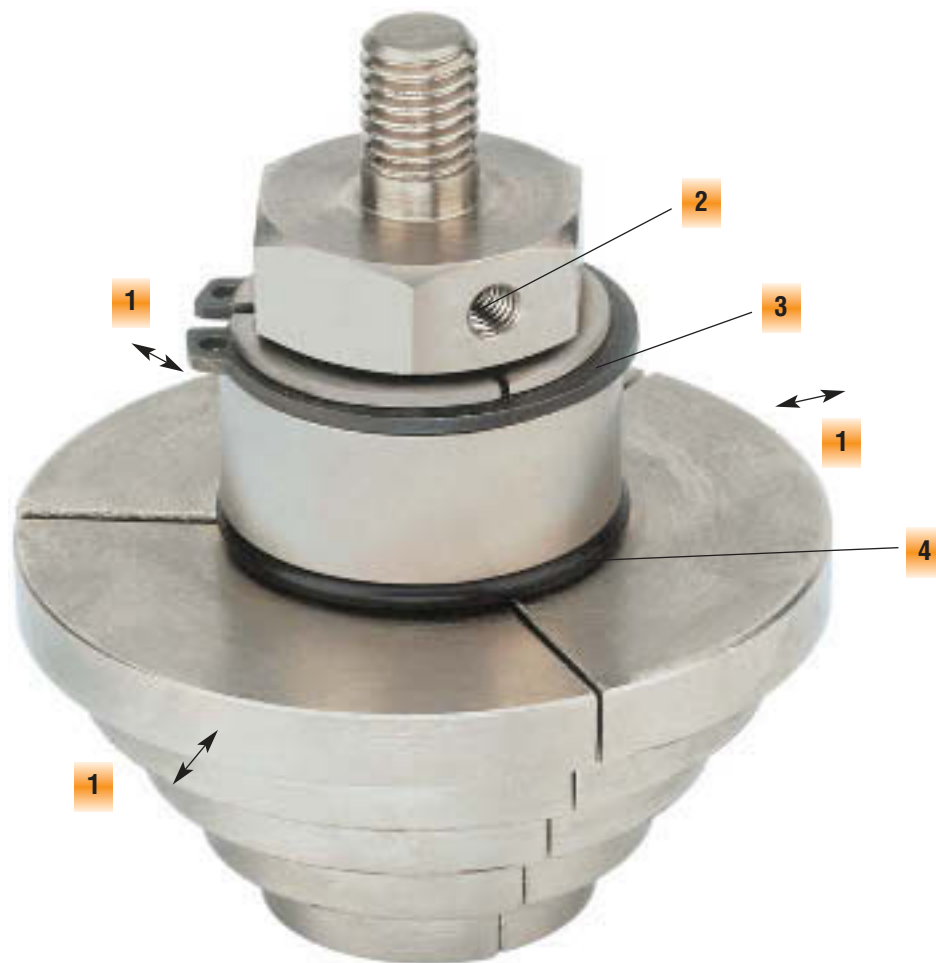


Collet gripper



Features

- 1 Stroke
- 2 Air connection on the front
- 3 Circlip
- 4 O-Ring for returning to home position

Have it your way!

Holes are a welcome point of attack for these grippers. Except for the GV50 (external gripper), these grippers are solely used for internal gripping, for example parts which either cannot be gripped externally or are too difficult to grip externally (see typical applications).

The collet gripper is single-acting and has a diaphragm which is expanded with compressed air to press out the 3 steel jaws. The air connections are located on the side. An external spacing sleeve limits the stroke to 1 mm in diameter and prevents the diaphragms from being over expanded (see schematic). The jaws are held together with a retaining ring. An O-ring ensures that the gripper retracts when vented. The jaws are shipped as a single, pre-slotted piece to ensure easy machining (turning, milling, drilling, etc.)

Consider the following example: To internally grip a 10 mm hole, the jaws must first be machined down to 10 mm in diameter and the slots must then be cut through completely and deburred. The gripper can also be machined by us, if desired.

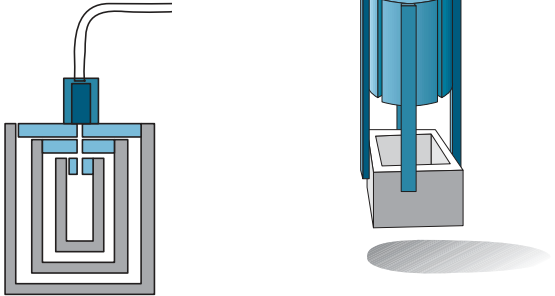
To prevent the diaphragms from wearing out too quickly, the jaws must be carefully deburred and then polished on the inside.

Note on Assembly:

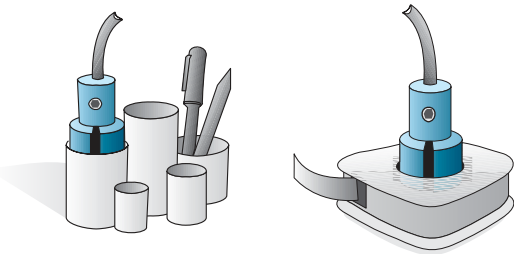
The jaws are attached to the groove as shown in the example and the limiting sleeve is pushed over them. The jaws are then fixed in place with the retaining ring. The three small pins on the circumference of the housing prevent the arms from rotating and they act as a spacer. Only the O-ring needs to be pushed over - and its ready for operation.

Application Ideas

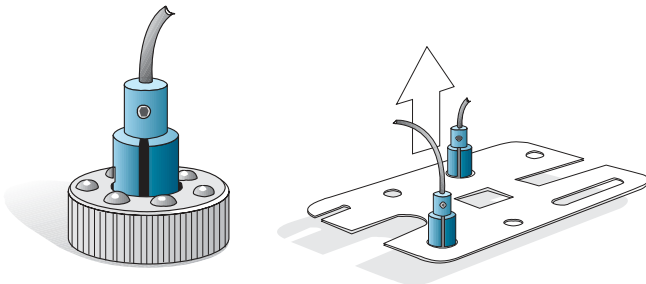
The GV50 external collet gripper gripping a box.



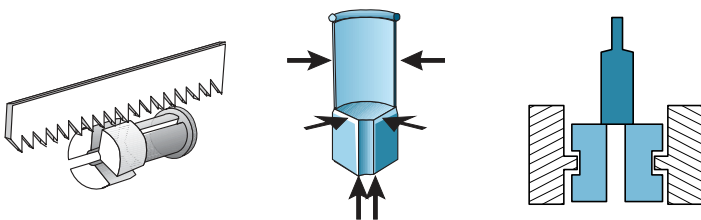
Stepped jaws to allow the gripper to pick up several different hole diameters



The collet gripper even handles office utensils easily.



Even in the metal industry there is enough work, here, for example with a ball bearing or a punched plate.

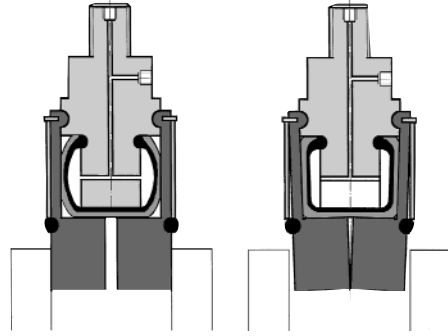


How to proceed:
The clamping jaw is preslotted and can be cut into 3 parts with a fine saw blade after it is machined to fit your application. The internal surfaces must be carefully deburred and polished to prevent damage to the diaphragm.

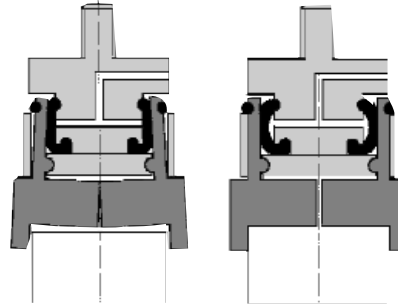
At the arrowed parts, the clamping jaw must be carefully deburred and polished as the rubber diaphragm makes contact here. A tiny burr can reduce the service life considerably!

If the part already has a collar or a slot, the jaws can work so that positive clamping (see example) is possible.

LG - collet grippers



GV50



Operation

The compressed air moves the jaws by means of a rubber diaphragm. The jaws are retained in the housing with a clamped sleeve and circlip. When no air pressure is applied, the gripper is returned to the initial position by an O-ring.



Parallel gripper	Three-jaw gripper	Angle gripper	Internal-hole gripper	Other grippers	Electric gripper
LG15-18 - LG120-135	LG4-20	LG20-30	LG30-50	GV50	



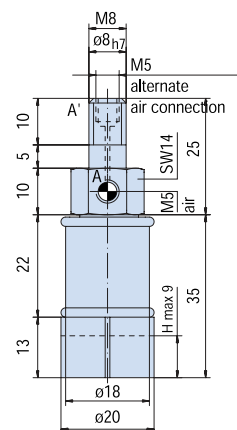
Collet gripper

Advantages, benefits, comparisons and tips!
Stacks of information all about this product are on page 165.



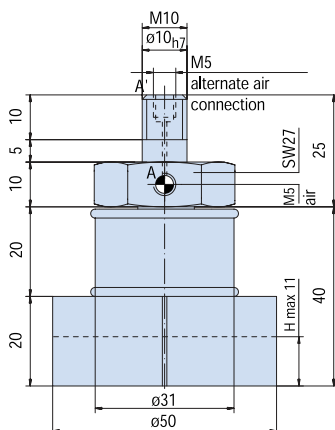
Sommer-automatic
Grippers
Separators
Swivel units
Rotating jaws
Axial compensators
Tool changers
Linear cylinders
Shock absorbers
Rotary cylinders
Air vane motors
Vacuum components
Accessories
Quick finder

Order no.:					
LG 4-20	LG 20-30	LG 30-50	LG 4-20V	LG 20-30V	
Drive:					
pneum.	pneum.	pneum.	pneum	pneum	
Stroke [mm]:					
1	1	1	1	1	
Max. turn-off height [mm]:					
9	10	11	25	35	
Overall torque in opening [Nm]:					
0,5	2,0	3,0	0,5	2,0	
Opening force [N]:					
20	25	30	20	25	
Self-locking via:					
DSV 1/8	DSV 1/8	DSV 1/8	DSV 1/8	DSV 1/8	
Closing time/opening time [s]:					
0,1	0,1	0,1	0,1	0,1	
Min./max. operating pressure [bar]:					
4/6	4/6	4/6	4/6	4/6	
Air volume per cycle [cm³]:					
1	3	5	1	3	
Min./max. operating temperature [°C]:					
5/60	5/60	5/60	5/60	5/60	
Weight [kg]:					
0,06	0,14	0,45	0,08	0,17	
Dimension A [mm]:					
13	15	20	29	40	

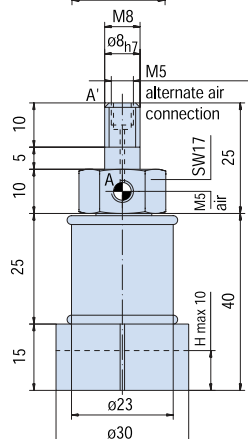


LG4-20

All data measured at 6 bar.



LG30-50



LG20-30

Parallel gripper Three-naw gripper Angle gripper **Internal-hole gripper** Other grippers Electric gripper

LG15-18 – LG120-135 LG4-20 LG20-30 LG30-50 **GV50**

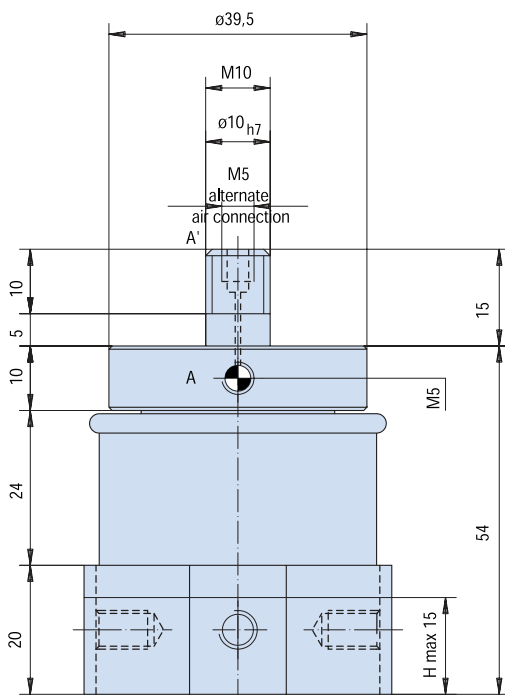
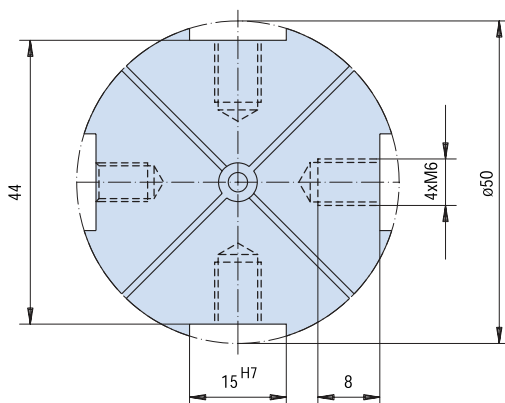


- Sommer-automatic
- Grippers**
- Separators
- Swivel units
- Rotating jaws
- Axial compensators
- Tool changers
- Linear cylinders
- Shock absorbers
- Rotary cylinders
- Air vane motors
- Vacuum components
- Accessories
- Quick finder



External collet gripper

Advantages, benefits, comparisons and tips! Stacks of information all about this product are on page 165.



Order no.:	GV50			
Drive:	pneum.			
Stroke per now [mm]:	1			
Max. turn-down height [mm]:	15			
Gripping torque in closing [Nm]:	4			
Gripping force [N]:	40			
Self-locking via:	DSV1/8			
Closing time/opening time [s]:	0,05			
Repeatability ± [mm]:	0,1			
Min./max. operating pressure [bar]:	4/6			
Air volume per cycle [cm³]:	5			
Min./max. operating temperature [°C]:	5/60			
Temp. resistant version up to 150° C [add to part number]:	T1			
Weight [kg]:	0,4			

All data measured at 6 bar.

See Page 165 for Accessory list.