

Compact Ejectors



Compact Ejectors SCPM

Suction rate from 6 l/min to 23 l/min



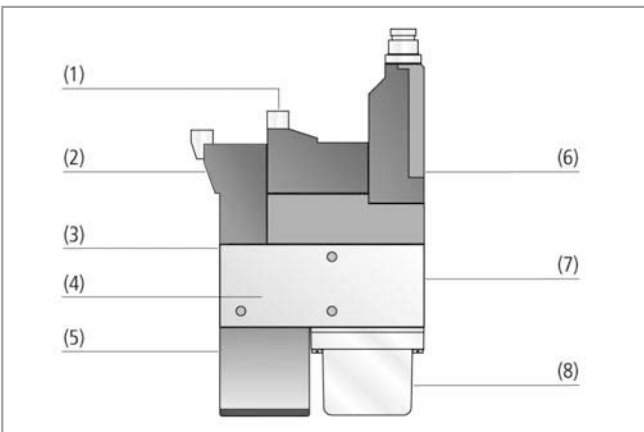
Suitability for Industry-Specific Applications



Compact ejectors SCPM

Applications

- Compact ejector for use in applications with very dynamic movements and restricted spaces
- Usage for handling with industrial robots, linear axes and in pick-and-place systems



System design compact ejectors SCPM

Design

- Blow-off valve (1) in idle position, normally closed (NC)
- Suction valve (2) in idle position, can be normally open (NO) or closed (NC)
- Compressed air connection (3)
- Basic body (4) made from anodized aluminum
- Integrated silencer (5) and filter (8)
- Vacuum connection (7)
- Can be connected to a collective connection plate (battery mounting)
- Optionally with integrated vacuum switch (6)



Central vacuum generation by compact ejectors SCPM

Our Highlights...

- Minimum size and very low weight
- Versatile modular system
- Integrated valves and vacuum monitoring
- Wide range of models with different performance figures

Your Benefits...

- > Optimum vacuum generation, suitable for very dynamic movements
- > Flexible adaptation to customer requirements
- > Complete solution for very simple installation
- > Optimum air consumption thanks to various models with differing suction capacities

Schmalz - The Company

Vacuum Knowledge

Vacuum Suction Pads

Special Grippers

Mounting Elements

Vacuum Generators

Valve Technology

Switches and Monitoring

Filters and Connections

Vacuum Gripping Systems

Services

Contact

Index of Products

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Designation Code Compact Ejectors SCPM

Abbreviated designation	Nozzle size	Idle position suction valve	Blow off valve	System monitoring
Example SCPM 07 NO A:				
SCPM	07	NO	A	
SCPM	05 = 0.5 mm 07 = 0.7 mm 10 = 1.0 mm	NC normally closed NO normally open	A blow off valve	VS-T electronic vacuum switch

Ordering Data Compact Ejectors SCPM

Compact ejector SCPM is delivered as a ready to connect product (without connection cable).

Available spare parts: silencer, filter
Available accessories: connection cable

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SCPM 05...		SCPM 07...		SCPM 10...	
Type	Part Number	Type	Part Number	Type	Part Number
SCPM 05 NO A	10.02.02.01072	SCPM 07 NO A	10.02.02.01068	SCPM 10 NO A	10.02.02.01064
SCPM 05 NC A	10.02.02.01071	SCPM 07 NC A	10.02.02.01067	SCPM 10 NC A	10.02.02.01063
SCPM 05 NO A VS-T	10.02.02.02499	SCPM 07 NO A VS-T	10.02.02.02501	SCPM 10 NO A VS-T	10.02.02.02503
SCPM 05 NC A VS-T	10.02.02.02498	SCPM 07 NC A VS-T	10.02.02.02500	SCPM 10 NC A VS-T	10.02.02.02502

Ordering Data Spare Parts and Accessories Compact Ejectors SCPM

Type	Connection cable for solenoid valves* (3 m, PUR)	Connection cable for vacuum switch (5 m, straight, PUR)	Connection cable for vacuum switch (5 m, 90°, PUR)	Replacement silencer	Replacement filter element
SCPM 05 NO/NC A	21.04.06.00086	-	-	10.02.02.01029	10.02.02.01037
SCPM 05 NO/NC A V...	21.04.06.00086	10.06.02.00031	10.06.02.00032	10.02.02.01029	10.02.02.01037
SCPM 07 NO/NC A	21.04.06.00086	-	-	10.02.02.01029	10.02.02.01037
SCPM 07 NO/NC A V...	21.04.06.00086	10.06.02.00031	10.06.02.00032	10.02.02.01029	10.02.02.01037
SCPM 10 NO/NC A	21.04.06.00086	-	-	10.02.02.01029	10.02.02.01037
SCPM 10 NO/NC A V...	21.04.06.00086	10.06.02.00031	10.06.02.00032	10.02.02.01029	10.02.02.01037

*Order 2 x per ejector.

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Technical Data Compact Ejectors SCPM

Type	Nozzle-Ø [mm]	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]*	Max. air consumption blow off [l/min]
SCPM 05...	0.5	85	6	0.4	13	0.8	26
SCPM 07...	0.7	85	12	0.7	21	1.3	26
SCPM 10...	1.0	85	23	1.4	46	2.8	26

!The supply voltage for vacuum switches and solenoid valves is 24V DC

*At optimal operating pressure

**For max. length 2 m

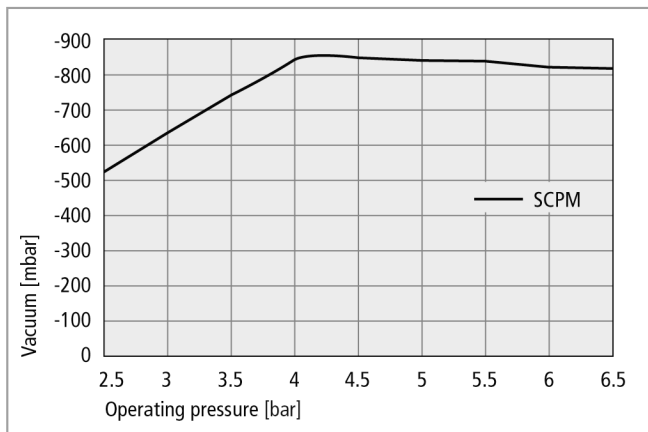
Type	Noise level workp. gripped [dB]	Noise level free [dB]	Operating pressure [bar]	Recomm. int. hose diameter compr. air [mm]**	Recomm. int. hose diameter vacuum [mm]**	Weight [g]	Operating temperature [°C]
SCPM 05...	62	62	4.5	2	2	80	0...45
SCPM 07...	67	70	4.5	2	2	80	0...45
SCPM 10...	73	76	4.5	2	4	80	0...45

!The supply voltage for vacuum switches and solenoid valves is 24V DC

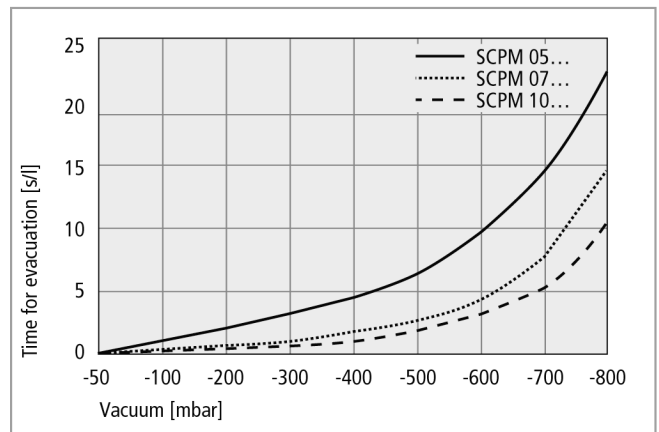
*At optimal operating pressure

**For max. length 2 m

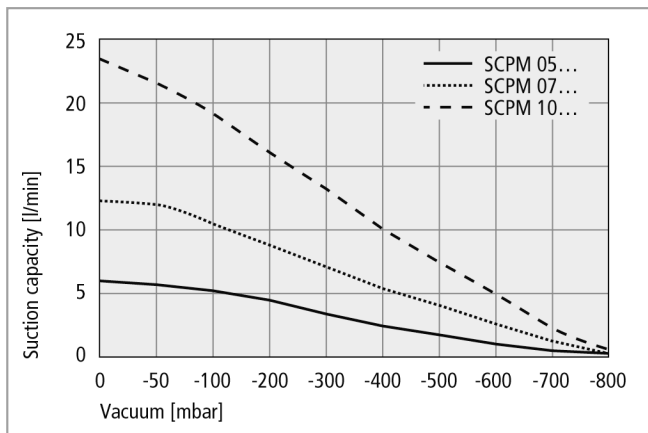
Performance Data Compact Ejectors SCPM



Achievable vacuum at various operating pressures



Evacuation times for various vacuum ranges



Suction capacity at various degrees of evacuation

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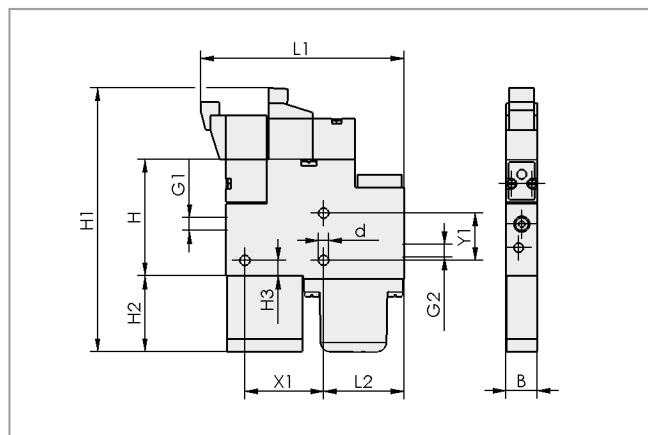
Suction Capacity in l/min at Various Degrees of Evacuation

Type	Degree of evacuation in mbar									
	0	-50	-100	-200	-300	-400	-500	-600	-700	-800
SCPM 05...	6.0	5.9	5.1	4.3	3.4	2.6	1.9	1.4	0.5	0.2
SCPM 07...	12.0	11.7	10.3	8.6	6.8	5.3	3.9	2.8	1.1	0.4
SCPM 10...	23.0	22.2	19.6	16.4	13.0	10.0	7.4	5.4	2.0	0.8

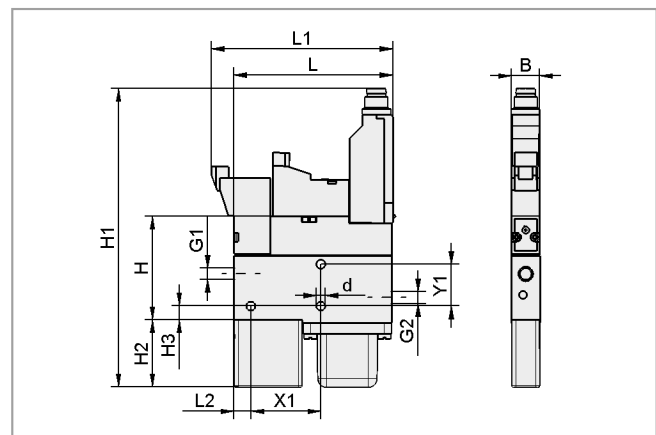
Evacuation Time in s/l for Various Vacuum Ranges

Type	Degree of evacuation in mbar								
	-50	-100	-200	-300	-400	-500	-600	-700	-800
SCPM 05...	0.34	0.76	1.80	3.02	4.55	6.57	9.58	14.80	22.40
SCPM 07...	0.17	0.36	0.85	1.45	2.18	3.25	4.67	7.34	14.60
SCPM 10...	0.11	0.24	0.56	0.96	1.49	2.38	3.38	5.32	11.54

Design Data Compact Ejectors SCPM



SCPM 05 to 10 NC/NO A



SCPM...VS-T

Type	Dimensions in mm												
	B	d	G1	G2	H	H1	H2	H3	L	L1	L2	X1	Y1
SCPM 05 NC/NO A	10.2	3.2	M5-F	M5-F	37.5	84.0	24	5	-	64.5	25.5	25	15
SCPM 07 NC/NO A	10.2	3.2	M5-F	M5-F	37.5	84.0	24	5	-	64.5	25.5	25	15
SCPM 10 NC/NO A	10.2	3.2	M5-F	M5-F	37.5	84.0	24	5	-	64.5	25.5	25	15
SCPM 05 NC/NO A V...	10.2	3.2	M5-F	M5-F	37.2	106.8	24	5	56.5	64.5	6.0	25	15
SCPM 07 NC/NO A V...	10.2	3.2	M5-F	M5-F	37.2	106.8	24	5	56.5	64.5	6.0	25	15
SCPM 10 NC/NO A V...	10.2	3.2	M5-F	M5-F	37.2	106.8	24	5	56.5	64.5	6.0	25	15