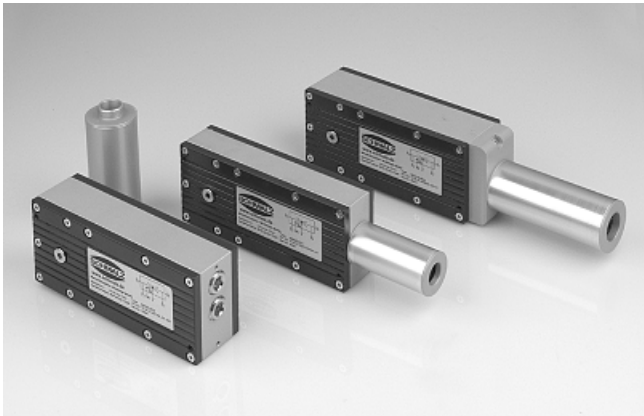


# Multi-stage ejectors

## Multi-stage ejectors SEM



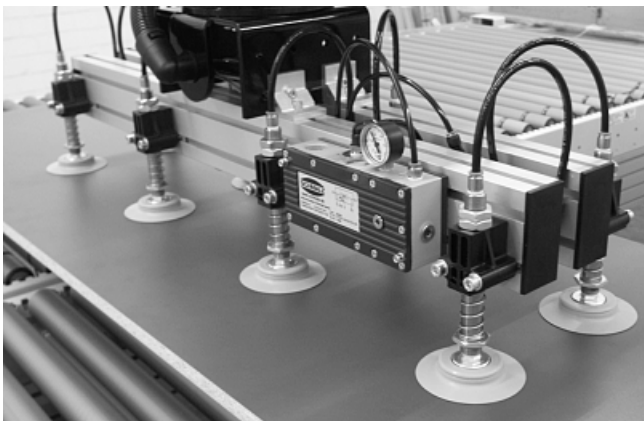
Multi-stage ejector SEM

### 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 advantages...

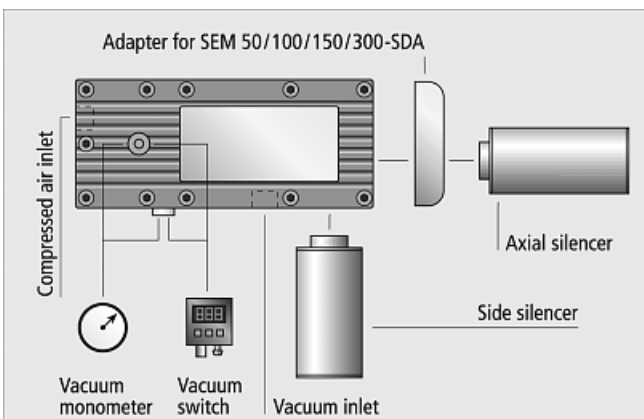
- >Fast and safe handling of all porous materials
- >Rapid evacuation in the lower vacuum range, reduced costs and shorter cycle times
- >Flexible mounting; reduced design costs



Vacuum cross-beam with vacuum generation by a multi-stage ejector SEM for the handling of sheets of wood

### Applications

- Handling of cardboard, packing materials, insulating materials and other porous items



System design multi-stage ejector SEM

### Construction

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



### Suitability for branch-specific applications

# Multi-stage ejectors

## Multi-stage ejectors SEM



### Designation code Multi-stage ejectors SEM

Short designation	Size	Version
Example: SEM	50	SDA
SEM	25 50 100 150 300	...without silencer SDA...with axial silencer SDS...with side-mounted silencer



### Ordering data Multi-stage ejectors SEM

Type*	Article No.
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	Article No.
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

\*\*If a solenoid valve is used, the inlet pressure must be increased by about 0.5 bar

Recommended accessories for vacuum switches:

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

# Multi-stage ejectors

## Multi-stage ejectors SEM



### 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 OSD (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. during evac. [l/min]*	Air consumpt. during evac. [m³/h]*	Noise level free [db(A)]
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(A)]	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

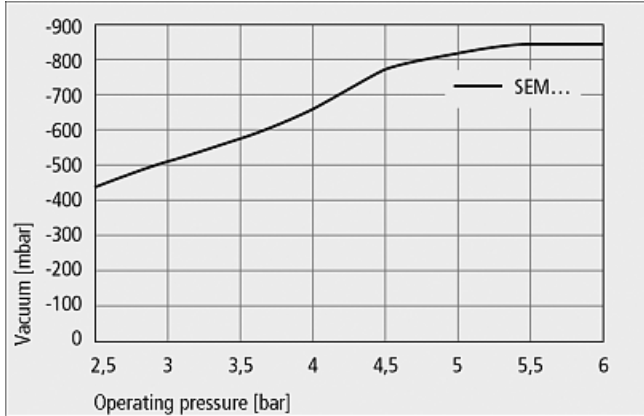
\*\*For max. length 2 m

# Multi-stage ejectors

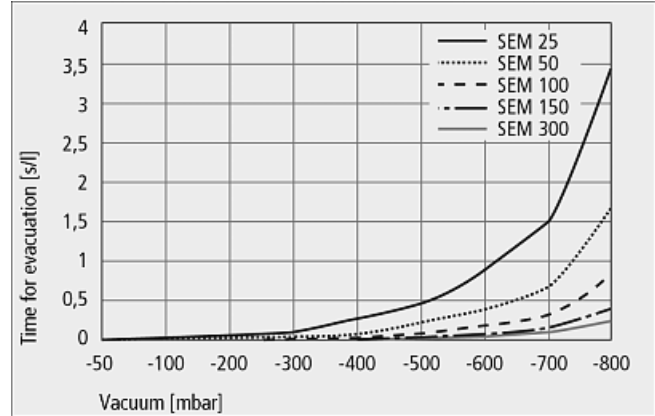
## Multi-stage ejectors SEM



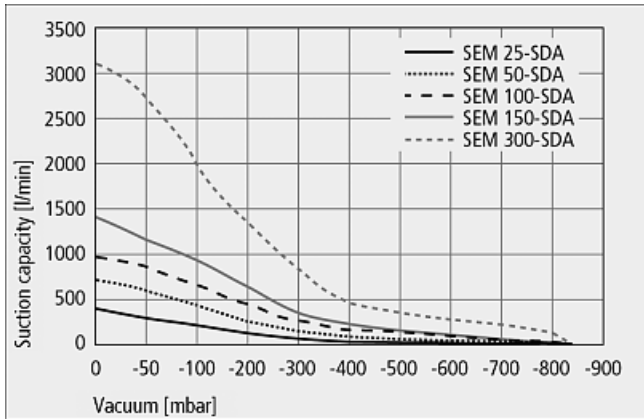
### Performance data Multi-stage ejectors SEM



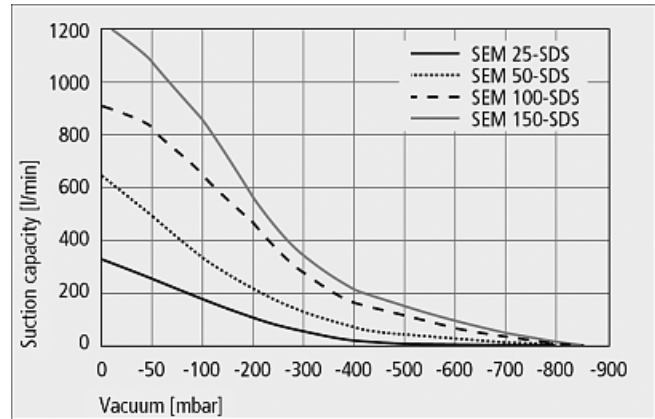
Achievable vacuum at various operating pressures



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



Suction capacity at various degrees of evacuation



Suction capacity at various degrees of evacuation

Vacuum generators  
5

### 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

# Multi-stage ejectors

## Multi-stage ejectors SEM

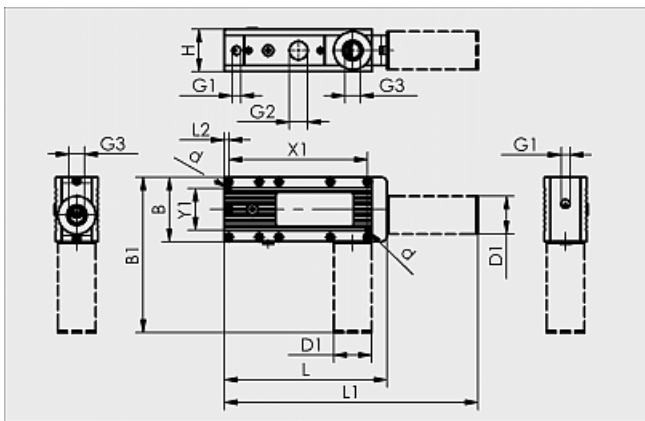


### Evacuation time in s/l for various vacuum ranges

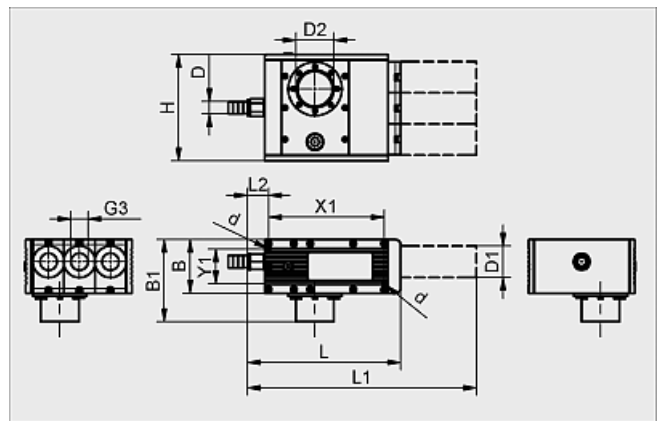
Type*	Degree of evacuation in mbar								
	-50	-100	-200	-300	-400	-500	-600	-700	-800
SEM 25	0,021	0,038	0,074	0,136	0,265	0,463	0,805	1,505	3,368
SEM 50	0,015	0,026	0,050	0,081	0,139	0,232	0,377	0,672	1,693
SEM 100	0,013	0,022	0,040	0,066	0,099	0,142	0,208	0,337	0,822
SEM 150	0,010	0,020	0,024	0,040	0,061	0,080	0,102	0,180	0,341
SEM 300	0,004	0,009	0,016	0,022	0,027	0,045	0,076	0,110	0,267

\*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	215	-	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	215	-	6	183	55	
SEM 100	85	-	5,5	-	-	-	G1/4-F	G1-F	G3/4-F	68	215	-	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	215	-	6	183	55	
SEM 150	85	-	5,5	-	-	-	G1/4-F	G1-F	G3/4-F	68	215	-	6	183	55	
SEM 150 SDA	85	-	5,5	-	50	-	G1/4-F	G1-F	G3/4-F	68	215	335	6	183	55	
SEM 150 SDS	85	205	5,5	-	50	-	G1/4-F	G1-F	G3/4-F	68	215	-	6	183	55	
SEM 300 SDA	85	130	5,5	19	50	60	G1/2-F	G3/4-F	G3/4-F	168	243	363	34	183	55	