

# TECHNICAL SPECIFICATION

## *Flanged Diaphragm Valves with Increased Flow Rates – 700 Series*



**Product Description**



**Features**



**Performance**



**Dimensional Details**



**Part Identification**



**Accessories**



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## PRODUCT DESCRIPTION

The 700 Series is a range of diaphragm solenoid valves or the cleaning of dust collector filters with compressed air. These valves, due to their inlet port larger than the outlet port by 1/2", create a Venturi effect by causing high speed and flow rate at the outlet. The inlet is provided with a square flange designed for the coupling with the steel counter flange (optional) and stub pipe which are welded directly to the tank. The outlet is equipped with a quick connection fitting for the blow tube. The valves are manufactured in anodised die-cast aluminium to protect them from environmental and corrosive agents.

The 700 Series is available in the following versions:

- VEP, with integrated solenoid pilot.
- VEM, with remote solenoid pilot in enclosure.



## FEATURES

### General Features

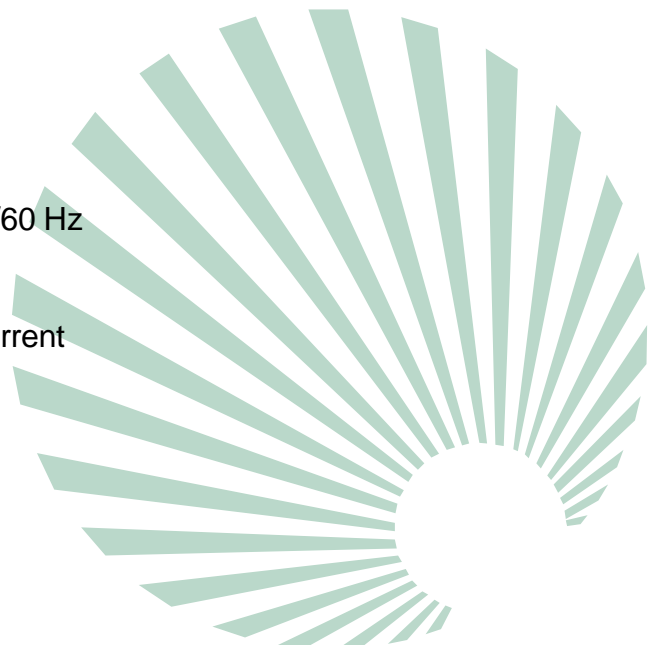
Fluids	Filtered and oil free air
Diaphragm	Standard: -20°C/+120°C Viton -30°C/+200°C Nitrite -40°C/+120°C
Operating pressure	From 0.5 to 7.5 bar

### Constructive Features

Cover	Die-cast aluminium
Body	Die-cast aluminium
Core	Stainless steel
Core spring	Stainless steel
Sealing	NBR
Bolts and screws	Stainless steel
Diaphragm disc	Stainless steel
Diaphragm spring	Stainless steel

### Electrical features

Coil insulation	Class H
Connector	Connection Pg9
connector specification	DIN 43650 - ISO 4400
Conector insulation class	VDE 0110 - 1/89
Electrical protection	IP65
Standard voltages	24 V AC - 50 Hz 24 V AC - 60 Hz 110/220 V AC - 50/60 Hz 24/110 V DC
Power consumption	19VA alternative current 15 W direct current
Ambient temperature	-20°C/+60°C



## PERFORMANCE

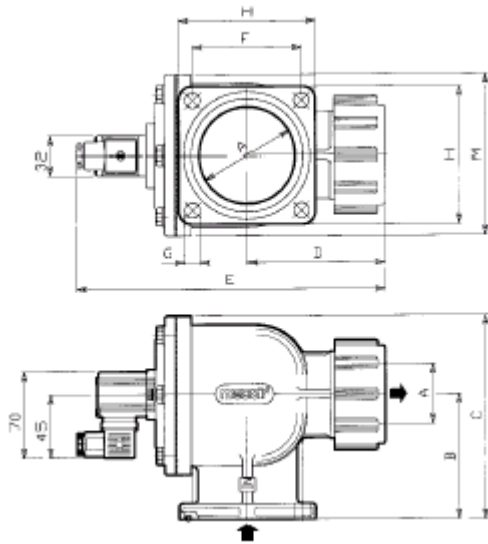
Type	in	Ø out	No. diaph.	Operating Pressure (bar)		Weight kg	Coil	Kv	Cv
				min	max				
VEP708	2"	1"	1	0.5	7.5	1.6	yes	35.0	40.7
VEP712	2 1/2"	1 1/2"	1	0.5	7.5	2.2	yes	51.9	59.9
VEP714	2 1/2"	1 1/2"	2	0.5	7.5	2.3	yes	58.9	68.5
VEP716	3"	2"	2	0.5	7.5	2.9	yes	220	226
VEP720	2 1/2"	1 1/2"	2	0.6	7.5	3.8	yes	278	323
VEM708	2"	1"	1	0.5	7.5	1.3	no	35.0	40.7
VEM712*	2 1/2"	1 1/2"	1	0.5	7.5	1.9	no	51.1	59.9
VEM714	2 1/2"	1 1/2"	2	0.5	7.5	2	no	58.9	68.5
VEM716	3"	2"	2	0.5	7.5	2.6	no	220	226
VEM720	3 1/2"	2 1/2"	2	0.6	7.5	3.5	no	278	232

\* available with Mecair explosion proof solenoid pilot only.

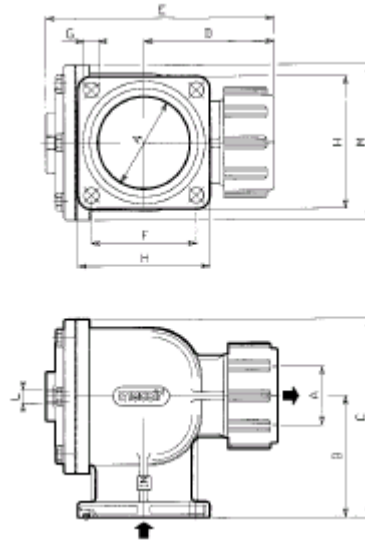


## DIMENSIONAL DETAILS

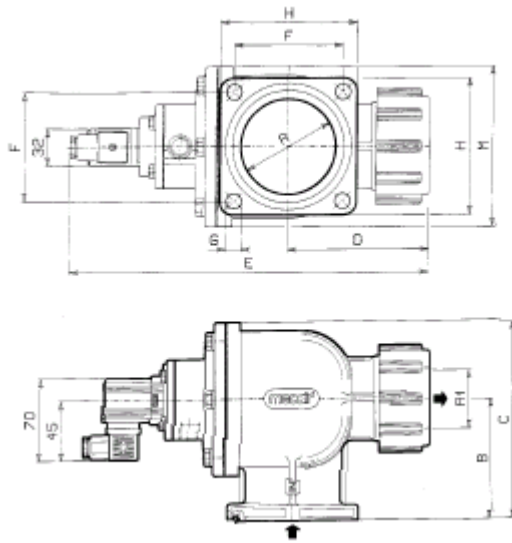
### VEP 708 - 712



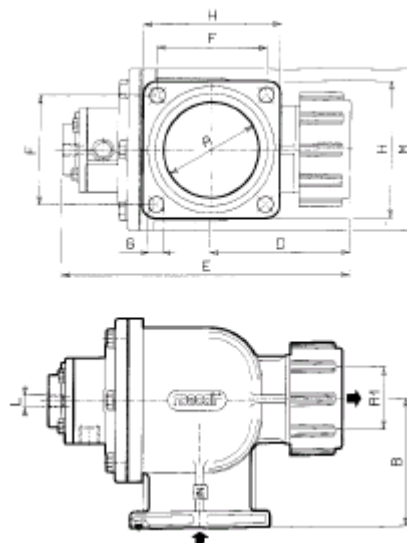
### VEM 708 - 712



### VEP 714 - 716 - 720



### VEM 714 - 716 - 720



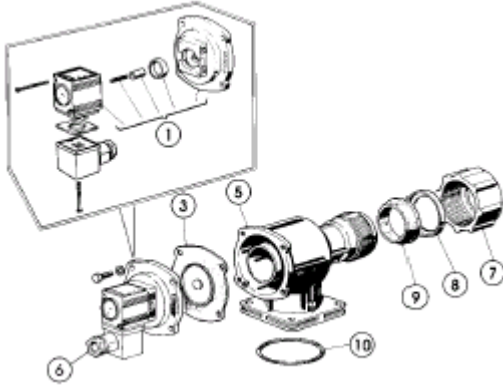
Type	A Ø	A1 Ø	B	C	D	E	F	G	H Ø	M	Weight kg
VEP708	2"	1"	83	125	110	225	60	9	83	90	1.5
VEP712	2 1/2"	1 1/2"	96	160	130	272	72	11.5	95	140	2.1
VEP714	2 1/2"	1 1/2"	96	160	130	305	72	11.5	95	140	2.2
VEP716	3"	2"	110	185	140	330	85	13.5	110	165	2.8
VEP720	3 1/2"	2 1/2"	125	215	165	360	94	13.5	120	190	3.7

Type	E	L Ø	Weight kg	No. diaph	OR
VEM708	180	1/8"	1.2	1	OR6250
VEM712	212	1/8"	1.8	1	OR178
VEM714	245	1/8"	1.9	2	OR178
VEM716	270	1/8"	2.5	2	OR6350
VEM720	300	1/8"	3.4	2	OR189

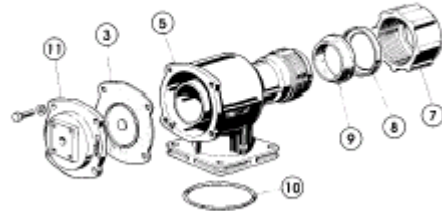


## PART IDENTIFICATION

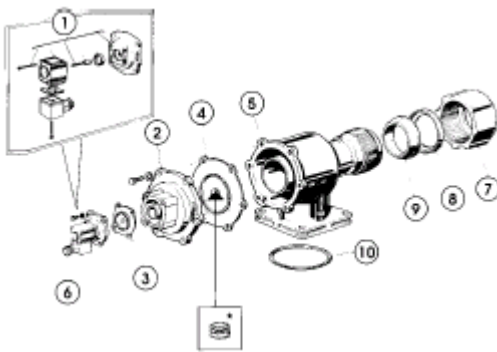
### VEP 708 - 712



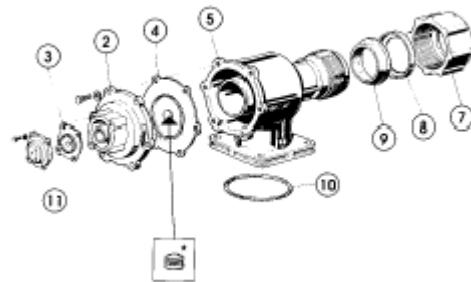
### VEM 708 - 712



### VEP 714 - 716 - 720



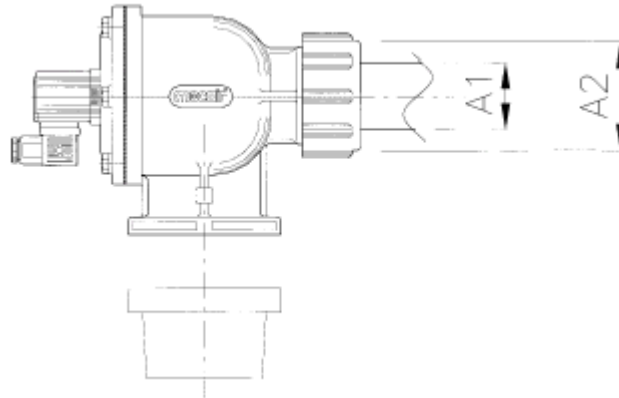
### VEM 714 - 716 - 720



\* Spring code M470568 only for VEM/VEP 212-214-216-220-224

Pos	Description parts	VEP708	VEP712	VEP714	VEP716	VEP720
1	Pilot group complete with coil (* cover and anchor screws. (* Specify voltage and frequency (or DC)	PDF08- .../.. (*	PDM12- .../.. (*	PDM06 .../.. (*	PDM06- .../.. (*	PDM06- .../.. (*
2	Intermediate cover (double Diaphragm)	-	-	M310098	M3100100	M3100101
3	Diaphragm	DB18M	DB112	DB16	DB16	DB16
4	Diaphragm	-	-	DB114	DB116	DB120
5	Body	M300274	M300273	M300273	M300276	M300278
6	Connector DIN IP65	PLG9	PLG9	PLG9	PLG9	PLG9
7	Ring nut	M550026	M550018	M550018	M550020	M550031
8	Washer	M620014	M620023	M620023	M620033	M620032
9	Conical gasket	M330204	M330292	M330292	M330310	M330305
10	Flanged gasket	M30018	M330019	M330019	M330311	M330270
Pos	Description parts	VEM708	VEM712	VEM714	VEM716	VEM720
11	Top cover	M310042	M310092	M310082	M310082	M310082
2-10	See VEP description	See above	See above	See above	See above	See above

## 700 Series diaphragm valves

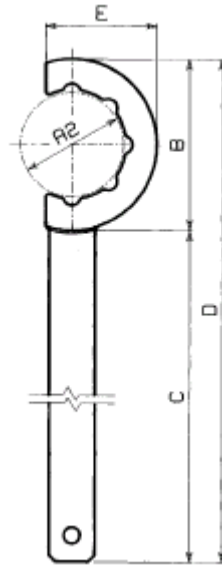


Type Value	A1 Ø	A2 Ø	Wrench
708	1"	82	CH14
712	2"	95	CH16
714	2"	95	CH16
716	2 1/2"	115	CH20
720	3"	128	CH24

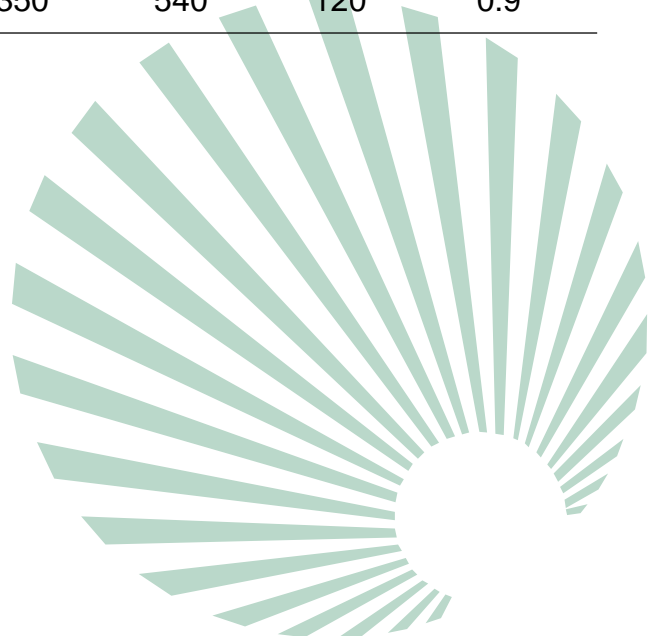


## ACCESSORIES

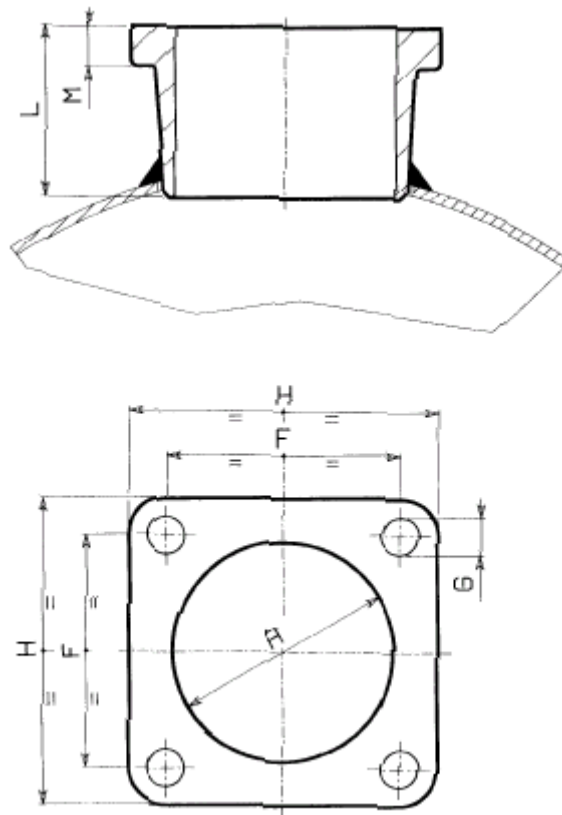
### CH Tightening wrench



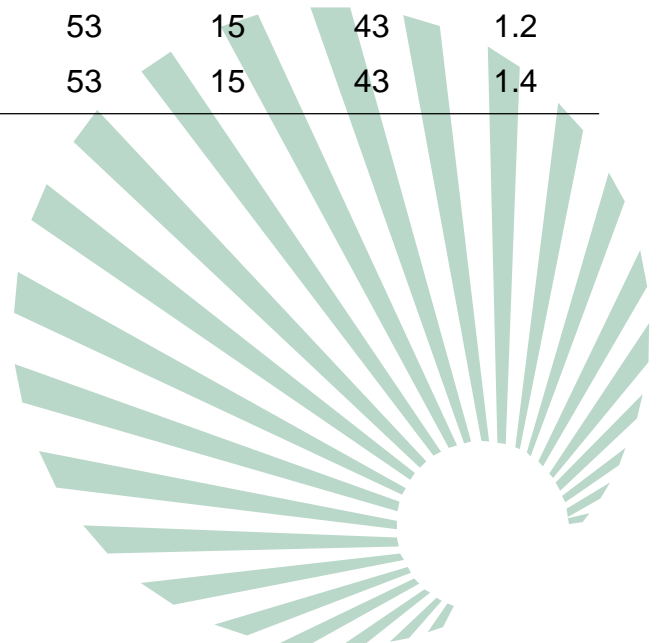
Type Value	A1 Ø	A2 Ø	B Ø	C	D	E	Weight Kg
CH14	1 1/2"	82	130	300	430	85	0.7
CH16	2"	95	150	350	500	100	0.78
CH20	2 1/2"	115	170	350	520	110	0.8
CH24	3"	128	190	350	540	120	0.9



“FL” Counterflange with stub pipe (optional)



Type Value	A Ø	F	G Ø	H Ø	L	M	N	Weight Kg
FL08	2"	60	9	83	53	12.5	41	0.7
FL14	2 1/2"	72	11.5	95	53	12.5	41	0.8
FL16	3"	85	13.5	110	53	15	43	1.2
FL20	3 1/2"	94	13.5	120	53	15	43	1.4



## HOW TO ORDER

### VEP 708 – 110/50

VE – Diaphragm valve

P – Integrated pilot

or

M – Remote pilot

7 – 700 Series

08 – Valve connection diameter

08 = 2"

12 = 2 1/2" (single diaphragm)

14 = 2 1/2" (double diaphragm)

16 = 3"

20 = 3 1/2"

110/50 – Voltage and frequency (specify for VEP models only):

24V AC – 50Hz

24V AC – 60Hz

110/220V AC – 50/60 Hz

24/110V DC

