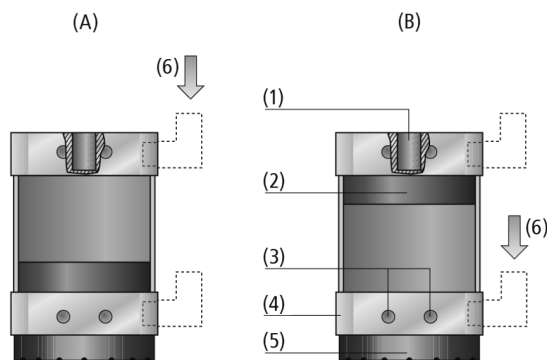


Magnetic Grippers SGM-HP/-HT

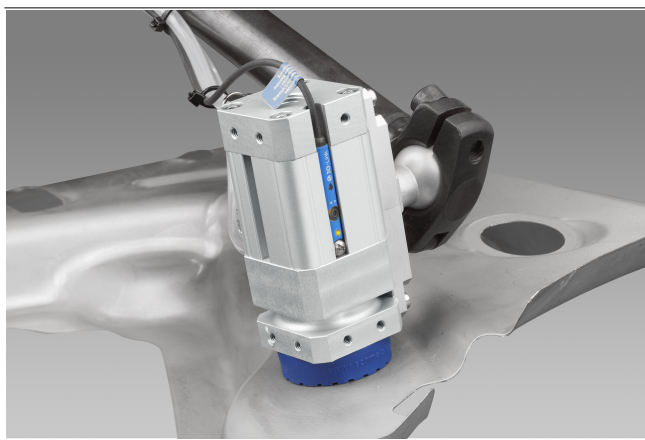
Suction area (Ø) from 20 mm to 50 mm



Magnetic Grippers SGM-HP/-HT



System design Magnetic Grippers SGM-HP/-HT



Magnetic grippers SGM-HP when handling sheet metal

Suitability for industry specific applications

Application

- Magnetic grippers with very high holding forces for handling perforated plates, workpieces with complex laser-cut patterns, sheet metal containing drill holes and apertures, and similar objects
- Handling of ferromagnetic workpieces
- Can be used without friction ring for higher holding forces
- HT version for high-temperature applications (e.g. hot forming processes)

Design

- Robust aluminum housing (4) with permanent magnet (2)
- Friction ring (5) for high lateral forces in dynamic processes
- Bistable design: the magnet settings "grip" (A) and "deposit" (B) are maintained in event of power failure at the compressed air connection (6)
- Mounting thread at the head end (1) and on two sides of the gripper for holder (3)
- Option to mount using Schmalz holder system HTS
- Optional lifting elements allow for optimal handling of round or non-flat workpieces

Product highlights

- Permanent magnet allows safe handling without voltage source
- Compact design and low weight
- Easily replaceable friction ring absorbs high lateral forces
- More flexibility, as tooling connection is also possible from the side
- Robust design suitable for use in welding cells

Magnetic Grippers SGM-HP/-HT

Suction area (Ø) from 20 mm to 50 mm

Designation code Magnetic Grippers SGM-HP/-HT

SGM	-	HP	-	40	-	G1/4-IG
1		2		3		4

1 – Abbreviated designation

Code	Version
SGM	SGM

2 – Product range supplement

Code	Type
HP	High performance
HT	High temperature

3 – Diameter

Code	Diameter in mm
20...50	Ø 20 to 50

4 – Connection

Code	Mechanical connection
G1/4-IG	G1/4-IG (IG = female (F))
G1/8-IG	G1/8-IG

Magnet gripper SGM-HP/-HT is delivered assembled. The assembly consists of:

- Gripper SGM-HP with friction ring PU - available in various diameters
- Gripper SGM-HT with steel gripping surface for robust applications - available in various diameters
- Friction ring made of the material PU (only for SGM-HP)
- Optional friction ring HT2 for high-temperature applications (only for SGM-HT)
- Optional proximity switch (only for SGM-HP)

Available spare parts: friction ring PU for SGM-HP

Available accessories: proximity switch, holder system, mounting element (ADP), friction ring HT2, protection element

Ordering data Magnetic Grippers SGM-HP/-HT

Type*	Part no.
SGM-HP 20 G1/8-IG	10.01.17.00424
SGM-HP 30 G1/8-IG	10.01.17.00316
SGM-HP 40 G1/4-IG	10.01.17.00304
SGM-HP 50 G1/4-IG	10.01.17.00282
SGM-HT-HP 30 G1/8-IG	10.01.17.00397
SGM-HT-HP 40 G1/4-IG	10.01.17.00403
SGM-HT-HP 50 G1/4-IG	10.01.17.00402

*Note: See "Plug-in screw unions" in section "Filters and connection" for matching plug-in screw unions.

Ordering data Spare parts Magnetic Grippers SGM-HP/-HT

Type	Spare parts	Part no.
SGM-HP 20 G1/8-IG	Friction ring	REIB-RING SGM-HP 20 PU-55
SGM-HP 30 G1/8-IG	Friction ring	REIB-RING SGM-HP 30 PU-55
SGM-HP 40 G1/4-IG	Friction ring	REIB-RING SGM-HP 40 PU-55
SGM-HP 50 G1/4-IG	Friction ring	REIB-RING SGM-HP 50 PU-55
SGM-HT-HP 30 G1/8-IG	-	-
SGM-HT-HP 40 G1/4-IG	-	-
SGM-HT-HP 50 G1/4-IG	-	-

Magnetic Grippers SGM-HP/-HT

Suction area (Ø) from 20 mm to 50 mm

Ordering data Accessories Magnetic Grippers SGM-HP/-HT

Type	Holder system A2	Holder system A3	Holder system A5	Holder system HPS-SGM
SGM-HP 20 G1/8-IG	10.01.17.00565	10.01.17.00561	10.01.17.00579	10.01.17.00654
SGM-HP 30 G1/8-IG	10.01.17.00567	10.01.17.00557	10.01.17.00563	10.01.17.00651
SGM-HP 40 G1/4-IG	10.01.17.00567	10.01.17.00557	10.01.17.00563	10.01.17.00651
SGM-HP 50 G1/4-IG	10.01.17.00568	10.01.17.00562	10.01.17.00564	10.01.17.00652
SGM-HT-HP 30 G1/8-IG	10.01.17.00567	10.01.17.00557	10.01.17.00563	10.01.17.00651
SGM-HT-HP 40 G1/4-IG	10.01.17.00567	10.01.17.00557	10.01.17.00563	10.01.17.00651
SGM-HT-HP 50 G1/4-IG	10.01.17.00568	10.01.17.00562	10.01.17.00564	10.01.17.00652

Type	Mounting element ADP-E...TRI	Mounting element ADP-E...UNI
SGM-HP 20 G1/8-IG	10.01.17.00419	10.01.17.00420
SGM-HP 30 G1/8-IG	10.01.17.00421	10.01.17.00423
SGM-HP 40 G1/4-IG	10.01.17.00421	10.01.17.00423
SGM-HP 50 G1/4-IG	10.01.17.00422	10.01.17.00415
SGM-HT-HP 30 G1/8-IG	10.01.17.00421	10.01.17.00423
SGM-HT-HP 40 G1/4-IG	10.01.17.00421	10.01.17.00423
SGM-HT-HP 50 G1/4-IG	10.01.17.00422	10.01.17.00415

Type	Proximity switch PNP	Proximity switch NPN	Friction ring
SGM-HP 20 G1/8-IG	-	-	-
SGM-HP 30 G1/8-IG	10.01.17.00199	10.01.17.00215	-
SGM-HP 40 G1/4-IG	10.01.17.00199	10.01.17.00215	-
SGM-HP 50 G1/4-IG	10.01.17.00199	10.01.17.00215	-
SGM-HT-HP 30 G1/8-IG	-	-	10.01.17.00410
SGM-HT-HP 40 G1/4-IG	-	-	10.01.17.00411
SGM-HT-HP 50 G1/4-IG	-	-	10.01.17.00412

Type	Accessories	Part no.
SGM-HP-HT	30 Protection element	SCHUTZ SGM-30 ST 10.01.17.00522
SGM-HP-HT	40 Protection element	SCHUTZ SGM-40 ST 10.01.17.00521
SGM-HP-HT	50 Protection element	SCHUTZ SGM-50 ST 10.01.17.00520

Magnetic Grippers SGM-HP/-HT

Suction area (Ø) from 20 mm to 50 mm

Technical data Magnetic Grippers SGM-HP/-HT

Type	Holding force max. without friction [N]*	Holding force max. with friction ring [N]	Sheet thickness optimum for holding force max. [mm]**	Holding force 2 mm sheet without friction ring [N]	Holding force 2 mm sheet with friction ring [N]	Remaining holding force [N]
SGM-HP 20 G1/8-IG	28	19	1	25	16	0.3
SGM-HP 30 G1/8-IG	130	90	2	130	90	0.3
SGM-HP 40 G1/4-IG	320	235	4	290	210	0.3
SGM-HP 50 G1/4-IG	560	385	6	415	290	0.3
SGM-HT-HP 30 G1/8-IG	120	80	2	120	80	0.3
SGM-HT-HP 40 G1/4-IG	290	230	4	260	200	0.3
SGM-HT-HP 50 G1/4-IG	520	330	6	370	270	0.3

*Note: The specified holding forces are static specifications under ideal conditions (primarily depending on material and surface finish). For system designs, a safety factor (S) of 3 should be applied.

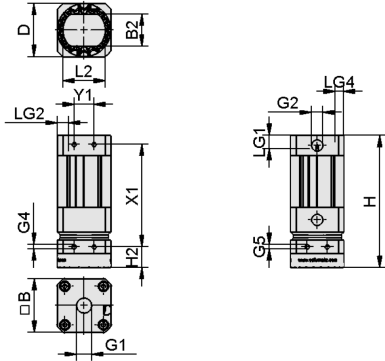
**Holding forces at 20° C can be used for workpiece temperatures up to 350° C (depending on process conditions), temperature can reduce holding forces by up to 30 %.

Type	Pressure range (operating pressure) [bar]	Installation position	Control valve	Working temperature max. [°C]	Operating temperature [°C]	Weight [g]
SGM-HP 20 G1/8-IG	2.5 ... 6.0 bar	BEL	Bistable	-	5 ... 70 °C	81
SGM-HP 30 G1/8-IG	2.5 ... 6.0 bar	BEL	Bistable	-	5 ... 70 °C	215
SGM-HP 40 G1/4-IG	2.5 ... 6.0 bar	BEL	Bistable	-	5 ... 70 °C	415
SGM-HP 50 G1/4-IG	2.5 ... 6.0 bar	BEL	Bistable	-	5 ... 70 °C	770
SGM-HT-HP 30 G1/8-IG	2.5 ... 6.0 bar	BEL	Bistable	350	5 ... 150 °C	215
SGM-HT-HP 40 G1/4-IG	2.5 ... 6.0 bar	BEL	Bistable	350	5 ... 150 °C	415
SGM-HT-HP 50 G1/4-IG	2.5 ... 6.0 bar	BEL	Bistable	350	5 ... 150 °C	770

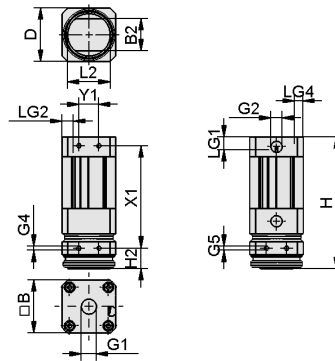
Magnetic Grippers SGM-HP/-HT

Suction area (\varnothing) from 20 mm to 50 mm

Design data Magnetic Grippers SGM-HP/-HT



SGM-HP 20 - 50



SGM-HT-HP 30 - 50

Magnetic Grippers SGM-HP/-HT

Suction area (Ø) from 20 mm to 50 mm

Design data Magnetic Grippers SGM-HP/-HT

Type	B [mm]	B2 [mm]*	D [mm]**	G1	G2	G4	G5	H [mm]	H2 [mm]	L2 [mm]	LG1 [mm]	LG2 [mm]	LG4 [mm]	X1 [mm]	Y1 [mm]
SGM-HP 20 G1/8-IG	21	9.1	20.0	G1/8"-F	M5-F	M3-F	M3-F	78.2	13.2	12.0	6	5.0	4.0	55.0	6.5
SGM-HP 30 G1/8-IG	31	15.0	30.0	G1/8"-F	G1/8"-F	M4-F	M4-F	99.4	15.7	20.5	6	6.0	5.0	74.0	12.0
SGM-HP 40 G1/4-IG	41	24.2	40.0	G1/4"-F	G1/8"-F	M4-F	M4-F	99.4	15.7	32.0	9	6.0	5.0	74.0	12.0
SGM-HP 50 G1/4-IG	51	31.2	50.0	G1/4"-F	G1/8"-F	M5-F	M4-F	123.4	15.7	41.5	10	6.0	6.5	100.0	15.0
SGM-HT- HP 30 G1/8-IG	31	15.0	26.9	G1/8"-F	G1/8"-F	M4-F	M4-F	99.2	15.5	20.5	6	6.0	5.0	74.0	12.0
SGM-HT- HP 40 G1/4-IG	41	24.2	38.4	G1/4"-F	G1/8"-F	M4-F	M4-F	99.2	15.5	32.0	9	6.0	5.0	74.0	12.0
SGM-HT- HP 50 G1/4-IG	51	31.2	48.4	G1/4"-F	G1/8"-F	M5-F	M4-F	123.2	15.5	41.5	10	6.0	6.5	100.0	15.0

*Gripper contact surface without friction ring (stadium-shaped) is approx. dimension D x B2; with friction ring (round), dimension D

**Gripper contact surface (round) is dimension D

Multimedia product presentation

Medium

Product video

Link

<https://vimeo.com/187625174>
<https://vimeo.com/435057811>
<https://vimeo.com/803893026>