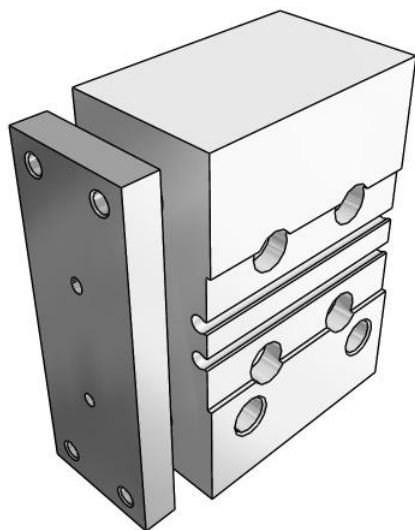




## MGP-Z (ø12 to ø32), Compact Guide Cylinder MGPM20-20Z

### Datasheet

### General series information

- 3 types of bearing can be selected: slide bearing, ball bushing and high precision ball bushing.
- Compactness & Lightness
- Bore size: 12, 16, 20, 25, 32 (mm)
- Strokes from 1 to 400mm (depending upon bore size)
- 4 types of mounting are possible: top mounting, side mounting, bottom mounting and T-slot side mounting.
- Auto switches can be mounted on 2 surfaces.



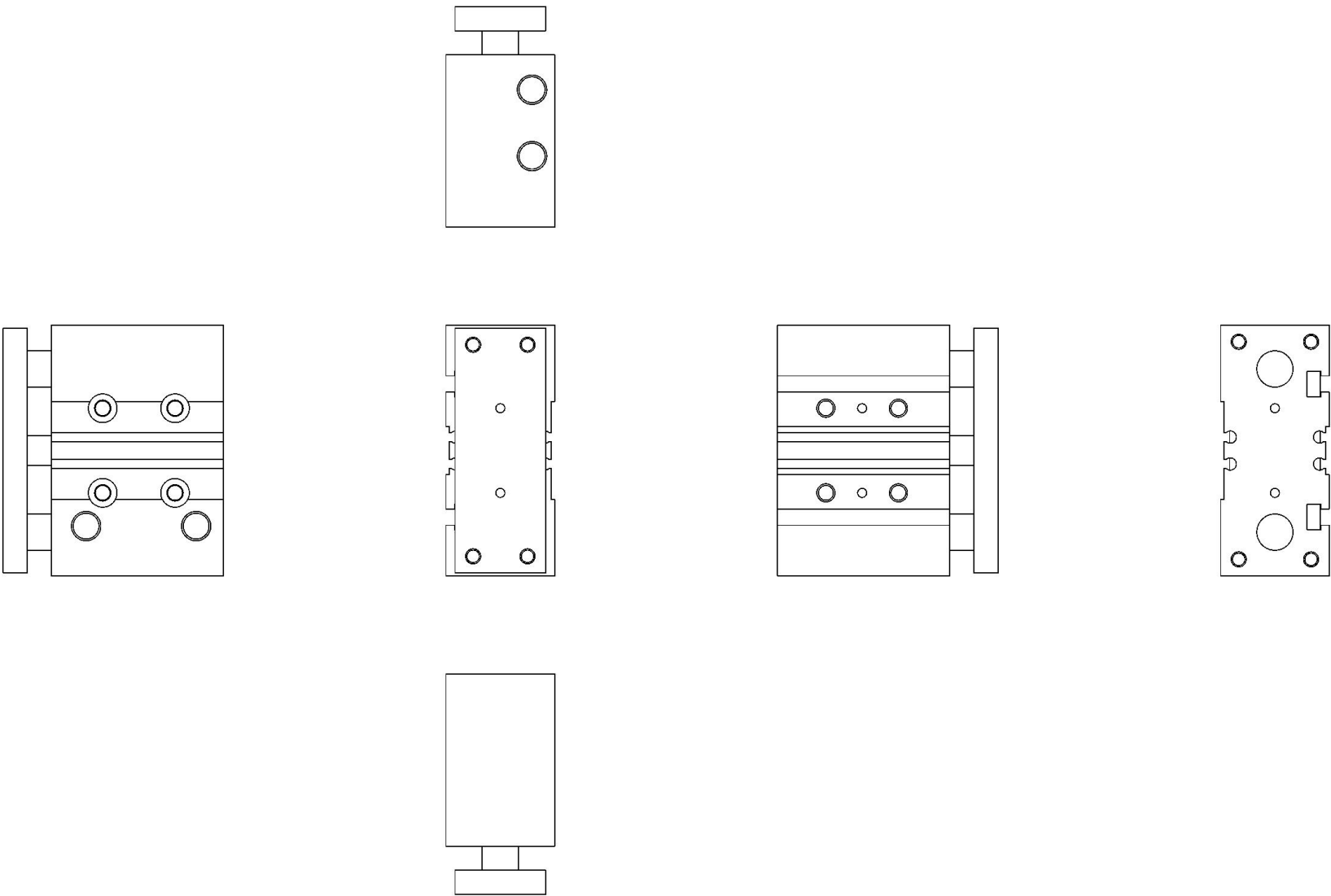
Double-acting, single-rod cylinder

### Standard specifications

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| Bearing Type                           | M (Slide Bearing)                       |
| Bore Size                              | Ø20 mm                                  |
| Port Thread Type                       | Rc [Or M5x0.8 for 12, 16 Bores]         |
| Lube-retainer                          | Without Stable Lubrication Function     |
| Stroke                                 | 20                                      |
| Auto Switch                            | No Switch                               |
| Lead Wire Length                       | 0.5m [Or None in the Case of No Switch] |
| Number of Auto Switches                | 2 pcs. [Or None in Case of No Switch]   |
| Change of Guide Rod End Shape          | None                                    |
| Temperature Resistance                 | None                                    |
| Low Speed                              | None                                    |
| Stainless Steel                        | None                                    |
| Fluororubber Seal                      | None                                    |
| Grease for Food Processing Equipment   | None                                    |
| Pressure medium                        | Compressed air                          |
| Maximum temperature of pressure medium | 60 °C                                   |
| Minimum temperature of pressure medium | -10 °C (No freezing)                    |

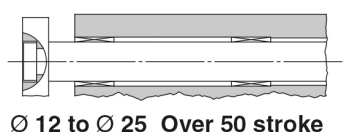
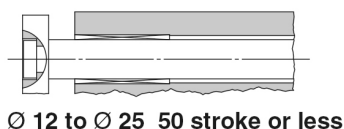
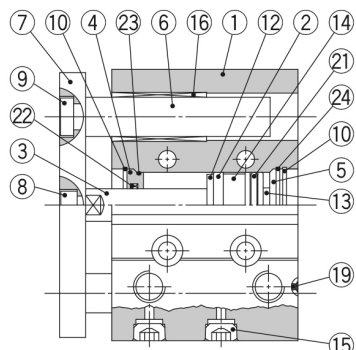
|                                                         |                            |
|---------------------------------------------------------|----------------------------|
| Maximum operating pressure                              | 1.0 MPa                    |
| Minimum operating pressure                              | 0.1 MPa                    |
| Proof pressure                                          | 1.5 MPa                    |
| Maximum ambient temperature                             | 60 °C                      |
| Minimum ambient temperature                             | -10 °C (No freezing)       |
| Number of pneumatic connections                         | 4 pcs.                     |
| Pneumatic input connection                              | R 1/8                      |
| Pneumatic exhaust connection                            | R 1/8                      |
| Mode of operation of drive                              | Double acting              |
| Theoretical cylinder force, advance stroke (at 0.5 MPa) | 157 N                      |
| Theoretical cylinder force, return stroke (at 0.5 MPa)  | 118 N                      |
| Maximum piston speed                                    | 500 mm/s                   |
| Type of cushioning                                      | Rubber bumper on both ends |
| Non-rotating accuracy of plate                          | ± 0.06 °                   |
| Weight                                                  | 0.590 Kg                   |

Dimensions

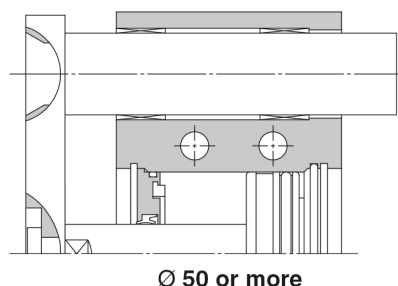
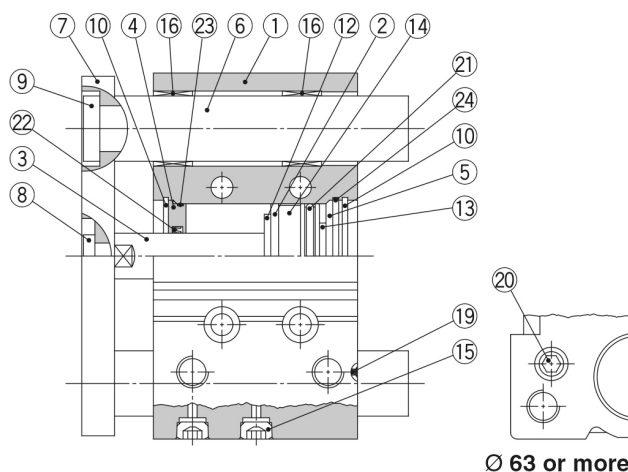


## Constructions

### MGPM12 to 25



### MGPM32 to 100



#### Component Parts

| No. | Description         | Material          | Note                                       |
|-----|---------------------|-------------------|--------------------------------------------|
| 1   | Body                | Aluminium alloy   | Hard anodised                              |
| 2   | Piston              | Aluminium alloy   |                                            |
| 3   | Piston rod          | Stainless steel   | Ø 12 to Ø 25                               |
| 4   | Collar              | Carbon steel      | Ø 32 to Ø 100 Hard chrome plating          |
| 5   | Head cover          | Aluminium alloy   | Chromated                                  |
| 6   | Guide rod           | Carbon steel      | Hard chrome plating                        |
| 7   | Plate               | Carbon steel      | Nickel plating                             |
| 8   | Plate mounting bolt | Carbon steel      | Nickel plating                             |
| 9   | Guide bolt          | Carbon steel      | Nickel plating                             |
| 10  | Retaining ring      | Carbon tool steel | Phosphate coated                           |
| 11  | Retaining ring      | Carbon tool steel | Phosphate coated                           |
| 12  | Bumper A            | Urethane          |                                            |
| 13  | Bumper B            | Urethane          |                                            |
| 14  | Magnet              | —                 |                                            |
| 15  | Plug                | Carbon steel      | Ø 12, Ø 16<br>Ø 20 to Ø 100 Nickel plating |
| 16  | Slide bearing       | Bearing alloy     |                                            |

※: A felt is not installed on the slide bearing.

#### Component Parts

| No. | Description  | Material        | Note                         |
|-----|--------------|-----------------|------------------------------|
| 17  | Ball bushing |                 |                              |
| 18  | Spacer       | Aluminium alloy |                              |
| 19  | Steel ball   | Carbon steel    | Ø 12 to Ø 50                 |
| 20  | Plug         | Carbon steel    | Ø 63 to Ø 100 Nickel plating |
| 21* | Piston seal  | NBR             |                              |
| 22* | Rod seal     | NBR             |                              |
| 23* | Gasket A     | NBR             |                              |
| 24* | Gasket B     | NBR             |                              |

#### Replacement Parts/Seal Kit

| Bore size [mm] | Kit no.    | Contents       | Bore size [mm] | Kit no.     | Contents       |
|----------------|------------|----------------|----------------|-------------|----------------|
| 12             | MGP12-Z-PS | Set of nos.    | 40             | MGP40-Z-PS  | Set of nos.    |
| 16             | MGP16-Z-PS | above          | 50             | MGP50-Z-PS  | above          |
| 20             | MGP20-Z-PS | 21, 22, 23, 24 | 63             | MGP63-Z-PS  | 21, 22, 23, 24 |
| 25             | MGP25-Z-PS |                | 80             | MGP80-Z-PS  |                |
| 32             | MGP32-Z-PS |                | 100            | MGP100-Z-PS |                |

※: Seal kit includes 21 to 24. Order the seal kit, based on each bore size.

※: Since the seal kit does not include a grease pack, order it separately.

Grease pack part number: GR-S-010 (10 g)

## Additional information

Catalogue

[MGP-Z-Dd\\_EU.pdf](#)

Operation manuals

[OM\\_MGP-Z\\_MGPx-OM0047PEN-B.pdf](#)