

Magnetic Grippers SGM-HP/-HT

Suction area (Ø) from 20 mm to 50 mm



Suitability for Industry Specific Applications

Applications

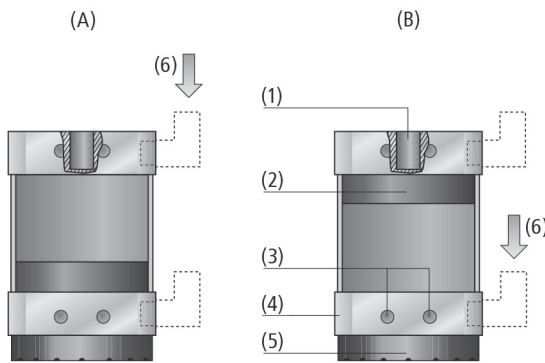
- Magnetic grippers with very high holding forces for handling perforated plates, workpieces with complex laser-cut patterns, sheet metal containing drill holes and apertures, and similar objects
- Handling of ferromagnetic workpieces
- Can be used without friction ring for higher holding forces
- HT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



Magnetic Grippers SGM-HP/-HT

Design

- Sturdy 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



System Design Magnetic Grippers SGM-HP/-HT



Magnetic gripper SGM-HP handling sheet metal

Our Highlights...

- Secure handling with a permanent magnet
- Compact and lightweight design
- Easily replaceable friction ring
- Option to connect tooling on the sides
- Low compressed air level needed for control

Your Benefits...

- No voltage source required
- Minimal space required, low weight
- Absorption of high shear forces
- Flexible mounting options
- Reliable operation even with fluctuating compressed air supply

The magnetic gripper SGM-HP/-HT is not available in the Netherlands.



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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 20 PU-55	10.01.17.00418
SGM-HP 30 G1/8-IG	Friction ring	REIB-RING SGM 30 PU-55	10.01.17.00385
SGM-HP 40 G1/4-IG	Friction ring	REIB-RING SGM 40 PU-55	10.01.17.00373
SGM-HP 50 G1/4-IG	Friction ring	REIB-RING SGM 50 PU-55	10.01.17.00381
SGM-HT-HP 30 G1/8-IG	-	-	-
SGM-HT-HP 40 G1/4-IG	-	-	-
SGM-HT-HP 50 G1/4-IG	-	-	-

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Ordering Data Accessories Magnetic Grippers SGM-HP/-HT

Type	Holder system A2	Holder system A3
SGM-HP 20 G1/8-IG	10.01.17.00414	10.01.17.00413
SGM-HP 30 G1/8-IG	10.01.17.00416	10.01.17.00378
SGM-HP 40 G1/4-IG	10.01.17.00416	10.01.17.00378
SGM-HP 50 G1/4-IG	10.01.17.00417	10.01.17.00383
SGM-HT-HP 30 G1/8-IG	10.01.17.00416	10.01.17.00378
SGM-HT-HP 40 G1/4-IG	10.01.17.00416	10.01.17.00378
SGM-HT-HP 50 G1/4-IG	10.01.17.00417	10.01.17.00383

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	10.01.17.00199	10.01.17.00215	-
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



Technical Data Magnetic Grippers SGM-HP/-HT

Type	Holding force max. without friction ring [N]*	Holding force max. friction ring [N]	Sheet thickness opt f. holding force max. [mm]**	Holding force 2mm-sheet without friction ring [N]	Holding force 2mm-sheet friction ring [N]	Remaining 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 %.



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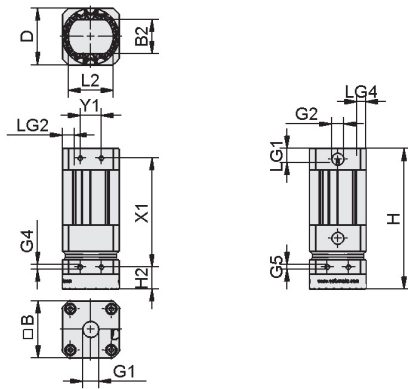


Technical Data Magnetic Grippers SGM-HP/-HT

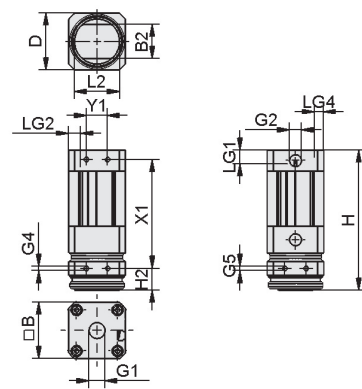
Type	Pressure range (operating pressure) [bar]	Installation position	Control valve	Operating temperature [°C]	Weight [g]
SGM-HP 20 G1/8-IG	2.5 ... 6.0	Any	Bistable	5 ... 70	81
SGM-HP 30 G1/8-IG	2.5 ... 6.0	Any	Bistable	5 ... 70	215
SGM-HP 40 G1/4-IG	2.5 ... 6.0	Any	Bistable	5 ... 70	415
SGM-HP 50 G1/4-IG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



Design Data Magnetic Grippers SGM-HP/-HT



SGM-HP 20 - 50



SGM-HT-HP 30 - 50

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	20	9.1	20.0	G1/8"-F	M5-F	M3-F	M3-F	78.2	13.2	12.0	6	5.5	4.0	55.0	6.5
SGM-HP 30 G1/8-IG	30	15.0	30.0	G1/8"-F	G1/8"-F	M4-F	M4-F	99.4	15.7	20.5	6	7.0	5.0	74.0	12.0
SGM-HP 40 G1/4-IG	40	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	50	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	30	15.0	26.9	G1/8"-F	G1/8"-F	M4-F	M4-F	99.2	15.5	20.5	6	7.0	5.0	74.0	12.0
SGM-HT-HP 40 G1/4-IG	40	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	50	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