

GRIPPERS SERIES P3 - P12

GRIPPER WITH TWO PARALLEL JAWS, SERIES P3

Parallel double-acting two-jaw gripper, with either internal or external clamping.

Body made of surface hardened aluminium alloy; jaws made of wear-resistant coated steel.

The jaw-guiding system and precision in coupling with the body make the gripper extremely stable.

The ceramic-coated body reduces friction and wear, and enhances the movement of the jaws on the body.

It is available in both versions with standard stroke and torque and with a reduced stroke and increased torque.

The gripper is equipped with a magnet and grooves for sensors.

A version designed to house inductive sensors is also available (**the inductive sensors are not supplied by Metal Work**).

Air can be supplied either from below or the side



| TECHNICAL DATA | | P3-80 STANDARD | P3-80 INCREASED FORCE |
|---|--------------------|--|-----------------------|
| Operating pressure | bar | 2 to 8 | 3 to 8 |
| | MPa | 0.2 to 0.8 | 0.3 to 0.8 |
| | psi | 29 to 116 | 43 to 116 |
| Temperature range | °C | -10 to 80 | |
| Fluid | | 20 µm filtered, lubricated or unlubricated air; lubrication if used, it must be continuous | |
| Clamping force of a single jaw at 6.3 bar, 20 mm from the upper surface, on opening and closing | N | 265 | 445 |
| Maximum movable weight | kg | 2.5 | 5 |
| Stroke of each jaw | mm | 8 | 4 |
| Minimum opening/closing time | s | 0.04 / 0.04 | |
| Repeatability | mm | 0.01 | |
| Moment of inertia | kg cm ² | 4.5 | |
| Max. admissible static loads: | | | |
| - Fa | N | 1500 | |
| - Mx | Nm | 90 | |
| - My | Nm | 55 | |
| - Mz | Nm | 55 | |
| Weight | kg | 0.510 | |

COMPONENTS

- ① BODY: hard-anodised aluminium
- ② JAWS: nitrided steel
- ③ PISTON ROD + GUIDE: nitrided steel
- ④ PISTON: hard-anodised aluminium
- ⑤ PISTON GASKET: NBR
- ⑥ PISTON ROD GASKET: NBR
- ⑦ BASE GASKET: reinforced SBR
- ⑧ MAGNET: neodymium

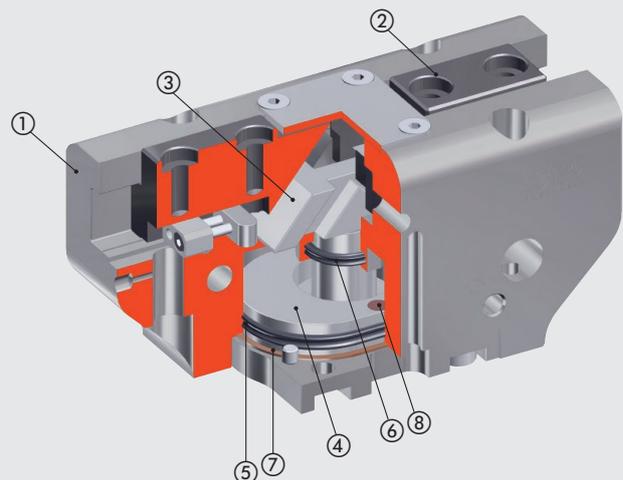
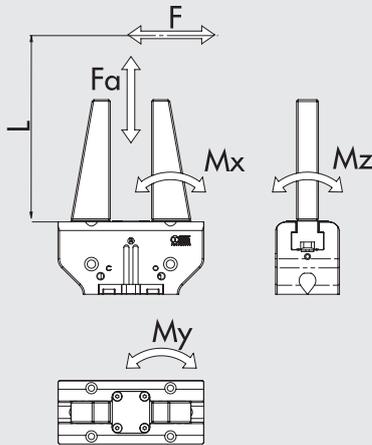
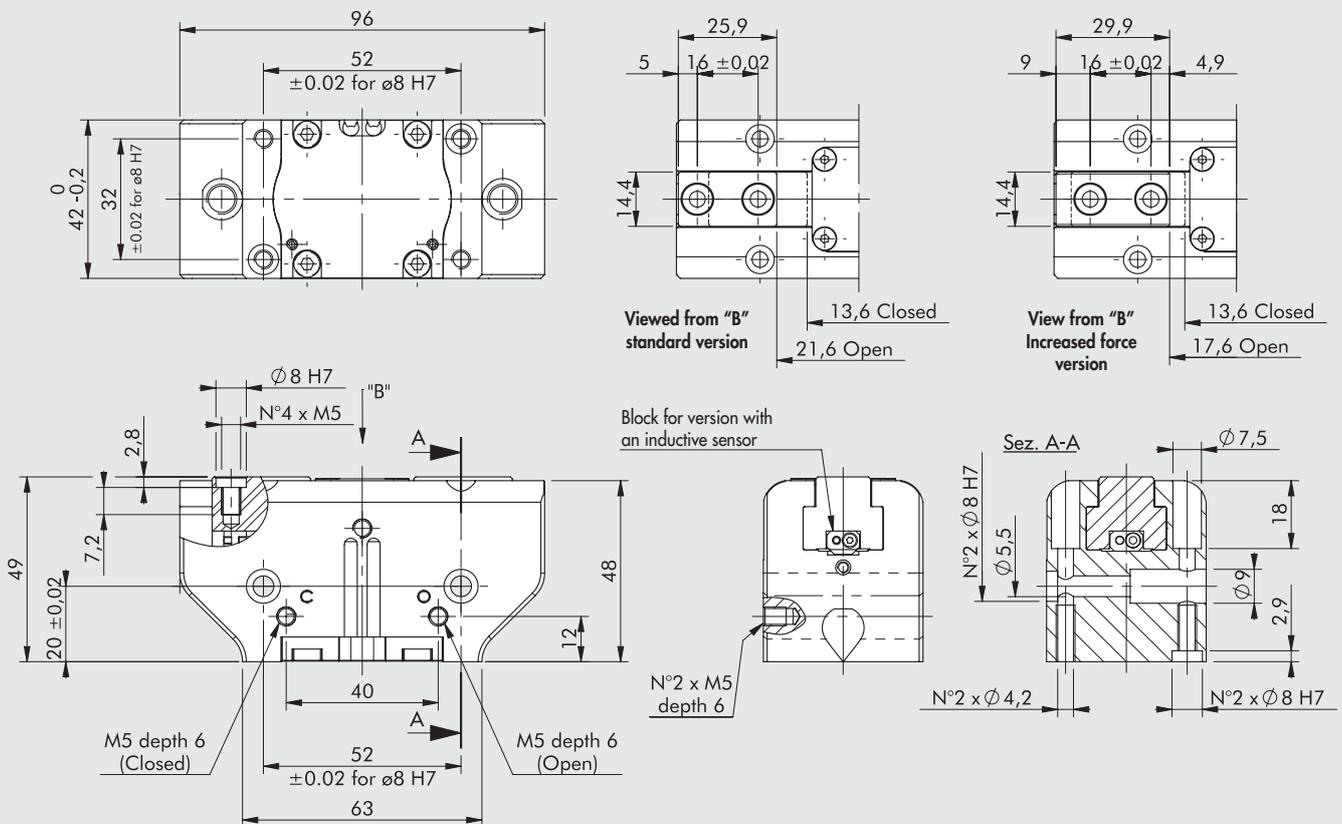


DIAGRAM OF FORCES AND MOMENTS



F Clamping force for each jaw
 Fa Maximum static axial force
 Mx, My, Mz Maximum static moments

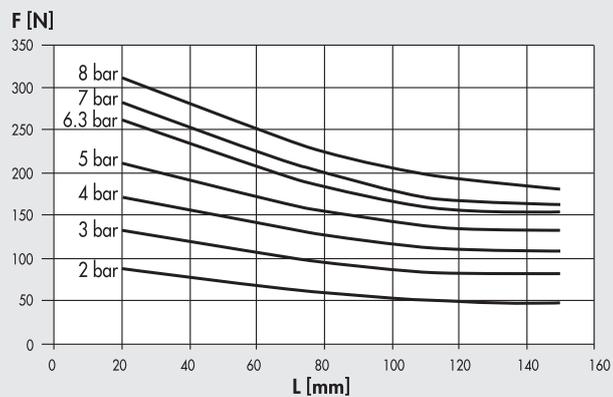
DIMENSIONS OF GRIPPER P3-80



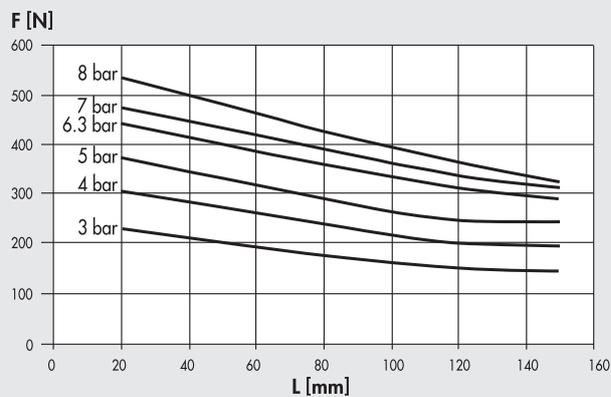
| Code | Description |
|-------------|--|
| W1560800200 | Gripper with 2 parallel jaws P3-80 |
| W1560800201 | Gripper with 2 parallel jaws P3-80 for inductive sensors |
| W1560800220 | Gripper with 2 parallel jaws P3-80 increased force |
| W1560800221 | Gripper with 2 parallel jaws P3-80 increased force for inductive sensors |

FORCE CHARTS

Standard version

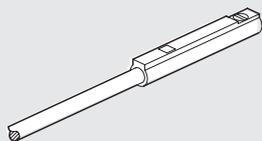


Increased force version



ACCESSORIES

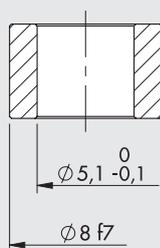
MAGNETIC SENSOR Ø 4



| Code | Description |
|-------------|------------------------------------|
| W0950044180 | Sensor REED 2 wires 2.5 m robotics |
| W0950045390 | Sensor HALL 3 wires 2.5 m robotics |

For technical data see general catalogue.

CENTRING RING



| Code | Description |
|-------------|-----------------------|
| W1560809201 | Kit of centring rings |

Note: 2-pieces pack

NOTES

GRIPPER WITH THREE PARALLEL JAWS, SERIES P12



Parallel double-acting three-jaw gripper, with either internal or external clamping.

Body made of surface hardened aluminium alloy; jaws made of wear-resistant coated steel.

The jaw-guiding system and precision in coupling with the body make the gripper extremely stable.

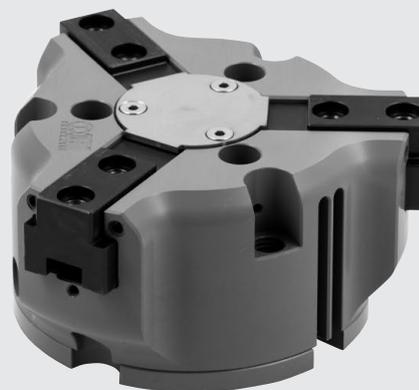
The ceramic-coated body reduces friction and wear, and enhances the movement of the jaws on the body.

It is available in both versions with standard stroke and torque and with a reduced stroke and increased torque.

The gripper is equipped with a magnet and grooves for sensors.

A version designed to house inductive sensors is also available (**the inductive sensors are not supplied by Metal Work**).

Air can be supplied either from below or the side



| TECHNICAL DATA | | P12-80 STANDARD | P12-80 INCREASED FORCE |
|---|--------------------|--|------------------------|
| Operating pressure | bar | 2 to 8 | 3 to 8 |
| | MPa | 0.2 to 0.8 | 0.3 to 0.8 |
| | psi | 29 to 116 | 43 to 116 |
| Temperature range | °C | -10 to 80 | |
| Fluid | | 20 µm filtered, lubricated or unlubricated air; lubrication if used, it must be continuous | |
| Clamping force of a single jaw at 6.3 bar, 20 mm from the upper surface, on opening and closing | N | 435 | 860 |
| Maximum movable weight | kg | 4.5 | 9 |
| Stroke of each jaw | mm | 8 | 4 |
| Minimum opening/closing time | s | 0.05 / 0.05 | |
| Repeatability | mm | 0.01 | |
| Moment of inertia | kg cm ² | 6.5 | |
| Max. admissible static loads: | | | |
| - Fa | N | 1500 | |
| - Mx | Nm | 90 | |
| - My | Nm | 55 | |
| - Mz | Nm | 55 | |
| Weight | kg | 0.750 | |

COMPONENTS

- ① BODY: hard-anodised aluminium
- ② JAWS: nitrided steel
- ③ PISTON ROD + GUIDE: nitrided steel
- ④ PISTON: hard-anodised aluminium
- ⑤ PISTON GASKET: NBR
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- ⑦ BASE GASKET: reinforced SBR
- ⑧ MAGNET: neodymium

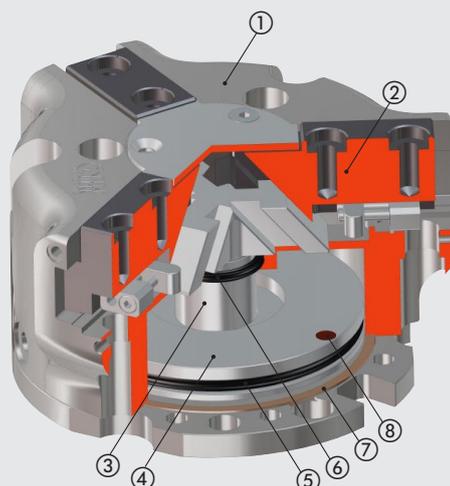
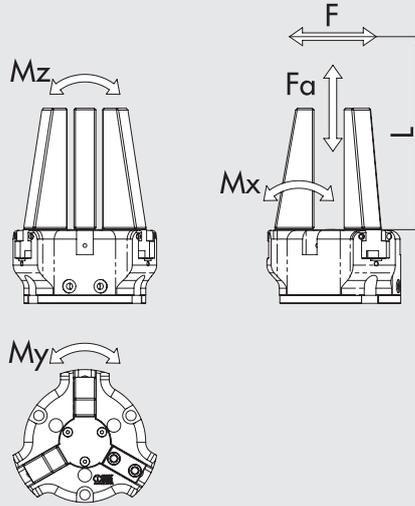
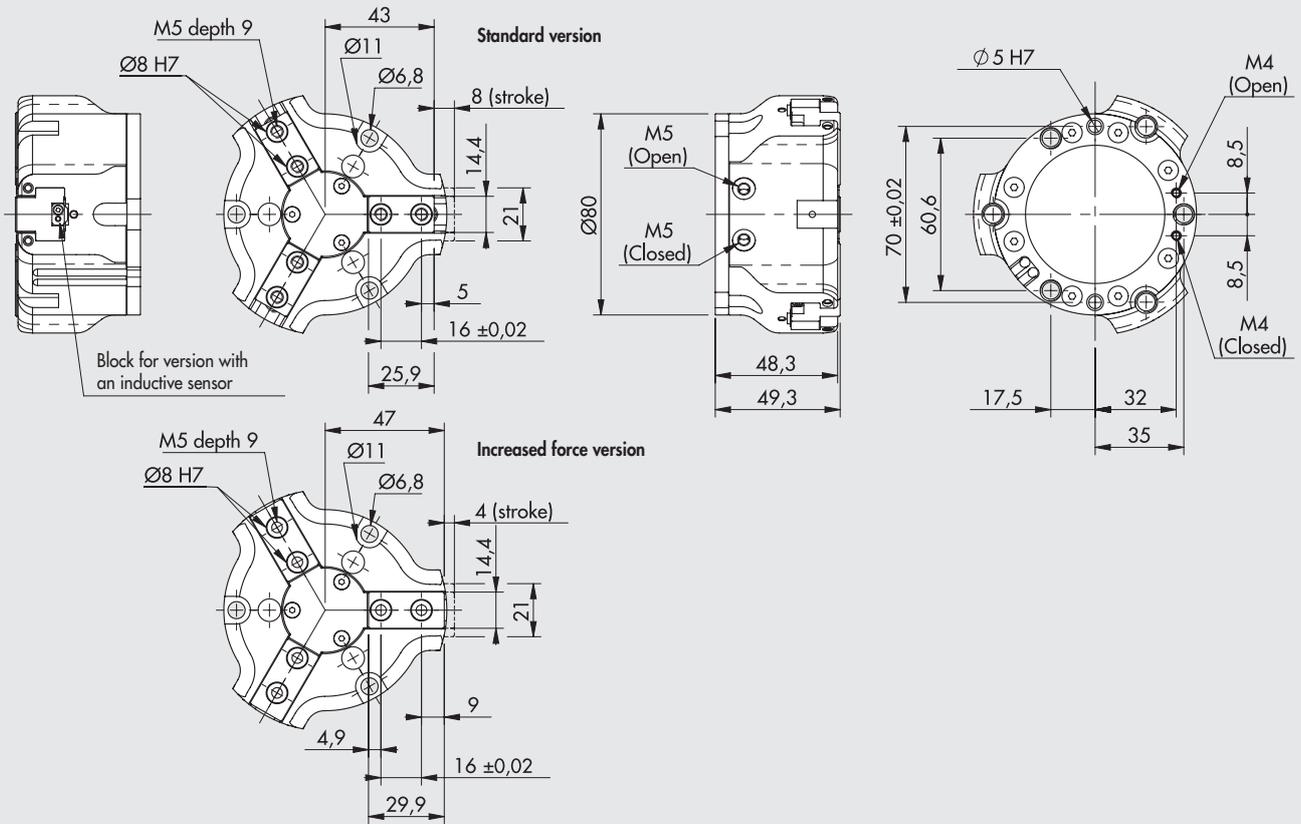


DIAGRAM OF FORCES AND MOMENTS



F Clamping force for each jaw
 Fa Maximum static axial force
 Mx, My, Mz Maximum static moments

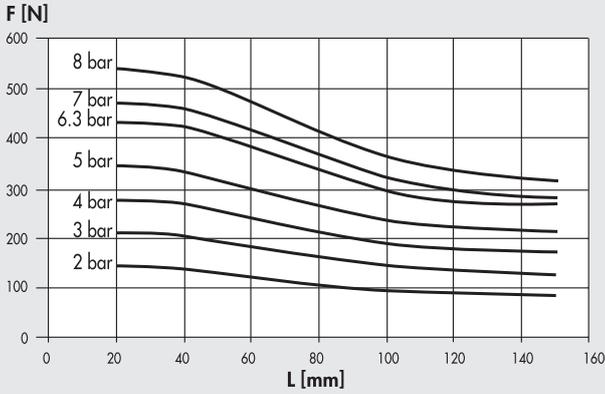
DIMENSIONS OF GRIPPER P12-80



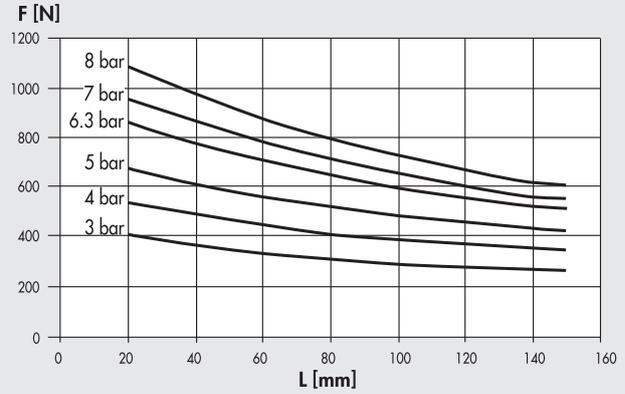
| Code | Description |
|-------------|--|
| W1560800300 | Gripper with 3 jaws P12-80 |
| W1560800301 | Gripper with 3 jaws P12-80 for inductive sensors |
| W1560800320 | Gripper with 3 jaws P12-80 increased force |
| W1560800321 | Gripper with 3 jaws P12-80 increased force for inductive sensors |

FORCE CHARTS

Standard version

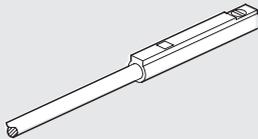


Increased force version



ACCESSORIES

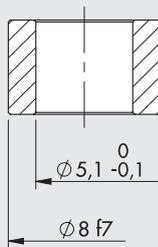
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