

Three-jaw gripper with center thru hole

GD312MB



things worth knowing

Advantages and uses

- ... high-grip force in combination with robust T-slot guide ...
- ... all variations available with grip force fail-safe ...



- ▶ high reliability and long service life
 - ▶ compact design and minimal weight
 - ▶ centrally opening and closing
 - ▶ high precision
 - ▶ any desired installation position
 - ▶ position sensing possible through inductive proximity switch
- ... large center thru hole! ...

- Sommer-automatic
- Grippers**
- Separators
- Swivel units
- Rotating jaws
- Axial compensators
- Tool changers
- Linear cylinders
- Shock absorbers
- Rotary cylinders
- Air vane motors
- Vacuum components
- Accessories
- Quick finder

Characteristics

Function

- Drive: double-acting pneumatic cylinder
- Power transfer: wedge and piston principle
- Guide: T-groove guide for high momenta absorption from all sides

Material

- Housing: hard-anodized aluminum
- Moving parts: nitrided steel

Maintenance

- Recommended at: 1.5 million cycles
- Actuation: filtered high-pressure air (10µm), dry or oiled
- Maintenance of the mechanics: via integrated lubrication nipple – see owners' manual –

Basic explanations

Terms and illustrations

- Grip force safety device: required during pressure failure for maintaining position of workpiece
 - pneumatic: through pressure retention (one-way valve required DSV 1/8)
- Total power: arithmetic sum of the individual elements on the gripper jaws
- Closing and opening times: required time for the gripper jaws to cover the maximum stroke length

Accessories

Included with purchase:

- ▶ Centering sleeves
- ▶ Bracket for inductive proximity switch

Accessory recommendation:

- ▶ Inductive proximity switch Page 428
- ▶ Pneumatic fittings Page 442
- ▶ Tubing Page 444
- ▶ Control valves Page 445
- ▶ Pressure safety valves Page 447



Parallel gripper

Three-jaw gripper

Angle gripper

Internal-hole gripper

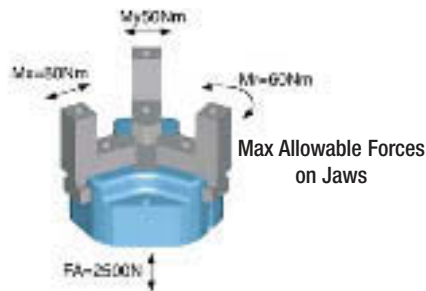
Other grippers

Electric gripper

GD312MB



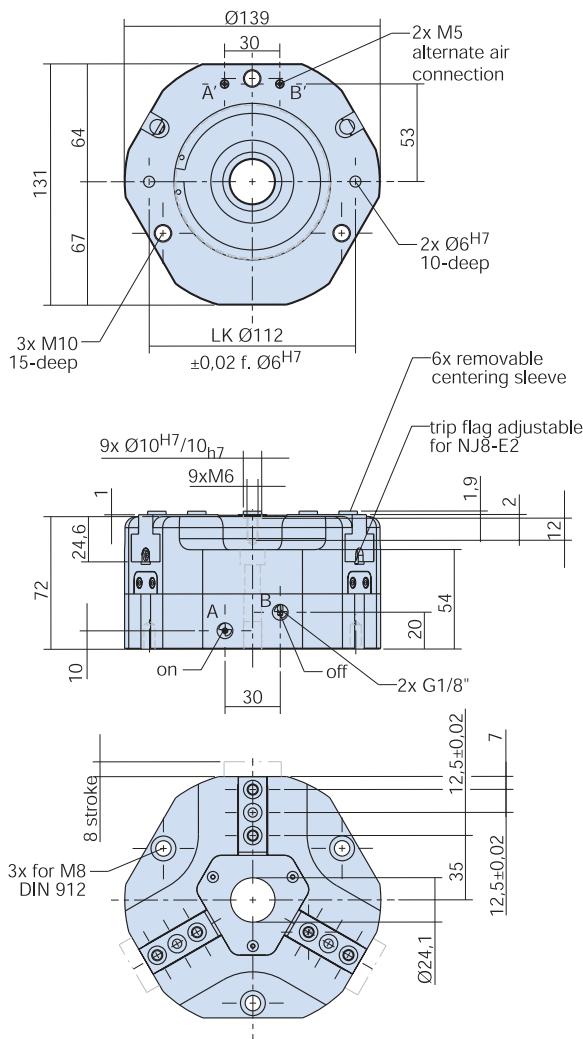
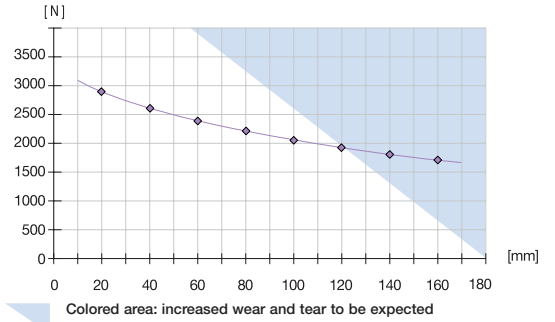
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Three-jaw gripper with center thru hole and T-slot guide

Central thru hole can be used for:
 Parts inspection with camera
 Parts ejection with linear cylinder
 Pulling wire or bar stock

Gripping force as a function of jaw length



Order no.:			
GD312			
MB			
Drive:			
pneum.			
Stroke per jaw [mm]:			
8			
Gripping force in closing and opening [N]:			
3300			
Self-locking via:			
DSV1/8			
Closing time/opening time [s]:			
0,08			
Repeatability ± [mm]:			
0,05			
Min./max. operating pressure [bar]:			
3/10			
Air volume per cycle [cm³]:			
127			
Min./max. operating temperature [°C]:			
5/80			
Temp. resistant version up to 150° C [add to part number]:			
T3			
Piston diameter [mm]:			
83			
Weight [kg]:			
3,2			

All data measured at 6 bar.

See Page 113 for Accessory list.