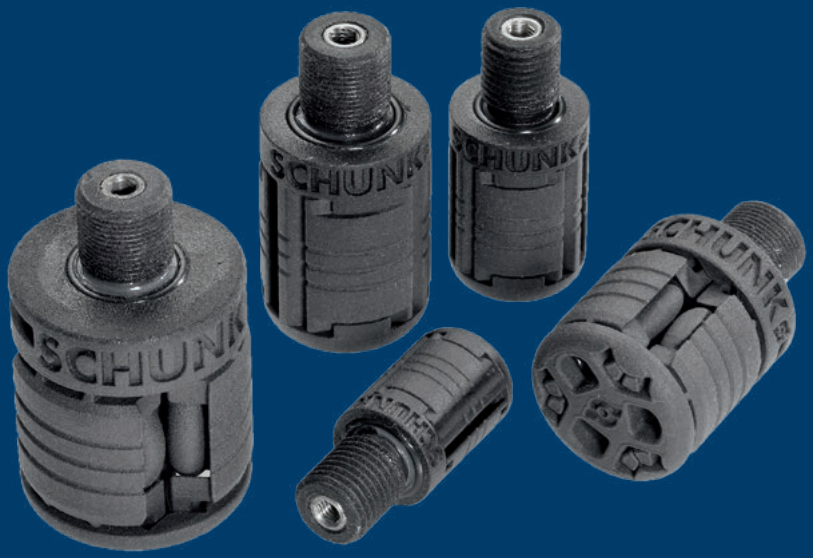


Superior Clamping and Gripping

SCHUNK®

Product Information

Internal hole gripper LOG

Cost-effective. Smooth. Reliable.

Internal hole gripper LOG

Light gripper made of very resistant polyamide with closed diaphragm system

Field of application

Particularly suitable for highly dynamic applications with a low workpiece weight, for handling of small components and plastic parts, as well as for sand core handling



Advantages – Your benefits

Low weight allows high dynamics in the application

Closed membrane system and internal stop protect the expansion membrane against damage

Short delivery time for customized measurements

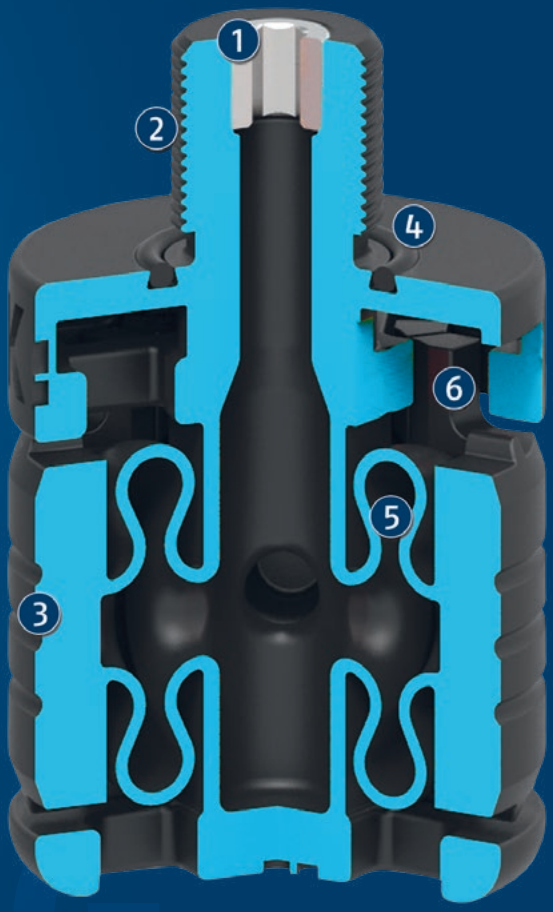
Long service life enables long-lasting economical use

Air supply via hose-free direct connection or screw connections for flexible pressure supply in all automated systems

Sizes	Weight	Clamping diameter	Workpiece weight
Quantity: 5	0.008 .. 0.44 kg	20 .. 99 mm	0.55 .. 12.83 kg

Functional description

The membrane expands when pressure is applied, creating a synchronized movement of the gripping surfaces.



① **Air connection thread**

② **Mounting threads**

③ **Gripping surface**

④ **O-ring seal**
for hose-free direct connection

⑤ **Membrane**

⑥ **Internal stop/overload protection**

LOG

Internal hole gripper

General notes about the series

Operating principle: Membrane

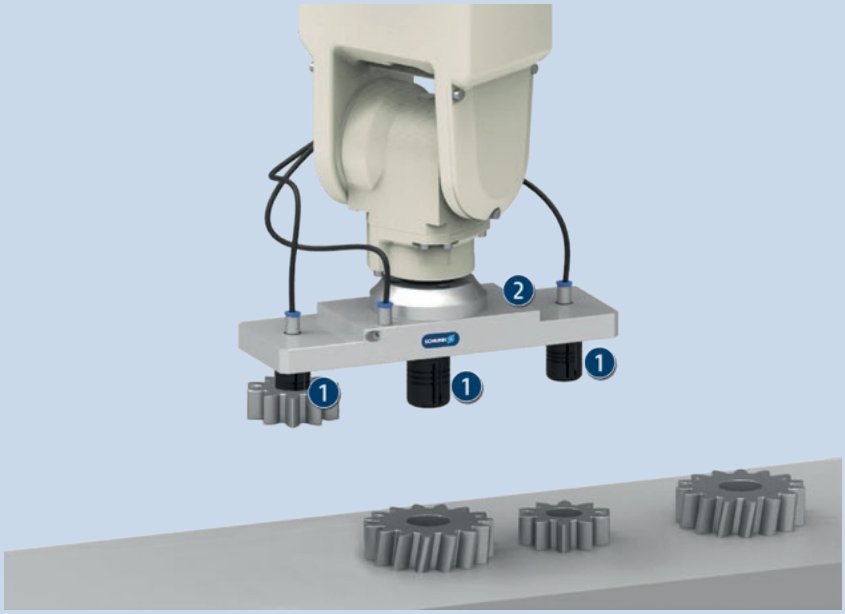
Housing material: PA 12

Base jaw material: PA 12

Actuation: pneumatic, with filtered compressed air as per ISO 8573-1:2010 [7:4:4].

Scope of delivery: Assembly instructions (operating manual with declaration of incorporation is available online)

Gripping force maintenance device: not possible



Application example

Handling of gears with different diameters

1 Internal hole gripper LOG

2 Customized adapter plate

SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.





Universal gripper



Miniature swivel unit



Linear module



Compensation unit



Pressure maintenance valve



Manual change system

ⓘ For more information on these products can be found on the following product pages or at schunk.com.

Options and special information

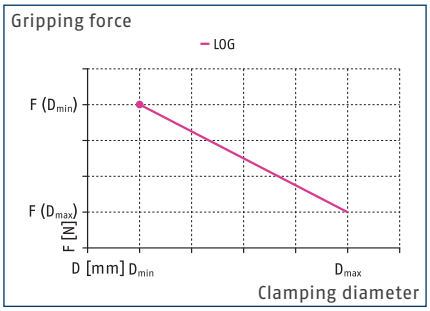
Additional sizes and customized designs are available upon request

LOG 20 – 99

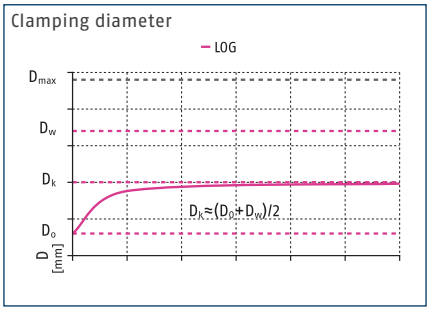
Internal hole gripper



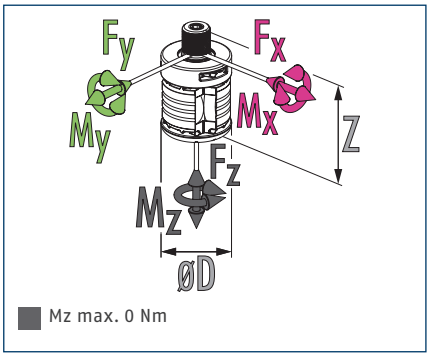
Gripping force I.D. gripping



Creep properties



Dimensions and maximum loads



ⓘ The indicated moments and forces are statical values and may appear simultaneously.

Technical data

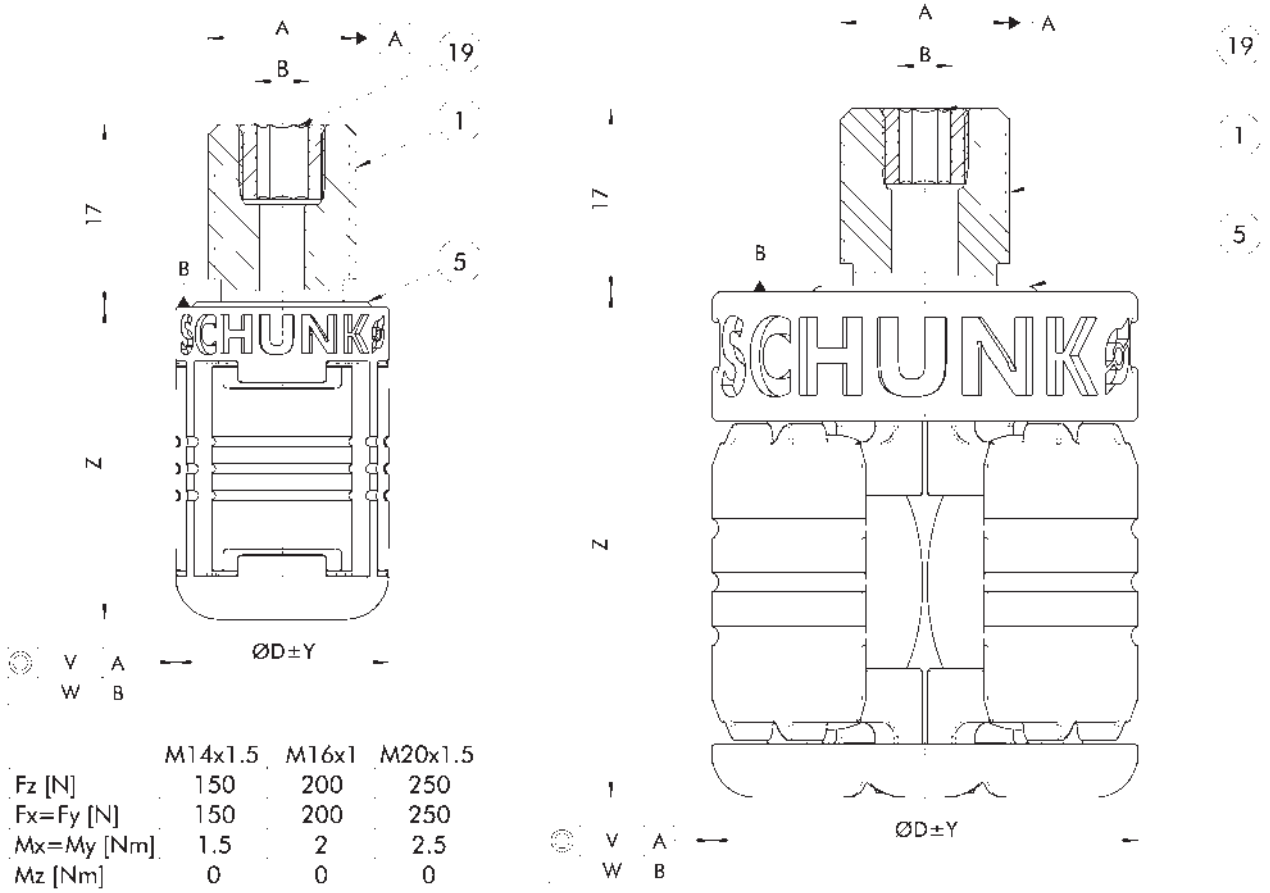
Description		LOG 20.0-M14x1.5-M5	LOG 40.0-M16x1-M5	LOG 60.0-M16x1-M5	LOG 80.0-M20x1.5-G1/8	LOG 99.0-M20x1.5-G1/8
ID		0398920	0398940	0398960	0398980	0398999
Mounting thread A		M14 x 1.5	M16x1	M16x1	M20x1.5	M20x1.5
Air connection thread B		M5	M5	M5	G1/8"	G1/8"
Min. workpiece diameter	[mm]	20	40	60	80	99
Max. workpiece diameter	[mm]	20.3	44.37	66.13	88.7	110.7
Opening force for Ø Dmin	[N]	107.2	241.4	596.7	972.7	2516.7
Opening force for Ø Dmax	[N]	27.3	66.7	190.5	433.3	1166.7
Weight	[kg]	0.008	0.034	0.108	0.238	0.44
Recommended workpiece weight	[kg]	0.55	1.23	3.04	4.96	12.83
Fluid consumption double stroke	[cm³]	2.35	8.21	28.82	65.34	122.8
Max. operating pressure	[bar]	6	6	6	6	6
Nominal operating pressure	[bar]	6	6	6	6	6
Closing/opening time	[s]	0.05/0.05	0.08/0.08	0.14/0.14	0.22/0.22	0.44/0.44
Min./max. ambient temperature	[°C]	-40/80	-40/80	-40/80	-40/80	-40/80
Housing material		PA 12	PA 12	PA 12	PA 12	PA 12
IP protection class		27	27	27	27	27
Dimensions Ø D ± Y x Z	[mm]	19,8 ± 0,2 x 29	39,6 ± 0,3 x 47	59,4 ± 0,4 x 70.5	79,2 ± 0,5 x 94	98,01 ± 0,5 x 116.33
Concentricity Ø V	[mm]	0.3	0.4	0.5	0.6	0.6
Perpendicularity W	[°]	±0.5	±0.75	±1	±1	±1
Moments Mx max./My max.	[Nm]	1.5/1.5	2/2	2/2	2.5/2.5	2.5/2.5
Forces Fx max./Fy max./Fz max.	[N]	150/150/150	200/200/200	200/200/200	250/250/250	250/250/250

ⓘ The gripping force can be set directly by the operating pressure. At a lower pressure than the nominal operating pressure, the full stroke cannot be achieved.

The size graduation varies by 1 mm respectively. Please note that the fastening thread A is independent of the size. (LOG 20-25: M14x1.5; LOG 26-63: M16x1; LOG 64-99: M20x1.5)

Information about other sizes can be found online.

Main view



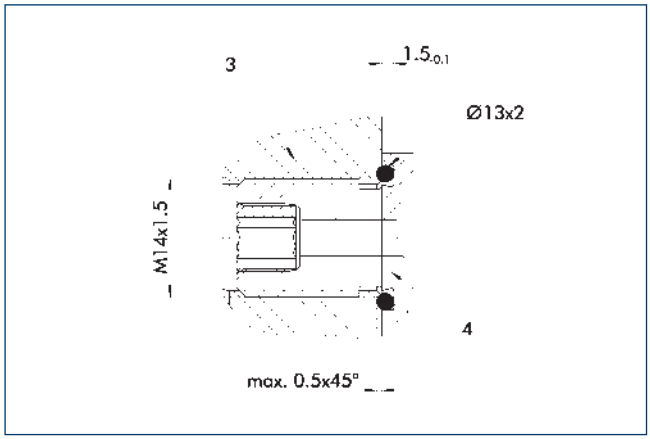
	M14x1.5	M16x1	M20x1.5
Fz [N]	150	200	250
Fx=Fy [N]	150	200	250
Mx=My [Nm]	1.5	2	2.5
Mz [Nm]	0	0	0

The drawing shows the gripper in the basic version with closed jaws, without dimensional consideration of the options described below.

ⓘ You will find dimensions A, B, D, V, W, Y and Z in the technical data chart.

① Gripper connection
⑤ O-ring
⑲ Air connection

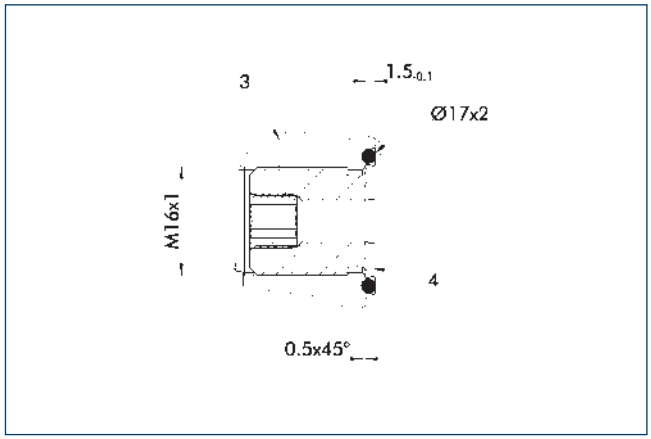
Hose-free direct connection M14x1.5



③ Adapter
④ Grippers

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Hose-free direct connection M16x1



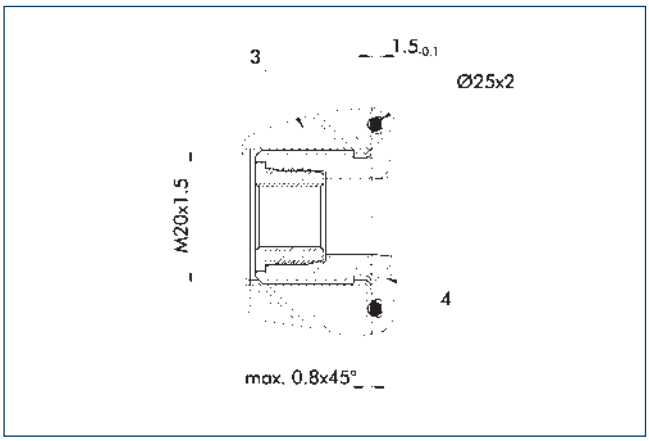
③ Adapter
④ Grippers

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

LOG 20 – 99

Internal hole gripper

Hose-free direct connection M20x1.5

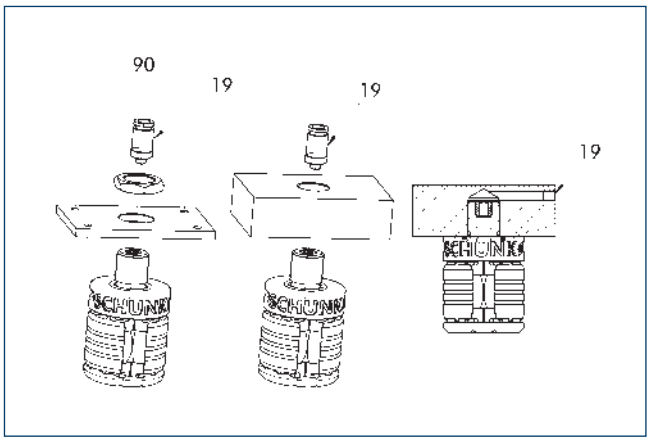


(3) Adapter

(4) Grippers

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Connection options



(19) Air connection

(90) Preferred variant for gauge block mounting

The LOG can be easily screwed in by a through-bore with lock nut or directly into an adapter plate.

ⓘ SCHUNK recommends a 1 mm larger through-bore for the alignment of the gripper when mounting the gauge block.

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