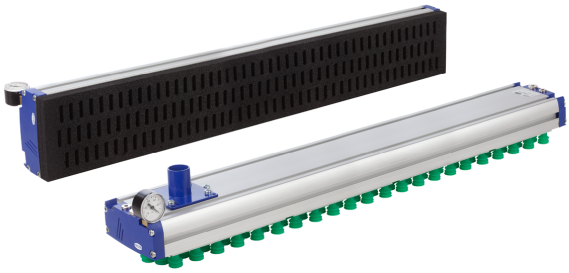
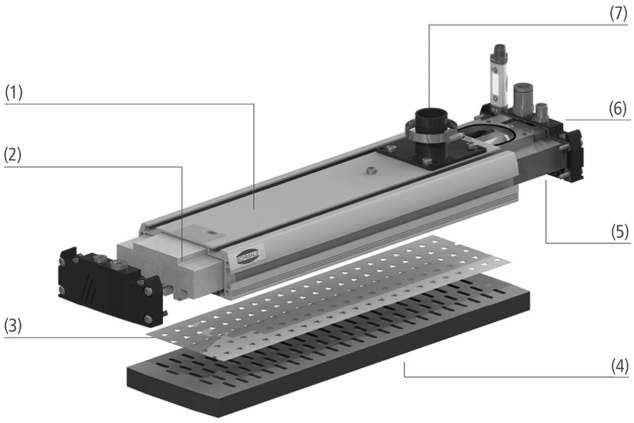
Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

UNIVERSAL



Area Gripping Systems FMP



System Design Area Gripping Systems FMP

Area gripping systems FMP-S for layer-wise stacking of construction wood

Suitability for Industry Specific Applications

Applications

- Universal gripper with connection for external vacuum generation, for handling workpieces regardless of size, geometry, material and surface
- Handling of workpieces made from various materials, such as wood (coated or rough sawn), packaging (boxes, bags or cans), metal sheets, glass, plastics, CFRP, etc.
- Handling of porous workpieces, workpieces with gaps or undefined pick-up position
- Mark-free handling of sensitive workpieces such as display glass
- Ideal for use on robots due to its low weight

Design

- Aluminum basic profile (1) with side T-slots for sensors and an integrated air supply for separation; different gripper lengths available
- Vacuum booster (2) for quicker evacuation; valve film (3) for the quick change of valve type and size
- Suction cup sealing element (4) with push-in function or sealing foam with adhesive film
- Optional integrated withdrawable vacuum valve (5): fast evacuation and high suction volume
- End cover with integrated functions (6): connection for compressed air, vacuum gauges; optional blow off and separation functions
- Connecting piece (7) for external vacuum generation

Product Highlights

- Connection of electrical vacuum generators enables high volume flows and vacuum up to -0.8 bar at low operating costs
- Vacuum booster integrated in the base profile ensures fast evacuation and short cycles
- Gripper can be optimally adapted to the application thanks to selectable sealing element (suction cups or sealing foam)
- Check valves (SVK) ideal for porous workpieces; flow resistors (SW) for smooth surfaces and swiveling up to 45°
- Intelligent FMP-i version with condition monitoring functions and communication interfaces for monitoring and controlling the entire production process

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Designation Code Area Gripping Systems FMP

FMP	–	S	–	SW	–	442	–	5R
1		2		3		4		5

18	–	O10O10	–	SU	–	F
6		7		8		9

1 – Abbreviated designation

Code	Version
FMP	External vacuum generator

2 – Control valve

Code	Type
i	IO-Link, with integrated control valves
S	With integrated control valves
-	No control valves

3 – Valve technology

Code	Type
SW	Flow restrictor
SVK	Check valve

4 – Length

Code	Length in mm
442	442
640	640
838	838
1234	1234
1432	1432

5 – Suction rows

Code	Number
3R	3 suction rows
5R	5 suction rows

6 – Hole spacing

Code	Spacing in mm
18	18
36	36
54	54

7 – Sealing element

Code	Height/diameter in mm
O20	Sealing foam (height = 20)
O10O10	Sealing foam (height = 20)
N10	Sealing foam (height = 10)
SPB2-20 P	Suction cup (ø 20)
SPB2-40 P	Suction cup (ø 40)

8 – Protective layer

Code	Type
SU	Protective Layer
–	No protective Layer

9 – Filter

Code	Type
F	Filter
–	No filter

- Integrated control valves at FMP-S (optional)
- Control of vacuum on/off (24V DC, normally open) and blow off on/off (24V DC, normally closed), as well as hose accumulator preload and blower ventilation function with version FMP-S
- Integrated in the end cover
- Electrical connection: M12 plug (4-pole)

Available spare parts: sealing foam (DI-PL), suction cup (SPB2)

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Ordering Data Area Gripping Systems FMP

Type (Sealing foam)				Length L [mm]:				
				442	640	838	1,234	1,432
FMP-SW	3R18	O20	-	10.01.38.00433	10.01.38.00434	10.01.38.00435	10.01.38.00436	10.01.38.00437
FMP-SW	3R18	O10O10	F	10.01.38.00428	10.01.38.00429	10.01.38.00430	10.01.38.00431	10.01.38.00432
FMP-SW	5R18	O10O10	-	10.01.38.00642	10.01.38.00647	10.01.38.00648	10.01.38.00649	10.01.38.00650
FMP-SW	5R18	O10O10	F	10.01.38.00656	10.01.38.00657	10.01.38.00658	10.01.38.00659	10.01.38.00660
FMP-SW	5R18	N10SU	-	10.01.38.02967	10.01.38.02968	10.01.38.02969	10.01.38.02970	10.01.38.02971
FMP-S-SW	3R18	O20	-	10.01.38.03431	10.01.38.03432	10.01.38.03433	10.01.38.03435	10.01.38.03436
FMP-S-SW	3R18	O10O10	F	10.01.38.03437	10.01.38.03438	10.01.38.03439	10.01.38.03441	10.01.38.03442
FMP-S-SW	5R18	O10O10	-	10.01.38.03455	10.01.38.03456	10.01.38.03457	10.01.38.03459	10.01.38.03460
FMP-S-SW	5R18	O10O10	F	10.01.38.03461	10.01.38.03462	10.01.38.03463	10.01.38.03465	10.01.38.03466
FMP-i SW	3R18	O20	-	10.01.38.06809	-	-	10.01.38.07441	-

Type (Sealing foam)				Length L [mm]:				
				442	640	838	1,234	1,432
FMP-SVK	3R18	O20	-	10.01.38.00303	10.01.38.00411	10.01.38.00412	10.01.38.00413	10.01.38.00414
FMP-SVK	3R18	O10O10	F	10.01.38.00415	10.01.38.00416	10.01.38.00417	10.01.38.00418	10.01.38.00419
FMP-SVK	5R18	O10O10	-	10.01.38.00324	10.01.38.00643	10.01.38.00644	10.01.38.00645	10.01.38.00646
FMP-SVK	5R18	O10O10	F	10.01.38.00651	10.01.38.00652	10.01.38.00653	10.01.38.00654	10.01.38.00655
FMP-SVK	5R18	N10SU	-	10.01.38.02972	10.01.38.02973	10.01.38.02974	10.01.38.02975	10.01.38.02976
FMP-S-SVK	3R18	O20	-	10.01.38.02789	10.01.38.03420	10.01.38.03421	10.01.38.03423	10.01.38.03424
FMP-S-SVK	3R18	O10O10	F	10.01.38.03425	10.01.38.03426	10.01.38.03427	10.01.38.03429	10.01.38.03430
FMP-S-SVK	5R18	O10O10	-	10.01.38.03443	10.01.38.03444	10.01.38.03445	10.01.38.03447	10.01.38.03448
FMP-S-SVK	5R18	O10O10	F	10.01.38.03449	10.01.38.03450	10.01.38.03451	10.01.38.03453	10.01.38.03454
FMP-i SVK	3R18	O20	-	10.01.38.06743	-	-	10.01.38.07436	-

Type (Suction cup)					Length L [mm]:				
					442	640	838	1,234	1,432
FMP-SW	5R36	SPB2	20	-	10.01.38.00484	10.01.38.00485	10.01.38.00486	10.01.38.00487	10.01.38.00488
FMP-SW	5R36	SPB2	20	F	10.01.38.00489	10.01.38.00490	10.01.38.00491	10.01.38.00492	10.01.38.00493
FMP-SW	3R54	SPB2	40	-	10.01.38.00451	10.01.38.00453	10.01.38.00455	10.01.38.00456	10.01.38.00457
FMP-SW	3R54	SPB2	40	F	10.01.38.00458	10.01.38.00459	10.01.38.00460	10.01.38.00461	10.01.38.00462
FMP-S-SW	5R36	SPB2	20	-	10.01.38.03503	10.01.38.03504	10.01.38.03505	10.01.38.03507	10.01.38.03508
FMP-S-SW	5R36	SPB2	20	F	10.01.38.03509	10.01.38.03510	10.01.38.03511	10.01.38.03513	10.01.38.03514
FMP-S-SW	3R54	SPB2	40	-	10.01.38.03479	10.01.38.03480	10.01.38.03481	10.01.38.03483	10.01.38.03484
FMP-S-SW	3R54	SPB2	40	F	10.01.38.03485	10.01.38.03486	10.01.38.03487	10.01.38.03489	10.01.38.03490
FMP-i SW	3R54	SPB2	40	-	10.01.38.06818	-	-	10.01.38.07442	-

Type (Suction cup)					Length L [mm]:				
					442	640	838	1,234	1,432
FMP-SVK	5R36	SPB2	20	-	10.01.38.00323	10.01.38.00475	10.01.38.00476	10.01.38.00477	10.01.38.00478
FMP-SVK	5R36	SPB2	20	F	10.01.38.00479	10.01.38.00480	10.01.38.00481	10.01.38.00482	10.01.38.00483
FMP-SVK	3R54	SPB2	40	-	10.01.38.00311	10.01.38.00439	10.01.38.00443	10.01.38.00444	10.01.38.00445
FMP-SVK	3R54	SPB2	40	F	10.01.38.00446	10.01.38.00447	10.01.38.00448	10.01.38.00449	10.01.38.00450
FMP-S-SVK	5R36	SPB2	20	-	10.01.38.03491	10.01.38.03492	10.01.38.03493	10.01.38.03495	10.01.38.03496
FMP-S-SVK	5R36	SPB2	20	F	10.01.38.03497	10.01.38.03498	10.01.38.03499	10.01.38.03501	10.01.38.03502
FMP-S-SVK	3R54	SPB2	40	-	10.01.38.03467	10.01.38.03468	10.01.38.03469	10.01.38.03471	10.01.38.03472
FMP-S-SVK	3R54	SPB2	40	F	10.01.38.03473	10.01.38.03474	10.01.38.03475	10.01.38.03477	10.01.38.03478
FMP-i SVK	3R54	SPB2	40	-	10.01.38.06752	-	-	10.01.38.07415	-

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Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Ordering Data Spare Parts Area Gripping Systems FMP

Type (Sealing foam)		Material	3R18	3R18 F	5R18	5R18 F
DI-PL	442	O20	10.01.38.00113	-	-	-
DI-PL	442	O10O10	-	10.01.38.00192	10.01.38.00864	10.01.38.00622
DI-PL	442	N10SU	-	-	10.01.38.02863	-
DI-PL	640	O20	10.01.38.00405	-	-	-
DI-PL	640	O10O10	-	10.01.38.00408	10.01.38.00865	10.01.38.00627
DI-PL	640	N10SU	-	-	10.01.38.02864	-
DI-PL	838	O20	10.01.38.00140	-	-	-
DI-PL	838	O10O10	-	10.01.38.00409	10.01.38.00866	10.01.38.00628
DI-PL	838	N10SU	-	-	10.01.38.02865	-
DI-PL	1,234	O20	10.01.38.00193	-	-	-
DI-PL	1,234	O10O10	-	10.01.38.00196	10.01.38.00867	10.01.38.00629
DI-PL	1,234	N10SU	-	-	10.01.38.02866	-
DI-PL	1,432	O20	10.01.38.00406	-	-	-
DI-PL	1,432	O10O10	-	10.01.38.00410	10.01.38.00868	10.01.38.00630
DI-PL	1,432	N10SU	-	-	10.01.38.02867	-

Type (Suction cup)				Spare Parts		Part no.
FMP	5R36	SPB2	-	Bellows suction cup (round)	SPB2 20 SI-40 P	10.01.06.03125
FMP	5R36	SPB2	F	Bellows suction cup (round)	SPB2 20 SI-40 P F	10.01.38.00465
FMP	3R54	SPB2	-	Bellows suction cup (round)	SPB2 40 SI-55 P	10.01.06.03126
FMP	3R54	SPB2	F	Bellows suction cup (round)	SPB2 40 SI-55 P F	10.01.38.00452

Type	Spare Parts		Part no.
FMP-i-SVK 442 3R18 O20 G32	Sealing plate (FX/FM)	DI-PL 442x128 3R18 LL-20x7 O20 KE	10.01.38.07232
FMP-i-SVK 442 3R54 SPB2-40P G32	Bellows suction cup (round)	SPB2 40 SI-55 P F	10.01.38.00452
FMP-i-SW70 442 3R18 O20	Sealing plate (FX/FM)	DI-PL 442x128 3R18 LL-20x7 O20 KE	10.01.38.07232
FMP-i-SW140 442 3R54 SPB2-40P	Bellows suction cup (round)	SPB2 40 SI-55 P F	10.01.38.00452
FMP-i-SVK 1234 3R54 SPB2-40P G60	Bellows suction cup (round)	SPB2 40 SI-55 P F	10.01.38.00452
FMP-i-SVK 1234 3R18 O20 G60	Sealing plate (FX/FM)	DI-PL 1234x128 3R18 LL-20x7 O20 KE	10.01.38.07311
FMP-i-SW70 1234 3R18 O20	Sealing plate (FX/FM)	DI-PL 1234x128 3R18 LL-20x7 O20 KE	10.01.38.07311
FMP-i-SW140 1234 3R54 SPB2-40P	Bellows suction cup (round)	SPB2 40 SI-55 P F	10.01.38.00452

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Technical Data Area Gripping Systems FMP

Type (Sealing foam)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-SW	442	3R18	O20	66	300	-	2.0
FMP-SW	640	3R18	O20	99	450	-	2.8
FMP-SW	838	3R18	O20	132	600	-	3.6
FMP-SW	1,234	3R18	O20	198	900	-	5.0
FMP-SW	1,432	3R18	O20	231	1,050	-	5.6
FMP-SW	442	3R18	O10O10	66	300	-	2.0
FMP-SW	640	3R18	O10O10	99	450	-	2.8
FMP-SW	838	3R18	O10O10	132	600	-	3.6
FMP-SW	1,234	3R18	O10O10	198	900	-	5.0
FMP-SW	1,432	3R18	O10O10	231	1,050	-	5.6
FMP-SW	442	5R18	O10O10	110	300	-	2.0
FMP-SW	640	5R18	O10O10	165	450	-	2.8
FMP-SW	838	5R18	O10O10	220	600	-	3.6
FMP-SW	1,234	5R18	O10O10	330	900	-	5.0
FMP-SW	1,432	5R18	O10O10	385	1,050	-	5.6
FMP-SW	442	5R18	N10SU	110	300	-	2.4
FMP-SW	640	5R18	N10SU	165	450	-	3.2
FMP-SW	838	5R18	N10SU	220	600	-	4.0
FMP-SW	1,234	5R18	N10SU	330	900	-	5.4
FMP-SW	1,432	5R18	N10SU	385	1,050	-	6.0
FMP-S-SW	442	3R18	O20	66	300	-	2.8
FMP-S-SW	640	3R18	O20	99	450	-	3.5
FMP-S-SW	838	3R18	O20	132	600	-	4.2
FMP-S-SW	1,234	3R18	O20	198	900	-	5.7
FMP-S-SW	1,432	3R18	O20	231	1,050	-	6.4
FMP-S-SW	442	3R18	O10O10	66	300	-	2.8
FMP-S-SW	640	3R18	O10O10	99	450	-	3.5
FMP-S-SW	838	3R18	O10O10	132	600	-	4.2
FMP-S-SW	1,234	3R18	O10O10	198	900	-	5.7
FMP-S-SW	1,432	3R18	O10O10	231	1,050	-	6.4
FMP-S-SW	442	5R18	O10O10	110	300	-	2.8
FMP-S-SW	640	5R18	O10O10	165	450	-	3.5
FMP-S-SW	838	5R18	O10O10	220	600	-	4.2
FMP-S-SW	1,234	5R18	O10O10	330	900	-	5.6
FMP-S-SW	1,432	5R18	O10O10	385	1,050	-	6.4
FMP-i SW	442	3R18	O20	66	300	-	2.8
FMP-i SW	1,234	3R18	O20	197	900	-	5.7

*The external vacuum generator used must supply at least the specified suction flow (at the vacuum connection piece of the FMP) at -0.25 bar but max. 135 % of the specified suction flow

**At a vacuum of -0.25 bar and with the gripper fully covered by a workpiece typical for the application. The suction forces are references for general designs. Suction tests with the original workpiece are always recommended for designing specific systems.

Type (Sealing foam)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-SVK	442	3R18	O20	66	300	-	2.1
FMP-SVK	640	3R18	O20	99	450	-	2.8
FMP-SVK	838	3R18	O20	132	600	-	3.6
FMP-SVK	1,234	3R18	O20	198	900	-	5.1
FMP-SVK	1,432	3R18	O20	231	1,050	-	5.8
FMP-SVK	442	3R18	O10O10	66	300	-	2.1
FMP-SVK	640	3R18	O10O10	99	450	-	2.8

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Type (Sealing foam)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-SVK	838	3R18	O10O10	132	600	-	3.6
FMP-SVK	1,234	3R18	O10O10	198	900	-	5.1
FMP-SVK	1,432	3R18	O10O10	231	1,050	-	5.8
FMP-SVK	442	5R18	O10O10	110	300	-	2.1
FMP-SVK	640	5R18	O10O10	165	450	-	2.9
FMP-SVK	838	5R18	O10O10	220	600	-	3.6
FMP-SVK	1,234	5R18	O10O10	330	900	-	5.1
FMP-SVK	1,432	5R18	O10O10	385	1,050	-	5.9
FMP-SVK	442	5R18	N10SU	-	-	-	2.5
FMP-SVK	640	5R18	N10SU	-	-	-	3.3
FMP-SVK	838	5R18	N10SU	-	-	-	4.1
FMP-SVK	1,234	5R18	N10SU	-	-	-	5.5
FMP-SVK	1,432	5R18	N10SU	-	-	-	6.1
FMP-S-SVK	442	3R18	O20	66	300	-	2.8
FMP-S-SVK	640	3R18	O20	99	450	-	3.5
FMP-S-SVK	838	3R18	O20	132	600	-	4.3
FMP-S-SVK	1,234	3R18	O20	198	900	-	5.8
FMP-S-SVK	1,432	3R18	O20	231	1,050	-	6.5
FMP-S-SVK	442	3R18	O10O10	66	300	-	2.8
FMP-S-SVK	640	3R18	O10O10	99	450	-	3.5
FMP-S-SVK	838	3R18	O10O10	132	600	-	4.3
FMP-S-SVK	1,234	3R18	O10O10	198	900	-	5.8
FMP-S-SVK	1,432	3R18	O10O10	231	1,050	-	6.5
FMP-S-SVK	442	5R18	O10O10	110	300	-	2.8
FMP-S-SVK	640	5R18	O10O10	165	450	-	3.6
FMP-S-SVK	838	5R18	O10O10	220	600	-	4.3
FMP-S-SVK	1,234	5R18	O10O10	330	900	-	5.8
FMP-S-SVK	1,432	5R18	O10O10	385	1,050	-	6.6
FMP-i SVK	442	3R18	O20	66	300	-	2.8
FMP-i SVK	1,234	3R18	O20	197	900	-	5.8

*The external vacuum generator used must supply at least the specified suction flow (at the vacuum connection piece of the FMP) at -0.25 bar but max. 135 % of the specified suction flow

**At a vacuum of -0.25 bar and with the gripper fully covered by a workpiece typical for the application. The suction forces are references for general designs. Suction tests with the original workpiece are always recommended for designing specific systems.

Type (Suction cup)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-SW	442	5R36	SPB2	55	300	-	2.5
FMP-SW	640	5R36	SPB2	82	450	-	3.5
FMP-SW	838	5R36	SPB2	110	600	-	4.3
FMP-SW	1,234	5R36	SPB2	165	900	-	6.0
FMP-SW	1,432	5R36	SPB2	193	1,050	-	6.8
FMP-SW	442	3R54	SPB2	23	300	-	2.7
FMP-SW	640	3R54	SPB2	33	450	-	3.7
FMP-SW	838	3R54	SPB2	44	600	-	4.7
FMP-SW	1,234	3R54	SPB2	66	900	-	6.8
FMP-SW	1,432	3R54	SPB2	77	1,050	-	7.8
FMP-S-SW	442	5R36	SPB2	55	300	-	3.2
FMP-S-SW	640	5R36	SPB2	82	450	-	4.2
FMP-S-SW	838	5R36	SPB2	110	600	-	5.1
FMP-S-SW	1,234	5R36	SPB2	165	900	-	7.0
FMP-S-SW	1,432	5R36	SPB2	193	1,050	-	7.9
FMP-S-SW	442	3R54	SPB2	23	300	-	3.4

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Type (Suction cup)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-S-SW	640	3R54	SPB2	33	450	-	4.4
FMP-S-SW	838	3R54	SPB2	44	600	-	5.4
FMP-S-SW	1,234	3R54	SPB2	66	900	-	7.5
FMP-S-SW	1,432	3R54	SPB2	77	1,050	-	8.5
FMP-i SW	442	3R54	SPB2	23	300	-	3.4
FMP-i SW	1,234	3R54	SPB2	66	900	-	7.5

*The external vacuum generator used must supply at least the specified suction flow (at the vacuum connection piece of the FMP) at -0.25 bar but max. 135 % of the specified suction flow

**At a vacuum of -0.25 bar and with the gripper fully covered by a workpiece typical for the application. The suction forces are references for general designs. Suction tests with the original workpiece are always recommended for designing specific systems.

Type (Suction cup)				Number of suction cells	Evacuation rate for pu = -0.25 bar [l/min]*	Suction force (-600 mbar) [N]**	Weight [kg]
FMP-SVK	442	5R36	SPB2	55	300	-	2.5
FMP-SVK	640	5R36	SPB2	82	450	-	3.5
FMP-SVK	838	5R36	SPB2	110	600	-	4.5
FMP-SVK	1,234	5R36	SPB2	165	900	-	6.4
FMP-SVK	1,432	5R36	SPB2	193	1,050	-	7.4
FMP-SVK	442	3R54	SPB2	23	300	-	2.7
FMP-SVK	640	3R54	SPB2	33	450	-	3.7
FMP-SVK	838	3R54	SPB2	44	600	-	4.8
FMP-SVK	1,234	3R54	SPB2	66	900	-	6.8
FMP-SVK	1,432	3R54	SPB2	77	1,050	-	7.8
FMP-S-SVK	442	5R36	SPB2	55	300	-	3.3
FMP-S-SVK	640	5R36	SPB2	82	450	-	4.2
FMP-S-SVK	838	5R36	SPB2	110	600	-	5.2
FMP-S-SVK	1,234	5R36	SPB2	165	900	-	7.1
FMP-S-SVK	1,432	5R36	SPB2	193	1,050	-	8.1
FMP-S-SW	442	3R54	SPB2	23	300	-	3.4
FMP-S-SW	640	3R54	SPB2	33	450	-	4.4
FMP-S-SW	838	3R54	SPB2	44	600	-	5.4
FMP-S-SW	1,234	3R54	SPB2	66	900	-	7.5
FMP-S-SW	1,432	3R54	SPB2	77	1,050	-	8.5
FMP-i SW	442	3R54	SPB2	23	300	-	3.4
FMP-i SW	1,234	3R54	SPB2	66	900	-	7.5

*The external vacuum generator used must supply at least the specified suction flow (at the vacuum connection piece of the FMP) at -0.25 bar but max. 135 % of the specified suction flow

**At a vacuum of -0.25 bar and with the gripper fully covered by a workpiece typical for the application. The suction forces are references for general designs. Suction tests with the original workpiece are always recommended for designing specific systems.

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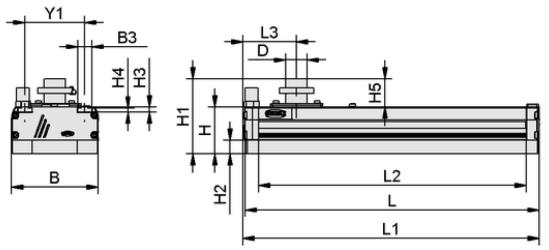
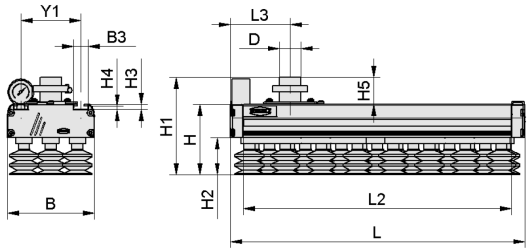
Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

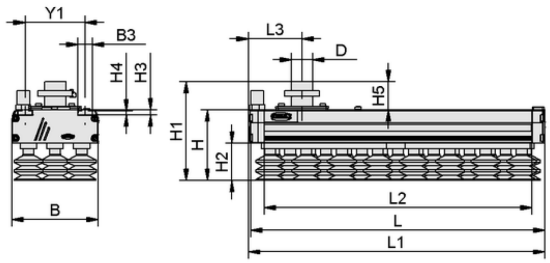
Design Data Area Gripping Systems FMP



FMP-i O20



FMP SPB2



FMP-i SPB2

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Design Data Area Gripping Systems FMP

Type (Sealing foam)		B [mm]	B3 [mm]	D [mm]*	H [mm]	H1 [mm]	H2 [mm]**	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	Y1 [mm]
FMP	3R18	130	22	32	70	111	20	7.7	5.5	41	442	402	90	90
FMP	3R18	130	22	32	70	111	20	7.7	5.5	41	640	600	90	90
FMP	3R18	130	22	60	70	116	20	7.7	5.5	46	838	798	90	90
FMP	3R18	130	22	60	70	116	20	7.7	5.5	46	1,234	1,194	90	90
FMP	3R18	130	22	60	70	116	20	7.7	5.5	46	1,432	1,392	90	90
FMP	5R18	130	22	32	65	111	20	7.7	5.5	41	442	402	90	90
FMP	5R18	130	22	32	65	111	20	7.7	5.5	41	640	600	90	90
FMP	5R18	130	22	60	65	116	20	7.7	5.5	46	838	798	90	90
FMP	5R18	130	22	60	65	116	20	7.7	5.5	46	1,234	1,194	90	90
FMP	5R18	130	22	60	65	116	20	7.7	5.5	46	1,432	1,392	90	90
FMP-S	3R18	130	22	32	70	111	20	7.7	5.5	41	640	600	77	90
FMP-S	3R18	130	22	60	70	116	20	7.7	5.5	46	838	798	77	90
FMP-S	3R18	130	22	60	70	116	20	7.7	5.5	46	1,234	1,194	77	90
FMP-S	3R18	130	22	60	70	116	20	7.7	5.5	46	1,432	1,392	77	90
FMP-S	5R18	130	22	32	70	111	20	7.7	5.5	41	442	402	77	90
FMP-S	5R18	130	22	32	70	111	20	7.7	5.5	41	640	600	77	90
FMP-S	5R18	130	22	60	70	116	20	7.7	5.5	46	838	798	77	90
FMP-S	5R18	130	22	60	70	116	20	7.7	5.5	46	1,234	1,194	77	90
FMP-S	5R18	130	22	60	70	116	20	7.7	5.5	46	1,432	1,392	77	90
FMP-i	3R18	130	22	32	70	111	20	7.7	5.5	41	442	402	81	90
FMP-i	3R18	130	22	60	70	116	20	7.7	5.5	46	1,234	1,194	81	90
FMP-i	3R18	130	22	60	80	116	20	7.7	5.5	46	1,234	1,194	81	90

*Vacuum hose with internal diameter equal to dimension D required
**Acceptable dimensional tolerances for rubber parts concerning to DIN ISO 3302-1 E3

Type (Suction cup)			B [mm]	B3 [mm]	D [mm]*	H [mm]	H1 [mm]	H2 [mm]**	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	Y1 [mm]
FMP	5R36	SPB2	130	22	32	83	124	33	8	6	41	442	402	90	90
FMP	5R36	SPB2	130	22	32	83	124	33	8	6	41	640	600	90	90
FMP	5R36	SPB2	130	22	60	83	129	33	8	6	46	838	798	90	90
FMP	5R36	SPB2	130	22	60	83	129	33	8	6	46	1,234	1,194	90	90
FMP	5R36	SPB2	130	22	60	83	129	33	8	6	46	1,432	1,392	90	90
FMP	3R54	SPB2	130	22	32	105	146	55	8	6	41	442	402	90	90
FMP	3R54	SPB2	130	22	32	105	146	55	8	6	41	640	600	90	90
FMP	3R54	SPB2	130	22	60	105	151	55	8	6	46	838	798	90	90
FMP	3R54	SPB2	130	22	60	105	151	55	8	6	46	1,234	1,194	90	90
FMP	3R54	SPB2	130	22	60	105	151	55	8	6	46	1,432	1,392	90	90
FMP-S	5R36	SPB2	130	22	32	83	124	33	8	6	41	442	402	77	90
FMP-S	5R36	SPB2	130	22	32	83	124	33	8	6	41	640	600	77	90
FMP-S	5R36	SPB2	130	22	60	83	129	33	8	6	46	838	798	77	90
FMP-S	5R36	SPB2	130	22	60	83	129	33	8	6	46	1,234	1,194	77	90
FMP-S	5R36	SPB2	130	22	60	83	129	33	8	6	46	1,432	1,392	77	90
FMP-S	3R54	SPB2	130	22	32	105	146	55	8	6	41	442	402	77	90
FMP-S	3R54	SPB2	130	22	32	105	146	55	8	6	41	640	600	77	90
FMP-S	3R54	SPB2	130	22	60	105	151	55	8	6	46	838	798	77	90
FMP-S	3R54	SPB2	130	22	60	105	151	55	8	6	46	1,234	1,194	77	90
FMP-S	3R54	SPB2	130	22	60	105	151	55	8	6	46	1,432	1,392	77	90
FMP-i	3R54	SPB2	130	22	32	106	147	56	8	6	41	442	402	81	90
FMP-i	3R54	SPB2	130	22	60	106	152	56	8	6	46	1,234	1,194	81	90

*Vacuum hose with internal diameter equal to dimension D required
**Acceptable dimensional tolerances for rubber parts concerning to DIN ISO 3302-1 E3

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Area Gripping Systems FMP

Suction area (LxB) from 442 x 130 mm to 1,432 x 130 mm

Multimedia product presentation

Medium	Link
Product video	https://vimeo.com/147433631 https://vimeo.com/219648859 https://vimeo.com/234301766 https://vimeo.com/316498901 https://vimeo.com/564562958

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