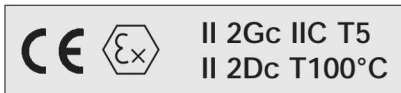


| Standard executions | | | |
|---------------------|--------------|--------|------|
| Version | Profile Tube | Symbol | Type |
| Magnetic Standard | | | BMA |
| | | | BMT |

For the magnetic reed switches type ASV and ASC see from page 1.110.1.
 For coupling cylinders/reed switches/brackets see table on page 1.120.5.
 For mounting accessories see from page 1.97.1.
 For rod accessories see from page 1.85.1.
 For dimensions of the cylinder with piston rod brake see page 1.75.15.



On request, they can be supplied according to 2014/34/EU - ATEX



Series of cylinders conforming to ISO 15552 standards, that can be supplied with two different shapes of the barrel: BMA type with "T" and "C" grooves allowing to use the flush-mounted magnetic switch, and the BMT type with round tube and tie-rods.

The main features of this cylinder are heavy duty flat heads, clean design and the attention to details. A particular attention has been given to the manufacture of the end caps without external casting cavities thus to eliminate contamination traps.

| Options | Suffix |
|--|--------|
| Through rod | P |
| Rod in stainless steel AISI 304 | K |
| Extended rod in hardened and chrome plated steel for the application of the static piston rod brake | B |
| Extended rod in hardened and chrome plated steel for the application of the dynamic piston rod brake | B1 |
| Seals FKM -20°C ÷ +150°C | V |
| Scraper ring only FKM -20°C ÷ +80°C | V1 |
| Low temperature seals -40°C ÷ +80°C | BT |
| Tandem forward movement piston rods coupled together | TA1 |
| Tandem forward movement piston rods independent | TA2 |
| Tandem back to back | TA3 |
| Tandem front to front | TA4 |
| Extended rod (indicate the requested WH dimension in mm. E.g.: WH-100). | WH-... |
| Without adjustable cushionings | D |
| Adjustable rear cushioning only | D1 |
| Adjustable front cushioning only | D2 |
| Special male thread (indicate the requested thread. E.g. : R-M 10x1,5). The dimension AM of the special thread will be the same as the standard. The cylinder will be supplied without rod nut. | R-M... |
| Female thread | F |
| With bellows for protection of the rod (in this case the dimension WH will be extended according the stroke of the cylinder) | Z |
| NBR seals | H |
| Piston rod scraping ring in nitrile rubber NBR | H1 |
| Brass rod scraper (with V, V1 and H options only) | Y |
| Stainless steel AISI 316L profile tube (with BMT type only) | TX |
| Special on request | /S |

The options can be combined (when this is possible).

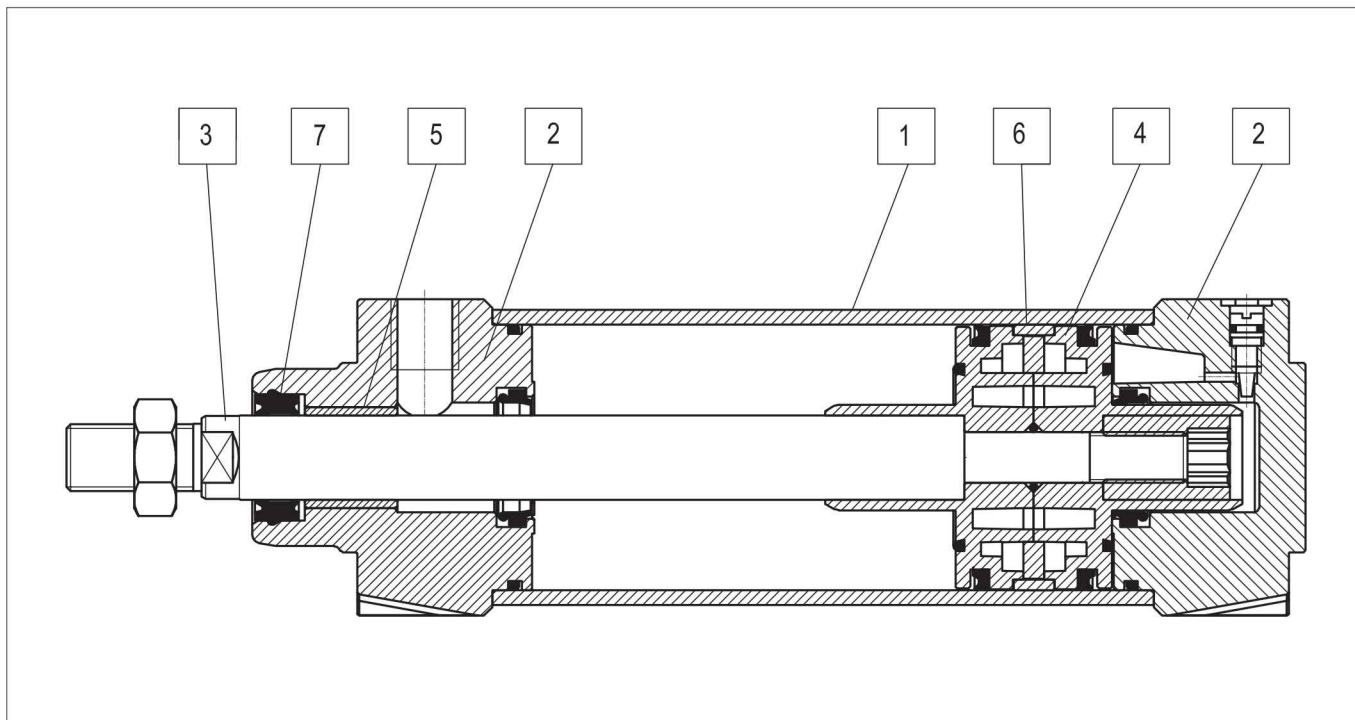
* In Stainless Steel AISI 304 for ATEX versions

The suffix of the options are to be added to the model number of the standard product, as shown in the following table.

How to order: 63 / 100 BMAKVR-M12x1,25

| | | | | | | |
|------|---|--------|------|--------|--------|------------|
| 63 | / | 100 | BMA | K | V | R-M12X1,25 |
| Bore | / | Stroke | Type | Option | Option | Option |



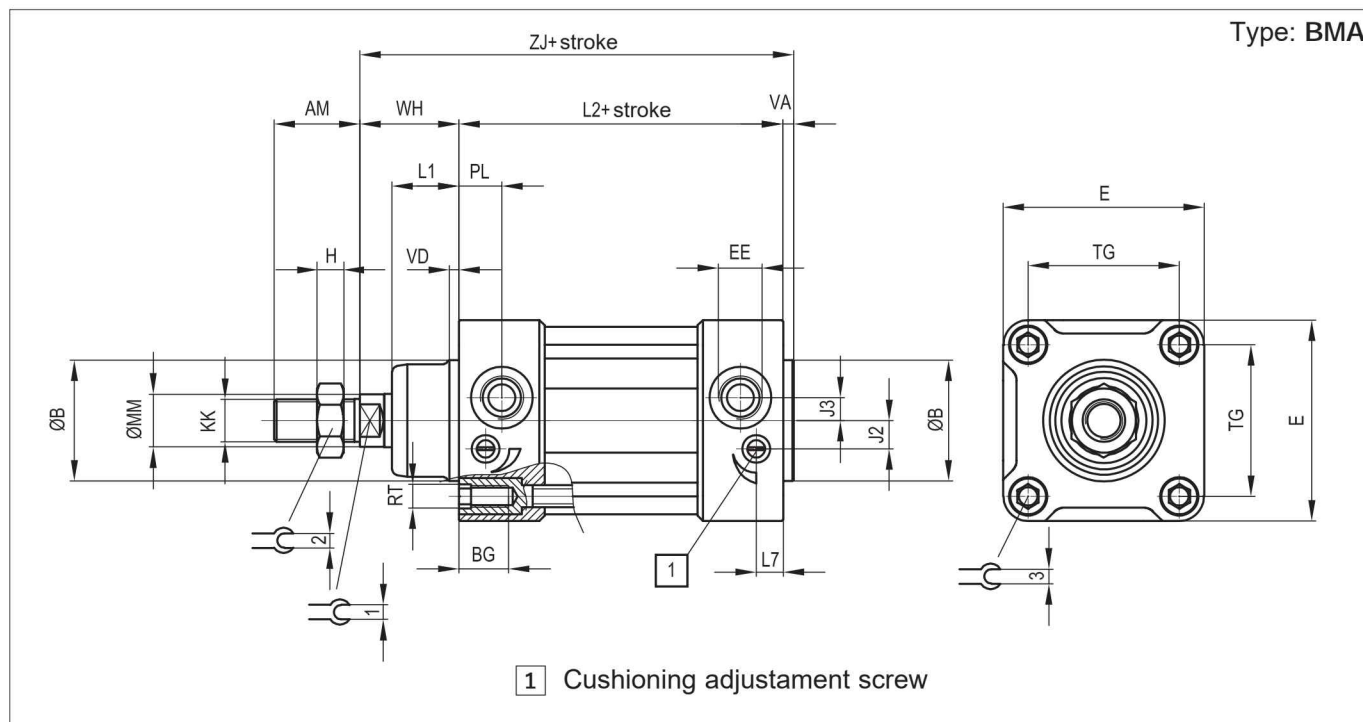


Materials (standard types)

| | | |
|---|-------------|----------------------------------|
| 1 | Tube | Anodised aluminium |
| 2 | Heads | Die-cast painted aluminium |
| 3 | Rod | Chrome-plated steel C45 |
| 4 | Piston | Die-cast aluminium |
| 5 | Bushing | Self-lubricating sintered bronze |
| 6 | Guide ring | Natural Delrin |
| 7 | Rod seals | Polyurethane |
| | Other seals | Nitrile rubber NBR/polyurethane |

Technical data

| | | | | | | | | |
|-------------------|--|------------|--------------------|------|-----------|--------------------|---------|------|
| Bore (mm) | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| Fluid | Compressed filtered air with or without lubrication. Lubrication, if started, must be continued. | | | | | | | |
| Pressure | 1 ÷ 10 bar | | | | | | | |
| Temperature range | -20°C ÷ +80°C (standard /V1) | | -20°C ÷ +150°C (V) | | | -40°C ÷ +80°C (BT) | | |
| Stroke | from 10 mm to 2500 mm | | | | | | | |
| Cushion lenght | 20 | 22 | 25 | 25 | 35 | 35 | 35 | |
| Ports | 1/8" | 1/4" | | 3/8" | | 1/2" | | |
| Rod thread | M10 x 1,25 | M12 x 1,25 | M16 x 1,5 | | M20 x 1,5 | | M27 x 2 | |
| Weight | Stroke zero (g) | 593 | 944 | 1452 | 1975 | 3230 | 4540 | 7016 |
| | Additional 10 mm stroke (g) | 21 | 29 | 44 | 47 | 69 | 80 | 119 |



| Ø (mm) | AM | B Ø d11 | BG | E | EE | J2 | J3 | KK | L1 | L2 | H |
|--------|----|------------|----|-----|------|------|------|----------|----|-----|----|
| 32 | 22 | 30 | 15 | 47 | 1/8" | 5,75 | 5,25 | M10x1,25 | 20 | 94 | 6 |
| 40 | 24 | 35 | 15 | 52 | 1/4" | 8 | 6 | M12x1,25 | 22 | 105 | 7 |
| 50 | 32 | 40 | 16 | 65 | 1/4" | 10,5 | 6 | M16x1,5 | 26 | 106 | 8 |
| 63 | 32 | 45 | 16 | 75 | 3/8" | 10,5 | 8,5 | M16x1,5 | 25 | 121 | 8 |
| 80 | 40 | 45 | 17 | 95 | 3/8" | 14 | 9,5 | M20x1,5 | 32 | 128 | 9 |
| 100 | 40 | 55 | 17 | 115 | 1/2" | 15 | 10 | M20x1,5 | 38 | 138 | 9 |
| 125 | 54 | 60 | 21 | 140 | 1/2" | 20 | 10 | M27x2 | 40 | 160 | 12 |

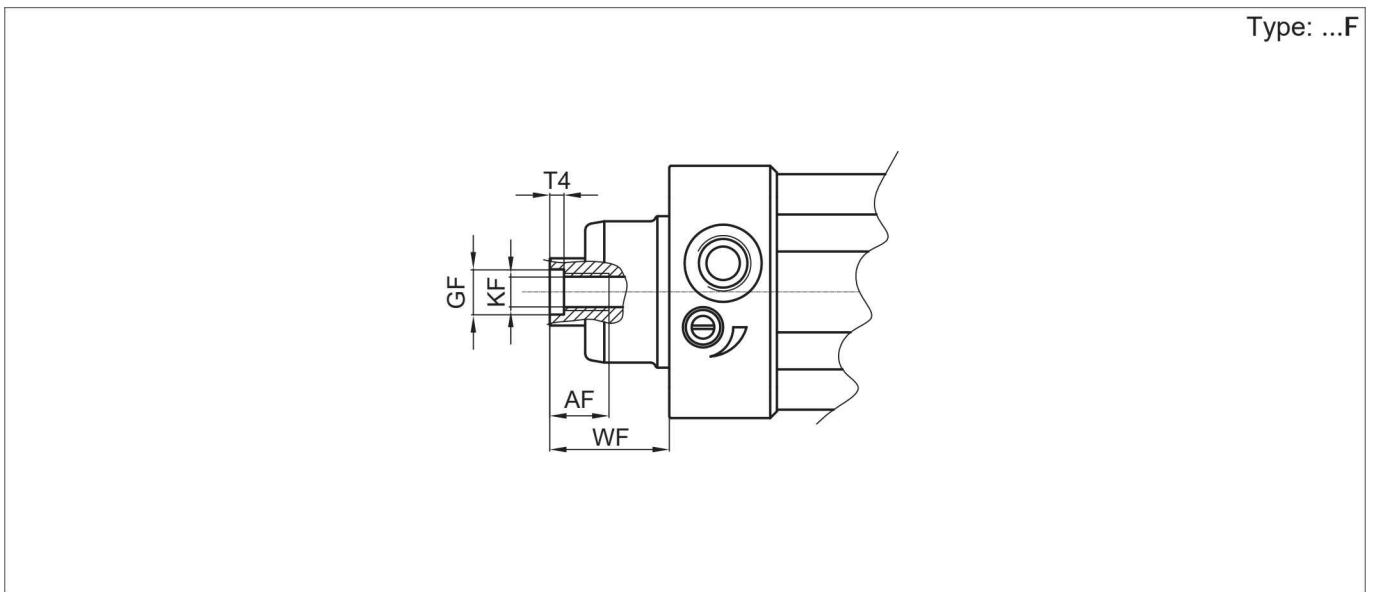
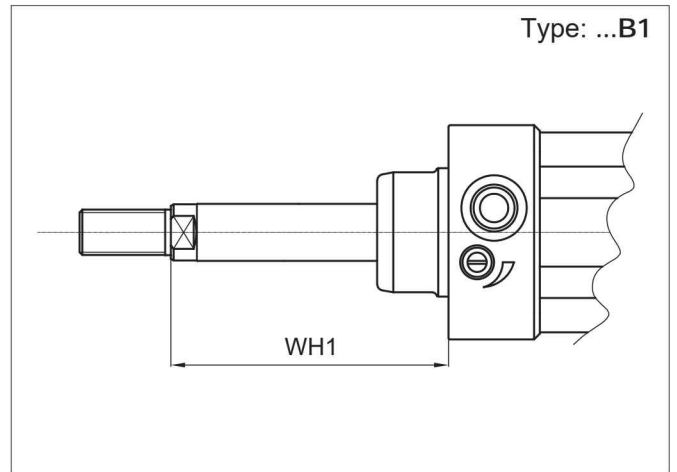
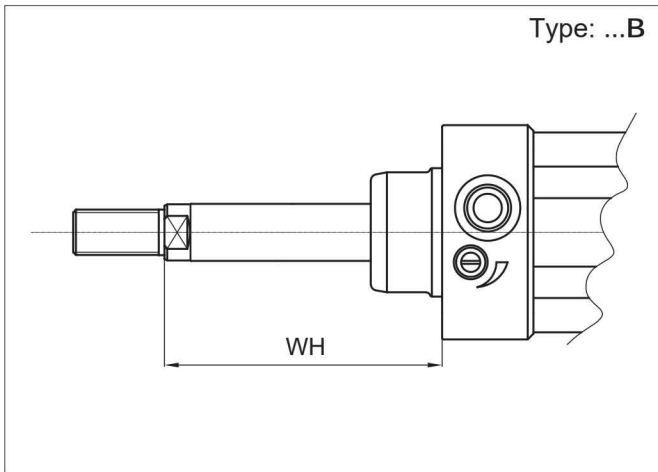
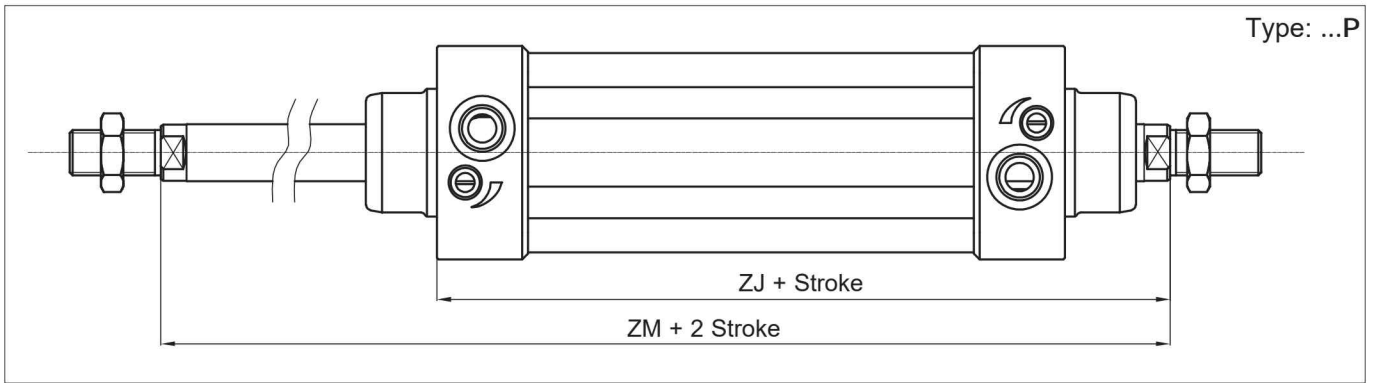
| Ø (mm) | L7 | MM Ø f7 | PL | RT | TG | VA | VD | WH | ZJ | ⇄ 1 | ⇄ 2 | ⇄ 3 |
|--------|------|------------|------|-----|------|----|----|----|-----|-----|-----|-----|
| 32 | 18 | 12 | 11 | M6 | 32,5 | 4 | 4 | 26 | 124 | 10 | 17 | 6 |
| 40 | 20 | 16 | 14 | M6 | 38 | 4 | 4 | 30 | 139 | 13 | 19 | 6 |
| 50 | 20 | 20 | 15 | M8 | 46,5 | 4 | 4 | 37 | 147 | 17 | 24 | 8 |
| 63 | 10 | 20 | 16 | M8 | 56,5 | 4 | 4 | 37 | 162 | 17 | 24 | 8 |
| 80 | 13,5 | 25 | 20,5 | M10 | 72 | 4 | 4 | 46 | 178 | 22 | 30 | 10 |
| 100 | 13 | 25 | 20 | M10 | 89 | 4 | 4 | 51 | 193 | 22 | 30 | 10 |
| 125 | 30 | 32 | 25 | M12 | 110 | 5 | 5 | 65 | 230 | 27 | 41 | 12 |

| Seals kits | |
|------------|--|
| n. 1 | Rod seal |
| n. 2 | Cushioning seal |
| n. 2 | Piston lip-seal |
| n. 1 | Linear rubber ring for piston (damper) |
| n. 2 | Tube O-ring |
| n. 1 | Piston guiding ring |
| n. 2 | O-ring for cushioning screw |
| n. 1 | O-ring to seal two semi-pistons |

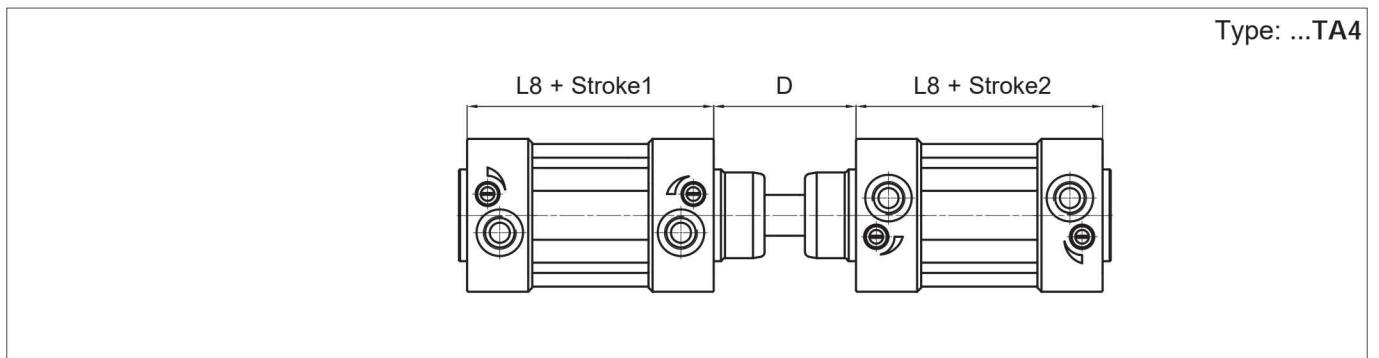
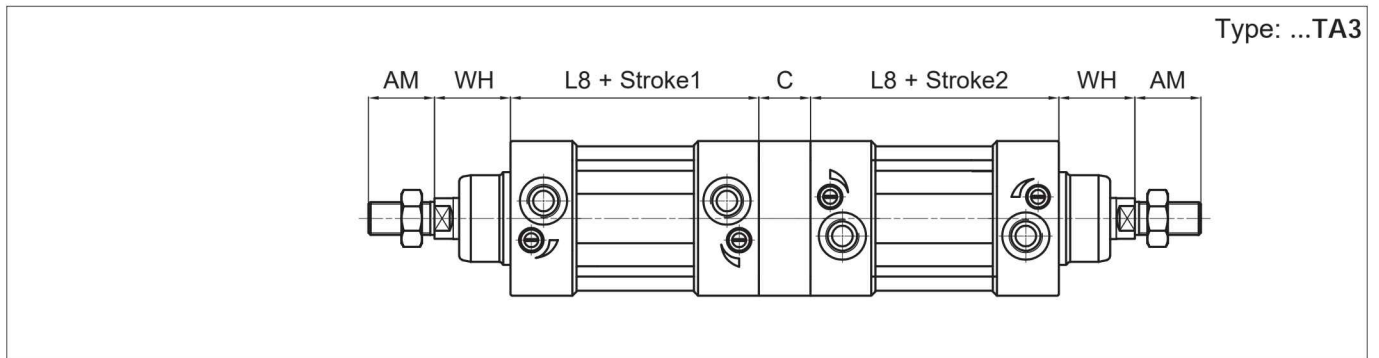
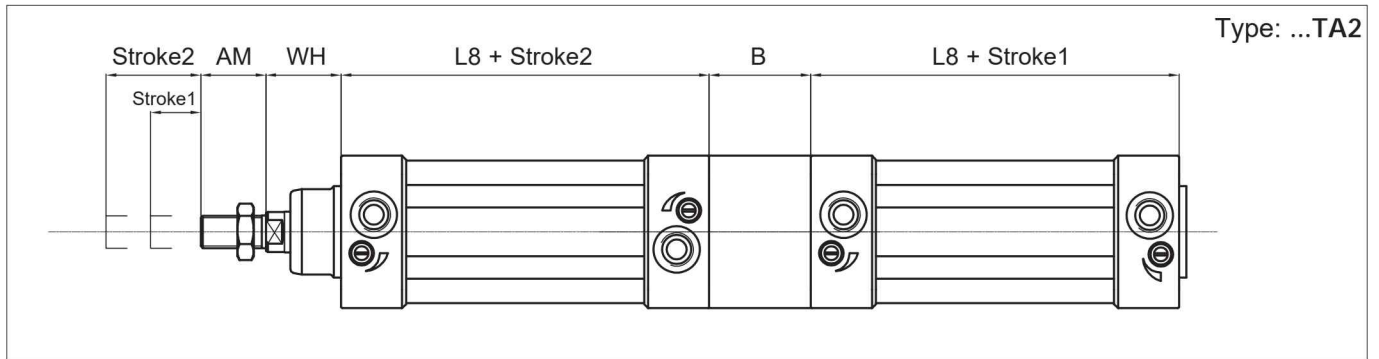
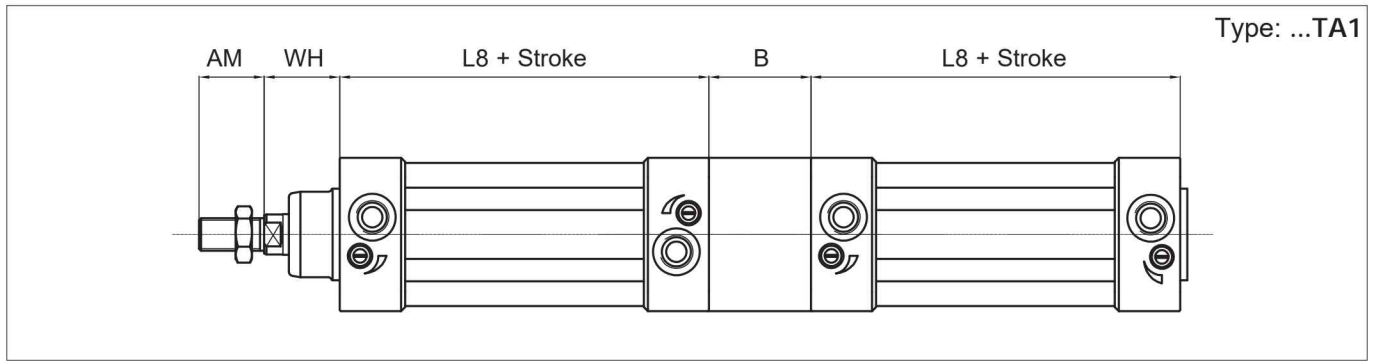
How to order: 63 / SG / AM

| | | | | |
|------|---|----------|---|------|
| 63 | / | SG | / | AM |
| Bore | / | Seal kit | / | Type |

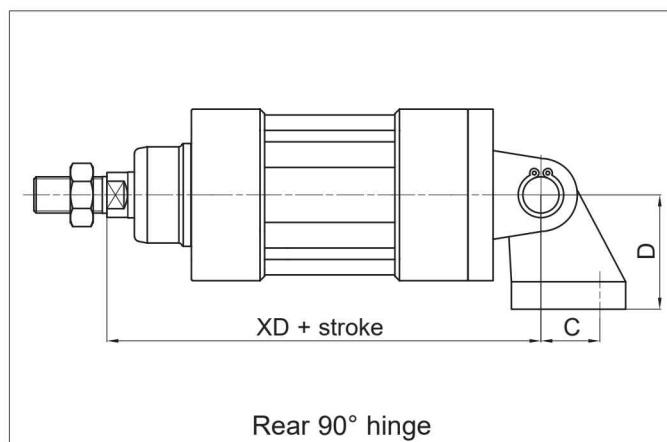
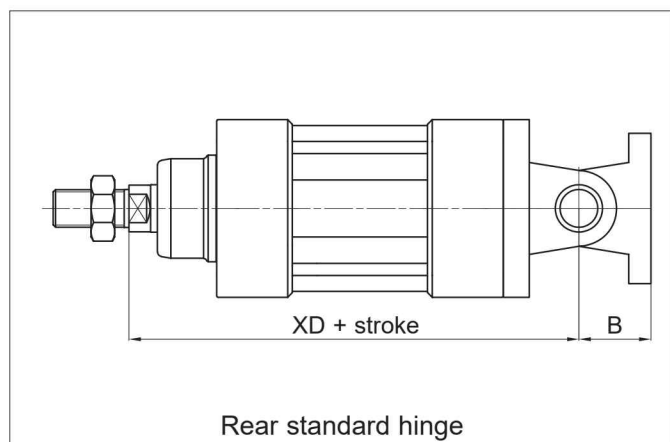
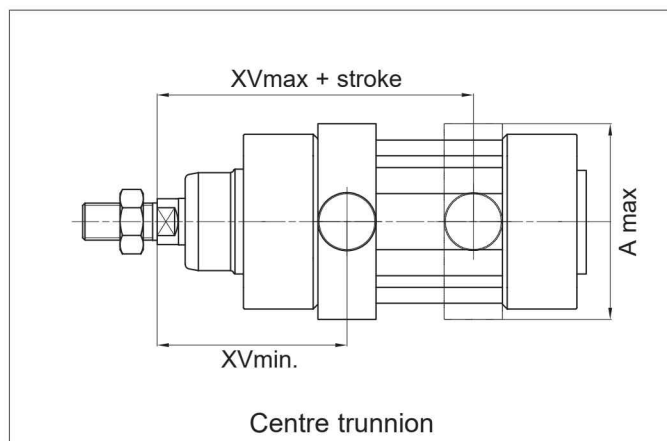
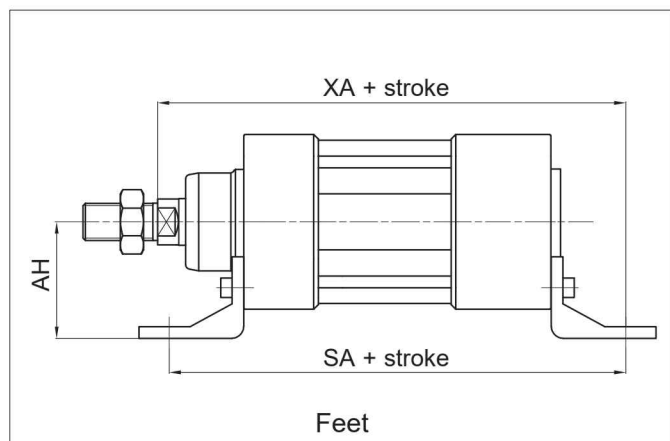
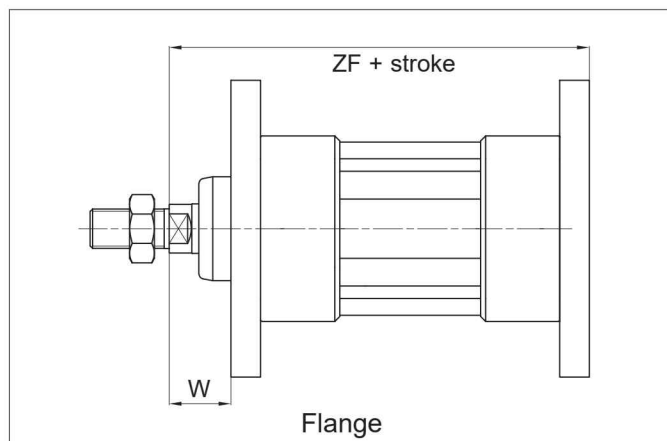
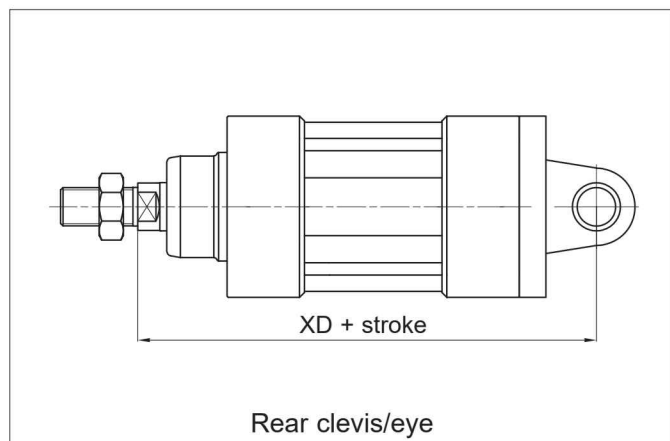




| Ø mm | AF | GF | KF | T4 | WF | WH | WH1 | ZJ | ZM |
|------|----|----|-----|-----|----|-----|-----|-----|-----|
| 32 | 12 | 8 | M6 | 2,6 | 26 | 74 | 99 | 120 | 146 |
| 40 | 12 | 10 | M8 | 3,3 | 30 | 85 | 106 | 135 | 165 |
| 50 | 16 | 12 | M10 | 4,7 | 37 | 107 | 127 | 143 | 180 |
| 63 | 16 | 12 | M10 | 4,7 | 37 | 107 | 129 | 158 | 195 |
| 80 | 20 | 14 | M12 | 6,1 | 46 | 136 | 156 | 174 | 220 |
| 100 | 20 | 14 | M12 | 6,1 | 51 | 143 | 181 | 189 | 240 |
| 125 | 32 | 18 | M16 | 8 | 65 | 187 | - | 225 | 290 |



| Ø mm | AM | B | C | D | L8 | WH |
|------|----|----|----|-----|-----|----|
| 32 | 22 | 40 | 12 | 48 | 94 | 26 |
| 40 | 24 | 44 | 12 | 54 | 105 | 30 |
| 50 | 32 | 52 | 16 | 69 | 106 | 37 |
| 63 | 32 | 50 | 16 | 69 | 121 | 37 |
| 80 | 40 | 64 | 20 | 86 | 128 | 46 |
| 100 | 40 | 76 | 20 | 91 | 138 | 51 |
| 125 | 54 | 80 | 35 | 120 | 160 | 65 |



| Ø mm | A max | AH | B | C | D | SA | W | XA | XD | XV min | XV max | ZF |
|------|-------|----|----|----|----|-----|----|-----|-----|--------|--------|-----|
| 32 | 70 | 32 | 22 | 21 | 32 | 142 | 16 | 144 | 142 | 60 | 86 | 130 |
| 40 | 78 | 36 | 25 | 24 | 36 | 161 | 20 | 163 | 160 | 69 | 96 | 145 |
| 50 | 91 | 45 | 27 | 33 | 45 | 170 | 25 | 175 | 170 | 78 | 102 | 155 |
| 63 | 94 | 50 | 32 | 37 | 50 | 185 | 25 | 190 | 190 | 82 | 113 | 170 |
| 80 | 130 | 63 | 36 | 47 | 63 | 210 | 30 | 215 | 210 | 97 | 123 | 190 |
| 100 | 145 | 71 | 41 | 55 | 71 | 220 | 35 | 230 | 230 | 107 | 133 | 205 |
| 125 | 170 | 90 | 50 | 70 | 90 | 250 | 45 | 270 | 275 | 126,5 | 163,5 | 245 |

For dimensions and codes of the accessories: see page 1.97.1