



mecalr 600/700 SERIES

# FLANGED VALVES

# MECAIR FLANGED VALVES 600/700 SERIES



## DESCRIPTION

The **600 and 700 SERIES** is a range of high-performance diaphragm valves, suitable for dust collector applications, in particular for reverse pulse-jet filter cleaning of filter bags, cartridges, envelope filters, ceramic filters and sintered metal fibre filters. These valves, due to their inlet port being larger than the outlet port, create a Venturi effect by causing a high flow rate at the outlet. The inlet is provided with a square flange designed for coupling with a counter flange (optional) and stub pipe which are welded directly to the tank. The outlet is equipped with a quick-connection fitting for the blowtube. The valves are constructed in diecast aluminium and have an anodised protection treatment which protects them from corrosive and environmental agents. Bolts and screws are in stainless steel.

The 600 and 700 Series are available in the following versions:

- **VNP**, with integrated solenoid pilot
- **VEM**, with remote pneumatic connection.

## GENERAL CHARACTERISTICS

Fluids	Filtered air and oil free
Diaphragm	Standard NBR: -20°C/+120°C Optional Viton: -30°C/+200°C Nitrile: -40°C/+120°C
Pressure range	From 0.5 to 7.5 bar

## CONSTRUCTION FEATURES – VALVE

Cover	Diecast aluminium (anodised)
Body	Diecast aluminium (anodised)
Pilot	Stainless steel
Diaphragm	NBR
Bolts and screws	Stainless steel
Diaphragm backing disk	Stainless steel
Diaphragm spring	Stainless steel

## ELECTRICAL CHARACTERISTICS – SOLENOID

Coil insulation	Class H
DIN socket connector	Pg9 connection (cable entry)
DIN socket standard	EN175301 - 803 (previously DIN 43650A)/A/ISO 4400
DIN socket optional	94/9/CE ATEX II 3GD T6
Isolation class DIN socket	VDE 0110 - 1/89
DIN socket protection	IP65 EN60529
Voltage range	12V DC (supply +10% max.) 18W 24V DC (supply +10% max.) 18W 48V DC (supply +10% max.) 18W 110V DC (supply +10% max.) 18W 24V 50/60 Hz (supply +10% max.) 38/31 VA 48V 50/60 Hz (supply +10% max.) 41/32 VA 115V 50/60 Hz (supply +10% max.) 63/53 VA 220/240V 50/60 Hz (supply +10% max.) 46/37 VA

Ambient temperature -30°C/+40°C

TYPE	PORT SIZE Ø		No. DIAPH.	PRESSURE RANGE (BAR)		WEIGHT kg	COIL	KV	CV
	IN	OUT		min.	max.				
VNP608	2"	1"	1	0.5	7.5	0.55	YES	10	11.6
VNP708	2"	1½"	1	0.5	7.5	0.65	YES	21	24.4
VNP614	2½"	1½"	2	0.5	7.5	1.4	YES	37	43.0
VNP714	2½"	2"	2	0.5	7.5	1.5	YES	44	51.2
VNP616	3"	2"	2	0.5	7.5	2.5	YES	78	90.7
VNP716	3"	2½"	2	0.6	7.5	3.3	YES	96	112
VNP720	3½"	3"	2	0.6	5	7.55	YES	308	358
VEM608	2"	1"	1	0.5	7.5	0.25	NO	10	11.6
VEM708	2"	1½"	1	0.5	7.5	0.35	NO	21	24.4
VEM614	2½"	1½"	2	0.5	7.5	1.1	NO	37	43.0
VEM714	2½"	2"	2	0.5	7.5	1.2	NO	44	51.2
VEM616	3"	2"	2	0.5	7.5	2.2	NO	78	90.7
VEM716	3"	2½"	2	0.6	7.5	3	NO	96	112
VEM720	3½"	3"	2	0.6	5	7.2	NO	308	358

## HOW TO ORDER

Part Number Code:

**VEM/VNP 6 08 110/50**

### Valve

- N** VNP – with integral pilot  
**E** VEM – without pilot

### Series

- 6** 600 Series  
**7** 700 Series

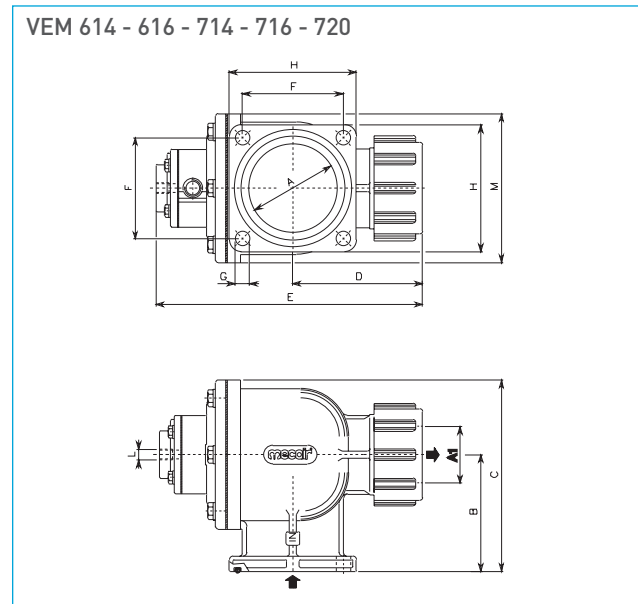
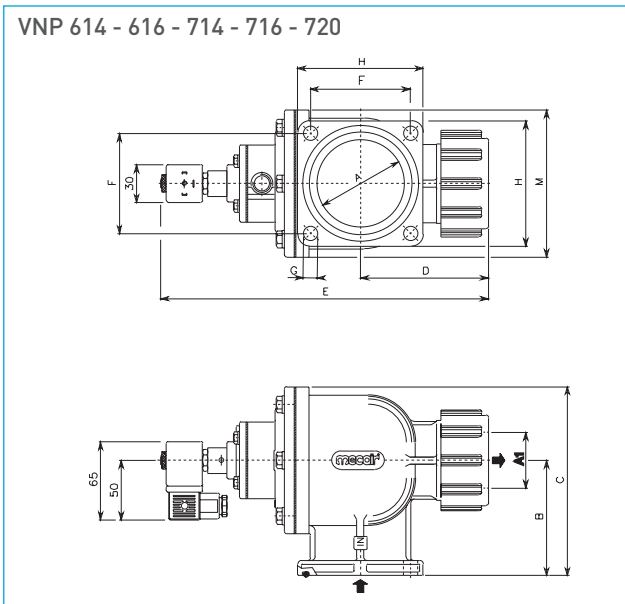
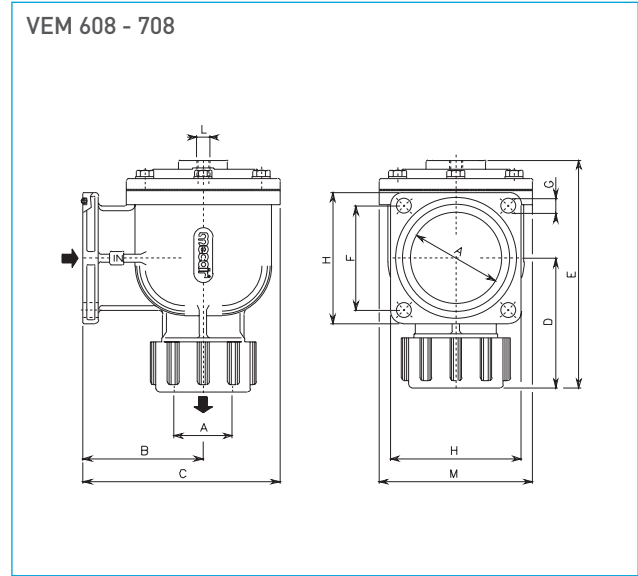
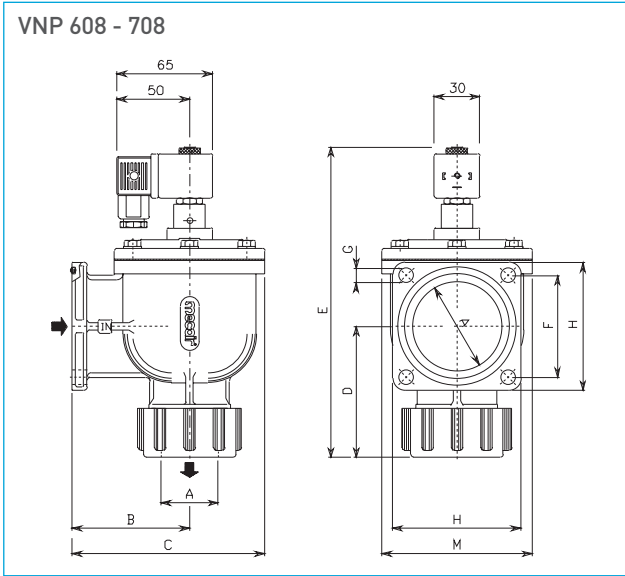
### Voltage and frequency required

#### Valve connection diameter

- 08 = 1"-1½"
- 14 = 1½"-2"
- 16 = 2"-2½"
- 20 = 3"

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## DIMENSIONS

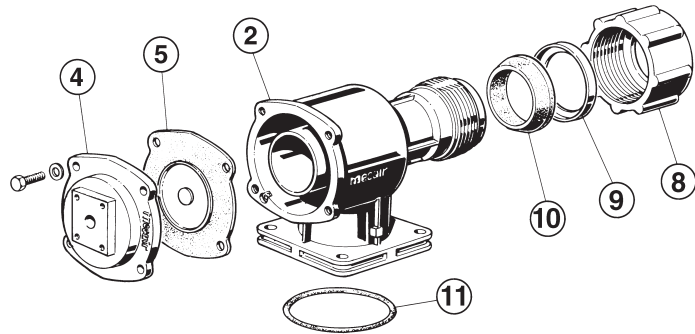
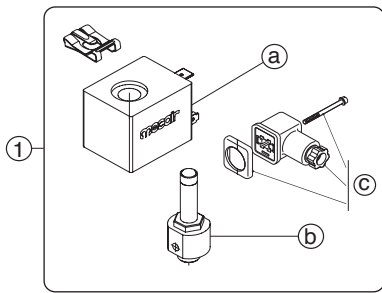


MODEL	Ø A	Ø A1	B	C	D	E	F	G	Ø H	M	WEIGHT kg	MODEL	E	Ø L	WEIGHT kg	No. DIAPH.	O-RING
VNP 608	2"	1"	81	125	110	225	60	9	83	90	1.5	VEM 608	180	¼"	1.2	1	OR6250
VNP 614	2½"	1½"	96	160	130	305	72	11.5	95	140	2.2	VEM 614	245	¼"	1.9	2	OR178
VNP 616	3"	2"	110	185	140	330	85	13.5	110	165	2.8	VEM 616	270	¼"	2.5	2	OR6350
VNP 708	2"	1½"	81	125	110	255	60	11.5	83	90	1.5	VEM 708	180	¼"	1.2	1	OR6250
VNP 714	2½"	2"	96	160	130	305	72	13.5	95	140	2.2	VEM 714	245	¼"	1.9	2	OR178
VNP 716	3"	2½"	110	185	140	330	85	13.5	110	165	2.8	VEM 716	270	¼"	2.5	2	OR6350
VNP 720	3½"	3"	125	215	165	360	94	13.5	120	190	3.7	VEM 720	300	¼"	3.4	2	OR189

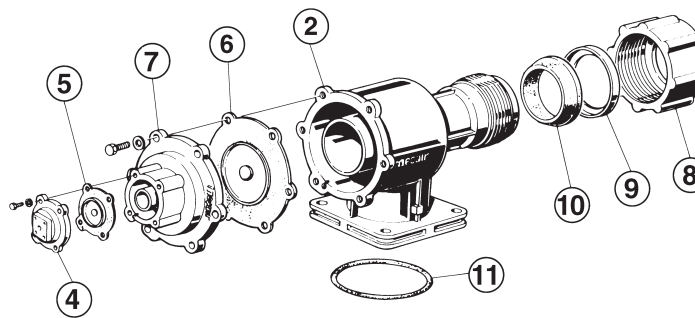
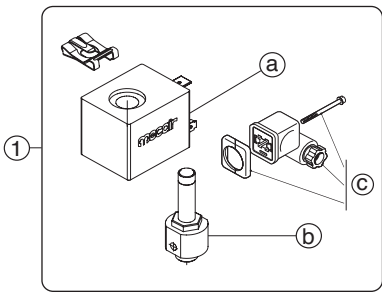
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## SPARE PARTS

### VEM/VNP 608 - 708



### VEM/VNP 614 - 714 - 616 - 716 - 720



## STANDARD VERSION

	POS	DESCRIPTION	CODE
Standard	1	a) Solenoid (*)	a) KIT SB4 - ../.. (*)
		b) Pilot group complete with base and ferrule	b) KIT CP1/4
		c) DIN connector PG9EN175301-803 IP65	c) KIT PLG9

## OPTIONAL VERSION

	POS	DESCRIPTION	CODE
Optional	1	a) Solenoid	a) KIT SB4 -24/DCX
		b) Pilot group complete with base and ferrule	b) KIT CP1/4
		c) DIN connector (3GD IP65 T6)	c) KIT PLG11 - ATEX

Version in conformity with European Directive 94/9/CE ATEX (cod. KIT PV-24/DCX)

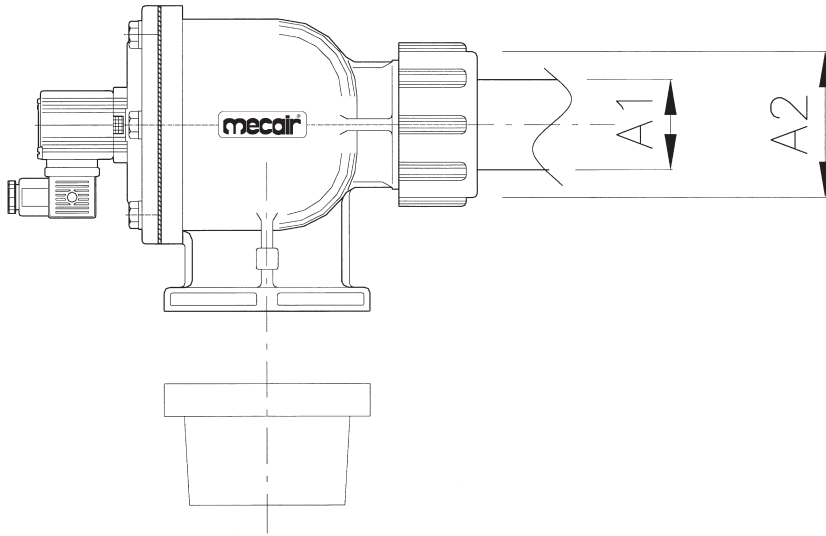
(\*) Specify voltage and frequency.

POS	DESCRIPTION	CODE						
		VEM/VNP608	VEM/VNP708	VEM/VNP614	VEM/VNP714	VEM/VNP616	VEM/VNP716	VEM/VNP720
1	Pilot group complete with solenoid (*) and DIN connector	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)
a+b+4	Pilot group complete with solenoid (*), top cover and screws	KIT PVF08 - ../.. (*)	KIT PVF08 - ../.. (*)	KIT PVM06 - ../.. (*)	KIT PVM06 - ../.. (*)	KIT PVM06 - ../.. (*)	KIT PVM06 - ../.. (*)	KIT PVM06 - ../.. (*)
2	Valve body	KIT M100273	KIT M100274	KIT M100272	KIT M100275	KIT M100279	KIT M100276	KIT M100278
7	Intermediate cover (double diaphragm)	—	—	KIT M110098	KIT M110098	KIT M110100	KIT M110100	KIT M110101
4	Top cover	KIT M110142	KIT M110142	KIT M110082	KIT M110082	KIT M110082	KIT M110082	KIT M110082
5	Diaphragm	KIT DB18M	KIT DB18M	—	—	—	—	—
5+6+Spring	Diaphragm (main and secondary)	—	—	KIT DB114	KIT DB114	KIT DB116	KIT DB116	KIT DB120
8	Dresser nut	KIT M150024	KIT M150026	KIT M150026	KIT M150018	KIT M150018	KIT M150020	KIT M150031
9	Dresser nut insert	KIT M620014	KIT M620015	KIT M620015	KIT M620023	KIT M620023	KIT M620033	KIT M620032
10	Conic seal for dresser nut	KIT M330203	KIT M330204	KIT M330204	KIT M330292	KIT M330292	KIT M330310	KIT M330305
11	O-ring for flanged valve	KIT M330018	KIT M330018	KIT M330019	KIT M330019	KIT M330311	KIT M330311	KIT M330270

(\*) Specify voltage and frequency.

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## FLANGED VALVE WITH INCREASED FLOW RATE



VALVE	Ø A1	Ø A2	TOOL
608	1"	61	CH08
612	1½"	82	CH14
614	1½"	82	CH14
616	2"	95	CH16
620	2½"	115	CH20

VALVE	Ø A1	Ø A2	TOOL
708	1½"	82	CH14
712	2"	95	CH16
714	2"	95	CH16
716	2½"	115	CH20
720	3"	128	CH24

## MOUNTING TOOL "CH"

MODEL	Ø A1	Ø A2	Ø B	C	D	E	WEIGHT KG
CH08	1"	61	100	250	350	68	0.44
CH14	1½"	82	130	300	430	85	0.7
CH16	2"	95	150	350	500	100	0.78
CH20	2½"	115	170	350	520	110	0.8

MODEL	Ø A1	Ø A2	Ø B	C	D	E	WEIGHT KG
CH14	1½"	82	130	300	430	85	0.7
CH16	2"	95	150	350	500	100	0.78
CH20	2½"	115	170	350	520	110	0.8
CH24	3"	128	190	350	540	120	0.9

## CH and PH

