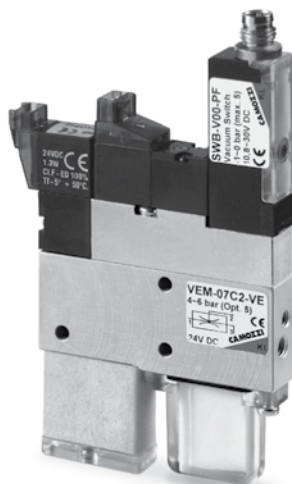


Compact ejectors Series VEM

Miniaturized vacuum generators with integrated valves and monitoring system. Possibility to command suction and blow-off individually without using external valves.



- » Extremely compact with further reduced weight.
- » Modularity for easy installation.
- » Easy monitoring of the vacuum level through integrated vacuum switch.

One of the most important features of the compact ejector Series VEM is the extreme compactness. This compactness and low weight makes them suitable for "dynamic" applications such as robots, when assembled directly on the part in motion (gripper head etc.)

The Compact ejector Series VEM have integrated suction-and blow off individually without using external valves. With these it is therefore possible to command suction and blow-off individually without using external valves. The compact ejectors Series VEM are often used in completely automatic handling systems.

GENERAL DATA

Description	<ul style="list-style-type: none"> - body in anodized Aluminium - valve function for the suction available in normally open (NO suction when not activated)or normally closed (NC no suction when not activated) - blow-off valve (normally closed), integrated silencer and filter
Options	possibility of mounting fitting plate

CODING EXAMPLE

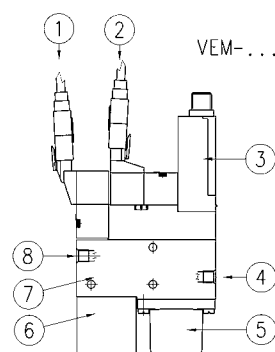
VE	M	-	05	C	2	-	VE
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VE	SERIES VE = Vacuum ejector
M	VERSION M = compact, mini
05	NOZZLE DIAMETER 05 = 0,5 mm 07 = 0,7 mm 10 = 1,0 mm
C	VALVE FUNCTION C = NC (suction OFF when not activated) A = NO (suction ON when not activated)
2	VERSION 2 = with Blow-off valve
VE	VALVE TYPE VE = without air saving system, with electronic vacuum switch

TECHNICAL DATA

COMPACT EJECTOR SYSTEM:

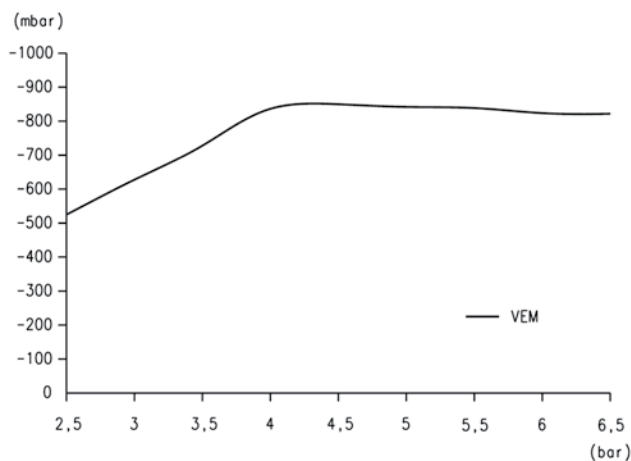
- 1 = Suction valve 5 = Filter
 2 = Blow-off valve 6 = Silencer
 3 = Vacuum switch 7 = Body
 4 = Vacuum inlet 8 = Compressed air inlet



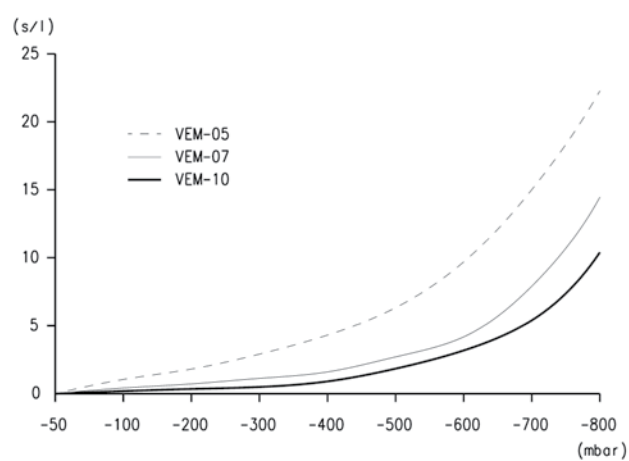
DIMENSIONS

Mod.	Mod.	Degree of evacuation (%)	Max. Suction rate (l/min)	Max. Suction rate (m3/h)	Air consumption (l/min)	Air cons. during evac. (m3/h)	Air cons. during evac. (l/min)	Noise level workp. gripped (db(A))	Noise level free (db(A))	Optimum operating pressure (Bar)	Weight (kg)	Temperature range
VEM-05	0,5	85	6	0,4	13	0,8	26	62	62	4,5	0,08	0 / 45°C
VEM-07	0,7	85	12	0,7	21	1,3	26	67	70	4,5	0,08	0 / 45°C
VEM-10	1	85	23	1,4	46	2,8	26	73	76	4,5	0,08	0 / 45°C

DIAGRAMS VEM

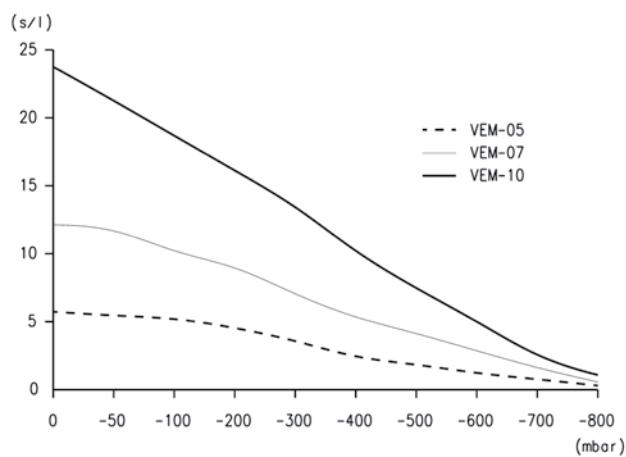


Achievable vacuum at different operating pressures



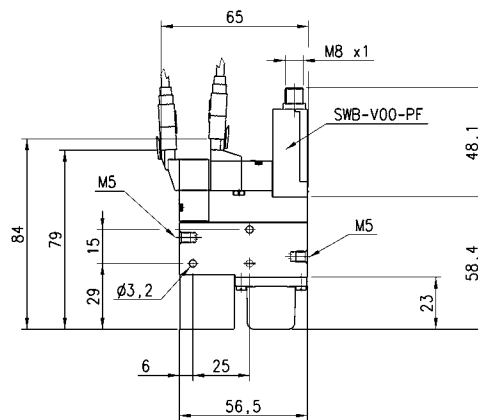
Evacuation time for different vacuum values

DIAGRAMS VEM



Suction rate for different vacuum values

VEM 05... 10



VEM-...

Mod.

VEM-05C2-VE

VEM-05A2-VE

VEM-07C2-VE

VEM-07A2-VE

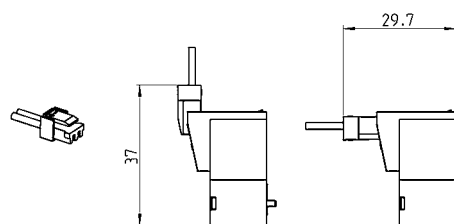
VEM-10C2-VE

VEM-10A2-VE

Connectors for ejector Mod. VEC and VEM

Connectors for Models:

VEC-10
VEC-15
VEM-05
VEM-07
VEM-10

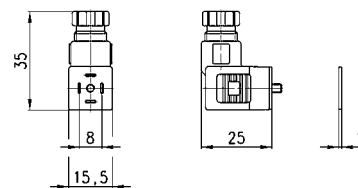


Mod.	Cable length (mm)
121-803	300
121-806	600
121-810	1000

Connectors for ejector mod. VEC

Connectors for Models:

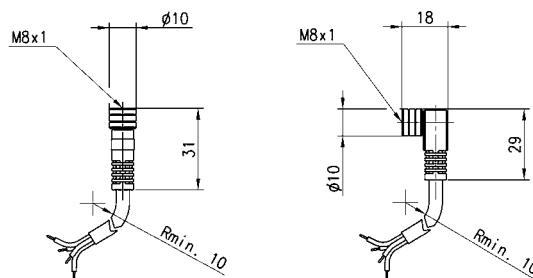
VEC-20
VEC-25



Mod.
126-800

Cables for switch and ejectors

Cable with circular connector M8, 4 poles



Mod.	Cable type
CS-DF04EG-E500	Circular connector M8, 4 poles with protection class IP65, with PU non shielded cable, length 5 mt.
CS-DR04EG-E500	Circular connector M8, 4 poles, 90° degrees with protection class IP65, with PU non shielded cable, length 5 mt.

Air-saving system

When gripping an object, the ejector remains active until a preset vacuum value is reached. Once reached the preset vacuum value, the ejector is shut OFF. If the vacuum level drops below the preset limit value, the ejector is re-activated by the electronic control circuit until the preset vacuum value is reached again.

Note: VEC ejectors with air-saving system are delivered complete with connectors and cables.



The air saving circuit, where used, switches the suction signal to "ON" apart from the fact that the ejector is NC or NO; this means that, in order to switch the internal loop back to "OFF", it is necessary to activate the signal on the coil controlling it (green cable).

Mod.

VEC-10/15-A A = version Normally Open

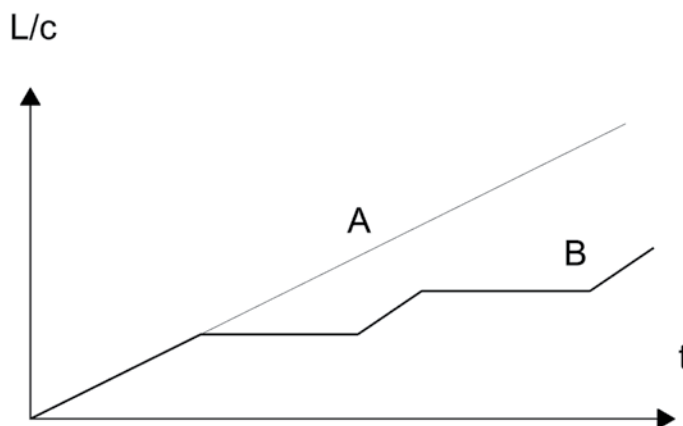
VEC-10/15-C C = version Normally Closed

VEC-20/25-A A = version Normally Open

VEC-20/25-C C = version Normally Closed

Applications example

- * Evacuation time = time necessary for the ejector to reach a vacuum level of -600 mbar
- ** Air consumption l/cycle = $(105/60) \times 5 = (105 / 60) \times 0,05$
- *** Prod. cycles/day = 8 hours $\times 3600 \text{ s} = 28.800/20 \text{ s per cycle} = 1440 \text{ cycles} \times 2 \text{ shifts} = 2880 \text{ cycles}$



Operating conditions	without air-saving "A"	With air-saving "B"
Model	VEC-15C2-VE	VEC-15C2-RE
Air consumption l/min	105	105
Transport time (sec.)	5	5
Evac. time to -600 mbar (sec.)*	0,05	0,05
Total time vacuum ON (sec.)	5	0,05
Air consumption (l/cycle)**	8,8	0,087
Cycle time (sec.)	20	20
Prod. cycles/day (2-shifts)***	2880	2880
Daily air consumption (l)	25.361	250

In this example the air-saving system saves around 99% of the air.