



Vacuum gripping systems | Area gripper SBX-F

Area gripper SBX-F with vacuum cups diameter 43 mm

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Product notes

- > The area gripper for the highest demands and most difficult applications
- > For automated handling of individual products or product layers without changing grippers
- > Maximum gripping safety with the highest vacuum level and minimum coverage at the same time
- > This means that both the smallest and the largest components can be gripped safely with the same vacuum level without changing the gripper
- > Highest availability due to replacement of critical modules within seconds
- > Very short cycle times possible due to very fast suction of a workpiece
- > Particularly energy-efficient due to fully closing valves without bypass or leaks
- > Vacuum cups with \varnothing 43 mm made of NR as standard, various other vacuum cups can be supplied to customer needs
- > Customer-specific lengths from 400 to 3,000 mm possible
- > Customized grid arrangement of the vacuum cups possible

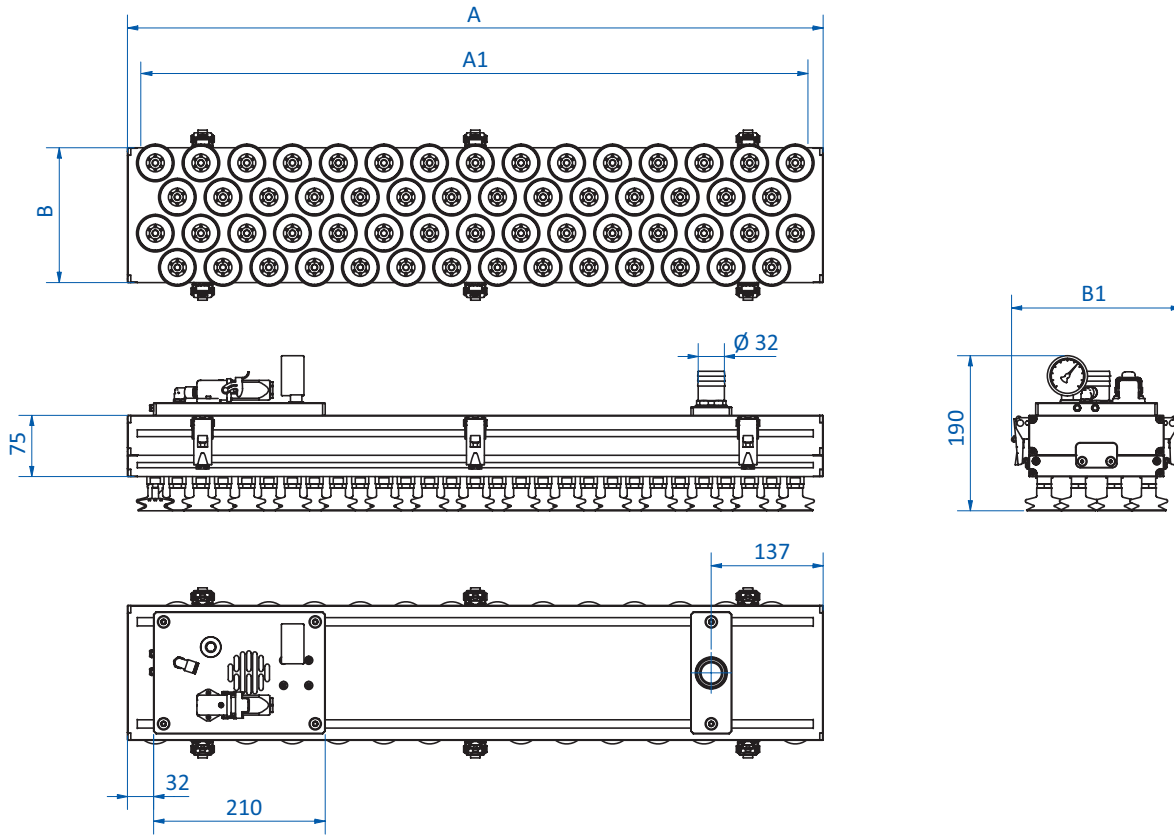
Technical data

Item no.	Total length [mm]	Width [mm]	Number of vacuum cups	Lifting force at -0.35 bar (-5.07 psi) [kg]	Lifting force at -0.6 bar (-8.7 psi) [kg]	Weight [kg]
SBX-F.130.436.3R56-VC43	460	130	23	31	53	6.6
SBX-F.130.632.3R56-VC43	656	130	33	44	76	9.9
SBX-F.130.828.3R56-VC43	852	130	44	60	102	12.2
SBX-F.130.1248.3R56-VC43	1,274	130	66	89	153	18.8
SBX-F.165.436.4R56-VC43	460	165	30	40	69	8.8
SBX-F.165.632.4R56-VC43	656	165	44	59	102	11.2
SBX-F.165.828.4R56-VC43	852	165	58	81	139	14.6
SBX-F.165.1248.4R56-VC43	1,274	165	88	119	204	20.4





Dimensions



Item no.	A [mm]	A1 [mm]	B [mm]	B1 [mm]
SBX-F.130.436.3R56-VC43	460	436	130	178
SBX-F.130.632.3R56-VC43	656	632	130	178
SBX-F.130.828.3R56-VC43	852	828	130	178
SBX-F.130.1248.3R56-VC43	1,274	1,250	130	178
SBX-F.165.436.4R56-VC43	460	436	165	208
SBX-F.165.632.4R56-VC43	656	632	165	208
SBX-F.165.828.4R56-VC43	852	828	165	208
SBX-F.165.1248.4R56-VC43	1,274	1,250	165	208



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Vacuum generation with FMC multi-chamber ejectors

The area grippers of the SBX-F series are originally designed for operation with an electric vacuum pump. By combining our multi-chamber ejectors of the FMC series, an area gripper SBX-F can also be equipped with decentralized vacuum generation.

Depending on the size of the large-area gripper SBX-F and the requirements from the process, a wide variety of combinations are possible here.

The most decisive factors from the process are the evacuation time and the energy consumption. The evacuation time is the decisive factor. It can be read in the tables below for various combinations of the SBX-F area gripper and the FMC multi-chamber ejector. The energy consumption of the selected ejector can be taken from the data sheet for the FMC series.



SBX-F.130 Area gripper

Length [mm]	Evacuation time to max. vacuum level 80 % [sec]						Evacuation time to max. vacuum level 92 % [sec]					
	FMC-25-L	FMC-50-L	FMC-75-L	FMC-100-L	FMC-125-L	FMC-150-L	FMC-25-H	FMC-50-H	FMC-75-H	FMC-100-H	FMC-125-H	FMC-150-H
500	3.9	3.1	2.5	1.3	1.0	0.8	13.0	8.1	4.9	3.3	4.1	2.8
600	4.7	3.7	3.0	1.6	1.2	1.0	15.6	9.8	5.9	3.9	4.9	3.3
700	5.5	4.3	3.5	1.8	1.5	1.1	18.2	11.4	6.8	4.6	5.7	3.9
800	6.2	4.9	4.1	2.1	1.7	1.3	20.8	13.0	7.8	5.2	6.5	4.4
900	7.0	5.6	4.6	2.3	1.9	1.5	23.4	14.6	8.8	5.9	7.3	5.0
1000	7.8	6.2	5.1	2.6	2.1	1.6	26.0	16.3	9.8	6.5	8.1	5.5
1100	8.6	6.8	5.6	2.9	2.3	1.8	28.6	17.9	10.7	7.2	8.9	6.1
1200	9.4	7.4	6.1	3.1	2.5	2.0	31.2	19.5	11.7	7.8	9.8	6.6
1300	10.1	8.0	6.6	3.4	2.7	2.1	33.8	21.1	12.7	8.5	10.6	7.2
1400	10.9	8.6	7.1	3.6	2.9	2.3	36.4	22.8	13.7	9.1	11.4	7.7
1500	11.7	9.3	7.6	3.9	3.1	2.4	39.0	24.4	14.6	9.8	12.2	8.3
1600	12.5	9.9	8.1	4.2	3.3	2.6	41.6	26.0	15.6	10.4	13.0	8.8
1700	13.3	10.5	8.6	4.4	3.5	2.8	44.2	27.6	16.6	11.1	13.8	9.4
1800	14.0	11.1	9.1	4.7	3.7	2.9	46.8	29.3	17.6	11.7	14.6	9.9
1900	14.8	11.7	9.6	4.9	4.0	3.1	49.4	30.9	18.5	12.4	15.4	10.5
2000	15.6	12.4	10.1	5.2	4.2	3.3	52.0	32.5	19.5	13.0	16.3	11.1
2100	16.4	13.0	10.6	5.5	4.4	3.4	54.6	34.1	20.5	13.7	17.1	11.6
2200	17.2	13.6	11.2	5.7	4.6	3.6	57.2	35.8	21.5	14.3	17.9	12.2
2300	17.9	14.2	11.7	6.0	4.8	3.7	59.8	37.4	22.4	15.0	18.7	12.7
2400	18.7	14.8	12.2	6.2	5.0	3.9	62.4	39.0	23.4	15.6	19.5	13.3
2500	19.5	15.4	12.7	6.5	5.2	4.1	65.0	40.6	24.4	16.3	20.3	13.8
2600	20.3	16.1	13.2	6.8	5.4	4.2	67.6	42.3	25.4	16.9	21.1	14.4
2700	21.1	16.7	13.7	7.0	5.6	4.4	70.2	43.9	26.3	17.6	21.9	14.9
2800	21.8	17.3	14.2	7.3	5.8	4.6	72.8	45.5	27.3	18.2	22.8	15.5
2900	22.6	17.9	14.7	7.5	6.0	4.7	75.4	47.1	28.3	18.9	23.6	16.0
3000	23.4	18.5	15.2	7.8	6.2	4.9	78.0	48.8	29.3	19.5	24.4	16.6

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SBX-F.165 Area gripper

Length [mm]	Evacuation time to max. vacuum level 80 % [sec]						Evacuation time to max. vacuum level 92 % [sec]					
	FMC-25-L	FMC-50-L	FMC-75-L	FMC-100-L	FMC-125-L	FMC-150-L	FMC-25-H	FMC-50-H	FMC-75-H	FMC-100-H	FMC-125-H	FMC-150-H
500	4.95	3.9	3.2	1.7	1.3	1.0	16.5	10.3	6.2	4.1	5.2	3.5
600	5.94	4.7	3.9	2.0	1.6	1.2	19.8	12.4	7.4	5.0	6.2	4.2
700	6.93	5.5	4.5	2.3	1.8	1.4	23.1	14.4	8.7	5.8	7.2	4.9
800	7.92	6.3	5.1	2.6	2.1	1.7	26.4	16.5	9.9	6.6	8.3	5.6
900	8.91	7.1	5.8	3.0	2.4	1.9	29.7	18.6	11.1	7.4	9.3	6.3
1000	9.9	7.8	6.4	3.3	2.6	2.1	33.0	20.6	12.4	8.3	10.3	7.0
1100	10.89	8.6	7.1	3.6	2.9	2.3	36.3	22.7	13.6	9.1	11.3	7.7
1200	11.88	9.4	7.7	4.0	3.2	2.5	39.6	24.8	14.9	9.9	12.4	8.4
1300	12.87	10.2	8.4	4.3	3.4	2.7	42.9	26.8	16.1	10.7	13.4	9.1
1400	13.86	11.0	9.0	4.6	3.7	2.9	46.2	28.9	17.3	11.6	14.4	9.8
1500	14.85	11.8	9.7	5.0	4.0	3.1	49.5	30.9	18.6	12.4	15.5	10.5
1600	15.84	12.5	10.3	5.3	4.2	3.3	52.8	33.0	19.8	13.2	16.5	11.2
1700	16.83	13.3	10.9	5.6	4.5	3.5	56.1	35.1	21.0	14.0	17.5	11.9
1800	17.82	14.1	11.6	5.9	4.8	3.7	59.4	37.1	22.3	14.9	18.6	12.6
1900	18.81	14.9	12.2	6.3	5.0	3.9	62.7	39.2	23.5	15.7	19.6	13.3
2000	19.8	15.7	12.9	6.6	5.3	4.1	66.0	41.3	24.8	16.5	20.6	14.0
2100	20.79	16.5	13.5	6.9	5.5	4.3	69.3	43.3	26.0	17.3	21.7	14.7
2200	21.78	17.2	14.2	7.3	5.8	4.5	72.6	45.4	27.2	18.2	22.7	15.4
2300	22.77	18.0	14.8	7.6	6.1	4.7	75.9	47.4	28.5	19.0	23.7	16.1
2400	23.76	18.8	15.4	7.9	6.3	5.0	79.2	49.5	29.7	19.8	24.8	16.8
2500	24.75	19.6	16.1	8.3	6.6	5.2	82.5	51.6	30.9	20.6	25.8	17.5
2600	25.74	20.4	16.7	8.6	6.9	5.4	85.8	53.6	32.2	21.5	26.8	18.2
2700	26.73	21.2	17.4	8.9	7.1	5.6	89.1	55.7	33.4	22.3	27.8	18.9
2800	27.72	21.9	18.0	9.2	7.4	5.8	92.4	57.8	34.7	23.1	28.9	19.6
2900	28.71	22.7	18.7	9.6	7.7	6.0	95.7	59.8	35.9	23.9	29.9	20.3
3000	29.7	23.5	19.3	9.9	7.9	6.2	99.0	61.9	37.1	24.8	30.9	21.0