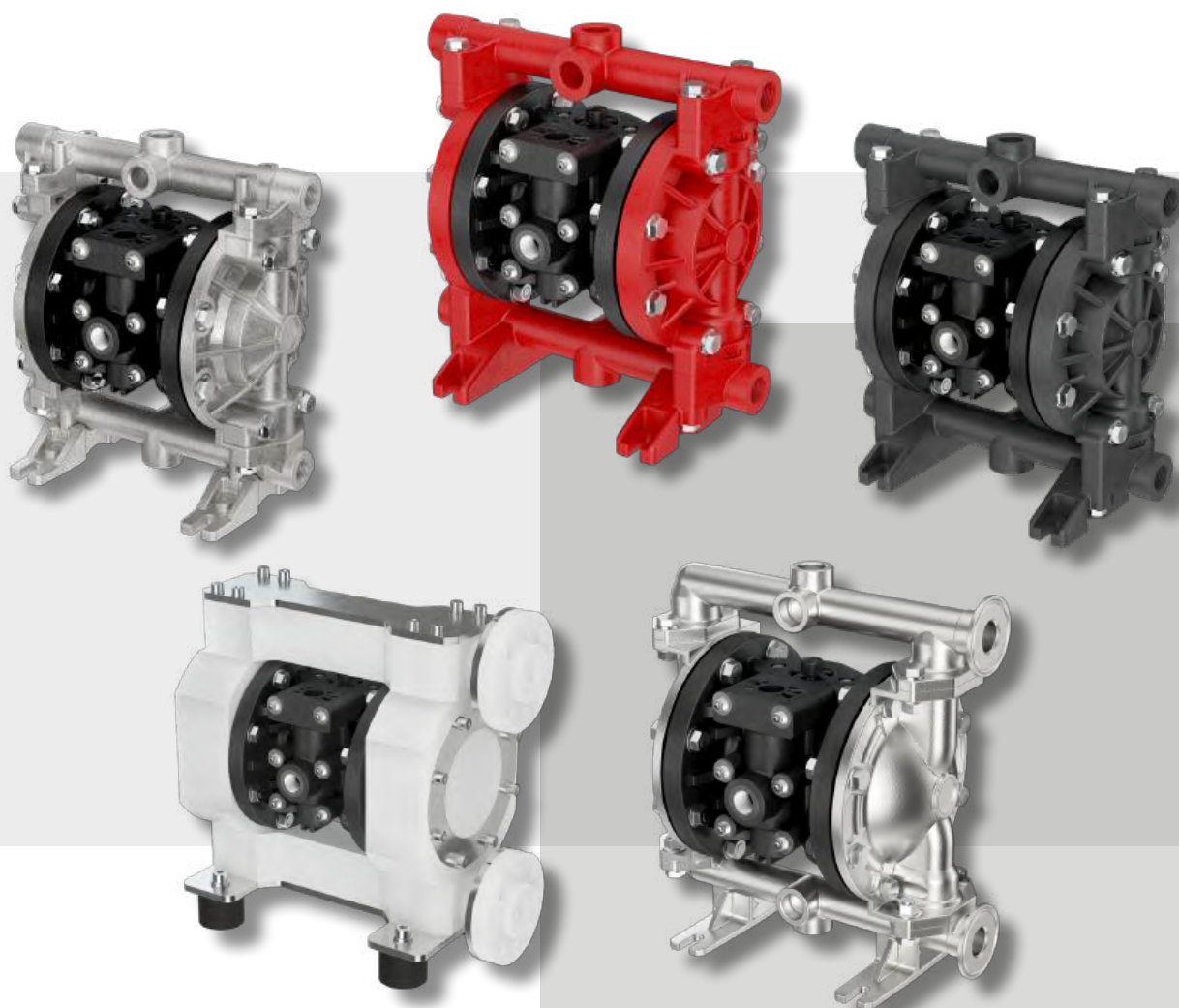




AIR OPERATED DOUBLE DIAPHRAGM PUMPS

PRO ONE SERIES - INNOVATIVE STATE OF THE ART PUMPS



The **PCHEM Pro One** series is the result of over 45 years of experience in the field of **air-operated diaphragm pumps**. This extensive expertise has led to the development of unique technical solutions that set these pumps apart in the market.

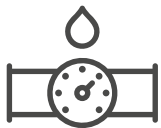
KEY INNOVATIONS:

- **Anti-Stall Valves:** Easily Maintenance on-site
- **Monitoring-Ready:** Smart Integration with plc / data acquisition system
- **Modular Air Exhaust management system**



MONITORABLE & IOT-READY

PCHEM Pro One pumps are factory-prepared for integration with electronic monitoring systems. Users can easily install sensors to enable:



**FLOW RATE
MEASUREMENT**



**AIR
CONSUMPTION
TRACKING**



**DRY-RUN
DETECTION**



**OPERATIONAL
PERFORMANCE
STATISTICS**



**LIQUID
VISCOSITY
MONITORING**

SUSTAINABLE DESIGN

PCHEM Pro One pumps are engineered with sustainability at their core.

They **optimize energy efficiency** by **minimizing air consumption** and eliminating harmful exhaust volumes.

Operating at **low pressure**, they require up to one-third **less air compared to conventional pumps**.

Integrated monitoring sensors detect dry running and automatically stop operation to **prevent energy waste**.

Built with **durability** in mind, the pumps feature **high-quality materials** and are available in configurations using components made from **recycled raw materials**.



**Up to
-66%
Starting
Pressure**



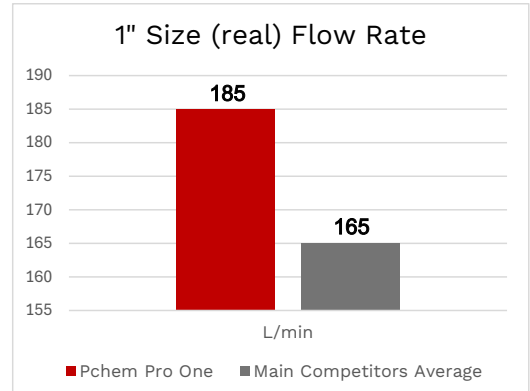
**Up to
-30%
Energy
Saving**

HIGH PERFORMANCE

PCHEM Pro One pumps are engineered for high performance.

Fluid and air pathways are optimized to **minimize internal volume and create linear flow channels**, enabling **high operational speed and rapid exchange**.

This design ensures **maximum efficiency** and consistent **performance** across a wide range of applications.



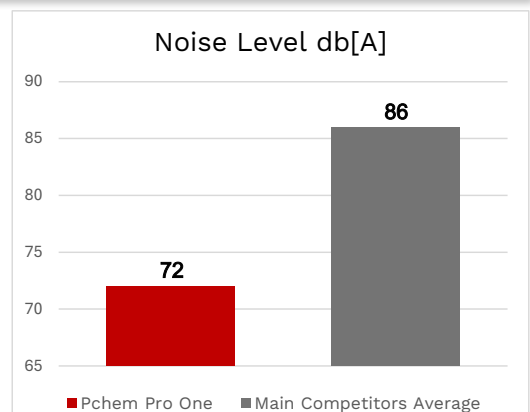
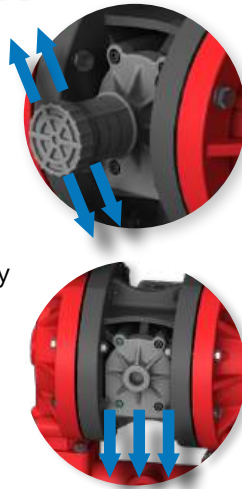
Pro One Flow rate +12%

LOW NOISE OPERATION

The pumps are equipped with an innovative air exhaust system designed to reduce noise emissions.

An internal expansion chamber allows compressed air to expand, lowering its energy before it is filtered and released into the atmosphere.

The system also includes a threaded connection for external silencers, providing further **reduction in acoustic pressure levels**.



**Pro One -14db[A]
Lower Noise Level**



ROBUST AND RELIABLE

PCHEM Pro One pumps are engineered to withstand extreme operating conditions.

Each unit undergoes **rigorous testing**, including exposure to aggressive liquids, climatic chamber cycles, impact resistance, burst pressure, drop impact, and overpressure scenarios.

DURABILITY and RELIABLE PERFORMANCE even in the harshest environments.

MULTI-APPLICATION AND MULTI-MATERIALS

PCHEM Pro One pumps are highly versatile and suitable for a wide range of industries. Their ability to handle corrosive and abrasive fluids makes them **ideal for numerous demanding applications**.

Configurable



PCHEM Pro One offer customizable setups: split suction & discharge, low pulsation, external pilot and more. Custom-engineered pumps for exact application needs.

Maintainable



Power and Pilot Valves maintenance on-site without disassembly. Standardized components across pump sizes. Reduced numbers of parts.

AODD PUMP

PRO ONE 25 - 1" SS (Stainless steel)

Air-Operated Double Diaphragm (AODD) Pump, Self-priming, anti-stall and configurable in construction materials.

Robust design, built to last and easy to maintain.

- High Performance
- Monitorable
- Low noise level
- Low Air Consumption

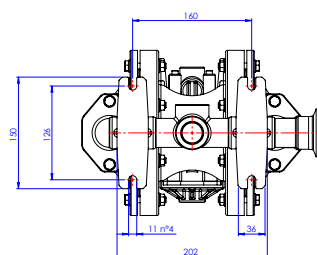
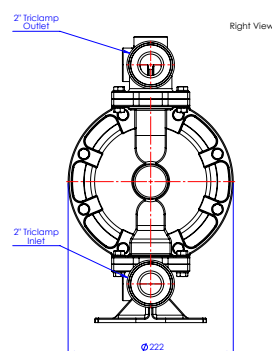
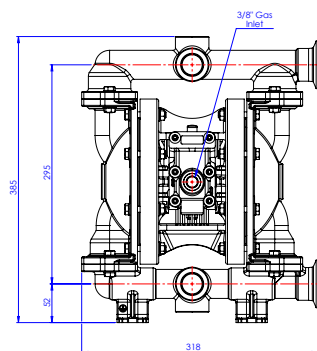


Discover More About
the New PCHEM
Pro One Range:



- External Control Version Available

DIMENSIONS



Bottom View
Fittings

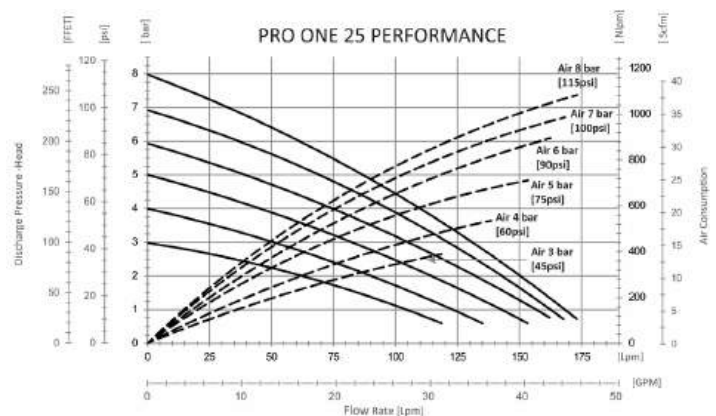
TECHNICAL SPECIFICATIONS	Data
Adjustable Flow Rate*	0÷160 l/min
Suction and Discharge Valves	Ball Type
Fluid Connections	2" Triclamp 1" BSP Threaded 1" NPT Threaded
Max. Solid Particle Diameter Equivalent **	5,1 mm
Dry/Wet Suction Height	4 / 7 m
Pneumatic Supply pressure	3/8" BSP
Supply Pressure (Min / Max)	1 / 6,8 bar
Weight	18,9 Kg
Noise Level ***	78 dB [A]

MATERIAL CONFIGURATION OF COMPONENTS	
Fluid Side	Stainless steel
Diaphragms	PTFE, TPV, NBR, TPE, EPDM
Gaskets	PTFE, FEP, FKM, FFKM, NBR, EPDM
Valves	SS, PTFE, EPDM, NBR, CERAMICA

AVAILABLE CERTIFICATIONS
ATEX 2G Zone 1 o ATEX 3G Zone 2 FDA Compliant

- Other materials available and configurable based on the fluid to be processed
- For further specifications or variants, please contact the technical department

PERFORMANCE



Tests conducted in the laboratory by processing water according to procedure, with the Pro One 25 SS-PTFE pump configuration. Performance may vary depending on the pump configuration, the processed liquid, the hydraulic circuit, and the operating conditions.

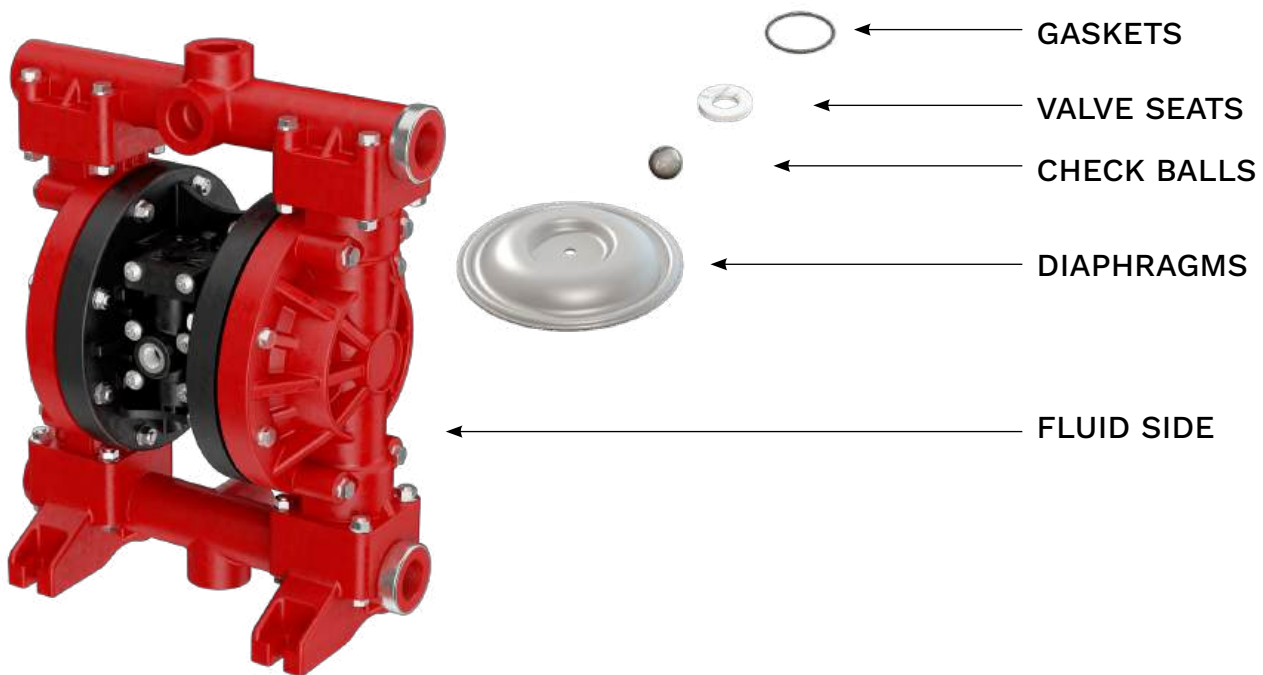
* Flow rate adjustment through flow valve on the liquid discharge and/or flow valve and pneumatic supply pressure regulator.

** The maximum equivalent solid particle diameter refers to the valve passage section based on a spherical body. The pump's operation with liquids containing suspended solids is not guaranteed. Please contact PCHEM for further details.**

*** The indicated noise level is measured under specific operating conditions.

The product technical specifications in this catalog are non-binding and may be changed without prior notice.

HOW TO CONFIGURE YOUR AODD PUMP



MATERIALS CONFIGURATOR

CONFIGURATION LEGEND

The table allows you to configure the pump with construction materials. Other materials are available upon request.
Not all combinations are available or technically feasible.

	Size	Special	Fluid Side		Diaphragms		Gaskets		Valve Seats		Check Balls		Connections	Open Ports	Certifications	
PRO ONE	25	SP0001	A	-	TN	-	T	-	A	-	T	(	GAS	L	3G	)
		Optional					Materials									Specifications

Size		MATERIAL CODE	Fluid Side		Diaphragms		Gaskets		Valve Seats		Check Balls	
8	3/8"		A	Aluminium	E	EPDM	E	EPDM	A	Aluminium	E	EPDM
15	1/2"		B	PVDF	H	TPE	N	NBR	B	PVDF	I	Stainless Steel
25	1"		BC	CFR PVDF	N	NBR	S	Silicone	E	EPDM	N	NBR
40	1 1/2"		I	Stainless Steel	Q	TPV	T	PTFE	I	Stainless Steel	T	PTFE
50	2"		P	Polypropylene	TH	PTFE + Backup TPE	V	FKM	P	Polypropylene	U	Polyurethane
			PC	Conductive Polypropylene	TN	PTFE + Backup NBR			T	PTFE		
			T	PTFE	TV	PTFE + Backup FKM			U	Polyurethane		
			TC	Conductive PTFE	KE	Co-vulcanized PTFE + EPDM						

SPECIFICATIONS CODE	Connections		Open Ports		Certifications	
	GAS	BSP	L	Lateral	ATEX 3G ZONE 2	
	NPT	Npt	O	Open with Plugs	ATEX 2G ZONE 1	
	FL	Flanged			FDA COMPLIANT	
	CL	Clamp				

OPTIONAL CODE	Special	
	SPXXXX	Custom Pump



PCHEM s.r.l.

Headquarters

Via Brigata Mazzini 35/A

36016 - Thiene (VI) ITALY

tel.+39 0445 1856565

e-mail: info@pchem-industries.com

www.pchem-industries.com

