

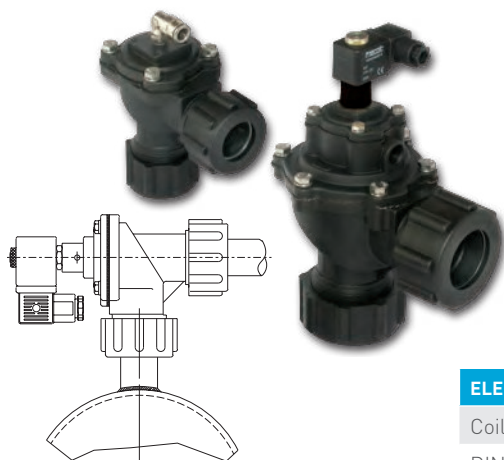


mecalr 300 SERIES

DRESSER NUT VALVES

PENTAIR CLEAN AIR SYSTEMS

MECAIR DRESSER NUT VALVES 300 SERIES



DESCRIPTION

The **300 SERIES** is a range of 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. The 300 Series valve has the inlet port at 90° to the outlet port. These valves allow a very quick connection, by fitting directly to unthreaded pipes. These valves are available in three models: 3/4", 1", 1 1/2". The 1 1/2" model is available in single and double diaphragm versions. 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 300 Series is available in the following versions:

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

Important: The installation of these valves should only be for pneumatic connection and not for mechanical fixing. We suggest that the pipe should butt up to the internal lip of the valve.

Upon request: Integral pilot valves with ATEX Certification:
 • ATEX II 3 D (94/9/CE); for the above approved model the correct code to use is VEM+PV 24 V/DCX (solenoid coil is 24 V-DC/18 W and DIN connector in conformity to the ATEX Directive 94/9/CE) (PLG11-ATEX). Remote pilot valves meet the requirements of: • ATEX II 2 GD when mounted with PXA Pilot or CXD Enclosure (94/9/CE).

GENERAL CHARACTERISTICS

Fluids	Filtered air and oil free
Diaphragm	Standard Nitrile: -20°C/+80°C Optional Viton: -30°C/+200°C
Pressure range	From 0.5 to 7.5 bar

CONSTRUCTION FEATURES – VALVE

Cover	Diecast aluminium (anodised)
Body	Diecast aluminium (anodised)
Pilot base	Brass (chromed)
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	12 V DC (supply +10% max.) 18 W 24 V DC (supply +10% max.) 18 W 48 V DC (supply +10% max.) 18 W 110 V DC (supply +10% max.) 18 W 24 V 50/60 Hz (supply +10% max.) 38/31 VA 48 V 50/60 Hz (supply +10% max.) 41/32 VA 115 V 50/60 Hz (supply +10% max.) 63/53 VA 220/240 V 50/60 Hz (supply +10% max.) 46/37 VA
Ambient temperature	-20°C/+60°C

TYPE	PORT SIZE Ø	No. DIAPH.	PRESSURE RANGE (BAR)		WEIGHT kg	COIL	KV	CV
			min.	max.				
VNP306	3/4"	1	0.5	7.5	0.9	YES	10	11.6
VNP308	1"	1	0.5	7.5	1.2	YES	21	24.4
VNP312	1 1/2"	1	0.5	7.5	2.2	YES	37	43.0
VNP314	1 1/2"	2	0.5	7.5	2.3	YES	47	54.6
VEM306	3/4"	1	0.5	7.5	0.6	NO	10	11.6
VEM308	1"	1	0.6	7.5	0.9	NO	21	24.4
VEM312*	1 1/2"	1	0.5	7.5	1.9	NO	37	43.0
VEM314	1 1/2"	2	0.6	7.5	2	NO	47	54.6

HOW TO ORDER

Part Number Code: **VEM/VNP 3 06 110/50**

Valve

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

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"300 Series"

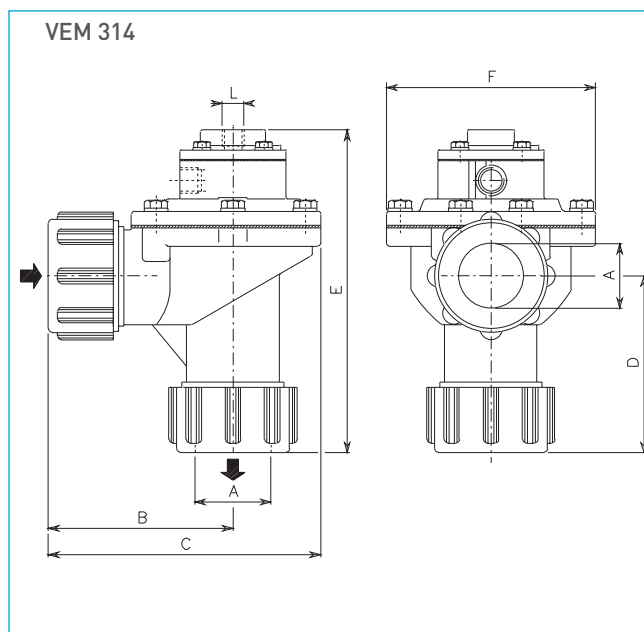
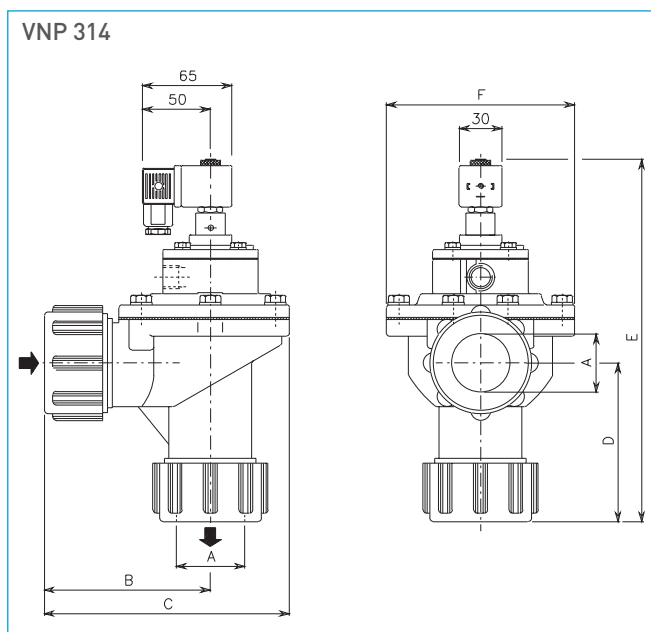
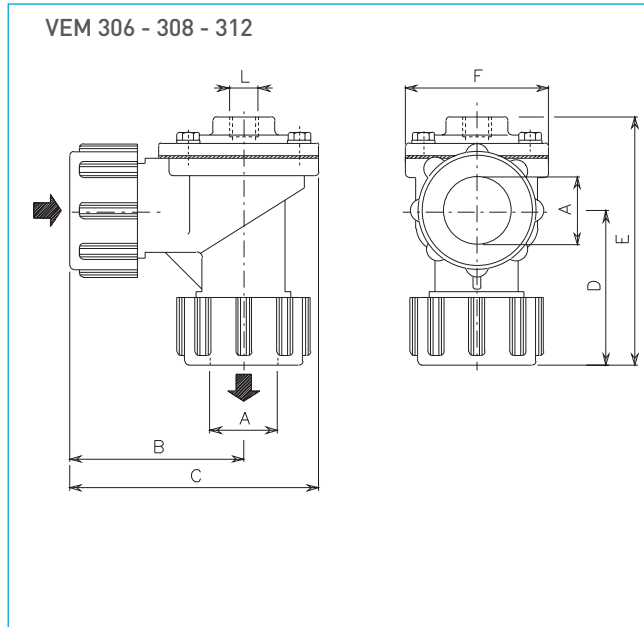
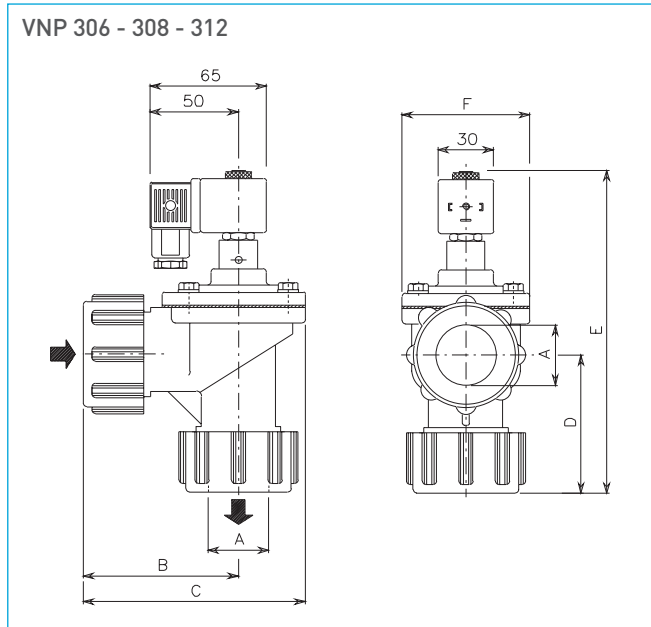
Voltage and frequency required

Valve connection diameter

- 06 = 3/4"
- 08 = 1"
- 12 = 1 1/2" (single diaphragm)
- 14 = 1 1/2" (double diaphragm)

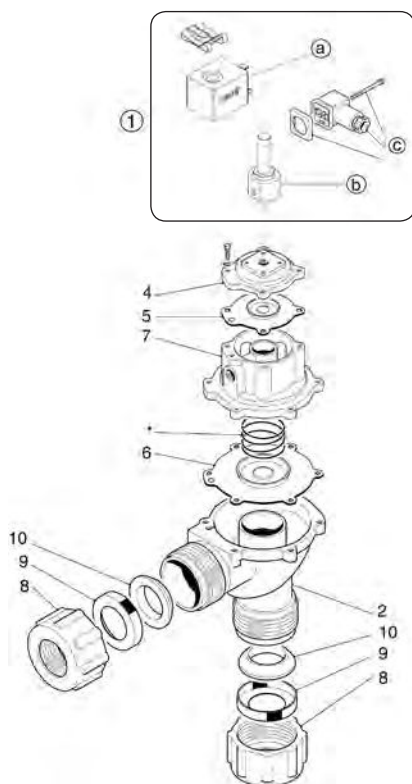
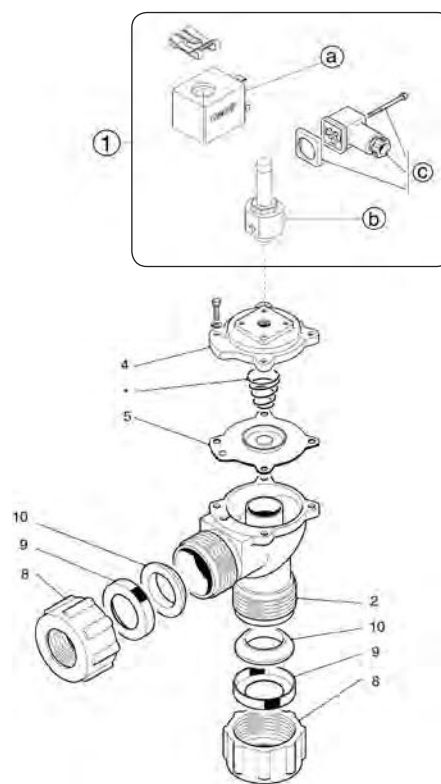
MECAIR DRESSER NUT VALVES 300 SERIES

DIMENSIONS



MODEL	Ø A	B	C	D	E	F	WEIGHT kg	MODEL	E	Ø L	WEIGHT KG	PRESSURE RANGE (BAR)		No. DIAPH.
												min.	max.	
VNP 306	3/4"	77	108	67	167	60	0.90	VEM 306	107	1/4"	0.60	0.5	7.5	1
VNP 308	1"	90	128	80	183	74	1.20	VEM 308	123	1/4"	0.90	0.5	7.5	1
VNP 312	1 1/2"	114	176	99	220	135	2.20	VEM 312	160	1/4"	1.90	0.5	7.5	1
VNP 314	1 1/2"	114	176	99	252	135	2.30	VEM 314	192	1/4"	2	0.5	7.5	2

MECAIR DRESSER NUT VALVES 300 SERIES

SPARE PARTS
VEM / VNP 306 - 308 - 312

VEM / VNP 314

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

(*) Specify Voltage and Frequency

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

(*) Specify voltage and frequency.

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

POS	DESCRIPTION	CODE			
		VEM/VNP306	VEM/VNP308	VEM/VNP312	VEM/VNP314
1	Pilot group complete with solenoid (*) and DIN connector	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)	KIT PV - ../.. (*)
a+b+4	Pilot group complete with solenoid (*), top cover and screws	KIT PVM06 - ../.. (*)	KIT PVM08 - ../.. (*)	KIT PVM12 - ../.. (*)	KIT PVM06 - ../.. (*)
2	Valve body	KIT M100203	KIT M100206	KIT M100213	KIT M100213
7	Intermediate cover (double diaphragm)	—	—	—	KIT M310098
4	Top cover	KIT M110082	KIT M110086	KIT M110092	KIT M110082
5	Diaphragm	KIT DB 16/G	KIT DB 18/G	KIT DB 112/G	—
5	Viton Diaphragm	KIT DB 16V/S	KIT DB 18V/S	KIT DB 112V/S	—
5+6+Spring	Diaphragm (main and secondary)	—	—	—	KIT DB 114/C
5+6+Spring	Viton Diaphragm (main and secondary)	—	—	—	KIT DB 114V
8	Dresser nut	KIT M150022	KIT M150024	KIT M150026	KIT M150026
9	Dress nut insert	KIT M620013	KIT M620014	KIT M620015	KIT M620015
10	Conic seal for dresser nut	KIT M330202	KIT M330203	KIT M330204	KIT M330204

(*) Specify voltage and frequency.

The AVS logo is located in the top right corner. It consists of the letters "AVS" in a bold, white, sans-serif font, set against a dark gray square background.

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Mecair Dresser Nut Valves – 300 Series Rev04 02/16