

Multi-Stage Ejectors



Multi-Stage Ejectors SEM

Suction rate from 332 l/min to 2,370 l/min



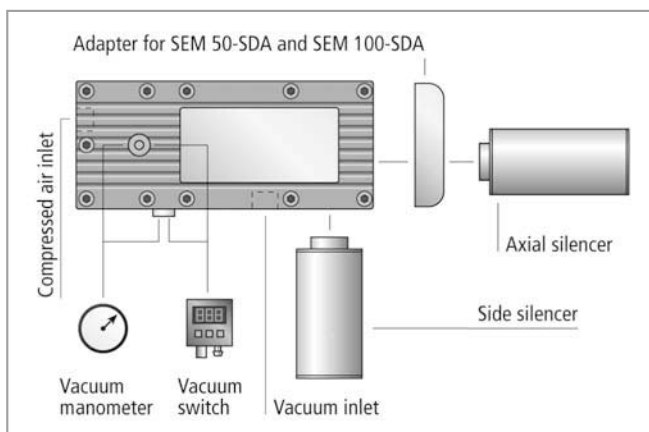
Suitability for Industry-Specific Applications



Multi-stage ejectors SEM

Applications

- Multi-stage ejector for handling of cardboard, packing materials, insulating materials and other porous items
- Processes that require big suction capacity and low air consumption at the same time



System design multi-stage ejectors SEM

Design

- Body and nozzle system made of robust aluminum
- Gaskets and valve flaps made of NBR
- Options: silencer, solenoid valves, vacuum switch/manometer, filter



Centralized vacuum generation by means of multi-stage ejectors SEM for handling coated wooden sheets

Our Highlights...

- Range of ejectors with a very high suction capacity
- Multi-stage ejector nozzle with high efficiency
- Optional connection facilities for compressed air, exhaust air and sensors

Your Benefits...

- > Fast and safe handling of all porous materials
- > Rapid evacuation in the lower vacuum range, reduced costs and shorter cycle times
- > Flexible mounting; reduced design costs

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Designation Code Multi-Stage Ejectors SEM

Abbreviated designation	Size	Version
Example SEM 100 SDS:		
SEM	100	SDS
SEM	25	SDA silencer axial
	50	SDS silencer side-mounted
	100	
	150	
	300	

Ordering Data Multi-Stage Ejectors SEM

Multi-stage ejector SEM is delivered as a ready to connect product.

Available spare parts: silencer

Available accessories: vacuum manometer, vacuum switch

Multi-Stage Ejectors SEM

Type*	Part Number
SEM 25	10.02.01.00313
SEM 25 SDA	10.02.01.00314
SEM 25 SDS	10.02.01.00315
SEM 50	10.02.01.00316
SEM 50 SDA	10.02.01.00317
SEM 50 SDS	10.02.01.00318
SEM 100	10.02.01.00319
SEM 100 SDA	10.02.01.00320
SEM 100 SDS	10.02.01.00321
SEM 150	10.02.01.00483
SEM 150 SDA	10.02.01.00488
SEM 150 SDS	10.02.01.00489
SEM 300 SDA	10.02.01.00432

*The exhaust-air outlets of the basic version (without silencer) are open axially and to the side

Ordering Data Accessories Multi-Stage Ejectors SEM

Type	Part Number
Vacuum manometer, Ø 40 mm, rear connection*	10.07.02.00035
Vacuum switch VS-V-PNP*	10.06.02.00191
Vacuum switch VS-V-W-D-PNP*	10.06.02.00192

*Vacuum switches and manometers are delivered, packed separately, with all necessary mounting accessories. For safety reasons, the vacuum switch/manometer should be secured with commercially available screw locking compound of medium strength.

Recommended accessories for vacuum switches:

- Connection cable, PUR, 5 meter, M8-4pin, straight plug, 10.06.02.00031
- Connection cable, PUR, 5 meter, M8-4pin, 90° elbow plug, 10.06.02.00032

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Ordering Data Spare Parts Multi-Stage Ejectors SEM

Type*	Silencer
SEM 25	-
SEM 25 SDA	10.02.01.00309
SEM 25 SDS	10.02.01.00309
SEM 50	-
SEM 50 SDA	10.02.01.00312
SEM 50 SDS	10.02.01.00312
SEM 100	-
SEM 100 SDA	10.02.01.00312
SEM 100 SDS	10.02.01.00312
SEM 150	-
SEM 150 SDA	10.02.01.00491
SEM 150 SDS	10.02.01.00491
SEM 300 SDA	-

*The exhaust-air outlets of the basic version without silencer are open axially and to the side

Technical Data Multi-Stage Ejectors SEM

Type	Degree of evacuation [%]	Max. suction rate [l/min]	Max. suction rate [m³/h]	Air consumpt.dur- ing evac. [l/min]*	Air consumpt. dur- ing evac. [m³/h]*	Noise level free [dB]
SEM 25	85	402	24.1	101	6.1	90
SEM 25 SDA	85	393	23.6	101	6.1	77
SEM 25 SDS	85	332	19.9	101	6.1	75
SEM 50	85	706	42.4	197	11.8	90
SEM 50 SDA	85	704	42.2	197	11.8	80
SEM 50 SDS	85	642	38.5	197	11.8	78
SEM 100	85	1071	64.3	376	22.6	90
SEM 100 SDA	85	976	58.6	376	22.6	81
SEM 100 SDS	85	909	54.5	376	22.6	80
SEM 150	85	1400	84.0	590	35.4	95
SEM 150 SDA	85	1290	77.4	590	35.4	81
SEM 150 SDS	85	1190	71.4	590	35.4	80
SEM 300 SDA	85	2370	142.2	935	56.1	82

*At optimal operating pressure

**For max. length 2 m

Type	Noise level workp. gripped [dB]	Operating pressure [bar]	Recomm. int. hose diameter compr. air [mm]**	Recomm. int. hose diameter vacuum [mm]**	Weight [kg]	Operating temperature [°C]
SEM 25	72	5	4	20	1.0	0...50
SEM 25 SDA	64	5	4	20	1.1	0...50
SEM 25 SDS	62	5	4	20	1.1	0...50
SEM 50	75	5	6	25	1.2	0...50
SEM 50 SDA	66	5	6	25	1.4	0...50
SEM 50 SDS	64	5	6	25	1.3	0...50
SEM 100	74	5	6	32	1.5	0...50
SEM 100 SDA	60	5	6	32	1.7	0...50
SEM 100 SDS	65	5	6	32	1.6	0...50
SEM 150	79	5	9	32	1.7	0...50
SEM 150 SDA	71	5	9	32	1.8	0...50
SEM 150 SDS	71	5	9	32	1.8	0...50
SEM 300 SDA	62	5	19	60	5.7	0...50

*At optimal operating pressure

**For max. length 2 m

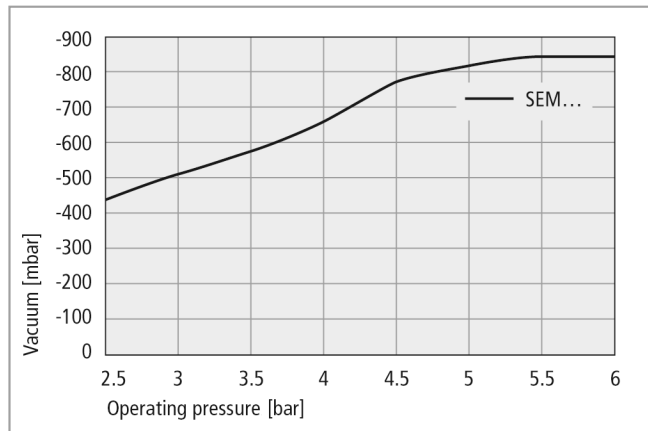
Multi-Stage Ejectors



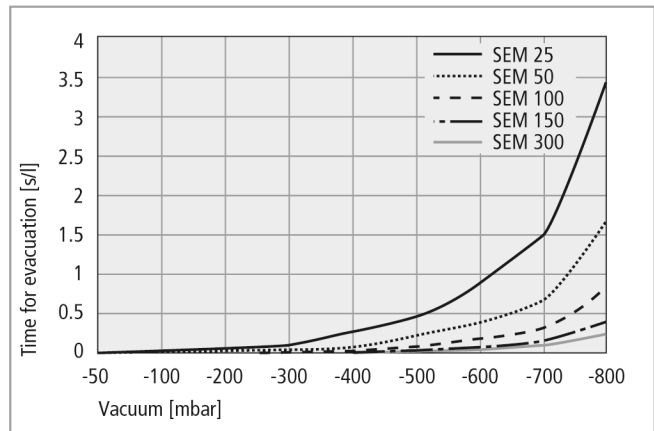
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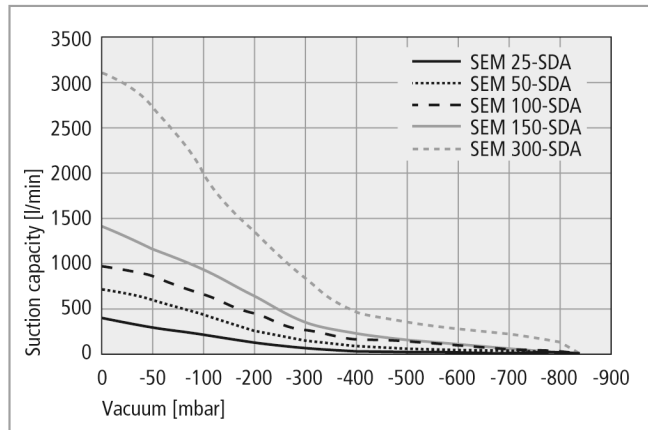
Performance Data Multi-Stage Ejectors SEM



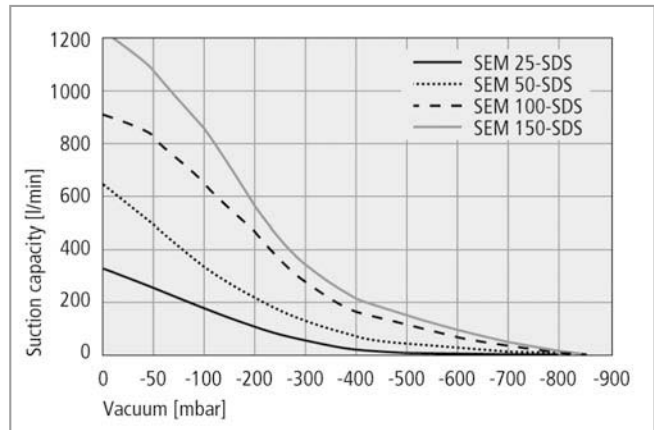
Achievable vacuum at various operating pressures



Evacuation times for various vacuum ranges (averaged for SDA/SDS)



Suction capacity at various degrees of evacuation



Suction capacity at various degrees of evacuation

Suction Capacity in l/min at Various Degrees of Evacuation

Type	Degree of evacuation in mbar									
	0	-50	-100	-200	-300	-400	-500	-600	-700	-800
SEM 25-SDS	332	269	199	118	70	38	26	16	8	1
SEM 25-SDA	393	319	227	122	72	37	27	15	7	2
SEM 50-SDS	642	503	354	223	141	78	57	34	13	2
SEM 50-SDA	704	611	452	269	173	91	56	37	19	6
SEM 100-SDS	909	843	642	463	281	161	121	78	40	11
SEM 100-SDA	976	884	669	476	278	158	119	77	36	11
SEM 150-SDS	1233	1141	847	560	352	218	150	96	49	13
SEM 150-SDA	1433	1220	940	644	358	236	160	113	47	11
SEM 300-SDA	3110	2750	2065	1381	762	482	364	288	223	140

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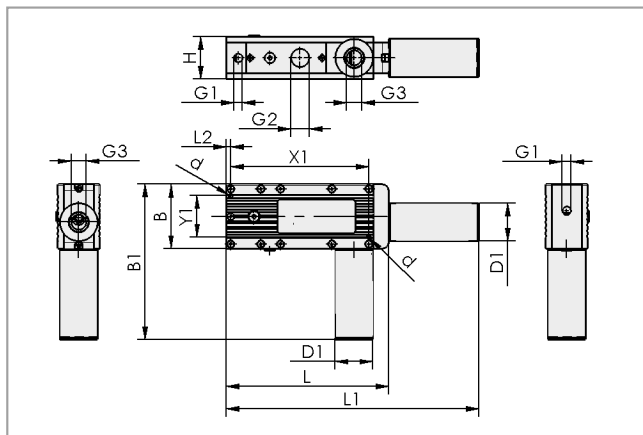
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Evacuation Time in s/l for Various Vacuum Ranges

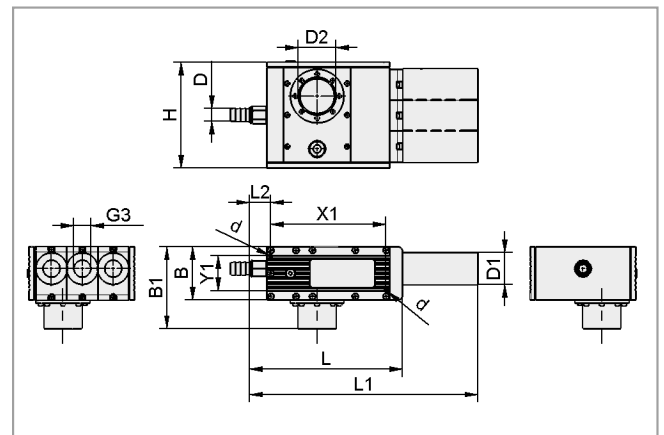
Type*	Degree of evacuation in mbar								
	-50	-100	-200	-300	-400	-500	-600	-700	-800
SEM 25	0.02	0.04	0.07	0.14	0.27	0.46	0.81	1.51	3.37
SEM 50	0.02	0.03	0.05	0.08	0.14	0.23	0.38	0.67	1.69
SEM 100	0.01	0.02	0.04	0.07	0.10	0.14	0.21	0.34	0.82
SEM 150	0.01	0.02	0.02	0.04	0.06	0.08	0.10	0.18	0.34
SEM 300	0.00	0.01	0.02	0.02	0.03	0.05	0.08	0.11	0.27

*Average SDA/SDS values

Design Data Multi-Stage Ejectors SEM



SEM 25 to 150 SDA/SDS



SEM 300 SDA

Type	Dimensions in mm														
	B	B1	d	D	D1	D2	G1	G2	G3	H	L	L1	L2	X1	Y1
SEM 25	85	-	5.5	-	-	-	G1/4"-F	G1/2"-F	G1/2"-F	48	195	-	6	183	55
SEM 25 SDA	85	-	5.5	-	40	-	G1/4"-F	G1/2"-F	G1/2"-F	48	195	275	6	183	55
SEM 25 SDS	85	165	5.5	-	40	-	G1/4"-F	G1/2"-F	G1/2"-F	48	195	-	6	183	55
SEM 50	85	-	5.5	-	-	-	G1/4"-F	G3/4"-F	G3/4"-F	58	195	-	6	183	55
SEM 50 SDA	85	-	5.5	-	50	-	G1/4"-F	G3/4"-F	G3/4"-F	58	215	335	6	183	55
SEM 50 SDS	85	205	5.5	-	50	-	G1/4"-F	G3/4"-F	G3/4"-F	58	195	-	6	183	55
SEM 100	85	-	5.5	-	-	-	G1/4"-F	G1"-F	G3/4"-F	68	195	-	6	183	55
SEM 100 SDA	85	-	5.5	-	50	-	G1/4"-F	G1"-F	G3/4"-F	68	215	335	6	183	55
SEM 100 SDS	85	205	5.5	-	50	-	G1/4"-F	G1"-F	G3/4"-F	68	195	-	6	183	55
SEM 150	85	-	5.5	-	-	-	G1/4"-F	G1"-F	M42x1.5-F	68	195	-	6	183	55
SEM 150 SDA	85	-	5.5	-	50	-	G1/4"-F	G1"-F	M42x1.5-F	68	215	335	6	183	55
SEM 150 SDS	85	205	5.5	-	50	-	G1/4"-F	G1"-F	M42x1.5-F	68	195	-	6	183	55
SEM 300 SDA	85	130	5.5	19	50	60	G1/2"-F	-	G3/4"-F	168	243	363	34	183	55