

Product Manual



Magic Pump



**24 Beotkkot-ro10 gil
Geumcheon-gu, Seoul 08606, Korea
TEL : 02-2617-5008
FAX : 02-2617-5009**

**www.vmecca.com
e-mail: info@vmecca.com**

GERMANY

VMECA GmbH
Gutenberg Strasse 20
D-70794 Filderstadt, Deutschland
Tel. +49-711-4408-3260
Fax. +49-711-4408-3261
<http://www.vmecca.com>
e-mail : info@vmecca.com

Asia

VMECA Co.,Ltd
24 Beotkkot-ro10gil
Geumcheon-gu, Seoul 08606, Korea
Tel. 02-2617-5008
Fax. 02-2617-5009
<http://www.vmecca.com>
E-mail : info@vmecca.com

U S A

VtecUSA Inc.
1305 N San Gabriel Bl, #203,
South San Gabriel CA, 91770
Tel. +1-213-258-7114
Fax. +1-626-569-9978
<http://www.vmecca.com>
e-mail : infousa@vmecca.com



Vacuum equipment / common precautions

Be sure to before handling



Warning

- ▶ Safe designs should be developed, which accounts for the possibility of accidents resulting from a drop in vacuum pressure due to power failure or trouble with the air supply, etc.
- ▶ Follow vacuum specifications for vacuum switching valves and vacuum breaker.
- ▶ Select vacuum pumps which have a suitable suction flow rate.
<When there is a vacuum leak from the work piece or the piping> <When piping is long or large diameter>
- ▶ If the suction flow rate is too high, setting of vacuum switches will become difficult.
- ▶ When two or more pads are piped to one vacuum pump, if one pad released its work Piece, the other pads will also release.
- ▶ Use piping with an adequate effective sectional area



Caution

- ▶ For information on related items, such as directional control equipment, refer to the caution sections in each respective catalog.

Mounting



Warning

- ▶ Do not obstruct the exhaust port of the vacuum pump.

Piping



Caution

- ▶ Avoid disorganized piping
- ▶ use piping with a large effective sectional area on the exhaust side of the vacuum pump.
- ▶ Make sure that there are no crushed areas in the piping due to damage of bending.

Operating Environment



Warning

- ▶ Do not operate in atmospheres of corrosive gases, chemicals, sea water, water of steam.
- ▶ Do not operate in explosive areas.
- ▶ Do not operate in locations where vibration of impact occurs.
Confirm the specifications for each series.
- ▶ In locations which receive direct sunlight, provide a protective cover, etc.
- ▶ In locations near heat sources, protect against radiated heat.
- ▶ In locations where there is contact with spatter from water, oil or solder, etc., implement suitable protective measures.
- ▶ In cases where the vacuum unit is surrounded by other equipment, etc., or the unit is energized for an extended time, implement measures to exhaust excess heat, so that temperatures remain within the range of the vacuum units specifications.

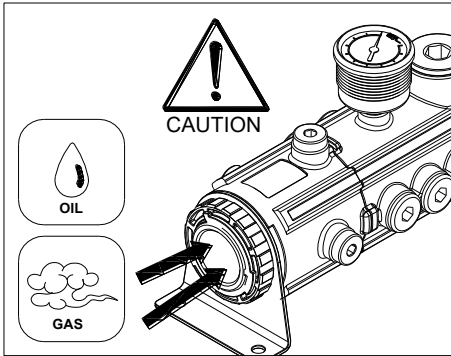
Maintenance



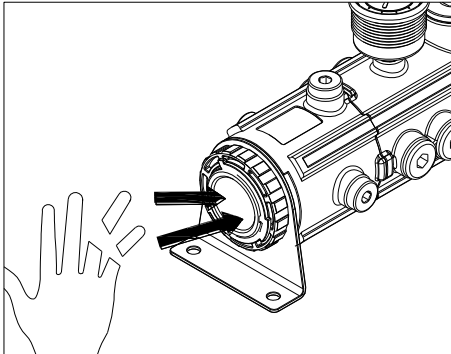
Warning

- ▶ Clean suction filters on a regular basis. (refer to specifications)

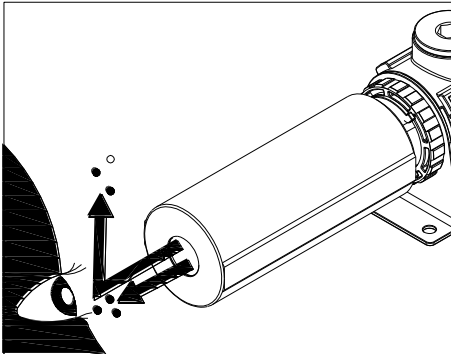
Caution



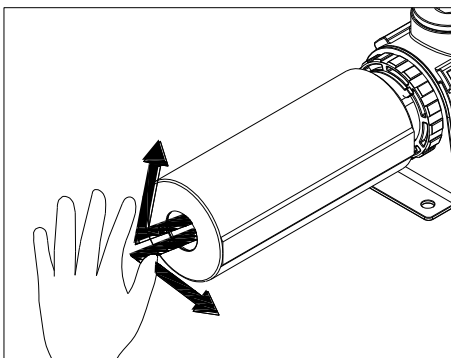
◀ Contact for VMECA (www@vmeca.com) for specific applications such as suction of Oils or Gases because pump can be transformed.



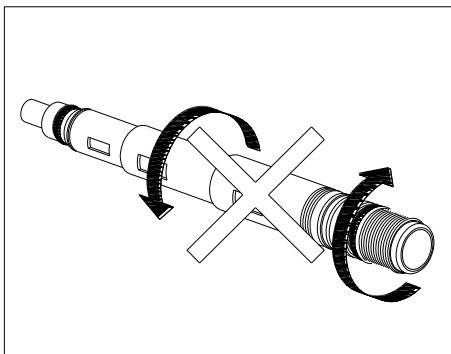
◀ Vacuum force can cause injury.



◀ Air streams can cause injury.

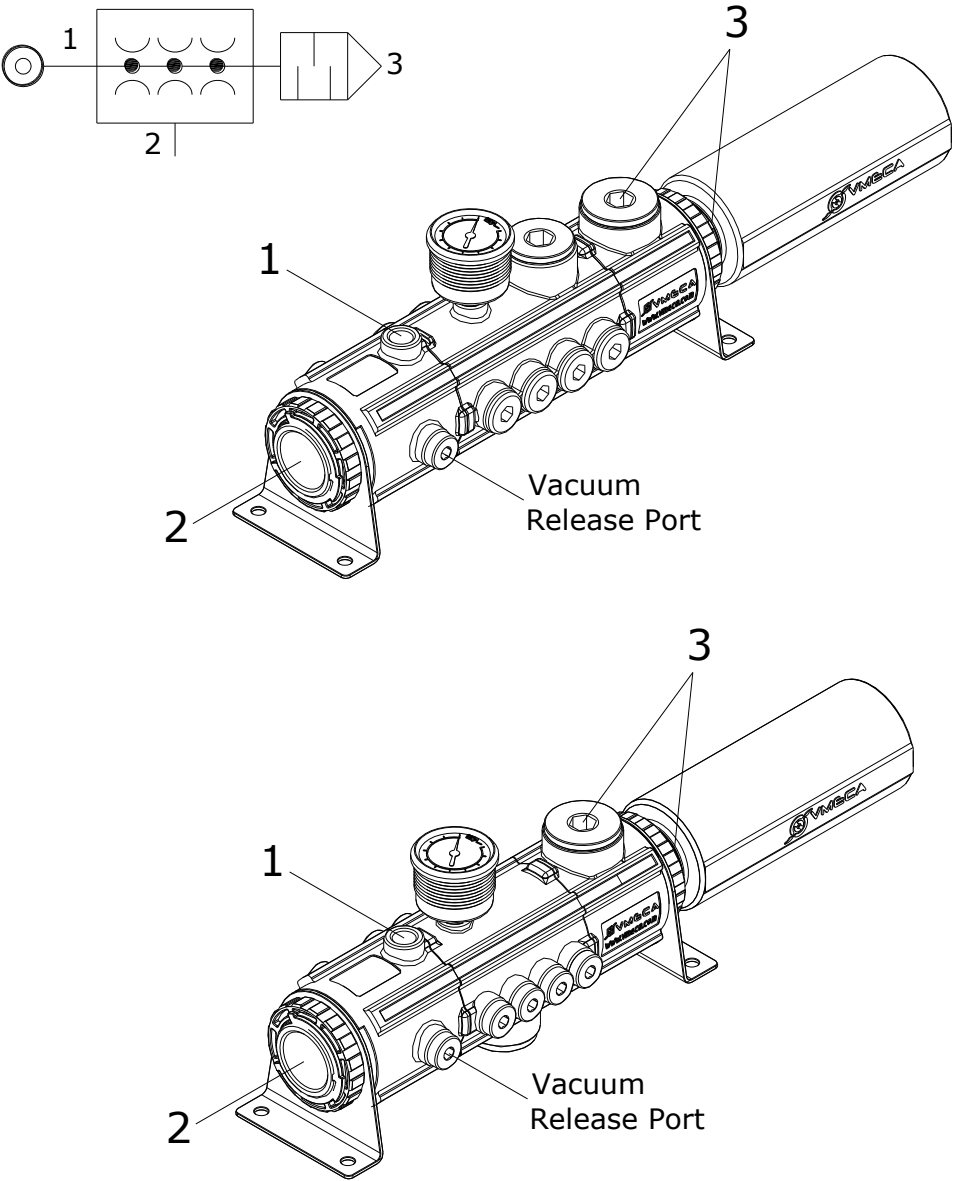


◀ Do not obstruct exhaust port.



◀ Do not twist vacuum cartridge.

1. Assembly



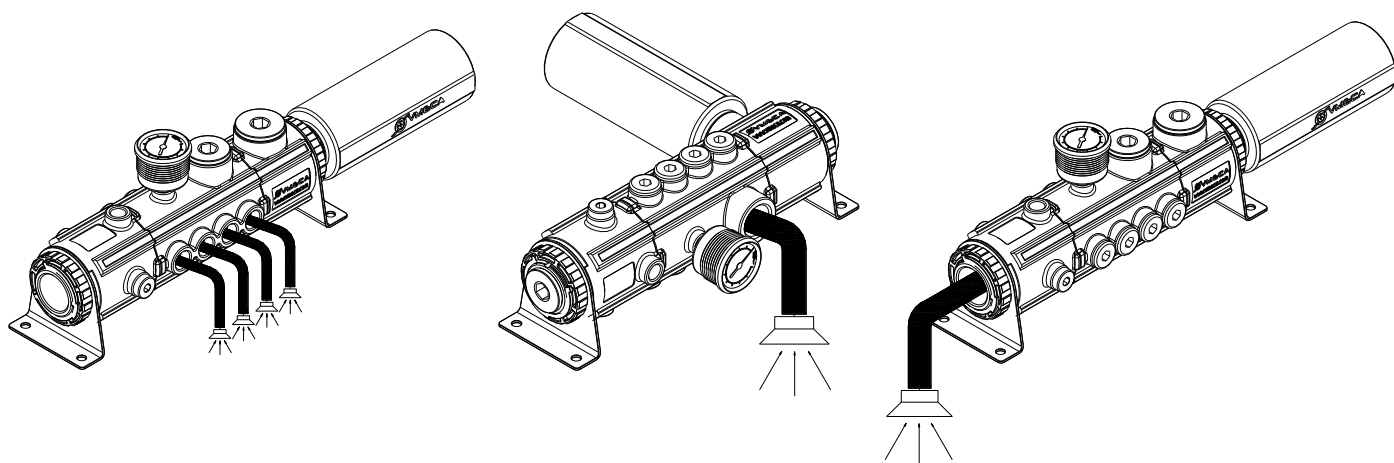
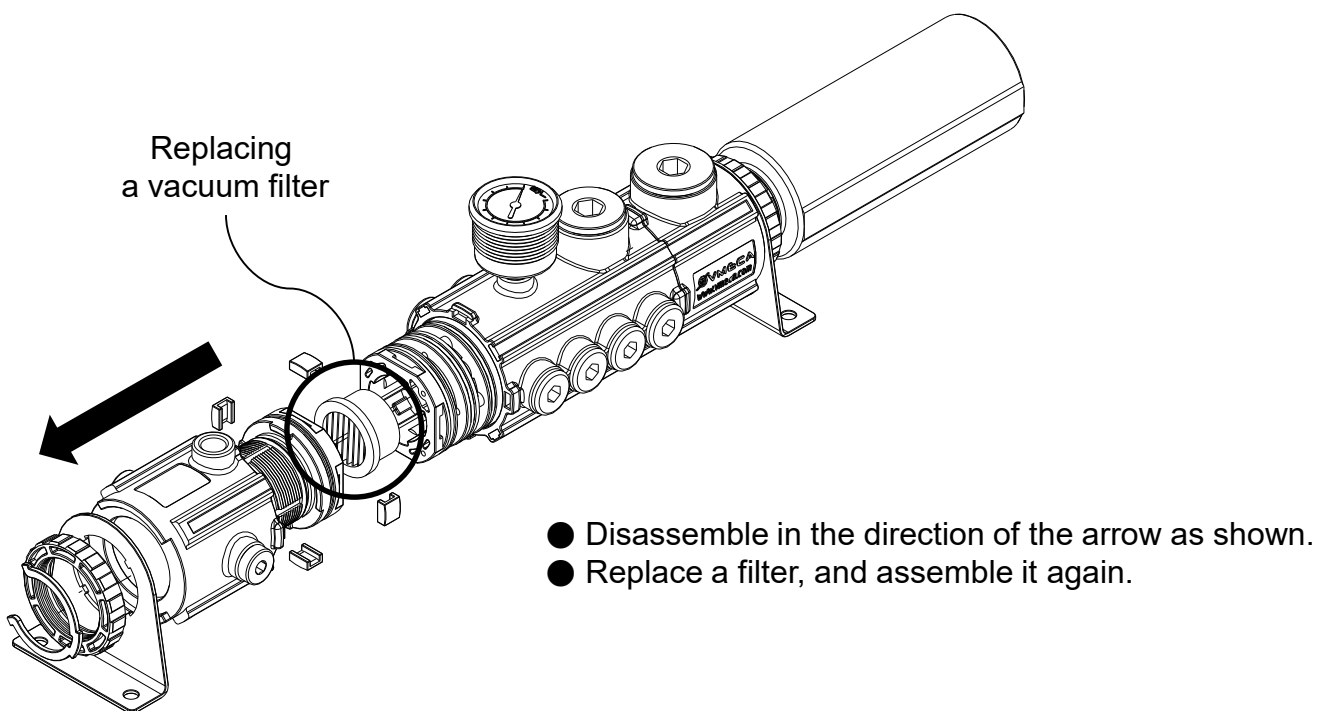
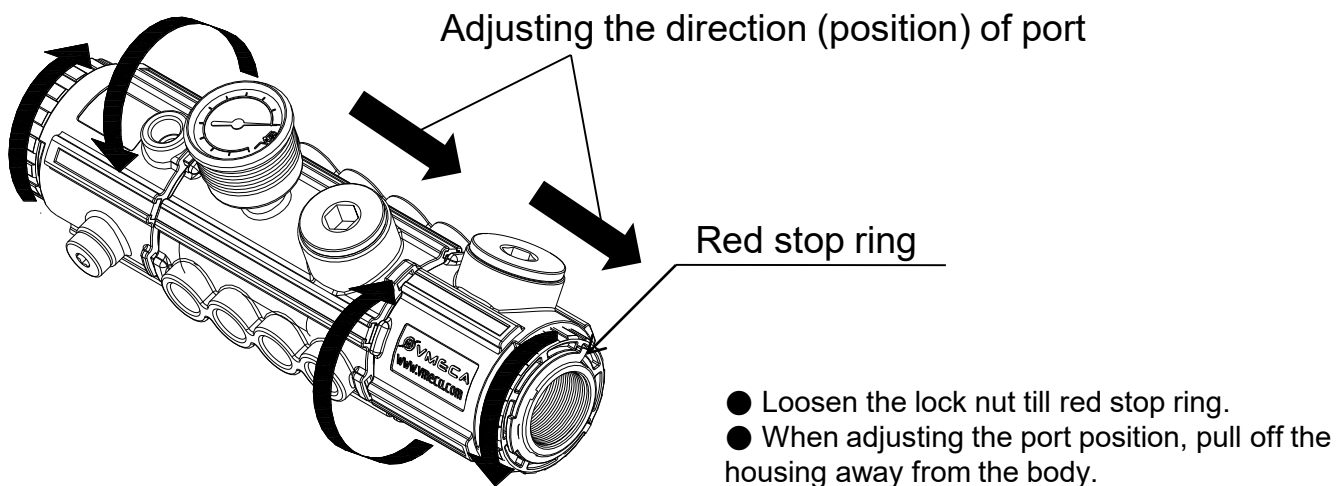
Recommended min. hose inner Ø

		M(L) 313(2) X 1..	M(L) 313(2) X 2..	M(L) 313(2) X 3..	M(L) 313(2) X 4..
1	Air-supply hole	≥ 8	≥ 8	≥ 10	≥ 10
2	Vacuum hole	≥ 12	≥ 15	≥ 19	≥ 22
3	Exhaust hole	≥ 12	≥ 15	≥ 22	≥ 32

Max. vacuum level

MODEL	Supplied air pressure (MPa)	Max. Vacuum level (–kPa)
ML 313(2) X ()..	0.6	75
M 313(2) X ()..	0.3 ~ 0.6	92

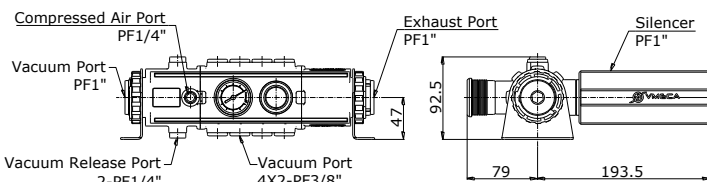
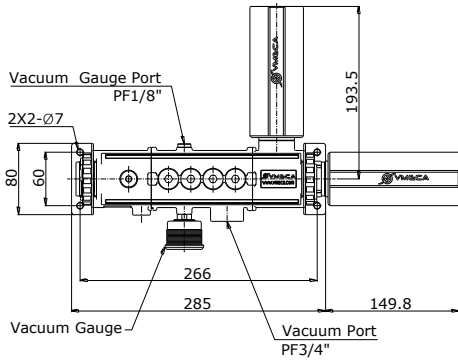
2. Feature



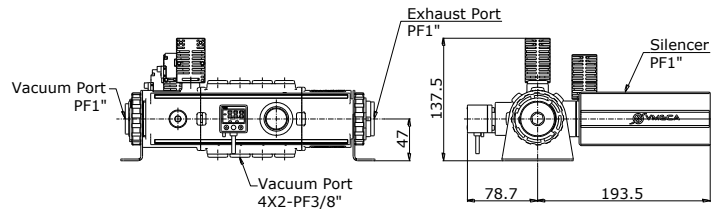
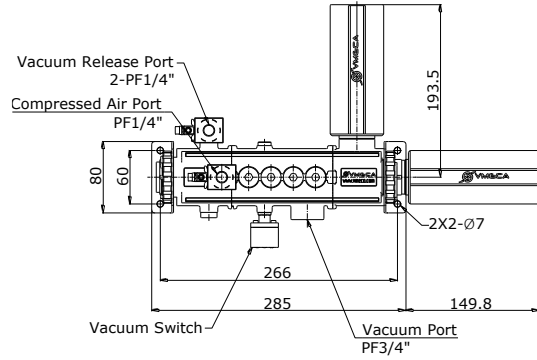
3. Dimension of model

- M313X()..
- ML313X()..

▼ Basic type



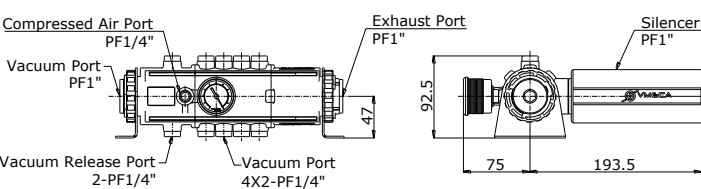
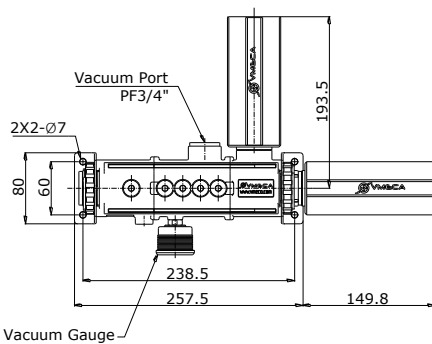
▼ Type with Control Valve, Digital Vacuum Switch



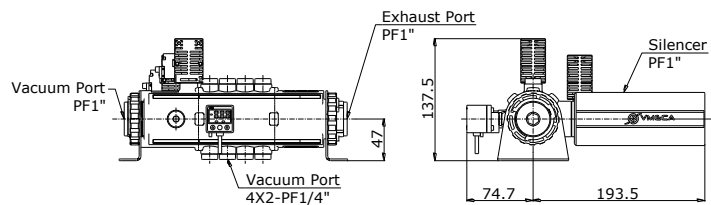
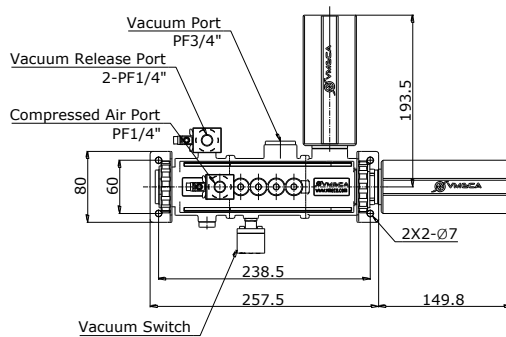
Measure unit : mm

- M312X()..
- ML312X()..

▼ Basic type



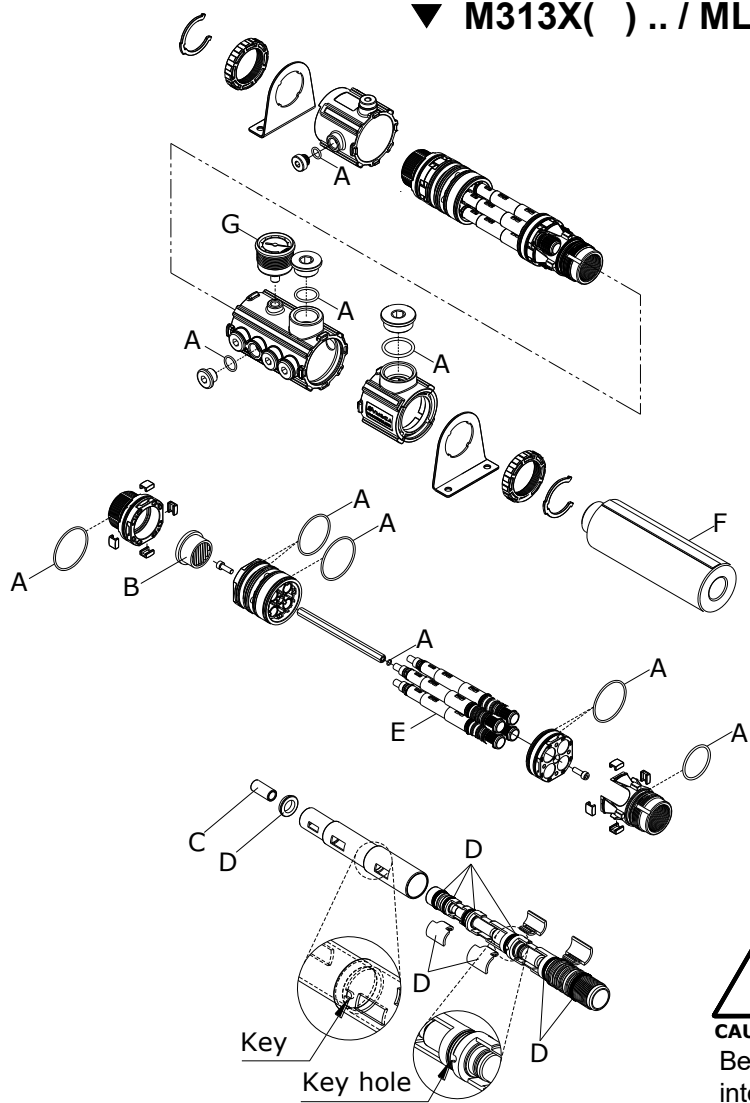
▼ Type with Control Valve, Digital Vacuum Switch



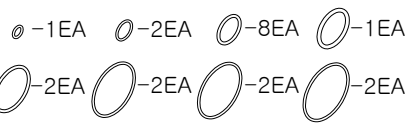
Measure unit : mm

4. Maintenance

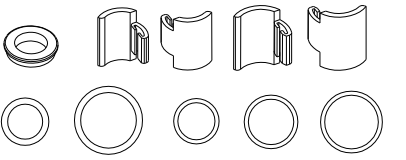
▼ M313X() .. / ML303X() ..



A



D

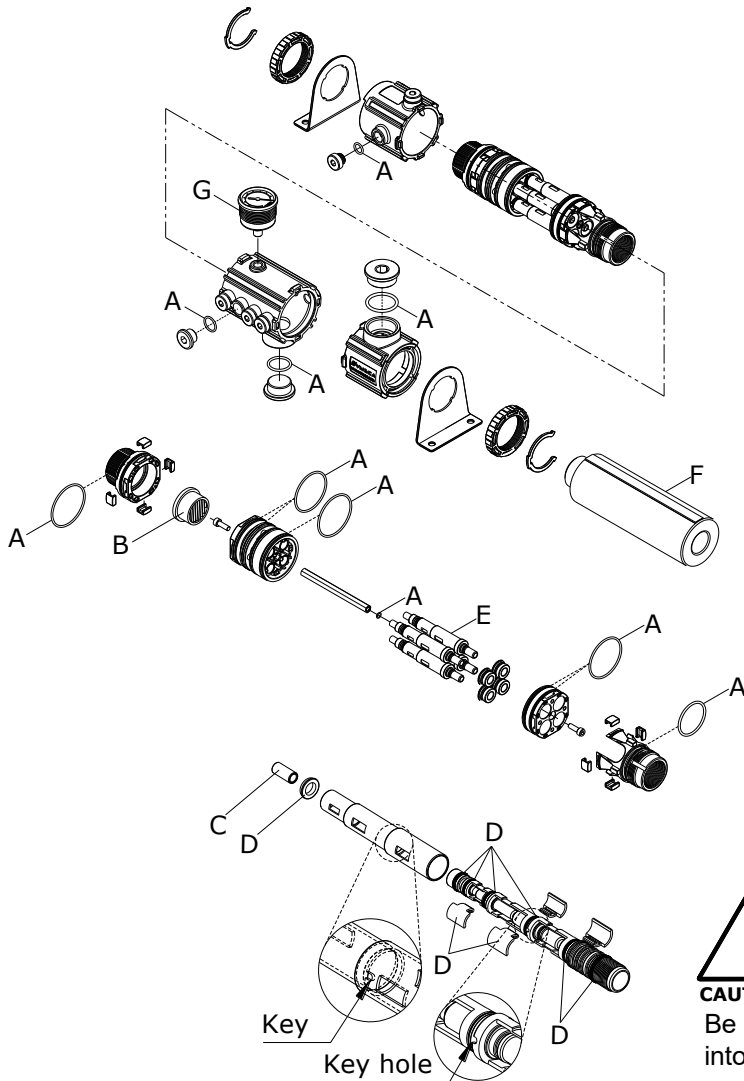


CAUTION
Be sure to fit key
into key hole.

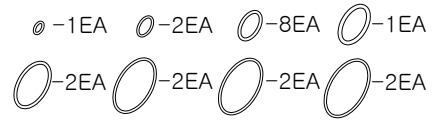
	Description	Remark	Order No.
A	Seal kit	(NBR)	15M111
B	Filter element - VTFE 341	Paper	13C235
	Filter element - VTFE 342	Polyester(PE)	13C236
C	Filter element - VTE 1022		13A244*
D	Cartridge seal kit	VC303 / VCL303	15H1411*
	Cartridge seal kit	VC303-N / VCL303-N	15H1421*
E	Cartridge - VC303 (New)	For VTC3031..	18340300000*
	Cartridge - VC303-N (New)	For VTC3031..-N	18340302100*
	Cartridge - VCL303 (New)	For VTCL3031..	18440300000*
	Cartridge - VCL303-N (New)	For VTCL3031..-N	18440302100*
F	Silencer	VTS-10A	13O100
G	Vacuum gauge	InHg	13N112
	Vacuum gauge	mmHg	13N111

* : Code for one cartridge

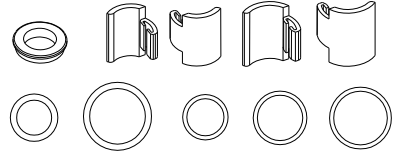
▼ M312X() .. / ML302X() ..



A



D



	Description	Remark	Order No.
A	Seal kit	(NBR)	15M111
B	Filter element - VTFE 341	Paper	13C235
	Filter element - VTFE 342	Polyester(PE)	13C236
C	Filter element - VTE 1022		13A244*
D	Cartridge seal kit	VC302 / VCL302	15H1311*
	Cartridge seal kit	VC302-N / VCL302-N	15H1321*
E	Cartridge - VC302 (New)	For VTC3021..	18340200000*
	Cartridge - VC302-N (New)	For VTC3021...-N	18340202100*
	Cartridge - VCL302 (New)	For VTCL3021..	18440200000*
	Cartridge - VCL302-N (New)	For VTCL3021...-N	18440202100*
F	Silencer	VTS-10A	13O100
G	Vacuum gauge	InHg	13N112
	Vacuum gauge	mmHg	13N111

* : Code for one cartridge