



SHiFT[®]

MODULUS

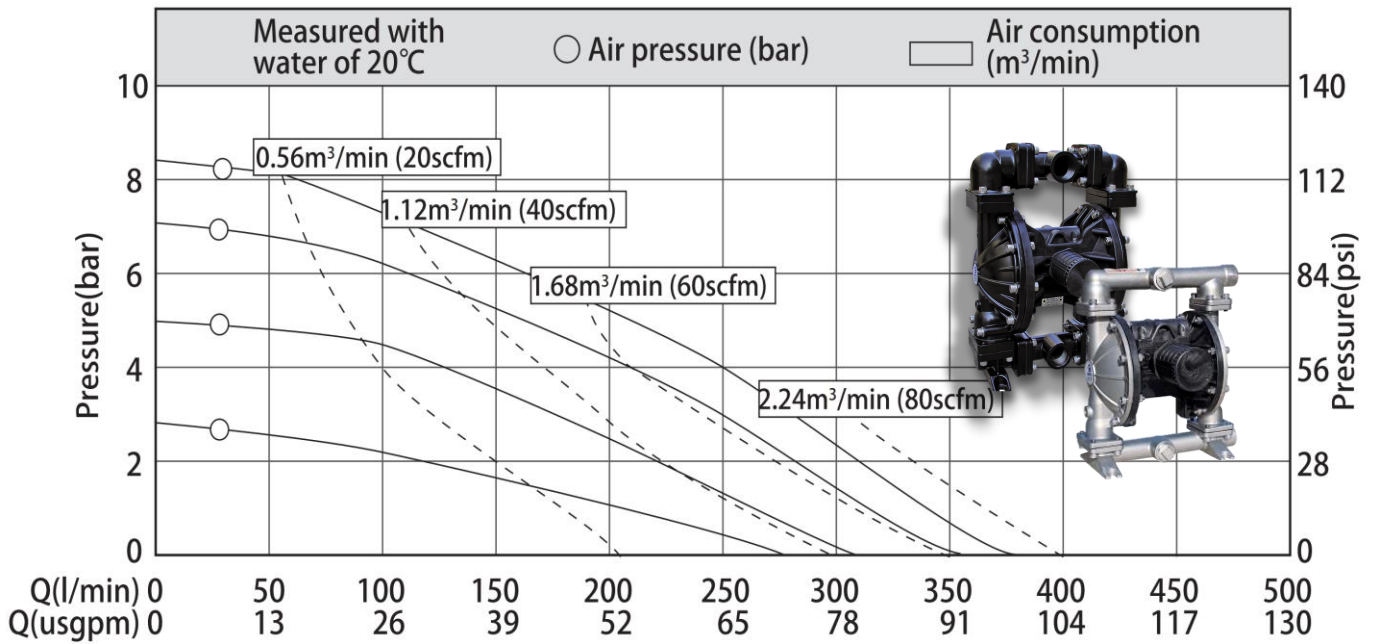
Care and Maintenance
Manual

M40

Bolted
Metal
Pumps



Performance Curve



Technical Parameters

Parameter	Unit	Value
Suction Lift - dry	mwc	5
Suction lift - wet	mwc	8
Solids size	mm	5
Air inlet	inch	1/2
Max air inlet pressure	bar	8.4

Material of Construction

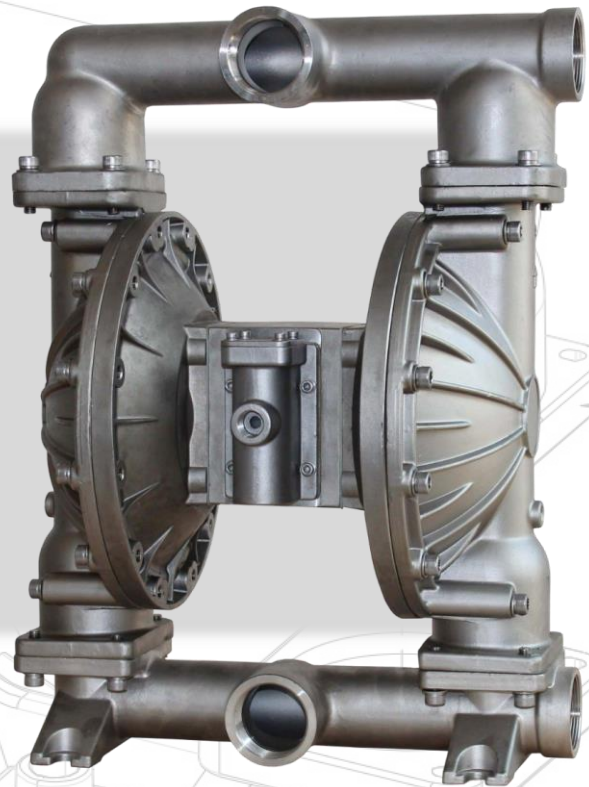
Pump Part	Material
Pump body	AL, SS
Diaphragm	Santoprene (ST), Teflon (TF), Hytrel
Seat	Santoprene (ST), Teflon (TF), Hytrel
Centre block	PP, AL

Weight

Pump type	Weight
Aluminium	20kg
Stainless	31kg
Cast-iron	50kg



Speciality Stainless Centre Bolted Pumps



Three-section connection

The centre body is connected by three section high strength bolts, which reduces the difficulty maintenance.

Modular air valve

The air valve is external for convenient installation and maintenance.

Bolted design

The pump is bolted with high strength bolts to prevent leakage under pressure.

Stainless construction

The full centre section is constructed in stainless offering chemical resistance and rigid

Built-in buffer chamber

Energy saving and noise reduction, preventing icing, with reduced exhaust pressure and noise.

Unbalance air valve spool

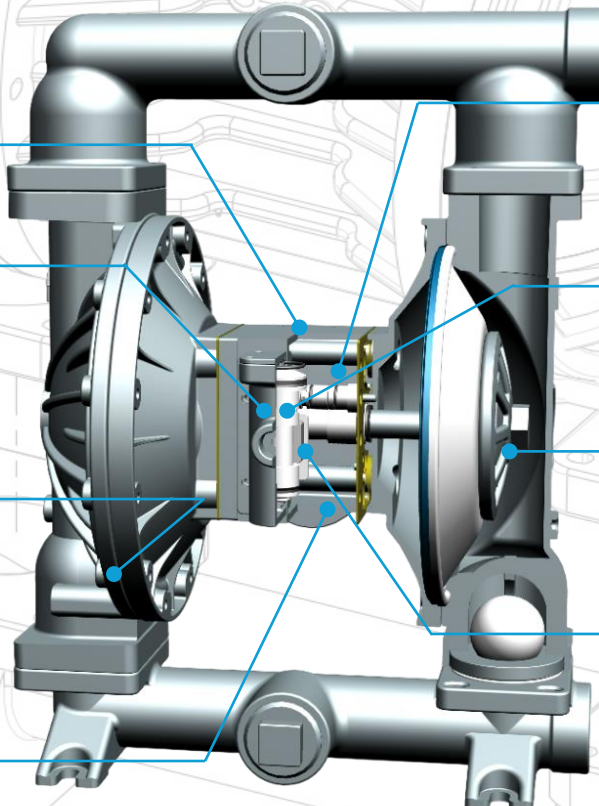
The spool has always got air pressure on the small head to prevent centralization.

One piece outer plate

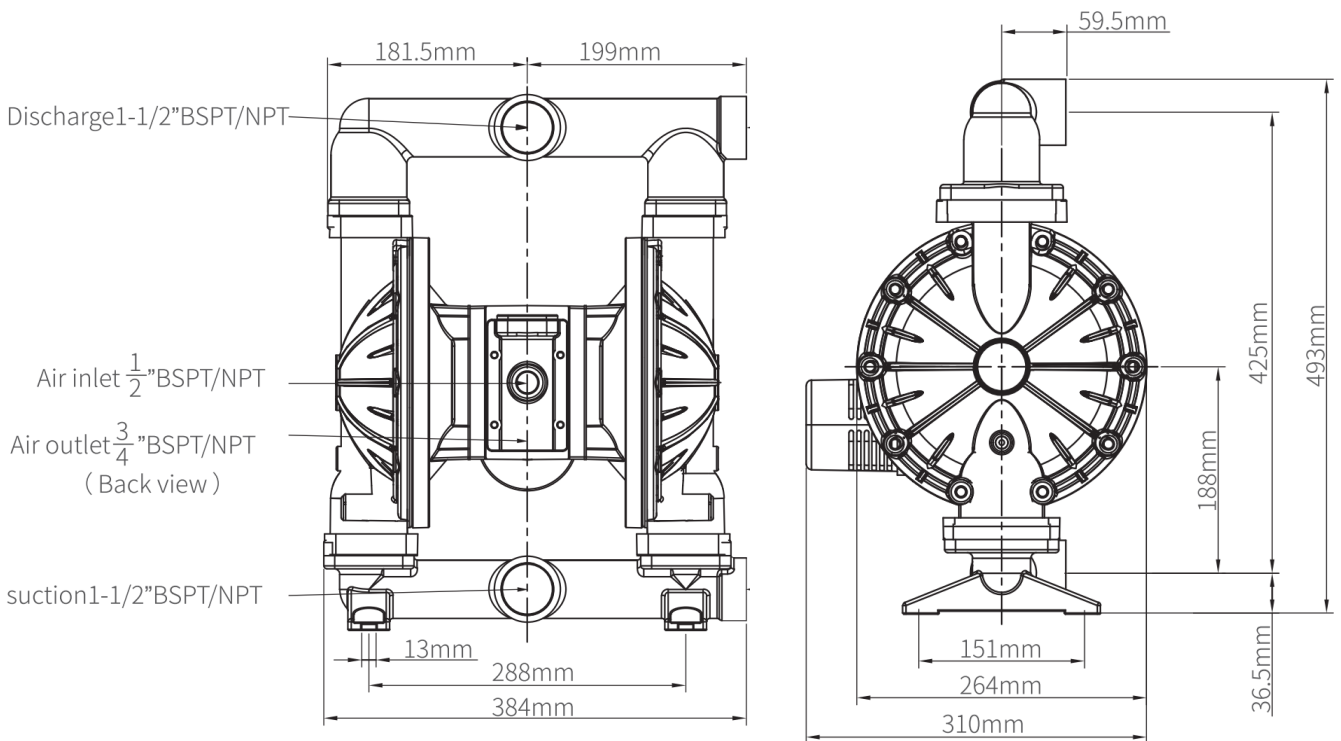
The outer plate has an oring groove to seal on diaphragm to prevent leakage.

Double ceramic dynamic seal

Provides high wear resistance and self sealing to maximize efficacy.



Dimensional Data: Stainless Centre



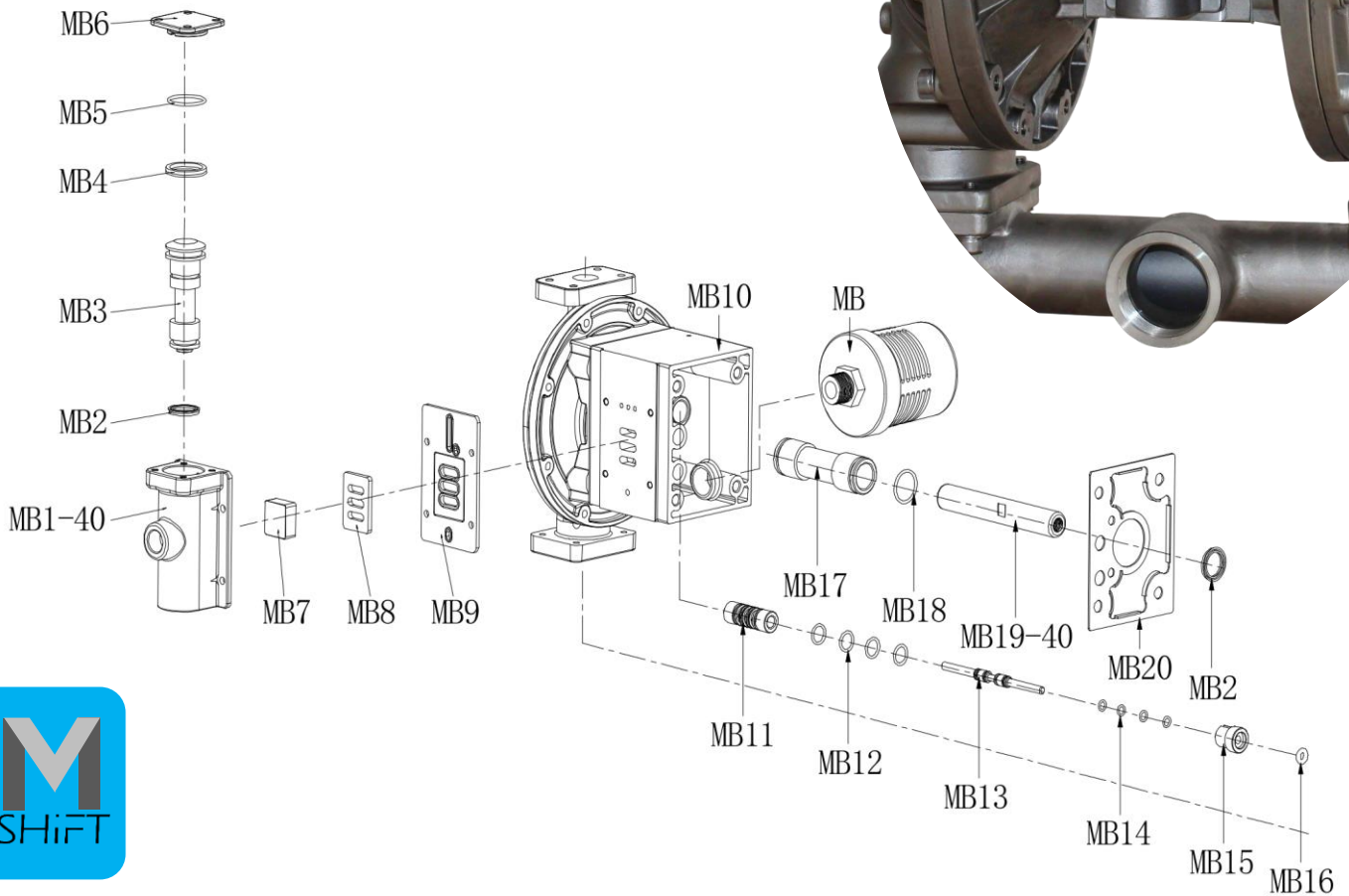
Material of Construction

Pump Part	Material
Pump body	AL, SS, PP, CI
Diaphragm	Santoprene (ST), Teflon (TF), Hytrel
Seat	Santoprene (ST), Teflon (TF), Hytrel
Centre block	SS

Weight

Pump type	Weight
Aluminium	28kg
Stainless	38kg
Cast-iron	58kg

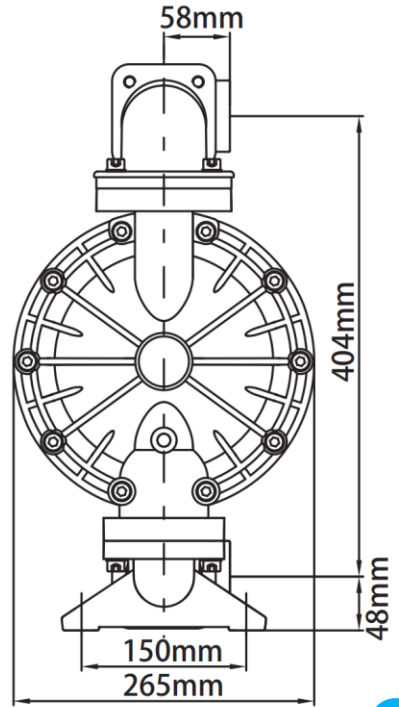
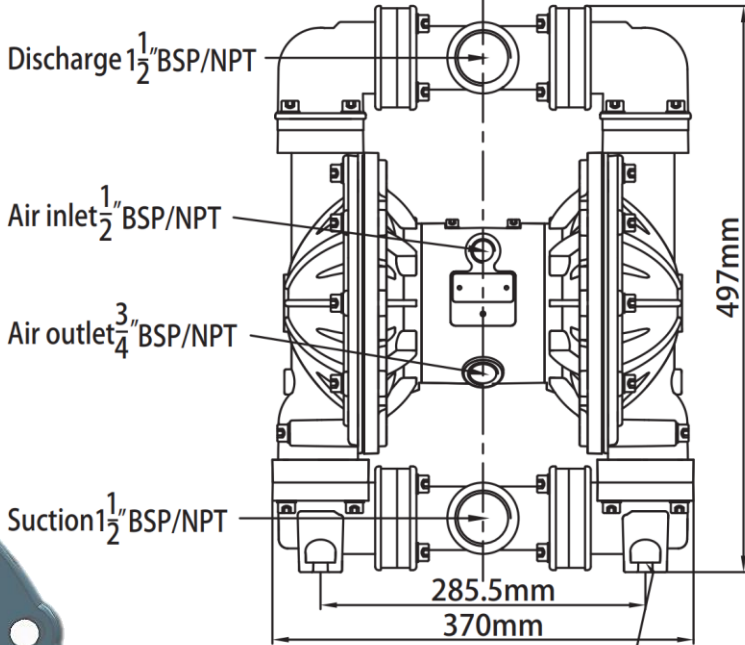
Part Numbers: Stainless centre



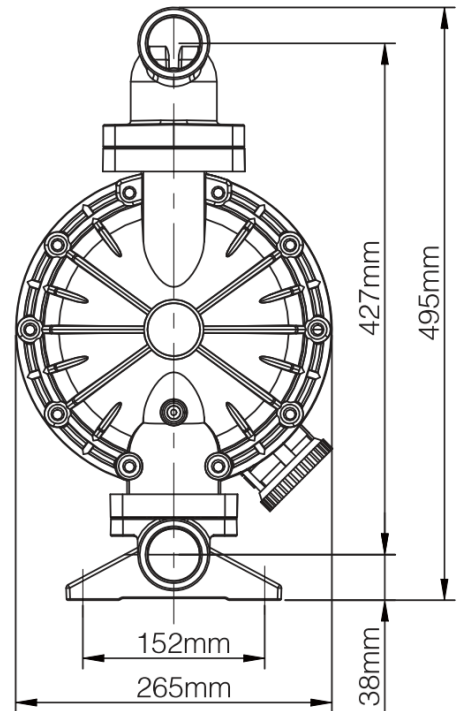
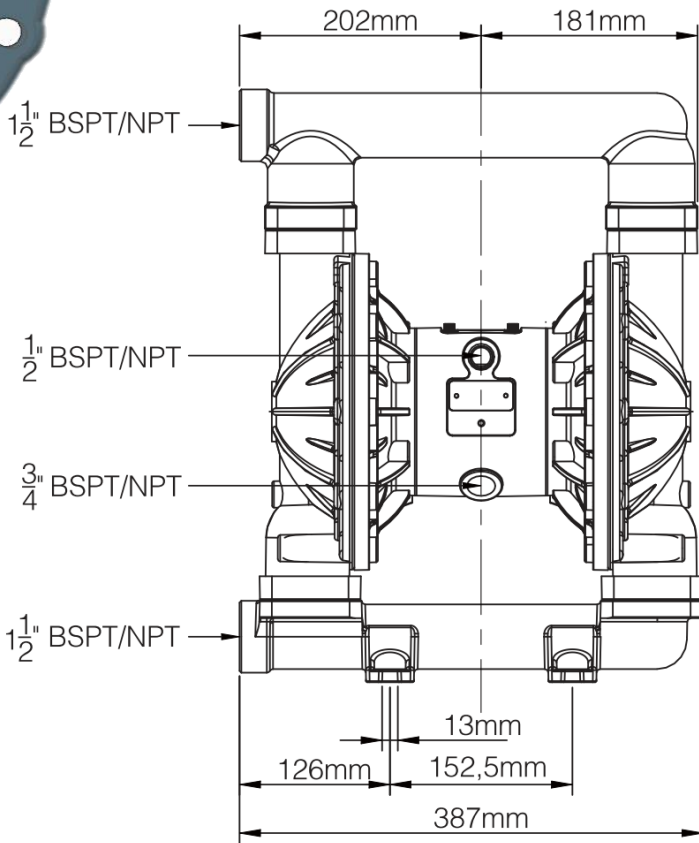
Part code	Name	Part code	Name
MB1-40-SS	Air valve housing	MB12-VT	Reversing valve O-Ring
MB2-VT	V-ring (Piston and rod)	MB13-SS	Reversing shaft
MB3-PM	Piston	MB14-PU	Shaft O-Ring
MB4-VT	Piston V-ring	MB15-PM	Locking plate
MB5-VT	Cap O-Ring	MB16-VT	Plate O-Ring
MB6-SS	Air valve cap	MB17-PM	Rod Bushing
MB7-CM	Pilot valve	MB18-VT	Rod bushing O-ring
MB8-CM	Valve plate	MB19-50-SS	Diaphragm Rod
MB9-ST	Air valve gasket	MB20-ST	Air chamber gasket
MB10-SS	Center block	MB-PP	Muffler
MB11-PM	Reversing valve		

Dimensional Drawings: Aluminium

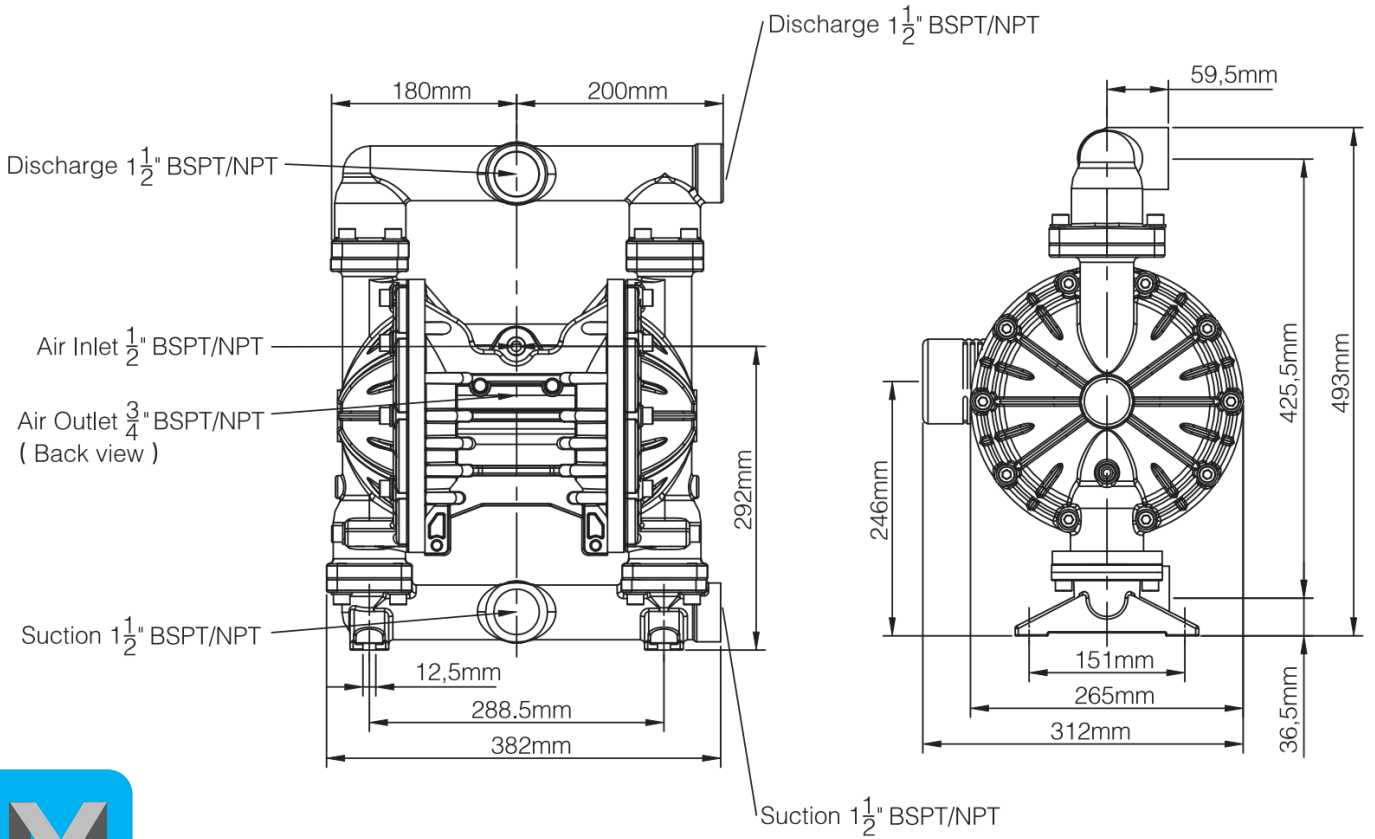
Aluminum Pump



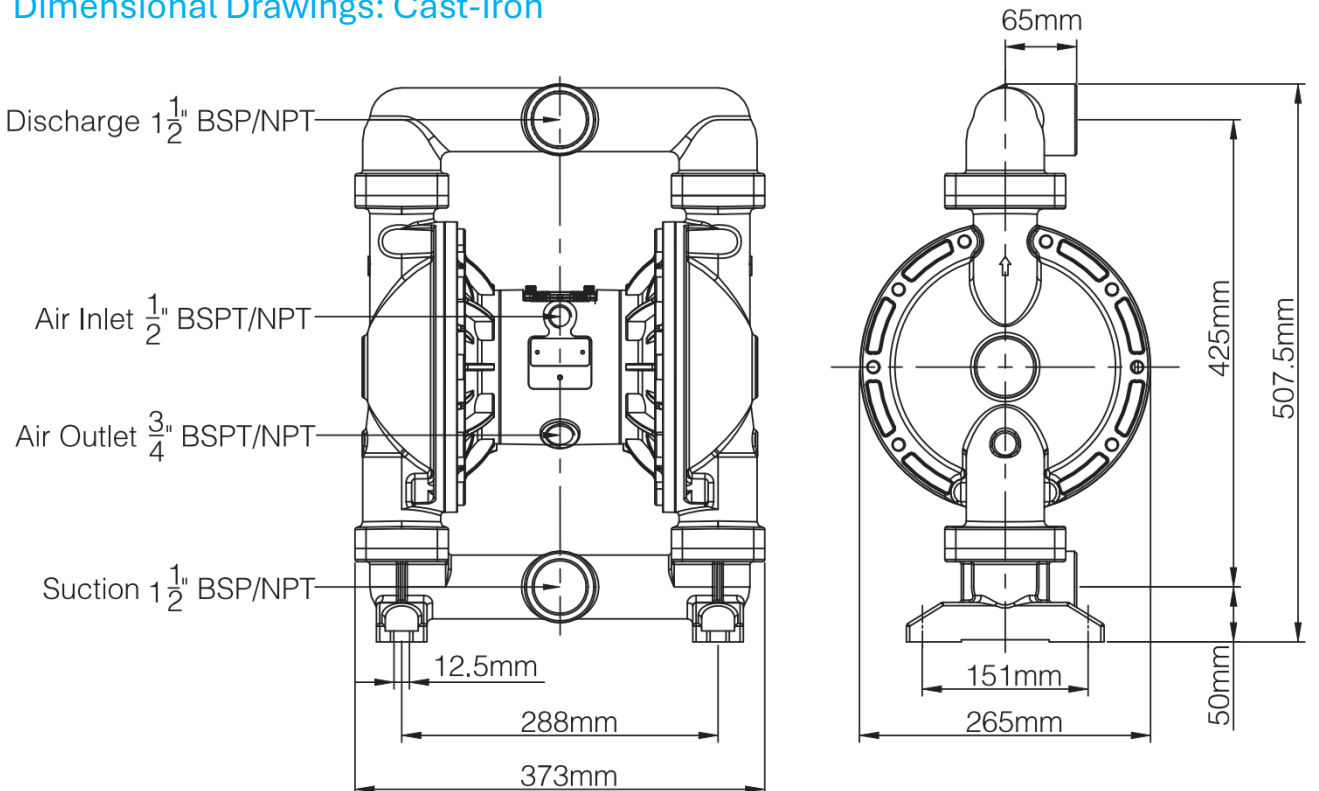
Foot M12×4
Hole distance
285.5mm×150mm



Dimensional Drawings: Stainless



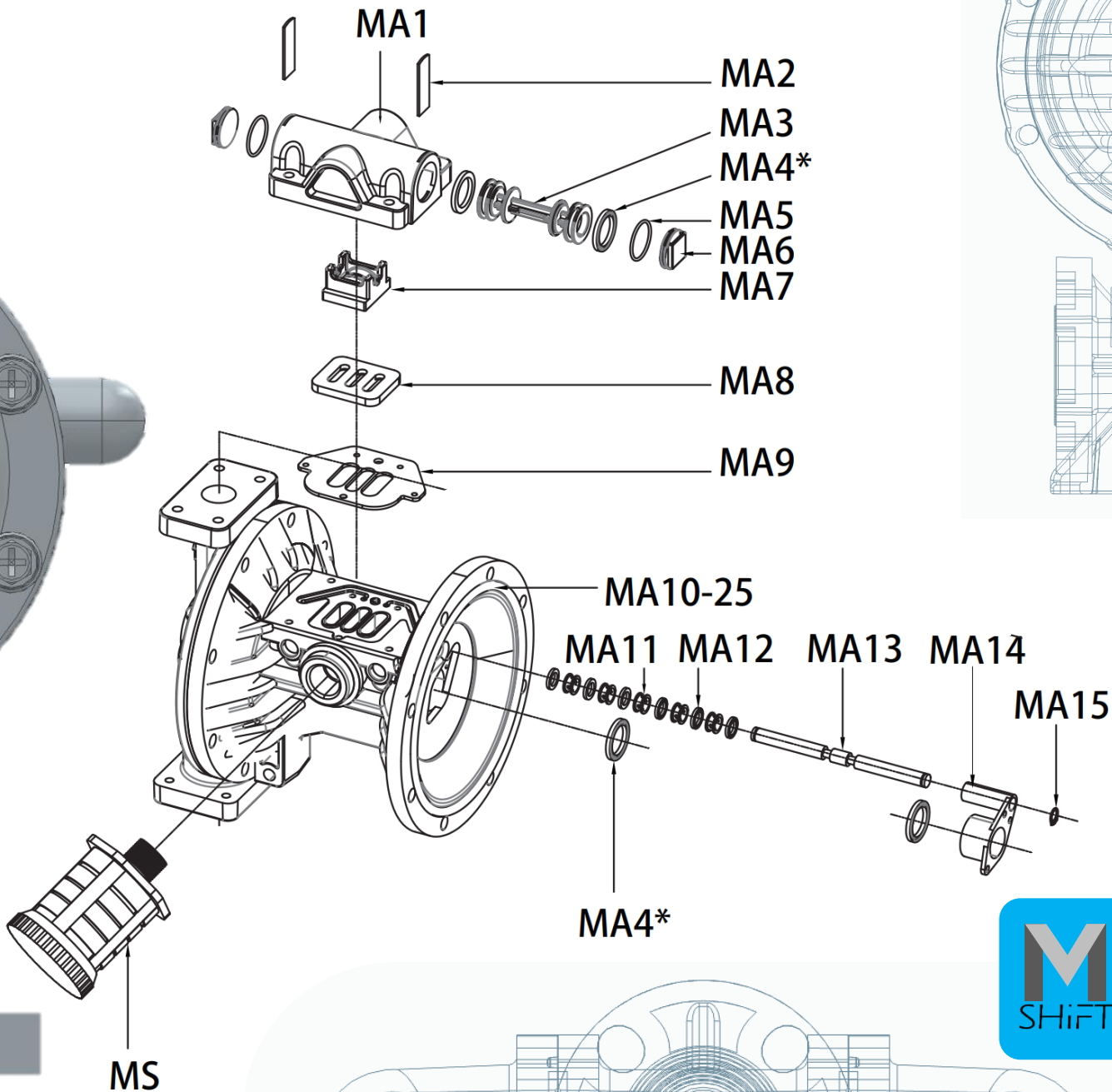
Dimensional Drawings: Cast-Iron



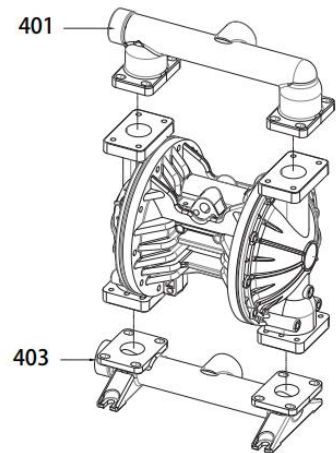
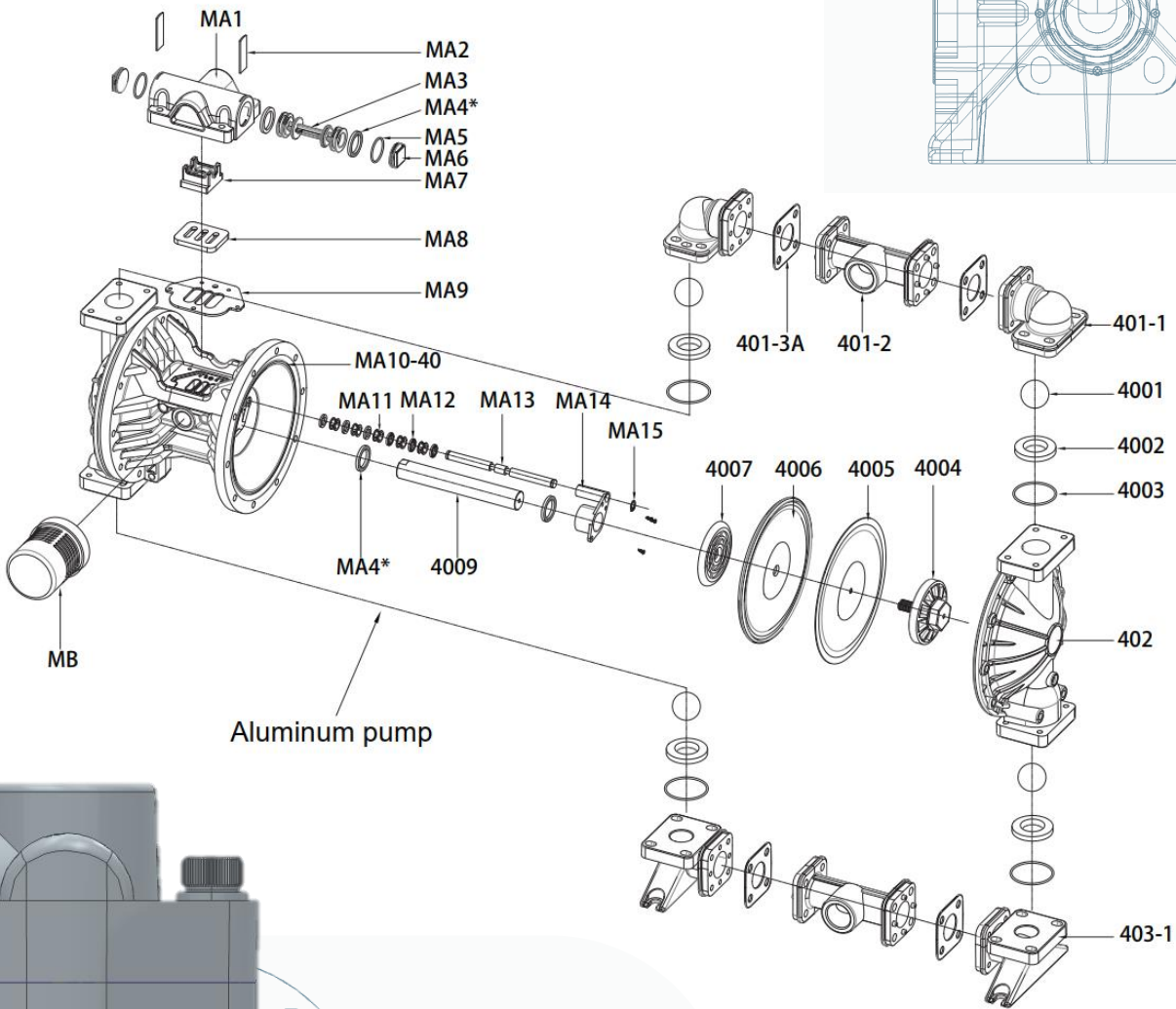
Part Numbers: Poly centre

Part code	Name
MA1-KV	Air valve housing
MA2-SS	Plug locking plate
MA3-PM	Piston
MA4-VT	V-ring
MA5-VT	Plug O-ring
MA6-KV	Plug
MA7-PM	Pilot valve
MA8-SS	Valve plate

Part code	Name
MA9-ST	Air valve gasket
MA10-25-PP	Centre block
MA11-PM	Reversing valve
MA12-VT	Shaft O-ring
MA13-SS	Shaft
MA14-PM	Rod locking plate
MA15-SS	Snap ring
MS-PP	Muffler



Part Numbers: Poly centre



Stainless steel pump
Cast iron pump



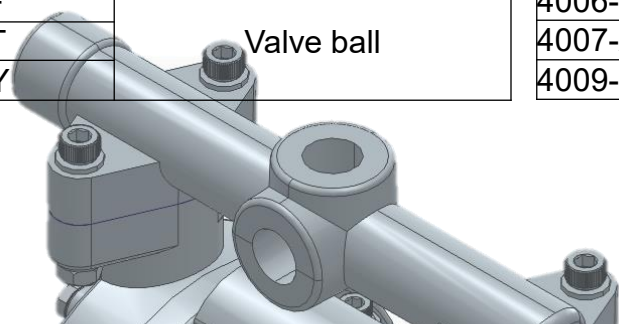
Part Numbers: Poly centre

Part code	Name
MA1-KV	Air valve housing
MA2-SS	Plug locking plate
MA3-PM	Piston
MA4-VT	V-ring
MA5-VT	Plug O-ring
MA6-KV	Plug
MA7-PM	Pilot valve
MA8-SS	Valve plate

Part code	Name
MA9-ST	Air valve gasket
MA10-25-PP	Centre block
MA11-PM	Reversing valve
MA12-VT	Shaft O-ring
MA13-SS	Shaft
MA14-PM	Rod locking plate
MA15-SS	Snap ring
MS-PP	Muffler

Part code	Name
401-SS	Discharge Manifold
401-LL	
401-PP	
401-KV	
401-AC	
401-1-PP	Upper Elbow
401-1-AL	
401-1-KV	
401-2-PP	TEE
401-2-AL	
401-2-KV	
401-3P-HY	
401-3P-ST	TEE Gasket (Plastic pump)
401-3P-TF	
401-3A-HY	
401-3A-ST	TEE Gasket (AL pump)
401-3A-TF	
403-SS	
403-LL	
403-PP	
403-KV	
403-AC	
403-1-PP	Bottom Elbow
403-1-AL	
403-1-KV	
402-KV	Fluid chamber
402-PP	
402-AL	
402-SS	
402-LL	
402-AC	
4001-TF	
4001-ST	
4001-HY	

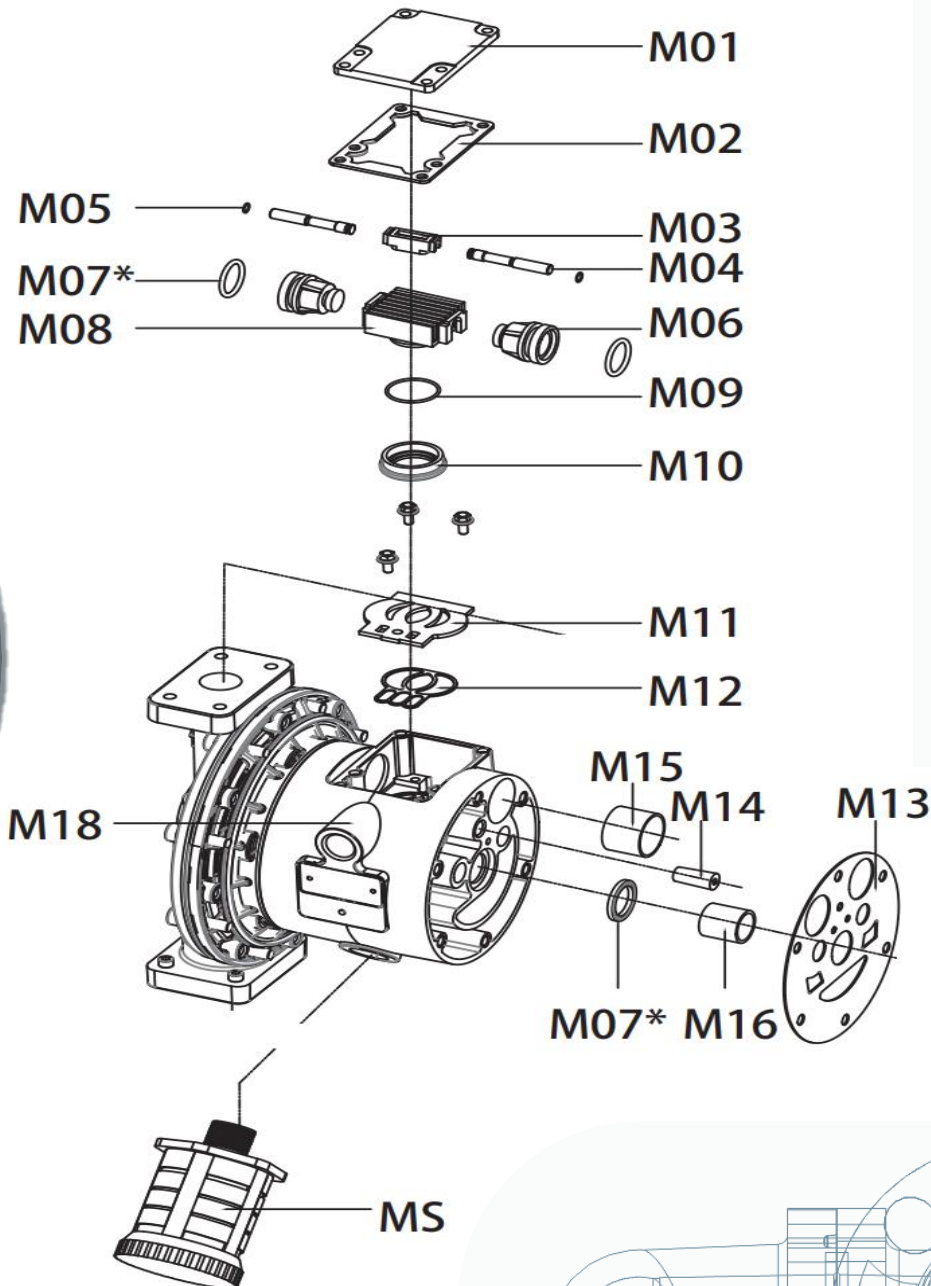
Part code	Name
4001-BN	Valve ball
4001-EP	
4001-SS	
4001-LL	
4001-CM	
4002-PP	Valve seat
4002-AL	
4002-TF	
4002-ST	
4002-HY	
4002-BN	
4002-EP	
4002-VT	Seat O-ring
4002-SS	
4002-LL	
4003-TF	Plate
4003-BN	
4003-EP	
4003-VT	
4004-KV	Teflon diaphragm
4004-PP	
4004-AL	
4004-SS	
4004-LL	
4005-TF	Rubber diaphragm
4006-ST	
4006-HY	
4006-BN	
4006-EP	
4006-VT	
4006-GE	
4007-AL	Inner plate
4009-SS	Diaphragm Rod



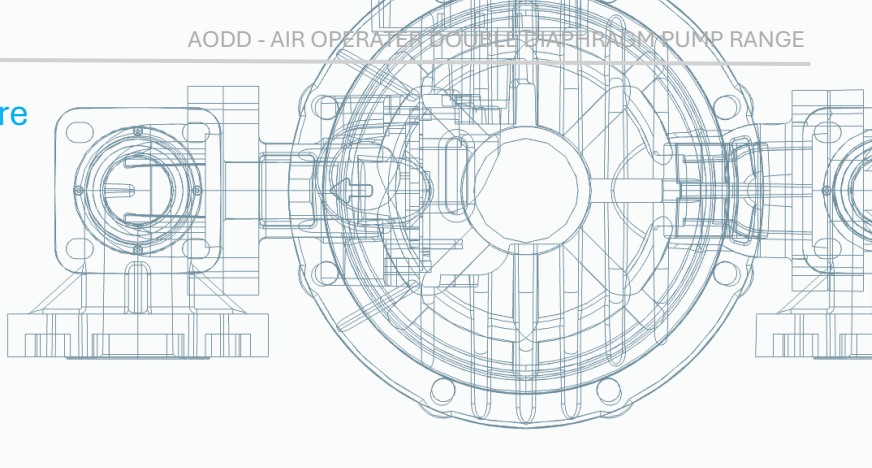
Part Numbers: Aluminium centre

Part code	Name
M01-AL	Air valve cap
M02-ST	Air valve cap gasket
M03-PM	Reversing switch
M04-SS	Reversing pin
M05-VT	Pin O-ring
M06-PM	Piston
M07-VT	V-ring
M08-AL	Upper pilot valve
M09-VT	Pilot valve O-ring

Part code	Name
M10-PM	Bottom Pilot valve
M11-SS	Valve plate
M12-ST	Valve plate gasket
M13-ST	Air chamber gasket
M14-PM	Pin bushing
M15-PM	Piston bushing
M16-PM	Rod bushing
M18-AL	Centre block
MS-PP	Muffler

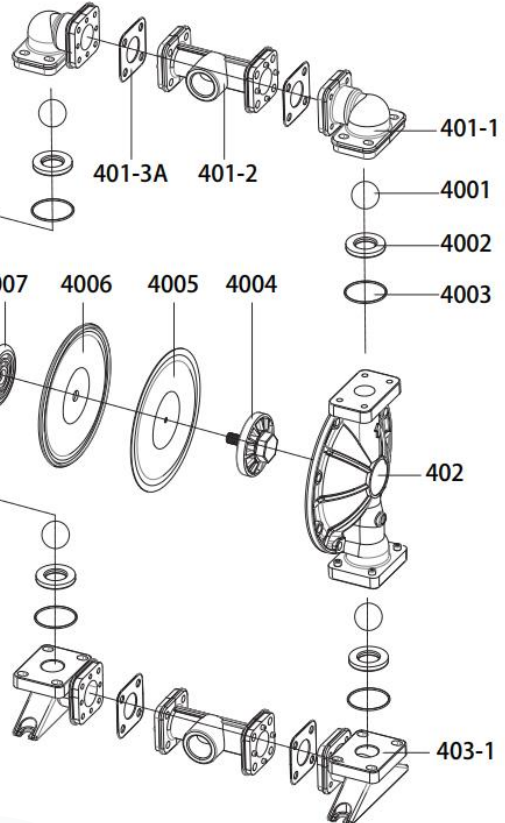
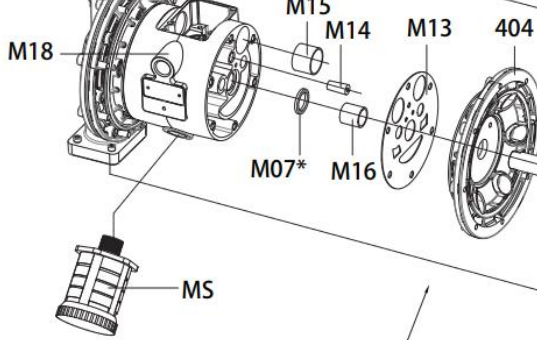


Part Numbers` : Aluminium centre

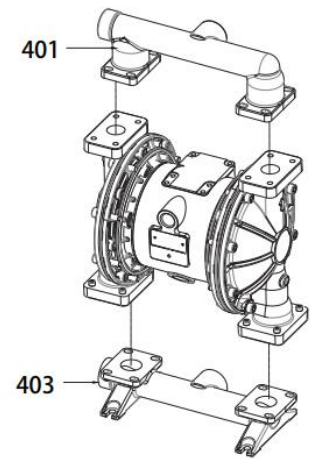
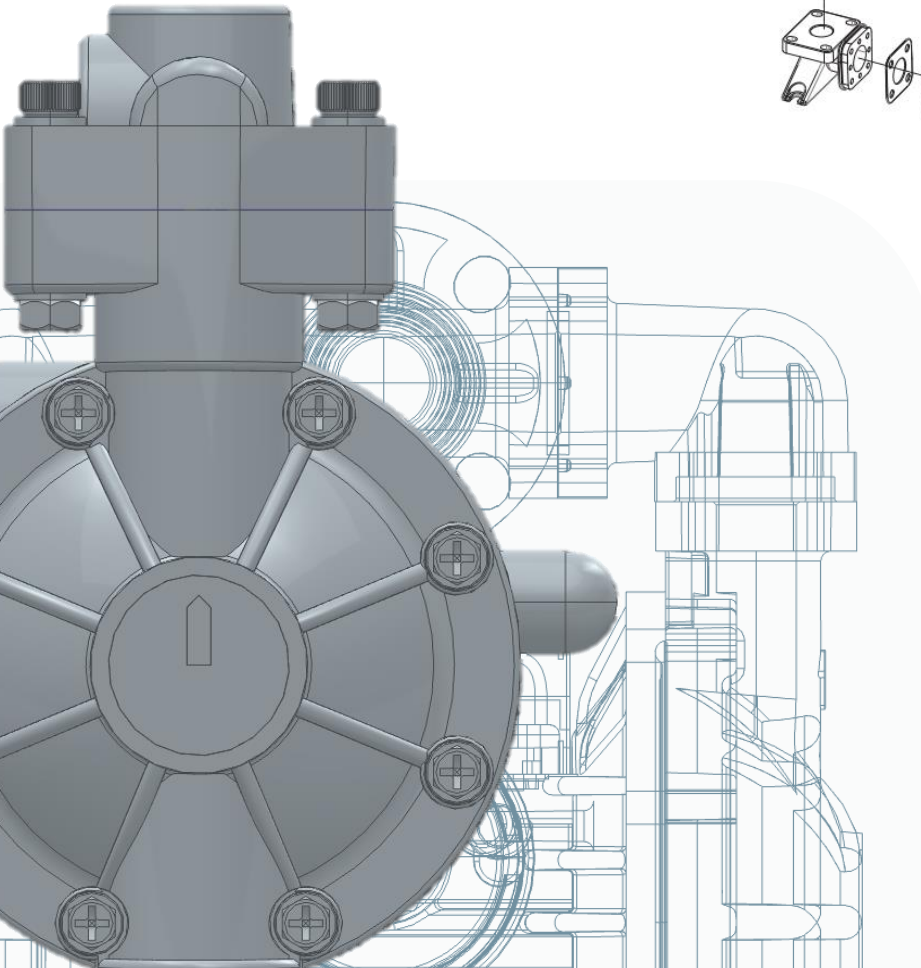


- M01
- M02
- M03
- M04
- M05
- M06
- M07*
- M08
- M09
- M10

- M11
- M12
- M13
- M14
- M15
- M16
- M18



Aluminum pump



Stainless steel pump
Cast iron pump

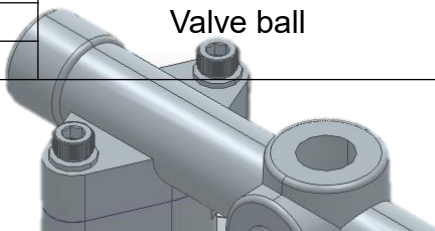
Part Numbers: Alumium centre

Part code	Name
M01-AL	Air valve cap
M02-ST	Air valve cap gasket
M03-PM	Reversing switch
M04-SS	Reversing pin
M05-VT	Pin O-ring
M06-PM	Piston
M07-VT	V-ring
M08-AL	Upper pilot valve
M09-VT	Pilot valve O-ring

Part code	Name
M10-PM	Bottom Pilot valve
M11-SS	Valve plate
M12-ST	Valve plate gasket
M13-ST	Air chamber gasket
M14-PM	Pin bushing
M15-PM	Piston bushing
M16-PM	Rod bushing
M18-AL	Centre block
MS-PP	Muffler

Part code	Name	
401-SS	Discharge Manifold	
401-LL		
401-PP		
401-KV		
401-AC		
401-1-PP	Upper Elbow	
401-1-AL		
401-1-KV		
401-2-PP	TEE	
401-2-AL		
401-2-KV		
401-3P-HY	TEE Gasket (Plastic pump)	
401-3P-ST		
401-3P-TF		
401-3A-HY	TEE Gasket (AL pump)	
401-3A-ST		
401-3A-TF		
403-SS	Suction Manifold	
403-LL		
403-PP		
403-KV		
403-AC		
403-1-PP	Bottom Elbow	
403-1-AL		
403-1-KV		
402-KV	Fluid chamber	
402-PP		
402-AL		
402-SS		
402-LL		
402-AC		
404-AL		Air chamber
4001-TF		Valve ball
4001-ST		
4001-HY		

Part code	Name
4001-BN	Valve ball
4001-EP	
4001-SS	
4001-LL	
4001-CM	
4002-PP	Valve seat
4002-AL	
4002-TF	
4002-ST	
4002-HY	
4002-BN	
4002-EP	
4002-VT	
4002-SS	Seat O-ring
4002-LL	
4003-TF	
4003-BN	
4003-EP	Plate
4003-VT	
4004-KV	
4004-PP	
4004-AL	Teflon diaphragm
4004-SS	
4004-LL	
4005-TF	
4006-ST	Rubber diaphragm
4006-HY	
4006-BN	
4006-EP	
4006-VT	
4006-GE	
4007-AL	Inner plate
4009-SS	Diaphragm Rod



The background of the entire page is a technical line drawing of a complex mechanical assembly, likely a pump or motor. The drawing is rendered in a light blue color and is centered on the page. It shows various components such as a central shaft, bearings, housing, and mounting brackets. The drawing is a cross-sectional view, showing the internal structure of the machine. The top half of the drawing is partially obscured by a dark grey rounded rectangle containing the text 'MODULUS RANGE'.

MODULUS

RANGE

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