DIAPHRAGM PUMPS

No. 224-PM

ADVANCED FLUID
MANAGEMENT SOLUTIONS

5 YEARS WARRANTY

CE Made In Italy

ADVANCED FLUID MANAGEMENT SOLUTIONS

the human side of Quality

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DIAPHRAGM PUMPS

ADVANCED FLUID MANAGEMENT SOLUTIONS

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Accessories

RAASM pneumatic double-diaphragm pumps are designed and manufactured to pump a wide range of fluids even with high viscosities and with suspended solids.

Being ATEX certified, they can also be used for heavy applications, such as in places with high humidity or with potentially explosive atmosphere.

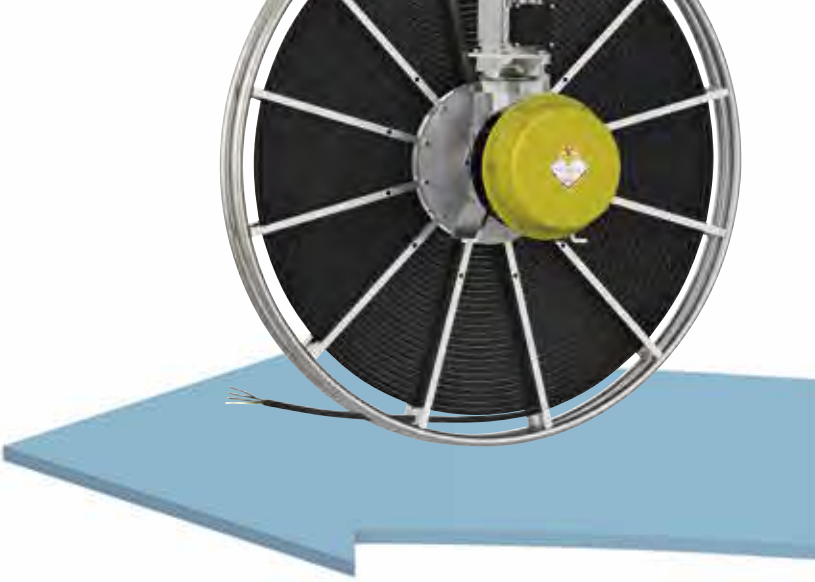
- Self-priming capability
- Easy adjustment of delivery
- Resistance even in case of prolonged no-load operation

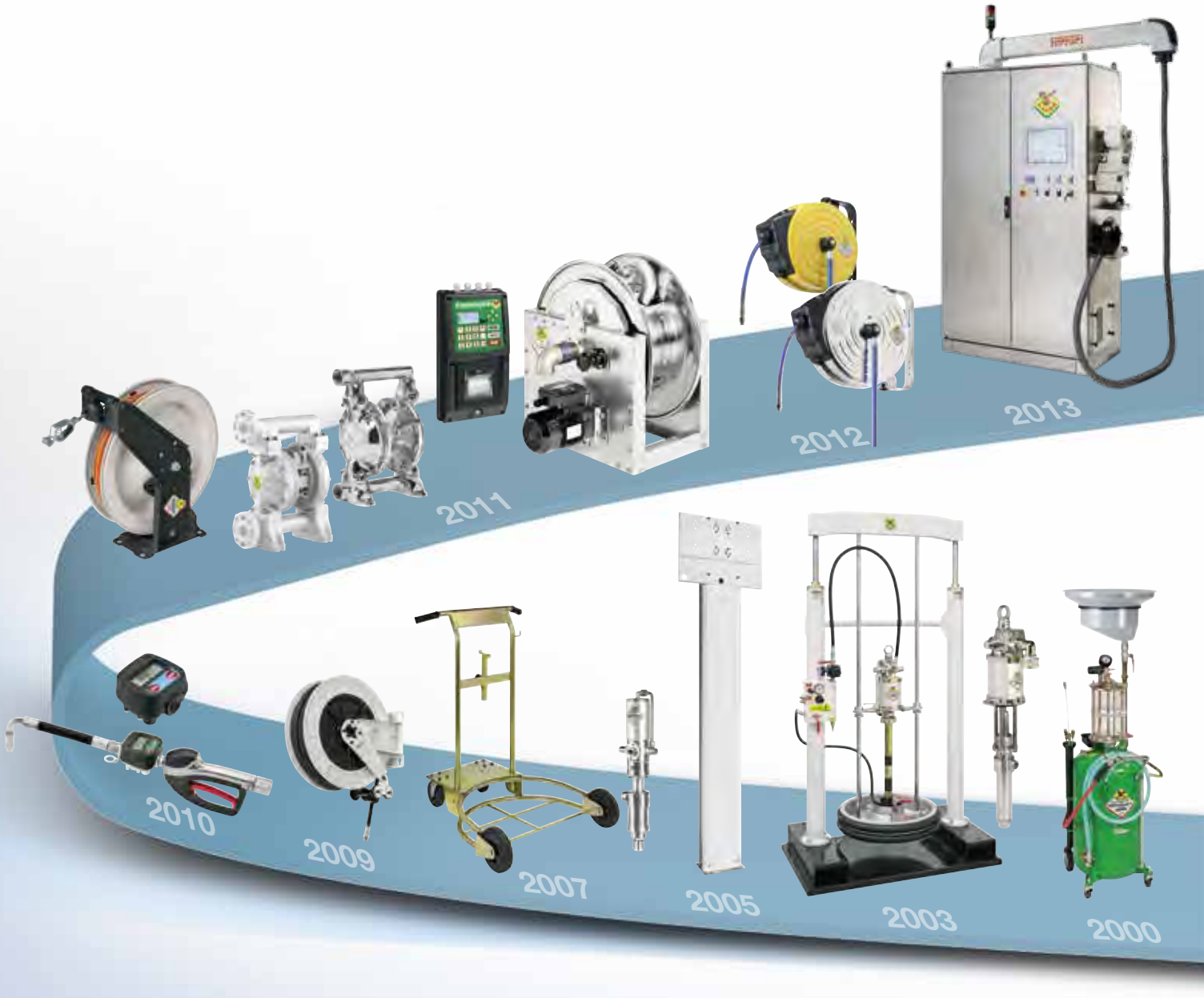
Are some of the features that make these pumps particularly versatile and appreciated in all work environments.
The wide range of materials used for the pumps makes easy to identify the model that has the best chemical compatibility with the fluid to be pumped and for the work environment.

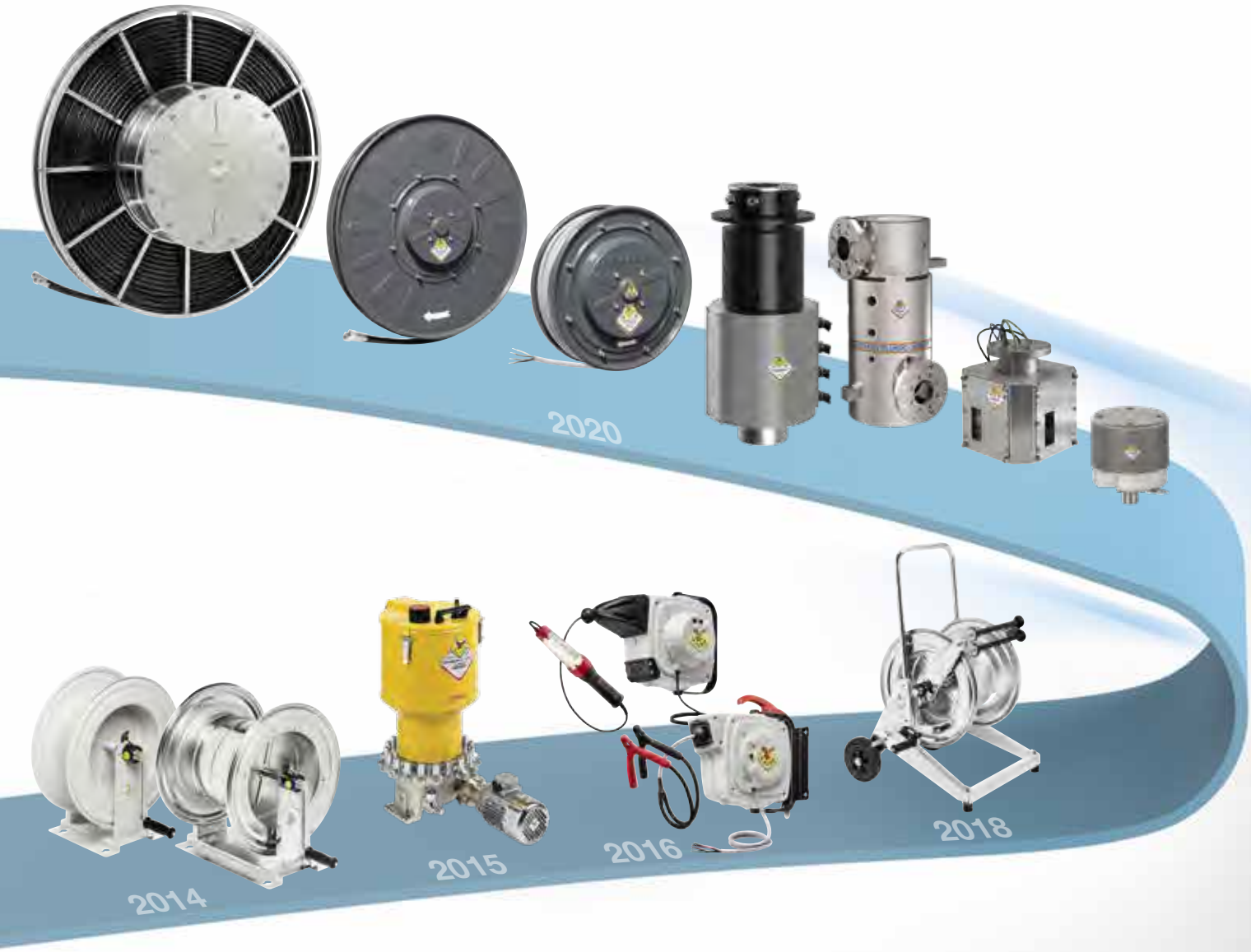
Our sales department is at your disposal to provide information and solutions.

www.raasm.com

ADVANCED FLUID MANAGEMENT SOLUTIONS







More than **5000 products** available **for your business**

ADVANCED FLUID MANAGEMENT SOLUTIONS

VISION

DESIGN

TECHNOLOGY

QUALITY

EFFICIENCY

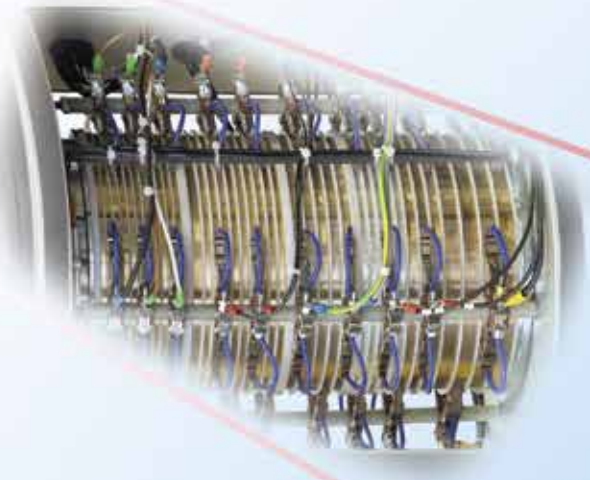
ASSISTANCE

ENVIRONMENT

PACKAGING

SHARING


FUTURE



DIAPHRAGM PUMPS IN ALUMINUM

RAASM diaphragm pumps in die-cast aluminum are manufactured in several sizes and with high quality materials, allowing the pumping of a variety of fluids.

In addition, this type of pump is certified for use in potentially explosive environments according to ATEX directive, making it ideal for use in environments with severe conditions.

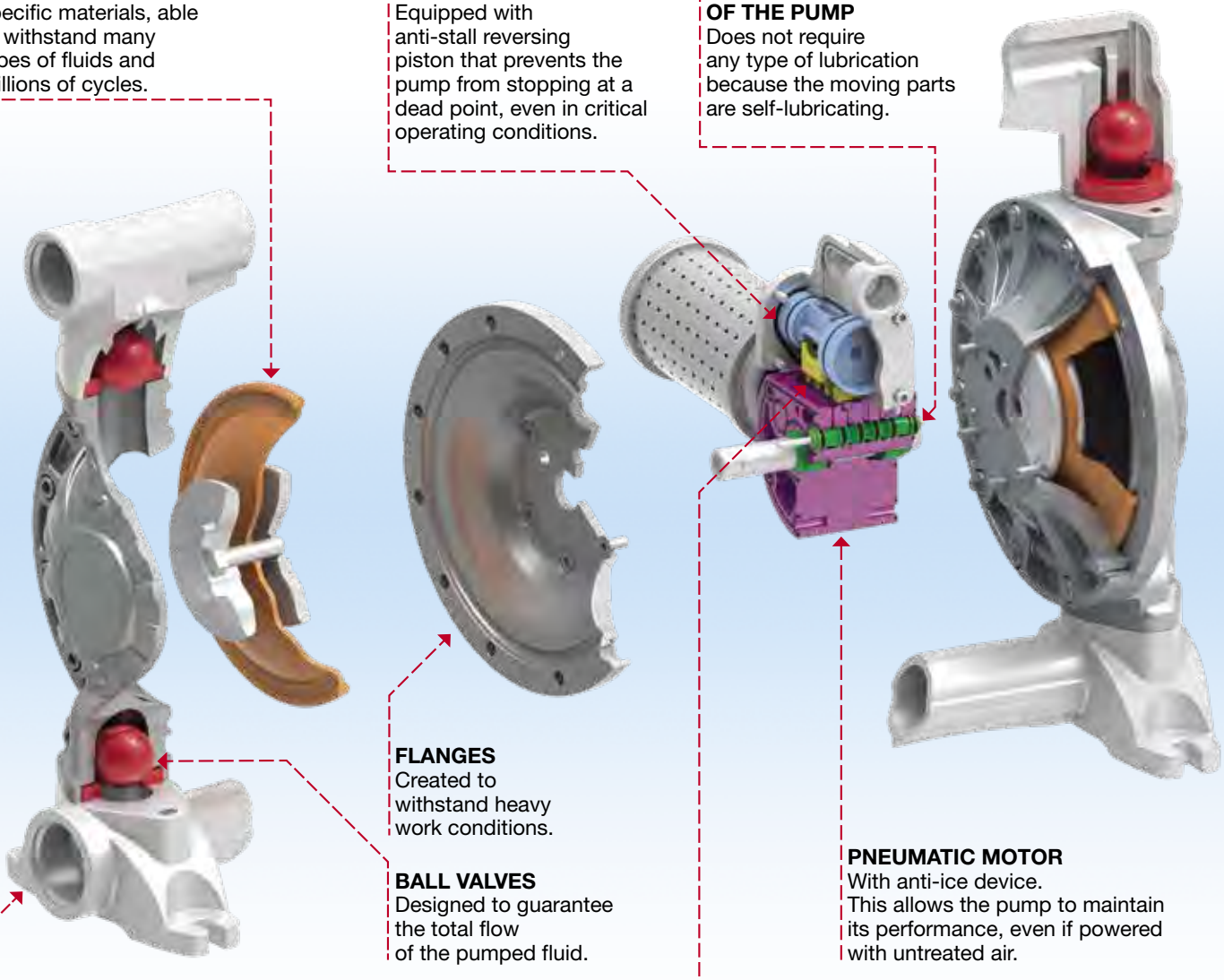
Our technical department is always at your disposal to help you choosing the materials of membranes, balls and seats compatible with the fluid to be pumped.

Technical characteristics

MEMBRANES
Made of different and specific materials, able to withstand many types of fluids and millions of cycles.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.



FLANGES
Created to withstand heavy work conditions.

BALL VALVES
Designed to guarantee the total flow of the pumped fluid.

PNEUMATIC MOTOR
With anti-ice device.
This allows the pump to maintain its performance, even if powered with untreated air.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded or flanged connections available in different diameters, according to the pump models.

AIR DISTRIBUTION VALVE
Ensures perfect operations in any working conditions.
Some examples:
- minimum supply pressures (min. 2 bar);
- critical fluid and environmental temperatures;
- supply pressure fluctuations.

1/2” - Flow rate 70 l/min

1” - Flow rate 170 l/min

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum; they ensure lasting and reliable operation with the most common automotive and industry fluids.

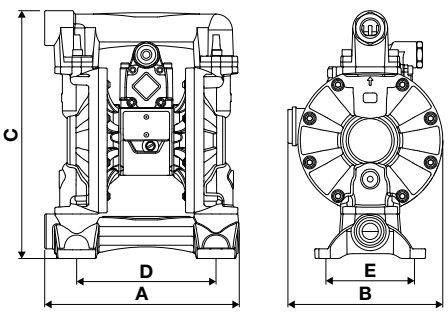
In accordance with directive

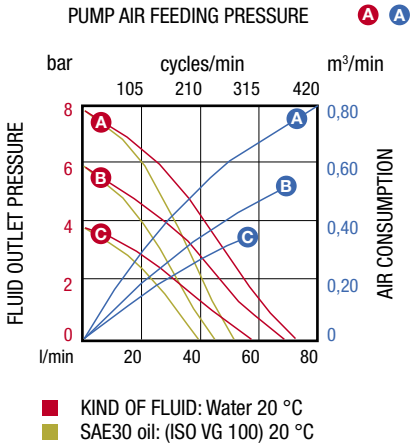
CE Ex II 2 GD

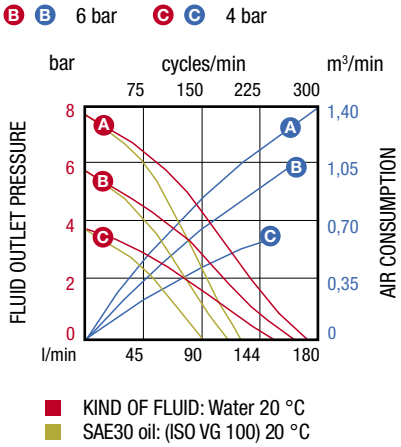
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Model			AAB-12	AAB-1
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	**3C1/16111EAA**	**3C1/26111EAA**
Hytrel®	Hytrel®	Hytrel®	**3C1/16111HHH**	**3C1/26111HHH**
NBR	Hytrel®	Hytrel®	**3C1/16111NHH**	**3C1/26111NHH**
Santoprene™	Santoprene™	Santoprene™	**3C1/16111SSS**	**3C1/26111SSS**
PTFE+Hytrel® *	PTFE	Polypropylene	**3C1/16111TTP**	**3C1/26111TTP**
Max pressure			8 bar	8 bar
Max cycles per min			400 cpm	300 cpm
Litres per cycle **			0,188 l	0,590 l
Max suction lift			dry column 4,5 m - wet column 7,5 m	dry column 5 m - wet column 7,5 m
Max size pumpable solids			1,5 mm	3 mm
Max working temperature ***			100 °C	100 °C
Noise level			75 dB	75 dB
Max air consumption			0,80 m³/min	1,40 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1/2” (f)
Fluid inlet connection			G 3/4” (f)	G 1.1/4” (f)
Fluid outlet connection			G 1/2” (f)	G 1” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			201 - 160 - 256 - 145 - 100 mm	261 - 200 - 345 - 182 - 130 mm
Screws for pump fixing			M8	M10
Packing - Weight			N° 1 0,02 m³ 6,3 kg	No. 1 0,03 m³ 12 kg

* 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



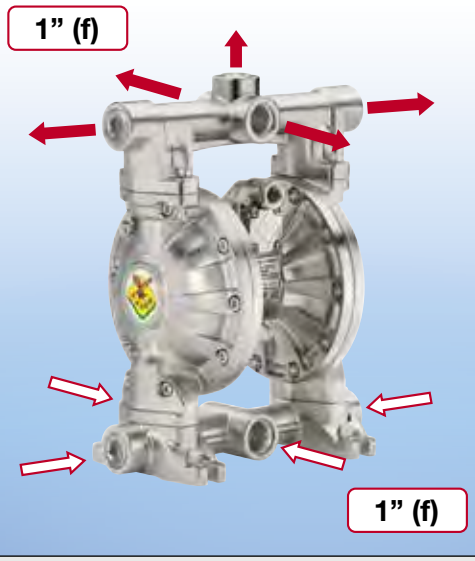




1” - Flow rate 170 l/min

1.1/4” - Flow rate 200 l/min

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum; they ensure lasting and reliable operation with the most common automotive and industry fluids.



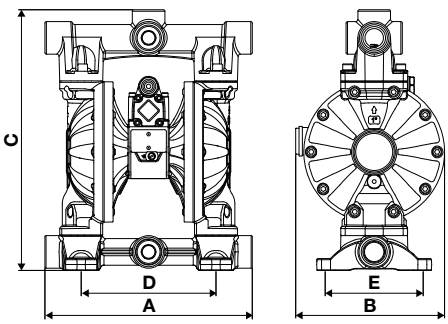
In accordance with directive

CE Ex II 2 GD

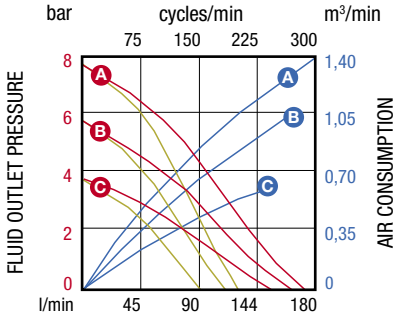
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Model			AAB-1-9 with multiple inlet/outlet	AAB-114
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	3C3/26111EAA	3C1/30111EAA
Hytrel®	Hytrel®	Hytrel®	3C3/26111HHH	3C1/30111HHH
NBR	Hytrel®	Hytrel®	3C3/26111NHH	3C1/30111NHH
Santoprene™	Santoprene™	Santoprene™	3C3/26111SSS	3C1/30111SSS
PTFE+Hytrel® *	PTFE	Polypropylene	3C3/26111TTP	3C1/30111TTP
Max pressure			8 bar	8 bar
Max cycles per min			300 cpm	260 cpm
Litres per cycle **			0,590 l	0,800 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 ***			100 °C	100 °C
Noise level			75 dB	75 dB
Max air consumption			1,40 m³/min	1,80 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/4” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1” (f)
Fluid inlet connection			4 x G 1” (f)	G 1.1/4” (f)
Fluid outlet connection			5 x G 1” (f)	G 1.1/4” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			280 - 200 - 352 - 182 - 130 mm	286 - 238 - 386 - 199 - 137 mm
Screws for pump fixing			M10	M10
Packing - Weight			No. 1 0,03 m³ 13 kg	No. 1 0,03 m³ 15 kg

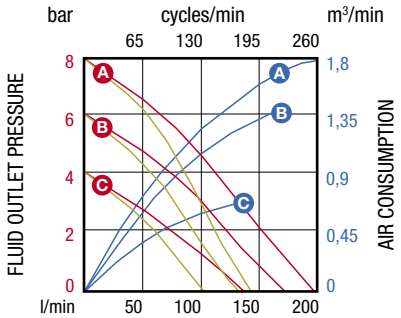
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature



PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



KIND OF FLUID: Water 20 °C
SAEE30 oil: (ISO VG 100) 20 °C



KIND OF FLUID: Water 20 °C
SAE30 oil: (ISO VG 100) 20 °C

Diaphragm pumps R. 1:1 for transferring,
made of die-cast aluminum; they ensure lasting and reliable operation with the most common automotive and industry fluids.

In accordance with directive

CE Ex II 2 GD

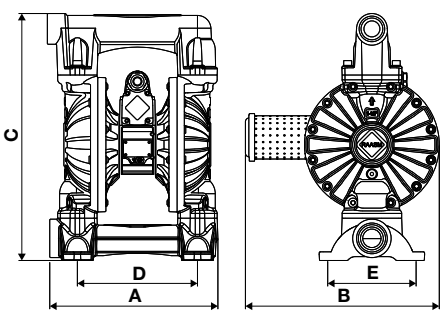
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

1.1/2" - Flow rate 480 l/min

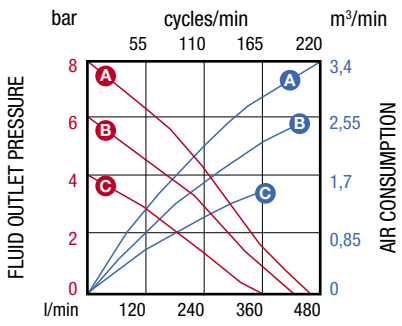
2" - Flow rate 610 l/min

Model			AAB-112	AAB-2
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	**3C1/40111EAA**	**3C1/50111EAA**
Hytrel®	Hytrel®	Hytrel®	**3C1/40111HHH**	**3C1/50111HHH**
NBR	Hytrel®	Hytrel®	**3C1/40111NHH**	**3C1/50111NHH**
Santoprene™	Santoprene™	Santoprene™	**3C1/40111SSS**	**3C1/50111SSS**
PTFE+Hytrel® *	PTFE	Polypropylene	**3C1/40111TTP**	**3C1/50111TTP**
Max pressure			8 bar	8 bar
Max cycles per min			220 cpm	147 cpm
Litres per cycle **			2,150 l	4,150 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			5,5 mm	6,5 mm
Max working temperature ***			100 °C	100 °C
Noise level			78 dB	82 dB
Max air consumption			3,40 m³/min	4,00 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/4" (f)	G 3/4" (f)
Air outlet connection (muffler)			G 1" (f)	G 1" (f)
Fluid inlet connection			G 2" (f)	G 2.1/2" (f)
Fluid outlet connection			G 1.1/2" (f)	G 2" (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			350 - 402 - 514 - 250 - 182 mm	427 - 435 - 616 - 305 - 227 mm
Screws for pump fixing			M12	M12
Packing - Weight			No. 1 0,07 m³ 21,5 kg	No. 1 0,12 m³ 43 kg

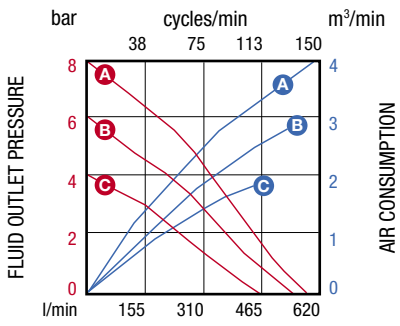
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature



PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



KIND OF FLUID: Water 20 °C



KIND OF FLUID: Water 20 °C

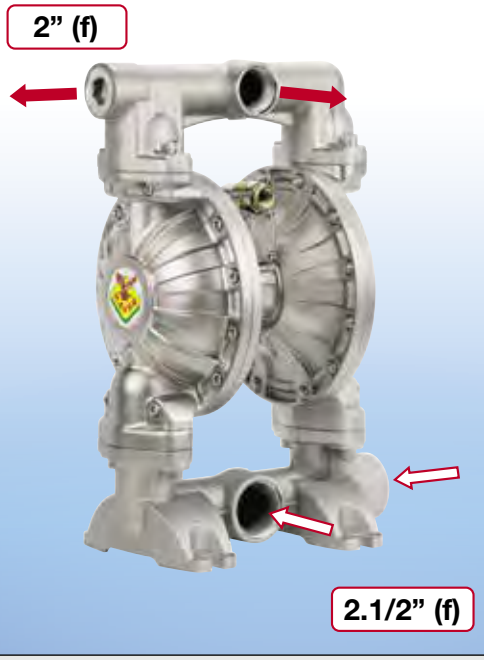
Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum; they ensure lasting and reliable operation with the most common automotive and industry fluids. Flanges could be rotated of 90° or 180° to help the fluid inlet and outlet and the plant connection.

In accordance with directive

CE Ex II 2 GD

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

2" - Flow rate 610 l/min

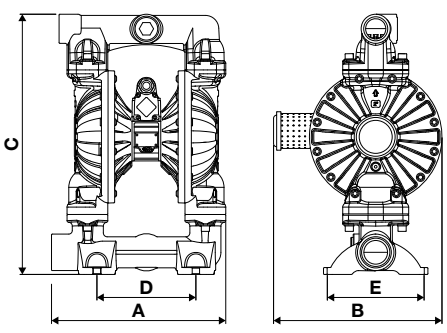


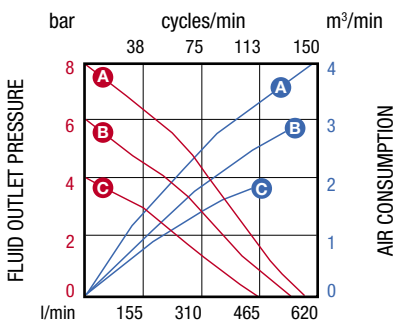
2" - Flow rate 580 l/min

Model			AAB-2 with multiple inlet/outlet	AABM-2 modular
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	3C3/50111EAA	3C6/50111EAA
Hytrel®	Hytrel®	Hytrel®	3C3/50111HHH	3C6/50111HHH
NBR	Hytrel®	Hytrel®	3C3/50111NHH	3C6/50111NHH
Santoprene™	Santoprene™	Santoprene™	3C3/50111SSS	3C6/50111SSS
PTFE+Hytrel® *	PTFE	Polypropylene	3C3/50111TTP	3C6/50111TTP
Max pressure			8 bar	8 bar
Max cycles per min			147 cpm	147 cpm
Litres per cycle **			4,150 l	3,950 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			6,5 mm	6,5 mm
Max working temperature ***			100 °C	100 °C
Noise level			82 dB	82 dB
Max air consumption			4,00 m³/min	4,00 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/4" (f)	G 3/4" (f)
Air outlet connection (muffler)			G 1" (f)	G 1" (f)
Fluid inlet connection			G 2.1/2" (f)	ANSI 150 - DIN PN 10 - JIS 10K 2" (50 mm)
Fluid outlet connection			G 2" (f)	ANSI 150 - DIN PN 10 - JIS 10K 2" (50 mm)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			449 - 435 - 675 - 255 - 227 mm	410 - 435 - 710 - 305 - 238 mm
Screws for pump fixing			M12	M12
Packing - Weight			No. 1 0,12 m³ 45 kg	No. 1 0,13 m³ 50 kg

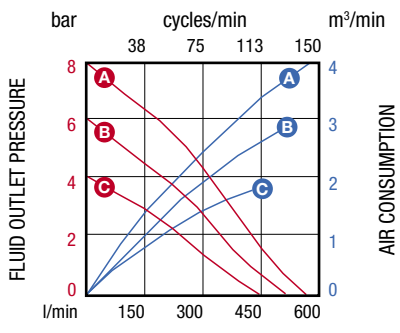
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature

PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar





KIND OF FLUID: Water 20 °C



KIND OF FLUID: Water 20 °C

DIAPHRAGM PUMPS IN ALUMINUM WITH TREATMENT IN CATAPHORESIS

RAASM diaphragm pumps with cataphoresis treatment are the ideal solution for use in particularly aggressive working environments thanks to the coating of a protective layer that ensures high resistance to chemical and environmental corrosion processes.

POWERCRON® 6000 HE cataphoresis treatment ensures better coating of the paint film over the entire surface of the pump, with significant benefits in terms of durability.

In addition, they can be used in applications with potentially explosive atmospheres thanks to their compliance with the ATEX directive.

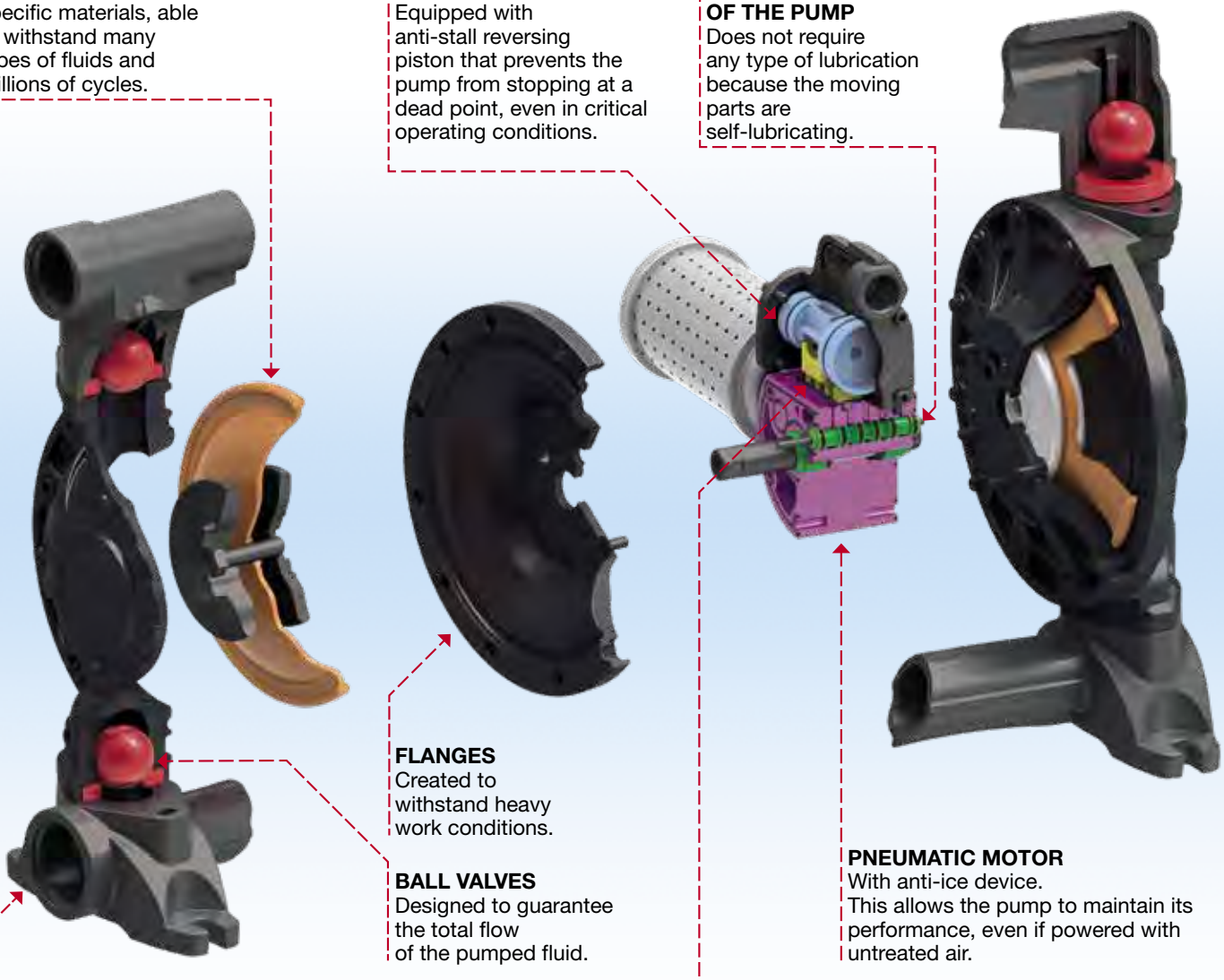
Our technical department is always at your disposal to help you choosing the materials of membranes, balls and seats compatible with the fluid to be pumped.

Technical characteristics

MEMBRANES
Made of different and specific materials, able to withstand many types of fluids and millions of cycles.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.



FLANGES
Created to withstand heavy work conditions.

BALL VALVES
Designed to guarantee the total flow of the pumped fluid.

PNEUMATIC MOTOR
With anti-ice device.
This allows the pump to maintain its performance, even if powered with untreated air.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded or flanged connections available in different diameters, according to the pump models.

AIR DISTRIBUTION VALVE
Ensures perfect operations in any working conditions.
Some examples:
- minimum supply pressures (min. 2 bar);
- critical fluid and environmental temperatures;
- supply pressure fluctuations.

1/2” - Flow rate 70 l/min

1” - Flow rate 170 l/min

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum, with black cataphoresis treatment that guarantees resistance up to 500 hours in saline fog.

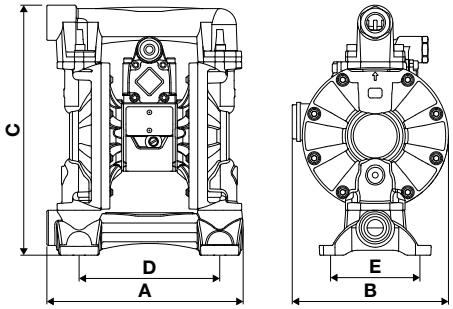
In accordance with directive

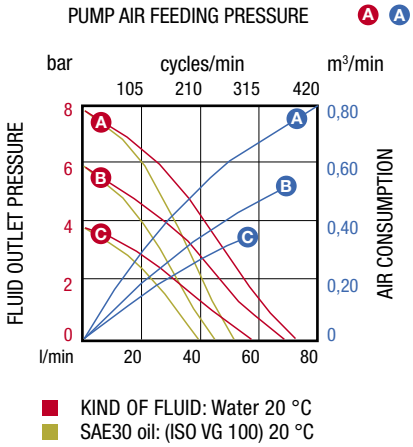
CE Ex II 2 GD

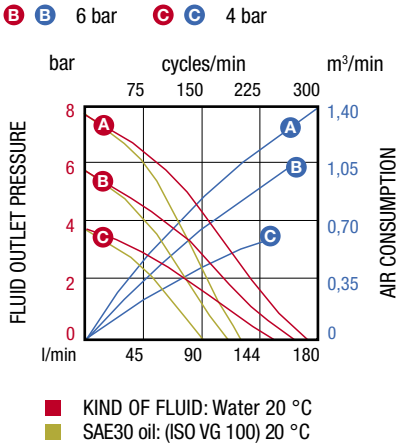
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Model			AAB-12	AAB-1
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	**3C1/1666VEAA**	**3C1/2666VEAA**
Hytrel®	Hytrel®	Hytrel®	**3C1/1666VHHH**	**3C1/2666VHHH**
NBR	Hytrel®	Hytrel®	**3C1/1666VNHH**	**3C1/2666VNHH**
Santoprene™	Santoprene™	Santoprene™	**3C1/1666VSSS**	**3C1/2666VSSS**
PTFE+Hytrel® *	PTFE	Polypropylene	**3C1/1666VTTP**	**3C1/2666VTTP**
Max pressure			8 bar	8 bar
Max cycles per min			400 cpm	300 cpm
Litres per cycle **			0,188 l	0,590 l
Max suction lift			dry column 4,5 m - wet column 7,5 m	dry column 5 m - wet column 7,5 m
Max size pumpable solids			1,5 mm	3 mm
Max working temperature ***			100 °C	100 °C
Noise level			75 dB	75 dB
Max air consumption			0,80 m³/min	1,40 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1/2” (f)
Fluid inlet connection			G 3/4” (f)	G 1.1/4” (f)
Fluid outlet connection			G 1/2” (f)	G 1” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			201 - 160 - 256 - 145 - 100 mm	261 - 200 - 345 - 182 - 130 mm
Screws for pump fixing			M8	M10
Packing - Weight			No. 1 0,02 m³ 6,3 kg	No. 1 0,03 m³ 12 kg

* 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







1” - Flow rate 170 l/min

1.1/4” - Flow rate 200 l/min

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum, with black cataphoresis treatment that guarantees resistance up to 500 hours in saline fog.

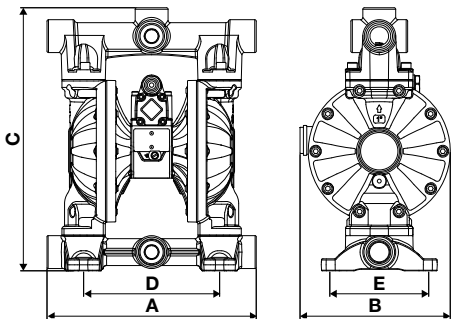
In accordance with directive

CE Ex II 2 GD

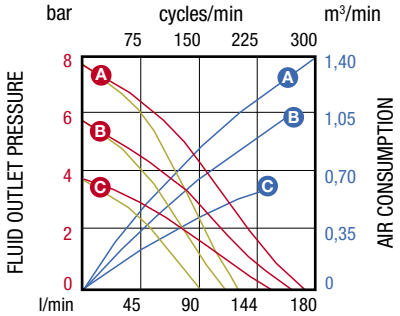
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Model			AAB-1-9 with multiple inlet/outlet	AAB-114
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	3C3/2666VEAA	3C1/3066VEAA
Hytrel®	Hytrel®	Hytrel®	3C3/2666VHHH	3C1/3066VHHH
NBR	Hytrel®	Hytrel®	3C3/2666VNHH	3C1/3066VNHH
Santoprene™	Santoprene™	Santoprene™	3C3/2666VSSS	3C1/3066VSSS
PTFE+Hytrel® *	PTFE	Polypropylene	3C3/2666VTTP	3C1/3066VTTP
Max pressure			8 bar	8 bar
Max cycles per min			300 cpm	260 cpm
Litres per cycle **			0,590 l	0,800 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 ***			100 °C	100 °C
Noise level			75 dB	75 dB
Max air consumption			1,40 m³/min	1,80 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/4” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1” (f)
Fluid inlet connection			4 x G 1” (f)	G 1.1/4” (f)
Fluid outlet connection			5 x G 1” (f)	G 1.1/4” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			280 - 200 - 352 - 182 - 130 mm	286 - 238 - 386 - 199 - 137 mm
Screws for pump fixing			M10	M10
Packing - Weight			No. 1 0,03 m³ 13 kg	No. 1 0,03 m³ 15 kg

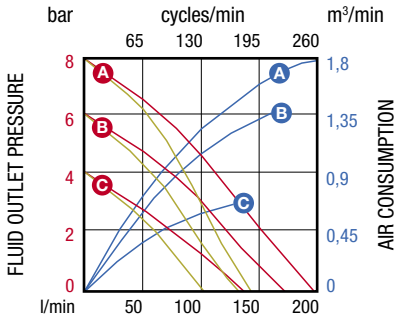
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature



PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



KIND OF FLUID: Water 20 °C
SAE30 oil: (ISO VG 100) 20 °C



KIND OF FLUID: Water 20 °C
SAE30 oil: (ISO VG 100) 20 °C

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum, with black cataphoresis treatment that guarantees resistance up to 500 hours in saline fog.

In accordance with directive

CE Ex II 2 GD

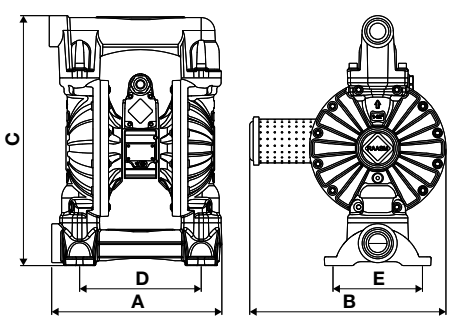
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

1.1/2" - Flow rate 480 l/min

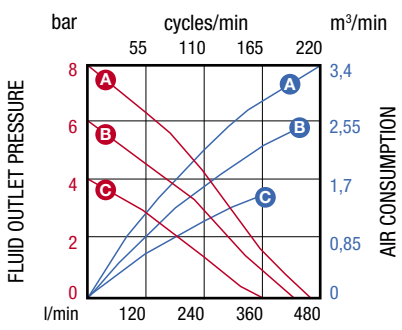
2" - Flow rate 610 l/min

Model			AAB-112	AAB-2
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	3C1/4066VEAA	3C1/5066VEAA
Hytrel®	Hytrel®	Hytrel®	3C1/4066VHHH	3C1/5066VHHH
NBR	Hytrel®	Hytrel®	3C1/4066VNHH	3C1/5066VNHH
Santoprene™	Santoprene™	Santoprene™	3C1/4066VSSS	3C1/5066VSSS
PTFE+Hytrel® *	PTFE	Polypropylene	3C1/4066VTTP	3C1/5066VTTP
Max pressure			8 bar	8 bar
Max cycles per min			220 cpm	147 cpm
Litres per cycle **			2,150 l	4,150 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			5,5 mm	6,5 mm
Max working temperature ***			100 °C	100 °C
Noise level			78 dB	82 dB
Max air consumption			3,40 m³/min	4,00 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/4" (f)	G 3/4" (f)
Air outlet connection (muffler)			G 1" (f)	G 1" (f)
Fluid inlet connection			G 2" (f)	G 2.1/2" (f)
Fluid outlet connection			G 1.1/2" (f)	G 2" (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			350 - 402 - 514 - 250 - 182 mm	427 - 435 - 616 - 305 - 227 mm
Screws for pump fixing			M12	M12
Packing - Weight			No. 1 0,07 m³ 21,5 kg	No. 1 0,12 m³ 43 kg

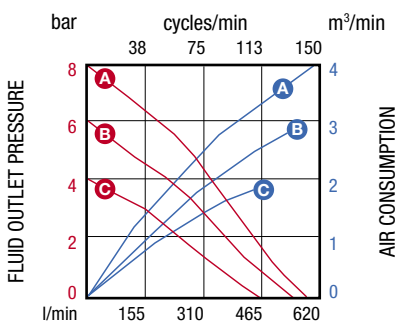
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature



PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



■ KIND OF FLUID: Water 20 °C



■ KIND OF FLUID: Water 20 °C

Diaphragm pumps R. 1:1 for transferring, made of die-cast aluminum, with black cataphoresis treatment that guarantees resistance up to 500 hours in saline fog.

In accordance with directive

CE Ex II 2 GD

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

2” - Flow rate 610 l/min

2” (f)

2.1/2” (f)

2” - Flow rate 580 l/min

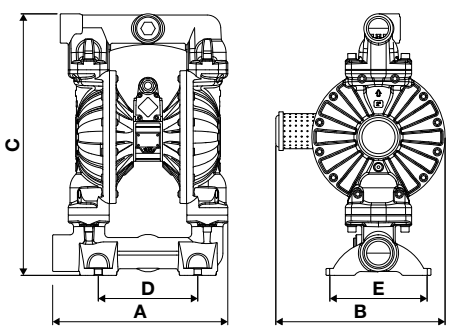
with FLANGE 2”

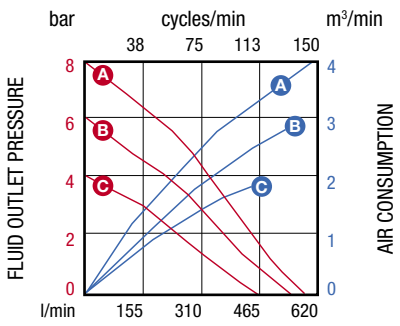
with FLANGE 2”

Model			AAB-2 with multiple inlet/outlet	AABM-2 modular
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Acetal	3C3/5066VEAA	3C6/5066VEAA
Hytrel®	Hytrel®	Hytrel®	3C3/5066VHHH	3C6/5066VHHH
NBR	Hytrel®	Hytrel®	3C3/5066VNHH	3C6/5066VNHH
Santoprene™	Santoprene™	Santoprene™	3C3/5066VSSS	3C6/5066VSSS
PTFE+Hytrel® *	PTFE	Polypropylene	3C3/5066VTTP	3C6/5066VTTP
Max pressure			8 bar	8 bar
Max cycles per min			147 cpm	147 cpm
Litres per cycle **			4,150 l	3,950 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			6,5 mm	6,5 mm
Max working temperature ***			100 °C	100 °C
Noise level			82 dB	82 dB
Max air consumption			4,00 m³/min	4,00 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/4” (f)	G 3/4” (f)
Air outlet connection (muffler)			G 1” (f)	G 1” (f)
Fluid inlet connection			G 2.1/2” (f)	ANSI 150 - DIN PN 10 - JIS 10K 2” (50 mm)
Fluid outlet connection			G 2” (f)	ANSI 150 - DIN PN 10 - JIS 10K 2” (50 mm)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			449 - 435 - 675 - 255 - 227 mm	410 - 435 - 710 - 305 - 238 mm
Screws for pump fixing			M12	M12
Packing - Weight			No. 1 0,12 m³ 45 kg	No. 1 0,13 m³ 50 kg

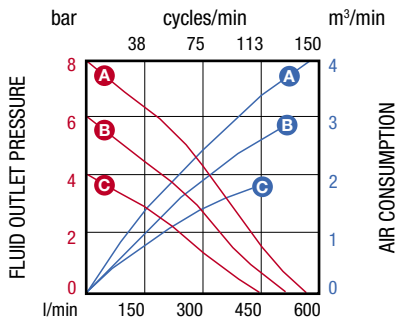
* With PTFE membrane flow rate is 10 % lower ** Displacement per cycle may be influenced by suction lift, fluid viscosity, air pressure, number of cycles per minute
*** The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature

PUMP AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar

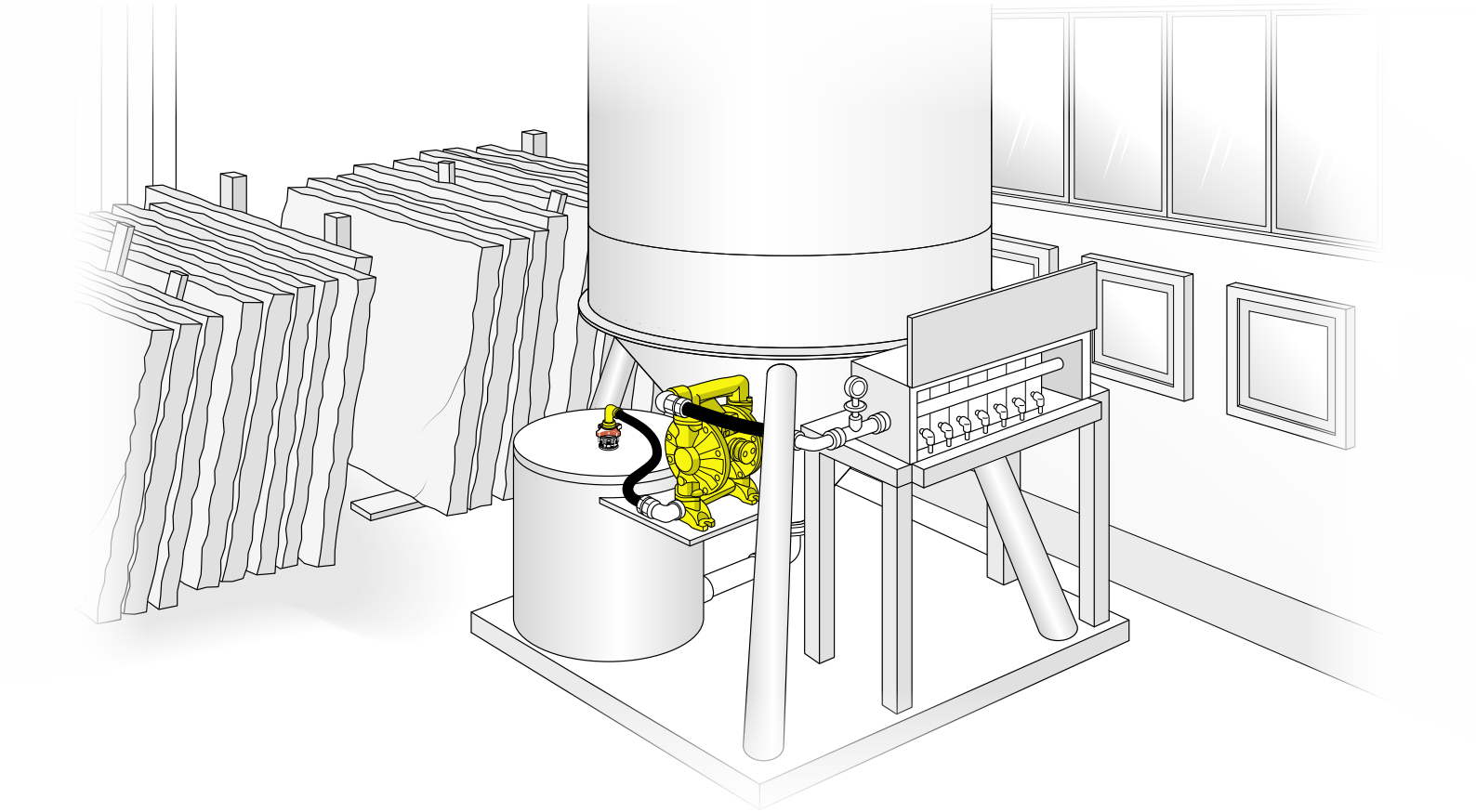


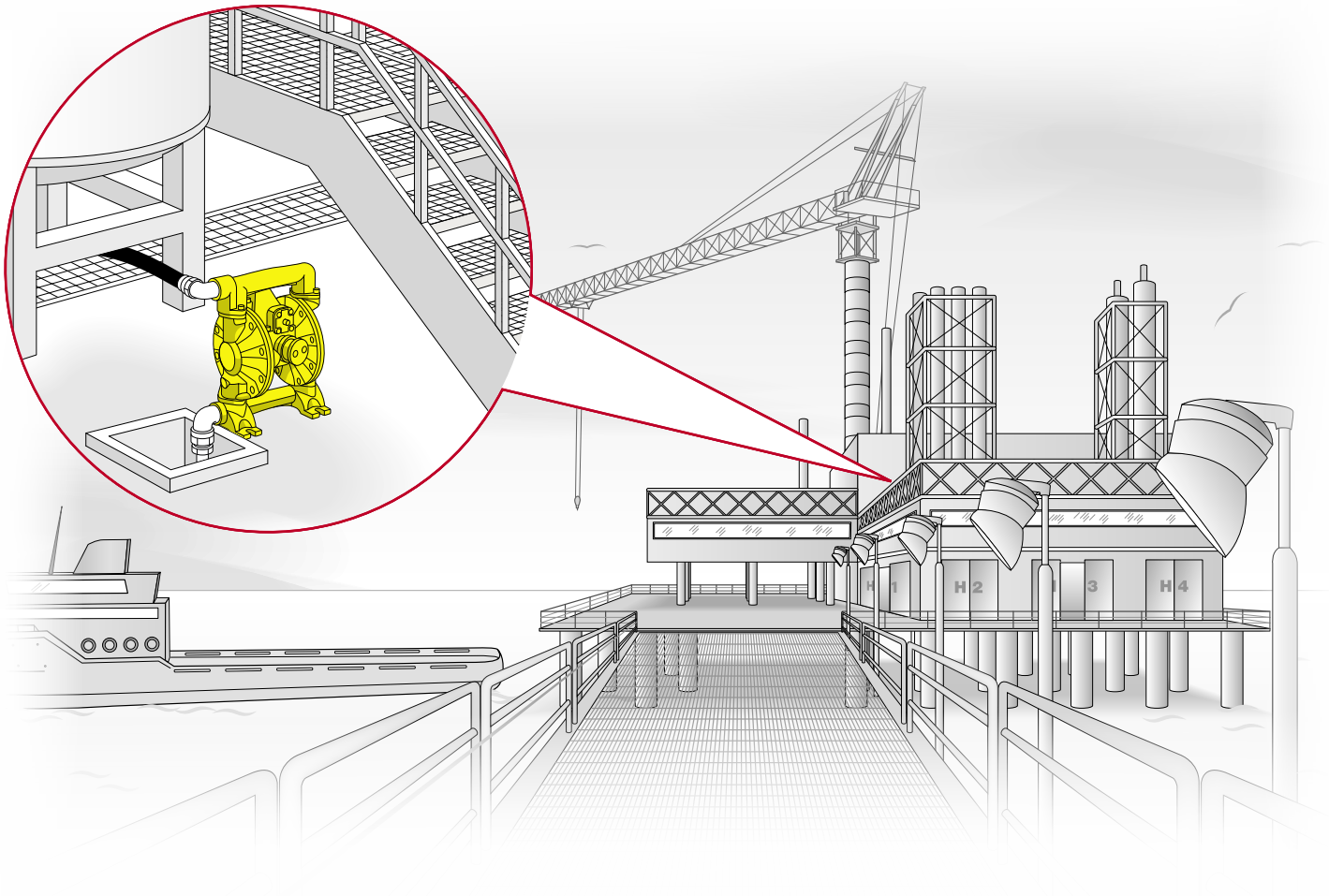


KIND OF FLUID: Water 20 °C



KIND OF FLUID: Water 20 °C




H 1
H 2
H 3
H 4

STAINLESS STEEL DIAPHRAGM PUMPS WITH ALUMINUM MOTOR

RAASM diaphragm pumps in AISI 316 stainless steel with aluminum motor are versatile and easy to use, suitable for a wide variety of industrial applications.

AISI 316 stainless steel is a material with high mechanical and thermal resistance, ideal for use with corrosive agents or in particularly harsh environments.

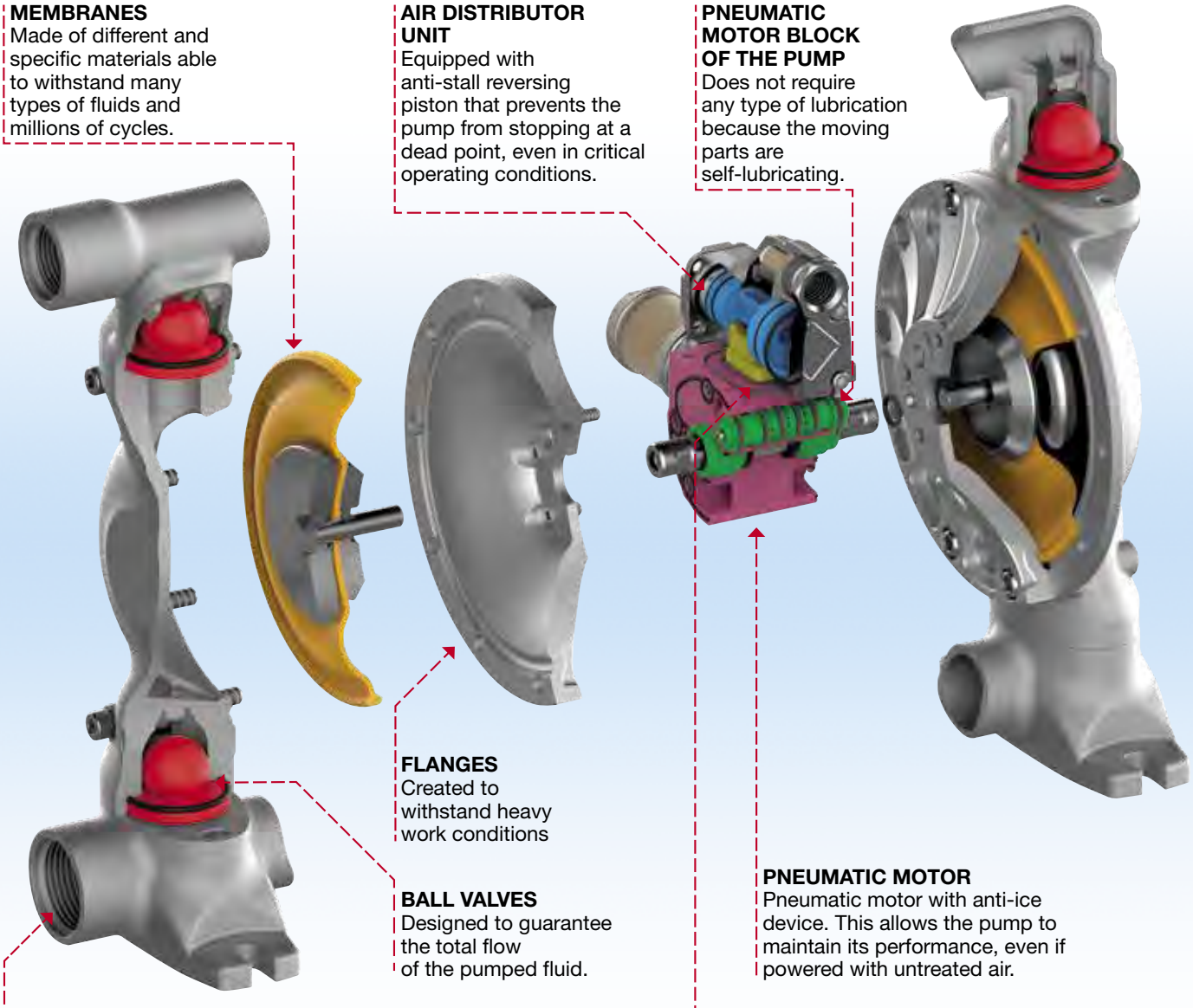
Moreover, they can be used in applications with a potentially explosive atmosphere thanks to their compliance with the ATEX directive.

Technical characteristics

MEMBRANES
Made of different and specific materials able to withstand many types of fluids and millions of cycles.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.



FLANGES
Created to withstand heavy work conditions

BALL VALVES
Designed to guarantee the total flow of the pumped fluid.

PNEUMATIC MOTOR
Pneumatic motor with anti-ice device. This allows the pump to maintain its performance, even if powered with untreated air.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded or flanged connections available in different diameters according to the pump models.

AIR DISTRIBUTION VALVE
Ensures perfect operations in any working conditions. Some examples:
- minimum supply pressures (min. 2 bar);
- critical fluid and environmental temperatures;
- supply pressure fluctuations.

1” - Flow rate 150 l/min

The R 1:1 diaphragm pumps made of AISI 316 stainless steel with aluminum motor ensure reliability and efficiency.

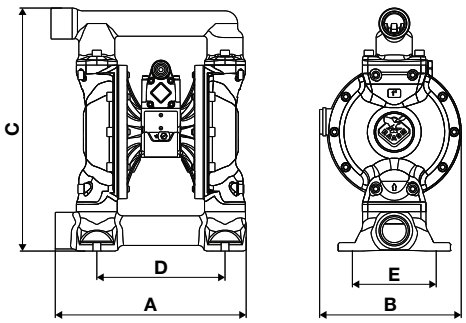
In accordance with directive

CE Ex II 2 GD

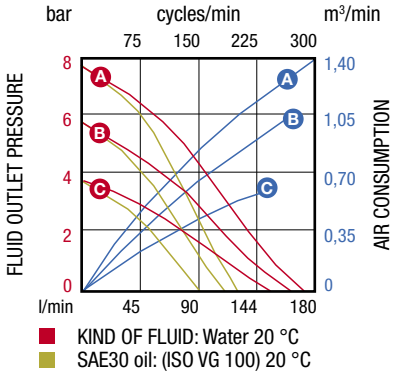
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

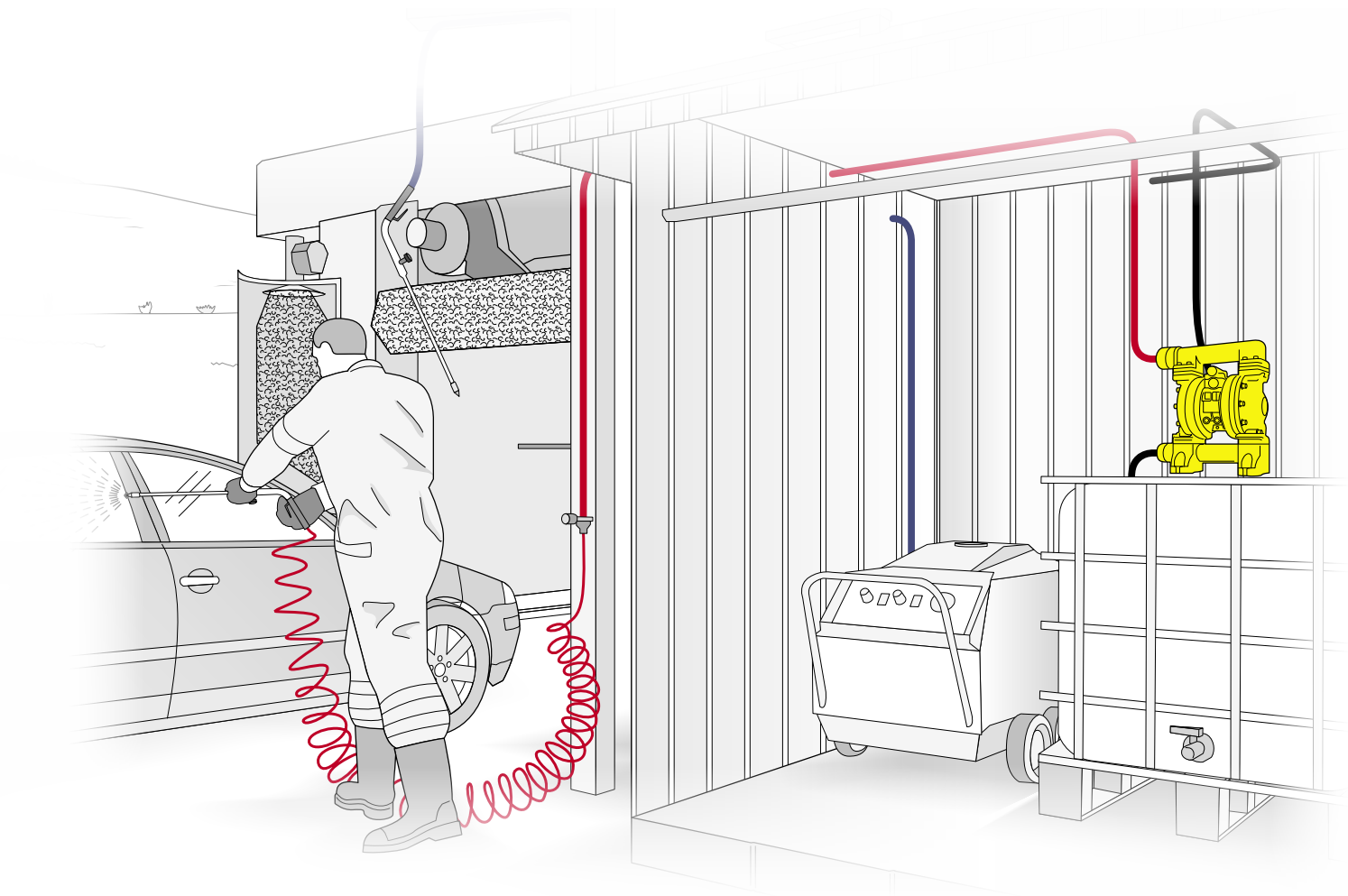
Model			AIB-1
Membranes	**Balls**	**Seats**	**P/N**
PTFE+Hytrel®	PTFE	AISI 316 stainless steel	**4C1/26415TTI**
Max pressure			8 bar
Litres per cycle *			0,590 l
Max suction lift			dry column 5 m - wet column 7,5 m
Max size pumpable solids			3 mm
Max working temperature **			100 °C
Noise level			75 dB
Max air consumption			1,4 m³/min
Air working pressure			3 - 8 bar
Air inlet connection			G 3/8” (f)
Air outlet connection (muffler)			G 1/2” (f)
Fluid inlet connection			G 1.1/4” (f)
Fluid outlet connection			G 1” (f)
Balls for inlet and outlet			
Overall dimensions (A - B - C - D - E)			271 - 201 - 345 - 182 - 130 mm
Screws for pump fixing			M10
Packing - Weight			No. 1 0,03 m³ 25 kg

* 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 AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar





STAINLESS STEEL DIAPHRAGM PUMPS WITH POLYPROPYLENE MOTOR

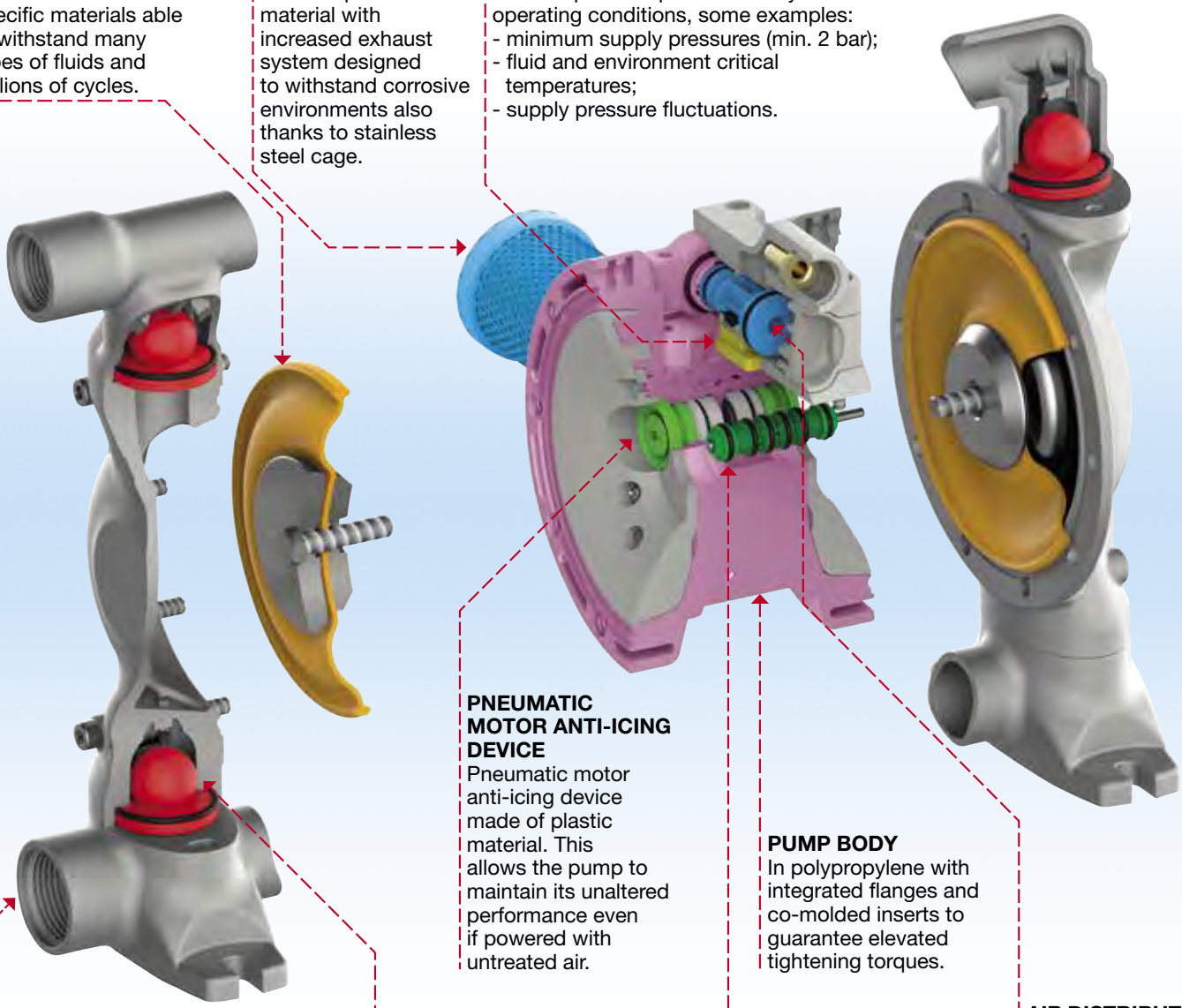
RAASM AISI 316 stainless steel diaphragm pumps with polypropylene motor are designed to handle particularly aggressive fluids (acids and alkalis) and are the ideal solution to be used in many working environments, even the most aggressive.

Technical characteristics

MEMBRANES
Made of different and specific materials able to withstand many types of fluids and millions of cycles.

SILENCER
Made of plastic material with increased exhaust system designed to withstand corrosive environments also thanks to stainless steel cage.

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.



PNEUMATIC MOTOR ANTI-ICING DEVICE
Pneumatic motor anti-icing device made of plastic material. This allows the pump to maintain its unaltered performance even if powered with untreated air.

PUMP BODY
In polypropylene with integrated flanges and co-molded inserts to guarantee elevated tightening torques.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded or flanged connections available in different diameters according to the pump models.

BALLS AND BALL SEATS
Available in many types of materials to guarantee chemical compatibility according to the fluid to be pumped. Easy to clean or replace as required.

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.

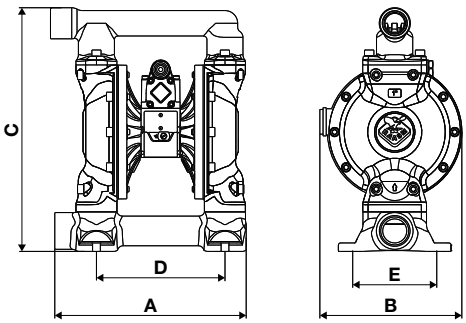
1” - Flow rate 130 l/min

The R 1:1 diaphragm pumps made of AISI 316 stainless steel with polypropylene motor ensure reliability and efficiency.

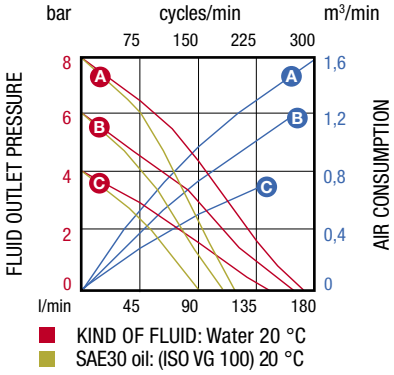
Note: The max flow rate shown in the below graphics has been obtained by laboratory test.

Model			PPIB-1
Membranes	Balls	Seats	P/N
PTFE+Hytrel®	PTFE	AISI 316 stainless steel	2A1/26775TTI
Max pressure			8 bar
Litres per cycle *			0,540 l
Max suction lift			dry column 5 m - wet column 7,5 m
Max size pumpable solids			3 mm
Max working temperature **			65 °C
Noise level			78 dB
Max air consumption			1,1 m³/min
Air working pressure			3 - 8 bar
Air inlet connection			G 3/8” (f)
Air outlet connection (muffler)			G 3/4” (f)
Fluid inlet connection			G 1.1/4” (f)
Fluid outlet connection			G 1” (f)
Balls for inlet and outlet			
Overall dimensions (A - B - C - D - E)			271 - 201 - 345 - 182 - 130 mm
Screws for pump fixing			M10
Packing - Weight			No. 1 0,03 m³ 24 kg

* 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 AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



DIAPHRAGM PUMPS IN POLYPROPYLENE WITH ALUMINUM MOTOR

RAASM polypropylene diaphragm pumps with aluminum motor are designed to handle particularly aggressive fluids (acids and alkalis) and are the ideal solution to be used in many working environments, even the most aggressive.

The screws on these pumps are made entirely of stainless steel to ensure quality, longevity and a better aesthetic design of the product.

Furthermore, they can be used in applications with a potentially explosive atmosphere thanks to their compliance with the ATEX directive.

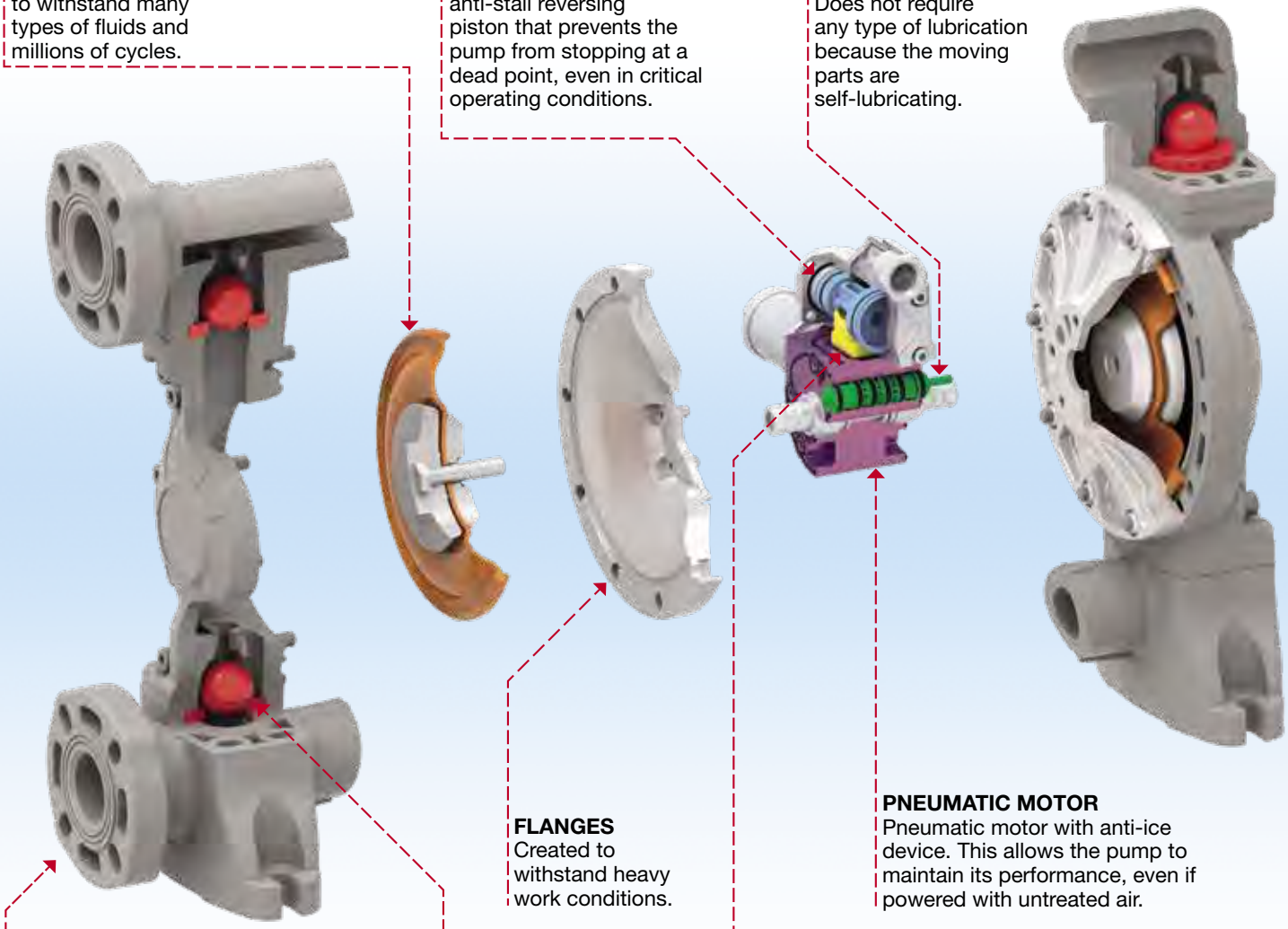
Our technical department is always at your disposal to help you choosing the materials of membranes, balls and seats compatible with the fluid to be pumped.

Technical characteristics

MEMBRANES
Made of different and specific materials able to withstand many types of fluids and millions of cycles.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.



FLANGES
Created to withstand heavy work conditions.

PNEUMATIC MOTOR
Pneumatic motor with anti-ice device. This allows the pump to maintain its performance, even if powered with untreated air.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded or flanged connections available in different diameters according to the pump models. There is a AISI 316 stainless steel ring to reinforce the thread (versions 1/2").

BALL VALVES
Designed to guarantee the total flow of the pumped fluid. The ball seats are in AISI 316 stainless steel (versions 1") or in AISI 316 stainless steel and polypropylene (versions 1/2").

AIR DISTRIBUTION VALVE
Ensures perfect operations in any working conditions. Some examples:
- minimum supply pressures (min. 2 bar);
- critical fluid and ambient temperatures;
- supply pressure fluctuations.

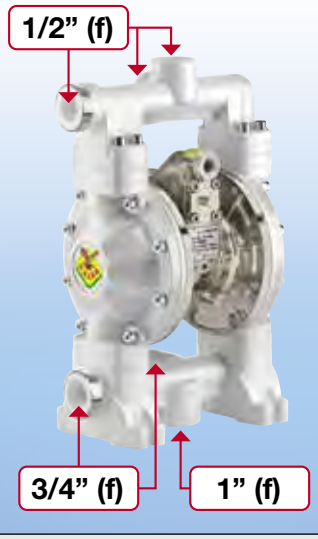
1/2” - Flow rate 60 l/min

Diaphragm pumps R. 1:1 for transferring fluids,
made of molding injected polypropylene with motor made of aluminum; they ensure lasting and reliable operation even in extreme conditions and with aggressive fluids.

In accordance with directive

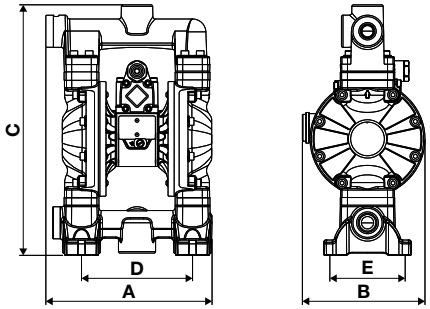
CE Ex II 3 GD

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

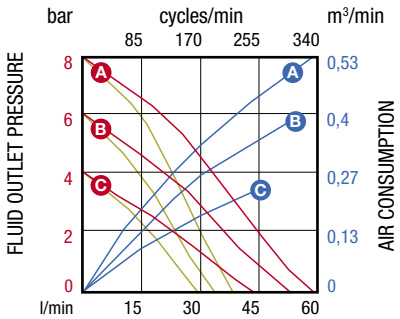


Model			APPB-12 with multiple inlet/outlet	APPB-12 dual inlet/multiple outlet
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Polypropylene and AISI 316	**2B3/16117EA5**	**2B8/16117EA5**
Hytrel®	Hytrel®	Polypropylene and AISI 316	**2B3/16117HH5**	**2B8/16117HH5**
NBR	Hytrel®	Polypropylene and AISI 316	**2B3/16117NH5**	**2B8/16117NH5**
Santoprene™	Santoprene™	Polypropylene and AISI 316	**2B3/16117SS5**	**2B8/16117SS5**
PTFE+Hytrel® *	PTFE	Polypropylene and AISI 316	**2B3/16117TT5**	**2B8/16117TT5**
Max pressure			8 bar	8 bar
Max cycles per min			330 cpm	330 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			75 dB	75 dB
Max air consumption			0,50 m³/min	0,50 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1/2” (f)
Fluid inlet connection			G 3/4” (f) - G 1” (f) per fusto	dual inlet G 3/4” (f)
Fluid outlet connection			G 1/2” (f)	G 1/2” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			220 - 160 - 327 - 145 - 100 mm	220 - 160 - 327 - 145 - 100 mm
Screws for pump fixing			M8	M8
Packing - Weight			No. 1 0,02 m³ 5,8 kg	No. 1 0,02 m³ 5,7 kg

* 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 AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



KIND OF FLUID: Water 20 °C
SAE30 oil: (ISO VG 100) 20 °C

1” - Flow rate 170 l/min

Diaphragm pumps R. 1:1 for transferring fluids, made of molding injected polypropylene with motor made of aluminum. These versions have got 1” flange to connect the pump with the plant. Use the new AISI 304 stainless steel flange available in the “accessories” section for the piping connection.

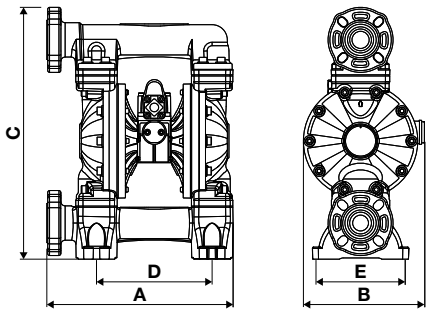
In accordance with directive

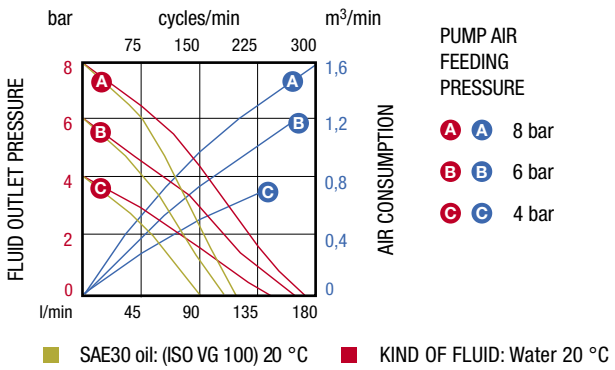
CE Ex II 3 GD

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

Model			APPB-1	APPB-1 dual inlet
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	AISI 316 stainless steel	**2B4/26117EAI**	**2B7/26117EAI**
Hytrel®	Hytrel®	AISI 316 stainless steel	**2B4/26117HHI**	**2B7/26117HHI**
NBR	Hytrel®	AISI 316 stainless steel	**2B4/26117NHI**	**2B7/26117NHI**
Santoprene™	Santoprene™	AISI 316 stainless steel	**2B4/26117SSI**	**2B7/26117SSI**
PTFE+Hytrel® *	PTFE	AISI 316 stainless steel	**2B4/26117TTI**	**2B7/26117TTI**
Max pressure			8 bar	8 bar
Max cycles per min			300 cpm	300 cpm
Litres per cycle **			0,590 l	0,590 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			75 dB	75 dB
Max air consumption			1,60 m³/min	1,60 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 1/2” (f)	G 1/2” (f)
Fluid inlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread	dual inlet ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread
Fluid outlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread	ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			305 - 200 - 420 - 191 - 130 mm	357 - 200 - 420 - 191 - 130 mm
Screws for pump fixing			M10	M10
Packing - Weight			No. 1 0,03 m³ 7 kg	No. 1 0,03 m³ 12,1 kg

* 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





SAE30 oil: (ISO VG 100) 20 °C KIND OF FLUID: Water 20 °C

DIAPHRAGM PUMPS IN POLYPROPYLENE

RAASM diaphragm pumps completely made of polypropylene are designed to handle particularly aggressive fluids (acids and alkalis) and are the best solution to be used in many working environments, even the most aggressive.

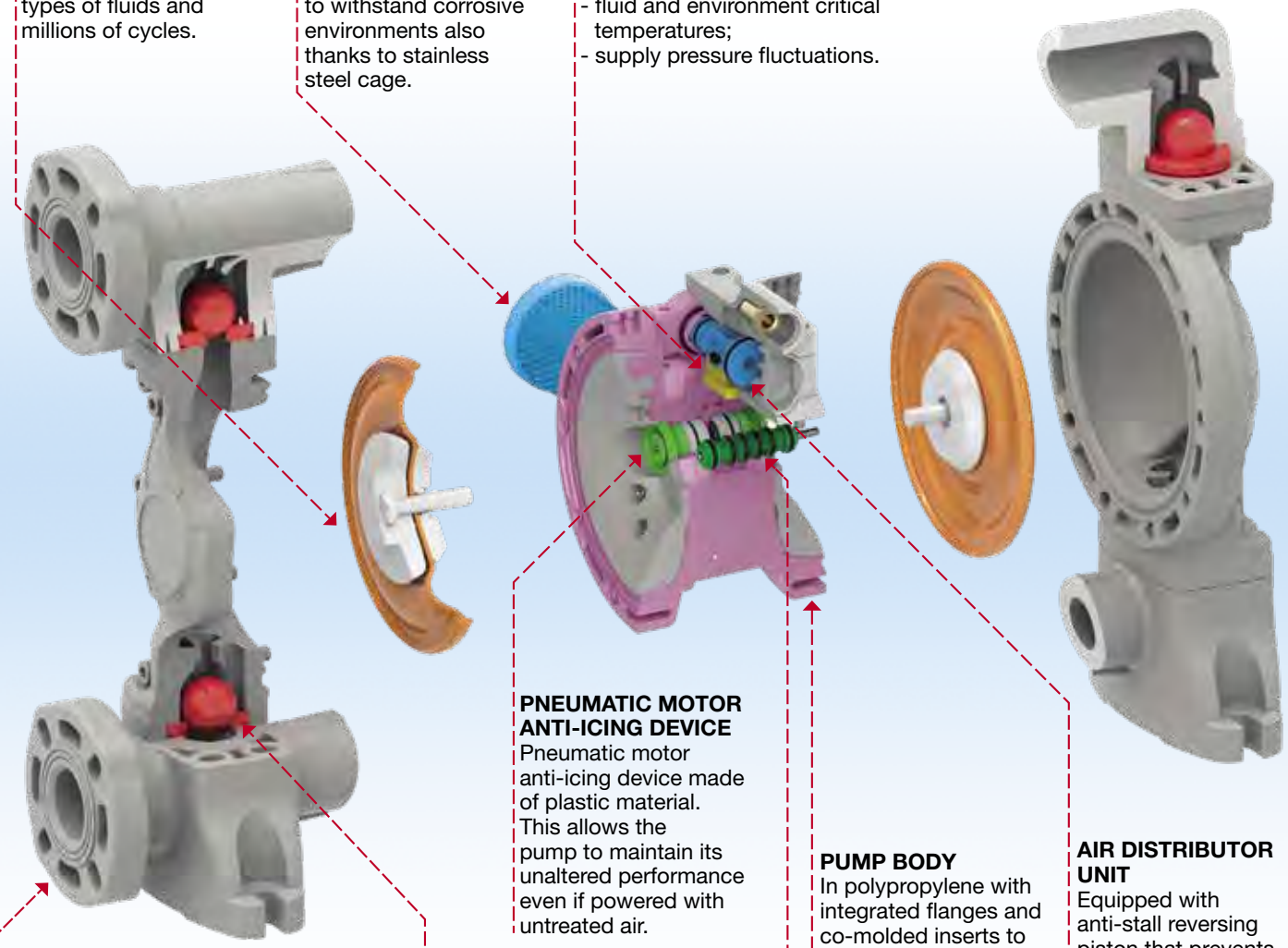
The screws on these pumps are made entirely of stainless steel to ensure quality, longevity and a better aesthetic design of the product.

Technical characteristics

MEMBRANES
Made of different and specific materials able to withstand many types of fluids and millions of cycles.

SILENCER
Made of plastic material with increased exhaust system designed to withstand corrosive environments also thanks to stainless steel cage.

AIR DISTRIBUTION VALVE
Ensures perfect operations in any working conditions, some examples:
- minimum supply pressures (min. 2 bar);
- fluid and environment critical temperatures;
- supply pressure fluctuations.



PNEUMATIC MOTOR ANTI-ICING DEVICE
Pneumatic motor anti-icing device made of plastic material. This allows the pump to maintain its unaltered performance even if powered with untreated air.

PUMP BODY
In polypropylene with integrated flanges and co-molded inserts to guarantee elevated tightening torques.

AIR DISTRIBUTOR UNIT
Equipped with anti-stall reversing piston that prevents the pump from stopping at a dead point, even in critical operating conditions.

TOTAL FLOW SUCTION AND DELIVERY MANIFOLDS
They facilitate suction of the liquid in any situation, with threaded connections or flanged available in different diameters according to the pump models. There is a AISI 316 stainless steel ring to reinforce the thread (versions 1/2”).

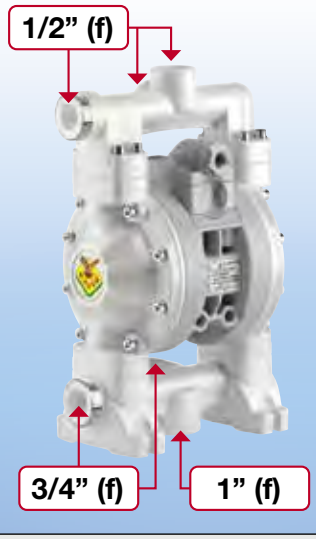
BALLS E SEATS
Available in many types of materials to guarantee chemical compatibility according to the fluid to be pumped. Easy to clean or to replace as required. The ball seats are in AISI 316 stainless steel (versions 1”) or in AISI 316 stainless steel and polypropylene (versions 1/2”).

PNEUMATIC MOTOR BLOCK OF THE PUMP
Does not require any type of lubrication because the moving parts are self-lubricating.

1/2” - Flow rate 65 l/min

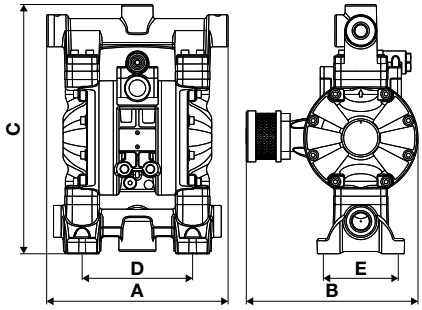
Diaphragm pumps R. 1:1 for fluids transfer, produced entirely in polypropylene, are recommended for applications with industrial fluids, also corrosive, and in working environments with aggressive atmospheres.

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

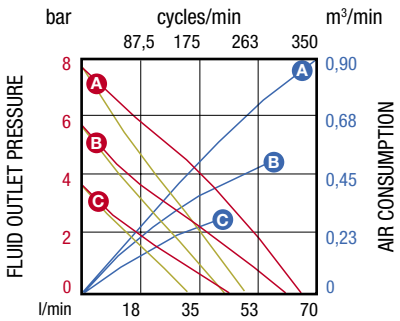


Model			PPB-12 with multiple inlet/outlet	PPB-12 dual inlet/multiple outlet
Membranes	**Balls**	**Seats**	**P/N**	**P/N**
EPDM	Acetal	Polypropylene and AISI 316	**2A3/1677EA5**	**2A8/1677EA5**
Hytrel®	Hytrel®	Polypropylene and AISI 316	**2A3/1677HH5**	**2A8/1677HH5**
NBR	Hytrel®	Polypropylene and AISI 316	**2A3/1677NH5**	**2A8/1677NH5**
Santoprene™	Santoprene™	Polypropylene and AISI 316	**2A3/1677SS5**	**2A8/1677SS5**
PTFE+Hytrel® *	PTFE	Polypropylene and AISI 316	**2A3/1677TT5**	**2A8/1677TT5**
Max pressure			8 bar	8 bar
Max cycles per min			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			0,89 m³/min	0,89 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 3/4” (f)	G 3/4” (f)
Fluid inlet connection			G 3/4” (f) - G 1” (f) for drum	dual inlet G 3/4” (f)
Fluid outlet connection			G 1/2” (f)	G 1/2” (f)
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			208 - 220 - 326 - 145 - 100 mm	220 - 220 - 326 - 145 - 100 mm
Screws for pump fixing			M8	M8
Packing - Weight			No. 1 0,02 m³ 5,8 kg	No. 1 0,02 m³ 5,8 kg

* 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 AIR FEEDING PRESSURE A A 8 bar B B 6 bar C C 4 bar



KIND OF FLUID: Water 20 °C
SAE30 oil: (ISO VG 100) 20 °C

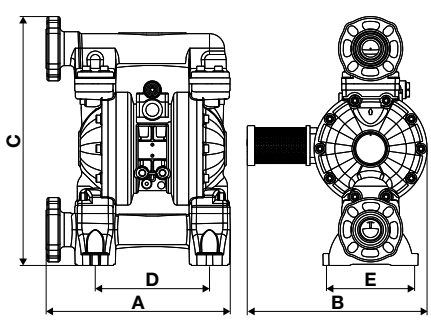
1” - Flow rate 145 l/min

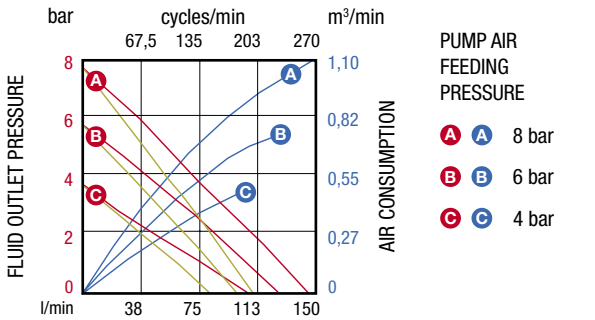
The family of 1” diaphragm pumps, R. 1:1 for fluid transfer, produced entirely in polypropylene, maintain their performance on applications with industrial fluids, also aggressive, and in working environments with corrosive atmospheres, offering an unquestionable higher capacity.

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

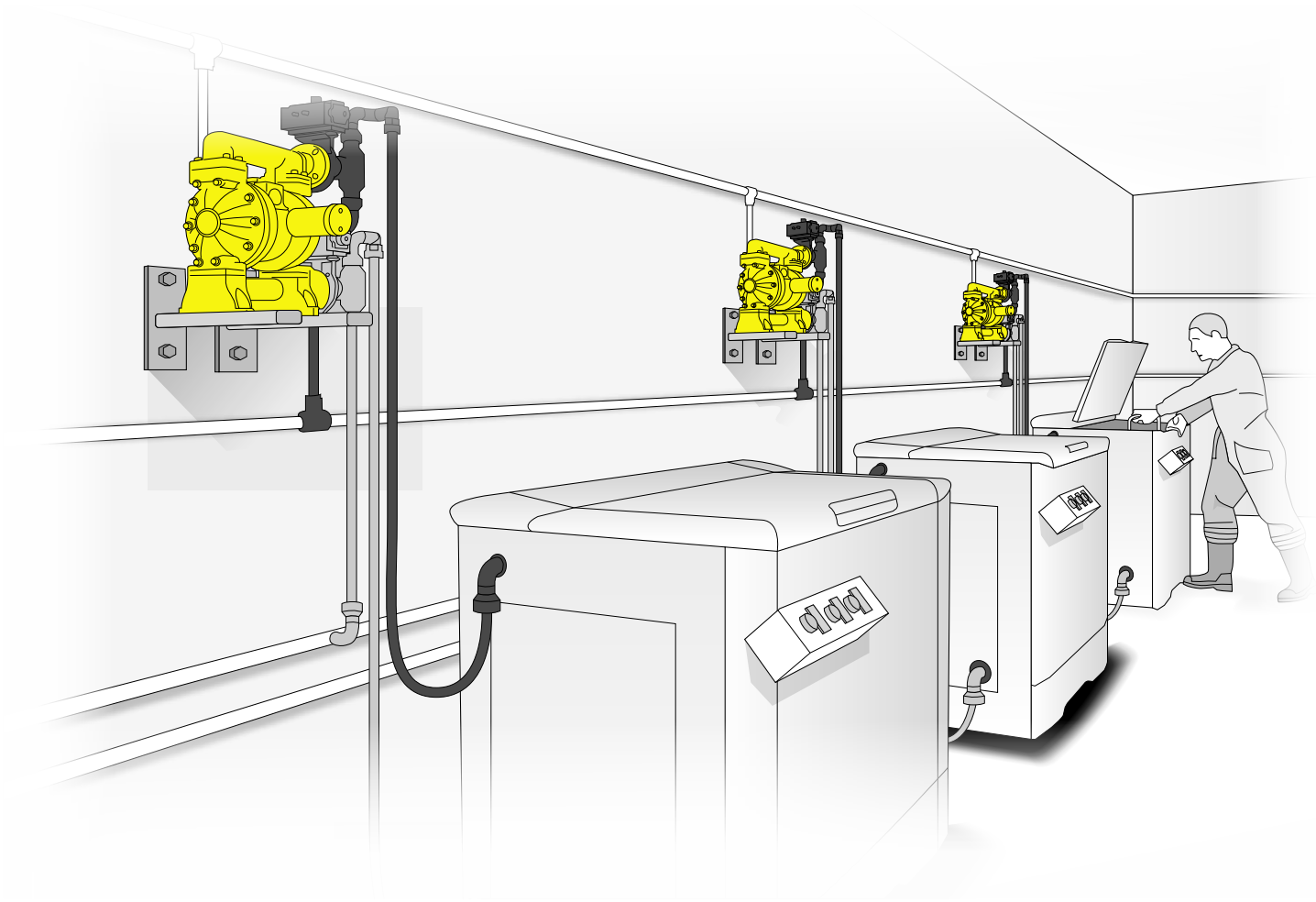
Model			PPB-1	PPB-1 dual inlet
Membranes	Balls	Seats	P/N	P/N
EPDM	Acetal	AISI 316 stainless steel	2A4/2677EAI	2A7/2677EAI
Hytrel®	Hytrel®	AISI 316 stainless steel	2A4/2677HHI	2A7/2677HHI
NBR	Hytrel®	AISI 316 stainless steel	2A4/2677NHI	2A7/2677NHI
Santoprene™	Santoprene™	AISI 316 stainless steel	2A4/2677SSI	2A7/2677SSI
PTFE+Hytrel® *	PTFE	AISI 316 stainless steel	2A4/2677TTI	2A7/2677TTI
Max pressure			8 bar	8 bar
Max cycles per min			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			1,1 m³/min	1,1 m³/min
Air working pressure			2 - 6 bar	2 - 6 bar
Air inlet connection			G 3/8” (f)	G 3/8” (f)
Air outlet connection (muffler)			G 3/4” (f)	G 3/4” (f)
Fluid inlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread	dual inlet ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread
Fluid outlet connection			ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread	ANSI 150 - DIN PN 10 - JIS 10K 1” (25 mm) proneness to G 1.1/4” (f) thread
Balls for inlet and outlet				
Overall dimensions (A - B - C - D - E)			305 - 300 - 420 - 191 - 130 mm	357 - 300 - 420 - 191 - 130 mm
Screws for pump fixing			M10	M10
Packing - Weight			No. 1 0,03 m³ 9,6 kg	No. 1 0,03 m³ 9,6 kg

* 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





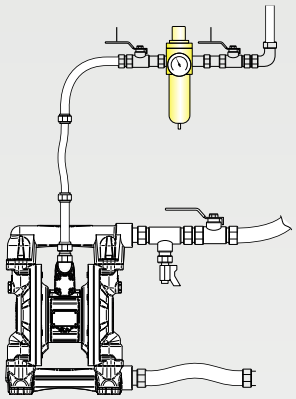
SAE30 oil: (ISO VG 100) 20 °C KIND OF FLUID: Water 20 °C



ACCESSORIES FOR DIAPHRAGM PUMPS

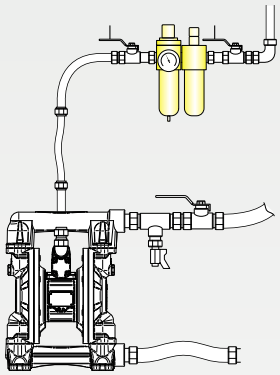
P/N 37819
Pressure regulator with condensate discharge filter and pressure gauge.
- connections G 3/8” (f) x G 3/8” (f) for application at the start of the compressed air line feeding the pump.

P/N 37815
Pressure regulator with condensate discharge filter and pressure gauge.
- connections G 1/2” (f) x G 1/2” (f) for application at the start of the compressed air line feeding the pump.



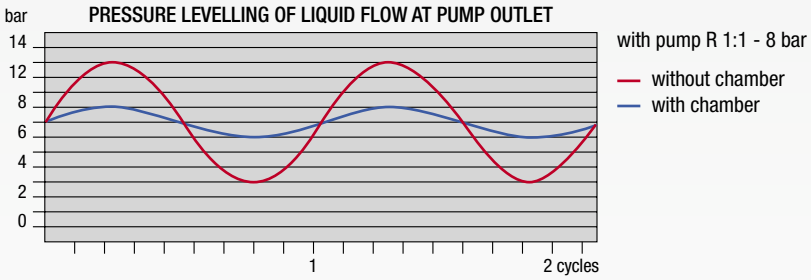
P/N 37821
Pressure regulator with condensate discharge filter, air lubricator and pressure gauge.
- connections G 3/8” (f) x G 3/8” (f) the system guarantees that the pump feed air is free of condensate.

P/N 37817
Pressure regulator with condensate discharge filter, air lubricator and pressure gauge.
- connections G 1/2” (f) x G 1/2” (f) the system guarantees that the pump feed air is free of condensate.



P/N 38097
Flow regulator chamber
G 3/4” (f) x G 3/4” (f) equipped with:
- one-way valve eliminates sudden pressure
- changes, ensuring a regular flow
- suitable for R 1:1 - 3:1 - 5:1 pumps
- max pressure 100 bar.

PRESSURE TREND OF PUMP OUTLET



P/N KR4506
Earthing cable provided with plier. In environments with risk of explosion (i.e. with a potentially explosive atmosphere according to the ATEX directive) it is mandatory to connect to the ground both the pump and other equipment placed in the working area.

ACCESSORIES FOR DIAPHRAGM PUMPS

Mufflers reduce exponentially the noise level perceived. They decrease the pump outlet air level noise bringing it to a comfortable level, optimizing the air flow and increasing the pump performance.

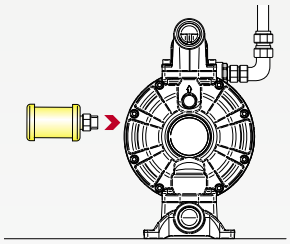
P/N 32/89
Increased muffler G 1/2” (m) suitable for 1/2” and 1” pumps with aluminum motor.

P/N 32/90
Muffler G 3/4” (m) in polypropylene for 1/2” and 1” pumps with plastic motor.

P/N 32/91
Muffler G 1” (m) for 1.1/4”, 1.1/2” and 2” pumps with aluminum motor.
Suggested with very dusty environments.

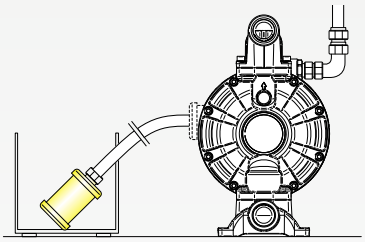
P/N 32/92
Muffler G 1” (m) for 1.1/4”, 1.1/2” and 2” pumps with aluminum motor.

MUFFLER STANDARD INSTALLATION

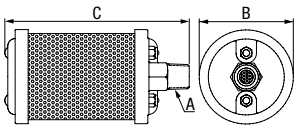


MUFFLER REMOTE INSTALLATION

In case of dangerous fluids pumping please move the muffler in a safe zone away from the working environment.



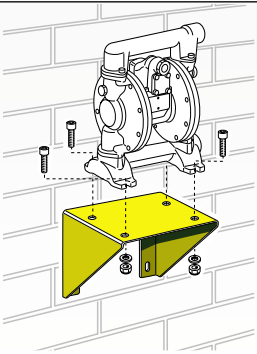
Overall dimensions (mm)



P/N	A	B	C
32/89	1/2”	40	80
32/90	3/4”	67	131
32/91	1”	100	220
32/92	1”	64	131

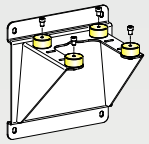
P/N 33590
Wall bracket in painted steel for wall-mounting of diaphragm pumps 1/2” and 3/4” and screws for pump fixing M8.

P/N 33591
Wall bracket in painted steel for wall-mounting of diaphragm pumps 1” and 1.1/4” and screws for pump fixing M10.



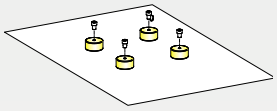
ACCESSORIES FOR DIAPHRAGM PUMPS

P/N KR33/90
Antivibration kit in SBR rubber ø 30 x h. 20 mm thread M/M - M8 for 1/2” and 3/4” diaphragm pump.
It reduces the vibrations in heavy applications.



P/N KR33/91
Antivibration kit in SBR rubber ø 50 x h. 30 mm thread M/M - M10 for 1” and 1.1/4” diaphragm pump.
It reduces the vibrations in heavy applications.

P/N KR33/88
Antivibration kit in SBR rubber ø 30 x h. 20 mm thread F/F - M12 for 1.1/2” and 2” diaphragm pump.
It reduces the vibrations in heavy applications.



P/N 32/95 *
1” AISI 304 stainless steel flange suitable to connect the pump to the plant.
Thread G 1” (f).

P/N 32/96 *
1” polypropylene flange suitable to connect the pump with to the plant.
Thread G 1” (f).

P/N 32/97 *
2” aluminum flange suitable to connect the pump to the plant.
Thread G 1” (f).

* accessory only for flanged diaphragm pump.

P/N 33574
Hose holder ø 1.3/4” (47,5 mm) with connection G 1.1/4” (m).

P/N 33575
Hose holder ø 1.3/4” (47,5 mm) with connection G 1.1/2” (m).

P/N 33576
Hose holder ø 1.3/4” (47,5 mm) with connection G 2” (m).

P/N 38080
Hose holder ø 1.1/4” (31,4 mm) with connection G 3/4” (m).

P/N 38081
Hose holder ø 1.1/4” (31,4 mm) with connection G 1” (m).

P/N 38082
Hose holder ø 1.1/4” (31,4 mm) with connection G 1.1/4” (m).

P/N 33571
Hose holder ø 3/4” (22 mm) with connection G 3/4” (m) in AISI 304 stainless steel.

P/N 38083
Hose holder ø 3/4” (22 mm) with connection G 1” (m) in AISI 304 stainless steel.

ACCESSORIES FOR DIAPHRAGM PUMPS

P/N 38026
Flexible suction tube 2 m
- ø 30,5 x ø 39 mm.

P/N 38028
Flexible suction tube 1 m
- ø 30,5 x ø 39 mm.

P/N 33584
Flexible suction tube 2 m
- ø 45 x ø 57 mm.

P/N 33426
Flexible suction tube 2 m
- ø 19,5 x ø 27 mm.

P/N 33581
Rigid suction tube ø 34 mm
- length 940 mm.

P/N 33582
Rigid suction tube ø 34 mm
- length 1240 mm.

P/N 33586
Rigid suction tube ø 53 mm
- length 940 mm.

P/N 33588
Rigid suction tube ø 53 mm
- length 1240 mm.

P/N 33594
Rigid suction tube ø 34 mm
- length 1460 mm.

P/N 33583
Rigid suction tube ø 34 mm
- length 940 mm.

P/N 33585
Rigid suction tube ø 34 mm
- length 1240 mm.

P/N 33587
Rigid suction tube kit ø 53 mm
- length 940 mm.

P/N 33589
Rigid suction tube kit ø 53 mm
- length 1240 mm.

P/N 33595
Rigid suction tube kit ø 34 mm
- length 1460 mm.

P/N 33434
Bung adaptor for pump with ø 34 mm suction tube.

P/N 10/15
Bung adaptor for pump with ø 53 mm suction tube.

P/N 33569
Stainless steel suction tube ø 34 mm
- length 1240 mm straight connection without joint.

P/N 33579
Stainless steel suction tube ø 34 mm
- length 940 mm.

P/N 33580
Stainless steel suction tube ø 34 mm
- length 1240 mm.

P/N 33596
Stainless steel suction tube ø 34 mm
- length 1460 mm.

P/N 33577
AISI 304 stainless steel rigid suction tube kit ø 34 mm
- length 940 mm.

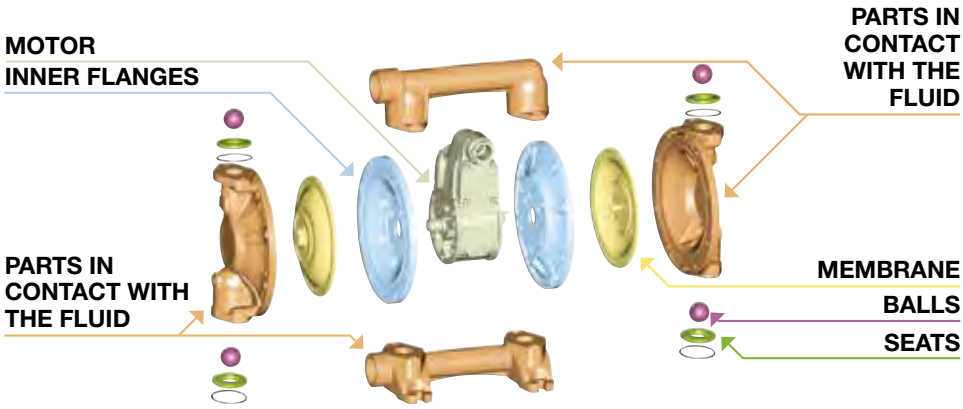
P/N 33578
AISI 304 stainless steel rigid suction tube kit ø 34 mm
- length 1260 mm.

P/N 33597
AISI 304 stainless steel rigid suction tube kit ø 34 mm
- length 1460 mm.

PUMP CONFIGURATION

Exploded view of the pump, showing its main parts and thereby facilitating the choice for a custom configuration.

The table summarises the pump configurations available, allowing the user to create his own personalised code whenever the models listed on the leaflet do not meet the specific requirements.



Two types of ATEX certifications are available, for zone 2 or for zone 1, depending on the materials the pump is made of.
II 3GD (for zone 2) **II 2GD** (for zone 1)

The valve seats are to be coupled to the balls and must ensure correct closing. Like the balls, they must be made of a material suitable for the fluid they come into contact with.

They open and close the flow of liquid as a result of the reciprocating movement of the follower plates. The material they are made of must be compatible with the fluid being pumped.

They can be threaded (G) or flanged, single, multiple and modular.

They are the only elastic parts of the pump, that suck and pump the liquid with their movement. The material they are made of must be selected in order to obtain the correct chemical compatibility with the liquid to be pumped.

It defines the inside diameter of the manifold.

These are all the rigid parts such as external flanges, manifolds and sleeves which are constantly in contact with the liquid to be pumped. Available in various materials, depending on the type of liquid.

This is the heart of the pump, responsible for the reciprocating movement that creates the flow of liquid.

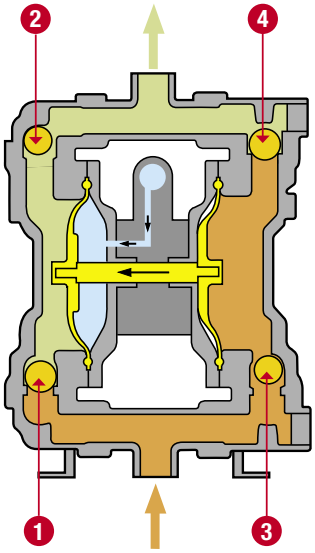
These are not in contact with the pumped liquid, but only with the compressed air feeding the motor.

MATERIALS AND ATEX VERSIONS	MANIFOLD FOR INLET AND OUTLET	FLOW INSIDE DIAMETER	TYPE OF MATERIAL					
			MOTOR	INNER FLANGES	PARTS IN CONTACT WITH THE FLUID	MEMBRANE	BALLS	SEATS
2B = Polypropylene for Zone 2	**1/** = threaded connection G	**16** = 1/2"	**1** = Nickel plat. aluminum	**1** = Nickel plat. aluminum	**1** = Nickel plat. aluminum	**E** = EPDM	**A** = Acetal	**A** = Acetal
	3/ = mult. thread. connection G	**26** = 1"				**H** = Hytrel®	**H** = Hytrel®	**H** = Hytrel®
3C = Aluminum for Zone 1	**4/** = connection with flange	**30** = 1.1/4"	**6** = Aluminum with cataphoresis	**6** = Aluminum with cataphoresis	**5** = AISI 316 st. steel	**N** = NBR	**S** = Santoprene™	**P** = Polypropylene
2A = Polypropylene	**6/** = multiple modular connection with flange	**40** = 1.1/2"				**S** = Santoprene™	**T** = PTFE	**S** = Santoprene™
4C = AISI 316 stainless steel for Zone 2		**50** = 2"	**7** = Polypropylene (motor and flanged are a single body)		**7** = Polypropylene	**T** = PTFE + Hytrel®		**I** = AISI 316 st. steel
	7/ = dual inlet connection with flange				**V** = Aluminum with cataphoresis			
								5 = Polypropylene and AISI 316 st. steel
	8/ = dual inlet threaded connection G							

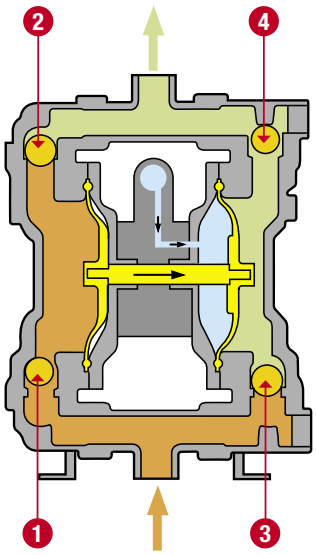
EXAMPLE 3C1/16111EAA								
3C = Aluminum for Zone 1	**1/** = threaded connection G	**16** = 1/2"	**1** = Nickel plat. aluminum	**1** = Nickel plat. aluminum	**1** = Nickel plat. aluminum	**E** = EPDM	**A** = Acetal	**A** = Acetal

INSTALLATION AND OPERATION

SIMPLE AND EFFECTIVE (1:1 RATIO)

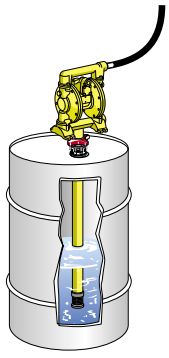
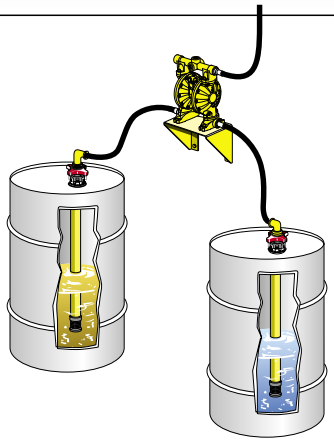
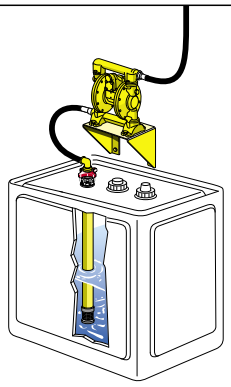
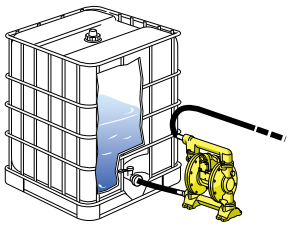


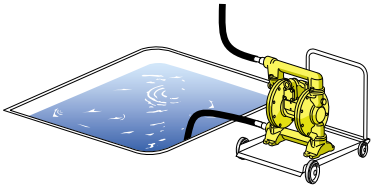
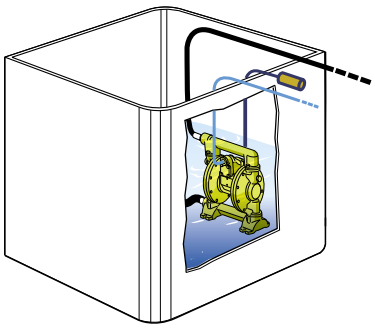
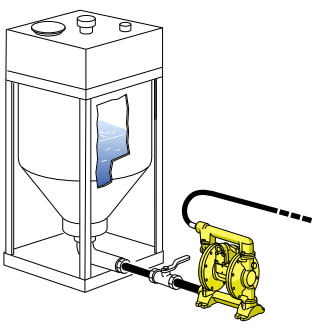
The slide valve of the air motor sends air (blue) to the left chamber which, pushing the membrane outwards, compresses the previously filled liquid (green). Through the effect of the pressure created valve 1 closes and valve 2 opens allowing the liquid to dispense (green).
The right membrane then carries out the same movement by the shaft joining it to the left membrane, creating a vacuum. Through the effect of the vacuum, the valve 3 opens and the valve 4 closes, enabling suction of the liquid (orange).



The slide valve of the air motor sends air (blue) to the right chamber which, pushing the membrane outwards, compresses the previously filled liquid (green). Through the effect of the pressure created valve 3 closes and valve 4 opens allowing the liquid to dispense (green). The left membrane then carries out the same movement by the shaft joining it to the right membrane, creating a vacuum. Through the effect of the vacuum, the valve 1 opens and the valve 2 closes, enabling suction of the liquid (orange).

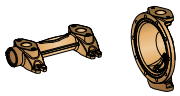
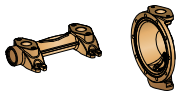
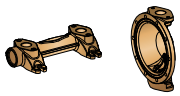
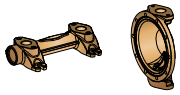
PUMP INSTALLATION

ON DRUM (suitable with fluids with max viscosity 10000 cps, 20 °C)	**DUAL INLET SUCTION** (suitable with fluids with max viscosity 50000 cps, 20 °C)	**TOP FEED** (suitable with fluids with max viscosity 10000 cps, 20 °C)	**BOTTOM FEED** (suitable with fluids with max viscosity 50000 cps, 20 °C)
			

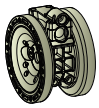
ON A MOBILE UNIT (suitable with fluids with max viscosity 10000 cps, 20 °C)	**SUBMERGED PUMP** (suitable with fluids with max viscosity 50000 cps, 20 °C)	**BULK TANK** (suitable with fluids with max viscosity 50000 cps, 20 °C)
		

WIDE CHOICE OF MATERIALS

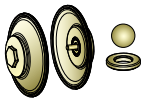
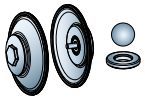
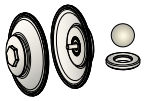
PARTS IN CONTACT WITH FLUID

PUMP PARTS	MATERIALS	CHARACTERISTICS	TEMPERATURE MAX *
	**Nickel-plated aluminum**	- average resistance to abrasion and corrosion - not intended for use with HHC (halogenated hydrocarbons)	+100 °C
	**Aluminum with treatment in cataphoresis**	- wide chemical compatibility - high resistance to abrasion and corrosion	+100 °C
	**AISI 316 stainless steel**	- wide chemical compatibility - best alternative with aggressive fluids	+100 °C
	**Polypropylene**	- wide chemical compatibility - best alternative with aggressive fluids	+65 °C

CENTRAL MOTOR BLOCK

PUMP PARTS	MATERIALS	CHARACTERISTICS	TEMPERATURE MAX *
	**Nickel-plated aluminum**	- high mechanical strength - electrically conductive material for ATEX directive	+100 °C
	**Aluminum with treatment in cataphoresis**	- high mechanical strength - wide chemical compatibility - electrically conductive material for ATEX directive - cheaper solution	+100 °C
	**Polypropylene**	- wide chemical compatibility - general use - cheaper solution	+65 °C

DIAPHRAGMS - SEATS - BALLS

PUMP PARTS	MATERIALS	CHARACTERISTICS	TEMPERATURE MAX *
	**High Nitrile NBR**	- high resistance to alphatic hydrocarbons, oils and greases - good flexibility	+90 °C
	**Hytrel®**	- high tenacity and springback - high resistance to permanent deformation - good resistance to industrial chemical substances and solvents - excellent flexibility even at low temperature	+65 °C
	**Santoprene™**	- excellent flexural and fatigue strength - excellent resistance to abrasion and laceration - excellent resistance to acids, alkalis and ageing - also usable at high temperatures	+110 °C
	**EPDM**	- good compatibility with organic and non-organic acids - excellent resistance to heat and steam - insensitive to the action of oxidising agents	+110 °C
	**PTFE Teflon®**	- inert with nearly all chemical reagents - excellent heat resistance - excellent dielectric characteristics - excellent resistance to ageing	+120 °C
	**Acetal resin Delrin®**	- high fatigue strength - high compressive strength - good dimensional stability (low humidity absorption) - resistance to alcohols and organic compounds	+115 °C
	**AISI 316 stainless steel**	- high resistance to corrosion even in saline environments - excellent compatibility with chemical and industrial fluids	+100 °C

* The materials in contact with the fluid, and the fluid as well, can restrict the pump working temperature

⚠ Use these pumps only with fluids with flash point not less than +55 °C

GUIDE TO CHOOSING A PUMP

HOW TO CHOOSE A PUMP SUITABLE FOR ONE'S NEEDS

PUMP SIZE	FLOW RATE	MAX Ø SOLID PARTS	MODEL			
			POLYPROPYLENE	POLYPROPYLENE AND ALUMINUM	ALUMINUM AND CATAPHORESIS	AISI 316 STAINLESS STEEL
1/2"	60 l/min	1,5 mm	-	APPB-12	-	-
	65 l/min	1,5 mm	PPB-12	-	-	-
	70 l/min	1,5 mm	-	-	AAB-12	-
1"	170 l/min	3 mm	-	APPB-1	AAB-1 / AAB-1-9	-
	145 l/min	3 mm	PPB-1	-	-	-
	130 l/min	3 mm	-	-	-	PPIB-1
	150 l/min	3 mm	-	-	-	AIB-1
1.1/4"	200 l/min	3 mm	-	-	AAB-114	-
1.1/2"	480 l/min	5,5 mm	-	-	AAB-112	-
2"	580 l/min	6,5 mm	-	-	AABM-2 flanged	-
	610 l/min	6,5 mm	-	-	AAB-2	-

TECHNICAL ASPECTS TO BE CONSIDERED FOR A CORRECT CHOICE OF PUMP

PUMP SIZE
The size of a pump is closely linked to its maximum delivery: in fact, the larger the pump the greater the delivery.

CHEMICAL COMPATIBILITY
Some parts of the pump are always in contact with the liquid to be pumped. Therefore the materials these parts are made of must be chemically compatible with the liquid.

DIMENSIONS OF SUSPENDED SOLIDS
The maximum dimensions for suspended solids in the fluid to be pumped are specified in the technical tables of each diaphragm pump.

WORKING TEMPERATURE
The maximum and minimum working temperatures take into account the physical characteristics of the various parts the pump is made of and their interaction with the pumped liquid.

ABRASION RESISTANCE
If the fluid to be pumped is very abrasive, the wear on parts that deteriorate quickly (e.g. diaphragms, balls, seats) can be reduced by choosing a pump larger than required. In this way the speed of the fluid inside the pump will be lower, thereby reducing the abrasion on the parts in contact with it.

SYSTEM SIZE
In order to optimise the performance of the pump it is advisable to consider the following dimensional parameters relevant to the system:
1) Suction pipe: position the pump as close as possible to the suction point; if this is not possible, the maximum vertical distance must not exceed the limits reported in the technical table.
2) Delivery pipe: the pipe must be sized so as to avoid pressure losses; the internal diameter must be chosen according to the distance to be covered, the temperature and the viscosity of the fluid.

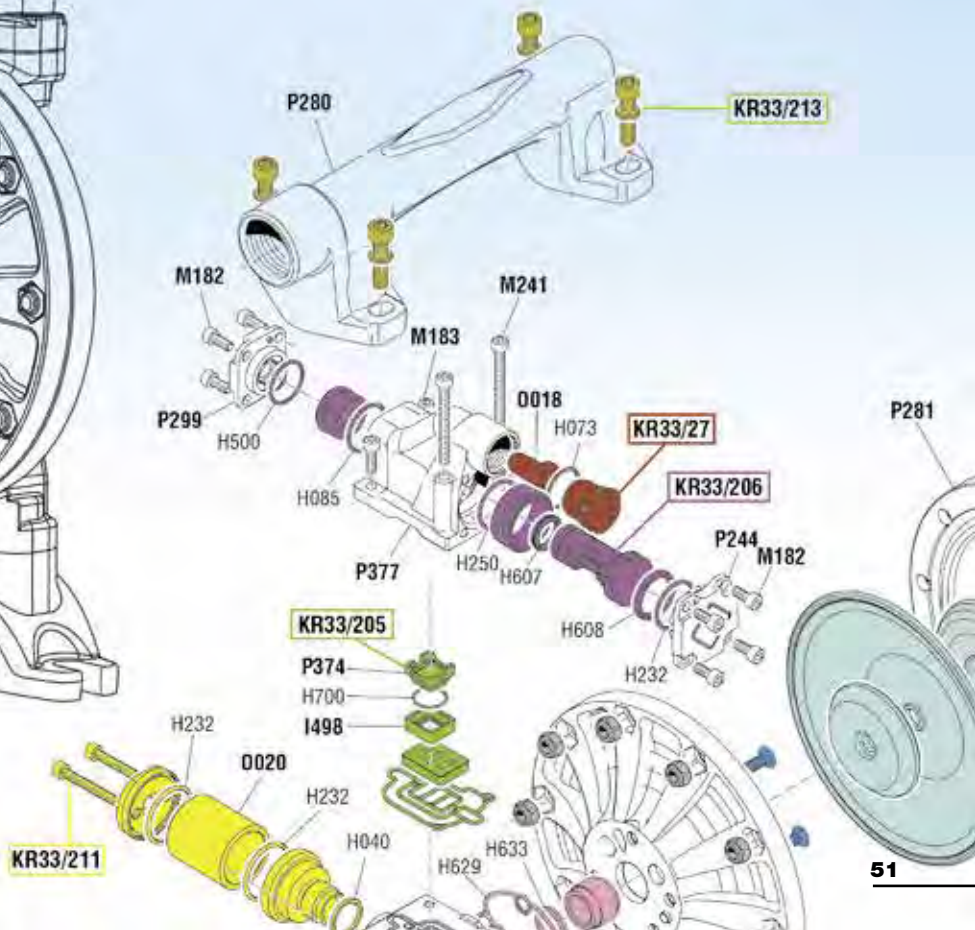
ATEX DIRECTIVE

PUMP FAMILY	DESCRIPTION	CERTIFICATION CLASS
ENTIRELY ALUMINUM MODEL	**Conductive material version** Built with central body and manifolds in conductive metallic material (Aluminum)	II 2GD (zone 1)
CATAPHORESIS MODEL	**Conductive material version** Built with central body and manifolds in conductive metallic material (Aluminum)	II 2GD (zone 1)
AISI 316 STAINLESS STEEL AND ALUMINUM MODEL	**Conductive material version** Built with central body (Aluminum) and manifolds (AISI 316 stainless steel) in conductive metallic material	II 2GD (zone 1)
AISI 316 STAINLESS STEEL AND POLYPROPYLENE MODEL	Central body in non-conductive plastic material (PP)	not certified
ALUMINUM AND POLYPROPYLENE MODEL	**Partially conductive material version** Manifolds built with non-conductive plastic material (PP) and central body with conductive material (Aluminum)	IIB 3GD (zone 2)
ENTIRELY POLYPROPYLENE MODEL	Central body and manifolds in non-conductive plastic material (PP)	not certified

ORIGINAL

spare parts

Always choose **RAASM**
original spare parts.



GENERAL SALES CONDITIONS

FOR FOREIGN MARKETS

The following general sales conditions regulate the sale of goods and services by the company RAASM S.p.A. for customers residing outside the territory of the Italian State.

Art. 1 GOODS DELIVERY TERMS
The goods are delivered ex works RAASM S.p.A. The subsequent transport/shipment must occur by, in the name and at the expense of the purchasing customer, even by means of a carrier appointed and designated by the same. All risks arising from loading, subsequent custody and transport are borne entirely by the purchasing customer.

Art. 2 MINIMUM ORDERS
Each order cannot be for less than € 1,500.00, net of fees, taxes, customs duties, discounts and rebates and any other charges not included in the price of the goods. If, at the option of RAASM S.p.A., orders for lower amounts are accepted, an extra charge of € 155,00 shall be applied for order management administrative expenses.

Art. 3 ACCESSORIES
All the accessories given in the price list (plugs, oil bar taps, oil guns, grease guns, probes, protection caps, clutches, swivelling supports, etc.) are supplied exclusively for fitting to or combining with the items RAASM S.p.A. produces

Art. 4 COMPLAINTS
Any defects immediately noticed after a brief inspection of the goods (damage, shortages or different product from that ordered) must be notified in writing to our company within 8 (eight) days of receipt the goods. Any defects in the product noticeable only during its use must be notified in writing to RAASM S.p.A. within 8 (eight) days of being detected.
Any returns of goods must be authorized in advance by RAASM S.p.A. and freight charges are at the customer's expenses.

Art. 5 DELIVERY TIMES/TERMS
Delivery times and dates are only approximate and are subject to change. Any delays in delivery do not entitle the customer to cancel the order or claim compensation for damages caused by delay of delivery. Delivery times for urgent orders must be agreed directly with RAASM S.p.A. RAASM S.p.A. has the right not to carry out the order and/or totally or partially carry it out, without this giving rise to reimbursement or claims for compensation for damage.

Art. 6 PACKS AND PACKAGING
Packaging costs are included in the price, except for special packing, which shall be charged at cost.

Art. 7 PRICES
The current Price list cancels and replaces the previous price list. In the event of changes to our price list and/or individual items, the goods shall be forwarded at the price in force on the day of the order confirmation. The price list and/or the prices of individual items can be changed even without notice, according to the changes in market conditions or technical innovations/ modifications made to the product. The prices are understood to be ex works RAASM S.p.A.

Art. 8 PAYMENTS
Payments must be made exclusively to RAASM S.p.A. at the agreed conditions. Under no circumstances will deductions or roundings be accepted. In case of late payment with respect to the agreed conditions, RAASM S.p.A. reserves the right to charge interest at the current rate, effective from the day after that agreed for payment, plus any additional expenses. Discounts conditional on the payment term and already credited shall be recharged.

Art. 9 WARRANTY
RAASM S.p.A. provides each product with the communication of particular instructions for the installation, use and maintenance requirements and the need to carry out possible checks on the product. All the technical information and data mentioned in the catalogue and in the price-list in force are not binding and can be changed without prior notice for the purpose of improving the quality of the products. All products manufactured by RAASM S.p.A. are guaranteed for a period of 5 (five) years from the date of delivery to the first user. The user must keep and show the sales invoice - or an equivalent document - together with the item's serial number in order to make a claim under the RAASM S.p.A. guarantee. The 5 (five) year guarantee does not apply to components which are subject to normal wear and tear (such as gaskets, diaphragms, O-rings, hoses, etc.), electronic components and items that are sold but not manufactured by RAASM S.p.A. (marked with a red asterisk in the current product catalogue) which are guaranteed for 1 (one) year from the date of delivery to the first user.
1 (one) year warranty is valid also for the following products:
- digital litre counters and FCS system;
- cable reels;
- electric, pneumatic or hydraulic motor supplied with our industrial hose reels S. 600 and 700.

Incorrect installation, use or maintenance of the product shall void the warranty. Upon written notice, the articles must be returned free to our Factory for checking and acceptance. In any case, the guarantee expires in the 10th year from the date of manufacture (indicated by the serial number), if the stated expiry takes place before the expiration terms indicated above (1 or 5 years from delivery to the first user).

Art. 10 RESPONSIBILITY
RAASM S.p.A. is exempt from any responsibility and liability for accidents that may occur to persons and property, as a result of or during the use of the equipment, due to or depending on the same whenever the products have been damaged during transport, tampered with or modified, or improperly used, or stored, installed, protected and preserved without complying with the instructions of RAASM S.p.A. as given in the installation, use and maintenance instruction manuals for each product. RAASM S.p.A. is liable for the value for the supplied product and cannot be held responsible in any way for other possible costs or additional costs that the customer may bear.

Art. 11 CONFIDENTIALITY
Information not in the public domain that is exchanged in the execution of the contract is subject to the obligation of confidentiality, secrecy and security; said information is covered as an industrial secret and is of a confidential and reserved nature and may not be disseminated to third parties; its use is permitted exclusively and strictly to execute the supply contract.

Art. 12 INTELLECTUAL PROPERTY RIGHTS
The RAASM trademark, and likewise the name RAASM, RAASM S.p.A., the logo and the other distinctive signs are internationally registered trademarks, and RAASM S.p.A. does not authorise their use and application under any circumstances. Without prior written consent from RAASM S.p.A., the content of catalogues, price lists, instruction manuals and similar, including content on the website may not be reproduced, either entirely or partially, nor may it be transferred by electronic or traditional means, nor may it be modified or utilised by any means and for any purpose. All rights are held by RAASM S.p.A. The customer acknowledges that RAASM S.p.A. holds exclusive ownership of all the parts, images, photographs and signs not in common usage, the content in the catalogues, price lists, instruction manuals and similar and/or present on the website www.raasm.com and/or other channels and/or social networks used by RAASM S.p.A. for their informational and marketing campaigns pursuant to Copyright Law and the Industrial Property Code.

Art. 13 INFORMATION ON THE PROCESSING OF DATA PURSUANT TO ITALIAN LEGISLATIVE DECREE 196/2003
In accordance with article 13 of Italian Legislative Decree 196/2003 - Personal Data Protection Code - you are hereby advised that the processing of the personal data, provided with the purchase of goods or services and/or the supply of goods or services is solely for the purposes of carrying out the contract-based obligations and to comply with the specific requests from customers/ suppliers, as well as adhering to legislative obligations, in particular accounting and tax obligations or to respect orders issued by public authorities or to exercise a right in court.
The data shall also be used for commercial statistics for corporate use and to obtain commercial information on our products and services if expressly authorised by the applicant.
The processing of data shall be done using hard-copy and computerised procedures, in the manner and within the limits necessary to achieve the aforementioned purposes.
Data may be communicated and processed by other companies in the Group for the same specified purposes, and may be made known to employees of our company, consultants and other suppliers, always and exclusively within the limits of the aforementioned purposes. The provision of data is mandatory for the correct execution of the contract and pre-contract based obligations, and failure to do so could result in it being impossible to fully comply with contractual obligations, and make it impossible to provide updates on the new products and services offered by our company. Data shall be processed for the duration of the contract relationship in place and subsequently to fulfil any legal formalities.

Art. 14 RIGHTS OF DATA SUBJECTS
The information is aimed at defining the limits and methods for the processing of data, based on which individual customers and/or suppliers may freely authorise the collection and subsequent use of data. Data subjects are entitled to the rights pursuant to article 7 of the aforementioned Code and in particular, the right to access their personal data, ask for the amendment, update and cancellation thereof, if incomplete, incorrect or collected in violation of the law, and may object to the processing for legitimate reasons, addressing requests in this regard to RAASM S.p.A. Pursuant to the same article the data subject also has the right to request the complete and updated list of the Data Supervisors, and to ask for the cancellation, transformation into anonymous form or blocking of data processed in violation of the law, and to oppose in any case, for legitimate reasons, the processing thereof.
To exercise these rights, and in the case of problems or any requests for clarification regarding what has been explained herein, kindly address these to RAASM S.p.A. - Via Marangoni, 33, Cassola (VI) - Italy or to the following email address: info@raasm.com.

Art. 15 DATA CONTROLLER
The Data Controller is RAASM S.p.A. with registered office at Via Marangoni 33, Cassola (VI) – Italy, and this is where the data processing shall take place.

Art. 16 COMPETENT LAW COURT
Any disputes shall be settled by the Law Court of Vicenza, Italy.

Notes

Company with quality and environment system according to ISO 9001:2015 and ISO 14001:2015 standards

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