

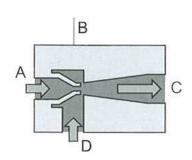
## **Mini-compact ejectors**

Type »Mini-Pump«
Art. No. SCP 101-M and SCP 102-M

P 8-9 e

Purely pneumatic vacuum generator that operates on the Venturi principle. Compressed air enters the ejector at A and flows through the nozzle B.

This results in a vacuum immediately behind the nozzle outlet, and air is drawn in through the vacuum inlet D. This air and the driving air leave the ejector via the silencer C.





**SCP 102-M** 

#### Characteristics:

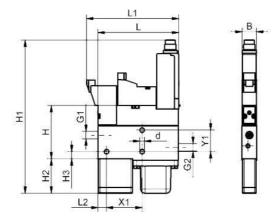
- Vacuum generator with integrated control valves and system monitoring functions
- Gripping and blowing off can be controlled without the need for external valves
- Optimised air consumption thanks to many models with differing suction capacities
- Minimum energy costs in continuous operation
- Easy adjustment with foil keypad and LED display of the settings
- Minimum size, low weight
- Optimum vacuum generation directly on the suction pad
- Complete solution for very simple installation
- Short learning curve thanks to "teach" function
- Further sensors unnecessary
- Easily visible status indication

Applications:

Ideal where space is restricted and for highly dynamic movements, handling with industrial robots, linear axes, pick-and-place systems.

Body: Integrated: Anodised aluminium

NC blow-off valve, filter, silencer, non-return valve



Compact ejectors »Mini Pump«, with system monitoring functions: digital vacuum switch with teach function

| Art. No.  | Nozzle-<br>Ø | Suction valve idle position | В    | d   | G1    | G2    | н    | H1    | H2   | Н3  | L    | L1   | L2  | X1   | Y1   |
|-----------|--------------|-----------------------------|------|-----|-------|-------|------|-------|------|-----|------|------|-----|------|------|
| SCP 101-M | 1.0          | NC                          | 10.2 | 3.2 | M5-IG | M5-IG | 37.2 | 106.8 | 24.0 | 5.0 | 56.5 | 64.5 | 6.0 | 25.0 | 15.0 |
| SCP 102-M | 1.0          | NO                          | 10.2 | 3.2 | M5-IG | M5-IG | 37.2 | 106.8 | 24.0 | 5.0 | 56.5 | 64.5 | 6.0 | 25.0 | 15.0 |

Dimensions in mm.

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edition 11/2009 Subject technical changes.

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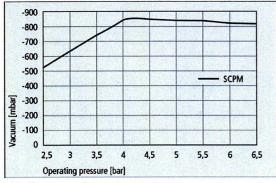
#### **Technical data**

| Art. No.  | Degree of evacuation [%] | Max.<br>suction rate<br>[I/min] | Max.<br>suction rate<br>[m³/h] | Air consumpt.<br>during evac.<br>[I/min]* | Air consumpt.<br>during evac.<br>[m³/h]* | Air consumption blow off [l/min] |
|-----------|--------------------------|---------------------------------|--------------------------------|---|--|----------------------------------|
| SCP 101-M | 85.0                     | 23.0                            | 1.4                            | 46.0                                      | 2.8                                      | 26.0                             |
| SCP 102-M | 85.0                     | 23.0                            | 1.4                            | 46.0                                      | 2.8                                      | 26.0                             |

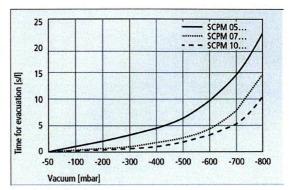
| ArtNr.    | Noise level<br>workp.<br>gripped<br>[db(A)] | Noise level<br>free<br>[db(A)] | Operating pressure [bar] | Recomm. int.<br>hose diameter<br>compr. air<br>[mm]** | Recomm. int.<br>hose diameter<br>vacuum<br>[mm]** | Weight | Operating temperature [°C] |
|-----------|---|--------------------------------|--------------------------|---|---|--------|----------------------------|
| SCP 101-M | 73.0  | 76.0                           | 4.5                      | 2.0   | 4.0   | 80.0   | 0-45.0                     |
| SCP 102-M | 73.0  | 76.0                           | 4.5                      | 2.0   | 4.0   | 80.0   | 0-45.0                     |

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

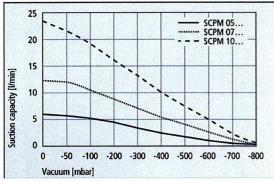
#### Performance data



Achievable vacuum at various operating pressures



Evacuation times for various vacuum ranges



Suction capacity at various degrees of evacuation

<sup>\*</sup> At optimal operating pressure.

<sup>\* \*</sup> For max. length 2 m.



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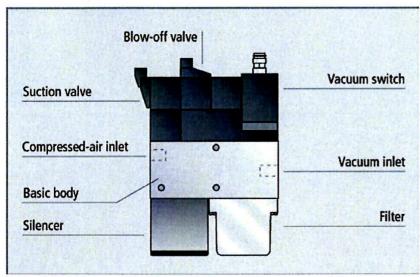
#### Suction capacity in I/min at various degrees of evacuation

| Art. No.  | Degree | Degree of evacuation in mbar |      |      |      |      |      |      |      |      |  |  |  |
|-----------|--------|------------------------------|------|------|------|------|------|------|------|------|--|--|--|
| Art. No.  | 0      | -50                          | -100 | -200 | -300 | -400 | -500 | -600 | -700 | -800 |  |  |  |
| SCP 101-M | 23.0   | 22.2                         | 19.6 | 16.4 | 13.0 | 10.0 | 7.4  | 5.4  | 2.0  | 0.8  |  |  |  |
| SCP 102-M | 23.0   | 22.2                         | 19.6 | 16.4 | 13.0 | 10.0 | 7.4  | 5.4  | 2.0  | 0.8  |  |  |  |

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

| Art. No.  | Degree of | Degree of evacuation in mbar |      |      |      |      |      |      |      |  |  |  |  |
|-----------|-----------|------------------------------|------|------|------|------|------|------|------|--|--|--|--|
| AIL NO.   | -50       | -100                         | -200 | -300 | -400 | -500 | -600 | -700 | -800 |  |  |  |  |
| SCP 101-M | 0.1       | 0.2                          | 0.6  | 1.0  | 1.5  | 2.4  | 3.4  | 5.3  | 11.5 |  |  |  |  |
| SCP 102-M | 0.1       | 0.2                          | 0.6  | 1.0  | 1.5  | 2.4  | 3.4  | 5.3  | 11.5 |  |  |  |  |

## System design



System design compact ejector SCPM

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