

## [Vacuum regulators]



### Distinctive features

Vacuum regulators are used to adjust the preset vacuum degree, they keep it constant (secondary depression) regardless of the oscillations of the vacuum degree of the net (primary depression) and of the capacity.

Their operation is with a membrane-piston and they take advantage of the pressure differential existing between the secondary depression and the atmospheric pressure.

Unlike vacuum adjusting valves, regulators do not introduce air into the circuit, thus permitting to produce more grip points with different vacuum values, from only one depression source.

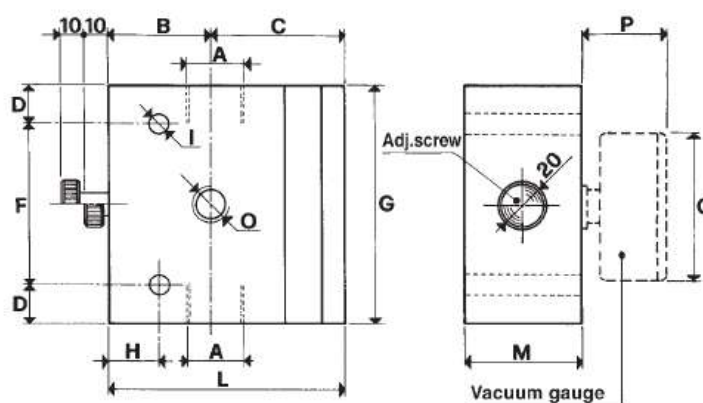
### Technical features:

- Operation: membrane-piston regulator.
- Adjustable operating pressure: from 800 to 1 mbar abs.
- Capacities: from 2 to 160 cum/h.
- Room temperature: from -10°C to +80°C.
- Mounting: any position.

### Applications

The main use of the vacuum regulators is on the centralized plants where, independently of the vacuum degree of the plant, every grip can be adjusted within that value.

It is also necessary every time that the working depression has to be lower than the primary depression.



Art. 09 03 10

Art. 09 03 15 per 11 01 10

11 02 10

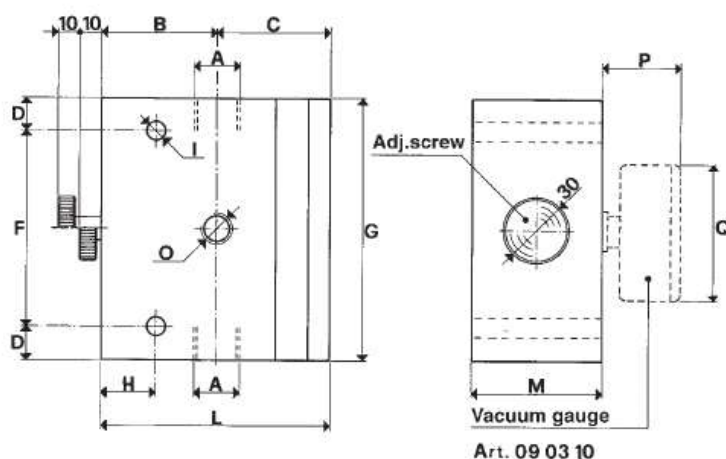
Art.	A Ø	Max cap. cum/h.	B	C	D	F	G	H	I Ø	L	M	O Ø	P	Q
11 01 10	1/4"	006	47	42.0	10	040	060	20	6.5	089.0	40	1/8"	30	40
11 02 10	3/8"	010	47	42.0	10	040	060	20	6.5	089.0	40	1/8"	30	40
11 03 10	1/2"	020	53	52.0	15	055	085	25	8.5	105.0	50	1/4"	36	63
11 04 10	3/4"	040	55	55.5	15	070	100	30	8.5	110.5	50	1/4"	36	63
11 05 10	1"	080	60	58.0	15	090	120	30	8.5	118.0	60	1/4"	36	63
11 06 10	1 1/2"	160	54	77.5	15	130	160	20	8.5	131.5	99	1/4"	36	63

N.B. - The vacuum gauge is supplied only upon request.





## [Regulators for low vacuum]



### Distinctive features

Vacuum regulators are used to adjust the preset vacuum degree, they keep it constant (secondary depression) regardless of the oscillations of the vacuum degree of the net (primary depression) and of the capacity.

Their operation is with a membrane-piston and they take advantage of the pressure differential existing between the secondary depression and the atmospheric pressure.

Unlike vacuum adjusting valves, regulators do not introduce air into the circuit, thus permitting to produce more grip points with different vacuum values, from only one depression source.

### Technical features:

- Operation: membrane-piston regulator.
- Adjustable operating pressure: from 980 to 1 mbar abs.
- Capacities: from 20 to 160 cum/h.
- Room temperature: from -10°C to +80°C.
- Mounting: any position.

### Applications

The main use of the vacuum regulators is on the centralized plants where, independently of the vacuum degree of the plant, every grip can be adjusted within that value.

It is also necessary every time that the working depression has to be lower than the primary depression.

Art.	A Ø	Max cap. cum/h.	B	C	D	F	G	H	I Ø	L	M	O Ø	P	Q Ø
11 03 50	1/2"	20	53	52	15	90	120	25	8.5	105	60	1/4"	36	63
11 05 50	1"	80	60	58	15	90	120	30	8.5	118	100	1/4"	36	63
11 06 50	1 1/2"	160	54	77.5	15	130	160	20	8.5	131.5	99	1/4"	36	63

N.B. - The vacuum gauge is supplied only upon request.



**VUOTOTECNICA**  
è tecnologia del vuoto

# [Vacuum regulators with pneumatic adjustment]



## Distinctive features

Vacuum regulators are used to adjust the vacuum degree and to keep it constant at the preset value (secondary depression) independently of the capacity and of the oscillations of the vacuum degree of the pump or of the pumpset (primary depression).

Unlike vacuum adjusting valves, regulators do not introduce air into the circuit, this permits to produce more grip points at different vacuum values, from one only depression source.

Their operating principle is based on the contrasting action between a pneumatic cylinder with short stroke and a fluctuating piston driven by the pressure differential existing between the secondary depression and the atmospheric pressure.

In order to adjust the vacuum degree of the regulator it is necessary to operate on the pressure of the compressed air for feeding the pneumatic cylinder: higher is the pressure, higher is the vacuum degree, and vice versa.

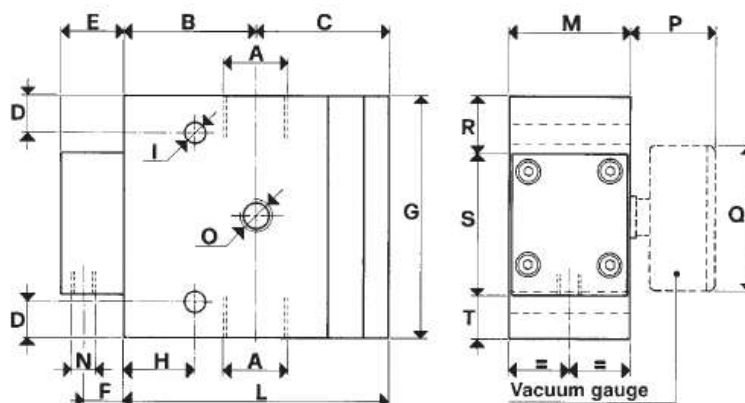
## Technical features:

- Supply pressure:
  - from 0 to 3 bar(g) for the regulators Art. 11 .. 30;
  - from 0 to 7 bar(g) for the regulators Art. 11 .. 80.
- Adjustable working pressure:
  - from 800 to 1 mbar abs. for the regulators Art. 11 .. 30;
  - from 980 to 1 mbar abs. for the regulators Art. 11 .. 80.
- Capacities: from 2 to 160 cum/h;
- Room temperature: from -10°C to +80°C.
- Mounting: any position.

## Applications

Vacuum regulators are generally used on the centralized plants, where, independently of the vacuum degree of the plant, every vacuum point can be adjusted to its own value.

It is also necessary every time that the working depression has to be lower than the primary depression and to be kept constant.



Art. 09 03 10

Art. 09 03 15 per 11 01 30

11 02 30

Art.	A	Max cap.	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T
	Ø	cum/h.									Ø		Ø	Ø	Ø				
11 01 30	1/4"	6	47	42	10	20	10.5	60	20	6.5	89	40	1/8"	1/8"	30	40	9	45	6
11 02 30	3/8"	10	47	42	10	20	10.5	60	20	6.5	89	40	1/8"	1/8"	30	40	9	45	6
11 03 30	1/2"	20	53	52	15	26	16.5	85	25	8.5	105	50	1/8"	1/4"	36	63	16.5	58	10.5
11 04 30	3/4"	40	55	55.5	15	26	16.5	100	30	8.5	110.5	50	1/8"	1/4"	36	63	24	58	18
11 05 30	1"	80	60	58	15	26	16.5	120	30	8.5	118	60	1/8"	1/4"	36	63	34	58	28
11 06 30	1 1/2"	160	54	77.5	15	30	19.5	160	20	8.5	131.5	99	1/4"	1/4"	36	63	37.5	80	42.5
11 03 80	1/2"	20	53	52	15	26	16.5	120	25	8.5	105	60	1/8"	1/4"	36	63	34	58	28
11 05 80	1"	80	60	58	15	26	16.5	120	30	8.5	118	100	1/8"	1/4"	36	63	34	58	28
11 06 80	1 1/2"	160	54	77.5	15	30	19.5	160	20	8.5	131.5	99	1/4"	1/4"	36	63	37.5	80	42.5

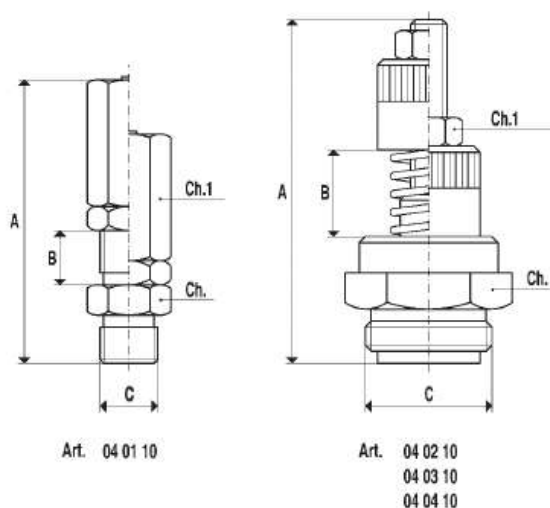
N.B. - The vacuum gauge is supplied only upon request.







## [Vacuum relief valves]



When these valves reach a certain precalibrated vacuum degree, they introduce atmospheric air into the circuit to avoid the increase of the set value and to keep it constant.

They can be used as regulators only on circuits having only one vacuum generator and only one use (or more uses but all working at the same vacuum degree).

In most cases they are used as safety valves on tanks or containers not tested at the high depressions and on lifting systems with cups.

The vacuum degree adjustment is obtained turning the knurled bush in the two directions; thanks to its fine thread, a very accurate calibration is assured.

Art.	Vac. adj. mbar (a)	A	B	C Ø	Ch	Ch1	Max cap. cum/h
04 01 10	670÷1	45	6.5	1/8"	12	12	4
04 02 10	670÷1	57	15.0	1/2"	24	10	20
04 03 10	670÷1	60	12.0	3/4"	30	17	40
04 04 10	670÷1	65	12.0	1"	35	17	70



**VUOTOTECNICA**  
è tecnologia del vuoto

## [Vacuum valves and solenoid valves]

Vacuum valves for vacuum bag evacuation	page	4.01
Plunger valves	page	4.02
Mechanically operated valves	page	4.03
Valves with ball device	page	4.04
Self-closing valves	page	4.05
Check valves	page	4.06
Hand-operated 2- and 3-way vacuum valves	page	4.07
Pilot operated 3-way vacuum valves	page	4.08
2-and 3-way vacuum solenoid valves	page	4.09
Direct-acting 2-way vacuum solenoid valves	page	4.10
Servo controlled 3-way vacuum solenoid valves	page	4.11
Servo controlled 3-way vacuum double solenoid valves	page	4.12
Direct-acting 3-way vacuum solenoid valves	page	4.13



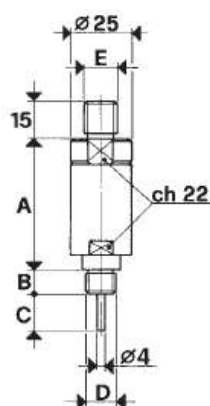
## [Plunger valves]



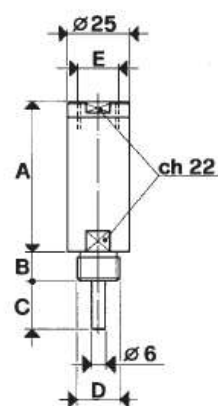
Plunger valves consist of a cylindrical brass body, a steel plunger with a conical valve and a thrust spring.

Connected to vacuum, they are normally closed; they open when operating on the plunger.

Their function is to open the suction and consequently to make vacuum in the cup, only when the plunger valve gets in contact with the taking surface. They are available in different types and they are all suitable to our cups.



Art. 19 01 10  
19 01 11  
19 01 12



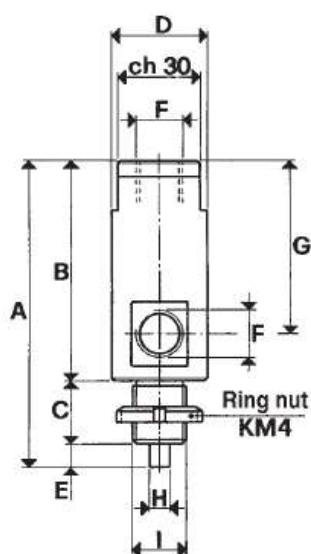
Art. 19 02 10  
19 03 10  
19 04 10

Art.	A	B	C	D Ø	E Ø
19 01 10	53	9	15.0	1/4"	1/4"
19 01 11	53	9	15.0	M12	1/4"
19 01 12	53	9	21.5	M12	1/4"
19 02 10	61	12	20.0	3/8"	3/8"
19 03 10	61	10	22.0	1/2"	3/8"
19 04 10	68	10	40.0	1/2"	3/8"





## [Mechanically operated valves]



The valves of this series consist of a body in anodized aluminium, a steel pin integral with a conical valve and a stainless steel thrust spring. Connected to vacuum, they are normally closed; they only open when the pin is operated by a cam or any other mechanical device.

Their function is to open suction, therefore to create vacuum in the cups or to the machine, only when the pin is operated.

They can be used as an alternative to plunger valves, when they cannot be directly assembled to the cups.

They can also be supplied in different versions on request.

Art.	A	B	C	D	E	F	G	H	I
				Ø		Ø		Ø	Ø
19 02 30	112	80	23	35	9	3/8"	63	8	20x1



**VUOTOTECNICA**  
è tecnologia del vuoto

## [Valves with ball device]

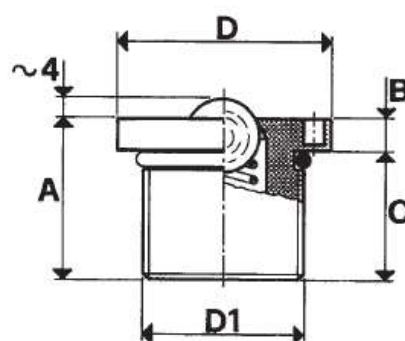


The function of valves with ball device is to open suction, therefore to create vacuum in the cups which they are applied on, only when the load to be held operates the sealing ball.

They consist of a body in anodized aluminium, a nylon ball acting as a closing device, a gauged thrust spring and a threaded brass closing plug. Properly calibrated, they guarantee a perfect vacuum seal.

They are recommended for making vacuum-operated stirring surfaces.

Upon request they can be supplied with different sizes if a certain quantity is needed.



Art.	A	B	C	D	D1
				Ø	Ø
22 01 10	30	6	24	40	30 x 1.5

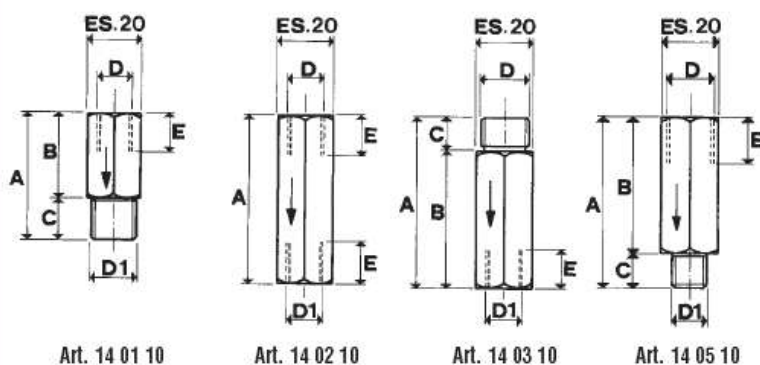






## [Self-closing valves]

They are special unidirectional valves that, when suitably calibrated, allow a certain quantity of fluid to go through, afterwards, if the fluid continues to go through, they automatically close. This type of valves has been studied to be fitted on cups and when the piece to be taken is missing or when there is a faulty grip of the cup or if there are some losses, they automatically close suction, thus avoiding the vacuum decay on the remaining cups which are taking the body. They are made in anodized aluminium and, besides the series valves shown on this page, they can be supplied in other sizes and materials.



Art.	A	B	C	D Ø	D1 Ø	E
14 01 10	45	30	15	1/4"	3/8"	14
14 02 10	59	--	--	1/4"	1/4"	14
14 03 10	59	47	12	3/8"	1/4"	14
14 05 10	59	47	12	3/8"	1/4"	14

## [Pilot operated 3-way vacuum valves]



These vacuum valves are of the three-way type, with two positions and with pneumatically controlled conical valves.

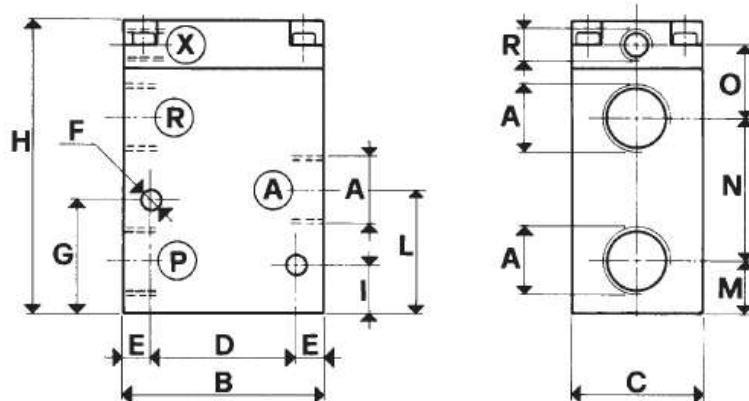
They can be used either normally closed or normally open.

Their application is recommended in all those cases where a quick exchange between suction of the vacuum pump and the incoming of air into the circuit, for a quick recovery of the atmospheric pressure is required.

They are made up of a body in anodized aluminium, two vulkollan valves put on a stainless steel stem, a membrane in a special rubber for the servo control and a spring for the valves return.

The particular execution of these valves allows to reduce frictions and internal dynamic stresses as much as possible, the result being a high response speed and a guarantee of long lasting operation.

Working pressure: from 0 to 3 bar abs.  
Pressure required at the servo control: from 4 to 8 bar (g).

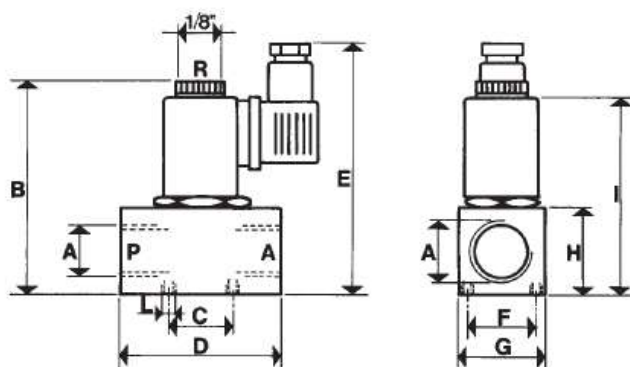


Art.	A	Ø	B	C	D	E	F	G	H	I	L	M	N	O	R
	Ø orifice														Ø
07 01 30	1/4"	8.5	50	35	40	5.0	5.5	30	75	10	33.0	13.0	35.0	19.5	1/8"
07 02 30	3/8"	11.5	50	35	40	5.0	5.5	30	75	10	33.0	13.0	35.0	19.5	1/8"
07 03 30	1/2"	15.0	62	40	45	8.5	6.5	35	91	15	38.5	16.5	44.0	23.0	1/8"
07 04 30	3/4"	19.0	80	50	60	10.0	6.5	51	115	21	51.5	21.0	59.5	27.0	1/8"
07 05 30	1"	25.0	80	50	60	10.0	6.5	51	115	21	51.5	21.0	59.5	27.0	1/8"
07 06 30	1 1/2"	40.0	130	90	100	15.0	8.5	85	175	34	85.0	38.0	90.0	40.0	1/8"





## [2- and 3-way vacuum solenoid valves]



Art. 07 .. 16 = 3 vie  
Art. 07 .. 20 = 2 vie

Art.	A Ø	Ø orifice	B	C	D	E	F	G	H	I	L Ø
07 01 16	1/4"	6	73	16	44	86	16	25	25	67	M6
07 02 16	3/8"	10	85	25	65	98	25	35	35	79	M6
07 03 16	1/2"	12	85	25	65	98	25	35	35	79	M6
07 01 20	1/4"	6	73	16	44	86	16	25	25	67	M6
07 02 20	3/8"	10	85	25	65	98	25	35	35	79	M6
07 03 20	1/2"	12	85	25	65	98	25	35	35	79	M6

Developed specifically for vacuum, they are direct-acting, normally closed.

The two-way solenoid valves have considerably large orifices compared to their sizes.

The three-way ones, although they have different passage orifices, they all have a fixed outlet, through the 3 mm. tube.

Frequency of operation is approx. 700 c/minute. Standard coil, completely plasticized in synthetic resin, tight execution, insulation class F (up to 155°C) electrical connections by means of a plug with clamping screws.

Acceptable tolerance on the nominal value of the voltage  $\pm 10\%$ .

Max. input: 17 V.A. with A.C. and 17 Watt with D.C.

The coil may be rotated through 360°.

## [2-way vacuum solenoid valves]



Of a new design, with small dimensions, high volumetric efficiency and high response speed at any vacuum degree, this new series of solenoid valves is the result of a very careful choice of materials, advanced construction techniques coupled with the in-depth knowledge of our technicians.

This solenoid valves series is **PATENTED**.

The DDN vacuum solenoid valves are a two position, direct acting normally closed valve.

The body is made of brass with Viton seals.

Working pressure: from 0 to 1,5 bar absolute.

The electric coil is standard, manufactured in a synthetic resin with an insulation class F (up to 155°C), electrical connection is by means of a plug with clamping screws.

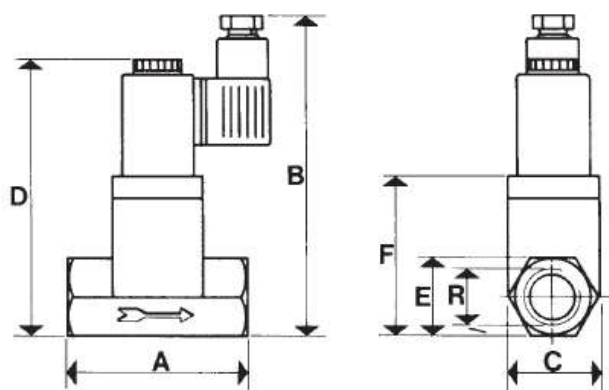
Acceptable tolerance on the nominal value of the voltage:  $\pm 10\%$ .

Max. input: 17 V.A. in A.C. and 10 Watt in D.C. (only DDN 14 because DDN 25 cannot operate in D.C.).

The valves work better in an inverted position.

The coil may be rotated through 360°.

The DDN solenoid valves are particularly suitable for degassing fittings, autoclaves, vacuum thermo-welders and in all applications where suction has to be controlled separately from the inlet of air into circuit.

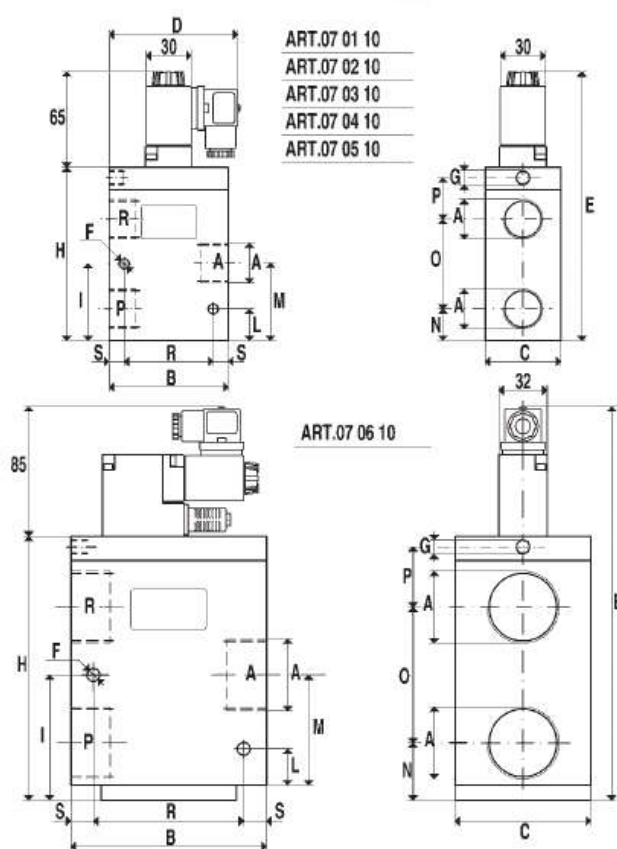


Art.	A	B	C	D	E	F	R Ø	Ø orifice
<b>DDN 14</b>	75	127	35	110	30	63	1/2"	14
<b>DDN 25</b>	90	142	50	128	43	82	1"	25





## [3-way vacuum solenoid valves]



The three-way vacuum solenoid valves of this series are with two positions, with pneumatically servo controlled conical valves, normally closed or open. The body is in anticorrosive aluminium, the valves and the membrane of the servo control are in Vulkollan.

As this valve has no frictions and internal dynamic stresses, the result is a high response speed and a guarantee of long lasting operation.

Working pressure: from 0 to 3 bar abs.

Pressure at the servo control: from 4 to 8 bar (g).

The electric coil is standard, completely plasticized in synthetic resin, tight execution, insulation class F (up to 155°C) electrical connections by means of a plug with clamping screws.

Acceptable tolerance on the nominal value of the voltage  $\pm 10\%$ .

Max. input: 17 V.A. with A.C. and 10 Watt with D.C.

The coil may be rotated through 360°.

Three-way vacuum solenoid valves are normally used for vacuum interception on feeders and cup stackers, robots, sheet feeders, sack openers and in all those cases where a quick response is needed between the suction and the air inlet into the circuit.

Art.	A	Ø	B	C	D	E	F	G	H	I	L	M	N	O	P	R	S
	Ø orifice						Ø	Ø									
07 01 10	1/4"	8.5	50	35	72	140	5.5	1/8"	75	30	10	32.5	12.5	35	21	40	5.0
07 02 10	3/8"	11.5	50	35	72	140	5.5	1/8"	75	30	10	32.5	12.5	35	21	40	5.0
07 03 10	1/2"	15.0	60	40	77	155	6.5	1/8"	90	35	15	38.5	15.5	45	22	45	4.5
07 04 10	3/4"	19.0	80	50	87	180	6.5	1/8"	115	51	21	51.5	21.0	60	27	60	10.0
07 05 10	1"	25.0	80	50	87	180	6.5	1/8"	115	51	21	51.5	21.0	60	27	60	10.5
07 06 10	1 1/2"	40.0	130	90	--	260	8.5	1/8"	175	85	34	85.0	38.0	90	40	100	15.0

## [3-way vacuum double solenoid valves]



These solenoid valves have the same function as the three-way servo controlled ones, previously described.

They have the same structure as well.

The feature that differentiates them are the two solenoids which, with a simple electrical impulse, exchange the valves position and keep them in this position until when there is a new impulse, and this also in absence of compressed air at the servo control and of electric current too.

Due to this feature, their use is particularly advisable in all those cases where it is required the maximum guarantee of connection to the vacuum source, also in absence of electric or pneumatic feed.

Working pressure: from 0 to 3 bar abs.

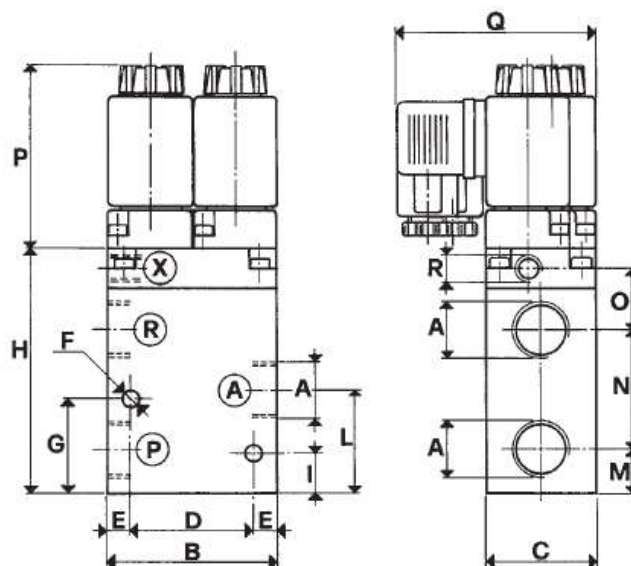
Pressure at the servo control: from 4 to 8 bar (g).

The electric coils are standard, completely plasticized in synthetic resin, tight execution, insulation class F (up to 155°C) electrical connections by means of a plug with clamping screws.

Acceptable tolerance on the nominal value of the voltage  $\pm 10\%$ .

Max. input: 7,5 ÷ 17 V.A. with A.C. and 5 ÷ 10 Watt with D.C.

Coils may be rotated through 360°.

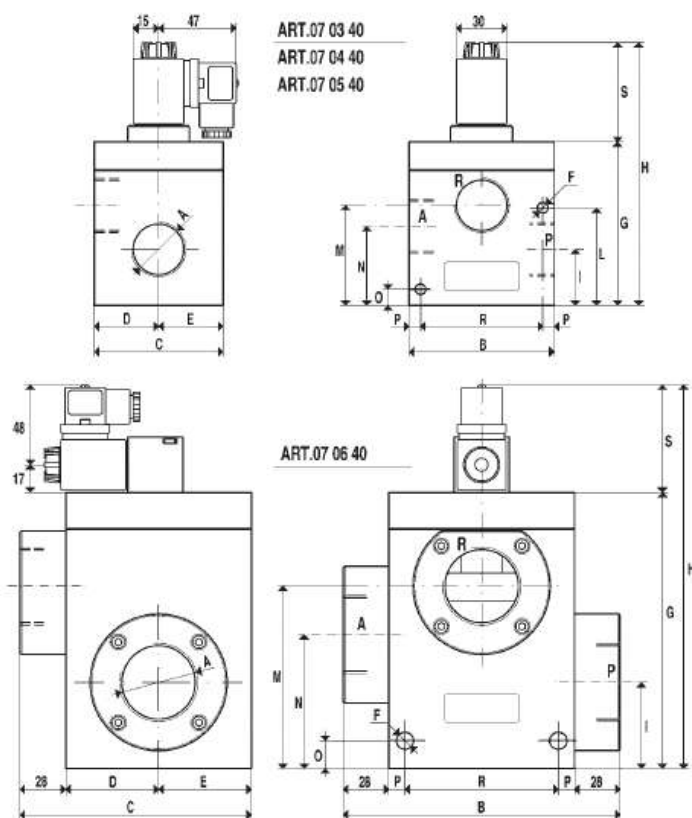


Art.	A	Ø	B	C	D	E	F	G	H	I	L	M	N	O	R	P	Q
	Ø	Orif.													Ø		
07 01 50	1/4"	8.5	50	35	40	5.0	5.5	30	75	10	32.5	12.5	35.0	21	1/8"	65	70
07 02 50	3/8"	11.5	50	35	40	5.0	5.5	30	75	10	32.5	12.5	35.0	21	1/8"	65	70
07 03 50	1/2"	15.0	62	40	45	8.5	6.5	35	91	15	38.5	16.5	44.0	23	1/8"	67	72
07 04 50	3/4"	19.0	80	50	60	10.0	6.5	51	115	21	51.5	21.0	59.5	27	1/8"	67	72
07 05 50	1"	25.0	80	50	60	10.0	6.5	51	115	21	51.5	21.0	59.5	27	1/8"	67	72
07 06 50	1 1/2"	40.0	130	90	100	15.0	8.5	84	175	35	84.0	39.0	90.0	40	1/8"	55	130





## [3-way vacuum solenoid valves]



Art.	A	Ø	B	C	D	E	F	G	H	I	L	M	N	O	P	R	S
	Ø orifice						Ø										
07 03 40	1/2"	15	76	75	40	35	6.5	90	152	33.0	58	53.0	44.0	10	6	64	62
07 04 40	3/4"	19	76	75	40	35	6.5	90	152	33.0	58	53.0	44.0	10	6	64	62
07 05 40	1"	25	89	79	40	39	6.5	100	162	34.5	60	61.5	48.5	10	7	75	62
07 06 40	1 1/2"	40	170	142	57	57	10.5	170	235	52.0	--	112.0	82.0	17	10	94	65

The three-way vacuum solenoid valves of this series are direct-acting, with two positions, with servo controlled conical valves and normally closed. Upon request they can be supplied normally open. The body is in anodized aluminium, the valves are in silicone and the servo control membrane is in nitrile rubber.

The working principle of these solenoid valves is based on the differential of pressure existing between the vacuum pump and the pressure of the sucked air.

Conveying this differential pressure to the servo control, the valves can be controlled without the help of compressed air or of springs.

In consideration of the above mentioned working principle it is not advisable to use these solenoid valves on plants having a low vacuum degree (lower than 100 mm Hg or 880 mbar abs).

As this valve has no frictions and internal dynamic stresses, the result is a high response speed and a guarantee of long lasting operation.

The electric coil is standard, completely plasticized in synthetic resin, tight execution, insulation class F (up to 155°C) electrical connections by means of a plug with clamping screws.

Acceptable tolerance on the nominal value of the voltage  $\pm 10\%$ . Max. input: 17 V.A. with A.C. and 10 Watt with D.C.

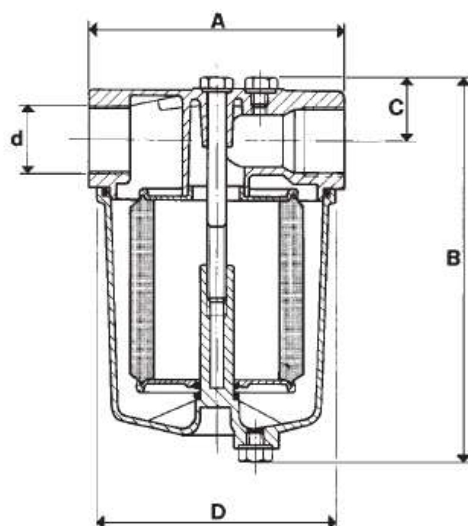
The coil may be rotated through 360°.

The solenoid valves of this series, besides being used for nearly all those cases previously described in the series 07...10, can also be used on the plants that have no compressed air available. The solenoid valve choice has always to be made in consideration of the capacity and therefore of the suction connection of the vacuum pump.





## [Suction filters]



Avoiding impurities reaching the vacuum pump is an essential condition to guarantee its satisfactory operation and long life.

The filters of this series, placed on the suction inlet of the vacuum pumps or on the plants line pipings have this purpose.

Made in a simple and rational way, they have threaded couplings for assembly and an easy opening for a rapid servicing of the filtering cartridge.

Covers are in die-cast aluminium as well as the bowls, except the ones of models FB 5, FB 10 and FB 20 which are in a thermoplastic transparent material.

Filtering cartridges are in stainless steel net with a porosity variable from 44 to 100 micron.

The various models of filters cover a capacity range from 5 to 300 cum/h.

Art.	d Ø	A	B	C	D Ø	Max cap. cum/h
FB 5	1/4"	61	74.5	12.5	59	5
FB 10	3/8"	81	87.0	17.0	79	10
FB 20	1/2"	81	116.0	17.0	79	20
FB 25	3/4"	96	144.0	31.0	90	40
FB 30	1"	120	181.0	31.0	112	70
FB 40	1"1/4	190	255.0	39.0	182	150
FB 50	1"1/2	190	255.0	39.0	182	200
FB 60	2"	182	260.0	42.0	182	300



## [Suction filters]



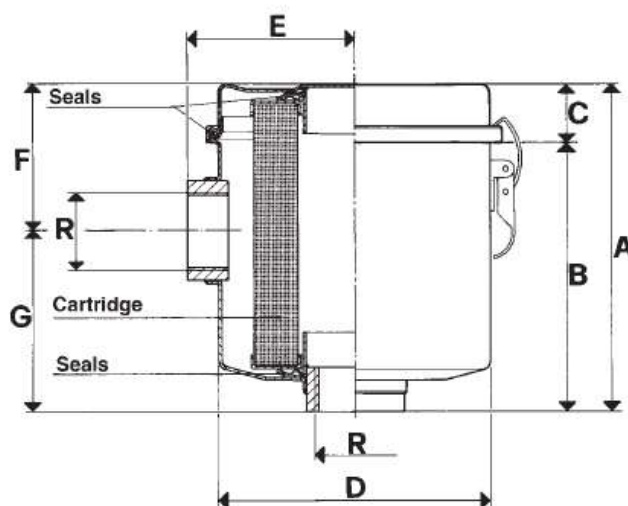
This range of filters has been made in order to permit pumps working also in very dusty environments. When installed on the suction inlet of the pumps, they are able to stop very thin or impalpable powders, interfering on the capacity in an almost negligible way.

Actually, the filtering element is made of special treated paper, with a porosity degree of  $5 \div 7$  micron, pleated to increase the filtering surface and contained in a double case of strong punched plate. The container of the filtering element, as well as the cover, are made in steel plate and painted with a special treatment for avoiding oxidation.

A gasket placed between the cover and the container assures a perfect vacuum seal between the two elements; the release clamps, placed on the container, permit a quick opening of the cover to check or replace the filtering element.

As the filtering element is made of paper, we do not recommend the use of these filters in presence of water or oil vapours or condensates.

At present they are available for capacities from 10 to 680 cum/h.

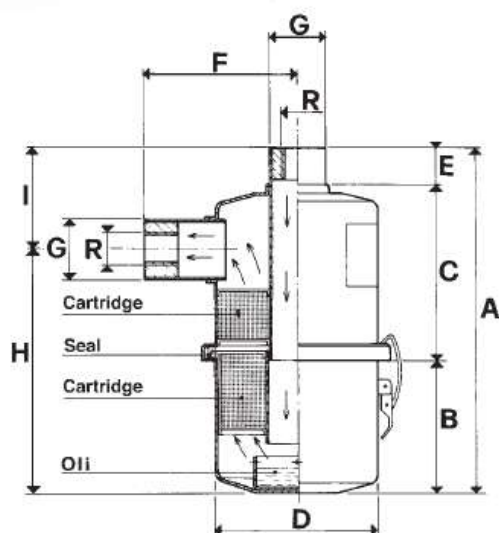


Art.	A	B	C Ø	D	E	F	G	R Ø	Max cap. cum/h
FC 10	79	70	9	72	49	37	42	3/8"	10
FC 20	93	80	13	96	67	51	42	1/2"	20
FC 25	93	80	13	96	67	51	42	3/4"	40
FC 30	105	91	14	120	82	44	61	1"	70
FC 35	96	81	15	120	82	44	52	1 1/4"	100
FC 40	161	125	36	162	102	77	84	1 1/4"	150
FC 50	197	161	36	160	100	85	112	1 1/2"	200
FC 60	258	235	23	185	115	126	132	2"	300
FC 80	270	246	24	185	125	126	144	3"	680





## [Oil-bath suction filters]



In applications which experience very thin or impalpable powders, the traditional suction filter would require a cartridge having so thick meshes which, besides decreasing its autonomy, would also considerably reduce the suction capacity of the vacuum pump.

Oil-bath suction filters have been studied in order to overcome this problem.

The main feature of these filters is the ability to retain the smallest and most impalpable dust particles, without reducing the suction capacity of the pump.

They consist of a head and a container in steel plate, coupled with an interposed seal and clamped by release clamps.

Inside the filter, besides the oil bowl, there are two filtering cartridges, one of which is detachable and washable and the other one is fixed; rapidity in access for servicing is guaranteed by the release clamps.

For these filters it is possible to use any kind of oil, also run-down, provided that it still has a minimum viscosity degree.

At present they are available for capacities up to 300 cum/h.

Art.	A	B	C	D	E	F	G	H	I	R	Max cap. cum/h
				Ø			Ø			Ø	
F0 20	216	73	113	105	30	100	40	152	64	1/2"	20
F0 30	239	92	105	132	42	105	50	167	72	1"	70
F0 50	305	110	135	160	60	128	60	205	100	1 1/2"	200
F0 60	340	140	140	185	60	142	67	226	114	2"	300



**VUOTOTECNICA**  
è tecnologia del vuoto

## [Long operation autonomy oil-bath suction filters]



In applications which experience very thin or impalpable powders, the traditional suction filter would require a cartridge having so thick meshes which, besides decreasing its autonomy, would also considerably reduce the suction capacity of the vacuum pump.

Oil-bath suction filters have been studied in order to overcome this problem.

Besides having a long operation autonomy, the main feature of these filters is the ability to retain the thinnest and most impalpable dust, without reducing the suction capacity of the pump.

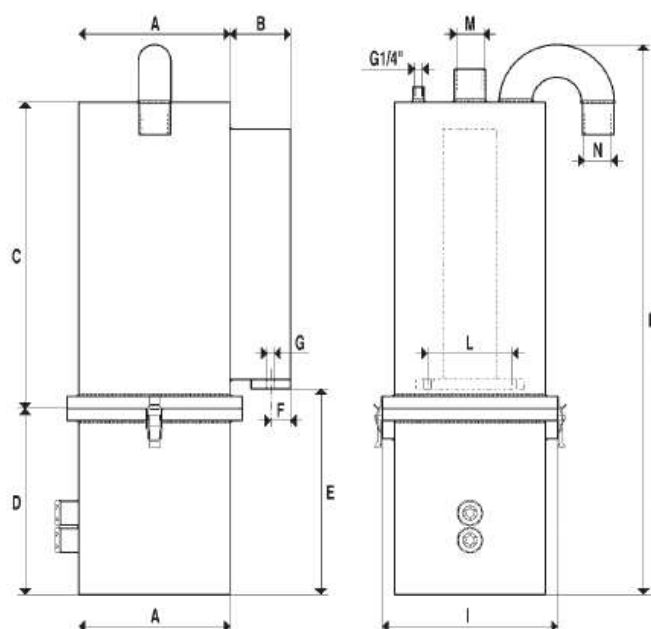
They are made by a head and a container in steel plate, coupled with an interposed seal and clamped by release clamps.

Inside the filter, besides the oil bowl, there are two filtering cartridges, which are detachable and washable; rapidity in access for servicing is guaranteed by the release clamps.

The oil level and its clogging can be checked by means of two oil windows.

For these filters it is possible to use any kind of oil, also run-down, provided that it still has a minimum viscosity degree.

At the moment they are available for capacities of 200 and 300 cum/h.



Art.	A Ø	B	C	D	E	F	G Ø	H	I Ø	L	M Ø	N Ø	Max cap. cum/h
<b>F0160</b>	250	100	508	308	356	32.5	12	910	290	140	1"1/2	1"1/2	200
<b>F0300</b>	350	80	508	308	356	32.5	12	920	390	200	2"	2"	300





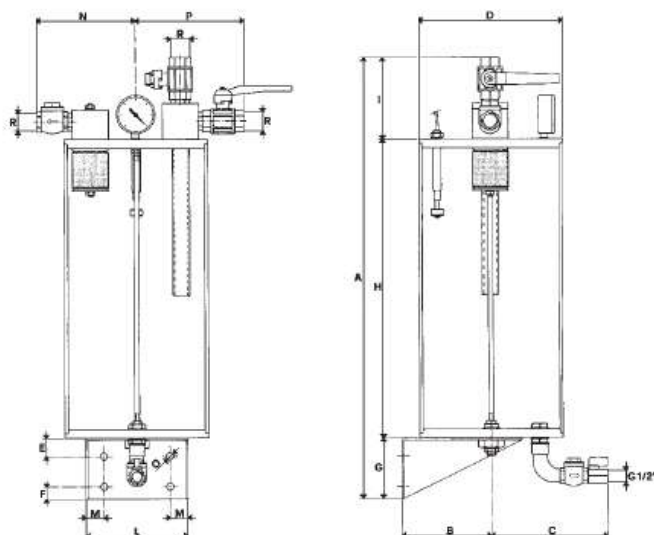
## [Syphon filters]

The function of these filters is to retain impurities and liquids extracted through the cups or the vacuum operated stirrup systems, in order to avoid that they enter into the vacuum pumps.

They consist of:

- A cylindrical container in transparent plexiglass, with extractable cover to allow inspection and cleaning.
- A check valve placed on the suction inlet, to prevent the air re-entry into the filter, when the pump stands still.
- A filtering cartridge in stainless steel net with a porosity of 44 micron, placed on the suction inlet, to retain dust and solid impurities.
- A two-way hand operated valve for vacuum interception of the application.
- A two-way hand operated valve for restoring the atmospheric pressure inside the filter.
- A vacuum gauge for the direct reading of the vacuum degree.
- A magnetic level switch with the function to stop the pump when the sucked liquid exceeds the safety level.
- A rigid pipe, connected to the application port, to convey the air flow and the sucked liquid to the bottom of the container.
- A check valve placed on the bottom of the filter, to drain automatically the sucked liquids and impurities, every time that the atmospheric pressure is restored inside the filter.
- A chock, applied on the above described check valve, which allows the manual drainage of the liquids.
- A strong metal bracket to allow mounting of the unit on a wall.

At present they are available for capacities up to 70 cum/h.



Art.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	R	Max Cap cum/h	Contents lt.
FS 20	620	130	175	200	25	20	100	400	120	150	25	140	10	145	1/2"	20	10.5
FS 25	740	150	195	240	25	20	100	500	140	170	30	170	11	180	3/4"	40	19.5
FS 30	880	190	225	300	30	20	120	600	160	200	40	205	11	220	1"	70	38.0