

# ACCESSORIES

PRODUCT CATALOGUE 2016/2017



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**fluiconnector**  
— by manuli® —

# HOSE PROTECTIONS



# HOSE PROTECTIONS

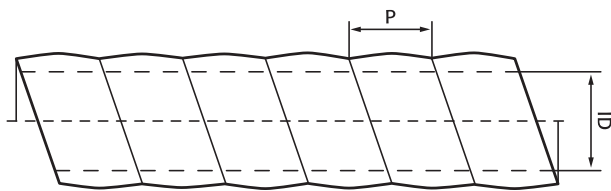
## PRODUCTS RANGE

Manuli Rubber Industries and Fluiconnecto by Manuli, thanks to the experience in the hydraulic fluid connectors sector, have developed a strong, easy to install, and high-tech hose protections range for hoses and piping.

Manuli hose protections are dedicated to heavy demanding applications and when the environment and safety policies are key factors to prevent injury, fluid jetting, abrasion or hose bundling. Hose protections reduce downtime and maintenance cost. The range meets all safety requirements of international specifications such as ISO, EN and SAE.

### How to calculate quantity of protection spring:

$$L = (\text{Hose OD} / \text{Spring ID}) \times (\text{length of hose to be covered})$$



Manuli hose protections successful performances are the results of a severe material selection, technological and design studies, as well as laboratory tests. In particular, high-tech polyamide material is recommended for the most severe applications, assuring outstanding performance in flexibility, abrasion temperature and environment agents resistance.

In order to complete the offer, a textile clinch strap is available, a very useful tool for hose bundling and support to hang to the machine. The clinch strap is recommended for difficult and long hose assemblies installation applications, such as drilling machines, when protection from dangerous hose damage is requested.

The hose protections range includes the following product lines:

### PROTECTION SPRINGS - PS

- black or yellow polyethylene, basic line spring guard
- service temperature: -40°C to +90°C; -40°F to +194°F
- recommended to protect hoses from abrasions and wearing with external parts in construction, agriculture and forestry machineries applications

### MINING PROTECTION SPRINGS - MPS

- black with red lines, thermoplastic spring guard, MSHA (flame retardant) and FRAS (electrical antistaticity) approved
- service temperature: -40°C to +90°C; -40°F to +194°F
- recommended for severe mining applications, for both hose bundling and protections when high abrasion and tough environment condition resistance are requested

### HT PROTECTION SPRINGS - HTPS

- black polyamide, high temperature line spring guard
- service temperature: -40°C to +120°C; -40°F to +248°F
- recommended for hoses proximity to hot surface when long durability, high temperature environment, flexibility and high abrasion resistance are requested.

### TEXTILE SLEEVES - TSL

- black polyester, high abrasion resistance textile sleeve
- service temperature: -50°C to +100°C; -58°F to +212°F; temperature peaks up to +140°C / +284°F
- recommended to protect the environment from sudden fluid jetting (jetting-breaking) of the hydraulic hose and the hose from abrasion.

### FIRE SLEEVES - FSL

- orange silicon sleeve with one braid of glass fibers
- service temperature: -60°C to + 260°C; -76°F to + 500°F
- recommended for hydraulic hose applications suffering for very high temperature sources and irradiation such as siderurgy, foundries, glassworks, railways industries.

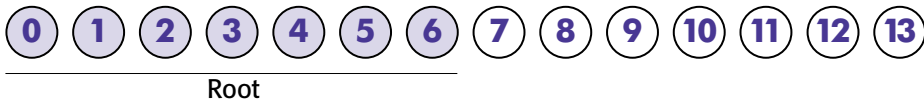
# HOSE PROTECTIONS

## SUMMARY

| PRODUCT LINE TYPE                      | KEY FEATURES                                   |            |                        |                                              |                                                              |                                                                                           |      |
|----------------------------------------|------------------------------------------------|------------|------------------------|----------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------|------|
|                                        | Material                                       | Size (mm)  | Colour                 | Temperature range                            | Specifications                                               | Key properties                                                                            | Page |
| PROTECTION SPRING<br><b>PS</b>         | polyethylene                                   | 9 - 84     | black or yellow        | min -40 °C<br>max +90 °C                     | Manuli® design                                               | high flexibility, high abrasion resistance                                                | 83   |
| MINING PROTECTION SPRING<br><b>MPS</b> | polyethylene (antistatic)                      | 12 - 84    | black with 2 red lines | min -40 °C<br>max +90 °C                     | Manuli® design<br>MSHA<br>FRA<br>ISO 6805                    | high abrasion resistance, flame retardant and antistatic properties                       | 84   |
| HT PROTECTION SPRING<br><b>HTPS</b>    | polyamide                                      | 10 - 60    | black                  | min. -40 °C<br>max +120 °C                   | Manuli® design<br>MSHA                                       | high temperature and abrasion resistance, very high flexibility, flame retardant          | 85   |
| TEXTILE SLEEVE<br><b>TSL</b>           | polyester fibers                               | 18 - 110   | black                  | min. -50 °C<br>max +100 °C<br>peaks +140 °C  | Manuli® design<br>MSHA<br>FRAS<br>MDG41                      | fluid energy diffusion, anti abrasive, flame retardant and antistatic properties          | 86   |
| FIRE SLEEVE<br><b>FSL</b>              | silicon sleeve with fiber glass braid          | 13 - 76    | orange                 | min. -60 °C<br>max +260 °C<br>peaks +1500 °C | Manuli® design<br>NFF16-101 and<br>P92-507 (class FO and M2) | extreme heat resistance, extreme flexibility at low temperature                           | 87   |
| TEXTILE CLINCH STRAP<br><b>TCS</b>     | polyester fibers                               | 400 - 1500 | black                  | min. -50 °C<br>max +100 °C                   | Manuli® design<br>MSHA FRAS                                  | flame retardant and antistatic properties                                                 | 88   |
| ROUND METAL SPRING GUARD               | metal                                          | 19 - 80    | metal                  | -                                            | -                                                            | protects from abrasion and accidental damage                                              | 89   |
| HEAT PROTECTION SLEEVE                 | treated fiberglass braid with silicone varnish | 16 - 35    | black                  | "min -60°<br>max +260°"                      | -                                                            | resistant to thermal shocks, ageing in hot environment, chemical and atmosphere agents    | 89   |
| SINGLE LOOP SECURITY STOCKING          | metal                                          | 575 - 700  | black                  | -                                            | -                                                            | in case of hose failure, keeps the hose in original position reducing injury to passerbys | 90   |
| TWIN LOOP SECURITY STOCKING            | metal                                          | 576 - 700  | black                  | -                                            | -                                                            | in case of hose failure, keeps the hose in original position reducing injury to passerbys | 90   |

# HOSE PROTECTIONS

## PART NUMBERING SYSTEM



### DIGIT "0"

"J" letter always means Accessories



### DIGIT "1"

"P" letter always means Protection



### DIGIT "2"

The number stated in this position indicates the protection type

- 1 Spring
- 2 Sleeve
- 3 Clinch



### DIGIT "3"

The number stated in this position indicates the material

- 1 Polyethylene
- 2 Polyamide
- 3 Polyester
- 4 Silicone



### DIGIT "4"

The letter stated in this position indicates the color

- B Black
- Y Yellow
- A Orange



### DIGIT "5-6"

The numbers stated in these positions indicate the product family

- 01 Protection Spring
- 02 Mining Protection Spring
- 03 HT Protection Spring
- 04 Light Protection Spring
- 05 Fire Sleeve
- 06 Textile Sleeve
- 10 Clinch



### DIGIT "7-8-9"

The numbers stated in these positions indicate the inside diameter in mm

### DIGIT "10-11-12-13"

These digits define marking technology and package type



# HOSE PROTECTIONS

## SPRINGS

**PS**

PROTECTION SPRING

| STANDARD<br>PART. REF. (*) | INSIDE<br>DIAMETER (ID) |      | OUTER<br>DIAMETER (OD) |      | WALL<br>THICKNESS |       | BAND WIDTH<br>(PITCH P) |      | WRAPPING<br>RANGE |           | WEIGHT |       | STD. PACK<br>TOTAL LENGTH |    |
|----------------------------|-------------------------|------|------------------------|------|-------------------|-------|-------------------------|------|-------------------|-----------|--------|-------|---------------------------|----|
|                            | mm                      | inch | mm                     | inch | mm                | inch  | mm                      | inch | mm                | inch      | g/m    | lb/ft | m                         | ft |
| JP11B01009E099             | 9,0                     | 0,35 | 13,0                   | 0,51 | 2,00              | 0,079 | 11,0                    | 0,43 | 9-13              | 0,35-0,51 | 50     | 0,03  | 20                        | 66 |
| JP11B01012E099             | 12,0                    | 0,47 | 16,5                   | 0,65 | 2,25              | 0,089 | 13,0                    | 0,51 | 12-17             | 0,47-0,67 | 60     | 0,04  | 20                        | 66 |
| JP11B01015E099             | 15,0                    | 0,59 | 20,0                   | 0,79 | 2,50              | 0,098 | 15,5                    | 0,61 | 15-22             | 0,59-0,87 | 90     | 0,06  | 20                        | 66 |
| JP11B01019E099             | 19,0                    | 0,75 | 24,5                   | 0,96 | 2,75              | 0,108 | 19,0                    | 0,75 | 19-28             | 0,75-1,10 | 150    | 0,10  | 20                        | 66 |
| JP11B01023E099             | 23,0                    | 0,91 | 30,0                   | 1,18 | 3,50              | 0,138 | 23,0                    | 0,91 | 23-33             | 0,91-1,30 | 225    | 0,15  | 20                        | 66 |
| JP11B01031E099             | 30,5                    | 1,20 | 39,0                   | 1,54 | 4,25              | 0,167 | 29,0                    | 1,14 | 30-44             | 1,20-1,73 | 350    | 0,24  | 20                        | 66 |
| JP11B01038E099             | 38,0                    | 1,50 | 46,5                   | 1,83 | 4,25              | 0,167 | 36,0                    | 1,42 | 38-65             | 1,50-2,56 | 400    | 0,27  | 20                        | 66 |
| JP11B01047E099             | 47,0                    | 1,85 | 58,0                   | 2,28 | 5,50              | 0,217 | 39,5                    | 1,56 | 47-70             | 1,85-2,76 | 600    | 0,40  | 20                        | 66 |
| JP11B01061E099             | 61,0                    | 2,40 | 73,0                   | 2,87 | 6,00              | 0,236 | 44,0                    | 1,73 | 61-90             | 2,40-3,54 | 950    | 0,64  | 20                        | 66 |
| JP11B01071E099             | 70,5                    | 2,78 | 84,5                   | 3,33 | 7,00              | 0,276 | 51,0                    | 2,01 | 70-150            | 2,78-5,90 | 1150   | 0,77  | 20                        | 66 |
| JP11B01084E099             | 84,0                    | 3,31 | 99,0                   | 3,90 | 7,50              | 0,295 | 56,0                    | 2,20 | 84-200            | 3,31-7,87 | 1500   | 1,01  | 10                        | 33 |

\* Colours available: black (5th digit "B"), yellow (5th digit "Y").

### KEY PERFORMANCE

**High flexibility • High abrasion resistance • Water, oils, fuel and hydraulic fluids resistance • Easy to install, no clamps needed • High ozone and external agents resistance**

#### MAIN APPLICATIONS

Hose abrasion protection and hose bundling.

#### MATERIAL

High density black polyethylene, rounded profile.  
Available in black or yellow colour

#### SERVICE TEMPERATURE RANGE

-40°C / +90°C  
-40°F / +194°F

#### APPLICABLE SPECIFICATIONS

Manuli design.

#### MANULI BRAND

Embossed.



# HOSE PROTECTIONS

## SPRINGS

### MPS

#### PROTECTION SPRING

| STANDARD<br>PART. REF. (*) | INSIDE<br>DIAMETER (ID) |      | OUTER<br>DIAMETER (OD) |      | WALL<br>THICKNESS |       | BAND WIDTH<br>(PITCH P) |      | WRAPPING<br>RANGE |           | WEIGHT |       | STD. PACK<br>TOTAL LENGTH |    |
|----------------------------|-------------------------|------|------------------------|------|-------------------|-------|-------------------------|------|-------------------|-----------|--------|-------|---------------------------|----|
|                            | mm                      | inch | mm                     | inch | mm                | inch  | mm                      | inch | mm                | inch      | g/m    | lb/ft | m                         | ft |
| JP11B02012E099             | 12,0                    | 0,47 | 16,5                   | 0,65 | 2,25              | 0,089 | 13,0                    | 0,51 | 12-17             | 0,47-0,67 | 60     | 0,04  | 20                        | 66 |
| JP11B02015E099             | 15,0                    | 0,59 | 20,0                   | 0,79 | 2,50              | 0,098 | 15,5                    | 0,61 | 15-22             | 0,59-0,87 | 90     | 0,06  | 20                        | 66 |
| JP11B02019E099             | 19,0                    | 0,75 | 24,5                   | 0,96 | 2,75              | 0,108 | 19,0                    | 0,75 | 19-28             | 0,75-1,10 | 150    | 0,10  | 20                        | 66 |
| JP11B02023E099             | 23,0                    | 0,91 | 30,0                   | 1,18 | 3,50              | 0,138 | 23,0                    | 0,91 | 23-33             | 0,91-1,30 | 225    | 0,15  | 20                        | 66 |
| JP11B02031E099             | 30,5                    | 1,20 | 39,0                   | 1,54 | 4,25              | 0,167 | 29,0                    | 1,14 | 30-44             | 1,20-1,73 | 350    | 0,24  | 20                        | 66 |
| JP11B02038E099             | 38,0                    | 1,50 | 46,5                   | 1,83 | 4,25              | 0,167 | 36,0                    | 1,42 | 38-65             | 1,50-2,56 | 400    | 0,27  | 20                        | 66 |
| JP11B02047E099             | 47,0                    | 1,85 | 58,0                   | 2,28 | 5,50              | 0,217 | 39,5                    | 1,56 | 47-70             | 1,85-2,76 | 600    | 0,40  | 20                        | 66 |
| JP11B02061E099             | 61,0                    | 2,40 | 73,0                   | 2,87 | 6,00              | 0,236 | 44,0                    | 1,73 | 61-90             | 2,40-3,54 | 950    | 0,64  | 20                        | 66 |
| JP11B02071E099             | 70,5                    | 2,78 | 84,5                   | 3,33 | 7,00              | 0,276 | 51,0                    | 2,1  | 70-150            | 2,78-5,90 | 1150   | 0,77  | 20                        | 66 |
| JP11B02084E099             | 84,0                    | 3,31 | 99,0                   | 3,90 | 7,50              | 0,295 | 56,0                    | 2,20 | 84-200            | 3,31-7,87 | 1500   | 1,01  | 10                        | 33 |

#### KEY PERFORMANCE

**Flame retardant and electrical antistaticity properties • High flexibility • High abrasion resistance**  
**• Water, oils, fuel and hydraulic fluids resistance • Easy to install, no clamps needed • High visibility in field thanks to red central lines**

#### MAIN APPLICATIONS

Hose abrasion protection and hose bundling in mining applications.

#### MATERIAL

High density black polyethylene (antistatic) with red lines, rounded profile.

#### SERVICE TEMPERATURE RANGE

-40°C / +90°C  
-40°F / +194°F

#### APPLICABLE SPECIFICATIONS

MSHA, FRAS (flame retardant and antistatic - Australian mines), ISO 6805, Polish Safety "B" (in progress), BCS 174 (in progress), MA (Chinese mining approval in progress).

MANULI BRAND  
Embossed.



# HOSE PROTECTIONS

## SPRINGS

### HTPS

HT PROTECTION SPRING

| STANDARD<br>PART. REF. (*) | INSIDE<br>DIAMETER (ID) |      | OUTER<br>DIAMETER (OD) |      | WALL<br>THICKNESS |       | BAND WIDTH<br>(PITCH P) |      | WRAPPING<br>RANGE |           | WEIGHT |       | STD. PACK<br>TOTAL LENGTH |     |
|----------------------------|-------------------------|------|------------------------|------|-------------------|-------|-------------------------|------|-------------------|-----------|--------|-------|---------------------------|-----|
|                            | mm                      | inch | mm                     | inch | mm                | inch  | mm                      | inch | mm                | inch      | g/m    | lb/ft | m                         | ft  |
| JP12B03010I099             | 9,5                     | 0,37 | 11,5                   | 0,45 | 1,00              | 0,039 | 6,9                     | 0,27 | 9-13              | 0,37-0,52 | 27     | 0,02  | 240                       | 787 |
| JP12B03013I099             | 12,7                    | 0,50 | 16,3                   | 0,64 | 1,80              | 0,071 | 13,0                    | 0,51 | 13-17             | 0,50-0,67 | 45     | 0,03  | 240                       | 787 |
| JP12B03016I099             | 16,0                    | 0,63 | 19,6                   | 0,77 | 1,80              | 0,071 | 13,0                    | 0,51 | 16-22             | 0,63-0,87 | 55     | 0,04  | 240                       | 787 |
| JP12B03019I099             | 19,0                    | 0,75 | 23,6                   | 0,93 | 2,30              | 0,091 | 16,0                    | 0,63 | 19-28             | 0,75-1,10 | 100    | 0,07  | 240                       | 787 |
| JP12B03025I099             | 25,4                    | 1,00 | 30,0                   | 1,18 | 2,30              | 0,091 | 16,0                    | 0,63 | 25-40             | 1,00-1,57 | 110    | 0,07  | 240                       | 787 |
| JP12B03028I099             | 28,0                    | 1,10 | 35,2                   | 1,39 | 3,60              | 0,142 | 25,0                    | 0,98 | 28-48             | 1,10-1,89 | 225    | 0,15  | 120                       | 394 |
| JP12B03035I099             | 35,0                    | 1,38 | 42,2                   | 1,66 | 3,60              | 0,142 | 25,0                    | 0,98 | 35-50             | 1,38-1,96 | 270    | 0,18  | 120                       | 394 |
| JP12B03050I099             | 50,0                    | 1,97 | 60,0                   | 2,36 | 5,00              | 0,197 | 35,0                    | 1,38 | 50-70             | 1,96-2,76 | 540    | 0,36  | 60                        | 197 |
| JP12B03060I099             | 60,0                    | 2,36 | 70,0                   | 2,76 | 5,00              | 0,197 | 35,0                    | 1,38 | 60-80             | 2,36-3,15 | 640    | 0,43  | 36                        | 118 |

### KEY PERFORMANCE

**Very low bend radius • High flexibility • High temperature resistance • High abrasion resistance • Water, oils, fuel and hydraulic fluids resistance • Easy to install, no clamps needed • Flame retardant MSHA approved**

#### MAIN APPLICATIONS

Hose abrasion protection and hose bundling.

#### MATERIAL

Black polyamide, rounded profile.

#### SERVICE TEMPERATURE RANGE

-40°C / +120°C  
-40°F / +248°F

#### APPLICABLE SPECIFICATIONS

Manuli design, MSHA approved

#### MANULI BRAND

White ink-jet.



# HOSE PROTECTIONS

## SLEEVES

### TSL

#### TEXTILE SLEEVE

| STANDARD<br>PART. REF. | INSIDE<br>DIAMETER (ID) |      | EXTERNAL FLATTENED<br>WIDTH |      | STD. PACK<br>TOTAL LENGTH |     |     |      |
|------------------------|-------------------------|------|-----------------------------|------|---------------------------|-----|-----|------|
|                        | mm                      | inch | mm                          | inch | mm                        | ft  | kg  | lb   |
| JP23B06018I099         | 18                      | 0,71 | 32                          | 1,26 | 50                        | 164 | 2,0 | 4,4  |
| JP23B06023I099         | 23                      | 0,91 | 40                          | 1,57 | 50                        | 164 | 2,2 | 4,8  |
| JP23B06029I099         | 29                      | 1,14 | 49                          | 1,93 | 50                        | 164 | 2,5 | 5,5  |
| JP23B06036I099         | 36                      | 1,42 | 56                          | 2,20 | 50                        | 164 | 3,0 | 6,6  |
| JP23B06040I099         | 40                      | 1,57 | 63                          | 2,48 | 50                        | 164 | 3,2 | 7,0  |
| JP23B06056I099         | 56                      | 2,20 | 88                          | 3,46 | 50                        | 164 | 4,0 | 8,8  |
| JP23B06063I099         | 63                      | 2,48 | 105                         | 4,13 | 50                        | 164 | 5,0 | 11,0 |
| JP23B06071I099         | 71                      | 2,80 | 115                         | 4,53 | 50                        | 164 | 5,5 | 12,1 |
| JP23B06093I099         | 93                      | 3,66 | 146                         | 5,75 | 50                        | 164 | 7,2 | 15,9 |
| JP23B06110I099         | 110                     | 4,33 | 176                         | 6,93 | 50                        | 164 | 8,5 | 18,7 |

#### KEY PERFORMANCE

**High abrasion resistance • Water, oils, fuel and hydraulic fluids resistance • Easy to install with simple clamps to extremities • Fluid energy diffusion in case of hose failure avoiding the direct jetting**

#### MAIN APPLICATIONS

Suitable to protect assemblies from external agents and the surrounding space from possible fluid jetting. Hose abrasion protection and hose bundling, where high flexibility and long durability are requested. Hose protections and low pressure hydraulic applications (e.g. pilot applications).

#### MATERIAL

Hard wearing resistance black woven polyester, manufactured from flame retardant yarn, complete with antistatic treatment.

#### SERVICE TEMPERATURE RANGE

-50°C / +100°C, peak +140°C  
-58°F to +212°F, peak +284°F

#### APPLICABLE SPECIFICATIONS

MSHA (IC-213/04) and FRAS approvals, flame retardant and antistatic according to ISO 6805, compliant with safety requirements of MDG41 part 3.7.2.8 hose energy diffusion devices.

#### MANULI BRAND

White ink-jet.



# HOSE PROTECTIONS

## SLEEVES

**FSL**

FIRE PROTECTION SLEEVE

| STANDARD<br>PART. REF. | INSIDE<br>DIAMETER (ID) |      | APPROXIMATE<br>WALL THICKNESS |       | LINEAR<br>WEIGHT |       | STD. PACK<br>TOTAL LENGTH* |       |
|------------------------|-------------------------|------|-------------------------------|-------|------------------|-------|----------------------------|-------|
|                        | mm                      | inch | mm                            | inch  | g/m              | lb/ft | m                          | ft    |
| JP24A05013I099         | 13,0                    | 0,51 | 4,0                           | 0,157 | 200              | 0,13  | 50                         | 164,0 |
| JP24A05016I099         | 16,0                    | 0,63 | 4,0                           | 0,157 | 220              | 0,15  | 50                         | 164,0 |
| JP24A05019I099         | 19,0                    | 0,75 | 4,0                           | 0,157 | 240              | 0,16  | 50                         | 164,0 |
| JP24A05022I099         | 22,0                    | 0,87 | 4,0                           | 0,157 | 260              | 0,17  | 50                         | 164,0 |
| JP24A05025I099         | 25,0                    | 0,98 | 4,0                           | 0,157 | 290              | 0,19  | 50                         | 164,0 |
| JP24A05032I099         | 32,0                    | 1,26 | 4,0                           | 0,157 | 380              | 0,26  | 50                         | 164,0 |
| JP24A05038I099         | 38,0                    | 1,50 | 4,0                           | 0,157 | 440              | 0,30  | 50                         | 164,0 |
| JP24A05045I099         | 45,0                    | 1,77 | 4,0                           | 0,157 | 490              | 0,33  | 25                         | 82,0  |
| JP24A05051I099         | 51,0                    | 2,01 | 4,0                           | 0,157 | 540              | 0,36  | 25                         | 82,0  |
| JP24A05064I099         | 64,0                    | 2,52 | 4,0                           | 0,157 | 680              | 0,46  | 20                         | 65,6  |
| JP24A05076I099         | 76,0                    | 2,99 | 4,0                           | 0,157 | 880              | 0,59  | 20                         | 65,6  |

\* The product can be supplied in one piece or more respecting the global length fixed per each box (the minimum length is over 10% the whole package quantity)

### KEY PERFORMANCE

**Extreme heat resistance • Easy to install without clamps • Designed to protect and insulate hydraulic hoses and bundle of hoses against attack of flames, projection of metals, melting glass, projection of vapours, etc. • Excellent flexibility at low temperatures**

#### MAIN APPLICATIONS

Hose protections from high external temperatures, heat irradiation (e.g. iron and steel industry, foundries, glassworks, shipbuilding, railways, etc.). Reflected or induced heat, projection of metal or melting glass, occasional very high temperatures. Cable protection.

#### MATERIAL

Orange silicone, inside 1 braid of glass fibers.

#### SERVICE TEMPERATURE RANGE

-60°C to +260°C, peaks 15 minutes 1100°C, 1 minute 1500°C  
-76°F to + 500°F, peaks 15 minutes 2012°F, 1 minute 2732°F

#### APPLICABLE SPECIFICATIONS

Manuli design, classified FO and M2 as per NFF16-101 and P92-507 standard.

#### MANULI BRAND

White ink-jet.



# HOSE PROTECTIONS

## STRAPS

### TCS

#### TEXTILE CLINCH STRAP

| STANDARD<br>PART. REF. | LENGTH<br>(CIRCUMFERENCE OF HOSE BUNDLES) |      | STRIP<br>WIDTH |      | STD. PACK<br>QUANTITY        |     |      |
|------------------------|-------------------------------------------|------|----------------|------|------------------------------|-----|------|
|                        | mm                                        | inch | mm             | inch | number of straps per package | kg  | lb   |
| JP33B10040T099         | 400                                       | 15,7 | 25             | 0,98 | 100                          | 5,0 | 11,0 |
| JP33B10080T099         | 800                                       | 31,5 | 25             | 0,98 | 100                          | 6,0 | 13,2 |
| JP33B10150T099         | 1500                                      | 59,1 | 25             | 0,98 | 100                          | 7,5 | 16,5 |

#### KEY PERFORMANCE

**High abrasion resistance • Water, oils, fuel and hydraulic fluids resistance • Easy to install • Eyelet for hose bundling hanging purpose • Metal buckle for a robust fastening in any environment**

#### MAIN APPLICATIONS

Suitable for single or multiple hose bundling. Self-lubricating to reduce wear on hose and cables.

#### MATERIAL

Hard wearing resistance woven polyester, manufactured from dope-dyed flame retardant yarn, complete with antistatic treatment.

#### SERVICE TEMPERATURE RANGE

-50°C to +100°C / -58°F to +212°F

#### APPLICABLE SPECIFICATIONS

Manuli design, MSHA (ref. no. IC-213/04) and FRAS approvals. Certified fire resistant and antistatic according to AS 1334.9-82, BS 2050-78, NCB 245-85.



# HOSE PROTECTIONS

## HOSE PROTECTIONS



ROUND METAL SPRING GUARD

| PART NUMBER | INTERNAL DIAMETER | WIRE DIAMETER |
|-------------|-------------------|---------------|
|             | mm                | mm            |
| JP05-16     | 16                | 2             |
| JP05-20     | 20                | 2             |
| JP05-23     | 23                | 2             |
| JP05-26     | 26                | 2,5           |
| JP05-32     | 32                | 2,5           |
| JP05-34     | 34                | 2,5           |
| JP05-40     | 40                | 2,5           |
| JP05-42     | 42                | 3             |
| JP05-50     | 50                | 3             |
| JP05-64     | 64                | 3             |
| JP05-80     | 80                | 3             |

Features:

*Hose cover protection from abrasion and accidental damage*



HEAT PROTECTION SLEEVE, UP TO 260 °C

| PART NUMBER | INTERNAL DIAMETER | WIRE DIAMETER |
|-------------|-------------------|---------------|
|             | mm                | mm            |
| JP0316      | 16                | 16,7          |
| JP0320      | 20                | 20,8          |
| JP0325      | 25                | 25,9          |
| JP0330      | 30                | 31,2          |
| JP0335      | 35                | 36,3          |

Features:

*Resistant to thermal shocks, ageing in hot environment, chemical and atmosphere agents*

Temperature range:

*-60...+260 °C without flame, with peaks up to +300 °C*

Material:

*Treated fiberglass braid with silicone varnish*

Colour:

*Black*

# HOSE PROTECTIONS

## STOCKINGS



### SINGLE OFFSET LOOP SECURITY STOCKING

HOSE SHOULD BE PASSED THROUGH THE STOCKING BEFORE INSTALLATION

| PART NUMBER | LENGTH | SAFE LOAD MAX. |
|-------------|--------|----------------|
|             | mm     | kg             |
| JS0157512   | 575    | 1200           |
| JS0160518   | 605    | 1800           |
| JS0165520   | 655    | 2000           |
| JS0165525   | 655    | 2500           |
| JS0166025   | 660    | 2500           |
| JS0167534   | 675    | 3400           |
| JS0167538   | 675    | 3400           |
| JS0169038   | 690    | 3800           |
| JS0170046   | 700    | 4600           |



### TWIN LOOP SECURITY STOCKING

HOSE SHOULD BE PASSED THROUGH THE STOCKING BEFORE INSTALLATION

| PART NUMBER | LENGTH | SAFE LOAD MAX. |
|-------------|--------|----------------|
|             | mm     | kg             |
| JS0257512   | 575    | 1200           |
| JS0260518   | 605    | 1800           |
| JS0265520   | 655    | 2000           |
| JS0265525   | 655    | 2500           |
| JS0266025   | 660    | 2500           |
| JS0267534   | 675    | 3400           |
| JS0267538   | 675    | 3400           |
| JS0269038   | 690    | 3800           |
| JS0270046   | 700    | 4600           |

# INDUSTRIAL PRODUCTS



# INDUSTRIAL PRODUCTS

## HOSES



"RILSAN" POLYAMIDE HOSE TUBING  
FOR AIR BRAKE SYSTEMS

| PART NUMBER | DESCRIPTION           | PART NUMBER | DESCRIPTION         |
|-------------|-----------------------|-------------|---------------------|
| JG7426      | RILSAN 2X04 NATURAL   | JG5199      | RILSAN 2X04 COLOR   |
| JG14608     | RILSAN 2,5X04 NATURAL | JG14589     | RILSAN 2,5X04 COLOR |
| JG14605     | RILSAN 2,7X04 NATURAL | JG14587     | RILSAN 2,7X04 COLOR |
| JG14610     | RILSAN 3X05 NATURAL   | JG14591     | RILSAN 3X05 COLOR   |
| JG14611     | RILSAN 3X06 NATURAL   | JG14592     | RILSAN 3X06 COLOR   |
| JG7441      | RILSAN 4X06 NATURAL   | JG5200      | RILSAN 4X06 COLOR   |
| JG14612     | RILSAN 5X07 NATURAL   | JG14593     | RILSAN 5X07 COLOR   |
| JG7446      | RILSAN 6X08 NATURAL   | JG5201      | RILSAN 6X08 COLOR   |
| JG14913     | RILSAN 7X10 NATURAL   | JG14914     | RILSAN 7X10 COLOR   |
| JG14613     | RILSAN 7,5X10 NATURAL | JG14594     | RILSAN 7,5X10 COLOR |
| JG7452      | RILSAN 8X10 NATURAL   | JG5202      | RILSAN 8X10 COLOR   |
| JG14616     | RILSAN 8X12 NATURAL   | JG14597     | RILSAN 8X12 COLOR   |
| JG14619     | RILSAN 9X12 NATURAL   | JG14600     | RILSAN 9X12 COLOR   |
| JG7456      | RILSAN 10X12 NATURAL  | JG5204      | RILSAN 10X12 COLOR  |
| JG7457      | RILSAN 10X14 NATURAL  | JG5205      | RILSAN 10X14 COLOR  |
| JG14614     | RILSAN 11X14 NATURAL  | JG14595     | RILSAN 11X14 COLOR  |
| JG7459      | RILSAN 12X14 NATURAL  | JG5206      | RILSAN 12X14 COLOR  |
| JG14622     | RILSAN 12X15 NATURAL  | JG14603     | RILSAN 12X15 COLOR  |
| JG7422      | RILSAN 12X16 NATURAL  | JG5207      | RILSAN 12X16 COLOR  |
| JG14618     | RILSAN 13X16 NATURAL  | JG14599     | RILSAN 13X16 COLOR  |
| JG14615     | RILSAN 14X18 NATURAL  | JG14596     | RILSAN 14X18 COLOR  |
| JG14621     | RILSAN 20X24 NATURAL  | JG14602     | RILSAN 20X24 COLOR  |
| JG14623     | RILSAN 20X25 NATURAL  | JG14604     | RILSAN 20X25 COLOR  |

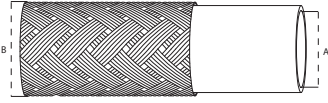


"RILSAN" TUBE CUTTING TOOL

| PART NUMBER | DESCRIPTION               |
|-------------|---------------------------|
| JG22900     | RILSAN CUTTING TOOL       |
| JG30847     | RILSAN BLADE CUTTING TOOL |

# INDUSTRIAL PRODUCTS

## HOSES

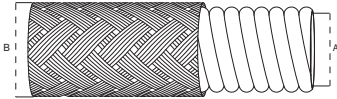


HOSE PTFE SMOOTH

| CODE      | DN | A     | B     | WP (bar) | BP(bar) |
|-----------|----|-------|-------|----------|---------|
| H90001006 | 6  | 6,71  | 9,35  | 224      | 672     |
| H90001008 | 8  | 8,41  | 11,05 | 207      | 621     |
| H90001010 | 10 | 10,29 | 13,44 | 183      | 552     |
| H90001012 | 12 | 13,2  | 16,56 | 161      | 483     |
| H90001016 | 16 | 16,61 | 19,76 | 114      | 345     |
| H90001019 | 19 | 19,81 | 22,96 | 103      | 310     |
| H90001025 | 25 | 26,11 | 29,26 | 80       | 241     |

TEMP. -70 °C +260 °C

W.P. +20 °C



HOSE PTFE CONVOLUTED

| CODE      | DN | A    | B    | WP (bar) | BP(bar) |
|-----------|----|------|------|----------|---------|
| H90002006 | 6  | 6,2  | 9,4  | 172      | 517     |
| H90002008 | 8  | 7,1  | 12,3 | 155      | 465     |
| H90002010 | 10 | 9,5  | 13,4 | 138      | 414     |
| H90002012 | 12 | 12,8 | 18,8 | 103      | 310     |
| H90002016 | 16 | 15,9 | 22,1 | 83       | 248     |
| H90002019 | 19 | 19   | 24,6 | 69       | 207     |
| H90002025 | 25 | 25,4 | 32,8 | 46       | 138     |

TEMP. -70 °C +260 °C

W.P. +20 °C



FERRULES FOR PTFE HOSES

| CODE     | A (mm) | B(mm) |
|----------|--------|-------|
| JB012-04 | 28     | 11,2  |
| JB012-05 | 32     | 13,5  |
| JB012-06 | 32     | 15,4  |
| JB012-08 | 34     | 20,2  |
| JB012-10 | 35,7   | 25    |
| JB012-12 | 39     | 28    |
| JB012-16 | 47     | 37    |

# INDUSTRIAL PRODUCTS

## HOSES

### TTM

GALVANIZED METAL BRAIDED HOSE



| PART NUMBER | <br>I.D. | <br>O.D. | <br>WP | <br>BR | <br>FERRULE |          |
|-------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------|
|             | mm                                                                                        | mm                                                                                        | bar                                                                                      | psi                                                                                       | mm                                                                                             | f/p      |
| TTM-05      | 4,5                                                                                       | 9,0                                                                                       | 20                                                                                       | 290                                                                                       | 25                                                                                             | J 10 S   |
| TTM-06      | 5,6                                                                                       | 10,5                                                                                      | 20                                                                                       | 290                                                                                       | 30                                                                                             | J 11 S   |
| TTM-08      | 7,5                                                                                       | 12,5                                                                                      | 15                                                                                       | 217                                                                                       | 40                                                                                             | J 13 S   |
| TTM-10      | 9,5                                                                                       | 14,5                                                                                      | 15                                                                                       | 217                                                                                       | 50                                                                                             | J 15 S   |
| TTM-12      | 11,8                                                                                      | 17,5                                                                                      | 10                                                                                       | 145                                                                                       | 70                                                                                             | J 18 S   |
| TTM-15      | 15,3                                                                                      | 22,0                                                                                      | 15                                                                                       | 217                                                                                       | 80                                                                                             | J 23 S   |
| TTM-18      | 17,0                                                                                      | 26,0                                                                                      | 10                                                                                       | 145                                                                                       | 100                                                                                            | J 26,5 S |

### TTE

OUTER TEXTILE BRAIDED HOSE



| PART NUMBER | <br>I.D. | <br>O.D. | <br>WP | <br>BR | <br>FERRULE |        |
|-------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------|
|             | mm                                                                                          | mm                                                                                          | bar                                                                                        | psi                                                                                         | mm                                                                                               | f/p    |
| TTE-03      | 3,2                                                                                         | 7,0                                                                                         | 10                                                                                         | 145                                                                                         | 40                                                                                               | J 9 S  |
| TTE-05      | 5,0                                                                                         | 10,0                                                                                        | 10                                                                                         | 145                                                                                         | 50                                                                                               | J 10 S |
| TTE-06      | 6,0                                                                                         | 11,0                                                                                        | 10                                                                                         | 145                                                                                         | 60                                                                                               | J 11 S |
| TTE-08      | 8,0                                                                                         | 13,0                                                                                        | 10                                                                                         | 145                                                                                         | 65                                                                                               | J 13 S |
| TTE-10      | 10,0                                                                                        | 15,0                                                                                        | 10                                                                                         | 145                                                                                         | 75                                                                                               | J 14 S |
| TTE-12      | 11,5                                                                                        | 17,5                                                                                        | 10                                                                                         | 145                                                                                         | 70                                                                                               | J 17 S |

# INDUSTRIAL PRODUCTS

## COUPLINGS



RILSAN INSERT,  
BRASS

| PART NUMBER | OUTER DIAMETER | LENGTH |
|-------------|----------------|--------|
|             | mm             | mm     |
| JG10530     | 2              | 10     |
| JG10531     | 4              | 12     |
| JG10532     | 6              | 15     |
| JG10533     | 8              | 15     |
| JG10534     | 8,5            | 15     |
| JG10535     | 9              | 15     |
| JG10536     | 10             | 15     |
| JG10537     | 11,5           | 15,5   |
| JG5216      | 12             | 16     |



FERRULES FOR PTFE HOSES

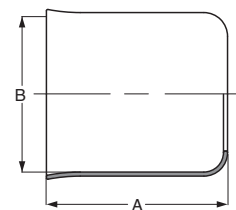
| CODE     | A (mm) | B(mm) |
|----------|--------|-------|
| JB012-04 | 28     | 11,2  |
| JB012-05 | 32     | 13,5  |
| JB012-06 | 32     | 15,4  |
| JB012-08 | 34     | 20,2  |
| JB012-10 | 35,7   | 25    |
| JB012-12 | 39     | 28    |
| JB012-16 | 47     | 37    |

# INDUSTRIAL PRODUCTS

## COUPLINGS

**J..S**

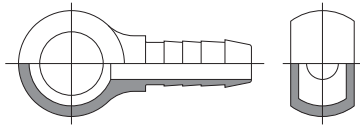
FERRULE FOR TTM AND TTE HOSES



| PART NUMBER | A    | HOSE CORRESPONDENCE |        |
|-------------|------|---------------------|--------|
|             | mm   |                     |        |
| J009S       | 9,0  | -                   | TTE 03 |
| J010S       | 10,0 | TTM 05              | TTE 05 |
| J011S       | 11,0 | TTM 06              | TTE 06 |
| J012S       | 12,0 | -                   | -      |
| J013S       | 13,0 | TTM 08              | TTE 08 |
| J014S       | 14,0 | -                   | TTE 10 |
| J015S       | 15,0 | TTM 10              | -      |
| J016S       | 16,0 |                     |        |
| J017S       | 17,0 | -                   | TTE 12 |
| J018S       | 18,0 | TTM 12              | -      |
| J019S       | 19,0 | -                   | -      |
| J020S       | 20,0 | -                   | -      |
| J022S       | 22,0 | -                   | -      |
| J023S       | 23,0 | TTM 15              | -      |
| J024S       | 24,0 | -                   | -      |
| J265S       | 26,5 | TTM 18              | -      |
| J028S       | 28,0 | -                   | -      |
| J305S       | 30,5 | -                   | -      |
| J033S       | 33,0 | -                   | -      |

# INDUSTRIAL PRODUCTS

## COUPLINGS



**EB S**  
BANJO FITTING

### PART NUMBER

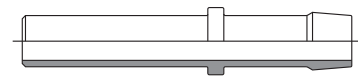
|           |  |
|-----------|--|
| EB05-008S |  |
| EB05-010S |  |
| EB05-012S |  |
| EB05-014S |  |
| EB06-010S |  |
| EB06-012S |  |
| EB06-127S |  |
| EB06-014S |  |
| EB08-010S |  |
| EB08-012S |  |
| EB08-127S |  |
| EB08-014S |  |
| EB10-012S |  |
| EB10-014S |  |
| EB10-016S |  |
| EB10-018S |  |
| EB12-016S |  |
| EB12-018S |  |
| EB15-018S |  |
| EB15-022S |  |

# INDUSTRIAL PRODUCTS

## COUPLINGS

### EL S

STANDPIPE FITTING

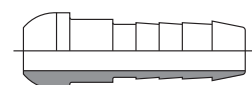


#### PART NUMBER

|       |  |
|-------|--|
| EL04S |  |
| EL05S |  |
| EL06S |  |
| EL08S |  |
| EL10S |  |
| EL12S |  |
| EL14S |  |
| EL15S |  |
| EL16S |  |
| EL18S |  |

### EC S

60° CONE FITTING

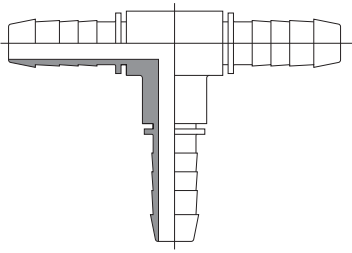


#### PART NUMBER

|       |  |
|-------|--|
| EC05S |  |
| EC06S |  |
| EC08S |  |
| EC10S |  |
| EC12S |  |
| EC15S |  |
| EC18S |  |

# INDUSTRIAL PRODUCTS

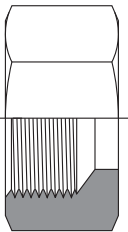
## COUPLINGS



**ET S**  
TEE FITTING

### PART NUMBER

|       |  |
|-------|--|
| ET05S |  |
| ET06S |  |
| ET08S |  |
| ET10S |  |



**ET W**  
BSP THREAD (WHITWORTH) SWIVEL NUT

### PART NUMBER

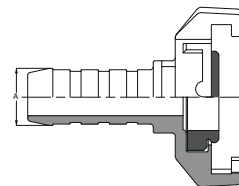
|           |  |
|-----------|--|
| ETW05-018 |  |
| ETW06-014 |  |
| ETW08-014 |  |
| ETW10-038 |  |
| ETW12-012 |  |
| ETW15-012 |  |
| ETW15-058 |  |
| ETW18-034 |  |

# INDUSTRIAL PRODUCTS

## COUPLINGS

### JW0111

CLAW COUPLING WITH INSERT



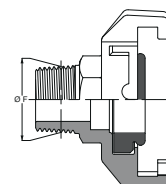
PART. REF.

A - HOSE BORE  
DN (MM)

|           |    |
|-----------|----|
| JW0111-06 | 6  |
| JW0111-07 | 7  |
| JW0111-08 | 8  |
| JW0111-09 | 9  |
| JW0111-10 | 10 |
| JW0111-11 | 11 |
| JW0111-12 | 12 |
| JW0111-16 | 16 |
| JW0111-19 | 19 |
| JW0111-22 | 22 |
| JW0111-25 | 25 |
| JW0111-31 | 31 |

### JW0211

CLAW COUPLING WITH BSP TAPERED MALE THREAD



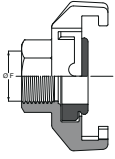
PART. REF.

THREAD SIZE  
BSP TAPERED MALE

|           |                 |
|-----------|-----------------|
| JW0211-04 | 1/4" - 19 f/p   |
| JW0211-06 | 3/8" - 19 f/p   |
| JW0211-08 | 1/2" - 14 f/p   |
| JW0211-12 | 3/4" - 14 f/p   |
| JW0211-16 | 1" - 11 f/p     |
| JW0211-20 | 1.1/4" - 11 f/p |

# INDUSTRIAL PRODUCTS

## COUPLINGS



### JW0211

CLAW COUPLING WITH BSP TAPERED FEMALE THREAD

PART. REF.

THREAD SIZE  
BSP TAPERED FEMALE

|           |                 |
|-----------|-----------------|
| JW0211-04 | 1/4" - 19 f/p   |
| JW0211-06 | 3/8" - 19 f/p   |
| JW0211-08 | 1/2" - 14 f/p   |
| JW0211-12 | 3/4" - 14 f/p   |
| JW0211-16 | 1" - 11 f/p     |
| JW0211-20 | 1.1/4" - 11 f/p |

# INDUSTRIAL PRODUCTS

## CLAMPS

STEEL TWO-EARS CLAMP

INOX STEEL AVAILABLE ON REQUEST



| PART NUMBER | TIGHTENING RANGE | BREADTH |
|-------------|------------------|---------|
|             | mm               | mm      |
| JC0100706   | 5 - 7            | 6       |
| JC0100906   | 7 - 9            | 6       |
| JC0101107   | 9 - 11           | 6,5     |
| JC0101307   | 11 - 13          | 6,5     |
| JC0101507   | 13 - 15          | 7       |
| JC0101707   | 14 - 17          | 7       |
| JC0101808   | 15 - 18          | 7,5     |
| JC0102008   | 17 - 20          | 7,5     |
| JC0102108   | 18 - 21          | 8       |
| JC0102308   | 20 - 23          | 8       |
| JC0102509   | 22 - 25          | 8,5     |
| JC0102709   | 23 - 27          | 8,5     |
| JC0102809   | 25 - 28          | 9       |
| JC0103109   | 28 - 31          | 9       |
| JC0103410   | 31 - 34          | 9,5     |
| JC0103710   | 34 - 37          | 9,5     |
| JC0104010   | 37 - 40          | 10      |
| JC0104310   | 40 - 43          | 10      |
| JC0104610   | 43 - 46          | 10      |

# INDUSTRIAL PRODUCTS

## CLAMPS



BOLT CLAMP, ZINC-PLATED STEEL

INOX STEEL AVAILABLE ON REQUEST

| PART NUMBER | TIGHTENING RANGE | BREADTH |
|-------------|------------------|---------|
|             | mm               | mm      |
| JC0201918   | 17 - 19          | 18      |
| JC0202218   | 20 - 22          | 18      |
| JC0202518   | 23 - 25          | 23      |
| JC0202821   | 26 - 28          | 23      |
| JC0203121   | 29 - 31          | 23      |
| JC0203521   | 32 - 35          | 23      |
| JC0203922   | 36 - 39          | 23      |
| JC0204322   | 40 - 43          | 23      |
| JC0204722   | 44 - 47          | 23      |
| JC0205122   | 48 - 51          | 23      |
| JC0205522   | 52 - 55          | 23      |
| JC0205922   | 56 - 59          | 23      |
| JC0206322   | 60 - 63          | 23      |
| JC0206722   | 64 - 67          | 23      |
| JC0207322   | 68 - 73          | 23      |
| JC0207922   | 74 - 79          | 23      |
| JC0208522   | 80 - 85          | 23      |
| JC0209122   | 86 - 91          | 23      |
| JC0209722   | 92 - 97          | 23      |
| JC0210322   | 98 - 103         | 23      |
| JC0211222   | 104 - 112        | 23      |
| JC0212122   | 113 - 121        | 23      |
| JC0213024   | 122 - 130        | 30      |
| JC0213924   | 131 - 140        | 30      |
| JC0214824   | 140 - 148        | 30      |
| JC0216124   | 149 - 161        | 30      |
| JC0217424   | 162 - 174        | 30      |
| JC0218724   | 175 - 187        | 30      |
| JC0220024   | 188 - 200        | 30      |
| JC0221324   | 201 - 213        | 30      |
| JC0222624   | 214 - 227        | 30      |
| JC0223924   | 227 - 239        | 30      |
| JC0225224   | 240 - 252        | 30      |

# INDUSTRIAL PRODUCTS

## FLANGE ACCESSORIES

### FLANGE HEAD DIAMETER, MM

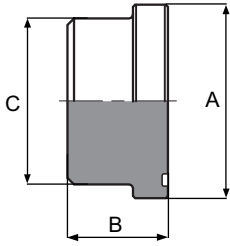
| FLANGE SIZE | SAE      |          | CATERPILLAR | KOMATSU |
|-------------|----------|----------|-------------|---------|
|             | 3000 psi | 6000 psi |             |         |
| 1/2"        | 30,2     | 31,7     | 31,7        | -       |
| 5/8"        | -        | -        | -           | 34      |
| 3/4"        | 38,1     | 41,3     | 41,5        | -       |
| 1"          | 44,4     | 47,6     | 47,7        | -       |
| 1.1/4"      | 50,8     | 54       | 54          | -       |
| 1.1/2"      | 60,3     | 63,5     | 63,5        | -       |
| 2"          | 71,4     | 79,4     | 79,4        | -       |
| 2.1/2"      | 84       | -        | -           | -       |
| 3"          | 101,6    | -        | -           | -       |

### SAE FLANGE MOUNTING

| FLANGE SIZE | TORQUE, N·m |          | BOLT SIZE |          |
|-------------|-------------|----------|-----------|----------|
|             | 3000 psi    | 6000 psi | 3000 psi  | 6000 psi |
| 1/2"        | 25          | 25       | M8        | M8       |
| 3/4"        | 49          | 49       | M10       | M10      |
| 1"          | 49          | 85       | M10       | M12      |
| 1.1/4"      | 85          | 135      | M12       | M14      |
| 1.1/2"      | 85          | 210      | M12 (M14) | M16      |
| 2"          | 85          | 425      | M12 (M14) | M20      |
| 2.1/2"      | 95          | -        | M12       | -        |
| 3"          | 220         | -        | M16       | -        |

# INDUSTRIAL PRODUCTS

## FLANGE ACCESSORIES



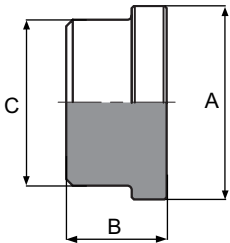
### A403300

SAE FLANGE PLUG WITH GROOVE, 3000 PSI

### A403600

SAE FLANGE PLUG WITH GROOVE, 6000 PSI

| PART NUMBER | W.P. | SIZE | DIMENSIONS |      |    |      |
|-------------|------|------|------------|------|----|------|
|             | psi  | bar  |            | A    | B  | C    |
| A403300-08  | 3000 | 210  | 1/2"       | 30,2 | 15 | 24   |
| A403300-12  | 3000 | 210  | 3/4"       | 38,1 | 16 | 31,5 |
| A403300-16  | 3000 | 210  | 1"         | 44,4 | 18 | 38   |
| A403300-20  | 3000 | 210  | 1.1/4"     | 50,8 | 18 | 43   |
| A403300-24  | 3000 | 210  | 1.1/2"     | 60,3 | 18 | 50   |
| A403300-32  | 3000 | 210  | 2"         | 71,4 | 18 | 62   |
| A403600-08  | 6000 | 420  | 1/2"       | 31,7 | 19 | 24   |
| A403600-12  | 6000 | 420  | 3/4"       | 41,3 | 22 | 31,8 |
| A403600-16  | 6000 | 420  | 1"         | 47,6 | 26 | 38,1 |
| A403600-20  | 6000 | 420  | 1.1/4"     | 54   | 31 | 44   |
| A403600-24  | 6000 | 420  | 1.1/2"     | 63,5 | 34 | 51   |
| A403600-32  | 6000 | 420  | 2"         | 79,4 | 41 | 67   |



### A518300

SAE FLANGE PLUG WITHOUT GROOVE, 3000 PSI

### A518600

SAE FLANGE PLUG WITHOUT GROOVE, 6000 PSI

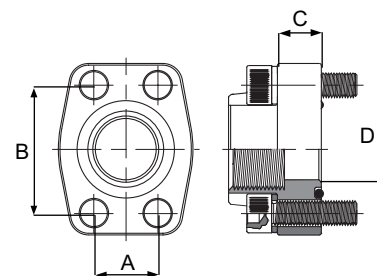
| PART NUMBER | W.P. | SIZE | DIMENSIONS |      |    |      |
|-------------|------|------|------------|------|----|------|
|             | psi  | bar  |            | A    | B  | C    |
| A518300-08  | 3000 | 210  | 1/2"       | 30,2 | 15 | 24   |
| A518300-12  | 3000 | 210  | 3/4"       | 38,1 | 16 | 31,5 |
| A518300-16  | 3000 | 210  | 1"         | 44,4 | 18 | 38   |
| A518300-20  | 3000 | 210  | 1.1/4"     | 50,8 | 18 | 43   |
| A518300-24  | 3000 | 210  | 1.1/2"     | 60,3 | 18 | 50   |
| A518300-32  | 3000 | 210  | 2"         | 71,4 | 18 | 62   |
| A518600-08  | 6000 | 420  | 1/2"       | 31,7 | 19 | 24   |
| A518600-12  | 6000 | 420  | 3/4"       | 41,3 | 22 | 31,8 |
| A518600-16  | 6000 | 420  | 1"         | 47,6 | 26 | 38,1 |
| A518600-20  | 6000 | 420  | 1.1/4"     | 54   | 31 | 44   |
| A518600-24  | 6000 | 420  | 1.1/2"     | 63,5 | 34 | 51   |
| A518600-32  | 6000 | 420  | 2"         | 79,4 | 41 | 67   |

# INDUSTRIAL PRODUCTS

## FLANGE ACCESSORIES

3000 PSI PORT ASSEMBLY FLANGE,  
BSP FEMALE

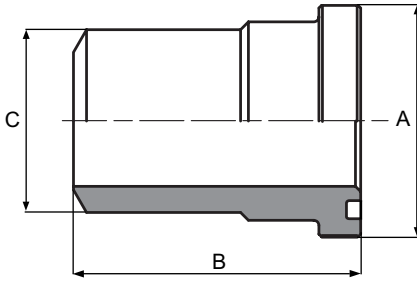
6000 PSI PORT ASSEMBLY FLANGE,  
BSP FEMALE



| PART NUMBER | NOMINAL W.P. | W.P. | SIZE   | DIMENSIONS |      |    |    | THREAD    | BOLT SIZE |
|-------------|--------------|------|--------|------------|------|----|----|-----------|-----------|
|             | psi          | bar  |        | A          | B    | C  | D  | BSP       |           |
| JG6628      | 3000         | 345  | 1/2"   | 17,5       | 38,1 | 16 | 13 | 1/2" - 14 | M8x30     |
| JG6629      | 3000         | 345  | 3/4"   | 22,3       | 47,6 | 18 | 19 | 3/4" - 14 | M10x35    |
| JG6630      | 3000         | 345  | 1"     | 26,2       | 52,4 | 18 | 22 | 1" - 11   | M10x35    |
| JG6633      | 3000         | 250  | 1.1/4" | 30,2       | 58,7 | 21 | 32 | 1.1/4"-11 | M12x40    |
| JG6634      | 3000         | 200  | 1.1/2" | 35,7       | 69,9 | 25 | 38 | 1.1/2"-11 | M14x45    |
| JG6635      | 3000         | 200  | 2"     | 44         | 77,8 | 25 | 51 | 2" - 11   | M14x45    |
| JG6661      | 6000         | 350  | 1/2"   | 18,2       | 40,5 | 16 | 13 | 1/2" - 14 | M8x30     |
| JG6662      | 6000         | 350  | 3/4"   | 23,8       | 50,8 | 21 | 19 | 3/4" -14  | M10x35    |
| JG6663      | 6000         | 350  | 1"     | 27,8       | 57,2 | 25 | 25 | 1" - 11   | M12x45    |
| JG6664      | 6000         | 250  | 1.1/4" | 31,8       | 66,6 | 27 | 32 | 1.1/4"-11 | M14x50    |
| JG6665      | 6000         | 250  | 1.1/2" | 36,5       | 79,3 | 30 | 38 | 1.1/2"-11 | M16x55    |
| JG6666      | 6000         | 200  | 2"     | 44,5       | 96,8 | 37 | 51 | 2" - 11   | M20x70    |

# INDUSTRIAL PRODUCTS

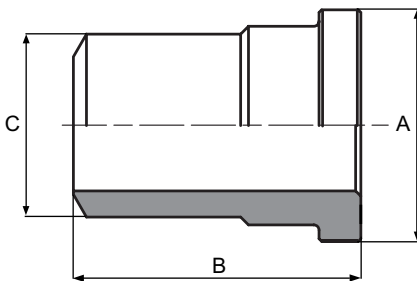
## FLANGE ACCESSORIES



3000 PSI WELDABLE FLANGE HEAD  
WITH GROOVE

6000 PSI WELDABLE FLANGE HEAD  
WITH GROOVE

| PART NUMBER | W.P. | SIZE | DIMENSIONS |      |    |    |
|-------------|------|------|------------|------|----|----|
|             | psi  | bar  |            | A    | B  | C  |
| JG5828      | 3000 | 210  | 1/2"       | 30,2 | 45 | 22 |
| JG5831      | 3000 | 210  | 3/4"       | 38   | 50 | 28 |
| JG5832      | 3000 | 210  | 1"         | 44,4 | 55 | 35 |
| JG5834      | 3000 | 210  | 1.1/4"     | 50,8 | 60 | 43 |
| JG5836      | 3000 | 210  | 1.1/2"     | 60,3 | 65 | 50 |
| JG6608      | 3000 | 210  | 2"         | 71,4 | 70 | 62 |
| JG6636      | 6000 | 420  | 1/2"       | 31,7 | 45 | 22 |
| JG6637      | 6000 | 420  | 3/4"       | 41,3 | 50 | 28 |
| JG5793      | 6000 | 420  | 1"         | 47,6 | 55 | 35 |
| JG6638      | 6000 | 420  | 1.1/4"     | 54   | 60 | 44 |
| JG6639      | 6000 | 420  | 1.1/2"     | 63,5 | 65 | 51 |
| JG6640      | 6000 | 420  | 2"         | 79,4 | 70 | 65 |



3000 PSI WELDABLE FLANGE HEAD  
WITHOUT GROOVE

6000 PSI WELDABLE FLANGE HEAD  
WITHOUT GROOVE

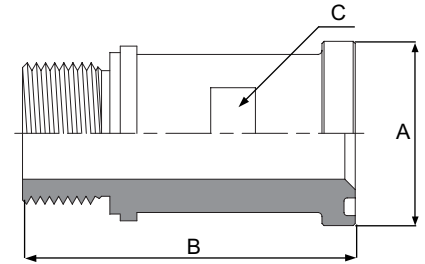
| PART NUMBER | W.P. | SIZE | DIMENSIONS |      |    |    |
|-------------|------|------|------------|------|----|----|
|             | psi  | bar  |            | A    | B  | C  |
| JG5827      | 3000 | 210  | 1/2"       | 30,2 | 45 | 22 |
| JG6609      | 3000 | 210  | 3/4"       | 38,1 | 50 | 28 |
| JG5833      | 3000 | 210  | 1"         | 44,4 | 55 | 35 |
| JG5794      | 3000 | 210  | 1.1/4"     | 50,8 | 60 | 43 |
| JG6610      | 3000 | 210  | 1.1/2"     | 60,3 | 65 | 50 |
| JG5792      | 3000 | 210  | 2"         | 71,4 | 70 | 62 |
| JG6641      | 6000 | 420  | 1/2"       | 31,7 | 45 | 22 |
| JG6642      | 6000 | 420  | 3/4"       | 41,3 | 50 | 28 |
| JG6643      | 6000 | 420  | 1"         | 47,6 | 55 | 35 |
| JG5803      | 6000 | 420  | 1.1/4"     | 54   | 60 | 44 |
| JG6644      | 6000 | 420  | 1.1/2"     | 63,5 | 65 | 51 |
| JG5804      | 6000 | 420  | 2"         | 79,4 | 70 | 65 |

# INDUSTRIAL PRODUCTS

## FLANGE ACCESSORIES

3000 PSI FLANGE HEAD WITH GROOVE,  
BSP MALE

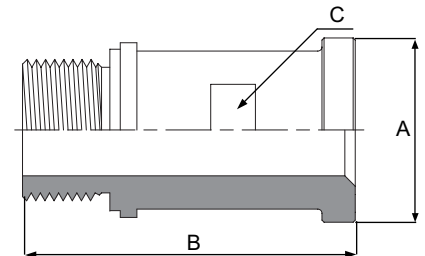
6000 PSI FLANGE HEAD WITH GROOVE,  
BSP MALE



| PART NUMBER | NOMINAL W.P. | W.P. | SIZE   | DIMENSIONS |    |    | THREAD      |
|-------------|--------------|------|--------|------------|----|----|-------------|
|             | psi          | bar  |        | A          | B  | C  | BSP         |
| JG13577     | 3000         | 300  | 1/2"   | 30,2       | 60 | 19 | 1/2" - 14   |
| JG13578     | 3000         | 300  | 3/4"   | 38         | 60 | 27 | 3/4" - 14   |
| JG13579     | 3000         | 300  | 1"     | 44,4       | 65 | 32 | 1" - 11     |
| JG13580     | 3000         | 150  | 1.1/4" | 50,8       | 70 | 38 | 1.1/4" - 11 |
| JG13581     | 3000         | 150  | 1.1/2" | 60,3       | 75 | 46 | 1.1/2" - 11 |
| JG30131     | 3000         | 150  | 2"     | 71,4       | 80 | 55 | 2" - 11     |
| JG13582     | 6000         | 350  | 1/2"   | 31,8       | 60 | 19 | 1/2" - 14   |
| JG13583     | 6000         | 350  | 3/4"   | 39,5       | 60 | 27 | 3/4" - 14   |
| JG13584     | 6000         | 350  | 1"     | 47,6       | 65 | 32 | 1" - 11     |
| JG13587     | 6000         | 250  | 1.1/4" | 54         | 70 | 38 | 1.1/4" - 11 |
| JG13592     | 6000         | 250  | 1.1/2" | 63,5       | 80 | 46 | 1.1/2" - 11 |
| JG30132     | 6000         | 200  | 2"     | 79,4       | 85 | 60 | 2" - 11     |

3000 PSI FLANGE HEAD WITHOUT GROOVE,  
BSP MALE

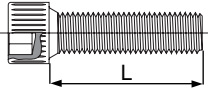
6000 PSI FLANGE HEAD WITHOUT GROOVE,  
BSP MALE



| PART NUMBER | NOMINAL W.P. | W.P. | SIZE   | DIMENSIONS |    |    | THREAD      |
|-------------|--------------|------|--------|------------|----|----|-------------|
|             | psi          | bar  |        | A          | B  | C  | BSP         |
| JG13594     | 3000         | 300  | 1/2"   | 30,2       | 60 | 19 | 1/2" - 14   |
| JG13595     | 3000         | 300  | 3/4"   | 38         | 60 | 27 | 3/4" - 14   |
| JG13596     | 3000         | 300  | 1"     | 44,4       | 65 | 32 | 1" - 11     |
| JG13597     | 3000         | 150  | 1.1/4" | 50,8       | 70 | 38 | 1.1/4" - 11 |
| JG13598     | 3000         | 150  | 1.1/2" | 60,3       | 75 | 46 | 1.1/2" - 11 |
| JG30130     | 3000         | 150  | 2"     | 71,4       | 80 | 55 | 2" - 11     |
| JG13599     | 6000         | 350  | 1/2"   | 31,8       | 60 | 19 | 1/2" - 14   |
| JG13600     | 6000         | 350  | 3/4"   | 39,5       | 60 | 27 | 3/4" - 14   |
| JG13601     | 6000         | 350  | 1"     | 47,6       | 65 | 32 | 1" - 11     |
| JG13603     | 6000         | 250  | 1.1/4" | 54         | 70 | 38 | 1.1/4" - 11 |
| JG13604     | 6000         | 250  | 1.1/2" | 63,5       | 80 | 46 | 1.1/2" - 11 |
| JG19542     | 6000         | 200  | 2"     | 79,4       | 85 | 60 | 2" - 11     |

# INDUSTRIAL PRODUCTS

## FLANGE ACCESSORIES



METRIC BOLT KIT (4 PCS.),  
12.9 CLASS (DIN 912)

| PART NUMBER | L  | THREAD   | PART NUMBER | L  | THREAD   |
|-------------|----|----------|-------------|----|----------|
|             | mm | METRIC   |             | mm | METRIC   |
| JG6623      | 25 | M8x1,25  | JG6670      | 45 | M12x1,75 |
| JG6657      | 30 | M8x1,25  | JG6627      | 40 | M14x2    |
| JG6624      | 30 | M10x1,5  | JG6671      | 50 | M14x2    |
| JG6625      | 35 | M10x1,5  | JG6658      | 55 | M16x2    |
| JG6626      | 35 | M12x1,75 | JG6660      | 70 | M20x2,5  |



METRIC BOLT KIT, 4 PCS., 12.9 CLASS (DIN 912)  
WITH NUT KIT, 4 PCS., 8 CLASS (DIN 934)

| PART NUMBER | L  | THREAD   | PART NUMBER | L   | THREAD   |
|-------------|----|----------|-------------|-----|----------|
|             | mm | METRIC   |             | mm  | METRIC   |
| JG6618      | 40 | M8x1,25  | JG6653      | 65  | M12x1,75 |
| JG6651      | 45 | M8x1,25  | JG6622      | 50  | M14x2    |
| JG6619      | 40 | M10x1,5  | JG6654      | 70  | M14x2    |
| JG6620      | 45 | M10x1,5  | JG6655      | 80  | M16x2    |
| JG6652      | 50 | M12x1,75 | JG6656      | 100 | M20x2,5  |
| JG6621      | 45 | M12x1,75 |             |     |          |

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

METRIC STEEL PIPE (DIN 2391)  
ZINC-PLATED METRIC STEEL PIPE (DIN 2391)  
ALSO AVAILABLE IN STAINLESS STEEL



| PART. REF.  | PART. REF.    | Outside diameter (O.D.) | Wall thickness | Max. DYNAMIC Working pressure | Max. STATIC Working pressure |
|-------------|---------------|-------------------------|----------------|-------------------------------|------------------------------|
| P00450-6000 | P00450-6000.Z | 4                       | 0,50           | 277                           | 314                          |
| P00475-6000 | P00475-6000.Z | 4                       | 0,75           | 415                           | 472                          |
| P00410-6000 | P00410-6000.Z | 4                       | 1,00           | 555                           | 707                          |
| P00575-6000 | P00575-6000.Z | 5                       | 0,75           | 332                           | 377                          |
| P00510-6000 | P00510-6000.Z | 5                       | 1,00           | 443                           | 503                          |
| P00675-6000 | P00675-6000.Z | 6                       | 0,75           | 294                           | 334                          |
| P00610-6000 | P00610-6000.Z | 6                       | 1,00           | 394                           | 471                          |
| P00875-6000 | P00875-6000.Z | 8                       | 0,75           | 294                           | 334                          |
| P00810-6000 | P00810-6000.Z | 8                       | 1,00           | 441                           | 501                          |
| P00815-6000 | P00815-6000.Z | 8                       | 1,50           | 436                           | 530                          |
| P00820-6000 | P00820-6000.Z | 8                       | 2,00           | 555                           | 707                          |
| P01010-6000 | P01010-6000.Z | 10                      | 1,00           | 249                           | 283                          |
| P01015-6000 | P01015-6000.Z | 10                      | 1,50           | 374                           | 425                          |
| P01020-6000 | P01020-6000.Z | 10                      | 2,00           | 499                           | 566                          |
| P01025-6000 | P01025-6000.Z | 10                      | 2,50           | 555                           | 707                          |
| P01210-6000 | P01210-6000.Z | 12                      | 1,00           | 207                           | 236                          |
| P01215-6000 | P01215-6000.Z | 12                      | 1,50           | 311                           | 354                          |
| P01220-6000 | P01220-6000.Z | 12                      | 2,00           | 394                           | 472                          |
| P01410-6000 | P01410-6000.Z | 14                      | 1,00           | 178                           | 202                          |
| P01415-6000 | P01415-6000.Z | 14                      | 1,50           | 267                           | 303                          |
| P01420-6000 | P01420-6000.Z | 14                      | 2,00           | 356                           | 404                          |
| P01425-6000 | P01425-6000.Z | 14                      | 2,50           | 445                           | 506                          |
| P01510-6000 | P01510-6000.Z | 15                      | 1,00           | 166                           | 188                          |
| P01515-6000 | P01515-6000.Z | 15                      | 1,50           | 249                           | 283                          |
| P01520-6000 | P01520-6000.Z | 15                      | 2,00           | 332                           | 377                          |
| P01525-6000 | P01525-6000.Z | 15                      | 2,50           | 415                           | 472                          |
| P01530-6000 | P01530-6000.Z | 15                      | 3,00           | 499                           | 566                          |
| P01610-6000 | P01610-6000.Z | 16                      | 1,00           | 155                           | 177                          |
| P01615-6000 | P01615-6000.Z | 16                      | 1,50           | 233                           | 265                          |
| P01620-6000 | P01620-6000.Z | 16                      | 2,00           | 311                           | 354                          |
| P01625-6000 | P01625-6000.Z | 16                      | 2,50           | 389                           | 442                          |
| P01630-6000 | P01630-6000.Z | 16                      | 3,00           | 467                           | 531                          |
| P01818-6000 | P01818-6000.Z | 18                      | 1,00           | 138                           | 157                          |
| P01850-6000 | P01850-6000.Z | 18                      | 1,50           | 207                           | 236                          |
| P01820-6000 | P01820-6000.Z | 18                      | 2,00           | 277                           | 314                          |
| P01825-6000 | P01825-6000.Z | 18                      | 2,50           | 346                           | 393                          |
| P01830-6000 | P01830-6000.Z | 18                      | 3,00           | 415                           | 472                          |
| P02010-6000 | P02010-6000.Z | 20                      | 1,00           | 124                           | 141                          |
| P02015-6000 | P02015-6000.Z | 20                      | 1,50           | 187                           | 212                          |
| P02020-6000 | P02020-6000.Z | 20                      | 2,00           | 249                           | 283                          |
| P02025-6000 | P02025-6000.Z | 20                      | 2,50           | 311                           | 354                          |
| P02030-6000 | P02030-6000.Z | 20                      | 3,00           | 374                           | 425                          |
| P02035-6000 | P02035-6000.Z | 20                      | 3,50           | 436                           | 495                          |
| P02040-6000 | P02040-6000.Z | 20                      | 4,00           | 499                           | 566                          |
| P02210-6000 | P02210-6000.Z | 22                      | 1,00           | 113                           | 128                          |
| P02215-6000 | P02215-6000.Z | 22                      | 1,50           | 170                           | 193                          |
| P02220-6000 | P02220-6000.Z | 22                      | 2,00           | 226                           | 257                          |
| P02225-6000 | P02225-6000.Z | 22                      | 2,50           | 283                           | 322                          |
| P02230-6000 | P02230-6000.Z | 22                      | 3,00           | 340                           | 386                          |
| P02235-6000 | P02235-6000.Z | 22                      | 3,50           | 397                           | 450                          |
| P02240-6000 | P02240-6000.Z | 22                      | 4,00           | 453                           | 515                          |
| P02510-6000 | P02510-6000.Z | 25                      | 1,00           | 99                            | 113                          |
| P02515-6000 | P02515-6000.Z | 25                      | 1,50           | 149                           | 170                          |
| P02520-6000 | P02520-6000.Z | 25                      | 2,00           | 199                           | 228                          |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

| PART. REF.  | PART. REF.    | Outside diameter (O.D.) | Wall thickness | Max. DYNAMIC Working pressure | Max. STATIC Working pressure |
|-------------|---------------|-------------------------|----------------|-------------------------------|------------------------------|
| P02525-6000 | P02525-6000.Z | 25                      | 2,50           | 249                           | 283                          |
| P02530-6000 | P02530-6000.Z | 25                      | 3,00           | 267                           | 303                          |
| P02535-6000 | P02535-6000.Z | 25                      | 3,50           | 349                           | 396                          |
| P02540-6000 | P02540-6000.Z | 25                      | 4,00           | 399                           | 453                          |
| P02545-6000 | P02545-6000.Z | 25                      | 4,50           | 449                           | 510                          |
| P02550-6000 | P02550-6000.Z | 25                      | 5,00           | 499                           | 566                          |
| P02810-6000 | P02810-6000.Z | 28                      | 1,00           | 89                            | 101                          |
| P02815-6000 | P02815-6000.Z | 28                      | 1,50           | 133                           | 151                          |
| P02820-6000 | P02820-6000.Z | 28                      | 2,00           | 178                           | 202                          |
| P02825-6000 | P02825-6000.Z | 28                      | 2,50           | 222                           | 253                          |
| P02830-6000 | P02830-6000.Z | 28                      | 3,00           | 267                           | 303                          |
| P02835-6000 | P02835-6000.Z | 28                      | 3,50           | 311                           | 354                          |
| P02840-6000 | P02840-6000.Z | 28                      | 4,00           | 356                           | 404                          |
| P02845-6000 | P02845-6000.Z | 28                      | 4,50           | 401                           | 455                          |
| P02850-6000 | P02850-6000.Z | 28                      | 5,00           | 445                           | 506                          |
| P03020-6000 | P03020-6000.Z | 30                      | 2,00           | 166                           | 188                          |
| P03025-6000 | P03025-6000.Z | 30                      | 2,50           | 207                           | 236                          |
| P03030-6000 | P03030-6000.Z | 30                      | 3,00           | 249                           | 283                          |
| P03035-6000 | P03035-6000.Z | 30                      | 3,50           | 291                           | 330                          |
| P03040-6000 | P03040-6000.Z | 30                      | 4,00           | 332                           | 377                          |
| P03045-6000 | P03045-6000.Z | 30                      | 4,50           | 379                           | 425                          |
| P03050-6000 | P03050-6000.Z | 30                      | 5,00           | 415                           | 472                          |
| P03060-6000 | P03060-6000.Z | 30                      | 6,00           | 499                           | 566                          |
| P03230-6000 | P03230-6000.Z | 32                      | 3,00           | -                             | 263                          |
| P03520-6000 | P03520-6000.Z | 35                      | 2,00           | 142                           | 161                          |
| P03525-6000 | P03525-6000.Z | 35                      | 2,50           | 178                           | 202                          |
| P03530-6000 | P03530-6000.Z | 35                      | 3,00           | 213                           | 242                          |
| P03535-6000 | P03535-6000.Z | 35                      | 3,50           | 249                           | 283                          |
| P03540-6000 | P03540-6000.Z | 35                      | 4,00           | 285                           | 323                          |
| P03545-6000 | P03545-6000.Z | 35                      | 4,50           | 320                           | 364                          |
| P03550-6000 | P03550-6000.Z | 35                      | 5,00           | 356                           | 404                          |
| P03560-6000 | P03560-6000.Z | 35                      | 6,00           | 427                           | 485                          |
| P03820-6000 | P03820-6000.Z | 38                      | 2,00           | 131                           | 149                          |
| P03825-6000 | P03825-6000.Z | 38                      | 2,50           | 164                           | 186                          |
| P03830-6000 | P03830-6000.Z | 38                      | 3,00           | 197                           | 223                          |
| P03835-6000 | P03835-6000.Z | 38                      | 3,50           | 229                           | 261                          |
| P03840-6000 | P03840-6000.Z | 38                      | 4,00           | 262                           | 298                          |
| P03845-6000 | P03845-6000.Z | 38                      | 4,50           | 295                           | 335                          |
| P03850-6000 | P03850-6000.Z | 38                      | 5,00           | 328                           | 372                          |
| P03860-6000 | P03860-6000.Z | 38                      | 6,00           | 394                           | 447                          |
| P03870-6000 | P03870-6000.Z | 38                      | 7,00           | 459                           | 522                          |
| P04220-6000 | P04220-6000.Z | 42                      | 2,00           | 118                           | 134                          |
| P04230-6000 | P04230-6000.Z | 42                      | 3,00           | 178                           | 202                          |
| P04240-6000 | P04240-6000.Z | 42                      | 4,00           | 237                           | 269                          |

**O.D.** - Pipe outside diameter

**I.D.** - Pipe inside diameter

**T.P.** - Test pressure

**W.P.** - Working pressure

**B.P.** - Burst pressure

### Controls

All the tubes are systematically submitted to :

- a non-destructive Eddy Current test
- a visual inspection.

### Finishing :

The tubes are square cut with the ends deburred internally and externally.

Moreover, a wide range of the St 37.4 (DIN 1630) tubes is available with a yellow electrolytically galvanized coating on the outside only to protect from corrosion.

The thickness of this protection is between 10 and 12  $\mu$ .

The St.37 tubes can be bent (U shaped) to a radius of 2.5 D mini.

### Stocked lengths :

The carbon tubes are stocked in lengths of 6 meters (norm : 0 / + 10 mm) and plugged at each end.

### Marking :

The tubes are longitudinally and continuously marked according to the norms.

### Certificate :

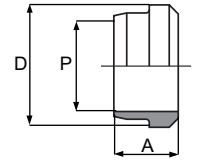
A certificate giving chemical composition and mechanical test results can be supplied with each product upon request.

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### A421100

BITE RING, LIGHT TYPE (DIN 2353)

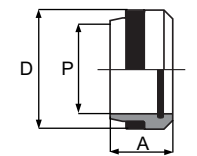


| PART. REF.    | WORKING PRESSURE | DIMENSIONS<br>mm |      |      |
|---------------|------------------|------------------|------|------|
|               | W.P. (bar)       | P                | A    | D    |
| A421100-06-12 | 315              | 6,0              | 9,5  | 10,0 |
| A421100-08-14 | 315              | 8,0              | 9,5  | 12,0 |
| A421100-10-16 | 315              | 10,0             | 10,0 | 14,0 |
| A421100-12-18 | 315              | 12,0             | 10,0 | 16,0 |
| A421100-15-22 | 315              | 15,0             | 10,0 | 20,0 |
| A421100-18-26 | 315              | 18,0             | 10,0 | 23,0 |
| A421100-22-30 | 160              | 22,0             | 10,5 | 27,0 |
| A421100-28-36 | 160              | 28,0             | 11,0 | 33,0 |
| A421100-35-45 | 160              | 35,0             | 13,0 | 41,0 |
| A421100-42-52 | 160              | 42,0             | 13,0 | 48,0 |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

### A421100B4

BITE RING B4, LIGHT TYPE (DIN 2353)

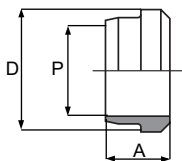


| PART. REF.      | WORKING PRESSURE | DIMENSIONS<br>mm |      |      |
|-----------------|------------------|------------------|------|------|
|                 | W.P. (bar)       | P                | A    | D    |
| A421100-06-12B4 | 315              | 6,0              | 9,5  | 10,0 |
| A421100-08-14B4 | 315              | 8,0              | 9,5  | 12,0 |
| A421100-10-16B4 | 315              | 10,0             | 10,0 | 14,0 |
| A421100-12-18B4 | 315              | 12,0             | 10,0 | 16,0 |
| A421100-15-22B4 | 315              | 15,0             | 10,0 | 20,0 |
| A421100-18-26B4 | 315              | 18,0             | 10,0 | 23,0 |
| A421100-22-30B4 | 160              | 22,0             | 10,5 | 27,0 |
| A421100-28-36B4 | 160              | 28,0             | 11,0 | 33,0 |
| A421100-35-45B4 | 160              | 35,0             | 13,0 | 41,0 |
| A421100-42-52B4 | 160              | 42,0             | 13,0 | 48,0 |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

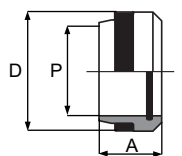


### A421200

BITE RING, HEAVY TYPE (DIN 2353)

| PART. REF.    | WORKING PRESSURE | DIMENSIONS<br>mm |      |      |
|---------------|------------------|------------------|------|------|
|               | W.P. (bar)       | P                | A    | D    |
| A421200-06-14 | 630              | 6,0              | 9,5  | 10,0 |
| A421200-08-16 | 630              | 8,0              | 9,5  | 12,0 |
| A421200-10-18 | 630              | 10,0             | 10,0 | 14,0 |
| A421200-12-20 | 630              | 12,0             | 10,0 | 16,0 |
| A421200-14-22 | 630              | 14,0             | 10,0 | 19,0 |
| A421200-16-24 | 400              | 16,0             | 10,5 | 21,0 |
| A421200-20-30 | 400              | 20,0             | 12,0 | 26,0 |
| A421200-25-36 | 400              | 25,0             | 12,0 | 32,0 |
| A421200-30-42 | 400              | 30,0             | 13,0 | 38,0 |
| A421200-38-52 | 315              | 38,0             | 13,0 | 48,0 |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS



### A421200B4

BITE RING B4, HEAVY TYPE (DIN 2353)

| PART. REF.      | WORKING PRESSURE | DIMENSIONS<br>mm |      |      |
|-----------------|------------------|------------------|------|------|
|                 | W.P. (bar)       | P                | A    | D    |
| A421200-06-14B4 | 630              | 6,0              | 9,5  | 10,0 |
| A421200-08-16B4 | 630              | 8,0              | 9,5  | 12,0 |
| A421200-10-18B4 | 630              | 10,0             | 10,0 | 14,0 |
| A421200-12-20B4 | 630              | 12,0             | 10,0 | 16,0 |
| A421200-14-22B4 | 630              | 14,0             | 10,0 | 19,0 |
| A421200-16-24B4 | 400              | 16,0             | 10,5 | 21,0 |
| A421200-20-30B4 | 400              | 20,0             | 12,0 | 26,0 |
| A421200-25-36B4 | 400              | 25,0             | 12,0 | 32,0 |
| A421200-30-42B4 | 400              | 30,0             | 13,0 | 38,0 |
| A421200-38-52B4 | 315              | 38,0             | 13,0 | 48,0 |

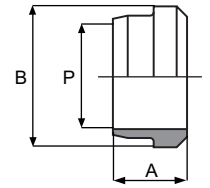
If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### A421700

METRIC SLEEVE, FRENCH MILLIMETRIC TYPE

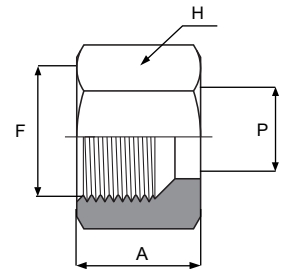


| PART. REF.    | WORKING PRESSURE | DIMENSIONS<br>mm |      |      |
|---------------|------------------|------------------|------|------|
|               | W.P. (bar)       | P                | A    | B    |
| A421700-04-10 | 400              | 4,0              | 7,2  | 6,0  |
| A421700-14-20 | 400              | 14,0             | 10,0 | 17,0 |
| A421700-20-27 | 250              | 20,0             | 10,0 | 23,0 |
| A421700-25-33 | 250              | 25,0             | 10,0 | 28,0 |
| A421700-30-39 | 160              | 30,0             | 10,5 | 34,0 |
| A421700-32-42 | 160              | 32,0             | 10,5 | 36,0 |
| A421700-38-48 | 100              | 38,0             | 10,5 | 42,0 |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

### A431100

METRIC NUT, LIGHT TYPE (DIN 2353)

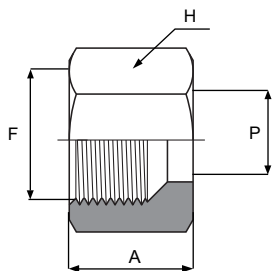


| PART. REF.    | THREADS  | W.P. | DIMENSIONS<br>mm |      |    |
|---------------|----------|------|------------------|------|----|
|               | F (METR) | bar  | P                | A    | H  |
| A431100-06-12 | M12x1,5  | 315  | 6,0              | 14,5 | 14 |
| A431100-08-14 | M14x1,5  | 315  | 8,0              | 14,5 | 17 |
| A431100-10-16 | M16x1,5  | 315  | 10,0             | 15,5 | 19 |
| A431100-12-18 | M18x1,5  | 315  | 12,0             | 15,5 | 22 |
| A431100-15-22 | M22x1,5  | 315  | 15,0             | 17,0 | 27 |
| A431100-18-26 | M26x1,5  | 315  | 18,0             | 18,0 | 32 |
| A431100-22-30 | M30x2,0  | 160  | 22,0             | 20,0 | 36 |
| A431100-28-36 | M36x2,0  | 160  | 28,0             | 21,0 | 41 |
| A431100-35-45 | M45x2,0  | 160  | 35,0             | 24,0 | 50 |
| A431100-42-52 | M52x2,0  | 160  | 42,0             | 24,0 | 60 |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS



### A431200

METRIC NUT, HEAVY TYPE (DIN 2353)

| PART. REF.    | THREADS  | W.P. | DIMENSIONS<br>mm |       |    |
|---------------|----------|------|------------------|-------|----|
|               | F (METR) | bar  | P                | A     | H  |
| A431200-06-14 | M14x1,5  | 630  | 6,0              | 16,5  | 17 |
| A431200-08-16 | M16x1,5  | 630  | 8,0              | 16,5  | 19 |
| A431200-10-18 | M18x1,5  | 630  | 10,0             | 17,5  | 22 |
| A431200-12-20 | M20x1,5  | 630  | 12,0             | 17,5  | 24 |
| A431200-14-22 | M22x1,5  | 630  | 14,0             | 20,,5 | 27 |
| A431200-16-24 | M24x1,5  | 400  | 16,0             | 20,5  | 30 |
| A431200-20-30 | M30x2,0  | 400  | 20,0             | 24,0  | 36 |
| A431200-25-36 | M36x2,0  | 400  | 25,0             | 27,0  | 46 |
| A431200-30-42 | M42x2,0  | 400  | 30,0             | 29,0  | 50 |
| A431200-38-52 | M52x2,0  | 315  | 38,0             | 32,5  | 60 |

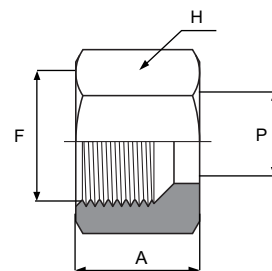
If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### A431700

METRIC NUT, FRENCH MILLIMETRIC TYPE

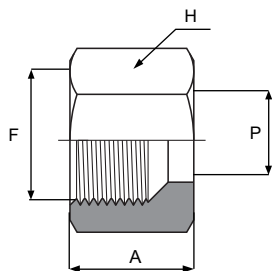


| PART. REF.    | THREADS  | DIMENSIONS<br>mm |      |    | W.P. |
|---------------|----------|------------------|------|----|------|
|               | F (METR) | P                | A    | H  | bar  |
| A431700-04-10 | M10x1,0  | 4,0              | 12,0 | 12 | 400  |
| A431700-06-12 | M12x1,0  | 6,0              | 15,5 | 17 | 400  |
| A431700-14-20 | M20x1,5  | 14,0             | 17,0 | 27 | 400  |
| A431700-18-27 | M27x1,5  | 18,0             | 20,0 | 32 | 250  |
| A431700-20-27 | M27x1,5  | 20,0             | 24,5 | 36 | 250  |
| A431700-25-33 | M33x1,5  | 25,0             | 20,5 | 41 | 250  |
| A431700-30-39 | M39x1,5  | 30,0             | 21,5 | 46 | 160  |
| A431700-32-42 | M42x1,5  | 32,0             | 23,5 | 50 | 160  |
| A431700-38-48 | M48x1,5  | 38,0             | 24,5 | 60 | 160  |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS



### A431800

METRIC NUT, FRENCH GAZ TYPE

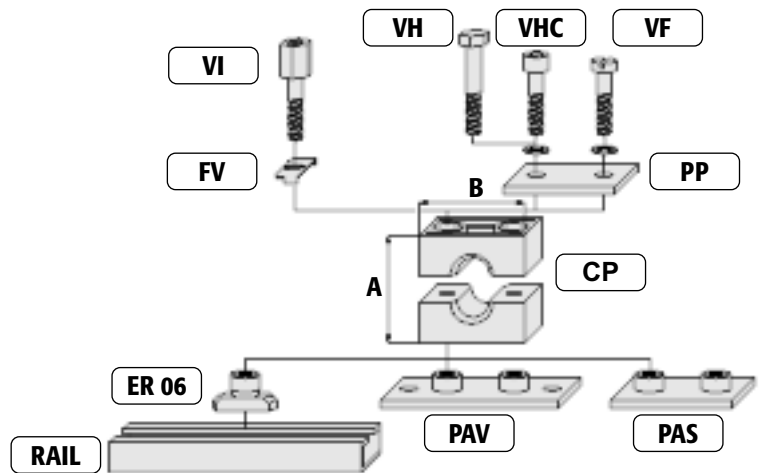
| PART. REF.       | THREADS  | DIMENSIONS<br>mm |      |    | W.P. |
|------------------|----------|------------------|------|----|------|
|                  | F (METR) | P                | A    | H  | bar  |
| A431800-13-20H24 | M20x1,5  | 13,25            | 17,0 | 24 | 400  |
| A431800-13-20H27 | M20x1,5  | 13,25            | 17,0 | 27 | 400  |
| A431800-17-24    | M24x1,5  | 16,75            | 18,0 | 30 | 400  |
| A431800-21-30    | M30x1,5  | 21,25            | 20,5 | 36 | 250  |
| A431800-27-36    | M36x1,5  | 26,75            | 21,5 | 46 | 250  |
| A431800-33-45    | M45x1,5  | 33,5             | 23,5 | 55 | 160  |
| A431800-42-52    | M52x1,5  | 42,25            | 24,5 | 65 | 100  |
| A431800-49-58    | M58x2,0  | 48,25            | 26,0 | 70 | 100  |

If You wish to order a fitting/ ferrule/ adaptor in stainless, please add at the end of code .SS

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### SINGLE STANDARD CLAMPS (DIN 3015)



| MODULE | Plastic part       |                 |      |      | Steel base         |        |           |        | Intermediary parts (if needed) |      |           |            |
|--------|--------------------|-----------------|------|------|--------------------|--------|-----------|--------|--------------------------------|------|-----------|------------|
|        | AND                |                 |      |      | OR                 |        |           |        | AND                            |      |           |            |
|        | CP                 |                 |      |      | PAV                |        |           |        | FV                             |      |           |            |
|        | Polypropylene jaws |                 |      |      | Bolt-on base plate |        |           |        | Screw lock washer              |      |           |            |
|        | Reference          | Code (diameter) | A mm | B mm | Reference          | Code   | Reference | Code   | Reference                      | Code | Reference | Code       |
| 1      | JD21124            | CP 06           | 26,0 | 34,0 | JG21147            | PAV 01 | JG21153   | PAS 01 | JG44790                        | FV   | JG21165   | VI 06 x 20 |
|        | JD21125            | CP 08           | 26,0 | 34,0 |                    |        |           |        |                                |      |           |            |
|        | JD21126            | CP 10           | 26,0 | 34,0 |                    |        |           |        |                                |      |           |            |
|        | JD21127            | CP 12           | 26,0 | 34,0 |                    |        |           |        |                                |      |           |            |
| 2      | JD21128            | CP 13           | 33,0 | 40,0 | JG21148            | PAV 02 | JG21154   | PAS 02 | JG44790                        | FV   | JG21166   | VI 06 x 25 |
|        | JD21129            | CP 14           | 33,0 | 40,0 |                    |        |           |        |                                |      |           |            |
|        | JD21130            | CP 15           | 33,0 | 40,0 |                    |        |           |        |                                |      |           |            |
|        | JD21131            | CP 16           | 33,0 | 40,0 |                    |        |           |        |                                |      |           |            |
|        | JD21132            | CP 17           | 33,0 | 40,0 |                    |        |           |        |                                |      |           |            |
|        | JD21133            | CP 18           | 33,0 | 40,0 |                    |        |           |        |                                |      |           |            |
| 3      | JD5404             | CP 19           | 37,0 | 48,0 | JG21149            | PAV 03 | JG21155   | PAS 03 | JG44790                        | FV   | JG21167   | VI 06 x 30 |
|        | JD21134            | CP 20           | 37,0 | 48,0 |                    |        |           |        |                                |      |           |            |
|        | JD21135            | CP 21           | 37,0 | 48,0 |                    |        |           |        |                                |      |           |            |
|        | JD21136            | CP 22           | 37,0 | 48,0 |                    |        |           |        |                                |      |           |            |
|        | JD21137            | CP 25           | 37,0 | 48,0 |                    |        |           |        |                                |      |           |            |
| 4      | JD21138            | CP 27           | 42,0 | 57,0 | JG21150            | PAV 04 | JG21156   | PAS 04 | JG44790                        | FV   | JG21168   | VI 06 x 35 |
|        | JD21139            | CP 28           | 42,0 | 57,0 |                    |        |           |        |                                |      |           |            |
|        | JD21140            | CP 30           | 42,0 | 57,0 |                    |        |           |        |                                |      |           |            |
| 5      | JD21141            | CP 32           | 58,0 | 70,0 | JG21151            | PAV 05 | JG21157   | PAS 05 | JG44790                        | FV   | JG21169   | VI 06 x 50 |
|        | JD21142            | CP 33           | 58,0 | 70,0 |                    |        |           |        |                                |      |           |            |
|        | JD21143            | CP 35           | 58,0 | 70,0 |                    |        |           |        |                                |      |           |            |
|        | JD21144            | CP 38           | 58,0 | 70,0 |                    |        |           |        |                                |      |           |            |
|        | JD5365             | CP 40           | 58,0 | 70,0 |                    |        |           |        |                                |      |           |            |
|        | JD21145            | CP 42           | 58,0 | 70,0 |                    |        |           |        |                                |      |           |            |
| 6      | JD21146            | CP 48           | 66,0 | 86,0 | JG21152            | PAV 06 | JG21158   | PAS 06 | JG44790                        | FV   | JG21170   | VI 06 x 60 |

# INDUSTRIAL PRODUCTS

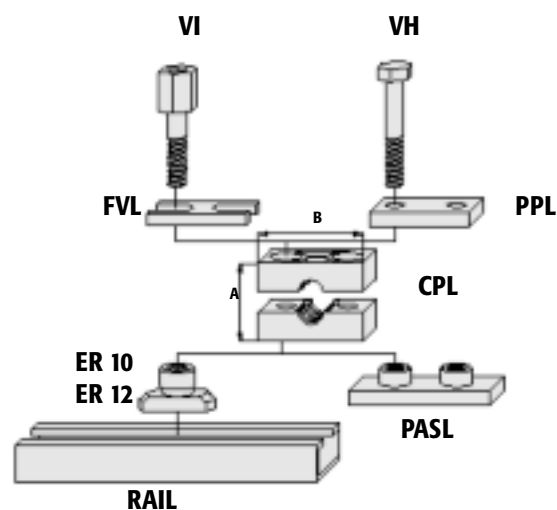
## RIGID CONNECTIONS

| Cover          |       | Fixing screws            |              |                          |              |                            |               |
|----------------|-------|--------------------------|--------------|--------------------------|--------------|----------------------------|---------------|
| PP             |       | VF                       |              | OR                       |              | VH                         |               |
| Covering plate |       | Slot-head screw (DIN 84) |              | Hex-head screw (DIN 931) |              | Allen head screw (DIN 912) |               |
| Reference      | Code  | Reference                | Code         | Reference                | Code         | Reference                  | Code          |
| JG21171        | PP 01 | JG21177                  | VF 06x20 *10 | JG21183                  | VH 06x30 *10 | JG21189                    | VHC 06x20 *10 |
| JG21172        | PP 02 | JG21178                  | VF 06x25 *10 | JG21184                  | VH 06x35 *10 | JG21190                    | VHC 06x25 *10 |
| JG21173        | PP 03 | JG21179                  | VF 06x30 *10 | JG21185                  | VH 06x40 *10 | JG21191                    | VHC 06x30 *10 |
| JG21174        | PP 04 | JG21180                  | VF 06x35 *10 | JG21186                  | VH 06x45 *10 | JG21192                    | VHC 06x35*10  |
| JG21175        | PP 05 | JG21181                  | VF 06x50 *10 | JG21187                  | VH 06x60     | JG21193                    | VHC 06x50 *10 |
| JG21176        | PP 06 | JG21182                  | VF 06x60 *10 | JG21188                  | VH 06x70     | JG21194                    | VHC 06x60*10  |

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### SINGLE CLAMPS, HEAVY TYPE (DIN 3015)



| MODULE | AND                |        |      |      | AND                |         | AND               |        | AND                |          | OR                 |        | AND                       |          |
|--------|--------------------|--------|------|------|--------------------|---------|-------------------|--------|--------------------|----------|--------------------|--------|---------------------------|----------|
|        | Polypropylene jaws |        |      |      | Weld on base plate |         | Screw lock washer |        | Intermediary screw |          | Intermediary screw |        | Hex-head screw<br>DIN 931 |          |
|        | Reference          | Code   | A    | B    | Reference          | Code    | Reference         | Code   | Reference          | Code     | Reference          | Code   | Reference                 | Code     |
| 1      | JD21240            | CPL 06 | 55,0 | 32,0 | JG21279            | PASL 01 | JG21289           | FVL 01 | JG21299            | VI 10x26 | JG21309            | PPL 01 | JG21319                   | VH 10x45 |
|        | JD21241            | CPL 08 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21242            | CPL 10 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21243            | CPL 12 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21244            | CPL 13 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21245            | CPL 14 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21246            | CPL 15 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21247            | CPL 16 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21248            | CPL 17 | 55,0 | 32,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
| 2      | JD21249            | CPL 18 | 55,0 | 32,0 | JG21280            | PASL 02 | JG21290           | FVL 02 | JG21300            | VI 10x41 | JG21310            | PPL 02 | JG21320                   | VH 10x60 |
|        | JD21250            | CPL 20 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21251            | CPL 21 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21252            | CPL 22 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21329            | CPL 25 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21253            | CPL 27 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21254            | CPL 28 | 70,0 | 48,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
| 3      | JD21255            | CPL 30 | 70,0 | 48,0 | JG21281            | PASL 03 | JG21291           | FVL 03 | JG21301            | VI 10x52 | JG21311            | PPL 03 | JG21321                   | VH 10x70 |
|        | JD21256            | CPL 33 | 85,0 | 60,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21257            | CPL 35 | 85,0 | 60,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21258            | CPL 38 | 85,0 | 60,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21259            | CPL 40 | 85,0 | 60,0 |                    |         |                   |        |                    |          |                    |        |                           |          |
|        | JD21260            | CPL 42 | 85,0 | 60,0 |                    |         |                   |        |                    |          |                    |        |                           |          |

# INDUSTRIAL PRODUCTS

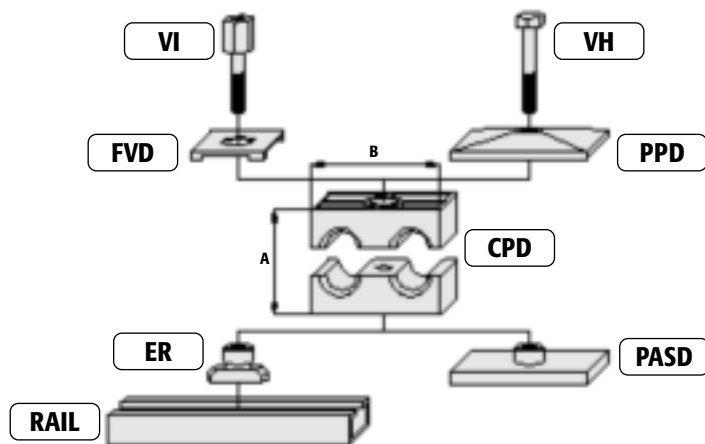
## RIGID CONNECTIONS

| MODULE | AND                |         |         |         | AND                |         | AND               |        | AND                |          | OR                 |        | AND                    |           |
|--------|--------------------|---------|---------|---------|--------------------|---------|-------------------|--------|--------------------|----------|--------------------|--------|------------------------|-----------|
|        | Polypropylene jaws |         |         |         | Weld on base plate |         | Screw lock washer |        | Intermediary screw |          | Intermediary screw |        | Hex-head screw DIN 931 |           |
|        | Reference          | Code    | A<br>mm | B<br>mm | Reference          | Code    | Reference         | Code   | Reference          | Code     | Reference          | Code   | Reference              | Code      |
| 4      | JD21261            | CPL 49  | 120,0   | 90,0    | JG21282            | PASL 04 | JG21292           | FVL 04 | JG21302            | VI12x83  | JG21312            | PPL 04 | JG21322                | VH 12x100 |
|        | JD21262            | CPL 55  | 120,0   | 90,0    |                    |         |                   |        |                    |          |                    |        |                        |           |
|        | JD21263            | CPL 61  | 120,0   | 90,0    |                    |         |                   |        |                    |          |                    |        |                        |           |
|        | JD21264            | CPL 65  | 120,0   | 90,0    |                    |         |                   |        |                    |          |                    |        |                        |           |
|        | JG21265            | CPL 70  | 120,0   | 90,0    |                    |         |                   |        |                    |          |                    |        |                        |           |
| 5      | JD21266            | CPL 77  | 152,0   | 120,0   | JG21283            | PASL 05 | JG21293           | FVL 05 | JG21303            | VI16x110 | JG21313            | PPL 05 | JG21323                | VH 16x130 |
|        | JD21267            | CPL 80  | 152,0   | 120,0   |                    |         |                   |        |                    |          |                    |        |                        |           |
|        | JD21268            | CPL 89  | 152,0   | 120,0   |                    |         |                   |        |                    |          |                    |        |                        |           |
|        | JD21269            | CPL 100 | 205,0   | 170,0   |                    |         |                   |        |                    |          |                    |        |                        |           |
| 6      | JD21270            | CPL 102 | 205,0   | 170,0   | JG21284            | PASL 06 | JG21294           | FVL 06 | -                  | -        | JG21314            | PPL 06 | JG21324                | VH 20x190 |
|        | JD21271            | CPL 114 | 205,0   | 170,0   |                    |         |                   |        |                    |          |                    |        |                        |           |
| 7      | JD21272            | CPL 140 | 250,0   | 200,0   | JG21285            | PASL 07 | JG21295           | FVL 07 | -                  | -        | JG21315            | PPL 07 | JG21325                | VH 24x220 |
|        | JD21273            | CPL 168 | 250,0   | 200,0   |                    |         |                   |        |                    |          |                    |        |                        |           |
| 8      | JD21274            | CPL 219 | 320,0   | 270,0   | JG21286            | PASL 08 | JG21296           | FVL 08 | -                  | -        | JG21316            | PPL 08 | JG21326                | VH 30x300 |

# INDUSTRIAL PRODUCTS

## RIGID CONNECTIONS

### TWIN CLAMPS (DIN 3015)



Rail nut references:

MODULE 1: rail nut ER 06 (M6 thread)

MODULE 2 to 5: rail nut ER 08 (M8 thread)

Base rail is delivered in 2 meter length bar only and suggested in different heights : Rail 1 (H=11 mm); Rail 2 (H=14 mm); Rail 3 (H=30 mm).

In case when you need more then one level of clamps, use Screw lock washer and intermediary screw.

Please state reference or computer code and desired quantities when ordering.

| MODULE | AND                            |                 |      |       | AND                |         |                   |           | OR                 |          |                |        |                |          |
|--------|--------------------------------|-----------------|------|-------|--------------------|---------|-------------------|-----------|--------------------|----------|----------------|--------|----------------|----------|
|        | CPD                            |                 |      |       | PASD               |         | FVD               |           | VI                 |          | PPD            |        | VH             |          |
|        | Polypropylene jaws twin series |                 |      |       | Weld on base plate |         | Screw lock washer |           | Intermediary screw |          | Covering plate |        | Hex-head screw |          |
|        | Reference                      | Code (diameter) | A mm | B mm  | Reference          | Code    | Reference         | Code      | Reference          | Code     | Reference      | Code   | Reference      | Code     |
| 1      | JD21195                        | CPD 06          | 27,0 | 36,0  | JG21216            | PASD 01 | JG21221           | FVD 01    | JG21165            | VI 06x20 | JG21231        | PPD 01 | JG10565        | VH 06x35 |
|        | JD21196                        | CPD 08          | 27,0 | 36,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21197                        | CPD 10          | 27,0 | 36,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21198                        | CPD 12          | 27,0 | 36,0  |                    |         |                   |           |                    |          |                |        |                |          |
| 2      | JD21199                        | CPD 13          | 26,0 | 53,0  | JG21217            | PASD 02 | JG44791           | FVD 02-05 | JG21227            | VI 08x20 | JG21232        | PPD 02 | JG21236        | VH 08x35 |
|        | JD21200                        | CPD 14          | 26,0 | 53,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21201                        | CPD 15          | 26,0 | 53,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21202                        | CPD 16          | 26,0 | 53,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21203                        | CPD 17          | 26,0 | 53,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21204                        | CPD 18          | 26,0 | 53,0  |                    |         |                   |           |                    |          |                |        |                |          |
| 3      | JD6407                         | CPD 19          | 37,0 | 67,0  | JG21218            | PASD 03 | JG44791           | FVD 02-05 | JG21228            | VI 08x30 | JG21233        | PPD 03 | JG21237        | VH 08x45 |
|        | JD21205                        | CPD 20          | 37,0 | 67,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21206                        | CPD 21          | 37,0 | 67,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21207                        | CPD 22          | 37,0 | 67,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21208                        | CPD 25          | 37,0 | 67,0  |                    |         |                   |           |                    |          |                |        |                |          |
| 4      | JD21209                        | CPD 27          | 42,0 | 82,0  | JG21219            | PASD 04 | JG44791           | FVD 02-05 | JG21229            | VI 08x45 | JG21234        | PPD 04 | JG21238        | VH 08x50 |
|        | JD21210                        | CPD 28          | 42,0 | 82,0  |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21211                        | CPD 30          | 42,0 | 82,0  |                    |         |                   |           |                    |          |                |        |                |          |
| 5      | JD21212                        | CPD 33          | 54,0 | 106,0 | JG21220            | PASD 05 | JG44791           | FVD 02-05 | JG21230            | VI 08x50 | JG21235        | PPD 05 | JG21239        | VH 08x65 |
|        | JD21213                        | CPD 35          | 54,0 | 106,0 |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21214                        | CPD 38          | 54,0 | 106,0 |                    |         |                   |           |                    |          |                |        |                |          |
|        | JD21215                        | CPD 42          | 54,0 | 106,0 |                    |         |                   |           |                    |          |                |        |                |          |



JG14432



JG3951

### MANUAL PIPE BENDING TOOL

| PART NUMBER | DIMENSIONS  | PIPE MAX. Ø | WEIGHT |
|-------------|-------------|-------------|--------|
|             | mm          | mm          | kg     |
| JG14432     | 730x130x160 | 18x2        | 6      |
| JG3951      | 420x340x120 | 22x2,5      | 10     |

#### JG14432 features:

Manual tool for pipe bending and flaring, easy to use  
Workbench mountable

#### JG3951 features:

Hydraulic pump assisted universal tool for pipe bending and flaring  
Pipe bending: max. Ø22x2,5 (steel), Ø18x1,5 (inox)  
Pipe flaring at 37° (JIC) for Ø6-18 steel pipes only with wall thickness up to 1,5 mm  
Hand tool for sharp angles removal



### ELECTRIC PIPE BENDING MACHINE

| PART NUMBER | DIMENSIONS  | PIPE MAX. Ø | WEIGHT |
|-------------|-------------|-------------|--------|
|             | mm          | mm          | kg     |
| JG10915     | 680x270x150 | 220         | 18,2   |

#### Features:

Universal, compact electric tool for cold bending of pipes up to 180°  
Fast and creep speed operation for precise bending  
No workbench needed. For workshop, job site, repair  
Rapid change of bending and back formers

#### Bending capabilities:

Hard, half-hard, soft copper tubes, also thin-wall Ø10-35 mm (Ø3/8-13/8")  
Coated soft copper tubes, also thin-wall Ø10-18 mm  
Stainless steel pipes Ø12-28 mm  
Soft precision steel pipes Ø10-30 mm  
Steel pipes DIN 2440 Ø1/4" - 3/4"

# INDUSTRIAL PRODUCTS

## TOOLS

### FUEL LINE CRIMPING TOOL KIT



| PART NUMBER | KIT INCLUDED | DESCRIPTION                                          |
|-------------|--------------|------------------------------------------------------|
| JG12448     | kit          | Dimensions (mm) : 720x270x110; Weight (kg) : 9       |
| JG21768     | +            | Crimping tool                                        |
| JG100074    | +            | Ferrule for hose with O.D. 10 mm                     |
| JG100077    | +            | Ferrule for hose with O.D. 12 mm                     |
| JG100079    | +            | Ferrule for hose with O.D. 14 mm                     |
| JG100081    | +            | Ferrule for hose with O.D. 16 mm                     |
| JG100094    | +            | Banjo fitting (hose I.D. 5 mm, bolt hole Ø8)         |
| JG100098    | +            | Banjo fitting (hose I.D. 6 mm, bolt hole Ø10)        |
| JG100099    | +            | Banjo fitting (hose I.D. 8 mm, bolt hole Ø12)        |
| JG100107    | +            | Banjo fitting (hose I.D. 10 mm, bolt hole Ø14)       |
| JG5869      | +            | Double banjo fitting (hose I.D. 5 mm, bolt hole Ø8)  |
| JG3756      | +            | Double Banjo fitting (hose I.D. 6 mm, bolt hole Ø10) |
| JG100242    | +            | Straight standpipe fitting, pipe Ø5 mm               |
| JG100243    | +            | Straight standpipe fitting, pipe Ø6 mm               |
| JG100245    | +            | Straight standpipe fitting, pipe Ø8 mm               |
| JG100248    | +            | Straight standpipe fitting, pipe Ø10 mm              |
| JG12440     | +            | Standpipe fitting, pipe Ø5 mm, 90° elbow             |
| JG12098     | +            | Standpipe fitting, pipe Ø6 mm, 90° elbow             |
| JG3745      | +            | Standpipe fitting, pipe Ø8 mm, 90° elbow             |
| JG3746      | +            | Standpipe fitting, pipe Ø10 mm, 90° elbow            |
| JG12441     | +            | Male 60° cone fitting, pipe Ø5 mm                    |
| JG12442     | +            | Male 60° cone fitting, pipe Ø6 mm                    |
| JG12443     | +            | Male 60° cone fitting, pipe Ø8 mm                    |
| JG12444     | +            | Male 60° cone fitting, pipe Ø10 mm                   |
| JG2290      | +            | Bolt for banjo fitting M8x1                          |
| JG2292      | +            | Bolt for banjo fitting M10x1,5                       |
| JG2294      | +            | Bolt for banjo fitting M12x1,5                       |
| JG2295      | +            | Bolt for banjo fitting M14x1,5                       |

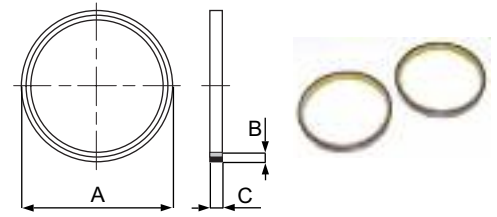
# GENERAL ACCESSORIES



# GENERAL ACCESSORIES

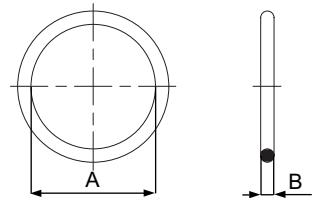
## O-RINGS AND SEALS

COMPOSITE SEAL FOR SAE 3000 PSI AND 6000 PSI FLANGE



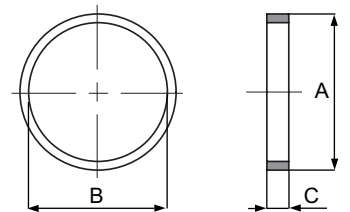
| PART NUMBER | SIZE   | DIMENSIONS |      |      |
|-------------|--------|------------|------|------|
|             |        | A          | B    | C    |
| JO14312629  | 1/2"   | 25,50      | 2,92 | 3,30 |
| JO14383229  | 3/4"   | 31,80      | 2,92 | 3,30 |
| JO14464029  | 1"     | 39,78      | 2,92 | 3,30 |
| JO14504429  | 1.1/4" | 44,40      | 2,92 | 3,30 |
| JO14605429  | 1.1/2" | 53,90      | 2,92 | 3,30 |
| JO14696429  | 2"     | 63,50      | 2,92 | 3,30 |
| JO14827629  | 2.1/2" | 76,30      | 2,92 | 3,30 |

NBR O'RING FOR SAE 3000 PSI AND 6000 PSI FLANGE



| PART NUMBER | SIZE   | DIMENSIONS |      |
|-------------|--------|------------|------|
|             |        | A          | B    |
| JO01261836  | 1/2"   | 18,64      | 3,53 |
| JO01322535  | 3/4"   | 24,99      | 3,53 |
| JO01403335  | 1"     | 32,92      | 3,53 |
| JO01453835  | 1.1/4" | 37,69      | 3,53 |
| JO01554835  | 1.1/2" | 47,22      | 3,53 |
| JO01645735  | 2"     | 56,76      | 3,53 |
| JO01776935  | 2.1/2" | 69,45      | 3,53 |

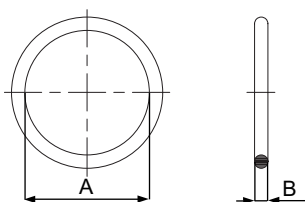
STEEL O'RING FOR "CATERPILLAR" FLANGE, ZINC-PLATED



| PART NUMBER | SIZE   | DIMENSIONS |    |     |
|-------------|--------|------------|----|-----|
|             |        | A          | B  | C   |
| JG6433      | 3/4"   | 41,3       | 32 | 5,8 |
| JG6434      | 1"     | 47,6       | 38 | 5   |
| JG6435      | 1.1/4" | 54         | 44 | 3,9 |
| JG6436      | 1.1/2" | 63         | 51 | 1,7 |

# GENERAL ACCESSORIES

## O-RINGS AND SEALS

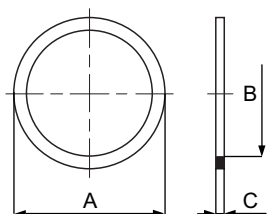


**JG5877**

O-RING KIT FOR BSP CONNECTIONS

O-RING FOR BSP CONNECTIONS (NBR)

| PART NUMBER | THREAD SIZE | DIMENSIONS |      |
|-------------|-------------|------------|------|
|             | BSP         | A          | B    |
| JO07120818  | 1/8" - 28   | 7,66       | 1,78 |
| JO07161126  | 1/4" - 19   | 10,78      | 2,62 |
| JO07191426  | 3/8" - 19   | 13,95      | 2,62 |
| JO07231826  | 1/2" - 14   | 17,86      | 2,62 |
| JO07282326  | 3/4" - 14   | 23,47      | 2,62 |
| JO07373035  | 1" - 11     | 29,75      | 3,53 |



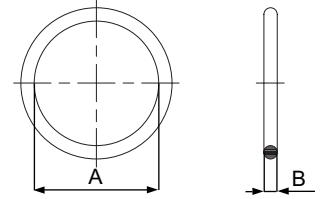
STEEL ANTI-EXTRUSION RING FOR MALE BSP,  
ZINC-PLATED

| PART NUMBER | THREAD SIZE | DIMENSIONS |       |     |
|-------------|-------------|------------|-------|-----|
|             | BSP         | A          | B     | C   |
| JO08161113  | 1/8" - 28   | 15,5       | 11,4  | 1,3 |
| JO08201619  | 1/4" - 19   | 19,5       | 16,15 | 1,9 |
| JO08241919  | 3/8" - 14   | 23,8       | 19,4  | 1,9 |
| JO08282319  | 1/2" - 14   | 28,5       | 23,3  | 1,9 |
| JO08352919  | 3/4" - 14   | 35         | 28,9  | 1,9 |
| JO08433726  | 1" - 11     | 43         | 36,6  | 2,6 |

# GENERAL ACCESSORIES

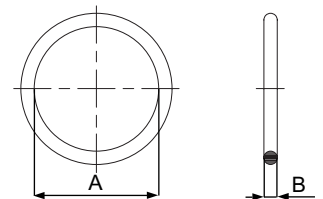
## O-RINGS AND SEALS

### NBR O'RING FOR ORFS CONNECTIONS



| PART NUMBER | THREAD SIZE   | DIMENSIONS |      |
|-------------|---------------|------------|------|
|             | UNF/S-UN      | A          | B    |
| JO19100802  | 9/16" - 18    | 7,66       | 1,78 |
| JO19130902  | 11/16" - 18   | 9,25       | 1,78 |
| JO19161202  | 13/16" - 16   | 12,42      | 1,78 |
| JO19191602  | 1" - 14       | 15,60      | 1,78 |
| JO19221902  | 1.3/16" - 12  | 18,77      | 1,78 |
| JO19272402  | 1.7/16" - 12  | 23,52      | 1,78 |
| JO19343002  | 1.11/16" - 12 | 29,87      | 1,78 |
| JO19423802  | 2" - 12       | 37,82      | 1,78 |

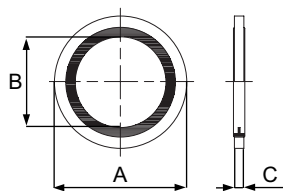
### NBR O'RING FOR MALE SAE THREAD CONNECTIONS (UNF THREAD)



| PART NUMBER | THREAD SIZE  | DIMENSIONS |      |
|-------------|--------------|------------|------|
|             | UNF          | A          | B    |
| JO05120915  | 7/16" - 20   | 9,0        | 1,50 |
| JO05141115  | 1/2" - 20    | 11,0       | 1,50 |
| JO05161220  | 9/16" - 18   | 11,89      | 1,98 |
| JO05201620  | 3/4" - 16    | 16,0       | 2,0  |
| JO05242024  | 7/8" - 14    | 19,60      | 2,40 |
| JO05302430  | 1.1/16" - 12 | 24,0       | 3,0  |
| JO05363030  | 1.5/16" - 12 | 30,0       | 3,0  |
| JO05443830  | 1.5/8" - 12  | 38,0       | 3,0  |

# GENERAL ACCESSORIES

## O-RINGS AND SEALS



**JO16000000**

BONDED SEAL RING KIT, BSP AND METRIC SIZE

BONDED SEAL RING, BSP AND METRIC SIZE

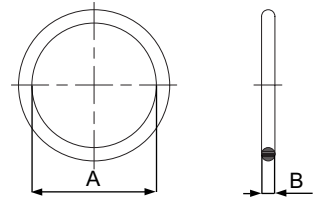
| PART NUMBER | THREAD SIZE | KIT INCLUDED | DIMENSIONS |       |      |
|-------------|-------------|--------------|------------|-------|------|
|             | BSP or METR |              | A          | B     | C    |
| JO16000000  | -           | kit          | -          | -     | -    |
| JO12161020  | 1/8"        | +            | 16         | 10    | 2    |
| JO12201420  | 1/4"        | +            | 20,57      | 13,74 | 23   |
| JO12241720  | 3/8"        | +            | 23,80      | 17,28 | 23   |
| JO12292123  | 1/2"        | +            | 28,58      | 21,54 | 2,34 |
| JO12352723  | 3/4"        | +            | 34,93      | 27,5  | 2,34 |
| JO12433433  | 1"          | +            | 42,80      | 33,89 | 3,25 |
| JO12524333  | 1.1/4"      | -            | 52,38      | 42,93 | 3,25 |
| JO12594833  | 1.1/2"      | -            | 58,60      | 48,44 | 3,25 |
| JO12736133  | 2"          | -            | 73,3       | 60,58 | 3,25 |
| JO12130911  | M8x1        | +            | 13         | 8,70  | 1,10 |
| JO12161114  | M10x1       | +            | 16         | 10,70 | 1,40 |
| JO12181314  | M12x1,5     | +            | 18         | 12,70 | 1,40 |
| JO12221516  | M14x1,5     | +            | 22         | 14,70 | 1,60 |
| JO12241716  | M16x1,5     | +            | 24         | 16,70 | 1,60 |
| JO12261916  | M18x1,5     | +            | 26         | 18,70 | 1,60 |
| JO12282116  | M20x1,5     | +            | 28         | 20,70 | 1,60 |
| JO12302319  | M22x1,5     | +            | 30         | 22,70 | 1,90 |
| JO12253219  | M24x1,5     | +            | 32         | 24,70 | 1,90 |
| JO12352719  | M26x1,5     | +            | 35         | 26,70 | 1,90 |
| JO12383133  | M30x2       | -            | 38,1       | 30,70 | 3,30 |
| JO12483933  | M38x2       | -            | 47,80      | 39,0  | 3,30 |
| JO12574533  | M45x2       | -            | 57         | 45    | 3,30 |
| JO12645233  | M52x2       | -            | 63,50      | 51,70 | 3,30 |
| JO12806733  | M67x2       | -            |            |       |      |

# GENERAL ACCESSORIES

## O-RINGS AND SEALS

### JO18000000

METRIC O'RING KIT (NBR)  
METRIC O'RINGS (NBR)



| PART NUMBER | DIMENSIONS | KIT INCLUDED | PART NUMBER | DIMENSIONS | KIT INCLUDED |
|-------------|------------|--------------|-------------|------------|--------------|
|             | A x B      |              |             | A x B      |              |
| JO18000000  | -          | kit          | JO03241830  | 18 x 3     | -            |
| JO03070320  | 3 x 2      | 16 pcs.      | JO03251835  | 18 x 3,5   | -            |
| JO03080420  | 4 x 2      | 16 pcs.      | JO03231920  | 19 x 2     | -            |
| JO03090520  | 5 x 2      | 16 pcs.      | JO03241925  | 19 x 2,5   | 13 pcs.      |
| JO03100525  | 5 x 2,5    | -            | JO03251930  | 19 x 3     | 12 pcs.      |
| JO03100620  | 6 x 2      | 16 pcs.      | JO03261935  | 19 x 3,5   | -            |
| JO03110720  | 7 x 2      | 16 pcs.      | JO03242020  | 20 x 2     | -            |
| JO03120820  | 8 x 2      | 16 pcs.      | JO03252025  | 20 x 2,5   | -            |
| JO03151020  | 10 x 2     | 16 pcs.      | JO03262030  | 20 x 3     | 12 pcs.      |
| JO03151025  | 10 x 2,5   | 13 pcs.      | JO03272035  | 20 x 3,5   | -            |
| JO03161030  | 10 x 3     | -            | JO03252120  | 21 x 2     | -            |
| JO03151120  | 11 x 2     | -            | JO03262125  | 21 x 2,5   | -            |
| JO03161125  | 11 x 2,5   | 13 pcs.      | JO03272130  | 21 x 3     | -            |
| JO03171130  | 11 x 3     | -            | JO03262220  | 22 x 2     | -            |
| JO03161220  | 12 x 2     | -            | JO03272225  | 22 x 2,5   | -            |
| JO03171225  | 12 x 2,5   | 13 pcs.      | JO03282230  | 22 x 3     | 12 pcs.      |
| JO03181230  | 12 x 3     | -            | JO03292235  | 22 x 3,5   | -            |
| JO03171320  | 13 x 2     | -            | JO03302240  | 22 x 4     | -            |
| JO03181325  | 13 x 2,5   | -            | JO03272320  | 23 x 2     | -            |
| JO03191330  | 13 x 3     | -            | JO03282325  | 23 x 2,5   | -            |
| JO03181420  | 14 x 2     | -            | JO03282420  | 24 x 2     | -            |
| JO03191425  | 14 x 2,5   | 13 pcs.      | JO03292425  | 24 x 2,5   | -            |
| JO03201430  | 14 x 3     | -            | JO03302430  | 24 x 2,5   | 12 pcs.      |
| JO03191520  | 15 x 2     | -            | JO03312435  | 24 x 3,5   | -            |
| JO03201525  | 15 x 2,5   | -            | JO03322440  | 24 x 4     | -            |
| JO03211530  | 15 x 3     | -            | JO03302525  | 25 x 2,5   | -            |
| JO03221535  | 15 x 3,5   | -            | JO03312530  | 25 x 3     | 12 pcs.      |
| JO03201620  | 16 x 2     | -            | JO03322535  | 25 x 3,5   | -            |
| JO03211625  | 16 x 2,5   | 13 pcs.      | JO03332540  | 25 x 4     | -            |
| JO03221630  | 16 x 3     | -            | JO03352550  | 25 x 5     | -            |
| JO03231635  | 16 x 3,5   | -            | JO03302620  | 26 x 2     | -            |
| JO03211720  | 17 x 2     | -            | JO03312720  | 27 x 2     | -            |
| JO03221725  | 17 x 2,5   | 13 pcs.      | JO03322725  | 27 x 2,5   | -            |
| JO03231730  | 17 x 3     | -            | JO03332730  | 27 x 3     | 12 pcs.      |
| JO03241735  | 17 x 3,5   | -            | JO03352740  | 27 x 4     | -            |
| JO03221820  | 18 x 2     | -            | JO03322820  | 28 x 2     | -            |
| JO03231825  | 18 x 2,5   | -            | JO03332825  | 28 x 2,5   | -            |



# GENERAL ACCESSORIES

## O-RINGS AND SEALS



| PART NUMBER | DIMENSIONS | KIT INCLUDED | PART NUMBER | DIMENSIONS | KIT INCLUDED |
|-------------|------------|--------------|-------------|------------|--------------|
|             | A x B      |              |             | A x B      |              |
| JO03342830  | 28 x 3     | 12 pcs.      | JO03483850  | 38 x 5     | -            |
| JO03352835  | 28 x 3,5   | -            | JO03453930  | 39 x 3     | -            |
| JO03332920  | 29 x 2     | -            | JO03463935  | 39 x 3,5   | -            |
| JO03352930  | 29 x 3     | -            | JO03444020  | 40 x 2     | -            |
| JO03362935  | 29 x 3,5   | -            | JO03454025  | 40 x 2,5   | -            |
| JO03343020  | 30 x 2     | -            | JO03464030  | 40 x 3     | -            |
| JO03353025  | 30 x 2,5   | -            | JO03474035  | 40 x 3,5   | -            |
| JO03363030  | 30 x 3     | 12 pcs.      | JO03484040  | 40 x 4     | -            |
| JO03373035  | 30 x 3,5   | -            | JO03504050  | 40 x 5     | -            |
| JO03383040  | 30 x 4     | -            | JO03474130  | 41 x 3     | -            |
| JO03403050  | 30 x 5     | -            | JO03494140  | 41 x 4     | 9 pcs.       |
| JO03393140  | 31 x 4     | -            | JO03484230  | 42 x 3     | -            |
| JO03363220  | 32 x 2     | -            | JO03494235  | 42 x 3,5   | -            |
| JO03383230  | 32 x 3     | -            | JO03504240  | 42 x 4     | -            |
| JO03393235  | 32 x 3,5   | -            | JO03524250  | 42 x 5     | -            |
| JO03403240  | 32 x 4     | -            | JO03484325  | 43 x 2,5   | -            |
| JO03383325  | 33 x 2,5   | -            | JO03504430  | 44 x 3     | -            |
| JO03393330  | 33 x 3     | 12 pcs.      | JO03514435  | 44 x 3,5   | -            |
| JO03403335  | 33 x 3,5   | -            | JO03494520  | 45 x 2     | -            |
| JO03403430  | 34 x 3     | -            | JO03504525  | 45 x 2,5   | -            |
| JO03413435  | 34 x 3,5   | -            | JO03514530  | 45 x 3     | -            |
| JO03423440  | 34 x 4     | -            | JO03524535  | 45 x 3,5   | -            |
| JO03403525  | 35 x 2,5   | -            | JO03534540  | 45 x 4     | -            |
| JO03413530  | 35 x 3     | 12 pcs.      | JO03534730  | 47 x 3     | -            |
| JO03433540  | 35 x 4     | -            | JO03534825  | 48 x 2,5   | -            |
| JO03453550  | 35 x 5     | -            | JO03544735  | 47 x 3,5   | -            |
| JO03403620  | 36 x 2     | -            | JO03544830  | 48 x 3     | -            |
| JO03413625  | 36 x 2,5   | -            | JO03545020  | 50 x 2     | -            |
| JO03423630  | 36 x 3     | 12 pcs.      | JO03554550  | 45 x 5     | -            |
| JO03433635  | 36 x 3,5   | -            | JO03554740  | 47 x 4     | -            |
| JO03443640  | 36 x 4     | -            | JO03554835  | 48 x 3,5   | -            |
| JO03463650  | 36 x 5     | -            | JO03555025  | 50 x 2,5   | -            |
| JO03423725  | 37 x 2,5   | -            | JO03564935  | 49 x 3,5   | -            |
| JO03443735  | 37 x 3,5   | -            | JO03565030  | 50 x 3     | -            |
| JO03423820  | 38 x 2     | -            | JO03585040  | 50 x 4     | -            |
| JO03433825  | 38 x 2,5   | -            | JO03605050  | 50 x 5     | -            |
| JO03443830  | 38 x 3     | 12 pcs.      | JO03625060  | 50 x 6     | -            |
| JO03453835  | 38 x 3,5   | -            |             |            |              |
| JO03463840  | 38 x 4     | 9 pcs.       |             |            |              |

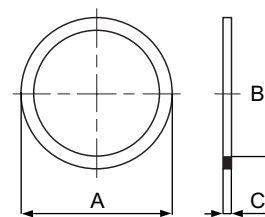
# GENERAL ACCESSORIES

## O-RINGS AND SEALS

### JO25000000

COPPER SEALING RINGS KIT

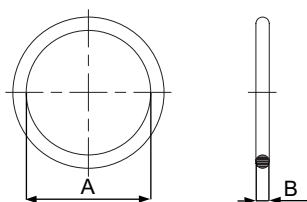
COPPER SEALING RINGS



| PART NUMBER | THREAD SIZE   | KIT INCLUDED | DIMENSIONS |      |     |
|-------------|---------------|--------------|------------|------|-----|
|             | BSP or METRIC |              | A          | B    | C   |
| JO25000000  | -             | kit          | -          | -    | -   |
| JO11100510  | M5x0,8        | -            | 10         | 5,2  | 1   |
| JO11100610  | M6x1          | -            | 10         | 6,1  | 1   |
| JO11120810  | M8x1          | +            | 12         | 8,2  | 1   |
| JO11141010  | M10x1, 1/8"   | +            | 14         | 10,2 | 1   |
| JO11150615  | M6x1          | -            | 15         | 6,2  | 1,5 |
| JO11151215  | M12x1,5       | +            | 15,5       | 12,2 | 1,5 |
| JO11161215  | M12x1,5       | -            | 16         | 12,2 | 1,5 |
| JO11171215  | M12x1,5       | -            | 17         | 12,2 | 1,5 |
| JO11171315  |               | +            | 17         | 13   | 1,5 |
| JO11181015  | M10x1, 1/8"   | -            | 18         | 10,2 | 1,5 |
| JO11181115  |               | -            | 18         | 11,2 | 1,5 |
| JO11181415  | 1/4"          | +            | 18         | 14,2 | 1,5 |
| JO11191515  |               | -            | 19         | 15,2 | 1,5 |
| JO11201615  | M16x1,5       | +            | 20         | 16,2 | 1,5 |
| JO11211715  | 3/8"          | +            | 21         | 17,2 | 1,5 |
| JO11221815  | M18x1,5       | +            | 23         | 18,2 | 1,5 |
| JO11241715  |               | -            | 24         | 17,2 | 1,5 |
| JO11241915  |               | -            | 24         | 19,2 | 1,5 |
| JO11262015  | M20x1,5       | +            | 26         | 20,2 | 1,5 |
| JO11262115  | 1/2"          | +            | 26         | 21,2 | 1,5 |
| JO11272215  | M22x1,5       | +            | 27         | 22,2 | 1,5 |
| JO11292420  | M24x1,5       | +            | 29         | 24,2 | 2   |
| JO11302520  |               | -            | 30         | 25,2 | 2   |
| JO11312620  | M26x1,5       | +            | 31         | 26,2 | 2   |
| JO11322720  | 3/4"          | +            | 32         | 27,2 | 2   |
| JO11363020  | M30x2         | -            | 36         | 30,2 | 2   |
| JO11403320  |               | +            | 40         | 33,2 | 2   |
| JO11403420  | 1"            | -            | 40         | 34,2 | 2   |
| JO11423620  | M36x2         | -            | 42         | 36,2 | 2   |
| JO11494220  | 1.1/4"        | -            | 49         | 42,2 | 2   |
| JO11524520  | M45x2         | -            | 52         | 45,2 | 2   |
| JO11534820  | 1.1/2"        | -            | 55         | 48,2 | 2   |
| JO11625220  | M52x2         | -            | 62         | 52,2 | 2   |

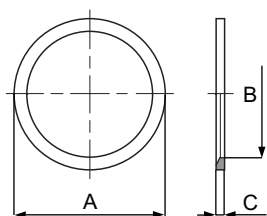
# GENERAL ACCESSORIES

## O-RINGS AND SEALS



NBR O'RING FOR METRIC DIN 2353  
24° CONE CONNECTIONS (ETCAO)

| PART NUMBER | PIPE SIZE | DIMENSIONS |     |
|-------------|-----------|------------|-----|
|             | mm        | A          | B   |
| JO09070415  | 06        | 4          | 1,5 |
| JO09090615  | 08        | 6          | 1,5 |
| JO09110815  | 10        | 7,5        | 1,5 |
| JO09120915  | 12        | 9          | 1,5 |
| JO09141020  | 14        | 10         | 2   |
| JO09191520  | 18        | 15         | 2   |
| JO09211624  | 20        | 16,3       | 2,4 |
| JO09242020  | 22        | 20         | 2   |
| JO09252024  | 25        | 20,3       | 2,4 |
| JO09302524  | 30        | 25,3       | 2,4 |
| JO09302620  | 28        | 26         | 2   |
| JO09383324  | 38        | 33,3       | 2,4 |

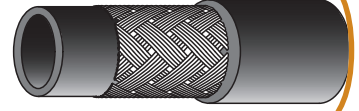


FLAT NBR BUILT-IN SEAL FOR ADAPTORS

| PART NUMBER | THREAD SIZE   | DIMENSIONS |      |     |
|-------------|---------------|------------|------|-----|
|             | BSP or METR   | A          | B    | C   |
| JO10171215  | 1/4"          | 16,5       | 11,6 | 1,5 |
| JO10191415  | M16x1,5       | 18,9       | 13,8 | 1,5 |
| JO10191515  | 3/8"          | 18,9       | 14,7 | 1,5 |
| JO10211615  | M18x1,5       | 20,9       | 15,7 | 1,5 |
| JO10241915  | M20x1,5       | 23,5       | 18,5 | 1,5 |
| JO10242015  | 1/2", M22x1,5 | 24,3       | 19,6 | 1,5 |
| JO10292415  | 3/4", M27x2   | 29,2       | 23,9 | 1,5 |
| JO10363020  | 1"            | 35,7       | 29,7 | 2   |
| JO10463920  | 1.1/4"        | 45,8       | 38,8 | 2   |
| JO10514520  | 2"            | 50,7       | 44,7 | 2   |

# GENERAL ACCESSORIES

## PRESSURE GAUGE HOSE



| PART. REF. | HOSE SIZE |  |  R.O.D. |  O.D. |  MAX W.P. |  BURST PRESSURE |  MIN. BEND RADIUS |  WEIGHT |  FITTING |
|------------|-----------|--|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|------------|-----------|--|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|

|                  | DN  | dash | inch  | mm | inch | mm  | inch | bar | psi  | bar  | psi   | mm | inch | g/m | lb/ft |                                                 |
|------------------|-----|------|-------|----|------|-----|------|-----|------|------|-------|----|------|-----|-------|-------------------------------------------------|
| <b>H90009002</b> | 2,1 | -    | 1/12" | -  | -    | 5,0 |      | 630 | 9135 | 1890 | 27405 | 20 | 0,78 | 19  |       | Fittings available in the Accessories catalogue |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |
|                  |     |      |       |    |      |     |      |     |      |      |       |    |      |     |       |                                                 |

### KEY PERFORMANCE

#### Pressure gauge hose

**MAIN APPLICATIONS**  
Pressure gauge connection hose.

**CONTINUOUS SERVICE TEMPERATURE RANGE**  
-40°C / +93°C  
-40°F / +212°F

**MAX OPERATING TEMPERATURE**  
212°F / 100°C for oil,  
149°F / 65°C for air, water and water based fluids

**RECOMMENDED FLUIDS**  
Mineral and biological oils, ASTM 1, ASTM 3,  
polyglycol based oils, water, water oil emulsions

**TUBE:**

**REINFORCEMENT:**

**COVER:**

Oil resistant polyester

One aramid braid

Polyurethane

# GENERAL ACCESSORIES

## PRESSURE GAUGES



PRESSURE GAUGE, RADIAL CONNECTION (RV)

LIQUID-FILLED, STAINLESS STEEL CASE

| PART NUMBER      | DN  | SCALE RANGE | ACCURACY CLASS | THREAD    |
|------------------|-----|-------------|----------------|-----------|
|                  | mm  | bar         | mm             | BSP       |
| JM10353112000-04 | 63  | -1...0      | 1,6            | 1/4" - 19 |
| JM10353112003-04 | 63  | -1...3      | 1,6            | 1/4" - 19 |
| JM10353012001-04 | 63  | 0...1       | 1,6            | 1/4" - 19 |
| JM103530121.6-04 | 63  | 0...1.6     | 1,6            | 1/4" - 19 |
| JM103530122.5-04 | 63  | 0...2,5     | 1,6            | 1/4" - 19 |
| JM10353012004-04 | 63  | 0...4       | 1,6            | 1/4" - 19 |
| JM10353012006-04 | 63  | 0...6       | 1,6            | 1/4" - 19 |
| JM10353012010-04 | 63  | 0...10      | 1,6            | 1/4" - 19 |
| JM10353012016-04 | 63  | 0...16      | 1,6            | 1/4" - 19 |
| JM10353012025-04 | 63  | 0...25      | 1,6            | 1/4" - 19 |
| JM10353012040-04 | 63  | 0...40      | 1,6            | 1/4" - 19 |
| JM10353012060-04 | 63  | 0...60      | 1,6            | 1/4" - 19 |
| JM10353012100-04 | 63  | 0...100     | 1,6            | 1/4" - 19 |
| JM10353012160-04 | 63  | 0...160     | 1,6            | 1/4" - 19 |
| JM10353012250-04 | 63  | 0...250     | 1,6            | 1/4" - 19 |
| JM10353012315-04 | 63  | 0...315     | 1,6            | 1/4" - 19 |
| JM10353012400-04 | 63  | 0...400     | 1,6            | 1/4" - 19 |
| JM10353012600-04 | 63  | 0...600     | 1,6            | 1/4" - 19 |
| JM10553012060-04 | 100 | 0...60      | 1,0            | 1/4" - 19 |
| JM10553012060-08 | 100 | 0...60      | 1,0            | 1/2" - 14 |
| JM10553012100-04 | 100 | 0...100     | 1,0            | 1/4" - 19 |
| JM10553012100-08 | 100 | 0...100     | 1,0            | 1/2" - 14 |
| JM10553012160-04 | 100 | 0...160     | 1,0            | 1/4" - 19 |
| JM10553012160-08 | 100 | 0...160     | 1,0            | 1/2" - 14 |
| JM10553012250-04 | 100 | 0...250     | 1,0            | 1/4" - 19 |
| JM10553012250-08 | 100 | 0...250     | 1,0            | 1/2" - 14 |
| JM10553012400-04 | 100 | 0...400     | 1,0            | 1/4" - 19 |
| JM10553012400-08 | 100 | 0...400     | 1,0            | 1/2" - 14 |
| JM10553012600-04 | 100 | 0...600     | 1,0            | 1/4" - 19 |
| JM10553012600-08 | 100 | 0...600     | 1,0            | 1/2" - 19 |

# GENERAL ACCESSORIES

## PRESSURE GAUGES

SWAGING FITTING & FERRULE FOR  
PRESSURE GAUGE CONNECTION HOSE  
(CAPILLARY HOSE)



| PART NUMBER | THREAD     | DESCRIPTION                                                    |
|-------------|------------|----------------------------------------------------------------|
| JG 9411     | M16x2      | Female fitting, widely spread                                  |
| JG 9413     | M16x1,5    | Female fitting, quite rare                                     |
| JG 9213     | -          | Swaging ferrule for capillary hose (swaging diameter is Ø7 mm) |
| JG 9414     | 1/4" - 19  | Female fitting for pressure gauge connection                   |
| JG 9415     | 1/2" - 14  | Female fitting for pressure gauge connection                   |
| JG 9453     | -          | Plastic plug for capillary hose fittings                       |
| JG 9454     | M12,65x1   | Female fitting for gauge connection                            |
| JG 9416     | M12x1,5 6L | Female fitting (DIN 2353) (DKOL 06)                            |
| JG 9417     | M14x1,5 8L | Female fitting (DIN 2353) (DKOL 08)                            |
| JG 9425     | M14x1,5 6S | Female fitting (DIN 2353) (DKOS 06)                            |
| JG 9434     | M16x1,5 8S | Female fitting (DIN 2353) (DKOS 08)                            |
| JG 9435     | -          | Fitting pipe 4 mm                                              |
| JG 9436     | -          | Fitting pipe 6 mm                                              |
| JG 9437     | -          | Fitting pipe 8 mm                                              |
| JG 9438     | 7/16" - 20 | Female JIC (SAE J514) fitting                                  |
| JG 9451     | 1/2" - 20  | Female JIC (SAE J514) fitting                                  |
| JG 9439     | M12x1,5 6L | Female equipped standpipe fitting (DIN 2353) (DKOL 06)         |
| JG 9440     | M14x1,5 8L | Female equipped standpipe fitting (DIN 2353) (DKOL 08)         |
| JG 9441     | M14x1,5 6S | Female equipped standpipe fitting (DIN 2353) (DKOS 06)         |
| JG 9442     | M16x1,5 8S | Female equipped standpipe fitting (DIN 2353) (DKOS 08)         |
| JG 9444     | -          | Inox spring guard for capillary hose protection                |

## DIGITAL PRESSURE GAUGE



| PART NUMBER      | DN | SCALE RANGE | ACCURACY CLASS | THREAD    |
|------------------|----|-------------|----------------|-----------|
|                  | mm | bar         | BSP            |           |
| JM20053022600-04 | 60 | 600         | 0,5% ± 1 digit | 1/4" - 19 |

Material: *Stainless steel and rubber*

Power supply: *2x1,5V AA cells*

Features: *Other connections (NPT 1/4", etc.) available on request*

# GENERAL ACCESSORIES

## PRESSURE GAUGES



PRESSURE GAUGE WITH LIQUID FILLING AND  
STAINLESS STEEL CASE, AXIAL CONNECTION (RA)

LIQUID-FILLED, STAINLESS STEEL CASE

| PART NUMBER      | DN  | SCALE RANGE | ACCURACY CLASS | THREAD    |
|------------------|-----|-------------|----------------|-----------|
|                  | mm  | bar         | mm             | BSP       |
| JM10353122000-04 | 63  | -1...0      | 1,6            | 1/4" - 19 |
| JM10353122003-04 | 63  | -1...3      | 1,6            | 1/4" - 19 |
| JM10353022001-04 | 63  | 0...1       | 1,6            | 1/4" - 19 |
| JM103530221.6-04 | 63  | 0...1,6     | 1,6            | 1/4" - 19 |
| JM103530222.5-04 | 63  | 0...2,5     | 1,6            | 1/4" - 19 |
| JM10353022004-04 | 63  | 0...4       | 1,6            | 1/4" - 19 |
| JM10353022006-04 | 63  | 0...6       | 1,6            | 1/4" - 19 |
| JM10353022010-04 | 63  | 0...10      | 1,6            | 1/4" - 19 |
| JM10353022016-04 | 63  | 0...16      | 1,6            | 1/4" - 19 |
| JM10353022025-04 | 63  | 0...25      | 1,6            | 1/4" - 19 |
| JM10353022040-04 | 63  | 0...40      | 1,6            | 1/4" - 19 |
| JM10353022060-04 | 63  | 0...60      | 1,6            | 1/4" - 19 |
| JM10353022100-04 | 63  | 0...100     | 1,6            | 1/4" - 19 |
| JM10353022160-04 | 63  | 0...160     | 1,6            | 1/4" - 19 |
| JM10353022250-04 | 63  | 0...250     | 1,6            | 1/4" - 19 |
| JM10353022315-04 | 63  | 0...315     | 1,6            | 1/4" - 19 |
| JM10353022400-04 | 63  | 0...400     | 1,6            | 1/4" - 19 |
| JM10353022600-04 | 63  | 0...600     | 1,6            | 1/4" - 19 |
| JM10553022060-04 | 100 | 0...60      | 1,0            | 1/4" - 19 |
| JM10553022060-08 | 100 | 0...60      | 1,0            | 1/2" - 14 |
| JM10553022100-04 | 100 | 0...100     | 1,0            | 1/4" - 19 |
| JM10553022100-08 | 100 | 0...100     | 1,0            | 1/2" - 14 |
| JM10553022160-04 | 100 | 0...160     | 1,0            | 1/4" - 19 |
| JM10553022160-08 | 100 | 0...160     | 1,0            | 1/2" - 14 |
| JM10553022250-04 | 100 | 0...250     | 1,0            | 1/4" - 19 |
| JM10553022250-08 | 100 | 0...250     | 1,0            | 1/2" - 14 |
| JM10553022400-04 | 100 | 0...400     | 1,0            | 1/4" - 19 |
| JM10553022400-08 | 100 | 0...400     | 1,0            | 1/2" - 14 |
| JM10553022600-04 | 100 | 0...600     | 1,0            | 1/4" - 19 |
| JM10553022600-08 | 100 | 0...600     | 1,0            | 1/2" - 14 |

# GENERAL ACCESSORIES

## PRESSURE GAUGES

PRESSURE TAKE-OFF PLUG (MINIMESS)  
 THREAD 1 - FOR CAPILLARY HOS CONNECTION,  
 THREAD 2 - FOR HYDRAULIC LINE CONNECTION.



| PART NUMBER | THREAD 1      | THREAD 2          | PART NUMBER | THREAD 1      | THREAD 2        |
|-------------|---------------|-------------------|-------------|---------------|-----------------|
|             | <b>METRIC</b> |                   |             | <b>METRIC</b> |                 |
|             |               | <i>METR (DIN)</i> |             |               | <i>ISO male</i> |
| 2353)       |               |                   | JG 9182     | M16x2         | M8x1            |
| JG 9199     | M16x2         | 12x1,5 6L         | JG 9183     | M16x2         | M10x1           |
| JG 9200     | M16x2         | 14x1,5 8L         | JG 9184     | M16x2         | M12x1,5         |
| JG 9201     | M16x2         | 16x1,5 10L        | JG 9185     | M16x2         | M14x1,5         |
| JG 4010     | M16x2         | 18x1,5 12L        | JG 9186     | M16x2         | M16x1,5         |
| JG 9202     | M16x2         | 22x1,5 15L        |             |               | <i>Other</i>    |
| JG 9203     | M16x2         | 26x1,5 18L        | JG 9452     | M16x2         | M16x2 BULKHEAD  |
| JG 9204     | M16x2         | 30x2 22L          |             |               | <i>UNF</i>      |
| JG 9205     | M16x2         | 36x2 28L          | JG 9447     | M16x2         | 5/16"-24        |
| JG 9206     | M16x2         | 45x2 35L          | JG 9181     | M16x2         | 7/16"-20        |
| JG 9207     | M16x2         | 52x2 42L          | JG 2062     | M16x2         | 9/16"-18        |
| JG 9189     | M16x2         | 14x1,5 6S         |             |               | <i>NPT</i>      |
| JG 9190     | M16x2         | 16x1,5 8S         | JG 9448     | M16x1,5       | 1/4"-18         |
| JG 9191     | M16x2         | 18x1,5 10S        | JG 9187     | M16x2         | 1/4"-18         |
| JG 9192     | M16x2         | 20x1,5 12S        | JG 9188     | M16x2         | 1/8"-27         |
| JG 9192     | M16x2         | 20x1,5 12S        |             |               | <i>BSP</i>      |
| JG 9193     | M16x2         | 22x1,5 14S        | JG 9449     | M16x1,5       | 1/8"-28         |
| JG 9194     | M16x2         | 24x1,5 16S        | JG 9450     | M16x1,5       | 1/4"-19         |
| JG 9195     | M16x2         | 30x2 20S          | JG 8490     | M16x2         | 1/8"-28         |
| JG 9196     | M16x2         | 36x2 25S          | JG 2061     | M16x2         | 1/4"-19         |
| JG 9197     | M16x2         | 42x2 30S          | JG 9179     | M16x2         | 3/8"-19         |
| JG 9198     | M16x2         | 52x2 38S          | JG 9180     | M16x2         | 1/2"-14         |

# GENERAL ACCESSORIES

## PRESSURE GAUGES



PRESSURE TAKE-OFF PLUG ADAPTOR

| PART NUMBER | THREAD 1       | THREAD 2           |
|-------------|----------------|--------------------|
|             | <b>METRIC</b>  | <b>BSP</b>         |
| JG 9208     | M16x2 (male)   | 1/4" - 19 (female) |
| JG 9209     | M16x2 (male)   | 1/2" - 14 (female) |
| JG 9210     | M16x2 (female) | 1/4" - 19 (female) |
| JG 9211     | M16x2 (female) | 1/2" - 14 (female) |
| JG 9212     | M16x2 (male)   | 1/8" - 27 (female) |



PRESSURE GAUGE ACCESSORIES

| PART NUMBER | DESCRIPTION                   | PART NUMBER | DESCRIPTION                   |
|-------------|-------------------------------|-------------|-------------------------------|
| JG8239      | Fixing ring DN 63             | JG8240      | Fixing ring DN 100            |
| JG8241      | Fixture DN 63                 | JG8242      | Fixture DN 100                |
| JG8243      | Needle valve 1/4"             | JG8244      | Needle valve 1/2"             |
| JG9398      | Needle valve 1/4" V - 350 bar | JG9399      | Needle valve 1/2" V - 350 bar |
| JG4011      | MBSP 1/4" - FBSP 1/2" (gauge) | JG9400      | MBSPT 1/4" - FBSP 1/4"        |



PRESSURE TEST KIT

| PART NUMBER | DESCRIPTION                                                                                                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JG3805      | 2 pressure gauges (0-250 bar and 0-400 bar), 2 capillary hoses (0,5m and 1,5m length, M16x2), DKOL 06, MBSP 1/8", MBSP 1/4" adaptors for pressure gauge connecting, MBSP 3/8" - FBSP 1/4" and MBSP 1/2" - FBSP 1/4" adaptors |

# GENERAL ACCESSORIES

## HYDRAULIC TESTERS

### UNIDIRECTIONAL ANALOGUE HYDRAULIC TEST BOX



| PART NUMBER | WORKING PRESSURE, MAX | FLOW RANGE | WORKING TEMPERATURE |
|-------------|-----------------------|------------|---------------------|
|             | bar                   | l/min      | °C                  |
| JG3949      | 420                   | 5 - 120    | 80                  |
| JG10062     | 420                   | 8 - 180    | 80                  |

**Features:**

Low cost hydraulic tester designed for testing the full range of Agricultural and Mobile machinery  
Unidirectional flow, pressure and temperature measurements with built-in loading valve, INTERPASS protected from over-pressure. Valve gives progressive control of system pressure loading.  
The kit is fitted with male 3/4" BSP adaptors for connecting 2 hoses, 4 spare safety discs  
No batteries required

### BIDIRECTIONAL DIGITAL HYDRAULIC TEST BOX



| PART NUMBER | WORKING PRESSURE, MAX | FLOW RANGE | WORKING TEMPERATURE |
|-------------|-----------------------|------------|---------------------|
|             | bar                   | l/min      | °C                  |
| JG18105     | 420                   | 10 - 400   | 120                 |

**Features:**

Designed for testing the full range of Agricultural and Mobile machinery  
Flow, pressure and temperature measurements  
Simple "On/Off" control with "AUTO-OFF" feature, battery operated  
Simulate machine performance using loading valve  
INTERPASS protected from over-pressure  
Steel box contains digital flow indicator and thermometer, bi-directional loading valve and glycerine filled pressure gauge . Valve gives smooth and precise progressive control of system pressure loading in either flow direction  
The kit is fitted with male 3/4" BSP adaptors for connecting 2 hoses, 4 spare safety discs

# GENERAL ACCESSORIES

## HOSE CLEANING



### HOSE INTERNAL CLEANING KIT

| PART NUMBER | DIMENSIONS  | AIR PRESSURE | HOSE RANGE | WEIGHT |
|-------------|-------------|--------------|------------|--------|
|             | mm          | bar          | mm         | kg     |
| JG35546     | 450x350x155 | 8-10         | DN6 - DN51 | 4,3    |

#### Features:

Removes impurities from hose (pipes) inner surface and assures high hose assembly quality  
Portable and ergonomic design



### PROJECTILE FOR CLEANING GUN

NOTE: HOSE I.D. SHOULD BE SMALLER THAN PROJECTILE O.D.

| PART NUMBER | DESCRIPTION    | PART NUMBER | DESCRIPTION   |
|-------------|----------------|-------------|---------------|
| JG12288     | DN4, 100 pcs.  | JG35528     | DN20, 50 pcs. |
| JG12289     | DN5, 100 pcs.  | JG35529     | DN22, 50 pcs. |
| JG12290     | DN7, 100 pcs.  | JG12298     | DN26, 50 pcs. |
| JG12291     | DN10, 100 pcs. | JG12299     | DN33, 40 pcs. |
| JG12292     | DN12, 100 pcs. | JG12300     | DN40, 30 pcs. |
| JG12293     | DN14, 100 pcs. | JG12301     | DN50, 20 pcs. |
| JG12294     | DN16, 100 pcs. | JG12302     | DN60, 15 pcs. |
| JG12295     | DN18, 100 pcs. |             |               |



### HYDRAULIC OIL

JG5846 5L

JG28348 25L

JG5848 60L

| PART NUMBER | ISO GRADE | CINEMATIC VISCOSITY | POUR POINT | FLASH POINT |
|-------------|-----------|---------------------|------------|-------------|
|             |           | cSt@40 °C           | °C         | °C          |
| JG5846      | HV-46     | 145                 | -36        | 219         |
| JG28348     | HV-46     | 145                 | -36        | 219         |
| JG5848      | HV-46     | 145                 | -36        | 219         |

# GENERAL ACCESSORIES

## OILS & SEALANTS

EVANESCENT FITTING INSERT OIL  
FOR HOSE ASSEMBLY



| PART NUMBER | QUANTITY | POUR POINT | FLASH POINT |
|-------------|----------|------------|-------------|
|             | L        | °C         | °C          |
| JG12207     | 2        | -21        | 110         |
| JG18084     | 5        | -21        | 110         |



## SEALANTS AND THREADLOCKERS

| PART NUMBER | DESIGNATION       | PART NUMBER | DESIGNATION       | FEATURES                     |
|-------------|-------------------|-------------|-------------------|------------------------------|
| JG 7698     | LOCTITE 577 50 ml | JG29049     | LOXEAL 5314 50 ml | Hydraulic connectors sealing |
| JG7697      | LOCTITE 542 50 ml | JG29050     | LOXEAL 5811 75 ml | Hydraulic connectors sealing |
| JG10911     | LOCTITE 243 50 ml | JG29047     | LOXEAL 5503 50 ml | Thread locking (normal)      |
| JG10912     | LOCTITE 270 50 ml | JG8354      | LOXEAL 8354 50 ml | Thread locking (strong)      |

## TEFLON® SEALING TAPE



| PART NUMBER | LENGTH | BREADTH |
|-------------|--------|---------|
|             | m      | mm      |
| JG10369     | 10     | 12,7    |

## GREASE-PACKED PROTECTION TAPE, SELF-ADHESIVE



| PART NUMBER | LENGTH | BREADTH |
|-------------|--------|---------|
|             | m      | mm      |
| JG8447      | 10     | 50      |
| JG8448      | 10     | 100     |

Features:

Reliable solution for steel parts (pipes, valves, fittings) protection in saline, chemical corrosive environment  
Impermeable to water, gases and moisture

# GENERAL ACCESSORIES

## GREASE TOOLS



GREASE VALVE

| PART NUMBER | THREAD        | CONFIGURATION | STD. PACK QUANTITY |
|-------------|---------------|---------------|--------------------|
|             | METRIC or BSP |               | pcs.               |
| JG45386     | M6x1          | straight      | *100               |
| JG45387     | M8x1          | straight      | *100               |
| JG45388     | M8x1,25       | straight      | *100               |
| JG45389     | M10x1         | straight      | *100               |
| JG45390     | M10x1,25      | straight      | *100               |
| JG45391     | M10x1,5       | straight      | *100               |
| JG45392     | BSP 1/8"      | straight      | *100               |
| JG45393     | M6x1          | 45° elbow     | *100               |
| JG45394     | M8x1          | 45° elbow     | *100               |
| JG45395     | M8x1,25       | 45° elbow     | *100               |
| JG45396     | M10x1         | 45° elbow     | *100               |
| JG45397     | M10x1,5       | 45° elbow     | *100               |
| JG45398     | BSP 1/8"      | 45° elbow     | *100               |
| JG45399     | M6x1          | 90° elbow     | *100               |
| JG45400     | M8x1          | 90° elbow     | *100               |
| JG45401     | M8x1,25       | 90° elbow     | *100               |
| JG45402     | M10x1         | 90° elbow     | *100               |
| JG45403     | M10x1,5       | 90° elbow     | *100               |
| JG45404     | BSP 1/8"      | 90° elbow     | *100               |

# GENERAL ACCESSORIES

## GREASE TOOLS

MANUAL GREASE GUN FOR CARTRIDGE GREASE  
400/450 CM3 OR BULK GREASE 500 CM3



| PART NUMBER | THREAD        | WEIGHT    |
|-------------|---------------|-----------|
|             | <b>METRIC</b> | <b>kg</b> |
| JG45379     | M10           | 4,3       |

GREASE GUN HOSE



| PART NUMBER | THREAD        | LENGTH    |
|-------------|---------------|-----------|
|             | <b>METRIC</b> | <b>mm</b> |
| JG45383     | M10           | 300       |
| JG45384     | M10           | 500       |

COUPLER FOR GREASE GUN HOSE CONNECTION



| PART NUMBER | THREAD        |
|-------------|---------------|
|             | <b>METRIC</b> |
| JG45385     | M10 (female)  |

# GENERAL ACCESSORIES

## OTHER TOOLS



HOSE DISPENSER, 4 POSITIONS

| PART NUMBER | DIMENSIONS        |
|-------------|-------------------|
| JG43640     | 1060 x 840 x 1550 |



INFRARED THERMOMETER

| PART NUMBER | TEMPERATURE RANGE | WEIGHT |
|-------------|-------------------|--------|
| JG12208     | -18 ... 260       | 0,227  |



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