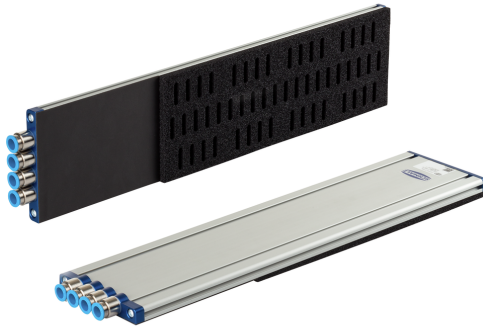
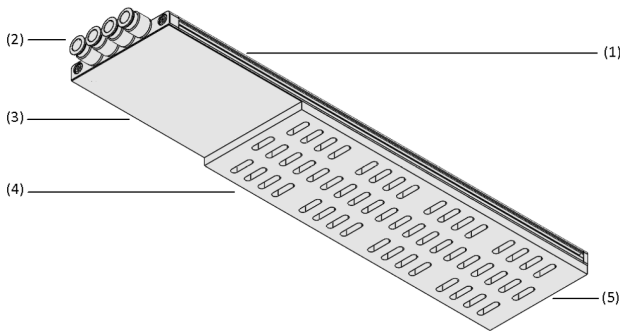


Vacuum Area Gripping Systems FEL

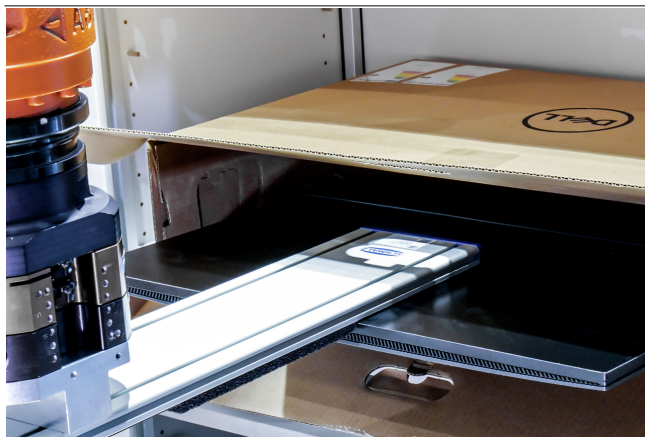
Gripping surface (LxW) from 300 x 130 to 800 x 130 mm



Vacuum Area Gripping Systems FEL



System Design Vacuum Area Gripping Systems FEL



Area gripper FEL when handling screens

Suitability for Industry Specific Applications

Applications

- Universal gripper for handling workpieces regardless of their size, geometry, material and surface in confined spaces. Especially for workpiece removal from racks or transport boxes
- Handling of products from different pick up positions
- Handling of workpieces with slots
- Suitable for fully automated applications
- Can also be used on lightweight robots due to the low dead weight of the gripper
- Optional for use in clean room and ESD environment

Design

- Aluminum base section (1) with lateral T-slots for sensors as well as integrated air guides for supplying the individual gripping zones (maximum 4 zones); different gripper lengths possible
- Connection hose couplings (2) for external vacuum generators to supply the individual suction zones
- Flanged-on area (3) and integrated suction zones (4)
- Sealing plate (5)

Product Highlights

- Low overall height with 16.5 mm base section height enables use in areas with critical interference contours
- Low gripper weight, high effective lift capacity and dynamic handling thanks to modular lightweight design
- High energy efficiency and low operating costs due to integrated gripper segmentation into individually switchable and controllable zones
- High-performance sealing foam with excellent sealing properties and long service life
- Sealing foam with quick-change adhesive film for effortless replacement without time-consuming cleaning work

Vacuum Area Gripping Systems FEL

Gripping surface (LxW) from 300 x 130 to 800 x 130 mm

Designation Code Vacuum Area Gripping Systems FEL

FEL 1	-	SW 2	-	70 3	-	352 4	-	3R 5	-	18 6
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O10 7	-	G12 8	-	PZ2 9
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1 – Abbreviated designation

Code	Version
FEL	Vacuum area gripping system FEL

4 – Length

Code	Length in mm
352	352
550	550
748	748

7 – Sealing element

Code	Height in mm
O10	Sealing foam (height = 10)

2 – Valve technology

Code	Type
SW	Flow restrictor

5 – Suction rows

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

8 – Nominal diameter

Code	Diameter in mm
G12	Ø 12

3 – Nozzle size

Code	Diameter in mm
60...70	Ø 0,6 and 0,7

6 – Hole spacing

Code	Spacing in mm
18	18

9 – Shape

Code	Spacing in mm
PZ1	1x passive zone / 1x suction zone
PZ2	1x passive zone / 2x suction zone
PZ4	1x passive zone / 4x suction zone

The area gripping systems FEL are available as a ready-to-connect product. Customized grippers are available on request.

Available spare parts: sealing foam

Available accessories: vacuum hose, vacuum/pressure switches, spring plungers, ball joints, flange modules, external vacuum generators, vacuum filters, valves, magnetic valves, vacuum gauges

Ordering Data Vacuum Area Gripping Systems FEL

Type	Part no.
FEL SW 0.7 352 3R18 O10 G12 PZ1	10.01.46.00105
FEL SW 0.7 352 3R18 O10 G12 PZ2	10.01.46.00114
FEL SW 0.6 352 5R18 O10 G12 PZ1	10.01.46.00117
FEL SW 0.6 352 5R18 O10 G12 PZ2	10.01.46.00121
FEL SW 0.7 550 3R18 O10 G12 PZ4	10.01.46.00131
FEL SW 0.6 550 5R18 O10 G12 PZ4	10.01.46.00134
FEL SW 0.7 748 3R18 O10 G12 PZ4	10.01.46.00124
FEL SW 0.6 748 5R18 O10 G12 PZ4	10.01.46.00128

Vacuum Area Gripping Systems FEL

Gripping surface (LxW) from 300 x 130 to 800 x 130 mm

Ordering Data Spare Parts Vacuum Area Gripping Systems FEL

Spare Parts	Sealing plate suction area	Sealing plate passive zone
FEL SW 0.7 352 3R18 O10 G12 PZ1	10.01.46.00106	10.01.46.00107
FEL SW 0.7 352 3R18 O10 G12 PZ2	10.01.46.00115	10.01.46.00107
FEL SW 0.6 352 5R18 O10 G12 PZ1	10.01.46.00118	10.01.46.00107
FEL SW 0.6 352 5R18 O10 G12 PZ2	10.01.46.00119	10.01.46.00107
FEL SW 0.7 550 3R18 O10 G12 PZ4	10.01.46.00132	10.01.46.00100
FEL SW 0.6 550 5R18 O10 G12 PZ4	10.01.46.00133	10.01.46.00100
FEL SW 0.7 748 3R18 O10 G12 PZ4	10.01.46.00125	10.01.46.00107
FEL SW 0.6 748 5R18 O10 G12 PZ4	10.01.46.00127	10.01.46.00107

Spare Parts		Part no.
Separator	DI-PL 88.5x10 ZEL	10.01.46.00071
Sleeve for separators	HUEL 5.4-3.4x4-FEL	10.01.46.00073
Sealing gasket	DI-SCHN 2.5 NBR-70	10.07.04.00166
Sealing plate for housing cover	DI-PL 84.9x9.3 ZEL PU KE FEL	10.01.46.00043
Oval head screw for housing cover	SCHR WN1552 5x20 ST VZ T25	20.10.03.00008

Ordering Data Accessories Vacuum Area Gripping Systems FEL

Type*		Part no.
Solenoid valve	EMVP 10 230V-AC 3/2 NO/NC	10.05.02.00143
Compact ejector	SMPI 25 NO RD M12-5	10.02.02.03363

*For one suction zone

Spare Parts		Part no.
Flange module	MOD-FLAN 130x90 FEL	10.01.46.00136
Connection cable	ASK B-M12-5 5000 K-5P	21.04.05.00080
Compressed-air connection plate	GP 2 SMP 15..30/SCP 20..30	10.02.02.00917
Compressed-air connection plate	GP 3 SMP 15..25/SCP 20..25	10.02.02.00918
Compressed-air connection plate	GP 4 SMP 15..20/SCP 20	10.02.02.00919

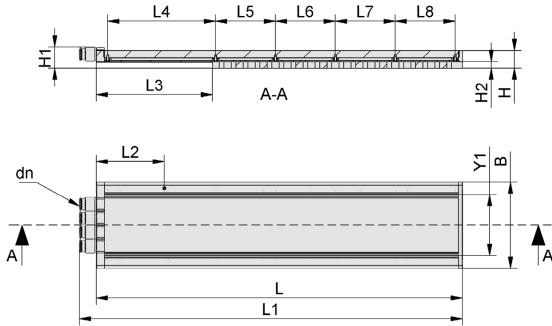
Technical Data Vacuum Area Gripping Systems FEL

Type	Shape	Material type	[N]	Arrangement suction cells	Number of suction cells	Evacuation rate for pu = -0.3 bar [l/min]	Nozzle diameter [mm]	Weight [kg]
FEL SW 0.6 352 5R18 O10 G12 PZ1	1x passive zone / 1x suction zone	Foam O, Height 10 mm	110	-	46	124	0.6	1.2
FEL SW 0.6 352 5R18 O10 G12 PZ2	1x passive zone / 2x suction zone	Foam O, Height 10 mm	100	-	42	113	0.6	1.2
FEL SW 0.6 550 5R18 O10 G12 PZ4	1x passive zone / 4x suction zone	Foam O, Height 10 mm	200	-	84	227	0.6	1.8
FEL SW 0.6 748 5R18 O10 G12 PZ4	1x passive zone / 4x suction zone	Foam O, Height 10 mm	345	-	144	389	0.6	2.4
FEL SW 0.7 352 3R18 O10 G12 PZ1	1x passive zone / 1x suction zone	Foam O, Height 10 mm	150	-	28	112	0.7	1.2
FEL SW 0.7 352 3R18 O10 G12 PZ2	1x passive zone / 2x suction zone	Foam O, Height 10 mm	140	-	26	104	0.7	1.2
FEL SW 0.7 550 3R18 O10 G12 PZ4	1x passive zone / 4x suction zone	Foam O, Height 10 mm	280	-	52	208	0.7	1.8
FEL SW 0.7 748 3R18 O10 G12 PZ4	1x passive zone / 4x suction zone	Foam O, Height 10 mm	470	-	88	352	0.7	2.4

Vacuum Area Gripping Systems FEL

Gripping surface (LxW) from 300 x 130 to 800 x 130 mm

Design Data Vacuum Area Gripping Systems FEL



FEL

Vacuum Area Gripping Systems FEL

Gripping surface (LxW) from 300 x 130 to 800 x 130 mm

 **Design Data Vacuum Area Gripping Systems FEL**

Type	B [mm]	dn [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	Y1 [mm]
FEL SW 0.7 352 3R18 O10 G12 PZ1	130	12	16.5	32	10	352	377.70	112	156.5	144	180	-	-	-	90
FEL SW 0.7 352 3R18 O10 G12 PZ2	130	12	16.5	32	10	352	377.70	112	156.5	144	90	90	-	-	90
FEL SW 0.6 352 5R18 O10 G12 PZ1	130	12	16.5	32	10	352	377.70	112	156.5	144	180	-	-	-	90
FEL SW 0.6 352 5R18 O10 G12 PZ2	130	12	16.5	32	10	352	377.70	112	156.5	144	90	90	-	-	90
FEL SW 0.7 550 3R18 O10 G12 PZ4	130	12	16.5	32	10	550	575.71	112	174.5	162	90	90	90	90	90
FEL SW 0.6 550 5R18 O10 G12 PZ4	130	12	16.5	32	10	550	575.71	112	174.5	162	90	90	90	90	90
FEL SW 0.7 748 3R18 O10 G12 PZ4	130	12	16.5	32	10	748	773.70	112	156.5	144	144	144	144	144	90
FEL SW 0.6 748 5R18 O10 G12 PZ4	130	12	16.5	32	10	748	773.70	112	156.5	144	144	144	144	144	90