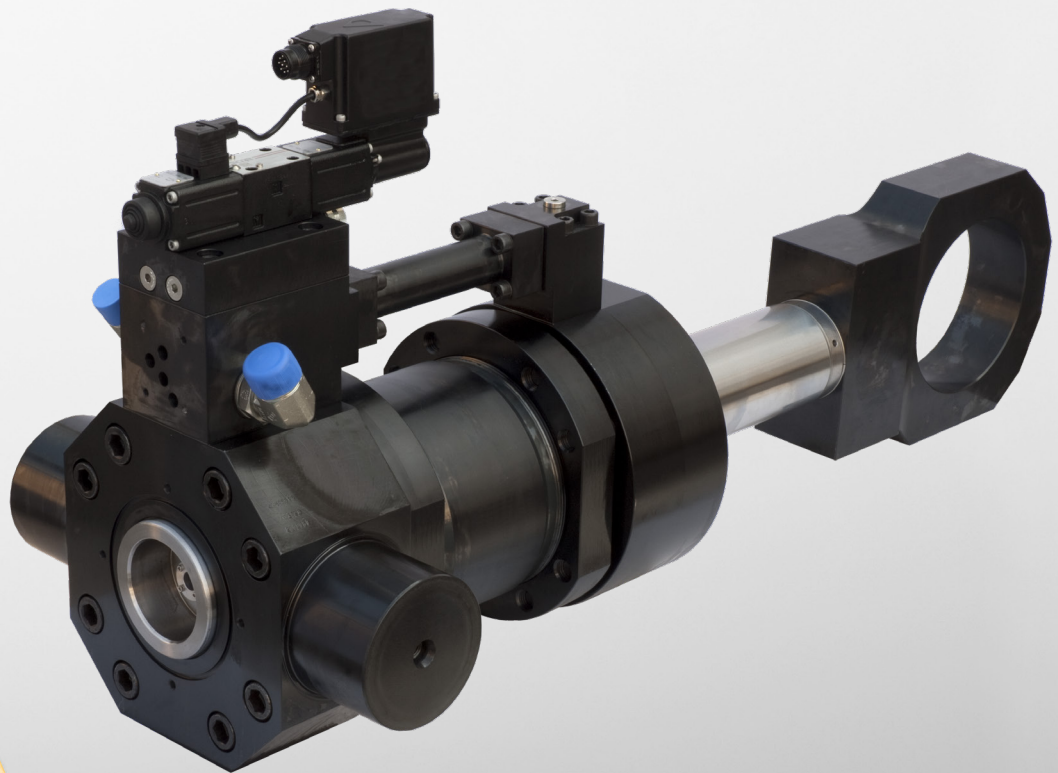




Hydraulic **Beyond Limits**



**HYDRAULIC CYLINDERS**  
**ISO 6022 - CG Series**

The double-acting "CG" cylinders featured in this catalog have been developed for industrial applications in accordance with ISO 6022 manufacturing standards. The care taken in selecting the materials and seals used, the attention to detail required at every stage of production and inspection, combined with rigorous final testing, make these hydraulic actuators an excellent choice for any application requiring maximum reliability and repeatability.

## GENERAL CONSTRUCTION NOTES

- Compact design with rounded ends and threaded locking rings
- Custom steel components designed with high safety factors
- Bore and rod diameter in accordance with standards
- Strokes available up to 3000 mm for any practical application
- Chrome plated rods, bolted and secured to the pistons, and manufactured to design specifications
- Optional drain on the front head to drain fluid accumulated between the gaskets
- Optional adjustable front and/or rear end-of-travel cushioning
- Standard low-friction gaskets even for high-temperature applications

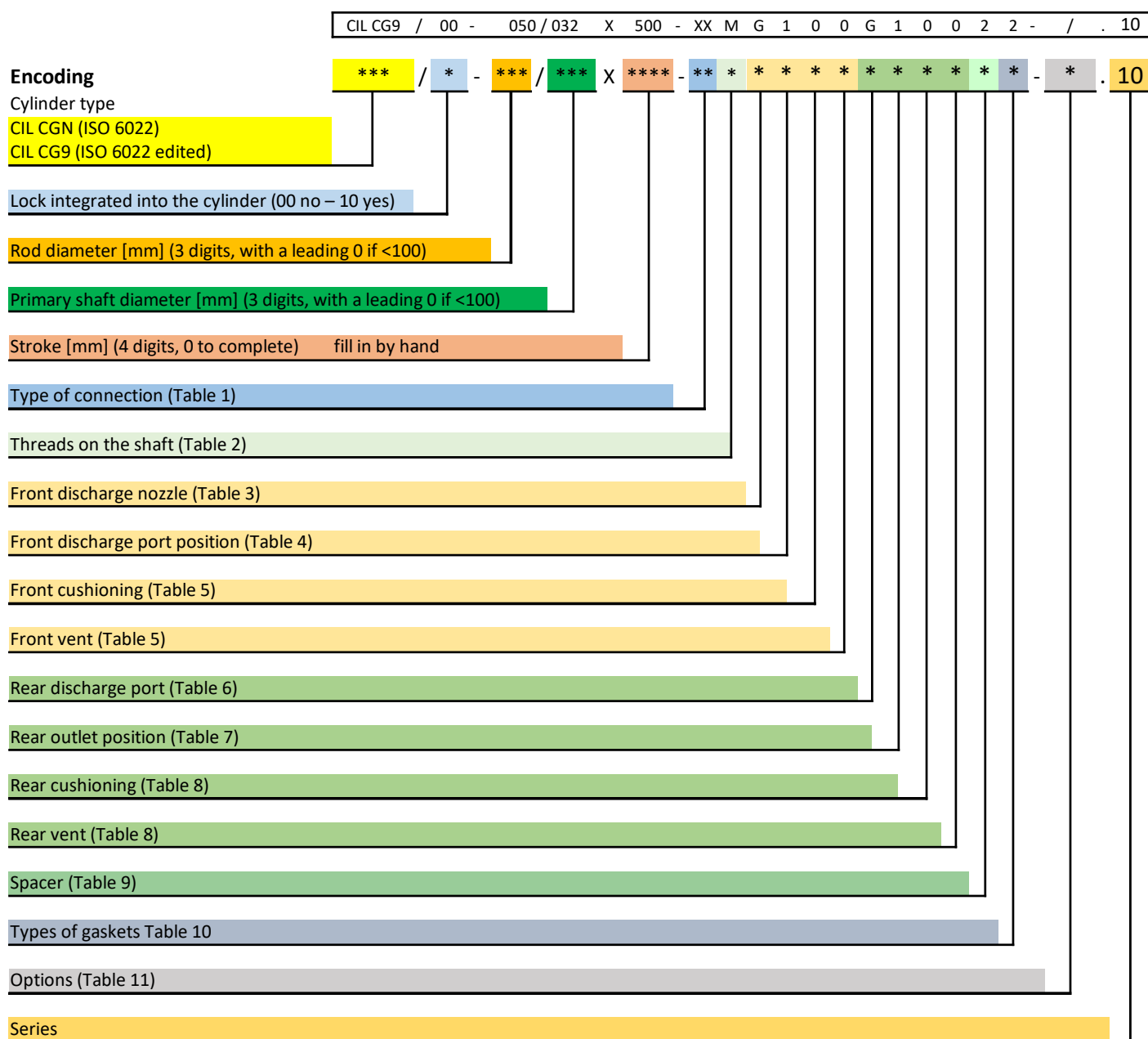
## TECHNICAL SPECIFICATIONS

|                                |                                                              |
|--------------------------------|--------------------------------------------------------------|
| Reference legislation          | ISO 6022 DIN 24333                                           |
| Piston diameter [mm]           | 50 - 63 - 80 - 100 - 125 - 140 - 160 - 180 - 200 - 250 - 320 |
| Shaft diameter [mm]            | Standard and intermediate sizes (see tables)                 |
| Operating pressure [bar / psi] | 250 / 3625,94 (continuous service)                           |
| Maximum pressure [bar / psi]   | 320 / 4641,21 (peak pressure)                                |
| Operating temperature [°C]     | From -20°C to +100°C                                         |
| Translation speed [m/s]        | Up to 15 m/s                                                 |
| Working fluid                  | Mineral oil compliant with ISO 6743/4                        |
| Degree of contamination        | Class 20/16/15 according to ISO 4406:1999 NAS 9              |

## CYLINDER TYPE

| <i>Tabella 1</i> |                    |
|------------------|--------------------|
| CIL CG           | Standard cylinders |
| CIL CG9          | Special cylinders  |

## TYPE CODE FOR STANDARD PROGRAM



STANDARD FINISH BLACK PAINT RAL 9005

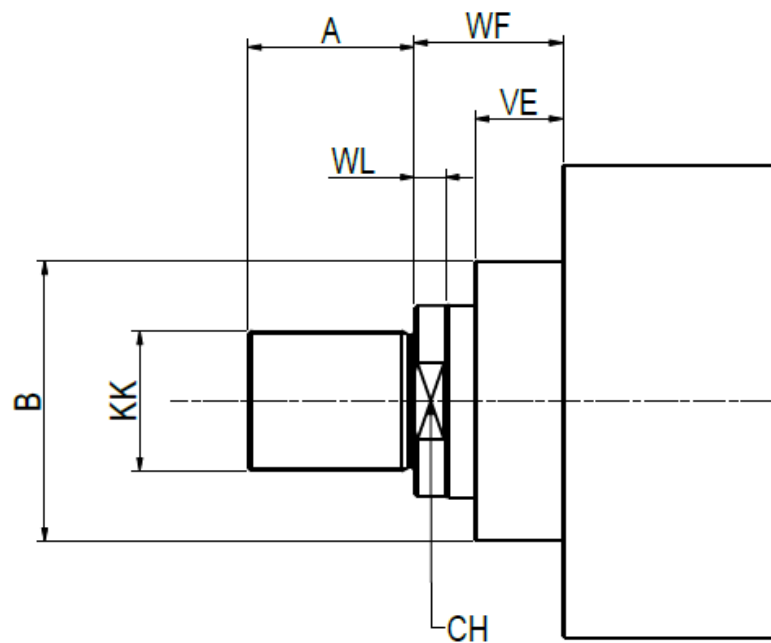
| table 1 | DESCRIPTION                             |
|---------|-----------------------------------------|
| F3      | Front flange (ISO MF3)                  |
| F4      | Rear flange (ISO MF4)                   |
| P5      | Rear male hinge with a joint ( ISO MP5) |
| T4      | Center pivot hinge (ISO Mt4)            |
| C1      | Stands ( NO ISO)                        |

Special fasteners can be manufactured upon request.

## DIMENSIONS TIP OF THE ROD

The stem ends can be made with a "male" connection or according to the following diagram

| table 2 | THREADING ON THE SHAFT                 |
|---------|----------------------------------------|
| M       | Standard male (standard configuration) |
| X       | Special                                |



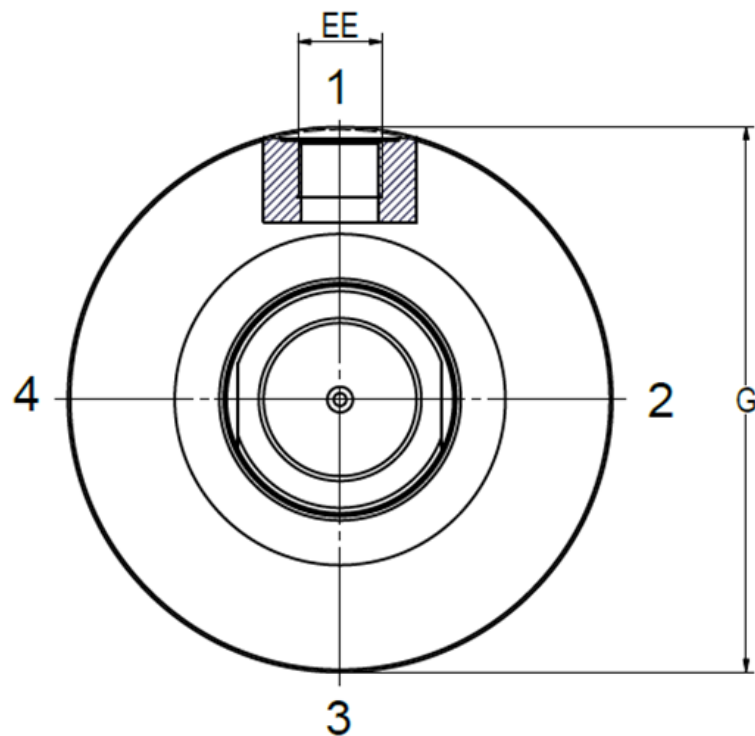
| Ø PISTON | Ø ROD | KK 6g  | B f8 | A   | WF  | WL Min | VE Max | CH   |
|----------|-------|--------|------|-----|-----|--------|--------|------|
| 50       | 32    | M27x2  | 63   | 36  | 47  | 8      | 29     | 30   |
|          | 36    |        |      |     |     |        |        |      |
| 63       | 40    | M33x2  | 75   | 45  | 53  | 10     | 32     | 39   |
|          | 45    |        |      |     |     |        |        |      |
| 80       | 50    | M42x2  | 90   | 56  | 60  | 10     | 36     | 48   |
|          | 56    |        |      |     |     |        |        |      |
| 100      | 63    | M48x2  | 110  | 63  | 68  | 10     | 41     | 62   |
|          | 70    |        |      |     |     |        |        |      |
| 125      | 80    | M64x3  | 132  | 85  | 76  | 15     | 45     | 80   |
|          | 90    |        |      |     |     |        |        |      |
| 140      | 90    | M72x3  | 145  | 90  | 76  | 15     | 45     | 75   |
|          | 100   |        |      |     |     |        |        |      |
| 160      | 100   | M80x3  | 160  | 95  | 85  | 15     | 50     | 100  |
|          | 110   |        |      |     |     |        |        |      |
| 180      | 110   | M90x3  | 185  | 105 | 95  | 15     | 55     | 100  |
|          | 125   |        |      |     |     |        |        |      |
| 200      | 125   | M100x3 | 200  | 112 | 101 | 15     | 61     | 128  |
|          | 140   |        |      |     |     |        |        |      |
| 250      | 160   | M124x4 | 250  | 125 | 113 | -      | 71     | 15 * |
|          | 180   |        |      |     |     |        |        |      |
| 320      | 200   | M160x4 | 320  | 160 | 136 | -      | 88     | 20 * |
|          | 220   |        |      |     |     |        |        |      |

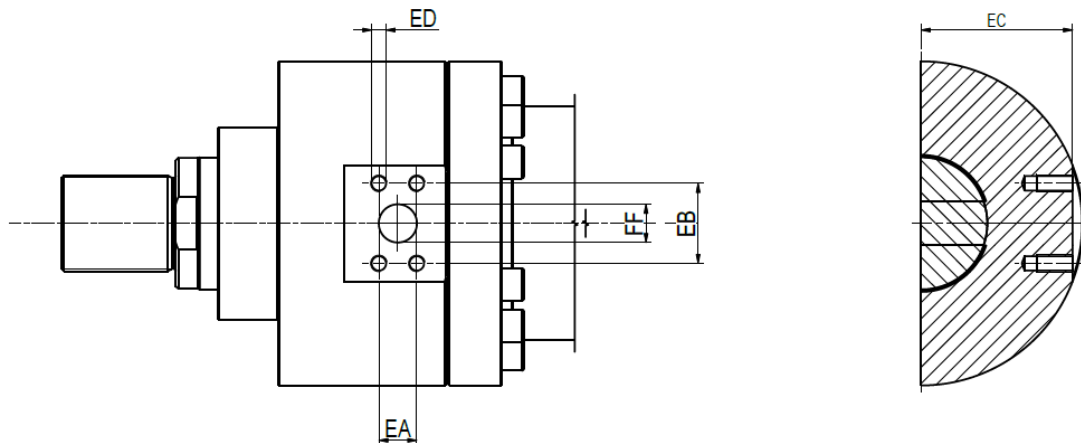
## DIMENSIONS OF SUPPLY OUTLETS

| table 3 | FRONT INLET                           |
|---------|---------------------------------------|
| G       | GAS                                   |
| S       | SAE Rectangular ISO 6162-1 (SAE 6000) |
| X       | Special                               |

| table 6 | REAR HYDRAULIC PORT                   |
|---------|---------------------------------------|
| G       | GAS                                   |
| S       | SAE Rectangular ISO 6162-1 (SAE 6000) |
| X       | Special                               |

## LOCATION OF VENTS, CUSHIONING VENTS, AND AIR VENTS





| Ø PISTON | Ø ROD | G   | EE      | DN | EC  | EA ±0.25 | EB ±0.25 | ED 6g    | FF (0/-1.5) |
|----------|-------|-----|---------|----|-----|----------|----------|----------|-------------|
| 50 *     | 32    | 108 | G 1/2   | 13 | 46  | 18,2     | 40,5     | M8x1,25  | 13          |
|          | 36    |     |         |    |     |          |          |          |             |
| 63 *     | 40    | 124 | G 3/4   | 19 | 51  | 23,8     | 50,8     | M10x1,5  | 19          |
|          | 45    |     |         |    |     |          |          |          |             |
| 80       | 50    | 148 |         |    | 65  |          |          |          |             |
|          | 56    |     |         |    |     |          |          |          |             |
| 100      | 63    | 175 | G 1     | 25 | 77  | 27,8     | 57,2     | M12x17,5 | 25          |
|          | 70    |     |         |    |     |          |          |          |             |
| 125      | 80    | 214 |         |    | 99  |          |          |          |             |
|          | 90    |     |         |    |     |          |          |          |             |
| 140      | 90    | 255 | G 1 1/4 | 32 | 118 | 31,6     | 66,6     | M14x2 ** | 32          |
|          | 100   |     |         |    |     |          |          |          |             |
| 160      | 100   | 270 |         |    | 126 |          |          |          |             |
|          | 110   |     |         |    |     |          |          |          |             |
| 180      | 110   | 315 |         |    | 150 |          |          |          |             |
|          | 125   |     |         |    |     |          |          |          |             |
| 200      | 125   | 330 |         |    | 158 |          |          |          |             |
|          | 140   |     |         |    |     |          |          |          |             |
| 250      | 160   | 412 | G 1 1/2 | 38 | 195 | 36,7     | 79,3     | M16x2,5  | 38          |
|          | 180   |     |         |    |     |          |          |          |             |
| 320      | 200   | 510 |         | 51 | 245 | 44,5     | 96,8     | M20x2,5  | 51          |
|          | 220   |     |         |    |     |          |          |          |             |

(\*) SAE flange not available for connection B (ISO MF4)

(\*\*) Not required by law ISO 6162-2

It is advisable not to use the cylinder heads as end stops for the moving mass. In this regard, we recommend the use of cushioning-adjustable via a pin-designed to slow the load's speed as it approaches the end of its stroke.

To avoid damaging the cylinder, it is always advisable to use external mechanical stops.

| <b>table 4</b> | <b>FRONT CUSHIONING</b>                                             |
|----------------|---------------------------------------------------------------------|
| 0              | not present                                                         |
| 1              | position 1 looking at the cylinder from the rod                     |
| 2              | position 2 looking at the cylinder from the rod                     |
| 3              | position 3 looking at the cylinder from the rod (standard position) |
| 4              | position 4 looking at the cylinder from the rod                     |

| <b>table 7</b> | <b>REAR CUSHIONING</b>                                              |
|----------------|---------------------------------------------------------------------|
| 0              | not present                                                         |
| 1              | position 1 looking at the cylinder from the rod                     |
| 2              | position 2 looking at the cylinder from the rod                     |
| 3              | position 3 looking at the cylinder from the rod (standard position) |
| 4              | position 4 looking at the cylinder from the rod                     |

## VENTILATION

Vent holes are a practical way to remove air from inside the cylinder during installation. They come standard with brakes or are available as an option upon request.

| <b>table 8</b> | <b>REAR VENT</b>                                                    |
|----------------|---------------------------------------------------------------------|
| 0              | not present                                                         |
| 1              | position 1 looking at the cylinder from the rod                     |
| 2              | position 2 looking at the cylinder from the rod                     |
| 3              | position 3 looking at the cylinder from the rod (standard position) |
| 4              | position 4 looking at the cylinder from the rod                     |

| <b>table 5</b> | <b>FRONT VENT</b>                                                   |
|----------------|---------------------------------------------------------------------|
| 0              | assente                                                             |
| 1              | position 1 looking at the cylinder from the rod                     |
| 2              | position 2 looking at the cylinder from the rod                     |
| 3              | position 3 looking at the cylinder from the rod (standard position) |
| 4              | position 4 looking at the cylinder from the rod                     |

When using cylinders with a stroke > 1000 mm, it is recommended to use spacers to improve rod guidance.

The overall length of the cylinder will increase depending on the number of spacers inserted.

| table 9 | SPACER           |
|---------|------------------|
| 0       | without          |
| 1       | 25 mm            |
| 2       | 50 mm            |
| 3       | 75 mm            |
| 4       | 100 mm           |
| 5       | 125 mm           |
| 6       | 150 mm           |
| 7       | 175 mm           |
| 8       | 200 mm           |
| X       | more than 200 mm |

## GASKET MATERIALS

The materials used in "CG" cylinder seals meet the operational requirements of most industrial applications.

Our standard gaskets are characterized by low friction coefficients and the absence of sliding vibrations (stick-slip effect).

Gaskets are also available for high-temperature operating conditions.

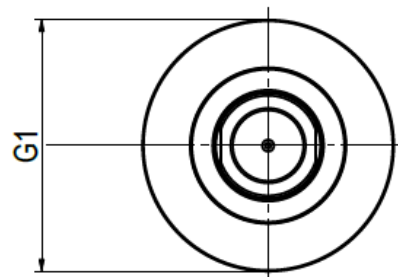
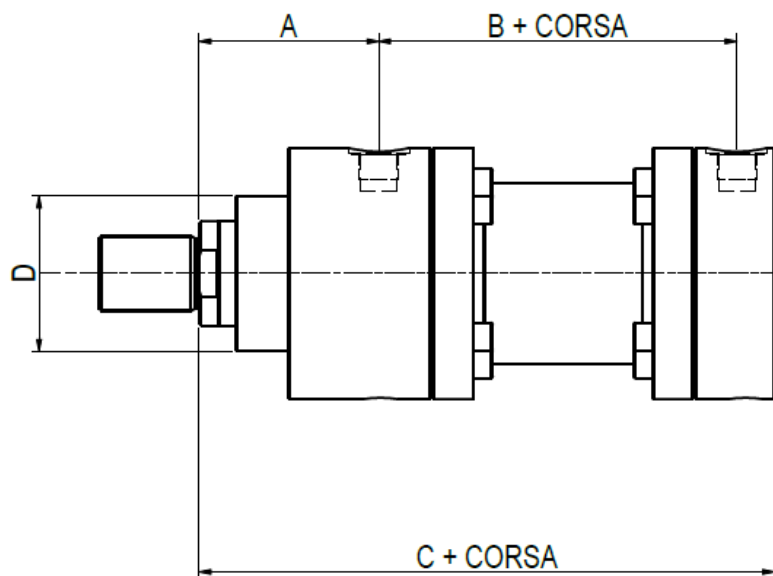
If special fluids are used or specific operating conditions are required, specially designed gaskets are available.

| table 10 | GASKET MATERIAL                |
|----------|--------------------------------|
| 0        | special                        |
| 1        | NBR + polyurethane             |
| 2        | NBR + PTFE (standard material) |
| 3        | VITON + PTFE                   |

## OPTIONS

| table 11 | OPTIONS                                  |
|----------|------------------------------------------|
| /        | Nothing                                  |
| L        | Anterior drainage                        |
| K        | Nickel and chrome-plated rod (Nicrom)    |
| T        | Tempered rod 42CrMo4                     |
| S        | Front proximity sensor + position sensor |
| R        | Rear proximity sensor + position sensor  |
| P        | Position sensor                          |

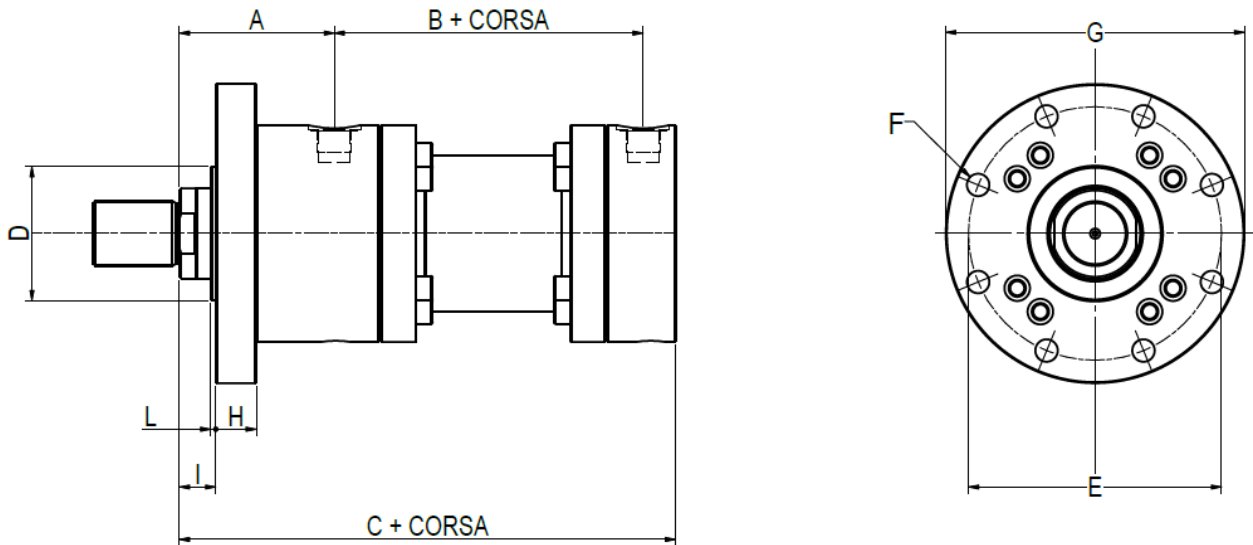
## BASIC CYLINDER CG CYLINDER



| Ø PISTON | Ø ROD | A ± 2 | B   | C   | D f8/H8 | G1  |
|----------|-------|-------|-----|-----|---------|-----|
| 50       | 32    | 98    | 120 | 244 | 63      | 108 |
|          | 36    |       |     |     |         |     |
| 63       | 40    | 112   | 133 | 274 | 75      | 124 |
|          | 45    |       |     |     |         |     |
| 80       | 50    | 120   | 155 | 305 | 90      | 148 |
|          | 56    |       |     |     |         |     |
| 100      | 63    | 134   | 171 | 340 | 110     | 175 |
|          | 70    |       |     |     |         |     |
| 125      | 80    | 153   | 205 | 396 | 132     | 214 |
|          | 90    |       |     |     |         |     |
| 140      | 90    | 181   | 208 | 430 | 145     | 255 |
|          | 100   |       |     |     |         |     |
| 160      | 100   | 125   | 235 | 467 | 160     | 270 |
|          | 110   |       |     |     |         |     |
| 180      | 110   | 205   | 250 | 505 | 185     | 315 |
|          | 125   |       |     |     |         |     |
| 200      | 125   | 220   | 278 | 550 | 200     | 330 |
|          | 140   |       |     |     |         |     |
| 250      | 160   | 260   | 325 | 652 | 250     | 412 |
|          | 180   |       |     |     |         |     |
| 320      | 200   | 310   | 350 | 764 | 320     | 510 |
|          | 220   |       |     |     |         |     |

Dimensions in [mm]

## MOUNTING TYPES: FRONT FLANGE MOUNT TYPE "F3" (ISO MF3)

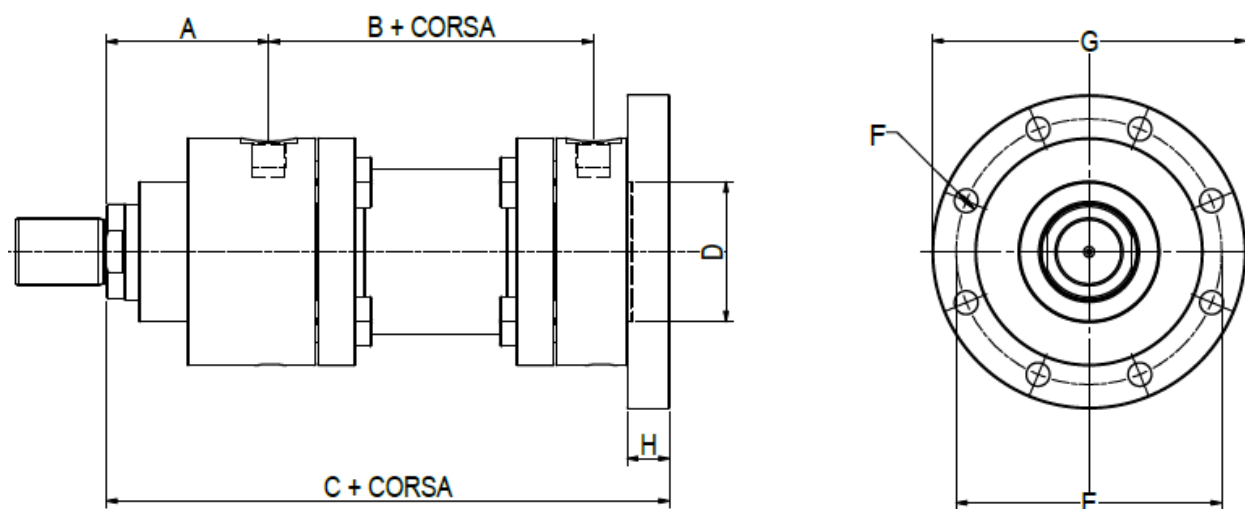


| Ø PISTON | Ø ROD | A ± 2 | B   | C   | D f8/H8 | E js13 | F H13 | G   | H js13 | I  | L |
|----------|-------|-------|-----|-----|---------|--------|-------|-----|--------|----|---|
| 50       | 32    | 98    | 120 | 244 | 63      | 132    | 13,5  | 160 | 25     | 22 | 4 |
|          | 36    |       |     |     |         |        |       |     |        |    |   |
| 63       | 40    | 112   | 133 | 274 | 75      | 150    | 13,5  | 180 | 28     | 25 | 4 |
|          | 45    |       |     |     |         |        |       |     |        |    |   |
| 80       | 50    | 120   | 155 | 305 | 90      | 180    | 17,5  | 215 | 32     | 28 | 4 |
|          | 56    |       |     |     |         |        |       |     |        |    |   |
| 100      | 63    | 134   | 171 | 340 | 110     | 212    | 22    | 260 | 36     | 32 | 5 |
|          | 70    |       |     |     |         |        |       |     |        |    |   |
| 125      | 80    | 153   | 205 | 396 | 132     | 250    | 22    | 300 | 40     | 36 | 5 |
|          | 90    |       |     |     |         |        |       |     |        |    |   |
| 140      | 90    | 181   | 208 | 430 | 145     | 300 *  | 26    | 340 | 40     | 36 | 5 |
|          | 100   |       |     |     |         |        |       |     |        |    |   |
| 160      | 100   | 185   | 235 | 467 | 160     | 315    | 26    | 370 | 45     | 40 | 5 |
|          | 110   |       |     |     |         |        |       |     |        |    |   |
| 180      | 110   | 205   | 250 | 505 | 185     | 365 *  | 33    | 425 | 50     | 45 | 5 |
|          | 125   |       |     |     |         |        |       |     |        |    |   |
| 200      | 125   | 220   | 278 | 550 | 200     | 385    | 33    | 455 | 56     | 45 | 5 |
|          | 140   |       |     |     |         |        |       |     |        |    |   |
| 250      | 160   | 260   | 325 | 652 | 250     | 475    | 39    | 545 | 63     | 50 | 8 |
|          | 180   |       |     |     |         |        |       |     |        |    |   |
| 320      | 200   | 310   | 350 | 764 | 320     | 600    | 45    | 680 | 80     | 56 | 8 |
|          | 220   |       |     |     |         |        |       |     |        |    |   |

Dimensions in [mm]

(\*) Dimension not compliant with ISO 6022

## MOUNTING TYPES: REAR FLANGE MOUNT TYPE "F4" (ISO MF4)

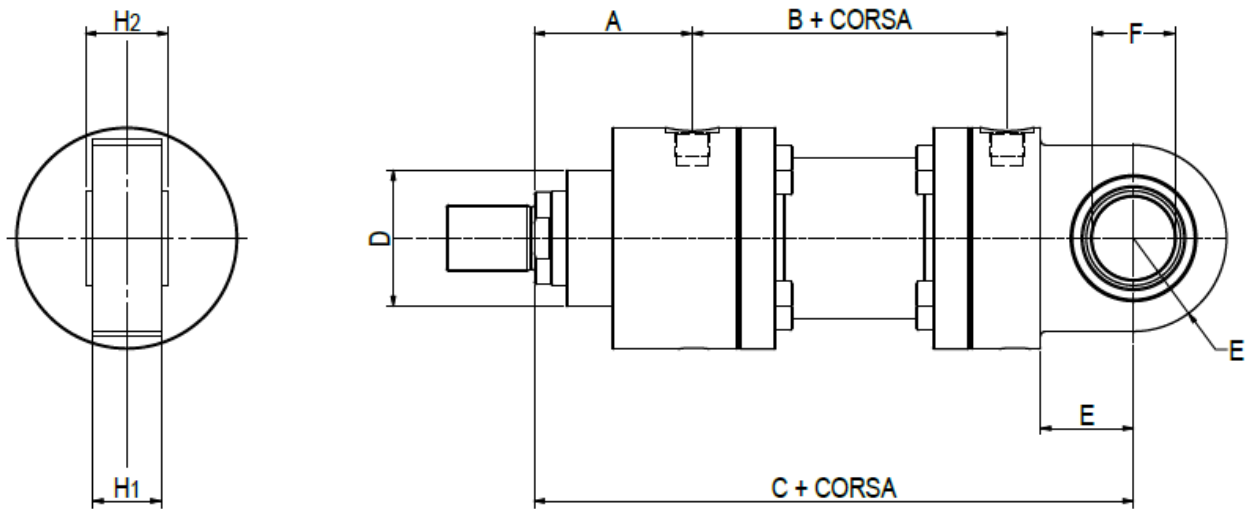


| Ø PISTON | Ø ROD | A ± 2 | B   | C   | D f8/H8 | E js13 | F H13 | G   | H js13 |
|----------|-------|-------|-----|-----|---------|--------|-------|-----|--------|
| 50       | 32    | 98    | 120 | 265 | 63      | 132    | 13,5  | 160 | 25     |
|          | 36    |       |     |     |         |        |       |     |        |
| 63       | 40    | 112   | 133 | 298 | 75      | 150    | 13,5  | 180 | 28     |
|          | 45    |       |     |     |         |        |       |     |        |
| 80       | 50    | 120   | 155 | 332 | 90      | 180    | 17,5  | 215 | 32     |
|          | 56    |       |     |     |         |        |       |     |        |
| 100      | 63    | 134   | 171 | 371 | 110     | 212    | 22    | 260 | 36     |
|          | 70    |       |     |     |         |        |       |     |        |
| 125      | 80    | 153   | 205 | 430 | 132     | 250    | 22    | 300 | 40     |
|          | 90    |       |     |     |         |        |       |     |        |
| 140      | 90    | 181   | 208 | 465 | 145     | 300 *  | 26    | 340 | 40     |
|          | 100   |       |     |     |         |        |       |     |        |
| 160      | 100   | 185   | 235 | 505 | 160     | 315    | 26    | 370 | 45     |
|          | 110   |       |     |     |         |        |       |     |        |
| 180      | 110   | 205   | 250 | 550 | 185     | 365 *  | 33    | 425 | 50     |
|          | 125   |       |     |     |         |        |       |     |        |
| 200      | 125   | 220   | 278 | 596 | 200     | 385    | 33    | 455 | 56     |
|          | 140   |       |     |     |         |        |       |     |        |
| 250      | 160   | 260   | 325 | 703 | 250     | 475    | 39    | 545 | 63     |
|          | 180   |       |     |     |         |        |       |     |        |
| 320      | 200   | 310   | 350 | 830 | 320     | 600    | 45    | 680 | 80     |
|          | 220   |       |     |     |         |        |       |     |        |

Dimensions in [mm]

(\*) Dimension not compliant with ISO 6022

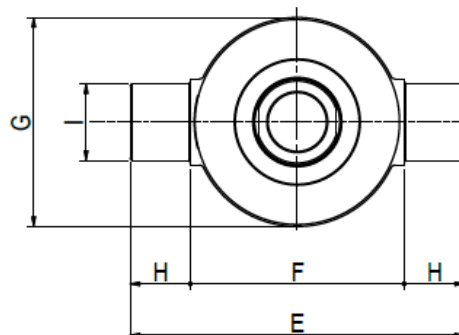
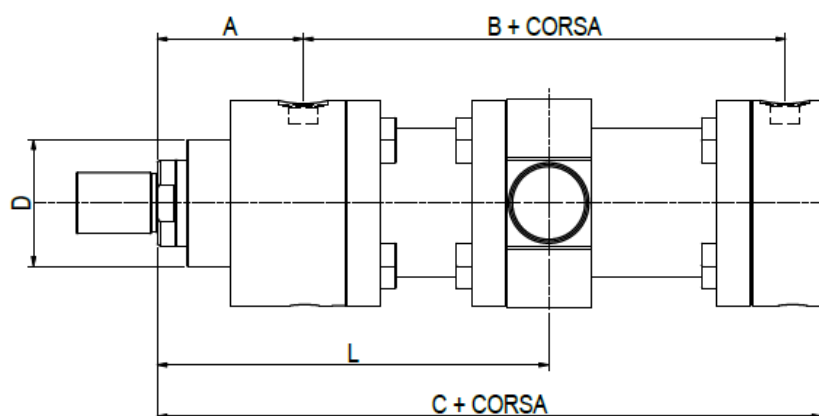
## TYPES OF MOUNTING: HINGE WITH JOINT TYPE "P5" (ISO MP5)



| Ø PISTON | Ø ROD | A ± 2 | B   | C    | D f8/H8 | E   | F H7 | H1  | H2 h12 |
|----------|-------|-------|-----|------|---------|-----|------|-----|--------|
| 50       | 32    | 98    | 120 | 305  | 63      | 61  | 32   | 27  | 32     |
|          | 36    |       |     |      |         |     |      |     |        |
| 63       | 40    | 112   | 133 | 348  | 75      | 74  | 40   | 35  | 40     |
|          | 45    |       |     |      |         |     |      |     |        |
| 80       | 50    | 120   | 155 | 395  | 90      | 90  | 50   | 40  | 50     |
|          | 56    |       |     |      |         |     |      |     |        |
| 100      | 63    | 134   | 171 | 442  | 110     | 107 | 63   | 52  | 63     |
|          | 70    |       |     |      |         |     |      |     |        |
| 125      | 80    | 153   | 205 | 520  | 132     | 124 | 80   | 66  | 80     |
|          | 90    |       |     |      |         |     |      |     |        |
| 140      | 90    | 181   | 208 | 580  | 145     | 150 | 90   | 65  | 90     |
|          | 100   |       |     |      |         |     |      |     |        |
| 160      | 100   | 185   | 235 | 617  | 160     | 150 | 100  | 84  | 100    |
|          | 110   |       |     |      |         |     |      |     |        |
| 180      | 110   | 205   | 250 | 690  | 185     | 185 | 110  | 88  | 110    |
|          | 125   |       |     |      |         |     |      |     |        |
| 200      | 125   | 220   | 278 | 756  | 200     | 206 | 125  | 102 | 125    |
|          | 140   |       |     |      |         |     |      |     |        |
| 250      | 160   | 260   | 325 | 903  | 250     | 251 | 160  | 130 | 160    |
|          | 180   |       |     |      |         |     |      |     |        |
| 320      | 200   | 310   | 350 | 1080 | 320     | 322 | 200  | 162 | 200    |
|          | 220   |       |     |      |         |     |      |     |        |

Dimensions in [mm]

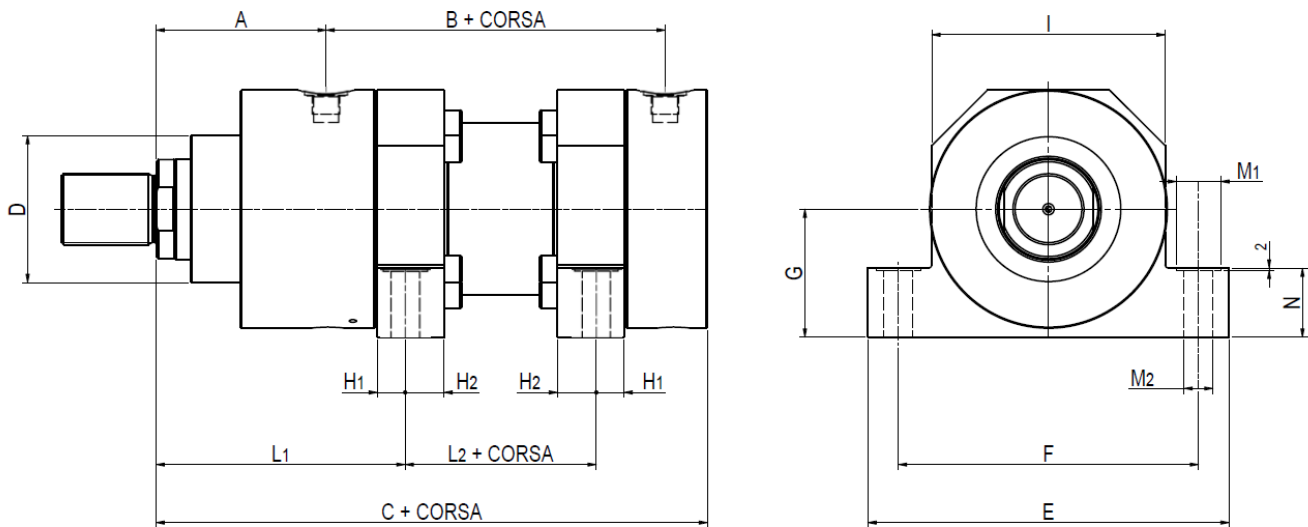
## TYPES OF FASTENING: FASTENING WITH A "T4" TYPE INTERMEDIATE CLAMP (ISO MT4)



|          |       |       |     |     |         |     |       |     |        |      | L              |     |              |
|----------|-------|-------|-----|-----|---------|-----|-------|-----|--------|------|----------------|-----|--------------|
| Ø Piston | Ø ROD | A ± 2 | B   | C   | D f8/H8 | E   | F h12 | G   | H js13 | I f8 | Minimum stroke | min | Max          |
| 50       | 32    | 98    | 120 | 244 | 63      | 162 | 112   | 108 | 25     | 32   | 175            | 260 | 85 + stroke  |
|          | 36    |       |     |     |         |     |       |     |        |      |                |     |              |
| 63       | 40    | 112   | 133 | 274 | 75      | 189 | 125   | 124 | 32     | 40   | 185            | 285 | 100 + stroke |
|          | 45    |       |     |     |         |     |       |     |        |      |                |     |              |
| 80       | 50    | 120   | 155 | 305 | 90      | 230 | 150   | 150 | 40     | 50   | 150            | 290 | 140 + stroke |
|          | 56    |       |     |     |         |     |       |     |        |      |                |     |              |
| 100      | 63    | 134   | 171 | 340 | 110     | 280 | 180   | 180 | 50     | 63   | 160            | 320 | 160 + stroke |
|          | 70    |       |     |     |         |     |       |     |        |      |                |     |              |
| 125      | 80    | 153   | 205 | 396 | 132     | 350 | 224   | 219 | 63     | 80   | 245            | 410 | 165 + stroke |
|          | 90    |       |     |     |         |     |       |     |        |      |                |     |              |
| 140      | 90    | 181   | 208 | 430 | 145     | 405 | 265   | 260 | 70     | 90   | 250            | 440 | 190 + stroke |
|          | 100   |       |     |     |         |     |       |     |        |      |                |     |              |
| 160      | 100   | 185   | 235 | 467 | 160     | 440 | 280   | 280 | 80     | 100  | 260            | 465 | 205 + stroke |
|          | 110   |       |     |     |         |     |       |     |        |      |                |     |              |
| 180      | 110   | 205   | 250 | 505 | 185     | 500 | 320   | 315 | 90     | 110  | 350            | 540 | 190 + stroke |
|          | 125   |       |     |     |         |     |       |     |        |      |                |     |              |
| 200      | 125   | 220   | 278 | 550 | 200     | 535 | 335   | 333 | 100    | 125  | 390            | 590 | 200 + stroke |
|          | 140   |       |     |     |         |     |       |     |        |      |                |     |              |
| 250      | 160   | 260   | 325 | 652 | 250     | 675 | 425   | 412 | 125    | 160  | 460            | 690 | 230 + stroke |
|          | 180   |       |     |     |         |     |       |     |        |      |                |     |              |
| 320      | 200   | 310   | 350 | 764 | 320     | 850 | 530   | 510 | 160    | 200  | 560            | 820 | 260 + stroke |
|          | 220   |       |     |     |         |     |       |     |        |      |                |     |              |

Dimensions in [mm]

## TYPES OF MOUNTING: FOOT MOUNT TYPE "C1" (ISO MS2)



| Ø PISTON | Ø ROD | A ± 2 | B   | C   | D f8/H8 | E   | F   | G h10 | H1   | H2     | I   | L1    | L2  | M1  | M2 H13 | N   |
|----------|-------|-------|-----|-----|---------|-----|-----|-------|------|--------|-----|-------|-----|-----|--------|-----|
| 50       | 32    | 98    | 120 | 244 | 63      | 160 | 135 | 60    | 15,5 | 20,5 * | 105 | 130   | 55  | 18  | 11     | 32  |
|          | 36    |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 63       | 40    | 112   | 133 | 274 | 75      | 185 | 155 | 68    | 17,5 | 24,5 * | 122 | 147,5 | 55  | 20  | 13,5   | 37  |
|          | 45    |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 80       | 50    | 120   | 155 | 305 | 90      | 225 | 185 | 80    | 22,5 | 22,5   | 145 | 170,5 | 55  | 26  | 17,5   | 42  |
|          | 56    |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 100      | 63    | 134   | 171 | 340 | 110     | 265 | 220 | 95    | 27,5 | 27,5   | 175 | 192,5 | 55  | 33  | 22     | 52  |
|          | 70    |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 125      | 80    | 153   | 205 | 396 | 132     | 325 | 270 | 115   | 30   | 30     | 210 | 230   | 60  | 40  | 26     | 62  |
|          | 90    |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 140      | 90    | 181   | 208 | 430 | 145     | 390 | 325 | 135   | 35,5 | 35,5   | 255 | 254,5 | 61  | 48  | 30     | 77  |
|          | 100   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 160      | 100   | 185   | 235 | 467 | 160     | 405 | 340 | 145   | 37,5 | 37,5   | 270 | 265,5 | 79  | 48  | 33     | 77  |
|          | 110   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 180      | 110   | 205   | 250 | 505 | 185     | 465 | 390 | 165   | 42,5 | 42,5   | 315 | 287,5 | 85  | 60  | 40     | 87  |
|          | 125   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 200      | 125   | 220   | 278 | 550 | 200     | 480 | 405 | 170   | 45   | 47 *   | 330 | 315   | 90  | 60  | 40     | 87  |
|          | 140   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 250      | 160   | 260   | 325 | 652 | 250     | 620 | 520 | 215   | 50   | 52 *   | 410 | 360   | 120 | 76  | 52     | 112 |
|          | 180   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |
| 320      | 200   | 310   | 350 | 764 | 320     | 740 | 620 | 260   | 60   | 62 *   | 510 | 425   | 120 | 110 | 62     | 152 |
|          | 220   |       |     |     |         |     |     |       |      |        |     |       |     |     |        |     |

Dimensions in [mm]

(\*) Mounting holes offset from the centerline



**Hydraulic Beyond Limits**

**Cabool Fluid Engineering srl**

Via Gazzotti, 251/269

Modena – Italy

+39 059 281621

[www.cabool.eu](http://www.cabool.eu)

