ECODORA

DIAPHRAGM PUMPS ENTIRELY IN POLYPROPYLENE

CE Made in Italy

No. E15/PPB

OUR STRENGTHS POINTS

The widest range of technology for fluidynamics designed to meet all the needs of our clients with cutting-edge solutions, even the most specific.

The quality, reliability and design that have always distinguished the Ecodora brand in the global market.

A technical service before and after sales to recommend the most suitable product according to the customer's needs as well as to provide support to the end users.

OUR GOAL

To meet every user's needs by offering only high quality products.

ECODORA

www.ecodora.com
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CE Made in Italy

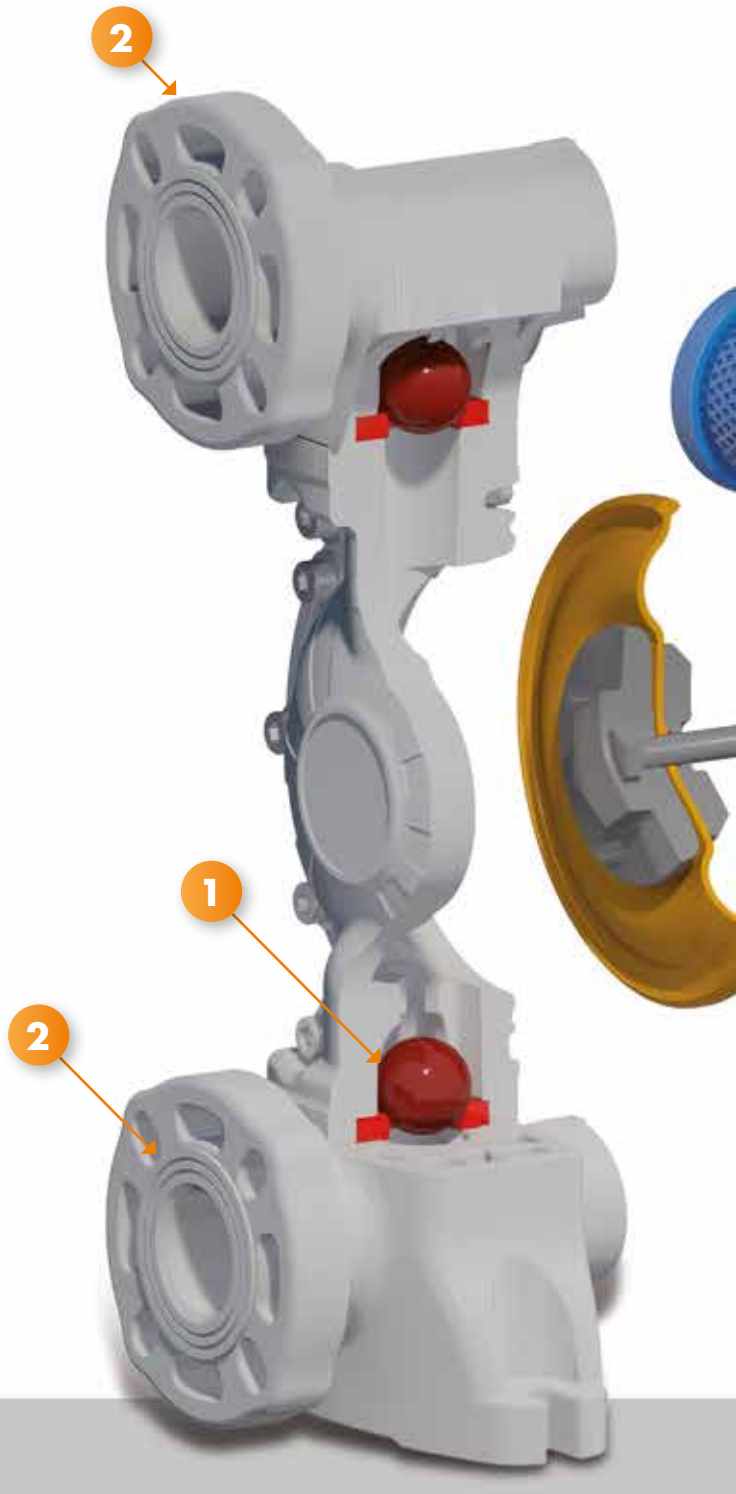
STRENGTH POINTS

- Suitable in corrosive environments
- Can be used with water or corrosive solutions
- Higher quality thanks also to the stainless steel screws
- Built with anti-stalling and anti-icing devices to maintain unaltered the performances over time
- Silencer in plastic material for corrosive environments with stainless steel cage
- 1/2" pumps with reinforced thread thanks to a stainless steel AISI 316 ring
- Usable with viscous fluids and with solid parts in suspension
- Easy and on-site maintainability by requesting predefined replacement kits
- Self-priming capability
- All pumps are tested before the packaging to ensure the highest quality

Why choose a diaphragm pump entirely made in polypropylene?

The ECODORA pneumatic double diaphragm pumps completely made of polypropylene are made to work in particularly aggressive work atmospheres, with a wide range of fluids, also corrosive, with high viscosity and solid parts in suspension.

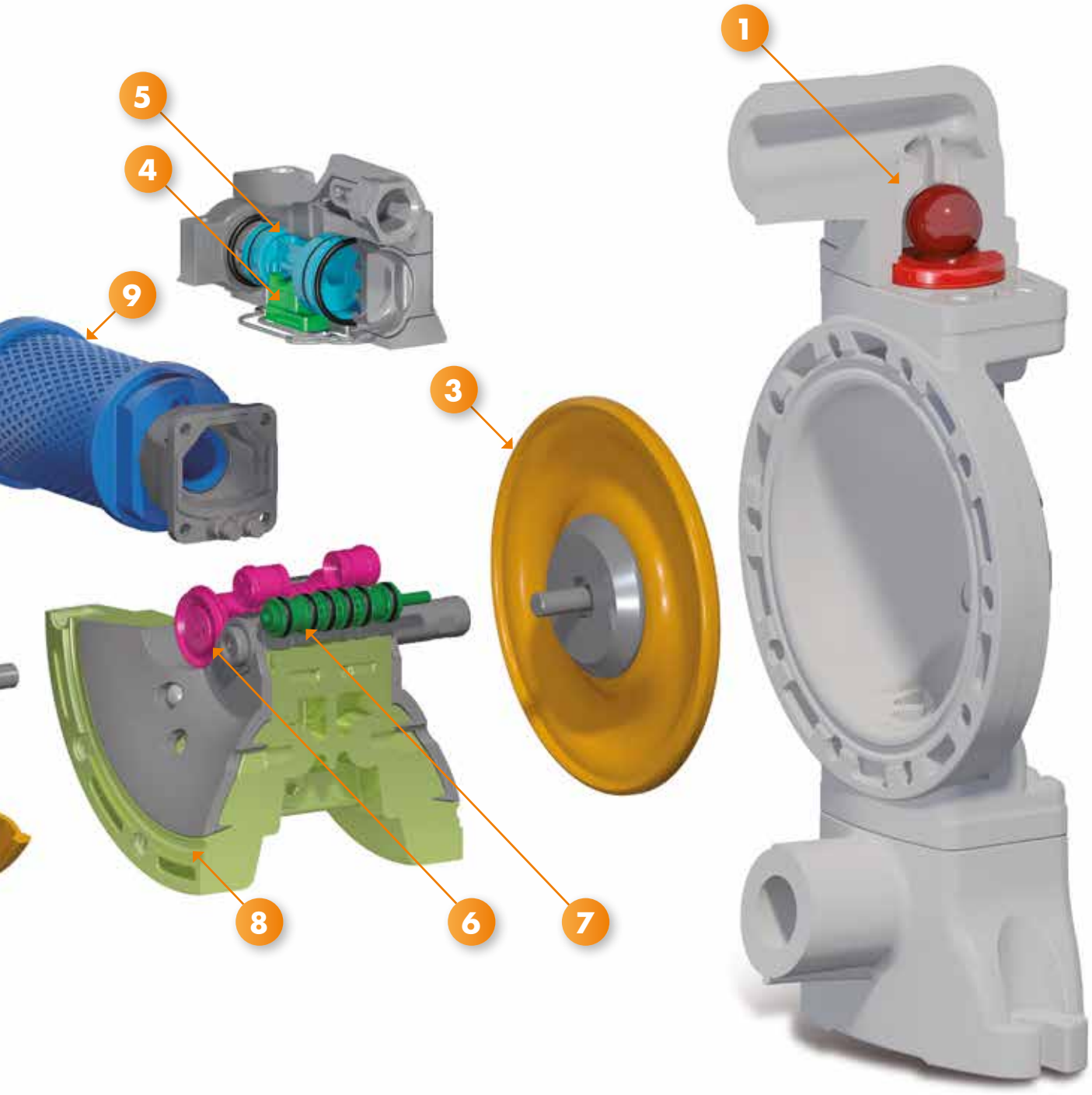
Technical caracteristics



1 **Balls and ball seats** in many **types of materials** to guarantee chemical compatibility according to the fluid to be pumped. Easy to clean or replace as required.

2 **Total flow suction** and delivery **manifolds**, to facilitate suction of the liquid in any situation, with threaded connections or flanged available in different diameters according to the pump models.

3 **Membranes** made with **different and specific materials** able to withstand many types of fluids and millions of cycles.



4 The **air distribution valve** ensures **perfect operation** in any operating conditions, some examples:
- Minimum supply pressures (min. 2 bar)
- Fluid and environment critical temperatures
- Supply pressure fluctuations

5 **Air distributor unit** equipped with anti-stall reversing piston. This piston **prevents the pump from stopping** at a dead point, even in critical operating conditions.

6 Pneumatic motor **anti-icing device** made of **plastic material**. This allows the pump to maintain its unaltered performance even if powered with untreated air.

7 The pneumatic motor block of the pump does not require any type of lubrication because the moving parts are **self-lubricating.**

8 **Pump body** in **polypropylene** with integrated flanges and co-molded inserts to guarantee elevated tightening torques.

9 **Silencer** made of **plastic material with increased exhaust system** designed to withstand corrosive environments also thanks to stainless steel cage.

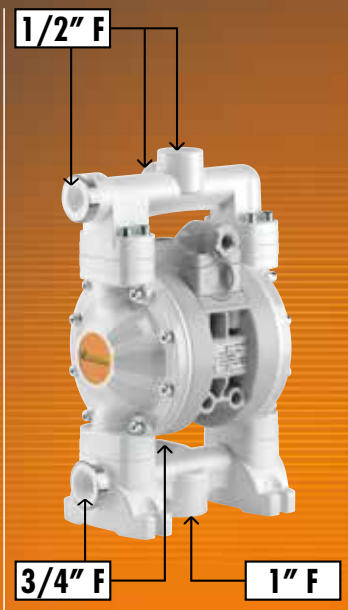
POLYPROPYLENE diaphragm pumps

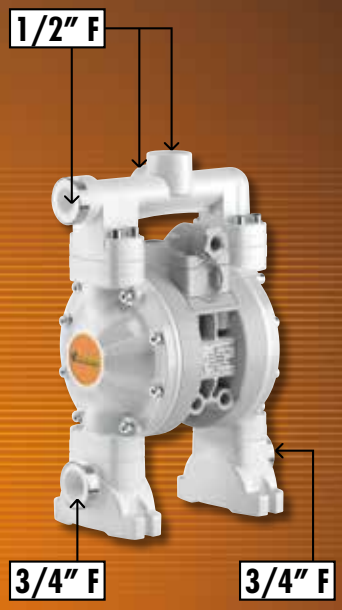
1/2" - 65 l/min

Diaphragm pumps R. 1:1 for fluids transfer, produced entirely in polypropylene, are recommended for applications with industrial fluids, also corrosive, and in working environments with aggressive atmospheres.

High resistance medium flow rate

Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

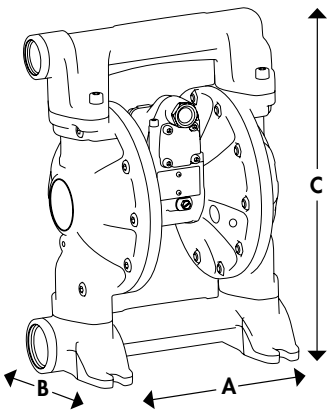




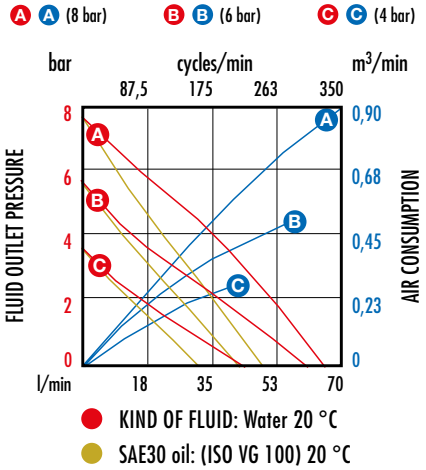
Series			120-PPB	120-PPB dual inlet
membranes	balls	seats	P/N	P/N
EPDM	Acetal	Polypropylene and AISI 316	**0E2A3/1677EA5**	**0E2A8/1677EA5**
Hytrel	Hytrel	Polypropylene and AISI 316	**0E2A3/1677HH5**	**0E2A8/1677HH5**
NBR	Hytrel	Polypropylene and AISI 316	**0E2A3/1677NH5**	**0E2A8/1677NH5**
Santoprene	Santoprene	Polypropylene and AISI 316	**0E2A3/1677SS5**	**0E2A8/1677SS5**
PTFE+Hytrel *	PTFE	Polypropylene and AISI 316	**0E2A3/1677TT5**	**0E2A8/1677TT5**
Max pressure			8 bar	8 bar
Max cycles per minute			350 cpm	350 cpm
Litres per cycle **			0,188 l	0,188 l
Max suction lift			dry column 4,5 m - wet column 7,5 m	dry column 4,5 m - wet column 7,5 m
Max size pumpable solids			1,5 mm	1,5 mm
Max working temperature ***			65° C	65° C
Noise level			76 dB	76 dB
Max air consumption (m^3/min)			0,89 m^3/min	0,89 m^3/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			F 3/8" G	F 3/8" G
Air outlet connection (muffler)			F 3/4" G	F 3/4" G
Fluid inlet connection			F 3/4" G (F 1" G for drum)	**dual inlet** F 3/4" G
Fluid outlet connection			F 1/2" G	F 1/2" G
Overall dimensions (A x B x C)			208 mm x 158 mm x 326 mm	208 mm x 158 mm x 326 mm
Packing - Weight			N° 1 packing m^3 0,014 Kg 5,5	N° 1 packing m^3 0,014 Kg 5

* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature

PUMP DIMENSIONS



PUMP AIR FEEDING PRESSURE



POLYPROPYLENE diaphragm pumps

1" - 145 l/min

The family of diaphragm pumps of 1", R. 1:1 for fluid transfer, produced entirely in polypropylene, maintain their performance on applications with industrial fluids, also aggressive, and in working environments with corrosive atmospheres, offering, an unquestionable higher capacity.

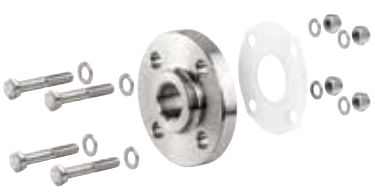
High resistance high flow rate

Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Series			1000-PPB	1000-PPB dual inlet
membranes	balls	seats	P/N	P/N
EPDM	Acetal	Stainless steel AISI 316	**0E2A4/2677EAI**	**0E2A7/2677EAI**
Hytrel	Hytrel	Stainless steel AISI 316	**0E2A4/2677HHI**	**0E2A7/2677HHI**
NBR	Hytrel	Stainless steel AISI 316	**0E2A4/2677NHI**	**0E2A7/2677NHI**
Santoprene	Santoprene	Stainless steel AISI 316	**0E2A4/2677SSI**	**0E2A7/2677SSI**
PTFE+Hytrel *	PTFE	Stainless steel AISI 316	**0E2A4/2677TTI**	**0E2A7/2677TTI**
Max pressure			8 bar	8 bar
Max cycles per minute			270 cpm	270 cpm
Litres per cycle **			0,540 l	0,540 l
Max suction lift			dry column 5 m - wet column 7,5 m	dry column 5 m - wet column 7,5 m
Max size pumpable solids			3 mm	3 mm
Max working temperature ***			65° C	65° C
Noise level			78 dB	78 dB
Max air consumption (m^3/min)			1,1 m^3/min	1,1 m^3/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			F 3/8" G	F 3/8" G
Air outlet connection (muffler)			F 3/4" G	F 3/4" G
Fluid inlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1" (25 mm) proneness to F 1.1/4" G thread	dual inlet ANSI 150 - DIN PN 10 - JIS 10K 1" (25 mm) proneness to F 1.1/4" G thread
Fluid outlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1" (25 mm) proneness to F 1.1/4" G thread	ANSI 150 - DIN PN 10 - JIS 10K 1" (25 mm) proneness to F 1.1/4" G thread
Overall dimensions (A x B x C)			357 mm x 150 mm x 418 mm	357 mm x 150 mm x 418 mm
Packing - Weight			N° 1 packing m^3 0,025 Kg 8	N° 1 packing m^3 0,025 Kg 8

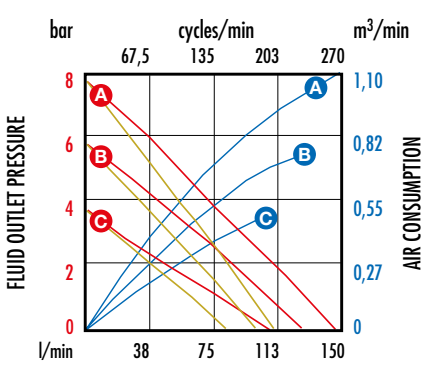
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature

ACCESSORY
(to be ordered separately)



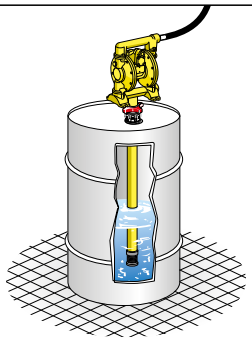
Art. 0E32/95
Flange in stainless steel AISI 304 with F 1"G thread suitable for the plant connection.

PUMP AIR FEEDING PRESSURE

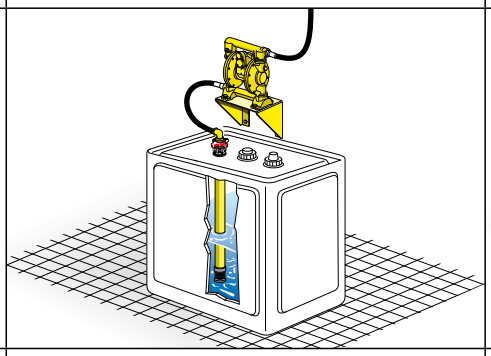


HOW TO INSTALL THE PUMP

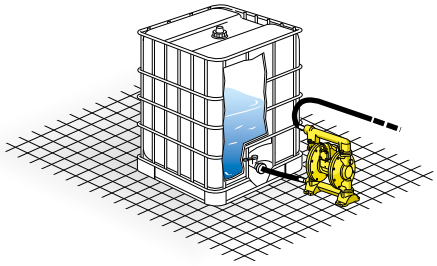
PUMP INSTALLED ABOVE 200 l DRUM
(with special bung adaptor).



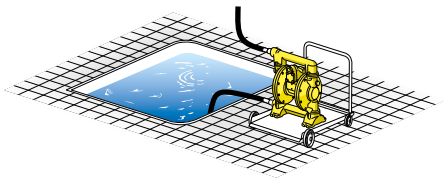
SELF PRIMING PUMP INSTALLED ABOVE HEAD (NEGATIVE SUCTION)
(pump may initially work with dry column without problem).



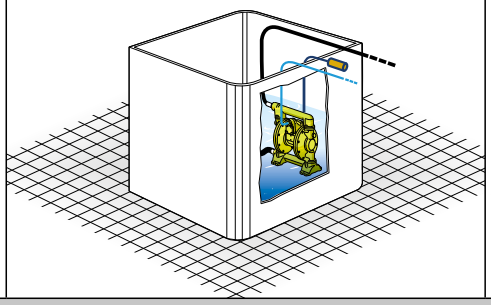
PUMP INSTALLED BELOW HEAD
(POSITIVE SUCTION)
(when it is necessary to empty completely the container).



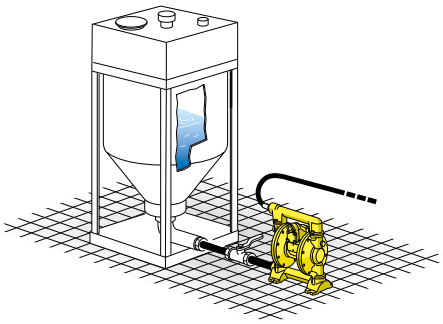
PUMP INSTALLED ON A MOBILE UNIT
(with a trolley or cart when pump must be often moved).



SUBMERGED PUMP
(it is necessary to check the chemical compatibility between pump material and liquid).



PUMP INSTALLED ON HOPPER FOR HIGH VISCOSITY LIQUID
(hopper's height and liquid density influence inlet pressure on the pump which must be not greater than 0.7 bar).



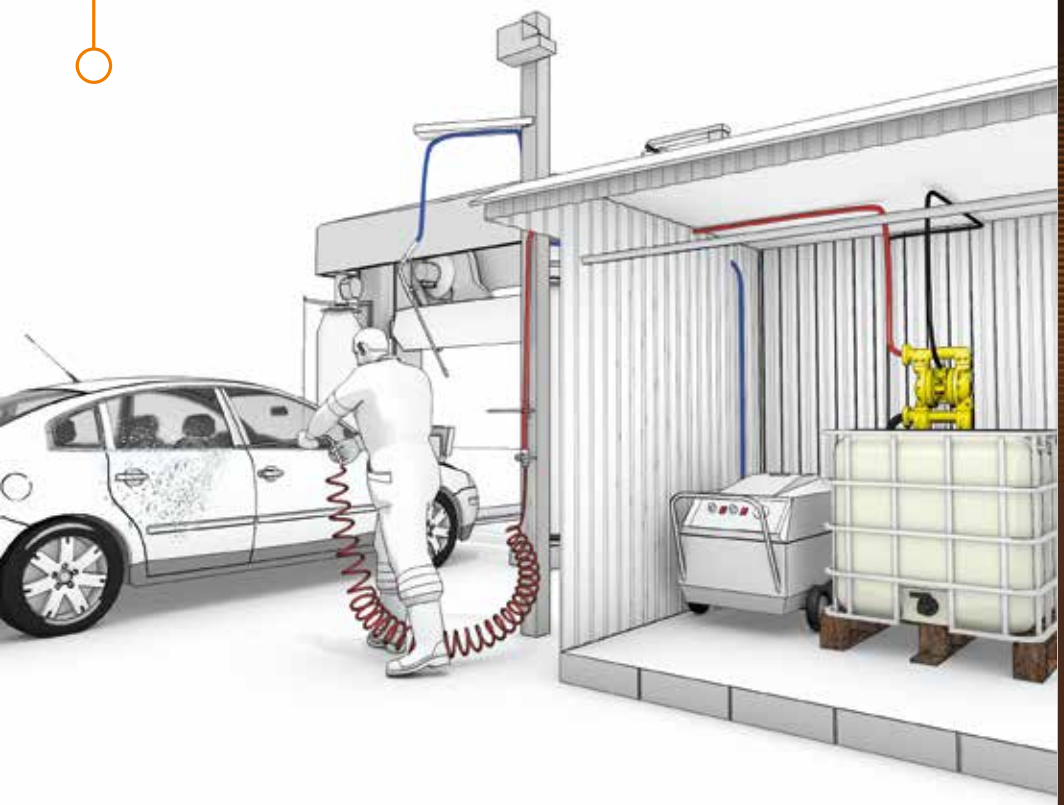
CHEMICAL COMPATIBILITY

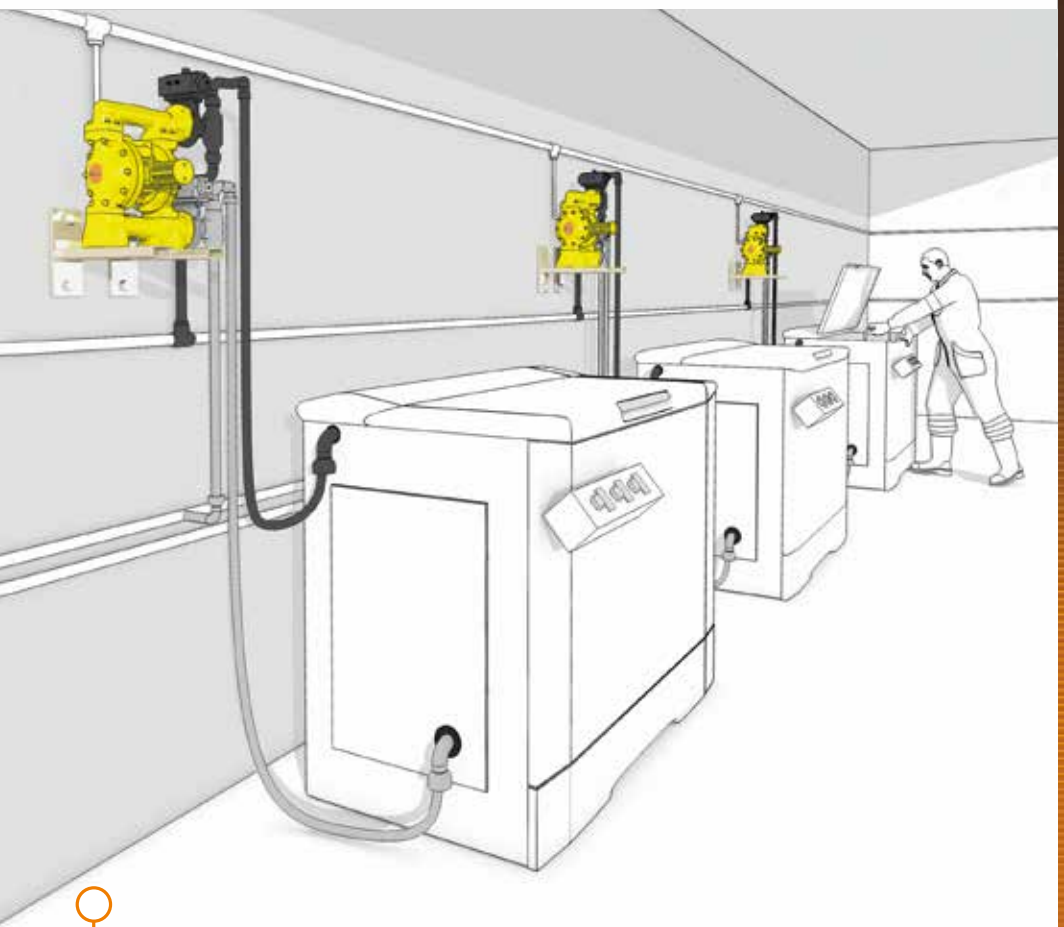
For the specific use, refer to the chemical compatibility table and the specific characteristics required by the user.
For any doubt or thorough check contact our technical department.

Abrasives	Clay, titanium dioxide, filings
Acids	All mineral and organic acids (contact the technical department to verify the compatibility with the percentage of acid used)
Water	All types
Adhesives	Water-based solvents
Alcohols	Methanol, ethanol
Food products	Liquid and semi-solid food products, flavourings (FDA certification is not available)
Beverages	Soft drinks, spirits, beer, wine, milk (FDA certification is not available)
Caustic substances	Acids (contact the technical department to verify the compatibility with the percentage of acid used)
Cement	Cement in powder
Ceramics	Glaze, etc.
Preservative products for wood	Creosote, turpentine, copper naphthenate
Cosmetics	Creams, emulsions, detergents
Muds and discharges	Sewage, discharges, coal and lime slurries
Pharmaceuticals	Liquids, creams and emulsions
Rubber	Rubber, latex
Inks and dyes	Printing inks, drying agents, dyes, adhesives and solvents
Oils	Petrol, Diesel oil, hydraulic and cutting oils, animal and vegetable oils and greases
Pulp	Paper, wood, bonding and whitening agents
Resins	Natural and synthetic, water and solvent-based, monomer and polymer plastics
Solvents	Aromatic and aliphatic, ketones, aldehydes, hydrocarbons, esters and chlorates, antifreeze fluids
Paints	Emulsions, latex, pigments, solvents, resins, thinners

Examples of use

CAR WASH





METAL CLEANING

Diaphragm pumps entirely made of polypropylene are ideal to use in work environments with corrosive atmospheres.
These are some examples of application:

- pumping detergent liquids in car washes
- transfer slip and glaze in the ceramics industry
- distribution of adhesives, paints, cellulose pulp in the paper and printing industry
- pumping of spent acids, dyes and wastewater in the textile and tanning industry
- distribution and mixing of paints in the colors/ varnishes industry
- pumping of corrosive and abrasive products in galvanic applications in the chemical and mechanical sector