

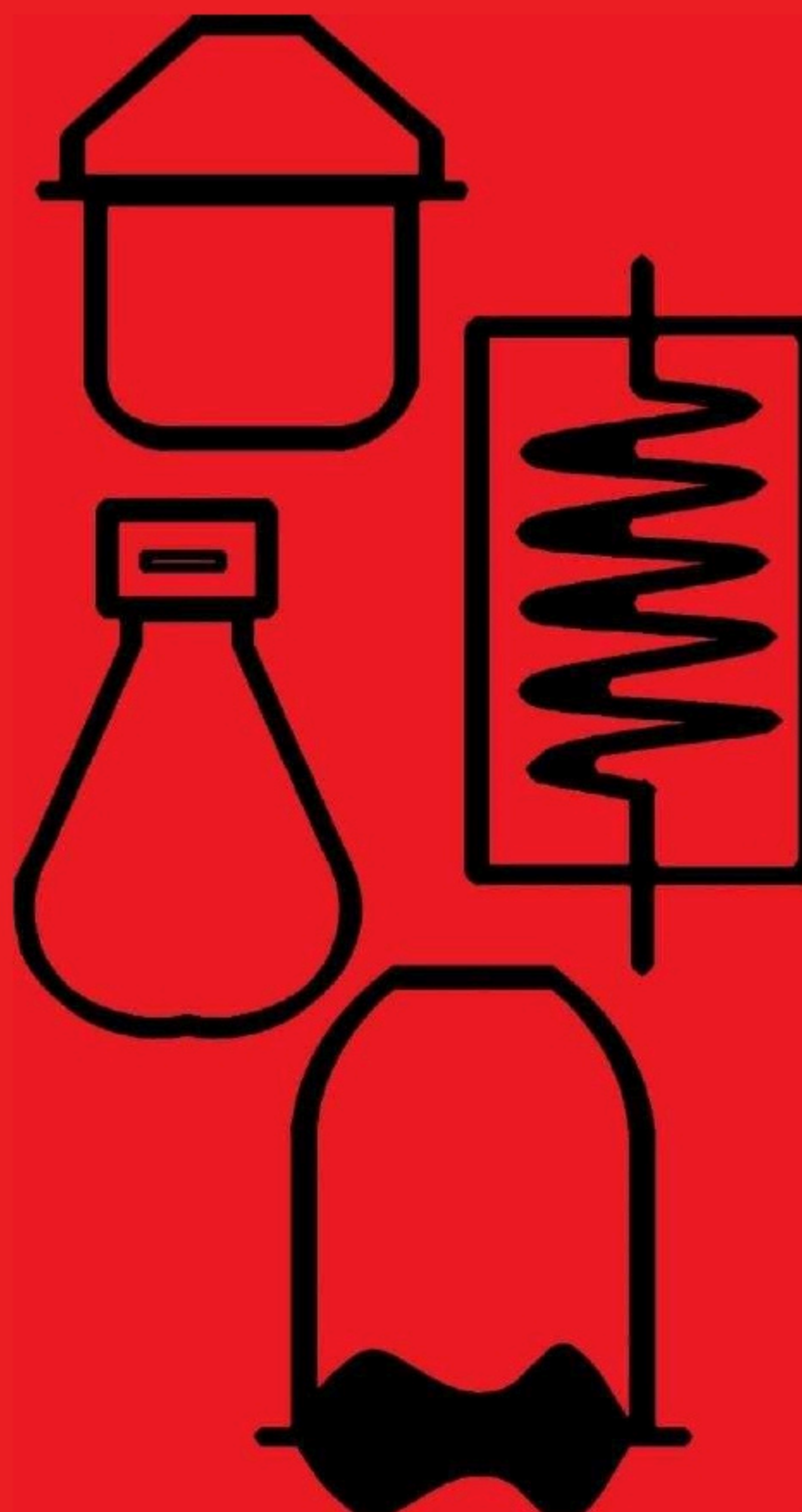
INTERNATIONAL TRADING & TECHNOLOGIES

Grinnel Corporation

Catalogue

PH 86

**Pipe Hangers, Supports, Devices,
& Vibration Isolators**



Company is certified as per Below Standard

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Certificate Number :
22EEGU42



Certificate Number :
22EQGF28



Certificate Number:
UQ - 2022051122

OUR MISSION AND VALUES:-

To be the market leader in the development, manufacture and worldwide sale of quality air moving and control equipment with total commitment to the customer. Our commitment to our customers is what drives our long-standing sustainability practices. We continuously strive to reduce energy usage and other production costs to ensure competitive prices for you and ongoing business success. We support the health, safety and training of our employees to achieve the high quality product performance you expect from ITT Grinnel — and deserve. And we take on the industry's most complex challenges by introducing innovative new product solutions to meet your future needs.

OUR VISION:-

ITT Grinnel Corporation will be a company that exceeds customer expectations and that others strive to emulate. We will be the worldwide leader in providing timely, flexible and cost-effective solutions.

PIPE HANGERS & SUPPORTS GENERAL SPECIFICATION:-

The specifications in this catalogue comply with the engineering principles and standards from Manufacturers' Standardization Society (MSS), and other pertinent documents. The specifications are intended as a guide only, and it is the design engineer's responsibility to use it in conjunction with the data found in this catalogue to determine the best product or products for the user's application.

I) MATERIAL DESIGN AND MANUFACTURE

All pipe hangers and supports shall be manufactured to comply with the latest edition of Manufacturers' Standardization Society. Where applicable, design and manufacture of these products should also conform to ANSI/ASME Code for Pressure Piping B31.1.

II) SELECTION

III) STANDARD

All selection and installation of pipe hangers and supports shall conform to Manufacturers' Standardization Society (MSS) SP- 58 & SP- 69 and other specifications that may apply which are listed in this document.

1) LOAD CALCULATIONS

Pipe hangers, supports, anchors and restraints must be selected to withstand all static and dynamic loading conditions which act upon the piping system and associated equipment. Piping supports and equipment must be considered as a total system and appropriate balance calculations made to determine load forces at critical stress points.

* Loading conditions to be considered may include but are not limited to:

- A) The total load of pipe, fittings, valves, insulation and any expected contents of the pipe.
- B) Thermal expansion and contraction.
- C) Stress from cycling of equipment or process.
- D) Vibration transmitted to or from equipment or terminal connection
- E) Wind, snow or ice loading on outdoor piping.
- F) Loading due to seismic forces if required by code or specification.

1) STRUCTURAL LOADS

Static and dynamic forces at points of attachment must be considered to help ensure structural integrity of buildings or equipment. Pipe hangers and supports must be selected so as to minimize the effect of piping system loading on the structure.

2) MATERIALS

- I) Appropriate materials and protective coatings shall be used to prevent failure from environmental and galvanic corrosion.
- II) Material that comes in contact with pipe shall be compatible with piping material so that neither has a deteriorating effect on the other.

3) PIPE ATTACHMENTS - HOT SYSTEMS

- III) Ambient systems are classified as those piping systems that have operating temperatures between 16°C (60°F) and 48°C (119°F).

4) PIPE ATTACHMENTS - COLD SYSTEMS

- IV) Cold systems are classified as those piping systems that have operating temperature below 16°C (60°F).
- V) Pipe hangers exposed to temperatures below -40°C (-40°F) require special design by the design engineer.

FINISHES

1) ZINC ELECTRO-GALVANIZED ASTM B633 / EN 12329 / ISO 4042 / BS 1706 / BS 3382 / DIN 5096

This type of coating is recommended for use indoors in relatively dry areas. The steel is submersed in a bath of zinc salts, through the process of electrolysis; a coating of pure zinc adheres to the steel with a molecular bond. A maximum of 0.5 mils of zinc can be applied using this method.

2) PRE-GALVANIZED EN 10327 / DIN 17162 / BS 2989 / ASTM A 527M / ASTM A 653M / JIS G 3302. EN 10326 / EN 10142 / ASTM A 526, 527, 528 / ASTM A 146

This type of coating is suitable for extended exposure in dry or mildly corrosive atmospheres but not generally recommended for use outdoors in industrial environments. Also known as "mill galvanized" or "hot-dip mill galvanized". Pre-Galvanized coatings are produced by rolling the steel coils or sheets through molten zinc, at the steel mill, the material is then cut or slit to size. Coating thickness is 0.90 ounces (25.50 grams) per square foot of steel surface. Zinc near the uncoated edges or weld areas becomes a sacrificial anode which protects the bare areas.

3) HOT-DIP GALVANIZED ASTM A123 / ASTM A153 / ISO 1461. BS 729 / DIN 50976

Recommended for prolonged outdoor exposure and will usually protect steel in most atmospheric environments. After fabrication the part is immersed in a bath of molten zinc. A metallurgical bond is formed resulting in a zinc coating that coats all surfaces including edges. Please note that some items cannot be hot-dip galvanized due to design, tolerances or threaded components. Threaded components on hot-dip galvanized products will be zinc electro-galvanized.

4) EPOXY COATING BS 3900 / ISO 2409 / ISO 1519 / ISO 1520

Designed for use with copper tubing. This coating provides a superior level of corrosion protection compared to the traditional copper plating finish. It also insulates against dissimilar metal contact, thus preventing electrolysis. During the coating process, the parts are zinc plated to a thickness of 0.0002 inches, the copper or black color epoxy powder is applied by an electrostatic method, and then the coated parts are baked at 82°C for 20 minutes.

5) COPPER PLATING ASTM B734 / ISO 4521

This coating is designed for copper tubing installations. The coating is intended to identify the product size only. This finish is not intended for corrosion resistance.

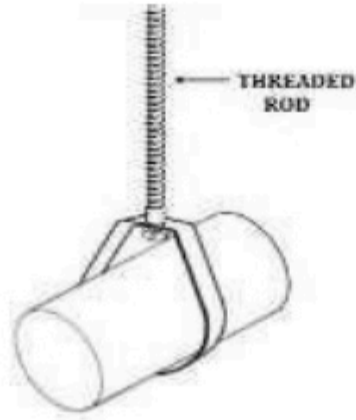
6) PVC COATING ISO 8095:1990

PVC coating helps reduce noise and protect the pipe or tubing from the metal surface of the hanger. Corrosion resistance protection is minimal.

PIPE HANGERS AND CLAMPS



ADJ. SWIVEL BAND HANGER
ANSI/MSS SP-58 & 69 TYPE 10
FIG-69



ADJ. DUCT HANGER
ANSI/MSS SP-58 & 69 TYPE 10
FIG-70



COPPER PLATED BAND HANGER
ANSI/MSS SP-58 & 69
TYPE 10 FIG-CT69



RUBBER LINING BAND HANGER
ANSI/MSS SP-58 & 69 TYPE 10
FIG-69R



STD. CLEVIS HANGER
ANSI/MSS SP-58 & 69 TYPE 1
FIG-260



LIGHT DUTY CLEVIS HANGER
ANSI/MSS SP-58 & 69 TYPE 1
FIG-65



COPPER PLATED CLEVIS HANGER
ANSI/MSS SP-58 & 69
TYPE 10 FIG-CT 65



CLEVIS HANGER WITH RUBBER
ANSI/MSS SP-58 & 69 TYPE 1
FIG-260R



U-STRAP CLAMP
ANSI/MSS SP-58 & 69 TYPE 26
FIG-266



U-STRAP CLAMP WITH RUBBER
ANSI/MSS SP-58 & 69 TYPE 26
FIG-266R



STD. RISER CLAMP
ANSI/MSS SP-58 & 69 TYPE 8
FIG-40



FOUR BOLT RISER CLAMP
ANSI/MSS SP-58 & 69 TYPE 8
FIG-42



STD. U-BOLT
ANSI/MSS SP-58 & 69 TYPE 24
FIG-137



U-BOLT WITH EPDM RUBBER
ANSI/MSS SP-58 & 69 TYPE 24
FIG-137R



RISER CLAMP WITH RUBBER
ANSI/MSS SP-58 & 69 TYPE 8
FIG-40R



HEAVY DUTY RISER CLAMP
ANSI/MSS SP-58 & 69 TYPE 42
FIG-41

SHEILD, SADDLE AND ROLLER SUPPORTS



INSU. PROTECTION SHEILD
ANSI/MSS 58 & 69
TYPE 40 FIG-167



INSU. PROTECTION SHORT
SHEILD ANSI/MSS 58 & 69 TYPE
40 FIG-168



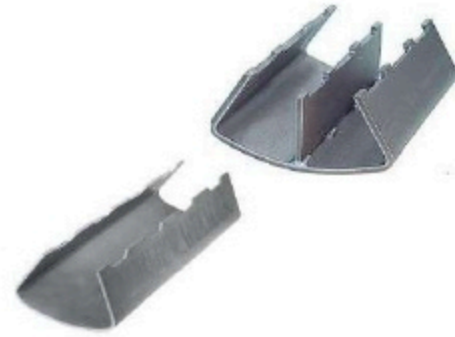
PIPE COVERING PRO. SADDLE
ANSI/MSS 58 & 69
TYPE 39 FIG-160 (1")



PIPE COVERING PRO. SADDLE
ANSI/MSS 58 & 69
TYPE 39 FIG-161 (1½")



PIPE COVERING PRO. SADDLE
ANSI/MSS 58 & 69
TYPE 39 FIG-162 (2")



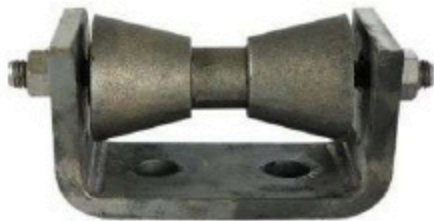
PIPE COVERING PRO. SADDLE
ANSI/MSS 58 & 69
TYPE 39 FIG-163 (2½")



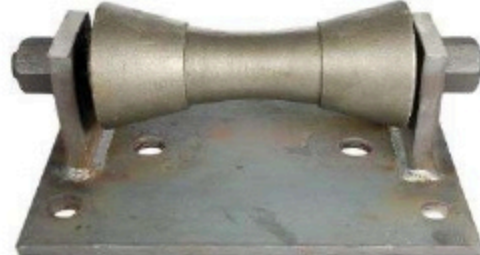
PIPE COVERING PRO. SADDLE
ANSI/MSS 58 & 69
TYPE 39 FIG-164 (3")



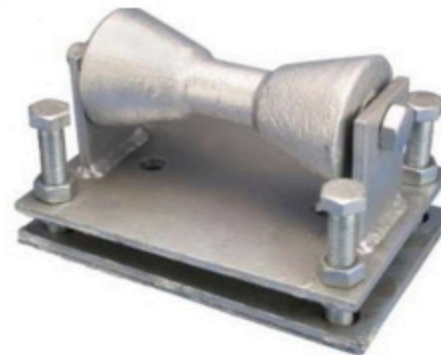
RUBBER SUPPORTS INSERT
FIG-166



CAST IRON SHORT ROLLER
CHAIR ANSI/MSS 58 & 69
TYPE 44 FIG-270



CAST IRON SHORT ROLLER
STAND ANSI/MSS 58 & 69
TYPE 44 FIG-271



ADJ. CAST IRON SHORT ROLLER
STAND ANSI/MSS 58 & 69
TYPE 46 FIG-275



CAST IRON ROLL FOR
REPLECMENT ANSI/MSS
FIG-276



LONG ROLLER WITH CHAIR
ANSI/MSS & 69 TYPE 44
FIG-175



CAST IRON PIPE ROLLER
HANGER ANSI/MSS 58 & 69
TYPE 43 FIG-181



CAST IRON PIPE ROLL WITH
SOCKET ANSI/MSS 58 & 69
TYPE 41 FIG-171



CAST IRON LONG ROLLER FOR
REPLACEMENT ANSI/MSS
FIG-172

STRUT PRODUCTS ACCESSORIES



WELDED BEAM ATTACHEMENT
ANSI/MSS SP 58 & 69
TYPE 22 FIG-66



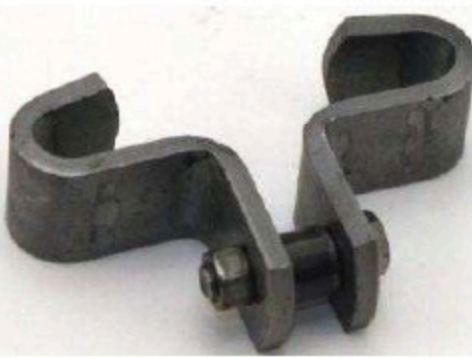
MALLEABLE IRON C CLAMP
ANSI/MSS SP 58 & 69
TYPE 23 FIG-86



UNIVERSAL MAILABLE BEAM
CLAMP ANSI/MSS SP 58 & 69
TYPE 19 FIG-93



FORGED CARBON STEEL
ANSI/MSS SP-58 & ANSI/MSS
SP-69 TYPE 17 FIG-290



CENTRAL LOAD BEAM PIPE
CLAMP ANSI/MSS SP-58 & MSS
SP 69 TYPE 21 FIG-133



TURNBUCKLE ADJUSTER
ANSI/MSS SP 58 & 69
TYPE 15 FIG-114



TURNBUCKLE
ANSI/MSS SP-69 MSS SP-58
TYPE 13 FIG-230



DROP IN ANCHOR ANSI/MSS SP
58 & MSS SP-69
FIG-470



G.I. CONTINUOUS THREADED
ROD ANSI/MSS SP-58 & SP-69
FIG-146



G.I. HEXAGON NUT ANSI/MSS SP 58
& 69 FIG-83



GALVIZED ROUND WASHER
ANSI/MSS SP 58 & 69
FIG-211



GALVANIZED STEEL SQUARE
WASHER ANSI/MSS
SP-58 & MSS SP-69
FIG-60



HEX HEAD BOLT ANSI/MSS
SP 58 & 69 FIG-433



FLAT EYE BOLT ANSI/MSS
SP-58 & MSS SP69 TYPE 17
FIG-277



WEDGE ANCHOR BOLT
ANSI/MSS SP-58 & MSS
SP 69 FIG-278



SLOTTED CHANNELL ANSI/MSS
SP-58 & MSS SP 69
FIG-444

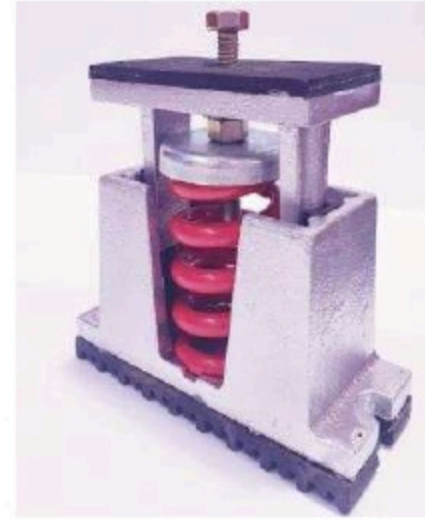
VIBRATION ISOLATORS AND FLAXIBLE CONNECTORS



OPEN SPRING MOUNT 25 MM DEF.
MODEL FSOSM
25 KG TO 1400 KG



OPEN SPRING MOUNT 50 MM DEF.
MODEL FSOSM
25 KG TO 1400 KG



CASED SPRING MOUNT 25 MM
DEF. MODEL HSMP
25 KG TO 4000 KG



CASED SPRING MOUNT 50 MM
DEF. MODEL HSML
25 KG TO 4000 KG



RESTRAINED SPRING MOUNT
25 MM DEF. MODEL
RSMP 25 TO 14000 KG



RESTRAINED SPRING MOUNT 50
MM DEF. MODEL
RSMR 75 TO 32000 KG



SUSPENSION SPRING HANGER
19 MM DEF.
MODEL SSHT 15 TO 50 KG



SUSPENSION SPRING HANGER
25 MM DEF.
MODEL SSH 25 TO 1200 KG



DOUBLE DEFLECTION SPRING
HANGER 19 MM DEF. MODEL
DSHT 15 TO 50 KG



DOUBLE DEFLECTION SPRING
HANGER 25 MM DEF. MODEL
DDSH 50 TO 1200 KG



NEOPRENE RUBBER HANGER 6
MM DEF, MODEL NRH 6 TO
1000 KG



ANTI VIBRATION RUBBER PAD
MODEL AVRP 225 TO 7250 KG



RUBBER FLOOR MOUNT MODEL
RFM 15 TO 1000 KG



FLEXIBLE HOSE MODEL FLH
PRESSURE RATING
PN 10 TO PN 25



RUBBER FLEXIBLE
CONNECTOR MODEL
PN 10 TO PN 25



FLEXIBLE EXPANSION JOINT
MODEL FEJ
PN 10 TO PN 40

Certificate of Registration

This is to Certify that
Quality Management System of

ITT GRINNEL CORPORATION

371/B, KASTURI APARTMENT, OFFICE NO.6, NEAR KANYA SHALA, SHANIWAR PATH,
PUNE, MAHARASHTRA, 411030, INDIA

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope :

PIPE HANGER & SUPPORTS, VIBRATION ISOLATORS, DIELECTRIC UNION & FLANGE,
FLEXIBLE RUBBER JOINT, EXPANSION STAINLESS STEEL JOINT, SUPPORTS STEEL
WORK AND ASSOCIATED EQUIPMENT FOR VARIOUS TYPES OF PIPE WORK AND
ACOUSTIC RUBBER PRODUCTS & RIGID COUPLING FITTING FOR PIPE JOINT.

Certificate No : **22EQGF28**

Initial Registration Date : 02/05/2022

Date of Expiry : 01/05/2025

1st Surve. Due : 02/04/2023

Issuance Date : 02/05/2022

2nd Surve. Due : 02/04/2024




Director

Magnitude Management Services Pvt. Ltd.

B-55, Lower Ground Floor, Sector 02, Noida-201301, U.P, India

e-mail: info@mmscertification.com, website: www.mmscertification.com

Certificate of Registration

This is to Certify that
Environmental Management System of

ITT GRINNEL CORPORATION

371/B, KASTURI APARTMENT, OFFICE NO.6, NEAR KANYA SHALA, SHANIWAR PATH,
PUNE, MAHARASHTRA, 411030, INDIA

has been assessed and found to conform to the requirements of

ISO 14001:2015

for the following scope :

PIPE HANGER & SUPPORTS, VIBRATION ISOLATORS, DIELECTRIC UNION & FLANGE,
FLEXIBLE RUBBER JOINT, EXPANSION STAINLESS STEEL JOINT, SUPPORTS STEEL
WORK AND ASSOCIATED EQUIPMENT FOR VARIOUS TYPES OF PIPE WORK AND
ACOUSTIC RUBBER PRODUCTS & RIGID COUPLING FITTING FOR PIPE JOINT.

Certificate No : **22EEGU42**

Initial Registration Date : 06/05/2022

Date of Expiry : 05/05/2025

1st Surve. Due : 06/04/2023

Issuance Date : 06/05/2022

2nd Surve. Due : 06/04/2024




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Certificate of Registration

This is to certify that the
Mechanical vibration and shock — Evaluation of human exposure to whole-body
vibration — Part 2: Vibration in buildings
of

ITT GRINNEL CORPORATION

at

**371/B, KASTURI APARTMENT, OFFICE NO.6, NEAR KANYA SHALA,
SHANIWAR PATH, PUNE, MAHARASHTRA, 411030, INDIA**

has been independently assessed and is
compliant with the requirements of:

ISO 2631-2:2003

For the following scope of activities:

**SPRING ISOLATORS, ANTI VIBRATION ISOLATORS, FLEXIBLE RUBBER CONNECTORS
AND ACOUSTIC RUBBER, SOUND AND NOISE CONTROL PRODUCTS**

Certificate Number: UQ - 2022051122

Validity of this certificate can be verified at www.ukcertifications.org.uk/verify

Date of Certification	11th May 2022
1 st Surveillance Audit Due	10th May 2023
2 nd Surveillance Audit Due	10th May 2024
Certificate Expiry	10th May 2025


Authorised Signatory



SUGGESTION

[illegible]

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ITT GRINNEL CORPORATION

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