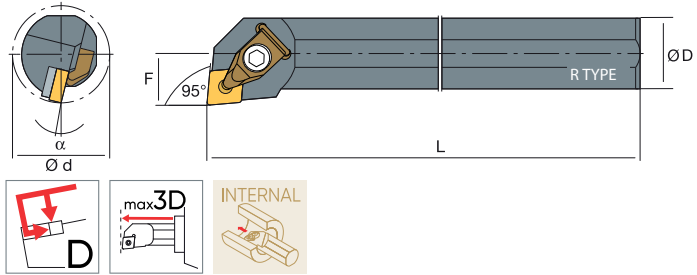
Ceramic ▶ 108

HOLDERS /TURNING

S^DDCLN

NEGATIVE
with hole

CN□□



CC□□	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
CN□□1204	S25S	DCLNR/L	12	● ●	25	32	250	17	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S32T		12	● ●	32	40	300	22	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		12	● ●	40	50	350	27	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		12	● ●	50	63	400	35	ST-SHCN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
CN□□1606	S32T	DCLNR/L	16	● ●	32	40	300	22	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0030
	S40U		16	● ●	40	50	350	27	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0030
	S50V		16	● ●	50	63	400	35	ST-SHCN16	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0030
CN□□1906	S50V	DCLNR/L	19	● ●	50	63	400	35	ST-SHCN19	ST-SC6611	ST-CS004	-	ST-SC830	ST-WR0040

Carbide 21

PCBN 70

Diamond 90

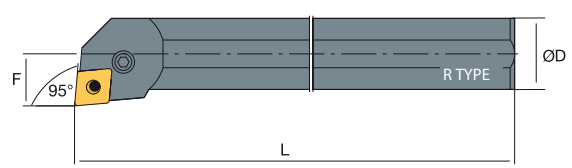
Ceramic 108

HOLDERS /TURNING

S PCLN

NEGATIVE
with hole

CN□□



CC□□	DESCRIPTION		STOCK		DIMENSIONS				ST-SHCN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
			R	L	ØD	Ød	L	F					
CN□□1204	S25S	PCLNR/L	12	● ●	25	32	250	17					
	S32T		12	● ●	32	40	300	22					
	S40U		12	● ●	40	50	350	27					
CN□□1606	S32T	PCLNR/L	16	● ●	32	40	300	22	ST-SHCN16	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
	S40U		16	● ●	40	50	350	27	ST-SHCN16	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
	S50V		16	● ●	50	63	400	35	ST-SHCN16	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
CN□□1906	S40U	PCLNR/L	19	● ●	40	50	350	27	ST-SHCN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060
	S50V		19	● ●	50	63	400	35	ST-SHCN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060

Carbide 21

PCBN 70

Diamond 90

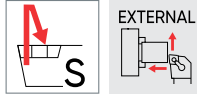
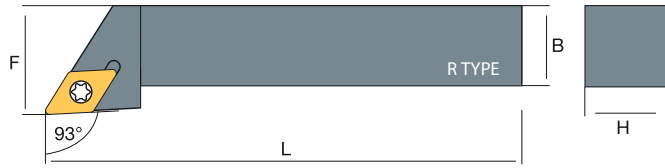
Ceramic 108

HOLDERS /TURNING

SDJC

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION			STOCK		DIMENSIONS					←		←				
				R	L	H	B	L	F	α	ST-SC0257	ST-WRT08	ST-SHDC11	ST-SC5011			
DC□□07	SDJCR/L	0808	E07	●	●	08	08	70	10			ST-SC0257	ST-WRT08	-	-		
		1010	E07	●	●	10	10	70	12			ST-SC0257	ST-WRT08	-	-		
		1212	F07	●	●	12	12	80	16			ST-SC0257	ST-WRT08	-	-		
		1616	H07	●	●	16	16	100	20			ST-SC0257	ST-WRT08	-	-		
DC□□11	SDJCR/L	1212	F11	●	●	12	12	80	16			ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		1616	H11	●	●	16	16	100	20			ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		2020	K11	●	●	20	20	125	25			ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		2525	M11	●	●	25	25	150	32			ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		3232	P11	●	●	32	32	170	40			ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		

Carbide ▶ 26

PCBN ▶ 71

Diamond ▶ 91

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

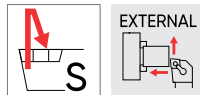
HOLDERS /TURNING

SDNCN



POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION			STOCK	DIMENSIONS				ST-SC0257 ←		← ST-SC5011			
					H	B	L	F	←	←				
DC□□07	SDNCN	0808	E07	●	8	8	70	4	ST-SC0257	ST-WRT08	-	-		
		1010	E07	●	10	10	70	5	ST-SC0257	ST-WRT08	-	-		
		1212	F07	●	12	12	80	6	ST-SC0257	ST-WRT08	-	-		
		1616	H07	●	16	16	100	8	ST-SC0257	ST-WRT08	-	-		
DC□□11	SDNCN	1212	F11	●	12	12	80	6	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		1616	H11	●	16	16	100	8	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		2020	K11	●	20	20	125	10	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		2525	M11	●	25	25	150	12.5	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
		3232	P11	●	32	32	170	16	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		

Carbide ▶ 26

PCBN ▶ 71

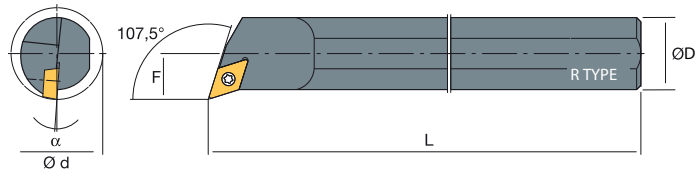
Diamond ▶ 91

HOLDERS /TURNING

S^SSDQC

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION		STOCK	DIMENSIONS				←		←			
				R	L	ØD	Ød	L	F	←	←		
DC□□0702	S10K	SDQCR/L	07	●	●	10	>13	125	07	ST-SC0257	ST-WRT08		
	S10K16x10		07	●	●	10	>14	125	07	ST-SC0257	ST-WRT08		
	S12K		07	●	●	12	>16	125	09	ST-SC0257	ST-WRT08		
	S12K16x12		07	●	●	12	>16	125	09	ST-SC0257	ST-WRT08		
	S16P		07	●	●	16	>21	170	11	ST-SC0257	ST-WRT08		
DC□□11T3	S16P	SDQCR/L	11	●	●	16	>21	170	11	ST-SC3511	ST-WRT15		
	S20R		11	●	●	20	>25	200	13	ST-SC3511	ST-WRT15		
	S25S		11	●	●	25	>32	250	17	ST-SC3511	ST-WRT15		
	S32T		11	●	●	32	>40	300	22	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011
	S40U		11	●	●	40	> 50	350	27	ST-SC3508	ST-WRT15		

Carbide 26

PCBN 71

Diamond 91

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

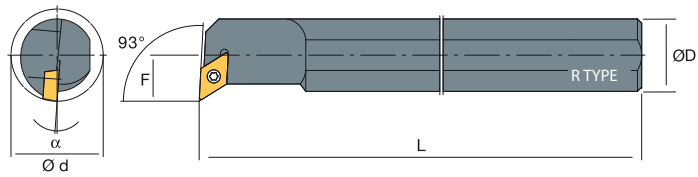
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

HOLDERS /TURNING

S^SSDUC



POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION		STOCK	DIMENSIONS									
				R	L	ØD	Ød	L	F				
DC□□0702	S10K	SDUCR/L	07	●	●	10	>13	125	07	ST-SC0257	ST-WRT08		
	S12K		07	●	●	12	>16	125	09	ST-SC0257	ST-WRT08		
	S16P		07	●	●	16	>21	170	11	ST-SC0257	ST-WRT08		
DC□□11T3	S16P	SDUCR/L	11	●	●	16	>21	170	11	ST-SC3511	ST-WRT15		
	S16Q		11	●		16	20	170	11	ST-SC3511	ST-WRT15		
	S20R		11	●	●	20	>25	200	13	ST-SC3511	ST-WRT15		
	S25S		11	●	●	25	>32	250	17	ST-SC3511	ST-WRT15		
	S32T		11	●	●	32	>40	300	22	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011
	S40U		11	●	●	40	50	350	27	ST-SC3524	ST-WRT15	ST-SHDC11	ST-SC5011

Carbide ▶ 26

PCBN ▶ 71

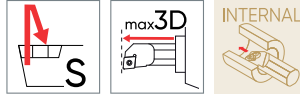
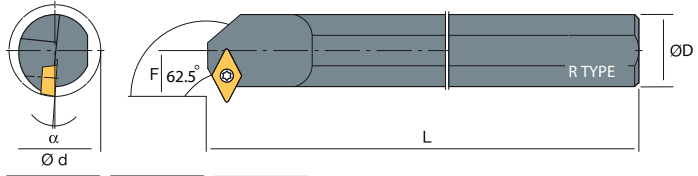
Diamond ▶ 91

HOLDERS /TURNING

S^SSD-C

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION			STOCK		DIMENSIONS				ST-SC		ST-WRT			
				R	L	ØD	Ød	L	F						
DC□□0702	S10K	SD-CR/L	07	●	●	10	>14	125	09	ST-SC0257	ST-WRT08	-	-		
	S12K		07	●	●	12	>16	125	09	ST-SC0257	ST-WRT08	-	-		
	S16Q		07	●	●	16	>17	180	14	ST-SC0257	ST-WRT08	-	-		
DC□□11T3	S16Q	SD-CR/L	11	●	●	16	>23	180	14	ST-SC3511	ST-WRT15	-	-		
	S20R		11	●	●	20	>25	200	13	ST-SC3511	ST-WRT15	-	-		
	S25S		11	●	●	25	>32	250	19	ST-SC3511	ST-WRT15	-	-		
	S32T		11	●	●	32	>40	300	23	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
	S40U		11	●	●	40	>50	350	27	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		

Carbide ▶ 26

PCBN ▶ 71

Diamond ▶ 91

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

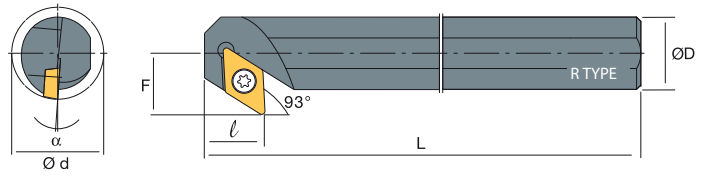
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

HOLDERS /TURNING

S^SSDXC



POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION		STOCK	DIMENSIONS											
				R	L	ØD	Ød	L	F						
DC□□0702	S12K	SDXCR/L	07	●	●	12	>17	125	09	ST-SC0257	ST-WRT08	-	-		
DC□□11T3	S16P	SDXCR/L	11	●	●	16	>21	170	11	ST-SC3511	ST-WRT15	-	-		
	S20R		11	●	●	20	>25	200	13	ST-SC3511	ST-WRT15	-	-		
	S25S		11	●	●	25	>32	250	17	ST-SC3511	ST-WRT15	-	-		
	S32T		11	●	●	32	>40	300	22	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		
	S40U		11	●	●	40	>50	350	27	ST-SC3514	ST-WRT15	ST-SHDC11	ST-SC5011		

Carbide ▶ 26

PCBN ▶ 71

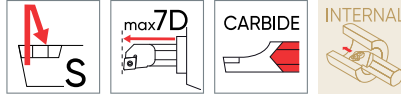
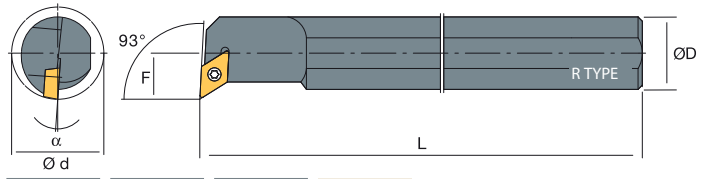
Diamond ▶ 91

HOLDERS /TURNING

SDUC

POSITIVE 7°
with hole

DC□□

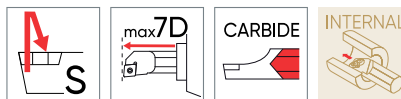
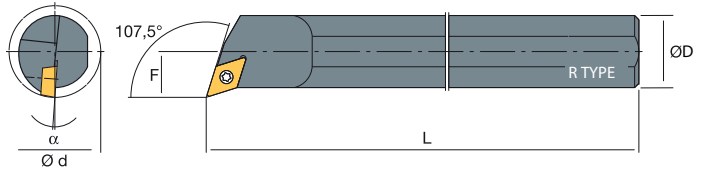


DC□□	DESCRIPTION		STOCK		DIMENSIONS				ST-SC02555		ST-WRT08			
			R	L	ØD	Ød	L	F						
DC□□0702	C10K	SDUCR/L	07	●	10	>13	125	7.5			-	-		
	C12M		07	●	12	>16	150	9			-	-		
DC□□11T3	C16R	SDUCR/L	11	●	16	>20	200	11			-	-		
	C20R		11	●	20	>25	200	13			-	-		
	C25T		11	●	25	>32	300	17			-	-		

SDQC

POSITIVE 7°
with hole

DC□□



DC□□	DESCRIPTION		STOCK		DIMENSIONS				ST-SC02555		ST-WRT08			
			R	L	ØD	Ød	L	F						
DC□□0702	C08K	SDQCR/L	07	●	8	>11	15	0.6			-	-		
	C10N		07	●	10	>14	160	0.9			-	-		
	C12Q		07	●	12	>18	180	1.1			-	-		
DC□□11T3	C16X	SDQCR/L	11	●	16	>20	220	1.5			-	-		
	C20S		11	●	20	>25	250	1.9			-	-		
	C25T		11	●	25	>32	300	2.4			-	-		

Carbide 26

PCBN 71

Diamond 91

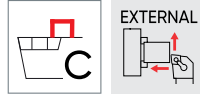
HOLDERS /TURNING

CDJN



NEGATIVE
with hole

DN□□



DN□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F						
DN□N1507	CDJNR/L	2525	M15	•	•	25	25	150	32	ST-SHDN15	ST-SCO410	ST-CS001	ST-SPR01	ST-SC630	ST-WR0030
		3232	P15	•	•	32	32	170	40	ST-SHDN15	ST-SCO410	ST-CS001	ST-SPR01	ST-SC630	ST-WR0030

Carbide 29

PCBN 72

Diamond 92

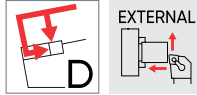
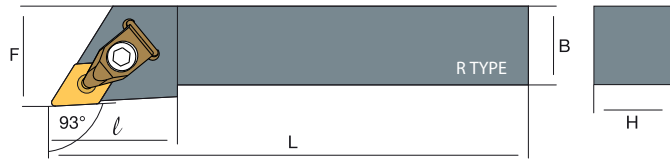
Ceramic 110

HOLDERS /TURNING

DDJN

NEGATIVE
with hole

DN□□



DN□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F						
DN□□1104	DDJNR/L	1616	H11	•	•	16	16	100	20	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
		2020	K11	•	•	20	20	125	25	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
		2525	M11	•	•	25	25	150	32	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
DN□□1506	DDJNR/L	2020	K15	•	•	20	20	125	25	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		2525	M15	•	•	25	25	150	32	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		3232	P15	•	•	32	32	170	40	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		4040	S15	•	•	40	40	250	50	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030

Carbide 29

PCBN 72

Diamond 92

Ceramic 110

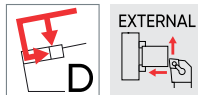
HOLDERS /TURNING

DDNNN



NEGATIVE
with hole

DN□□



CN□□	DESCRIPTION				STOCK	DIMENSIONS								
						H	B	L	F	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523
DN□□1104	DDNNN	1616	H11	•	16	16	100	20	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
		2020	K11	•	20	20	125	25	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
		2525	M11	•	25	25	150	32	ST-SHDN11	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
DN□□1506	DDNNN	2020	K15	•	20	20	125	25	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		2525	M15	•	25	25	150	32	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		3232	P15	•	32	32	170	40	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030
		4040	S15	•	40	40	250	50	ST-SHDN15	ST-SC0410	ST-CS002	ST-SPR04	ST-SC630	ST-WR0030

Carbide 29

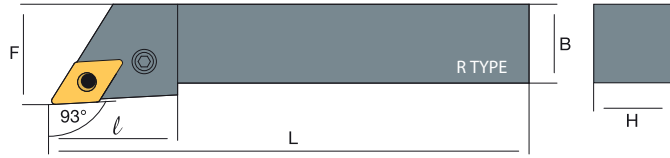
PCBN 72

Diamond 92

Ceramic 110

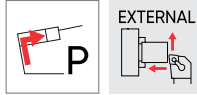
HOLDERS /TURNING

PDJN



NEGATIVE
with hole

DN□□



DN□□	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F					
DN□□1506	PDJNR/L	2020	K15	●	●	20	20	125	25	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M15	●	●	25	25	150	32	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P15	●	●	32	32	170	40	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		4040	S15	●	●	40	40	250	50	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

Carbide 29

PCBN 72

Diamond 92

Ceramic 110

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

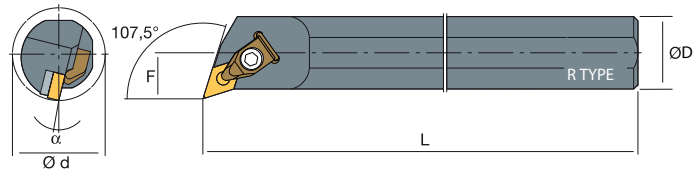
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

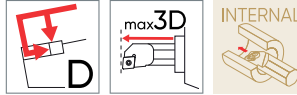
HOLDERS /TURNING

S^SDDQN



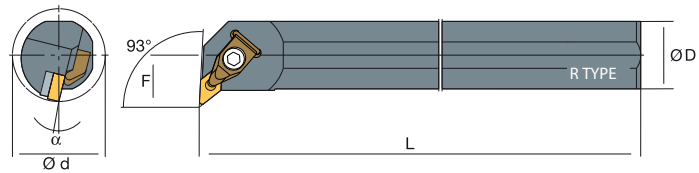
NEGATIVE
with hole

DN □ □



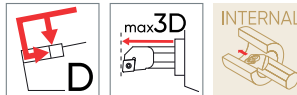
DN □ □	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
DN □ □1506	S25S	DDQNR/L	15	● ●	25	32	250	17	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S32T		15	● ●	32	40	300	22	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		15	● ●	40	50	350	27	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		15	● ●	50	63	400	35	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

S^SDDUN



NEGATIVE
with hole

DN □ □



DN □ □	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
DN □ □1104	S25S	DDUNR/L	11	● ●	25	32	250	17	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
	S32T		11	● ●	32	40	300	22	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
DN □ □1506	S25S	DDUNR/L	15	● ●	25	32	250	17	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S32T		15	● ●	32	40	300	22	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		15	● ●	40	50	350	27	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		15	● ●	50	63	400	35	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

Carbide 29

PCBN 72

Diamond 92

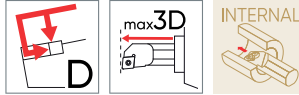
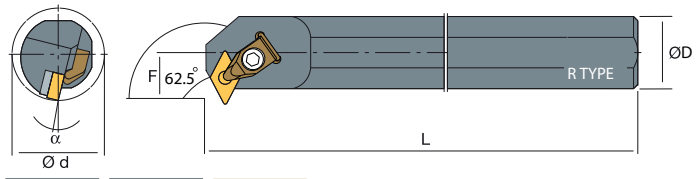
Ceramic 110

HOLDERS /TURNING

SDD-N

NEGATIVE
with hole

DN□□



DN□□	DESCRIPTION		STOCK		DIMENSIONS										
			R	L	ØD	Ød	L	F							
DN□□1506	S32T	DD-NR/L	15	●	●	32	44	300	26	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		15	●	●	40	52	350	29	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		15	●	●	50	67	400	35	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

Carbide ▶ 29

PCBN ▶ 72

Diamond ▶ 92

Ceramic ▶ 110

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

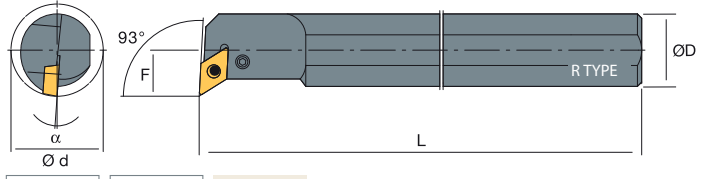
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

HOLDERS /TURNING

S PDUN



NEGATIVE
with hole

DN □ □



DN □ □	DESCRIPTION		STOCK		DIMENSIONS								
			R	L	ØD	Ød	L	F					
DN □ □ 1506	S32T	PDUNR/L	15	● ●	32	40	300	22	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S40U		15	● ●	40	50	350	27	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

- Carbide 29
- PCBN 72
- Diamond 92
- Ceramic 110

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

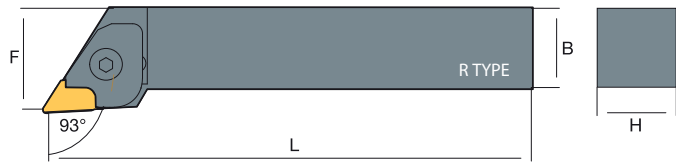
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

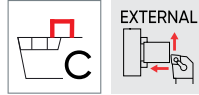
HOLDERS /TURNING

CKJN



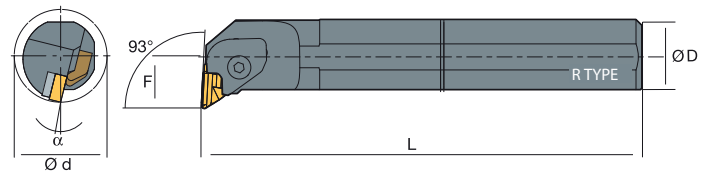
NEGATIVE
with hole

KN□□



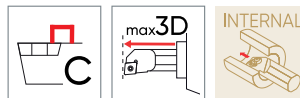
KN□□	DESCRIPTION		STOCK		DIMENSIONS										
			R	L	H	B	L	F							
KN□N1604	CKJNR/L	2020	K16	•	•	25	25	125		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		2525	M16	•	•	25	25	150		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		3232	P16	•	•	32	32	170		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		4040	S16	•	•	40	40	250		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050

SCKUN



NEGATIVE
with hole

KN□□



KN□□	DESCRIPTION		STOCK		DIMENSIONS										
			R	L	ØD	Ød	L	F							
KN□□1604	S25S	CKUNR/L	16	•	•	25	34	250	17	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S32T		16	•	•	32	40	300	22	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S40U		16	•	•	40	50	350	27	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S50V		16	•	•	50	63	400	35	ST-SHKN16	ST-SC0310	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

Carbide

32

HOLDERS /TURNING

CRDCN



POSITIVE
with hole

RC□□



RC□□	DESCRIPTION				STOCK	DIMENSIONS									
						H	B	L	F						
RCGX0606	CRDCN	2020	K06	•	20	20	125	10	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040	
		2525	M06	•	25	25	150	12.5	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040	
		3225	P06	•	32	25	170	12.5	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040	
		3232	P06	•	32	32	170	16	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040	
		4040	S06	•	40	40	250	20	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040	
RCGX0907	CRDCN	2020	K09	•	20	20	125	10	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040	
		2525	M09	•	25	25	150	12.5	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040	
		3225	P09	•	32	25	170	12.5	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040	
		3232	P09	•	32	32	170	16	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040	
		4040	S09	•	40	40	250	20	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040	
RCGX1207	CRDCN	2020	K12	•	20	20	125	10	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040	
		2525	M12	•	25	25	150	12.5	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040	
		3232	P12	•	32	32	170	16	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040	
		4040	S12	•	40	40	250	20	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040	
RCGX1510	CRDCN	2020	K15	•	20	20	125	10	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040	
		2525	M15	•	25	25	150	12.5	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040	
		3232	P15	•	32	32	170	16	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040	
		4040	S15	•	40	40	250	20	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040	
RCGX1910	CRDCN	2020	K19	•	20	20	125	10	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040	
		2525	M19	•	25	25	150	12.5	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040	
		3232	P19	•	32	32	170	16	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040	
		4040	S19	•	40	40	250	20	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040	
RCGX2512	CRDCN	2020	K25	•	20	20	125	10	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040	
		2525	M25	•	25	25	150	12.5	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040	
		3232	P25	•	32	32	170	16	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040	
		4040	S25	•	40	40	250	20	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040	

Carbide



33

SRDCN

POSITIVE 7°
with hole

RC□□



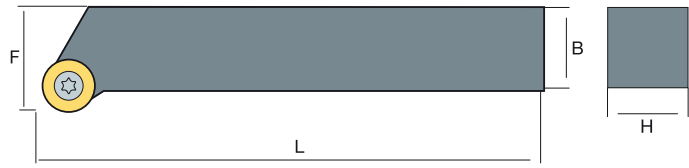
RC□□	DESCRIPTION			STOCK	DIMENSIONS									
					H	B	L	F						
RC□□0602	SRDCN	1616	H06	●	16	16	100	8	ST-SC2507	ST-WRT08	-	-		
RC□□0803	SRDCN	1616	H08	●	16	16	100	8	ST-SC3009	ST-WRT08	-	-		
		2020	K08	●	20	20	125	10	ST-SC3009	ST-WRT08	-	-		
		2525	M08	●	25	25	150	12.5	ST-SC3009	ST-WRT08	-	-		
RC□□1003	SRDCN	1616	H10	●	16	16	100	8	ST-SC3511	ST-WRT15	-	-		
		2020	K10	●	20	20	125	10	ST-SC3511	ST-WRT15	-	-		
		3232	P10	●	32	32	170	16	ST-SC3511	ST-WRT15	-	-		
RC□□1204	SRDCN	2020	K12	●	20	20	125	10	ST-SC3511	ST-WRT15	-	-		
		2525	M12	●	25	25	150	12.5	ST-SC3511	ST-WRT15	-	-		
		3232	P12	●	32	32	170	16	ST-SC3511	ST-WRT15	-	-		
RC□□1605	SRDCN	2525	M16	●	25	25	150	12.5	ST-SC0512	ST-WRT20	-	-		

Carbide

33

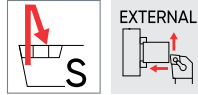
HOLDERS /TURNING

SRGC



POSITIVE 7°
with hole

RC□□



RC□□	DESCRIPTION			STOCK		DIMENSIONS				ST-SC3009		ST-SC3511			
				R	L	H	B	L	F	←	←				
RC□□0803	SRGCR/L	1616	H08	●	●	16	16	100	20	ST-SC3009	ST-WRT08	-	-		
		2020	K08	●	●	20	20	125	25	ST-SC3009	ST-WRT08	-	-		
		2525	M08	●	●	25	25	150	32	ST-SC3009	ST-WRT08	-	-		
RC□□1003	SRGCR/L	1616	H10	●	●	16	16	100	20	ST-SC3511	ST-WRT15	-	-		
		2020	K10	●	●	20	20	125	25	ST-SC3511	ST-WRT15	-	-		
		2525	M10	●	●	25	25	150	32	ST-SC3511	ST-WRT15	-	-		
		3232	P10	●	●	32	32	170	40	ST-SC3511	ST-WRT15	-	-		
RC□□1204	SRGCR/L	2020	K12	●	●	20	20	125	25	ST-SC3511	ST-WRT15	-	-		
		2525	M12	●	●	25	25	150	32	ST-SC3511	ST-WRT15	-	-		
		3232	P12	●	●	32	32	170	40	ST-SC3511	ST-WRT15	-	-		

Carbide

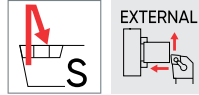
33

HOLDERS /TURNING

SRHC

POSITIVE 7°
with hole

RC□□



RC□□	DESCRIPTION			STOCK	DIMENSIONS									
					H	B	L	F						
RC□□10T3	SRHCR/L	2020	K10	●	20	20	120	20	ST-SC3511	ST-WRT15	-	-		
		2525	M10	●	25	25	125	25	ST-SC3511	ST-WRT15	-	-		
RC□□1204	SRHCR/L	2020	K12	●	20	20	120	20	ST-SC3514	ST-WRT15	-	-		
		2525	M12	●	25	25	125	25	ST-SC3514	ST-WRT15	-	-		

Carbide 33

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

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HOLDERS /TURNING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

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DSDNN



NEGATIVE
with hole

SN□□



SN□□	DESCRIPTION			STOCK	DIMENSIONS									
					H	B	L	F						
SN□□1204	DSDNN	2020	K12	•	20	20	125	10	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		2525	M12	•	25	25	150	12.5	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P12	•	32	32	170	16	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
SN□□1504	DSDNN	2525	M15	•	25	25	150	12.5	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
		3232	P15	•	32	32	170	16	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040

Carbide ▶ 35

PCBN ▶ 76

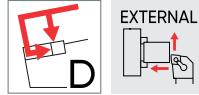
Ceramic ▶ 115

HOLDERS /TURNING

DSKN

NEGATIVE
with hole

SN□□

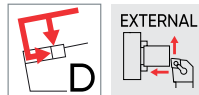


SN□□	DESCRIPTION				STOCK		DIMENSIONS									
					R	L	H	B	L	F						
SN□□1204	DSKNR/L	2020	K12	•	•	20	20	125	25	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
		2525	M12	•	•	25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
SN□□1504	DSKNR/L	3232	P15	•	•	32	32	170	40	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040	

DSSN

NEGATIVE
with hole

SN□□



SN□□	DESCRIPTION				STOCK		DIMENSIONS									
					R	L	H	B	L	F						
SN□□1204	DSSNR/L	2020	K12	•	•	20	20	125	25	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
		2525	M12	•	•	25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
		3232	P12	•	•	32	32	170	40	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030	
SN□□1504	DSSNR/L	3232	P15	•	•	32	32	170	40	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040	

Carbide ▶ 35

PCBN ▶ 76

Ceramic ▶ 115

HOLDERS /TURNING

STFC



POSITIVE 7°
with hole

TC□□



TC□□	DESCRIPTION	STOCK		DIMENSIONS					S	EXTERNAL	S	S	S	S
		R	L	H	B	L	F	α						
TC□□0902	STFCR/L 0808 E09	●		08	08	70	10		ST-SC0226	ST-WRT07	-	-		
TC□□102	STFCR/L 1212 F11	●	●	12	12	80	16		ST-SC0257	ST-WRT08	-	-		
	1616 H11	●	●	16	16	100	20		ST-SC0257	ST-WRT08	-	-		
TC□□16T3	STFCR/L 1616 H16	●	●	16	16	100	20		ST-SC3514	ST-WRT15	ST-SHTC16	ST-SC5011		
	2020 K16	●	●	20	20	125	25		ST-SC3514	ST-WRT15	ST-SHTC16	ST-SC5011		
	2525 M16	●	●	25	25	150	32		ST-SC3514	ST-WRT15	ST-SHTC16	ST-SC5011		

Carbide ▶ 40

PCBN ▶ 77

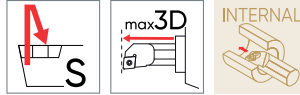
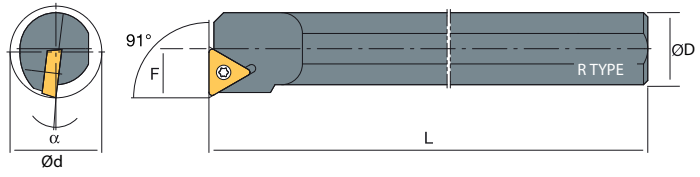
Diamond ▶ 93

HOLDERS /TURNING

S^SSTFC

POSITIVE 7°
with hole

TC□□



TC□□	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
TC□□16T3	S12M	STFCR/L	11	●	12	>15,5	150	09	ST-SC0257	ST-WRT08	-	-		
	S16P		16	● ●	16	>21	170	11	ST-SC3511	ST-WRT15	-	-		
	S20R		16	● ●	20	>25	200	13	ST-SC3511	ST-WRT15	-	-		
	S25S		16	●	25	>32	250	17	ST-SC3514	ST-WRT15	ST-SHTC16	ST-SC5011		
	S32T		16	● ●	32	>40	300	22	ST-SC3514	ST-WRT15	ST-SHTC16	ST-SC5011		

Carbide ▶ 40

PCBN ▶ 77

Diamond ▶ 93

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

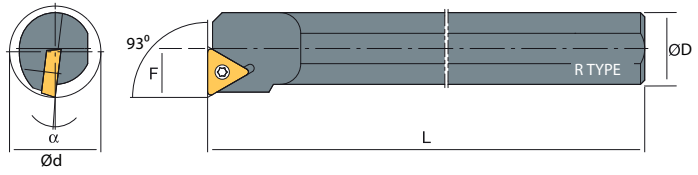
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

HOLDERS /TURNING

STUC



POSITIVE 7°
with hole

TC□□



TC□□	DESCRIPTION		STOCK		DIMENSIONS				←		←			
			R	L	ØD	Ød	L	F						
TC□□1102	S10K	STUCR/L	11	●	10	>13	125	07	ST-SC0257	ST-WRT08	-	-		
	S12K		11	●	12	>17	125	09	ST-SC0257	ST-WRT08	-	-		

Carbide ▶ 40

PCBN ▶ 77

Diamond ▶ 93

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

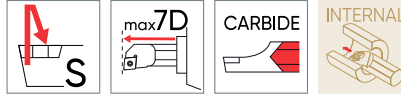
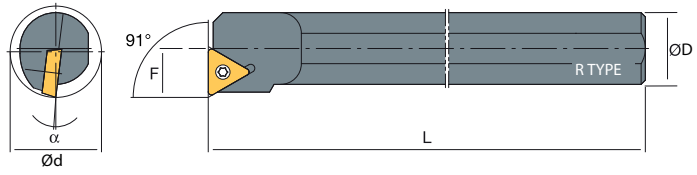
INDEX

HOLDERS /TURNING

CSTFC

POSITIVE 7°
with hole

TC□□

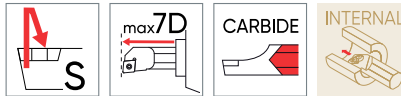
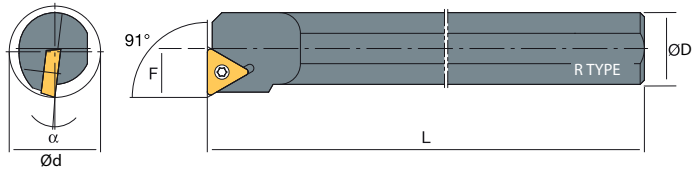


TC□□	DESCRIPTION		STOCK		DIMENSIONS				←		←			
			R	L	ØD	Ød	L	F	←	←				
TC□□1102	C25T	STFCR/L	11	●	25	>32	300	24	ST-SC02555	ST-WRT08	-	-		
	C10K		11	●	10	>12	125	06	ST-SC02555	ST-WRT08	-	-		
	C12M		11	●	12	>15,5	125	09	ST-SC02555	ST-WRT08	-	-		
	C16R		11	●	16	>20	200	11	ST-SC02555	ST-WRT08	-	-		
	C20R		11	●	20	>25	200	13	ST-SC02555	ST-WRT08	-	-		
	C25T		11	●	25	>32	300	17	ST-SC02555	ST-WRT08	-	-		

CSTFP

POSITIVE 11°
with hole

TP□□



TP□□	DESCRIPTION		STOCK		DIMENSIONS				←		←			
			R	L	ØD	Ød	L	F	←	←				
TP□□0804	C08K	STFPR/L	8	●	8	>10	125	5	ST-SC02245	ST-WRT06	-	-		
TP□□1103	C10K	STFPR/L	11	●	10	>12	125	6	ST-SC02555	ST-WRT08	-	-		
	C12M		11	●	12	>16	150	8	ST-SC0352	ST-WRT08	-	-		
	C16R		11	●	16	>20	200	11	ST-SC0352	ST-WRT08	-	-		
	C20R		11	●	20	>25	200	13	ST-SC0352	ST-WRT08	-	-		
	C25T		11	●	25	>32	300	24	ST-SC0352	ST-WRT08	-	-		

Carbide ▶ 46

PCBN ▶ 79

Diamond ▶ 95

Ceramic ▶ 119

HOLDERS /TURNING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

DTJN



NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION			STOCK		DIMENSIONS				←		← ← ←			
				R	L	H	B	L	F						
TN□□1604	DTJNR/L	2020	K16	•	•	20	20	125	25	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		2525	M16	•	•	25	25	150	32	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		3232	P16	•	•	32	32	170	40	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
TN□□2204	DTJNR/L	2525	M22	•	•	25	25	150	32	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P22	•	•	32	32	170	40	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		4040	S22	•	•	40	40	250	50	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

MTENN



NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION			STOCK		DIMENSIONS				←		←		
						H	B	L	F					
TN□□1604	MTENN	2020	K16	•		20	20	125	10	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030
		2525	M16	•		25	25	150	12.5	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030
		3232	P16	•		32	32	170	16	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030
TN□□2204	MTENN	2525	M22	•		25	25	150	12.5	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030
		3232	P22	•		32	32	170	16	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030
		4040	S22	•		40	40	250	20	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030

Carbide ▶ 42

PCBN ▶ 78

Diamond ▶ 94

Ceramic ▶ 117

MTJN

NEGATIVE
with hole

TN□□

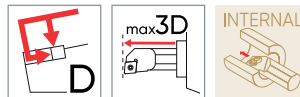
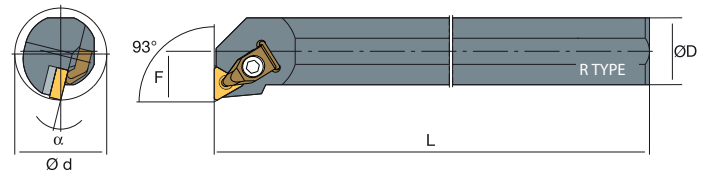


TN□□	DESCRIPTION		STOCK		DIMENSIONS				MILLING		EXTERNAL		INTERNAL	
			R	L	H	B	L	F	Icon 1	Icon 2	Icon 3	Icon 4		
TN□□1604	MTJNR/L	1616	K16	•	16	16	125	20	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		2020	K16	•	20	20	125	10	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		2525	M16	•	25	25	150	12.5	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P16	•	32	32	170	16	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
TN□□2204	MTJNR/L	2525	M22	•	25	25	150	12.5	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P22	•	32	32	170	16	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		4040	S22	•	40	40	250	20	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	

^SDTUN

NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION		STOCK		DIMENSIONS				MILLING		EXTERNAL				INTERNAL	
			R	L	ØD	Ød	L	F	Icon 1	Icon 2	Icon 3	Icon 4	Icon 5	Icon 6		
TN□□1604	S32T	DTUNR/L	16	•	32	40	300	22	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030		

Carbide ▶ 42

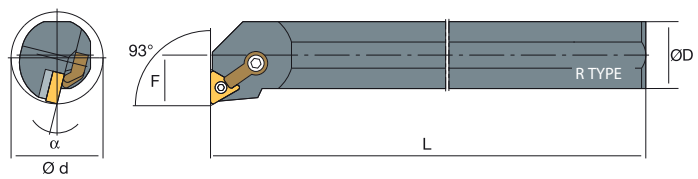
PCBN ▶ 78

Diamond ▶ 94

Ceramic ▶ 117

HOLDERS /TURNING

SMTUN



NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION		STOCK		DIMENSIONS								
			R	L	ØD	Ød	L	F					
TN□□1604	S20R	MTUNR/L	16	● ●	20	25	200	13	-	-	ST-LV002	ST-SC523	ST-WR0030
	S25S	MTUNR/L	16	● ●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S32T		16	● ●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S40U		16	● ●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
TN□□2204	S32T	MTUNR/L	22	● ●	32	40	300	22	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S40U		22	● ●	40	50	350	27	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S50V		22	● ●	50	63	400	35	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030

Carbide 42

PCBN 78

Diamond 94

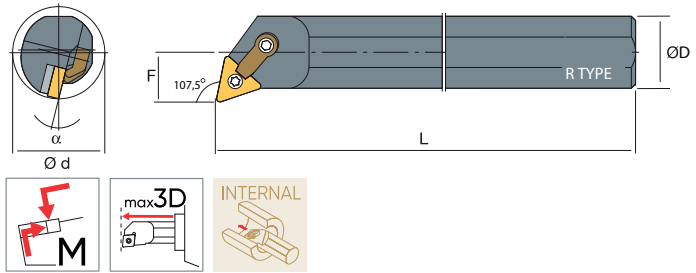
Ceramic 117

HOLDERS /TURNING

SMTQN

NEGATIVE
with hole

TN□□

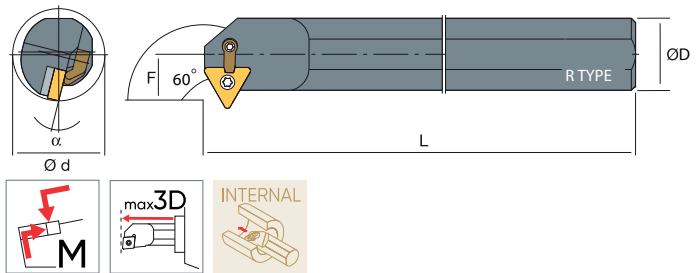


TN□□	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
TN□□1604	S20R	MTQNR/L	16	●	●	20	25	200	13	-	-	ST-LV002	ST-SC523	ST-WR0030
	S25S		16	●	●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S40U		16	●	●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
TN□□2204	S32T	MTQNR/L	22	●	●	32	40	300	22	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S40U		22	●	●	40	50	350	27	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030

SMT-N

NEGATIVE
with hole

TN□□



TN□□	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
TN□□1604	S25S	MT-NR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030
	S40U		16	●	●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030

Carbide ▶ 42

PCBN ▶ 78

Diamond ▶ 94

Ceramic ▶ 117

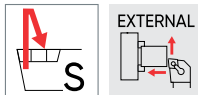
HOLDERS /TURNING

SVHB



POSITIVE 7°
with hole

VB□□



VB□□	DESCRIPTION			STOCK		DIMENSIONS				ST-SC0257		ST-WRT08		ST-WRT15		ST-WRT15	
				R	L	H	B	L	F	ST-SC0257	ST-WRT08	ST-WRT15	ST-WRT15	ST-WRT15	ST-WRT15	ST-WRT15	ST-WRT15
VB□□1103	SVHBR/L	1616	H11	●	●	16	16	100	20	ST-SC0257	ST-WRT08	-	-				
		2020	K11	●	●	20	20	125	20	ST-SC0257	ST-WRT08	-	-				
VB□□1604	SVHBR/L	2020	K16	●	●	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011				
		2525	M16	●	●	25	25	150	32	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011				
		3232	P16	●	●	32	32	170	40	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011				

Carbide ▶ 47

PCBN ▶ 80

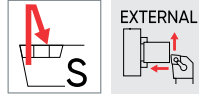
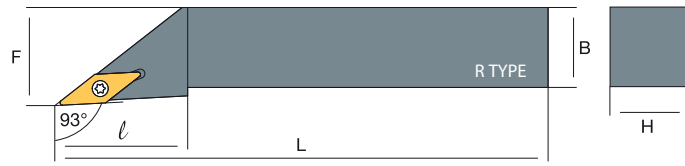
Diamond ▶ 96

HOLDERS /TURNING

SVJB

POSITIVE 5°
with hole

VB□□



VB□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F						
VB□□1103	SVJBR/L	1212	F11	●	●	12	12	80	16	ST-SC0257	ST-WRT08	-	-		
		1616	H11	●	●	16	16	100	20	ST-SC0257	ST-WRT08	-	-		
		2020	K11	●	●	20	20	125	25	ST-SC0257	ST-WRT08	-	-		
		2525	M11	●	●	25	25	150	32	ST-SC0257	ST-WRT15	-	-		
VB□□1604	SVJBR/L	1616	H16	●	●	16	16	100	20	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
		2020	K16	●	●	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
		2525	M16	●	●	25	25	150	32	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
		3232	P16	●	●	32	32	170	40	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011		

Carbide 47

PCBN 80

Diamond 96

HOLDERS /TURNING

SVVBN



POSITIVE 5°
with hole

VB□□



VB□□	DESCRIPTION			STOCK	DIMENSIONS				←		←			
					H	B	L	F	←	←	←	←		
VB□□1103	SVVBN	1616	H11	●	16	16	100	08	ST-SC0257	ST-WRT08	-	-		
		2020	K11	●	20	20	125	10	ST-SC0257	ST-WRT08	-	-		
		2525	M11	●	25	25	150	12.5	ST-SC0257	ST-WRT08	-	-		
VB□□1604	SVVBN	1616	H16	●	16	16	100	08	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011		
		2020	K16	●	20	20	125	10	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
		2525	M16	●	25	25	150	12.5	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
		3232	P16	●	32	32	170	16	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		

Carbide ▶ 47

PCBN ▶ 80

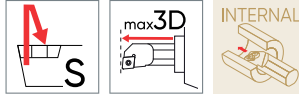
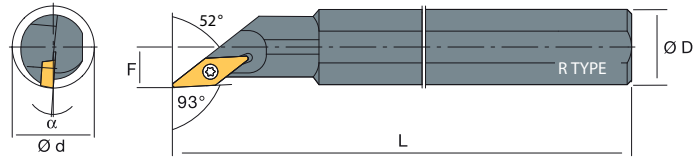
Diamond ▶ 96

HOLDERS /TURNING

^SSVJB

POSITIVE 5°
with hole

VB□□

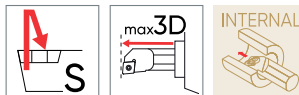
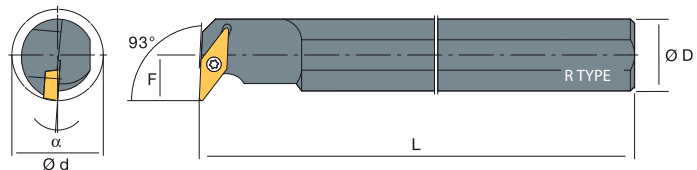


VB□□	DESCRIPTION		STOCK		DIMENSIONS				←		←			
			R	L	ØD	Ød	L	F	←	←				
VB□□1604	S25S	SVJBR/L	16	● ●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011		
	S32T		16	● ●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
	S40U		16	● ●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		

^SSVUB

POSITIVE 5°
with hole

VB□□



VB□□	DESCRIPTION		STOCK		DIMENSIONS				←		←			
			R	L	ØD	Ød	L	F	←	←				
VB□□1103	S16P	SVUBR/L	11	● ●	16	21	170	11	ST-SC0257	ST-WRT08	-	-		
	S20R		11	● ●	20	25	200	13	ST-SC0257	ST-WRT08	-	-		
VB□□1604	S25S	SVUBR/L	16	● ●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011		
	S32T		16	● ●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		
	S40U		16	● ●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011		

Carbide ▶ 47

PCBN ▶ 80

Diamond ▶ 96

HOLDERS /TURNING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

SVJC



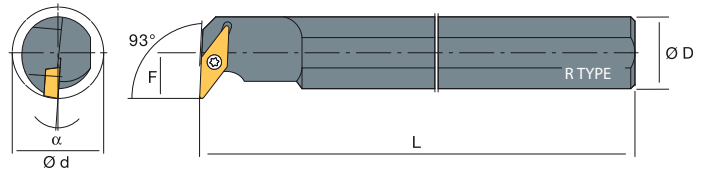
POSITIVE 7°
with hole

VC□□



VC□□	DESCRIPTION			STOCK		DIMENSIONS				S		S			
				R	L	H	B	L	F	←	←				
VC□□1103	SVJCR/L	1616	H11	●	●	16	16	100	20	ST-SC0257	ST-WRT08	-	-		
		2020	K11	●	●	20	20	125	25	ST-SC0257	ST-WRT08	-	-		
VC□□1604	SVJCR/L	2020	K16	●	●	25	25	150	32	ST-SC0257	ST-WRT15	-	-		
		2525	M16	●	●	16	16	100	20	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		
		3232	P16	●	●	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		

^SSVUC



POSITIVE 7°
with hole

VC□□



VC□□	DESCRIPTION			STOCK		DIMENSIONS				S		S				
				R	L	ØD	Ød	L	F	←	←					
VC□□1103	S16P	SVUCR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-			
		S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-		
VC□□1604		S25S	SVUCR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVC	ST-SC5011		
		S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		
		S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		

Carbide ▶ 49

PCBN ▶ 81

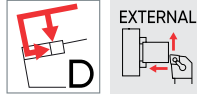
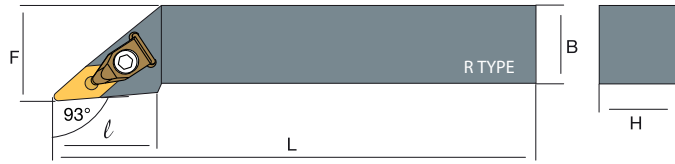
Diamond ▶ 97

HOLDERS /TURNING

DVJN

NEGATIVE
with hole

VN□□

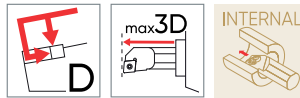
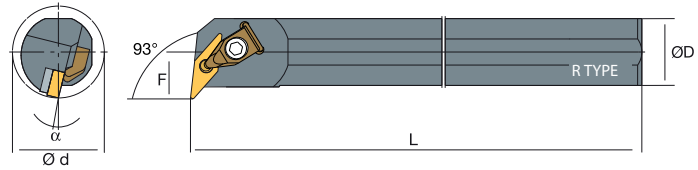


VN□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	H	B	L	F	holder	screw	tool	spring	holder	tool
VN□□1604	DVJNR/L	2020	K16	●	●	20	20	125	25	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		2525	M16	●	●	25	25	150	32	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		3232	P16	●	●	32	32	170	40	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

^SDVUN

NEGATIVE
with hole

VN□□



VN□□	DESCRIPTION			STOCK		DIMENSIONS									
				R	L	ØD	Ød	L	F	holder	screw	tool	spring	holder	tool
VN□□1604	S40U	DVUNR/L	16	●	●	50	50	400	27	ST-SHTN22	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

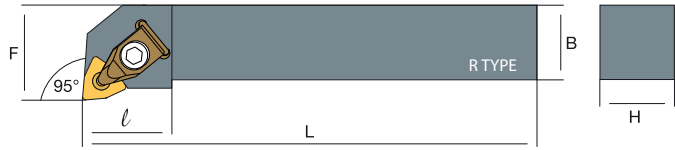
Carbide 51

PCBN 82

Ceramic 120

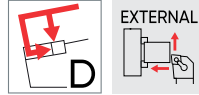
HOLDERS /TURNING

DWLN



NEGATIVE
with hole

WN□□



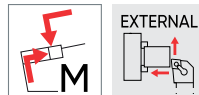
VN□□	DESCRIPTION	STOCK		DIMENSIONS											
		R	L	H	B	L	F								
WN□□0604	DWLN/L	1616	H06	●	●	16	16	100	20	-	-	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
		2020	K06	●	●	20	20	125	25	-	-	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
		2525	M06	●	●	25	25	150	32	-	-	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
WN□□0804	DWLN/L	2020	K08	●	●	20	20	125	25	-	-	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		4040	S08	●	●	40	40	250	50	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

MWDN



NEGATIVE
with hole

WN□□



WN□□	DESCRIPTION	STOCK		DIMENSIONS										
		H	B	L	F									
WN□□0604	MWDNN	1616	H06	●	16	16	100	08	-	-	ST-CS009	ST-SM525	ST-WR0030	
		2020	K06	●	20	20	125	10	-	-	ST-CS009	ST-SM525	ST-WR0030	
WN□□0804	MWDNN	2020	K08	●	20	20	125	10	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030	
		2525	M08	●	25	25	150	12.5	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030	
		3232	P08	●	32	32	170	16	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030	
		4040	S08	●	40	40	200	16	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030	

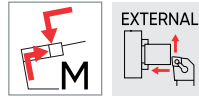
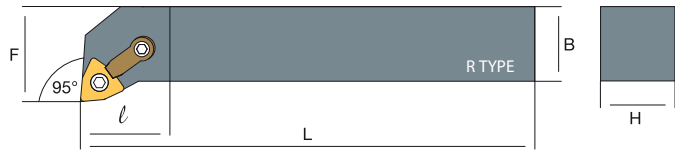
Carbide 53 PCBN 83 Diamond 98 Ceramic 121

HOLDERS /TURNING

MWLN

NEGATIVE
with hole

WN□□

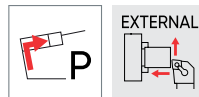


WN□□	DESCRIPTION			STOCK		DIMENSIONS				[Icon: Square]		[Icon: Round]		[Icon: L-shaped]	
				R	L	H	B	L	F	[Icon: Square]	[Icon: Round]	[Icon: L-shaped]	[Icon: L-shaped]	[Icon: L-shaped]	
WN□□0604	MWLN R/L	1616	H06	●	●	16	16	100	20	-	-	ST-CS009	ST-SC525	ST-WR0030	
		2020	K06	●	●	20	20	125	25	-	-	ST-CS009	ST-SC525	ST-WR0030	
		2525	M06	●	●	25	25	150	32	-	-	ST-CS009	ST-SC525	ST-WR0030	
WN□□0804	MWLN R/L	2020	K08	●	●	20	20	125	25	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030	
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030	
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030	
		4040	S08	●	●	40	40	200	40	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030	

PWLN

NEGATIVE
with hole

WN□□



WN□□	DESCRIPTION			STOCK		DIMENSIONS				[Icon: Square]	[Icon: Round]	[Icon: L-shaped]	[Icon: Round]	[Icon: L-shaped]
				R	L	H	B	L	F	[Icon: Square]	[Icon: Round]	[Icon: L-shaped]	[Icon: Round]	[Icon: L-shaped]
WN□□0804	PWLN R/L	2020	K08	●	●	20	20	125	25	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		4040	S08	●	●	40	40	250	50	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

Carbide ▶ 53

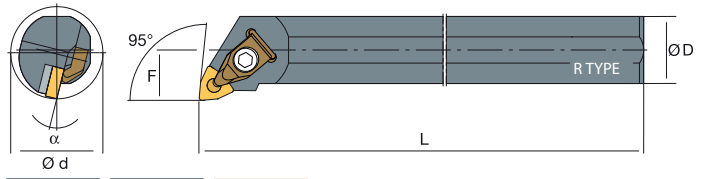
PCBN ▶ 83

Diamond ▶ 98

Ceramic ▶ 121

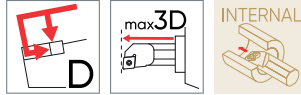
HOLDERS /TURNING

S DWLN



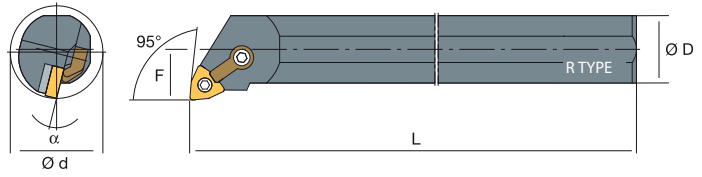
NEGATIVE
with hole

WN□□



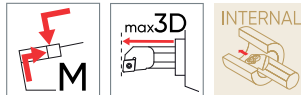
WN□□	DESCRIPTION		STOCK		DIMENSIONS				ST-SHWN08		ST-SC0410		ST-CS008		ST-SPR04		ST-SC630		ST-WR0030	
			R	L	ØD	Ød	L	F												
WN□□0804	S25S	DWLN R/L	08	●	●	25	32	250	17											
	S32T		08	●	●	32	40	300	22											
	S40U		08	●	●	40	37	350	27											
	S50V		08	●	●	50	47	400	35											

S MWLN



NEGATIVE
with hole

WN□□



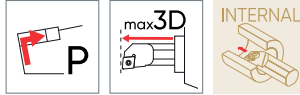
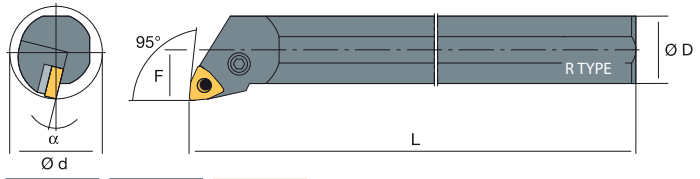
WN□□	DESCRIPTION		STOCK		DIMENSIONS				ST-SHWN08		ST-SCV0410		ST-CS008		ST-SM630		ST-WR0030	
			R	L	ØD	Ød	L	F										
WN□□0604	S16P	MWLN R/L	06	●	●	16	21	170	11									
	S20R		06	●	●	20	25	200	13									
WN□□0804	S25S	MWLN R/L	08	●	●	25	32	250	17									
	S32T		08	●	●	32	40	300	22									
	S40U		08	●	●	40	50	350	27									
	S50V		08	●	●	50	63	400	35									

Carbide 53 PCBN 83 Diamond 98 Ceramic 121

SPWLN

NEGATIVE
with hole

WN□□



WN□□	DESCRIPTION		STOCK		DIMENSIONS									
			R	L	ØD	Ød	L	F						
WN□□0804	S25S	PWLN/R/L	08	●	●	25	32	250	17	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030
	S32T		08	●	●	32	40	300	22	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030
	S40U		08	●	●	40	50	350	27	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030

Carbide 53

PCBN 83

Diamond 98

Ceramic 121

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

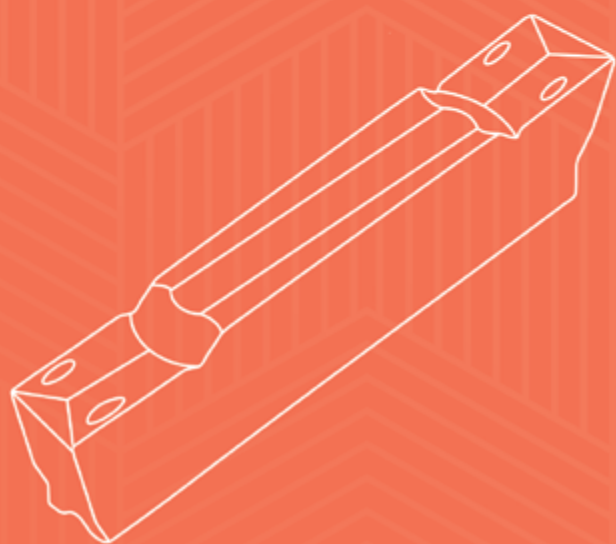
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the text "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



GROOVING /

carbide /185

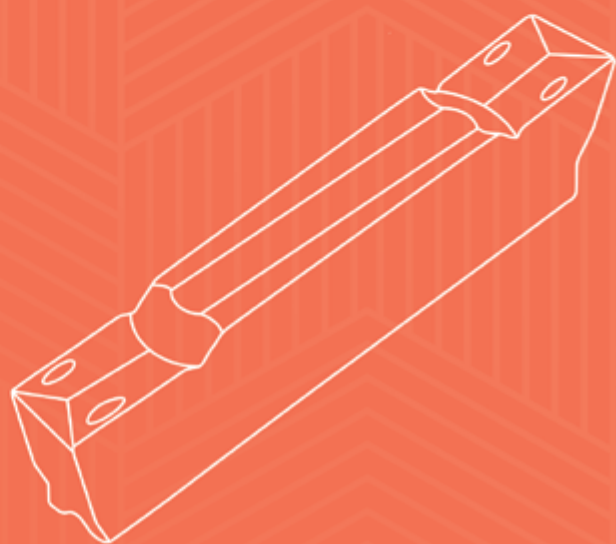
PCBN /207

diamond /211

holders /215

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter "e". Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.



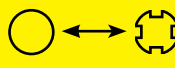



Sangeo
cutting tools



GROOVING/**CARBIDE**

CARBIDE /GROOVING

GRADES

ISO DIN 513	K					P					M					N					S					H		
																												
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40	S01	S10	S20	S30	S40	H01	H10	H20
CARBIDE PVD	PS9520					PS5520					PS9520																	
	PS9520P					PS9520					PS9520P																	
	PS9525S					PS9520P					PS9525S																	
	PS9525P					PS9525S					PS9525P																	
	PS9530					PS9525P					PS9530																	
						PS9530																						
											PS7510										PS7520S							
											PS7520S										PS7520P							
											PS7520P																	
CARBIDE UNCOATED																												
CERMET UNCOATED	SS9515					SS9515					SS9515																	
	SS9515C					SS9515C					SS9515C																	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

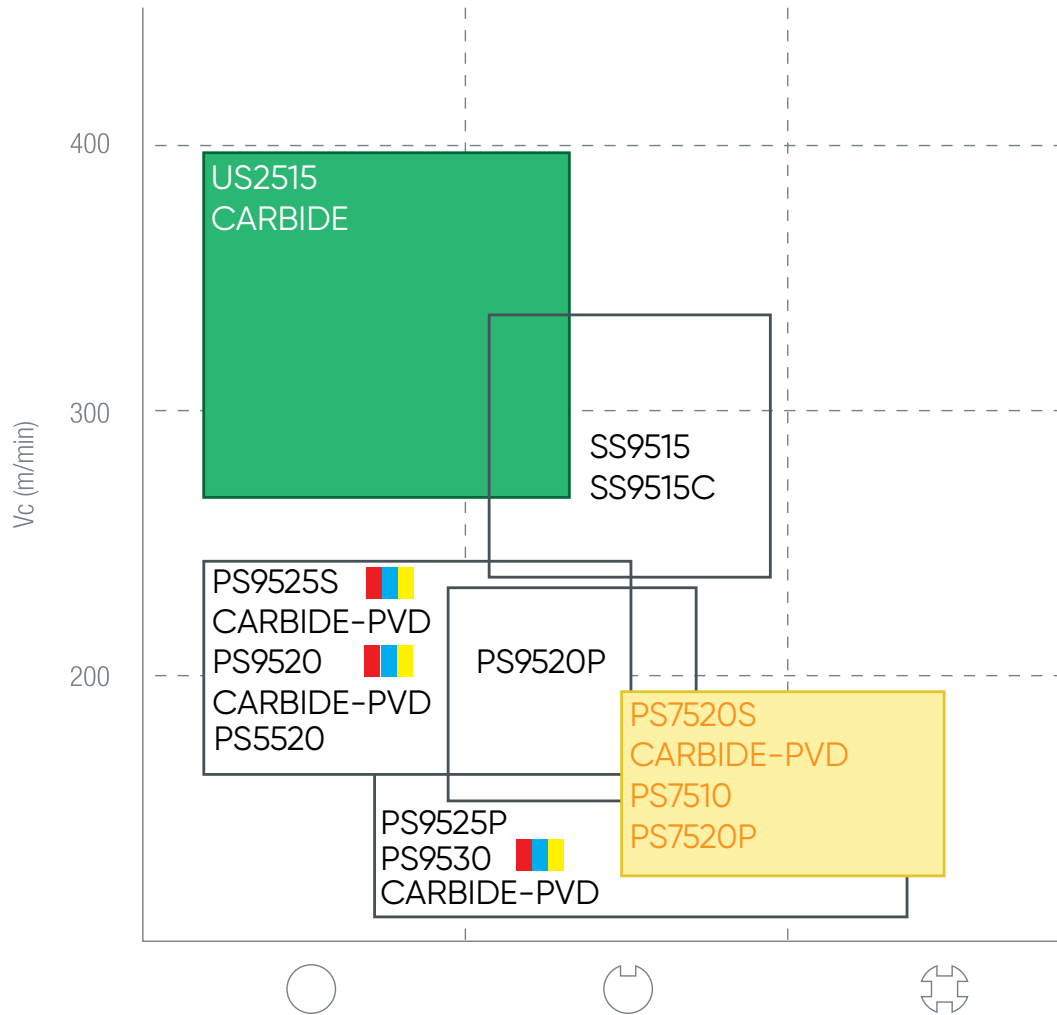
INDEX

CARBIDE /GROOVING

RANGE ISO



GRADES



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

CARBIDE /GROOVING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

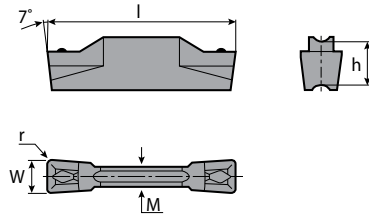
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

MAGC

PARTING & GROOVING



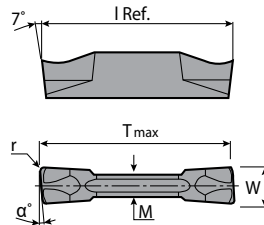
HOLDERS

222

DESCRIPTION	DIMENSIONS							CARBIDE											
	W	r	l	M	h	α	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	MAGC200	2.0	0.2	16.0	1.2	3.5	-	•		•		•				•			
	MAGC250	2.5	0.2	18.5	2.0	3.85	-	•		•		•				•			
	MAGC300	3.0	0.4	21.0	2.35	4.8	-	•		•		•				•			
	MAGC400	4.0	0.4	21.0	3.3	4.8	-	•		•	•	•				•			
	MAGC500	5.0	0.8	26.0	4.1	5.8	-	•		•	•	•				•			
	MAGC600	6.0	0.8	26.0	5.0	5.8	-	•		•	•	•				•			

MAGD

PARTING



HOLDERS

222

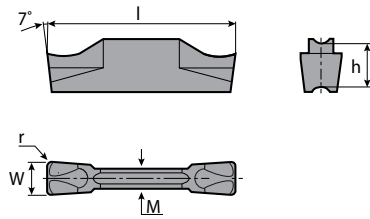
DESCRIPTION	DIMENSIONS							CARBIDE											
	W	r	l	M	h	α	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	MAGD200J-15D	2.0	0.2	16.0	1.2	3.5	15	•		•		•				•			
	MAGD300J-15D	3.0	0.4	21.0	2.35	4.8	15	•		•		•				•			

Vc • fn

205

MAGJ

PARTING & GROOVING

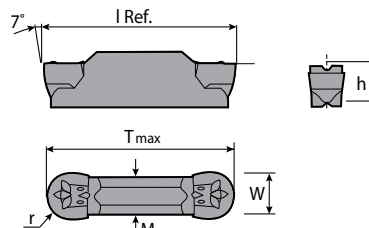


222

DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
MAGJ150	1.5	0.15	16.0	1.2	3.5	-	•	•	•				•					
MAGJ200	2.0	0.2	16.0	1.2	3.5	-	•	•	•				•					
MAGJ250	2.5	0.2	18.5	2.0	3.85	-	•	•	•				•					
MAGJ300	3.0	0.4	21.0	2.35	4.8	-	•	•	•				•					
MAGJ400	4.0	0.4	21.0	3.3	4.8	-	•	•	•				•					
MAGJ500	5.0	0.8	26.0	4.1	5.8	-	•	•	•				•					
MAGJ600	6.0	0.8	26.0	5.0	5.8	-	•	•	•				•					
MAGJ800	8.0	0.8	31	6	8	-				•								

MAGR

PROFILING



222

DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
MAGR200	2.0	1.0	16.0	1.5	3.5	-	•	•	•				•					
MAGR300	3.0	1.5	21.0	2.35	4.8	-	•	•	•				•					
MAGR400	4.0	2.0	21.0	3.3	4.8	-	•	•	•				•					
MAGR500	5.0	2.5	26.0	4.1	5.8	-	•	•	•				•					

Vc • fn 205

CARBIDE /GROOVING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

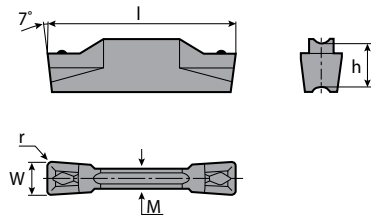
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

MAGN

PARTING & GROOVING



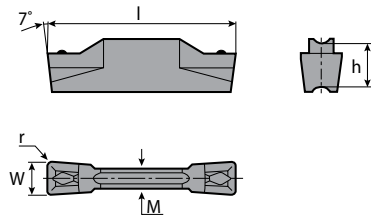
HOLDERS

222

DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
	MAGN200MA	2.0	0.2	16.0	1.2	3.5	-											•
	MAGN300MA	3.0	0.4	21.0	2.35	4.8	-											•
	MAGN200WA	2.0	0.2	16.0	1.2	3.5	-											•
	MAGN300WA	3.0	0.4	21.0	2.35	4.8	-											•
	MAGN400WA	4.0	0.4	21.0	3.3	4.8	-											•
	MAGN500WA	5.0	0.8	26.0	4.1	5.8	-											•
	MAGN600WA	6.0	0.8	26.0	5.0	5.8	-											•

MAGS

PARTING & GROOVING



HOLDERS

222

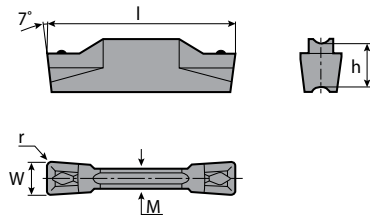
DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
	MAGS200	2.0	0.2	16.0	1.2	3.5	-	•	•									
	MAGS250	2.5	0.2	18.5	2.0	3.85	-	•	•									
	MAGS300	3.0	0.4	21.0	2.35	4.8	-	•	•									
	MAGS400	4.0	0.4	21.0	3.3	4.8	-	•	•									
	MAGS500	5.0	0.8	26.0	4.1	5.8	-	•	•									
	MAGS600	6.0	0.8	26.0	5.0	5.8	-	•	•									

Vc • fn

205

MGGN

PARTING & GROOVING



222

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

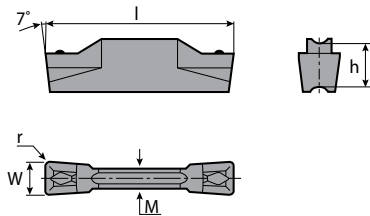
SPARE
PARTS

INDEX

DESCRIPTION	DIMENSIONS							CARBIDE											
	W	r	l	M	h	α	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	MGGN200	2.0	0.2	16.0	1.2	3.5	-								•	•			
	MGGN300-R0.2	3.0	0.4	21.0	2.35	4.8	-								•	•			
	MGGN400	4.0	0.4	21.0	3.3	4.8	-								•	•			

SAGC

PARTING & GROOVING



226

DESCRIPTION	DIMENSIONS							CARBIDE											
	W	r	l	M	h	α	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	SAGC200-02	2.0	0.2	20.0	1.70	4.70	-	•	•	•	•	•				•			
	SAGC300-02	3.0	0.2	20.0	2.40	4.70	-	•	•	•	•	•				•			
	SAGC400-03	4.0	0.3	20.0	3.0	4.70	-	•	•	•	•	•				•			
	SAGC500-03	5.0	0.3	25.0	4.0	5.20	-	•	•	•	•	•				•			

Vc • fn 205

CARBIDE /GROOVING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

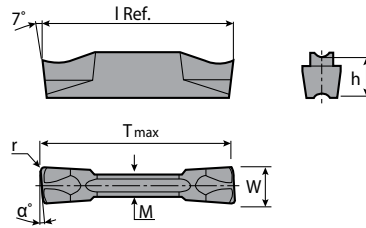
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

SAGD

PARTING



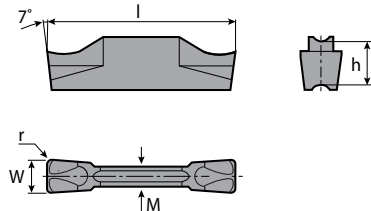
HOLDERS

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DESCRIPTION	DIMENSIONS							CARBIDE												
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
								W	r	l	M	h	α							
	SAGD200J-15D	2.0	0.2	20.0	1.70	4.70	15	●	●	●	●	●						●		
	SAGD200J-6D	20	0.2	20.0	1.70	4.70	6	●	●	●	●	●						●		
	SAGD300J-15D	30	0.2	20.0	2.40	4.70	15	●	●	●	●	●						●		
	SAGD300J-6D	30	0.2	20.0	2.40	4.70	15	●	●	●	●	●						●		
	SAGD400J-6D	40	0.3	20.0	3.0	4.70	6	●	●	●	●	●						●		
	SAGD400J-4D	40	0.3	20.0	3.0	4.70	4	●	●	●	●	●						●		
	SAGD500J-4D	50	0.3	25.0	4.0	5.20	4	●	●	●	●	●						●		

SAGJ

PARTING & GROOVING



HOLDERS

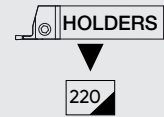
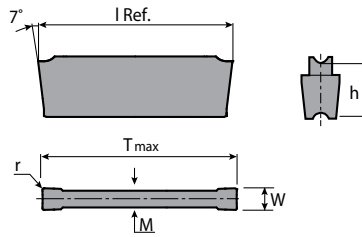
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DESCRIPTION	DIMENSIONS							CARBIDE												
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
								W	r	l	M	h	α							
	SAGJ200-02	2.0	0.2	20.0	1.70	4.70	-	●	●	●	●	●							●	
	SAGJ300-02	3.0	0.2	20.0	2.40	4.70	-	●	●	●	●	●							●	●
	SAGJ400-03	4.0	0.3	20.0	3.0	4.70	-	●	●	●	●	●							●	
	SAGJ500-03	5.0	0.3	25.0	4.0	5.20	-	●	●	●	●	●							●	

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SDGN

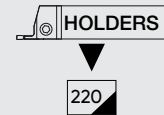
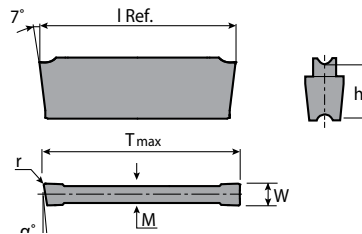
PARTING & GROOVING



DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
	SDGN2002Z	2.0	0.2	21.0	1.7	6.0	-	•	•	•	•	•			•			
	SDGN2202J	2.2	0.2	19.8	1.9	6.0	-	•	•	•	•	•			•			
	SDGN3002Z	3.0	0.2	21.0	2.4	6.1	-	•	•	•	•	•			•	•		
	SDGN3102C	3.1	0.2	20.1	2.4	6.1	-	•	•	•	•	•			•	•		

SDGR

PARTING



DESCRIPTION		DIMENSIONS						CARBIDE										
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P
W	r	l	M	h	α													
	SDGR2200JS-6D	2.2	0.2	19.8	1.9	6.0	6	•	•	•	•	•			•			
	SDGR2200JS-15D	2.2	0.2	19.8	1.9	6.0	15	•	•	•	•	•			•			

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CARBIDE /GROOVING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

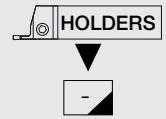
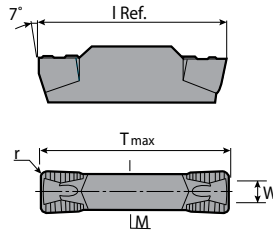
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DRILLS & TAPS

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PARTS

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SGRIP

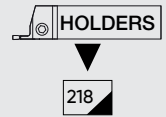
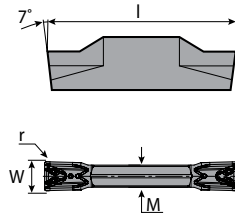
PARTING & GROOVING



DESCRIPTION	DIMENSIONS							CARBIDE											
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515
								W	r	l	M	h	α						
	SGRIP300-M	3.0	0.2	16.0	2.3	4.4	-	●	●	●	●	●			●				
	SGRIP400-M	4.0	0.4	19.0	2.8	4.9	-	●	●	●	●	●			●				
	SGRIP500-M	5.0	0.5	19.0	3.4	5.4	-	●	●	●	●	●			●				

SGDM

PARTING & GROOVING

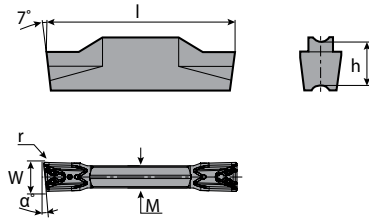


DESCRIPTION	DIMENSIONS							CARBIDE											
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515
								W	r	l	M	h	α						
	SGDM200	2.00	0.2	20	1.5	4.3	-	●		●		●			●				
	SGDM300	3.00	0.3	20	2.3	4.3	-	●		●		●			●				
	SGDM400	4.00	0.3	20	3.3	4.3	-	●	●	●	●	●			●				

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SGDD

PARTING



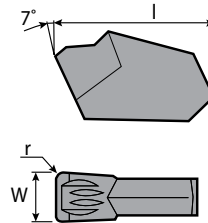
HOLDERS

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DESCRIPTION	DIMENSIONS	CARBIDE														
		PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515			
	W	r	l	M	h	α										
	SGDD200-15D	2.00	0.2	20	1.5	4.3	15	•	•	•			•			
	SGDD300-15D	3.00	0.3	20	2.3	4.3	15	•	•	•			•			

SSP

PARTING



HOLDERS

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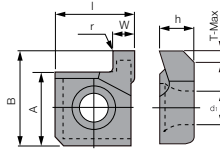
DESCRIPTION	DIMENSIONS	CARBIDE														
		PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515			
	W	r	l	M	h	α										
	SSP200	2.2	9.3	0.2	-	-	-	•	•	•			•			
	SSP300	3.1	3.2	3.3	-	-	-	•	•	•			•			
	SSP400	4.1	11.3	0.25	-	-	-	•	•	•			•			
	SSP500	5.1	11.4	0.3	-	-	-	•	•	•			•			
	SSP600	6.4	11.4	0.35	-	-	-	•	•	•			•			

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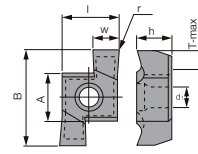
CARBIDE /GROOVING

GR

INTERNAL GROOVING



6GR 7GR



8GR 9GR

HOLDERS

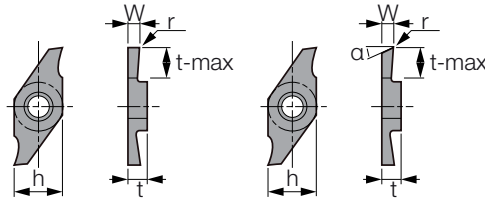
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DESCRIPTION	DIMENSIONS									CARBIDE											
	W	A	B	h	d1	l	r	Tmax	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	6GR-100	1.00	4.76	6.44	2.34	2.30	5.56	0.2	1.5	●											
	6GR-150	1.50	4.76	6.44	2.34	2.30	5.56	0.2	1.5	●											
	6GR-200	2.00	4.76	6.44	2.34	2.30	5.56	0.2	1.5	●											
	7GR-100	1.00	5.56	7.36	3.08	2.58	5.56	0.2	1.5	●											
	7GR-150	1.50	5.56	7.36	3.08	2.58	5.56	0.2	1.5	●											
	7GR-200	2.00	5.56	7.36	3.08	2.58	5.56	0.2	1.5	●											
	8GR-150	1.50	5.56	10.16	3.87	2.58	6.15	0.2	1.5	●											
	8GR-200	2.00	5.56	10.16	3.87	2.58	6.15	0.2	1.5	●											
	8GR-250	2.50	5.56	10.16	3.87	2.58	6.15	0.2	1.5	●											
	8GR-300	3.00	5.56	10.16	3.87	2.58	6.15	0.2	1.5	●											
	8GR-350	3.50	5.56	10.16	3.87	2.58	6.15	0.2	1.5	●											
	9GR-100	1.00	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●											
	9GR-150	1.50	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●											
	9GR-200	2.00	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●											
	9GR-250	2.50	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●											
	9GR-300	3.00	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●											
9GR-350	3.50	6.35	12.95	4.66	2.86	7.74	0.2	1.5	●												

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SKFC

FINE TOOL



HOLDERS

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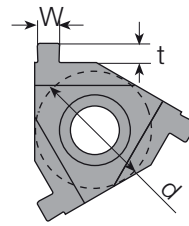
DESCRIPTION		DIMENSIONS						CARBIDE											
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515
W	r	h	t	t-max	α														
	SKFC12R-050-N	0.50	0.03	8.7	3.0	2.5	-	●											
	SKFC12R-070-N	0.70	0.03	8.7	3.0	4.0	-	●											
	SKFC12R-100-N	1.00	0.03	8.7	3.0	6.0	-	●											
	SKFC12R-125-N	1.25	0.03	8.7	3.0	6.0	-	●											
	SKFC12R-150-N	1.50	0.03	8.7	3.0	6.0	-	●											
	SKFC12L-050-N	0.50	0.03	8.7	3.0	2.5	-	●											
	SKFC12L-070-N	0.70	0.03	8.7	3.0	4.0	-	●											
	SKFC12L-100-N	1.00	0.03	8.7	3.0	6.0	-	●											
	SKFC12L-125-N	1.25	0.03	8.7	3.0	6.0	-	●											
	SKFC12L-150-N	1.50	0.03	8.7	3.0	6.0	-	●											
	SKFC16L-150-N	1.50	0.03	9.5	4.0	8.0	-	●											
	SKFC16L-200-N	2.00	0.03	9.5	4.0	8.0	-	●											
	SKFC16R-150-N	1.50	0.03	9.5	4.0	8.0	-	●											
	SKFC16R-200-N	2.00	0.03	9.5	4.0	8.0	-	●											
	SKFC12L-100-S-20D	1.00	-	8.7	3.0	6.0	20	●											
	SKFC12R-100-S-20D	1.00	-	8.7	3.0	6.0	20	●											
	SKFC16L-150-S-20D	1.50	-	9.5	4.0	8.0	20	●											
	SKFC16R-150-S-20D	1.50	-	9.5	4.0	8.0	20	●											
	SKFC16L-200-S-20D	2.00	-	9.5	4.0	8.0	20	●											
	SKFC16R-200-S-20D	2.00	-	9.5	4.0	8.0	20	●											

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CARBIDE /GROOVING

□ □ ER

EXTERNAL GROOVING



HOLDERS

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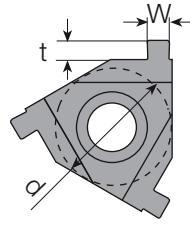
DESCRIPTION	DIMENSIONS				CARBIDE												
	d	l	W	T	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	11ER-W0.50-T0.70	6.35	11	0.50	0.70	●											
	11ER-W0.60-T0.70	6.35	11	0.60	0.70	●											
	11ER-W0.80-T0.70	6.35	11	0.80	0.70	●											
	11ER-W1.00-T0.70	6.35	11	1.00	0.70	●											
	11ER-W1.20-T1.50	6.35	11	1.20	1.50	●											
	11ER-W1.40-T1.50	6.35	11	1.40	1.50	●											
	11ER-W1.50-T1.50	6.35	11	1.50	1.50	●											
	11ER-W1.80-T1.80	6.35	11	1.80	1.80	●											
	16ER-W0.33-T1.30	9.525	16	0.33	1.30	●											
	16ER-W0.50-T1.30	9.525	16	0.50	1.30	●											
	16ER-W0.75-T1.30	9.525	16	0.75	1.30	●											
	16ER-W0.80-T1.30	9.525	16	0.80	1.30	●											
	16ER-W1.00-T1.30	9.525	16	1.00	1.30	●											
	16ER-W1.10-T1.30	9.525	16	1.10	1.30	●											
	16ER-W1.20-T1.60	9.525	16	1.20	1.60	●											
	16ER-W1.30-T1.60	9.525	16	1.30	1.60	●											
	16ER-W1.40-T1.60	9.525	16	1.40	1.60	●											
	16ER-W1.50-T1.60	9.525	16	1.50	1.60	●											
	16ER-W1.60-T1.60	9.525	16	1.60	1.60	●											
	16ER-W1.70-T1.85	9.525	16	1.70	1.85	●											
	16ER-W1.80-T1.85	9.525	16	1.80	1.85	●											
	16ER-W1.85-T1.85	9.525	16	1.85	1.85	●											
	16ER-W2.00-T1.85	9.525	16	2.00	1.85	●											
	16ER-W2.15-T2.00	9.525	16	2.15	2.00	●											
	16ER-W2.30-T2.00	9.525	16	2.30	2.00	●											
	16ER-W2.40-T2.20	9.525	16	2.40	2.20	●											
16ER-W2.65-T2.20	9.525	16	2.65	2.20	●												

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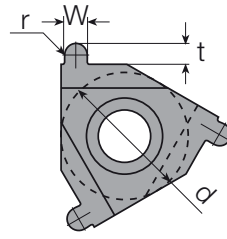
DESCRIPTION		DIMENSIONS				CARBIDE														
						PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515			
		d	l	W	T															
	11IR-W0.50-T0.70	6.35	11	0.50	0.70	●														
	11IR-W0.60-T0.70	6.35	11	0.60	0.70	●														
	11IR-W0.80-T0.70	6.35	11	0.80	0.70	●														
	11IR-W1.00-T0.70	6.35	11	1.00	0.70	●														
	11IR-W1.20-T1.50	6.35	11	1.20	1.50	●														
	11IR-W1.40-T1.50	6.35	11	1.40	1.50	●														
	11IR-W1.50-T1.50	6.35	11	1.50	1.50	●														
	11IR-W1.80-T1.80	6.35	11	1.80	1.80	●														
	11IR-W2.20-T1.20	6.35	11	2.20	1.20	●														
	11IR-W2.20-T1.80	6.35	11	2.20	1.80	●														
	16IR-W0.33-T1.20	9.525	16	0.33	1.20	●														
	16IR-W0.50-T1.20	9.525	16	0.50	1.20	●														
	16IR-W0.75-T1.20	9.525	16	0.75	1.20	●														
	16IR-W0.80-T1.20	9.525	16	0.80	1.20	●														
	16IR-W1.00-T1.30	9.525	16	1.00	1.30	●														
	16IR-W1.10-T1.30	9.525	16	1.10	1.30	●														
	16IR-W1.20-T1.60	9.525	16	1.20	1.60	●														
	16IR-W1.30-T1.60	9.525	16	1.30	1.60	●														
	16IR-W1.40-T1.60	9.525	16	1.40	1.60	●														
	16IR-W1.50-T1.60	9.525	16	1.50	1.60	●														
	16IR-W1.60-T1.60	9.525	16	1.60	1.60	●														
	16IR-W1.70-T1.85	9.525	16	1.70	1.85	●														
	16IR-W1.80-T1.85	9.525	16	1.80	1.85	●														
	16IR-W1.85-T1.85	9.525	16	1.85	1.85	●														
	16IR-W2.00-T1.85	9.525	16	2.00	1.85	●														
	16IR-W2.15-T2.00	9.525	16	2.15	2.00	●														
	16IR-W2.30-T2.00	9.525	16	2.30	2.00	●														
	16IR-W2.50-T2.00	9.525	16	2.50	2.00	●														
16IR-W2.65-T2.20	9.525	16	2.65	2.20	●															

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CARBIDE /GROOVING

□ □ ER

EXTERNAL ROUND GROOVING



HOLDERS

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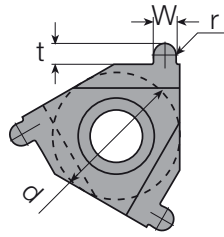
DESCRIPTION	DIMENSIONS						CARBIDE												
							PS5520	PS9520	PS9520P	CS9525S	CS9525P	P99530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
d	l	W	R	T															
16ER-W0.80-T0.60-R0.40	9.525	16	0.80	0.40	0.60	●													
16ER-W1.00-T1.40-R0.50	9.525	16	1.00	0.50	1.40	●													
16ER-W1.20-T0.80-R0.60	9.525	16	1.20	0.60	0.80	●													
16ER-W1.20-T1.60-R0.60	9.525	16	1.20	0.60	1.60	●													
16ER-W1.80-T1.10-R0.90	9.525	16	1.80	0.90	1.10	●													
16ER-W1.80-T2.00-R0.90	9.525	16	1.80	0.90	2.00	●													
16ER-W2.00-T1.20-R1.00	9.525	16	2.00	1.00	1.20	●													
16ER-W2.00-T2.15-R1.00	9.525	16	2.00	1.00	2.15	●													
16ER-W2.20-T2.15-R1.10	9.525	16	2.20	1.10	2.15	●													
16ER-W2.40-T2.25-R1.20	9.525	16	2.40	1.20	2.25	●													

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- DRILLING
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DESCRIPTION	DIMENSIONS					CARBIDE												
	d	l	W	R	T	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	16IR-W1.00-T1.40-R0.50	9.525	16	1.00	0.50	1.40	•											
	16IR-W1.20-T0.80-R0.60	9.525	16	1.20	0.60	0.80	•											
	16IR-W1.20-T1.60-R0.60	9.525	16	1.20	0.60	1.60	•											
	16IR-W1.80-T1.10-R0.90	9.525	16	1.80	0.90	1.10	•											
	16IR-W1.80-T2.00-R0.90	9.525	16	1.80	0.90	2.00	•											
	16IR-W2.00-T2.00-R1.00	9.525	16	2.00	1.00	2.00	•											
	16IR-W2.00-T2.15-R1.00	9.525	16	2.00	1.00	2.15	•											
	16IR-W2.20-T2.15-R1.10	9.525	16	2.20	1.10	2.15	•											
16IR-W2.40-T2.25-R1.20	9.525	16	2.40	1.20	2.25	•												

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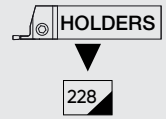
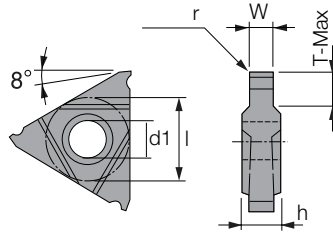
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STGF

EXTERNAL GROOVING

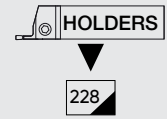
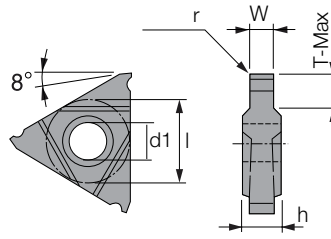


DESCRIPTION	DIMENSIONS							CARBIDE											
	W	T-max	r	l	d1	h	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
	STGF32R-050	0.50	1.00	0.05	9.525	3.18	4.4	●											
	STGF32R075	0.75	2.20	0.05	9.525	3.18	4.4	●											
	STGF32R-100	1.00	2.00	0.05	9.525	3.18	4.4	●					●						
	STGF32R-110	1.10	2.00	0.05	9.525	3.18	4.4	●											
	STGF32R-120	1.20	2.00	0.05	9.525	3.18	4.4	●											
	STGF32R-125	1.25	2.00	0.20	9.525	3.18	4.4	●											
	STGF32R-145	1.45	2.00	0.20	9.525	3.18	4.4	●											
	STGF32R-150	1.50	2.00	0.20	9.525	3.18	4.4	●						●					
	STGF32R-175	1.75	2.00	0.20	9.525	3.18	4.4	●											
	STGF32R-185	1.85	2.50	0.20	9.525	3.18	4.4	●											
	STGF32R-200	2.00	2.50	0.20	9.525	3.18	4.4	●						●					
	STGF32R-250	2.50	2.50	0.20	9.525	3.18	4.4	●											
	STGF32R-300	3.00	3.00	0.20	9.525	3.18	4.4	●											

Vc • fn 205

STGF

EXTERNAL GROOVING



DESCRIPTION	DIMENSIONS						CARBIDE											
	W	T-max	r	l	d1	h	PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515
STGF43R-125	1.25	2.00	0.20	12.7	4.76	5.5	•											
STGF43R-145	1.45	2.00	0.20	12.7	4.76	5.5	•											
STGF43R-150	1.50	3.50	0.20	12.7	4.76	5.5	•											
STGF43R-175	1.75	3.50	0.20	12.7	4.76	5.5	•											
STGF43R-185	1.85	3.50	0.20	12.7	4.76	5.5	•											
STGF43R-200	2.00	3.50	0.20	12.7	4.76	5.5	•											
STGF43R-230	2.30	3.50	0.20	12.7	4.76	5.5	•											
STGF43R-250	2.50	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-265	2.65	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-280	2.80	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-300	3.00	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-320	3.20	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-330	3.30	4.00	0.30	12.7	4.76	5.5	•											
STGF43R-350	3.50	5.00	0.30	12.7	4.76	5.5	•											
STGF43R-400	4.00	5.00	0.40	12.7	4.76	5.5	•											
STGF43R-430	4.30	5.00	0.40	12.7	4.76	5.5	•											
STGF43R-450	4.50	5.00	0.40	12.7	4.76	5.5	•											
STGF43R-480	4.80	5.00	0.40	12.7	4.76	5.5	•											

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CARBIDE /GROOVING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

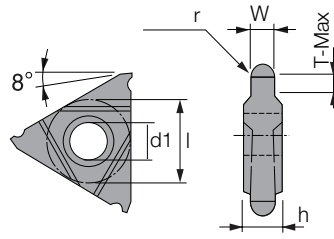
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STGR

EXTERNAL ROUND GROOVING



HOLDERS

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DESCRIPTION		DIMENSIONS						CARBIDE												
								PS5520	PS9520	PS9520P	CS9525S	CS9525P	PS9530	SS9515	SS9515C	PS7510	PS7520S	PS7520P	US2515	
		W	T-max	r	l	d1	h													
	STGR32-200R	2.00	2.50	1.00	9.525	3.18	4.4	●												
	STGR32-300R	3.00	2.50	1.50	9.525	3.18	4.4	●												
	STGR43-100R	1.00	2.00	0.50	12.7	4.76	5.5	●												
	STGR43-150R	1.50	3.50	0.75	12.7	4.76	5.5	●												
	STGR43-200R	2.00	3.50	1.00	12.7	4.76	5.5	●												
	STGR43-250R	2.50	4.00	1.25	12.7	4.76	5.5	●												
	STGR43-300R	3.00	4.00	1.50	12.7	4.76	5.5	●												
	STGR43-400R	4.00	5.00	2.00	12.7	4.76	5.5	●												

Vc • fn 205

CARBIDE /GROOVING

CUTTING PARAMETERS Vc(m/min)

KG	GREY CAST IRON
KN	NODULAR CAST IRON
PL	LOW CARBON AND FREE CUTTING STEEL
PM	MEDIUM CARBON STEEL
PH	HIGH CARBON STEEL
PA	ALLOY STEEL

MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
MA	AUSTENITIC STAINLESS STEEL
NA	ALUMINIUM ALLOYS
NH	ALUMINIUM ALLOYS AGED AND HARDENED
NB	BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

MATERIAL		CARBIDE-PVD									CERMET UNCOATED		CARBIDE UNCOATED
		PS5520	PS9520	PS9520P	PS9525S	PS9525P	PS9530	PS7510	PS7520S	PS7520P	SS9515	SS9515C	US2515
K	KG	120-160	200-360	250-450	250-450	250-450	200-360						
	KN	120-160	150-280	150-280	180-300	150-280	150-280						
P	PL	160-220	200-320	200-320	250-350	200-320	200-320						
	PM	140-280	180-260	220-300	220-300	220-300	180-260						
	PH	120-160	160-250	180-260	200-280	180-260	160-250						
	PA	140-200	150-220	160-250	180-250	160-250	150-220						
M	MM	90-140	160-260	160-260	90-140	160-260	160-260	140-360	160-260	140-260	150-1500	150-1500	
	MA	100-180	140-220	160-260	100-180	140-220	160-260	140-360	140-220	140-260	150-1500	150-1500	
N	NA												600-1500
	NH												300-700
	NB												250-400
	NC												150-250

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

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CARBIDE /GROOVING

CUTTING PARAMETERS f_n (mm/rev)

KG	GREY CAST IRON
KN	NODULAR CAST IRON
PL	LOW CARBON AND FREE CUTTING STEEL
PM	MEDIUM CARBON STEEL
PH	HIGH CARBON STEEL
PA	ALLOY STEEL

MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
MA	AUSTENITIC STAINLESS STEEL
NA	ALUMINIUM ALLOYS
NH	ALUMINIUM ALLOYS AGED AND HARDENED
NB	BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

PARTING-OFF

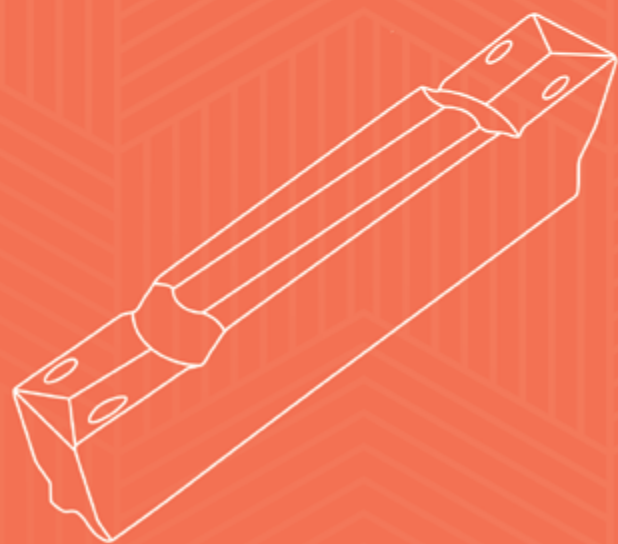
MATERIAL		CUTTING WIDTH				
		2 mm	3 mm	4 mm	5 mm	6 mm
K	KG	0.05~0.12	0.10~0.25	0.10~0.30	0.10~0.35	0.10~0.40
	KN	0.05~0.10	0.10~0.20	0.10~0.25	0.10~0.30	0.10~0.35
P	PL	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	PM	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	PH	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	PA	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
M	MM	0.02~0.10	0.03~0.15	0.08~0.25	0.10~0.35	0.12~0.40
	MA	0.02~0.08	0.03~0.13	0.08~0.20	0.10~0.30	0.12~0.35
N	NA	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	NH	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	NB	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	NC	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35

FACING

MATERIAL		CUTTING WIDTH		
		3 mm	4 mm	5 mm
K	KG	0.05~0.10	0.05~0.12	0.05~0.15
	KN	0.05~0.10	0.05~0.12	0.05~0.15
P	PL	0.05~0.10	0.05~0.12	0.05~0.15
	PM	0.05~0.10	0.05~0.12	0.05~0.15
	PH	0.05~0.10	0.05~0.12	0.05~0.15
	PA	0.05~0.10	0.05~0.12	0.05~0.15
M	MM	0.05~0.10	0.05~0.12	0.05~0.15
	MA	0.05~0.10	0.05~0.12	0.05~0.15
N	NA	0.05~0.15	0.08~0.15	0.08~0.15
	NH	0.05~0.15	0.08~0.15	0.08~0.15
	NB	0.05~0.15	0.08~0.15	0.08~0.15
	NC	0.05~0.15	0.08~0.15	0.08~0.15

GROOVING, GROOVE TURNING

MATERIAL		CUTTING WIDTH					
		0.5 ~ 1.0 mm	1.0 ~ 2.0 mm	2.0 ~ 3.0 mm	3.0 ~ 4.0 mm	4.0 ~ 5.0 mm	6.0 ~ 8.0 mm
K	KG	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.10	0.05~0.12
	KN	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.10	0.05~0.12
P	PL	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.15	0.05~0.20
	PM	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.15	0.05~0.20
	PH	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.12	0.05~0.15
	PA	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.12	0.05~0.15
M	MM	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.12	0.05~0.15
	MA	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.12	0.05~0.15
N	NA	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	NH	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	NB	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	NC	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20



GROOVING/**PCBN**

PCBN /GROOVING

GRADES

ISO DIN 513	K					H					S				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	S01	S10	S20	S30	S40
PCBN															

BC250
SC250

BC150
BC170
SC150

BC350

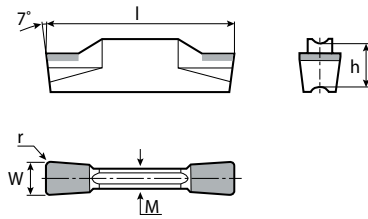
BC420

COATED

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX


MAGN

PARTING & GROOVING



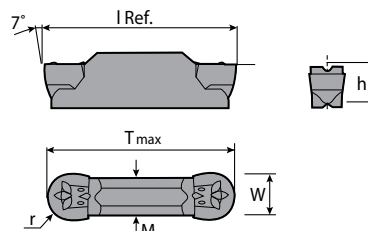
HOLDERS

222

DESCRIPTION		DIMENSIONS					PCBN						
							BC150	BC170	SC150	BC250	SC250	BC350	BC420
		W	r	l	M	h							
	MAGN200	2.0	0.2	16.0	1.2	3.5	•	•					•
	MAGN300	3.0	0.4	21.0	2.35	4.8	•	•					•
	MAGN400	4.0	0.4	21.0	3.3	4.8	•	•					•


MRMN

PARTING & GROOVING



HOLDERS

222

DESCRIPTION		DIMENSIONS					PCBN						
							BC150	BC170	SC150	BC250	SC250	BC350	BC420
		W	r	l	M	h							
	MRMN300	3.0	1.5	21.0	2.35	4.8							•
	MRMN400	4.0	0.2	21.0	3.3	4.8							•










Vc • fn ▶ 210

PCBN /GROOVING

CUTTING PARAMETERS

KG	GREY CAST IRON
KN	NODULAR CAST IRON
KW	WHITE CAST IRON
KS	SINTERED MATERIAL

HH	HARDENED STEEL
HC	CASE HARDENED STEEL
HB	BEARING STEEL
SA	SUPER ALLOYS (Ni Based)

MATERIAL		fn (mm/rev)	CUTTING CONDITION	PCBN						
				BC150	BC170	SC150	BC250	SC250	BC350	BC420
H	HH	0,05~0,15	  	80~180	80~180					80~150
			 	60~120	60~120					80~150
	HC	0,05~0,15	  	80~140	80~140					80~140
			 	60~100	60~100					80~140
	HB	0,05~0,15	  	80~120	80~120					80~120
			 	60~100	60~100					80~120

TURNING

GROOVING

THREADING

MILLING

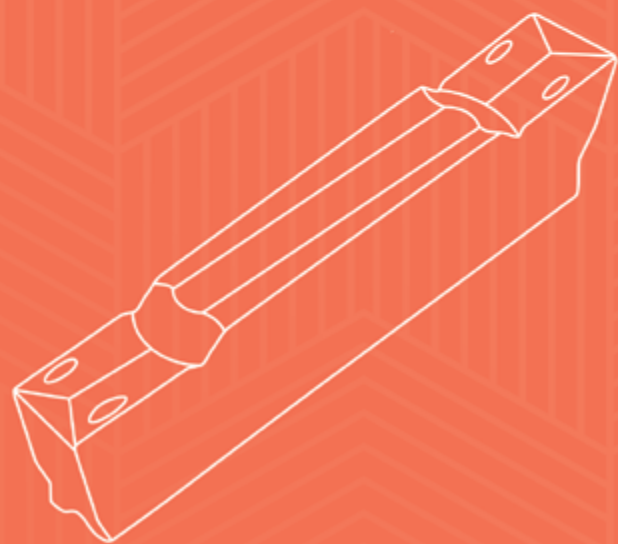
DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

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GROOVING/**DIAMOND**

DIAMOND /GROOVING

GRADES

ISO DIN 513	N				
	N01	N10	N20	N30	N40
PCD		PC100			
		PC150			
		PC200			
		PC300			

TURNING

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THREADING

MILLING

DRILLING

ENDMILLS

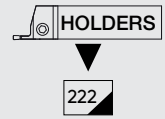
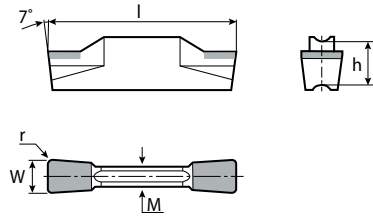
DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

MAGN

PARTING & GROOVING



DESCRIPTION	DIMENSIONS						PCD			
							PC100	PC150	PC200	PC300
							W	r	l	M
	MAGN200	2.0	0.2	16.0	1.2	3.5		•	•	
	MAGN300	3.0	0.4	21.0	2.35	4.8		•	•	
	MAGN400	4.0	0.4	21.0	3.3	4.8		•	•	

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

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DIAMOND /GROOVING

CUTTING PARAMETERS

NA	ALUMINIUM ALLOYS
NS	ALUMINIUM ALLOYS (Si≤15%)
NH	AL ALLOYS AGED AND HARDENED
NB	BRASS

NC	BRONZE AND ELECTROLYTIC COPPER
NG	GRAPHITE
HM	HARD METAL (Co≤16%)
ST	TITANIUM ALLOYS

MATERIAL	fn (mm/rev)	CUTTING CONDITION	PCD			
			PC100	PC150	PC200	PC300
N	NA	○ ⊕ ♪		600~2500	600~2500	
				600~2500	600~2500	
	NS	○ ⊕ ♪		500~1500	500~1500	
				500~1500	500~1500	
	NB	○ ⊕ ♪		400~1200	400~1200	
				400~1200	400~1200	
	NG	○ ⊕ ♪		300~800	300~800	
				300~800	300~800	

TURNING

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THREADING

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DRILLING

ENDMILLS

DRILLS

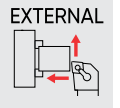
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DRILLS & TAPSSPARE
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GROOVING/**HOLDERS**

HOLDERS /GROOVING



S K T E R 25 25 - 2 T6

1

2

3

4

5

6

7

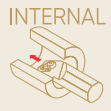
8

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1		2	INSERT TYPE	3	CLAMPING TYPE	4	CLEARANCE
S	Steel Body	G	SGD□	T	Top Screw 	E	EXTERNAL
C	Carbide Body	I	SDG□			I	INTERNAL
		K	MAG□			F	FACE
		T	SAG□				
S		S	SK□□				

5	DIRECTION	6	SHANK	7	8	GROOVING WIDTH	9	T-MAX
L		(H)		(B)	
R								

HOLDERS /GROOVING



S K T I R 25 — 2 T6

1 2 3 4 5 6 7 8

1	2	3	4
S	Steel Body	G	SGD□
C	Carbide Body	I	SDG□
		K	MAG□
		T	SAG□
		S	SK□□
			Top Screw
			EXTERNAL
			INTERNAL
			FACE

5	6	7	8
L
R
	SHANK DIAMETER	GROOVING WIDTH	T-MAX
	ØD		T-max

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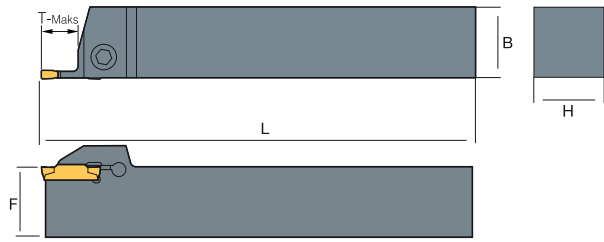
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HOLDERS /GROOVING

SGTE

Screw On

SGD



SGD	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F	tmax				
SGD-200	SGTER/L	1010	2T12	•		10	10	125	10	12	ST-SC625	ST-WRT0040		
		1212	2T12	•		12	12	125	12	12	ST-SC520	ST-WRT0040		
		1212	2T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	2T18	•	•	16	16	100	16.3	18	ST-SC625	ST-WRT0050		
		2020	2T17	•	•	20	20	125	20	17	ST-SC625	ST-WRT0050		
		2020	2T18	•	•	20	20	125	20.3	18	ST-SC625	ST-WRT0050		
SGD-300	SGTER/L	1212	3T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	3T18	•	•	16	16	100	16.4	18	ST-SC625	ST-WRT0050		
		2020	3T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2525	3T22	•	•	25	25	150	25.3	22	ST-SC625	ST-WRT0050		
		3232	3T22	•	•	32	32	170	32.4	22	ST-SC625	ST-WRT0050		

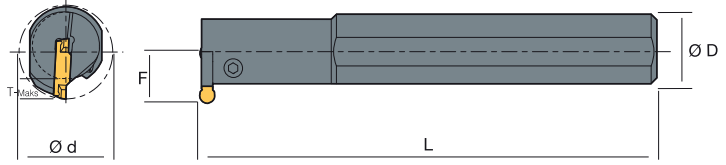
Carbide

HOLDERS /GROOVING

SGTI

Screw On

SGD □



SGD □	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	D	d	L	F	tmax		
SGD □-300	SGTIR/L	20	3T6	•		20	26	170	15	6	ST-SC410	ST-WRT0040
		25	3T8	•		25	32	200	18	8	ST-SC625	ST-WRT0040
		32	3T8	•		32	40	250	22	8	ST-SC625	ST-WRT0040

Carbide ▶ 194

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

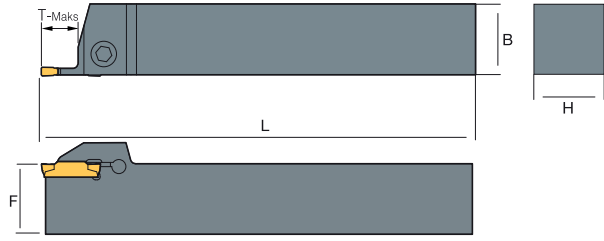
INDEX

HOLDERS /GROOVING

SITE

Screw On

SDG



SDG	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F	tmax				
SDG-2202	SITER/L	1212	2T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	2T18	•	•	16	16	100	16.3	18	ST-SC625	ST-WRT0050		
		2020	2T18	•	•	20	20	125	20.3	18	ST-SC625	ST-WRT0050		
		2525	2T18	•	•	25	25	150	25.3	18	ST-SC625	ST-WRT0050		
	SITER/L	1212	2T16	•		12	12	90	12	16	ST-SC520	WRT0040		
SDG-3102		1212	3T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	3T18	•	•	16	16	100	16.4	18	ST-SC625	ST-WRT0050		
		1616	3T20		•	16	16	125	16	20	ST-SC625	ST-WRT0050		
		2020	3T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2525	3T10	•		25	25	150	25.3	10	ST-SC625	ST-WRT0050		
		2525	3T22	•	•	25	25	150	25.3	22	ST-SC625	ST-WRT0050		
		2525	3T20		•	25	25	150	25	20	ST-SC625	ST-WRT0050		
		3232	3T22	•	•	32	32	170	32.4	22	ST-SC625	ST-WRT0050		

Carbide

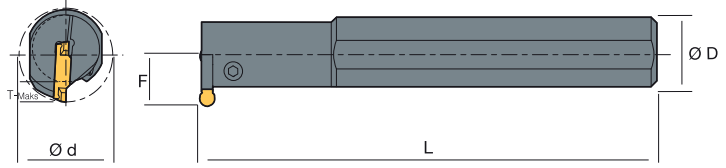
193

HOLDERS /GROOVING

SITI

Screw On

SDG



SDG	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	D	d	L	F	tmax		
SDG-2202	SITIR/L	20	2T6	•		20	25	200	14	6	ST-SC410	ST-WRT0040
SDG-3102	SITIR/L	20	3T6	•	•	20	26	170	15	6	ST-SC410	ST-WRT0040
		25	3T8	•	•	25	32	200	18	8	ST-SC625	ST-WRT0040
		32	3T8	•	•	32	40	250	22	8	ST-SC625	ST-WRT0040

Carbide 193

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

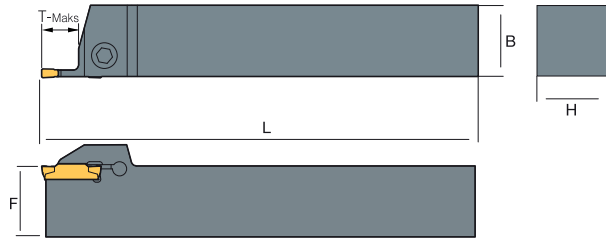
INDEX

HOLDERS /GROOVING

SKTE

Screw On

MAG



MAG	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F	tmax				
MAG-200	SKTER/L	1212	2T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	2T18	•	•	16	16	100	16.3	18	ST-SC625	ST-WRT0050		
		2020	2T18	•	•	20	20	125	20.3	18	ST-SC625	ST-WRT0050		
		2020	2T12	•	•	25	25	150	20.3	12	ST-SC625	ST-WRT0050		
		2525	2T18	•	•	25	25	150	25.3	18	ST-SC625	ST-WRT0050		
		2525	2T20		•	25	25	150	25	20	ST-SC625	ST-WRT0050		
		3232	2T18	•	•	32	32	170	32.3	18	ST-SC625	ST-WRT0050		
MAG-300	SKTER/L	1212	3T15	•	•	12	12	90	12	15	ST-SC520	ST-WRT0040		
		1212	3T18	•	•	12	12	100	12.3	18	ST-SC520	ST-WRT0040		
		1616	3T18	•	•	16	16	100	16.4	18	ST-SC625	ST-WRT0050		
		2020	3T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2020	3T22	•	•	20	20	125	25.4	22	ST-SC625	ST-WRT0050		
		2525	3T25	•	•	25	25	150	25.4	25	ST-SC625	ST-WRT0050		
		2525	3T40	•	•	25	25	150	25.4	40	ST-SC625	ST-WRT0050		
MAG-400	SKTER/L	2020	4T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2020	4T25	•	•	20	20	125	20.4	25	ST-SC625	ST-WRT0050		
		2525	4T22	•	•	25	25	150	25.4	22	ST-SC625	ST-WRT0050		
		2525	4T25	•	•	25	25	150	25.4	25	ST-SC625	ST-WRT0050		
		2525	4T40	•	•	25	25	150	25.4	40	ST-SC625	ST-WRT0050		
		3232	4T22	•	•	32	32	170	32.4	22	ST-SC625	ST-WRT0050		
MAG-500	SKTER/L	2020	5T20	•	•	20	20	125	20.5	20	ST-SC625	ST-WRT0050		
		2525	5T25	•	•	25	25	150	25.5	25	ST-SC625	ST-WRT0050		
		3232	5T25	•	•	32	32	170	32.5	25	ST-SC625	ST-WRT0050		
MAG-600	SKTER/L	2525	6T25	•	•	25	25	150	25.6	25	ST-SC625	ST-WRT0050		
		3232	6T25	•	•	32	32	170	32.6	25	ST-SC625	ST-WRT0050		

Carbide 188

PCBN 209

Diamond 213

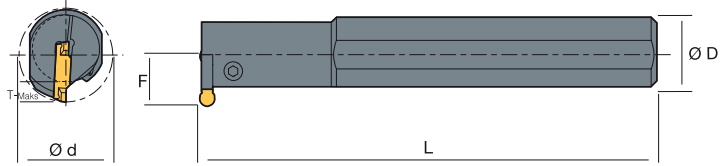
TURNING
GROOVING
THREADING
MILLING
DRILLING
ENDMILLS
DRILLS
HSS DRILLS & TAPS
SPARE PARTS
INDEX

HOLDERS /GROOVING

SKTI

Screw On

MAG □



MAG □	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	D	d	L	F	tmax		
MAG □-200	SKTIR/L	16	2T4	•	•	16	20	150	11.5	4	ST-SC412	ST-WRT0040
		20	2T4	•	•	20	26	170	14.5	4	ST-SC520	ST-WRT0050
		25	2T4	•	•	25	32	200	18.5	4	ST-SC625	ST-WRT0050
MAG □-300	SKTIR/L	20	3T6	•	•	20	26	170	15	6	ST-SC625	ST-WRT0050
		25	3T6	•	•	25	32	200	18.5	6	ST-SC625	ST-WRT0050
		32	3T8	•	•	32	40	250	22	8	ST-SC520	ST-WRT0050
		40	3T8	•	•	40	48	300	27	8	ST-SC625	ST-WRT0050
MAG □-400	SKTIR/L	20	4T6	•	•	20	26	170	14	6	ST-SC625	ST-WRT0050
		25	4T6	•	•	25	32	200	18.5	6	ST-SC625	ST-WRT0050
		32	4T6	•	•	32	40	250	22	6	ST-SC625	ST-WRT0050
		40	4T6	•	•	40	48	300	27	6	ST-SC625	ST-WRT0050
		50	4T15	•	•	50	65	300	40	15	ST-SC520	ST-WRT0050
MAG □-500	SKTIR/L	25	5T6	•	•	25	32	200	18.5	7	ST-SC625	ST-WRT0050
		32	5T7	•	•	32	40	250	22	7	ST-SC625	ST-WRT0050
		40	5T7	•	•	40	48	300	27	7	ST-SC625	ST-WRT0050
		50	5T15	•	•	50	65	300	40	15	ST-SC8301	ST-WRT0060
MAG □-600	SKTIR/L	50	6T15	•	•	50	65	300	40	15	ST-SC8301	ST-WRT0060

Carbide 188

PCBN 209

Diamond 213

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

HOLDERS /GROOVING

SKTF

Screw On

MAG



MAG	DESCRIPTION				STOCK		DIMENSIONS								
					R	L	h	B	L	S	tmax	Dmin			Dmax
MAG-300	SKTFR	2525	3T17	24/36	•		25	25	150	26.5	17	24	36	ST-SC625	ST-WRT0050
		2525	3T17	30/40	•		25	25	150	26.5	17	30	40	ST-SC625	ST-WRT0050
		2525	3T17	35/50	•		25	25	150	26.5	17	35	50	ST-SC625	ST-WRT0050
		2525	3T17	36/48	•		25	25	150	26.5	17	36	48	ST-SC625	ST-WRT0050
		2525	3T17	45/70	•		25	25	150	26.5	17	45	70	ST-SC625	ST-WRT0050
		2525	3T17	48/70	•		25	25	150	26.5	17	48	70	ST-SC625	ST-WRT0050
		2525	3T17	65/105	•		25	25	150	26.5	17	65	105	ST-SC625	ST-WRT0050
		2525	3T17	70/110	•		25	25	150	26.5	17	70	100	ST-SC625	ST-WRT0050
MAG-400	SKTFR	2525	4T22	30/40	•		25	25	150	26.5	22	30	40	ST-SC625	ST-WRT0050
		2525	4T22	35/50	•		25	25	150	26.5	22	35	50	ST-SC625	ST-WRT0050
		2525	4T22	36/48	•		25	25	150	26.5	22	36	48	ST-SC625	ST-WRT0050
		2525	4T22	45/70	•		25	25	150	26.5	22	45	70	ST-SC625	ST-WRT0050
		2525	4T22	48/70	•		25	25	150	26.5	22	48	70	ST-SC625	ST-WRT0050
		2525	4T22	65/105	•		25	25	150	26.5	22	65	105	ST-SC625	ST-WRT0050
		2525	4T22	70/110	•		25	25	150	26.5	22	70	110	ST-SC625	ST-WRT0050
		2525	4T22	100/150	•		25	25	150	26.5	22	100	150	ST-SC625	ST-WRT0050
MAG-500	SKTFR	2525	5T25	48/70	•		25	25	150	26.5	25	48	70	ST-SC625	ST-WRT0050
		2525	5T25	70/110	•		25	25	150	26.5	25	70	110	ST-SC625	ST-WRT0050
		2525	5T25	75/110	•		25	25	150	26.5	25	75	110	ST-SC625	ST-WRT0050
		2525	5T25	100/150	•		25	25	150	26.5	25	100	150	ST-SC625	ST-WRT0050
		2525	5T25	105/150	•		25	25	150	26.5	25	105	150	ST-SC625	ST-WRT0050
		2525	5T25	145/200	•		25	25	150	26.5	25	145	200	ST-SC625	ST-WRT0050
		2525	5T25	150/200	•		25	25	150	26.5	25	150	200	ST-SC625	ST-WRT0050

Carbide 188

PCBN 209

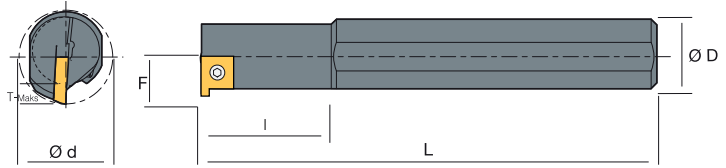
Diamond 213

HOLDERS /GROOVING

SNGR

Screw On

GR



GR	DESCRIPTION				STOCK		DIMENSIONS							
					R	L	d	D	L	I	H	S		
6GR-□□□	SNGR	08	H06	•		8	8	100	18	7	4.70	2.00	ST-SC412	ST-WRT0040
7GR-□□□	SNGR	08	H07	•		10	8	100	23	7	5.80	2.00	ST-SC625	ST-WRT0050
		10	K07	•		12	10	125	29	9	6.80	2.00	ST-SC625	ST-WRT0050
8GR-□□□	SNGR	10	K08	•		14	10	125	15	9	7.60	3.50	ST-SC520	ST-WRT0050
		12	M08	•		16	12	150	18	11	8.60	3.50	ST-SC625	ST-WRT0050
9GR-□□□	SNGR	16	Q09	•		20	16	180	20	15	11.6	3.50	ST-SC625	ST-WRT0050
		20	R09	•		24	20	200	25	18	13.6	3.50	ST-SC625	ST-WRT0050

Carbide

196

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

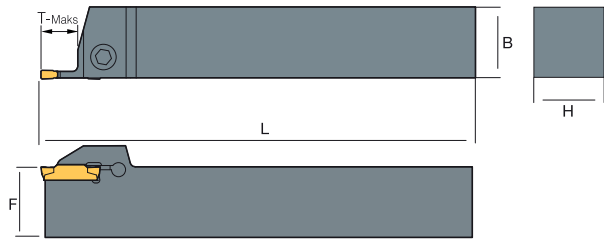
INDEX




HOLDERS /GROOVING

STTE

Screw On

SAG



SAG 	DESCRIPTION			STOCK		DIMENSIONS								
				R	L	H	B	L	F	tmax				
SAG  -200	STTER/L	1212	2T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	2T18	•	•	16	16	100	16.3	18	ST-SC625	ST-WRT0050		
		2020	2T18	•	•	20	20	125	20.3	18	ST-SC625	ST-WRT0050		
		2525	2T18	•	•	25	25	150	25.3	18	ST-SC625	ST-WRT0050		
		2525	2T22	•		25	25	150	25	22	ST-SC625	ST-WRT0050		
SAG  -300	STTER/L	1212	3T15	•	•	12	12	100	12.3	15	ST-SC520	ST-WRT0040		
		1616	3T18	•	•	16	16	100	16.4	18	ST-SC625	ST-WRT0050		
		1616	3T20	•	•	16	16	125	16	20	ST-SC625	ST-WRT0050		
		2020	3T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2525	3T22	•	•	25	25	150	25.4	22	ST-SC625	ST-WRT0050		
		3232	3T22	•	•	32	32	170	32	22	ST-SC625	ST-WRT0050		
SAG  -400	STTER/L	1616	4T20	•	•	16	16	125	16	20	ST-SC625	ST-WRT0050		
		2020	4T20	•	•	20	20	125	20.4	20	ST-SC625	ST-WRT0050		
		2525	4T22	•	•	25	25	150	25.4	22	ST-SC625	ST-WRT0050		
		3232	4T22	•	•	32	32	170	32	22	ST-SC625	ST-WRT0050		

Carbide 

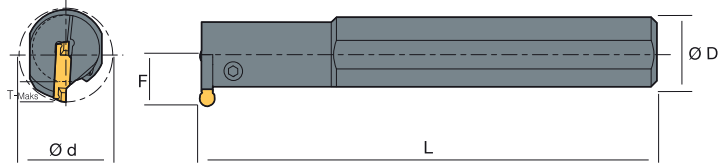
191

HOLDERS /GROOVING

STTI

Screw On

SAG □



SAG □	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	D	d	L	F	tmax		
SAG □-200	STTIR/L	16	2T4	•		16	20	150	11.5	4	ST-SC412	ST-WRT0040
		20	2T4	•		20	26	170	14.5	4	ST-SC520	ST-WRT0050
		25	2T4	•		25	32	200	18.5	4	ST-SC625	ST-WRT0050
SAG □-300	STTIR/L	20	3T6	•		20	26	170	15	6	ST-SC625	ST-WRT0050
		25	3T6	•		25	32	200	18.5	6	ST-SC625	ST-WRT0050
		32	3T6	•		32	41	250	24.5	6	ST-SC625	ST-WRT0050
		32	3T8	•		32	40	250	22	8	ST-SC520	ST-WRT0050
SAG □-400	STTIR/L	20	4T6	•		20	26	170	14	6	ST-SC625	ST-WRT0050
		25	4T6	•		25	32	200	18.5	6	ST-SC625	ST-WRT0050
		32	4T6	•		32	40	250	22	6	ST-SC625	ST-WRT0050

Carbide

191

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

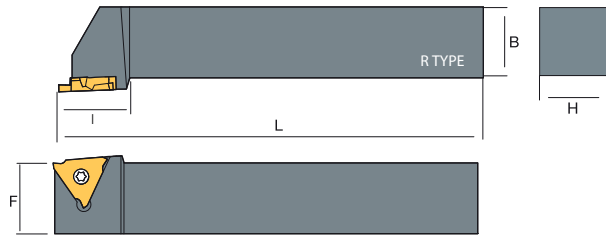
INDEX


HOLDERS /GROOVING

SSTG

Screw On

STGR



STGR	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	H	B	L	I	F		
STGR32 50-180	SSTGR	1616	K3-15	•		16	16	125	21	16	ST-SC3509	ST-WRT15
		2020	K3-15	•		20	20	125	25	20	ST-SC3509	ST-WRT15
		2020	M3-15	•		20	202	125	26	20	ST-SC3509	ST-WRT15
		2525	M3-15	•		25	25	150	30	25	ST-SC3509	ST-WRT15
STGR32 180-300	SSTGR	1616	K3-25	•		16	16	125	21	16	ST-SC3509	ST-WRT15
		2020	K3-25	•		20	20	125	25	20	ST-SC3509	ST-WRT15
		2525	M3-25	•		25	25	150	30	25	ST-SC3509	ST-WRT15
		3232	P3-25	•		32	32	170	40	32	ST-SC3509	ST-WRT15
STGR43 100-230	SSTGR	1616	K4-15	•		16	16	100	22	16	ST-SC5012	ST-WRT15
		2020	K4-15	•		20	20	125	25	20	ST-SC5012	ST-WRT20
		2525	M4-15	•		25	25	150	30	25	ST-SC5012	ST-WRT20
STGR43 180-300	SSTGR	2020	K4-15	•		20	20	125	25	20	ST-SC5012	ST-WRT20
		2020	K4-25	•		20	20	125	26	20	ST-SC5012	ST-WRT20
		2525	M4-25	•		25	25	150	30	25	ST-SC5012	ST-WRT20
		3232	P4-25	•		32	32	170	40	32	ST-SC5012	ST-WRT20
STGR43 330-480	SSTGR	2020	K4-35	•		20	20	125	25	20	ST-SC5012	ST-WRT20
		2525	M4-35	•		25	25	150	30	25	ST-SC5012	ST-WRT20
		3232	P4-35	•		32	32	170	40	32	ST-SC5012	ST-WRT20

Carbide

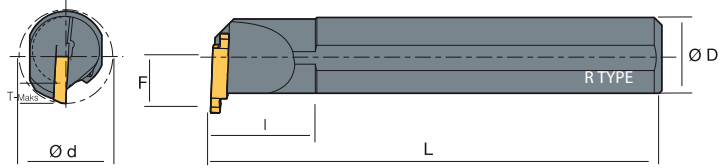
204

HOLDERS /GROOVING

S^SSSTG

Screw On

STGR □



STGR	DESCRIPTION			STOCK		DIMENSIONS							
				R	L	H	W	S	L	H	I		
STGR32 50-180	S20Q	SSTGR	L3-15	•		28	20	12.5	180	45	18	ST-SC3509	ST-WRT15
	S25Q		L3-15	•		35	25	17.5	200	45	23	ST-SC3509	ST-WRT15
STGR32 180-300	S20Q	SSTGR	L3-25	•		28	20	12.5	180	45	18	ST-SC3509	ST-WRT15
	S25Q		L3-25	•		35	25	17.5	200	45	23	ST-SC3509	ST-WRT15
	S32Q		L3-25	•		40	32	21.0	250	45	30	ST-SC3509	ST-WRT15
STGR43 100-230	S25Q	SSTGR	L4-15	•		35	25	18.2	200	45	23	ST-SC5012	ST-WRT20
	S32Q		L4-15	•		40	32	23.0	250	45	30	ST-SC5012	ST-WRT20
STGR43 180-300	S25Q	SSTGR	L4-25	•		35	25	18.2	200	45	23	ST-SC5012	ST-WRT20
	S32Q		L4-25	•		40	32	23.0	250	45	30	ST-SC5012	ST-WRT20
STGR43 330-480	S25Q	SSTGR	L4-25	•		35	25	18.2	200	45	23	ST-SC5012	ST-WRT20
	S32Q		L4-25	•		40	32	23.0	250	45	30	ST-SC5012	ST-WRT20

Carbide 204

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
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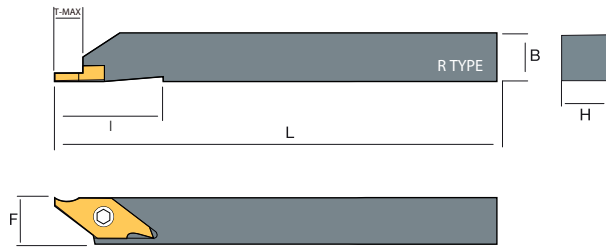
SPARE
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SSKF

Screw On

SKF



SKF <input type="checkbox"/>	DESCRIPTION			STOCK		DIMENSIONS						
				R	L	H	B	L	I	f		
SKF <input type="checkbox"/> -12	SSKFR/L	1010	SX-12	•	•	10	10	125	23	10	ST-SC3007S	ST-WRT09S
		1212	SX-12	•	•	12	12	125	23	12	ST-SC3007S	ST-WRT09S
		1616	SX-12	•	•	16	16	125	23	16	ST-SC3007S	ST-WRT09S
SKF <input type="checkbox"/> -12	SSKFR/L	1010	SX-16	•	•	10	10	125	23	10	ST-SC3007S	ST-WRT09S
		1212	SX-16	•	•	12	12	125	23	12	ST-SC3007S	ST-WRT09S
		1616	SX-16	•	•	16	16	125	23	16	ST-SC3007S	ST-WRT09S

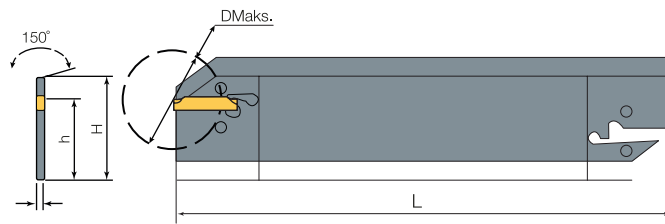
Carbide

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CSPB

Screw On

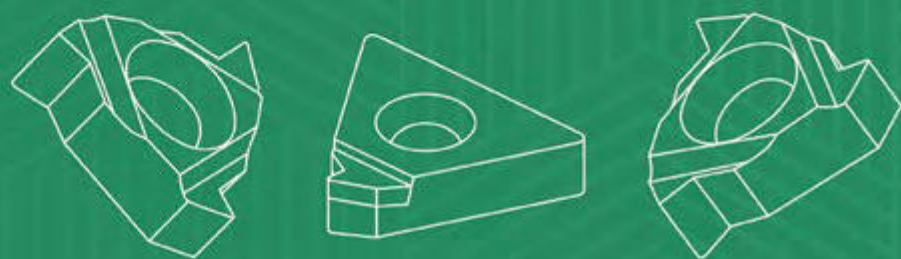
SP



SP <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION			STOCK		DIMENSIONS					
						H	W	L	H		
SP <input type="checkbox"/> 200	CSPB26-2			•	•	26	1.6	110	21		
SP <input type="checkbox"/> 300	CSPB26-3			•	•	26	2.4	110	21		
	CSPB32-3			•	•	32	2.4	150	25		
SP <input type="checkbox"/> 400	CSPB26-4			•	•	26	3.2	110	21		
	CSPB32-4			•	•	32	3.2	150	25		

Carbide

195



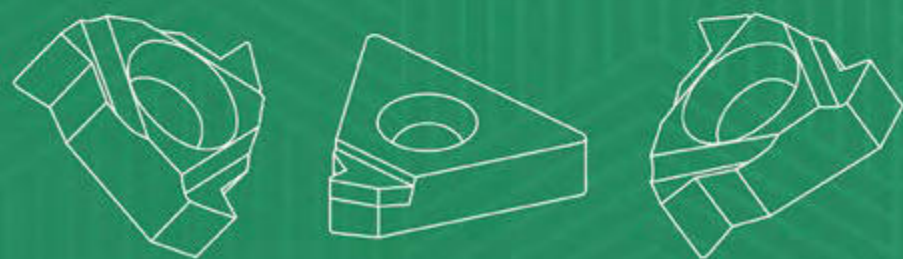
THREADING /

carbide /233

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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the text "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



THREADING/**CARBIDE**

CARBIDE /THREADING

16 E R M - 1.50

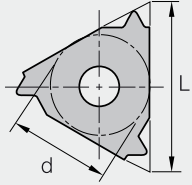
1

2

3


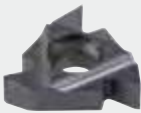
4

5

1	INSERT SIZE (d)	
08	4,76 mm	
11	6,35 mm	
16	9,525 mm	
22	12,70 mm	
27	15,875 mm	

2	INSERT TYPE
E	External
I	Internal

3	HAND OF INSERT
R	Right
L	Left

4	CHIP BREAKER	
M		Chip Breaker Type
Non		Regular Type

5*	PITCH (Full Profile)
0.35~6.0	mm
3~72	TPI

5*	PITCH (Partial Profile)
A	0.50~1.50
AG	0.50~3.00
G	1.75~3.00
N	3.50~5.00
Q	5.50~6.00

* Should use only one table based on profile type

* Should use only one table based on profile type

CARBIDE /THREADING

ISO

-

PS

7

4

30

6

7

8

9

10

6	THREAD STANDARD
---	-----------------

60	Partial Profile 60°	SAGE	Metric Buttress DIN513	API	API
55	Partial Profile 55°	BUT	API Buttress Casing	ISO	ISO Metric
STACME	Stub ACME	APIRD	API Round Casing & Tubing	UNJ	UNJ
UN	American UN	EL	Extreme Line Casing	MJ	ISO 5855
W	Whitworth for BSW, BSP	NPT	NPT	TR	Trapez DIN103
BSPT	British Standard Pipe Thread	NPTF	NPTF	ACME	ACME
ABUT	American Buttress	NPS	NPS	RD	Round DIN405
BBUT	British Buttress	PG	Pg DIN 40430		

7	COATING & MATERIAL	8	WORKPIECE MATERIAL	9	MACHINING	10	ISO GRADE
CS	CVD Coated Carbide	2	Non-Ferrous Material	4	Threading	05	
PS	PVD Coated Carbide	4	Hardened Steel			10	
PB	New PVD Coating	5	Steel			15	
KS	Ceramic	7	Stainless Steel			20	
SS	Cermet	8	Cast Iron			25	
US	Uncoated	9	General Machining			30	
						35	
						40	
						45	
						45	

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GRADES

ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD																				
CARBIDE PVD	PS9425					PS9425					PS9425									
	PS9430					PS7430					PS7430									
						PS9430					PS9430									
CARBIDE UNCOATED																				
CERMET UNCOATED																				US2415

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

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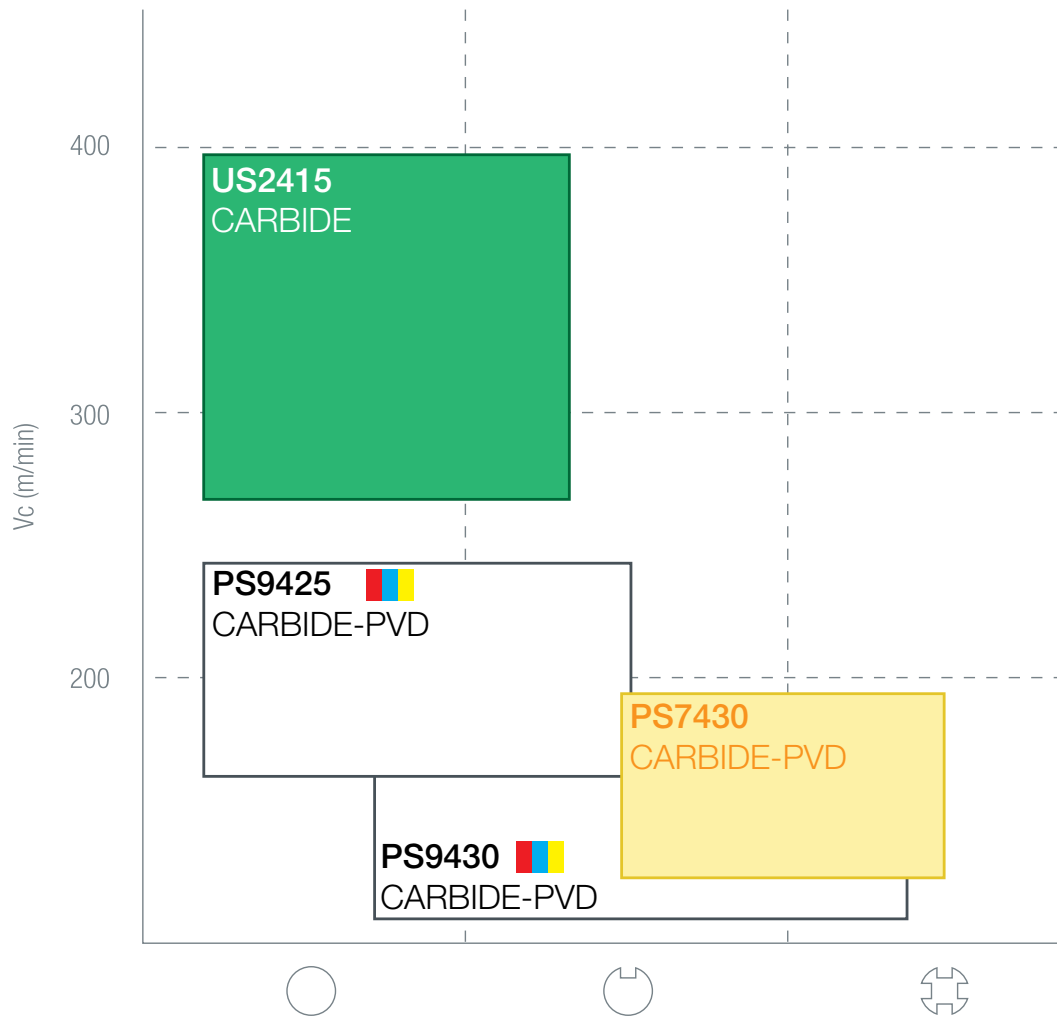
INDEX

CARBIDE /THREADING

RANGE ISO



GRADES



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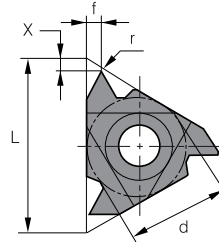
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EXTERNAL PARTIAL PROFILE



DESCRIPTION	DIMENSIONS								CARBIDE			
	-IPf-		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	0.5~1.5	48~16	6.35	11	0.05	0.8	0.9					
	11ER-A60	0.5~1.5	48~16	6.35	11	0.05	0.8	0.9	●	●	●	●
	16ER-A60	0.5~1.5	48~16	9.525	16	0.05	0.8	0.9	●	●		
	16ER-G60	1.75~3.0	14~8	9.525	16	0.27	1.2	1.7	●	●		
	16ER-AG60	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●	●	●	
	22ER-N60	3.5~5.0	7~5	12.7	22	0.53	1.7	2.5	●	●	●	
	27ER-Q60	5.5~6.0	4.5~4	15.875	27	0.64	2.1	3.1	●			
	16ERM-AG60	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●			
	16ERM-G60	1.75~3.0	14~8	9.525	16	0.27	1.2	1.7	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

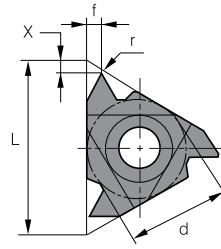
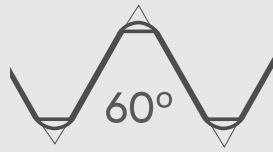
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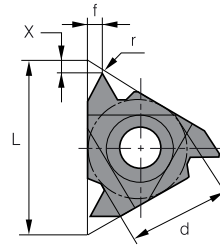
INTERNAL PARTIAL PROFILE

DESCRIPTION		DIMENSIONS							CARBIDE			
									PS9425	PS9430	PS7430	US2415
			d	l	hmin	x	f					
	06IR-A60	1.5~1.25	48~20	3.97	6	0.04	0.6	0.6	●			
	08IR-A60	0.5~1.5	48~16	4.76	8	0.05	0.6	0.7	●			
	11IR-A60	0.5~1.5	48~16	6.35	11	0.05	0.8	0.9	●	●	●	●
	16IR-A60	0.5~1.5	48~16	9.525	16	0.05	0.8	0.9	●			
	16IR-G60	1.75~3.0	14~8	9.525	16	0.27	1.2	1.7	●	●		●
	16IR-AG60	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●	●	●	
	22IR-N60	3.5~5.0	7~5	12.7	22	0.53	1.7	2.5	●	●	●	
	27IR-Q60	5.5~6.0	4.5~4	15.875	27	0.64	2.1	3.1	●			
	16IRM-AG60	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●			

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EXTERNAL PARTIAL PROFILE



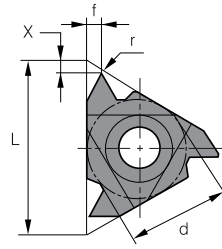
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DESCRIPTION	DIMENSIONS								CARBIDE			
	-1PT		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	11ER-A55	0.5~1.5	48-16	6.35	11	0.05	0.8	0.9	●	●	●	●
	16ER-A55	0.5~1.5	48-16	9.525	16	0.05	0.8	0.9	●		●	
	16ER-G55	1.75~3.0	14-8	9.525	16	0.27	1.2	1.7	●	●		
	16ER-AG55	0.5~3.0	48-8	9.525	16	0.08	1.2	1.7	●	●	●	●
	22ER-N55	3.5~5.0	7-5	12.7	22	0.53	1.7	2.5	●	●	●	
	27ER-Q55	5.5~6.0	4.5-4	15.875	27	0.64	2.1	3.1	●			
	16ERM-AG55	0.5~3.0	48-8	9.525	16	0.08	1.2	1.7	●			

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INTERNAL PARTIAL PROFILE

DESCRIPTION	DIMENSIONS								CARBIDE			
									PS9425	PS9430	PS7430	US2415
	$\frac{-IPt}{\text{M}}$	d	l	hmin	x	f						
	06IR-A55	1.5~1.25	48~20	3.97	6	0.07	0.6	0.6	●			
	08IR-A55	0.5~1.5	48~16	4.76	8	0.05	0.6	0.7	●			
	11IR-A55	0.5~1.5	48~16	6.35	11	0.05	0.8	0.9	●	●	●	●
	16IR-A55	0.5~1.5	48~16	9.525	16	0.05	0.8	0.9	●			
	16IR-G55	1.75~3.0	14~8	9.525	16	0.27	1.2	1.7	●		●	●
	16IR-AG55	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●	●	●	●
	22IR-N55	3.5~5.0	7~5	12.7	22	0.53	1.7	2.5	●	●	●	
	27IR-Q55	5.5~6.0	4.5~4	15.875	27	0.64	2.1	3.1	●			
	16IRM-AG55	0.5~3.0	48~8	9.525	16	0.08	1.2	1.7	●			

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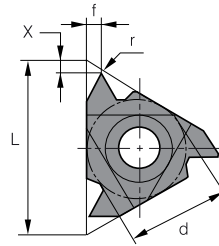
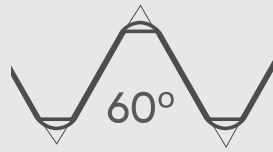
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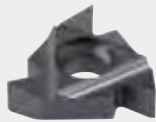


EXTERNAL METRIC



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DESCRIPTION	DIMENSIONS								CARBIDE			
	-1PT 	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
11ER-0.35ISO	0.35	6.35	11	0.21	0.8	0.4	●					
11ER-0.40ISO	0.40	6.35	11	0.25	0.7	0.4	●					
11ER-0.45ISO	0.45	6.35	11	0.28	0.7	0.4	●					
11ER-0.50ISO	0.50	6.35	11	0.31	0.6	0.4	●					
11ER-0.60ISO	0.60	6.35	11	0.37	0.6	0.6	●					
11ER-0.70ISO	0.70	6.35	11	0.43	0.6	0.6	●					
11ER-0.75ISO	0.75	6.35	11	0.46	0.6	0.6	●					
11ER-0.80ISO	0.80	6.35	11	0.49	0.6	0.6	●					
11ER-1.00ISO	1.00	6.35	11	0.61	0.7	0.7	●	●	●			
11ER-1.25ISO	1.25	6.35	11	0.77	0.8	0.9	●	●	●			
11ER-1.50ISO	1.50	6.35	11	0.92	0.8	1.0	●	●	●			
11ER-1.75ISO	1.75	6.35	11	1.07	0.8	1.1	●	●	●			
11ER-2.00ISO	2.00	6.35	11	1.15	0.9	1.1	●					
16ER-0.35ISO	0.35	9.525	16	0.21	0.8	0.4	●					
16ER-0.40ISO	0.40	9.525	16	0.25	0.7	0.4	●					
16ER-0.45ISO	0.45	9.525	16	0.28	0.7	0.4	●					
16ER-0.50ISO	0.50	9.525	16	0.31	0.6	0.4	●					
16ER-0.60ISO	0.60	9.525	16	0.37	0.6	0.6	●					
16ER-0.70ISO	0.70	9.525	16	0.43	0.6	0.6	●					
16ER-0.75ISO	0.75	9.525	16	0.46	0.6	0.6	●	●	●			
16ER-0.80ISO	0.80	9.525	16	0.49	0.6	0.6	●					
16ER-1.00ISO	1.00	9.525	16	0.61	0.7	0.7	●	●	●			
16ER-1.25ISO	1.25	9.525	16	0.77	0.8	0.9	●	●	●			
16ER-1.50ISO	1.50	9.525	16	0.92	0.8	1.0	●	●	●			
16ER-1.75ISO	1.75	9.525	16	1.07	0.9	1.2	●	●	●			
16ER-2.00ISO	2.00	9.525	16	1.23	1.0	1.3	●	●	●			
16ER-2.50ISO	2.50	9.525	16	1.53	1.1	1.5	●	●	●			
16ER-3.00ISO	3.00	9.525	16	1.84	1.2	1.6	●	●	●			



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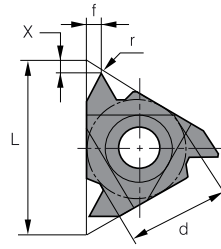
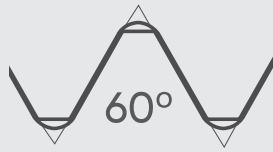
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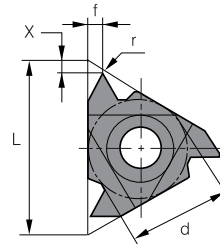
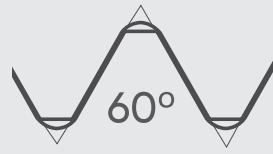
EXTERNAL METRIC

DESCRIPTION	DIMENSIONS							CARBIDE			
	$\frac{-IPt}{\text{W}}$	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	22ER-3.50ISO	3.50	12.7	22	2.15	1.6	2.3	●	●	●	
	22ER-4.00ISO	4.00	12.7	22	2.45	1.6	2.3	●	●	●	
	22ER-4.50ISO	4.50	12.7	22	2.78	1.7	2.4	●	●	●	
	22ER-5.00ISO	5.00	12.7	22	3.07	1.7	2.5	●	●	●	
	22ER-5.50ISO	5.50	12.7	22	3.37	1.9	2.5	●			
	22ER-6.00ISO	6.00	12.7	22	3.68	2.0	2.9	●	●	●	
	16ERM-1.00ISO	1.00	9.525	16	0.61	0.7	0.7	●			
	16ERM-1.25ISO	1.25	9.525	16	0.77	0.8	0.9	●			
	16ERM-1.50ISO	1.50	9.525	16	0.92	0.8	1.0	●			
	16ERM-1.75ISO	1.75	9.525	16	1.07	0.9	1.2	●			
	16ERM-2.00ISO	2.00	9.525	16	1.23	1.0	1.3	●			
	16ERM-2.50ISO	2.50	9.525	16	1.53	1.1	1.5	●			
	16ERM-3.00ISO	3.00	9.525	16	1.84	1.2	1.6	●			
	16ERM-3.50ISO	3.50	9.525	16	2.15	1.6	2.3	●			

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CARBIDE /THREADING

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INTERNAL METRIC



DESCRIPTION	DIMENSIONS								CARBIDE			
	$\frac{-1PT}{\text{mm}}$	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
11IR-0.35ISO	0.35	6.35	11	0.21	0.8	0.4	●					
11IR-0.40ISO	0.40	6.35	11	0.25	0.7	0.4	●					
11IR-0.45ISO	0.45	6.35	11	0.28	0.7	0.4	●					
11IR-0.50ISO	0.50	6.35	11	0.31	0.6	0.4	●	●	●			
11IR-0.60ISO	0.60	6.35	11	0.37	0.6	0.6	●					
11IR-0.70ISO	0.70	6.35	11	0.43	0.6	0.6	●					
11IR-0.75ISO	0.75	6.35	11	0.46	0.6	0.6	●	●	●			
11IR-0.80ISO	0.80	6.35	11	0.49	0.6	0.6	●					
11IR-1.00ISO	1.00	6.35	11	0.61	0.7	0.7	●	●	●			
11IR-1.25ISO	1.25	6.35	11	0.77	0.8	0.9	●	●	●			
11IR-1.50ISO	1.50	6.35	11	0.92	0.8	1.0	●	●	●			
11IR-1.75ISO	1.75	6.35	11	1.07	0.8	1.1	●	●	●			
11IR-2.00ISO	2.00	6.35	11	1.15	0.9	1.1	●	●	●			
11IR-2.50ISO	2.5	6.35	11	1.44	0.8	1.1	●					
16IR-0.35ISO	0.35	9.525	16	0.21	0.8	0.4	●					
16IR-0.40ISO	0.40	9.525	16	0.25	0.7	0.4	●					
16IR-0.45ISO	0.45	9.525	16	0.28	0.7	0.4	●					
16IR-0.50ISO	0.50	9.525	16	0.31	0.6	0.4	●					
16IR-0.60ISO	0.60	9.525	16	0.37	0.6	0.6	●					
16IR-0.70ISO	0.70	9.525	16	0.43	0.6	0.6	●					
16IR-0.75ISO	0.75	9.525	16	0.46	0.6	0.6	●	●	●			
16IR-0.80ISO	0.80	9.525	16	0.49	0.6	0.6	●					
16IR-1.00ISO	1.00	9.525	16	0.61	0.7	0.7	●	●	●			
16IR-1.25ISO	1.25	9.525	16	0.77	0.8	0.9	●	●	●			
16IR-1.50ISO	1.50	9.525	16	0.92	0.8	1.0	●	●	●			
16IR-1.75ISO	1.75	9.525	16	1.07	0.9	1.2	●	●	●			
16IR-2.00ISO	2.00	9.525	16	1.23	1.0	1.3	●	●	●			
16IR-2.50ISO	2.50	9.525	16	1.53	1.1	1.5	●	●	●			
16IR-3.00ISO	3.00	9.525	16	1.84	1.2	1.6	●	●	●			



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

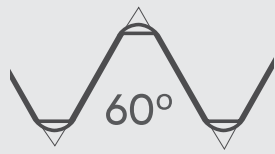
HSS
DRILLS & TAPS

SPARE
PARTS

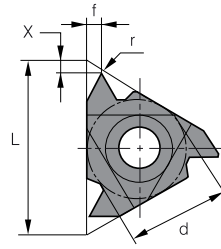
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CARBIDE /THREADING

IR



INTERNAL METRIC



DESCRIPTION		DIMENSIONS							CARBIDE			
									PS9425	PS9430	PS7430	US2415
	22IR-3.50ISO	3.50		12.7	22	2.15	1.6	2.3	●	●	●	
	22IR-4.00ISO	4.00		12.7	22	2.45	1.6	2.3	●	●	●	
	22IR-4.50ISO	4.50		12.7	22	2.78	1.7	2.4	●	●	●	
	22IR-5.00ISO	5.00		12.7	22	3.07	1.7	2.5	●	●	●	
	22IR-5.50ISO	5.50		12.7	22	3.37	1.9	2.5	●			
	22IR-6.00ISO	6.00		12.7	22	3.68	2.0	2.9	●	●	●	
	16IRM-1.00ISO	1.00		9.525	16	0.61	0.7	0.7	●			
	16IRM-1.50ISO	1.50		9.525	16	0.92	0.8	1.0	●			
	16IRM-2.00ISO	2.00		9.525	16	1.23	1.0	1.3	●			
	16IRM-2.50ISO	2.50		9.525	16	1.53	1.1	1.5	●			
	16IRM-3.00ISO	3.00		9.525	16	1.84	1.2	1.6	●			
	16IRM-3.50ISO	3.50		9.525	16	2.15	1.6	2.3	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

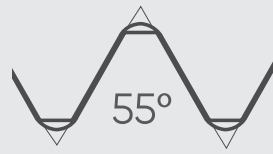
HSS DRILLS & TAPS

SPARE PARTS

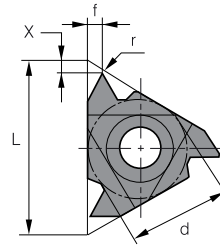
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CARBIDE /THREADING

□□ER



EXTERNAL WHITWORTH



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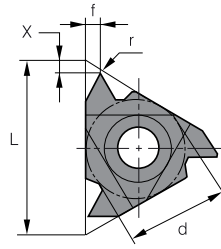
DESCRIPTION		DIMENSIONS							CARBIDE			
			d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	11ER-14W	14	6,35	11	1,16	0,9	1,1	●	●	●		
	11ER-16W	16	6,35	11	1,02	0,9	1,1	●	●	●		
	11ER-18W	18	6,35	11	0,9	0,8	1	●				
	11ER-19W	19	6,35	11	0,86	0,8	1	●	●	●		
	11ER-20W	20	6,35	11	0,81	0,8	0,9	●				
	11ER-22W	22	6,35	11	0,74	0,8	0,9	●				
	11ER-24W	24	6,35	11	0,68	0,7	0,8	●				
	11ER-26W	26	6,35	11	0,63	0,7	0,7	●				
	11ER-28W	28	6,35	11	0,58	0,6	0,7	●				
	11ER-32W	32	6,35	11	0,51	0,6	0,6	●				
	11ER-36W	36	6,35	11	0,45	0,6	0,6	●				
	11ER-40W	40	6,35	11	0,41	0,6	0,6	●				
	11ER-48W	48	6,35	11	0,34	0,6	0,6	●				
	11ER-56W	56	6,35	11	0,29	0,7	0,4	●				
	11ER-60W	60	6,35	11	0,27	0,7	0,4	●				
	11ER-72W	72	6,35	11	0,23	0,7	0,4	●				
	16ER-8W	8	9,52	16	2,03	1,2	1,5	●				
	16ER-9W	9	9,52	16	1,81	1,2	1,7	●				
	16ER-10W	10	9,52	16	1,63	1,1	1,5	●				
	16ER-11W	11	9,52	16	1,48	1,1	1,5	●	●	●		
	16ER-12W	12	9,52	16	1,36	1,1	1,4	●				
	16ER-14W	14	9,52	16	1,16	1	1,2	●	●	●		
	16ER-16W	16	9,52	16	1,02	0,9	1,1	●		●		
	16ER-18W	18	9,52	16	0,9	0,8	1	●				
16ER-19W	19	9,52	16	0,86	0,8	1	●	●	●			
16ER-20W	20	9,52	16	0,81	0,8	0,9	●					
16ER-22W	22	9,52	16	0,74	0,8	0,9	●					
16ER-24W	24	9,52	16	0,68	0,7	0,8	●					

CARBIDE /THREADING

□□ER



EXTERNAL WHITWORTH



DESCRIPTION	DIMENSIONS							CARBIDE			
								PS9425	PS9430	PS7430	US2415
		d	l	hmin	x	f					
	16ER-26W	26	9,52	16	0,63	0,7	0,7	●			
	16ER-28W	28	9,52	16	0,58	0,6	0,7	●			
	16ER-30W	30	9,52	16	0,55	0,6	0,7	●			
	16ER-32W	32	9,52	16	0,51	0,6	0,6	●			
	16ER-36W	36	9,52	16	0,45	0,6	0,6	●			
	16ER-40W	40	9,52	16	0,41	0,6	0,6	●			
	16ER-48W	48	9,52	16	0,34	0,6	0,6	●			
	16ER-56W	56	9,52	16	0,29	0,7	0,4	●			
	16ER-60W	60	9,52	16	0,27	0,7	0,4	●			
	16ER-72W	72	9,52	16	0,23	0,7	0,4	●			
	22ER-5W	5	12,7	22	3,25	1,7	2,4	●			
	22ER-6W	6	12,7	22	2,71	1,6	2,3	●			
22ER-7W	7	12,7	22	3,32	1,6	2,3	●				
27ER-4W	4	15,88	27	4,07	2	2,9	●				
27ER-4.5W	4,5	15,88	27	3,61	1,8	2,6	●				
	16ERM-8W	8	9,52	16	2,03	1,2	1,5	●			
	16ERM-11W	11	9,52	16	1,48	1,1	1,5	●			
	16ERM-14W	14	9,52	16	1,16	1	1,2	●			
	16ERM-24W	24	9,52	16	0,68	0,7	0,8	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

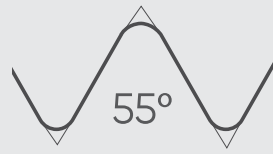
HSS
DRILLS & TAPS

SPARE
PARTS

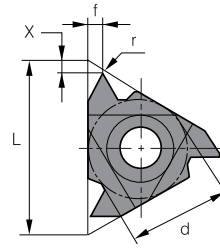
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CARBIDE /THREADING

IR



INTERNAL WHITWORTH



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DESCRIPTION	DIMENSIONS								CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
11IR-11W	11	6,35	11	1,43	0,9	1,2	●					
11IR-14W	14	6,35	11	1,16	0,9	1,1	●					
11IR-16W	16	6,35	11	1,02	0,9	1,1	●		●			
11IR-18W	18	6,35	11	0,9	0,8	1	●					
11IR-19W	19	6,35	11	0,86	0,8	1	●		●			
11IR-20W	20	6,35	11	0,81	0,8	0,9	●					
11IR-22W	22	6,35	11	0,74	0,8	0,9	●					
11IR-24W	24	6,35	11	0,68	0,7	0,8	●					
11IR-26W	26	6,35	11	0,63	0,7	0,7	●					
11IR-28W	28	6,35	11	0,58	0,6	0,7	●					
11IR-32W	32	6,35	11	0,51	0,6	0,6	●					
11IR-36W	36	6,35	11	0,45	0,6	0,6	●					
11IR-40W	40	6,35	11	0,41	0,6	0,6	●					
11IR-48W	48	6,35	11	0,34	0,6	0,6	●					
11IR-56W	56	6,35	11	0,29	0,7	0,4	●					
11IR-60W	60	6,35	11	0,27	0,7	0,4	●					
11IR-72W	72	6,35	11	0,23	0,7	0,4	●					
16IR-8W	8	9,52	16	2,03	1,2	1,5	●					
16IR-9W	9	9,52	16	1,81	1,2	1,7	●					
16IR-10W	10	9,52	16	1,63	1,1	1,5	●					
16IR-11W	11	9,52	16	1,48	1,1	1,5	●	●	●			
16IR-12W	12	9,52	16	1,36	1,1	1,4	●					
16IR-14W	14	9,52	16	1,16	1	1,2	●	●	●			
16IR-16W	16	9,52	16	1,02	0,9	1,1	●					
16IR-18W	18	9,52	16	0,9	0,8	1	●					
16IR-19W	19	9,52	16	0,86	0,8	1	●					
16IR-20W	20	9,52	16	0,81	0,8	0,9	●					
16IR-22W	22	9,52	16	0,74	0,8	0,9	●					
16IR-24W	24	9,52	16	0,68	0,7	0,8	●					



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

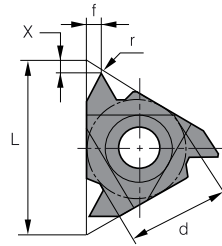
HSS
DRILLS & TAPS

SPARE
PARTS

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CARBIDE /THREADING

□□IR



INTERNAL WHITWORTH

DESCRIPTION		DIMENSIONS						CARBIDE			
		IPt	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415
	16IR-26W	26	9,52	16	0,63	0,7	0,7	●			
	16IR-28W	28	9,52	16	0,58	0,6	0,7	●			
	16IR-30W	30	9,52	16	0,55	0,6	0,7	●			
	16IR-32W	32	9,52	16	0,51	0,6	0,6	●			
	16IR-36W	36	9,52	16	0,45	0,6	0,6	●			
	16IR-40W	40	9,52	16	0,41	0,6	0,6	●			
	16IR-48W	48	9,52	16	0,34	0,6	0,6	●			
	16IR-56W	56	9,52	16	0,29	0,7	0,4	●			
	16IR-60W	60	9,52	16	0,27	0,7	0,4	●			
	16IR-72W	72	9,52	16	0,23	0,7	0,4	●			
	22IR-5W	5	12,7	22	3,25	1,7	2,4	●			
22IR-6W	6	12,7	22	2,71	1,6	2,3	●				
22IR-7W	7	12,7	22	3,32	1,6	2,3	●				
27IR-4W	4	15,88	27	4,07	2	2,9	●				
27IR-4.5W	4,5	15,88	27	3,61	1,8	2,6	●				
	16IRM-11W	11	9,52	16	1,48	1,1	1,5	●			
	16IRM-14W	14	9,52	16	1,16	1	1,2	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

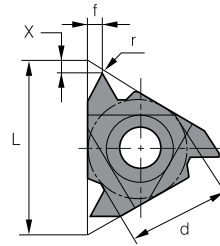
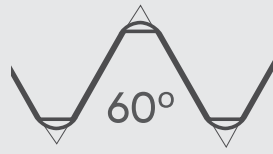
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DRILLS & TAPS

SPARE
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CARBIDE /THREADING

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EXTERNAL UN



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DESCRIPTION	DIMENSIONS								CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
11ER-14UN	14	6,35	11	1,11	0,9	1,1	●					
11ER-16UN	16	6,35	11	0,97	0,9	1,1	●					
11ER-18UN	18	6,35	11	0,87	0,8	1	●					
11ER-20UN	20	6,35	11	0,78	0,8	0,9	●					
11ER-24UN	24	6,35	11	0,65	0,7	0,8	●					
11ER-27UN	27	6,35	11	0,58	0,7	0,8	●					
11ER-28UN	28	6,35	11	0,56	0,6	0,7	●					
11ER-32UN	32	6,35	11	0,49	0,6	0,6	●					
11ER-36UN	36	6,35	11	0,43	0,6	0,6	●					
11ER-40UN	40	6,35	11	0,39	0,6	0,6	●					
11ER-44UN	44	6,35	11	0,35	0,6	0,6	●					
11ER-48UN	48	6,35	11	0,32	0,6	0,6	●					
11ER-56UN	56	6,35	11	0,28	0,7	0,4	●					
11ER-64UN	64	6,35	11	0,24	0,8	0,4	●					
11ER-72UN	72	6,35	11	0,22	0,8	0,4	●					
16ER-8UN	8	9,52	16	1,95	1,2	1,6	●					
16ER-9UN	9	9,52	16	1,73	1,2	1,7	●					
16ER-10UN	10	9,52	16	1,56	1,1	1,5	●					
16ER-11UN	11	9,52	16	1,42	1,1	1,5	●					
16ER-11.5UN	11,5	9,52	16	1,35	1,1	1,5	●					
16ER-12UN	12	9,52	16	1,3	1,1	1,4	●					
16ER-13UN	13	9,52	16	1,2	1	1,3	●					
16ER-14UN	14	9,52	16	1,11	0,9	1,2	●					
16ER-16UN	16	9,52	16	0,97	0,9	1,1	●					
16ER-18UN	18	9,52	16	0,87	0,8	1	●	●	●			
16ER-20UN	20	9,52	16	0,78	0,8	0,9	●	●	●			
16ER-24UN	24	9,52	16	0,65	0,7	0,8	●	●	●			
16ER-27UN	27	9,52	16	0,58	0,7	0,8	●					



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

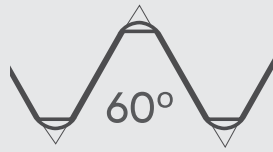
HSS
DRILLS & TAPS

SPARE
PARTS

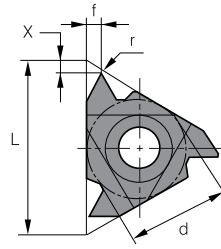
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CARBIDE /THREADING

16ER



EXTERNAL UN



DESCRIPTION	DIMENSIONS							CARBIDE			
								PS9425	PS9430	PS7430	US2415
		d	l	hmin	x	f					
	16ER-28UN	28	9,52	16	0,56	0,6	0,7	●			
	16ER-32UN	32	9,52	16	0,49	0,6	0,6	●			
	16ER-36UN	36	9,52	16	0,43	0,6	0,6	●			
	16ER-40UN	40	9,52	16	0,39	0,6	0,6	●			
	16ER-44UN	56	9,52	16	0,28	0,7	0,4	●			
	16ER-48UN	64	9,52	16	0,24	0,8	0,4	●			
	16ER-56UN	56	9,52	16	0,28	0,7	0,4	●			
	16ER-64UN	64	9,52	16	0,24	0,8	0,4	●			
	16ER-72UN	72	9,52	16	0,22	0,8	0,4	●			
	22ER-5UN	5	12,7	22	3,12	1,6	2,3	●			
22ER-6UN	6	12,7	22	2,6	1,6	2,3	●				
22ER-7UN	7	12,7	22	2,22	1,6	2,3	●				
27ER-4UN	4	15,88	27	3,89	1,8	2,7	●				
27ER-4.5UN	4,5	15,88	27	3,46	1,7	2,4	●				
	16ERM-12UN	12	9,52	16	1,3	1,1	1,4	●			
	16ERM-16UN	16	9,52	16	0,97	0,9	1,1	●			
	16ERM-18UN	18	9,52	16	0,87	0,8	1	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

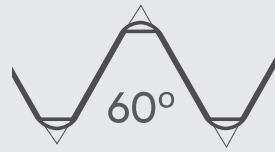
HSS
DRILLS & TAPS

SPARE
PARTS

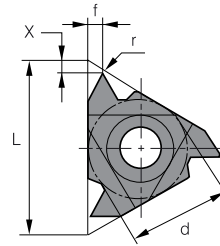
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CARBIDE /THREADING

IR



INTERNAL UN



DESCRIPTION		DIMENSIONS							CARBIDE			
			d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	11IR-14UN	14	6,35	11	1,11	0,9	1,1	●				
	11IR-16UN	16	6,35	11	0,97	0,9	1,1	●				
	11IR-18UN	18	6,35	11	0,87	0,8	1	●				
	11IR-20UN	20	6,35	11	0,78	0,8	0,9	●				
	11IR-24UN	24	6,35	11	0,65	0,7	0,8	●				
	11IR-27UN	27	6,35	11	0,58	0,7	0,8	●				
	11IR-28UN	28	6,35	11	0,56	0,6	0,7	●				
	11IR-32UN	32	6,35	11	0,49	0,6	0,6	●				
	11IR-36UN	36	6,35	11	0,43	0,6	0,6	●				
	11IR-40UN	40	6,35	11	0,39	0,6	0,6	●				
	11IR-44UN	44	6,35	11	0,35	0,6	0,6	●				
	11IR-48UN	48	6,35	11	0,32	0,6	0,6	●				
	11IR-56UN	56	6,35	11	0,28	0,7	0,4	●				
	11IR-64UN	64	6,35	11	0,24	0,8	0,4	●				
	11IR-72UN	72	6,35	11	0,22	0,8	0,4	●				
	16IR-8UN	8	9,52	16	1,95	1,2	1,6	●				
	16IR-9UN	9	9,52	16	1,73	1,2	1,7	●				
	16IR-10UN	10	9,52	16	1,56	1,1	1,5	●	●	●		
	16IR-11UN	11	9,52	16	1,42	1,1	1,5	●				
	16IR-11.5UN	11,5	9,52	16	1,35	1,1	1,5	●				
16IR-12UN	12	9,52	16	1,3	1,1	1,4	●					
16IR-13UN	13	9,52	16	1,2	1	1,3	●					
16IR-14UN	14	9,52	16	1,11	0,9	1,2	●					
16IR-16UN	16	9,52	16	0,97	0,9	1,1	●					
16IR-18UN	18	9,52	16	0,87	0,8	1	●	●	●			
16IR-20UN	20	9,52	16	0,78	0,8	0,9	●	●	●			
16IR-24UN	24	9,52	16	0,65	0,7	0,8	●	●	●			
16IR-27UN	27	9,52	16	0,58	0,7	0,8	●					

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

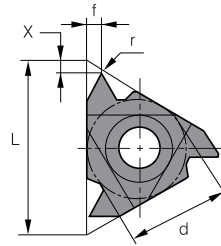
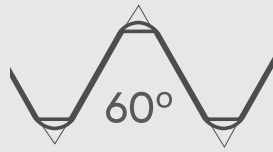
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CARBIDE /THREADING

□□IR



INTERNAL UN

DESCRIPTION	DIMENSIONS							CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	16IR-28UN	28	9,52	16	0,56	0,6	0,7	●			
	16IR-32UN	32	9,52	16	0,49	0,6	0,6	●			
	16IR-36UN	36	9,52	16	0,43	0,6	0,6	●			
	16IR-40UN	40	9,52	16	0,39	0,6	0,6	●			
	16IR-44UN	44	9,52	16	0,35	0,6	0,6	●			
	16IR-48UN	48	9,52	16	0,32	0,6	0,6	●			
	16IR-56UN	56	9,52	16	0,28	0,7	0,4	●			
	16IR-64UN	64	9,52	16	0,24	0,8	0,4	●			
	16IR-72UN	72	9,52	16	0,22	0,8	0,4	●			
	22IR-5UN	5	12,7	22	3,12	1,6	2,3	●			
22IR-6UN	6	12,7	22	2,6	1,6	2,3	●				
22IR-7UN	7	12,7	22	2,22	1,6	2,3	●				
27IR-4UN	4	15,88	27	3,89	1,8	2,7	●				
27IR-4.5UN	4,5	15,88	27	3,46	1,7	2,4	●				
	16IRM-12UN	12	9,52	16	1,3	1,1	1,4	●			
	16IRM-16UN	16	9,52	16	0,97	0,9	1,1	●			
	16IRM-18UN	18	9,52	16	0,87	0,8	1	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

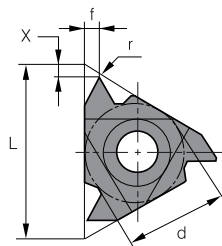
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CARBIDE /THREADING

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EXTERNAL BSPT

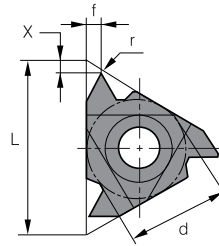


DESCRIPTION	DIMENSIONS								CARBIDE			
	-1PT	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
	11ER-14BSPT	14	6,35	11	1,16	0,9	1	•				
	11ER-19BSPT	19	6,35	11	0,86	0,8	0,9	•				
	11ER-28BSPT	28	6,35	11	0,58	0,6	0,6	•				
	16ER-11BSPT	11	9,52	16	1,48	1,1	1,5	•	•	•		
	16ER-14BSPT	14	9,52	16	1,16	1	1,2	•	•	•		
	16ER-19BSPT	19	9,52	16	0,86	0,8	0,9	•	•	•		
	16ER-28BSPT	28	9,52	16	0,58	0,6	0,6	•				
	16ERM-11BSPT	11	9,52	16	1,48	1,1	1,5	•				
	16ERM-14BSPT	14	9,52	16	1,16	1	1,2	•				

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CARBIDE / THREADING

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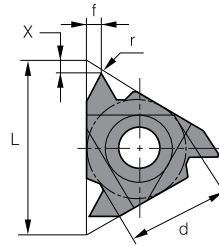
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EXTERNAL BSPT

DESCRIPTION	DIMENSIONS							CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415	
	11IR-14BSPT	14	6,35	11	1,16	0,9	1	•			
	11IR-19BSPT	19	6,35	11	0,86	0,8	0,9	•			
	11IR-28BSPT	28	6,35	11	0,58	0,6	0,6	•			
	16IR-11BSPT	11	9,52	16	1,48	1,1	1,5	•	•	•	
	16IR-14BSPT	14	9,52	16	1,16	1	1,2	•			
	16IR-19BSPT	19	9,52	16	0,86	0,8	0,9	•	•	•	
	16IR-28BSPT	28	9,52	16	0,58	0,6	0,6	•			
	16IRM-11BSPT	11	9,52	16	1,48	1,1	1,5	•			
	16IRM-14BSPT	14	9,52	16	1,16	1	1,2	•			




CARBIDE /THREADING

11ER



EXTERNAL NPT



DESCRIPTION	DIMENSIONS								CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
	11ER-14NPT	14	6,35	11	1,33	0,8	1	●				
	11ER-18NPT	18	6,35	11	1,01	0,8	1	●				
	11ER-27NPT	27	6,35	11	0,66	0,7	0,8	●				
	16ER-11.5NPT	11,5	9,52	16	1,64	1,1	1,5	●				
	16ER-14NPT	14	9,52	16	1,33	0,9	1,2	●	●			
	16ER-18NPT	18	9,52	16	1,01	0,8	1	●	●	●		
	16ER-27NPT	27	9,52	16	0,66	0,7	0,8	●	●	●		
	16ER-8NPT	8	9,52	16	2,42	1,3	1,8	●				
	16ERM-11.5NPT	11,5	9,52	16	1,64	1,1	1,5	●				
	16ERM-14NPT	14	9,52	16	1,33	0,9	1,2	●				

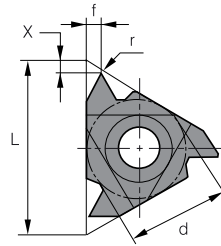
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EXTERNAL NPT

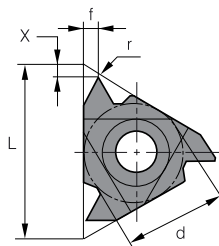


DESCRIPTION	DIMENSIONS							CARBIDE									
								PT	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415
	11IR-14NPT	14	6,35	11	1,33	0,8	1	●	●	●							
	11IR-18NPT	18	6,35	11	1,01	0,8	1	●									
	11IR-27NPT	27	6,35	11	0,66	0,7	0,8	●									
	16IR-11.5NPT	11,5	9,52	16	1,64	1,1	1,5	●	●								
	16IR-14NPT	14	9,52	16	1,33	0,9	1,2	●	●								
	16IR-18NPT	18	9,52	16	1,01	0,8	1	●									
	16IR-27NPT	27	9,52	16	0,66	0,7	0,8	●									
	16IR-8NPT	8	9,52	16	2,42	1,3	1,8	●									
	16IRM-11.5NPT	11,5	9,52	16	1,64	1,1	1,5	●									
	16IRM-14NPT	14	9,52	16	1,33	0,9	1,2	●									

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EXTERNAL ROUND



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DESCRIPTION	DIMENSIONS								CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
16ER-6RND	6	9,52	16	2,12	1,5	1,7	●					
16ER-8RND	8	9,52	16	1,59	1,4	1,3	●					
16ER-10RND	10	9,52	16	1,27	1,1	1,2	●					
22ER-4RND	4	12,7	22	3,18	2,2	2,3	●					
22ER-5RND	5	12,7	22	2,75	1,4	1,7	●					
22ER-6RND	6	12,7	22	2,12	1,5	1,7	●					
27ER-4RND	4	15,88	27	3,18	2,2	2,3	●					

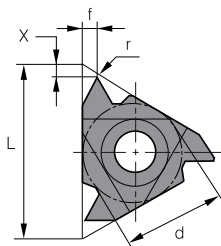
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EXTERNAL ROUND

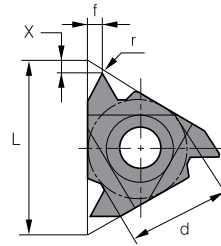


DESCRIPTION	DIMENSIONS						CARBIDE			
		d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415
	16IR-6RND	6	9,52	16	2,12	1,5	1,7	●		
	16IR-8RND	8	9,52	16	1,59	1,4	1,3	●		
	16IR-10RND	10	9,52	16	1,27	1,1	1,2	●		
	22IR-4RND	4	12,7	22	3,18	2,2	2,3	●		
	22IR-5RND	5	12,7	22	2,75	1,4	1,7	●		
	22IR-6RND	6	12,7	22	2,12	1,5	1,7	●		
	27IR-4RND	4	15,88	27	3,18	2,2	2,3	●		

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EXTERNAL TRAPEZ

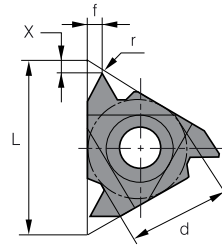


DESCRIPTION	DIMENSIONS								CARBIDE			
	$\frac{-1PT}{\text{mm}}$	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415		
	11ER-1.5TR	1,5	6,35	11	0,9	0,8	0,9	●				
	16ER-1.5TR	1,5	9,52	16	0,9	1	1,1	●				
	16ER-2.0TR	2	9,52	16	1,25	1	1,3	●	●	●		
	16ER-3.0TR	3	9,52	16	1,75	1,3	1,5	●				
	22ER-4.0TR	4	12,7	22	2,25	1,8	1,9	●	●	●		
	22ER-5.0TR	5	12,7	22	2,75	2	2,4	●				
	22ER-6.0TR	6	12,7	22	3,5	2	2,4	●	●	●		
	27ER-6.0TR	6	15,875	27	3,5	2,3	2,7	●				
	27ER-7.0TR	7	15,88	27	4	2,2	2,6	●				
	16ERM-2.0TR	2	9,52	16	1,25	1	1,3	●				
	16ERM-3.0TR	3	9,52	16	1,75	1,3	1,5	●				

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EXTERNAL TRAPEZ

DESCRIPTION	DIMENSIONS							CARBIDE			
								PS9425	PS9430	PS7430	US2415
		d	l	hmin	x	f					
	11IR-1.5TR	1,5	6,35	11	0,9	0,8	0,9	●			
	16IR-1.5TR	1,5	9,52	16	0,9	1	1,1	●			
	16IR-2.0TR	2	9,52	16	1,25	1	1,3	●	●	●	
	16IR-3.0TR	3	9,52	16	1,75	1,3	1,5	●			
	22IR-4.0TR	4	12,7	22	2,25	1,8	1,9	●	●	●	
	22IR-5.0TR	5	12,7	22	2,75	2	2,4	●	●	●	
	22IR-6.0TR	6	12,7	22	3,5	2	2,4	●	●	●	
27IR-7.0TR	7	15,88	27	4	2,2	2,6	●				
	16IRM-2.0TR	2	9,52	16	1,25	1	1,3	●			
	16IRM-3.0TR	3	9,52	16	1,75	1,3	1,5	●			

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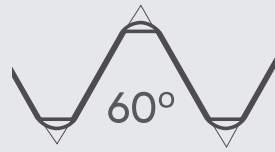
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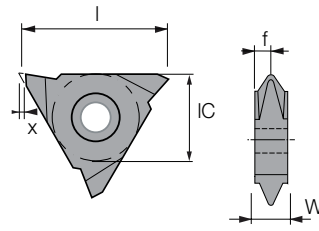
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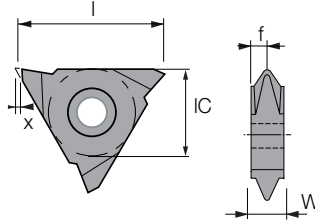
EXTERNAL PARTIAL PROFILE



DESCRIPTION		DIMENSIONS								CARBIDE			
		$\frac{-IPf}{\text{mm}}$	d	l	W	x	f	PS9425	PS9430	PS7430	US2415		
	VER11-A60	0.5~1.5	48-16	6.35	11	3.2	0.69	2.3	●				
	VER16-A60	0.5~1.5	48-16	9.525	16	3.5	1.1	2.7	●				
	VER16-G60	1.75~3.0	14-8	9.525	16	3.5	1.1	1.9	●				
	VER16-AG60	0.5~3.0	48-8	9.525	16	3.5	1.1	1.9	●				
	VER22-N60	3.5~5.0	7-5	12.7	22	4.8	1.1	2.3	●				

CARBIDE / THREADING

VER



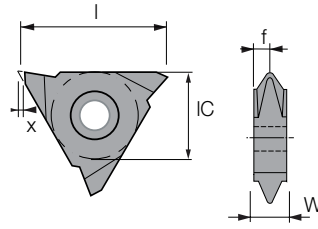
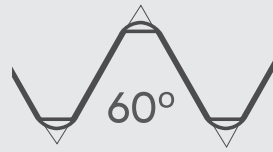
EXTERNAL PARTIAL PROFILE

DESCRIPTION		DIMENSIONS							CARBIDE			
									PS9425	PS9430	PS7430	US2415
	VER11-A55	0.5~1.5	48-16	6.35	11	3.2	0.8	2.7	•			
	VER16-A55	0.5~1.5	48-16	9.525	16	3.5	1.1	2.7	•			
	VER16-G55	1.75~3.0	14-8	9.525	16	3.5	1.1	1.9	•			
	VER16-AG55	0.5~3.0	48-8	9.525	16	3.5	1.1	1.9	•			
	VER22-N55	3.5~5.0	7-5	12.7	22	4.8	1.1	2.3	•			

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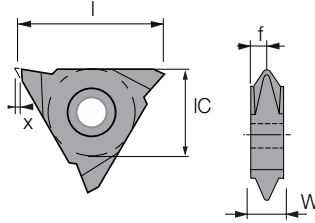
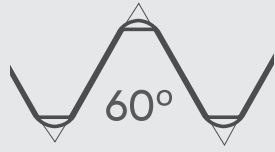


EXTERNAL METRIC

DESCRIPTION		DIMENSIONS							CARBIDE			
		$\frac{-1}{100} \text{PT}$	d	l	W	x	f	PS9425	PS9430	PS7430	US2415	
	VER11-0.75ISO	0.75	6.35	11	3.2	0.7	2.6	●				
	VER11-1.00ISO	1.00	6.35	11	3.2	0.7	2.5	●				
	VER11-1.50ISO	1.50	6.35	11	3.2	0.7	2.2	●				
	VER11-1.75ISO	1.75	6.35	11	3.2	0.7	2.1	●				
	VER11-2.00ISO	2.00	6.35	11	3.2	0.7	1.9	●				
	VER16-0.35ISO	0.35	9.525	16	3.5	1.1	3.2	●				
	VER16-0.40ISO	0.40	9.525	16	3.5	1.1	3.2	●				
	VER16-0.50ISO	0.50	9.525	16	3.5	1.1	3.0	●				
	VER16-0.75ISO	0.75	9.525	16	3.5	1.1	3.0	●				
	VER16-0.80ISO	0.80	9.525	16	3.5	1.1	3.0	●				
	VER16-1.00ISO	1.00	9.525	16	3.5	1.1	2.9	●				
	VER16-1.25ISO	1.25	9.525	16	3.5	1.1	2.7	●				
	VER16-1.50ISO	1.50	9.525	16	3.5	1.1	2.6	●				
	VER16-1.75ISO	1.75	9.525	16	3.5	1.1	2.4	●				
	VER16-2.00ISO	2.00	9.525	16	3.5	1.1	2.3	●				
	VER16-2.50ISO	2.50	9.525	16	3.5	1.1	2.1	●				
	VER16-3.00ISO	3.00	9.525	16	3.5	1.1	2.0	●				

CARBIDE /THREADING

VER



EXTERNAL UN

DESCRIPTION		DIMENSIONS							CARBIDE			
									PS9425	PS9430	PS7430	US2415
			d	l	W	x	f					
	VER11-20UN		20	6.35	11	3.2	0.69	2.3	●			
	VER11-18UN		18	6.35	11	3.2	0.69	2.2	●			
	VER11-16UN		16	6.35	11	3.2	0.69	2.2	●			
	VER11-14UN		14	6.35	11	3.2	0.69	2.0	●			
	VER11-12UN		12	6.35	11	3.2	0.69	1.8	●			
	VER16-32UN		32	9.525	16	3.5	1.1	3.0	●			
	VER16-28UN		28	9.525	16	3.5	1.1	3.0	●			
	VER16-24UN		24	9.525	16	3.5	1.1	2.9	●			
	VER16-20UN		20	9.525	16	3.5	1.1	2.7	●			
	VER16-18UN		18	9.525	16	3.5	1.1	2.6	●			
	VER16-16UN		16	9.525	16	3.5	1.1	2.55	●			
	VER16-14UN		14	9.525	16	3.5	1.1	2.5	●			
	VER16-12UN		12	9.525	16	3.5	1.1	2.2	●			
	VER16-10UN		10	9.525	16	3.5	1.1	2.1	●			
	VER16-08UN		8	9.525	16	3.5	1.1	2.0	●			

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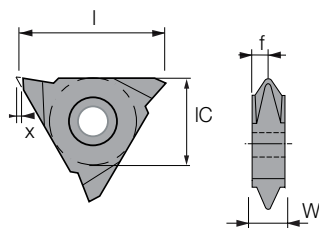
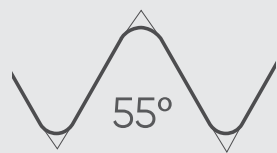
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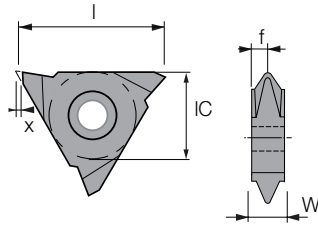


EXTERNAL WHITWORTH

DESCRIPTION	DIMENSIONS							CARBIDE			
	$\frac{-1}{\sqrt{3}}$	d	l	W	x	f	PS9425	PS9430	PS7430	US2415	
 VER11-19W VER11-14W VER11-11W	19	6.35	11	3.2	0.7	2.3	●				
	14	6.35	11	3.2	0.7	2.0	●				
	11	6.35	11	3.2	0.7	1.7	●				
 VER16-19W VER16-18W VER16-16W VER16-14W VER16-12W VER16-11W	19	9.525	16	3.5	1.1	2.7	●				
	18	9.525	16	3.5	1.1	2.6	●				
	16	9.525	16	3.5	1.1	2.6	●				
	14	9.525	16	3.5	1.1	2.4	●				
	12	9.525	16	3.5	1.1	2.2	●				
	11	9.525	16	3.5	1.1	2.1	●				

CARBIDE /THREADING

VER



EXTERNAL BSPT

DESCRIPTION	DIMENSIONS							CARBIDE			
	$\frac{-1}{\sqrt{3}}$ 	d	l	W	x	f	PS9425	PS9430	PS7430	US2415	
	VER16-28BSPT	28	9.525	16	3.5	1.1	3.0	●			
	VER16-19BSPT	19	9.525	16	3.5	1.1	2.7	●			
	VER16-14BSPT	14	9.525	16	3.5	1.1	2.4	●			
	VER16-11BSPT	11	9.525	16	3.5	1.1	2.1	●			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

CARBIDE /THREADING

TURNING

GROOVING

THREADING

MILLING

DRILLING

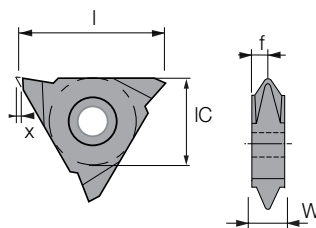
ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
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VER



EXTERNAL NPT



280

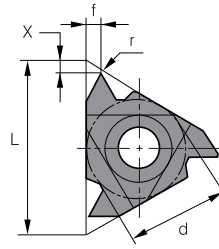
DESCRIPTION		DIMENSIONS							CARBIDE			
									PS9425	PS9430	PS7430	US2415
	VER11-27NPT	27	6.35	11	3.2	0.7	2.0	●				
	VER11-18NPT	18	6.35	11	3.2	0.7	1.8	●				
	VER11-14NPT	14	6.35	11	3.2	0.7	1.8	●				
	VER16-27NPT	27	9.525	16	3.5	1.1	2.9	●				
	VER16-18NPT	18	9.525	16	3.5	1.1	2.6	●				
	VER16-11.5NPT	11.5	9.525	16	3.5	1.1	2.1	●				

CARBIDE /THREADING

□ □ VER



EXTERNAL



DESCRIPTION	DIMENSIONS						CARBIDE			
	$\frac{1}{100}$	d	l	hmin	x	f	PS9425	PS9430	PS7430	US2415
	VER27-7.0TR	7	15.875	27	4.00	1.0	3,3	●		
	VER27-8.0TR	8	15.875	27	4.50	1.0	3,3	●		
	VER27-10.0TR	10	15.875	27	5.50	1.0	4,3	●		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

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CARBIDE /THREADING

SR 14 I - 11 W PS 9 4 25

1 2 3 4 5 6 7 8 9

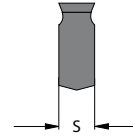
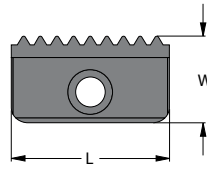
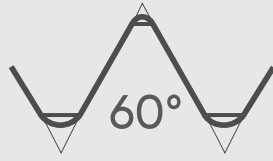
1	3	5
SL	INSERT TYPE	ISO
Screw on Left	E	Metric
SR	External	W
Screw on Right	I	Whitworth for BSW, BSP
	Internal	BSPT
		British Standard Pipe Thread
		UN
		American UN
		NPT
		NPT
		NPTF
		NPTF
		PG
		Pg DIN40430

2	4
INSERT LENGTH	PITCH (FULL PROFILE)
12	0.35~6.0
12 mm	mm
14	3~72
14 mm	TPI
21	
21 mm	
30	
30 mm	
40	
40 mm	

6	7	8	9	
COATING & MATERIAL	WORKPIECE MATERIAL	MACHINING	ISO GRADE	
CS	2	1	05	
CVD Coated Carbide	Non-Ferrous Material	Turning		
PS	4	2		10
PVD Coated Carbide	Hardened Steel	Turning New		15
PB	5	4		20
New PVD Coating	Steel	Threading		25
KS	7	9		30
Ceramic	Stainless Steel	Milling		35
SS	8			40
Cermet	Cast Iron			45
US	9			
Uncoated	General Machining			

CARBIDE /THREADING

SR□□



INTERNAL METRIC

DESCRIPTION	DIMENSIONS				CARBIDE						
		L	W	S	PS9425						
	SR14I-0.50-ISO	0.50	14	7,9	3,2	●					
	SR14I-0.75-ISO	0.75	14	7,9	3,2	●					
	SR14I-1.00-ISO	1.00	14	7,9	3,2	●					
	SR14I-1.25-ISO	1.25	14	7,9	3,2	●					
	SR14I-1.50-ISO	1.50	14	7,9	3,2	●					
	SR14I-1.75-ISO	1.75	14	7,9	3,2	●					
	SR14I-2.00-ISO	2.00	14	7,9	3,2	●					
	SR14I-2.50-ISO	2.50	14	7,9	3,2	●					
	SR14I-2.50-ISO	3.00	14	7,9	3,2	●					
	SR21I-1.00-ISO	1.00	21	12,6	4,8	●					
	SR21I-1.25-ISO	1.25	21	12,6	4,8	●					
	SR21I-1.50-ISO	1.50	21	12,6	4,8	●					
	SR21I-1.75-ISO	1.75	21	12,6	4,8	●					
	SR21I-2.00-ISO	2.00	21	12,6	4,8	●					
	SR21I-2.50-ISO	2.50	21	12,6	4,8	●					
	SR21I-3.00-ISO	3.00	21	12,6	4,8	●					
	SR21I-3.50-ISO	3.50	21	12,6	4,8	●					

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

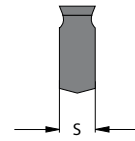
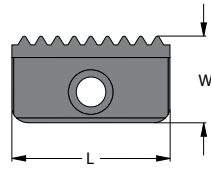
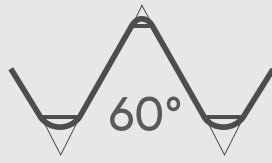
HSS
DRILLS & TAPS

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CARBIDE /THREADING



SR□□



INTERNAL METRIC



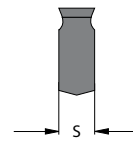
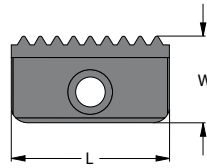
281

DESCRIPTION	DIMENSIONS				CARBIDE													
		I	W	S	PS9425													
	SR30I-1.50-ISO	1.50	30	16,7	5,6	●												
	SR30I-2.00-ISO	2.00	30	16,7	5,6	●												
	SR30I-3.00-ISO	3.00	30	16,7	5,6	●												
	SR30I-3.50-ISO	3.50	30	16,7	5,6	●												
	SR30I-4.00-ISO	4.00	30	16,7	5,6	●												
	SR30I-4.50-ISO	4.50	30	16,7	5,6	●												
	SR30I-5.00-ISO	5.00	30	16,7	5,6	●												
	SR40I-1.50-ISO	1.50	40	20,8	6,4	●												
	SR40I-2.00-ISO	2.00	40	20,8	6,4	●												
	SR40I-3.00-ISO	3.00	40	20,8	6,4	●												
	SR40I-3.50-ISO	3.50	40	20,8	6,4	●												
	SR40I-4.00-ISO	4.00	40	20,8	6,4	●												
	SR40I-4.50-ISO	4.50	40	20,8	6,4	●												
	SR40I-5.00-ISO	5.00	40	20,8	6,4	●												
	SR40I-5.50-ISO	5.50	40	20,8	6,4	●												
	SR40I-6.00-ISO	6.00	40	20,8	6,4	●												

- TURNING
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- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

CARBIDE /THREADING

SR□□



INTERNAL WHITWORTH

DESCRIPTION		DIMENSIONS				CARBIDE						
			I	W	S	PS9425						
	SR14I-24W		24	14	79	3.2	●					
	SR14I-20W		20	14	79	3.2	●					
	SR14I-19W		19	14	79	3.2	●					
	SR14I-16W		16	14	79	3.2	●					
	SR14I-14W		14	14	79	3.2	●					
	SR21I-11W		11	14	79	3.2	●					
	SR21I-20W		20	21	12.6	4.8	●					
	SR21I-19W		19	21	12.6	4.8	●					
	SR21I-16W		16	21	12.6	4.8	●					
	SR21I-14W		14	21	12.6	4.8	●					
	SR21I-11W		11	21	12.6	4.8	●					
	SR30I-16W		16	30	16.7	5.6	●					
	SR30I-14W		14	30	16.7	5.6	●					
	SR30I-11W		11	30	16.7	5.6	●					
	SR40I-11W		11	40	20.8	6.4	●					
	SR40I-8W		8	40	20.8	6.4	●					

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CARBIDE /THREADING

E ST B 06 04 C 5 - 11 W

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

1	
E	External
NON	Internal

2	TYPE
ST	Solide Thread Mill

3	ENDMILL TYPE
NON	Without Coolant
B	With Coolant

4	SHANK DIAMETER
06	6 mm
08	8 mm
10	10 mm
12	12 mm
14	14 mm
16	16 mm
20	20 mm
25	25 mm

5	CUTTING DIAMETER
06	6 mm
08	8 mm
10	10 mm
12	12 mm
14	14 mm
16	16 mm
20	20 mm
25	25 mm

6	NUMBER OF FLUTES
C	3
D	4
E	5
F	6

7	CUTTING LENGTH
	mm

8	PITCH (FULL PROFILE)	
0.35~6.0	mm	
3~72	TPI	

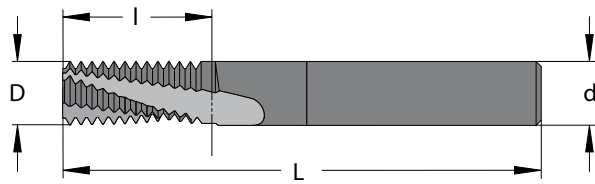
9	THREAD STANDARD
ISO	PG
W	Whitworth for BSW, BSP
BSPT	British Standard Pipe Thread
UN	American UN
NPT	NPT
NPTF	NPTF
PG	Pg DIN40430

CARBIDE /THREADING

ST



INTERNAL METRIC



DESCRIPTION

DIMENSIONS

Z

Carbide

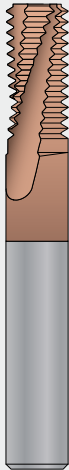


D

d

l

L



ST06022C5-0.50ISO

0,50

6

2,2

5,3

58

3

•

ST06031C7-0.70ISO

0,70

6

3,1

7,4

58

3

•

ST06036C9-0.80ISO

0,80

6

3,6

9,2

58

3

•

ST0604C10-1.00ISO

1,00

6

4,0

10,5

58

3

•

ST0604C14-1.00ISO

1,00

6

4,0

14,5

58

3

•

ST0605C14-1.25ISO

1,25

6

5,0

14,4

58

3

•

ST0605C19-1.25ISO

1,25

6

5,0

17,3

58

3

•

ST0807C17-1.50ISO

1,50

8

7,0

17,3

64

3

•

ST0807C24-1.50ISO

1,50

8

7,0

24,8

76

3

•

ST0808C20-1.75ISO

1,75

8

8,0

20,1

64

3

•

ST0808C28-1.75ISO

1,75

8

8,0

28,9

76

3

•

ST1010C27-2.00ISO

2,00

10

10

27,0

73

3

•

ST1010C39-2.00ISO

2,00

10

10

39,0

105

3

•

ST1414D33-2.50ISO

2,50

14

14

33,8

84

4

•

ST1414D48-2.50ISO

2,50

14

14

48,8

105

4

•

ST1616C40-3.00ISO

3,00

16

16

40,5

105

3

•

ST1616C58-3.00ISO

3,00

16

16

58,5

120

3

•

ST2020D43-3.00ISO

3,00

20

20

43,5

105

4

•

TURNING

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DRILLING

ENDMILLS

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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools

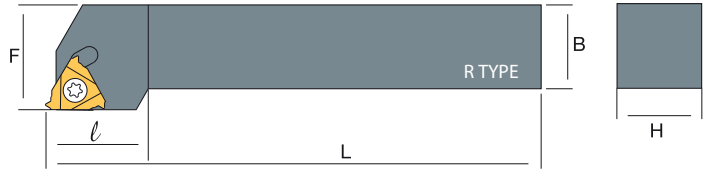


THREADING/**HOLDERS**

HOLDERS /THREADING

SSER/SSEL

□□ER



	DESCRIPTION	STOCK		DIMENSIONS								
		R	L	H	B	L	F					
11ER-□□	SSER/L 0808 E11	•	•	08	08	70	11	-	-	-	ST-SC0257	ST-WRT07
	1010 E11	•	•	10	10	70	11	-	-	-	ST-SC0257	ST-WRT07
	1212 F11	•	•	12	12	80	12	-	-	-	ST-SC0257	ST-WRT07
	1616 H11	•	•	16	16	100	16	-	-	-	ST-SC0257	ST-WRT07
16ER-□□	SSER/L 1616 H16	•	•	16	16	100	16	ST-SHE16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	1616 K16	•		16	16	125	16	ST-SHE16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	2020 K16	•	•	20	20	125	20	ST-SHE16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	2525 M16	•	•	25	25	150	25	ST-SHE16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	3232 P16	•	•	32	32	170	32	ST-SHE16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
22ER-□□	SSER/L 2020 M22	•		20	20	125	20	ST-SHE22	ST-SC6011	ST-WR0040	ST-SC0416	ST-WRT15
	2525 M22	•	•	25	25	150	25	ST-SHE22	ST-SC6011	ST-WR0040	ST-SC0416	ST-WRT15
	3232 P22	•	•	32	32	170	32	ST-SHE22	ST-SC6011	ST-WR0040	ST-SC0416	ST-WRT15
	4040 S22	•	•	40	40	250	40	ST-SHE22	ST-SC6011	ST-WR0040	ST-SC0416	ST-WRT15

HOLDERS / THREADING

SSIR/SSIL

Screw On

□□IR

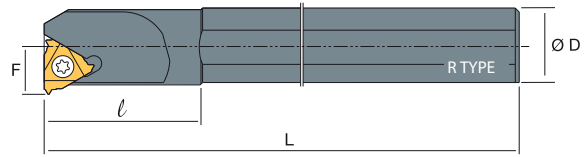
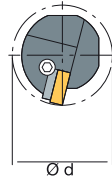


Image	DESCRIPTION			STOCK		DIMENSIONS				R			Image	
				R	L	D	d	L	F	Image	Image	Image	Image	
08IR-□□	S16M07	SSIR/L	08	●	●	16	7.8	150	5.3	-	-	-	ST-SC0226	ST-WRT07
11IR-□□	S10K	SSIR/L	11	●	●	10	12	125	7.4	-	-	-	ST-SC0257	ST-WRT08
	S12K		11	●	●	12	16	125	8.4	-	-	-	ST-SC0257	ST-WRT08
	S12M		11	●	●	12	15	150	8.5	-	-	-	ST-SC0257	ST-WRT08
	S16M10		11	●	●	16	12	150	7.4	-	-	-	ST-SC0257	ST-WRT08
	S16Q		11	●	●	16	20	180	8.9	-	-	-	ST-SC0257	ST-WRT08
	S16x10Q		11	●	●	16	13	180	7.5	-	-	-	ST-SC0257	ST-WRT08
16IR-□□	S16Q	SSIR/L	16	●	●	16	16	180	10.2	-	-	-	ST-SC3511	ST-WRT15
	S20P		16	●		25	32	250	17	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	S20R		16	●	●	20	24	200	13.7	-	-	-	ST-SC3511	ST-WRT15
	S25S		16	●	●	25	29	250	16.2	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	S32T		16	●	●	32	36	300	19.7	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
	S40V		16	●	●	40	44	350	23.7	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
22IR-□□	S20P	SSIR/L	22	●		20	25	200	13	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
	S20R		22	●	●	20	24	200	14	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
	S25S		22	●	●	25	29	250	18.1	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
	S32T		22	●	●	32	38	300	21.6	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
	S40V		22	●	●	40	46	350	25.6	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
	S50W		22	●	●	50	63	400	35.6	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS DRILLS & TAPS

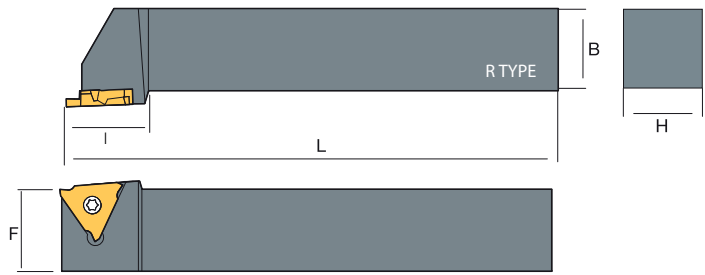
SPARE PARTS

INDEX

HOLDERS /THREADING

SSER/VS

□□VER

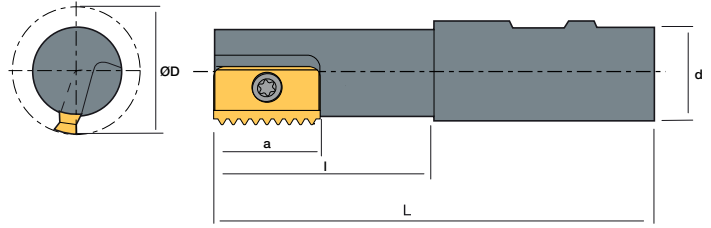


VER□□	DESCRIPTION			STOCK		DIMENSIONS							
				R	L	H	B	L	F				
VER11-□□	SSER/L	0808	F11VS	•		08	08	80	08	ST-SC0257	ST-WRT07		
		1010	F11VS	•		10	10	80	10	ST-SC0257	ST-WRT07		
		1212	F11VS	•		12	12	80	12	ST-SC0257	ST-WRT07		
		1616	H11VS	•		16	16	100	16	ST-SC0257	ST-WRT07		
VER16-□□	SSER/L	1010	F16VS	•		10	10	80	10	ST-SC3514	ST-WRT15		
		1212	F16VS	•		12	12	80	12	ST-SC3514	ST-WRT15		
		1616	H16VS	•		16	16	100	16	ST-SC3514	ST-WRT15		
		2020	K16VS	•		20	20	125	20	ST-SC3514	ST-WRT15		
		2525	M16VS	•		25	25	150	25	ST-SC3514	ST-WRT15		
		3232	P16VS	•		32	32	170	32	ST-SC3514	ST-WRT15		
VER22-□□	SSER/L	4040	R16VS	•		40	40	250	40	ST-SC3514	ST-WRT15		
	SSER/L	2525	M22VS	•		25	25	150	25	ST-SC0416	ST-WRT15		
		3232	P22VS	•		32	32	170	32	ST-SC0416	ST-WRT15		
		4040	R22VS	•		40	40	250	40	ST-SC0416	ST-WRT15		

HOLDERS /THREADING

MSSR

SR□□



SR□□	DESCRIPTION		STOCK	DIMENSIONS									
				D	Z	d	L	l	a				
SR14-□□	MSSR	14-100-14-20-1T	•	14	1	20	100	25	14	ST-SC0256	ST-WRT08		
		16-120-14-16-1T	•	16	1	16	100	25	14	ST-SC0256	ST-WRT08		
SR21-□□	MSSR	18-100-21-20-1T	•	18	1	20	100	30	21	ST-SC0409	ST-WRT15		
		21-120-21-25-1T		21	1	25	120	44	21	ST-SC0411	ST-WRT15		
		25-125-21-20-1T	•	25	1	20	125	30	21	ST-SC0411	ST-WRT15		
		28-090-21-25-1T	•	28	1	25	90	30	21	ST-SC0411	ST-WRT15		
		38-120-21-32-3T	•	38	3	32	120	30	21	ST-SC0411	ST-WRT15		
		43-090-21-32-3T	•	43	3	32	90	30	21	ST-SC0411	ST-WRT15		
SR30-□□	MSSR	29-150-30-25-1T	•	29	1	25	150	50	30	ST-SC0514	ST-WRT20		

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DRILLS

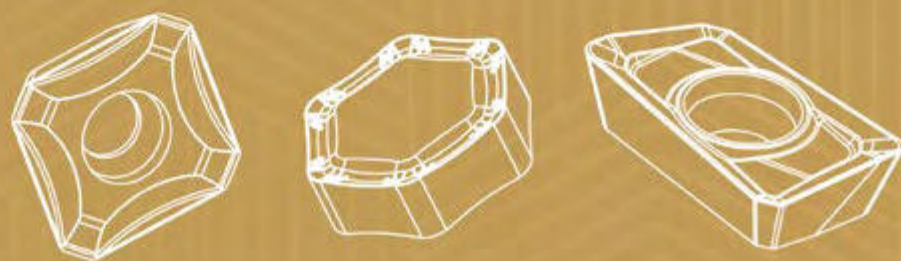
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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter "e". Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

Sangeo
cutting tools



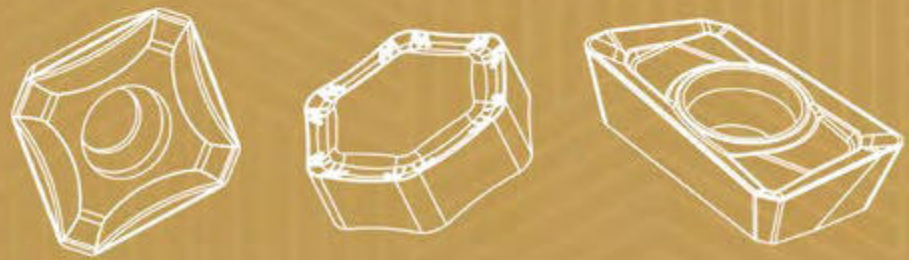
MILLING /

carbide /285

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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "o" is a small white icon of a curved blade. Below "Sangeo" is the text "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools





MILLING/**CARBIDE**

CARBIDE /MILLING





GRADES

	K					P					M					N				
	ISO DIN 513					ISO DIN 513					ISO DIN 513					ISO DIN 513				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD	CS8915		CS8925																	
CARBIDE PVD	PS8915					PS5915		PS5925			PS7920		PS7925							
				PS5960		PS5915S		PS5925S			PS7925S									
CARBIDE UNCOATED																US2915				
CERMET UNCOATED																				


CVD MILLING GRADES

MATERIAL	GRADE	ISO	Color	Operation
K	CS8915	K05-K10	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				As adapting highly hard substrate with superior PVD coated which has excellent resistance for thermal & oxidation, Excellent performance in casting iron continuous machining
	CS8925	K20-K30	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				General cutting for gray cast iron and ductile cast iron

PVD MILLING GRADES

MATERIAL	GRADE	ISO	Color	Operation
P	PS5915	P05-P15	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				Milling grade for medium and roughing of steel New coating layer with superior wear resistance with high toughness substrate
	PS5915S	P05-P20	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				1. 2-4um TiAlN PVD coating combined with ultra fine grain substrate with high toughness suitable for finishing to semi-finishing. 2. Basic material grade for milling steel parts and easy to cut/medium difficulty to process stainless steel 3. High thermal shock resistance is suitable for light interrupted cut
	PS5925	P10-P20	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				Universal grade for interrupted machining of steel, cast-iron, hard to cut materials and stainless steel with stable machinability
PS5925S	P10-P20	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN	
			1. 2-4um AlCrN + AlCrSiN PVD coating combined with ultra fine grain substrates with high-toughness suitable for martensitic stainless steel and austenitic stainless steel under difficult working conditions and high temperature. 2. Used as the preferred material grade for machining high temperature alloys under unstable working conditions. 3. It is recommended to process tempered steel and nickel-based material	
PS5960	P20-P40	YELLOW	MT-TiCN+Al ₂ O ₃ +TiN General machining of steel	
M	PS7920	M10-M20	YELLOW	MT-TiCN+TiC+ α -Al ₂ O ₃
				2-4um AlCrN + AlCrSiN PVD coating combined with ultra fine grain substrates with high-toughness suitable for martensitic stainless steel and austenitic stainless steel under difficult working conditions and high temperature. 2. Used as the preferred material grade for machining high temperature alloys under unstable working conditions. 3. It is recommended to process tempered steel and nickel-based material
	PS7925	M10-M20	YELLOW	MT-TiCN+TiC+ α -Al ₂ O ₃ Medium to roughing of hard to cut materials and stainless steel 2-4 micron Nano AlCrN AlCrSiN coating
PS7925	M20-M30	BRONZ	MT-TiCN+TiC+ α -Al ₂ O ₃ PVD coating combined with high-resistant substrates, suitable for stainless steel & low carbon steel in roughing to semi-finishing	
K	PS8915	K10-K30	BLACK	MT-TiCN+TiC+Al ₂ O ₃ +TiN
				Thigh wear resistant substrates perfect combine with MT-TiCN, thick Al ₂ O ₃ coating. Ideal for ductile cast iron & grey cast iron at high cutting speed.

UNCOATED MILLING GRADES

MATERIAL	GRADE	ISO	Color	Operation
N	US2915	K05-K25	SILVER	Ultra fine substrate
				Increased wear & chipping resistance as using a ultra fine substrate, Excellent tool life with special surface treatment & and sharp cutting edge of ALU chip breaker

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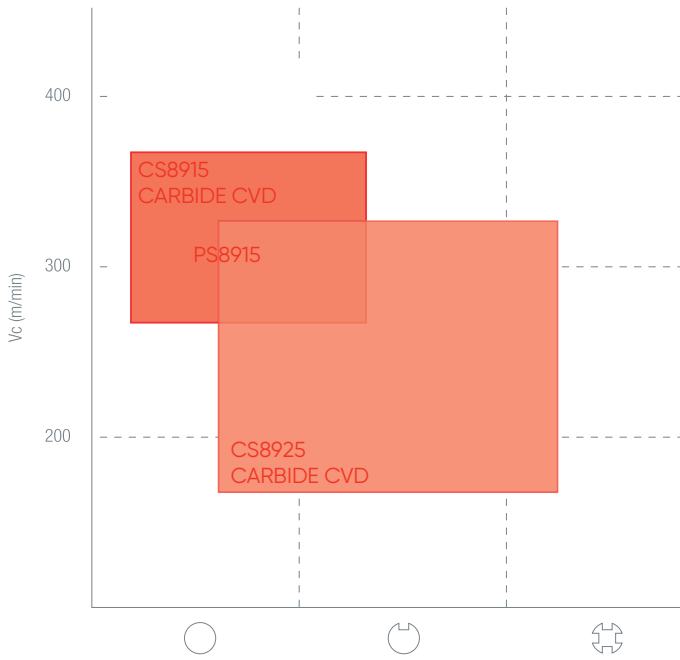
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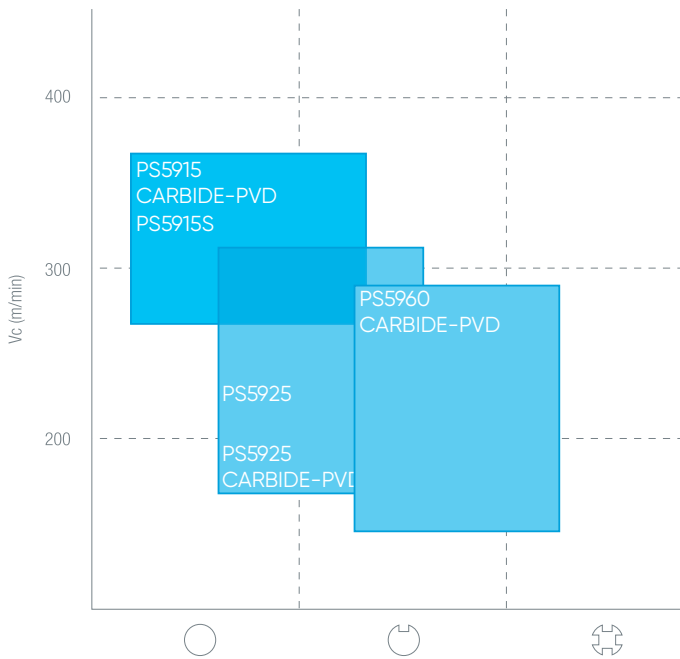
RANGE ISO

K



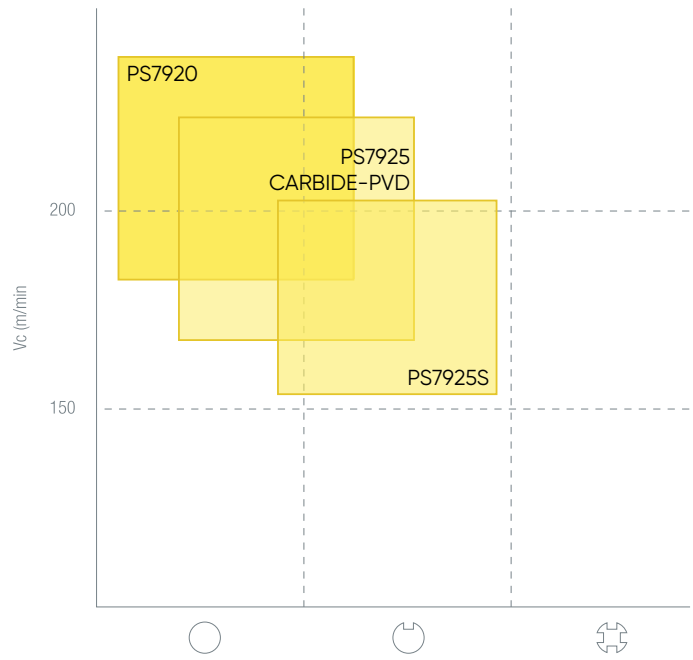
RANGE ISO

P

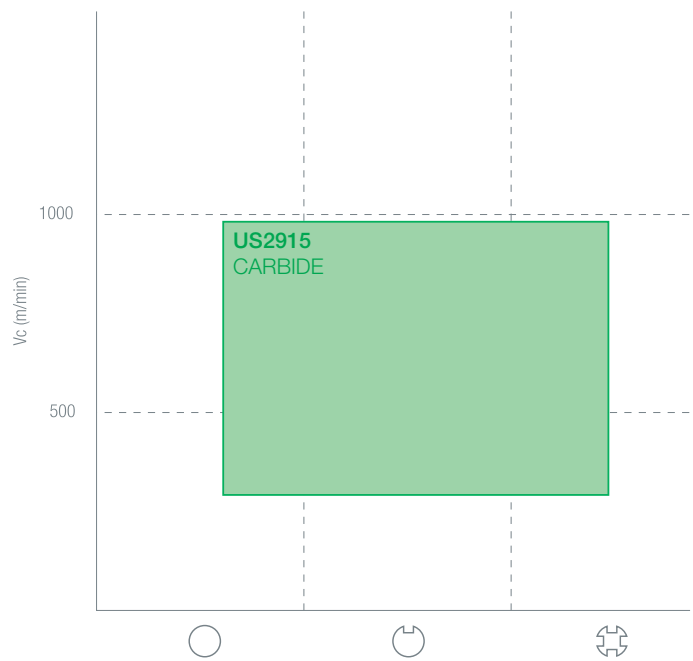


CARBIDE /MILLING

RANGE ISO **M**



RANGE ISO **N**



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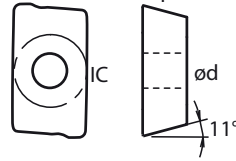
ENDMILLS

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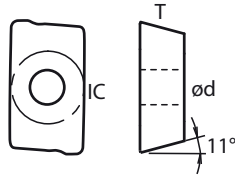
AP <input type="checkbox"/> <input type="checkbox"/>	1035 <input type="checkbox"/> <input type="checkbox"/>	1135 <input type="checkbox"/> <input type="checkbox"/>	1604 <input type="checkbox"/> <input type="checkbox"/>
IC	6,35	6,35	9,525
T	3,50	3,50	4,76
ød	2,80	2,80	4,50
Holder			

DESCRIPTION	CARBIDE												
	PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
APEX 1003PDER-ALU													•
APKT 1135PDER-ALU													•
APKT 1604PDER-ALU													•
APKT 160420-ALU													•
APKT 160424-ALU													•
APMT 1003PDER-ALU													•
APMT 1604PDER-ALU													•
APMT 160412-RM	•												
APMT 160430-RM	•												
APMT 1035PDER-RM	•		•			•					•		
APMT 1604PDER-RM	•		•						•		•		

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CARBIDE /MILLING

AP□□



AP□□	1035□□	1135□□
IC	6,35	6,35
T	3,50	3,50
ød	2,80	2,80
Holder	324	324

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	APMT			•		•							
	APMT			•		•							
	APMT			•					•				
	APMT			•		•							
	APMT			•									

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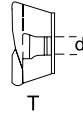
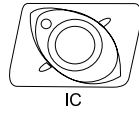
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AXMX



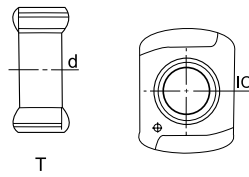
AX□□	0702□□
IC	4,3
T	2,45
Ød	2,00
Holder	335

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	AXMX	070204R			•									
		070208R			•									
	AXMX	070204R-ALU												•

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BLGX

HighFeed



BL□□	0603□□
IC	6,39
T	3,73
Ød	2,1
Holder	336

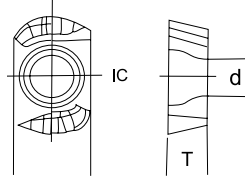
DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	BLGX			•							•	•	
	BLGX	•											

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EPGX



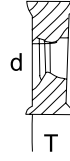
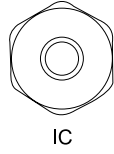
EP□□	0602□□
IC	4,19
T	2,19
Ød	2,1
Holder	338

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
 EPGX	060210R-SM	●												

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HNGX



HN□□	0906□□
IC	-
T	6,35
Ød	4,9
Holder	339

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	HNGX	0906ANSN-M									•		
	HNGX	0906ANSN-R			•						•		

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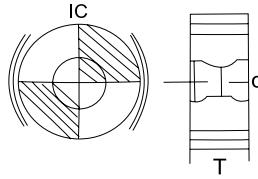
ENDMILLS

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LNGX

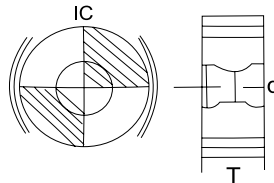


LN□□	1104□□	15T6□□
IC	6,39	6,39
T	3,73	3,73
Ød	3,0	3,0
Holder	344	347

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	LNGX	110408RSE	•											
		15T608RSE	•											

LNMX

HighFeed

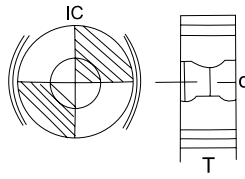


LN□□	0303□□
IC	6,39
T	3,73
Ød	4,0
Holder	340


DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	LNMX	0303SER-M										•	
		0303SER-MJ	•									•	

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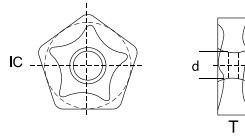
LNKT




LN□□	1306□□
IC	6,39
T	3,73
Ød	4,0
Holder	▶ 346

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	LNKT	130608R-GM	•											

PNMU



PN□□	0905□□
IC	12,2
T	5,56
Ød	4,70
Holder	▶ 353

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	PNMU	0905XNER-MM	•								•			

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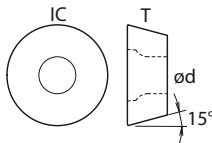
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RD□□



RD□□	0501□□	0802□□	1003□□	12T3□□	1604□□
IC	5,00	8,00	10,0	12,0	16,0
T	1,51	2,38	3,18	3,97	4,76
ød	2,20	2,80	3,80	4,40	5,00
Holder	358	358	358	358	358

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	RDGT	1003MO-ALU												•
		1204MO-ALU												•
	RDHX	1003MO		•										•
		12T3MO		•										•
	RDMW	0501MO				•								
		08T2MO		•										
	RDMX	0802MO		•										•
		1003MO		•										•
		12T3MO		•										•
		1604MO		•										•

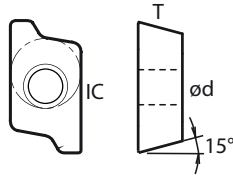
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CARBIDE /MILLING

RT



RD	0702	1003
IC	4,30	6,35
T	2,38	3,40
Ød	2,20	2,90
Holder	363	363

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	070204-R-81					•							
	100308-R-81	•				•							
	RT												

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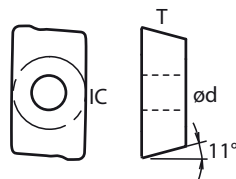
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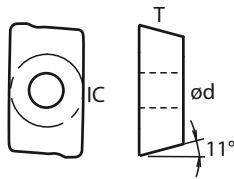
SD□□



SD□□	1204□□	0802□□	11T3□□
IC	12,7	12,7	12,7
T	4,76	4,76	4,76
ød	4,40	4,40	4,40
Holder			

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SDHT	1204AEFN-ALU										•	

SD□□



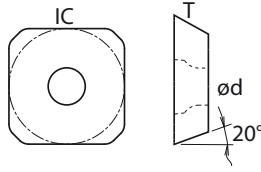
SD□□	0802□□	11T3□□
IC	12,7	12,7
T	4,76	4,76
ød	4,40	4,40
Holder		

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SDMT	0802-AX								•			
		11T3-AX								•			

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CARBIDE /MILLING

SE□□



SE□□ 12T3□□

IC 12,7

T 3,97

Ød 4,40



DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SEET	12T3-FM	•		•						•		
	SEET	12T3-SM			•						•		
	SEHT	12T3-CM											•
	SEMT	13T308-SM			•								
	SEMT	140408M-PM			•	•					•		

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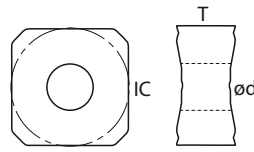
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SNMX



SN□□	1205□□
IC	12,7
T	5,75
ød	6,00
Holder	366

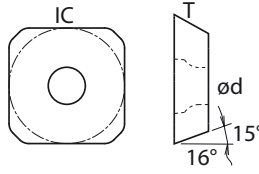
DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SNMX			•	•	•	•	•			•		
	1205ANN			•	•	•	•	•			•		
	SNMX		•							•			
	120512-QM		•							•			
	SNMX				•								
	1206ANEN-MM				•								
	SNMX			•						•			
	1907ANR-GR			•						•			
	SNMX				•								
	1206QNN-MM				•								

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CARBIDE /MILLING

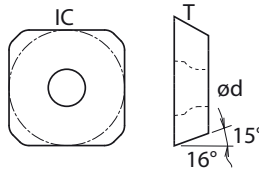
SO □□




SO □□	0803 □□
IC	12,7
T	3,97
Ød	5,16
Holder	▶ 367

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	SOMW	080315-FH			•									

SP □□



SP □□	1204 □□
IC	12,7
T	4,18
Ød	5,16
Holder	▶ 367

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	SPMW	120420-FH			•									

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DRILLING

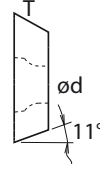
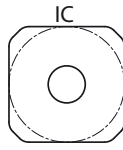
ENDMILLS

DRILLS

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SPKN



SP □□	1203 □□	1504 □□
IC	12,7	15,875
T	3,18	4,76
Ød	-	-
Holder		

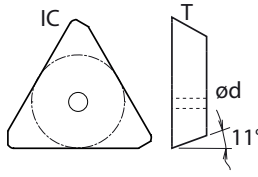
DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	SPKN	1203EDR-SU			•									
		1203EDSR-SU			•		•						•	
		1504EDSR-SU			•								•	
	SPKN	1203EDFR					•	•						
		1203EDTR			•									
		1504EDTL												•
		1504EDTR												•
	SPKR	1203EDR-SU											•	

Vc • fn • ap



314

TPKN



TP □□	1603 □□	2204 □□
IC	9,525	12,7
T	3,18	4,76
Ød	-	-
Holder		

DESCRIPTION	CARBIDE											
	PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
 TPKN 1603PDSR-SU 2204PDSR-SU			•									
			•									
 TPKN 1603PDTR-SU 2204PDTR-SU			•							•		
			•							•		

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CARBIDE /MILLING

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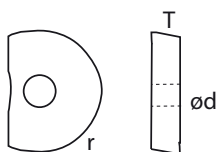
ENDMILLS

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TW



TW	08□□	10□□	12□□	16□□	20□□	25□□	30□□	32□□
IC	8,0	10,0	12,0	16,0	20,0	25,0	30,0	32,0
T	2,0	2,5	2,5	3,0	3,0	4,0	5,0	5,0
Ød	3,2	3,2	3,7	4,2	5,2	6,2	8,2	8,2
Holder	▶ 372	▶ 372	▶ 372	▶ 372	▶ 372	▶ 372	▶ 372	▶ 372

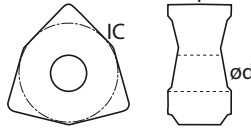
DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
 TW	08020	•										•		
	10025	•										•		
	12025	•										•		
	16030	•										•		
	20030	•										•		
	25040	•										•		
	30050	•										•		
	32050	•										•		

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WNMU

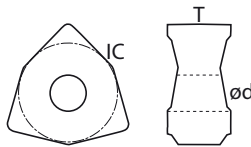


WN□□	0806□□
IC	12,7
T	6,40
Ød	4,40
Holder	373

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	WNMU	040304-GM	•		•									
	WNMU	080608EN-ALU												•
	WNMU	080608EN-GM			•		•		•	•	•			

WNMX

HighFeed



WN□□	0806□□
IC	9,52
T	3,97
Ød	3,6
Holder	373

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	WNMX	09T316ZNN-SS								•				

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TURNING

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THREADING

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DRILLING

ENDMILLS

DRILLS

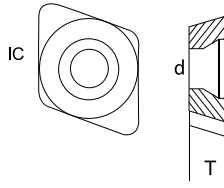
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CARBIDE /MILLING

XDHX

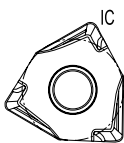


XD□□	0602□□	10T3□□
IC	6,5	10,0
T	2,38	3,97
Ød	2,98	3,95
Holder	376	376

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	060210SS										•			
	10T310SS										•			
	XDHX													

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XNEX



XN□□	0806□□
IC	12,48
T	6,45
∅d	2,80
Holder	-

DESCRIPTION	CARBIDE											
	PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
			•									
XNEX												
080612												

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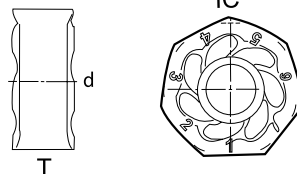
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XNGU



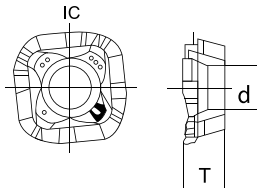
XN□□	0806□□
IC	12,48
T	6,45
Ød	2,80
Holder	-

DESCRIPTION	CARBIDE											
	PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
 XNGU 0906ANTR-GM			•			•				•		

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XOMT

HighFeed



X0 □□	1004 □□	1405 □□
IC	-	-
T	4,58	5,56
Ød	4,6	4,8
Holder	-	-

DESCRIPTION		CARBIDE												
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915	
	100420R-GM	•												
	XOMT													
	140520R-GM	•												
	XOMT													

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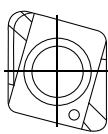
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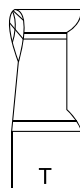
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CARBIDE /MILLING

YNGX



IC

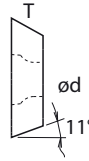
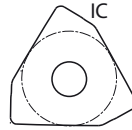
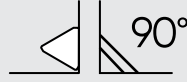


T

YN□□	0603□□
IC	6,60
T	4,67
Ød	3,25
Holder	▶ 377

DESCRIPTION	CARBIDE											
	PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
YNGX 060308R-SM	•	•	•					•		•	•	

3PGX



3P □□	1004 □□	1505 □□
IC	6,90	10,70
T	4,00	5,00
ød	2,20	2,80
Holder		

DESCRIPTION		CARBIDE											
		PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	100404R-M			•									
	100408R-M			•									
	150508R-M			•									
3PGX													

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CARBIDE /MILLING

CUTTING PARAMETERS Vc (m/min)

KG	GREY CAST IRON
KN	NODULAR CAST IRON
PL	LOW CARBON AND FREE CUTTING STEEL
PM	MEDIUM CARBON STEEL
PH	HIGH CARBON STEEL
PA	ALLOY STEEL

MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
MA	AUSTENITIC STAINLESS STEEL
NA	ALUMINIUM ALLOYS
NH	ALUMINIUM ALLOYS AGED AND HARDENED
NB	BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

MATERIAL	CARBIDE						CARBIDE			
	PS5915	PS5925	PS5960	CS8915	CS8925	PS7925	US2915			
K	KG			220~350	120~250					
	KN			180~280	100~200					
P	PL	200~280	220~300	240~320						
	PM	200~280	220~300	240~320						
	PH	180~260	200~280	220~300						
	PA	160~230	180~250	200~270						
M	MM					160~280				
	MA					140~260				
N	NA						400~1000			
	NH						300~800			
	NB						300~600			
	NC						200~500			

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

AP □□		1035		1135		1204		1604		1705	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	RM	0,8-8,0	0,1-0,25								
P	ST/RM	0,8-8,0	0,08-0,2	1,0-9,0	0,1-0,2	1,0-11,0	0,1-0,25	1,0-14,0	0,1-0,25	1,0-15,0	0,1-0,25
P	QM/QX			0,7-3,0	0,5-1,2						
M	RM	0,8-8,0	0,05-0,15					1,0-14,0	0,1-0,2		
N	ALU	0,8-8,0	0,15-0,3	1,0-9,0	0,15-0,3			1,0-14,0	0,15-0,3		

AXMX		O702		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	R	0,40-2,00	0,10-0,45								
P	R	0,40-2,00	0,10-0,45								
M	R	0,40-2,00	0,10-0,25								
N	ALU	0,40-2,00	0,10-0,50								

BLGX		O603		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	M	0,7-9,00	0,30-0,50								
P	M	0,7-9,00	0,30-0,50								
M	M	0,7-1,50	0,50-0,80								
N											

EPGX		O602		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SM	0,15-0,55	0,20-0,60								
P	SM	0,15-0,55	0,20-0,60								
M	SM	0,15-0,55	0,20-0,60								
N											

HNGX		O906		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	R-M	0,8-4,5	0,06-0,20								
P	R-M	0,8-4,5	0,06-0,20								
M	R-M	0,8-4,5	0,06-0,20								
N											

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

LNGX		1104		15T608		-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50				
P	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50				
M	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50				
N									

LNKT		1306		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	GM	3.0-12.0	0,10-0,35						
P	GM	3.0-12.0	0,10-0,35						
M	GM	3.0-12.0	0,10-0,35						
N									


LNMX		0303		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	M-MJ	0,7-900	0,30-0,50						
P	M-MJ	0,7-900	0,30-0,50						
M	M-MJ	0,7-900	0,30-0,50						
N									


PNMU		0905		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	MM	0.80-4.5	0.06-0.20						
P	MM	0.80-4.5	0.06-0.20						
M	MM	0.80-4.5	0.06-0.20						
N									

RD □□		0501		0802		1003		12T3		1604	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	-					0,5-4,0	0,08-0,4	0,5-5,0	0,08-0,6	0,6-7,0	0,1-0,6
P	-	0,25-2,5	0,1-0,25	0,4-3,5	0,07-0,35	0,5-4,0	0,08-0,3	0,5-5,0	0,08-0,4	0,6-7,0	0,1-0,5
M	-					0,5-4,0	0,08-0,25	0,5-5,0	0,08-0,25	0,6-7,0	0,1-0,4
N	-										


CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

RT		0702		1003		-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K											
P	R-81	0,5-5,0	0,05-0,3	0,5-7,0	0,08-0,3						
M	R-81	0,5-5,0	0,05-0,25	0,5-7,0	0,05-0,25						
N											

SDHT		1204		-	-	-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K											
P											
M											
N	ALU	0,1-2,0	0,10-0,35								

SDMT		0802		11T3		-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	AX	0,05-0,30	0,05-0,30		0,5-1,4						
P	AX	0,05-0,30	0,05-0,30		0,5-1,4						
M	AX	0,05-0,30	0,05-0,30		0,5-1,4						
N											

SEMT		13T308		140408		-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SM-PM	0,8-4,50	0,10-0,40	0,8-6,0	0,10-0,40						
P	SM-PM	0,8-4,50	0,10-0,40	0,8-6,0	0,10-0,40						
M	SM-PM	0,8-4,50	0,10-0,40	0,8-6,0	0,10-0,40						
N											

SE□□		12T3		-	-	-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K											
P	FM/SM	1,0-10,0	0,1-0,3								
M	FM/SM	1,0-10,0	0,1-0,25								
N	CM	1,0-10,0	0,1-0,35								

TURNING

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CARBIDE /MILLING


CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

SNMX		1205		120512		1206		1907		1206QNN	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	QM-GM-GR	1,0-7,0	0,1-0,4	1,0-8,0	0,1-0,4	1,0-7,0	0,1-0,4	1,0-2,0	0,1-0,4	1,0-8,0	0,1-0,4
P	QM-GM-GR	1,0-7,0	0,1-0,35	1,0-8,0	0,1-0,35	1,0-7,0	0,1-0,35	1,0-7,0	0,1-0,35	1,0-8,0	0,1-0,35
M	QM-GM-GR	1,0-7,0	0,1-0,35	1,0-8,0	0,1-0,35	1,0-7,0	0,1-0,35	1,0-7,0	0,1-0,35	1,0-8,0	0,1-0,35
N											

SOMW		0803		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	FH	0,5-1,0	0,5-2,0								
P	FH	0,5-1,0	0,5-2,0								
M	FH	0,5-1,0	0,4-1,0								
N											

SPKN		1203		1504		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SU	0,8-8,0	0,05-0,3	1,0-10,0	0,05-0,3						
P	SU	0,8-8,0	0,05-0,2	1,0-10,0	0,05-0,2						
M	SU	0,8-8,0	0,05-0,2	1,0-10,0	0,05-0,2						
N											

SPKR		1203		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SU	0,8-8,0	0,05-0,20								
P	SU	0,8-8,0	0,05-0,20								
M	SU	0,8-8,0	0,05-0,20								
N											

SPMW		1204		-	-	-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	FH	0,8-1,5	0,5-1,8								
P	FH	0,8-1,5	0,8-2,0								
M	FH	0,8-1,5	0,4-1,0								
N											


CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

TPKN		1603		2204		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SU	1,0-12,0	0,05-0,3	1,0-15,0	0,1-8,0						
P	SU	1,0-12,0	0,05-0,25	1,0-15,0	0,8-8,0						
M	SU	1,0-12,0	0,05-0,2	1,0-15,0	0,8-8,0						
N											

TW		08020		10025		12025		16030		20030	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K		0,2-0,4	0,1-0,3	0,2-0,7	0,1-0,3	0,5-0,84	0,1-0,3	0,5-1,12	0,1-0,3	0,8-1,4	0,1-0,3
P		0,25-0,5	0,1-0,25	0,3-0,7	0,1-0,25	0,36-0,84	0,1-0,25	0,48-1,12	0,1-0,25	0,6-1,4	0,1-0,25
M		0,2-0,4	0,1-0,2	0,2-0,5	0,1-0,2	0,3-0,6	0,1-0,2	0,4-0,8	0,1-0,2	0,5-1,0	0,1-0,2
N											

TW		25040		30050		32050		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K		0,8-1,75	0,1-0,3	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
P		0,75-1,75	0,1-0,25	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
M		0,7-1,25	0,1-0,2	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
N											

WNMU		040304		080608		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	GM	0,5-4,00	0,05-0,15	1,0-8,0	0,1-0,30						
P	GM	0,5-4,00	0,05-0,15	1,0-8,0	0,1-0,25						
M	GM	0,5-4,00	0,05-0,15	1,0-8,0	0,1-0,20						
N	ALU			1,0-8,0	0,15-0,30						

WNMX		09T316		-		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SS	0,5-2,0	1,0-2,5								
P	SS	0,5-2,0	1,0-2,5								
M	SS	0,5-2,0	1,0-2,5								
N											

TURNING

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THREADING

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DRILLING

ENDMILLS

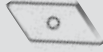
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CARBIDE /MILLING

CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

XDHX		60210		10T310		-	-	-	-	-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
P	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
M	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
N											

XNEX		80612		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K		0.8-4.5	0.06-0.20						
P		0.8-4.5	0.06-0.20						
M		0.8-4.5	0.06-0.20						
N									

XNGU		0906ANTR		-	-	-	-	-	-
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	GM	0.8-4.5	0.06-0.20						
P	GM	0.8-4.5	0.06-0.20						
M	GM	0.8-4.5	0.06-0.20						
N									

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CUTTING PARAMETERS a_p (mm) & f_n (mm/rev)

XOMT		100420R		140520R		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
P	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
M	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
N											

YNGX		060308R		-		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	SM	0,8-4,50	0,10-0,40								
P	SM	0,8-4,50	0,10-0,40								
M	SM	0,8-4,50	0,10-0,40								
N											

3PGX		1004		1505		-		-		-	
Material	Chip Breaker	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
K	M	1,0-7,0	0,09-0,2	1,0-11,0	0,1-0,2						
P	M	1,0-7,0	0,07-0,15	1,0-11,0	0,12-0,25						
M	M	1,0-7,0	0,07-0,15	1,0-11,0	0,1-0,17						
N											

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ENDMILLS

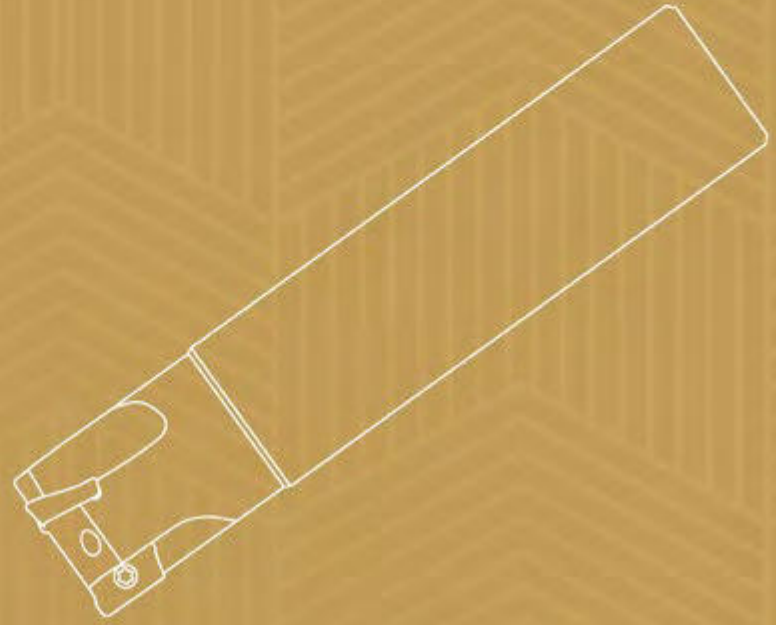
DRILLS

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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter "e". Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

Sangeo
cutting tools

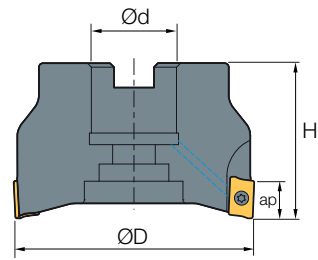


MILLING/**HOLDERS**

HOLDERS /MILLING

MFAP

AP□□10



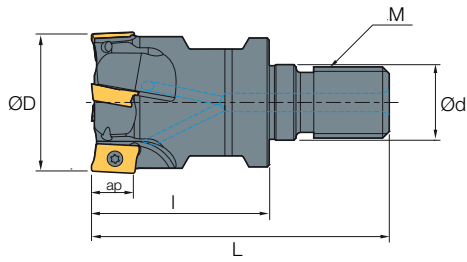
AP□□	DESCRIPTION	STOCK	DIMENSIONS					ap			
			D	H	d	Z					
AP□□10	MFAP 90040R-10-5T	●	40	40	16	5T	10	ST-SC0257	ST-WRT08		
	90040R-10-5T-C	●	40	40	16	5T	10	ST-SC0257	ST-WRT08		
	90050R-10-6T	●	50	40	22	6T	10	ST-SC0257	ST-WRT08		
	90050R-10-6T-C	●	50	40	22	6T	10	ST-SC0257	ST-WRT08		
	90063R-10-7T	●	63	40	22	7T	10	ST-SC0257	ST-WRT08		
	90063R-10-7T-C	●	63	40	22	7T	10	ST-SC0257	ST-WRT08		
	90080R-10-8T	●	80	50	27	8T	10	ST-SC0257	ST-WRT08		
	90080R-10-8T-C	●	80	50	27	8T	10	ST-SC0257	ST-WRT08		
	90100R-10-9T	●	100	50	32	9T	10	ST-SC0257	ST-WRT08		
	90100R-10-9T-C	●	100	50	32	9T	10	ST-SC0257	ST-WRT08		
	90125R-10-11T	●	125	50	40	11T	10	ST-SC0257	ST-WRT08		


Carbide

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MMAP

AP□□10



AP□□	DESCRIPTION	STOCK	DIMENSIONS							ap			
			D	L	I	d	Z	M					
AP□□10	MMAP 25-M12-10-3T-C	●	25	50	28	12,5	3T	12	10	ST-SC0257	ST-WRT08		
	32-M16-10-4T-C	●	32	60	35	17	4T	16	10	ST-SC0257	ST-WRT08		
	35-M16-10-4T	●	35	60	35	17	4T	16	10	ST-SC0257	ST-WRT08		
	40-M16-10-5T-C	●	40	60	35	17	5T	16	10	ST-SC0257	ST-WRT08		
	42-M16-10-5T-C	●	42	60	35	17	5T	16	10	ST-SC0257	ST-WRT08		

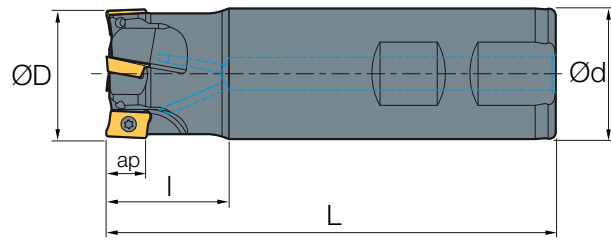
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HOLDERS /MILLING

MSAP

AP□□10



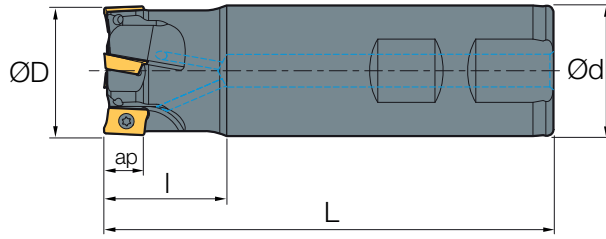
AP□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
AP□□10	MSAP 12-120-10-12-1T	●	12	120	30	12	1T	10	ST-SC0256	ST-WRT08		
	14-120-10-12-1T	●	14	120	30	12	1T	10	ST-SC0256	ST-WRT08		
	16-100-10-16-2T-C	●	16	100	30	16	2T	10	ST-SC0256	ST-WRT08		
	16-120-10-16-2T-C	●	16	120	30	16	2T	10	ST-SC0256	ST-WRT08		
	16-150-10-16-2T-C	●	16	150	40	16	2T	10	ST-SC0256	ST-WRT08		
	16-150-10-16-2T	●	16	150	40	16	2T	10	ST-SC0256	ST-WRT08		
	16-200-10-16-2T	●	16	200	50	16	2T	10	ST-SC0256	ST-WRT08		
	18-120-10-16-3T	●	18	120	30	16	3T	10	ST-SC0256	ST-WRT08		
	18-150-10-16-2T	●	18	150	40	16	2T	10	ST-SC0256	ST-WRT08		
	20-120-10-20-3T	●	20	120	30	20	3T	10	ST-SC0256	ST-WRT08		
	20-120-10-20-3T-C	●	20	120	50	20	3T	10	ST-SC0256	ST-WRT08		
	20-150-10-20-3T-C	●	20	150	30	20	3T	10	ST-SC0256	ST-WRT08		
	20-100-10-20-3T-C	●	20	120	30	20	3T	10	ST-SC0256	ST-WRT08		
	22-120-10-20-3T	●	22	120	30	20	3T	10	ST-SC0256	ST-WRT08		
	22-150-10-20-3T	●	22	150	40	20	3T	10	ST-SC0256	ST-WRT08		
	22-200-10-20-3T	●	22	200	50	20	3T	10	ST-SC0256	ST-WRT08		

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MSAP

AP□□10



AP□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
AP□□10	MSAP 25-120-10-25-3T	●	25	120	30	25	3T	10	ST-SC0256	ST-WRT08		
	25-120-10-25-3T-C	●	25	120	30	25	3T	10	ST-SC0256	ST-WRT08		
	25-200-10-25-3T	●	25	200	50	25	3T	10	ST-SC0256	ST-WRT08		
	26-120-10-25-3T-C	●	26	120	30	25	3T	10	ST-SC0256	ST-WRT08		
	26-150-10-25-3T	●	26	150	40	25	3T	10	ST-SC0256	ST-WRT08		
	26-200-10-25-3T	●	26	200	50	25	3T	10	ST-SC0256	ST-WRT08		
	28-150-25-10-4T	●	28	150	40	25	4T	10	ST-SC0256	ST-WRT08		
	30-120-10-25-4T	●	30	120	30	25	4T	10	ST-SC0256	ST-WRT08		
	30-150-10-25-4T	●	30	150	40	25	4T	10	ST-SC0256	ST-WRT08		
	32-120-10-25-4T	●	30	120	30	25	4T	10	ST-SC0256	ST-WRT08		
	32-120-10-32-4T	●	32	120	30	32	4T	10	ST-SC0256	ST-WRT08		
	32-150-10-25-4T	●	32	150	40	25	4T	10	ST-SC0256	ST-WRT08		
	32-150-10-32-4T	●	32	150	40	32	4T	10	ST-SC0256	ST-WRT08		
	32-300-10-32-4T	●	32	300	50	32	4T	10	ST-SC0256	ST-WRT08		
	35-120-10-32-5T	●	35	120	30	32	5T	10	ST-SC0256	ST-WRT08		
	40-120-10-32-5T	●	40	120	30	32	5T	10	ST-SC0256	ST-WRT08		
40-150-10-32-5T	●	40	150	40	32	5T	10	ST-SC0256	ST-WRT08			

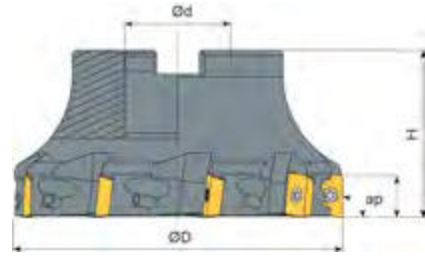
Carbide


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HOLDERS /MILLING

MFAP

AP□□11

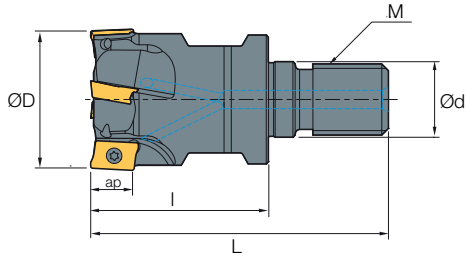



AP□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
MFAP	MFAP-90040R-11-5T-C	●	40	40	16	11	5	ST-SC0252	ST-WRT08		
AP□□11											

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MMAP

AP□□11



AP□□	DESCRIPTION	STOCK	DIMENSIONS											
			D	L	I	d	Z	M	ap					
AP□□11	MMAP 16-M08-11-2T-C	●	16	50	28	8,5	2T	8	11	ST-SC0257	ST-WRT08			
	17-M8-11-2T-C	●	17	50	28	8,5	2T	8	11	ST-SC0257	ST-WRT08			
	20-M10-11-3T-C	●	20	50	28	10,5	3T	10	11	ST-SC0257	ST-WRT08			
	21-M10-11-3T-C	●	21	50	28	10,5	3T	10	11	ST-SC0257	ST-WRT08			
	25-M12-11-3T-C	●	25	50	28	12,5	3T	12	11	ST-SC0257	ST-WRT08			
	32-M16-11-4T-C	●	32	50	28	16,5	4T	16	11	ST-SC0257	ST-WRT08			

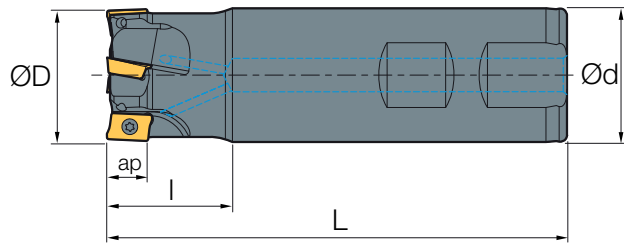
Carbide


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HOLDERS /MILLING

MSAP

AP□□11



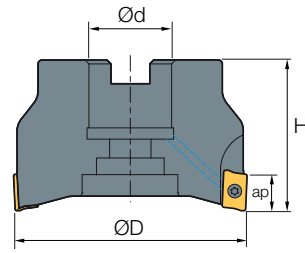
AP□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
AP□□11	MSAP 16-120-11-16-2T-C	●	16	120	40	16	2T	11	ST-SC0256	ST-WRT08		
	16-160-11-16-2T	●	16	160	40	16	2T	11	ST-SC0256	ST-WRT08		
	16-160-11-15-2T-C	●	16	160	40	15	2T	11	ST-SC0256	ST-WRT08		
	16-160-11-16-2T-C	●	16	160	40	16	2T	11	ST-SC0256	ST-WRT08		
	16-200-11-16-2T-C	●	16	200	50	16	2T	11	ST-SC0256	ST-WRT08		
	17-160-11-16-2T-C	●	17	160	40	16	2T	11	ST-SC0256	ST-WRT08		
	17-200-11-16-2T-C	●	17	200	50	16	2T	11	ST-SC0256	ST-WRT08		
	20-120-11-20-3T-C	●	20	120	40	20	3T	11	ST-SC0256	ST-WRT08		
	20-160-11-20-3T-C	●	20	160	40	20	3T	11	ST-SC0256	ST-WRT08		
	20-200-11-20-3T-C	●	20	200	50	20	3T	11	ST-SC0256	ST-WRT08		
	20-200-11-16-2T	●	20	200	50	16	2T	11	ST-SC0256	ST-WRT08		
	21-160-11-20-3T-C	●	21	160	40	20	3T	11	ST-SC0256	ST-WRT08		
	21-200-11-20-3T-C	●	21	200	50	20	3T	11	ST-SC0256	ST-WRT08		
	25-160-11-25-3T-C	●	25	160	40	25	3T	11	ST-SC0256	ST-WRT08		
	25-200-11-25-3T-C	●	25	200	50	25	3T	11	ST-SC0256	ST-WRT08		
	26-160-11-25-3T-C	●	26	160	40	25	3T	11	ST-SC0256	ST-WRT08		
	26-200-11-25-3T-C	●	26	200	50	25	3T	11	ST-SC0256	ST-WRT08		
	26-200-11-25-3T	●	26	200	50	25	3T	11	ST-SC0256	ST-WRT08		
	32-160-11-32-4T	●	32	160	40	32	4T	11	ST-SC0256	ST-WRT08		
	33-160-11-32-4T-C	●	33	160	40	32	4T	11	ST-SC0256	ST-WRT08		
33-200-11-32-4T-C	●	33	200	50	32	4T	11	ST-SC0256	ST-WRT08			
33-160-11-32-4T	●	32	160	40	32	4T	11	ST-SC0256	ST-WRT08			
33-200-11-32-4T	●	33	200	50	32	4T	11	ST-SC0256	ST-WRT08			

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MFAP

AP□□12



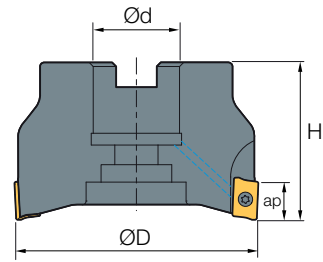
AP□□	DESCRIPTION		STOCK	DIMENSIONS								
				D	H	d	Z	ap				
AP□□12	MFAP	90050R-12-6T	●	50	40	22	6T	12	ST-SC0257	ST-WRT08		
		90063R-12-7T	●	63	40	22	7T	12	ST-SC0257	ST-WRT08		
		90080R-12-8T	●	80	50	27	8T	12	ST-SC0257	ST-WRT08		

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HOLDERS /MILLING

MFAP

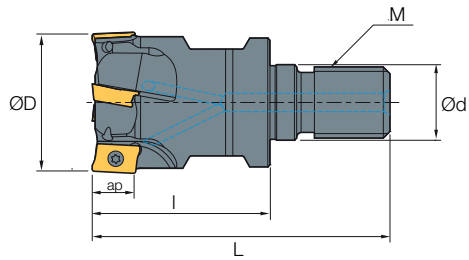
AP□□16




AP□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
AP□□16	MFAP 90040R-16-4T	●	40	40	16	16	4T	ST-SC0257	ST-WRT08	
	90040R-16-4T-C	●	40	40	22	16	4T	ST-SC0257	ST-WRT08	
	90050R-16-5T-C	●	50	40	22	16	5T	ST-SC0257	ST-WRT08	
	90050R-16-4T	●	50	40	22	16	5T	ST-SC0257	ST-WRT08	
	90063R-16-6T-C	●	63	40	22	16	6T	ST-SC0257	ST-WRT08	
	90063R-16-5T-C	●	63	40	22	16	5T	ST-SC0257	ST-WRT08	
	90063R-16-5T	●	63	40	22	16	5T	ST-SC0257	ST-WRT08	
	90080R-16-7T	●	80	50	22	16	7T	ST-SC0257	ST-WRT08	
	90080R-16-7T-C	●	80	50	22	16	7T	ST-SC0257	ST-WRT08	
	90080R-16-6T	●	80	50	22	16	7T	ST-SC0257	ST-WRT08	
	90100R-16-8T	●	100	50	32	16	8T	ST-SC0257	ST-WRT08	
	90125R-16-9T	●	125	63	40	16	9T	ST-SC0257	ST-WRT08	
	90160R-16-10T	●	160	63	40	16	10T	ST-SC0257	ST-WRT08	
	90200R-16-12T	●	200	63	60	16	12T	ST-SC0257	ST-WRT08	

MMAP

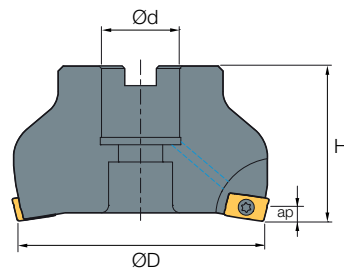
AP□□16




AP□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	I	d	Z	ap	M			
AP□□16	MMAP 25-M12-16-2T-C	●	25	60	43	12	2T	16	12	ST-SC0257	ST-WRT08	
	32-M16-16-3T-C	●	32	60	43	16	3T	16	16	ST-SC0257	ST-WRT08	
	40-M16-16-4T-C	●	40	60	43	16	4T	16	16	ST-SC0257	ST-WRT08	

MFAP

AP□□16



AP□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
AP□□16	MFAP 75063R-16-4T	●	63	40	22	16	4T	ST-SC0257	ST-WRT08	
	75080R-16-6T	●	80	40	27	16	6T	ST-SC0257	ST-WRT08	
	75100R-16-7T	●	100	50	32	16	7T	ST-SC0257	ST-WRT08	

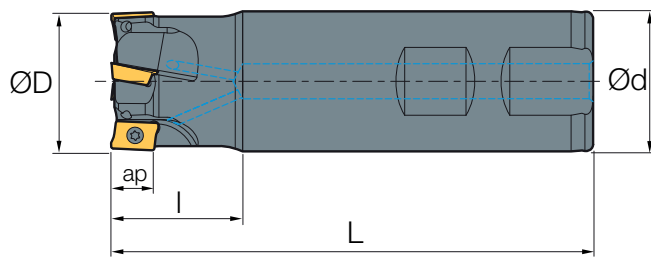
Carbide

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HOLDERS /MILLING

MSAP

AP□□16



AP□□	DESCRIPTION	STOCK	DIMENSIONS						ap			
			D	L	l	d	Z					
AP□□16	MSAP 25-120-16-25-2T	●	25	120	30	25	2T	16	ST-SC0256	ST-WRT08		
	25-150-16-25-2T	●	25	150	40	25	2T	16	ST-SC0256	ST-WRT08		
	25-200-16-25-2T	●	25	200	50	25	2T	16	ST-SC0256	ST-WRT08		
	25-250-16-25-2T	●	25	250	70	25	2T	16	ST-SC0256	ST-WRT08		
	26-120-16-25-2T	●	26	120	30	25	2T	16	ST-SC0256	ST-WRT08		
	26-150-16-25-2T	●	26	150	40	25	2T	16	ST-SC0256	ST-WRT08		
	26-200-16-25-2T	●	26	200	50	25	2T	16	ST-SC0256	ST-WRT08		
	30-150-16-25-3T	●	30	150	40	25	3T	16	ST-SC0256	ST-WRT08		
	30-200-16-25-3T	●	30	200	50	25	3T	16	ST-SC0256	ST-WRT08		
	32-120-16-25-3T	●	32	120	30	25	3T	16	ST-SC0256	ST-WRT08		
	32-120-16-32-3T	●	32	120	30	32	3T	16	ST-SC0256	ST-WRT08		
	32-150-16-25-3T	●	32	150	50	25	3T	16	ST-SC0256	ST-WRT08		
	32-200-16-32-3T	●	32	200	50	32	3T	16	ST-SC0256	ST-WRT08		
	32-250-16-32-3T	●	32	250	70	32	3T	16	ST-SC0256	ST-WRT08		
	32-300-16-32-3T	●	32	300	70	32	3T	16	ST-SC0256	ST-WRT08		
	32-350-16-32-3T	●	32	350	70	32	3T	16	ST-SC0256	ST-WRT08		
	34-120-16-32-3T	●	34	120	30	32	3T	16	ST-SC0256	ST-WRT08		
	34-150-16-32-3T	●	34	150	50	32	3T	16	ST-SC0256	ST-WRT08		
	35-120-16-32-3T	●	35	120	30	32	3T	16	ST-SC0256	ST-WRT08		
	35-150-16-32-3T	●	35	150	50	32	3T	16	ST-SC0256	ST-WRT08		
	35-200-16-32-3T	●	35	200	50	32	3T	16	ST-SC0256	ST-WRT08		
	35-250-16-32-3T	●	35	250	50	32	3T	16	ST-SC0256	ST-WRT08		
	36-120-16-32-3T	●	36	120	30	32	3T	16	ST-SC0256	ST-WRT08		
	40-120-16-32-4T	●	40	120	30	32	4T	16	ST-SC0256	ST-WRT08		
40-150-16-25-4T	●	40	150	50	25	4T	16	ST-SC0256	ST-WRT08			
40-150-16-32-4T	●	40	150	50	32	4T	16	ST-SC0256	ST-WRT08			
40-200-16-32-4T	●	40	200	50	32	4T	16	ST-SC0256	ST-WRT08			

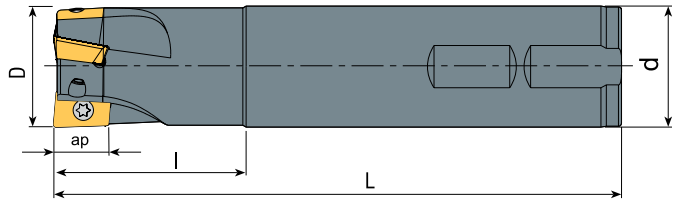
Carbide



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HOLDERS /MILLING

MSAX

AX□□07



AX□□	DESCRIPTION	STOCK	DIMENSIONS										
			D	L	l	d	Z	ap					
AX□□07	MSAX 08-075-07-10-1T	●	08	075	20	10	1	5	ST-SC0180	ST-WRT06			
	10-120-07-10-2T-C	●	10	120	20	10	2	5	ST-SC0180	ST-WRT06			
	11-120-07-10-2T-C	●	11	120	20	10	2	5	ST-SC0180	ST-WRT06			
	12-120-07-10-2T-C	●	12	120	20	10	2	5	ST-SC0180	ST-WRT06			
	12-120-07-12-3T-C	●	12	120	20	12	3	5	ST-SC0180	ST-WRT06			
	13-120-07-12-3T-C	●	13	120	20	12	3	5	ST-SC0180	ST-WRT06			
	14-120-07-12-3T-C	●	14	120	20	12	3	5	ST-SC0180	ST-WRT06			
	16-120-07-16-4T-C	●	16	120	25	16	4	5	ST-SC0180	ST-WRT06			

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

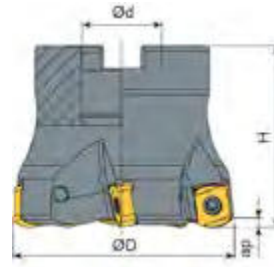
SPARE
PARTS


INDEX

HOLDERS /MILLING

MFBL

BL□□06



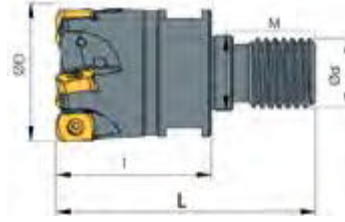
BL□□	DESCRIPTION		STOCK	DIMENSIONS						
				D	H	d	ap	Z		
BL□□06	MFBL	050R-06-7T-C	●	50	50	22	6	7	ST-SC0257	ST-WRT08
		063R-06-8T-C	●	63	50	22	6	8	ST-SC0257	ST-WRT08

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HOLDERS /MILLING

MMBL

BL□□06



BL□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	L	I	d	Z	ap	M		
BL□□06	MMBL 32-M16-06-5T-C	●	32	60	36	17	5	06	16	ST-SC0257	ST-WRT08

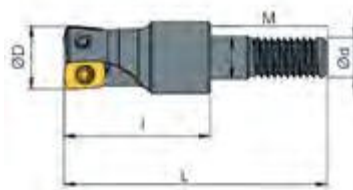
Carbide ▶ 293

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

HOLDERS /MILLING

MMEP

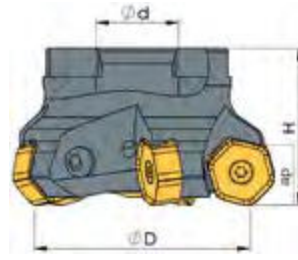
EP□□06




EP□□	DESCRIPTION	STOCK	DIMENSIONS										
			D	L	I	d	Z	ap	M				
EP□□06	MMEP 10-M06-06-2T-C	●	10	40	22	6,5	2	6	M6	ST-SC0252	ST-WRT06		
	MMEP 12-M06-06-3T-C	●	12	40	22	6,5	2	6	M6	ST-SC0252	ST-WRT06		

MFHN

HN□□09



HN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	H	d	ap	Z					
HN□□09	MFHN 45050-09-4T	●	50	40	22	5	4	ST-SC0415	ST-WRT15			
	45050R-09-4T-C	●	50	40	22	5	4	ST-SC0415	ST-WRT15			
	45063R-09-5T-C	●	63	40	22	5	5	ST-SC0415	ST-WRT15			
	45063-09-6T	●	63	40	22	5	6	ST-SC0415	ST-WRT15			
	45080-09-6T	●	80	50	27	5	6	ST-SC0415	ST-WRT15			
	45080-09-8T	●	80	50	27	5	8	ST-SC0415	ST-WRT15			
	45080-09-6T-C	●	80	50	27	5	6	ST-SC0415	ST-WRT15			
	45100-09-10T	●	100	50	32	5	10	ST-SC0415	ST-WRT15			
	45100-09-8T	●	100	50	32	5	8	ST-SC0415	ST-WRT15			
	45100R-09-8T-C	●	100	50	32	5	8	ST-SC0415	ST-WRT15			
	45125-09-10T	●	125	62	40	5	10	ST-SC0415	ST-WRT15			
	45125-09-12T	●	125	62	40	5	12	ST-SC0415	ST-WRT15			
	45125R-09-10T-C	●	125	62	40	5	10	ST-SC0415	ST-WRT15			
	45160-09-12T	●	160	62	40	5	12	ST-SC0415	ST-WRT15			
	45160-09-14T	●	160	62	40	5	14	ST-SC0415	ST-WRT15			
	45160R-09-12T	●	160	62	40	5	12	ST-SC0415	ST-WRT15			
	45200-09-12T	●	200	62	40	5	12	ST-SC0415	ST-WRT15			
	45250-09-14T	●	250	62	40	5	14	ST-SC0415	ST-WRT15			

Carbide

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

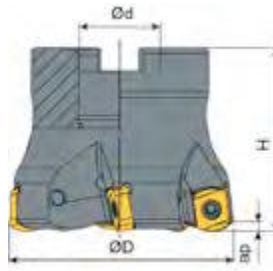
SPARE
PARTS

INDEX

HOLDERS /MILLING

MFLN

LN□□03




LN□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
MFLN	90050R-03-7T-C	●	50	40	22	3	7	ST-SC0257	ST-WRT08	
LN□□03										

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MSLN

LN□□03



LN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
LN□□03	MSLN 16-160-03-16-2T	●	16	160	50	16	2T	3	ST-SC0257	ST-WRT08		
	18-150-03-16-2T	●	18	150	30	16	2T	3	ST-SC0257	ST-WRT08		
	20-160-03-20-3T	●	20	160	50	20	3T	3	ST-SC0257	ST-WRT08		
	20-200-03-20-3T-C	●	20	200	60	20	3T	3	ST-SC0257	ST-WRT08		
	21-160-03-20-3T	●	21	160	30	20	3T	3	ST-SC0257	ST-WRT08		
	22-150-03-20-3T	●	22	150	30	20	3T	3	ST-SC0257	ST-WRT08		
	22-160-03-20-3T	●	22	160	30	20	3T	3	ST-SC0257	ST-WRT08		
	25-160-03-25-4T	●	25	160	50	25	4T	3	ST-SC0257	ST-WRT08		
32-160-03-32-4T	●	32	160	50	32	4T	3	ST-SC0257	ST-WRT08			

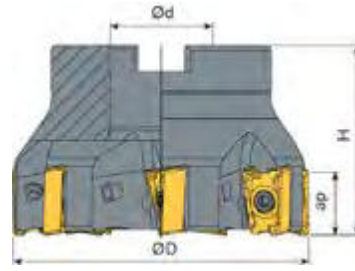
Carbide

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HOLDERS /MILLING

MFLN

LN□□10





LN□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
MFLN	90050R-10-6T-C	●	50	40	22	10	6	ST-SC0309	ST-WRT10		
LN□□10											

- TURNING
- GROOVING
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MSLN

LN□□10



LN□□	DESCRIPTION	STOCK	DIMENSIONS							 			
			D	L	I	d	Z	ap					
LN□□10	MSLN	20-150-10-20-2T-C	●	20	150	50	20	2	10	ST-SC0309	ST-WRT10		
		25-150-10-25-3T-C	●	25	150	50	25	3T	10	ST-SC0309	ST-WRT10		
		32-125-10-32-4T-C	●	32	125	40	32	4T	10	ST-SC0309	ST-WRT10		
		40-130-10-32-4T-C	●	40	130	40	32	4T	10	ST-SC0309	ST-WRT10		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS DRILLS & TAPS

SPARE PARTS

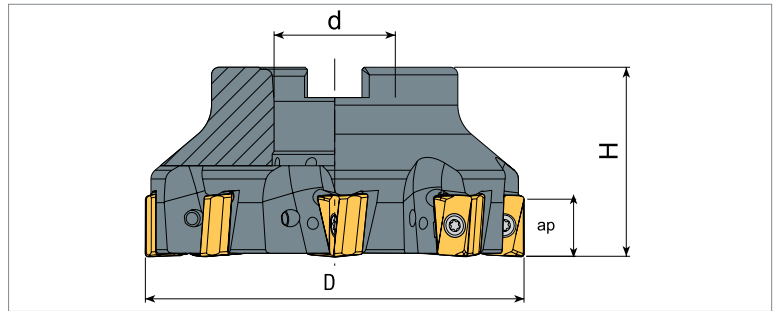
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HOLDERS /MILLING

MFLN

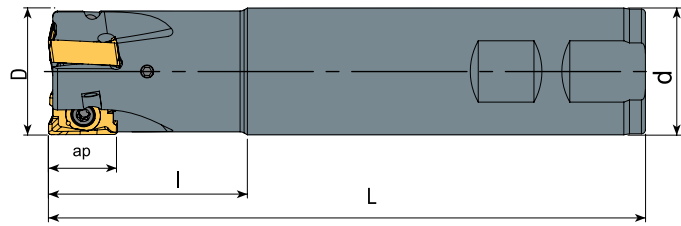
LN□□11




LN□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
LN□□11	MFLN 90050R-11-7T-C	●	50	40	22	11	7	ST-SC0309	ST-WRT10		
	90063R-11-7T-C	●	63	40	22	11	7	ST-SC0309	ST-WRT10		
	90080R-11-8T-C	●	80	50	27	11	8	ST-SC0309	ST-WRT10		
	90040R-11-5T-C	●	40	40	16	11	5	ST-SC0309	ST-WRT10		
	90050R-11-6T-C	●	50	40	22	11	6	ST-SC0309	ST-WRT10		
	90063R-11-7T-C	●	63	40	22	11	7	ST-SC0309	ST-WRT10		
	90080R-11-8T-C	●	80	50	27	11	8	ST-SC0309	ST-WRT10		

MSLN

LN□□11



LN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
LN□□11	MSLN 16-100-11-16-2T-C	●	16	100	25	16	2	11	ST-SC0301	ST-WRT10		
	16-150-11-16-2T-C	●	16	150	25	16	2	11	ST-SC0301	ST-WRT10		
	16-160-11-16-2T-C	●	16	160	25	16	2	11	ST-SC0301	ST-WRT10		
	17-150-11-16-2T-C	●	17	150	25	16	2	11	ST-SC0301	ST-WRT10		
	20-100-11-20-2T-C	●	20	100	28	20	2	11	ST-SC0301	ST-WRT10		
	20-150-11-20-3T-C	●	20	150	28	20	3	11	ST-SC0301	ST-WRT10		
	20-160-11-20-2T-C	●	20	160	28	20	2	11	ST-SC0301	ST-WRT10		
	21-150-11-20-3T-C	●	21	150	28	20	3	11	ST-SC0301	ST-WRT10		
	25-150-11-25-4T-C	●	25	150	43	25	4	11	ST-SC0301	ST-WRT10		
	25-160-11-25-3T-C	●	25	160	43	25	3	11	ST-SC0301	ST-WRT10		
	25-200-11-25-4T-C	●	25	200	30	25	4	11	ST-SC0301	ST-WRT10		
	32-150-11-32-5T-C	●	32	150	49	32	5	11	ST-SC0301	ST-WRT10		
	32-160-11-32-4T-C	●	32	160	49	32	4	11	ST-SC0301	ST-WRT10		
	32-200-11-32-5T-C	●	32	200	35	32	5	11	ST-SC0301	ST-WRT10		

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TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

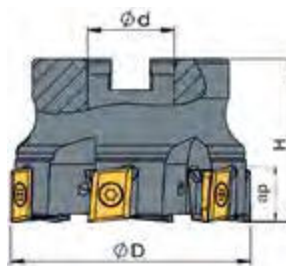
HSS
DRILLS & TAPSSPARE
PARTS

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HOLDERS /MILLING

MFLN

LN□□13



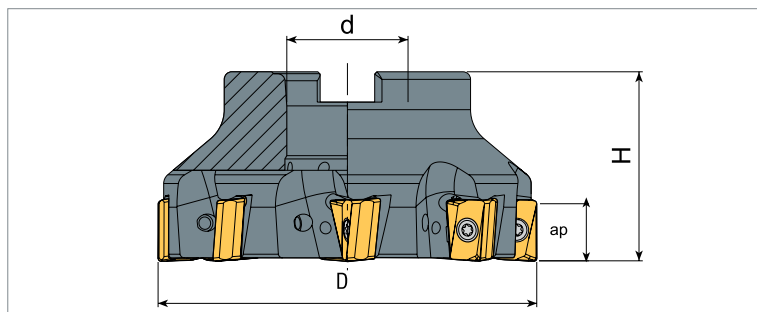
LN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	H	d	ap	Z					
LN□□13	MFLN	50R-13-5T-C	●	50	40	22	13	5	ST-SC0410	ST-WRT15		
		63R-13-6T-C	●	63	40	22	13	6	ST-SC0410	ST-WRT15		
		80R-13-7T-C	●	80	50	27	13	7	ST-SC0410	ST-WRT15		
		100R-13-8T-C	●	100	50	32	13	8	ST-SC0410	ST-WRT15		
		125R-13-10T-C	●	125	62	40	13	10	ST-SC0410	ST-WRT15		
		160R-13-12T-C	●	160	62	40	13	12	ST-SC0410	ST-WRT15		



Carbide

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MFLN

LN □ □ 15



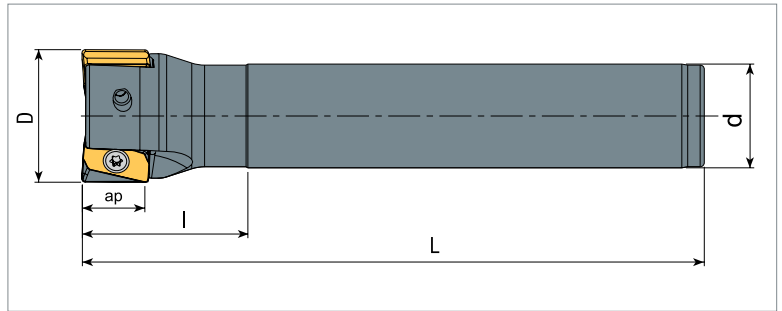
LN □ □	DESCRIPTION	STOCK	DIMENSIONS					Z				
			D	H	d	ap	Z					
LN □ □ 15	MFLN 90050R-15-5T-C	●	50	40	22	15	5	ST-SC0411	ST-WRT15			
	90063R-15-6T-C	●	63	40	22	15	6	ST-SC0411	ST-WRT15			
	90080R-15-7T-C	●	80	50	27	15	7	ST-SC0411	ST-WRT15			
	90100R-15-8T-C	●	100	50	32	15	8	ST-SC0411	ST-WRT15			
	90125R-15-10T-C	●	125	63	40	15	10	ST-SC0411	ST-WRT15			
	90160R-15-12T-C	●	160	63	40	15	12	ST-SC0411	ST-WRT15			


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HOLDERS /MILLING

MSLN

LN□□15



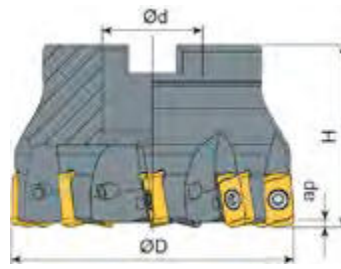
LN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
LN□□15	MSLN 25-100-15-25-2T-C	●	25	100	43	25	2	15	ST-SC0415	ST-WRT15		
	25-150-15-25-2T-C	●	25	150	43	25	2	15	ST-SC0415	ST-WRT15		
	25-200-15-25-2T-C	●	25	200	43	25	2	15	ST-SC0415	ST-WRT15		
	32-150-15-32-3T-C	●	32	150	49	32	3	15	ST-SC0415	ST-WRT15		
	32-160-15-32-3T-C	●	32	160	49	32	3	15	ST-SC0415	ST-WRT15		
	32-200-15-32-3T-C	●	32	200	49	32	3	15	ST-SC0415	ST-WRT15		
	40-150-15-32-4T-C	●	40	150	49	32	4	15	ST-SC0415	ST-WRT15		
	40-200-15-32-4T-C	●	40	200	49	32	4	15	ST-SC0415	ST-WRT15		

Carbide

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MFLO

LO 03



LO	DESCRIPTION	STOCK	DIMENSIONS						
			D	H	d	ap	Z		
LO 03	MFLO 040R-03-6T-C	●	40	40	16	3	6	ST-SC0309	ST-WRT10

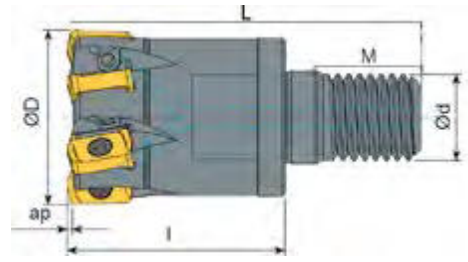
Carbide


- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

HOLDERS /MILLING

MMLO

LO□□03



LO□□	DESCRIPTION	STOCK	DIMENSIONS							M			
			D	L	l	d	Z	ap	M				
LO□□03	MMLO 16-M8-03-2T-C	●	16	40	25	8,5	2	3	8	ST-SC0309	ST-WRT10		
	20-M10-03-3T-C	●	20	50	31	10,5	3	3	10	ST-SC0309	ST-WRT10		
	21-M10-03-3T-C	●	21	50	31	10,5	3	3	10	ST-SC0309	ST-WRT10		
	25-M12-03-4T-C	●	25	51	29	12,5	4	3	12	ST-SC0309	ST-WRT10		
	32-M16-03-5T-C	●	32	63	39	17	5	3	16	ST-SC0309	ST-WRT10		
	35-M16-03-5T-C	●	35	63	39	17	5	3	16	ST-SC0309	ST-WRT10		
	40-M16-03-6T-C	●	40	63	39	17	6	3	16	ST-SC0309	ST-WRT10		
	42-M16-03-6T-C	●	42	63	39	17	5	3	16	ST-SC0309	ST-WRT10		

Carbide  

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

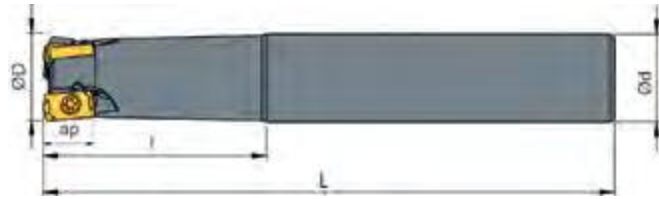
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

MSLO

LO□□03



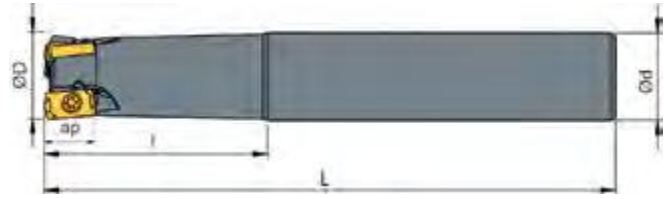
LO□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
LO□□03	MSLO 16-100-03-16-2T	●	16	100	35	16	2	-	ST-SC0309	ST-WRT10		
	16-150-03-15-2T-C	●	16	150	35	16	2	-	ST-SC0309	ST-WRT10		
	16-160-03-15-2T-C	●	16	160	35	16	2	-	ST-SC0309	ST-WRT10		
	16-160-03-16-2T	●	16	160	50	16	2	-	ST-SC0309	ST-WRT10		
	17-100-03-16-2T-C	●	17	100	30	16	2	-	ST-SC0309	ST-WRT10		
	17-150-03-16-2T-C	●	17	150	30	16	2	-	ST-SC0309	ST-WRT10		
	17-160-03-16-2T-C	●	17	160	30	16	2	-	ST-SC0309	ST-WRT10		
	17-200-03-16-2T	●	17	200	30	16	2	-	ST-SC0309	ST-WRT10		
	18-150-03-16-2T-C	●	18	150	30	16	2	-	ST-SC0309	ST-WRT10		
	18-160-03-16-2T-C	●	18	160	30	16	2	-	ST-SC0309	ST-WRT10		
	19,5-160-03-20-3T	●	19,5	160	30	20	3	-	ST-SC0309	ST-WRT10		
	20-100-03-20-2T-C	●	20	100	35	20	2	-	ST-SC0309	ST-WRT10		
	20-130-03-20-3T	●	20	130	40	20	3	-	ST-SC0309	ST-WRT10		
	20-150-03-20-3T	●	20	150	40	20	3	-	ST-SC0309	ST-WRT10		
	20-160-03-20-3T-C	●	20	160	50	20	3	-	ST-SC0309	ST-WRT10		
	21,5-160-03-20-3T	●	21,5	160	30	20	3	-	ST-SC0309	ST-WRT10		
	21-100-03-20-2T-C	●	21	100	30	20	2	-	ST-SC0309	ST-WRT10		
	21-150-03-20-3T-C	●	21	150	30	20	3	-	ST-SC0309	ST-WRT10		
	21-160-03-20-3T-C	●	21	160	30	20	3	-	ST-SC0309	ST-WRT10		
	21-200-03-20-3T	●	21	200	35	20	3	-	ST-SC0309	ST-WRT10		
	22-160-03-20-3T-C	●	22	160	30	20	3	-	ST-SC0309	ST-WRT10		
	24,5-160-03-25-4T	●	24,5	160	45	25	4	-	ST-SC0309	ST-WRT10		
	25-150-03-25-4T-C	●	25	150	50	25	4	-	ST-SC0309	ST-WRT10		
	25-160-03-25-4T-C	●	25	160	50	25	4	-	ST-SC0309	ST-WRT10		
	25-180-03-25-4T-C	●	25	180	50	25	4	-	ST-SC0309	ST-WRT10		
	26-150-03-25-4T-C	●	26	150	50	25	4	-	ST-SC0309	ST-WRT10		
26-160-03-25-4T-C	●	26	160	30	25	4	-	ST-SC0309	ST-WRT10			

Carbide

HOLDERS /MILLING

MSLO

LO□□03



LO□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	L	l	d	Z	ap		
LO□□03	MSLO 26-200-03-25-4T-C	●	26	200	30	25	4	-		
	26-250-03-25-4T	●	26	250	30	25	4	-		
	27,5-160-03-25-4T	●	27,5	160	30	25	4	-		
	32-150-03-32-5T-C	●	32	150	50	32	5	-		
	32-160-03-32-5T-C	●	32	160	50	32	5	-		
	32-200-03-32-5T	●	32	200	50	32	5	-		
	33-160-03-32-5T-C	●	33	160	50	32	5	-		
	35,5-160-03-32-5T	●	35,5	160	50	32	5	-		

HOLDERS /MILLING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

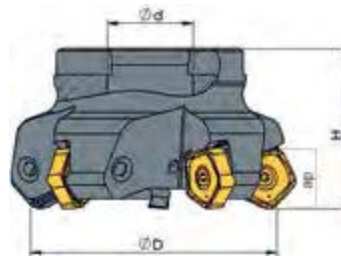
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

MFPN

PN□□09



PN□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
PN□□09	MFPN 45050R-09-4T-C	●	50	40	22	9	4	ST-SC0411	ST-WRT15	
	45063R-09-5T-C	●	63	52	27	9	5	ST-SC0411	ST-WRT15	
	45080R-09-6T-C	●	80	52	27	9	6	ST-SC0411	ST-WRT15	
	45100R-09-7T-C	●	100	52	32	9	7	ST-SC0411	ST-WRT15	
	45125R-09-10T	●	125	62	40	9	10	ST-SC0411	ST-WRT15	
	45125R-09-10T-C	●	125	62	40	9	10	ST-SC0411	ST-WRT15	

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HOLDERS /MILLING

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

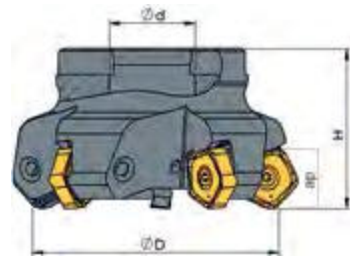
HSS
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MFPN

PN□□09



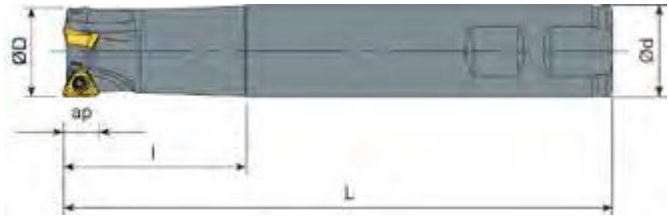
PN□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
PN□□09	MFPN 66063R-5T-C	●	63	40	22	8	5	ST-SC0411	ST-WRT15		
	66080R-6T-C	●	80	50	27	8	6	ST-SC0411	ST-WRT15		
	66100R-7T-C	●	100	50	32	8	7	ST-SC0411	ST-WRT15		
	66125R-9T-C	●	125	69	40	8	9	ST-SC0411	ST-WRT15		


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HOLDERS /MILLING

MS3P

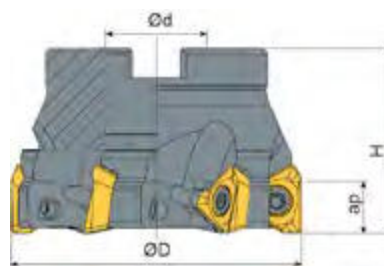
3P□□10



3P□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
3P□□10	MS3P 20-150-10-20-2T-C	●	20	150	50	20	2	10	ST-SC0309	ST-WRT10		
	25-150-10-25-3T-C	●	25	150	50	25	3	10	ST-SC0309	ST-WRT10		
	26-250-10-25-2T-C	●	26	250	50	25	2	10	ST-SC0309	ST-WRT10		
	26-250-10-25-3T-C	●	26	250	50	25	3	10	ST-SC0309	ST-WRT10		
	32-150-10-32-4T-C	●	32	150	50	32	4	10	ST-SC0309	ST-WRT10		
	40-160-10-40-5T-C	●	40	160	50	40	5	10	ST-SC0309	ST-WRT10		

MF3P

3P□□ 15



3P□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	H	d	ap	Z					
3P□□15	MF3P MF3P-050R-15-5T-C	●	50	40	22	15	5	ST-SC4516	ST-WRT20			
	MF3P-063R-15-6T-C	●	63	40	22	15	6	ST-SC4516	ST-WRT20			
	080R-15-7T-C	●	80	52	27	15	7	ST-SC4516	ST-WRT20			
	100R-15-8T-C	●	100	52	32	15	8	ST-SC4516	ST-WRT20			
	125R-15-10T-C	●	125	62	40	15	10	ST-SC4516	ST-WRT20			
	160R-15-12T-C	●	160	62	40	15	12	ST-SC4516	ST-WRT20			
	32200-15-32-3T-C	●	200	-	32	15	3	ST-SC4516	ST-WRT20			

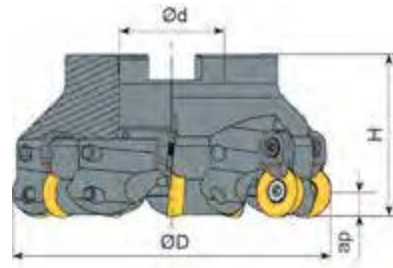
Carbide


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HOLDERS /MILLING

MFRD

RD□□



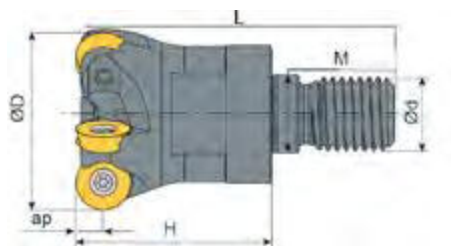
RD□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
RD□□10	MFRD 040R-10-4T	●	40	40	16	5	4T	ST-SC3509	ST-WRT15	
	040R-10-4T-C	●	40	40	16	5	4T	ST-SC3509	ST-WRT15	
	050R-10-5T-C	●	50	50	22	5	5T	ST-SC3509	ST-WRT15	
	052R-10-5T-C	●	52	52	22	5	5T	ST-SC3509	ST-WRT15	
	063R-10-6T	●	63	50	27	5	6T	ST-SC3509	ST-WRT15	
	063R-10-6T-C	●	63	50	27	5	6T	ST-SC3509	ST-WRT15	
	080R-10-7T-C	●	80	50	27	5	7T	ST-SC3509	ST-WRT15	
	100R-10-8T	●	100	50	32	5	8T	ST-SC3509	ST-WRT15	
RD□□12	MFRD 040R-12-4T	●	40	40	16	6	4T	ST-SC3509	ST-WRT15	
	040R-12-4TC	●	40	40	16	6	4T	ST-SC3509	ST-WRT15	
	050R-12-5T	●	50	50	22	6	5T	ST-SC3509	ST-WRT15	
	050R-12-5T-C	●	50	50	22	6	5T	ST-SC3509	ST-WRT15	
	063R-12-6T	●	63	50	27	6	6T	ST-SC3509	ST-WRT15	
	063R-12-6T-C	●	63	50	27	6	6T	ST-SC3509	ST-WRT15	
	080R-12-7T	●	80	50	27	6	7T	ST-SC3509	ST-WRT15	
	080R-12-7T-C	●	80	50	27	6	7T	ST-SC3509	ST-WRT15	


Carbide

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MMRD

RD□□



RD□□	DESCRIPTION	STOCK	DIMENSIONS										
			D	L	I	d	Z	ap	M				
RD□□08	MMRD 16-M08-08-2T-C	●	16	52	23	13	2T	4	08	ST-SC0256	ST-WRT08		
	20-M10-08-3T-C	●	20	52	30	18	3T	4	10	ST-SC0256	ST-WRT08		
	25-M12-08-4T-C	●	25	52	35	21	4T	4	12	ST-SC0256	ST-WRT08		
RD□□10	MMRD 20-M10-10-2T-C	●	20	52	30	18	2T	5	10	ST-SC3508	ST-WRT15		
	25-M12-10-2T-C	●	25	52	35	21	2T	5	12	ST-SC3508	ST-WRT15		
	25-M12-10-3T-C	●	25	52	35	21	3T	5	12	ST-SC3508	ST-WRT15		
	30-M16-10-3T-C	●	30	64	43	29	3T	5	16	ST-SC3508	ST-WRT15		
	32-M16-10-4T-C	●	32	64	43	29	4T	5	16	ST-SC3508	ST-WRT15		
	35-M16-10-4T-C	●	35	64	43	29	4T	5	16	ST-SC3508	ST-WRT15		
	40-M16-10-4T-C	●	40	67	43	29	4T	5	16	ST-SC3508	ST-WRT15		
	42-M16-10-5T-C	●	42	67	43	29	5T	5	16	ST-SC3508	ST-WRT15		
RD□□12	MMRD 25-M12-12-2T-C	●	25	52	35	21	2T	6	12	ST-SC3508	ST-WRT15		
	32-M16-12-3T-C	●	32	64	43	29	3T	6	16	ST-SC3508	ST-WRT15		
	35-M16-12-3T-C	●	35	64	43	29	3T	6	16	ST-SC3508	ST-WRT15		
	40-M16-12-4T-C	●	40	67	43	29	4T	6	16	ST-SC3508	ST-WRT15		
	42-M16-12-4T-C	●	42	67	43	29	4T	6	16	ST-SC3508	ST-WRT15		

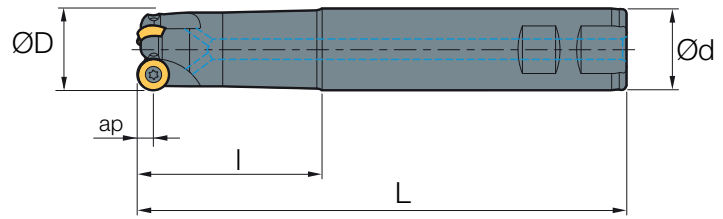
Carbide

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HOLDERS /MILLING

MSRD

RD



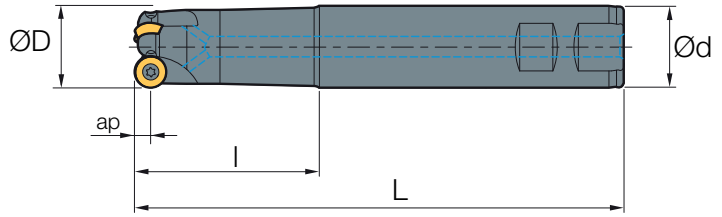
RD <input type="text"/> <input type="text"/>	DESCRIPTION	STOCK	DIMENSIONS						ap			
			D	L	l	d	Z					
RD <input type="text"/> <input type="text"/> 08	MSRD 16-160-08-16-2T	●	16	160	55	25	2T	08	ST-SC0256	ST-WRT08		
	20-160-08-20-2T	●	20	160	55	25	2T	08	ST-SC0256	ST-WRT08		
	25-160-08-25-3T	●	25	160	55	25	3T	08	ST-SC0256	ST-WRT08		
RD <input type="text"/> <input type="text"/> 10	MSRD 20-120-10-20-2T	●	20	120	55	20	2T	10	ST-SC3508	ST-WRT15		
	20-150-10-20-2T-C	●	20	150	55	20	2T	10	ST-SC3508	ST-WRT15		
	20-160-10-20-2T	●	20	160	55	20	2T	10	ST-SC3508	ST-WRT15		
	20-200-10-20-2T	●	20	200	55	20	2T	10	ST-SC3508	ST-WRT15		
	25-120-10-25-2T	●	25	120	55	25	2T	10	ST-SC3508	ST-WRT15		
	25-160-10-25-2T	●	25	160	55	25	2T	10	ST-SC3508	ST-WRT15		
	25-150-10-25-2T	●	25	150	55	25	2T	10	ST-SC3508	ST-WRT15		
	25-200-10-25-2T	●	25	200	55	25	2T	10	ST-SC3508	ST-WRT15		
	25-200-10-25-2T-C	●	25	200	55	25	2T	10	ST-SC3508	ST-WRT15		
	32-120-10-32-3T	●	32	120	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-150-10-32-3T-C	●	32	150	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-160-10-32-3T	●	32	160	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-200-10-32-3T	●	32	200	55	32	3T	10	ST-SC3508	ST-WRT15		
	40-120-10-32-4T	●	40	120	55	32	4T	10	ST-SC3508	ST-WRT15		
	40-160-10-32-4T	●	40	160	55	32	4T	10	ST-SC3508	ST-WRT15		
40-200-10-32-4T	●	40	200	55	32	4T	10	ST-SC3508	ST-WRT15			


Carbide

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MSRD

RD□□12



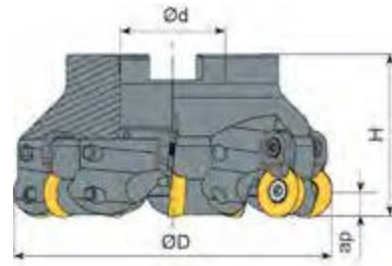
RD□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
RD□□12	MSRD 25-120-12-25-2T	●	25	120	55	25	2T	08	ST-SC3508	ST-WRT15		
	25-160-12-25-2T	●	25	160	55	25	2T	08	ST-SC3508	ST-WRT15		
	25-200-12-25-2T	●	25	200	55	25	2T	08	ST-SC3508	ST-WRT15		
	32-120-12-32-3T	●	32	120	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-150-12-32-3T-C	●	32	150	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-160-12-32-3T	●	32	160	55	32	3T	10	ST-SC3508	ST-WRT15		
	32-200-12-32-3T	●	32	200	55	32	3T	10	ST-SC3508	ST-WRT15		
	40-120-12-32-4T	●	40	120	55	32	4T	10	ST-SC3508	ST-WRT15		
	40-200-12-32-4T	●	40	200	55	32	4T	10	ST-SC3508	ST-WRT15		


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HOLDERS /MILLING

MFRD

RD 16

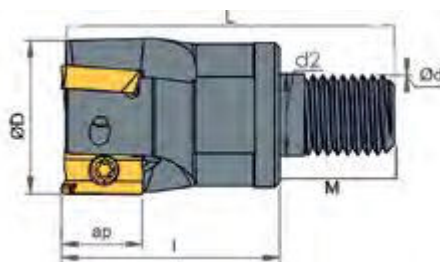



RD 	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
MFRD	080R-16-5T-C	●	80	52	27	8	5	ST-SC0512	ST-WRT20	
RD 16										

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

MMRT

RT□□10



RT□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	L	I	d	Z	ap	M		
RT□□10	MMRT 42-M16-10-6T-C	●	42	67	35	42	6T	16	16	ST-SC0257	ST-WRT08


Carbide 299

HOLDERS /MILLING

MSRT

RT□□



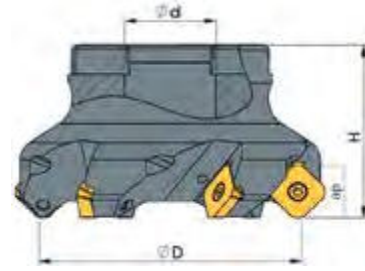
RT□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	I	d	Z	ap				
RT□□07	MSRT 10-120-07-10-2T	●	10	120	30	10	2T	07	ST-SC0204	ST-WRT06		
	12-120-07-12-2T	●	12	120	30	12	2T	07	ST-SC0204	ST-WRT06		
	14-120-07-12-2T	●	14	120	30	12	2T	07	ST-SC0204	ST-WRT06		
RT□□10	MSRT 16-120-10-16-2T	●	16	120	30	16	2T	10	ST-SC02507	ST-WRT08		
	16-200-10-16-2T	●	16	200	50	16	2T	10	ST-SC02507	ST-WRT08		
	25-120-10-25-4T	●	25	120	30	25	4T	10	ST-SC02507	ST-WRT08		
	32-120-10-32-5T	●	32	120	30	32	5T	10	ST-SC02507	ST-WRT08		
	32-200-10-32-5T	●	32	200	30	32	5T	10	ST-SC02507	ST-WRT08		

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MFSE

SE□□12



SE□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
SE□□12	MFSE 45050R-4T	●	50	40	22	6	4T	ST-SC0359	ST-WRT15		
	45063R-5T	●	63	40	22	6	5T	ST-SC0359	ST-WRT15		
	45063R-12-5T-C	●	63	40	12	6	5T	ST-SC0359	ST-WRT15		
	45100R-7T	●	100	50	32	6	7T	ST-SC0359	ST-WRT15		
	45125R-8T	●	125	63	40	6	8T	ST-SC0359	ST-WRT15		
	45160R-10T	●	160	63	40	6	10T	ST-SC0359	ST-WRT15		

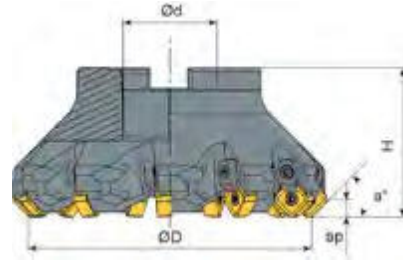
Carbide


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HOLDERS /MILLING

MFSN

SN□□12



SN□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	H	d	ap	Z			
SN□□12	MFSN 45050R-5T-C	●	50	40	22	6	5T	ST-SC0411	ST-WRT15	
	45063R-5T-C	●	63	40	22	6	5T	ST-SC0411	ST-WRT15	
	45063R-6T-C	●	64	40	22	6	6T	ST-SC0411	ST-WRT15	
	45080R-8T-C	●	80	50	27	6	8T	ST-SC0411	ST-WRT15	
	45100R-10T-C	●	100	50	32	6	10T	ST-SC0411	ST-WRT15	
	45125R-11T	●	125	63	40	6	11T	ST-SC0411	ST-WRT15	
	45125-11T-C	●	125	63	40	6	11T	ST-SC0411	ST-WRT15	
	45160R-12T	●	160	63	40	6	12T	ST-SC0411	ST-WRT15	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

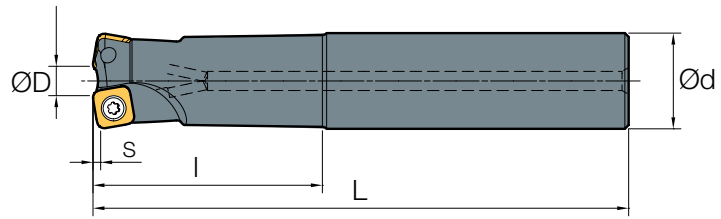
HSS
DRILLS & TAPS


SPARE
PARTS

INDEX

MSSO

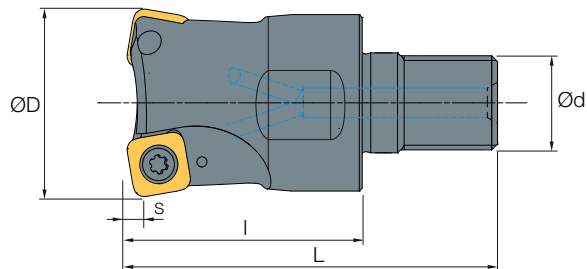
SOMW



SO □□	DESCRIPTION	STOCK	DIMENSIONS							PROGRAM RADIUS	MAX. ANGLE FOR RAMPING		
			D	L	l	d	Z	S					
SOMW08	MSSO 20-160-08-20-2T-C	●	20	160	40	20	2T	2	2,5	2.30	ST-SC0309	ST-WRT15	
	20-200-08-20-2T-C	●	20	200	50	20	2T	2	2,5	2.30	ST-SC0309	ST-WRT15	
	21-160-08-20-2T-C	●	21	160	40	20	2T	2	2,5	1.30	ST-SC0309	ST-WRT15	
	25-160-08-25-3T-C	●	25	160	40	25	3T	2	2,5	1.30	ST-SC0309	ST-WRT15	
	25-200-08-25-3T	●	25	200	50	25	3T	2	2,5	1.00	ST-SC0309	ST-WRT15	
	25-200-08-25-3T-C	●	25	200	50	25	3T	2	2,5	1.00	ST-SC0309	ST-WRT15	
	26-160-08-25-3T-C	●	26	160	40	25	3T	2	2,5	1.20	ST-SC0309	ST-WRT15	
	26-200-08-25-2T	●	26	200	50	25	2T	2	2,5	1.20	ST-SC0309	ST-WRT15	
	26-200-08-25-3T-C	●	26	200	50	25	3T	2	2,5	1.20	ST-SC0309	ST-WRT15	
	32-160-08-32-4T-C	●	32	160	40	32	4T	2	3,5	2.50	ST-SC0309	ST-WRT15	
	32-200-08-32-4T	●	32	200	50	32	4T	2	3,5	2.50	ST-SC0309	ST-WRT15	
	35-160-08-32-4T-C	●	35	160	40	32	4T	2	3,5	2.50	ST-SC0309	ST-WRT15	

MMSO

SOMW



SO □□	DESCRIPTION	STOCK	DIMENSIONS							PROGRAM RADIUS	MAX. ANGLE FOR RAMPING		
			D	L	l	d	Z	S	M				
SOMW08	MMSO 20-M10-08-2T-C	●	20	52	30	12,5	2T	2	10	2,5	2°30'	ST-SC0309	ST-WRT15
	25-M12-08-3T-C	●	25	52	35	12,5	3T	2	12	2,5	1°30'	ST-SC0309	ST-WRT15
	32-M16-08-4T-C	●	32	64	43	17	4T	2	16	2,5	1°00'	ST-SC0309	ST-WRT15
	40-M16-08-5T-C	●	40	67	43	17	5T	2	16	2,5	0°50'	ST-SC0309	ST-WRT15
	42-M16-08-5T-C	●	42	67	43	17	5T	2	16	2,5	0°40'	ST-SC0309	ST-WRT15

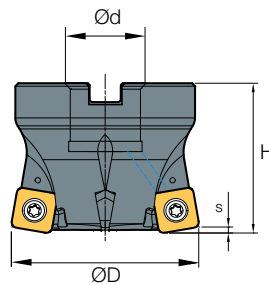
Carbide

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HOLDERS /MILLING

MFSO

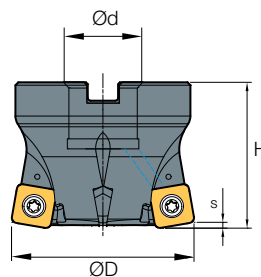
SOMW



SO□□	DESCRIPTION	STOCK	DIMENSIONS					PROGRAM RADIUS	MAX. ANGLE FOR RAMPING		
			D	H	d	S	Z				
SOMW08	MFSO 040R-08-5T-C	●	40	40	16	2	5T	2,5	0°50'	ST-SC0309	ST-WRT15
	050R-08-6T-C	●	50	40	22	2	6T	3,5	0°40'	ST-SC0309	ST-WRT15
	063R-08-7T-C	●	63	40	22	2	7T	3,5	0°30'	ST-SC0309	ST-WRT15

MFSP

SP□□12



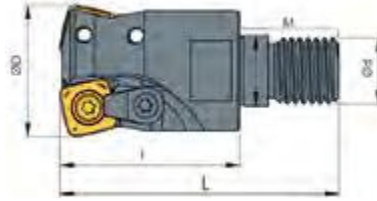
SP□□	DESCRIPTION	STOCK	DIMENSIONS					PROGRAM RADIUS	MAX. ANGLE FOR RAMPING		
			D	H	d	S	Z				
SN□□12	MFSP 050R-12-5T-C	●	50	40	22	3	5T	4,0	1.00	ST-SC0410	ST-WRT15
	052R-12-5T-C	●	52	40	22	3	5T	4,5	0.40	ST-SC0410	ST-WRT15
	063R-12-5T-C	●	63	40	22	3	5T	4	0.40	ST-SC0410	ST-WRT15
	080R-12-5T-C	●	80	40	22	3	5T	4	0.30	ST-SC0410	ST-WRT15
	080R-12-8T-C	●	80	40	22	3	8T	4	0.30	ST-SC0410	ST-WRT15
	100R-12-8T-C	●	100	40	22	3	8T	4	0.20	ST-SC0410	ST-WRT15
	125R-12-10T	●	125	40	22	3	10T	4	0.20	ST-SC0410	ST-WRT15
	160R-12-12T	●	160	40	22	3	12T	4	0.18	ST-SC0410	ST-WRT15
	2000R-12-14T	●	2000	-	-	3	14T	4	0.15	ST-SC0410	ST-WRT15
	200R-12-10T	●	200	-	-	3	10T	4	0.10	ST-SC0410	ST-WRT15


Carbide

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MMSP

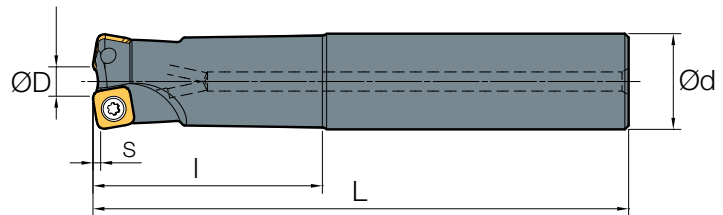
SP□□12




SP□□	DESCRIPTION	STOCK	DIMENSIONS							M				
			D	L	I	d	Z	ap						
SP□□12	MMSP	32-M16-12-2T-C	●	32	-	-	12	2	-	16	ST-SC0410	ST-WRT15		
		40-M16-12-3T-C	●	40	-	-	12	3	-	16	ST-SC0410	ST-WRT15		

MSSP

SP□□12



SP□□	DESCRIPTION	STOCK	DIMENSIONS							M				
			D	L	I	d	Z	ap						
SP□□12	MSSP	32-160-12-32-2T-C	●	32	160	-	32	2	-	-	ST-SC0410	ST-WRT15		
		40-160-12-32-3T-C	●	40	160	-	32	3	-	-	ST-SC0410	ST-WRT15		

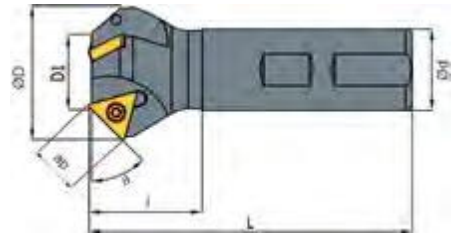
Carbide

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HOLDERS /MILLING

CHAMFER CUTTER

TC□□

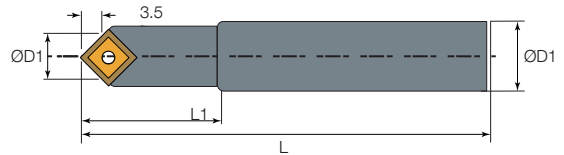


TC□□	DESCRIPTION	STOCK	DIMENSIONS							ap	ST-SC0257	ST-WRT08		
			D	L	l	d	Z	ap						
TC□□11	MF	45-TC11-04-15-4100	●	15	100	35	16	1	11	45°	ST-SC0257	ST-WRT08		
	MF	45-TC16-010-31-4100	●	31	100	35	16	1	16	45°	ST-SC3511	ST-WR115		
TC□□16		45-TC16-014-35-4100	●	35	100	35	20	2	16	45°	ST-SC3511	ST-WR115		
		45-TC16-022-43-4100	●	43	100	25	35	2	16	45°	ST-SC3511	ST-WR115		
		45-TC16-05-23-4100	●	23	100	35	16	3	16	45°	ST-SC3511	ST-WR115		
		60-TC16-06-20-4100	●	20	100	35	16	3	16	60°	ST-SC3511	ST-WR115		

Turning Carbide ▶ 40

CHAMFER CUTTER

SD□□

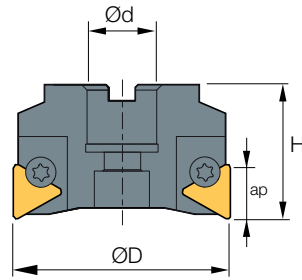



SD□□	DESCRIPTION	STOCK	DIMENSIONS						ap	ST-SC0309	ST-WRT08		
			D	L	L1	d	ap						
TC□□08	SCE	45N-D0010Z1-SD08	●	0	90	-	10	10.00	ST-SC0309	ST-WRT08			
	SCE	45N-D0014Z1-SD11	●	0	120	40	20	14.00	ST-SC0411	ST-WRT15			
	SCE	45R-D0921Z1-SD11	●	9.00	120	40	20	21.00	ST-SC0411	ST-WRT15			
TC□□11	SCE	45R-D1933Z2-SD11	●	19.00	120	40	20	33.90	ST-SC0411	ST-WRT15			
	SCE	45R-D2739Z3-SD11	●	27.66	120	40	20	39.42	ST-SC0411	ST-WRT15			

Carbide ▶ 300

MFTP

TP□□



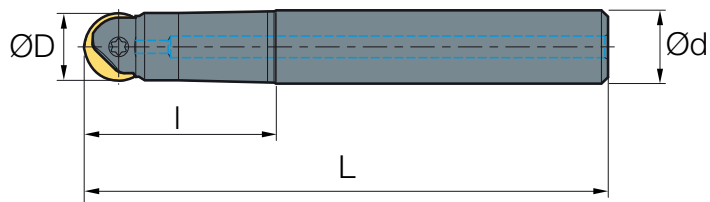
TP□□	DESCRIPTION		STOCK	DIMENSIONS								
				D	H	d	ap	Z				
TP□□16	MFTP	90050R-16-3T	●	50	40	22	12	3T	ST-SC0610	ST-WR0040		
		90050R-16-4T	●	50	40	22	12	4T	ST-SC0610	ST-WR0040		
		90063R-16-4T-C	●	63	45	22	12	4T	ST-SC0610	ST-WR0040		
		90063R-16-5T	●	63	45	22	12	5T	ST-SC0610	ST-WR0040		
		90100R-16-7T	●	100	50	32	12	7T	ST-SC0610	ST-WR0040		
TP□□22	MFTP	90063R-22-3T	●	63	45	22	18	3T	ST-SC0810	ST-WR0050		
		90063R-22-4T	●	63	45	22	18	4T	ST-SC0810	ST-WR0050		
		90080R-22-5T	●	80	50	27	18	5T	ST-SC0810	ST-WR0050		
		90125R-22-7T	●	125	63	40	18	7T	ST-SC0810	ST-WR0050		
		90200R-22-11T	●	200	63	60	18	11T	ST-SC0810	ST-WR0050		


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HOLDERS /MILLING

MSTW

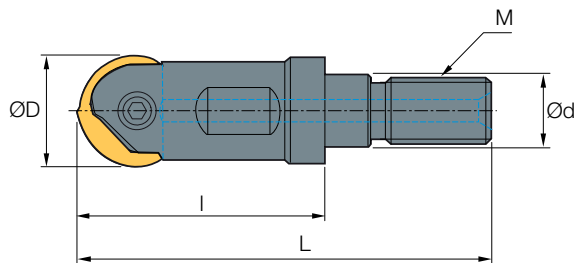
TW□□




TW□□	DESCRIPTION	STOCK	DIMENSIONS							
			D	L	l	d	Z			
TW08	MSTW 08-110-D10	●	08	110	25	08	1T	ST-TC170	ST-WRT08	
TW10	MSTW 10-130-D12	●	10	130	30	10	1T	ST-TC172	ST-WRT15	
TW12	MSTW 12-130-D12	●	12	130	32	12	1T	ST-TC174	ST-WRT20	
TW16	MSTW 16-140-D16	●	16	140	-	16	1T	ST-TC176	ST-WRT20	
TW20	MSTW 20-160-D20	●	20	160	-	20	1T	ST-TC178	ST-WRT20	
TW25	MSTW 25-160-D25	●	25	160	-	25	1T	ST-TC181	ST-WR0030	

MMTW

TW□□

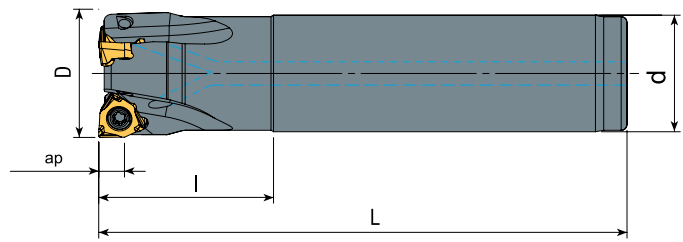


TW□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	L	l	d	Z	M			
TW16	MMTW 16-M08-16	●	16	52	30	10,5	1T	8	ST-TC176	ST-WRT20	
TW20	MMTW 20-M10-20	●	20	52	35	12,5	1T	10	ST-TC178	ST-WRT20	
TW25	MMTW 25-M12-25	●	25	64	43	17	1T	12	ST-TC181	ST-WR0030	

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MSWN WN□□04



WN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
WN□□04	MSWN 16-120-04-16-2T	●	16	120	30	16	2	04	ST-SC0256	ST-WRT08		
	16-160-04-16-2T	●	16	160	30	16	2	04	ST-SC0256	ST-WRT08		
	16-200-04-16-2T	●	16	200	30	16	2	04	ST-SC0256	ST-WRT08		
	17-160-04-16-2T	●	17	160	35	16	2	04	ST-SC0256	ST-WRT08		
	17-200-04-16-2T	●	17	200	35	16	3	04	ST-SC0256	ST-WRT08		
	20-120-04-20-3T	●	20	120	30	20	3	04	ST-SC0256	ST-WRT08		
	20-160-04-20-3T	●	20	160	30	20	3	04	ST-SC0256	ST-WRT08		
	21-160-04-20-3T	●	21	160	30	20	3	04	ST-SC0256	ST-WRT08		
	21-200-04-20-3T	●	21	200	30	20	3	04	ST-SC0256	ST-WRT08		
	25-120-04-25-3T	●	25	120	30	25	3	04	ST-SC0256	ST-WRT08		
	25-160-04-25-3T	●	25	160	30	25	3	04	ST-SC0256	ST-WRT08		
	25-200-04-25-4T	●	25	200	30	25	4	04	ST-SC0256	ST-WRT08		
	26-200-04-25-3T	●	26	200	30	25	3	04	ST-SC0256	ST-WRT08		
	32-160-04-32-4T	●	32	160	60	32	4	04	ST-SC0256	ST-WRT08		
	32-200-04-32-4T	●	32	200	60	32	4	04	ST-SC0256	ST-WRT08		

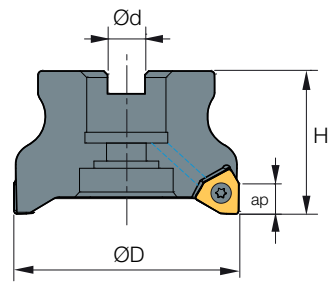
Carbide

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HOLDERS /MILLING

MFWN

WN□□08



WN□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	H	d	ap	Z				
WN□□08	MFWN 90050R-08-3T-C	●	50	40	22	8	3T	ST-SC0514	ST-WRT015		
	90050R-08-4T-C	●	50	40	22	8	4T	ST-SC0514	ST-WRT015		
	90052R-08-4T	●	52	40	22	8	4T	ST-SC0514	ST-WRT015		
	90063-08-4T-C	●	63	45	22	8	4T	ST-SC0514	ST-WRT015		
	90063R-08-5T	●	63	45	22	8	5T	ST-SC0514	ST-WRT015		
	90063R-08-5T-C	●	63	45	22	8	5T	ST-SC0514	ST-WRT015		
	90080R-08-6T-C	●	80	50	27	8	6T	ST-SC0514	ST-WRT015		
	90100R-08-7T	●	100	50	32	8	7T	ST-SC0514	ST-WRT015		
	90100R-08-7T-C	●	100	50	32	8	7T	ST-SC0514	ST-WRT015		
	90125R-08-8T	●	125	63	40	8	8T	ST-SC0514	ST-WRT015		
	90125R-08-8T-C	●	125	63	40	8	8T	ST-SC0514	ST-WRT015		
	90160R-08-10T	●	160	63	40	8	10T	ST-SC0514	ST-WRT015		
	90200R-08-16T-C	●	200	63	60	8	16T	ST-SC0514	ST-WRT015		

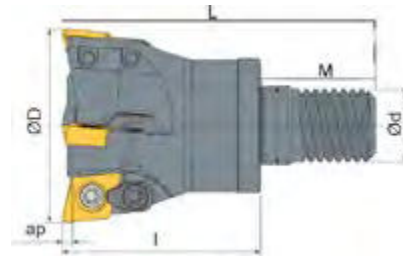
Carbide

307

HOLDERS /MILLING

MMXD

XD□□10



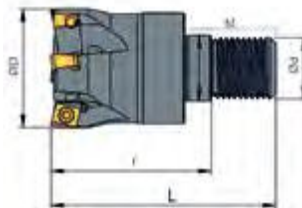
XD□□	DESCRIPTION	STOCK	DIMENSIONS							M			
			D	L	I	d	Z	ap					
XD□□06	MMXD 20-M10-06-3T-C	●	20	50	31	10,5	3	6	10	ST-SC0257	ST-WRT06		
	25-M12-06-4T-C	●	25	53	31	12,5	4	6	12	ST-SC0257	ST-WRT06		
XD□□10	MMXD 32-M16-10-3T-C	●	32	60	36	17	3	10	16	ST-SC0415	ST-WRT15		
	35-M16-10-3T-C	●	35	60	36	17	3	10	16	ST-SC0415	ST-WRT15		


- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

HOLDERS /MILLING

MMYN

YN□□06



YN□□	DESCRIPTION	STOCK	DIMENSIONS							M			
			D	L	l	d	Z	ap					
YN□□06	MMYN 16-M08-06-2T-C	●	16	40,5	23	8,5	2	6	8	ST-SC0309	ST-WRT10		
	20-M10-06-3T-C	●	20	40,5	35	10,5	3	6	10	ST-SC0309	ST-WRT10		
	25-M12-06-3T-C	●	25	55	35	12,5	3	6	12	ST-SC0309	ST-WRT10		
	32-M16-06-4T-C	●	32	58	43	17	4	6	16	ST-SC0309	ST-WRT10		
	40-M16-06-5T-C	●	40	68	43	17	5	6	16	ST-SC0309	ST-WRT10		


Carbide

312

MSYN

YN□□06



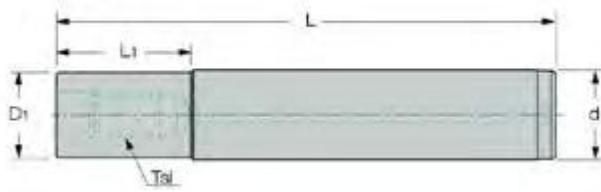
YN□□	DESCRIPTION	STOCK	DIMENSIONS									
			D	L	l	d	Z	ap				
YN□□06	MSYN 16-160-06-16-2T-C	●	16	160	25	16	2	6	ST-SC0304	ST-WRT10		
	17-160-06-16-2T-C	●	17	160	25	16	2	6	ST-SC0304	ST-WRT10		
	20-160-06-20-3T-C	●	20	160	25	20	3	6	ST-SC0304	ST-WRT10		
	21-160-06-20-3T-C	●	21	160	25	20	3	6	ST-SC0304	ST-WRT10		
	21-200-06-20-3T-C	●	21	200	25	20	3	6	ST-SC0304	ST-WRT10		
	25-150-06-20-3T-C	●	25	150	25	20	3	6	ST-SC0304	ST-WRT10		
	25-160-06-25-3T-C	●	25	160	25	25	3	6	ST-SC0304	ST-WRT10		
	25-200-06-20-3T-C	●	25	200	25	20	3	6	ST-SC0304	ST-WRT10		
	26-160-06-25-3T-C	●	26	160	25	25	3	6	ST-SC0304	ST-WRT10		
	26-200-06-25-3T-C	●	26	200	26	25	3	6	ST-SC0304	ST-WRT10		
	32-160-06-32-4T-C	●	32	160	35	32	4	6	ST-SC0304	ST-WRT10		
33-220-06-32-4T-C	●	33	220	35	32	4	6	ST-SC0304	ST-WRT10			

Carbide 312

HOLDERS /MILLING

MAT

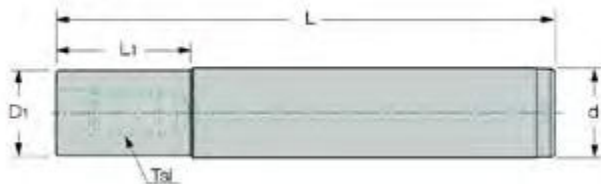
STEEL SHAFT



□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	d	L	I	M				
MAT	M10-120-S18/20	●	18	20	120	60	10				
	M10-170-S18/20	●	18	20	170	90	10				
	M12-160-S24/25	●	24	25	160	80	12				
	M12-200-S24/25	●	24	25	200	100	12				
	M12-250-S24/25	●	24	25	250	150	12				
	M16-160-S31/32	●	31	32	160	80	16				
	M16-200-S31/32	●	31	32	200	100	16				
	M16-250-S31/32	●	31	32	250	150	16				

MFT

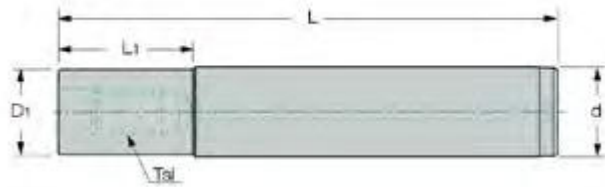
CARBIDE SHAFT



□□	DESCRIPTION	STOCK	DIMENSIONS								
			D	d	L	I	M				
MFT	08-08-100-M4	●	8	8	100	-	M4				
	10-10-080-M5	●	10	10	80	-	M5				
	10-10-100-M5	●	10	10	100	-	M5				
	10-10-100-M6	●	10	10	100	-	M6				
	10-10-150-M5	●	10	10	150	-	M5				
	12-12-100-M6	●	12	12	100	-	M6				
	12-12-150-M6	●	12	12	150	-	M6				
	12-12-200-M6	●	12	12	200	-	M6				

MFT

CARBIDE SHAFT



□□	DESCRIPTION		STOCK	DIMENSIONS								
				D	d	L	I	M				
MFT	16-15-100-M8	●	16	15	100	50	M8					
	16-15-150-M8	●	16	15	150	50	M8					
	16-15.6-150-M8	●	16	15,6	150	50	M8					
	16-15-200-M8	●	16	15	200	50	M8					
	16-15.6-200-M8	●	16	15,6	200	50	M8					
	16-15.6-250-M8	●	16	15,6	250	50	M8					
	17-16-100-M8	●	17	16	100	-	M8					
	17-16-150-M8	●	17	16	150	-	M8					
	17-16-200-M8	●	17	16	200	-	M8					
	17-16-250-M8	●	17	16	250	-	M8					
	17-16-300-M8	●	17	16	300	-	M8					
	20-19-150-M10	●	20	19	150	-	M10					
	20-19-250-M10	●	20	19	250	-	M10					
	21-20-100-M10	●	21	20	100	-	M10					
	21-20-150-M10	●	21	20	150	-	M10					
	21-20-200-M10	●	21	20	200	-	M10					
	21-20-250-M10	●	21	20	250	-	M10					
	21-20-300-M10	●	21	20	300	-	M10					
	25-24-150-M12	●	25	24	150	50	M12					
	25-24-200-M12	●	25	24	200	50	M12					
	25-24-250-M12	●	25	24	250	100	M12					
	25-24-300-M12	●	25	24	300	100	M12					
	26-25-150-M12	●	26	25	150	-	M12					
	26-25-200-M12	●	26	25	200	-	M12					
	26-25-250-M12	●	26	25	250	-	M12					
	26-25-300-M12	●	26	25	300	-	M12					
	35-32-150-M16	●	35	32	150	50	M16					
	35-32-200-M16	●	35	32	200	50	M16					
	35-32-250-M16	●	35	32	250	100	M16					
	35-32-300-M16	●	35	32	300	100	M16					
	35-32-350-M16	●	35	32	350	150	M16					
	35-32-400-M16	●	35	32	400	200	M16					

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

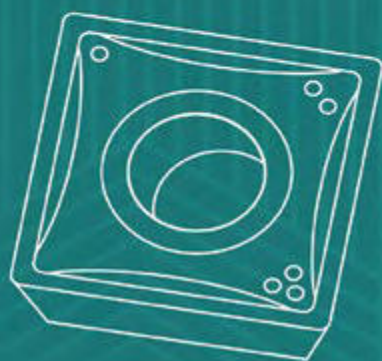
DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter "o". Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

Sangeo
cutting tools



DRILLING /

carbide /385
holders 389

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools



DRILLING/**CARBIDE**

CARBIDE /DRILLING

GRADES

ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD																				
CARBIDE PVD																				
CARBIDE UNCOATED																				
CERMET UNCOATED																				

INDEX

SPARE PARTS

HSS
DRILLS & TAPS

DRILLS

ENDMILLS

DRILLING

MILLING

THREADING

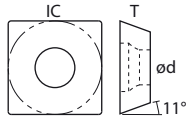
GROOVING

TURNING

CARBIDE /DRILLING

POSITIVE 11°
with hole

SP □ □



SP □ □	0402 □ □	0502 □ □	0602 □ □	07T3 □ □	0904 □ □	1104 □ □	1405 □ □
IC	4,70	5,56	6,00	7,94	9,80	11,50	14,30
T	2,38	2,38	2,38	3,97	4,30	4,76	5,56
ød	2,25	2,50	2,80	2,80	4,10	4,40	5,50
Holders	390	390	390	390	390	390	390

DESCRIPTION	CARBIDE PVD			
	PS5960	PS7120	PS7320S	US2915
	SPGG050204-ALU			•
	SPGG060204-ALU			•
	SPGG07T308-ALU			•
	SPGG090408-ALU			•
	SPGG110408-ALU			•
	SPGG140512-ALU			•
	SPMG050204-V	•	•	•
	SPMG060204-V	•	•	•
	SPMG07T308-V	•	•	•
	SPMG090408-V	•	•	•
	SPMG110408-V	•	•	•
	SPMG140512-V	•	•	•
	SPMG040202-Z	•		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

CARBIDE /DRILLING

POSITIVE 7°
with hole

WC □ □



WC □ □	0302 □ □	0402 □ □	0503 □ □	06T3 □ □	0804 □ □
IC	5,56	6,35	7,94	9,525	12,70
T	2,38	2,38	3,18	3,97	4,76
Ød	2,80	3,00	3,40	3,70	4,30
HOLDERS	401	401	401	401	401

DESCRIPTION

CARBIDE PVD

PS5960

PS7120

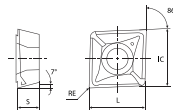
PS7320S

US2915

	WCMT030208-T	•																
	WCMT040208-T	•																
	WCMT05T308-T	•																
	WCMT06T308-T	•																
	WCGX030208-S																	
	WCGX040208-S																	
	WCGX050308-S																	
	WCGX06T308-S																	
	WCGX080408-S																	
	WCMX080412-FS	•	•															
	WCMX030208-S	•																
	WCMX040208-S	•																
	WCMX050308-S	•																
	WCMX06T308-S	•	•															
	WCMX080412-S	•	•	•														

POSITIVE 7°
with hole

QC □ □



QC □ □	0410 □ □	0502 □ □	0602 □ □	0703 □ □	0803 □ □	10T3 □ □	1304 □ □	1705 □ □
IC	4,40	5,60	6,40	7,50	8,4	10,50	13,4	17,40
T	1,70	2,10	2,38	3,18	3,18	3,97	4,76	5,56
HOLDERS	-	-	-	-	-	-	-	-

DESCRIPTION

CARBIDE PVD

PS5915

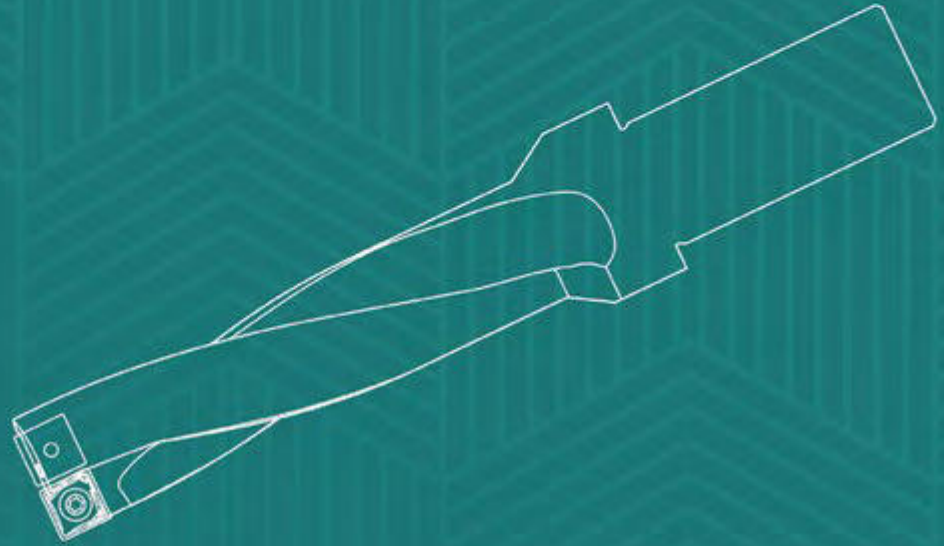
PS5960

PS7120

PS7320S

US2915

	QCMT040104R-ZC	•																
	QCMT050204-ZC	•																
	QCMT060204-ZC	•																
	QCMT070304-ZC	•																
	QCMT080304-ZC	•																
	QCMT10T304-ZC	•																
	QCMT10T308-ZC	•																
	QCMT130404-ZC	•																
	QCMT130408-ZC	•																
	QCMT170508-ZC	•																



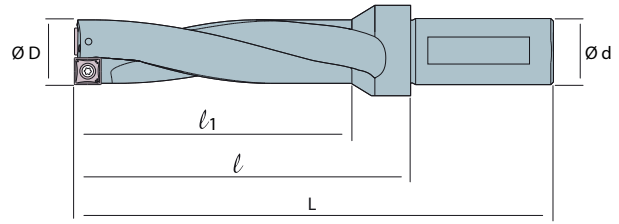
DRILLING/**HOLDERS**

HOLDERS /DRILLING

SS2D

2xD

SP□□

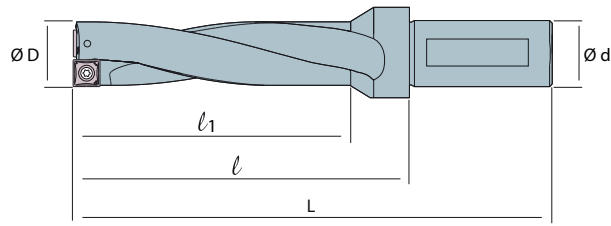


SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG0402	SS2D	100-04	SPIDC100-2D-S16-SP04	●	10	16	88	38	20	ST-SC18-04	ST-WRT06
		105-04	SPIDC105-2D-S16-SP04	●	10,5	16	89	39	21	ST-SC18-04	ST-WRT06
		110-04	SPIDC110-2D-S16-SP04	●	11	16	90	40	22	ST-SC18-04	ST-WRT06
		115-04	SPIDC115-2D-S16-SP04	●	11,5	16	90	40	23	ST-SC18-04	ST-WRT06
		120-04	SPIDC120-2D-S20-SP04	●	12	20	92	42	24	ST-SC18-04	ST-WRT06
SPMG0502	SS2D	125-05	SPIDC125-2D-S20-SP05	●	12,5	20	93	43	25	ST-SC0206	ST-WRT06
		130-05	SPIDC130-2D-S20-SP05	●	13	20	104	48	26	ST-SC0206	ST-WRT06
		135-05	SPIDC135-2D-S20-SP05	●	13,5	20	105	49	27	ST-SC0206	ST-WRT06
		140-05	SPIDC140-2D-S25-SP05	●	14	25	106	50	28	ST-SC0206	ST-WRT06
		145-05	SPIDC145-2D-S25-SP05	●	14,5	25	107	51	29	ST-SC0206	ST-WRT06
		150-05	SPIDC150-2D-S25-SP05	●	15	25	108	52	30	ST-SC0206	ST-WRT06
		155-05	SPIDC155-2D-S25-SP05	●	15,5	25	109	53	31	ST-SC0226	ST-WRT07
SPMG0602	SS2D	160-06	SPIDC160-2D-S25-SP06	●	16	25	110	54	32	ST-SC0226	ST-WRT07
		165-06	SPIDC165-2D-S25-SP06	●	16,5	25	111	55	33	ST-SC0226	ST-WRT07
		170-06	SPIDC170-2D-S25-SP06	●	17	25	112	56	34	ST-SC0226	ST-WRT07
		175-06	SPIDC175-2D-S25-SP06	●	17,5	25	113	57	35	ST-SC0226	ST-WRT07
		180-06	SPIDC180-2D-S25-SP06	●	18	25	114	58	36	ST-SC0226	ST-WRT07
		185-06	SPIDC185-2D-S25-SP06	●	18,5	25	115	59	37	ST-SC0226	ST-WRT07
		190-06	SPIDC190-2D-S25-SP06	●	19	25	116	60	38	ST-SC0226	ST-WRT07
		195-06	SPIDC195-2D-S25-SP06	●	19,5	25	117	61	39	ST-SC0226	ST-WRT07
		200-06	SPIDC200-2D-S25-SP06	●	20	25	119	63	40	ST-SC0226	ST-WRT07
		205-06	SPIDC205-2D-S25-SP06	●	20,5	25	120	64	41	ST-SC0226	ST-WRT07
SPMG07T3	SS2D	210-06	SPIDC210-2D-S25-SP06	●	21	25	121	65	42	ST-SC0226	ST-WRT07
		215-06	SPIDC215-2D-S25-SP06	●	21,5	25	122	66	43	ST-SC0226	ST-WRT07
		220-07	SPIDC220-2D-S25-SP07	●	22	25	123	67	44	ST-SC0257	ST-WRT08
		225-07	SPIDC225-2D-S25-SP07	●	22,5	25	124	68	45	ST-SC0257	ST-WRT08
		230-07	SPIDC230-2D-S25-SP07	●	23	25	125	69	46	ST-SC0257	ST-WRT08
		235-07	SPIDC235-2D-S25-SP07	●	23,5	25	126	70	47	ST-SC0257	ST-WRT08
		240-07	SPIDC240-2D-S25-SP07	●	24	25	127	71	48	ST-SC0257	ST-WRT08
		245-07	SPIDC245-2D-S25-SP07	●	24,5	25	128	72	49	ST-SC0257	ST-WRT08
		250-07	SPIDC250-2D-S25-SP07	●	25	25	141	81	50	ST-SC0257	ST-WRT08
		255-07	SPIDC255-2D-S32-SP07	●	25,5	32	142	82	51	ST-SC0257	ST-WRT08
		260-07	SPIDC260-2D-S32-SP07	●	26	32	142	83	52	ST-SC0257	ST-WRT08

SS2D

2xD

SP□□



SP □□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG073	SS2D	265-07	SPIDC265-2D-S32-SP07	●	26,5	32	144	84	53	ST-SC0257	ST-WRT08
		270-07	SPIDC270-2D-S32-SP07	●	27	32	145	85	54	ST-SC0257	ST-WRT08
		275-07	SPIDC275-2D-S32-SP07	●	27,5	32	146	86	55	ST-SC0257	ST-WRT08
SPMG0904	SS2D	280-09	SPIDC280-2D-S32-SP09	●	28	32	147	87	56	ST-SC3511	ST-WRT15
		285-09	SPIDC285-2D-S32-SP09	●	28,5	32	148	88	57	ST-SC3511	ST-WRT15
		290-09	SPIDC290-2D-S32-SP09	●	29	32	149	89	58	ST-SC3511	ST-WRT15
		295-09	SPIDC295-2D-S32-SP09	●	29,5	32	150	90	59	ST-SC3511	ST-WRT15
		300-09	SPIDC300-2D-S32-SP09	●	30	32	151	91	60	ST-SC3511	ST-WRT15
		305-09	SPIDC305-2D-S32-SP09	●	30,5	32	152	92	61	ST-SC3511	ST-WRT15
		310-09	SPIDC310-2D-S32-SP09	●	31	32	153	93	62	ST-SC3511	ST-WRT15
		315-09	SPIDC315-2D-S32-SP09	●	31,5	32	154	94	63	ST-SC3511	ST-WRT15
		320-09	SPIDC320-2D-S32-SP09	●	32	32	155	95	64	ST-SC3511	ST-WRT15
		325-09	SPIDC325-2D-S32-SP09	●	32,5	32	156	96	65	ST-SC3511	ST-WRT15
		330-09	SPIDC330-2D-S32-SP09	●	33	32	157	97	66	ST-SC3511	ST-WRT15
		335-09	SPIDC335-2D-S32-SP09	●	33,5	32	158	98	67	ST-SC3511	ST-WRT15
SPMG1104	SS2D	340-11	SPIDC340-2D-S32-SP11	●	34	32	159	99	68	ST-SC0411	ST-WRT15
		345-11	SPIDC345-2D-S32-SP11	●	34,5	32	160	100	69	ST-SC0411	ST-WRT15
		350-11	SPIDC350-2D-S32-SP11	●	35	32	161	101	70	ST-SC0411	ST-WRT15
		355-11	SPIDC355-2D-S32-SP11	●	35,5	32	162	102	71	ST-SC0411	ST-WRT15
		360-11	SPIDC360-2D-S32-SP11	●	36	32	163	103	72	ST-SC0411	ST-WRT15
		365-11	SPIDC365-2D-S32-SP11	●	36,5	32	164	104	73	ST-SC0411	ST-WRT15
		370-11	SPIDC370-2D-S32-SP11	●	37	32	165	105	74	ST-SC0411	ST-WRT15
		375-11	SPIDC375-2D-S32-SP11	●	37,5	32	166	106	75	ST-SC0411	ST-WRT15
		380-11	SPIDC380-2D-S32-SP11	●	38	32	167	107	76	ST-SC0411	ST-WRT15
		385-11	SPIDC385-2D-S32-SP11	●	38,5	32	168	108	77	ST-SC0411	ST-WRT15
		390-11	SPIDC390-2D-S32-SP11	●	39	32	169	109	78	ST-SC0411	ST-WRT15
		395-11	SPIDC395-2D-S32-SP11	●	39,5	32	170	110	79	ST-SC0411	ST-WRT15
	400-11	SPIDC400-2D-S32-SP11	●	40	32	171	111	80	ST-SC0411	ST-WRT15	
	410-11	SPIDC410-2D-S32-SP11	●	41	32	173	113	82	ST-SC0511	ST-WRT20	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

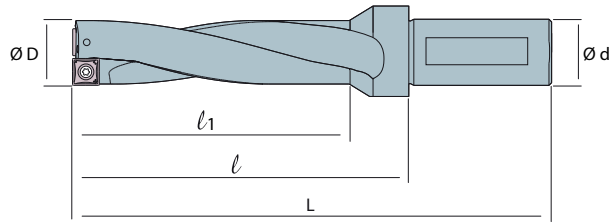
INDEX

HOLDERS /DRILLING

SS2D

2xD

SP□□

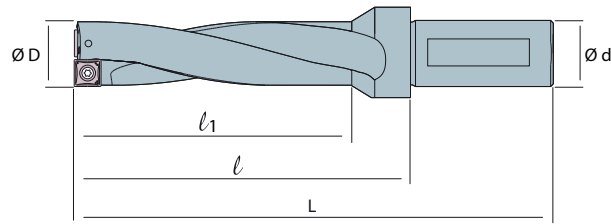


SP□□	DESCRIPTION		DESCRIPTION	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG1405	SS2D	420-14	SPIDC420-2D-S40-SP14	●	42	40	175	115	84	ST-SC0511	ST-WRT20
		430-14	SPIDC430-2D-S40-SP14	●	43	40	191	121	86	ST-SC0511	ST-WRT20
		440-14	SPIDC440-2D-S40-SP14	●	44	40	193	123	88	ST-SC0511	ST-WRT20
		450-14	SPIDC450-2D-S40-SP14	●	45	40	195	125	90	ST-SC0511	ST-WRT20
		460-14	SPIDC460-2D-S40-SP14	●	46	40	197	127	92	ST-SC0511	ST-WRT20
		470-14	SPIDC470-2D-S40-SP14	●	47	40	199	129	94	ST-SC0511	ST-WRT20
		480-14	SPIDC480-2D-S40-SP14	●	48	40	201	131	96	ST-SC0511	ST-WRT20
		490-14	SPIDC490-2D-S40-SP14	●	49	40	203	133	98	ST-SC0511	ST-WRT20
SPMG07T3	SS2D	510-07	SPIDC510-2D-S40-SP07	●	51	40	207	137	102	ST-SC0257	ST-WRT08
		520-07	SPIDC520-2D-S40-SP07	●	52	40	209	139	104	ST-SC0257	ST-WRT08
		530-07	SPIDC530-2D-S40-SP07	●	53	40	211	127	106	ST-SC0257	ST-WRT08
		540-07	SPIDC540-2D-S40-SP07	●	54	40	213	127	108	ST-SC0257	ST-WRT08
		550-07	SPIDC550-2D-S40-SP07	●	55	40	215	127	110	ST-SC0257	ST-WRT08
SPMG0904	SS2D	560-09	SPIDC560-2D-S40-SP09	●	56	40	217	127	112	ST-SC3511	ST-WRT15
		570-09	SPIDC570-2D-S40-SP09	●	57	40	219	127	114	ST-SC3511	ST-WRT15
		580-09	SPIDC580-2D-S40-SP09	●	58	40	221	127	116	ST-SC3511	ST-WRT15
		590-09	SPIDC590-2D-S40-SP09	●	59	40	223	127	118	ST-SC3511	ST-WRT15
		600-09	SPIDC600-2D-S40-SP09	●	60	40	225	127	120	ST-SC3511	ST-WRT15

SS3D

3xD

SP□□



SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG0402	SS3D	100-04	SPIDC100-3D-S16-SP04	●	10	16	98	48	30	ST-SC18-04	ST-WRT06
		105-04	SPIDC105-3D-S16-SP04	●	10,5	16	100	50	31,5	ST-SC18-04	ST-WRT06
		110-04	SPIDC110-3D-S16-SP04	●	11	16	101	51	33	ST-SC18-04	ST-WRT06
		115-04	SPIDC115-3D-S16-SP04	●	11,5	16	102	52	34,5	ST-SC18-04	ST-WRT06
		120-04	SPIDC120-3D-S20-SP04	●	12	20	103	53	36	ST-SC18-04	ST-WRT06
SPMG0502	SS3D	125-05	SPIDC125-3D-S20-SP05	●	12,5	20	105	55	37,5	ST-SC0206	ST-WRT06
		130-05	SPIDC130-3D-S20-SP05	●	13	20	117	61	39	ST-SC0206	ST-WRT06
		135-05	SPIDC135-3D-S20-SP05	●	13,5	20	119	63	40,5	ST-SC0206	ST-WRT06
		140-05	SPIDC140-3D-S25-SP05	●	14	25	120	64	42	ST-SC0206	ST-WRT06
		145-05	SPIDC145-3D-S25-SP05	●	14,5	25	122	66	43,5	ST-SC0206	ST-WRT06
		150-05	SPIDC150-3D-S25-SP05	●	15	25	123	67	45	ST-SC0206	ST-WRT06
SPMG0602	SS3D	155-05	SPIDC155-3D-S25-SP05	●	15,5	25	125	69	46,5	ST-SC0226	ST-WRT07
		160-06	SPIDC160-3D-S25-SP06	●	16	25	126	70	48	ST-SC0226	ST-WRT07
		165-06	SPIDC165-3D-S25-SP06	●	16,5	25	128	72	49,5	ST-SC0226	ST-WRT07
		170-06	SPIDC170-3D-S25-SP06	●	17	25	129	73	51	ST-SC0226	ST-WRT07
		175-06	SPIDC175-3D-S25-SP06	●	17,5	25	131	75	52,5	ST-SC0226	ST-WRT07
		180-06	SPIDC180-3D-S25-SP06	●	18	25	132	76	54	ST-SC0226	ST-WRT07
		185-06	SPIDC185-3D-S25-SP06	●	18,5	25	134	78	55,5	ST-SC0226	ST-WRT07
		190-06	SPIDC190-3D-S25-SP06	●	19	25	135	79	57	ST-SC0226	ST-WRT07
		195-06	SPIDC195-3D-S25-SP06	●	19,5	25	137	81	58,5	ST-SC0226	ST-WRT07
		200-06	SPIDC200-3D-S25-SP06	●	20	25	138	82	60	ST-SC0226	ST-WRT07
SPMG07T3	SS3D	205-06	SPIDC205-3D-S25-SP06	●	20,5	25	140	84	61,5	ST-SC0226	ST-WRT07
		210-06	SPIDC210-3D-S25-SP06	●	21	25	141	85	63	ST-SC0226	ST-WRT07
		215-06	SPIDC215-3D-S25-SP06	●	21,5	25	143	87	64,5	ST-SC0226	ST-WRT07
		220-07	SPIDC220-3D-S25-SP07	●	22	25	144	88	66	ST-SC0257	ST-WRT08
		225-07	SPIDC225-3D-S25-SP07	●	22,5	25	146	90	67,5	ST-SC0257	ST-WRT08
		230-07	SPIDC230-3D-S25-SP07	●	23	25	147	91	69	ST-SC0257	ST-WRT08
		235-07	SPIDC235-3D-S25-SP07	●	23,5	25	149	93	70,5	ST-SC0257	ST-WRT08
		240-07	SPIDC240-3D-S25-SP07	●	24	25	150	94	72	ST-SC0257	ST-WRT08
245-07	SPIDC245-3D-S25-SP07	●	24,5	25	152	96	73,5	ST-SC0257	ST-WRT08		
250-07	SPIDC250-3D-S25-SP07	●	25	25	166	106	75	ST-SC0257	ST-WRT08		
255-07	SPIDC255-3D-S32-SP07	●	25,5	32	168	108	76,5	ST-SC0257	ST-WRT08		
260-07	SPIDC260-3D-S32-SP07	●	26	32	169	109	78	ST-SC0257	ST-WRT08		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

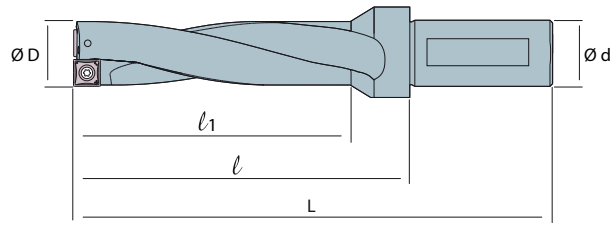
INDEX

HOLDERS /DRILLING

SS3D

3xD

SP□□



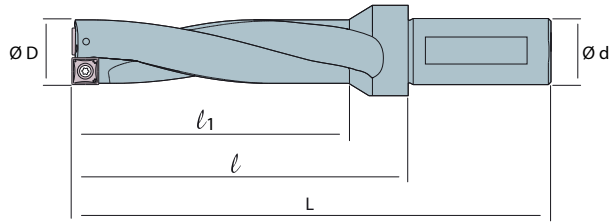
SP □□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG07T3	SS3D	265-07	SPIDC265-3D-S32-SP07	●	26,5	32	171	111	79,5	ST-SC0257	ST-WRT08
		270-07	SPIDC270-3D-S32-SP07	●	27	32	172	112	81	ST-SC0257	ST-WRT08
		275-07	SPIDC275-3D-S32-SP07	●	27,5	32	174	114	82,5	ST-SC0257	ST-WRT08
SPMG0904	SS3D	280-09	SPIDC280-3D-S32-SP09	●	28	32	175	115	84	ST-SC3511	ST-WRT15
		285-09	SPIDC285-3D-S32-SP09	●	28,5	32	177	117	85,5	ST-SC3511	ST-WRT15
		290-09	SPIDC290-3D-S32-SP09	●	29	32	178	118	87	ST-SC3511	ST-WRT15
		295-09	SPIDC295-3D-S32-SP09	●	29,5	32	180	120	88,5	ST-SC3511	ST-WRT15
		300-09	SPIDC300-3D-S32-SP09	●	30	32	181	121	90	ST-SC3511	ST-WRT15
		305-09	SPIDC305-3D-S32-SP09	●	30,5	32	183	123	91,5	ST-SC3511	ST-WRT15
		310-09	SPIDC310-3D-S32-SP09	●	31	32	184	124	93	ST-SC3511	ST-WRT15
		315-09	SPIDC315-3D-S32-SP09	●	31,5	32	186	126	94,5	ST-SC3511	ST-WRT15
		320-09	SPIDC320-3D-S32-SP09	●	32	32	187	127	96	ST-SC3511	ST-WRT15
		325-09	SPIDC325-3D-S32-SP09	●	32,5	32	189	129	97,5	ST-SC3511	ST-WRT15
		330-09	SPIDC330-3D-S32-SP09	●	33	32	190	130	99	ST-SC3511	ST-WRT15
		335-09	SPIDC335-3D-S32-SP09	●	33,5	32	192	132	100,5	ST-SC3511	ST-WRT15
SPMG1104	SS3D	340-11	SPIDC340-3D-S32-SP11	●	34	32	193	133	102	ST-SC0411	ST-WRT15
		345-11	SPIDC345-3D-S32-SP11	●	34,5	32	195	135	103,5	ST-SC0411	ST-WRT15
		350-11	SPIDC350-3D-S32-SP11	●	35	32	196	136	105	ST-SC0411	ST-WRT15
		355-11	SPIDC355-3D-S32-SP11	●	35,5	32	198	138	106,5	ST-SC0411	ST-WRT15
		360-11	SPIDC360-3D-S32-SP11	●	36	32	199	139	108	ST-SC0411	ST-WRT15
		365-11	SPIDC365-3D-S32-SP11	●	36,5	32	201	141	109,5	ST-SC0411	ST-WRT15
		370-11	SPIDC370-3D-S32-SP11	●	37	32	202	142	111	ST-SC0411	ST-WRT15
		375-11	SPIDC375-3D-S32-SP11	●	37,5	32	204	144	112,5	ST-SC0411	ST-WRT15
		380-11	SPIDC380-3D-S32-SP11	●	38	32	205	145	114	ST-SC0411	ST-WRT15
		385-11	SPIDC385-3D-S32-SP11	●	38,5	32	207	147	115,5	ST-SC0411	ST-WRT15
		390-11	SPIDC390-3D-S32-SP11	●	39	32	208	148	117	ST-SC0411	ST-WRT15
		395-11	SPIDC395-3D-S32-SP11	●	39,5	32	210	150	118,5	ST-SC0411	ST-WRT15
	400-11	SPIDC400-3D-S32-SP11	●	40	32	211	151	120	ST-SC0411	ST-WRT15	
	410-11	SPIDC410-3D-S32-SP11	●	41	32	214	154	123	ST-SC0511	ST-WRT20	

HOLDERS /DRILLING

SS4D

4xD

SP□□

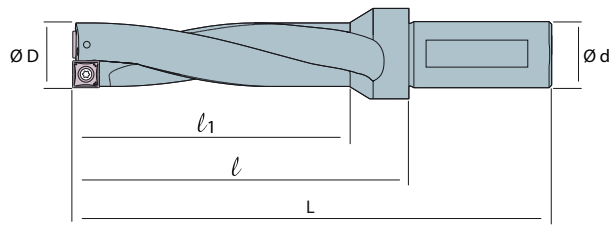


SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG1405	SS3D	100-04	SPIDC100-4D-S16-SP04	●	10	16	111	61	44	ST-SC18-04	ST-WRT06
		105-04	SPIDC105-4D-S16-SP04	●	10,5	16	112	62	45	ST-SC18-04	ST-WRT06
		110-04	SPIDC110-4D-S16-SP04	●	11	16	113	63	46	ST-SC18-04	ST-WRT06
		115-04	SPIDC115-4D-S16-SP04	●	11,5	16	114	64	47	ST-SC18-04	ST-WRT06
		120-04	SPIDC120-4D-S20-SP04	●	12	20	115	65	48	ST-SC18-04	ST-WRT06
SPMG0502	SS3D	125-05	SPIDC125-4D-S20-SP05	●	12,5	20	117	67	50	ST-SC0206	ST-WRT06
		130-05	SPIDC130-4D-S20-SP05	●	13	20	130	74	52	ST-SC0206	ST-WRT06
		135-05	SPIDC135-4D-S20-SP05	●	13,5	20	132	76	54	ST-SC0206	ST-WRT06
		140-05	SPIDC140-4D-S25-SP05	●	14	25	134	78	56	ST-SC0206	ST-WRT06
		145-05	SPIDC145-4D-S25-SP05	●	14,5	25	136	80	58	ST-SC0206	ST-WRT06
		150-05	SPIDC150-4D-S25-SP05	●	15	25	138	82	60	ST-SC0206	ST-WRT06
		155-05	SPIDC155-4D-S25-SP05	●	15,5	25	140	84	62	ST-SC0226	ST-WRT07
SPMG0602	SS3D	160-06	SPIDC160-4D-S25-SP06	●	16	25	142	86	64	ST-SC0226	ST-WRT07
		165-06	SPIDC165-4D-S25-SP06	●	16,5	25	144	88	66	ST-SC0226	ST-WRT07
		170-06	SPIDC170-4D-S25-SP06	●	17	25	146	90	68	ST-SC0226	ST-WRT07
		175-06	SPIDC175-4D-S25-SP06	●	17,5	25	148	92	70	ST-SC0226	ST-WRT07
		180-06	SPIDC180-4D-S25-SP06	●	18	25	150	94	72	ST-SC0226	ST-WRT07
		185-06	SPIDC185-4D-S25-SP06	●	18,5	25	152	96	74	ST-SC0226	ST-WRT07
		190-06	SPIDC190-4D-S25-SP06	●	19	25	154	98	76	ST-SC0226	ST-WRT07
		195-06	SPIDC195-4D-S25-SP06	●	19,5	25	156	100	78	ST-SC0226	ST-WRT07
		200-06	SPIDC200-4D-S25-SP06	●	20	25	158	102	80	ST-SC0226	ST-WRT07
		205-06	SPIDC205-4D-S25-SP06	●	20,5	25	160	104	82	ST-SC0226	ST-WRT07
SPMG07T3	SS3D	210-06	SPIDC210-4D-S25-SP06	●	21	25	162	106	84	ST-SC0226	ST-WRT07
		215-06	SPIDC215-4D-S25-SP06	●	21,5	25	164	108	86	ST-SC0226	ST-WRT07
		220-07	SPIDC220-4D-S25-SP07	●	22	25	166	110	88	ST-SC0257	ST-WRT08
		225-07	SPIDC225-4D-S25-SP07	●	22,5	25	168	112	90	ST-SC0257	ST-WRT08
		230-07	SPIDC230-4D-S25-SP07	●	23	25	170	114	92	ST-SC0257	ST-WRT08
		235-07	SPIDC235-4D-S25-SP07	●	23,5	25	172	116	94	ST-SC0257	ST-WRT08
		240-07	SPIDC240-4D-S25-SP07	●	24	25	174	118	96	ST-SC0257	ST-WRT08
		245-07	SPIDC245-4D-S25-SP07	●	24,5	25	176	120	98	ST-SC0257	ST-WRT08
		250-07	SPIDC250-4D-S25-SP07	●	25	25	191	131	100	ST-SC0257	ST-WRT08
		255-07	SPIDC255-4D-S32-SP07	●	25,5	32	193	133	102	ST-SC0257	ST-WRT08
		260-07	SPIDC260-4D-S32-SP07	●	26	32	195	135	104	ST-SC0257	ST-WRT08

SS4D

4xD

SP□□



SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG07T3	SS4D	265-07	SPIDC265-4D-S32-SP07	●	26,5	32	197	137	106	ST-SC0257	ST-WRT08
		270-07	SPIDC270-4D-S32-SP07	●	27	32	199	139	108	ST-SC0257	ST-WRT08
		275-07	SPIDC275-4D-S32-SP07	●	27,5	32	201	141	110	ST-SC0257	ST-WRT08
SPMG0904	SS4D	280-09	SPIDC280-4D-S32-SP09	●	28	32	203	143	112	ST-SC3511	ST-WRT15
		285-09	SPIDC285-4D-S32-SP09	●	28,5	32	205	145	114	ST-SC3511	ST-WRT15
		290-09	SPIDC290-4D-S32-SP09	●	29	32	207	147	116	ST-SC3511	ST-WRT15
		295-09	SPIDC295-4D-S32-SP09	●	29,5	32	209	149	118	ST-SC3511	ST-WRT15
		300-09	SPIDC300-4D-S32-SP09	●	30	32	211	151	120	ST-SC3511	ST-WRT15
		305-09	SPIDC305-4D-S32-SP09	●	30,5	32	213	153	122	ST-SC3511	ST-WRT15
		310-09	SPIDC310-4D-S32-SP09	●	31	32	215	155	124	ST-SC3511	ST-WRT15
		315-09	SPIDC315-4D-S32-SP09	●	31,5	32	217	157	126	ST-SC3511	ST-WRT15
		320-09	SPIDC320-4D-S32-SP09	●	32	32	219	159	128	ST-SC3511	ST-WRT15
		325-09	SPIDC325-4D-S32-SP09	●	32,5	32	221	161	130	ST-SC3511	ST-WRT15
		330-09	SPIDC330-4D-S32-SP09	●	33	32	223	163	132	ST-SC3511	ST-WRT15
		335-09	SPIDC335-4D-S32-SP09	●	33,5	32	225	165	134	ST-SC3511	ST-WRT15
SPMG1104	SS4D	340-11	SPIDC340-4D-S32-SP11	●	34	32	227	167	136	ST-SC0411	ST-WRT15
		345-11	SPIDC345-4D-S32-SP11	●	34,5	32	229	169	138	ST-SC0411	ST-WRT15
		350-11	SPIDC350-4D-S32-SP11	●	35	32	231	171	140	ST-SC0411	ST-WRT15
		355-11	SPIDC355-4D-S32-SP11	●	35,5	32	233	173	142	ST-SC0411	ST-WRT15
		360-11	SPIDC360-4D-S32-SP11	●	36	32	235	175	144	ST-SC0411	ST-WRT15
		365-11	SPIDC365-4D-S32-SP11	●	36,5	32	237	177	146	ST-SC0411	ST-WRT15
		370-11	SPIDC370-4D-S32-SP11	●	37	32	239	179	148	ST-SC0411	ST-WRT15
		375-11	SPIDC375-4D-S32-SP11	●	37,5	32	241	181	150	ST-SC0411	ST-WRT15
		380-11	SPIDC380-4D-S32-SP11	●	38	32	243	183	152	ST-SC0411	ST-WRT15
		385-11	SPIDC385-4D-S32-SP11	●	38,5	32	245	185	154	ST-SC0411	ST-WRT15
		390-11	SPIDC390-4D-S32-SP11	●	39	32	247	187	156	ST-SC0411	ST-WRT15
		395-11	SPIDC395-4D-S32-SP11	●	39,5	32	249	189	158	ST-SC0411	ST-WRT15
	400-11	SPIDC400-4D-S32-SP11	●	40	32	251	191	160	ST-SC0411	ST-WRT15	
	410-11	SPIDC410-4D-S32-SP11	●	41	32	255	195	164	ST-SC0511	ST-WRT20	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

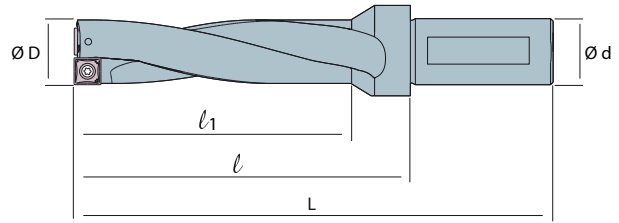
INDEX

HOLDERS /DRILLING

SS4D

4xD

SP□□



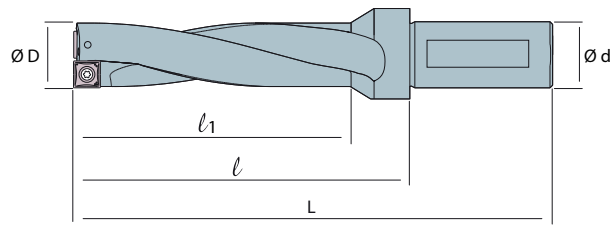
SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG1104	SS4D	420-14	SPIDC420-4D-S40-SP14	●	42	40	259	199	168	ST-SC0511	ST-WRT20
		430-14	SPIDC430-4D-S40-SP14	●	43	40	277	207	172	ST-SC0511	ST-WRT20
		440-14	SPIDC440-4D-S40-SP14	●	44	40	281	211	176	ST-SC0511	ST-WRT20
		450-14	SPIDC450-4D-S40-SP14	●	45	40	285	215	180	ST-SC0511	ST-WRT20
		460-14	SPIDC460-4D-S40-SP14	●	46	40	289	219	184	ST-SC0511	ST-WRT20
		470-14	SPIDC470-4D-S40-SP14	●	47	40	293	223	188	ST-SC0511	ST-WRT20
		480-14	SPIDC480-4D-S40-SP14	●	48	40	297	227	192	ST-SC0511	ST-WRT20
		490-14	SPIDC490-4D-S40-SP14	●	49	40	301	231	196	ST-SC0511	ST-WRT20
		500-14	SPIDC500-4D-S40-SP14	●	50	40	305	235	200	ST-SC0511	ST-WRT20
SPMG07T3	SS4D	510-07	SPIDC510-4D-S40-SP07	●	51	40	309	239	204	ST-SC0257	ST-WRT08
		520-07	SPIDC520-4D-S40-SP07	●	52	40	313	243	208	ST-SC0257	ST-WRT08
		530-07	SPIDC530-4D-S40-SP07	●	53	40	317	247	212	ST-SC0257	ST-WRT08
		540-07	SPIDC540-4D-S40-SP07	●	54	40	321	251	216	ST-SC0257	ST-WRT08
		550-07	SPIDC550-4D-S40-SP07	●	55	40	325	255	220	ST-SC0257	ST-WRT08
SPMG0904	SS4D	560-09	SPIDC560-4D-S40-SP09	●	56	40	329	259	224	ST-SC3511	ST-WRT15
		570-09	SPIDC570-4D-S40-SP09	●	57	40	333	263	228	ST-SC3511	ST-WRT15
		580-09	SPIDC580-4D-S40-SP09	●	58	40	337	267	232	ST-SC3511	ST-WRT15
		590-09	SPIDC590-4D-S40-SP09	●	59	40	341	271	236	ST-SC3511	ST-WRT15
		600-09	SPIDC600-4D-S40-SP09	●	60	40	345	275	240	ST-SC3511	ST-WRT15

HOLDERS /DRILLING

SS5D

5xD

SP□□



SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG1405	SS5D	125-05	SPIDC125-5D-S20-SP05	●	12,5	20	139	83	60	ST-SC0206	ST-WRT06
		130-05	SPIDC130-5D-S20-SP05	●	13	20	152	96	73	ST-SC0206	ST-WRT06
		135-05	SPIDC135-5D-S20-SP05	●	13,5	20	154	98	75	ST-SC0206	ST-WRT06
		140-05	SPIDC140-5D-S25-SP05	●	14	25	156	100	77	ST-SC0206	ST-WRT06
		145-05	SPIDC145-5D-S25-SP05	●	14,5	25	157	101	78	ST-SC0206	ST-WRT06
		150-05	SPIDC150-5D-S25-SP05	●	15	25	158	102	79	ST-SC0206	ST-WRT06
SPMG0602		155-05	SPIDC155-5D-S25-SP05	●	15,5	25	160	104	81	ST-SC0226	ST-WRT07
	SS5D	160-06	SPIDC160-5D-S25-SP06	●	16	25	162	106	83	ST-SC0226	ST-WRT07
		165-06	SPIDC165-5D-S25-SP06	●	16,5	25	164	108	85	ST-SC0226	ST-WRT07
		170-06	SPIDC170-5D-S25-SP06	●	17	25	166	110	87	ST-SC0226	ST-WRT07
		175-06	SPIDC175-5D-S25-SP06	●	17,5	25	168	112	89	ST-SC0226	ST-WRT07
		180-06	SPIDC180-5D-S25-SP06	●	18	25	170	114	91	ST-SC0226	ST-WRT07
		185-06	SPIDC185-5D-S25-SP06	●	18,5	25	172	116	93	ST-SC0226	ST-WRT07
		190-06	SPIDC190-5D-S25-SP06	●	19	25	174	118	95	ST-SC0226	ST-WRT07
		195-06	SPIDC195-5D-S25-SP06	●	19,5	25	176	120	97	ST-SC0226	ST-WRT07
		200-06	SPIDC200-5D-S25-SP06	●	20	25	179	123	100	ST-SC0226	ST-WRT07
SPMG07T3		205-06	SPIDC205-5D-S25-SP06	●	20,5	25	182	126	102,5	ST-SC0226	ST-WRT07
		210-06	SPIDC210-5D-S25-SP06	●	21	25	184	128	105	ST-SC0226	ST-WRT07
		215-06	SPIDC215-5D-S25-SP06	●	21,5	25	187	131	107,5	ST-SC0226	ST-WRT07
	SS5D	220-07	SPIDC220-5D-S25-SP07	●	22	25	189	133	110	ST-SC0257	ST-WRT08
		225-07	SPIDC225-5D-S25-SP07	●	22,5	25	192	136	112,5	ST-SC0257	ST-WRT08
		230-07	SPIDC230-5D-S25-SP07	●	23	25	194	138	115	ST-SC0257	ST-WRT08
		235-07	SPIDC235-5D-S25-SP07	●	23,5	25	197	141	117,5	ST-SC0257	ST-WRT08
		240-07	SPIDC240-5D-S25-SP07	●	24	25	199	143	120	ST-SC0257	ST-WRT08
		245-07	SPIDC245-5D-S25-SP07	●	24,5	25	202	146	122,5	ST-SC0257	ST-WRT08
		250-07	SPIDC250-5D-S25-SP07	●	25	25	216	156	125	ST-SC0257	ST-WRT08
SPMG0904		255-07	SPIDC255-5D-S32-SP07	●	25,5	32	219	159	127,5	ST-SC0257	ST-WRT08
		260-07	SPIDC260-5D-S32-SP07	●	26	32	221	161	130	ST-SC0257	ST-WRT08
		265-07	SPIDC265-5D-S32-SP07	●	26,5	32	224	164	132,5	ST-SC0257	ST-WRT08
		270-07	SPIDC270-5D-S32-SP07	●	27	32	226	166	135	ST-SC0257	ST-WRT08
		275-07	SPIDC275-5D-S32-SP07	●	27,5	32	229	169	137,5	ST-SC0257	ST-WRT08
	SS5D	280-09	SPIDC280-5D-S32-SP09	●	28	32	231	171	140	ST-SC3511	ST-WRT15
		285-09	SPIDC285-5D-S32-SP09	●	28,5	32	234	174	142,5	ST-SC3511	ST-WRT15
		290-09	SPIDC290-5D-S32-SP09	●	29	32	236	176	145	ST-SC3511	ST-WRT15
		295-09	SPIDC295-5D-S32-SP09	●	29,5	32	239	179	147,5	ST-SC3511	ST-WRT15
		300-09	SPIDC300-5D-S32-SP09	●	30	32	241	181	150	ST-SC3511	ST-WRT15
	305-09	SPIDC305-5D-S32-SP09	●	30,5	32	244	184	152,5	ST-SC3511	ST-WRT15	
	310-09	SPIDC310-5D-S32-SP09	●	31	32	246	186	155	ST-SC3511	ST-WRT15	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

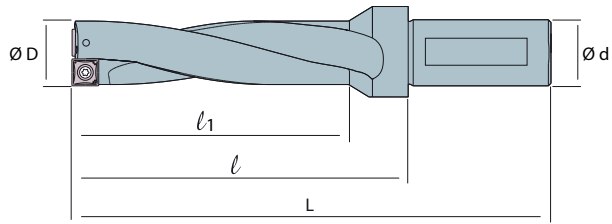
INDEX

HOLDERS /DRILLING

SS5D

5xD

SP□□

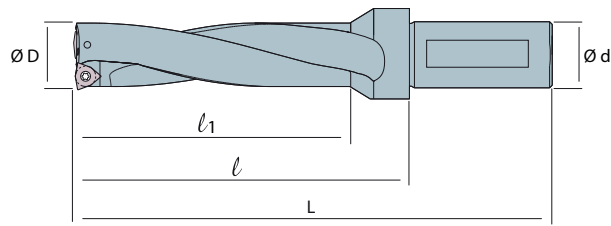


SP□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
SPMG0904	SS5D	315-09	SPIDC315-5D-S32-SP09	●	31,5	32	249	189	157,5	ST-SC3511	ST-WRT15
		320-09	SPIDC320-5D-S32-SP09	●	32	32	251	191	160	ST-SC3511	ST-WRT15
		325-09	SPIDC325-5D-S32-SP09	●	32,5	32	254	194	162,5	ST-SC3511	ST-WRT15
		330-09	SPIDC330-5D-S32-SP09	●	33	32	256	196	165	ST-SC3511	ST-WRT15
		335-09	SPIDC335-5D-S32-SP09	●	33,5	32	259	199	167,5	ST-SC3511	ST-WRT15
SPMG1104	SS5D	340-11	SPIDC340-5D-S32-SP11	●	34	32	261	201	170	ST-SC0411	ST-WRT15
		345-11	SPIDC345-5D-S32-SP11	●	34,5	32	264	204	172,5	ST-SC0411	ST-WRT15
		350-11	SPIDC350-5D-S32-SP11	●	35	32	266	206	175	ST-SC0411	ST-WRT15
		355-11	SPIDC355-5D-S32-SP11	●	35,5	32	269	209	177,5	ST-SC0411	ST-WRT15
		360-11	SPIDC360-5D-S32-SP11	●	36	32	271	211	180	ST-SC0411	ST-WRT15
		365-11	SPIDC365-5D-S32-SP11	●	36,5	32	274	214	182,5	ST-SC0411	ST-WRT15
		370-11	SPIDC370-5D-S32-SP11	●	37	32	276	216	185	ST-SC0411	ST-WRT15
		375-11	SPIDC375-5D-S32-SP11	●	37,5	32	279	219	187,5	ST-SC0411	ST-WRT15
		380-11	SPIDC380-5D-S32-SP11	●	38	32	281	221	190	ST-SC0411	ST-WRT15
		385-11	SPIDC385-5D-S32-SP11	●	38,5	32	284	224	192,5	ST-SC0411	ST-WRT15
		390-11	SPIDC390-5D-S32-SP11	●	39	32	286	226	195	ST-SC0411	ST-WRT15
		395-11	SPIDC395-5D-S32-SP11	●	39,5	32	289	229	197,5	ST-SC0411	ST-WRT15
		400-11	SPIDC400-5D-S32-SP11	●	40	32	291	231	200	ST-SC0411	ST-WRT15
		410-11	SPIDC410-5D-S32-SP11	●	41	32	296	236	205	ST-SC0511	ST-WRT20
SPMG1405	SS5D	420-14	SPIDC420-5D-S40-SP14	●	42	40	301	241	210	ST-SC0511	ST-WRT20
		430-14	SPIDC430-5D-S40-SP14	●	43	40	320	250	215	ST-SC0511	ST-WRT20
		440-14	SPIDC440-5D-S40-SP14	●	44	40	325	255	220	ST-SC0511	ST-WRT20
		450-14	SPIDC450-5D-S40-SP14	●	45	40	330	260	225	ST-SC0511	ST-WRT20
		460-14	SPIDC460-5D-S40-SP14	●	46	40	335	265	230	ST-SC0511	ST-WRT20
		470-14	SPIDC470-5D-S40-SP14	●	47	40	340	270	235	ST-SC0511	ST-WRT20
		480-14	SPIDC480-5D-S40-SP14	●	48	40	345	275	240	ST-SC0511	ST-WRT20
		490-14	SPIDC490-5D-S40-SP14	●	49	40	350	280	245	ST-SC0511	ST-WRT20
		500-14	SPIDC500-5D-S40-SP14	●	50	40	355	285	250	ST-SC0511	ST-WRT20
SPMG07	SS5D	510-07	SPIDC510-5D-S40-SP07	●	51	40	360	290	255	ST-SC0257	ST-WRT08
		520-07	SPIDC520-5D-S40-SP07	●	52	40	365	295	260	ST-SC0257	ST-WRT08
		530-07	SPIDC530-5D-S40-SP07	●	53	40	370	300	265	ST-SC0257	ST-WRT08
		540-07	SPIDC540-5D-S40-SP07	●	54	40	375	305	270	ST-SC0257	ST-WRT08
		550-07	SPIDC550-5D-S40-SP07	●	55	40	380	310	275	ST-SC0257	ST-WRT08
SPMG09	SS5D	560-09	SPIDC560-5D-S40-SP09	●	56	40	385	315	280	ST-SC3511	ST-WRT15
		570-09	SPIDC570-5D-S40-SP09	●	57	40	390	320	285	ST-SC3511	ST-WRT15
		580-09	SPIDC580-5D-S40-SP09	●	58	40	395	325	290	ST-SC3511	ST-WRT15
		590-09	SPIDC590-5D-S40-SP09	●	59	40	400	330	295	ST-SC3511	ST-WRT15
		600-09	SPIDC600-5D-S40-SP09	●	60	40	405	335	300	ST-SC3511	ST-WRT15

SW2D

2xD

WC



WC <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0302	SW2D	140-03	WIDC140-2D-S25-WC03	●	14	25	106	50	28	ST-SC0257	ST-WRT08
		145-03	WIDC145-2D-S25-WC03	●	14,5	25	107	51	29	ST-SC0257	ST-WRT08
		150-03	WIDC150-2D-S25-WC03	●	15	25	108	52	30	ST-SC0257	ST-WRT08
		155-03	WIDC155-2D-S25-WC03	●	15,5	25	109	53	31	ST-SC0257	ST-WRT08
		160-03	WIDC160-2D-S25-WC03	●	16	25	110	54	32	ST-SC0257	ST-WRT08
		165-03	WIDC165-2D-S25-WC03	●	16,5	25	111	55	33	ST-SC0257	ST-WRT08
		170-03	WIDC170-2D-S25-WC03	●	17	25	112	56	34	ST-SC0257	ST-WRT08
		175-03	WIDC175-2D-S25-WC03	●	17,5	25	113	57	35	ST-SC0257	ST-WRT08
		180-03	WIDC180-2D-S25-WC03	●	18	25	114	58	36	ST-SC0257	ST-WRT08
		185-03	WIDC185-2D-S25-WC03	●	18,5	25	115	59	37	ST-SC0257	ST-WRT08
Wcmx0402	SW2D	200-04	WIDC200-2D-S25-WCMX04	●	20	25	119	63	40	ST-SC0257	ST-WRT08
		205-04	WIDC205-2D-S25-WCMX04	●	20,5	25	120	64	41	ST-SC0257	ST-WRT08
		210-04	WIDC210-2D-S25-WCMX04	●	21	25	121	65	42	ST-SC0257	ST-WRT08
		215-04	WIDC215-2D-S25-WCMX04	●	21,5	25	122	66	43	ST-SC0257	ST-WRT08
		220-04	WIDC220-2D-S25-WCMX04	●	22	25	123	67	44	ST-SC0257	ST-WRT08
		225-04	WIDC225-2D-S25-WCMX04	●	22,5	25	124	68	45	ST-SC0257	ST-WRT08
		230-04	WIDC230-2D-S25-WCMX04	●	23	25	125	69	46	ST-SC0257	ST-WRT08
Wcmx0503	SW2D	240-05	WIDC240-2D-S25-WCMX05	●	24	25	127	71	48	ST-SC0309	ST-WRT08
		245-05	WIDC245-2D-S25-WCMX05	●	24,5	25	128	72	49	ST-SC0309	ST-WRT08
		250-05	WIDC250-2D-S25-WCMX05	●	25	25	141	81	50	ST-SC0309	ST-WRT08
		255-05	WIDC255-2D-S32-WCMX05	●	25,5	32	142	82	51	ST-SC0309	ST-WRT08
		260-05	WIDC260-2D-S32-WCMX05	●	26	32	143	83	52	ST-SC0309	ST-WRT08
		265-05	WIDC265-2D-S32-WCMX05	●	26,5	32	144	84	53	ST-SC0309	ST-WRT08
		270-05	WIDC270-2D-S32-WCMX05	●	27	32	145	85	54	ST-SC0309	ST-WRT08
		275-05	WIDC275-2D-S32-WCMX05	●	27,5	32	146	86	55	ST-SC0309	ST-WRT08
		280-05	WIDC280-2D-S32-WCMX05	●	28	32	147	87	56	ST-SC0309	ST-WRT08
		285-05	WIDC285-2D-S32-WCMX05	●	28,5	32	148	88	57	ST-SC0309	ST-WRT08
		290-05	WIDC290-2D-S32-WCMX05	●	29	32	149	89	58	ST-SC0309	ST-WRT08
		295-05	WIDC295-2D-S32-WCMX05	●	29,5	32	150	90	59	ST-SC0309	ST-WRT08
		300-05	WIDC300-2D-S32-WCMX05	●	30	32	151	91	60	ST-SC0309	ST-WRT08
	305-05	WIDC305-2D-S32-WCMX05	●	30,5	32	152	92	61	ST-SC0309	ST-WRT08	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

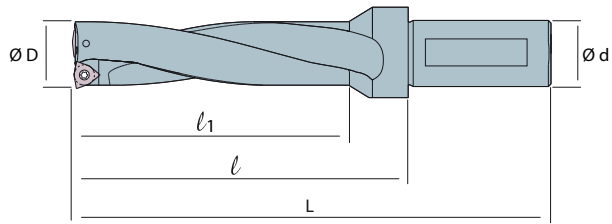
INDEX

HOLDERS /DRILLING

SW2D

2xD

WC



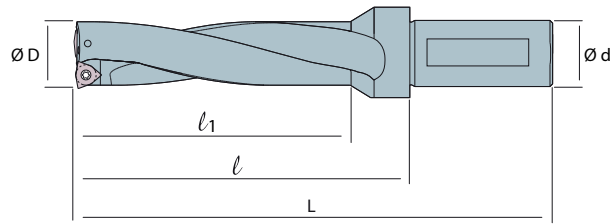
WC 	DESCRIPTION	DESCRIPTION NEW	STOCK	DIMENSIONS							
				ØD	Ød	L	l	l ₁			
Wcmx06t3	SW2D	310-06	WIDC310-2D-S32-WCMX06	●	31	32	153	93	62	ST-SC3511	ST-WRT15
		315-06	WIDC315-2D-S32-WCMX06	●	31,5	32	154	94	63	ST-SC3511	ST-WRT15
		320-06	WIDC320-2D-S32-WCMX06	●	32	32	155	95	64	ST-SC3511	ST-WRT15
		325-06	WIDC325-2D-S32-WCMX06	●	32,5	32	156	96	65	ST-SC3511	ST-WRT15
		330-06	WIDC330-2D-S32-WCMX06	●	33	32	157	97	66	ST-SC3511	ST-WRT15
		335-06	WIDC335-2D-S32-WCMX06	●	33,5	32	158	98	67	ST-SC3511	ST-WRT15
		340-06	WIDC340-2D-S32-WCMX06	●	34	32	159	99	68	ST-SC3511	ST-WRT15
		345-06	WIDC345-2D-S32-WCMX06	●	34,5	32	160	100	69	ST-SC3511	ST-WRT15
		350-06	WIDC350-2D-S32-WCMX06	●	35	32	161	101	70	ST-SC3511	ST-WRT15
		355-06	WIDC355-2D-S32-WCMX06	●	35,5	32	162	102	71	ST-SC3511	ST-WRT15
		360-06	WIDC360-2D-S32-WCMX06	●	36	32	163	103	72	ST-SC3511	ST-WRT15
		365-06	WIDC365-2D-S32-WCMX06	●	36,5	32	164	104	73	ST-SC3511	ST-WRT15
		370-06	WIDC370-2D-S32-WCMX06	●	37	32	165	105	74	ST-SC3511	ST-WRT15
		375-06	WIDC375-2D-S32-WCMX06	●	37,5	32	166	106	75	ST-SC3511	ST-WRT15
		380-06	WIDC380-2D-S32-WCMX06	●	38	32	167	107	76	ST-SC3511	ST-WRT15
		385-06	WIDC385-2D-S32-WCMX06	●	38,5	32	168	108	77	ST-SC3511	ST-WRT15
		390-06	WIDC390-2D-S32-WCMX06	●	39	32	169	109	78	ST-SC3511	ST-WRT15
		395-06	WIDC395-2D-S32-WCMX06	●	39,5	32	170	110	79	ST-SC3511	ST-WRT15
		400-06	WIDC400-2D-S32-WCMX06	●	40	32	171	111	80	ST-SC3511	ST-WRT15
		410-06	WIDC410-2D-S32-WCMX06	●	41	32	173	113	82	ST-SC3511	ST-WRT15

HOLDERS /DRILLING

SW2D

2xD

WC



WC <input type="text"/> <input type="text"/>	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0804	SW2D	420-08	WIDC420-2D-S40-WCMX08	●	42	40	175	115	84	ST-SC3511	ST-WRT15
		430-08	WIDC430-2D-S40-WCMX08	●	43	40	191	121	86	ST-SC3511	ST-WRT15
		440-08	WIDC440-2D-S40-WCMX08	●	44	40	193	123	88	ST-SC3511	ST-WRT15
		450-08	WIDC450-2D-S40-WCMX08	●	45	40	195	125	90	ST-SC3511	ST-WRT15
		460-08	WIDC460-2D-S40-WCMX08	●	46	40	197	127	92	ST-SC3511	ST-WRT15
		470-08	WIDC470-2D-S40-WCMX08	●	47	40	199	129	94	ST-SC3511	ST-WRT15
		480-08	WIDC480-2D-S40-WCMX08	●	48	40	201	131	96	ST-SC3511	ST-WRT15
		490-08	WIDC490-2D-S40-WCMX08	●	49	40	203	133	98	ST-SC3511	ST-WRT15
		500-08	WIDC500-2D-S40-WCMX08	●	50	40	205	135	100	ST-SC3511	ST-WRT15
		510-08	WIDC510-2D-S40-WCMX08	●	51	40	207	137	102	ST-SC3511	ST-WRT15
		520-08	WIDC520-2D-S40-WCMX08	●	52	40	209	139	104	ST-SC3511	ST-WRT15
		530-08	WIDC530-2D-S40-WCMX08	●	53	40	211	141	106	ST-SC3511	ST-WRT15
		540-08	WIDC540-2D-S40-WCMX08	●	54	40	213	143	108	ST-SC3511	ST-WRT15
		550-08	WIDC550-2D-S40-WCMX08	●	55	40	215	145	110	ST-SC3511	ST-WRT15
		560-08	WIDC560-2D-S40-WCMX08	●	56	40	217	147	112	ST-SC3511	ST-WRT15
		570-08	WIDC570-2D-S40-WCMX08	●	57	40	219	149	114	ST-SC3511	ST-WRT15
		580-08	WIDC580-2D-S40-WCMX08	●	58	40	221	151	116	ST-SC3511	ST-WRT15
		590-08	WIDC590-2D-S40-WCMX08	●	59	40	223	153	118	ST-SC3511	ST-WRT15
	600-08	WIDC600-2D-S40-WCMX08	●	60	40	225	155	120	ST-SC3511	ST-WRT15	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

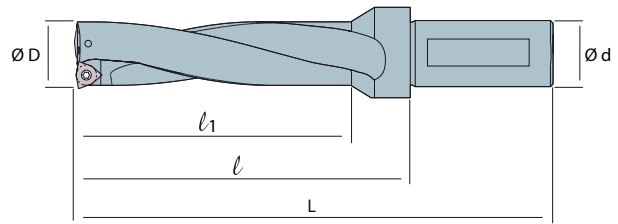
INDEX

HOLDERS /DRILLING

SW3D

3xD

WC



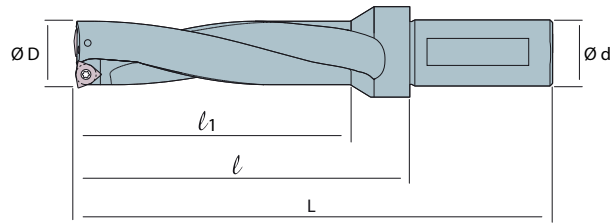
WC 	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0302	SW3D	140-03	WIDC140-3D-S25-WC03	●	14	25	120	64	42	ST-SC0257	ST-WRT08
		145-03	WIDC145-3D-S25-WC03	●	14,5	25	122	66	43,5	ST-SC0257	ST-WRT08
		150-03	WIDC150-3D-S25-WC03	●	15	25	123	67	45	ST-SC0257	ST-WRT08
		155-03	WIDC155-3D-S25-WC03	●	15,5	25	125	69	46,5	ST-SC0257	ST-WRT08
		160-03	WIDC160-3D-S25-WC03	●	16	25	126	70	48	ST-SC0257	ST-WRT08
		165-03	WIDC165-3D-S25-WC03	●	16,5	25	128	72	49,5	ST-SC0257	ST-WRT08
		170-03	WIDC170-3D-S25-WC03	●	17	25	129	73	51	ST-SC0257	ST-WRT08
		175-03	WIDC175-3D-S25-WC03	●	17,5	25	131	75	52,5	ST-SC0257	ST-WRT08
		180-03	WIDC180-3D-S25-WC03	●	18	25	132	76	54	ST-SC0257	ST-WRT08
		185-03	WIDC185-3D-S25-WC03	●	18,5	25	134	78	55,5	ST-SC0257	ST-WRT08
		190-03	WIDC190-3D-S25-WC03	●	19	25	135	79	57	ST-SC0257	ST-WRT08
Wcmx0402	SW3D	200-04	WIDC200-3D-S25-WCMX04	●	20	25	138	82	60	ST-SC0257	ST-WRT08
		205-04	WIDC205-3D-S25-WCMX04	●	20,5	25	140	84	61,5	ST-SC0257	ST-WRT08
		210-04	WIDC210-3D-S25-WCMX04	●	21	25	141	85	63	ST-SC0257	ST-WRT08
		215-04	WIDC215-3D-S25-WCMX04	●	21,5	25	143	87	64,5	ST-SC0257	ST-WRT08
		220-04	WIDC220-3D-S25-WCMX04	●	22	25	144	88	66	ST-SC0257	ST-WRT08
		225-04	WIDC225-3D-S25-WCMX04	●	22,5	25	146	90	67,5	ST-SC0257	ST-WRT08
		230-04	WIDC230-3D-S25-WCMX04	●	23	25	147	91	69	ST-SC0257	ST-WRT08
		235-04	WIDC235-3D-S25-WCMX04	●	23,5	25	149	93	70,5	ST-SC0257	ST-WRT08
Wcmx0503	SW3D	240-05	WIDC240-3D-S25-WCMX05	●	24	25	150	94	72	ST-SC0309	ST-WRT08
		245-05	WIDC245-3D-S25-WCMX05	●	24,5	25	152	96	73,5	ST-SC0309	ST-WRT08
		250-05	WIDC250-3D-S25-WCMX05	●	25	25	166	106	75	ST-SC0309	ST-WRT08
		255-05	WIDC255-3D-S32-WCMX05	●	25,5	32	168	108	76,5	ST-SC0309	ST-WRT08
		260-05	WIDC260-3D-S32-WCMX05	●	26	32	169	109	78	ST-SC0309	ST-WRT08
		265-05	WIDC265-3D-S32-WCMX05	●	26,5	32	171	111	79,5	ST-SC0309	ST-WRT08
		270-05	WIDC270-3D-S32-WCMX05	●	27	32	172	112	81	ST-SC0309	ST-WRT08
		275-05	WIDC275-3D-S32-WCMX05	●	27,5	32	174	114	82,5	ST-SC0309	ST-WRT08
		280-05	WIDC280-3D-S32-WCMX05	●	28	32	175	115	84	ST-SC0309	ST-WRT08
		285-05	WIDC285-3D-S32-WCMX05	●	28,5	32	177	117	85,5	ST-SC0309	ST-WRT08
		290-05	WIDC290-3D-S32-WCMX05	●	29	32	178	118	87	ST-SC0309	ST-WRT08
		295-05	WIDC295-3D-S32-WCMX05	●	29,5	32	180	120	88,5	ST-SC0309	ST-WRT08
		300-05	WIDC300-3D-S32-WCMX05	●	30	32	181	121	90	ST-SC0309	ST-WRT08
305-05	WIDC305-3D-S32-WCMX05	●	30,5	32	183	123	91,5	ST-SC0309	ST-WRT08		

HOLDERS /DRILLING

SW3D

3xD

WC



WC <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx06t3	SW3D	310-06	WIDC310-3D-S32-WCMX06	●	31	32	184	124	93	ST-SC3511	ST-WRT15
		315-06	WIDC315-3D-S32-WCMX06	●	31,5	32	186	126	94,5	ST-SC3511	ST-WRT15
		320-06	WIDC320-3D-S32-WCMX06	●	32	32	187	127	96	ST-SC3511	ST-WRT15
		325-06	WIDC325-3D-S32-WCMX06	●	32,5	32	189	129	97	ST-SC3511	ST-WRT15
		330-06	WIDC330-3D-S32-WCMX06	●	33	32	190	130	99	ST-SC3511	ST-WRT15
		335-06	WIDC335-3D-S32-WCMX06	●	33,5	32	192	132	100,5	ST-SC3511	ST-WRT15
		340-06	WIDC340-3D-S32-WCMX06	●	34	32	193	133	102	ST-SC3511	ST-WRT15
		345-06	WIDC345-3D-S32-WCMX06	●	34,5	32	195	135	103,5	ST-SC3511	ST-WRT15
		350-06	WIDC350-3D-S32-WCMX06	●	35	32	196	136	105	ST-SC3511	ST-WRT15
		355-06	WIDC355-3D-S32-WCMX06	●	35,5	32	198	138	106,5	ST-SC3511	ST-WRT15
		360-06	WIDC360-3D-S32-WCMX06	●	36	32	199	139	108	ST-SC3511	ST-WRT15
		365-06	WIDC365-3D-S32-WCMX06	●	36,5	32	201	141	109,5	ST-SC3511	ST-WRT15
		370-06	WIDC370-3D-S32-WCMX06	●	37	32	202	142	111	ST-SC3511	ST-WRT15
		375-06	WIDC375-3D-S32-WCMX06	●	37,5	32	204	144	112,5	ST-SC3511	ST-WRT15
		380-06	WIDC380-3D-S32-WCMX06	●	38	32	205	145	114	ST-SC3511	ST-WRT15
		385-06	WIDC385-3D-S32-WCMX06	●	38,5	32	207	147	115,5	ST-SC3511	ST-WRT15
		390-06	WIDC390-3D-S32-WCMX06	●	39	32	208	148	117	ST-SC3511	ST-WRT15
		395-06	WIDC395-3D-S32-WCMX06	●	39,5	32	210	150	118,5	ST-SC3511	ST-WRT15
		400-06	WIDC400-3D-S32-WCMX06	●	40	32	211	151	120	ST-SC3511	ST-WRT15
		410-06	WIDC410-3D-S32-WCMX06	●	41	32	214	154	123	ST-SC3511	ST-WRT15

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

SPARE
PARTS

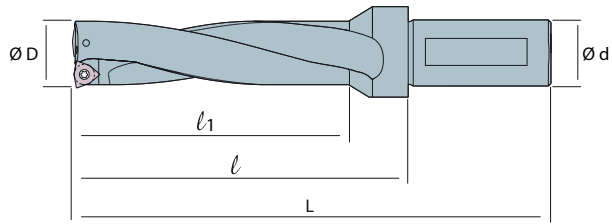
INDEX

HOLDERS /DRILLING

SW3D

3xD

WC



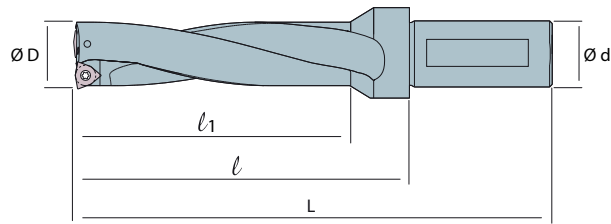
WC 	DESCRIPTION	DESCRIPTION NEW	STOCK	DIMENSIONS							
				ØD	Ød	L	l	l ₁			
Wcmx0804	SW3D	420-08	WIDC420-3D-S40-WCMX08	●	42	40	217	157	126	ST-SC3511	ST-WRT15
		430-08	WIDC430-3D-S40-WCMX08	●	43	40	234	164	129	ST-SC3511	ST-WRT15
		440-08	WIDC440-3D-S40-WCMX08	●	44	40	237	167	132	ST-SC3511	ST-WRT15
		450-08	WIDC450-3D-S40-WCMX08	●	45	40	240	170	135	ST-SC3511	ST-WRT15
		460-08	WIDC460-3D-S40-WCMX08	●	46	40	243	173	138	ST-SC3511	ST-WRT15
		470-08	WIDC470-3D-S40-WCMX08	●	47	40	246	176	141	ST-SC3511	ST-WRT15
		480-08	WIDC480-3D-S40-WCMX08	●	48	40	249	179	144	ST-SC3511	ST-WRT15
		490-08	WIDC490-3D-S40-WCMX08	●	49	40	252	182	147	ST-SC3511	ST-WRT15
		500-08	WIDC500-3D-S40-WCMX08	●	50	40	255	185	150	ST-SC3511	ST-WRT15
		510-08	WIDC510-3D-S40-WCMX08	●	51	40	258	188	153	ST-SC3511	ST-WRT15
		520-08	WIDC520-3D-S40-WCMX08	●	52	40	261	191	156	ST-SC3511	ST-WRT15
		530-08	WIDC530-3D-S40-WCMX08	●	53	40	264	194	159	ST-SC3511	ST-WRT15
		540-08	WIDC540-3D-S40-WCMX08	●	54	40	267	197	162	ST-SC3511	ST-WRT15
		550-08	WIDC550-3D-S40-WCMX08	●	55	40	270	200	165	ST-SC3511	ST-WRT15
		560-08	WIDC560-3D-S40-WCMX08	●	56	40	273	203	168	ST-SC3511	ST-WRT15
		570-08	WIDC570-3D-S40-WCMX08	●	57	40	276	206	171	ST-SC3511	ST-WRT15
		580-08	WIDC580-3D-S40-WCMX08	●	58	40	279	209	174	ST-SC3511	ST-WRT15
		590-08	WIDC590-3D-S40-WCMX08	●	59	40	282	212	177	ST-SC3511	ST-WRT15
		600-08	WIDC600-3D-S40-WCMX08	●	60	40	285	215	180	ST-SC3511	ST-WRT15

HOLDERS /DRILLING

SW4D

4xD

WC



WC <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0302	SW4D	140-03	WIDC140-4D-S25-WC03	●	14	25	134	78	56	ST-SC0257	ST-WRT08
		145-03	WIDC145-4D-S25-WC03	●	14,5	25	136	80	58	ST-SC0257	ST-WRT08
		150-03	WIDC150-4D-S25-WC03	●	15	25	138	82	60	ST-SC0257	ST-WRT08
		155-03	WIDC155-4D-S25-WC03	●	15,5	25	140	84	62	ST-SC0257	ST-WRT08
		160-03	WIDC160-4D-S25-WC03	●	16	25	142	86	64	ST-SC0257	ST-WRT08
		165-03	WIDC165-4D-S25-WC03	●	16,5	25	144	88	66	ST-SC0257	ST-WRT08
		170-03	WIDC170-4D-S25-WC03	●	17	25	146	90	68	ST-SC0257	ST-WRT08
		175-03	WIDC175-4D-S25-WC03	●	17,5	25	148	92	70	ST-SC0257	ST-WRT08
		180-03	WIDC180-4D-S25-WC03	●	18	25	150	94	72	ST-SC0257	ST-WRT08
		185-03	WIDC185-4D-S25-WC03	●	18,5	25	152	96	74	ST-SC0257	ST-WRT08
		190-03	WIDC190-4D-S25-WC03	●	19	25	154	98	76	ST-SC0257	ST-WRT08
	195-03	WIDC195-4D-S25-WC03	●	19,5	25	155	99	78	ST-SC0257	ST-WRT08	
Wcmx0402	SW4D	200-04	WIDC200-4D-S25-WCMX04	●	20	25	159	103	80	ST-SC0257	ST-WRT08
		205-04	WIDC205-4D-S25-WCMX04	●	20,5	25	161	105	82	ST-SC0257	ST-WRT08
		210-04	WIDC210-4D-S25-WCMX04	●	21	25	163	107	84	ST-SC0257	ST-WRT08
		215-04	WIDC215-4D-S25-WCMX04	●	21,5	25	165	109	86	ST-SC0257	ST-WRT08
		220-04	WIDC220-4D-S25-WCMX04	●	22	25	167	111	88	ST-SC0257	ST-WRT08
		225-04	WIDC225-4D-S25-WCMX04	●	22,5	25	169	113	90	ST-SC0257	ST-WRT08
		230-04	WIDC230-4D-S25-WCMX04	●	23	25	171	115	92	ST-SC0257	ST-WRT08
		235-04	WIDC235-4D-S25-WCMX04	●	23,5	25	173	117	94	ST-SC0257	ST-WRT08
Wcmx0503	SW4D	240-05	WIDC240-4D-S25-WCMX05	●	24	25	175	119	96	ST-SC0309	ST-WRT08
		245-05	WIDC245-4D-S25-WCMX05	●	24,5	25	177	121	98	ST-SC0309	ST-WRT08
		250-05	WIDC250-4D-S25-WCMX05	●	25	25	191	131	100	ST-SC0309	ST-WRT08
		255-05	WIDC255-4D-S32-WCMX05	●	25,5	32	193	133	102	ST-SC0309	ST-WRT08
		260-05	WIDC260-4D-S32-WCMX05	●	26	32	195	135	104	ST-SC0309	ST-WRT08
		265-05	WIDC265-4D-S32-WCMX05	●	26,5	32	197	137	106	ST-SC0309	ST-WRT08
		270-05	WIDC270-4D-S32-WCMX05	●	27	32	199	139	108	ST-SC0309	ST-WRT08
		275-05	WIDC275-4D-S32-WCMX05	●	27,5	32	201	141	110	ST-SC0309	ST-WRT08
		280-05	WIDC280-4D-S32-WCMX05	●	28	32	203	143	112	ST-SC0309	ST-WRT08
		285-05	WIDC285-4D-S32-WCMX05	●	28,5	32	205	145	114	ST-SC0309	ST-WRT08
		290-05	WIDC290-4D-S32-WCMX05	●	29	32	207	147	116	ST-SC0309	ST-WRT08
		295-05	WIDC295-4D-S32-WCMX05	●	29,5	32	209	149	118	ST-SC0309	ST-WRT08
		300-05	WIDC300-4D-S32-WCMX05	●	30	32	211	151	120	ST-SC0309	ST-WRT08
	305-05	WIDC305-4D-S32-WCMX05	●	30,5	32	213	153	122	ST-SC0309	ST-WRT08	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

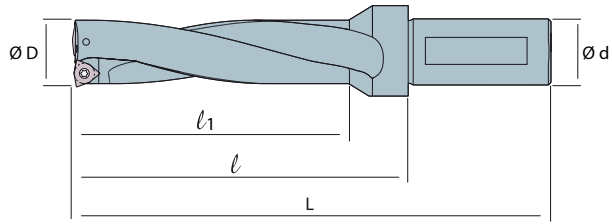
INDEX

HOLDERS /DRILLING

SW4D

4xD

WC



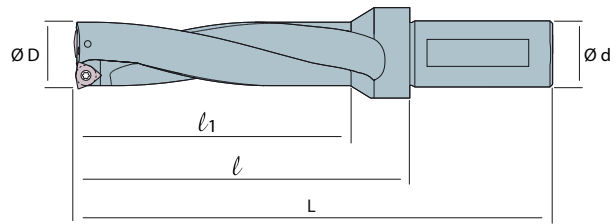
WC	DESCRIPTION	DESCRIPTION	STOCK	DIMENSIONS							
				ØD	Ød	L	l	l ₁			
Wcmx06t3	SW4D	310-06	WIDC310-4D-S32-WCMX06	●	31	32	215	155	124	ST-SC3511	ST-WRT15
		315-06	WIDC315-4D-S32-WCMX06	●	31,5	32	217	157	126	ST-SC3511	ST-WRT15
		320-06	WIDC320-4D-S32-WCMX06	●	32	32	219	159	128	ST-SC3511	ST-WRT15
		325-06	WIDC325-4D-S32-WCMX06	●	32,5	32	221	161	130	ST-SC3511	ST-WRT15
		330-06	WIDC330-4D-S32-WCMX06	●	33	32	223	163	132	ST-SC3511	ST-WRT15
		335-06	WIDC335-4D-S32-WCMX06	●	33,5	32	225	165	134	ST-SC3511	ST-WRT15
		340-06	WIDC340-4D-S32-WCMX06	●	34	32	227	167	136	ST-SC3511	ST-WRT15
		345-06	WIDC345-4D-S32-WCMX06	●	34,5	32	229	169	138	ST-SC3511	ST-WRT15
		350-06	WIDC350-4D-S32-WCMX06	●	35	32	231	171	140	ST-SC3511	ST-WRT15
		355-06	WIDC355-4D-S32-WCMX06	●	35,5	32	233	173	142	ST-SC3511	ST-WRT15
		360-06	WIDC360-4D-S32-WCMX06	●	36	32	235	175	144	ST-SC3511	ST-WRT15
		365-06	WIDC365-4D-S32-WCMX06	●	36,5	32	237	177	146	ST-SC3511	ST-WRT15
		370-06	WIDC370-4D-S32-WCMX06	●	37	32	239	179	148	ST-SC3511	ST-WRT15
		375-06	WIDC375-4D-S32-WCMX06	●	37,5	32	241	181	150	ST-SC3511	ST-WRT15
		380-06	WIDC380-4D-S32-WCMX06	●	38	32	243	183	152	ST-SC3511	ST-WRT15
		385-06	WIDC385-4D-S32-WCMX06	●	38,5	32	245	185	154	ST-SC3511	ST-WRT15
		390-06	WIDC390-4D-S32-WCMX06	●	39	32	247	187	156	ST-SC3511	ST-WRT15
		395-06	WIDC395-4D-S32-WCMX06	●	39,5	32	249	189	158	ST-SC3511	ST-WRT15
		400-06	WIDC400-4D-S32-WCMX06	●	40	32	251	191	160	ST-SC3511	ST-WRT15
		410-06	WIDC410-4D-S32-WCMX06	●	41	32	255	195	164	ST-SC3511	ST-WRT15

HOLDERS /DRILLING

SW4D

4xD

WC□□



WC□□	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0804	SW4D	420-08	WIDC420-4D-S40-WCMX08	●	42	40	259	199	168	ST-SC3511	ST-WRT15
		430-08	WIDC430-4D-S40-WCMX08	●	43	40	277	207	172	ST-SC3511	ST-WRT15
		440-08	WIDC440-4D-S40-WCMX08	●	44	40	281	211	176	ST-SC3511	ST-WRT15
		450-08	WIDC450-4D-S40-WCMX08	●	45	40	285	215	180	ST-SC3511	ST-WRT15
		460-08	WIDC460-4D-S40-WCMX08	●	46	40	289	219	184	ST-SC3511	ST-WRT15
		470-08	WIDC470-4D-S40-WCMX08	●	47	40	293	223	188	ST-SC3511	ST-WRT15
		480-08	WIDC480-4D-S40-WCMX08	●	48	40	297	227	192	ST-SC3511	ST-WRT15
		490-08	WIDC490-4D-S40-WCMX08	●	49	40	301	231	196	ST-SC3511	ST-WRT15
		500-08	WIDC500-4D-S40-WCMX08	●	50	40	305	235	200	ST-SC3511	ST-WRT15
		510-08	WIDC510-4D-S40-WCMX08	●	51	40	309	239	204	ST-SC3511	ST-WRT15
		520-08	WIDC520-4D-S40-WCMX08	●	52	40	313	243	208	ST-SC3511	ST-WRT15
		530-08	WIDC530-4D-S40-WCMX08	●	53	40	317	247	212	ST-SC3511	ST-WRT15
		540-08	WIDC540-4D-S40-WCMX08	●	54	40	321	251	216	ST-SC3511	ST-WRT15
		550-08	WIDC550-4D-S40-WCMX08	●	55	40	325	255	220	ST-SC3511	ST-WRT15
		560-08	WIDC560-4D-S40-WCMX08	●	56	40	329	259	224	ST-SC3511	ST-WRT15
		570-08	WIDC570-4D-S40-WCMX08	●	57	40	333	263	228	ST-SC3511	ST-WRT15
		580-08	WIDC580-4D-S40-WCMX08	●	58	40	337	267	232	ST-SC3511	ST-WRT15
	590-08	WIDC590-4D-S40-WCMX08	●	59	40	341	271	236	ST-SC3511	ST-WRT15	
	600-08	WIDC600-4D-S40-WCMX08	●	60	40	345	275	240	ST-SC3511	ST-WRT15	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

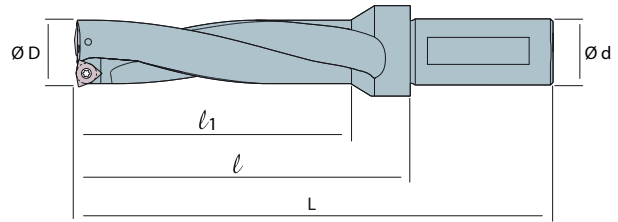
INDEX

HOLDERS /DRILLING

SW5D

5xD

WC



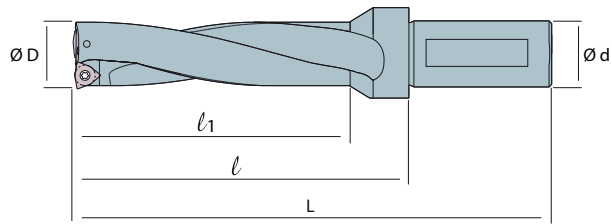
WC 	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx0302	SW5D	140-03	WIDC140-5D-S25-WC03	●	14	25	156	100	77	ST-SC0257	ST-WRT08
		145-03	WIDC145-5D-S25-WC03	●	14,5	25	157	101	78	ST-SC0257	ST-WRT08
		150-03	WIDC150-5D-S25-WC03	●	15	25	158	102	79	ST-SC0257	ST-WRT08
		155-03	WIDC155-5D-S25-WC03	●	15,5	25	160	104	81	ST-SC0257	ST-WRT08
		160-03	WIDC160-5D-S25-WC03	●	16	25	162	106	83	ST-SC0257	ST-WRT08
		165-03	WIDC165-5D-S25-WC03	●	16,5	25	164	108	85	ST-SC0257	ST-WRT08
		170-03	WIDC170-5D-S25-WC03	●	17	25	166	110	87	ST-SC0257	ST-WRT08
		175-03	WIDC175-5D-S25-WC03	●	17,5	25	168	112	89	ST-SC0257	ST-WRT08
		180-03	WIDC180-5D-S25-WC03	●	18	25	170	114	91	ST-SC0257	ST-WRT08
		185-03	WIDC185-5D-S25-WC03	●	18,5	25	172	116	93	ST-SC0257	ST-WRT08
		190-03	WIDC190-5D-S25-WC03	●	19	25	174	118	95	ST-SC0257	ST-WRT08
Wcmx0402	SW5D	200-04	WIDC200-5D-S25-WCMX04	●	20	25	179	123	100	ST-SC0257	ST-WRT08
		205-04	WIDC205-5D-S25-WCMX04	●	20,5	25	182	126	102,5	ST-SC0257	ST-WRT08
		210-04	WIDC210-5D-S25-WCMX04	●	21	25	184	128	105	ST-SC0257	ST-WRT08
		215-04	WIDC215-5D-S25-WCMX04	●	21,5	25	187	131	107,5	ST-SC0257	ST-WRT08
		220-04	WIDC220-5D-S25-WCMX04	●	22	25	189	133	110	ST-SC0257	ST-WRT08
		225-04	WIDC225-5D-S25-WCMX04	●	22,5	25	192	136	112,5	ST-SC0257	ST-WRT08
		230-04	WIDC230-5D-S25-WCMX04	●	23	25	194	138	115	ST-SC0257	ST-WRT08
Wcmx0503	SW5D	240-05	WIDC240-5D-S25-WCMX05	●	24	25	199	143	120	ST-SC0309	ST-WRT08
		245-05	WIDC245-5D-S25-WCMX05	●	24,5	25	202	146	122,5	ST-SC0309	ST-WRT08
		250-05	WIDC250-5D-S25-WCMX05	●	25	25	216	156	125	ST-SC0309	ST-WRT08
		255-05	WIDC255-5D-S32-WCMX05	●	25,5	32	219	159	127,5	ST-SC0309	ST-WRT08
		260-05	WIDC260-5D-S32-WCMX05	●	26	32	221	161	130	ST-SC0309	ST-WRT08
		265-05	WIDC265-5D-S32-WCMX05	●	26,5	32	224	164	132,5	ST-SC0309	ST-WRT08
		270-05	WIDC270-5D-S32-WCMX05	●	27	32	226	166	135	ST-SC0309	ST-WRT08
		275-05	WIDC275-5D-S32-WCMX05	●	27,5	32	229	169	137,5	ST-SC0309	ST-WRT08
		280-05	WIDC280-5D-S32-WCMX05	●	28	32	231	171	140	ST-SC0309	ST-WRT08
		285-05	WIDC285-5D-S32-WCMX05	●	28,5	32	234	174	142,5	ST-SC0309	ST-WRT08
		290-05	WIDC290-5D-S32-WCMX05	●	29	32	236	176	145	ST-SC0309	ST-WRT08
		295-05	WIDC295-5D-S32-WCMX05	●	29,5	32	239	179	147,5	ST-SC0309	ST-WRT08
		300-05	WIDC300-5D-S32-WCMX05	●	30	32	241	181	150	ST-SC0309	ST-WRT08
		305-05	WIDC305-5D-S32-WCMX05	●	30,5	32	244	184	152,5	ST-SC0309	ST-WRT08

HOLDERS /DRILLING

SW5D

5xD

WC



WC <input type="checkbox"/> <input type="checkbox"/>	DESCRIPTION		DESCRIPTION NEW	STOCK	DIMENSIONS						
					ØD	Ød	L	l	l ₁		
Wcmx06t3	SW5D	310-06	WIDC310-5D-S32-WCMX06	●	31	32	246	186	155	ST-SC3511	ST-WRT15
		315-06	WIDC315-5D-S32-WCMX06	●	31,5	32	249	189	157,5	ST-SC3511	ST-WRT15
		320-06	WIDC320-5D-S32-WCMX06	●	32	32	251	191	160	ST-SC3511	ST-WRT15
		325-06	WIDC325-5D-S32-WCMX06	●	32,5	32	254	194	162,5	ST-SC3511	ST-WRT15
		330-06	WIDC330-5D-S32-WCMX06	●	33	32	256	196	165	ST-SC3511	ST-WRT15
		335-06	WIDC335-5D-S32-WCMX06	●	33,5	32	259	199	167,5	ST-SC3511	ST-WRT15
		340-06	WIDC340-5D-S32-WCMX06	●	34	32	261	201	170	ST-SC3511	ST-WRT15
		345-06	WIDC345-5D-S32-WCMX06	●	34,5	32	264	204	172,5	ST-SC3511	ST-WRT15
		350-06	WIDC350-5D-S32-WCMX06	●	35	32	266	206	175	ST-SC3511	ST-WRT15
		355-06	WIDC355-5D-S32-WCMX06	●	35,5	32	269	209	177,5	ST-SC3511	ST-WRT15
		360-06	WIDC360-5D-S32-WCMX06	●	36	32	271	211	180	ST-SC3511	ST-WRT15
		365-06	WIDC365-5D-S32-WCMX06	●	36,5	32	274	214	182,5	ST-SC3511	ST-WRT15
		370-06	WIDC370-5D-S32-WCMX06	●	37	32	276	216	185	ST-SC3511	ST-WRT15
		375-06	WIDC375-5D-S32-WCMX06	●	37,5	32	279	219	187,5	ST-SC3511	ST-WRT15
		380-06	WIDC380-5D-S32-WCMX06	●	38	32	281	221	190	ST-SC3511	ST-WRT15
		385-06	WIDC385-5D-S32-WCMX06	●	38,5	32	284	224	192,5	ST-SC3511	ST-WRT15
		390-06	WIDC390-5D-S32-WCMX06	●	39	32	286	226	195	ST-SC3511	ST-WRT15
		395-06	WIDC395-5D-S32-WCMX06	●	39,5	32	289	229	197,5	ST-SC3511	ST-WRT15
		400-06	WIDC400-5D-S32-WCMX06	●	40	32	291	231	200	ST-SC3511	ST-WRT15
		410-06	WIDC410-5D-S32-WCMX06	●	41	32	296	236	205	ST-SC3511	ST-WRT15

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

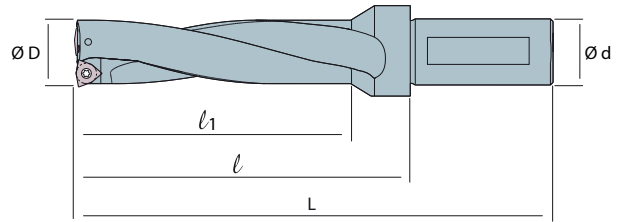
INDEX

HOLDERS /DRILLING

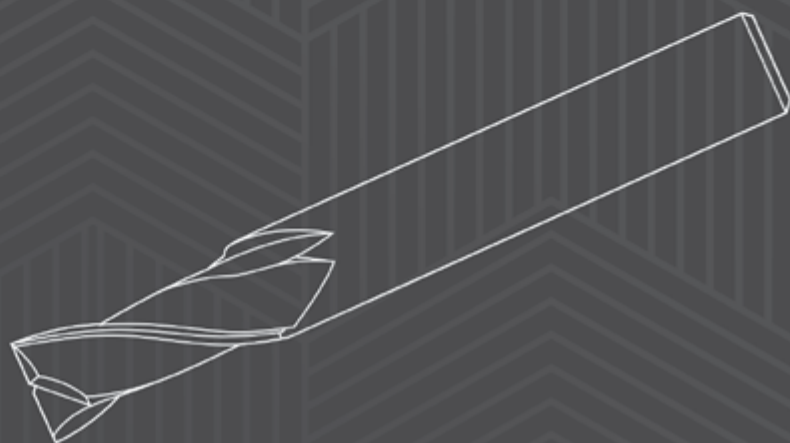
SW5D

5xD

WC



WC 	DESCRIPTION	DESCRIPTION NEW	STOCK	DIMENSIONS							
				ØD	Ød	L	l	l ₁			
Wcmx0804	SW5D	420-08	WIDC420-5D-S40-WCMX08	●	42	40	301	241	210	ST-SC3511	ST-WRT15
		430-08	WIDC430-5D-S40-WCMX08	●	43	40	320	250	215	ST-SC3511	ST-WRT15
		440-08	WIDC440-5D-S40-WCMX08	●	44	40	325	255	220	ST-SC3511	ST-WRT15
		450-08	WIDC450-5D-S40-WCMX08	●	45	40	330	260	225	ST-SC3511	ST-WRT15
		460-08	WIDC460-5D-S40-WCMX08	●	46	40	335	265	230	ST-SC3511	ST-WRT15
		470-08	WIDC470-5D-S40-WCMX08	●	47	40	340	270	235	ST-SC3511	ST-WRT15
		480-08	WIDC480-5D-S40-WCMX08	●	48	40	345	275	240	ST-SC3511	ST-WRT15
		490-08	WIDC490-5D-S40-WCMX08	●	49	40	350	280	245	ST-SC3511	ST-WRT15
		500-08	WIDC500-5D-S40-WCMX08	●	50	40	355	285	250	ST-SC3511	ST-WRT15
		510-08	WIDC510-5D-S40-WCMX08	●	51	40	360	290	255	ST-SC3511	ST-WRT15
		520-08	WIDC520-5D-S40-WCMX08	●	52	40	365	295	260	ST-SC3511	ST-WRT15
		530-08	WIDC530-5D-S40-WCMX08	●	53	40	370	300	265	ST-SC3511	ST-WRT15
		540-08	WIDC540-5D-S40-WCMX08	●	54	40	375	305	270	ST-SC3511	ST-WRT15
		550-08	WIDC550-5D-S40-WCMX08	●	55	40	380	310	275	ST-SC3511	ST-WRT15
		560-08	WIDC560-5D-S40-WCMX08	●	56	40	385	315	280	ST-SC3511	ST-WRT15
		570-08	WIDC570-5D-S40-WCMX08	●	57	40	390	320	285	ST-SC3511	ST-WRT15
		580-08	WIDC580-5D-S40-WCMX08	●	58	40	395	325	290	ST-SC3511	ST-WRT15
		590-08	WIDC590-5D-S40-WCMX08	●	59	40	400	330	295	ST-SC3511	ST-WRT15
	600-08	WIDC600-5D-S40-WCMX08	◆	60	40	405	335	300	ST-SC3511	ST-WRT15	

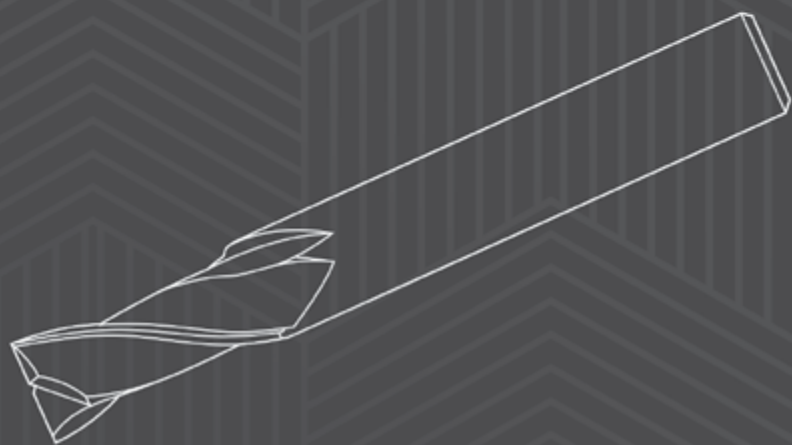


ENDMILLS /

carbide /415

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the text "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools

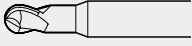

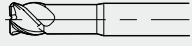







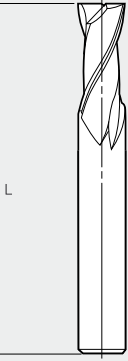

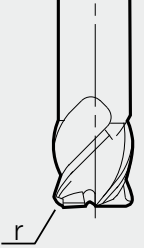
ENDMILLS/**CARBIDE**

CARBIDE /ENDMILLS

D X C 4 080 - 050 - 08 - R1





1 2 3 4 5 6 7 8

1	ENDMILL SERIES	2	HARDNESS	3	TYPE	4	FLUTE
D	Dream	G	General (HRC45)	B		2	
U	Ultra	X	Extreme (HRC55)	C		3	
		W	Wrath (HRC68)	F		4	
						6	

5	CUTTING DIA.	6	LENGTH (mm)	7	SHAFT DIA.	8	RADIUS
...		...		...		R.	

- TURNING
- GROOVING
- THREADING
- MILLING
- DRILLING
- ENDMILLS
- DRILLS
- HSS DRILLS & TAPS
- SPARE PARTS
- INDEX

PVD ENDMILLS GRADES

MATERIAL	GRADE	Color	Operation
P/M/K	Dream General	DARK GRAY	General milling for steel up to 45HrC
			Ultra fine substrate, PVD coating
	Dream Extreme	COPPER	High cutting on hardened steel up to 55HrC
			Ultra fine substrate, PVD coating
	Dream Wraith	DARK BLUE	High cutting on hardened steel up to 68HrC
			Ultra fine substrate, PVD coating
N	Dream Aluminium	GRAY	General milling for aluminium and brass
			Ultra fine substrate

TURNING

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THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

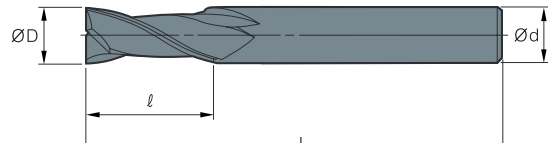
HSS
DRILLS & TAPSSPARE
PARTS

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CARBIDE /ENDMILLS

DGF

UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
	DGF 4010-050-04	●	1	4	3	50	-
	4010-050-06	●	1	6	3	50	-
	4015-050-03	●	1.5	3	4	50	-
	4015-050-04	●	1,5	4	4	50	-
	4015-050-06	●	1,5	6	4	50	-
	4020-050-03	●	2	3	6	50	-
	4020-050-04	●	2	4	6	50	-
	4020-050-06	●	2	6	6	50	-
	4025-050-04	●	2,5	4	8	50	-
	4025-050-06	●	2,5	6	8	50	-
	4030-050-03	●	3	3	8	50	-
	4030-050-04	●	3	4	8	50	-
	4030-050-06	●	3	6	8	50	-
	4030-075-03	●	3	3	8	75	-
	4030-100-03	●	3	3	8	100	-
	4035-050-04	●	3,5	4	11	50	-
	4035-050-06	●	3,5	6	11	50	-
	4040-050-04	●	4	4	11	50	-
	4040-050-06	●	4	6	11	50	-
	4040-075-04	●	4	4	20	75	-
	4040-100-04	●	4	4	20	100	-
	4045-050-06	●	4.5	6	11	50	-
	4050-050-05	●	5	5	13	50	-
	4050-050-06	●	5	6	13	50	-
	4050-075-05	●	5	5	20	75	-
	4050-100-05	●	5	5	20	100	-
	4055-050-06	●	5.5	6	13	50	-
	4060-050-06	●	6	6	15	50	-
	4060-060-06	●	6	6	15	60	-
	4060-075-06	●	6	6	20	75	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

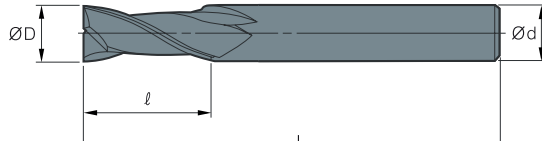
HSS
DRILLS & TAPS

SPARE
PARTS

INDEX

DGF

UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGF	4060-100-06	●	6	6	25	100	-
	4060-150-06	●	6	6	40	150	-
	4070-060-08	●	7	8	20	60	-
	4080-060-08	●	8	8	20	60	-
	4080-064-08	●	8	8	20	64	-
	4080-075-08	●	8	8	25	75	-
	4080-100-08	●	8	8	40	100	-
	4080-150-08	●	8	8	40	150	-
	4080-200-08	●	8	8	50	200	-
	4085-075-10	●	8.5	10	25	75	-
	4090-075-10	●	9	10	25	75	-
	4100-075-10	●	10	10	25	75	-
	4100-100-10	●	10	10	40	100	-
	4100-150-10	●	10	10	50	150	-
	4110-075-12	●	11	12	25	75	-
	4120-075-12	●	12	12	30	75	-
	4120-100-12	●	12	12	45	100	-
	4120-150-12	●	12	12	50	150	-
	4130-080-14	●	13	14	40	80	-
	4130-100-14	●	13	14	40	100	-
	4140-080-14	●	14	14	40	80	-
	4140-100-14	●	14	14	50	100	-
	4140-150-14	●	14	14	50	150	-
	4150-100-16	●	15	16	45	100	-
	4160-100-16	●	16	16	45	100	-
	4160-150-16	●	16	16	50	150	-
	4180-100-18	●	18	18	45	100	-
	4180-150-18	●	18	18	50	150	-
	4190-100-20	●	19	20	45	100	-
	4200-100-20	●	20	20	45	100	-
	4200-150-20	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

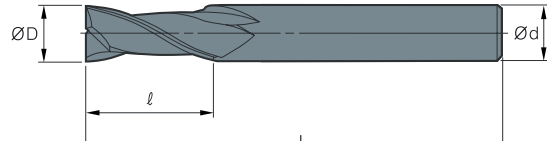
SPARE
PARTS

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CARBIDE /ENDMILLS

DGP

UP TO HRC45

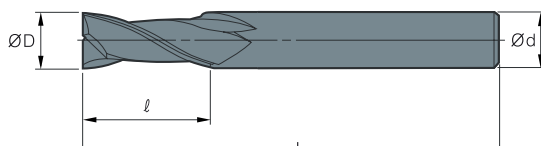


	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGP	1030-050-03	●	3	3	12	50	-
	1031-070-04	●	3.1	4	25	70	-
	1040-050-04	●	4	4	16	50	-
	1040-075-04	●	4	4	32	75	-
	1045-070-05	●	4.5	5	25	70	-
	1050-050-05	●	5	5	15	50	-
	1050-055-05	●	5	5	18	55	-
	1060-055-06	●	6	6	19	55	-
	1060-070-08	●	6	8	37	70	-
	1060-075-06	●	6	6	35	75	-
	1080-050-08	●	8	8	25	50	-
	1080-072-08	●	8	8	35	72	-
	1100-070-10	●	10	10	25	70	-
	1120-070-12	●	12	12	25	70	-
	1130-100-13	●	13	13	40	100	-
	2040-080-04	●	4	4	40	80	-
	2060-057-06	●	6	6	23	57	-
	2060-080-06	●	6	6	40	80	-
	2070-080-07	●	7	7	40	80	-
	2080-057-08	●	8	8	23	57	-
2080-080-08	●	8	8	40	80	-	
2100-080-10	●	10	10	40	80	-	
2120-080-12	●	12	12	40	80	-	

- TURNING
- GROOVING
- THREADING
- MILLING
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- ENDMILLS
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DXF

UP TO HRC55



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DXF	4060-100-06	●	6	6	25	100	-
	4060-150-06	●	6	6	40	150	-
	4070-060-08	●	7	8	20	60	-
	4080-060-08	●	8	8	20	60	-
	4080-064-08	●	8	8	20	64	-
	4080-075-08	●	8	8	25	75	-
	4080-100-08	●	8	8	40	100	-
	4080-150-08	●	8	8	40	150	-
	4090-075-10	●	9	10	25	75	-
	4100-075-10	●	10	10	25	75	-
	4100-100-10	●	10	10	40	100	-
	4100-150-10	●	10	10	50	150	-
	4110-075-12	●	11	12	25	75	-
	4120-075-12	●	12	12	30	75	-
	4120-083-12	●	12	12	30	83	-
	4120-100-12	●	12	12	45	100	-
	4120-150-12	●	12	12	50	150	-
	4130-100-14	●	13	14	40	100	-
	4140-080-14	●	14	14	40	80	-
	4140-100-14	●	14	14	50	100	-
	4140-150-14	●	14	14	50	150	-
	4150-100-16	●	15	16	45	100	-
	4160-100-16	●	16	16	45	100	-
	4160-150-16	●	16	16	50	150	-
	4180-100-18	●	18	18	45	100	-
	4180-150-18	●	18	18	50	150	-
	4200-100-20	●	20	20	45	100	-
	4200-150-20	●	20	20	75	150	-

TURNING

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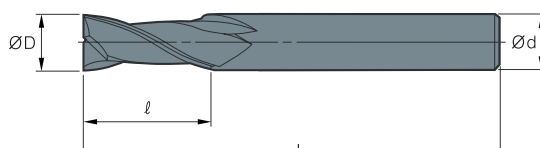
DRILLS

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DWF

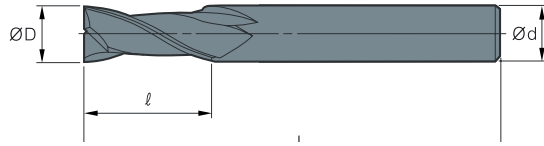
UP TO HRC68



	DESCRIPTION	STOCK	DIMENSIONS					
			ØD	Ød	l	L	r	
	DWF	4010-050-04	●	1	4	3	50	-
		4010-050-06	●	1	6	3	50	-
		4015-050-04	●	1,5	4	4	50	-
		4015-050-06	●	1,5	6	4	50	-
		4020-050-04	●	2	4	6	50	-
		4020-050-06	●	2	6	6	50	-
		4025-050-04	●	2,5	4	8	50	-
		4025-050-06	●	2,5	6	8	50	-
		4030-050-03	●	3	3	8	50	-
		4030-050-04	●	3	4	8	50	-
		4030-050-06	●	3	6	8	50	-
		4035-050-04	●	3,5	4	11	50	-
		4035-050-06	●	3,5	6	11	50	-
		4040-050-04	●	4	4	11	50	-
		4040-050-06	●	4	6	11	50	-
		4040-075-04	●	4	4	20	75	-
		4040-100-04	●	4	4	20	100	-
		4050-050-05	●	5	5	13	50	-
		4050-050-06	●	5	6	13	50	-
		4050-075-05	●	5	5	20	75	-
	4050-100-05	●	5	5	20	100	-	
	4060-050-06	●	6	6	15	50	-	
	4060-075-06	●	6	6	20	75	-	

DWF

UP TO HRC68



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DWF	4060-100-06	●	6	6	25	100	-
	4060-150-06	●	6	6	40	150	-
	4070-060-08	●	7	8	20	60	-
	4080-060-08	●	8	8	20	60	-
	4080-075-08	●	8	8	25	75	-
	4080-100-08	●	8	8	40	100	-
	4080-150-08	●	8	8	40	150	-
	4090-075-10	●	9	10	25	75	-
	4100-075-10	●	10	10	25	75	-
	4100-100-10	●	10	10	40	100	-
	4100-150-10	●	10	10	50	150	-
	4120-075-12	●	12	12	30	75	-
	4120-100-12	●	12	12	45	100	-
	4120-150-12	●	12	12	50	150	-
	4140-080-14	●	14	14	40	80	-
	4140-100-14	●	14	14	50	100	-
	4140-150-14	●	14	14	50	150	-
	4160-100-16	●	16	16	45	100	-
	4160-150-16	●	16	16	50	150	-
	4180-100-18	●	18	18	45	100	-
	4180-150-18	●	18	18	50	150	-
	4200-100-20	●	20	20	45	100	-
	4200-150-20	●	20	20	75	150	-

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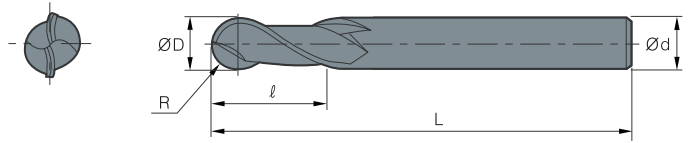
DRILLS

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DGB

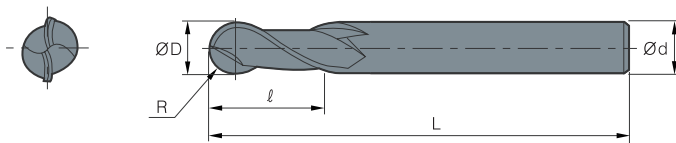
UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGB	2010-050-04	●	1	4	3	50	-
	2010-050-06	●	1	6	3	50	-
	2015-050-04	●	1,5	4	4	50	-
	2015-050-06	●	1,5	6	4	50	-
	2020-050-04	●	2	4	6	50	-
	2020-050-06	●	2	6	6	50	-
	2025-050-04	●	2,5	4	8	50	-
	2025-050-06	●	2,5	6	8	50	-
	2030-050-03	●	3	3	8	50	-
	2030-050-04	●	3	4	8	50	-
	2030-050-06	●	3	6	8	50	-
	2030-075-03	●	3	3	8	75	-
	2030-100-03	●	3	3	8	100	-
	2035-050-04	●	3,5	4	11	50	-
	2035-050-06	●	3,5	6	11	50	-
	2040-050-04	●	4	4	11	50	-
	2040-050-06	●	4	6	11	50	-
	2040-075-04	●	4	4	20	75	-
	2040-100-04	●	4	4	20	100	-
	2050-050-05	●	5	5	13	50	-
2050-050-06	●	5	6	13	50	-	
2050-075-05	●	5	5	20	75	-	
2050-100-05	●	5	5	20	100	-	
2060-050-06	●	6	6	15	50	-	
2060-060-06	●	6	6	15	60	-	
2060-075-06	●	6	6	20	75	-	

DGB

UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGB	2060-100-06	●	6	6	25	100	-
	2060-150-06	●	6	6	40	150	-
	2070-060-08	●	7	8	20	60	-
	2080-060-08	●	8	8	20	60	-
	2080-064-08	●	8	8	20	64	-
	2080-075-08	●	8	8	25	75	-
	2080-100-08	●	8	8	40	100	-
	2080-150-08	●	8	8	40	150	-
	2090-075-10	●	9	10	25	75	-
	2100-075-10	●	10	10	25	75	-
	2100-100-10	●	10	10	40	100	-
	2100-150-10	●	10	10	50	150	-
	2120-075-12	●	12	12	30	75	-
	2120-100-12	●	12	12	45	100	-
	2120-150-12	●	12	12	50	150	-
	2130-100-14	●	13	14	50	100	-
	2140-080-14	●	14	14	40	80	-
	2140-100-14	●	14	14	50	100	-
	2140-150-14	●	14	14	50	150	-
	2150-100-16	●	15	16	45	100	-
	2160-100-16	●	16	16	45	100	-
	2160-150-16	●	16	16	50	150	-
	2170-100-18	●	17	18	45	100	-
	2180-100-18	●	18	18	45	100	-
	2180-150-18	●	18	18	50	150	-
	2200-100-20	●	20	20	45	100	-
	2200-150-20	●	20	20	75	150	-
	4060-050-06	●	6	6	15	50	-
	4080-060-08	●	8	8	16	60	-
	4080-075-08	●	8	8	16	75	-
	4080-100-08	●	8	8	16	100	-
	4100-100-10	●	10	10	20	100	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

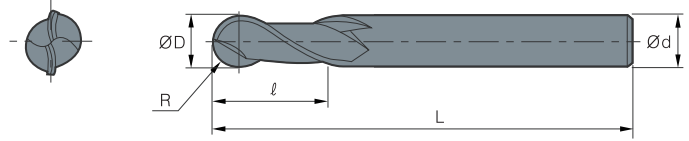
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CARBIDE / ENDMILLS

DXB

UP TO HRC55

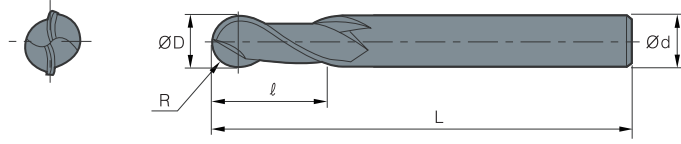


	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
	DXB 2010-050-04	●	1	4	3	50	-
	2010-050-06	●	1	6	3	50	-
	2015-050-03	●	1.5	3	6	50	-
	2015-050-04	●	1,5	4	4	50	-
	2015-050-06	●	1,5	6	4	50	-
	2020-050-04	●	2	4	6	50	-
	2020-050-06	●	2	6	6	50	-
	2025-050-04	●	2,5	4	8	50	-
	2025-050-06	●	2,5	6	8	50	-
	2030-050-03	●	3	3	8	50	-
	2030-050-04	●	3	4	8	50	-
	2030-050-06	●	3	6	8	50	-
	2030-075-03	●	3	3	6	75	-
	2030-100-03	●	3	3	6	100	-
	2035-050-04	●	3,5	4	11	50	-
	2035-050-06	●	3,5	6	11	50	-
	2040-050-04	●	4	4	11	50	-
	2040-050-06	●	4	6	11	50	-
	2040-075-04	●	4	4	20	75	-
	2040-100-04	●	4	4	20	100	-
2050-050-05	●	5	5	13	50	-	
2050-050-06	●	5	6	13	50	-	
2050-075-05	●	5	5	20	75	-	
2050-075-06	●	5	6	13	75	-	
2050-100-05	●	5	5	20	100	-	
2060-050-06	●	6	6	15	50	-	
2060-075-06	●	6	6	20	75	-	

- TURNING
- GROOVING
- THREADING
- MILLING
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- DRILLS
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DXB

UP TO HRC55



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DXB	2060-100-06	●	6	6	25	100	-
	2060-150-06	●	6	6	40	150	-
	2070-060-08	●	7	8	20	60	-
	2080-060-08	●	8	8	20	60	-
	2080-075-08	●	8	8	25	75	-
	2080-100-08	●	8	8	12	100	-
	2080-150-08	●	8	8	40	150	-
	2090-075-10	●	9	10	25	75	-
	2100-075-10	●	10	10	25	75	-
	2100-100-10	●	10	10	40	100	-
	2100-150-10	●	10	10	50	150	-
	2120-075-12	●	12	12	30	75	-
	2120-083-12	●	12	12	25	83	-
	2120-100-12	●	12	12	45	100	-
	2120-150-12	●	12	12	50	150	-
	2140-080-14	●	14	14	40	80	-
	2140-100-14	●	14	14	50	100	-
	2140-150-14	●	14	14	50	150	-
	2160-100-16	●	16	16	45	100	-
	2160-150-16	●	16	16	50	150	-
	2180-100-18	●	18	18	45	100	-
	2180-150-18	●	18	18	50	150	-
	2200-100-20	●	20	20	45	100	-
	2200-150-20	●	20	20	75	150	-
	4020-050-04	●	2	4	6	50	-
	4050-050-06	●	5	6	13	50	-

TURNING

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THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

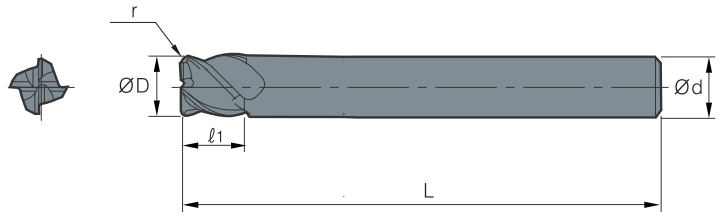
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CARBIDE /ENDMILLS

DGC

UP TO HRC45

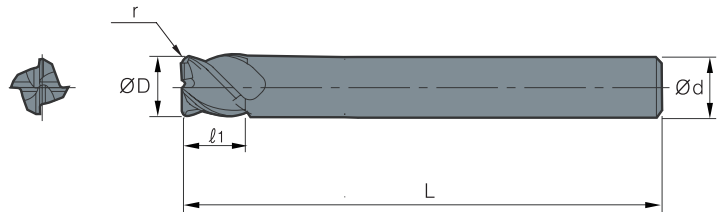


	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGC	4020-050-04-R0.5	●	2	4	6	50	0.5
	4020-050-06-R0.5	●	2	6	6	50	0.5
	4030-050-03-R0.5	●	3	3	8	50	0.5
	4030-050-03-R1.0	●	3	3	8	50	1.0
	4030-050-04-R0.5	●	3	4	8	50	0.5
	4030-050-04-R1.0	●	3	4	8	50	1.0
	4030-050-06-R0.5	●	3	6	8	50	0.5
	4030-050-06-R1.0	●	3	6	8	50	1.0
	4040-050-04-R0.5	●	4	4	11	50	0.5
	4040-050-04-R1.0	●	4	4	11	50	1.0
	4040-050-06-R0.5	●	4	6	11	50	0.5
	4040-050-06-R1.0	●	4	6	11	50	1.0
	4040-075-04-R0.5	●	4	4	11	75	0.5
	4040-075-04-R1.0	●	4	4	11	75	1.0
	4040-100-04-R0.5	●	4	4	11	100	0.5
	4040-100-04-R1.0	●	4	4	11	100	1.0
	4050-050-05-R0.5	●	5	5	13	50	0.5
	4050-050-05-R1.0	●	5	5	13	50	1.0
	4050-050-06-R0.5	●	5	6	13	50	0.5
	4050-050-06-R1.0	●	5	6	13	50	1.0
	4050-075-05-R0.5	●	5	5	13	75	0.5
	4050-075-05-R1.0	●	5	5	13	75	1.0
	4050-100-05-R0.5	●	5	5	13	100	0.5
	4050-100-05-R1.0	●	5	5	13	100	1.0
	4060-050-06-R0.5	●	6	6	15	50	0.5

- TURNING
- GROOVING
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- INDEX

DGC

UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
	DGC 4060-050-06-R1.0	●	6	6	15	50	1.0
	4060-075-06-R0.5	●	6	6	15	75	0.5
	4060-075-06-R1.0	●	6	6	15	75	1.0
	4060-100-06-R0.5	●	6	6	15	100	0.5
	4060-100-06-R1.0	●	6	6	15	100	1.0
	4060-150-06-R0.5	●	6	6	15	150	0.5
	4060-150-06-R1.0	●	6	6	15	150	1.0
	4070-060-08-R0.5	●	7	8	20	60	0.5
	4070-060-08-R1.0	●	7	8	20	60	1.0
	4080-060-08-R0.5	●	8	8	20	60	0.5
	4080-060-08-R1.0	●	8	8	20	60	1.0
	4080-075-08-R0.5	●	8	8	20	75	0.5
	4080-075-08-R1.0	●	8	8	20	75	1.0
	4080-100-08-R0.5	●	8	8	20	100	0.5
	4080-100-08-R1.0	●	8	8	20	100	1.0
	4080-150-08-R0.5	●	8	8	20	150	0.5
	4080-150-08-R1.0	●	8	8	20	150	1.0
	4090-075-10-R0.5	●	9	10	25	75	0.5
	4090-075-10-R1.0	●	9	10	25	75	1.0
	4100-075-10-R0.5	●	10	10	25	75	0.5
4100-075-10-R1.0	●	10	10	25	75	1.0	
4100-100-10-R0.5	●	10	10	25	100	0.5	
4100-100-10-R1.0	●	10	10	25	100	1.0	
4100-150-10-R0.5	●	10	10	25	150	0.5	
4100-150-10-R1.0	●	10	10	25	150	1.0	

TURNING

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DRILLS

HSS
DRILLS & TAPS

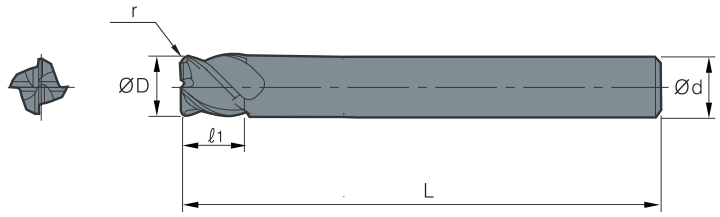
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CARBIDE /ENDMILLS

DGC

UP TO HRC45



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DGC	4120-075-12-R0.5	●	12	12	30	75	0.5
	4120-075-12-R1.0	●	12	12	30	75	1.0
	4120-100-12-R0.5	●	12	12	30	100	0.5
	4120-100-12-R1.0	●	12	12	30	100	1.0
	4120-100-12-R2.0	●	12	12	24	100	2.0
	4120-150-12-R0.5	●	12	12	30	150	0.5
	4120-150-12-R1.0	●	12	12	30	150	1.0
	4140-080-14-R0.5	●	14	14	30	80	0.5
	4140-080-14-R1.0	●	14	14	30	80	1.0
	4140-100-14-R0.5	●	14	14	30	100	0.5
	4140-100-14-R1.0	●	14	14	30	100	1.0
	4140-150-14-R0.5	●	14	14	30	150	0.5
	4140-150-14-R1.0	●	14	14	30	150	1.0
	4160-100-16-R0.5	●	16	16	30	100	0.5
	4160-100-16-R1.0	●	16	16	30	100	1.0
	4160-150-16-R0.5	●	16	16	30	150	0.5
	4160-150-16-R1.0	●	16	16	30	150	1.0
	4180-100-18-R0.5	●	18	18	30	100	0.5
	4180-100-18-R1.0	●	18	18	30	100	1.0
	4180-150-18-R0.5	●	18	18	30	150	0.5
	4180-150-18-R1.0	●	18	18	30	150	1.0
	4200-100-20-R0.5	●	20	20	30	100	0.5
	4200-100-20-R1.0	●	20	20	30	100	1.0
	4200-150-20-R0.5	●	20	20	30	150	0.5
	4200-150-20-R1.0	●	20	20	30	150	1.0

TURNING

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DRILLS

HSS
DRILLS & TAPS

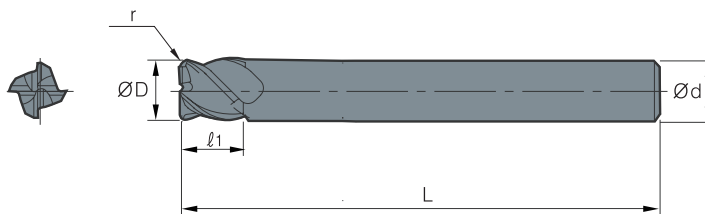
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CARBIDE /ENDMILLS

DXC

UP TO HRC55



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DXC	4020-050-04-R0.5	●	2	4	6	50	0.5
	4020-050-06-R0.5	●	2	6	6	50	0.5
	4030-050-03-R0.5	●	3	3	8	50	0.5
	4030-050-03-R1.0	●	3	3	8	50	1.0
	4030-050-04-R0.5	●	3	4	8	50	0.5
	4030-050-04-R1.0	●	3	4	8	50	1.0
	4030-050-06-R0.5	●	3	6	8	50	0.5
	4030-050-06-R1.0	●	3	6	8	50	1.0
	4030-075-03-R0.5	●	3	3	8	75	0.5
	4030-075-03-R1.0	●	3	3	8	75	1.0
	4030-075-04-R0.5	●	3	4	5	75	0.5
	4030-100-03-R0.5	●	3	3	8	100	0.5
	4030-100-03-R1.0	●	3	3	8	100	1.0
	4040-050-04-R0.5	●	4	4	11	50	0.5
	4040-050-04-R1.0	●	4	4	11	50	1.0
	4040-050-06-R0.5	●	4	6	11	50	0.5
	4040-050-06-R1.0	●	4	6	11	50	1.0
	4040-075-04-R0.5	●	4	4	11	75	0.5
	4040-075-04-R1.0	●	4	4	11	75	1.0
	4040-100-04-R0.5	●	4	4	11	100	0.5
	4040-100-04-R1.0	●	4	4	11	100	1.0
	4050-050-05-R0.5	●	5	5	13	50	0.5
	4050-050-05-R1.0	●	5	5	13	50	1.0
	4050-050-06-R0.5	●	5	6	13	50	0.5
	4050-050-06-R1.0	●	5	6	13	50	1.0
	4050-075-05-R0.5	●	5	5	13	75	0.5
	4050-075-05-R1.0	●	5	5	13	75	1.0
	4050-100-05-R0.5	●	5	5	13	100	0.5
	4050-100-05-R1.0	●	5	5	13	100	1.0
	4060-050-06-R0.5	●	6	6	15	50	0.5

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

HSS
DRILLS & TAPS

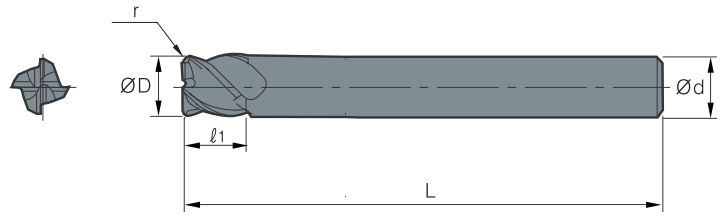
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CARBIDE /ENDMILLS

DXC

UP TO HRC55

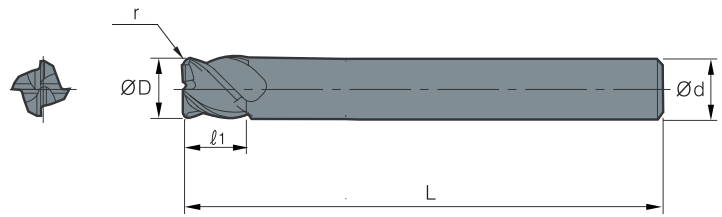


	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DXC	4060-050-06-R1.0	●	6	6	15	50	1.0
	4060-075-06-R0.5	●	6	6	15	75	0.5
	4060-075-06-R1.0	●	6	6	15	75	1.0
	4060-100-06-R0.5	●	6	6	15	100	0.5
	4060-100-06-R1.0	●	6	6	15	100	1.0
	4060-150-06-R0.5	●	6	6	15	150	0.5
	4060-150-06-R1.0	●	6	6	15	150	1.0
	4070-060-08-R0.5	●	7	8	20	60	0.5
	4070-060-08-R1.0	●	7	8	20	60	1.0
	4080-060-08-R0.5	●	8	8	20	60	0.5
	4080-060-08-R1.0	●	8	8	20	60	1.0
	4080-060-08-R2.0	●	8	8	20	60	2.0
	4080-064-08-R0.5	●	8	8	20	64	0.5
	4080-064-08-R1.0	●	8	8	20	64	1.0
	4080-075-08-R0.5	●	8	8	20	75	0.5
	4080-075-08-R1.0	●	8	8	20	75	1.0
	4080-100-08-R0.5	●	8	8	20	100	0.5
	4080-100-08-R1.0	●	8	8	20	100	1.0
	4080-150-08-R0.5	●	8	8	20	150	0.5
	4080-150-08-R1.0	●	8	8	20	150	1.0
	4090-075-10-R0.5	●	9	10	25	75	0.5
	4090-075-10-R1.0	●	9	10	25	75	1.0
	4100-075-10-R0.5	●	10	10	25	75	0.5
	4100-075-10-R1.0	●	10	10	25	75	1.0
	4100-075-10-R2.0	●	10	10	20	75	2.0
	4100-100-10-R0.5	●	10	10	25	100	0.5
	4100-100-10-R1.0	●	10	10	25	100	1.0
	4100-150-10-R0.5	●	10	10	25	150	0.5
4100-150-10-R1.0	●	10	10	25	150	1.0	

CARBIDE /ENDMILLS

DWC

UP TO HRC68



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
DWC	4020-050-04-R0.5	●	2	4	6	50	0.5
	4020-050-06-R0.5	●	2	6	6	50	0.5
	4030-050-03-R0.5	●	3	3	8	50	0.5
	4030-050-03-R1.0	●	3	3	8	50	1.0
	4030-050-04-R0.5	●	3	4	8	50	0.5
	4030-050-04-R1.0	●	3	4	8	50	1.0
	4030-050-06-R0.5	●	3	6	8	50	0.5
	4030-050-06-R1.0	●	3	6	8	50	1.0
	4040-050-04-R0.5	●	4	4	11	50	0.5
	4040-050-04-R1.0	●	4	4	11	50	1.0
	4040-050-06-R0.5	●	4	6	11	50	0.5
	4040-050-06-R1.0	●	4	6	11	50	1.0
	4040-075-04-R0.5	●	4	4	11	75	0.5
	4040-075-04-R1.0	●	4	4	11	75	1.0
	4040-100-04-R0.5	●	4	4	11	100	0.5
	4040-100-04-R1.0	●	4	4	11	100	1.0
	4030-075-03-R0.5	●	3	3	20	75	0.5
	4030-075-03-R1.0	●	3	3	20	75	1.0
	4030-100-03-R0.5	●	3	3	20	100	0.5
	4030-100-03-R1.0	●	3	3	20	100	1.0
	4050-050-05-R0.5	●	5	5	13	50	0.5
	4050-050-05-R1.0	●	5	5	13	50	1.0
	4050-050-06-R0.5	●	5	6	13	50	0.5
	4050-050-06-R1.0	●	5	6	13	50	1.0
	4050-075-05-R0.5	●	5	5	13	75	0.5
	4050-075-05-R1.0	●	5	5	13	75	1.0
	4050-100-05-R0.5	●	5	5	13	100	0.5
	4050-100-05-R1.0	●	5	5	13	100	1.0
	4060-050-06-R0.5	●	6	6	15	50	0.5

TURNING

GROOVING

THREADING

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ENDMILLS

DRILLS

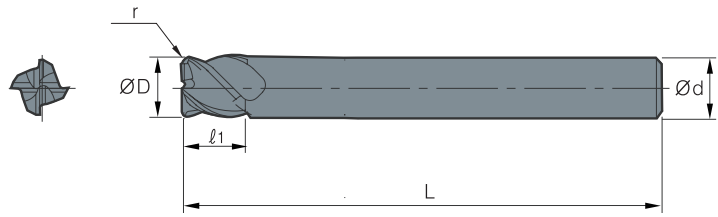
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DWC

UP TO HRC68



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
	DWC 4060-050-06-R1.0	●	6	6	15	50	1.0
	4060-075-06-R0.5	●	6	6	15	75	0.5
	4060-075-06-R1.0	●	6	6	15	75	1.0
	4060-100-06-R0.5	●	6	6	15	100	0.5
	4060-100-06-R1.0	●	6	6	15	100	1.0
	4060-150-06-R0.5	●	6	6	15	150	0.5
	4060-150-06-R1.0	●	6	6	15	150	1.0
	4070-060-08-R0.5	●	7	8	20	60	0.5
	4070-060-08-R1.0	●	7	8	20	60	1.0
	4080-060-08-R0.5	●	8	8	20	60	0.5
	4080-060-08-R1.0	●	8	8	20	60	1.0
	4080-075-08-R0.5	●	8	8	20	75	0.5
	4080-075-08-R1.0	●	8	8	20	75	1.0
	4080-100-08-R0.5	●	8	8	20	100	0.5
	4080-100-08-R1.0	●	8	8	20	100	1.0
	4080-150-08-R0.5	●	8	8	20	150	0.5
	4080-150-08-R1.0	●	8	8	20	150	1.0
	4090-075-10-R0.5	●	9	10	25	75	0.5
	4090-075-10-R1.0	●	9	10	25	75	1.0
	4100-075-10-R0.5	●	10	10	25	75	0.5
	4100-075-10-R1.0	●	10	10	25	75	1.0
	4100-100-10-R0.5	●	10	10	25	100	0.5
	4100-100-10-R1.0	●	10	10	25	100	1.0
	4100-150-10-R0.5	●	10	10	25	150	0.5
	4100-150-10-R1.0	●	10	10	25	150	1.0

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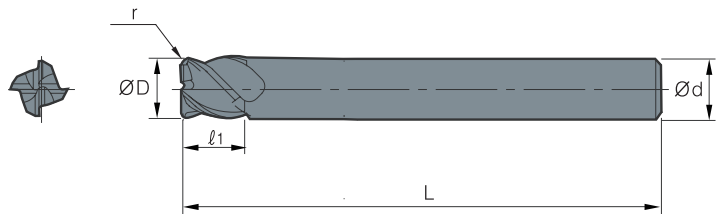
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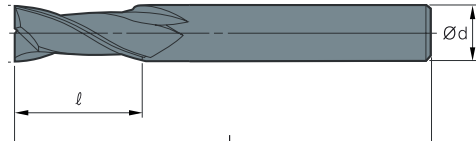
	DESCRIPTION	STOCK	DIMENSIONS					
			ØD	Ød	l	L	r	
	DWC	4120-075-12-R0.5	●	12	12	30	75	0.5
		4120-075-12-R1.0	●	12	12	30	75	1.0
		4120-100-12-R0.5	●	12	12	30	100	0.5
		4120-100-12-R1.0	●	12	12	30	100	1.0
		4120-150-12-R0.5	●	12	12	30	150	0.5
		4120-150-12-R1.0	●	12	12	30	150	1.0
		4140-080-14-R0.5	●	14	14	30	80	0.5
		4140-080-14-R1.0	●	14	14	30	80	1.0
		4140-100-14-R0.5	●	14	14	30	100	0.5
		4140-100-14-R1.0	●	14	14	30	100	1.0
		4140-150-14-R0.5	●	14	14	30	150	0.5
		4140-150-14-R1.0	●	14	14	30	150	1.0
		4160-100-16-R0.5	●	16	16	30	100	0.5
		4160-100-16-R1.0	●	16	16	30	100	1.0
		4160-150-16-R0.5	●	16	16	30	150	0.5
		4160-150-16-R1.0	●	16	16	30	150	1.0
		4180-100-18-R0.5	●	18	18	30	100	0.5
		4180-100-18-R1.0	●	18	18	30	100	1.0
		4180-150-18-R0.5	●	18	18	30	150	0.5
		4180-150-18-R1.0	●	18	18	30	150	1.0
	4200-100-20-R0.5	●	20	20	30	100	0.5	
	4200-100-20-R1.0	●	20	20	30	100	1.0	
	4200-150-20-R0.5	●	20	20	30	150	0.5	
	4200-150-20-R1.0	●	20	20	30	150	1.0	

CARBIDE /ENDMILLS

DGA

2Z

UNCOATED CARBIDE



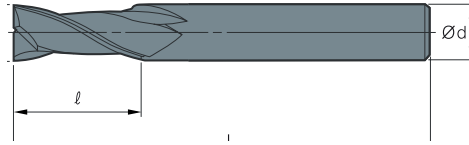
	DESCRIPTION	STOCK	DIMENSIONS					
			ØD	Ød	l	L	r	
	DGA	2060-100-06	●	6	6	25	100	-
		2060-150-06	●	6	6	40	150	-
		2080-060-08	●	8	8	20	60	-
		2080-075-08	●	8	8	25	75	-
		2080-100-08	●	8	8	40	100	-
		2080-150-08	●	8	8	40	150	-
		2100-075-10	●	10	10	25	75	-
		2100-100-10	●	10	10	40	100	-
		2100-150-10	●	10	10	50	150	-
		2120-075-12	●	12	12	30	75	-
		2120-100-12	●	12	12	45	100	-
		2120-150-12	●	12	12	50	150	-
		2140-080-14	●	14	14	40	80	-
		2140-100-14	●	14	14	50	100	-
		2140-150-14	●	14	14	50	150	-
		2160-100-16	●	16	16	45	100	-
		2160-150-16	●	16	16	50	150	-
		2180-100-18	●	18	18	45	100	-
		2180-150-18	●	18	18	50	150	-
		2200-100-20	●	20	20	45	100	-
	2200-150-20	●	20	20	75	150	-	

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DGA

3Z

UNCOATED CARBIDE



	DESCRIPTION	STOCK	DIMENSIONS				
			ØD	Ød	l	L	r
	DGA 3010-050-04	●	1	4	3	50	-
	3010-050-06	●	1	6	3	50	-
	3015-050-06	●	1.5	6	3	50	-
	3020-050-04	●	2	4	6	50	-
	3020-050-06	●	2	6	6	50	-
	3030-050-03	●	3	3	8	50	-
	3030-050-04	●	3	4	8	50	-
	3030-050-06	●	3	6	8	50	-
	3040-050-04	●	4	4	11	50	-
	3040-050-06	●	4	6	11	50	-
	3040-075-04	●	4	4	20	75	-
	3040-100-04	●	4	4	20	100	-
	3050-050-05	●	5	5	13	50	-
	3050-050-06	●	5	6	13	50	-
	3050-075-05	●	5	5	20	75	-
	3050-100-05	●	5	5	20	100	-
	3060-050-06	●	6	6	15	50	-
	3060-075-06	●	6	6	20	75	-

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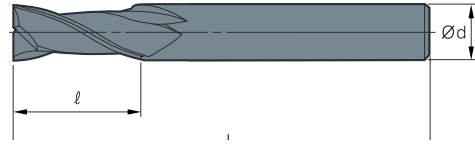
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UNCOATED CARBIDE



	DESCRIPTION	STOCK	DIMENSIONS					
			ØD	Ød	l	L	r	
	DGA	3060-100-06	●	6	6	25	100	-
		3060-150-06	●	6	6	40	150	-
		3080-060-08	●	8	8	20	60	-
		3080-075-08	●	8	8	25	75	-
		3080-100-08	●	8	8	40	100	-
		3080-150-08	●	8	8	40	150	-
		3100-075-10	●	10	10	25	75	-
		3100-100-10	●	10	10	40	100	-
		3100-150-10	●	10	10	50	150	-
		3120-075-12	●	12	12	30	75	-
		3120-100-12	●	12	12	45	100	-
		3120-150-12	●	12	12	50	150	-
		3140-080-14	●	14	14	40	80	-
		3140-100-14	●	14	14	50	100	-
		3140-150-14	●	14	14	50	150	-
		3160-100-16	●	16	16	45	100	-
		3160-150-16	●	16	16	60	150	-
		3180-100-18	●	18	18	45	100	-
		3180-150-18	●	18	18	50	150	-
		3200-100-20	●	20	20	45	100	-
	3200-150-20	●	20	20	75	150	-	

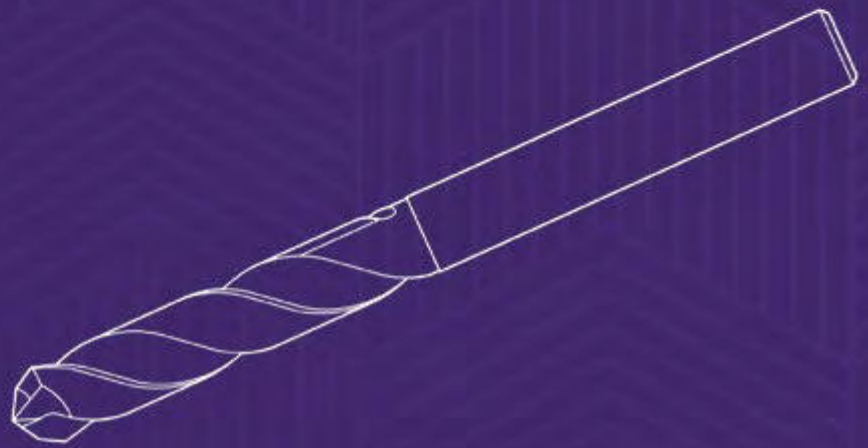


DRILLS /

carbide /447

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter "e". Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

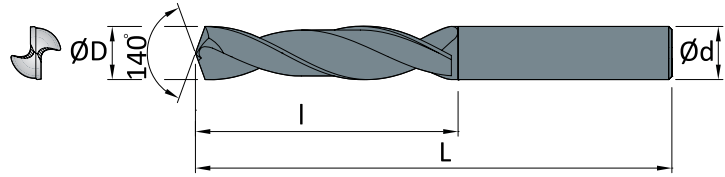
Sangeo
cutting tools



DRILLS/**CARBIDE**

CARBIDE /DRILLS

DSD 3XD

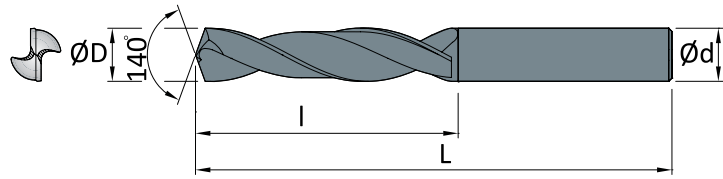


DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DSD 2010-35-3	•	1.0	7	35	3
2011-35-3	•	1.1	7	35	3
2012-35-3	•	1.2	8	35	3
2013-35-3	•	1.3	8	35	3
2014-35-3	•	1.4	9	35	3
2015-40-3	•	1.5	9	40	3
2016-40-3	•	1.6	10	40	3
2017-40-3	•	1.7	10	40	3
2018-40-3	•	1.8	11	40	3
2019-40-3	•	1.9	11	40	3
2020-45-3	•	2.0	13	45	3
2021-45-3	•	2.1	13	45	3
2022-45-3	•	2.2	13	45	3
2023-45-3	•	2.3	13	45	3
2024-45-3	•	2.4	15	45	3
2025-50-3	•	2.5	15	50	3
2026-50-3	•	2.6	15	50	3
2027-50-3	•	2.7	17	50	3
2028-50-3	•	2.8	17	50	3
2029-50-3	•	2.9	17	50	3
2030-62-6	•	3.0	20	62	6
2031-62-6	•	3.1	20	62	6
2032-62-6	•	3.2	20	62	6
2033-62-6	•	3.3	20	62	6
2034-62-6	•	3.4	20	62	6
2035-62-6	•	3.5	20	62	6

DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DSD 2036-62-6	•	3.6	20	62	6
2037-62-6	•	3.7	20	62	6
2038-66-6	•	3.8	24	66	6
2039-66-6	•	3.9	24	66	6
2040-66-6	•	4.0	24	66	6
2041-66-6	•	4.1	24	66	6
2042-66-6	•	4.2	24	66	6
2043-66-6	•	4.3	24	66	6
2044-66-6	•	4.4	24	66	6
2045-66-6	•	4.5	24	66	6
2046-66-6	•	4.6	24	66	6
2047-66-6	•	4.7	24	66	6
2048-66-6	•	4.8	28	66	6
2049-66-6	•	4.9	28	66	6
2050-66-6	•	5.0	28	66	6
2051-66-6	•	5.1	28	66	6
2052-66-6	•	5.2	28	66	6
2053-66-6	•	5.3	28	66	6
2054-66-6	•	5.4	28	66	6
2055-66-6	•	5.5	28	66	6
2056-66-6	•	5.6	28	66	6
2057-66-6	•	5.7	28	66	6
2058-66-6	•	5.8	28	66	6
2059-66-6	•	5.9	28	66	6
2060-66-6	•	6.0	28	66	6
2061-79-8	•	6.1	34	79	8

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DSD 3XD



DESCRIPTION	STOCK	DIMENSIONS			
		ØD	I	L	Ød
DSD 2062-79-8	•	6.2	34	79	8
2063-79-8	•	6.3	34	79	8
2064-79-8	•	6.4	34	79	8
2065-79-8	•	6.5	34	79	8
2066-79-8	•	6.6	34	79	8
2067-79-8	•	6.7	34	79	8
2068-79-8	•	6.8	34	79	8
2069-79-8	•	6.9	34	79	8
2070-79-8	•	7.0	34	79	8
2071-79-8	•	7.1	41	79	8
2072-79-8	•	7.2	41	79	8
2073-79-8	•	7.3	41	79	8
2074-79-8	•	7.4	41	79	8
2075-79-8	•	7.5	41	79	8
2076-79-8	•	7.6	41	79	8
2077-79-8	•	7.7	41	79	8
2078-79-8	•	7.8	41	79	8
2079-79-8	•	7.9	41	79	8
2080-79-8	•	8.0	41	79	8
2081-89-10	•	8.1	47	89	10
2082-89-10	•	8.2	47	89	10
2083-89-10	•	8.3	47	89	10
2084-89-10	•	8.4	47	89	10
2085-89-10	•	8.5	47	89	10
2086-89-10	•	8.6	47	89	10
2087-89-10	•	8.7	47	89	10

DESCRIPTION	STOCK	DIMENSIONS			
		ØD	I	L	Ød
DSD 2088-89-10	•	8.8	47	89	10
2089-89-10	•	8.9	47	89	10
2090-89-10	•	9.0	47	89	10
2091-89-10	•	9.1	47	89	10
2092-89-10	•	9.2	47	89	10
2093-89-10	•	9.3	47	89	10
2094-89-10	•	9.4	47	89	10
2095-89-10	•	9.5	47	89	10
2096-89-10	•	9.6	47	89	10
2097-89-10	•	9.7	47	89	10
2098-89-10	•	9.8	47	89	10
2099-89-10	•	9.9	47	89	10
2100-89-10	•	10.0	47	89	10
2101-102-12	•	10.1	55	102	12
2102-102-12	•	10.2	55	102	12
2103-102-12	•	10.3	55	102	12
2104-102-12	•	10.4	55	102	12
2105-102-12	•	10.5	55	102	12
2106-102-12	•	10.6	55	102	12
2107-102-12	•	10.7	55	102	12
2108-102-12	•	10.8	55	102	12
2109-102-12	•	10.9	55	102	12
2110-102-12	•	11.0	55	102	12
2111-102-12	•	11.1	55	102	12
2112-102-12	•	11.2	55	102	12
2113-102-12	•	11.3	55	102	12

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

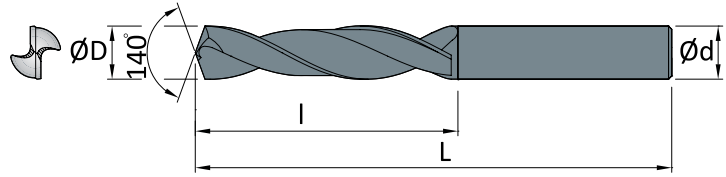
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CARBIDE /DRILLS

DSD

3XD

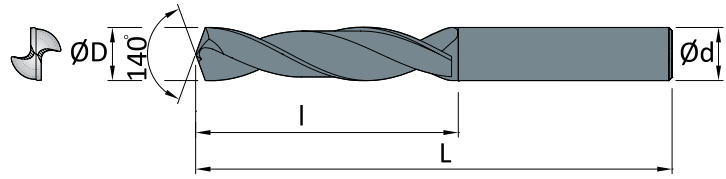


DESCRIPTION	STOCK	DIMENSIONS				
		ØD	l	L	Ød	
DSD	2114-102-12	•	11.4	55	102	12
	2115-102-12	•	11.5	55	102	12
	2116-102-12	•	11.6	55	102	12
	2117-102-12	•	11.7	55	102	12
	2118-102-12	•	11.8	55	102	12
	2119-102-12	•	11.9	55	102	12
	2120-102-12	•	12.0	55	102	12
	2121-107-14	•	12.1	60	107	14
	2122-107-14	•	12.2	60	107	14
	2123-107-14	•	12.3	60	107	14
	2124-107-14	•	12.4	60	107	14
	2125-107-14	•	12.5	60	107	14
	2126-107-14	•	12.6	60	107	14
	2127-107-14	•	12.7	60	107	14
	2128-107-14	•	12.8	60	107	14
	2129-107-14	•	12.9	60	107	14
	2130-107-14	•	13.0	60	107	14
	2131-107-14	•	13.1	60	107	14
	2132-107-14	•	13.2	60	107	14
	2133-107-14	•	13.3	60	107	14
	2134-107-14	•	13.4	60	107	14
	2135-107-14	•	13.5	60	107	14
	2140-107-14	•	14.0	60	107	14
	2145-115-16	•	14.5	65	115	16
	2150-115-16	•	15.0	65	115	16
	2155-115-16	•	15.5	65	115	16

DESCRIPTION	STOCK	DIMENSIONS				
		ØD	l	L	Ød	
DSD	2160-115-16	•	16.0	65	115	16
	2165-123-18	•	16.5	73	123	18
	2170-123-18	•	17.0	73	123	18
	2175-123-18	•	17.5	73	123	18
	2180-123-18	•	18.0	73	123	18
	2185-131-20	•	18.5	79	131	20
	2190-131-20	•	19.0	79	131	20
	2195-131-20	•	19.5	79	131	20
	2200-131-20	•	20.0	79	131	20
	2210-151-25	•	21.0	93	151	25
	2220-151-25	•	22.0	93	151	25
	2230-153-25	•	23.0	96	153	25
	2240-153-25	•	24.0	96	153	25
	2250-153-25	•	25.0	96	153	25

- TURNING
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DLD 5XD



DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DLD 2010-38-3	•	1.0	9	38	3
2011-38-3	•	1.1	9	38	3
2012-38-3	•	1.2	11	38	3
2013-38-3	•	1.3	11	38	3
2014-38-3	•	1.4	12	38	3
2015-45-3	•	1.5	12	45	3
2016-45-3	•	1.6	14	45	3
2017-45-3	•	1.7	14	45	3
2018-45-3	•	1.8	16	45	3
2019-45-3	•	1.9	16	45	3
2020-50-3	•	2.0	18	50	3
2021-50-3	•	2.1	18	50	3
2022-52-3	•	2.2	20	52	3
2023-52-3	•	2.3	20	52	3
2024-52-3	•	2.4	22	52	3
2025-56-3	•	2.5	22	56	3
2026-56-3	•	2.6	22	56	3
2027-56-3	•	2.7	23	56	3
2028-56-3	•	2.8	23	56	3
2029-56-3	•	2.9	23	56	3
2030-66-6	•	3.0	28	66	6
2031-66-6	•	3.1	28	66	6
2032-66-6	•	3.2	28	66	6
2033-66-6	•	3.3	28	66	6
2034-66-6	•	3.4	28	66	6
2035-66-6	•	3.5	28	66	6

DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DLD 2036-74-6	•	3.6	36	74	6
2037-74-6	•	3.7	36	74	6
2038-74-6	•	3.8	36	74	6
2039-74-6	•	3.9	36	74	6
2040-74-6	•	4.0	36	74	6
2041-74-6	•	4.1	36	74	6
2042-74-6	•	4.2	36	74	6
2043-74-6	•	4.3	36	74	6
2044-74-6	•	4.4	36	74	6
2045-74-6	•	4.5	36	74	6
2046-74-6	•	4.6	36	74	6
2047-74-6	•	4.7	36	74	6
2048-82-6	•	4.8	44	82	6
2049-82-6	•	4.9	44	82	6
2050-82-6	•	5.0	44	82	6
2051-82-6	•	5.1	44	82	6
2052-82-6	•	5.2	44	82	6
2053-82-6	•	5.3	44	82	6
2054-82-6	•	5.4	44	82	6
2055-82-6	•	5.5	44	82	6
2056-82-6	•	5.6	44	82	6
2057-82-6	•	5.7	44	82	6
2058-82-6	•	5.8	44	82	6
2059-82-6	•	5.9	44	82	6
2060-82-6	•	6.0	44	82	6
2061-91-8	•	6.1	53	91	8

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ENDMILLS

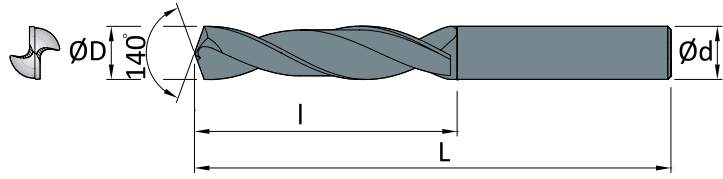
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DLD 5XD

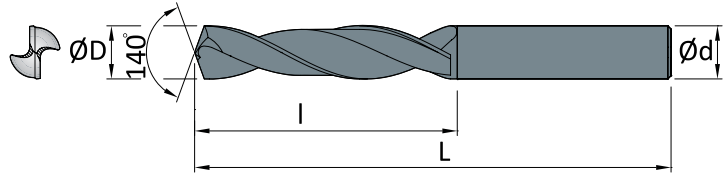


DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DLD 2062-91-8	●	6.2	53	91	8
2063-91-8	●	6.3	53	91	8
2064-91-8	●	6.4	53	91	8
2065-91-8	●	6.5	53	91	8
2066-91-8	●	6.6	53	91	8
2067-91-8	●	6.7	53	91	8
2068-91-8	●	6.8	53	91	8
2069-91-8	●	6.9	53	91	8
2070-91-8	●	7.0	53	91	8
2071-91-8	●	7.1	53	91	8
2072-91-8	●	7.2	53	91	8
2073-91-8	●	7.3	53	91	8
2074-91-8	●	7.4	53	91	8
2075-91-8	●	7.5	53	91	8
2076-91-8	●	7.6	53	91	8
2077-91-8	●	7.7	53	91	8
2078-91-8	●	7.8	53	91	8
2079-91-8	●	7.9	53	91	8
2080-91-8	●	8.0	53	91	8
2081-103-10	●	8.1	61	103	10
2082-103-10	●	8.2	61	103	10
2083-103-10	●	8.3	61	103	10
2084-103-10	●	8.4	61	103	10
2085-103-10	●	8.5	61	103	10
2086-103-10	●	8.6	61	103	10
2087-103-10	●	8.7	61	103	10

DESCRIPTION	STOCK	DIMENSIONS			
		ØD	l	L	Ød
DLD 2088-103-10	●	8.8	61	103	10
2089-103-10	●	8.9	61	103	10
2090-103-10	●	9.0	61	103	10
2091-103-10	●	9.1	61	103	10
2092-103-10	●	9.2	61	103	10
2093-103-10	●	9.3	61	103	10
2094-103-10	●	9.4	61	103	10
2095-103-10	●	9.5	61	103	10
2096-103-10	●	9.6	61	103	10
2097-103-10	●	9.7	61	103	10
2098-103-10	●	9.8	61	103	10
2099-103-10	●	9.9	61	103	10
2100-103-10	●	10.0	61	103	10
2101-118-12	●	10.1	71	118	12
2102-118-12	●	10.2	71	118	12
2103-118-12	●	10.3	71	118	12
2104-118-12	●	10.4	71	118	12
2105-118-12	●	10.5	71	118	12
2106-118-12	●	10.6	71	118	12
2107-118-12	●	10.7	71	118	12
2108-118-12	●	10.8	71	118	12
2109-118-12	●	10.9	71	118	12
2110-118-12	●	11.0	71	118	12
2111-118-12	●	11.1	71	118	12
2112-118-12	●	11.2	71	118	12
2113-118-12	●	11.3	71	118	12

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DLD 5XD



DESCRIPTION	STOCK	DIMENSIONS				
		ØD	I	L	Ød	
DLD	2114-118-12	•	11.4	71	118	12
	2115-118-12	•	11.5	71	118	12
	2116-118-12	•	11.6	71	118	12
	2117-118-12	•	11.7	71	118	12
	2118-118-12	•	11.8	71	118	12
	2119-118-12	•	11.9	71	118	12
	2120-118-12	•	12.0	71	118	12
	2121-124-14	•	12.1	77	124	14
	2122-124-14	•	12.2	77	124	14
	2123-124-14	•	12.3	77	124	14
	2124-124-14	•	12.4	77	124	14
	2125-124-14	•	12.5	77	124	14
	2126-124-14	•	12.6	77	124	14
	2127-124-14	•	12.7	77	124	14
	2128-124-14	•	12.8	77	124	14
	2129-124-14	•	12.9	77	124	14
	2130-124-14	•	13.0	77	124	14
	2131-124-14	•	13.1	77	124	14
	2132-124-14	•	13.2	77	124	14
	2133-124-14	•	13.3	77	124	14
	2134-124-14	•	13.4	77	124	14
	2135-124-14	•	13.5	77	124	14
	2140-124-14	•	14.0	77	124	14
	2145-133-16	•	14.5	83	133	16
	2150-133-16	•	15.0	83	133	16
	2155-133-16	•	15.5	83	133	16

DESCRIPTION	STOCK	DIMENSIONS				
		ØD	I	L	Ød	
DLD	2160-133-16	•	16.0	83	133	16
	2165-143-18	•	16.5	93	143	18
	2170-143-18	•	17.0	93	143	18
	2175-143-18	•	17.5	93	143	18
	2180-143-18	•	18.0	93	143	18
	2185-153-20	•	18.5	101	153	20
	2190-153-20	•	19.0	101	153	20
	2195-153-20	•	19.5	101	153	20
	2200-153-20	•	20.0	101	153	20
	2210-200-25	•	21.0	140	200	25
	2220-200-25	•	22.0	140	200	25
	2230-200-25	•	23.0	140	200	25
	2240-200-25	•	24.0	140	200	25
	2250-200-25	•	25.0	140	200	25

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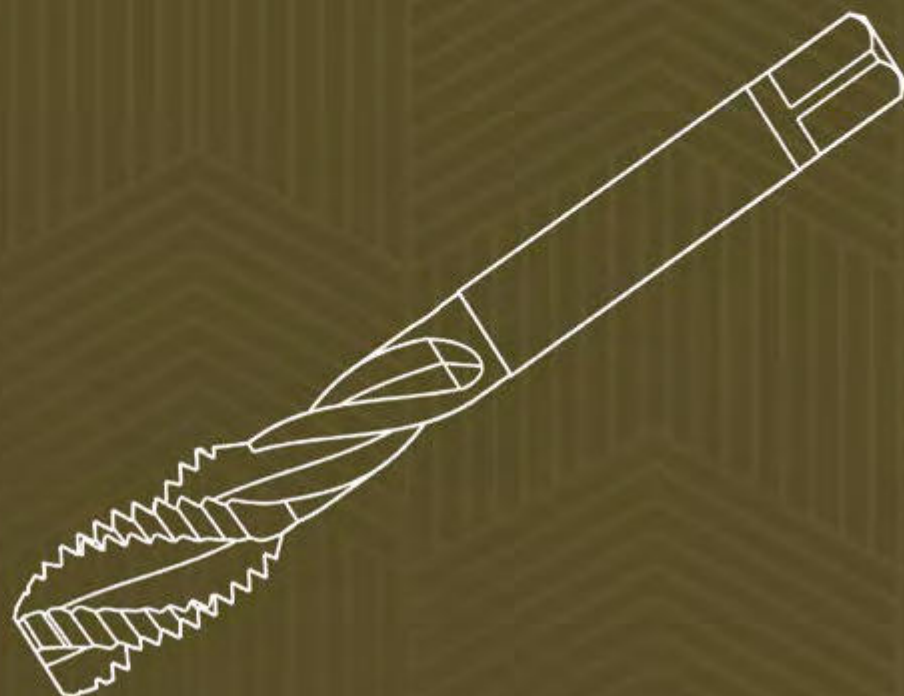
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The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. A small white icon of a curved blade is positioned above the letter 'e'. Below "Sangeo", the words "cutting tools" are written in a smaller, white, sans-serif font.

Sangeo
cutting tools



HSS /

HSS Taps /458

HSS Drills /476

HSS Reamers /481

HSS Others /485



Sangeo
culling tools



HSS/**TAPS**

Metric /458

Metric Fine /462

UNC /466

UNF /468

HSS- PM & HSS-E / TAPS

TURNING

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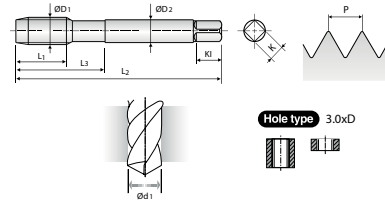
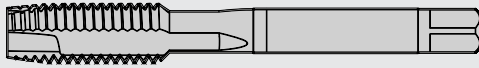
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M

SPIRAL POINT TAPS for Stainless Steels
ISO Metric coarse threads DIN 13



WORKING MATERIAL	M STAINLESS STEELS	HSS-PM	HSS-E	DIN 371/376	6H	60°	B	VAP
		UP TO M12	OVER M12	Unit : mm				

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M2	0.4	IZ0428I0001	8	45	13	2.8	2.1	5	3	1.6
M2.2	0.45	IZ0428I0002	8	45	13	2.8	2.1	5	3	1.75
M2.3	0.4	IZ0428I0003	8	45	13	2.8	2.1	5	3	1.9
M2.5	0.45	IZ0428I0004	9	50	15	2.8	2.1	5	3	2.05
M2.6	0.45	IZ0428I0005	9	50	15	2.8	2.1	5	3	2.1
M3	0.5	IZ0428I0006	11	56	18	3.5	2.7	6	3	2.5
M3.5	0.6	IZ0428I0007	12	56	20	4	3	6	3	2.9
M4	0.7	IZ0428I0008	13	63	21	4.5	3.4	6	3	3.3
M4.5	0.75	IZ0428I0009	14	70	25	6	4.9	8	3	3.7
M5	0.8	IZ0428I0010	15	70	25	6	4.9	8	3	4.2
M6	1.0	IZ0428I0011	17	80	30	6	4.9	8	3	5
M7	1.0	IZ0428I0012	17	80	30	7	5.5	8	3	6
M8	1.25	IZ0428I0013	20	90	35	8	6.2	9	3	6.8
M9	1.25	IZ0428I0014	20	90	35	9	7	10	3	7.8
M10	1.5	IZ0428I0015	22	100	39	10	8	11	3	8.5
M11	1.5	IZ0428I0016	22	100	40	8	6.2	9	3	9.5
M12	1.75	IZ0428I0017	24	110	44	9	7	10	3	10.2
M14	2.0	IZ1428I0001	26	110	44	11	9	12	3	12
M16	2.0	IZ1428I0002	27	110	44	12	9	12	3	14
M18	2.5	IZ1428I0003	30	125	50	14	11	14	4	15.5
M20	2.5	IZ1428I0004	32	140	54	16	12	15	4	17.5
M22	2.5	IZ1428I0005	32	140	54	18	14.5	17	4	19.5
M24	3.0	IZ1428I0006	34	160	60	18	14.5	17	4	21
M27	3.0	IZ1428I0007	36	160	60	20	16	19	4	24
M30	3.5	IZ1428I0008	40	180	70	22	18	21	4	26.5

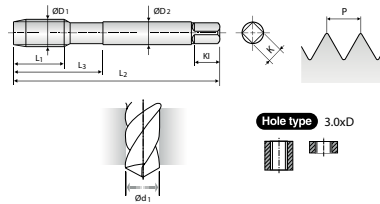
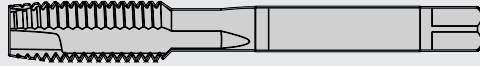
Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

HSS-E / TAPS

M

SPIRAL POINT TAPS for Multi-Purpose
ISO Metric coarse threads DIN 13



WORKING MATERIAL
UNI
MULTI PURPOSE

HSS-E DIN 371/376 6H 60° B BRIGHT

Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
M2	0.4	IZ0814I0001	8	45	13	2.8	2.1	5	3	1.6
M2.2	0.45	IZ0814I0002	8	45	13	2.8	2.1	5	3	1.75
M2.3	0.4	IZ0814I0003	8	45	13	2.8	2.1	5	3	1.9
M2.5	0.45	IZ0814I0004	9	50	15	2.8	2.1	5	3	2.05
M2.6	0.45	IZ0814I0005	9	50	15	2.8	2.1	5	3	2.1
M3	0.5	IZ0814I0006	6	56	18	3.5	2.7	6	3	2.5
M3.5	0.6	IZ0814I0007	7	56	20	4	3	6	3	2.9
M4	0.7	IZ0814I0008	7	63	21	4.5	3.4	6	3	3.3
M4.5	0.75	IZ0814I0009	8	70	25	6	4.9	8	3	3.7
M5	0.8	IZ0814I0010	8	70	25	6	4.9	8	3	4.2
M6	1.0	IZ0814I0011	10	80	30	6	4.9	8	3	5
M7	1.0	IZ0814I0012	10	80	30	7	5.5	8	3	6
M8	1.25	IZ0814I0013	13	90	35	8	6.2	9	3	6.8
M9	1.25	IZ0814I0014	13	90	35	9	7	10	3	7.8
M10	1.5	IZ0814I0015	15	100	39	10	8	11	3	8.5
M11	1.5	IZ0814I0016	17	100	40	8	6.2	9	3	9.5
M12	1.75	IZ0814I0017	18	110	44	9	7	10	3	10.2
M14	2.0	IZ1814I0001	20	110	44	11	9	12	3	12
M16	2.0	IZ1814I0002	20	110	44	12	9	12	3	14
M18	2.5	IZ1814I0003	25	125	50	14	11	14	4	15.5
M20	2.5	IZ1814I0004	25	140	54	16	12	15	4	17.5
M22	2.5	IZ1814I0005	25	140	54	18	14.5	17	4	19.5
M24	3.0	IZ1814I0006	30	160	60	18	14.5	17	4	21
M27	3.0	IZ1814I0007	30	160	60	20	16	19	4	24
M30	3.5	IZ1814I0008	35	180	70	22	18	21	4	26.5

Unit : N/mm²

⊙ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
⊙	⊙	⊙	⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				⊙	⊙	⊙			⊙	⊙	⊙			

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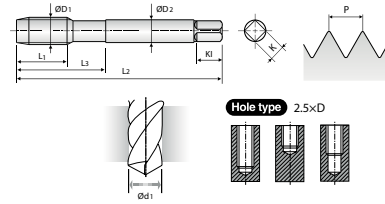
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M

SPIRAL FLUTE TAPS for Stainless Steels
ISO Metric coarse threads DIN 13



WORKING MATERIAL	M STAINLESS STEELS	HSS-PM	HSS-E	DIN 371/376	6H	60°	B	VAP	R45
		UP TO M12	OVER M12	Unit : mm					

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M2	0.4	IZ1744I0001	8	45	13	2.8	2.1	5	2	1.6
M2.2	0.45	IZ1744I0002	8	45	13	2.8	2.1	5	2	1.75
M2.3	0.4	IZ1744I0003	8	45	13	2.8	2.1	5	2	1.9
M2.5	0.45	IZ1744I0004	9	50	15	2.8	2.1	5	2	2.05
M2.6	0.45	IZ1744I0005	9	50	15	2.8	2.1	5	2	2.1
M3	0.5	IZ1744I0006	6	56	18	3.5	2.7	6	3	2.5
M3.5	0.6	IZ1744I0007	7	56	20	4	3	6	3	2.9
M4	0.7	IZ1744I0008	7	63	21	4.5	3.4	6	3	3.3
M4.5	0.75	IZ1744I0009	8	70	25	6	4.9	8	3	3.7
M5	0.8	IZ1744I0010	8	70	25	6	4.9	8	3	4.2
M6	1.0	IZ1744I0011	10	80	30	6	4.9	8	3	5
M7	1.0	IZ1744I0012	10	80	30	7	5.5	8	3	6
M8	1.25	IZ1744I0013	13	90	35	8	6.2	9	3	6.8
M9	1.25	IZ1744I0014	13	90	35	9	7	10	3	7.8
M10	1.5	IZ1744I0015	15	100	39	10	8	11	3	8.5
M11	1.5	IZ1744I0016	17	100	40	8	6.2	9	3	9.5
M12	1.75	IZ1744I0017	18	110	44	9	7	10	3	10.2
M14	2.0	IZ0744I0001	20	110	44	11	9	12	3	12
M16	2.0	IZ0744I0002	20	110	44	12	9	12	3	14
M18	2.5	IZ0744I0003	25	125	50	14	11	14	4	15.5
M20	2.5	IZ0744I0004	25	140	54	16	12	15	4	17.5
M22	2.5	IZ0744I0005	25	140	54	18	14.5	17	4	19.5
M24	3.0	IZ0744I0006	30	160	60	18	14.5	17	4	21
M27	3.0	IZ0744I0007	30	160	60	20	16	19	4	24
M30	3.5	IZ0744I0008	35	180	70	22	18	21	4	26.5

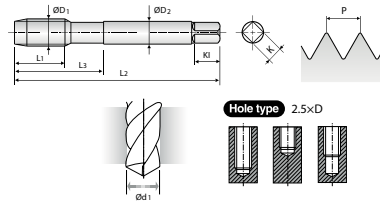
Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

HSS-E / TAPS

M

SPIRAL FLUTE TAPS for Multi-Purpose
ISO Metric coarse threads DIN 13



WORKING MATERIAL
UNI
MULTI PURPOSE

HSS-E

DIN
371/376

6H



BRIGHT



Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M2	0.4	IZ0804I0001	8	45	13	2.8	2.1	5	3	1.6
M2.2	0.45	IZ0804I0002	8	45	13	2.8	2.1	5	3	1.75
M2.3	0.4	IZ0804I0003	8	45	13	2.8	2.1	5	3	1.9
M2.5	0.45	IZ0804I0004	9	50	15	2.8	2.1	5	3	2.05
M2.6	0.45	IZ0804I0005	9	50	15	2.8	2.1	5	3	2.1
M3	0.5	IZ0804I0006	6	56	18	3.5	2.7	6	3	2.5
M3.5	0.6	IZ0804I0007	7	56	20	4	3	6	3	2.9
M4	0.7	IZ0804I0008	7	63	21	4.5	3.4	6	3	3.3
M4.5	0.75	IZ0804I0009	8	70	25	6	4.9	8	3	3.7
M5	0.8	IZ0804I0010	8	70	25	6	4.9	8	3	4.2
M6	1.0	IZ0804I0011	10	80	30	6	4.9	8	3	5
M7	1.0	IZ0804I0012	10	80	30	7	5.5	8	3	6
M8	1.25	IZ0804I0013	13	90	35	8	6.2	9	3	6.8
M9	1.25	IZ0804I0014	13	90	35	9	7	10	3	7.8
M10	1.5	IZ0804I0015	15	100	39	10	8	11	3	8.5
M11	1.5	IZ0804I0016	17	100	40	8	6.2	9	3	9.5
M12	1.75	IZ0804I0017	18	110	44	9	7	10	3	10.2
M14	2.0	IZ0804I0018	20	110	44	11	9	12	3	12
M16	2.0	IZ0804I0019	20	110	44	12	9	12	3	14
M18	2.5	IZ0804I0020	25	125	50	14	11	14	4	15.5
M20	2.5	IZ0804I0021	25	140	54	16	12	15	4	17.5
M22	2.5	IZ0804I0022	25	140	54	18	14.5	17	4	19.5
M24	3.0	IZ0804I0023	30	160	60	18	14.5	17	4	21
M27	3.0	IZ0804I0024	30	160	60	20	16	19	4	24
M30	3.5	IZ0804I0025	35	180	70	22	18	21	4	26.5

Unit : N/mm²

☉ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
☉	☉	☉	☉	☉		☉	☉	☉	☉	☉	☉	☉		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				☉	☉	☉			☉	☉	☉			

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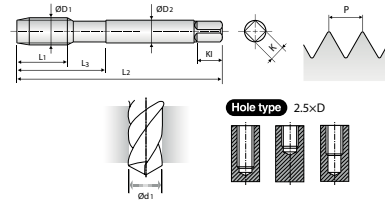
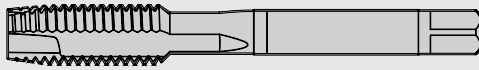
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MF

SPIRAL POINT TAPS for Multi-Purpose
ISO Metric fine threads DIN 13



UNI
MULTI PURPOSE

HSS-E

DIN 374

6H



BRIGHT

Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M4	0.5	IZ0854I0001	10	63	21	2.8	2.1	5	3	3.5
M5	0.5	IZ0854I0002	11	70	25	3.5	2.7	6	3	4.5
M6	0.75	IZ0854I0004	13	80	30	4.5	3.4	6	3	5.2
M6	0.5	IZ0854I0003	13	80	30	4.5	3.4	6	3	5.5
M7	0.75	IZ0854I0005	14	80	30	5.5	4.3	7	3	6.2
M8	1.0	IZ0854I0007	17	90	36	6	4.9	8	3	7
M8	0.75	IZ0854I0006	14	80	36	6	4.9	8	3	7.2
M10	1.25	IZ0854I0010	22	100	40	7	5.5	8	3	8.8
M10	1.0	IZ0854I0009	18	90	40	7	5.5	8	3	9
M10	0.75	IZ0854I0008	18	90	40	7	5.5	8	3	9.2
M12	1.5	IZ0854I0013	22	100	40	9	7	10	3	10.5
M12	1.25	IZ0854I0012	22	100	40	9	7	10	3	10.8
M12	1.0	IZ0854I0011	18	100	40	9	7	10	3	11
M14	1.5	IZ0854I0016	22	100	40	11	9	12	3	12.5
M14	1.25	IZ0854I0015	22	100	40	11	9	12	3	12.8
M14	1.0	IZ0854I0014	22	100	40	11	9	12	3	13
M16	1.5	IZ0854I0018	22	100	40	12	9	12	3	14.5
M16	1.0	IZ0854I0017	18	100	40	12	9	12	3	15
M18	1.5	IZ0854I0020	25	110	44	14	11	14	4	16.5
M18	1.0	IZ0854I0019	20	110	44	14	11	14	4	17
M20	1.5	IZ0854I0022	25	125	50	16	12	15	4	18.5
M20	1.0	IZ0854I0021	20	125	50	16	12	15	4	19
M22	1.5	IZ0854I0024	25	125	50	18	14.5	17	4	20.5
M22	1.0	IZ0854I0023	20	125	50	18	14.5	17	4	21

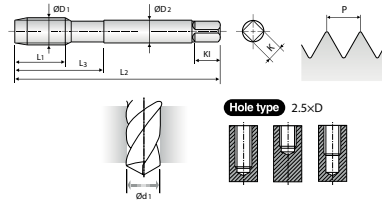
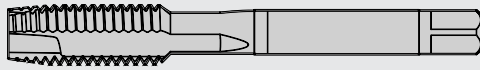
Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
⊙	⊙	⊙	⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				⊙	⊙	⊙			⊙	⊙	⊙			

HSS-E / TAPS

MF

SPIRAL POINT TAPS for Multi-Purpose
ISO Metric fine threads DIN 13



WORKING MATERIAL	UNI MULTI PURPOSE	HSS-E	DIN 374	6H	60°	B	BRIGHT
		Unit : mm					

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
M24	2.0	IZ0854I0026	27	140	54	18	14.5	17	4	22
M24	1.5	IZ0854I0025	27	140	54	18	14.5	17	4	22.5
M26	1.5	IZ0854I0027	28	140	54	18	14.5	17	4	24.5
M27	2.0	IZ0854I0029	28	140	54	20	16	19	4	25
M27	1.5	IZ0854I0028	28	140	54	20	16	19	4	25.5
M28	1.5	IZ0854I0030	28	140	54	20	16	19	4	26.5
M30	2.0	IZ0854I0032	30	150	57	22	18	21	4	28
M30	1.5	IZ0854I0031	30	150	57	22	18	21	4	28.5

Unit : N/mm² ☉ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
☉	☉	☉	☉	☉		☉	☉	☉	☉	☉	☉	☉		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				☉	☉	☉			☉	☉	☉			

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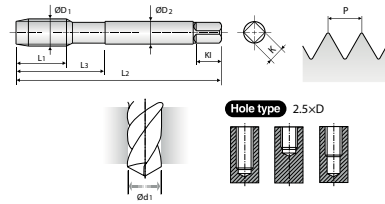
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SPIRAL FLUTE TAPS for Multi-Purpose
ISO Metric fine threads DIN 13



UNI
MULTI PURPOSE

HSS-E

DIN
371/376

6H



BRIGHT



Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M4	0.5	IZ0844I0001	5	63	21	2.8	2.1	5	3	3.5
M5	0.5	IZ0844I0002	5	70	25	3.5	2.7	6	3	4.5
M6	0.75	IZ0844I0004	8	80	30	4.5	3.4	6	3	5.2
M6	0.5	IZ0844I0003	5	80	30	4.5	3.4	6	3	5.5
M7	0.75	IZ0844I0005	10	80	30	5.5	4.3	7	3	6.2
M8	1.0	IZ0844I0007	10	90	36	6	4.9	8	3	7
M8	0.75	IZ0844I0006	8	80	30	6	4.9	8	3	7.2
M10	1.25	IZ0844I0010	16	100	40	7	5.5	8	3	8.8
M10	1.0	IZ0844I0009	10	90	36	7	5.5	8	3	9
M10	0.75	IZ0844I0008	10	90	36	7	5.5	8	3	9.2
M12	1.5	IZ0844I0013	15	100	40	9	7	10	3	10.5
M12	1.25	IZ0844I0012	15	100	40	9	7	10	3	10.8
M12	1.0	IZ0844I0011	11	100	40	9	7	10	3	11
M14	1.5	IZ0844I0016	15	100	40	11	9	12	3	12.5
M14	1.25	IZ0844I0015	15	100	40	11	9	12	3	12.8
M14	1.0	IZ0844I0014	11	100	40	11	9	12	3	13
M16	1.5	IZ0844I0018	15	100	40	12	9	12	3	14.5
M16	1.0	IZ0844I0017	12	100	40	12	9	12	3	15
M18	1.5	IZ0844I0020	17	110	44	14	11	14	4	16.5
M18	1.0	IZ0844I0019	13	110	44	14	11	14	4	17
M20	1.5	IZ0844I0022	17	125	50	16	12	15	4	18.5
M20	1.0	IZ0844I0021	14	125	50	16	12	15	4	19
M22	1.5	IZ0844I0024	17	125	50	18	14.5	17	4	20.5
M22	1.0	IZ0844I0023	14	125	50	18	14.5	17	4	21

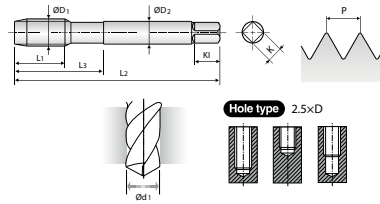
Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
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Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
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HSS-E / TAPS

MF

SPIRAL FLUTE TAPS for Multi-Purpose
ISO Metric fine threads DIN 13



WORKING MATERIAL	UNI MULTI PURPOSE	HSS-E	DIN 371/376	6H	60°	C	BRIGHT	R40
		Unit : mm						

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	K1	Z	Ød1
M24	2.0	IZ0844I0026	20	140	54	18	14.5	17	4	22
M24	1.5	IZ0844I0025	20	140	54	18	14.5	17	4	22.5
M26	1.5	IZ0844I0027	20	140	54	18	14.5	17	4	24.5
M27	2.0	IZ0844I0029	20	140	54	20	16	19	4	25
M27	1.5	IZ0844I0028	20	140	54	20	16	19	4	25.5
M28	1.5	IZ0844I0030	20	140	54	20	16	19	4	26.5
M30	2.0	IZ0844I0032	22	150	57	22	18	21	4	28
M30	1.5	IZ0844I0031	22	150	57	22	18	21	4	28.5

Unit : N/mm² ◎ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

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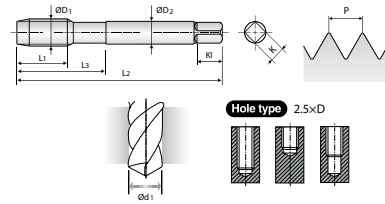
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UNC

SPIRAL FLUTE TAPS for Multi-Purpose
Unified coarse threads



UNI
MULTI PURPOSE

HSS-E

DIN
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2B



BRIGHT



Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4	40 UNC	IZ0824I0001	6	56	18	3.5	2.7	6	3	2.3
#5	40 UNC	IZ0824I0002	7	56	18	3.5	2.7	6	3	2.6
#6	32 UNC	IZ0824I0003	7	56	20	4	3	6	3	2.85
#8	32 UNC	IZ0824I0004	8	63	21	4.5	3.4	6	3	3.5
#10	24 UNC	IZ0824I0005	10	70	25	6	4.9	8	3	3.9
#12	24 UNC	IZ0824I0006	10	80	30	6	4.9	8	3	4.5
1/4	20 UNC	IZ0824I0007	13	80	30	7	5.5	8	3	5.2
5/16	18 UNC	IZ0824I0008	14	90	35	8	6.2	9	3	6.6
3/8	16 UNC	IZ0824I0009	16	100	39	9	7	10	3	8
7/16	14 UNC	IZ0824I0010	17	100	40	8	6.2	9	3	9.4
1/2	13 UNC	IZ0824I0011	20	110	44	9	7	10	3	10.75
9/16	12 UNC	IZ0824I0012	20	110	44	11	9	12	3	12.25
5/8	11 UNC	IZ0824I0013	22	110	44	12	9	12	3	13.5
3/4	10 UNC	IZ0824I0014	25	125	50	14	11	14	4	16.5
7/8	9 UNC	IZ0824I0015	27	140	54	18	14.5	17	4	19.5
1	8 UNC	IZ0824I0016	30	160	60	20	16	19	4	22.25

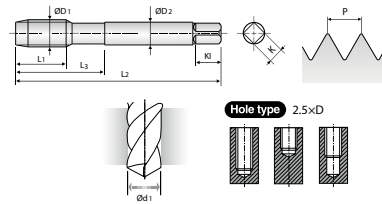
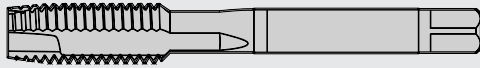
Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
⊙	⊙	⊙	⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				⊙	⊙	⊙			⊙	⊙	⊙			

HSS-E / TAPS

UNC

SPIRAL POINT TAPS for Multi-Purpose Unified coarse threads



WORKING MATERIAL
UNI
MULTI PURPOSE

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BRIGHT

Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4	40 UNC	IZ0834I0001	11	56	18	3.5	2.7	6	3	2.3
#5	40 UNC	IZ0834I0002	11	56	18	3.5	2.7	6	3	2.6
#6	32 UNC	IZ0834I0003	12	56	20	4	3	6	3	2.85
#8	32 UNC	IZ0834I0004	13	63	21	4.5	3.4	6	3	3.5
#10	24 UNC	IZ0834I0005	15	70	25	6	4.9	8	3	3.9
#12	24 UNC	IZ0834I0006	16	80	30	6	4.9	8	3	4.5
1/4	20 UNC	IZ0834I0007	17	80	30	7	5.5	8	3	5.2
5/16	18 UNC	IZ0834I0008	20	90	35	8	6.2	9	3	6.6
3/8	16 UNC	IZ0834I0009	22	100	39	9	7	10	3	8
7/16	14 UNC	IZ0834I0010	22	100	40	8	6.2	9	3	9.4
1/2	13 UNC	IZ0834I0011	25	110	44	9	7	10	3	10.75
9/16	12 UNC	IZ0834I0012	26	110	44	11	9	12	3	12.25
5/8	11 UNC	IZ0834I0013	27	110	44	12	9	12	3	13.5
3/4	10 UNC	IZ0834I0014	30	125	50	14	11	14	4	16.5
7/8	9 UNC	IZ0834I0015	32	140	54	18	14.5	17	4	19.5
1	8 UNC	IZ0834I0016	36	160	60	20	16	19	4	22.25

Unit : N/mm²

☉ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
☉	☉	☉	☉	☉		☉	☉	☉	☉	☉	☉	☉		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				☉	☉	☉			☉	☉	☉			

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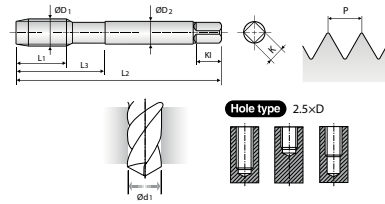
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UNF

SPIRAL FLUTE TAPS for Multi-Purpose
Unified coarse threads



UNI
MULTI PURPOSE

HSS-E

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BRIGHT



Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4	48 UNF	IZ0864I0001	6	56	18	3.5	2.7	6	3	2.4
#5	44 UNF	IZ0864I0002	7	56	18	3.5	2.7	6	3	2.7
#6	40 UNF	IZ0864I0003	7	56	20	4	3	6	3	3
#8	36 UNF	IZ0864I0004	8	63	21	4.5	3.4	6	3	3.5
#10	32 UNF	IZ0864I0005	10	70	25	6	4.9	8	3	4.1
#12	28 UNF	IZ0864I0006	10	80	30	6	4.9	8	3	4.7
1/4	28 UNF	IZ0864I0007	10	80	30	7	5.5	8	3	5.5
5/16	24 UNF	IZ0864I0008	10	90	35	8	6.2	9	3	6.9
3/8	24 UNF	IZ0864I0009	10	100	39	9	7	10	3	8.5
7/16	20 UNF	IZ0864I0010	13	100	40	8	6.2	9	3	9.9
1/2	20 UNF	IZ0864I0011	13	100	40	9	7	10	3	11.5
9/16	18 UNF	IZ0864I0012	15	100	40	11	9	12	3	12.9
5/8	18 UNF	IZ0864I0013	15	100	40	12	9	12	3	14.5
3/4	16 UNF	IZ0864I0014	17	110	44	14	11	14	4	17.5
7/8	14 UNF	IZ0864I0015	17	125	50	18	14.5	17	4	20.5
1	12 UNF	IZ0864I0016	20	140	54	20	16	19	4	23.25

Unit : N/mm²
 EXCELLENT GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
⊙	⊙	⊙	⊙	⊙		⊙	⊙	⊙	⊙	⊙	⊙	⊙		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				⊙	⊙	⊙			⊙	⊙	⊙			

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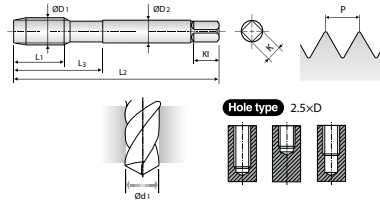
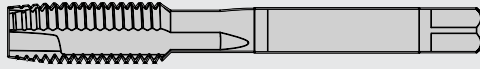
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Unified coarse threads



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BRIGHT

Unit : mm

Size	Pitch	SDC No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Vap	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4	48 UNF	IZ0874I0001	11	56	18	3.5	2.7	6	3	2.4
#5	44 UNF	IZ0874I0002	11	56	18	3.5	2.7	6	3	2.7
#6	40 UNF	IZ0874I0003	12	56	20	4	3	6	3	3
#8	36 UNF	IZ0874I0004	13	63	21	4.5	3.4	6	3	3.5
#10	32 UNF	IZ0874I0005	15	70	25	6	4.9	8	3	4.1
#12	28 UNF	IZ0874I0006	16	80	30	6	4.9	8	3	4.7
1/4	28 UNF	IZ0874I0007	17	80	30	7	5.5	8	3	5.5
5/16	24 UNF	IZ0874I0008	17	90	35	8	6.2	9	3	6.9
3/8	24 UNF	IZ0874I0009	18	100	39	9	7	10	3	8.5
7/16	20 UNF	IZ0874I0010	22	100	40	8	6.2	9	3	9.9
1/2	20 UNF	IZ0874I0011	22	100	40	9	7	10	3	11.5
9/16	18 UNF	IZ0874I0012	22	100	40	11	9	12	3	12.9
5/8	18 UNF	IZ0874I0013	22	100	40	12	9	12	3	14.5
3/4	16 UNF	IZ0874I0014	25	110	44	14	11	14	4	17.5
7/8	14 UNF	IZ0874I0015	26	125	50	18	14.5	17	4	20.5
1	12 UNF	IZ0874I0016	28	140	54	20	16	19	4	23.25

Unit : N/mm²

☉ EXCELLENT ○ GOOD

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	T Alloy < 900
☉	☉	☉	☉	☉		☉	☉	☉	☉	☉	☉	☉		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al S>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				☉	☉	☉			☉	☉	☉			

TROUBLE SHOOTING GUIDE

Specific Problem	Cause	Solution
Oversize Pitch Diameter	Incorrect Tap	<ol style="list-style-type: none"> 1. Use proper limits of taps 2. Use longer chamfered taps
	Chip Packing	<ol style="list-style-type: none"> 1. Use spiral point or spiral fluted taps 2. Reduce number of flutes to provide extra chip room 3. Use larger hole size 4. If tapping a hole, allow deeper hole where applicable or shorten the thread length of the parts 5. Use proper lubricant
	Galling	<ol style="list-style-type: none"> 1. Apply proper surface treatment such as Hardslick or chrome 2. Use proper cutting lubricant 3. Reduce tapping speed 4. Use proper cutting angle in accordance with material being tapped 5. Use large hole size
	Operating Conditions	<ol style="list-style-type: none"> 1. Apply proper tapping speed 2. Correct alignment of tap and drill hole 3. Free cutting either tap or workpiece 4. Use proper tapping speed to avoid torn or rough threads 5. Use lead screw tapper 6. Use proper tapping machine with suitable power 7. Avoid misalignment of the tap and drill hole from loose spindle or worn holder
	Tool Condition	<ol style="list-style-type: none"> 1. Obtain proper indexing angle for the flutes at the cutting edge 2. Grind proper cutting angle and chamfer angle 3. Avoid too narrow a land width 4. Remove burrs from regrinding
Oversize Internal Diameter	Hole Size	<ol style="list-style-type: none"> 1. Use minimum hole size 2. Avoid tapered hole 3. Use proper chamfered taps"
	Galling	<ol style="list-style-type: none"> 1. Galling solutions 1 through 4 above can be applied to this specific problem
Undersize Pitch Diameter	Incorrect Tap	<ol style="list-style-type: none"> 1. Use oversize taps 2. Apply proper chamfer angle 3. Increase cutting angle
	Damaged Thread	<ol style="list-style-type: none"> 1. Use proper reversing speed to avoid damaging tapped thread on the way out of the hole
	Left-over Chips	<ol style="list-style-type: none"> 1. Increase cutting performance to avoid any left over chips in the hole 2. Remove left over chips from the hole for gage checking
Undersize Internal Diameter	Hole Size	<ol style="list-style-type: none"> 1. Use maximum drill size
Breakage	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Avoid chip packing in the flutes or on the bottom of the hole Use spiral pointed or spiral fluted taps or fluteless taps 2. Apply correct surface treatment such as Hardslick or bright
	Excessive Tapping Torque	<ol style="list-style-type: none"> 1. Use larger drill size 2. Try to shorten thread length 3. Increase cutting angle 4. Apply a tap with more thread relief and reduced land width 5. Apply correct surface treatment such as Hardslick

TROUBLE SHOOTING GUIDE

Specific Problem	Cause	Solution
Breakage	Operating Conditions	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Avoid misalignment between tap and the hole and tapered hole 3. Use floating type of tapping holder 4. Use tapping holder with torque adjustment 5. Avoid hitting bottom of the hole with tap
	Tool Condition	<ol style="list-style-type: none"> 1. Do not grind the bottom of the flute 2. Avoid too narrow a land width 3. Remove all worn sections when regrinding the flutes 4. Regrind tool more frequently
Chipping	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Reduce cutting angle 2. Use a different kind of high-speed steel tap 3. Reduce hardness of the tap 4. Increase chamfer length 5. Avoid chip packing in the flutes or in the bottom of the hole by using spiral fluted or spiral pointed taps
	Operating Conditions	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Avoid misalignment between tap and hole 3. Avoid sudden return of reverse in blind hole tapping 4. Avoid galling 5. Use larger hole size
Wear	Incorrect Tap Selection	<ol style="list-style-type: none"> 1. Apply specially designed tap for tapping heat treated material 2. Change to a type of high-speed steel tap that contains vanadium 3. Apply special surface treatment such as TiCN, TiAlN or Hardslick 4. Increase chamfer length
	Operating Conditions	<ol style="list-style-type: none"> 1. Reduce tapping speed 2. Apply proper cutting lubricants 3. Avoid work hardened hole 4. Use larger hole size
	Tool Condition	<ol style="list-style-type: none"> 1. Grind proper cutting angle 2. Avoid hardness reduction from grinding process
Torn or Rough Thread	Chamfer Too Short	<ol style="list-style-type: none"> 1. Increase chamfer length
	Wrong Cutting Angle	<ol style="list-style-type: none"> 1. Apply proper cutting angle
	Galling	<ol style="list-style-type: none"> 1. Use thread relieved taps 2. Reduce land width 3. Apply surface treatment such as Hardslick or chrome 4. Use proper cutting lubricant 5. Reduce tapping speed 6. Use larger hole size 7. Obtain proper alignment between tap and work
	Chip Packing	<ol style="list-style-type: none"> 1. Use spiral pointed or spiral fluted taps 2. Use larger drill size
Chattering on Tapped Thread	Tool Free Cutting	<ol style="list-style-type: none"> 1. Reduce cutting angle 2. Reduce amount of thread relief
	Tool Condition	<ol style="list-style-type: none"> 1. Avoid too narrow land width 2. Do not grind the bottom of the flute

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CUTTING SPEED TABLE

Cutting Speeds m/min. into revolutions per minute

Tool Dia.	Cutting Speed (m/min.)															
	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6366	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	318	398	478

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RECOMMENDED TAP DRILL SIZE (M / MF)

Metric-ISO threads coarse pitch

M	Pitch	Maximum Core Dia.	Drill Size
1	0.25	0.785	0.75
1.1	0.25	0.885	0.85
1.2	0.25	0.985	0.95
1.4	0.30	1.160	1.10
1.6	0.35	1.321	1.25
1.7	0.35	1.346	1.30
1.8	0.35	1.521	1.45
2	0.40	1.679	1.60
2.2	0.45	1.838	1.75
2.3	0.40	1.920	1.90
2.5	0.45	2.138	2.05
2.6	0.45	2.176	2.10
3	0.50	2.599	2.50
3.5	0.60	3.010	2.90
4	0.70	3.422	3.30
4.5	0.75	3.878	3.70
5	0.80	4.334	4.20
6	1.00	5.153	5.00
7	1.00	6.153	6.00
8	1.25	6.912	6.80
9	1.25	7.912	7.80
10	1.50	8.676	8.50
11	1.50	9.676	9.50
12	1.75	10.441	10.20
14	2.00	12.210	12.00
16	2.00	14.210	14.00
18	2.50	15.744	15.50
20	2.50	17.744	17.50
22	2.50	19.744	19.50
24	3.00	21.252	21.00
27	3.00	24.252	24.00
30	3.50	26.771	26.50
33	3.50	29.771	29.50
36	4.00	32.270	32.00
39	4.00	35.270	35.00
42	4.50	37.799	37.50
45	4.50	40.799	40.50
48	5.00	43.297	43.00
52	5.00	47.297	47.00
56	5.50	50.796	50.50

Metric-ISO threads fine pitch

MF	Pitch	Maximum Core Dia.	Drill Size
2.5	0.35	2.221	2.15
3	0.35	2.271	2.65
3.5	0.35	3.221	3.15
4	0.50	3.599	3.50
4.5	0.50	4.099	4.00
5	0.50	4.599	4.50
5.5	0.50	5.099	5.00
6	0.75	5.378	5.20
7	0.75	6.378	6.20
8	0.75	7.378	7.20
8	1.00	7.153	7.00
9	0.75	8.378	8.20
9	1.00	8.153	8.00
10	0.75	9.378	9.20
10	1.00	9.153	9.00
10	1.25	8.912	8.80
11	0.75	10.378	10.20
11	1.00	10.153	10.00
12	1.00	11.153	11.00
12	1.25	10.912	10.80
12	1.50	10.676	10.50
14	1.00	13.153	13.00
14	1.25	12.912	12.80
14	1.50	12.676	12.50
15	1.00	14.153	14.00
15	1.50	13.676	13.50
16	1.00	15.153	15.00
16	1.50	14.676	14.50
17	1.00	16.153	16.00
17	1.50	15.676	15.50
18	1.00	17.153	17.00
18	1.50	16.676	16.50
18	2.00	16.210	16.00
20	1.00	19.153	19.00
20	2.00	18.210	18.00
22	1.00	21.153	21.00
22	1.50	20.676	20.50
22	2.00	20.210	20.00
24	1.00	23.153	23.00
25	1.00	24.153	24.00

Metric-ISO threads fine pitch

MF	Pitch	Maximum Core Dia.	Drill Size
25	2.00	23.210	23.00
26	1.50	24.676	24.50
27	1.00	26.153	26.00
27	1.50	25.676	25.50
27	2.00	25.210	25.00
28	1.00	27.153	27.00
28	1.50	26.676	26.50
28	2.00	26.210	26.00
30	1.00	29.153	29.00
30	1.50	28.676	28.50
30	2.00	28.210	28.00
30	3.00	27.252	27.00
32	1.50	30.675	30.50
32	2.00	30.210	30.00
33	1.50	31.676	31.50
33	2.00	31.210	31.00
33	3.00	30.252	30.00
35	1.50	33.676	33.50
36	1.50	34.676	34.50
36	2.00	34.210	34.00
36	3.00	33.252	33.00
38	1.50	36.676	36.50
39	1.50	37.676	37.50
39	2.00	37.210	37.00
39	3.00	36.252	36.00
40	1.50	38.676	38.50
40	2.00	38.210	38.00
40	3.00	37.252	37.00
42	1.50	40.676	40.50
42	2.00	40.210	40.00
42	3.00	39.252	39.00
45	1.50	43.676	43.50
45	2.00	43.210	43.00
45	3.00	42.252	42.00
48	1.50	46.676	46.50
48	2.00	46.210	46.00
48	3.00	45.252	45.00
50	1.50	48.676	48.50
50	2.00	48.210	48.00
50	3.00	47.252	47.00

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RECOMMENDED TAP DRILL SIZE (UNC / UNF)

American Unified coarse threads			
UNC	TPI	Maximum Core Dia.	Drill Size
#1	64	1.585	1.50
#2	56	1.872	1.80
#3	48	2.146	2.10
#4	40	2.385	2.30
#5	40	2.697	2.60
#6	32	2.896	2.85
#8	32	3.528	3.50
#10	24	3.950	3.90
#12	24	4.590	4.50
1/4	20	5.250	5.20
5/16	18	6.680	6.60
3/8	16	8.082	8.00
7/16	14	9.441	9.40
1/2	13	10.881	10.75
9/16	12	12.301	12.25
5/8	11	13.693	13.50
3/4	10	16.624	16.50
7/8	9	19.520	19.50
1	8	22.344	22.25
1-1/8	7	25.082	25.00
1-1/4	7	28.258	28.25
1-3/8	6	30.851	30.75
1-1/2	6	34.026	34.00
1-3/4	5	39.560	39.50
2	4.5	45.367	45.25

American Unified coarse threads			
UNC	TPI	Maximum Core Dia.	Drill Size
#0	80	1.306	1.30
#1	72	1.613	1.60
#2	64	1.913	1.90
#3	56	2.197	2.10
#4	48	2.459	2.40
#5	44	2.741	2.70
#6	40	3.012	3.00
#8	36	3.597	3.50
#10	32	4.168	4.10
#12	28	4.717	4.70
1/4	28	5.563	5.50
5/16	24	6.995	6.90
3/8	24	8.565	8.50
7/16	20	9.947	9.90
1/2	20	11.524	11.50
9/16	18	12.969	12.90
5/8	18	14.554	14.50
3/4	16	17.546	17.50
7/8	14	20.493	20.50
1	12	23.363	23.25
1-1/8	12	26.538	26.50
1-1/4	12	29.713	29.50
1-3/8	12	32.888	32.70
1-1/2	12	36.063	36.00

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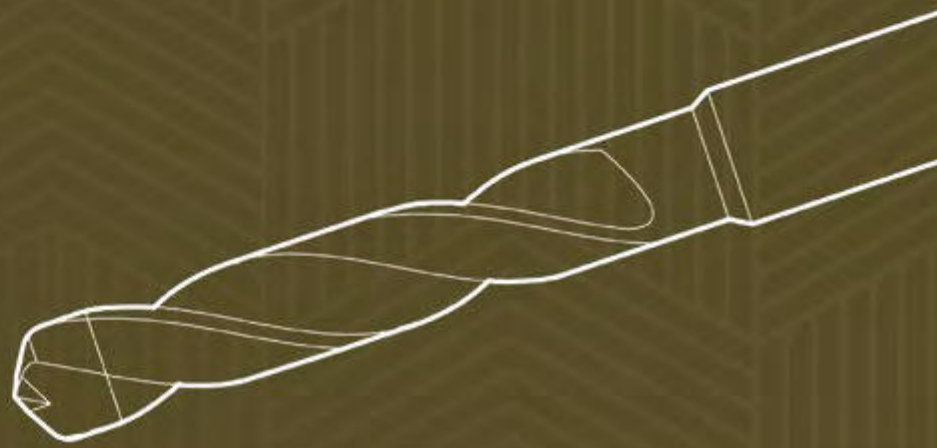
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ENDMILLS

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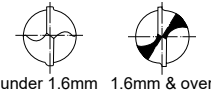
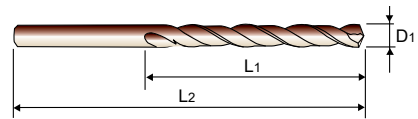
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HSSCo5 STRAIGHT SHANK

Flute Geometry : Right hand helix
Point Angle : 135°
Surface Treatment : TiN-tip coating
Application : Drilling in Steels, Cast Steels Alloyed and Non-Alloyed, Stainless Steels, Aluminum and Titanium



HSS
-Co5

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Unit : mm

SDC No.	Drill Diameter	Flute Length	Overall Length	SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2	Vap	D1	L1	L2
IZ0195I0010	1.0	12	34	IZ0195I0031	3.1	36	65
IZ0195I0011	1.1	14	36	IZ0195I0032	3.2	36	65
IZ0195I0012	1.2	16	38	IZ0195I0033	3.3	36	65
IZ0195I0013	1.3	16	38	IZ0195I0034	3.4	39	70
IZ0195I0014	1.4	18	40	IZ0195I0035	3.5	39	70
IZ0195I0015	1.5	18	40	IZ0195I0036	3.6	39	70
IZ0195I0016	1.6	20	43	IZ0195I0037	3.7	39	70
IZ0195I0017	1.7	20	43	IZ0195I0038	3.8	43	75
IZ0195I0018	1.8	22	46	IZ0195I0039	3.9	43	75
IZ0195I0019	1.9	22	46	IZ0195I0040	4.0	43	75
IZ0195I0020	2.0	24	49	IZ0195I0041	4.1	43	75
IZ0195I0021	2.1	24	49	IZ0195I0042	4.2	43	75
IZ0195I0022	2.2	27	53	IZ0195I0043	4.3	47	80
IZ0195I0023	2.3	27	53	IZ0195I0044	4.4	47	80
IZ0195I0024	2.4	30	57	IZ0195I0045	4.5	47	80
IZ0195I0025	2.5	30	57	IZ0195I0046	4.6	47	80
IZ0195I0026	2.6	30	57	IZ0195I0047	4.7	47	80
IZ0195I0027	2.7	33	61	IZ0195I0048	4.8	52	86
IZ0195I0028	2.8	33	61	IZ0195I0049	4.9	52	86
IZ0195I0029	2.9	33	61	IZ0195I0050	5.0	52	86
IZ0195I0030	3.0	33	61	IZ0195I0051	5.1	52	86

Unit : N/mm²

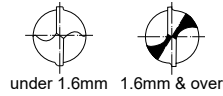
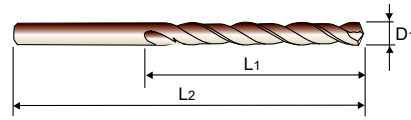
⊙ EXCELLENT ○ GOOD

P			H	M	K	N				S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc20~40	HRc45~55	HRc55~							
⊙	⊙				○		○				○

HSS - Co5 / DRILLS

HSSCo5 STRAIGHT SHANK

Flute Geometry : Right hand helix
 Point Angle : 135°
 Surface Treatment : TiN-tip coating
 Application : Drilling in Steels, Cast Steels Alloyed and Non-Alloyed,
 Stainless Steels, Aluminum and Titanium



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-Co5

DIN
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h8

33°

135°

Unit : mm

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZO195I0052	5.2	52	86
IZO195I0053	5.3	52	86
IZO195I0054	5.4	57	93
IZO195I0055	5.5	57	93
IZO195I0056	5.6	57	93
IZO195I0057	5.7	57	93
IZO195I0058	5.8	57	93
IZO195I0059	5.9	57	93
IZO195I0060	6.0	57	93
IZO195I0061	6.1	63	101
IZO195I0062	6.2	63	101
IZO195I0063	6.3	63	101
IZO195I0064	6.4	63	101
IZO195I0065	6.5	63	101
IZO195I0066	6.6	63	101
IZO195I0067	6.7	63	101
IZO195I0068	6.8	69	109
IZO195I0069	6.9	69	109
IZO195I0070	7.0	69	109
IZO195I0071	7.1	69	109
IZO195I0072	7.2	69	109

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZO195I0073	7.3	69	109
IZO195I0074	7.4	69	109
IZO195I0075	7.5	69	109
IZO195I0076	7.6	75	117
IZO195I0077	7.7	75	117
IZO195I0078	7.8	75	117
IZO195I0079	7.9	75	117
IZO195I0080	8.0	75	117
IZO195I0081	8.1	75	117
IZO195I0082	8.2	75	117
IZO195I0083	8.3	75	117
IZO195I0084	8.4	75	117
IZO195I0085	8.5	75	117
IZO195I0086	8.6	81	125
IZO195I0087	8.7	81	125
IZO195I0088	8.8	81	125
IZO195I0089	8.9	81	125
IZO195I0090	9.0	81	125
IZO195I0091	9.1	81	125
IZO195I0092	9.2	81	125
IZO195I0093	9.3	81	125

Unit : N/mm²

⊙ EXCELLENT ○ GOOD

P			H	M	K	N				S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc20~40	HRc45~55	HRc55~							
⊙	⊙				○		○				○

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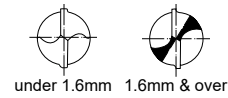
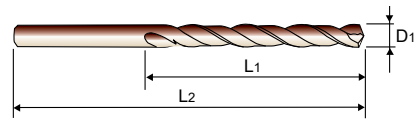
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HSSCo5 STRAIGHT SHANK

Flute Geometry : Right hand helix
Point Angle : 135°
Surface Treatment : TiN-tip coating
Application : Drilling in Steels, Cast Steels Alloyed and Non-Alloyed, Stainless Steels, Aluminum and Titanium



HSS
-Co5

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h8

33°

135°

Unit : mm

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZO195I0094	9.4	81	125
IZO195I0095	9.5	81	125
IZO195I0096	9.6	87	133
IZO195I0097	9.7	87	133
IZO195I0098	9.8	87	133
IZO195I0099	9.9	87	133
IZO195I0100	10.0	87	133
IZO195I0101	10.1	87	133
IZO195I0102	10.2	87	133
IZO195I0103	10.3	87	133
IZO195I0104	10.4	87	133
IZO195I0105	10.5	87	133
IZO195I0106	10.6	87	133
IZO195I0107	10.7	94	142
IZO195I0108	10.8	94	142
IZO195I0109	10.9	94	142
IZO195I0110	11.0	94	142
IZO195I0111	11.1	94	142
IZO195I0112	11.2	94	142
IZO195I0113	11.3	94	142
IZO195I0114	11.4	94	142

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZO195I0115	11.5	94	142
IZO195I0116	11.6	94	142
IZO195I0117	11.7	94	142
IZO195I0118	11.8	94	142
IZO195I0119	11.9	101	151
IZO195I0120	12.0	101	151
IZO195I0121	12.1	101	151
IZO195I0122	12.2	101	151
IZO195I0123	12.3	101	151
IZO195I0124	12.4	101	151
IZO195I0125	12.5	101	151
IZO195I0126	12.6	101	151
IZO195I0127	12.7	101	151
IZO195I0128	12.8	101	151
IZO195I0129	12.9	101	151
IZO195I0130	13.0	101	151

Unit : N/mm²

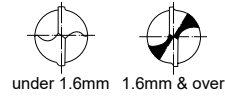
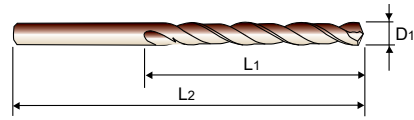
⊙ EXCELLENT ○ GOOD

P			H	M	K	N				S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc20~40	HRc45~55	HRc55~							
⊙	⊙				○		○				○

HSS - Co5 / DRILLS

HSSCo5 STRAIGHT SHANK

Flute Geometry : Right hand helix
 Point Angle : 135°
 Surface Treatment : TiN-tip coating
 Application : Drilling in Steels, Cast Steels Alloyed and Non-Alloyed,
 Stainless Steels, Aluminum and Titanium



HSS
-Co5

DIN
338

h8

33°

135°

Unit : mm

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZ0195I0094	9.4	81	125
IZ0195I0095	9.5	81	125
IZ0195I0096	9.6	87	133
IZ0195I0097	9.7	87	133
IZ0195I0098	9.8	87	133
IZ0195I0099	9.9	87	133
IZ0195I0100	10.0	87	133
IZ0195I0101	10.1	87	133
IZ0195I0102	10.2	87	133
IZ0195I0103	10.3	87	133
IZ0195I0104	10.4	87	133
IZ0195I0105	10.5	87	133
IZ0195I0106	10.6	87	133
IZ0195I0107	10.7	94	142
IZ0195I0108	10.8	94	142
IZ0195I0109	10.9	94	142
IZ0195I0110	11.0	94	142
IZ0195I0111	11.1	94	142
IZ0195I0112	11.2	94	142
IZ0195I0113	11.3	94	142
IZ0195I0114	11.4	94	142

SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2
IZ0195I0115	11.5	94	142
IZ0195I0116	11.6	94	142
IZ0195I0117	11.7	94	142
IZ0195I0118	11.8	94	142
IZ0195I0119	11.9	101	151
IZ0195I0120	12.0	101	151
IZ0195I0121	12.1	101	151
IZ0195I0122	12.2	101	151
IZ0195I0123	12.3	101	151
IZ0195I0124	12.4	101	151
IZ0195I0125	12.5	101	151
IZ0195I0126	12.6	101	151
IZ0195I0127	12.7	101	151
IZ0195I0128	12.8	101	151
IZ0195I0129	12.9	101	151
IZ0195I0130	13.0	101	151

Unit : N/mm²

⊙ EXCELLENT ○ GOOD

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC20~40	HRC45~55	HRC55~							
⊙	⊙				○		○				○

TURNING

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HSS
DRILLS & TAPS

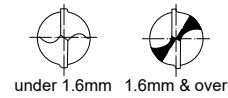
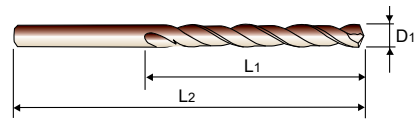
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HSS - E / DRILLS

HSS-E STRAIGHT SHANK

Flute Geometry : Right hand helix
 Point Angle : 135°
 Surface Treatment : Coloring (Gold color)
 Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.



HSS-E

DIN
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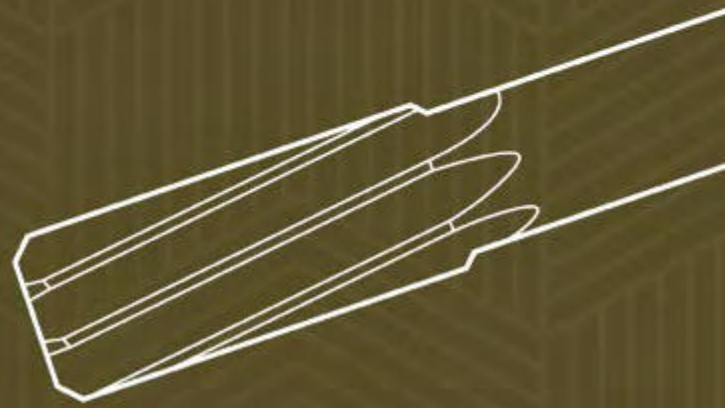
Unit : mm

SDC No.	Drill Diameter	Flute Length	Overall Length	SDC No.	Drill Diameter	Flute Length	Overall Length
Vap	D1	L1	L2	Vap	D1	L1	L2
IZ0105I0001	9.7	87	133	IZ0105I0014	14.0	108	160
IZ0105I0002	9.75	87	133	IZ0105I0015	14.5	114	169
IZ0105I0003	9.8	87	133	IZ0105I0016	15.0	114	169
IZ0105I0004	9.9	87	133	IZ0105I0017	15.5	120	178
IZ0105I0005	10.0	87	133	IZ0105I0018	16.0	120	178
IZ0105I0006	10.2	87	133	IZ0105I0019	16.5	125	184
IZ0105I0007	10.5	87	133	IZ0105I0020	17.0	125	184
IZ0105I0008	11.0	94	142	IZ0105I0021	17.5	130	191
IZ0105I0009	11.5	94	142	IZ0105I0022	18.0	130	191
IZ0105I0010	12.0	101	151	IZ0105I0023	18.5	135	198
IZ0105I0011	12.5	101	151	IZ0105I0024	19.0	135	198
IZ0105I0012	13.0	101	151	IZ0105I0025	19.5	140	205
IZ0105I0013	13.5	108	160	IZ0105I0026	20.0	140	205

⊙ EXCELLENT ○ GOOD

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	⊙	⊙	⊙	○		⊙	○	○		○		⊙	○	○	○	○	○		○	

ISO	N										S						H				
	Aluminum wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					



HSS/**REAMERS**

Reamers /482

HSS / REAMERS

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

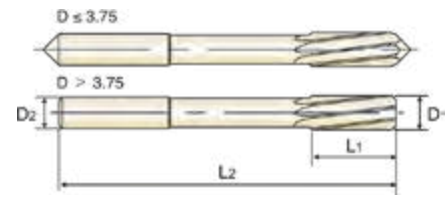
DRILLS

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HSS REAMERS

- O.D. Tolerances
Whole-number \varnothing and 1/10 size : DIN 1420 for H7
1/100 size: from $\varnothing 2.01$ to $\varnothing 5.03$: $+0.004/-0.000$ mm
from $\varnothing 5.97$ to $\varnothing 12.03$: $+0.005/-0.000$ mm
- LH Spiral Flutes / Right Hand Cut
- Chamfer Angle - Up to $\varnothing 3.75$: 15°
- Over $\varnothing 3.75$: 45°
- Shank Diameter Tolerances : h6



HSS-E

H7



Unit : mm

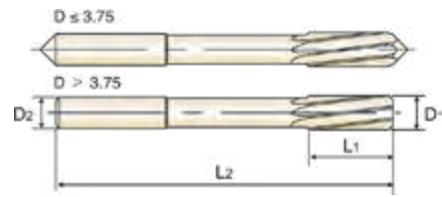
SDC No.	Nominal SIZE	Shank Diameter	Flute Length	Overall Length
Vap	D1	D2	L1	L2
IZ4021I0001	2	2	11	49
IZ4021I0002	2.01	2	11	49
IZ4021I0003	2.02	2	11	49
IZ4021I0004	2.03	2	11	49
IZ4021I0005	2.1	2	11	49
IZ4021I0006	2.2	3	12	53
IZ4021I0007	2.3	3	12	53
IZ4021I0008	2.4	3	14	57
IZ4021I0009	2.47	3	14	57
IZ4021I0010	2.48	3	14	57
IZ4021I0011	2.49	3	14	57
IZ4021I0012	2.5	3	14	57
IZ4021I0013	2.51	3	14	57
IZ4021I0014	2.52	3	14	57
IZ4021I0015	2.53	3	14	57
IZ4021I0016	2.6	3	14	57
IZ4021I0017	2.7	3	15	61
IZ4021I0018	2.8	3	15	61
IZ4021I0019	2.9	3	15	61
IZ4021I0020	2.97	3	15	61
IZ4021I0021	2.98	3	15	61
IZ4021I0022	2.99	3	15	61
IZ4021I0023	3	3	15	61
IZ4021I0024	3.01	4	16	65
IZ4021I0025	3.02	4	16	65
IZ4021I0026	3.03	4	16	65
IZ4021I0027	3.1	4	16	65
IZ4021I0028	3.2	4	16	65
IZ4021I0029	3.3	4	16	65
IZ4021I0030	3.4	4	18	70
IZ4021I0031	3.5	4	18	70
IZ4021I0032	3.6	4	18	70
IZ4021I0033	3.7	4	18	70
IZ4021I0034	3.8	4	19	75
IZ4021I0035	3.9	4	19	75
IZ4021I0036	3.97	4	19	75
IZ4021I0037	3.98	4	19	75
IZ4021I0038	3.99	4	19	75
IZ4021I0039	4	4	19	75
IZ4021I0040	4.01	4	19	75
IZ4021I0041	4.02	4	19	75
IZ4021I0042	4.03	4	19	75
IZ4021I0043	4.1	4	19	75
IZ4021I0044	4.2	4	19	75
IZ4021I0045	4.3	5	21	80
IZ4021I0046	4.4	5	21	80
IZ4021I0047	4.5	5	21	80
IZ4021I0048	4.6	5	21	80
IZ4021I0049	4.7	5	21	80

HSS REAMERS

- O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size: from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
- Shank Diameter Tolerances : h6



- LH Spiral Flutes / Right Hand Cut
- Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°



HSS-E

H7



Unit : mm

SDC No.	Nominal SIZE	Shank Diameter	Flute Length	Overall Length
Vap	D1	D2	L1	L2
IZ402110050	4.8	5	23	86
IZ402110051	4.9	5	23	86
IZ402110052	4.97	5	23	86
IZ402110053	4.98	5	23	86
IZ402110054	4.99	5	23	86
IZ402110055	5	5	23	86
IZ402110056	5.01	5	23	86
IZ402110057	5.02	5	23	86
IZ402110058	5.03	5	23	86
IZ402110059	5.1	5	23	86
IZ402110060	5.2	5	23	86
IZ402110061	5.3	5	23	86
IZ402110062	5.4	6	26	93
IZ402110063	5.5	6	26	93
IZ402110064	5.6	6	26	93
IZ402110065	5.7	6	26	93
IZ402110066	5.8	6	26	93
IZ402110067	5.9	6	26	93
IZ402110068	5.97	6	26	93
IZ402110069	5.98	6	26	93
IZ402110070	5.99	6	26	93
IZ402110071	6	6	26	93
IZ402110072	6.01	6	28	101
IZ402110073	6.02	6	28	101
IZ402110074	6.03	6	28	101
IZ402110075	6.1	6	28	101
IZ402110076	6.2	6	28	101
IZ402110077	6.3	6	28	101
IZ402110078	6.4	6	28	101
IZ402110079	6.5	6	28	101
IZ402110080	6.6	6	28	101
IZ402110081	6.7	6	28	101
IZ402110082	6.8	8	31	109
IZ402110083	6.9	8	31	109
IZ402110084	7	8	31	109
IZ402110085	7.1	8	31	109
IZ402110086	7.2	8	31	109
IZ402110087	7.3	8	31	109
IZ402110088	7.4	8	31	109
IZ402110089	7.5	8	31	109
IZ402110090	7.6	8	33	117
IZ402110091	7.7	8	33	117
IZ402110092	7.8	8	33	117
IZ402110093	7.9	8	33	117
IZ402110094	7.97	8	33	117
IZ402110095	7.98	8	33	117
IZ402110096	7.99	8	33	117
IZ402110097	8	8	33	117

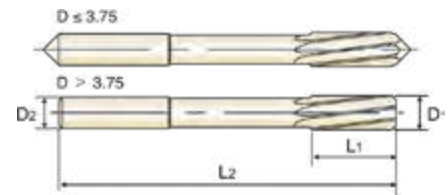
HSS / REAMERS

HSS REAMERS

- O.D. Tolerances
Whole-number Ø and 1/10 size : DIN 1420 for H7
1/100 size: from Ø2.01 to Ø5.03 : +0.004/-0.000mm
from Ø5.97 to Ø12.03 : +0.005/-0.000mm
- Shank Diameter Tolerances : h6



- LH Spiral Flutes / Right Hand Cut
- Chamfer Angle - Up to Ø3.75 : 15°
- Over Ø3.75 : 45°



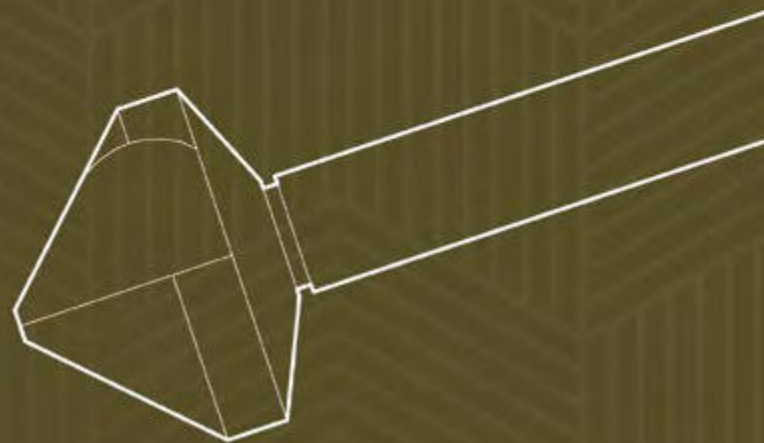
HSS-E

H7



Unit : mm

SDC No.	Nominal SIZE	Shank Diameter	Flute Length	Overall Length
Vap	D1	D2	L1	L2
IZ4021I0098	8.01	8	33	117
IZ4021I0099	8.02	8	33	117
IZ4021I0100	8.03	8	33	117
IZ4021I0101	8.1	8	33	117
IZ4021I0102	8.2	8	33	117
IZ4021I0103	8.3	8	33	117
IZ4021I0104	8.4	8	33	117
IZ4021I0105	8.5	8	33	117
IZ4021I0106	8.6	10	36	125
IZ4021I0107	8.7	10	36	125
IZ4021I0108	8.8	10	36	125
IZ4021I0109	8.9	10	36	125
IZ4021I0110	9	10	36	125
IZ4021I0111	9.01	10	36	125
IZ4021I0112	9.02	10	36	125
IZ4021I0113	9.03	10	36	125
IZ4021I0114	9.1	10	36	125
IZ4021I0115	9.2	10	36	125
IZ4021I0116	9.3	10	36	125
IZ4021I0117	9.4	10	36	125
IZ4021I0118	9.5	10	36	125
IZ4021I0119	9.6	10	38	133
IZ4021I0120	9.7	10	38	133
IZ4021I0121	9.8	10	38	133
IZ4021I0122	9.9	10	38	133
IZ4021I0123	9.97	10	38	133
IZ4021I0124	9.98	10	38	133
IZ4021I0125	9.99	10	38	133
IZ4021I0126	10	10	38	133
IZ4021I0127	10.01	10	38	133
IZ4021I0128	10.02	10	38	133
IZ4021I0129	10.03	10	38	133
IZ4021I0130	11	10	41	142
IZ4021I0131	11.97	10	41	151
IZ4021I0132	11.98	10	41	151
IZ4021I0133	11.99	10	41	151
IZ4021I0134	12	10	44	151
IZ4021I0135	12.01	10	44	151
IZ4021I0136	12.02	10	44	151
IZ4021I0137	12.03	10	44	151
IZ4021I0138	13	10	44	151
IZ4021I0139	14	14	47	160
IZ4021I0140	15	14	50	162
IZ4021I0141	16	14	52	170
IZ4021I0142	17	14	54	175
IZ4021I0143	18	14	56	182
IZ4021I0144	19	16	58	189
IZ4021I0145	20	16	60	195



HSS / **OTHERS**

Centerdrill /486
Countersink /487

HSS / OTHERS

TURNING

GROOVING

THREADING

MILLING

DRILLING

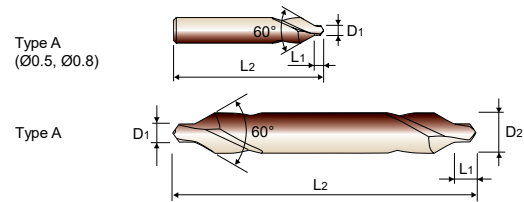
ENDMILLS

DRILLS

HSS
DRILLS & TAPSSPARE
PARTS

INDEX

HSS CENTER DRILLS



HSS

DIN
333

k12



120°



h8



Unit : mm

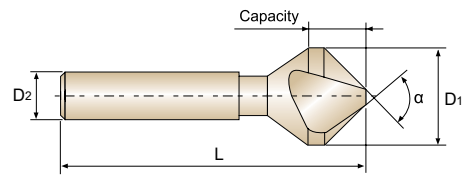
SDC No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
Vap	D1	D2	L1	L2
IZ1303I0001	1.0	3.15	1.3	31.5
IZ1303I0002	1.25	3.15	1.6	31.5
IZ1303I0003	1.6	4	2	35.5
IZ1303I0004	2.0	5	2.5	40
IZ1303I0005	2.5	6.3	3.1	45
IZ1303I0006	3.15	8	3.9	50
IZ1303I0007	4.0	10	5	56
IZ1303I0008	5.0	12.5	6.3	63
IZ1303I0009	6.3	16	8	71

⊙ EXCELLENT ○ GOOD

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	⊙	⊙	⊙	○		⊙	○	○		○		⊙	○	○	○	○	○		○	

ISO	N										S						H				
	Aluminum wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					

HSS COUNTERSINK



HSS

DIN
335C



Unit : mm

SDC No.	Point Angle	Cutter Diameter	Shank Diameter	Overall Length	Capacity
Vap	α	D1	D2	L(± 1)	min/max
IZ313910001	90°	4.3	4	40	1.3 - 4.3
IZ313910002	90°	5.0	4	40	1.5 - 5.0
IZ313910003	90°	6.0	5	45	1.5 - 6.0
IZ313910004	90°	6.3	5	45	1.5 - 6.3
IZ313910005	90°	7.0	6	50	1.8 - 7.0
IZ313910006	90°	8.0	6	50	2.0 - 8.0
IZ313910007	90°	8.3	6	50	2.0 - 8.3
IZ313910008	90°	10.0	6	50	2.5 - 10.0
IZ313910009	90°	10.4	6	50	2.5 - 10.4
IZ313910010	90°	11.5	8	56	2.8 - 11.5
IZ313910011	90°	12.4	8	56	2.8 - 12.4
IZ313910012	90°	15.0	10	60	3.2 - 15.0
IZ313910013	90°	16.5	10	60	3.2 - 16.5
IZ313910014	90°	19.0	10	63	3.5 - 19.0
IZ313910015	90°	20.5	10	63	3.5 - 20.5
IZ313910016	90°	23.0	10	67	3.8 - 23.0
IZ313910017	90°	25.0	10	67	3.8 - 25.0
IZ313910018	90°	30.0	12	71	4.2 - 30.0
IZ313910019	90°	31.0	12	71	4.2 - 31.0

☉ EXCELLENT ○ GOOD

ISO Material Description	P											M				K					
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	☉	☉	☉	○		☉	○	○		○		☉	○	○	○	○	○		○		

ISO Material Description	N										S							H			
	Aluminum wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					

The logo for Sangeo cutting tools. It features the word "Sangeo" in a bold, white, sans-serif font. Above the letter "e" is a small white icon of a curved blade. Below "Sangeo" is the phrase "cutting tools" in a smaller, white, sans-serif font.

Sangeo
cutting tools

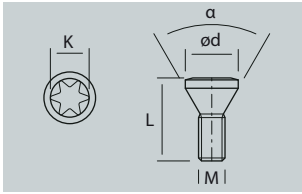


SPARE PARTS /

Spare Parts / 486

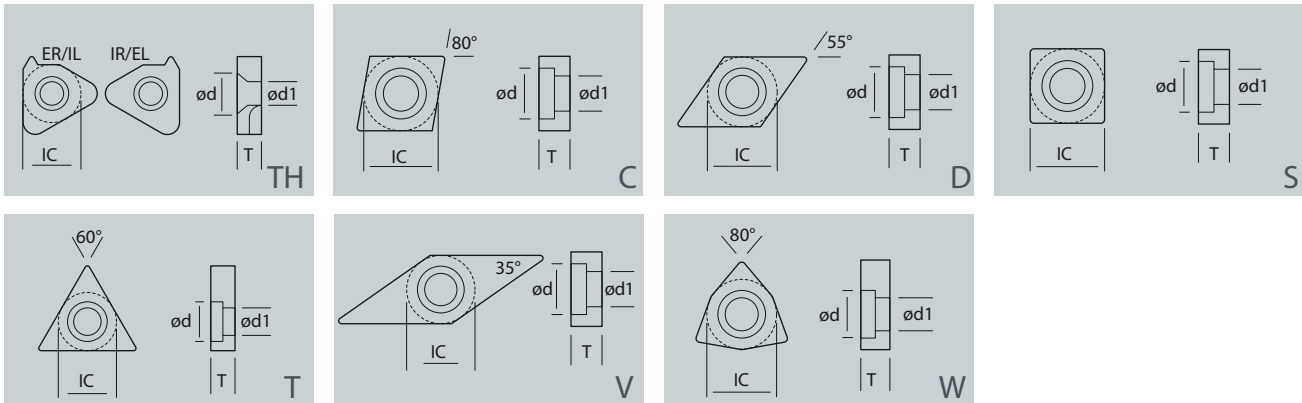
SPARE PARTS

INSERTS CLAMPING SCREW



DESCRIPTION	d	M	L	α	K	TORQUE (Nm)
ST-SC1804	2.60	M1.8 x 0.40	4.00	60°	T6	0.50
ST-SC0206	2.70	M2.0 x 0.40	6.00	60°	T6	0.50
ST-SC0226	3.10	M2.2 x 0.45	6.00	60°	T7	0.80
ST-SC0257	3.10	M2.5 x 0.45	7.00	60°	T7	0.80
ST-SC0309	4.30	M3.0 x 0.50	9.00	90°	T10	1.40
ST-SC3511	5.30	M3.5 x 0.60	11.0	60°	T15	3.50
ST-SC3514	5.30	M3.5 x 0.60	14.0	60°	T15	3.50
ST-SC3507	5.30	M3.5 x 0.60	7.00	60°	T15	3.50
ST-SC0411	5.50	M4.0 x 0.70	11.0	60°	T15	3.50
ST-SC0416	5.50	M4.0 x 0.70	16.0	60°	T15	3.50
ST-SC0415	5.50	M4.0 x 0.70	15.0	60°	T15	3.50
ST-SC4516	6.20	M4.5 x 0.75	16.0	60°	T15	3.50
ST-SC0513	7.00	M5.0 x 0.80	13.0	60°	T20	4.50
ST-SC0511	7.00	M5.0 x 0.80	11.0	60°	T20	4.50
ST-SC0512	7.00	M5.0 x 0.80	12.0	60°	T20	4.50
ST-SC0616	8.00	M6.0 x 1.00	16.0	60°	T20	4.50
ST-SC0523	7.00	M5.0 x 0.80	23.0	60°	T20	4.50
ST-SC0525	7.00	M5.0 x 0.80	25.0	60°	T20	4.50
ST-SC0630	8.00	M6.0 x 1.00	30.0	60°	T20	4.50
ST-SC6307	8.00	M6.0 x 1.00	30.0	90°	T20	4.50
ST-SC0830	9.50	M8.0 x 1.25	30.0	60°	T20	5.50
ST-SC6301	8.00	M6.0 x 1.00	30.0	90°	T20	4.50
ST-SC420	5.50	M4.0 x 0.70	20.0	60°	T15	3.50
ST-SC512	7.00	M5.0 x 0.80	12.0	60°	T20	4.50
ST-SC625	8.00	M6.0 x 1.00	25.0	60°	T20	4.50
ST-SC8301	9.50	M8.0 x 1.25	30.0	90°	T20	5.50
ST-SC610	8.00	M6.0 x 1.00	10.0	90°	T20	4.50
ST-SC810	9.50	M8.0 x 1.25	10.0	60°	T20	5.50

SHIM



DESCRIPTION	IC	T	ød	ød1	INSERT	DRAWING
ST-SHDN11	8.50	3.20	6.60	5.20	DC□□11, DN□□11	ref. D
ST-SHDN15	12.50	3.20	8.40	6.70	DN□□1506	ref. D
ST-SHCN12	12.50	3.20	8.40	6.70	CN□□12	ref. C
ST-SHCN16	15.50	4.80	10.80	9.70	CN□□16	ref. C
ST-SHCN19	18.70	4.80	13.10	11.20	CN□□19	ref. C
ST-SHWN08	12.20	4.80	8.00	7.30	WN□□08	ref. W
ST-SHSN12	12.30	4.80	8.00	7.30	SN□□12	ref. S
ST-SHSN19	18.70	4.80	13.10	11.20	SN□□19	ref. S
ST-SHTN16	9.30	3.20	6.60	5.80	TN□□16	ref. T
ST-SHTN22	18.70	4.80	8.00	7.30	TN□□22	ref. T
ST-SHVN16	9.20	3.20	6.60	5.80	VN□□16	ref. V
ST-SHDC11	8.50	3.20	6.60	5.20	DC□□11	ref. D
ST-SHSC09	12.20	4.80	8.00	7.30	SC□□09	ref. S
ST-SHSC12	11.40	3.90	8.40	6.70	SC□□12	ref. S
ST-SHCC09	8.50	3.20	6.60	5.20	CC□□09	ref. C
ST-SHCC12	11.40	3.90	8.40	6.70	CC□□12	ref. C
ST-SHVB16	8.20	3.20	6.60	5.40	VB□□16	ref. V
ST-SHTC16	9.10	3.20	6.60	4.50	TC□□16	ref. T
ST-SHVC16	8.20	3.20	6.60	5.40	VC□□16	ref. V
ST-SHKNR/L	11.40	3.20	6.60	7.30	KN□□16	ref. K
ST-SHEI16	9.50	3.20	6.00	4.20	16ER/16IR	ref. TH
ST-SHEI22	18.70	4.80	8.00	7.30	22ER/22IR	ref. TH

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

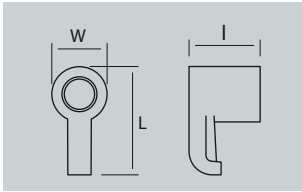
DRILLS

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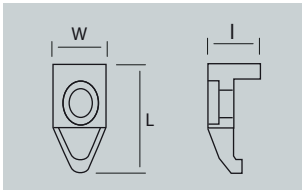
SPARE PARTS

CLAMPS (M-STYLE CLAMPING)



DESCRIPTION	W	L	I			
ST-CS006	9.40	18.20	13.50			
ST-CS007	7.90	16.90	7.90			
ST-CS008	7.75	14.90	10.95			
ST-CS009	9.40	18.20	13.50			

CLAMPS (D-STYLE CLAMPING)



DESCRIPTION	Ød	M	L			
ST-CS001	9.70	M6x1	24.00			
ST-CS002	9.70	M6x1	24.00			
ST-CS003	9.70	M6x1	24.00			
ST-CS004	9.70	M6x1	24.00			
ST-CS004	9.70	M6x1	24.00			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

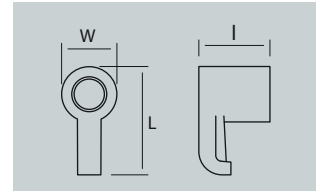
DRILLS

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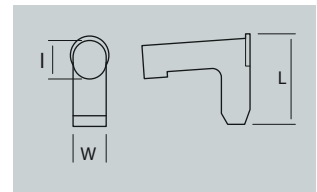
SPARE PARTS

CLAMPS (C-STYLE CLAMPING)



DESCRIPTION	W	L	I			
ST-CS010	9.40	18.20	13.50			
ST-CS011	7.90	16.90	7.90			
ST-CS012	9.40	18.20	13.50			
ST-CS013	7.90	16.90	7.90			

LEVER (P-STYLE CLAMPING)



DESCRIPTION	W	L	I			
ST-LV001	4.75	13.60	4.45			
ST-LV002	4.60	14.50	5.00			
ST-LV003	4.70	14.80	5.10			

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

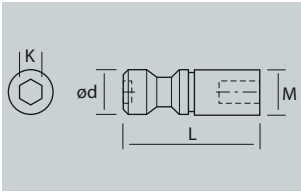
HSS
DRILLS & TAPS

SPARE
PARTS

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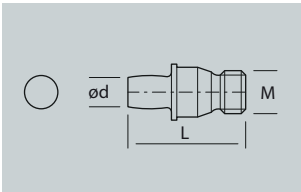
SPARE PARTS

LEVER LOCKING SYSTEM (P-STYLE CLAMPING)



DESCRIPTION	d	M	L	K		
ST-SC820	8.00	M8.0 x 1.00	20.0	HEXA 3		
ST-SC822	8.00	M8.0 x 1.00	22.0	HEXA 3		
ST-SC1020	10.00	M10.0 x 1.25	20.0	HEXA 4		
ST-SC1022	10.00	M10.0 x 1.25	22.0	HEXA 4		

ECCENTRIC LOCK PIN (M-STYLE CLAMPING)



DESCRIPTION	M	L	I			
ST-SP001	5.00	17.7	5.00			
ST-SP002	6.00	21.8	6.20			
ST-SP003	4.50	14.0	3.70			

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