Air Operated Double Diaphragm Pumps

– D800 Metallic

3" Heavy Duty Metallic Diaphragm Pump Data Sheet

D800F□-FL
3" Cast Iron Pump
800 L/min.

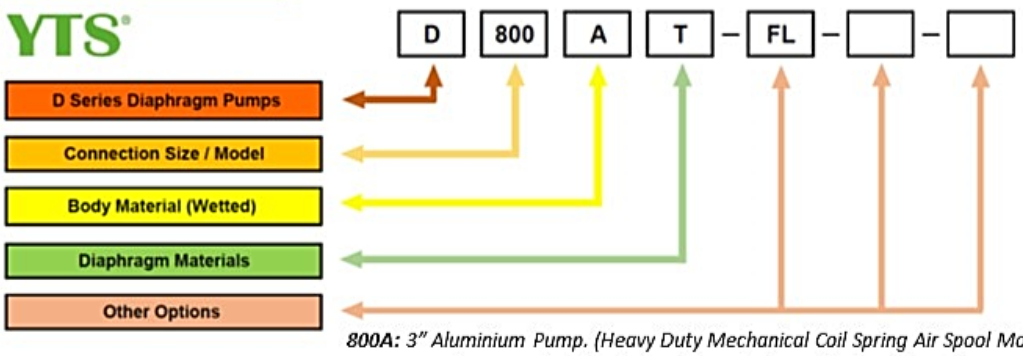
Max Flow Rate: 800 L/min. (Rubber)
Liquid Connections: 3" Female / Flanged Centre Ports.
Max Slurry Size: 10.0mm.
Max Suction Lift: PTFE Dry: 3.0m Rubber Dry: 5.5m. Wet (Primed): 8.0m.
Max Discharge Pressure: 0.85 MPa (Rubber)
Check Valve Configuration: Ball Valves.
Pump Wetted Material Options: Aluminium, Stainless Steel, Cast Iron.
Diaphragm Options: PTFE, CR, NBR, TPEE, TPO, EDPM, FKM.
Air Motor Material: Aluminium.
Description: Heavy Duty 3" Metallic AODD Pumps available in Al, SUS & Cast Iron. Mechanical Coil Spring Air Spool. Aluminium Air Motor. Choice of Threaded & Flanged Centre Port Connections. Ball Check Valves. Large Range of Standard & Special Diaphragm Options. External Plastic Exhaust Silencer (×2). Steel Base.

Pump features: *Powerful 3" metallic AODD Pumps specifically designed for very tough & demanding liquid transfer applications. Heavy duty mechanically actuated shifting mechanism with non-centering coil spring assisted Air Spools. Will resist stalling and freezing in all conditions. Able to achieve very high flow rates & high discharge heads reliability and efficiently. Ball Check Valves with large solids handling ability. Compact size, drop-in dimensions & footprint. Fully bolted body, heavy weight construction & wide sturdy steel base. Double external exhaust ports. Oil & grease lubrication free, with zero exhaust air emissions for safe & environmentally friendly operation. Easily maintainable with modular replaceable wear parts & outside accessible Air Spools. Fully torqued, leak and operation tested prior to shipment. Designed and manufactured in Japan.*

800 HD Metallic Pump Specifications		
Pump Model / Material	**A□ S□ F□**	**AT ST FT**
Max Flow Rate	800 L/min [211.4 GPM]	580 L/min [153.2 GPM]
Max Solids Size	10.0 mm	
Max Discharge Pressure	0.85 MPa [125 psi]	0.7 MPa [100 psi]
Supply Air Pressure Range	0.1 – 0.85 MPa [14 - 125 psi]	0.15 – 0.7 MPa [22 - 100 psi]
Max Suction Lift	PTFE Dry: 3.0 meters. Rubber Dry: 5.5 meters. Wet (Primed): 8.0 meters.	
Max Air Consumption	6500 L/min (ANR) [229.6 SCFM]	5500 L/min (ANR) [194.3 SCFM]
Max Discharge Volume Per Cycle	6800 mL	3200 mL
Ambient Temperature Range	0 – 70°C [32 – 158°F]	
Liquid Temperature Range	NBR/CR 0–70°C [32–158°F] TPEE/EDPM 0–80°C [32–176°F] FKM/TPO/PTFE 0–100°C [32–212°F]	
Connections: Suction & Discharge	3" Female Threaded / Flanged Centre Ports	

Note: *Factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration. A minimum supply air pressure of 14psi (0.1 MPa) is required to operate the pump. If the supply pressure is less than 14psi (0.1 MPa), the pump may not operate properly. Oil & Grease Lubrication is not required under normal operating conditions. All 800 Series Diaphragm Pumps are shipped complete with a Heavy Duty Steel Base, Rubber Feet, Air Inlet Shutoff Valve & 2 Plastic External Exhaust Silencers as Standard Accessories.*

Nomenclature



800A: *3" Aluminium Pump. (Heavy Duty Mechanical Coil Spring Air Spool Model).*
T: *PTFE Diaphragms, Check Valves and Liquid Side Seals.*
FL: *Flanged Centre Port Connections.*

D800AT-FL
3" Flanged Aluminium AODD Pump.

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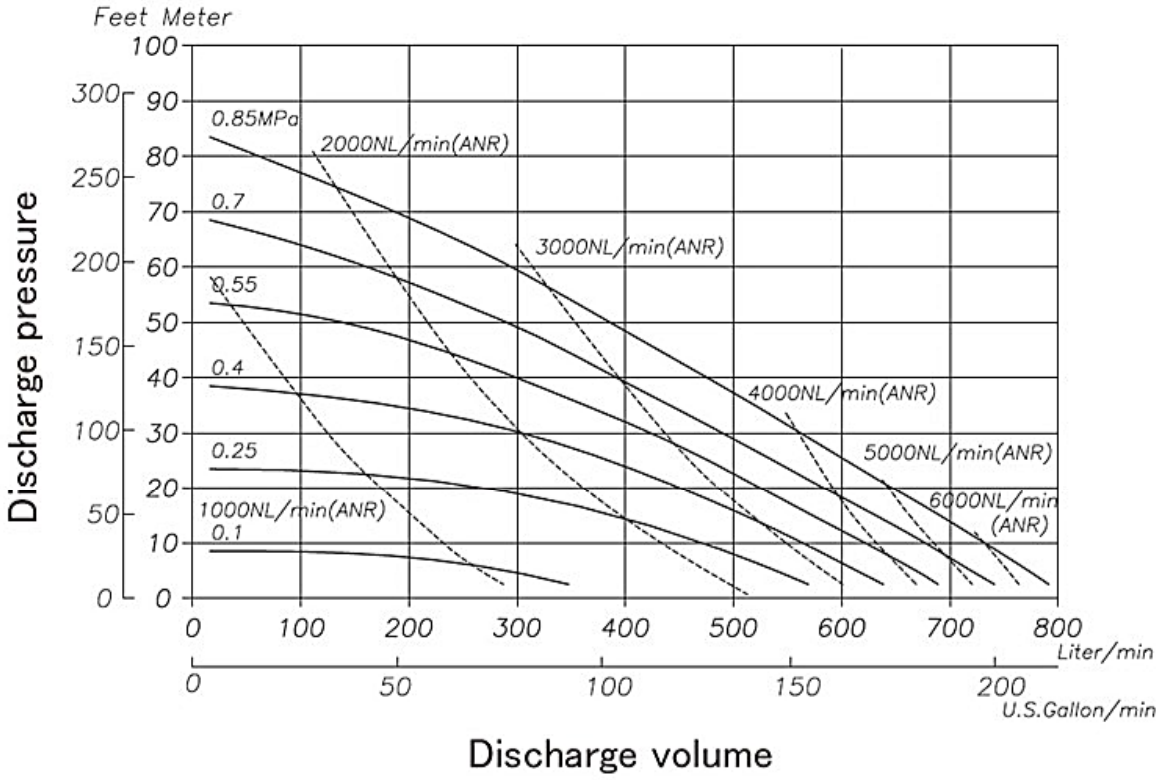
Made In Japan

Pump Performance Curves

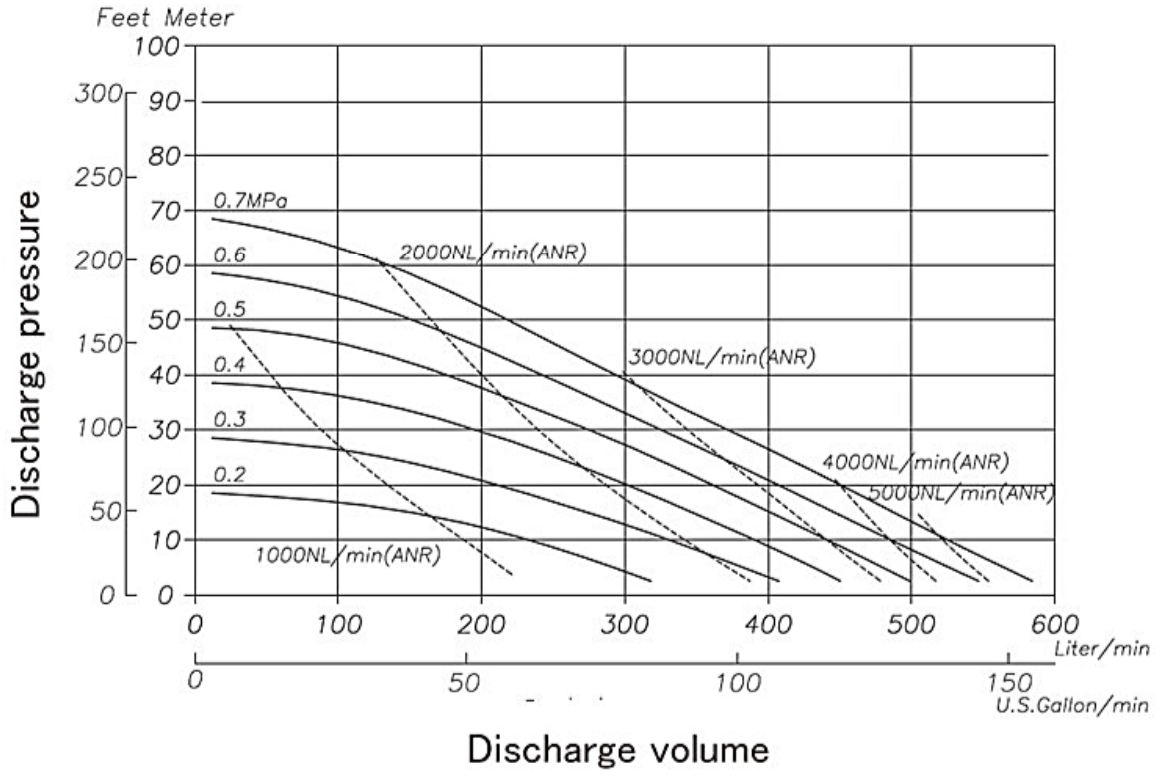
Rubber Diaphragm Curves

800A □ ・ S □ ・ F □



PTFE Diaphragm Curves

800AT ・ ST ・ FT



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Made In Japan

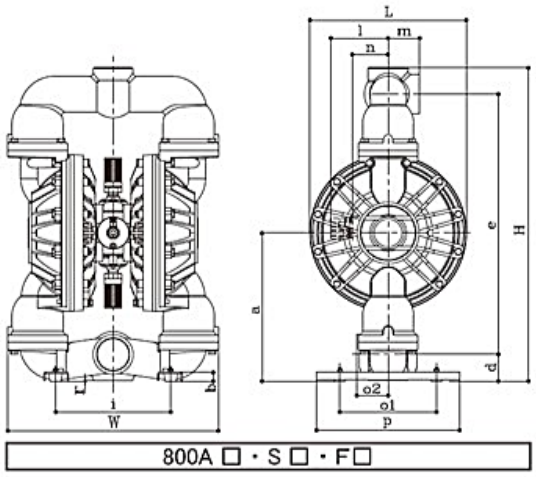
Wetted Materials Of Construction

MODEL	800AC	800AN	800AE	800AV	800AT	800AH	800AS	800SC	800SN	800SE	800SV	800ST	800SH	800SS
Pump Wetted Parts	AC4C							SCS14						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Center Disk	A5056							SUS316						
Weight	63 kg [132 lbs]							132 kg [291 lbs]						

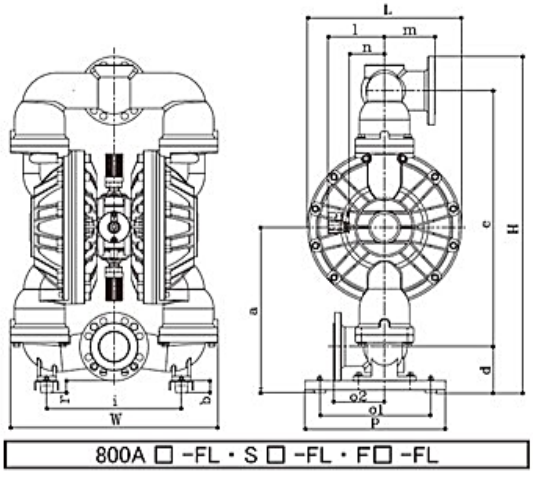
MODEL	800FC	800FN	800FE	800FV	800FT	800FH	800FS
Pump Wetted Parts	S45C						
Diaphragm	CR	NBR	EPDM	FKM	PTFE	TPEE	TPO
Ball Valve	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Valve Seat	CR	NBR	EPDM	FKM	PTFE	NBR	EPDM
Center Disk	SUS316						
Weight	132 kg [291 lbs]						

Dimensional Drawings

MODEL	H	W	L	a	b	d	e	i	l	m	n	o1	o2	o3	p	r	AIR INLET	AIR EXH	LIQUID IN/OUT
800A □	835 [32.87]	560 [22.05]	416 [16.38]	395 [15.55]	23 [0.91]	71 [2.80]	694 [27.32]	305 [12.01]	153 [6.02]	84 [3.31]	95 [3.74]	257 [10.12]	84 [3.31]		380 [14.96]	4 [0.16]	Rc3/4 [NPT3/4]	Rc3/4 [NPT3/4]	Rc3 [NPT3]
800S □																			
800F □																			
800A □ -FL	912 [35.91]	560 [22.05]	416 [16.38]	449 [17.68]	33 [1.30]	125 [4.92]	694 [27.32]	364 [14.33]	153 [6.02]	137 [5.39]	95 [3.74]	300 [11.81]	137 [5.39]		380 [14.96]	33 [1.30]	Rc3/4 [NPT3/4]	Rc3/4 [NPT3/4]	Equivalent to JIS Flange 10K80A [Equivalent to ANSI Flange
800S □ -FL																			
800F □ -FL																			



800A □ ・S □ ・F□



800A □ -FL・S □ -FL・F□ -FL

Heavy Duty Mechanical Coil Spring Air Spool.

Mechanically actuated shifting mechanism. Spring assisted non-centering Air Spools. Resists stalling and freezing in all conditions. Outside accessible. Fully modular & replaceable wear components. State of the Art, long life materials of construction. Oil & grease lubrication free design.

Typical Pumping Applications.

- *Pumping Against Very High Back Pressures.*
- *Operating with Very High Air Inlet Pressures.*
- *Frequent or Extended Dead Heading.*
- *Operating at Very Slow Switching Speeds.*
- *Operating with Very Low Air Inlet Pressures.*
- *Pumping Continuously for Very Long Periods.*
- *Frequent Start Stop Applications.*
- *Operating with Very Long Discharge Lines.*
- *Where Pump Icing / Freezing is a Common Occurrence.*
- *Where Air Consumption Efficiency is a Critical Factor.*

YTS®

AODD Pump Capabilities.

Mechanical Coil Spring Spool

Self Priming.	Variable Discharge Pressures.	Inherently Safe Design.
Run Dry.	Transfer Liquid Slurries.	Portable & Easy to Use.
Run up to Dead Head.	Transfer Large Sized Solids.	Transfer Viscous Fluids.
Variable Flow Rates.	Handle Abrasives.	Frequent Start Stop Operation.
Shear Sensitivity.	Transfer Chemicals.	Powered by Compressed Air.

ATEX Compliant II 2GD c T5

JQA-QMA14279

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For more information about YTS Pumps please contact: sales@yts-pump.com

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