

- Industrial hoses
- Fitting connections
- Hydraulic cylinders
- Pneumatic cylinders
- Crimping machine
- Hydraulic power unit
- Other hydraulic components



Hydraulic & Steam Hose

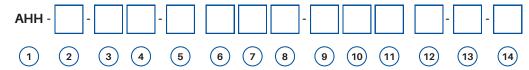


Astron Industrial Hose Series

- Hoses are available for high-pressure oil, air, water, steam, and chemicals.
- Pressure applications vary up to 420 bar.
- Working temperature vary up to 250° C.
- Custom-made solutions are always available.
- Consult your specific needs with Astron.



How to Order



1 Series

AHH	Hydraulic Hose
ASH	Steam Hose
AWH	Fexible Water Hose
ARB	Flexible Rubber Hose
ASBH	Sand Blasting Hose
ACH	Chemical Hose

(2) Hose Brand

1	Astron Fluid
2	Dunlop

^{*}Check other brand options on the next page (Figure 3.).

(3) Туре

A SAE100 1AT/1SN	
71 0712100 1711/1011	
B SAE100 2AT/2SN	
C SAE100 R4	
D EN 856 4SH	
E EN 856 4SP	
F Teflon smooth bore	
G Teflon corrugated	
H Metal stripwound	
I Metal corrugated	
Z Others	

(4) Hose Size (Inch)

04	1/4"
05	5/16"
06	3/8"
08	1/2"
10	5/8"
12	3/4"
16	1"
20	1-1/4"
24	1-1/2"
32	2"
38	2-3/8"
40	2-1/2"
48	3"
56	3-1/2"
64	4"

5 Hose Assembly Length (mm)

500	500 mm
1000	1000 mm
1500	1500 mm
	*

*Specify the hose assembly length as needed

6 1st Connector Type

A1	JIC Female
A2	JIC Male
B1	JIS BSP Female
B2	JIS BSP Male
C1	JIS Metric Female/Komatsu
C2	JIS Metric Male/Komatsu
D1	BSP Female
D2	BSP Male
E1	ORFS Female
E2	ORFS Male
F1	SAE 3000 Flange
F2	SAE 6000 Flange
G1	RO-S Female
G2	RO-S Male
H1	RO-L Female
H2	RO-L Male
I1	SAE 45° Flare Female
12	SAE 45° Flare Male

7 1st Connector Angle

Blank	Straight
Α	45°
В	90°

Refer to the **Figure 1.** 1st and 2nd Connector Angle

8 1st Connector Orientation

Blank	Align with the hose centerline
Α	O°

Refer to the ${\it Figure~2.}$ Connector Orientation

9 2nd Connector Type

A1	JIC Female
A2	JIC Male
B1	JIS BSP Female
B2	JIS BSP Male
C1	JIS Metric Female/Komatsu
C2	JIS Metric Male/Komatsu
D1	BSP Female
D2	BSP Male
E1	ORFS Female
E2	ORFS Male
F1	SAE 3000 Flange
F2	SAE 6000 Flange
G1	RO-S Female
G2	RO-S Male
H1	RO-L Female
H2	RO-L Male
I1	SAE 45° Flare Female
12	SAE 45° Flare Male

(10) 2nd Connector Angle

Blank	Straight
А	45°
В	90°

Refer to the Figure 1. 1st and 2nd Connector Angle

11) 2nd Connector Orientation

Blank	Align with the hose centerline
Α	O°
В	45°
С	90°
D	135°
E	180°
F	225°
G	270°
Н	315°

Refer to the Figure 2. Connector Orientation



12) 1st Double Nipple

Blank	NO NEED DOUBLE NIPPLE
DN	*** X BSPT (HOSE SIZE) STRAIGHT
A1	JIC x BSPT (HOSE SIZE) ELBOW
A2	JIC x BSPT (HOSE SIZE) ELBOW 45°
B1	JIS BSP x BSPT (HOSE SIZE) ELBOW 90°
B2	JIS BSP x BSPT (HOSE SIZE) ELBOW 45°
C1	BSP Female x BSPT (HOSE SIZE) ELBOW 90°
C2	BSP Female x BSPT (HOSE SIZE) ELBOW 45°
D1	ORFS x BSPT (HOSE SIZE) ELBOW 90°
D2	ORFS x BSPT (HOSE SIZE) ELBOW 45°
F	SPLIT FLANGE
G1	RO-S x BSPT (HOSE SIZE) ELBOW 90°
G2	RO-S x BSPT (HOSE SIZE) ELBOW 45°
H1	RO-L x BSPT (HOSE SIZE) ELBOW 90°
H2	RO-L x BSPT (HOSE SIZE) ELBOW 45°
I1	SAE 45° FLARE x BSPT ELBOW 90°
12	SAE 45° FLARE x BSPT ELBOW 45°

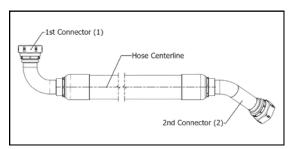


Figure 1. 1st and 2nd Connector Angle

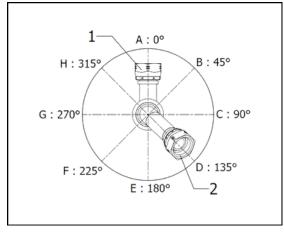


Figure 2. Connector Orientaion

13) 2nd Double Nipple

Blank	NO NEED DOUBLE NIPPLE
DN	*** x BSPT (HOSE SIZE) STRAIGHT
A1	JIC x BSPT (HOSE SIZE) ELBOW
A2	JIC x BSPT (HOSE SIZE) ELBOW 45°
B1	JIS BSP x BSPT (HOSE SIZE) ELBOW 90°
B2	JIS BSP x BSPT (HOSE SIZE) ELBOW 45°
C1	BSP Female x BSPT (HOSE SIZE) ELBOW 90°
C2	BSP Female x BSPT (HOSE SIZE) ELBOW 45°
D1	ORFS x BSPT (HOSE SIZE) ELBOW 90°
D2	ORFS x BSPT (HOSE SIZE) ELBOW 45°
F	SPLIT FLANGE
G1	RO-S x BSPT (HOSE SIZE) ELBOW 90°
G2	RO-S x BSPT (HOSE SIZE) ELBOW 45°
H1	RO-L x BSPT (HOSE SIZE) ELBOW 90°
H2	RO-L x BSPT (HOSE SIZE) ELBOW 45°
I1	SAE 45° FLARE x BSPT ELBOW 90°
12	SAE 45° FLARE x BSPT ELBOW 45°

(14) Custom Made

Blank	Standard
Х	Specifications and dimensions are made to match the customer's requirements.



Figure 3. Available Hose Brands





AT140 Series

- Standard tie rod type hydraulic cylinder
- Double acting hydraulic cylinder for 70 kgf/cm2 or 140kgf/cm2 with bore size from Ø32 to Ø250
- High performance cushion to reduce shock when stopping
- Various mounting style
- Custom made solution is always available



How to Order





(1) Series

AT140	Single Rod
AT140W	Double Rod
AT140L	Single Rod, Magnet Built-in
AT140LW	Double Rod, Magnet Built-in

(2) Piston seal

-	Common seal
С	Compact (standard)
B*	Seal for booster cylinder

^{*}It is a pressure method for forward. Please order separately for the pressure method for reverse

(3) Seal material

-	Nitrile urethane (standard)
1	Nitrile rubber
2	Urethane rubber
3	Fluoric rubber

(4) Mounting

SD	Standard
LA	Axial angle of foot
LB	Axial foot
FA	Rod side rectangular flange
FB	Head side rectangular flange
FY	Rod side rectangular flange
FZ	Head side rectangular flange
FC	Rod side square flange
FD	Head side square flange
CA	Single clevis
СВ	Double clevis
TC	Center trunnion
TA	Rod side trunnion

(5) Mounting

Code	Tube bore	В	С
Code		Strong	Standard
32	Ø32	Ø18	-
40	Ø40	Ø22	Ø18
50	Ø50	Ø28	Ø22
63	Ø63	Ø35	Ø28
80	Ø80	Ø45	Ø35
100	Ø100	Ø55	Ø45
125	Ø125	Ø70	Ø55
140	Ø140	Ø80	Ø65
150	Ø150	Ø85	Ø65
160	Ø160	Ø90	Ø70
180	Ø180	Ø100	Ø80
200	Ø200	Ø110	Ø90
250	Ø250	Ø140	Ø112

Cushion

N	None
В	Cushion on both ends
R	Cushion on rod side
Н	Cushion on head side

(8) Stroke

$\overline{}$	
Bore	Standard stroke (~Max)
Ø32~Ø50	~1200
Ø63~Ø80	~1600
Ø100~Ø250	~2000

Verify buckling as it may vary with mounting style Contact us for longer stroke

(9) Port position

A*, B, C, D

A position is standard Refer to figure on the right Cushion valve position

A, B*, C, D

B position is standard Refer to figure on the right



(C) Choose the desire port form code A, B, C, and D

(11) Bellows

-	None	
Code	Material	Ambient temp.
J	Nylon tarpaulin	60°C
K	Neoprene cloth	110°C (Max.)

(12) Rod end attachment

-	Rod end nut (standard)
I	Single knuckle joint
Υ	Double knuckle joint

(13) Auto switch

-	None		
Reed	Model	Solid state	Model
A54	D-A54K	F59	D-F59K
A56	D-A56K	F5P	D-F5PK
A64	D-A64K	J59	D-J59K
A90(V)	D-A90(V)K	J51	D-J51K
A93(V)	D-A93(V)K	F9N	D-F9N(V)K
A96(V)	D-A96(V)K	F9P	D-F9P(V)K
		F9B	D-F9B(V)K

(14) Number of auto switch

-	2 pcs
s	1 pc
N	N pcs (3, 4, 5,)

(15) Special design

-	Standard
X*	Custom made

*The code X indicates that the product is made according to





AM Series

- Standard agricultural machine and industrial hydraulic cylinder
- Hydraulic cylinder for 100kgf/cm with bore sizes from Ø32 to Ø400
- One side installation is possible depending on piping
- Various mounting styles
- Custom made dimension and specification are always available



How to Order



1 Series

AM	Hydraulic machinery cylinder

(2) Mounting

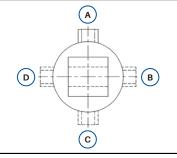
LB	Axial foot
FA	Rod side rectangular flange
FB	Head side rectangular flange
CA	Single clevis
СВ	Double clevis
TC	Center trunnion
TA	Rod side trunnion
ТВ	Head side trunnion

3 Mounting

	(4) Stroke
bore	Stroke

Code	Tube bore	Stroke
32	Ø32	
40	Ø40	
50	Ø50	
63	Ø63	
70	Ø70	
80	Ø80	
90	Ø90	
100	Ø100	
125	Ø125	Up to 3000
140	Ø140	(Please specify
150	Ø150	the stroke value that you need.)
160	Ø160	
180	Ø180	
200	Ø200	
250	Ø250	
280	Ø280	
300	Ø300	
350	Ø350	
400	Ø400	

(5) Port A & B position*



*) See Figure 1. for the port position

6 Bellows

-	None	
Code	Material	Ambient temp.
J	Nylon tarpaulin	60°C
K	Neoprene cloth	110°C (Max.)

7 Rod end attachment

-	Rod end nut (standard)
1	Single knuckle joint
Υ	Double knuckle joint

8 Special design

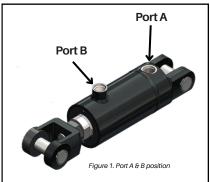
-	Standard
X**	Custom made

**) The code X indicates that the product is made according to the customer's requested specifications (custom made).

Specification * * *

Туре	Refer to cylinder inner diameter
Max. operating pressure	100kgf/cm2 (10 MPa)
Proof pressure	200kgf/cm2 (20 MPa)
Min. operating pressure	5kgf/cm2 (0.5 MPa)
Temperature range	-10 ~ 60°C
Working fluid	Petroleum-based oil
Tolerance of thread	KS Class 2
Tolerance of stroke	0~0.8 mm

***) This is the general specification for the Astron Fluid AM Series hydraulic cylinder. If the requested specification differs from what is listed in this catalog, the detailed information will be provided in the drawing.





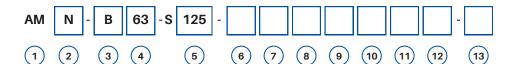


AM Series

- Built-in magnet (if needed)
- Non-lubricated seal
- · Cushion needle avoid detachment
- Kinetic energy absorption is increased by using special packing
- Custom made solution



How to Order



1 Series

AM	Medium size, single rod
AM	Medium size, double rod

2 Lubrication

N	Not required (standard)
L	Low hydraulic pressure ≤ 5kgf/cm2
G	Low hydraulic pressure ≤ 25kgf/cm2
Q	Low friction type

(3) Mounting

В	Standard
LB	Foot
FA	Rod side flange
FB	Head side flange
CA	Single clevis
СВ	Double clevis
TC	Center trunnion
TA	Rod side trunnion
ТВ	Head side trunnion

4 Tube bore size

5 Stroke

Bore	Standard	Max. stroke
40	25, 50, 75, 100, 125,	
50	150, 175, 200, 250,	
63	300, 350, 400, 450, 500, 550, 600, 650,	2950
80	700, 750, 800, 850,	
100	900, 950, 1000	

(6) Bellows

1	None	Ambient temp.
J	Nylon tarpaulin	60°C
К	Neoprene cloth	110°C (Max.)

7 Rod end attachment

-	Rod end nut (standard)
ı	Single knuckle joint
Υ	Double knuckle joint

8 Mounting bracket

- None	
K2 Trunnion	

9 Auto switch

-	None		
Reed	Model	Solid state	Model
A54	D-A54K	F59	D-F59K
A56	D-A56K	F5P	D-F5PK
A64	D-A64K	J59	D-J59K
A90(V)	D-A90(V)K	J51	D-J51K
A93(V)	D-A93(V)K	F9N	D-F9N(V)K
A96(V)	D-A96(V)K	F9P	D-F9P(V)K
		F9B	D-F9B(V)K

(10) Number of auto switch

-	2 pcs
s	1 pc
N	N pcs (3, 4, 5,)

(11) Special option

TS	Multi-step stroke cylinder(single rod)
TW	Multi-step stroke cylinder(double rod)
TD	Tandem cylinder
ASJ	Stroke adjustable type(25mm)
BSJ	Stroke adjustable type(50mm)
s	Single acting spring return
Т	Single acting spring extend
MS	Heavy duty scraper
sv	Heat resistant cylinder(150°C)
ss	Stainless steel piston rod

(12) Low friction direction

R	When pressurized on rod side
Н	When pressurized on head size





(13) Special design

-	Standard
X*	Custom made

*The code X indicates that the product is made according to the customer's requested specifications (custom made).



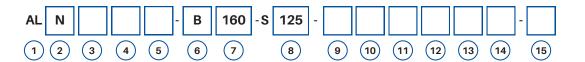


AL Series

- Excellent durability and performance Large pneumatic cylinders provide various mounting options
- Available options with a variety of cover materials: aluminum, steel, stainless steel
- Auto switch can be mounted up to Ø300 with the built-in magnet (aluminum type)
- Custom made solution



How to Order



(1) Series

AL	Large size, single rod
ALW	Large size, double rod

2 Lubrication

N	Not required (standard)
L	Low hydraulic pressure ≤ 5kgf/cm2
G	Low hydraulic pressure ≤ 25kgf/cm2
Q	Low friction type

(3) Magnet

-	None
Н	Built-in magnet (Ø125-Ø300)

(4) Tube Material

-	Aluminium
Н	Steel
S	Stainless Steel

(5) Cover Material

-	Aluminium
Н	Steel
s	Stainless Steel

(6) Mounting

В	Standard	
LB	Foot	
FA	Rod side flange	
FB	Head side flange	
CA	Single clevis	
СВ	Double clevis	
TC	Center trunnion	
TA	Rod side trunnion	
ТВ	Head side trunnion	

(7) Tube bore size

Bore (Ø)	125, 140, 150, 160, 180, 200, 250, 300

(8) Stroke

Bore	Standard	Max. stroke
125	25, 50, 75, 100, 125,	
140	150, 175, 200, 250,	
	300, 350, 400, 450, 500, 550, 600, 650.	2950
250	700, 750, 800, 850,	
300	900, 950, 1000	

(9) Bellows

- None		Ambient temp.	
J Nylon tarpaulin 60°C		60°C	
К	Neoprene cloth	110°C (Max.)	

(10) Rod end attachment

-	Rod end nut (standard)
I	Single knuckle joint
Υ	Double knuckle joint

(11) Auto switch

<u> </u>			
-	None		
Reed	Model Solid state		Model
A54	D-A54K	F59	D-F59K
A56	D-A56K	F5P	D-F5PK
A64	D-A64K	J59	D-J59K
A90(V)	D-A90(V)K	J51	D-J51K
A93(V)	D-A93(V)K	F9N	D-F9N(V)K
A96(V)	D-A96(V)K	F9P	D-F9P(V)K
	•	F9B	D-F9B(V)K

(12) Number of auto switch

-	2 pcs
s	1 pc
N	N pcs (3, 4, 5,)

(13) Special option

TS	Multi-step stroke cylinder(single rod)
TW	Multi-step stroke cylinder(double rod)
TD	Tandem cylinder
ASJ	Stroke adjustable type(25mm)
BSJ	Stroke adjustable type(50mm)
s	Single acting spring return
Т	Single acting spring extend
MS	Heavy duty scraper
sv	Heat resistant cylinder(150°C)
SS	Stainless steel piston rod

(14) Low friction direction

R	When pressurized on rod side
н	When pressurized on head size
D	ч





(15) Special design

-	Standard
X*	Custom made

 $[*] The code \it X indicates that the product is made according to the customer's requested specifications (custom made).$





APP/AHPU Series

- Various configurations with lift type and basic circuit type Available.
- Custom made solution with various types of motors, tanks, hydraulic blocks, etc. You can optimize your system.



How to Order

APP - 025LT - 313 - GP2CC - 01 - B - X

(1)

2

3

4

5

6

7

1 Series

APP	Power pack (tank capacity ≤ 60 lt)
AHPU	Hydraulic power unit (tank capacity > 60 lt)

2 Tank capacity

4 liter
6 liter
500 liter
According to customer's need

^{*}Standard material is steel. Please consult Astron Fluid for other material

3 Electric Motor

Туре	Voltage	Output
M12		0.2kW
M22		0.5kW
012	DC24V	0.8kW
022		2.2kW
032		3kW
102	AC 1 Phase 220V	0.5kW
112		0.75kW
122		1.5kW
1228		1.8kW
132		2.2kW
303	AC 3 Phase 220/380V	0.5kW
313		0.75kW
323		1.5kW
333		2.2kW
353		3.7kW

^{*}Please consult Astron Fluid if you have different motor specifications.

4 Hydraulic pump

GP	Gear pump
VP	Vane pump
PP	Piston pump
~	According to customer's need

^{*}Please specify the displacement capacity (cc/rev) of the chosen pump. For example: GP2.5CC (gear pump 2.5 cc), VP10.8CC, etc.

5 Number of manifold block stations

01	1 station
02	2 stations
10	10 stations
~	According to customer's need

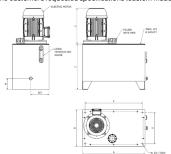
6 Control Voltage

М	Mechanical
Р	DC24V
A	AC110V
В	AC220V

7 Special design

<u> </u>	
-	Standard
X*	Custom made

*The code X indicates that the product is made according to the customer's requested specifications (custom made).



^{**} Write "HP" if you prefer to use hand pump (without electric motor)