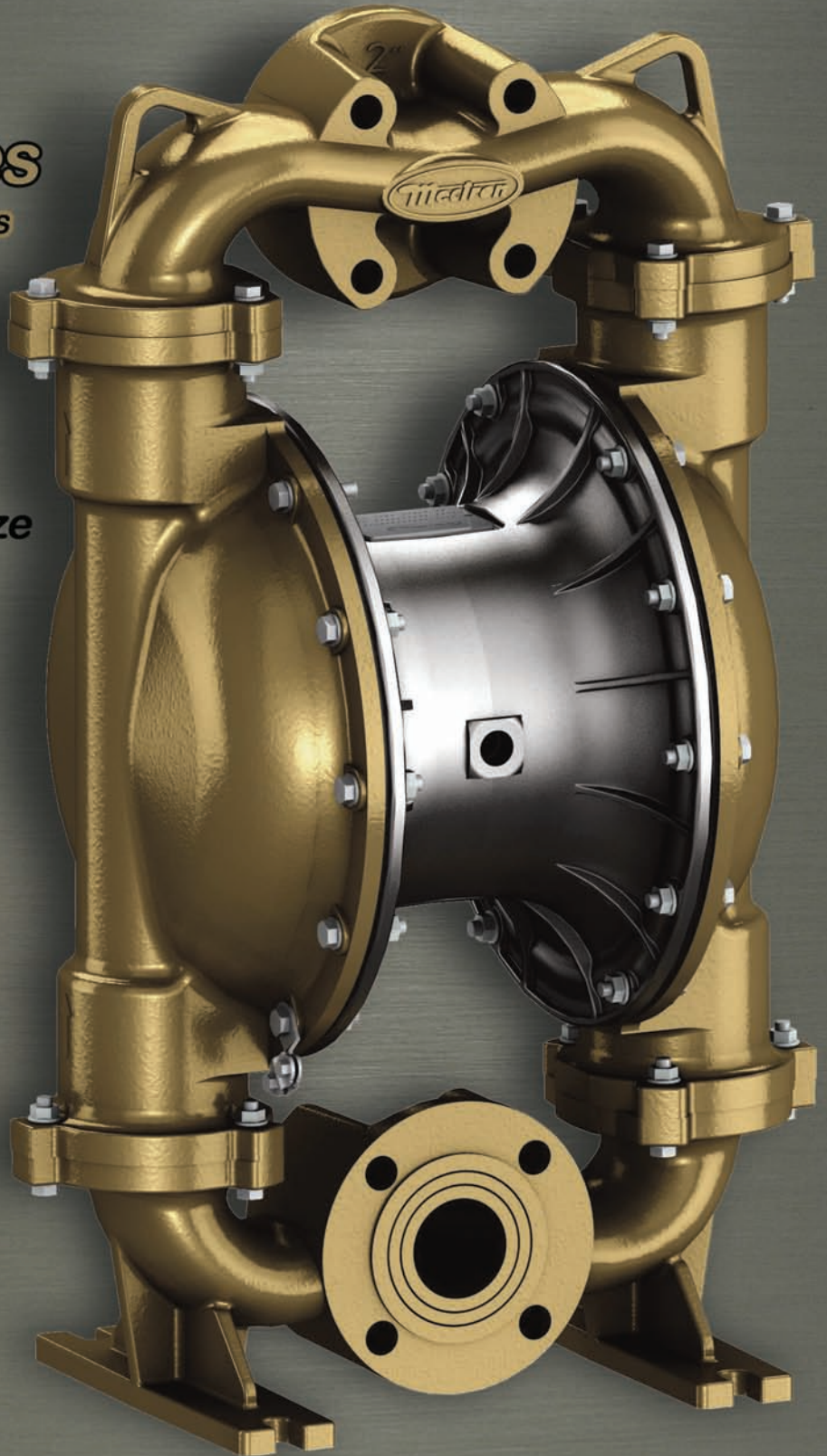




The Perfect Solution to Your Pumping Needs.

The Gold Series

AIR OPERATED DIAPHRAGM PUMPS



- Nickel aluminium bronze material for seawater application
- Submersible option available
- ATEX zone 1/zone 2 certification
- Lube-free operation



EU Product
Made in Italy

MECTRON ENGINEERING PTE LTD

www.mectron.com.sg



ABOUT US

Mectron Engineering Pte Ltd was established in 1981. It is now a renowned full service provider for pumping equipment, from preliminary design of pumping system, project management, delivery, installation, start-up to commissioning.

With highly technically qualified and committed staffs, **Mectron** has delivered many proven and reliable pumping systems and equipment to many customers. The mission is to always provide a cost effective and reliable solution to the customers.

The **Gold Series** is an innovative **Air Operated Diaphragm Pump** being developed in **Nickel Aluminium Bronze** material.

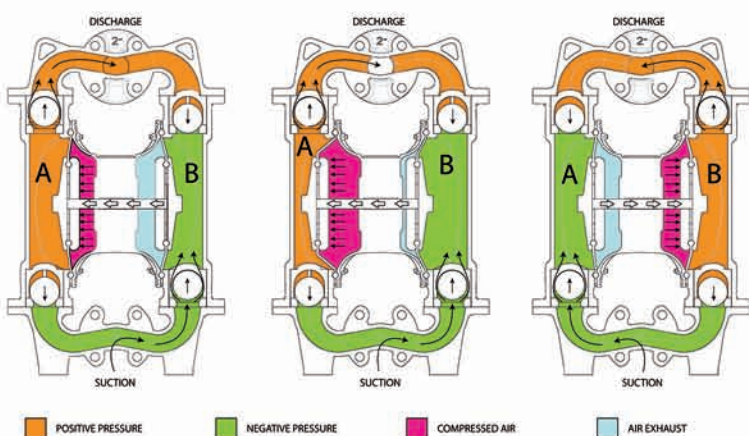
WORKING PRINCIPLE

The **Gold Series** are double-diaphragms positive displacement pumps.

The diaphragms are linked by a common shaft moving in an alternating motion within the coaxial chamber.

Compressed air is supplied to the rear end of the diaphragms by pneumatic distribution system to displace them simultaneously. When the diaphragm moves towards the centre block, it creates a vacuum in its chamber and fluid will fill the chamber.

When the diaphragm moves away from the centre block, the fluid will be "pushed" out of the chamber. The valve balls and valve seats help to direct the flow of fluid.



SIZES

The **Gold Series** is designed specifically for Seawater application to maximise efficiency and achieve greater performance. It is available in 2", 3" and 4" for flow rate up to 1200 litres per minute (317 USGPM).

MAIN CHARACTERISTICS

- Nickel aluminium bronze material for seawater application
- SS316L corrosion resistance centre block
- ATEX zone 1/zone 2 certification
- Pending patent pneumatic exchanger design
- Submersible
- No lubrication required
- Able to pump solids of up to 30mm in diameter
- ANSI standard flange
- Bolted construction for easy assembly/disassembly
- Ease of maintenance
- Low maintenance cost

ELASTOMERIC DIAPHRAGM - NBR

Blend of rubbers embedding nylon made reinforcing mesh designed to increase their mechanical resistance.

PNEUMATIC EXCHANGER

The original drive and distribution system of the air supplied is made of high performance synthetic polymers and composed of only 5 parts. The air distributor and the pilot spool are integrated in a mono-block valve.

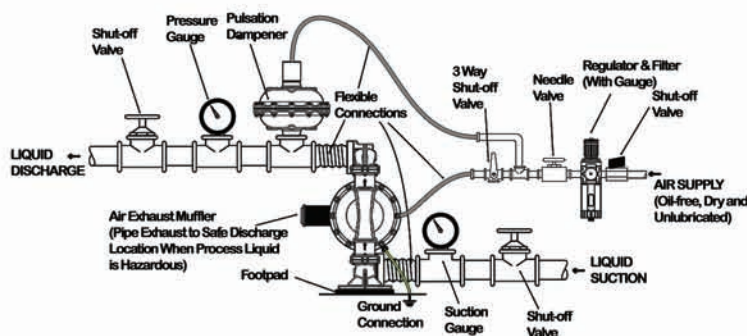
These parts are wear resistant and self-lubricating. They do not require maintenance but it is advisable to verify the pumping parts during periodical checks.

SETTING UP

The **Gold Series** can be mounted in several ways:

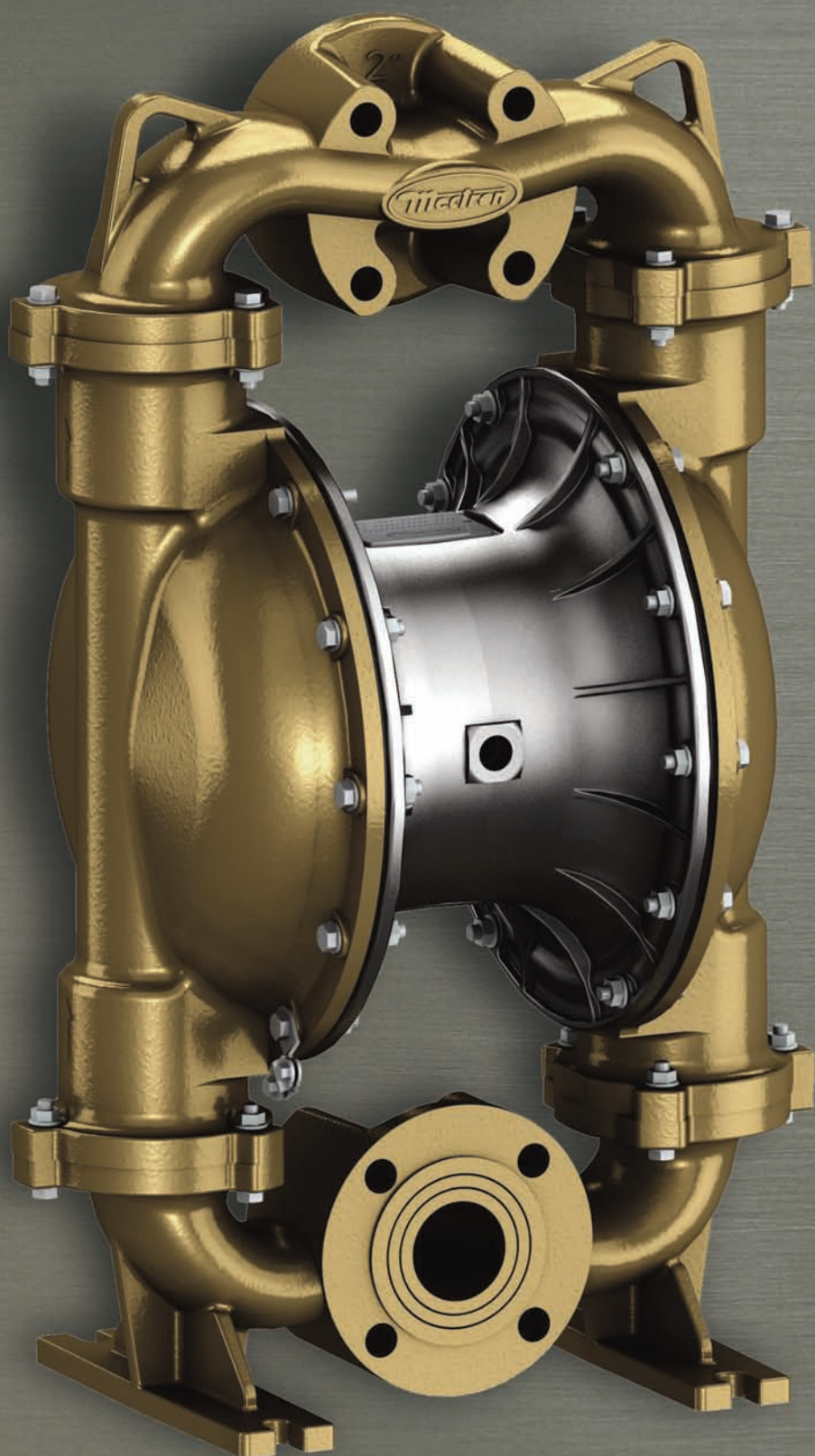
- Self priming
- Positive suction
- Submerged
- Suspended

SUGGESTED INSTALLATION



* This illustration is a generic representation of an air-operated AODD pump.

**Pulsation dampener is only required when total discharged head is above 4.5 Bar





ATEX

The Gold Series is adequate to operate in Zone 1 and Zone 2 under ATEX regulations.

The ATEX regulations describe what equipment and work environment are allowed in an explosive atmosphere. Under the ATEX directive (94/9/EC), the product must carry ATEX "Ex" mark if it is intended to be used in potentially explosive atmosphere

Zone 1 (II 2 GD IIB T135°): An area in which an explosive mixture is likely to occur in normal operation.

Zone 2 (II 3 GD IIB T135°): An area in which an explosive mixture is not likely to occur in normal operation and if it occurs, it will exist only for a short period of time.

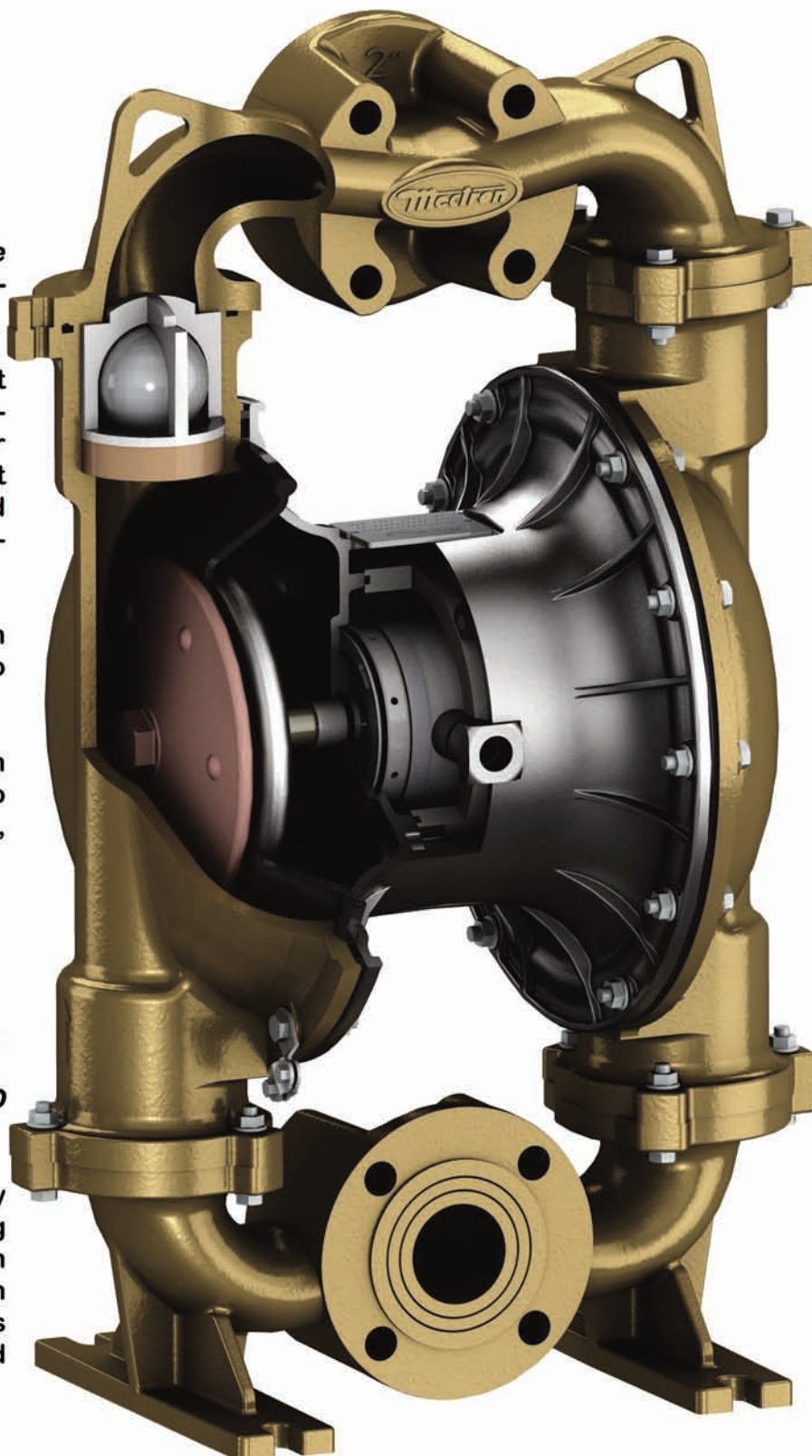
ISO 9001
BUREAU VERITAS
Certification



ISO 9001:2008

Mectron Engineering Pte Ltd is an ISO 9001:2008 certified company.

ISO 9001:2008 is based on several quality management principles including a strong customer focus, motivation and implication of top management, process approach and continual improvement. It ensures Mectron's customers get consistent good quality products and services.



Hydraulic
INSTITUTE

ANSI / HI 10.1-10.5-2010 & ANSI / HI 10.6-2010

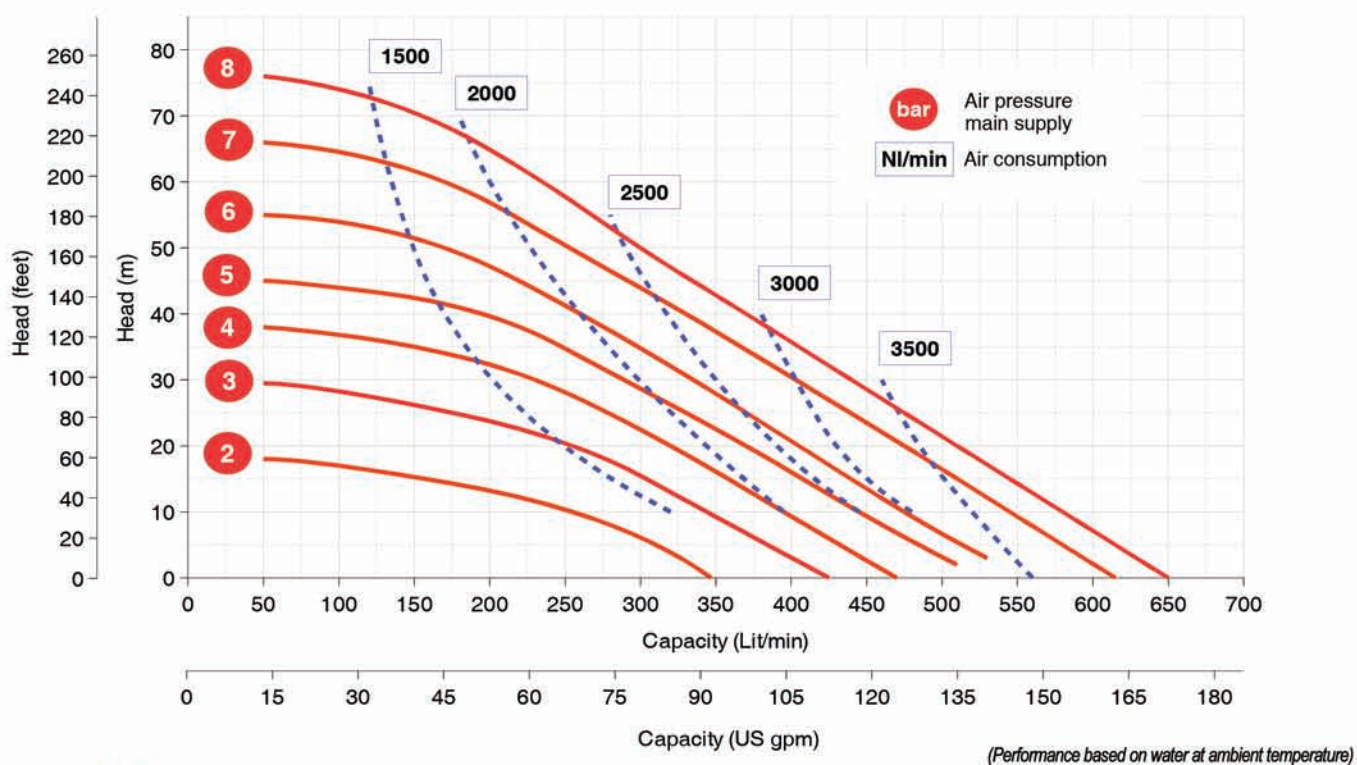
The Gold series is built in accordance to American National Standard for Air-Operated Pumps for Nomenclature, Definition and Operation, ANSI/HI10.1-10.5-2010 and tested in accordance to American National Standard for Air Operated Pump Tests ANSI/HI10.6-2010



Specification

Max Capacity	650 L/min
Max Fluid Working Pressure	7 Bar
Air Pressure Operating Range	2 to 8.5 Bar
Max Suction Lift	4 m (Dry); 8.5 m (Wet)
Max Allowable Solid Size	7.5 mm
Max Operating Temperature	90°C
Noise	80 dB
Weight	Approx. 80 kg
Air Inlet Connection	½" FNPT Threaded Insert
Inlet/Outlet	2" ANSI 150# Flange Connection

Performance Curve

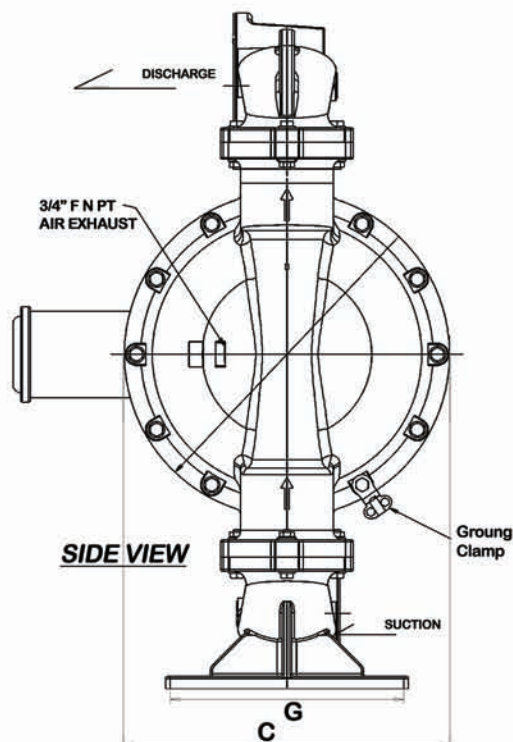
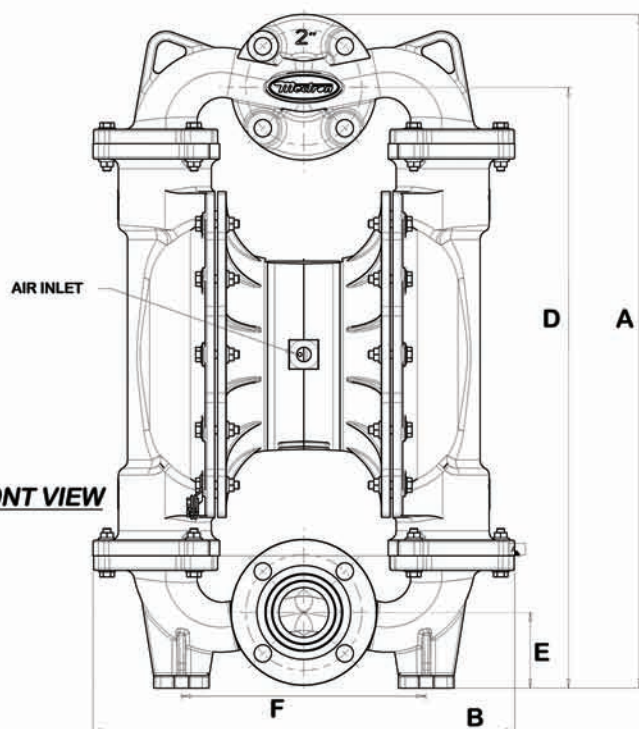


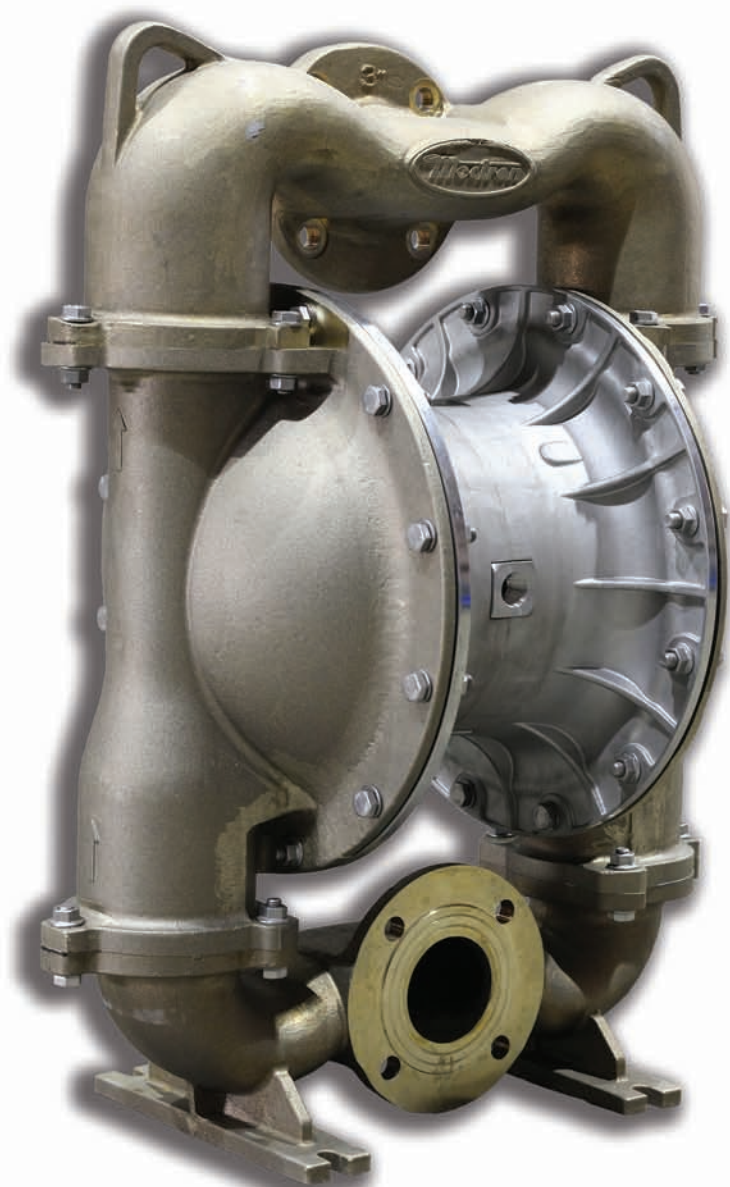
Material

Fluid Chamber	Diaphragm	Ball	Ball Seat	O Ring	Centre Block	Pneumatic Exchanger
NiAlBr	NBR	NBR	Polyurethane	NBR	SS316L	POM+AL+NBR

Dimension

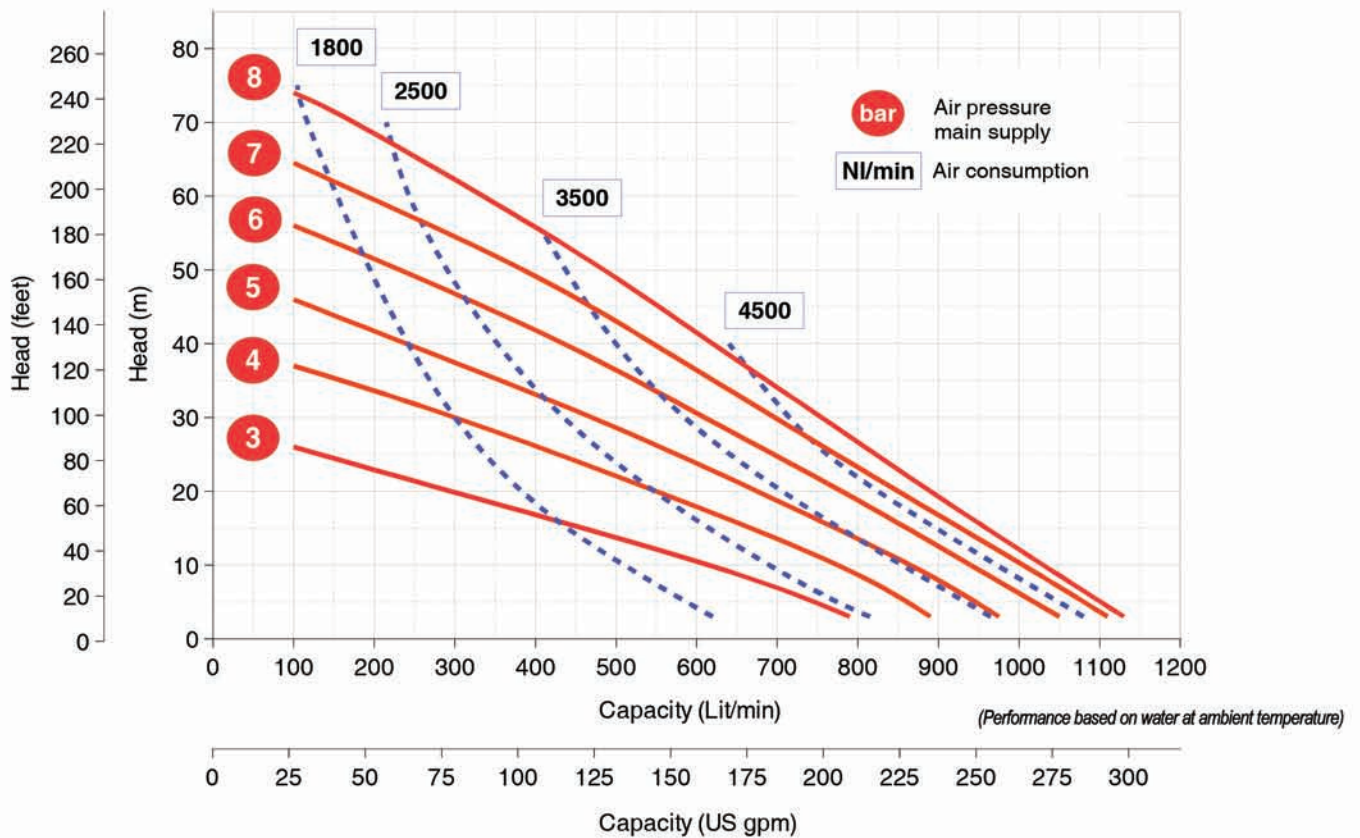
Model	A	B	C	D	E	F	G
MDP 2 BR	707 mm	441 mm	340 mm	631 mm	79 mm	255.5 mm	220 mm





Specification

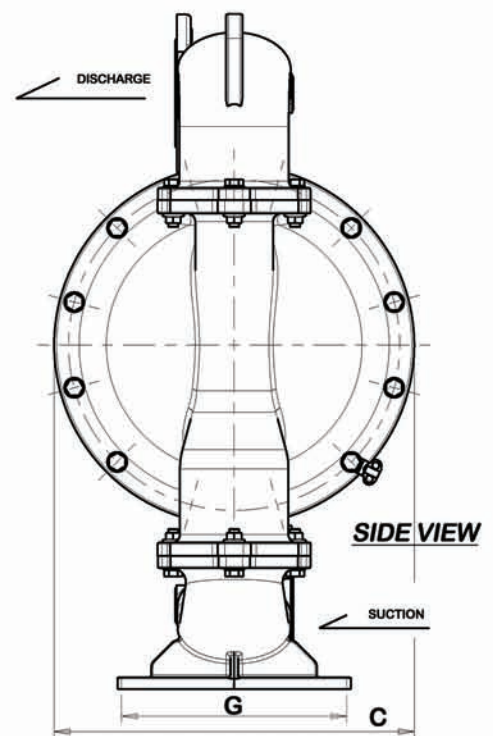
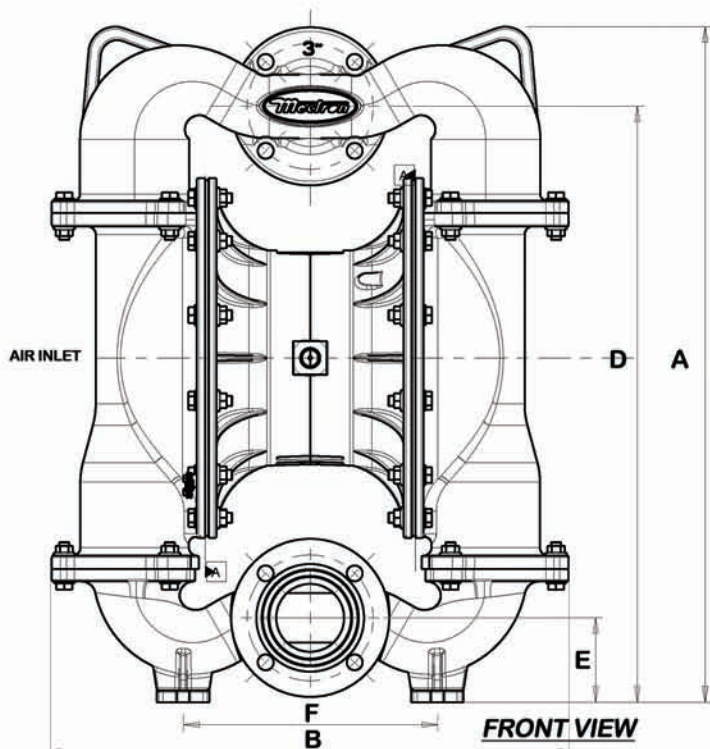
Max Capacity	1100 L/min
Max Fluid Working Pressure	7.0 Bar
Air Pressure Operating Range	2 to 7.0 Bar
Max Suction Lift	4 m (Dry); 8.5 m (Wet)
Max Allowable Solid Size	12 mm
Max Operating Temperature	90°C
Noise	82 dB
Weight	Approx. 135 kg
Air Inlet Connection	¾" FNPT Threaded Insert
Inlet/Outlet	3" ANSI 150# Flange Connection

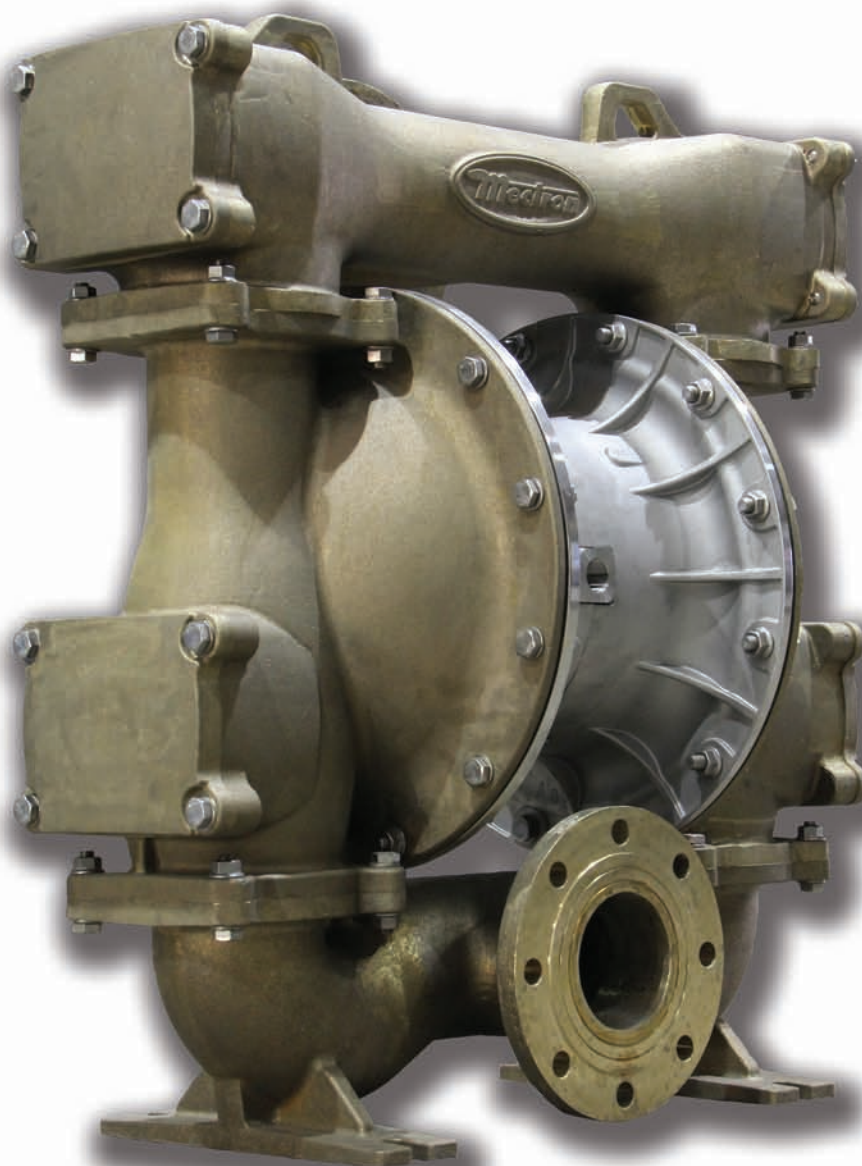


Fluid Chamber	Diaphragm	Ball	Ball Seat	O Ring	Centre Block	Pneumatic Exchanger
NiAlBr	NBR	NBR	Polyurethane	NBR	SS316L	POM+AL+NBR

Dimension

Model	A	B	C	D	E	F	G
MDP 3 BR	816 mm	624 mm	435 mm	720 mm	102 mm	307 mm	250 mm

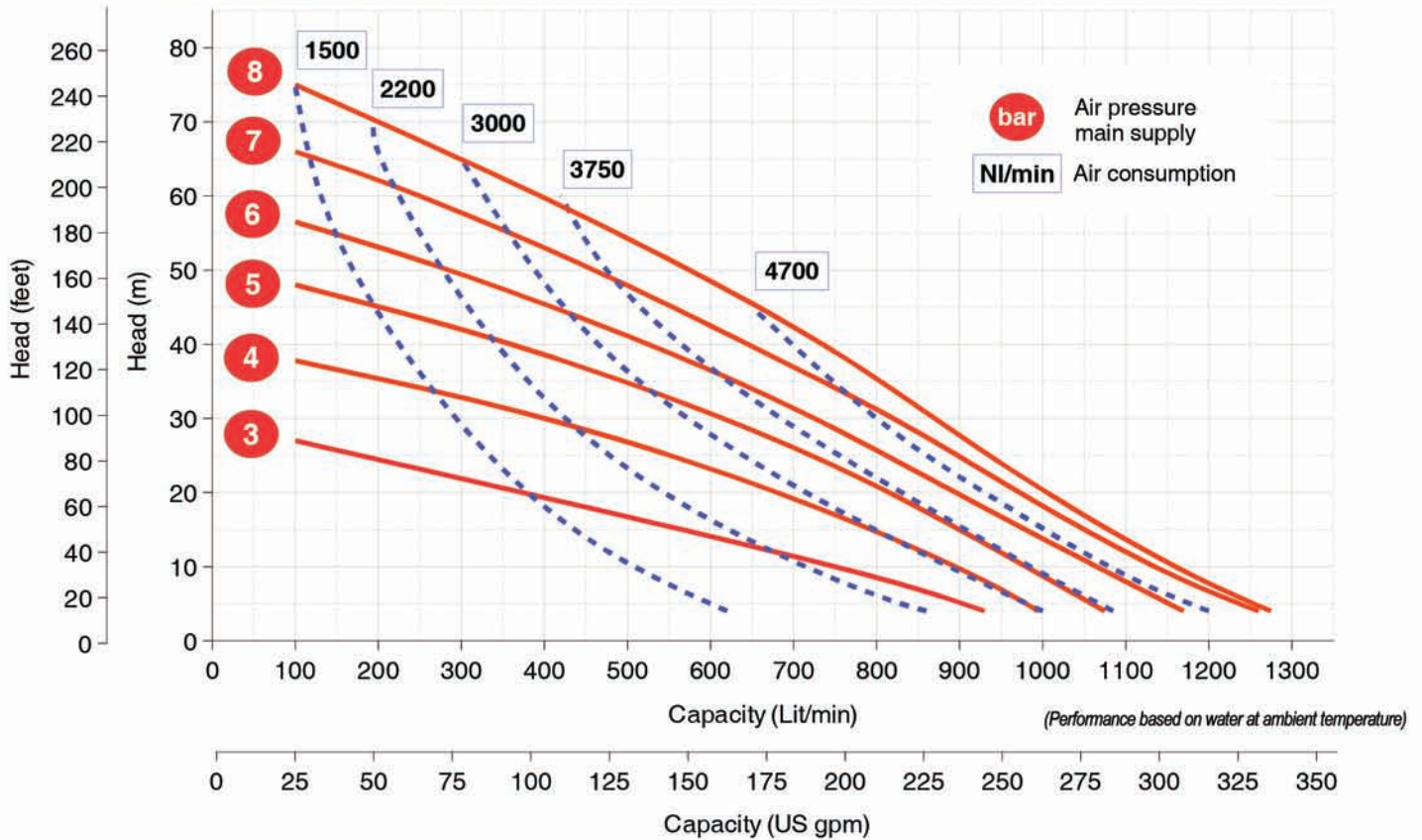




Specification

Max Capacity	1200 L/min
Max Fluid Working Pressure	7.0 Bar
Air Pressure Operating Range	2 to 7.0 Bar
Max Suction Lift	4 m (Dry); 8.5 m (Wet)
Max Allowable Solid Size	30 mm
Max Operating Temperature	90°C
Noise	82 dB
Weight	Approx. 210 kg
Air Inlet Connection	¾" FNPT Threaded Insert
Inlet/Outlet	4" ANSI 150# Flange Connection

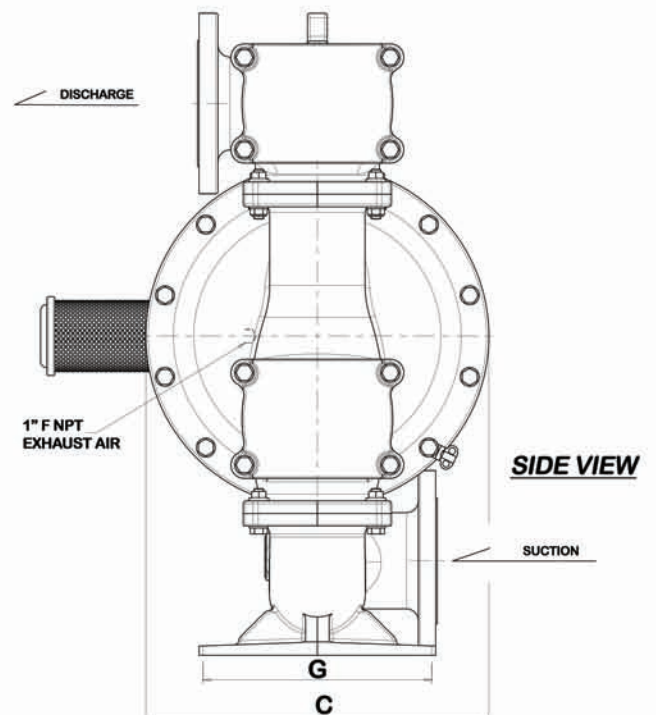
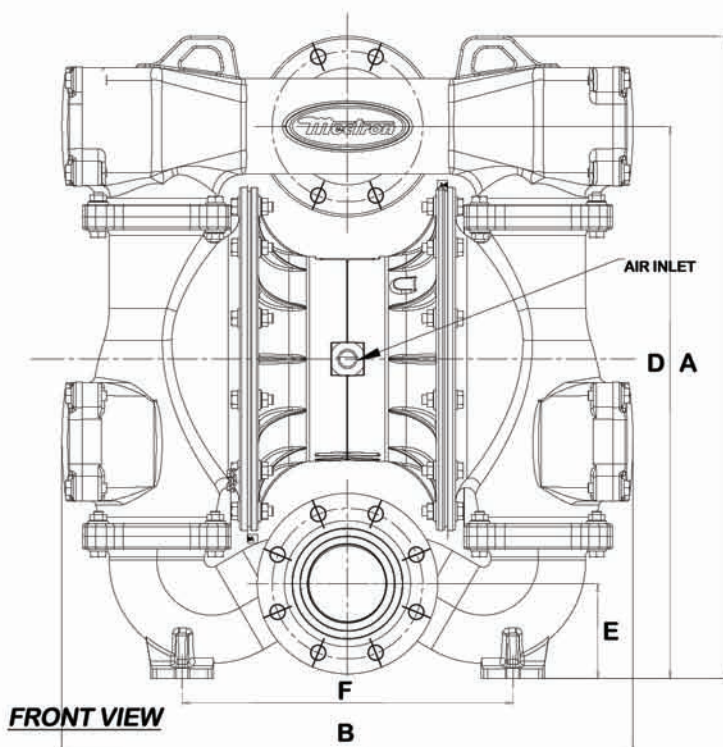
Performance Curve



Fluid Chamber	Diaphragm	Ball	Ball Seat	O Ring	Centre Block	Pneumatic Exchanger
NiAlBr	NBR	NBR	Polyurethane	NBR	SS316L	POM+AL+NBR

Dimension

Model	A	B	C	D	E	F	G
MDP 4 BR	815 mm	725 mm	435 mm	700 mm	120 mm	420 mm	250 mm



*Mectron Keeps
Pumps Pumping!*



MECTRON ENGINEERING PTE LTD

78 Tuas Avenue 11, Singapore 639095
Tel: (+65) 6863 3033 | Fax: (+65) 6863 3900

Email: sales@mectron.com.sg
Website: www.mectron.com.sg

