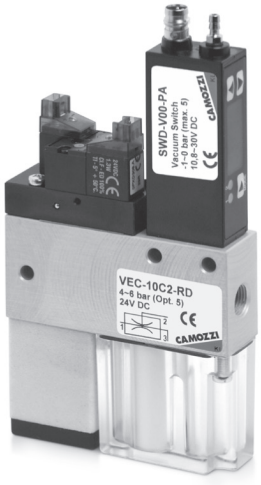
Compact ejectors Series VEC

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



Vacuum generators with integrated suction and blow-off valves, as well as a monitoring system (vacuum switch). The compact ejectors Series VEC allow to control suction and blow-off individually without using external valves.

Versions with integrated air saving functions are available on request. These ejectors are particularly suitable for usein automatic handling systems.

- Wide range of nozzle sizes, covering a great number of applications.
- Modularity for easy installation
- Available with automatic air saving system (optional) for reduced operations costs.
- Easy monitoring of the vacuum level through integrated vacuum switch (available with or without digital display).

GENERAL DATA

Description	- body in anodized aluminium - valve function for the suction available in normally open (NO) or normally closed (NC) version - blow-off valve (NC), integrated silencer and non-return valve
Options	- mechanic/electronic vacuum switch - automatic air-saving system - mounting fitting plate for the battery mounting

CODING EXAMPLE

VE	C	-	10	C	2	-	RD

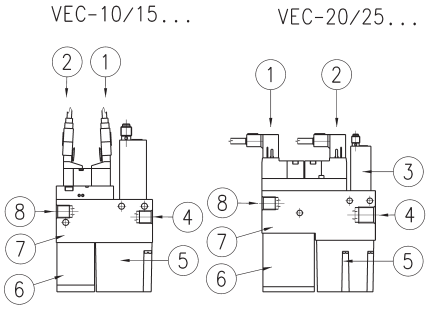
VE	SERIES VE = Vacuum ejector
C	VERSION C = compact
10	NOZZLE DIAMETER (MM) 10 = 1,0 mm 15 = 1,5 mm 20 = 2,0 mm 25 = 2,5 mm
C	VALVE FUNCTION C = NC (suction OFF when not activated) A = NO (suction ON when not activated)
2	VERSION 2 = with Blow-off valve
RD	VERSION * RD = with air saving system and digital vacuum switch (with display). It is supplied complete with connectors and cables. * RE = with air saving system and electronic vacuum switch. It is supplied complete with connectors and cables. VD = without air saving system, digital vacuum switch (with display) VE = without air saving system, with electronic vacuum switch

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

VEC TECHNICAL DATA

EJECTOR SYSTEM:

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



TECHNICAL DATA

Mod.	Nozzle Ø (mm)	Degree of evacuation (%)	Suction rate max. (l/min)	Suction rate max. (m3/h)	Air consumption (l/min)	Air consumption (m3/h)	Air cons. blow-off (l/min)	Noise level workp. gripped (db(A))	Noise level free (db(A))	Optimum working pressure (Bar)	Weight (kg)	Temperature range
VEC-10	1	85	37	2,2	53	3,2	200	66	68	5	0,275	0 / 45°C
VEC-15	1,5	85	65	3,9	117	7	200	68	68	5	0,275	0 / 45°C
VEC-20	2	85	116	7	190	11,4	200	76	78	5 - 6	0,465	0 / 45°C
VEC-25	2,5	85	161	9,7	310	18,6	200	72	82	5 - 6	0,465	0 / 45°C

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.

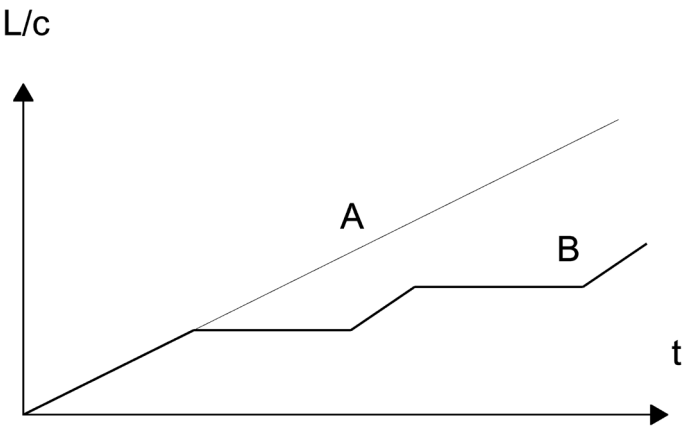
Note: VEC ejectors with air-saving system are delivered complete with connectors and cables.

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

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

Applications example

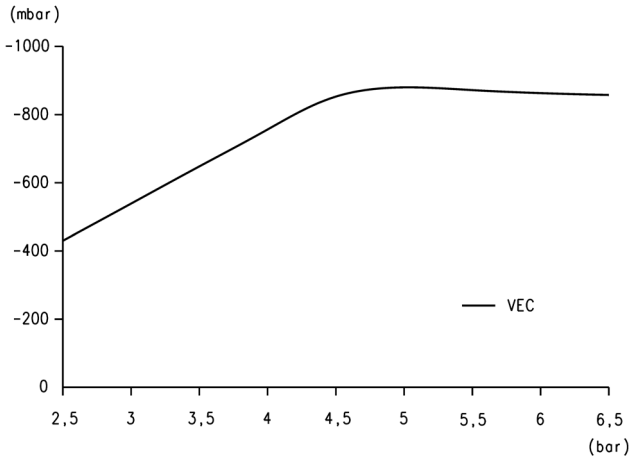
- * Evacuation time = time necessary for the ejector to reach a vacuum level of -600 mbar
- ** Air consumption l/cycle = (105/60) x 5 (105 / 60) x 0,05
- *** Prod. cycles/day = 8 hours x 3600 s = 28.800/20 s per cycle = 1440 cycles x 2 shifts = 2880 cycles



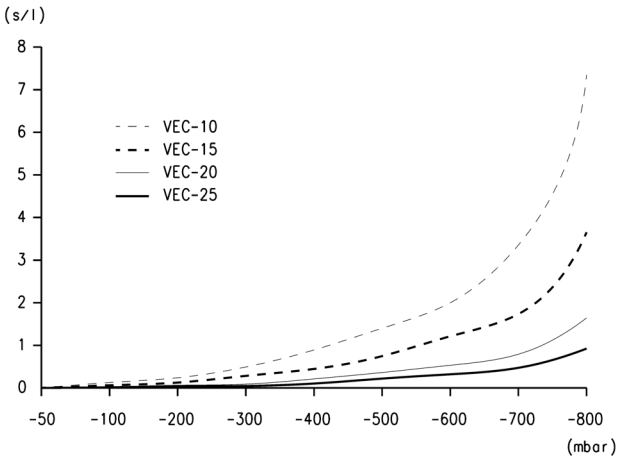
Operating conditions	without air-saving “A”	With air-saving “B”
Model	VEC-15C2-VE	VEC-15C2-RE
Air consumption l/min	105	105
Transport time (sec.)	5	5
Evac. time to -600 mbar (sec.)*	0,05	0,05
Total time vacuum ON (sec.)	5	0,05
Air consumption (l/cycle)**	8,8	0,087
Cycle time (sec.)	20	20
Prod. cycles/day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

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

DIAGRAMS VEC

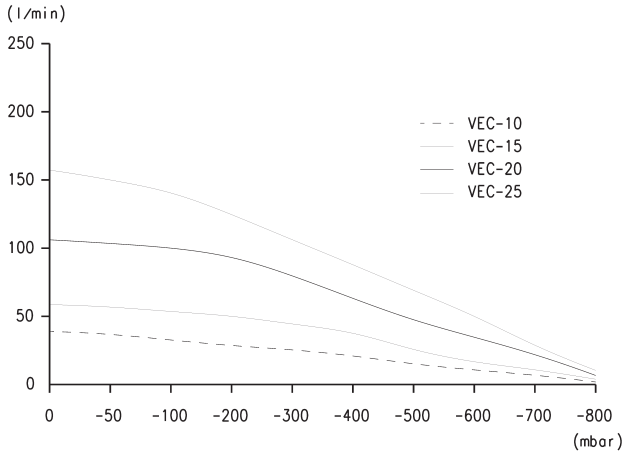


Achievable vacuum at different supply pressures



Evacuation time for different vacuum values

DIAGRAMS VEC



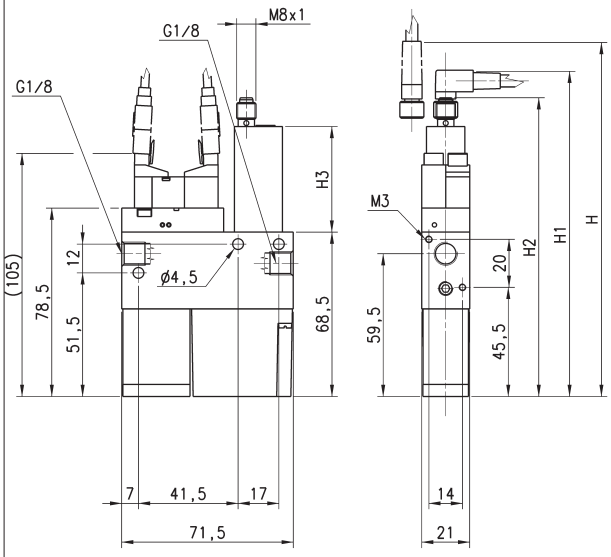
Suction rate for different vacuum values

EJECTORS VEC 10 - 15 - 20 - 25

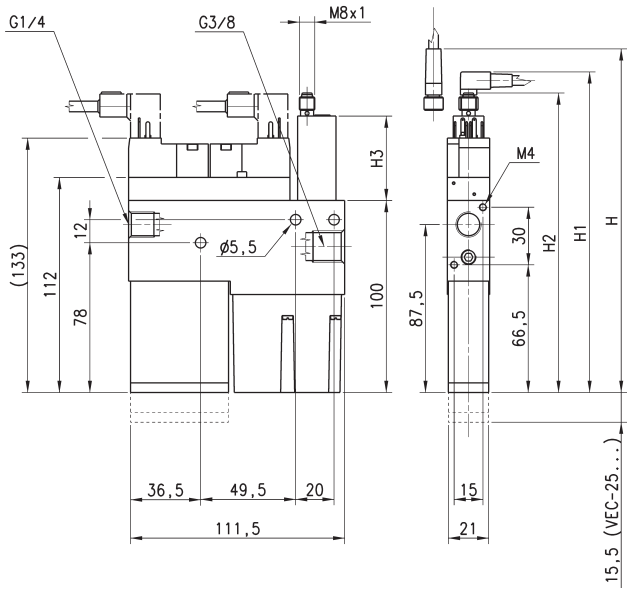
....D = SWD-V00-PA
Electronic digital display; 2 digital outputs

...E = SWE-V00-PA
Electronic without digital display; 1 digital output and 1 analog output.

VEC-10/15...

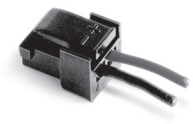


VEC-20/25...

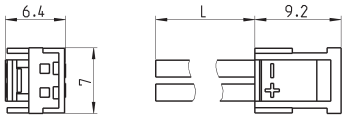


DIMENSIONS						
Mod. [D]	Mod. [E]	R = With air saving	H	H1	H2	H3
VEC-10...-RD	VEC-10...-RE	R	162	150	139	58,5
VEC-15...-RD	VEC-15...-RE	R	162	150	139	58,5
VEC-20...-RD	VEC-20...-RE	R	195,5	183,5	172,5	58,5
VEC-25...-RD	VEC-25...-RE	R	195,5	183,5	172,5	58,5
VEC-10...-VD	VEC-10...-VE	-	147,5	135,5	124,5	44
VEC-15...-VD	VEC-15...-VE	-	147,5	135,5	124,5	44
VEC-20...-VD	VEC-20...-VE	-	181	169	158	44
VEC-25...-VD	VEC-25...-VE	-	181	169	158	44

Connectors for Mod. VEC-10 and VEC-15

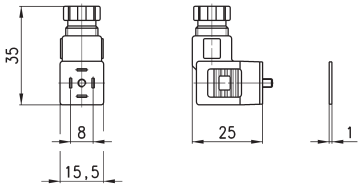


These connectors can be used also with Mod. VEM-05, VEM-07 and VEM-10.
For further information about compact ejectors Series VEM, see the section 5/2.20.



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

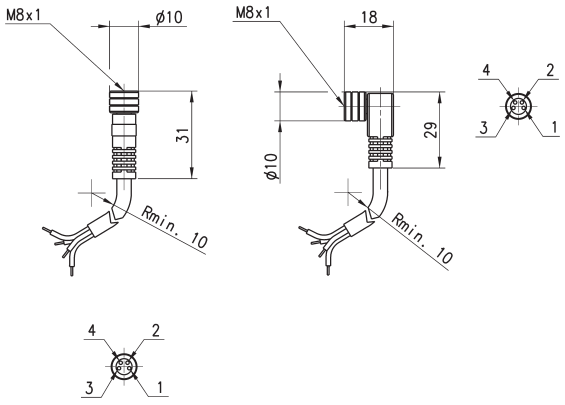
Connectors for Mod. VEC-20 and VEC-25



Mod.
126-800

Circular M8 4-pole connectors, Female

With PU sheathing, non shielded cable.
Protection class: IP65



Mod.	Type of connector	Cable length (m)
CS-DF04EG-E200	straight	2
CS-DF04EG-E500	straight	5
CS-DR04EG-E200	90°	2
CS-DR04EG-E500	90°	5