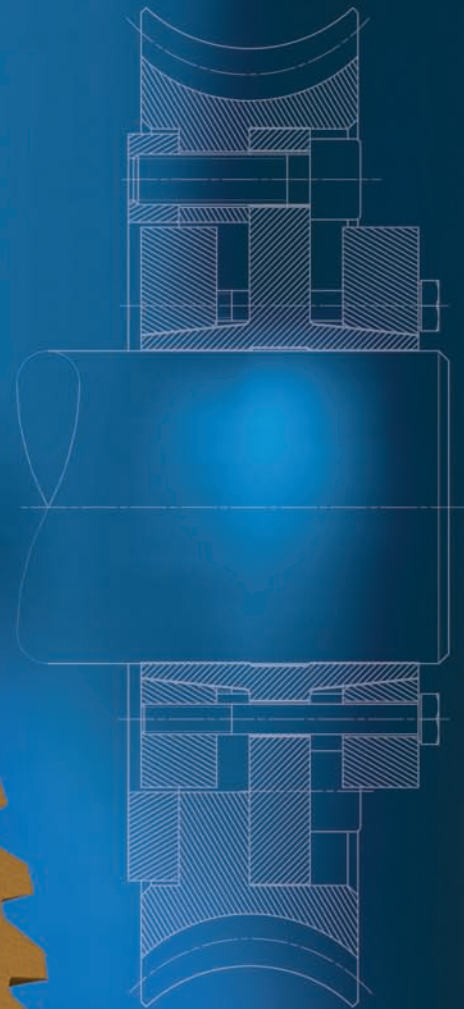


SHRINK DISCS RIGID COUPLINGS



we connect **e**motions

Locking Assemblies ■ Mini ■ Shrink Discs ■ Couplings



www.mav.it

our company

MAV is an Italian company, world renowned for its creativity and ethics. Established in 1989, MAV has been rapidly building a reputation for its professionalism, for its reliable and comprehensive service and for its wide product range. MAV is located in Bosentino, Northern Italy, at the foot of the Dolomites, one of the most beautiful areas of the Alps.

our mission

Just as our products connect mechanical components in motion, our purpose is to connect our partners through their goals, feelings, wishes and emotions. Together with our partners we want to raise the standard of quality, safety and environmental protection in our field.

our vision

We see the market as a huge mosaic. The single parts of this mosaic are manufacturers, suppliers and customers. All together we form a global partnership sharing common goals and seeking mutual benefits. We like to see MAV as the center of the mosaic, a strong reference for all the other parts.

Sandro Zamboni (MAV S.p.A. President)

**COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
=ISO 9001/2000=**

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This catalogue contains complete information for the MAV Shrink Discs and Rigid Couplings Standard Series.

The following pages will help you to find the perfect solution for your application.

Should you require assistance with an application, please feel free to contact MAV technical support.

Our engineers will be pleased to provide any information you might need.

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Shaft-Hub Connections

Traditional Methods

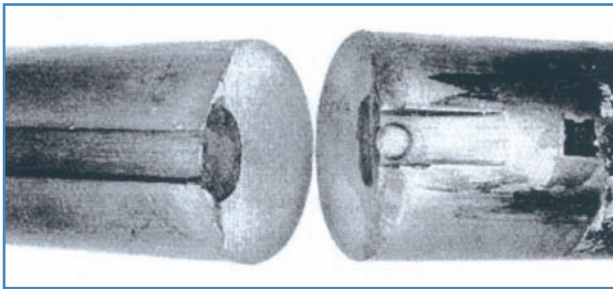


Fig. 1: shaft failure due to fatigue crack (heat treated steel C45)

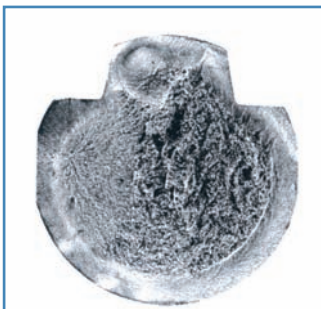


Fig. 2: fatigue problem caused by torsion

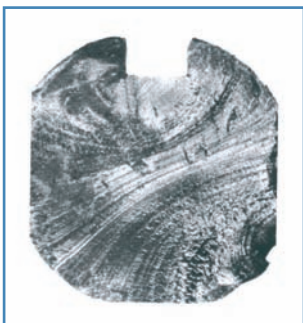


Fig. 3: typical fatigue fracture

Keyway and splined locking systems show important disadvantages, in particular under overload and frequent torque reversal conditions. Connected parts undergo micro movements which cause them damage. The notch of keyway seat is a stress concentrator which reduces the fatigue strength. The figures show some fatigue failures fractographs of notched shafts (courtesy of ASM International, Metals Handbook, vol 9).

Keyways and splines are eliminated by forced fit systems (pressing, heating), where high radial pressures are generated due to shaft - hub interference. A backlash free coupling is obtained. In addition, sections of shafts and bearings can be reduced and, as a consequence, also costs. But this kind of connection shows difficulties during the mounting-dismantling steps.

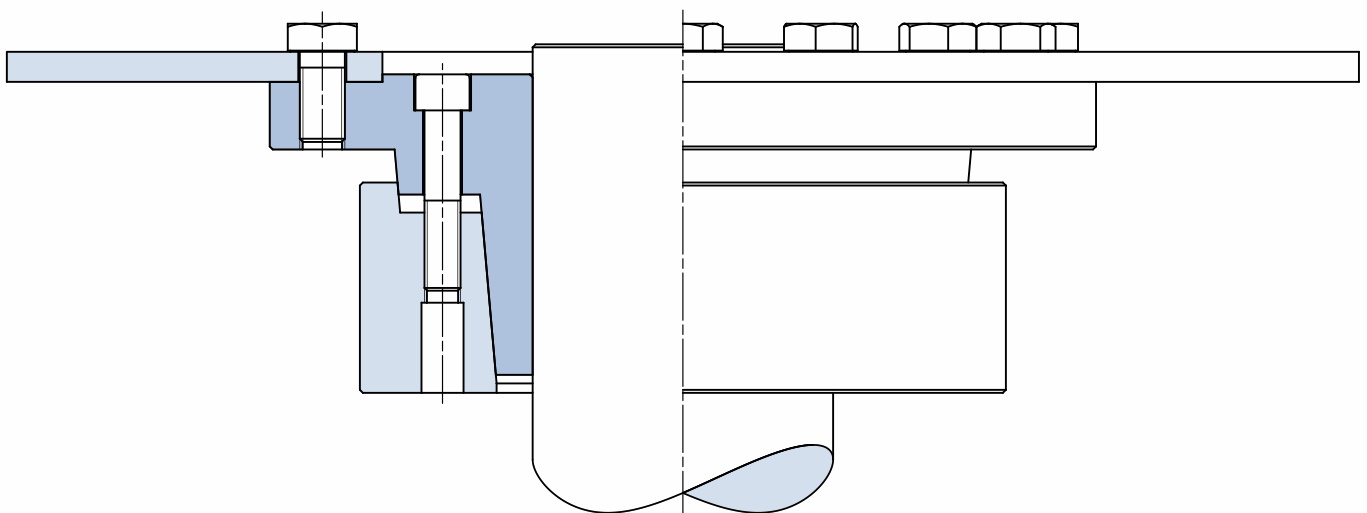
Shaft-Hub Connections

The MAV System

MAV Locking Devices meet both the advantages of forced fit systems and simplified installation-removal. It is based on the wedge principle: the axial load of the screws generates through the tapers a high radial force that locks the parts by friction.

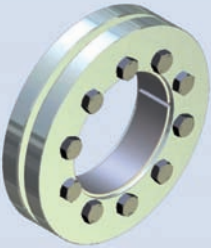
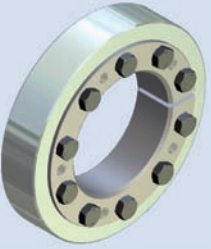
Main features of MAV Locking Devices:

- shaft - locking device - hub tolerances are sufficient for easy mounting and correct positioning
- high manufacturing precision permits close geometrical tolerances, leading to a well balanced coupling, also for high speed conditions
- high pressures let high torque to be transmitted, also in addition with bending moment; fretting corrosion is eliminated
- absence of notches results in enhanced static and dynamical strength, leading to lighter and more cost-effective designs
- the large variety of standard units and the possibility of designing and manufacturing customized units allow MAV to find the best solution for any kind of specifications



MAV Shrink Discs

Main Characteristics

| MAV SERIES | | torque capacity | bending capacity | self-locking | |
|---|----------------------------------|-----------------|------------------|--------------|---|
|  | MAV2008 | medium | medium | no | also available in SPLIT and HALF HC & HT designs. |
| | MAV2108 | low | medium | no | |
| | MAV2208 | high | medium | no | |
|  | MAV3008 MAV3009 | medium | low | no | |
| | MAV3108 | low | low | no | |
| | MAV3208 MAV3209 | high | low | no | |

MAV has more than 20 years of experience in the power transmission field. These years have been characterized by a deep collaboration with Customers. Thanks to this enrichment, our technical department can now provide innovative and alternative solutions for the various problems and applications.

Another instrument that leads to an improvement of the performances of MAV's products is the FEM analysis, with verifications that allow increase in safety and strength.

Checking the static and dynamic stress of a part through the FEM analysis allow an improvement in efficiency during production. FEM is based on advanced technologies such as the 100 CPU cluster computing and ultimate software.

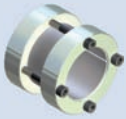
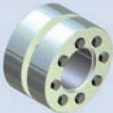

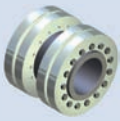
MAV is also able to design and produce special products according to Customer's specifications, using also different types of materials (aluminium, stainless steel, copper, etc.) or surface treatments (chemical or galvanic deposition, special paintings, etc.).

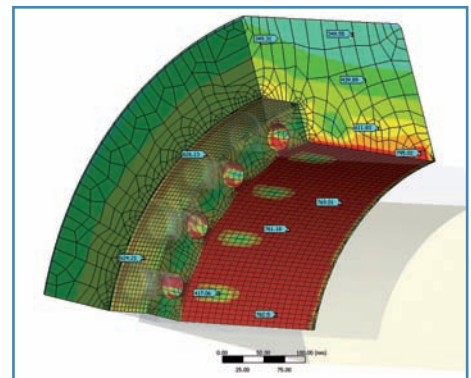
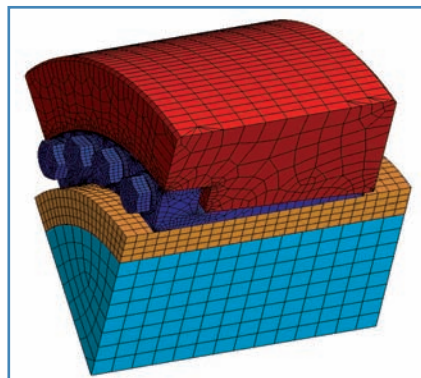
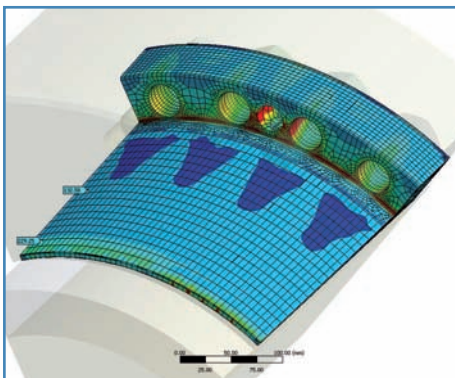
For further informations or technical and commercial inquiries please feel free to visit our web-site www.mav.it or contact us at the following numbers:

tel +39 0461 845151 – fax +39 0461 845150

MAV Rigid Shaft Couplings

Main Characteristics

| MAV SERIES | | torque capacity | bending capacity | self-locking |
|---|------------|-----------------|------------------|--------------|
|  | MAV1004 | low | - | yes |
|  | MAV1204 | medium | medium | no |
|  | MAV FC2008 | medium | medium | no |
|  | MAV SC2008 | medium | medium | no |
| | MAV SC2208 | high | medium | no |



Selection

MAV shrink discs are external locking devices, which provide a rigid, zero-backlash frictional connection between hollow shaft (hub) and shaft (example: hollow shaft gearboxes). Shrink discs are installed on the hub, which is mounted on the connected shaft.

MAV rigid shaft couplings are external locking devices, which provide a rigid, zero-backlash frictional connection between two shafts.

Shrink discs and rigid shaft couplings are well suited to transmit torque, thrust loads and bending moments, separately or simultaneously. The locking devices act as interference fits, but the difficulties of installation and removal of press or shrink fits are eliminated.

Performances listed in this catalogue are calculated without safety factor. The user must consider the specific safety factor, which depends on each application.

The following criteria are used for the selection of the right unit. The selection should be also based on specific requirements, as dimensional restrictions, precision of the connection, and others.

Torque

Where **T** is the peak torque, select a unit where:

Mt > T, where **Mt** = torque capacity.

Torque capacities for shrink discs MAV 2008 – MAV 2108 – MAV 2208 HALF HC and HT = $Mt / 2$.

In case of shrink disc connection, transmissible torque decreases if bored shafts are used.

In case of shrink disc connection, transmissible torque varies if shaft / hub clearance is different from listed values.

Combined loads

When the following loads apply:

T = peak torque

B = peak bending moment

F = peak thrust load

Calculate a resultant torque, according to:

$$M_{tc} = \sqrt{T^2 + \left(F \cdot \frac{d}{2}\right)^2 + (2 \cdot B)^2}$$

where **d** = shaft diameter

The selected unit has to meet both requirements:

Mt > Mtc

Mb > B, where **Mb** = bending capacity

Mb depends on each application. Consult our Technical Dept. for specific information.

Torque capacities for shrink discs MAV 2008 – MAV 2108 – MAV 2208 HALF HC and HT = $Mt / 2$.

In case of shrink disc connection, transmissible torque decreases if bored shafts are used.

In case of shrink disc connection, transmissible torque varies if shaft / hub clearance is different from listed values.

Shaft and hollow shaft (hub) verification

Size and material of shaft and hollow shaft (hub) must be selected in order to resist the stress generated by the locking device and by the applied loads.

The following criteria are valid by considering only the contact pressures exerted by the locking device. The verification of connected components is based on thick walled cylinder theory.

- External hollow shaft (hub) - shrink disc connection. The hub must be considered as a thick walled cylinder, subject to external pressure P_h and internal pressure P_s .
- Solid shaft – shrink disc or rigid shaft coupling connection. The material yield strength must be greater than shaft contact pressure P_s .
- Internal hollow shaft - shrink disc or rigid shaft coupling connection. The hollow shaft must be considered as a thick walled cylinder, subject to external shaft contact pressure P_s .

The material of hollow shaft (hub) for shrink disc connection should have a minimum yield strength of 400 N/mm². Anyway, the designer of each application is responsible for correct sizing and material choice of connected components.

Material

The stress applied on shrink discs and rigid shaft couplings requires carbon and heat treated alloy steel. Shrink disc series MAV 2008 – MAV 2108 – MAV 2208 feature zinc plated outer collars (all sizes) and are assembled with an O-Ring between them (from size $d = 140$ mm and above).

For oxidizing or corrosive operating conditions, stainless steel (reduced performances) as well as surface coated units are available (zinc plated, nickel plated, phosphate treated).

Lubrication

MAV locking devices are supplied already lubricated. All shrink discs series and rigid shaft coupling series MAV 1204 are greased on screws and tapers with molybdenum disulfide based lubricants (friction coefficients: $\mu = 0.05$ for tapers; $\mu = 0.10$ for screws). Rigid shaft coupling series MAV 1004 is lubricated with ordinary machine oil (friction coefficient: $\mu = 0.12$). Detailed lubricant specifications are available on installation instructions (see our website www.mav.it or send a request to our Technical Dept.).

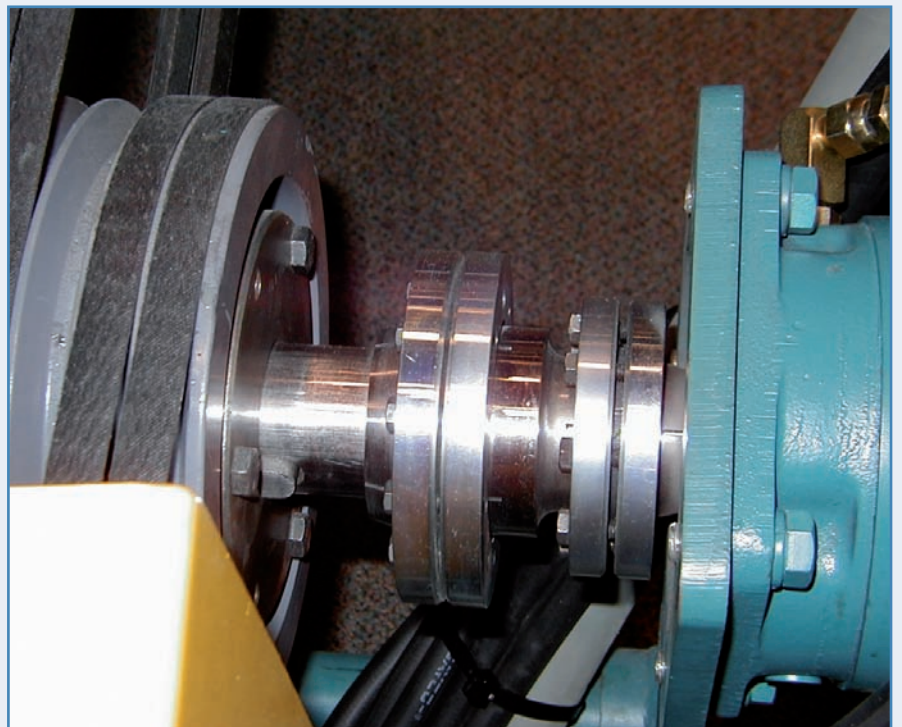
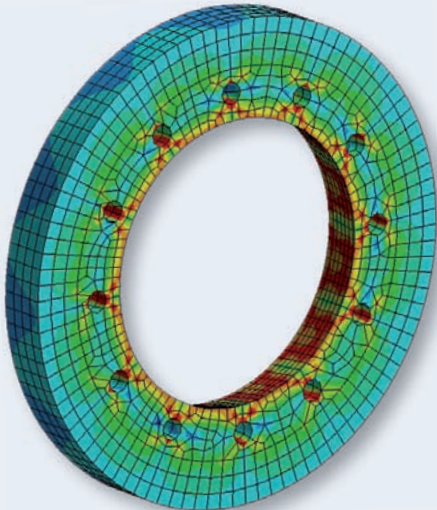
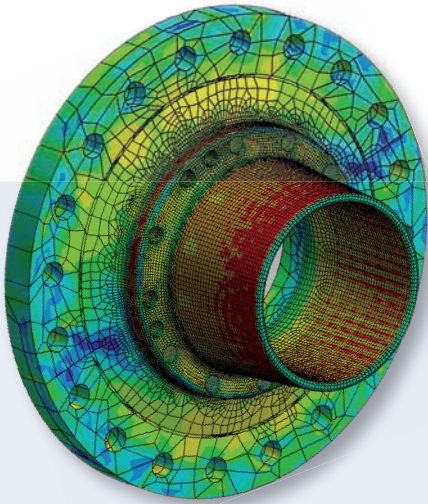
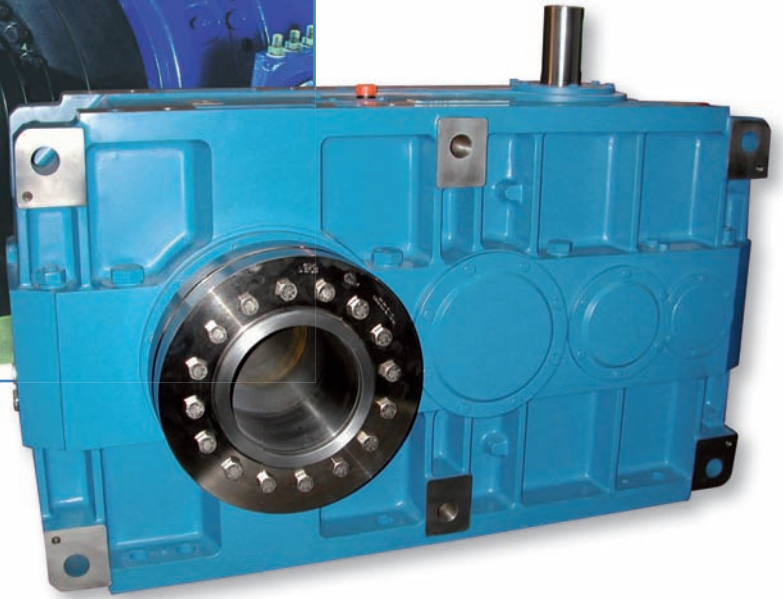
If locking devices are made of stainless steel, the user is kindly asked to specify whether molybdenum disulfide is admitted or not for the specific application. If not admitted, screws and tapers will be lubricated with food grade oil, quality H-1 according to FDA.

- Connection with shrink disc (all series), flange coupling MAV FC2008, sleeve couplings MAV SC2008 and MAV SC2208: hollow shaft (hub) – shaft fitting surface must be free of any lubricant and dry (friction coefficient: $\mu = 0.15$).
- Connection with rigid shaft couplings MAV 1204 and MAV 1004: shaft – coupling fitting surface must be oiled (friction coefficient: $\mu = 0.12$).

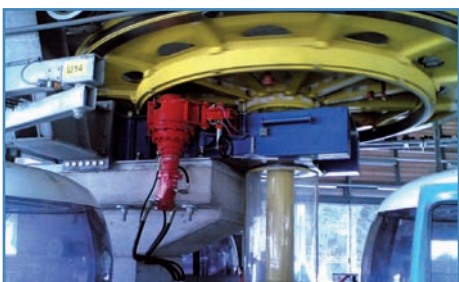
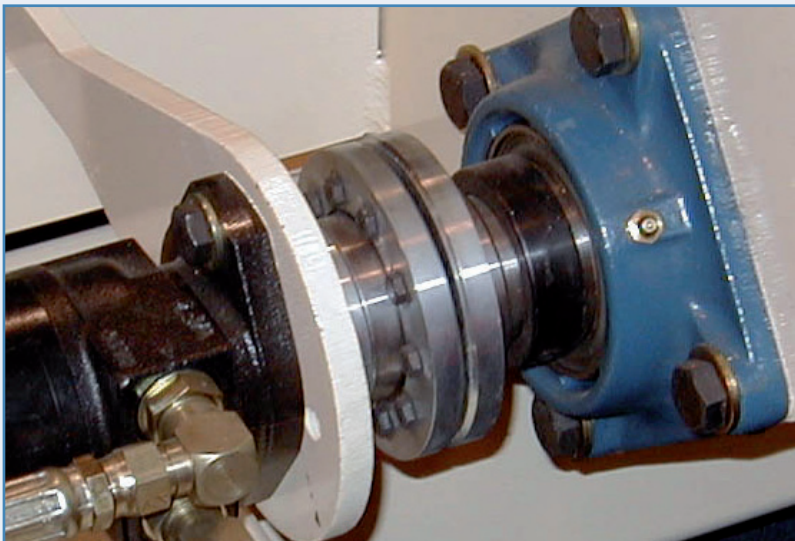
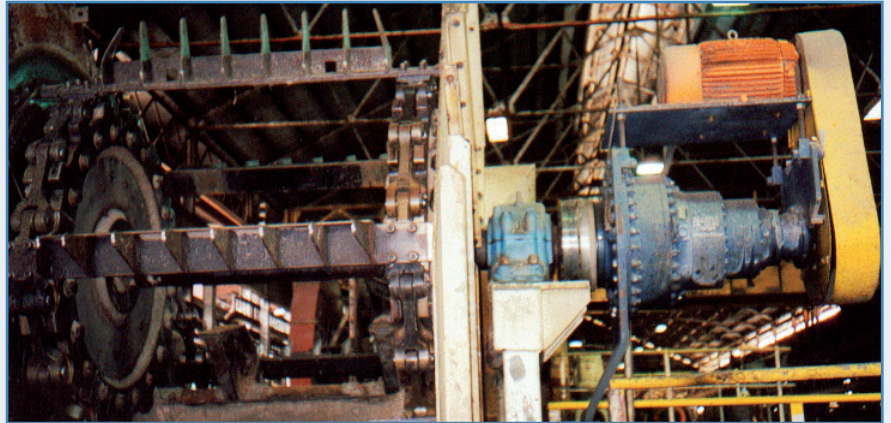
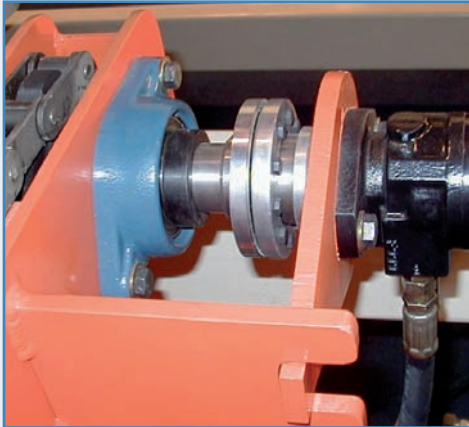
Temperature influence

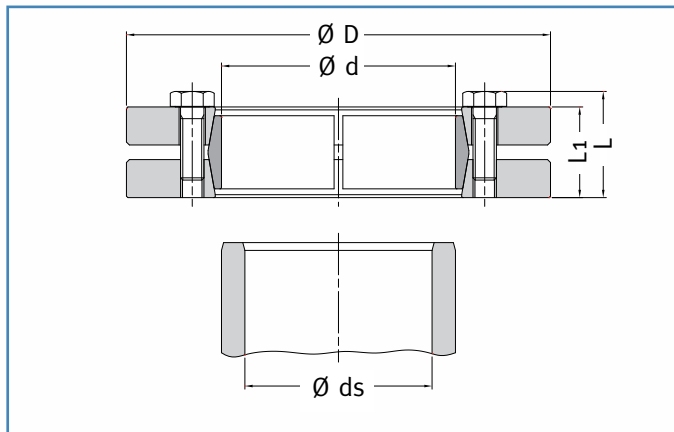
Working temperature ranges from -20°C to $+150^{\circ}\text{C}$. Locking devices work correctly as long as temperature of connected components and locking units is approximately the same. Different materials must be used if the connection works in temperatures out of the above mentioned range.

Applications



Applications





Example of order: MAV 2008 68 x 115

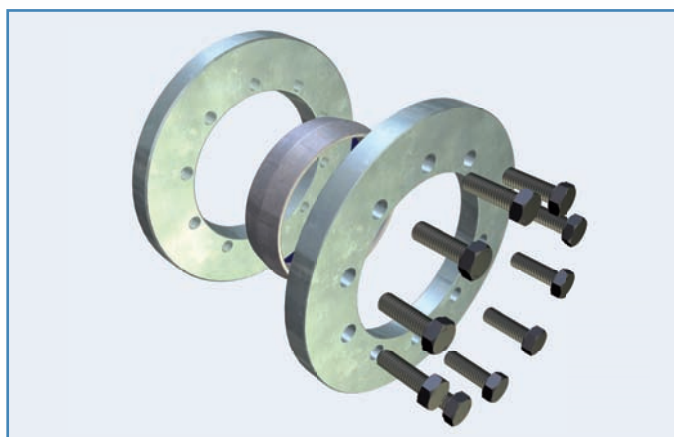
Composition

- Slotted inner ring
- Front outer ring
- Rear outer ring
- Set of hexagonal head cap screws, grade 10.9 (size < M6 of grade 8.8)

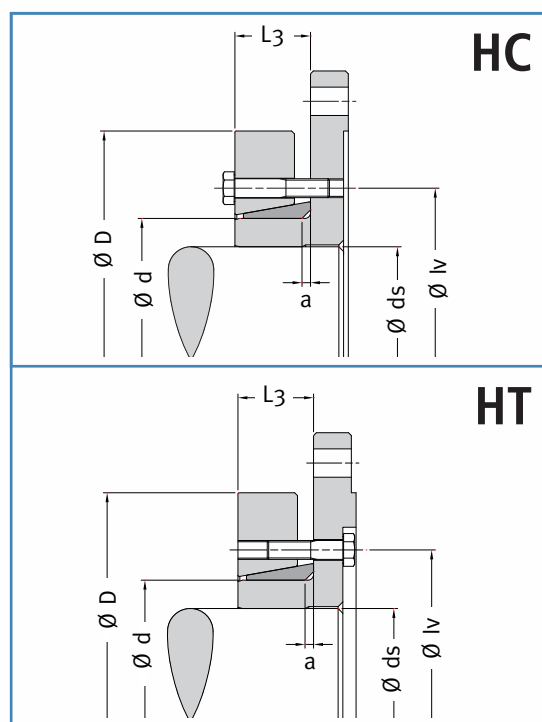
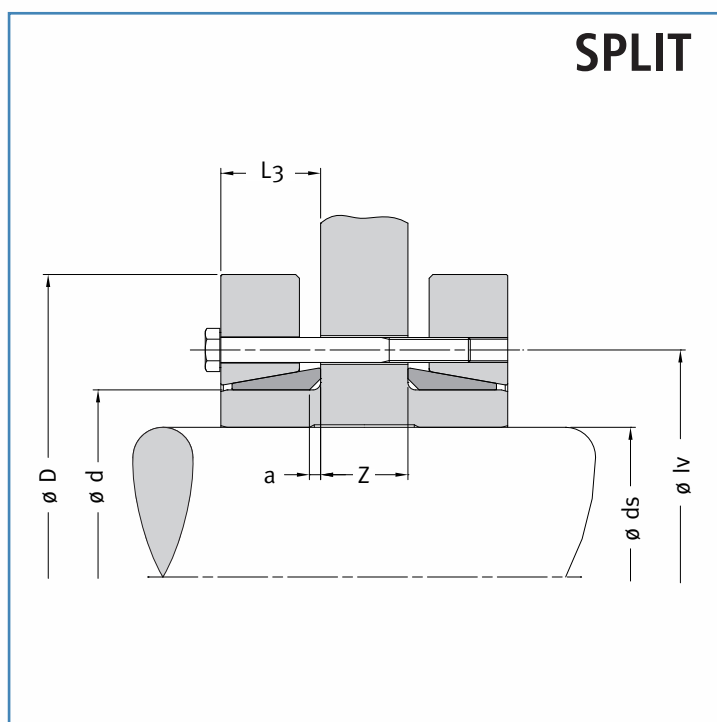
Features

- External locking device for hollow shaft (hub) - shaft connection
- Three-part design
- Self-releasing tapers, greased with MoS₂ ($\mu = 0.05$)
- Screws greased with MoS₂ ($\mu = 0.10$)
- Zinc plated outer rings
- O-Ring between outer rings from size $d = 140$ mm and above
- MAV 2008: standard series, medium capacity
- MAV 2108: light series, low capacity
- MAV 2208: heavy series, high capacity
- SPLIT and HALF HC and HT versions also available (for HALF versions, performances are reduced of 50%)
- Tolerances of shaft and hub bore: see table
- Tolerance of hub outer diameter: h8
- Surface finish of shaft and hub $Ra < 3.2 \mu m$
- Shaft - hub bore contact surface grease-free and dry ($\mu = 0.15$)

| Shaft Diameter ds | | ISO Tollerances | Max Clearance |
|-------------------|-----|-----------------|---------------|
| from | to | | |
| 6 | 10 | H6 - j6 | 0,011 |
| 11 | 18 | | 0,014 |
| 19 | 30 | | 0,017 |
| 31 | 50 | H6 - h6 | 0,032 |
| 51 | 80 | H6 - g6 | 0,048 |
| 81 | 120 | H7 - g6 | 0,069 |
| 121 | 180 | | 0,079 |
| 181 | 250 | | 0,09 |
| 251 | 315 | | 0,101 |
| 316 | 400 | | 0,111 |
| 401 | 500 | | 0,123 |



| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 10 | | | | | | | | | | | | | 36 | 7 | 154 | 335 | 0,10 |
| 11 | 14 | x | 38 | 18,5 | 15,0 | 6,0 | 8,7 | 25 | 1,2 | 3 | M 5 | 4 | 54 | 10 | 191 | 335 | |
| 12 | | | | | | | | | | | | | 82 | 14 | 243 | 335 | |
| 12 | | | | | | | | | | | | | 38 | 6 | 93 | 244 | 0,10 |
| 13 | 16 | x | 41 | 20,5 | 17,0 | 7,0 | 9,7 | 27 | 1,2 | 3 | M 5 | 4 | 65 | 10 | 136 | 244 | |
| 14 | | | | | | | | | | | | | 97 | 14 | 175 | 244 | |
| 14 | | | | | | | | | | | | | 96 | 14 | 172 | 289 | 0,14 |
| 15 | 18 | x | 44 | 20,5 | 17,0 | 7,0 | 9,7 | 29 | 1,2 | 4 | M 5 | 4 | 130 | 17 | 205 | 289 | |
| 16 | | | | | | | | | | | | | 170 | 21 | 235 | 289 | |
| 15 | | | | | | | | | | | | | 130 | 17 | 205 | 325 | 0,15 |
| 16 | 20 | x | 46 | 20,5 | 17,0 | 7,0 | 9,7 | 32 | 1,2 | 5 | M 5 | 4 | 170 | 21 | 232 | 325 | |
| 17 | | | | | | | | | | | | | 210 | 25 | 258 | 325 | |
| 19 | | | | | | | | | | | | | 220 | 24 | 189 | 279 | 0,19 |
| 20 | 24 | x | 50 | 21,5 | 18,0 | 7,8 | 11,5 | 36 | 2,1 | 6 | M 5 | 4 | 280 | 28 | 209 | 279 | |
| 21 | | | | | | | | | | | | | 330 | 32 | 228 | 279 | |
| 24 | | | | | | | | | | | | | 350 | 29 | 159 | 228 | 0,29 |
| 25 | 30 | x | 60 | 23,5 | 20,0 | 8,5 | 12,5 | 44 | 2,1 | 7 | M 5 | 4 | 400 | 32 | 172 | 228 | |
| 26 | | | | | | | | | | | | | 470 | 36 | 184 | 228 | |
| 28 | | | | | | | | | | | | | 770 | 55 | 232 | 297 | 0,47 |
| 30 | 36 | x | 72 | 26,0 | 22,0 | 9,5 | 13,5 | 52 | 2,1 | 5 | M 6 | 12 | 960 | 64 | 250 | 297 | |
| 31 | | | | | | | | | | | | | 980 | 63 | 240 | 297 | |
| 34 | | | | | | | | | | | | | 1.200 | 72 | 225 | 306 | 0,59 |
| 35 | 44 | x | 80 | 28,0 | 24,0 | 10,5 | 14,5 | 61 | 2,1 | 7 | M 6 | 12 | 1.400 | 77 | 235 | 306 | |
| 36 | | | | | | | | | | | | | 1.500 | 83 | 244 | 306 | |
| 38 | | | | | | | | | | | | | 1.500 | 80 | 204 | 280 | 0,81 |
| 40 | 50 | x | 90 | 31,0 | 27,0 | 11,5 | 16,0 | 70 | 2,1 | 8 | M 6 | 12 | 1.800 | 91 | 219 | 280 | |
| 42 | | | | | | | | | | | | | 2.100 | 101 | 232 | 280 | |
| 42 | | | | | | | | | | | | | 1.700 | 80 | 176 | 243 | 1,1 |
| 45 | 55 | x | 100 | 33,0 | 29,0 | 12,5 | 17,0 | 75 | 2,9 | 8 | M 6 | 12 | 2.100 | 94 | 193 | 243 | |
| 48 | | | | | | | | | | | | | 2.600 | 110 | 210 | 243 | |
| 48 | | | | | | | | | | | | | 2.700 | 110 | 213 | 270 | 1,3 |
| 50 | 62 | x | 110 | 33,0 | 29,0 | 12,5 | 17,0 | 86 | 2,9 | 10 | M 6 | 12 | 3.000 | 120 | 222 | 270 | |
| 52 | | | | | | | | | | | | | 3.200 | 120 | 218 | 270 | |
| 50 | | | | | | | | | | | | | 2.500 | 100 | 184 | 246 | 1,3 |
| 55 | 68 | x | 115 | 33,0 | 29,0 | 12,5 | 17,0 | 86 | 2,9 | 10 | M 6 | 12 | 3.100 | 110 | 188 | 246 | |
| 60 | | | | | | | | | | | | | 4.100 | 140 | 212 | 246 | |



| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 55 | 75 | x | 138 | 36,3 | 31,0 | 13,0 | 20,5 | 100 | 3,7 | 7 | M 8 | 30 | 3.500 | 130 | 199 | 276 | 2,2 |
| 60 | | | | | | | | | | | | | 4.700 | 160 | 221 | 276 | |
| 65 | | | | | | | | | | | | | 6.000 | 180 | 241 | 276 | |
| 60 | 80 | x | 145 | 36,3 | 31,0 | 13,0 | 20,5 | 100 | 4,0 | 7 | M 8 | 30 | 4.100 | 140 | 192 | 259 | 2,4 |
| 65 | | | | | | | | | | | | | 5.200 | 160 | 211 | 259 | |
| 70 | | | | | | | | | | | | | 6.600 | 190 | 228 | 259 | |
| 60 | 85 | x | 155 | 43,3 | 38,0 | 16,5 | 24,0 | 114 | 4,0 | 10 | M 8 | 30 | 5.400 | 180 | 213 | 290 | 3,4 |
| 65 | | | | | | | | | | | | | 6.900 | 210 | 231 | 290 | |
| 70 | | | | | | | | | | | | | 8.600 | 250 | 248 | 290 | |
| 65 | 90 | x | 155 | 43,3 | 38,0 | 16,5 | 24,0 | 114 | 4,0 | 10 | M 8 | 30 | 6.200 | 190 | 206 | 274 | 3,3 |
| 70 | | | | | | | | | | | | | 7.700 | 220 | 222 | 274 | |
| 75 | | | | | | | | | | | | | 9.400 | 250 | 236 | 274 | |
| 65 | 95 | x | 170 | 48,3 | 43,0 | 19,0 | 26,5 | 124 | 4,0 | 12 | M 8 | 30 | 6.800 | 210 | 200 | 274 | 4,6 |
| 70 | | | | | | | | | | | | | 8.400 | 240 | 215 | 274 | |
| 75 | | | | | | | | | | | | | 10.300 | 270 | 228 | 274 | |
| 70 | 100 | x | 170 | 48,3 | 43,0 | 19,0 | 26,5 | 124 | 4,0 | 12 | M 8 | 30 | 7.600 | 220 | 194 | 261 | 4,4 |
| 75 | | | | | | | | | | | | | 9.300 | 250 | 207 | 261 | |
| 80 | | | | | | | | | | | | | 11.300 | 280 | 220 | 261 | |
| 70 | 105 | x | 185 | 55,4 | 49,0 | 21,5 | 29,5 | 136 | 4,0 | 9 | M 10 | 59 | 8.100 | 230 | 180 | 253 | 6,2 |
| 75 | | | | | | | | | | | | | 10.000 | 270 | 193 | 253 | |
| 80 | | | | | | | | | | | | | 12.100 | 300 | 205 | 253 | |
| 75 | 110 | x | 185 | 55,4 | 49,0 | 21,5 | 29,5 | 136 | 4,0 | 9 | M 10 | 59 | 9.100 | 240 | 176 | 242 | 5,9 |
| 80 | | | | | | | | | | | | | 11.000 | 280 | 188 | 242 | |
| 85 | | | | | | | | | | | | | 12.200 | 290 | 183 | 242 | |
| 80 | 115 | x | 200 | 56,4 | 50,0 | 22,0 | 30,0 | 150 | 4,0 | 10 | M 10 | 59 | 11.500 | 290 | 191 | 250 | 7,2 |
| 85 | | | | | | | | | | | | | 12.600 | 300 | 185 | 250 | |
| 90 | | | | | | | | | | | | | 15.100 | 340 | 198 | 250 | |
| 85 | 120 | x | 200 | 56,4 | 50,0 | 22,0 | 30,0 | 150 | 4,0 | 10 | M 10 | 59 | 11.400 | 270 | 168 | 240 | 7,0 |
| 90 | | | | | | | | | | | | | 13.800 | 310 | 180 | 240 | |
| 95 | | | | | | | | | | | | | 16.300 | 340 | 192 | 240 | |
| 85 | 125 | x | 215 | 59,4 | 53,0 | 23,0 | 31,5 | 160 | 4,0 | 12 | M 10 | 59 | 13.300 | 310 | 186 | 263 | 8,7 |
| 90 | | | | | | | | | | | | | 15.800 | 350 | 198 | 263 | |
| 95 | | | | | | | | | | | | | 18.600 | 390 | 209 | 263 | |
| 90 | 130 | x | 215 | 59,4 | 53,0 | 23,0 | 31,5 | 160 | 4,0 | 12 | M 10 | 59 | 14.600 | 320 | 182 | 253 | 8,4 |
| 95 | | | | | | | | | | | | | 17.200 | 360 | 193 | 253 | |
| 100 | | | | | | | | | | | | | 20.100 | 400 | 203 | 253 | |
| 95 | 140 | x | 230 | 65,5 | 58,0 | 25,0 | 34,0 | 175 | 6,0 | 10 | M 12 | 100 | 18.600 | 390 | 190 | 259 | 10 |
| 100 | | | | | | | | | | | | | 21.600 | 430 | 199 | 259 | |
| 105 | | | | | | | | | | | | | 24.900 | 470 | 208 | 259 | |
| 105 | 155 | x | 263 | 69,5 | 62,0 | 26,0 | 36,0 | 192 | 6,0 | 12 | M 12 | 100 | 25.400 | 480 | 195 | 259 | 15 |
| 110 | | | | | | | | | | | | | 29.000 | 530 | 203 | 259 | |
| 115 | | | | | | | | | | | | | 32.800 | 570 | 211 | 259 | |
| 115 | 165 | x | 290 | 78,0 | 68,0 | 29,0 | 39,0 | 210 | 5,0 | 8 | M 16 | 250 | 38.900 | 680 | 223 | 278 | 21 |
| 120 | | | | | | | | | | | | | 43.600 | 730 | 230 | 278 | |
| 125 | | | | | | | | | | | | | 47.600 | 760 | 231 | 278 | |
| 125 | 175 | x | 300 | 78,0 | 68,0 | 29,0 | 39,0 | 220 | 6,0 | 8 | M 16 | 250 | 42.900 | 690 | 208 | 262 | 21 |
| 130 | | | | | | | | | | | | | 47.800 | 740 | 215 | 262 | |
| 135 | | | | | | | | | | | | | 53.100 | 790 | 221 | 262 | |
| 135 | 185 | x | 330 | 95,0 | 85,0 | 36,0 | 47,5 | 236 | 6,0 | 10 | M 16 | 250 | 60.000 | 890 | 197 | 244 | 34 |
| 140 | | | | | | | | | | | | | 66.400 | 950 | 202 | 244 | |
| 145 | | | | | | | | | | | | | 73.100 | 1.000 | 208 | 244 | |
| 140 | 195 | x | 350 | 95,0 | 85,0 | 36,0 | 47,5 | 246 | 6,0 | 12 | M 16 | 250 | 75.600 | 1.100 | 231 | 278 | 38 |
| 150 | | | | | | | | | | | | | 90.600 | 1.200 | 241 | 278 | |
| 155 | | | | | | | | | | | | | 98.700 | 1.300 | 245 | 278 | |
| 150 | 200 | x | 350 | 95,0 | 85,0 | 36,0 | 47,5 | 246 | 6,0 | 12 | M 16 | 250 | 87.000 | 1.200 | 231 | 271 | 37 |
| 155 | | | | | | | | | | | | | 94.800 | 1.200 | 236 | 271 | |
| 160 | | | | | | | | | | | | | 103.000 | 1.300 | 240 | 271 | |
| 160 | 220 | x | 370 | 114,0 | 104,0 | 45,0 | 59,5 | 270 | 8,0 | 15 | M 16 | 250 | 110.000 | 1.400 | 208 | 249 | 50 |
| 165 | | | | | | | | | | | | | 120.000 | 1.500 | 212 | 249 | |
| 170 | | | | | | | | | | | | | 129.000 | 1.500 | 216 | 249 | |
| 170 | 240 | x | 405 | 120,5 | 108,0 | 47,0 | 61,5 | 295 | 8,0 | 12 | M 20 | 490 | 146.000 | 1.700 | 233 | 273 | 63 |
| 180 | | | | | | | | | | | | | 168.000 | 1.900 | 239 | 273 | |
| 190 | | | | | | | | | | | | | 190.000 | 2.000 | 243 | 273 | |

| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|-----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 180 | | | | | | | | | | | | | 186.000 | 2.100 | 236 | 273 | 82 |
| 190 | 250 | x | 430 | 131,5 | 119,0 | 53,0 | 67,0 | 321 | 8,0 | 14 | M 20 | 490 | 209.000 | 2.200 | 239 | 273 | |
| 200 | | | | | | | | | | | | | 238.000 | 2.400 | 245 | 273 | |
| 190 | | | | | | | | | | | | | 197.000 | 2.100 | 225 | 262 | 78 |
| 200 | 260 | x | 430 | 131,5 | 119,0 | 53,0 | 67,0 | 321 | 8,0 | 14 | M 20 | 490 | 224.000 | 2.200 | 231 | 262 | |
| 210 | | | | | | | | | | | | | 254.000 | 2.400 | 237 | 262 | |
| 210 | | | | | | | | | | | | | 260.000 | 2.500 | 220 | 252 | 97 |
| 220 | 280 | x | 460 | 144,5 | 132,0 | 58,0 | 76,0 | 346 | 9,0 | 16 | M 20 | 490 | 292.000 | 2.700 | 225 | 252 | |
| 230 | | | | | | | | | | | | | 327.000 | 2.800 | 230 | 252 | |
| 230 | | | | | | | | | | | | | 334.000 | 2.900 | 219 | 247 | 113 |
| 240 | 300 | x | 485 | 152,5 | 140,0 | 63,0 | 80,0 | 364 | 9,0 | 18 | M 20 | 490 | 371.000 | 3.100 | 224 | 247 | |
| 250 | | | | | | | | | | | | | 410.000 | 3.300 | 228 | 247 | |
| 240 | | | | | | | | | | | | | 380.000 | 3.200 | 229 | 257 | 131 |
| 250 | 320 | x | 520 | 152,5 | 140,0 | 63,0 | 80,0 | 386 | 9,0 | 20 | M 20 | 490 | 419.000 | 3.400 | 233 | 257 | |
| 260 | | | | | | | | | | | | | 457.000 | 3.500 | 235 | 257 | |
| 250 | | | | | | | | | | | | | 465.000 | 3.700 | 232 | 261 | 186 |
| 260 | 340 | x | 570 | 168,5 | 156,0 | 72,0 | 88,0 | 408 | 9,0 | 24 | M 20 | 490 | 506.000 | 3.900 | 233 | 261 | |
| 270 | | | | | | | | | | | | | 555.000 | 4.100 | 237 | 261 | |
| 260 | | | | | | | | | | | | | 483.000 | 3.700 | 217 | 246 | 193 |
| 270 | 350 | x | 580 | 172,5 | 160,0 | 73,0 | 90,0 | 432 | 9,0 | 24 | M 20 | 490 | 530.000 | 3.900 | 220 | 246 | |
| 280 | | | | | | | | | | | | | 580.000 | 4.100 | 224 | 246 | |
| 280 | | | | | | | | | | | | | 556.000 | 4.000 | 215 | 239 | 197 |
| 290 | 360 | x | 590 | 172,5 | 160,0 | 73,0 | 90,0 | 432 | 9,0 | 24 | M 20 | 490 | 606.000 | 4.200 | 219 | 239 | |
| 295 | | | | | | | | | | | | | 632.000 | 4.300 | 220 | 239 | |
| 290 | | | | | | | | | | | | | 682.000 | 4.700 | 239 | 263 | 255 |
| 300 | 380 | x | 645 | 179,0 | 164,0 | 76,0 | 92,0 | 458 | 9,0 | 20 | M 24 | 840 | 739.000 | 4.900 | 242 | 263 | |
| 310 | | | | | | | | | | | | | 799.000 | 5.200 | 245 | 263 | |
| 310 | | | | | | | | | | | | | 813.000 | 5.200 | 249 | 269 | 266 |
| 315 | 390 | x | 660 | 179,0 | 164,0 | 76,0 | 94,5 | 468 | 11,0 | 21 | M 24 | 840 | 844.000 | 5.400 | 251 | 269 | |
| 320 | | | | | | | | | | | | | 871.000 | 5.400 | 251 | 269 | |
| 315 | | | | | | | | | | | | | 806.000 | 5.100 | 210 | 231 | 314 |
| 320 | 400 | x | 680 | 199,0 | 184,0 | 84,0 | 104,5 | 480 | 11,0 | 21 | M 24 | 840 | 831.000 | 5.200 | 210 | 231 | |
| 330 | | | | | | | | | | | | | 896.000 | 5.400 | 213 | 231 | |
| 330 | | | | | | | | | | | | | 967.000 | 5.900 | 230 | 251 | 311 |
| 340 | 420 | x | 690 | 199,0 | 184,0 | 84,0 | 104,5 | 504 | 11,0 | 24 | M 24 | 840 | 1.040.000 | 6.100 | 232 | 251 | |
| 350 | | | | | | | | | | | | | 1.110.000 | 6.400 | 235 | 251 | |
| 340 | | | | | | | | | | | | | 970.000 | 5.700 | 207 | 229 | 392 |
| 350 | 440 | x | 750 | 207,0 | 192,0 | 86,0 | 108,5 | 527 | 11,0 | 24 | M 24 | 840 | 1.040.000 | 5.900 | 209 | 229 | |
| 360 | | | | | | | | | | | | | 1.110.000 | 6.200 | 212 | 229 | |
| 360 | | | | | | | | | | | | | 1.040.000 | 5.800 | 199 | 219 | 405 |
| 370 | 460 | x | 770 | 207,0 | 192,0 | 86,0 | 108,5 | 547 | 11,0 | 24 | M 24 | 840 | 1.120.000 | 6.000 | 201 | 219 | |
| 380 | | | | | | | | | | | | | 1.190.000 | 6.300 | 203 | 219 | |
| 380 | | | | | | | | | | | | | 1.420.000 | 7.500 | 221 | 240 | 485 |
| 390 | 480 | x | 800 | 228,0 | 213,0 | 96,0 | 121,5 | 570 | 14,0 | 30 | M 24 | 840 | 1.510.000 | 7.700 | 224 | 240 | |
| 400 | | | | | | | | | | | | | 1.600.000 | 8.000 | 225 | 240 | |
| 400 | | | | | | | | | | | | | 1.620.000 | 8.100 | 228 | 245 | 560 |
| 410 | 500 | x | 850 | 230,0 | 213,0 | 96,0 | 121,5 | 590 | 14,0 | 24 | M 27 | 1.250 | 1.700.000 | 8.300 | 229 | 245 | |
| 420 | | | | | | | | | | | | | 1.800.000 | 8.600 | 231 | 245 | |

Code:

Ma: screws tightening torque
 Mt: transmissible torque with Fax=0 kN
 Fax: transmissible axial load with Mt=0 Nm
 Ps: contact pressure on shaft
 Ph: contact pressure on hub outer diameter

| web clearance Holes (diameter in mm) | | | | | | | | | |
|--------------------------------------|----|----|----|-----|-----|-----|-----|-----|-----|
| SCREWS size | M5 | M6 | M8 | M10 | M12 | M16 | M20 | M24 | M27 |
| split shrink disc | 7 | 8 | 10 | 13 | 15 | 19 | 23 | 27 | 30 |
| shrink disc HALF HT | 6 | 7 | 9 | 11 | 13 | 18 | 22 | 26 | 30 |

| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|-----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 95 | | | | | | | | | | | | | 11.000 | 230 | 130 | 184 | 5,6 |
| 100 | 125 | x | 190 | 58,4 | 52,0 | 22,0 | 31,0 | 158 | 4,0 | 8 | M 10 | 59 | 13.200 | 260 | 140 | 184 | |
| 105 | | | | | | | | | | | | | 15.600 | 300 | 150 | 184 | |
| 110 | | | | | | | | | | | | | 18.600 | 340 | 163 | 206 | 7,9 |
| 120 | 140 | x | 220 | 58,4 | 52,0 | 22,0 | 31,0 | 175 | 4,0 | 10 | M 10 | 59 | 24.200 | 400 | 179 | 206 | |
| 125 | | | | | | | | | | | | | 27.000 | 430 | 183 | 206 | |
| 130 | | | | | | | | | | | | | 30.500 | 470 | 192 | 223 | 9,9 |
| 135 | 155 | x | 245 | 58,4 | 52,0 | 22,0 | 31,0 | 192 | 4,0 | 12 | M 10 | 59 | 34.100 | 500 | 198 | 223 | |
| 140 | | | | | | | | | | | | | 37.800 | 540 | 205 | 223 | |
| 135 | | | | | | | | | | | | | 36.800 | 550 | 186 | 220 | 13 |
| 140 | 165 | x | 260 | 69,5 | 62,0 | 26,0 | 36,0 | 210 | 5,5 | 10 | M 12 | 100 | 40.900 | 580 | 193 | 220 | |
| 145 | | | | | | | | | | | | | 45.200 | 620 | 198 | 220 | |
| 145 | | | | | | | | | | | | | 40.500 | 560 | 178 | 207 | 15 |
| 150 | 175 | x | 275 | 69,5 | 62,0 | 26,0 | 36,0 | 220 | 5,5 | 10 | M 12 | 100 | 44.700 | 600 | 183 | 207 | |
| 155 | | | | | | | | | | | | | 49.000 | 630 | 188 | 207 | |
| 155 | | | | | | | | | | | | | 54.400 | 700 | 209 | 235 | 17 |
| 160 | 185 | x | 295 | 69,5 | 62,0 | 26,0 | 36,0 | 225 | 5,5 | 12 | M 12 | 100 | 59.300 | 740 | 214 | 235 | |
| 165 | | | | | | | | | | | | | 64.500 | 780 | 218 | 235 | |
| 165 | | | | | | | | | | | | | 73.900 | 900 | 206 | 229 | 24 |
| 170 | 195 | x | 315 | 79,5 | 72,0 | 31,0 | 41,0 | 237 | 5,5 | 15 | M 12 | 100 | 80.100 | 940 | 210 | 229 | |
| 175 | | | | | | | | | | | | | 86.500 | 990 | 214 | 229 | |
| 180 | | | | | | | | | | | | | 98.600 | 1.100 | 196 | 221 | 32 |
| 190 | 220 | x | 345 | 94,0 | 84,0 | 36,0 | 47,0 | 265 | 5,5 | 10 | M 16 | 250 | 113.000 | 1.200 | 200 | 221 | |
| 200 | | | | | | | | | | | | | 129.000 | 1.300 | 208 | 221 | |
| 200 | | | | | | | | | | | | | 137.000 | 1.400 | 220 | 243 | 36 |
| 210 | 240 | x | 370 | 94,0 | 84,0 | 36,0 | 49,5 | 290 | 8,0 | 12 | M 16 | 250 | 155.000 | 1.500 | 226 | 243 | |
| 215 | | | | | | | | | | | | | 165.000 | 1.500 | 229 | 243 | |
| 220 | | | | | | | | | | | | | 152.000 | 1.400 | 180 | 200 | 44 |
| 230 | 260 | x | 395 | 102,0 | 92,0 | 40,0 | 53,5 | 310 | 8,0 | 12 | M 16 | 250 | 171.000 | 1.500 | 186 | 200 | |
| 235 | | | | | | | | | | | | | 181.000 | 1.500 | 188 | 200 | |
| 230 | | | | | | | | | | | | | 206.000 | 1.800 | 197 | 218 | 58 |
| 240 | 280 | x | 425 | 114,0 | 104,0 | 46,0 | 59,5 | 333 | 8,0 | 16 | M 16 | 250 | 229.000 | 1.900 | 201 | 218 | |
| 250 | | | | | | | | | | | | | 255.000 | 2.000 | 206 | 218 | |
| 250 | | | | | | | | | | | | | 260.000 | 2.100 | 210 | 229 | 69 |
| 260 | 300 | x | 460 | 114,0 | 104,0 | 46,0 | 59,5 | 358 | 8,0 | 18 | M 16 | 250 | 285.000 | 2.200 | 213 | 229 | |
| 270 | | | | | | | | | | | | | 313.000 | 2.300 | 217 | 229 | |
| 270 | | | | | | | | | | | | | 284.000 | 2.100 | 197 | 215 | 85 |
| 280 | 320 | x | 495 | 116,0 | 106,0 | 48,0 | 60,5 | 378 | 8,0 | 18 | M 16 | 250 | 311.000 | 2.200 | 201 | 215 | |
| 290 | | | | | | | | | | | | | 340.000 | 2.300 | 204 | 215 | |
| 290 | | | | | | | | | | | | | 347.000 | 2.400 | 209 | 225 | 101 |
| 300 | 340 | x | 535 | 116,0 | 106,0 | 48,0 | 60,5 | 402 | 8,0 | 20 | M 16 | 250 | 378.000 | 2.500 | 212 | 225 | |
| 310 | | | | | | | | | | | | | 410.000 | 2.600 | 215 | 225 | |
| 310 | | | | | | | | | | | | | 473.000 | 3.100 | 209 | 223 | 120 |
| 320 | 360 | x | 555 | 134,5 | 122,0 | 54,0 | 71,0 | 423 | 9,0 | 16 | M 20 | 490 | 509.000 | 3.200 | 211 | 223 | |
| 330 | | | | | | | | | | | | | 549.000 | 3.300 | 214 | 223 | |
| 330 | | | | | | | | | | | | | 570.000 | 3.500 | 198 | 212 | 148 |
| 340 | 380 | x | 585 | 148,5 | 136,0 | 60,0 | 78,0 | 442 | 9,0 | 18 | M 20 | 490 | 614.000 | 3.600 | 201 | 212 | |
| 350 | | | | | | | | | | | | | 660.000 | 3.800 | 204 | 212 | |
| 350 | | | | | | | | | | | | | 710.000 | 4.100 | 220 | 230 | 151 |
| 360 | 390 | x | 595 | 148,5 | 136,0 | 60,0 | 78,0 | 452 | 9,0 | 20 | M 20 | 490 | 760.000 | 4.200 | 222 | 230 | |
| 370 | | | | | | | | | | | | | 812.000 | 4.400 | 225 | 230 | |
| 370 | | | | | | | | | | | | | 728.000 | 3.900 | 188 | 199 | 175 |
| 380 | 420 | x | 630 | 156,5 | 144,0 | 64,0 | 82,0 | 485 | 9,0 | 20 | M 20 | 490 | 777.000 | 4.100 | 190 | 199 | |
| 390 | | | | | | | | | | | | | 828.000 | 4.200 | 193 | 199 | |
| 380 | | | | | | | | | | | | | 822.000 | 4.300 | 183 | 198 | 226 |
| 390 | 460 | x | 685 | 170,5 | 158,0 | 71,0 | 91,5 | 527 | 11,0 | 24 | M 20 | 490 | 875.000 | 4.500 | 185 | 198 | |
| 410 | | | | | | | | | | | | | 982.000 | 4.800 | 188 | 198 | |
| 420 | | | | | | | | | | | | | 1.160.000 | 5.500 | 183 | 198 | 310 |
| 430 | 500 | x | 750 | 190,5 | 178,0 | 80,0 | 101,5 | 572 | 11,0 | 30 | M 20 | 490 | 1.230.000 | 5.700 | 185 | 198 | |
| 440 | | | | | | | | | | | | | 1.300.000 | 5.900 | 187 | 198 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

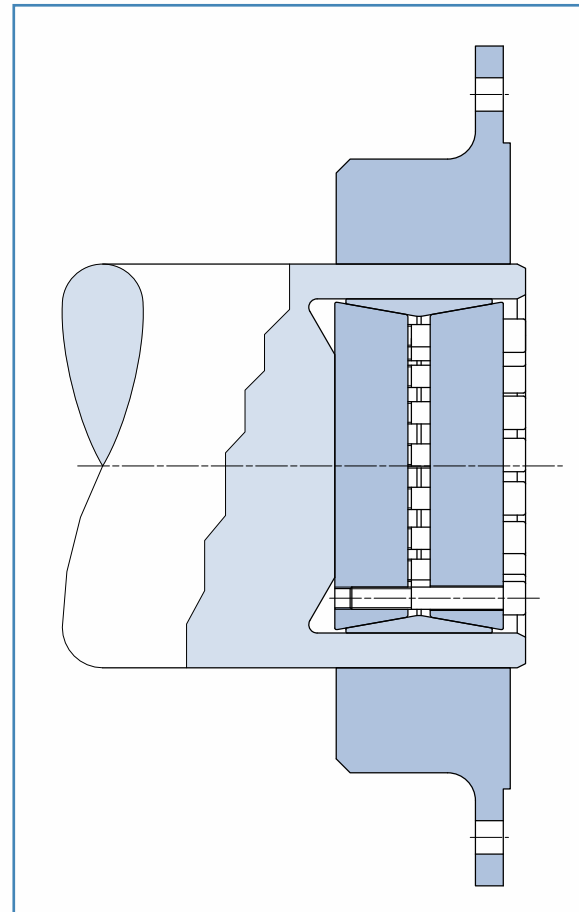
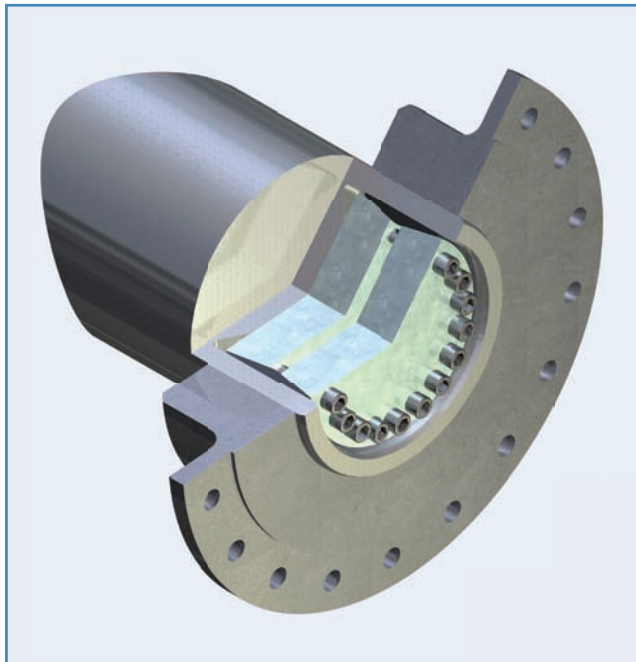
Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

Ph: contact pressure on hub outer diameter

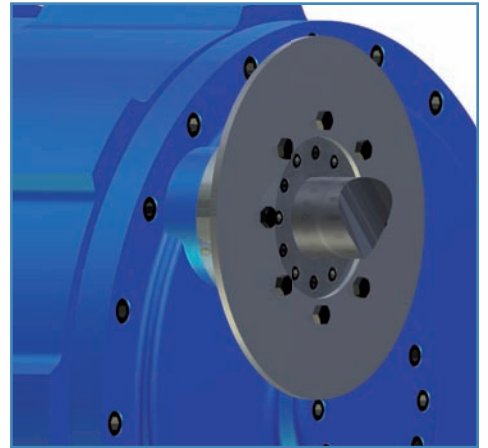
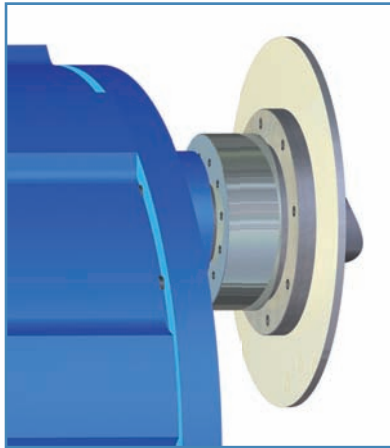
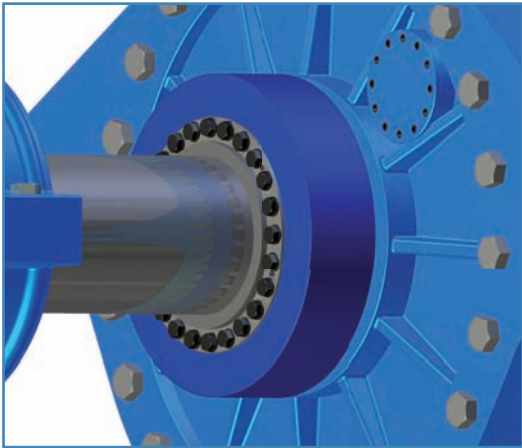
| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 30 | 40 | x | 80 | 37,3 | 32,0 | 13,5 | 18,5 | 62 | 2,1 | 4 | M 8 | 30 | 1.210 | 80 | 229 | 296 | 0,9 |
| 32 | | | | | | | | | | | | | 1.320 | 80 | 219 | 296 | |
| 34 | 44 | x | 85 | 39,3 | 34,0 | 14,5 | 19,5 | 66 | 2,1 | 5 | M 8 | 30 | 1.650 | 100 | 209 | 290 | 1,0 |
| 36 | | | | | | | | | | | | | 2.010 | 110 | 227 | 290 | |
| 38 | 50 | x | 95 | 44,3 | 39,0 | 16,5 | 22,0 | 73 | 2,1 | 7 | M 8 | 30 | 2.750 | 140 | 269 | 345 | 1,4 |
| 40 | | | | | | | | | | | | | 3.210 | 160 | 283 | 345 | |
| 42 | 55 | x | 105 | 44,3 | 39,0 | 16,5 | 22,0 | 78 | 2,1 | 7 | M 8 | 30 | 3.070 | 150 | 246 | 313 | 1,7 |
| 44 | | | | | | | | | | | | | 3.530 | 160 | 258 | 313 | |
| 46 | 62 | x | 115 | 44,3 | 39,0 | 16,5 | 22,0 | 85 | 2,1 | 7 | M 8 | 30 | 3.160 | 140 | 211 | 278 | 2,0 |
| 48 | | | | | | | | | | | | | 3.600 | 150 | 221 | 278 | |
| 50 | 68 | x | 120 | 44,3 | 39,0 | 16,5 | 22,0 | 92 | 2,9 | 8 | M 8 | 30 | 4.010 | 160 | 227 | 290 | 2,0 |
| 52 | | | | | | | | | | | | | 4.140 | 160 | 216 | 290 | |
| 55 | 75 | x | 145 | 52,4 | 46,0 | 20,0 | 25,5 | 105 | 2,9 | 7 | M 10 | 59 | 5.680 | 210 | 221 | 299 | 3,8 |
| 58 | | | | | | | | | | | | | 6.700 | 230 | 235 | 299 | |
| 60 | 80 | x | 145 | 52,4 | 46,0 | 20,0 | 25,5 | 105 | 2,9 | 7 | M 10 | 59 | 6.500 | 220 | 213 | 280 | 3,7 |
| 63 | | | | | | | | | | | | | 7.560 | 240 | 225 | 280 | |
| 65 | 90 | x | 160 | 56,4 | 50,0 | 22,0 | 30,0 | 116 | 3,7 | 8 | M 10 | 59 | 7.500 | 230 | 188 | 256 | 4,9 |
| 68 | | | | | | | | | | | | | 8.630 | 250 | 198 | 256 | |
| 65 | | | | | | | | | | | | | 7.890 | 240 | 180 | 262 | 5,7 |
| 70 | 100 | x | 170 | 60,4 | 54,0 | 24,0 | 32,0 | 126 | 4,0 | 10 | M 10 | 59 | 9.900 | 280 | 195 | 262 | |
| 75 | | | | | | | | | | | | | 12.100 | 320 | 208 | 262 | 7,2 |
| 75 | | | | | | | | | | | | | 12.300 | 330 | 186 | 251 | |
| 80 | 110 | x | 185 | 66,4 | 60,0 | 26,0 | 35,0 | 138 | 4,0 | 12 | M 10 | 59 | 14.900 | 370 | 197 | 251 | 7,2 |
| 85 | | | | | | | | | | | | | 16.400 | 390 | 193 | 251 | |
| 85 | | | | | | | | | | | | | 20.100 | 470 | 219 | 297 | 11 |
| 90 | 125 | x | 215 | 73,5 | 66,0 | 28,0 | 38,0 | 160 | 6,0 | 12 | M 12 | 100 | 23.800 | 530 | 231 | 297 | |
| 95 | | | | | | | | | | | | | 27.800 | 590 | 242 | 297 | 13 |
| 95 | | | | | | | | | | | | | 21.500 | 450 | 169 | 239 | |
| 100 | 140 | x | 230 | 81,5 | 74,0 | 32,0 | 42,0 | 175 | 6,0 | 12 | M 12 | 100 | 25.200 | 500 | 178 | 239 | 13 |
| 105 | | | | | | | | | | | | | 29.200 | 560 | 187 | 239 | |
| 105 | | | | | | | | | | | | | 31.100 | 590 | 182 | 245 | 20 |
| 110 | 155 | x | 263 | 87,5 | 80,0 | 35,0 | 45,0 | 198 | 6,0 | 15 | M 12 | 100 | 35.600 | 650 | 189 | 245 | |
| 115 | | | | | | | | | | | | | 40.500 | 700 | 197 | 245 | 27 |
| 115 | | | | | | | | | | | | | 48.300 | 840 | 215 | 270 | |
| 120 | 165 | x | 290 | 98,0 | 88,0 | 38,0 | 49,0 | 210 | 6,0 | 10 | M 16 | 250 | 54.200 | 900 | 222 | 270 | 27 |
| 125 | | | | | | | | | | | | | 59.200 | 950 | 223 | 270 | |
| 125 | | | | | | | | | | | | | 53.200 | 850 | 201 | 255 | 28 |
| 130 | 175 | x | 300 | 98,0 | 88,0 | 38,0 | 49,0 | 220 | 6,0 | 10 | M 16 | 250 | 59.400 | 910 | 207 | 255 | |
| 135 | | | | | | | | | | | | | 66.000 | 980 | 213 | 255 | 46 |
| 135 | | | | | | | | | | | | | 92.900 | 1.400 | 235 | 283 | |
| 140 | 185 | x | 330 | 122,0 | 112,0 | 50,0 | 61,0 | 236 | 6,0 | 15 | M 16 | 250 | 102.000 | 1.500 | 241 | 283 | 46 |
| 145 | | | | | | | | | | | | | 112.000 | 1.500 | 246 | 283 | |
| 145 | | | | | | | | | | | | | 103.000 | 1.400 | 226 | 268 | 51 |
| 150 | 195 | x | 350 | 122,0 | 112,0 | 50,0 | 63,5 | 246 | 8,0 | 15 | M 16 | 250 | 113.000 | 1.500 | 231 | 268 | |
| 155 | | | | | | | | | | | | | 123.000 | 1.600 | 236 | 268 | 51 |
| 145 | | | | | | | | | | | | | 99.000 | 1.400 | 217 | 262 | |
| 150 | 200 | x | 350 | 122,0 | 112,0 | 50,0 | 63,5 | 246 | 8,0 | 15 | M 16 | 250 | 108.000 | 1.400 | 221 | 262 | 51 |
| 155 | | | | | | | | | | | | | 118.000 | 1.500 | 226 | 262 | |
| 160 | | | | | | | | | | | | | 148.000 | 1.900 | 215 | 256 | 66 |
| 165 | 220 | x | 370 | 144,0 | 134,0 | 60,0 | 74,5 | 270 | 8,0 | 20 | M 16 | 250 | 160.000 | 1.900 | 219 | 256 | |
| 170 | | | | | | | | | | | | | 173.000 | 2.000 | 223 | 256 | 86 |
| 170 | | | | | | | | | | | | | 181.000 | 2.100 | 221 | 261 | |
| 180 | 240 | x | 405 | 157,0 | 144,0 | 65,0 | 79,5 | 295 | 8,0 | 15 | M 20 | 490 | 205.000 | 2.300 | 224 | 261 | 86 |
| 190 | | | | | | | | | | | | | 236.000 | 2.500 | 231 | 261 | |
| 190 | | | | | | | | | | | | | 252.000 | 2.700 | 218 | 255 | 105 |
| 200 | 260 | x | 430 | 173,0 | 160,0 | 72,0 | 87,5 | 321 | 8,0 | 18 | M 20 | 490 | 287.000 | 2.900 | 224 | 255 | |
| 210 | | | | | | | | | | | | | 325.000 | 3.100 | 230 | 255 | 129 |
| 210 | | | | | | | | | | | | | 323.000 | 3.100 | 210 | 242 | |
| 220 | 280 | x | 460 | 185,0 | 172,0 | 78,0 | 96,0 | 346 | 9,0 | 20 | M 20 | 490 | 364.000 | 3.300 | 215 | 242 | 129 |
| 230 | | | | | | | | | | | | | 407.000 | 3.500 | 220 | 242 | |

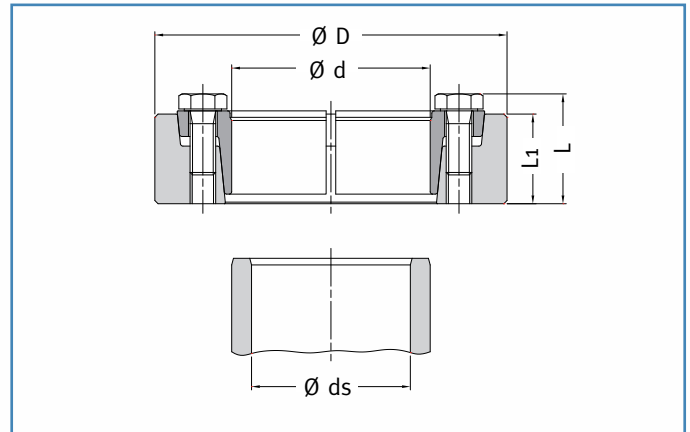
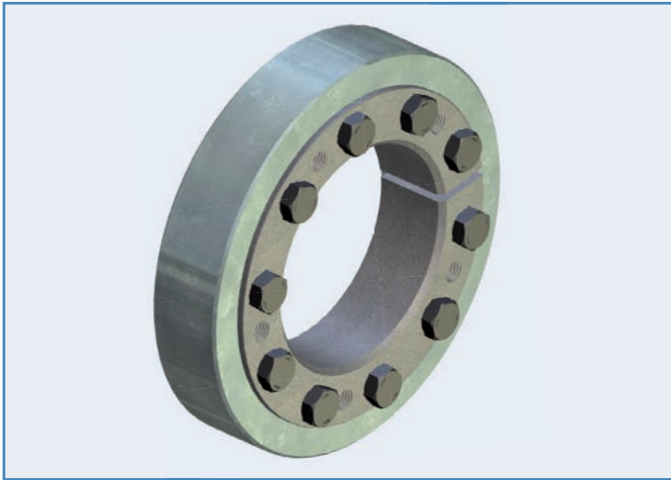
| DIMENSIONS | | | | | | | | | | SCREWS | | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|----------|----------|----------|---------------|--------|------|----------|-----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | L2 mm | L3 mm | lv mm | a x 45° mm | n. | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 230 | 300 | x | 485 | 189,0 | 176,0 | 80,0 | 98,0 | 364 | 9,0 | 20 | M 20 | 490 | 365.000 | 3.200 | 193 | 220 | 144 |
| 240 | | | | | | | | | | | | | 406.000 | 3.400 | 197 | 220 | |
| 245 | | | | | | | | | | | | | 428.000 | 3.500 | 199 | 220 | |
| 240 | 320 | x | 520 | 197,0 | 184,0 | 84,0 | 102,0 | 386 | 9,0 | 24 | M 20 | 490 | 450.000 | 3.700 | 207 | 235 | 174 |
| 250 | | | | | | | | | | | | | 492.000 | 3.900 | 209 | 235 | |
| 260 | | | | | | | | | | | | | 543.000 | 4.200 | 213 | 235 | |
| 250 | 340 | x | 570 | 215,0 | 200,0 | 92,0 | 110,0 | 420 | 9,0 | 20 | M 24 | 840 | 544.000 | 4.400 | 210 | 241 | 237 |
| 260 | | | | | | | | | | | | | 600.000 | 4.600 | 214 | 241 | |
| 270 | | | | | | | | | | | | | 659.000 | 4.900 | 218 | 241 | |
| 270 | 350 | x | 580 | 215,0 | 200,0 | 92,0 | 110,0 | 425 | 9,0 | 21 | M 24 | 840 | 667.000 | 4.900 | 221 | 246 | 242 |
| 280 | | | | | | | | | | | | | 729.000 | 5.200 | 224 | 246 | |
| 290 | | | | | | | | | | | | | 794.000 | 5.500 | 228 | 246 | |
| 280 | 360 | x | 590 | 219,0 | 204,0 | 92,0 | 114,5 | 432 | 11,0 | 20 | M 24 | 840 | 661.000 | 4.700 | 199 | 223 | 248 |
| 290 | | | | | | | | | | | | | 721.000 | 5.000 | 202 | 223 | |
| 295 | | | | | | | | | | | | | 753.000 | 5.100 | 204 | 223 | |
| 300 | 390 | x | 660 | 227,0 | 212,0 | 96,0 | 118,5 | 468 | 11,0 | 24 | M 24 | 840 | 850.000 | 5.700 | 213 | 236 | 335 |
| 310 | | | | | | | | | | | | | 920.000 | 5.900 | 216 | 236 | |
| 320 | | | | | | | | | | | | | 986.000 | 6.200 | 217 | 236 | |
| 330 | 420 | x | 690 | 253,0 | 238,0 | 109,0 | 131,5 | 504 | 11,0 | 30 | M 24 | 840 | 1.210.000 | 7.300 | 220 | 241 | 400 |
| 340 | | | | | | | | | | | | | 1.300.000 | 7.600 | 222 | 241 | |
| 350 | | | | | | | | | | | | | 1.390.000 | 7.900 | 225 | 241 | |
| 360 | 460 | x | 770 | 269,0 | 252,0 | 116,0 | 141,0 | 547 | 14,0 | 28 | M 27 | 1.250 | 1.650.000 | 9.100 | 241 | 261 | 540 |
| 370 | | | | | | | | | | | | | 1.760.000 | 9.500 | 243 | 261 | |
| 380 | | | | | | | | | | | | | 1.870.000 | 9.800 | 245 | 261 | |
| 380 | 500 | x | 850 | 291,0 | 274,0 | 127,0 | 152,0 | 590 | 14,0 | 32 | M 27 | 1.250 | 1.890.000 | 10.000 | 226 | 250 | 750 |
| 390 | | | | | | | | | | | | | 2.010.000 | 10.000 | 229 | 250 | |
| 400 | | | | | | | | | | | | | 2.140.000 | 11.000 | 231 | 250 | |



Code:

Ma: screws tightening torque
 Mt: transmissible torque with Fax=0 kN
 Fax: transmissible axial load with Mt=0 Nm
 Ps: contact pressure on shaft
 Ph: contact pressure on hub outer diameter





Example of order: MAV 3008 100 x 170

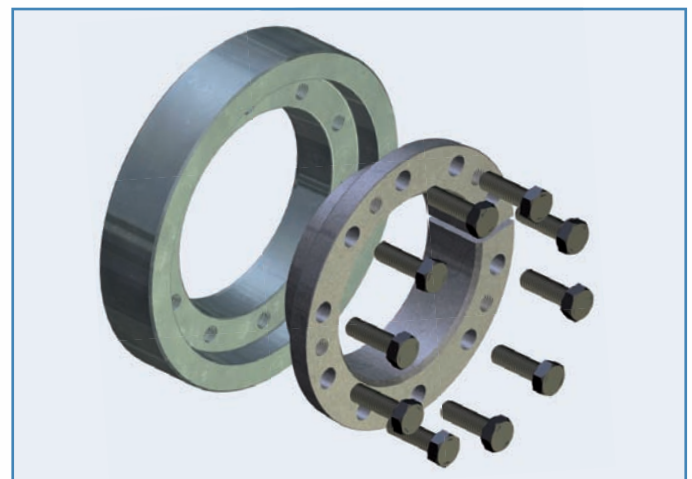
Composition

- Slotted inner ring, with integrated push-off threads
- Outer ring
- Set of hexagonal head cap screws, grade 10.9 (size <math>< \text{M6}</math> of grade 8.8) for series MAV 3008 - MAV 3108 - MAV 3208; grade 12.9 for series MAV 3009 - MAV 3209
- Hardened washers DIN 6916 for units with screw size $\geq \text{M16}$

Features

- External locking device for hollow shaft (hub) - shaft connection
- Two-part design
- Self-releasing tapers, greased with MoS₂ ($\mu = 0.05$). Series MAV 3008 – MAV 3009 feature oiled tapers (self-locking) up to size 68x115
- Screws greased with MoS₂ ($\mu = 0.10$)
- MAV 3008 – MAV 3009: standard series, medium capacity
- MAV 3108: light series, low capacity
- MAV 3208 – MAV 3209: heavy series, high capacity
- Tolerances of shaft and hub bore: see table
- Tolerance of hub outer diameter: h8
- Surface finish of shaft and hub $Ra < 3.2 \mu\text{m}$
- Shaft – hub bore contact surface grease-free and dry ($\mu = 0.15$)

| Shaft Diameter ds | | ISO Tolerances | Max Clearance |
|-------------------|-----|----------------|---------------|
| from | to | | mm |
| 6 | 10 | H6 - j6 | 0,011 |
| 11 | 18 | | 0,014 |
| 19 | 30 | | 0,017 |
| 31 | 50 | H6 - h6 | 0,032 |
| 51 | 80 | H6 - g6 | 0,048 |
| 81 | 120 | H7 - g6 | 0,069 |
| 121 | 180 | | 0,079 |
| 181 | 250 | | 0,09 |
| 251 | 315 | | 0,101 |
| 316 | 400 | | 0,111 |
| 401 | 500 | | 0,123 |



| DIMENSIONS | | | | | | SCREWS | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|--------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 9 | 12 | x | 35 | 14,5 | 11 | M 5 | 5 | 21 | 4,6 | 122 | 301 | 0,07 |
| 10 | | | | | | | | 40 | 7,9 | 188 | 301 | |
| 11 | 14 | x | 38 | 14,5 | 11 | M 5 | 5 | 29 | 5,3 | 114 | 258 | 0,08 |
| 12 | | | | | | | | 51 | 8,4 | 167 | 258 | |
| 13 | 16 | x | 41 | 19 | 15 | M 6 | 12 | 96 | 14 | 200 | 308 | 0,13 |
| 14 | | | | | | | | 132 | 18 | 239 | 308 | |
| 15 | 18 | x | 44 | 19 | 15 | M 6 | 12 | 121 | 16 | 190 | 274 | 0,14 |
| 16 | | | | | | | | 159 | 19 | 220 | 274 | |
| 17 | 20 | x | 47 | 19 | 15 | M 6 | 12 | 146 | 17 | 179 | 247 | 0,15 |
| 18 | | | | | | | | 186 | 20 | 203 | 247 | |
| 19 | | | | | | | | 172 | 18 | 145 | 235 | |
| 20 | 24 | x | 50 | 22 | 18 | M 6 | 12 | 218 | 21 | 165 | 235 | 0,20 |
| 21 | | | | | | | | 267 | 25 | 184 | 235 | |
| 24 | | | | | | | | 297 | 24 | 137 | 205 | |
| 25 | 30 | x | 60 | 24 | 20 | M 6 | 12 | 352 | 28 | 150 | 205 | 0,31 |
| 26 | | | | | | | | 412 | 31 | 162 | 205 | |
| 28 | | | | | | | | 563 | 40 | 169 | 234 | |
| 30 | 36 | x | 72 | 27,3 | 22 | M 8 | 30 | 714 | 47 | 187 | 234 | 0,49 |
| 31 | | | | | | | | 722 | 46 | 177 | 234 | |
| 34 | | | | | | | | 734 | 43 | 135 | 215 | |
| 35 | 44 | x | 80 | 29,3 | 24 | M 8 | 30 | 831 | 47 | 144 | 215 | 0,62 |
| 36 | | | | | | | | 933 | 51 | 153 | 215 | |
| 38 | | | | | | | | 1.230 | 65 | 166 | 241 | |
| 40 | 50 | x | 90 | 31,3 | 26 | M 8 | 30 | 1.490 | 74 | 180 | 241 | 0,83 |
| 42 | | | | | | | | 1.760 | 84 | 193 | 241 | |
| 42 | | | | | | | | 1.640 | 78 | 172 | 240 | |
| 45 | 55 | x | 100 | 34,3 | 29 | M 8 | 30 | 2.080 | 92 | 190 | 240 | 1,2 |
| 48 | | | | | | | | 2.560 | 107 | 206 | 240 | |
| 48 | | | | | | | | 1.940 | 81 | 156 | 213 | |
| 50 | 62 | x | 110 | 34,3 | 29 | M 8 | 30 | 2.230 | 89 | 165 | 213 | 1,4 |
| 52 | | | | | | | | 2.340 | 90 | 160 | 213 | |
| 50 | | | | | | | | 1.810 | 72 | 134 | 218 | |
| 55 | 68 | x | 115 | 34,3 | 29 | M 8 | 30 | 2.620 | 95 | 160 | 218 | 1,4 |
| 60 | | | | | | | | 3.590 | 119 | 184 | 218 | |
| 55 | | | | | | | | 2.770 | 100 | 156 | 233 | |
| 60 | 75 | x | 138 | 37,4 | 31 | M 10 | 59 | 3.760 | 125 | 178 | 233 | 2,3 |
| 65 | | | | | | | | 4.910 | 151 | 197 | 233 | |
| 60 | | | | | | | | 3.200 | 106 | 151 | 218 | |
| 65 | 80 | x | 145 | 37,4 | 31 | M 10 | 59 | 4.230 | 130 | 170 | 218 | 2,5 |
| 70 | | | | | | | | 5.400 | 154 | 187 | 218 | |
| 65 | | | | | | | | 4.730 | 145 | 159 | 226 | |
| 70 | 90 | x | 155 | 44,4 | 38 | M 10 | 59 | 6.030 | 172 | 174 | 226 | 3,4 |
| 75 | | | | | | | | 7.500 | 200 | 189 | 226 | |
| 70 | | | | | | | | 6.440 | 184 | 164 | 231 | |
| 75 | 100 | x | 170 | 49,4 | 43 | M 10 | 59 | 7.990 | 213 | 177 | 231 | 4,7 |
| 80 | | | | | | | | 9.720 | 243 | 190 | 231 | |
| 75 | | | | | | | | 8.810 | 234 | 170 | 236 | |
| 80 | 110 | x | 185 | 56,5 | 49 | M 12 | 100 | 10.600 | 267 | 182 | 236 | 6,2 |
| 85 | | | | | | | | 11.700 | 277 | 178 | 236 | |
| 80 | | | | | | | | 11.200 | 280 | 177 | 236 | |
| 85 | 115 | x | 197 | 60,5 | 53 | M 12 | 100 | 12.200 | 286 | 170 | 236 | 7,6 |
| 90 | | | | | | | | 14.700 | 326 | 183 | 236 | |
| 85 | | | | | | | | 11.000 | 259 | 154 | 226 | |
| 90 | 120 | x | 197 | 60,5 | 53 | M 12 | 100 | 13.300 | 296 | 166 | 226 | 7,3 |
| 95 | | | | | | | | 15.900 | 334 | 178 | 226 | |
| 85 | | | | | | | | 11.600 | 274 | 163 | 241 | |
| 90 | 125 | x | 215 | 60,5 | 53 | M 12 | 100 | 14.000 | 312 | 175 | 241 | 9,2 |
| 95 | | | | | | | | 16.600 | 350 | 186 | 241 | |
| 85 | | | | | | | | 10.600 | 250 | 149 | 232 | |
| 90 | 130 | x | 215 | 60,5 | 53 | M 12 | 100 | 12.800 | 286 | 161 | 232 | 8,8 |
| 95 | | | | | | | | 15.300 | 322 | 171 | 232 | |
| 90 | | | | | | | | 13.000 | 289 | 148 | 224 | |
| 95 | 135 | x | 230 | 66,8 | 58 | M 14 | 160 | 15.200 | 326 | 159 | 224 | 11 |
| 100 | | | | | | | | 18.200 | 365 | 169 | 224 | |
| 95 | | | | | | | | 14.300 | 301 | 146 | 216 | |
| 100 | 140 | x | 230 | 66,8 | 58 | M 14 | 160 | 16.800 | 337 | 156 | 216 | 11 |
| 105 | | | | | | | | 19.600 | 375 | 165 | 216 | |

| DIMENSIONS | | | | | SCREWS | | FEATURES | | | | WEIGHT kg | |
|------------|---------|---|---------|---------|----------|------|----------|-----------|-----------|-----------|--------------|-----------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | | Ph MPa |
| 105 | | | | | | | | 20.900 | 398 | 161 | 224 | 16 |
| 110 | 155 | x | 263 | 70,8 | 62 | M 14 | 160 | 24.000 | 437 | 169 | 224 | |
| 115 | | | | | | | | 27.400 | 477 | 176 | 224 | |
| 115 | | | | | | | | 31.700 | 551 | 182 | 237 | 22 |
| 120 | 165 | x | 290 | 78 | 68 | M 16 | 250 | 35.800 | 597 | 189 | 237 | |
| 125 | | | | | | | | 39.100 | 626 | 190 | 237 | |
| 125 | | | | | | | | 40.000 | 640 | 194 | 248 | 23 |
| 130 | 175 | x | 300 | 78 | 68 | M 16 | 250 | 44.700 | 688 | 201 | 248 | |
| 135 | | | | | | | | 49.700 | 737 | 207 | 248 | |
| 135 | | | | | | | | 56.000 | 829 | 184 | 228 | 34 |
| 140 | 180 | x | 320 | 95 | 85 | M 16 | 250 | 62.100 | 887 | 189 | 228 | |
| 145 | | | | | | | | 68.500 | 945 | 195 | 228 | |
| 135 | | | | | | | | 53.100 | 787 | 174 | 222 | 33 |
| 140 | 185 | x | 320 | 95 | 85 | M 16 | 250 | 59.000 | 843 | 180 | 222 | |
| 145 | | | | | | | | 65.200 | 899 | 185 | 222 | |
| 150 | | | | | | | | 75.100 | 1.000 | 200 | 240 | 37 |
| 155 | 200 | x | 340 | 95 | 85 | M 16 | 250 | 82.000 | 1.050 | 204 | 240 | |
| 160 | | | | | | | | 89.300 | 1.110 | 209 | 240 | |
| 160 | | | | | | | | 103.000 | 1.290 | 195 | 236 | 53 |
| 165 | 220 | x | 370 | 115,5 | 103 | M 20 | 490 | 112.000 | 1.360 | 199 | 236 | |
| 170 | | | | | | | | 121.000 | 1.430 | 203 | 236 | |
| 170 | | | | | | | | 125.000 | 1.470 | 201 | 241 | 66 |
| 180 | 240 | x | 405 | 119,5 | 107 | M 20 | 490 | 145.000 | 1.610 | 208 | 241 | |
| 190 | | | | | | | | 164.000 | 1.730 | 211 | 241 | |
| 190 | | | | | | | | 165.000 | 1.740 | 189 | 227 | 81 |
| 200 | 260 | x | 430 | 131,5 | 119 | M 20 | 490 | 189.000 | 1.890 | 196 | 227 | |
| 210 | | | | | | | | 215.000 | 2.050 | 202 | 227 | |
| 210 | | | | | | | | 215.000 | 2.050 | 182 | 214 | 104 |
| 220 | 280 | x | 460 | 144,5 | 132 | M 20 | 490 | 243.000 | 2.210 | 188 | 214 | |
| 230 | | | | | | | | 273.000 | 2.370 | 193 | 214 | |
| 230 | | | | | | | | 299.000 | 2.600 | 197 | 224 | 120 |
| 240 | 300 | x | 485 | 155 | 140 | M 24 | 840 | 333.000 | 2.770 | 201 | 224 | |
| 250 | | | | | | | | 369.000 | 2.950 | 205 | 224 | |
| 240 | | | | | | | | 301.000 | 2.510 | 182 | 210 | 139 |
| 250 | 320 | x | 520 | 155 | 140 | M 24 | 840 | 334.000 | 2.670 | 186 | 210 | |
| 260 | | | | | | | | 365.000 | 2.800 | 188 | 210 | |
| 250 | | | | | | | | 410.000 | 3.280 | 208 | 236 | 191 |
| 260 | 340 | x | 570 | 170 | 155 | M 24 | 840 | 445.000 | 3.430 | 209 | 236 | |
| 270 | | | | | | | | 489.000 | 3.630 | 213 | 236 | |
| 260 | | | | | | | | 432.000 | 3.320 | 194 | 223 | 200 |
| 270 | 350 | x | 580 | 174 | 159 | M 24 | 840 | 475.000 | 3.520 | 198 | 223 | |
| 280 | | | | | | | | 520.000 | 3.710 | 201 | 223 | |
| 280 | | | | | | | | 527.000 | 3.760 | 204 | 228 | 205 |
| 290 | 360 | x | 590 | 174 | 159 | M 24 | 840 | 575.000 | 3.960 | 207 | 228 | |
| 300 | | | | | | | | 625.000 | 4.160 | 211 | 228 | |
| 300 | | | | | | | | 640.000 | 4.270 | 210 | 233 | 252 |
| 310 | 390 | x | 650 | 183 | 166 | M 27 | 1250 | 693.000 | 4.470 | 213 | 233 | |
| 320 | | | | | | | | 743.000 | 4.640 | 214 | 233 | |
| 330 | | | | | | | | 809.000 | 4.900 | 192 | 214 | 288 |
| 340 | 420 | x | 670 | 203 | 186 | M 27 | 1250 | 871.000 | 5.120 | 195 | 214 | |
| 350 | | | | | | | | 935.000 | 5.340 | 198 | 214 | |
| 340 | | | | | | | | 909.000 | 5.350 | 194 | 216 | 392 |
| 350 | 440 | x | 740 | 211 | 194 | M 27 | 1250 | 976.000 | 5.580 | 197 | 216 | |
| 360 | | | | | | | | 1.046.000 | 5.810 | 199 | 216 | |
| 360 | | | | | | | | 1.035.000 | 5.750 | 197 | 217 | 423 |
| 370 | 460 | x | 770 | 211 | 194 | M 27 | 1250 | 1.106.000 | 5.980 | 199 | 217 | |
| 380 | | | | | | | | 1.179.000 | 6.210 | 202 | 217 | |
| 380 | | | | | | | | 1.302.000 | 6.850 | 204 | 222 | 498 |
| 390 | 480 | x | 800 | 231,7 | 213 | M 30 | 1700 | 1.386.000 | 7.100 | 206 | 222 | |
| 400 | | | | | | | | 1.472.000 | 7.360 | 208 | 222 | |
| 400 | | | | | | | | 1.391.000 | 6.950 | 196 | 213 | 575 |
| 410 | 500 | x | 850 | 231,7 | 213 | M 30 | 1700 | 1.465.000 | 7.140 | 197 | 213 | |
| 420 | | | | | | | | 1.553.000 | 7.390 | 199 | 213 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

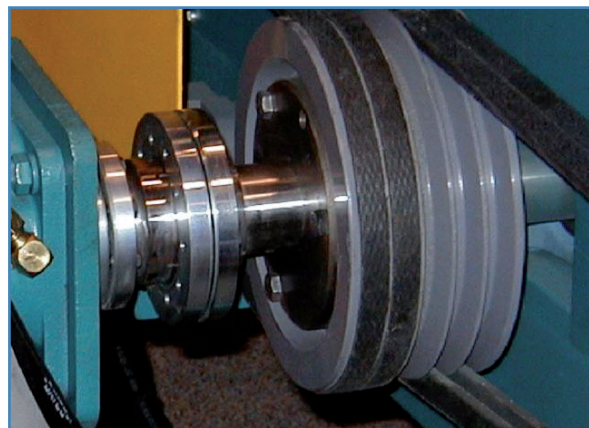
Ph: contact pressure on hub outer diameter

| DIMENSIONS | | | | | SCREWS | | FEATURES | | | | WEIGHT kg | |
|------------|---------|---|---------|---------|----------|------|----------|----------|-----------|-----------|--------------|-----------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | | Ph MPa |
| 38 | | | | | | | | 1.540 | 81 | 206 | 281 | 0,83 |
| 40 | 50 | x | 90 | 31,3 | 26 | M 8 | 35 | 1.820 | 91 | 220 | 281 | |
| 42 | | | | | | | | 2.130 | 102 | 233 | 281 | |
| 42 | | | | | | | | 2.030 | 96 | 212 | 279 | 1,2 |
| 45 | 55 | x | 100 | 34,3 | 29 | M 8 | 35 | 2.520 | 112 | 229 | 279 | |
| 48 | | | | | | | | 3.070 | 128 | 246 | 279 | |
| 48 | | | | | | | | 2.390 | 99 | 191 | 248 | 1,4 |
| 50 | 62 | x | 110 | 34,3 | 29 | M 8 | 35 | 2.710 | 109 | 200 | 248 | |
| 52 | | | | | | | | 2.870 | 110 | 196 | 248 | |
| 50 | | | | | | | | 2.300 | 92 | 170 | 254 | 1,4 |
| 55 | 68 | x | 115 | 34,3 | 29 | M 8 | 35 | 3.220 | 117 | 197 | 254 | |
| 60 | | | | | | | | 4.300 | 143 | 220 | 254 | |
| 55 | | | | | | | | 3.540 | 129 | 199 | 276 | 2,3 |
| 60 | 75 | x | 138 | 37,4 | 31 | M 10 | 70 | 4.680 | 156 | 221 | 276 | |
| 65 | | | | | | | | 5.990 | 184 | 241 | 276 | |
| 60 | | | | | | | | 4.070 | 136 | 192 | 259 | 2,5 |
| 65 | 80 | x | 145 | 37,4 | 31 | M 10 | 70 | 5.250 | 161 | 211 | 259 | |
| 70 | | | | | | | | 6.580 | 188 | 228 | 259 | |
| 65 | | | | | | | | 6.000 | 185 | 201 | 268 | 3,4 |
| 70 | 90 | x | 155 | 44,4 | 38 | M 10 | 70 | 7.500 | 214 | 217 | 268 | |
| 75 | | | | | | | | 9.180 | 245 | 231 | 268 | |
| 70 | | | | | | | | 8.130 | 232 | 207 | 274 | 4,7 |
| 75 | 100 | x | 170 | 49,4 | 43 | M 10 | 70 | 9.930 | 265 | 220 | 274 | |
| 80 | | | | | | | | 11.900 | 298 | 233 | 274 | |
| 75 | | | | | | | | 11.400 | 303 | 220 | 285 | 6,2 |
| 80 | 110 | x | 185 | 56,5 | 49 | M 12 | 121 | 13.600 | 340 | 232 | 285 | |
| 85 | | | | | | | | 15.100 | 355 | 227 | 285 | |
| 80 | | | | | | | | 14.300 | 358 | 226 | 285 | 7,6 |
| 85 | 115 | x | 197 | 60,5 | 53 | M 12 | 121 | 15.700 | 370 | 220 | 285 | |
| 90 | | | | | | | | 18.600 | 414 | 232 | 285 | |
| 85 | | | | | | | | 14.400 | 339 | 201 | 273 | 7,3 |
| 90 | 120 | x | 197 | 60,5 | 53 | M 12 | 121 | 17.100 | 381 | 214 | 273 | |
| 95 | | | | | | | | 20.100 | 423 | 225 | 273 | |
| 85 | | | | | | | | 15.300 | 360 | 214 | 292 | 9,2 |
| 90 | 125 | x | 215 | 60,5 | 53 | M 12 | 121 | 18.100 | 402 | 226 | 292 | |
| 95 | | | | | | | | 21.200 | 446 | 237 | 292 | |
| 85 | | | | | | | | 14.100 | 332 | 198 | 280 | 8,8 |
| 90 | 130 | x | 215 | 60,5 | 53 | M 12 | 121 | 16.700 | 373 | 209 | 280 | |
| 95 | | | | | | | | 19.600 | 414 | 220 | 280 | |
| 90 | | | | | | | | 16.700 | 372 | 191 | 267 | 11 |
| 95 | 135 | x | 230 | 66,8 | 58 | M 14 | 193 | 19.700 | 415 | 201 | 267 | |
| 100 | | | | | | | | 22.900 | 458 | 211 | 267 | |
| 95 | | | | | | | | 18.300 | 386 | 187 | 257 | 11 |
| 100 | 140 | x | 230 | 66,8 | 58 | M 14 | 193 | 21.300 | 427 | 197 | 257 | |
| 105 | | | | | | | | 24.600 | 469 | 206 | 257 | |
| 105 | | | | | | | | 26.500 | 504 | 204 | 267 | 16 |
| 110 | 155 | x | 263 | 70,8 | 62 | M 14 | 193 | 30.200 | 549 | 212 | 267 | |
| 115 | | | | | | | | 34.100 | 594 | 219 | 267 | |
| 115 | | | | | | | | 39.200 | 682 | 225 | 280 | 22 |
| 120 | 165 | x | 290 | 78 | 68 | M 16 | 295 | 44.000 | 733 | 232 | 280 | |
| 125 | | | | | | | | 48.000 | 768 | 233 | 280 | |
| 125 | | | | | | | | 49.300 | 789 | 239 | 293 | 23 |
| 130 | 175 | x | 300 | 78 | 68 | M 16 | 295 | 54.800 | 843 | 246 | 293 | |
| 135 | | | | | | | | 60.500 | 897 | 252 | 293 | |
| 135 | | | | | | | | 68.600 | 1.020 | 225 | 270 | 34 |
| 140 | 180 | x | 320 | 95 | 85 | M 16 | 295 | 75.600 | 1.080 | 231 | 270 | |
| 145 | | | | | | | | 83.100 | 1.150 | 236 | 270 | |
| 135 | | | | | | | | 65.500 | 970 | 215 | 262 | 33 |
| 140 | 185 | x | 320 | 95 | 85 | M 16 | 295 | 72.300 | 1.030 | 220 | 262 | |
| 145 | | | | | | | | 79.400 | 1.100 | 226 | 262 | |
| 150 | | | | | | | | 91.500 | 1.220 | 243 | 283 | 37 |
| 155 | 200 | x | 340 | 95 | 85 | M 16 | 295 | 99.600 | 1.280 | 248 | 283 | |
| 160 | | | | | | | | 108.000 | 1.350 | 252 | 283 | |

| DIMENSIONS | | | | | SCREWS | | FEATURES | | | | WEIGHT kg | |
|------------|---------|---|---------|---------|----------|------|----------|-----------|-----------|-----------|--------------|-----------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | | Ph MPa |
| 160 | | | | | | | | 124.000 | 1.560 | 234 | 275 | 53 |
| 165 | 220 | x | 370 | 115,5 | 103 | M 20 | 570 | 135.000 | 1.630 | 238 | 275 | |
| 170 | | | | | | | | 145.000 | 1.710 | 242 | 275 | |
| 170 | | | | | | | | 151.000 | 1.780 | 241 | 281 | 66 |
| 180 | 240 | x | 405 | 119,5 | 107 | M 20 | 570 | 174.000 | 1.930 | 248 | 281 | |
| 190 | | | | | | | | 196.000 | 2.070 | 251 | 281 | |
| 190 | | | | | | | | 199.000 | 2.100 | 227 | 265 | 81 |
| 200 | 260 | x | 430 | 131,5 | 119 | M 20 | 570 | 227.000 | 2.270 | 234 | 265 | |
| 210 | | | | | | | | 256.000 | 2.440 | 239 | 265 | |
| 210 | | | | | | | | 258.000 | 2.460 | 218 | 250 | 104 |
| 220 | 280 | x | 460 | 144,5 | 132 | M 20 | 570 | 290.000 | 2.640 | 223 | 250 | |
| 230 | | | | | | | | 324.000 | 2.820 | 228 | 250 | |
| 230 | | | | | | | | 356.000 | 3.090 | 234 | 261 | 120 |
| 240 | 300 | x | 485 | 155 | 140 | M 24 | 980 | 395.000 | 3.290 | 238 | 261 | |
| 250 | | | | | | | | 436.000 | 3.490 | 243 | 261 | |
| 240 | | | | | | | | 359.000 | 2.990 | 217 | 245 | 139 |
| 250 | 320 | x | 520 | 155 | 140 | M 24 | 980 | 397.000 | 3.180 | 221 | 245 | |
| 260 | | | | | | | | 433.000 | 3.330 | 223 | 245 | |
| 250 | | | | | | | | 487.000 | 3.900 | 247 | 275 | 191 |
| 260 | 340 | x | 570 | 170 | 155 | M 24 | 980 | 529.000 | 4.070 | 248 | 275 | |
| 270 | | | | | | | | 580.000 | 4.300 | 252 | 275 | |
| 260 | | | | | | | | 515.000 | 3.960 | 231 | 260 | 200 |
| 270 | 350 | x | 580 | 174 | 159 | M 24 | 980 | 565.000 | 4.180 | 235 | 260 | |
| 280 | | | | | | | | 617.000 | 4.400 | 238 | 260 | |
| 280 | | | | | | | | 625.000 | 4.470 | 242 | 266 | 205 |
| 290 | 360 | x | 590 | 174 | 159 | M 24 | 980 | 680.000 | 4.690 | 245 | 266 | |
| 300 | | | | | | | | 737.000 | 4.920 | 248 | 266 | |
| 300 | | | | | | | | 755.000 | 5.030 | 247 | 270 | 252 |
| 310 | 390 | x | 650 | 183 | 166 | M 27 | 1450 | 815.000 | 5.260 | 250 | 270 | |
| 320 | | | | | | | | 873.000 | 5.460 | 251 | 270 | |
| 330 | | | | | | | | 953.000 | 5.780 | 226 | 248 | 288 |
| 340 | 420 | x | 670 | 203 | 186 | M 27 | 1450 | 1.024.000 | 6.020 | 229 | 248 | |
| 350 | | | | | | | | 1.097.000 | 6.270 | 232 | 248 | |
| 340 | | | | | | | | 1.072.000 | 6.310 | 229 | 251 | 392 |
| 350 | 440 | x | 740 | 211 | 194 | M 27 | 1450 | 1.148.000 | 6.560 | 231 | 251 | |
| 360 | | | | | | | | 1.228.000 | 6.820 | 234 | 251 | |
| 360 | | | | | | | | 1.218.000 | 6.770 | 232 | 252 | 423 |
| 370 | 460 | x | 770 | 211 | 194 | M 27 | 1450 | 1.299.000 | 7.020 | 234 | 252 | |
| 380 | | | | | | | | 1.383.000 | 7.280 | 236 | 252 | |
| 380 | | | | | | | | 1.529.000 | 8.050 | 239 | 257 | 498 |
| 390 | 480 | x | 800 | 231,7 | 213 | M 30 | 1970 | 1.624.000 | 8.330 | 241 | 257 | |
| 400 | | | | | | | | 1.722.000 | 8.610 | 243 | 257 | |
| 400 | | | | | | | | 1.632.000 | 8.160 | 230 | 247 | 575 |
| 410 | 500 | x | 850 | 231,7 | 213 | M 30 | 1970 | 1.718.000 | 8.380 | 231 | 247 | |
| 420 | | | | | | | | 1.818.000 | 8.660 | 233 | 247 | |

Code:

Ma: screws tightening torque
 Mt: transmissible torque with Fax=0 kN
 Fax: transmissible axial load with Mt=0 Nm
 Ps: contact pressure on shaft
 Ph: contact pressure on hub outer diameter



| DIMENSIONS | | | | | | SCREWS | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|--------|----------|-----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 110 | | | | | | | | 15.900 | 291 | 148 | 190 | 7 |
| 120 | 140 | x | 215 | 53,5 | 46 | M 12 | 100 | 21.000 | 350 | 163 | 190 | |
| 125 | | | | | | | | 23.400 | 376 | 168 | 190 | |
| 130 | | | | | | | | 24.400 | 377 | 162 | 193 | 9 |
| 135 | 155 | x | 245 | 53,5 | 46 | M 12 | 100 | 27.500 | 408 | 169 | 193 | |
| 140 | | | | | | | | 30.700 | 439 | 175 | 193 | |
| 135 | | | | | | | | 29.500 | 437 | 160 | 194 | 12 |
| 140 | 165 | x | 263 | 61,8 | 53 | M 14 | 160 | 32.900 | 471 | 166 | 194 | |
| 145 | | | | | | | | 36.600 | 505 | 172 | 194 | |
| 145 | | | | | | | | 37.400 | 516 | 176 | 205 | 13 |
| 150 | 175 | x | 275 | 61,8 | 53 | M 14 | 160 | 41.200 | 550 | 181 | 205 | |
| 155 | | | | | | | | 45.300 | 585 | 186 | 205 | |
| 155 | | | | | | | | 55.400 | 715 | 192 | 218 | 17 |
| 160 | 185 | x | 290 | 70,8 | 62 | M 14 | 160 | 60.500 | 756 | 197 | 218 | |
| 165 | | | | | | | | 65.800 | 798 | 201 | 218 | |
| 165 | | | | | | | | 71.300 | 864 | 218 | 242 | 22 |
| 170 | 195 | x | 320 | 70,8 | 62 | M 14 | 160 | 77.100 | 908 | 222 | 242 | |
| 175 | | | | | | | | 83.300 | 952 | 226 | 242 | |
| 180 | | | | | | | | 90.500 | 1.006 | 216 | 241 | 25 |
| 190 | 220 | x | 340 | 80 | 70 | M 16 | 250 | 103.000 | 1.085 | 220 | 241 | |
| 200 | | | | | | | | 117.000 | 1.179 | 227 | 241 | |
| 200 | | | | | | | | 102.000 | 1.023 | 197 | 221 | 29 |
| 210 | 240 | x | 370 | 80 | 70 | M 16 | 250 | 116.000 | 1.108 | 204 | 221 | |
| 215 | | | | | | | | 123.000 | 1.151 | 207 | 221 | |
| 220 | | | | | | | | 136.000 | 1.242 | 218 | 238 | 35 |
| 230 | 260 | x | 405 | 80 | 70 | M 16 | 250 | 153.000 | 1.330 | 223 | 238 | |
| 235 | | | | | | | | 161.000 | 1.375 | 226 | 238 | |
| 230 | | | | | | | | 151.000 | 1.318 | 187 | 209 | 46 |
| 240 | 280 | x | 430 | 92,5 | 80 | M 20 | 490 | 169.000 | 1.410 | 192 | 209 | |
| 250 | | | | | | | | 187.000 | 1.504 | 196 | 209 | |
| 250 | | | | | | | | 205.000 | 1.647 | 215 | 234 | 53 |
| 260 | 300 | x | 460 | 92,5 | 80 | M 20 | 490 | 225.000 | 1.733 | 218 | 234 | |
| 270 | | | | | | | | 247.000 | 1.835 | 222 | 234 | |
| 270 | | | | | | | | 261.000 | 1.938 | 198 | 216 | 68 |
| 280 | 320 | x | 485 | 104,5 | 92 | M 20 | 490 | 286.000 | 2.049 | 202 | 216 | |
| 290 | | | | | | | | 313.000 | 2.162 | 205 | 216 | |
| 290 | | | | | | | | 307.000 | 2.123 | 202 | 218 | 80 |
| 300 | 340 | x | 520 | 104,5 | 92 | M 20 | 490 | 335.000 | 2.234 | 205 | 218 | |
| 310 | | | | | | | | 363.000 | 2.345 | 209 | 218 | |
| 310 | | | | | | | | 401.000 | 2.592 | 199 | 214 | 116 |
| 320 | 360 | x | 570 | 117,5 | 105 | M 20 | 490 | 432.000 | 2.703 | 201 | 214 | |
| 330 | | | | | | | | 467.000 | 2.831 | 205 | 214 | |
| 330 | | | | | | | | 413.000 | 2.508 | 181 | 197 | 116 |
| 340 | 390 | x | 590 | 117,5 | 105 | M 20 | 490 | 446.000 | 2.625 | 184 | 197 | |
| 350 | | | | | | | | 479.000 | 2.742 | 187 | 197 | |
| 350 | | | | | | | | 621.000 | 3.550 | 179 | 195 | 177 |
| 360 | 420 | x | 630 | 155 | 140 | M 24 | 840 | 666.000 | 3.702 | 182 | 195 | |
| 370 | | | | | | | | 713.000 | 3.856 | 184 | 195 | |
| 370 | | | | | | | | 750.000 | 4.055 | 176 | 191 | 213 |
| 380 | 440 | x | 660 | 167 | 152 | M 24 | 840 | 801.000 | 4.219 | 178 | 191 | |
| 390 | | | | | | | | 854.000 | 4.383 | 181 | 191 | |
| 390 | | | | | | | | 800.000 | 4.105 | 169 | 183 | 233 |
| 400 | 460 | x | 690 | 167 | 152 | M 24 | 840 | 852.000 | 4.261 | 171 | 183 | |
| 410 | | | | | | | | 901.000 | 4.396 | 172 | 183 | |
| 410 | | | | | | | | 1.037.000 | 5.061 | 172 | 186 | 292 |
| 420 | 480 | x | 720 | 189 | 174 | M 24 | 840 | 1.101.000 | 5.246 | 174 | 186 | |
| 430 | | | | | | | | 1.167.000 | 5.432 | 176 | 186 | |
| 420 | | | | | | | | 1.138.000 | 5.423 | 180 | 194 | 310 |
| 430 | 500 | x | 745 | 189 | 174 | M 24 | 840 | 1.206.000 | 5.611 | 182 | 194 | |
| 450 | | | | | | | | 1.348.000 | 5.992 | 186 | 194 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

Ph: contact pressure on hub outer diameter

MAV 3208

Heavy Series

| DIMENSIONS | | | | | | SCREWS | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|--------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 95 | | | | | | | | 20600 | 434 | 162 | 231 | 14 |
| 100 | 140 | x | 230 | 84 | 74 | M 16 | 240 | 24100 | 484 | 171 | 231 | |
| 105 | | | | | | | | 28000 | 535 | 180 | 231 | |
| 105 | | | | | | | | 29800 | 569 | 174 | 237 | 20 |
| 110 | 155 | x | 263 | 90 | 80 | M 16 | 240 | 34200 | 623 | 182 | 237 | |
| 115 | | | | | | | | 38900 | 677 | 189 | 237 | |
| 115 | | | | | | | | 42700 | 743 | 190 | 245 | 29 |
| 120 | 165 | x | 290 | 98 | 88 | M 16 | 240 | 48100 | 803 | 197 | 245 | |
| 125 | | | | | | | | 52500 | 842 | 198 | 245 | |
| 125 | | | | | | | | 57200 | 916 | 216 | 270 | 29 |
| 130 | 175 | x | 300 | 98 | 88 | M 16 | 240 | 63700 | 981 | 222 | 270 | |
| 135 | | | | | | | | 70600 | 1047 | 229 | 270 | |
| 135 | | | | | | | | 90700 | 1344 | 286 | 333 | 44 |
| 140 | 185 | x | 320 | 124,5 | 112 | M 20 | 490 | 99500 | 1422 | 291 | 333 | |
| 145 | | | | | | | | 109000 | 1500 | 297 | 333 | |
| 150 | | | | | | | | 105000 | 1402 | 268 | 308 | 49 |
| 155 | 200 | x | 340 | 124,5 | 112 | M 20 | 490 | 114000 | 1474 | 273 | 308 | |
| 160 | | | | | | | | 124000 | 1547 | 277 | 308 | |
| 160 | | | | | | | | 134000 | 1676 | 244 | 285 | 69 |
| 165 | 220 | x | 370 | 146,5 | 134 | M 20 | 490 | 145000 | 1757 | 248 | 285 | |
| 170 | | | | | | | | 156000 | 1838 | 252 | 285 | |
| 170 | | | | | | | | 165000 | 1945 | 231 | 271 | 89 |
| 180 | 240 | x | 405 | 156,5 | 144 | M 20 | 490 | 191000 | 2120 | 238 | 271 | |
| 190 | | | | | | | | 215000 | 2268 | 241 | 271 | |
| 190 | | | | | | | | 242000 | 2549 | 239 | 277 | 109 |
| 200 | 260 | x | 430 | 172,5 | 160 | M 20 | 490 | 275000 | 2755 | 246 | 277 | |
| 210 | | | | | | | | 311000 | 2962 | 252 | 277 | |
| 210 | | | | | | | | 324000 | 3083 | 247 | 279 | 134 |
| 220 | 280 | x | 460 | 187 | 172 | M 24 | 840 | 363000 | 3299 | 253 | 279 | |
| 230 | | | | | | | | 404000 | 3517 | 258 | 279 | |
| 230 | | | | | | | | 365000 | 3177 | 229 | 257 | 149 |
| 240 | 300 | x | 485 | 191 | 176 | M 24 | 840 | 406000 | 3380 | 234 | 257 | |
| 250 | | | | | | | | 448000 | 3586 | 238 | 257 | |
| 240 | | | | | | | | 435000 | 3622 | 235 | 263 | 179 |
| 250 | 320 | x | 520 | 199 | 184 | M 24 | 840 | 480000 | 3838 | 240 | 263 | |
| 260 | | | | | | | | 523000 | 4020 | 241 | 263 | |
| 250 | | | | | | | | 564000 | 4515 | 246 | 274 | 256 |
| 260 | 340 | x | 570 | 223 | 206 | M 27 | 1250 | 613000 | 4716 | 247 | 274 | |
| 270 | | | | | | | | 672000 | 4975 | 251 | 274 | |
| 280 | | | | | | | | 711000 | 5082 | 244 | 268 | 265 |
| 290 | 360 | x | 590 | 227 | 210 | M 27 | 1250 | 774000 | 5337 | 247 | 268 | |
| 300 | | | | | | | | 839000 | 5594 | 250 | 268 | |
| 300 | | | | | | | | 923000 | 6152 | 262 | 285 | 343 |
| 310 | 390 | x | 650 | 237 | 220 | M 27 | 1250 | 996000 | 6428 | 265 | 285 | |
| 320 | | | | | | | | 1067000 | 6669 | 266 | 285 | |
| 330 | | | | | | | | 1094000 | 6631 | 223 | 245 | 407 |
| 340 | 420 | x | 680 | 263 | 246 | M 27 | 1250 | 1175000 | 6915 | 226 | 245 | |
| 350 | | | | | | | | 1260000 | 7200 | 229 | 245 | |
| 340 | | | | | | | | 1242000 | 7306 | 225 | 247 | 531 |
| 350 | 440 | x | 740 | 276,7 | 258 | M 30 | 1700 | 1331000 | 7605 | 227 | 247 | |
| 360 | | | | | | | | 1423000 | 7906 | 230 | 247 | |
| 360 | | | | | | | | 1338000 | 7436 | 216 | 236 | 549 |
| 370 | 460 | x | 760 | 276,7 | 258 | M 30 | 1700 | 1429000 | 7722 | 218 | 236 | |
| 380 | | | | | | | | 1522000 | 8011 | 220 | 236 | |
| 380 | | | | | | | | 1696000 | 8928 | 208 | 226 | 711 |
| 390 | 480 | x | 800 | 316,7 | 298 | M 30 | 1700 | 1804000 | 9254 | 210 | 226 | |
| 400 | | | | | | | | 1916000 | 9581 | 212 | 226 | |
| 400 | | | | | | | | 1963000 | 9813 | 217 | 234 | 791 |
| 410 | 500 | x | 840 | 318,7 | 300 | M 30 | 1700 | 2066000 | 10079 | 217 | 234 | |
| 420 | | | | | | | | 2188000 | 10419 | 219 | 234 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

Ph: contact pressure on hub outer diameter

| DIMENSIONS | | | | | | SCREWS | | FEATURES | | | | WEIGHT kg |
|------------|---------|---|---------|---------|----------|--------|----------|----------|-----------|-----------|-----------|--------------|
| ds mm | d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | Ph MPa | |
| 95 | | | | | | | | 26000 | 547 | 204 | 273 | 14 |
| 100 | 140 | x | 230 | 84 | 74 | M 16 | 295 | 30100 | 603 | 213 | 273 | |
| 105 | | | | | | | | 34600 | 660 | 222 | 273 | |
| 105 | | | | | | | | 37200 | 710 | 217 | 281 | 20 |
| 110 | 155 | x | 263 | 90 | 80 | M 16 | 295 | 42400 | 771 | 225 | 281 | |
| 115 | | | | | | | | 47800 | 833 | 233 | 281 | |
| 115 | | | | | | | | 52700 | 918 | 235 | 290 | 29 |
| 120 | 165 | x | 290 | 98 | 88 | M 16 | 295 | 59000 | 985 | 242 | 290 | |
| 125 | | | | | | | | 64400 | 1032 | 243 | 290 | |
| 125 | | | | | | | | 70300 | 1125 | 265 | 319 | 29 |
| 130 | 175 | x | 300 | 98 | 88 | M 16 | 295 | 77800 | 1198 | 272 | 319 | |
| 135 | | | | | | | | 85900 | 1273 | 278 | 319 | |
| 135 | | | | | | | | 108000 | 1606 | 341 | 389 | 44 |
| 140 | 185 | x | 320 | 124,5 | 112 | M 20 | 570 | 118000 | 1693 | 347 | 389 | |
| 145 | | | | | | | | 129000 | 1780 | 352 | 389 | |
| 150 | | | | | | | | 125000 | 1671 | 319 | 360 | 49 |
| 155 | 200 | x | 340 | 124,5 | 112 | M 20 | 570 | 136000 | 1752 | 324 | 360 | |
| 160 | | | | | | | | 147000 | 1833 | 329 | 360 | |
| 160 | | | | | | | | 160000 | 2002 | 292 | 332 | 69 |
| 165 | 220 | x | 370 | 146,5 | 134 | M 20 | 570 | 173000 | 2093 | 296 | 332 | |
| 170 | | | | | | | | 186000 | 2184 | 300 | 332 | |
| 170 | | | | | | | | 198000 | 2325 | 276 | 317 | 89 |
| 180 | 240 | x | 405 | 156,5 | 144 | M 20 | 570 | 227000 | 2523 | 283 | 317 | |
| 190 | | | | | | | | 256000 | 2694 | 287 | 317 | |
| 190 | | | | | | | | 289000 | 3041 | 285 | 323 | 109 |
| 200 | 260 | x | 430 | 172,5 | 160 | M 20 | 570 | 327000 | 3272 | 292 | 323 | |
| 210 | | | | | | | | 368000 | 3506 | 298 | 323 | |
| 210 | | | | | | | | 384000 | 3661 | 294 | 326 | 134 |
| 220 | 280 | x | 460 | 187 | 172 | M 24 | 980 | 429000 | 3904 | 299 | 326 | |
| 230 | | | | | | | | 477000 | 4150 | 304 | 326 | |
| 230 | | | | | | | | 433000 | 3768 | 272 | 299 | 149 |
| 240 | 300 | x | 485 | 191 | 176 | M 24 | 980 | 480000 | 3997 | 276 | 299 | |
| 250 | | | | | | | | 528000 | 4228 | 280 | 299 | |
| 240 | | | | | | | | 515000 | 4294 | 279 | 307 | 179 |
| 250 | 320 | x | 520 | 199 | 184 | M 24 | 980 | 567000 | 4538 | 283 | 307 | |
| 260 | | | | | | | | 617000 | 4749 | 285 | 307 | |
| 250 | | | | | | | | 665000 | 5319 | 289 | 318 | 256 |
| 260 | 340 | x | 570 | 223 | 206 | M 27 | 1450 | 722000 | 5553 | 291 | 318 | |
| 270 | | | | | | | | 789000 | 5844 | 294 | 318 | |
| 280 | | | | | | | | 836000 | 5974 | 287 | 311 | 265 |
| 290 | 360 | x | 590 | 227 | 210 | M 27 | 1450 | 908000 | 6261 | 290 | 311 | |
| 300 | | | | | | | | 983000 | 6550 | 293 | 311 | |
| 300 | | | | | | | | 1083000 | 7222 | 308 | 331 | 343 |
| 310 | 390 | x | 650 | 237 | 220 | M 27 | 1450 | 1168000 | 7535 | 311 | 331 | |
| 320 | | | | | | | | 1250000 | 7811 | 312 | 331 | |
| 330 | | | | | | | | 1286000 | 7793 | 262 | 284 | 407 |
| 340 | 420 | x | 680 | 263 | 246 | M 27 | 1450 | 1379000 | 8112 | 265 | 284 | |
| 350 | | | | | | | | 1476000 | 8432 | 268 | 284 | |
| 340 | | | | | | | | 1459000 | 8582 | 264 | 286 | 531 |
| 350 | 440 | x | 740 | 276,7 | 258 | M 30 | 1970 | 1561000 | 8919 | 266 | 286 | |
| 360 | | | | | | | | 1666000 | 9257 | 269 | 286 | |
| 360 | | | | | | | | 1571000 | 8728 | 253 | 273 | 549 |
| 370 | 460 | x | 760 | 276,7 | 258 | M 30 | 1970 | 1674000 | 9051 | 256 | 273 | |
| 380 | | | | | | | | 1781000 | 9375 | 258 | 273 | |
| 380 | | | | | | | | 1990000 | 10473 | 244 | 262 | 711 |
| 390 | 480 | x | 800 | 316,7 | 298 | M 30 | 1970 | 2114000 | 10839 | 246 | 262 | |
| 400 | | | | | | | | 2241000 | 11207 | 248 | 262 | |
| 400 | | | | | | | | 2299000 | 11494 | 254 | 271 | 791 |
| 410 | 500 | x | 840 | 318,7 | 300 | M 30 | 1970 | 2420000 | 11802 | 255 | 271 | |
| 420 | | | | | | | | 2559000 | 12185 | 257 | 271 | |

Code:

Ma: screws tightening torque

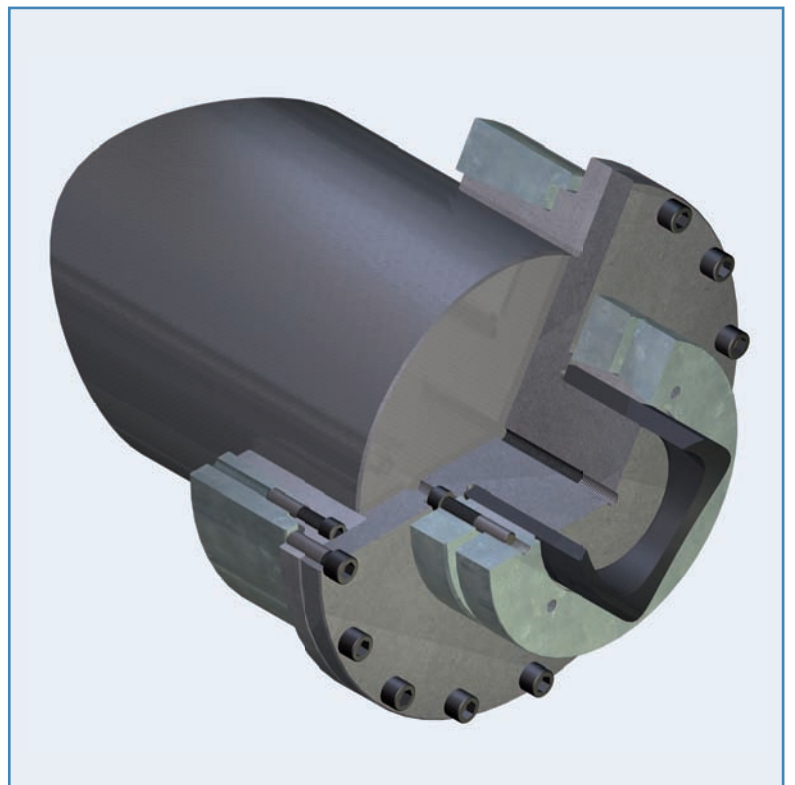
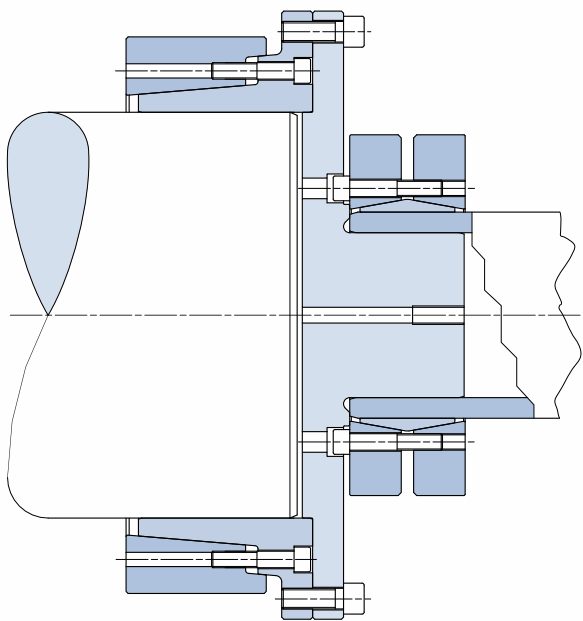
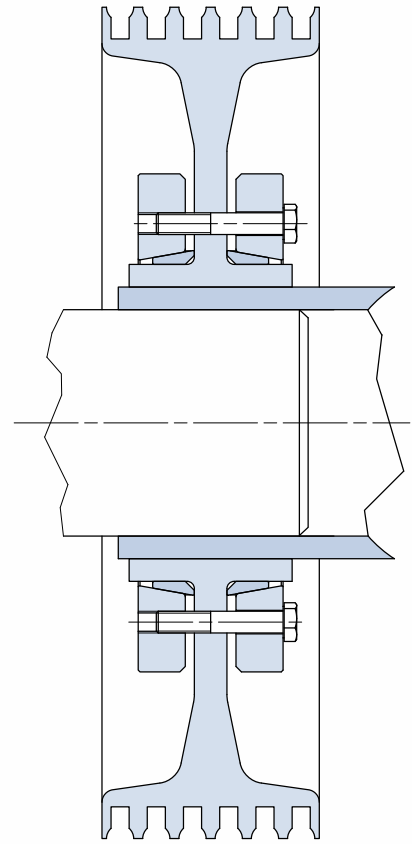
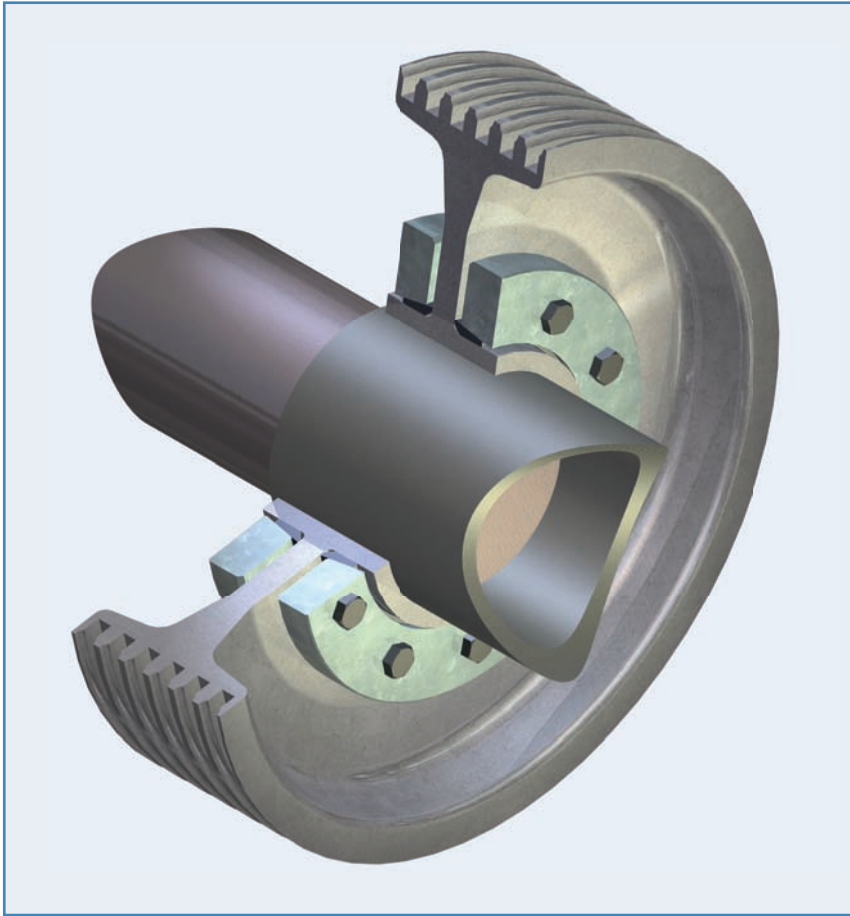
Ps: contact pressure on shaft

Mt: transmissible torque with Fax=0 kN

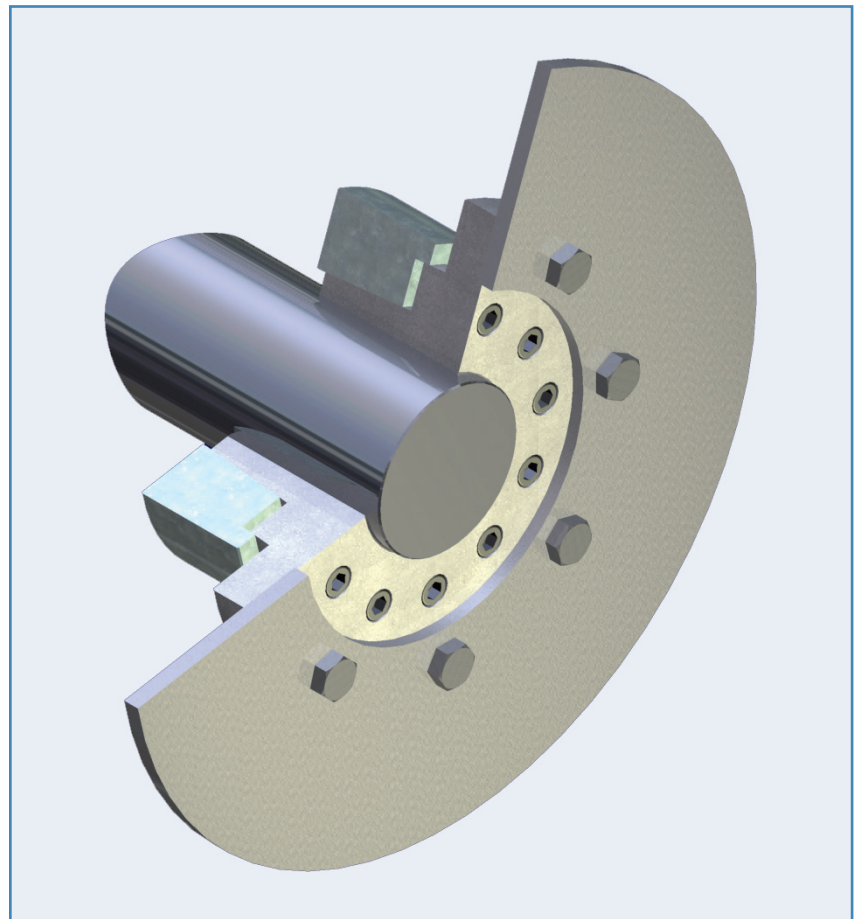
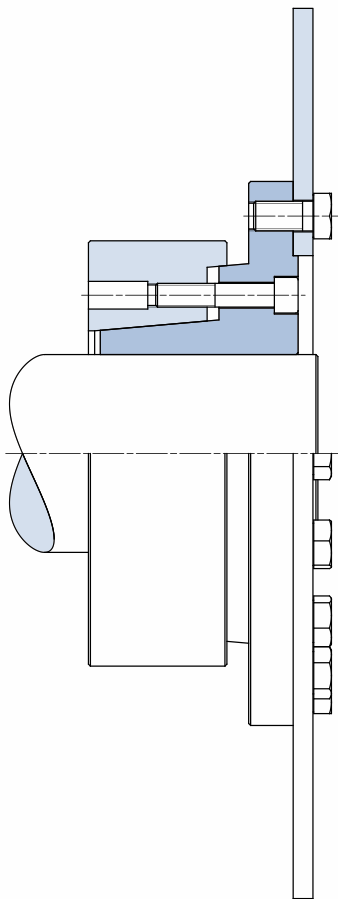
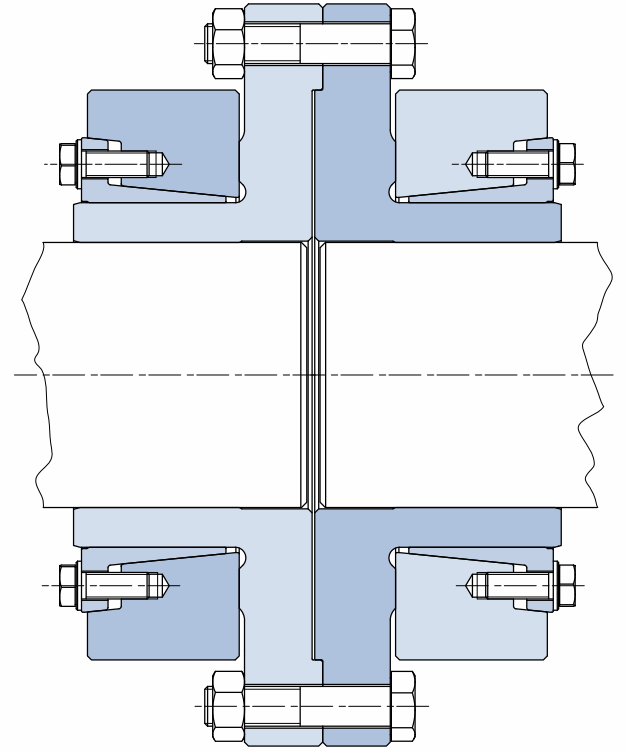
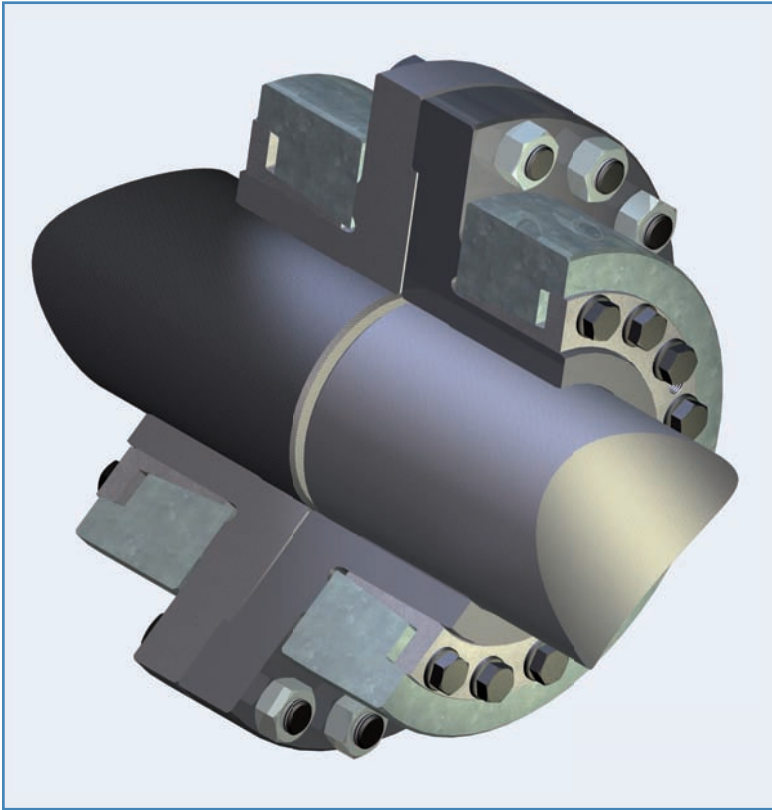
Ph: contact pressure on hub outer diameter

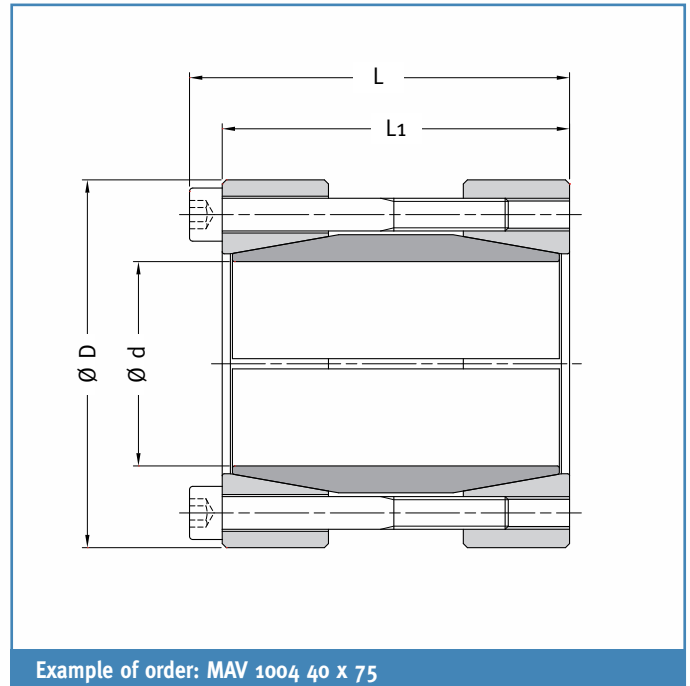
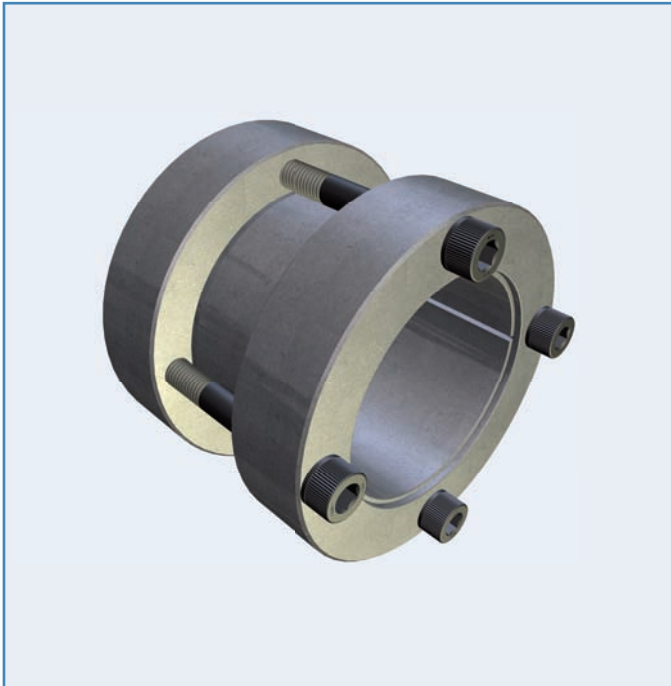
Fax: transmissible axial load with Mt=0 Nm

Applications



Applications



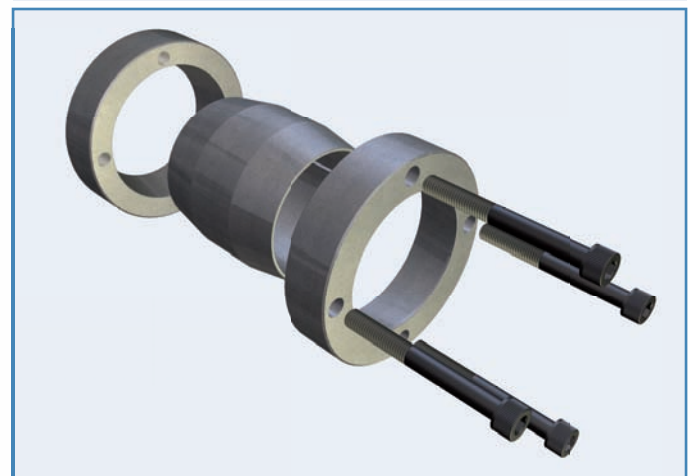


Features

- Rigid shaft-to-shaft coupling
- Low capacity
- Three-part design
- Oiled tapers (self-locking) and screws
- Connection of shafts with different diameters is possible, through stepped bore inner ring or adapter sleeve
- Shafts tolerance: $h7 - h9$
- Shafts surface finish $Ra < 3.2 \mu m$
- Shafts – coupling contact surfaces: oiled ($\mu = 0.12$)

Composition

- Slotted inner ring
- Front outer ring
- Rear outer ring
- Set of socket head cap screws, grade 12.9



| DIMENSIONS | | | | | SCREWS | | FEATURES | | | WEIGHT kg |
|------------|---|---------|---------|----------|--------|----------|----------|-----------|-----------|--------------|
| d mm | x | D mm | L mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | |
| 15 | x | 45 | 56 | 50 | M 6 | 17 | 170 | 23 | 285 | 0,41 |
| 16 | x | 45 | 56 | 50 | M 6 | 17 | 190 | 23 | 267 | 0,41 |
| 17 | x | 45 | 56 | 50 | M 6 | 17 | 200 | 23 | 251 | 0,39 |
| 18 | x | 50 | 56 | 50 | M 6 | 17 | 210 | 23 | 237 | 0,49 |
| 19 | x | 50 | 56 | 50 | M 6 | 17 | 220 | 23 | 225 | 0,48 |
| 20 | x | 50 | 56 | 50 | M 6 | 17 | 230 | 23 | 213 | 0,48 |
| 22 | x | 55 | 66 | 60 | M 6 | 17 | 380 | 35 | 247 | 0,70 |
| 24 | x | 55 | 66 | 60 | M 6 | 17 | 420 | 35 | 227 | 0,68 |
| 25 | x | 55 | 66 | 60 | M 6 | 17 | 440 | 35 | 218 | 0,66 |
| 26 | x | 60 | 66 | 60 | M 6 | 17 | 450 | 35 | 209 | 0,83 |
| 28 | x | 60 | 66 | 60 | M 6 | 17 | 490 | 35 | 194 | 0,78 |
| 30 | x | 60 | 66 | 60 | M 6 | 17 | 520 | 35 | 181 | 0,75 |
| 32 | x | 65 | 66 | 60 | M 6 | 17 | 560 | 35 | 170 | 0,87 |
| 35 | x | 75 | 83 | 75 | M 8 | 41 | 660 | 38 | 146 | 1,5 |
| 38 | x | 75 | 83 | 75 | M 8 | 41 | 710 | 38 | 134 | 1,4 |
| 40 | x | 75 | 83 | 75 | M 8 | 41 | 750 | 38 | 128 | 1,3 |
| 42 | x | 78 | 83 | 75 | M 8 | 41 | 790 | 38 | 121 | 1,4 |
| 45 | x | 85 | 93 | 85 | M 8 | 41 | 1.300 | 56 | 150 | 2,0 |
| 48 | x | 90 | 93 | 85 | M 8 | 41 | 1.400 | 56 | 141 | 2,2 |
| 50 | x | 90 | 93 | 85 | M 8 | 41 | 1.400 | 56 | 135 | 2,1 |
| 55 | x | 95 | 93 | 85 | M 8 | 41 | 2.100 | 75 | 164 | 2,3 |
| 60 | x | 100 | 93 | 85 | M 8 | 41 | 2.300 | 75 | 150 | 2,4 |
| 65 | x | 105 | 93 | 85 | M 8 | 41 | 2.400 | 75 | 139 | 2,6 |
| 68 | x | 115 | 110 | 100 | M 10 | 83 | 3.100 | 93 | 142 | 3,9 |
| 70 | x | 115 | 110 | 100 | M 10 | 83 | 3.200 | 93 | 138 | 3,7 |
| 75 | x | 120 | 110 | 100 | M 10 | 83 | 3.500 | 93 | 128 | 3,9 |
| 80 | x | 125 | 110 | 100 | M 10 | 83 | 4.900 | 120 | 161 | 4,2 |
| 85 | x | 130 | 110 | 100 | M 10 | 83 | 5.200 | 120 | 151 | 4,4 |
| 90 | x | 135 | 110 | 100 | M 10 | 83 | 5.600 | 120 | 143 | 4,6 |
| 95 | x | 140 | 110 | 100 | M 10 | 83 | 5.900 | 120 | 135 | 4,8 |
| 100 | x | 155 | 132 | 120 | M 12 | 145 | 9.200 | 180 | 160 | 7,6 |
| 110 | x | 165 | 132 | 120 | M 12 | 145 | 10.100 | 180 | 145 | 8,2 |
| 120 | x | 185 | 132 | 120 | M 12 | 145 | 13.800 | 230 | 166 | 11 |
| 130 | x | 195 | 132 | 120 | M 12 | 145 | 15.000 | 230 | 154 | 12 |



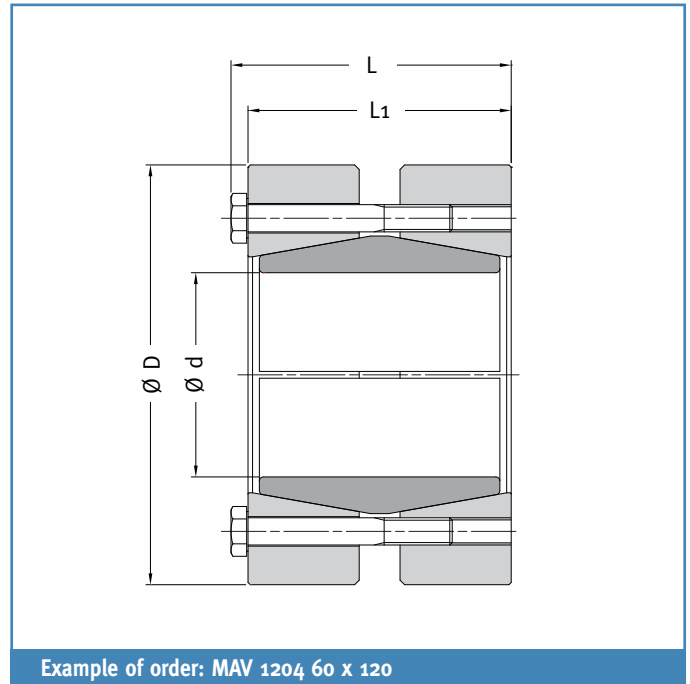
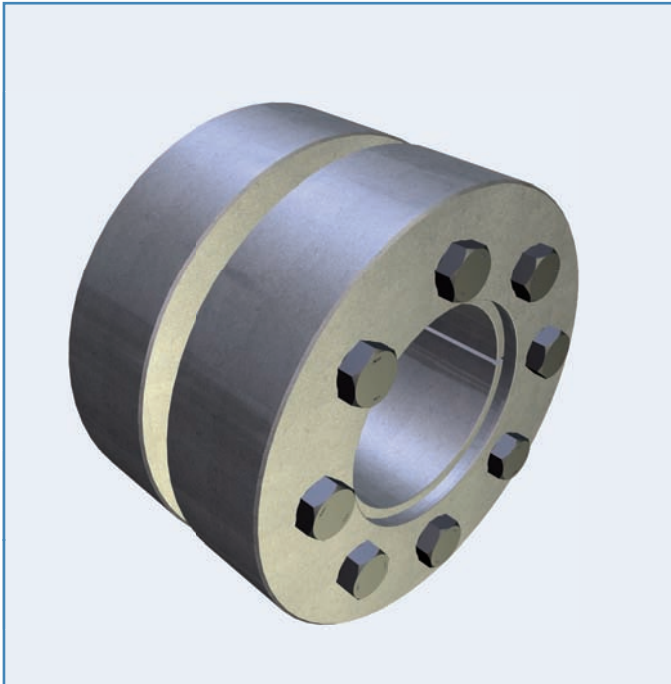
Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

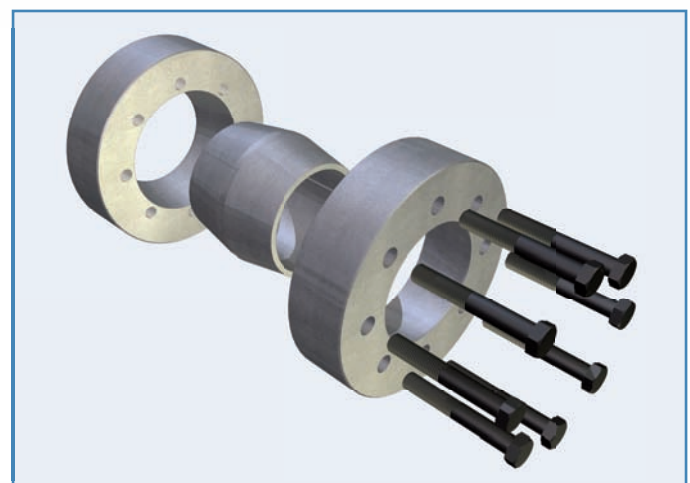


Features

- Rigid shaft-to-shaft coupling
- Medium capacity
- Three-part design
- Compact design
- Self-releasing tapers, greased with MoS₂ ($\mu = 0.05$). Oiled tapers (self-locking) up to size 14x44
- Screws greased with MoS₂ ($\mu = 0.10$)
- Connection of shafts with different diameters is possible, through stepped bore inner ring or adapter sleeve
- Shafts tolerance: h7 – h9
- Shafts surface finish Ra < 3.2 μm
- Shafts – coupling contact surfaces: oiled ($\mu = 0.12$)

Composition

- Slotted inner ring
- Front outer ring
- Rear outer ring
- Set of hexagonal head cap screws, grade 10.9 (size < M6 of grade 8.8)



| DIMENSIONS | | | | | SCREWS | | FEATURES | | | WEIGHT kg |
|------------|---|---------|----------|---------|--------|----------|----------|-----------|-----------|--------------|
| d mm | x | D mm | L1 mm | L mm | size | Ma Nm | Mt Nm | Fax kN | Ps MPa | |
| 6 | x | 35 | 19 | 22,5 | M 5 | 4 | 27 | 9 | 491 | 0,11 |
| 7 | x | 35 | 19 | 22,5 | M 5 | 4 | 31 | 9 | 421 | 0,11 |
| 8 | x | 35 | 19 | 22,5 | M 5 | 4 | 36 | 9 | 368 | 0,11 |
| 9 | x | 39 | 23 | 26,5 | M 5 | 4 | 50 | 11 | 327 | 0,17 |
| 10 | x | 39 | 23 | 26,5 | M 5 | 4 | 55 | 11 | 294 | 0,17 |
| 11 | x | 39 | 23 | 26,5 | M 5 | 4 | 61 | 11 | 268 | 0,17 |
| 12 | x | 44 | 30 | 33,5 | M 5 | 4 | 80 | 13 | 226 | 0,29 |
| 13 | x | 44 | 30 | 33,5 | M 5 | 4 | 87 | 13 | 209 | 0,29 |
| 14 | x | 44 | 30 | 33,5 | M 5 | 4 | 93 | 13 | 194 | 0,28 |
| 15 | x | 52 | 34 | 38 | M 6 | 12 | 160 | 22 | 275 | 0,43 |
| 16 | x | 52 | 34 | 38 | M 6 | 12 | 170 | 22 | 258 | 0,43 |
| 17 | x | 52 | 34 | 38 | M 6 | 12 | 180 | 22 | 242 | 0,42 |
| 18 | x | 52 | 34 | 38 | M 6 | 12 | 200 | 22 | 229 | 0,42 |
| 19 | x | 52 | 34 | 38 | M 6 | 12 | 210 | 22 | 217 | 0,41 |
| 20 | x | 60 | 40 | 44 | M 6 | 12 | 360 | 36 | 301 | 0,65 |
| 22 | x | 60 | 40 | 44 | M 6 | 12 | 400 | 36 | 273 | 0,63 |
| 24 | x | 60 | 40 | 44 | M 6 | 12 | 440 | 36 | 250 | 0,61 |
| 25 | x | 66 | 44 | 48 | M 6 | 12 | 630 | 51 | 299 | 0,84 |
| 28 | x | 66 | 44 | 48 | M 6 | 12 | 710 | 51 | 267 | 0,80 |
| 29 | x | 66 | 44 | 48 | M 6 | 12 | 740 | 51 | 258 | 0,79 |
| 30 | x | 76 | 48 | 52 | M 6 | 12 | 870 | 58 | 256 | 1,2 |
| 32 | x | 76 | 48 | 52 | M 6 | 12 | 930 | 58 | 240 | 1,2 |
| 35 | x | 76 | 48 | 52 | M 6 | 12 | 1.000 | 58 | 220 | 1,2 |
| 36 | x | 96 | 56 | 61,3 | M 8 | 30 | 1.800 | 97 | 312 | 2,3 |
| 40 | x | 96 | 56 | 61,3 | M 8 | 30 | 1.900 | 97 | 281 | 2,2 |
| 44 | x | 96 | 56 | 61,3 | M 8 | 30 | 2.100 | 97 | 256 | 2,1 |
| 50 | x | 112 | 68 | 73,3 | M 8 | 30 | 3.500 | 140 | 264 | 3,5 |
| 51 | x | 112 | 68 | 73,3 | M 8 | 30 | 3.600 | 140 | 259 | 3,5 |
| 54 | x | 112 | 68 | 73,3 | M 8 | 30 | 3.800 | 140 | 244 | 3,6 |
| 55 | x | 120 | 78 | 83,3 | M 8 | 30 | 4.600 | 170 | 244 | 4,7 |
| 60 | x | 120 | 78 | 83,3 | M 8 | 30 | 5.000 | 170 | 224 | 4,4 |
| 63 | x | 120 | 78 | 83,3 | M 8 | 30 | 5.300 | 170 | 213 | 4,3 |
| 65 | x | 148 | 88 | 94,4 | M 10 | 60 | 8.600 | 260 | 284 | 8,4 |
| 68 | x | 148 | 88 | 94,4 | M 10 | 60 | 9.000 | 260 | 272 | 8,1 |
| 70 | x | 148 | 88 | 94,4 | M 10 | 60 | 9.300 | 260 | 264 | 8,1 |
| 73 | x | 148 | 88 | 94,4 | M 10 | 60 | 9.700 | 260 | 253 | 7,9 |
| 74 | x | 170 | 104 | 111,5 | M 12 | 100 | 11.600 | 310 | 262 | 12,8 |
| 76 | x | 170 | 104 | 111,5 | M 12 | 100 | 12.000 | 310 | 256 | 12,7 |
| 80 | x | 170 | 104 | 111,5 | M 12 | 100 | 12.600 | 310 | 243 | 12,3 |
| 85 | x | 170 | 104 | 111,5 | M 12 | 100 | 13.400 | 310 | 228 | 11,8 |
| 86 | x | 185 | 116 | 123,5 | M 12 | 100 | 16.200 | 380 | 238 | 16,8 |
| 90 | x | 185 | 116 | 123,5 | M 12 | 100 | 17.000 | 380 | 227 | 16,3 |
| 92 | x | 185 | 116 | 123,5 | M 12 | 100 | 17.400 | 380 | 222 | 16,1 |
| 96 | x | 185 | 116 | 123,5 | M 12 | 100 | 18.100 | 380 | 213 | 15,6 |
| 100 | x | 197 | 126 | 133,5 | M 12 | 100 | 23.600 | 470 | 232 | 19,6 |
| 106 | x | 197 | 126 | 133,5 | M 12 | 100 | 25.000 | 470 | 219 | 18,7 |
| 108 | x | 197 | 126 | 133,5 | M 12 | 100 | 25.500 | 470 | 215 | 18,4 |
| 110 | x | 197 | 126 | 133,5 | M 12 | 100 | 26.000 | 470 | 211 | 18,1 |
| 120 | x | 230 | 152 | 162 | M 16 | 250 | 43.600 | 730 | 251 | 31,5 |
| 130 | x | 230 | 152 | 162 | M 16 | 250 | 47.200 | 730 | 231 | 29,4 |

Code:

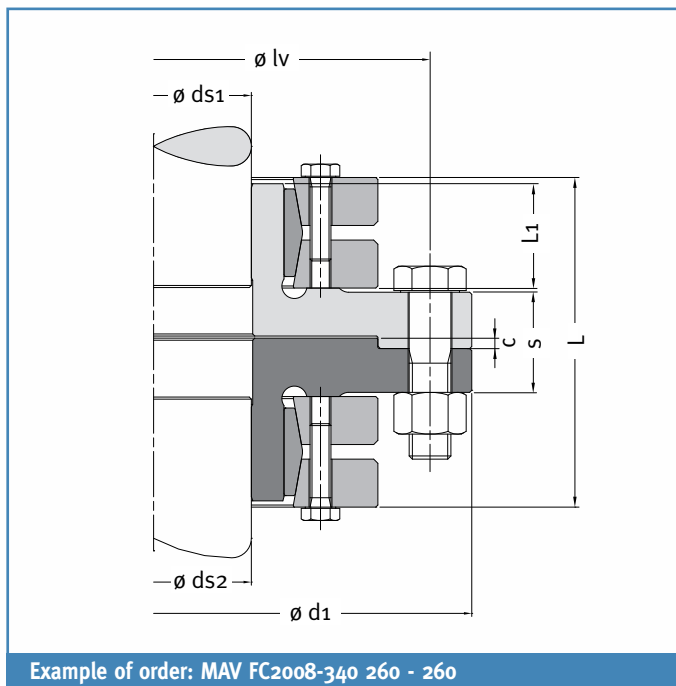
Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm

Ps: contact pressure on shaft

MAV FC2008 Flange couplings

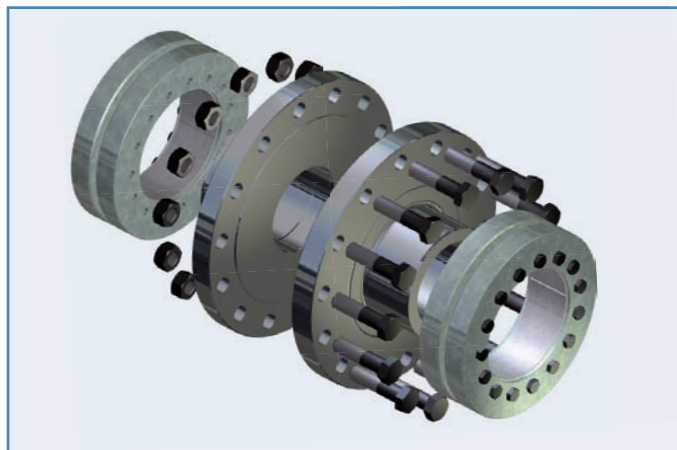


Features

- Rigid shaft-to-shaft coupling with flanges and shrink discs MAV 2008
- Medium capacity
- Suitable for connection of medium – large diameter shafts
- Decoupling of shafts requires only few millimeters of axial room
- Connection of shafts with different diameters is possible
- Shafts tolerance: see table for shrink discs
- Shafts surface finish $Ra < 3.2 \mu m$
- Shafts – flange bores contact surfaces: grease-free and dry ($\mu = 0.15$)

Composition

- Two shrink discs MAV 2008
- Male coupling flange
- Female coupling flange
- Set of hexagonal head cap screws, grade 10.9
- Set of hexagonal nuts, grade 10



Flange couplings **MAV FC2008**

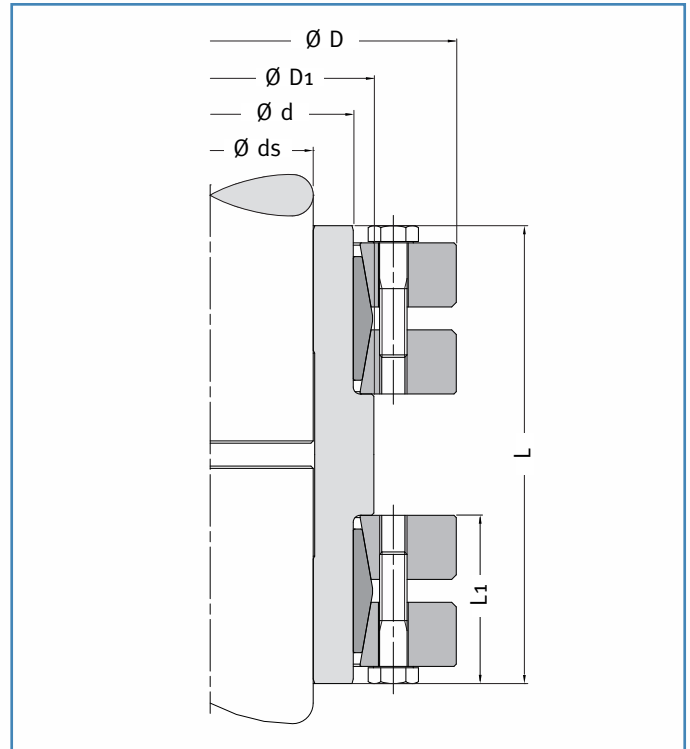
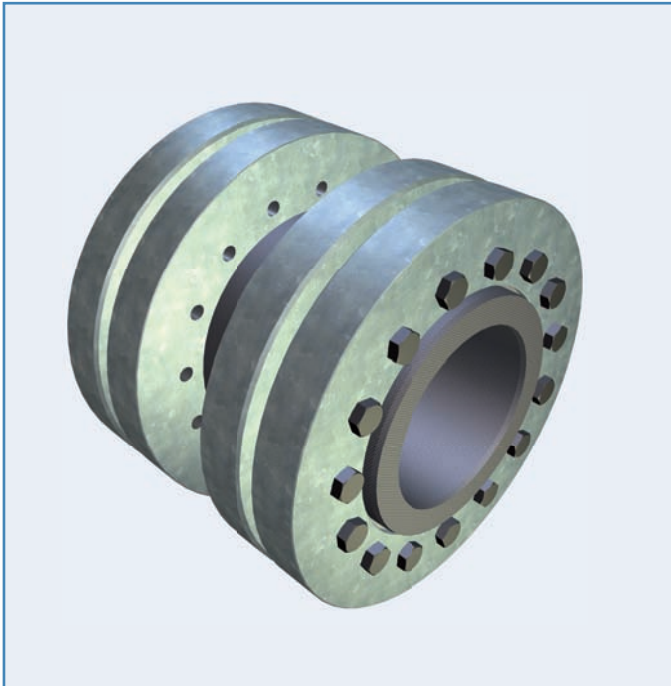
| measure | DIMENSIONS | | | | | | | | SHRINK DISC SCREWS | | FLANGE SCREWS | | | | TRANSMISSIBLE TORQUE | WEIGHT kg |
|---------|-------------------|----------------------------|-------|-------|------|------|-------|------|--------------------|-------|---------------|---------|-------|-------------------------------|----------------------|-----------|
| | ds mm | shrink disc MAV 2008 d x D | lv mm | D1 mm | s mm | L mm | L1 mm | c mm | size | Ma Nm | n. | measure | Ma Nm | Mt Nm | | |
| 100 | 70 75 80 | 100 x 170 | 210 | 240 | 44 | 136 | 44 | 4 | M 8 | 30 | 6 | M 16 | 210 | 7.600 9.300 11.300 | 26 | |
| 125 | 85 90 95 | 125 x 215 | 265 | 305 | 48 | 160 | 54 | 5 | M 10 | 59 | 6 | M 20 | 420 | 13.300 15.800 18.600 | 48 | |
| 140 | 95 100 105 | 140 x 230 | 286 | 340 | 56 | 190 | 64 | 5 | M 12 | 100 | 5 | M 24 | 720 | 18.600 21.600 24.900 | 63 | |
| 165 | 115 120 125 | 165 x 290 | 356 | 400 | 72 | 228 | 75 | 5 | M 16 | 250 | 8 | M 24 | 720 | 38.900 43.600 47.600 | 120 | |
| 175 | 125 130 135 | 175 x 300 | 356 | 400 | 72 | 228 | 75 | 5 | M 16 | 250 | 8 | M 24 | 720 | 42.900 47.800 53.100 | 120 | |
| 195 | 140 150 155 | 195 x 350 | 420 | 475 | 90 | 278 | 90 | 6 | M 16 | 250 | 10 | M 30 | 1450 | 75.600 90.600 98.700 | 215 | |
| 220 | 160 165 170 | 220 x 370 | 446 | 510 | 90 | 306 | 108 | 6 | M 16 | 250 | 14 | M 30 | 1450 | 110.000 120.000 129.000 | 265 | |
| 240 | 170 180 190 | 240 x 405 | 475 | 540 | 88 | 322 | 113 | 6 | M 20 | 490 | 16 | M 30 | 1450 | 146.000 168.000 190.000 | 310 | |
| 260 | 190 200 210 | 260 x 430 | 500 | 560 | 110 | 368 | 125 | 8 | M 20 | 490 | 16 | M 30 | 1450 | 197.000 224.000 254.000 | 395 | |
| 280 | 210 220 230 | 280 x 460 | 530 | 590 | 104 | 392 | 139 | 8 | M 20 | 490 | 18 | M 30 | 1450 | 260.000 292.000 327.000 | 445 | |
| 300 | 230 240 250 | 300 x 485 | 555 | 615 | 104 | 408 | 147 | 8 | M 20 | 490 | 20 | M 30 | 1450 | 334.000 371.000 410.000 | 500 | |
| 340 | 250 260 270 | 340 x 570 | 640 | 710 | 118 | 450 | 161 | 8 | M 20 | 490 | 24 | M 30 | 1450 | 465.000 506.000 555.000 | 810 | |
| 360 | 280 290 295 | 360 x 590 | 660 | 720 | 106 | 450 | 167 | 8 | M 20 | 490 | 24 | M 30 | 1450 | 556.000 606.000 632.000 | 795 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN





Example of order: MAV SC2008-140 95 - 95

Features

MAV SC2008

- Rigid shaft-to-shaft coupling with sleeve and shrink discs MAV 2008 – standard duty
- Medium capacity
- Connection of shafts with different diameters is possible
- Shafts tolerance: see table for shrink discs
- Shafts surface finish $R_a < 3.2 \mu\text{m}$
- Shafts – sleeve bore contact surfaces: grease-free and dry ($\mu = 0.15$)

MAV SC2208

- Rigid shaft-to-shaft coupling with sleeve and shrink discs MAV 2208 – heavy duty
- High capacity
- Connection of shafts with different diameters is possible
- Shafts tolerance: see table for shrink discs
- Shafts surface finish $R_a < 3.2 \mu\text{m}$
- Shafts – sleeve bore contact surfaces: grease-free and dry ($\mu = 0.15$)

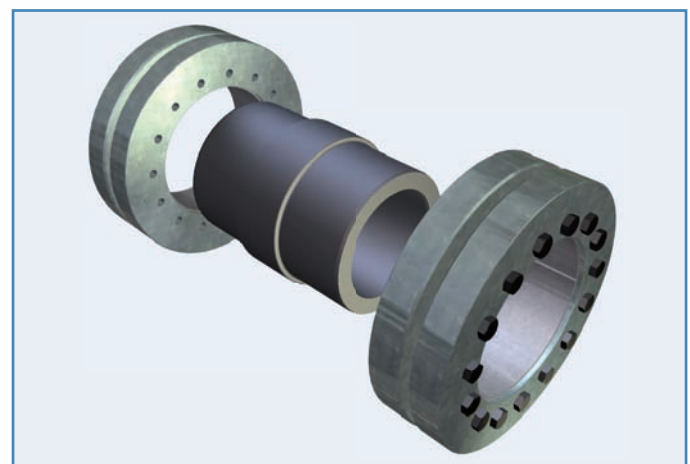
Composition

MAV SC2008

- Two shrink discs MAV 2008
- Unslotted coupling sleeve

MAV SC2208

- Two shrink discs MAV 2208
- Unslotted coupling sleeve



| measure | DIMENSIONS | | | | | SCREWS | | FEATURES | | WEIGHT kg |
|---------|------------|----------------------------------|---------|----------|----------|--------|----------|----------|-----------|--------------|
| | ds mm | shrink disc MAV 2008 d x D | L mm | D1 mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | |
| 20 | 15 | 20 x 46 | 45 | 25 | 21 | M 5 | 4 | 130 | 17 | 0,34 |
| | 16 | | | | | | | 170 | 21 | |
| | 17 | | | | | | | 210 | 25 | |
| 24 | 19 | 24 x 50 | 50 | 28 | 22 | M 5 | 4 | 220 | 24 | 0,44 |
| | 20 | | | | | | | 280 | 28 | |
| | 21 | | | | | | | 330 | 32 | |
| 30 | 24 | 30 x 60 | 55 | 34 | 24 | M 5 | 4 | 350 | 29 | 0,68 |
| | 25 | | | | | | | 400 | 32 | |
| | 26 | | | | | | | 470 | 36 | |
| 36 | 28 | 36 x 72 | 65 | 40 | 26 | M 6 | 12 | 770 | 55 | 1,1 |
| | 30 | | | | | | | 960 | 64 | |
| | 31 | | | | | | | 980 | 63 | |
| 44 | 34 | 44 x 80 | 70 | 49 | 28 | M 6 | 12 | 1.200 | 72 | 1,5 |
| | 35 | | | | | | | 1.400 | 77 | |
| | 36 | | | | | | | 1.500 | 83 | |
| 50 | 38 | 50 x 90 | 80 | 55 | 31 | M 6 | 12 | 1.500 | 80 | 2,1 |
| | 40 | | | | | | | 1.800 | 91 | |
| | 42 | | | | | | | 2.100 | 101 | |
| 55 | 42 | 55 x 100 | 85 | 60 | 33 | M 6 | 12 | 1.700 | 80 | 2,8 |
| | 45 | | | | | | | 2.100 | 94 | |
| | 48 | | | | | | | 2.600 | 110 | |
| 62 | 48 | 62 x 110 | 90 | 68 | 33 | M 6 | 12 | 2.700 | 110 | 3,4 |
| | 50 | | | | | | | 3.000 | 120 | |
| | 52 | | | | | | | 3.200 | 120 | |
| 68 | 50 | 68 x 115 | 100 | 74 | 33 | M 6 | 12 | 2.500 | 100 | 3,8 |
| | 55 | | | | | | | 3.100 | 110 | |
| | 60 | | | | | | | 4.100 | 140 | |
| 75 | 55 | 75 x 138 | 120 | 81 | 37 | M 8 | 30 | 3.500 | 130 | 6,1 |
| | 60 | | | | | | | 4.700 | 160 | |
| | 65 | | | | | | | 6.000 | 180 | |
| 80 | 60 | 80 x 145 | 130 | 86 | 37 | M 8 | 30 | 4.100 | 140 | 6,8 |
| | 65 | | | | | | | 5.200 | 160 | |
| | 70 | | | | | | | 6.600 | 190 | |
| 85 | 60 | 85 x 155 | 140 | 96 | 44 | M 8 | 30 | 5.400 | 180 | 10,0 |
| | 65 | | | | | | | 6.900 | 210 | |
| | 70 | | | | | | | 8.600 | 250 | |
| 90 | 65 | 90 x 155 | 140 | 96 | 44 | M 8 | 30 | 6.200 | 190 | 9,7 |
| | 70 | | | | | | | 7.700 | 220 | |
| | 75 | | | | | | | 9.400 | 250 | |
| 95 | 65 | 95 x 170 | 160 | 106 | 49 | M 8 | 30 | 6.800 | 210 | 14 |
| | 70 | | | | | | | 8.400 | 240 | |
| | 75 | | | | | | | 10.300 | 270 | |
| 100 | 70 | 100 x 170 | 160 | 106 | 49 | M 8 | 30 | 7.600 | 220 | 14 |
| | 75 | | | | | | | 9.300 | 250 | |
| | 80 | | | | | | | 11.300 | 280 | |
| 105 | 70 | 105 x 185 | 180 | 116 | 56 | M 10 | 59 | 8.100 | 230 | 19 |
| | 75 | | | | | | | 10.000 | 270 | |
| | 80 | | | | | | | 12.100 | 300 | |
| 110 | 75 | 110 x 185 | 180 | 116 | 56 | M 10 | 59 | 9.100 | 240 | 19 |
| | 80 | | | | | | | 11.000 | 280 | |
| | 85 | | | | | | | 12.200 | 290 | |
| 115 | 80 | 115 x 200 | 185 | 131 | 57 | M 10 | 59 | 11.500 | 290 | 23 |
| | 85 | | | | | | | 12.600 | 300 | |
| | 90 | | | | | | | 15.100 | 340 | |
| 120 | 85 | 120 x 200 | 185 | 131 | 57 | M 10 | 59 | 11.400 | 270 | 22 |
| | 90 | | | | | | | 13.800 | 310 | |
| | 95 | | | | | | | 16.300 | 340 | |
| 125 | 85 | 125 x 215 | 200 | 136 | 60 | M 10 | 59 | 13.300 | 310 | 28 |
| | 90 | | | | | | | 15.800 | 350 | |
| | 95 | | | | | | | 18.600 | 390 | |
| 130 | 90 | 130 x 215 | 200 | 136 | 60 | M 10 | 59 | 14.600 | 320 | 27 |
| | 95 | | | | | | | 17.200 | 360 | |
| | 100 | | | | | | | 20.100 | 400 | |

MAV SC2008

Standard Sleeve couplings

| measure | DIMENSIONS | | | | | SCREWS | | FEATURES | | WEIGHT kg |
|---------|------------|----------------------------------|---------|----------|----------|--------|----------|-----------|-----------|--------------|
| | ds mm | shrink disc MAV 2008 d x D | L mm | D1 mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | |
| 140 | 95 | 140 x 230 | 210 | 148 | 66 | M 12 | 100 | 18.600 | 390 | 33 |
| | 100 | | | | | | | 21.600 | 430 | |
| | 105 | | | | | | | 24.900 | 470 | |
| 155 | 105 | 155 x 263 | 230 | 167 | 70 | M 12 | 100 | 25.400 | 480 | 49 |
| | 110 | | | | | | | 29.000 | 530 | |
| | 115 | | | | | | | 32.800 | 570 | |
| 165 | 115 | 165 x 290 | 240 | 177 | 78 | M 16 | 250 | 38.900 | 680 | 63 |
| | 120 | | | | | | | 43.600 | 730 | |
| | 125 | | | | | | | 47.600 | 760 | |
| 175 | 125 | 175 x 300 | 250 | 187 | 78 | M 16 | 250 | 42.900 | 690 | 66 |
| | 130 | | | | | | | 47.800 | 740 | |
| | 135 | | | | | | | 53.100 | 790 | |
| 185 | 135 | 185 x 330 | 265 | 201 | 95 | M 16 | 250 | 60.000 | 890 | 95 |
| | 140 | | | | | | | 66.400 | 950 | |
| | 145 | | | | | | | 73.100 | 1.000 | |
| 195 | 140 | 195 x 350 | 280 | 216 | 95 | M 16 | 250 | 75.600 | 1.100 | 107 |
| | 150 | | | | | | | 90.600 | 1.200 | |
| | 155 | | | | | | | 98.700 | 1.300 | |
| 200 | 150 | 200 x 350 | 290 | 216 | 95 | M 16 | 250 | 87.000 | 1.200 | 106 |
| | 155 | | | | | | | 94.800 | 1.200 | |
| | 160 | | | | | | | 103.000 | 1.300 | |
| 220 | 160 | 220 x 370 | 310 | 236 | 114 | M 16 | 250 | 110.000 | 1.400 | 144 |
| | 165 | | | | | | | 120.000 | 1.500 | |
| | 170 | | | | | | | 129.000 | 1.500 | |
| 240 | 170 | 240 x 405 | 350 | 254 | 121 | M 20 | 490 | 146.000 | 1.700 | 185 |
| | 180 | | | | | | | 168.000 | 1.900 | |
| | 190 | | | | | | | 190.000 | 2.000 | |
| 250 | 180 | 250 x 430 | 390 | 274 | 132 | M 20 | 490 | 186.000 | 2.100 | 237 |
| | 190 | | | | | | | 209.000 | 2.200 | |
| | 200 | | | | | | | 238.000 | 2.400 | |
| 260 | 190 | 260 x 430 | 390 | 274 | 132 | M 20 | 490 | 197.000 | 2.100 | 228 |
| | 200 | | | | | | | 224.000 | 2.200 | |
| | 210 | | | | | | | 254.000 | 2.400 | |
| 280 | 210 | 280 x 460 | 430 | 296 | 145 | M 20 | 490 | 260.000 | 2.500 | 281 |
| | 220 | | | | | | | 292.000 | 2.700 | |
| | 230 | | | | | | | 327.000 | 2.800 | |
| 300 | 230 | 300 x 485 | 445 | 316 | 153 | M 20 | 490 | 334.000 | 2.900 | 323 |
| | 240 | | | | | | | 371.000 | 3.100 | |
| | 250 | | | | | | | 410.000 | 3.300 | |
| 320 | 240 | 320 x 520 | 460 | 336 | 153 | M 20 | 490 | 380.000 | 3.200 | 384 |
| | 250 | | | | | | | 419.000 | 3.400 | |
| | 260 | | | | | | | 457.000 | 3.500 | |
| 340 | 250 | 340 x 570 | 480 | 356 | 169 | M 20 | 490 | 465.000 | 3.700 | 523 |
| | 260 | | | | | | | 506.000 | 3.900 | |
| | 270 | | | | | | | 555.000 | 4.100 | |
| 350 | 260 | 350 x 580 | 490 | 376 | 173 | M 20 | 490 | 483.000 | 3.700 | 552 |
| | 270 | | | | | | | 530.000 | 3.900 | |
| | 280 | | | | | | | 580.000 | 4.100 | |
| 360 | 280 | 360 x 590 | 500 | 376 | 173 | M 20 | 490 | 556.000 | 4.000 | 544 |
| | 290 | | | | | | | 606.000 | 4.200 | |
| | 295 | | | | | | | 632.000 | 4.300 | |
| 380 | 290 | 380 x 645 | 530 | 395 | 179 | M 24 | 840 | 682.000 | 4.700 | 699 |
| | 300 | | | | | | | 739.000 | 4.900 | |
| | 310 | | | | | | | 799.000 | 5.200 | |
| 390 | 310 | 390 x 660 | 540 | 415 | 179 | M 24 | 840 | 813.000 | 5.200 | 729 |
| | 315 | | | | | | | 844.000 | 5.400 | |
| | 320 | | | | | | | 871.000 | 5.400 | |
| 400 | 315 | 400 x 680 | 540 | 415 | 199 | M 24 | 840 | 806.000 | 5.100 | 829 |
| | 320 | | | | | | | 831.000 | 5.200 | |
| | 330 | | | | | | | 896.000 | 5.400 | |
| 420 | 330 | 420 x 690 | 580 | 435 | 199 | M 24 | 840 | 967.000 | 5.900 | 852 |
| | 340 | | | | | | | 1.040.000 | 6.100 | |
| | 350 | | | | | | | 1.110.000 | 6.400 | |

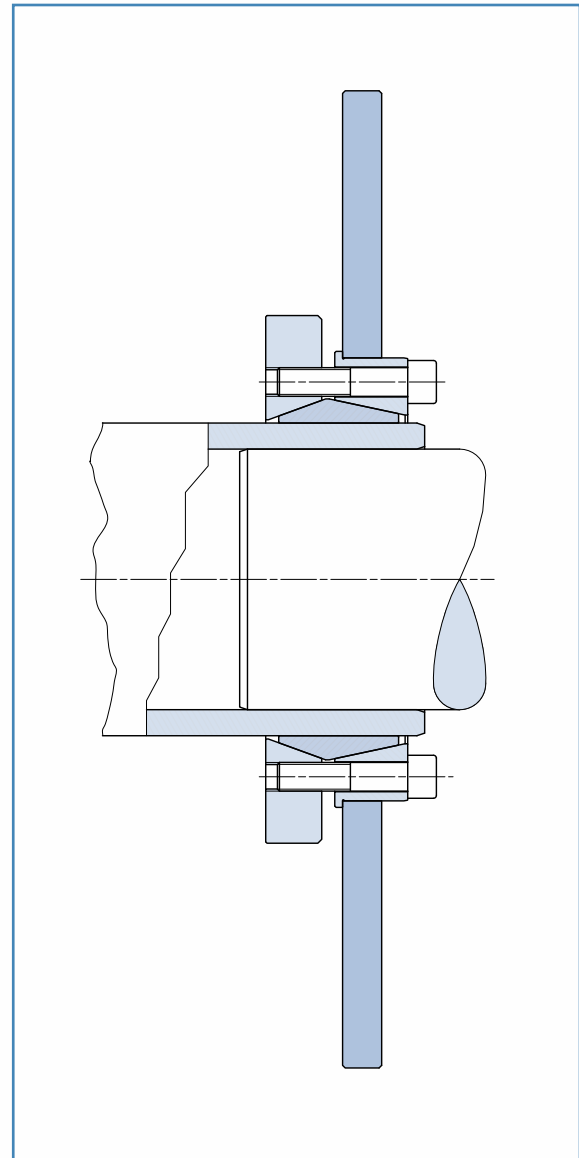
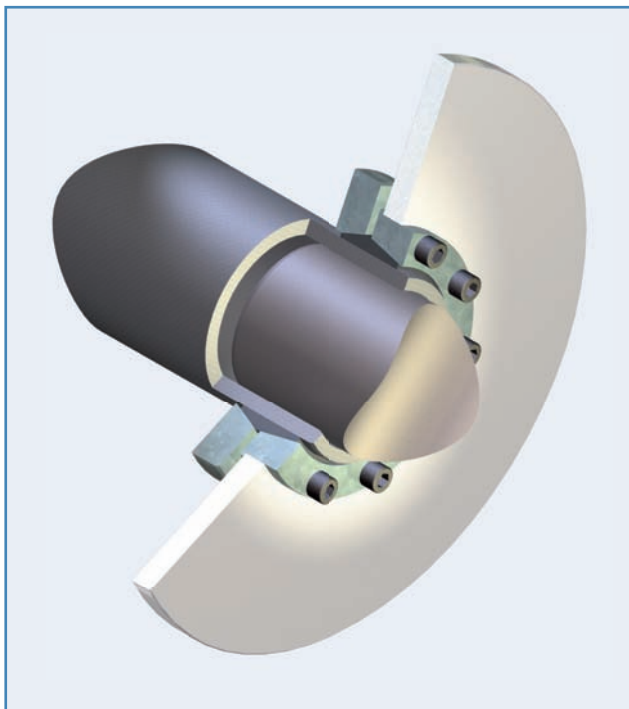
| measure | DIMENSIONS | | | | | SCREWS | | FEATURES | | WEIGHT kg |
|---------|------------|----------------------------------|---------|----------|----------|--------|----------|-----------|-----------|--------------|
| | ds mm | shrink disc MAV 2008 d x D | L mm | D1 mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | |
| 440 | 340 | 440 x 750 | 600 | 456 | 207 | M 24 | 840 | 970.000 | 5.700 | 1062 |
| | 350 | | | | | | | 1.040.000 | 5.900 | |
| | 360 | | | | | | | 1.110.000 | 6.200 | |
| 460 | 360 | 460 x 770 | 620 | 476 | 207 | M 24 | 840 | 1.040.000 | 5.800 | 1113 |
| | 370 | | | | | | | 1.120.000 | 6.000 | |
| | 380 | | | | | | | 1.190.000 | 6.300 | |
| 480 | 380 | 480 x 800 | 645 | 496 | 228 | M 24 | 840 | 1.420.000 | 7.500 | 1297 |
| | 390 | | | | | | | 1.510.000 | 7.700 | |
| | 400 | | | | | | | 1.600.000 | 8.000 | |
| 500 | 400 | 500 x 850 | 670 | 516 | 230 | M 27 | 1250 | 1.620.000 | 8.100 | 1477 |
| | 410 | | | | | | | 1.700.000 | 8.300 | |
| | 420 | | | | | | | 1.800.000 | 8.600 | |

Code:

Ma: screws tightening torque

Mt: transmissible torque with Fax=0 kN

Fax: transmissible axial load with Mt=0 Nm



MAV SC2208

Heavy Sleeve couplings

| measure | DIMENSIONS | | | | | SCREWS | | FEATURES | | WEIGHT kg |
|---------|------------|----------------------------------|---------|----------|----------|--------|----------|-----------|-----------|--------------|
| | ds mm | shrink disc MAV 2208 d x D | L mm | D1 mm | L1 mm | size | Ma Nm | Mt Nm | Fax kN | |
| 125 | 85 | 125 x 215 | 200 | 136 | 74 | M 12 | 100 | 20.100 | 470 | 32 |
| | 90 | | | | | | | 23.800 | 530 | |
| | 95 | | | | | | | 27.800 | 590 | |
| 140 | 95 | 140 x 230 | 210 | 148 | 82 | M 12 | 100 | 21.500 | 450 | 39 |
| | 100 | | | | | | | 25.200 | 500 | |
| | 105 | | | | | | | 29.200 | 560 | |
| 155 | 105 | 155 x 263 | 230 | 170 | 88 | M 12 | 100 | 31.100 | 590 | 58 |
| | 110 | | | | | | | 35.600 | 650 | |
| | 115 | | | | | | | 40.500 | 700 | |
| 165 | 115 | 165 x 290 | 240 | 177 | 98 | M 16 | 250 | 48.300 | 840 | 74 |
| | 120 | | | | | | | 54.200 | 900 | |
| | 125 | | | | | | | 59.200 | 950 | |
| 175 | 125 | 175 x 300 | 250 | 187 | 98 | M 16 | 250 | 53.200 | 850 | 78 |
| | 130 | | | | | | | 59.400 | 910 | |
| | 135 | | | | | | | 66.000 | 980 | |
| 185 | 135 | 185 x 330 | 265 | 201 | 122 | M 16 | 250 | 92.900 | 1.400 | 117 |
| | 140 | | | | | | | 102.000 | 1.500 | |
| | 145 | | | | | | | 112.000 | 1.500 | |
| 195 | 145 | 195 x 350 | 280 | 216 | 122 | M 16 | 250 | 103.000 | 1.400 | 131 |
| | 150 | | | | | | | 113.000 | 1.500 | |
| | 155 | | | | | | | 123.000 | 1.600 | |
| 200 | 145 | 200 x 350 | 290 | 216 | 122 | M 16 | 250 | 99.000 | 1.400 | 135 |
| | 150 | | | | | | | 108.000 | 1.400 | |
| | 155 | | | | | | | 118.000 | 1.500 | |
| 220 | 160 | 220 x 370 | 310 | 236 | 144 | M 16 | 250 | 148.000 | 1.900 | 173 |
| | 165 | | | | | | | 160.000 | 1.900 | |
| | 170 | | | | | | | 173.000 | 2.000 | |
| 240 | 170 | 240 x 405 | 350 | 254 | 157 | M 20 | 490 | 181.000 | 2.100 | 228 |
| | 180 | | | | | | | 205.000 | 2.300 | |
| | 190 | | | | | | | 236.000 | 2.500 | |
| 260 | 190 | 260 x 430 | 390 | 274 | 173 | M 20 | 490 | 252.000 | 2.700 | 278 |
| | 200 | | | | | | | 287.000 | 2.900 | |
| | 210 | | | | | | | 325.000 | 3.100 | |
| 280 | 210 | 280 x 460 | 430 | 296 | 185 | M 20 | 490 | 323.000 | 3.100 | 340 |
| | 220 | | | | | | | 364.000 | 3.300 | |
| | 230 | | | | | | | 407.000 | 3.500 | |
| 300 | 230 | 300 x 485 | 445 | 316 | 189 | M 20 | 490 | 365.000 | 3.200 | 380 |
| | 240 | | | | | | | 406.000 | 3.400 | |
| | 245 | | | | | | | 428.000 | 3.500 | |
| 320 | 240 | 320 x 520 | 460 | 336 | 197 | M 20 | 490 | 450.000 | 3.700 | 465 |
| | 250 | | | | | | | 492.000 | 3.900 | |
| | 260 | | | | | | | 543.000 | 4.200 | |
| 340 | 250 | 340 x 570 | 480 | 356 | 215 | M 24 | 840 | 544.000 | 4.400 | 619 |
| | 260 | | | | | | | 600.000 | 4.600 | |
| | 270 | | | | | | | 659.000 | 4.900 | |
| 350 | 270 | 350 x 580 | 490 | 366 | 215 | M 24 | 840 | 667.000 | 4.900 | 621 |
| | 280 | | | | | | | 729.000 | 5.200 | |
| | 290 | | | | | | | 794.000 | 5.500 | |
| 360 | 280 | 360 x 590 | 500 | 376 | 219 | M 24 | 840 | 661.000 | 4.700 | 640 |
| | 290 | | | | | | | 721.000 | 5.000 | |
| | 295 | | | | | | | 753.000 | 5.100 | |
| 390 | 300 | 390 x 660 | 540 | 405 | 227 | M 24 | 840 | 850.000 | 5.700 | 862 |
| | 310 | | | | | | | 920.000 | 5.900 | |
| | 320 | | | | | | | 986.000 | 6.200 | |
| 420 | 330 | 420 x 690 | 580 | 435 | 253 | M 24 | 840 | 1.210.000 | 7.300 | 1022 |
| | 340 | | | | | | | 1.300.000 | 7.600 | |
| | 350 | | | | | | | 1.390.000 | 7.900 | |
| 460 | 360 | 460 x 770 | 620 | 476 | 269 | M 27 | 1250 | 1.650.000 | 9.100 | 1371 |
| | 370 | | | | | | | 1.760.000 | 9.500 | |
| | 380 | | | | | | | 1.870.000 | 9.800 | |
| 500 | 380 | 500 x 850 | 670 | 516 | 291 | M 27 | 1250 | 1.890.000 | 10.000 | 1911 |
| | 390 | | | | | | | 2.010.000 | 10.000 | |
| | 400 | | | | | | | 2.140.000 | 11.000 | |

Code:

Ma: screws tightening torque
 Mt: transmissible torque with
 Fax=0 kN
 Fax: transmissible axial load with
 Mt=0 Nm

Installation and Removal Instructions

Installation

Shrink Discs are supplied ready for installation. Remove the spacers that may have been used to keep the rings disengaged. Never tighten locking screws prior to installation. Performances are based on the following conditions:

- indicated maximum shaft - hub clearance
 - shaft - hub contact surface grease-free and dry (friction coefficient $\mu = 0.15$)
1. Carefully solvent clean and dry shaft and hub bore. Shaft - hub contact surface to be grease-free and dry.
 2. Position shrink disc onto hub and insert shaft into hub.
 3. After confirming correct position of shaft and hub, hand-tighten locking screws.
 4. Use a torque wrench and set it approx. 5% higher than specified tightening torque. Tighten the screws in a clockwise or counterclockwise pattern in several steps.
 5. Reset the torque wrench to specified tightening torque and make sure no screw can turn, otherwise repeat the procedure from step 4.

Removal

Prior to initiating the removal procedure, check to ensure that no load is acting on Shrink Disc or mounted components.

WARNING: DO NOT completely remove locking screws before rings are disengaged. A sudden separation of locking rings could involve high separation forces that may result in permanent injury or death.

1. Loosen the screws in a clockwise or counterclockwise pattern in several steps, until the rings are disengaged. For series MAV 3008 - MAV 3009 - MAV 3108 - MAV 3208 - MAV 3209 use, if necessary, the push-off threads located on the front face of inner ring.

Reinstallation

In relatively clean operative conditions, Shrink Discs may be reused without prior cleaning. In all other cases, disassemble the rings, clean them and restore lubrication according to specific instructions for each series.

NOTE: download from our website www.mav.it, or request to our Technical Department, the detailed installation and removal instructions for each MAV Shrink Discs series.

RIGID COUPLINGS

Installation and Removal Instructions Rigid Shaft Couplings

Installation

Rigid Shaft Couplings are supplied ready for installation. Never tighten locking screws prior to installation. Performances are based on the following conditions:

- oiled shafts, friction coefficient $\mu = 0.12$ (series MAV 1204 and MAV 1004)
- indicated maximum shaft – hub clearance (series MAV FC2008 – MAV SC2008 – MAV SC2208)
- shaft – hub contact surface grease-free and dry, friction coefficient $\mu = 0.15$ (series MAV FC2008 – MAV SC2008 – MAV SC2208)

1. Install the Coupling onto shafts and, after confirming correct position, hand-tighten locking screws.
2. Use a torque wrench and set it approx. 5% higher than specified tightening torque. Tighten the screws in a clockwise or counterclockwise pattern in several steps.
3. Reset the torque wrench to specified tightening torque and make sure no screw can turn, otherwise repeat the procedure from step 2.

Removal

Prior to initiating the removal procedure, check to ensure that no load is acting on Coupling or mounted components.

WARNING: DO NOT completely remove locking screws before rings are disengaged. A sudden separation of locking rings could involve high separation forces that may result in permanent injury or death.

1. Loosen the screws in a clockwise or counterclockwise pattern in several steps, until the rings are disengaged. For series MAV 1004, tapping with a hammer is required.

Reinstallation

In relatively clean operative conditions, Rigid Couplings may be reused without prior cleaning. In all other cases, disassemble the rings, clean them and restore lubrication according to specific instructions for each series.

NOTE: download from our website www.mav.it, or request to our Technical Department, the detailed installation and removal instructions for each series of MAV Rigid Shaft Couplings.

Technical Support

Data of application

If you need technical assistance to select the right MAV Locking Device for your application, please fill in this questionnaire and send it by fax including your references at the following number:

+39 0461 84 51 50

Peak torque to be transmittedT _____ [Nm]
Peak axial force to be transmittedF _____ [kN]
Peak bending moment to be transmittedB _____ [Nm]
Peak radial force to be transmittedFrad _____ [kN]
Maximum speedn _____ [1/min]
Operating temperatureTo _____ [°C]
Ambient temperature.....Ta _____ [°C]

SHAFT DATA:

Sized _____ [mm]
If hollow-shaft; inner diameterdi _____ [mm]
Material..... _____
Yield pointRp_{0,2} _____ [MPa]

HUB DATA:

Outer diameterdH _____ [mm]
Length.....L _____ [mm]
Material..... _____
Yield pointRp_{0,2} _____ [MPa]

Describe your application

(if possible, please attach a sketch or a drawing)



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IMPRESA

Your local MAV distributor: