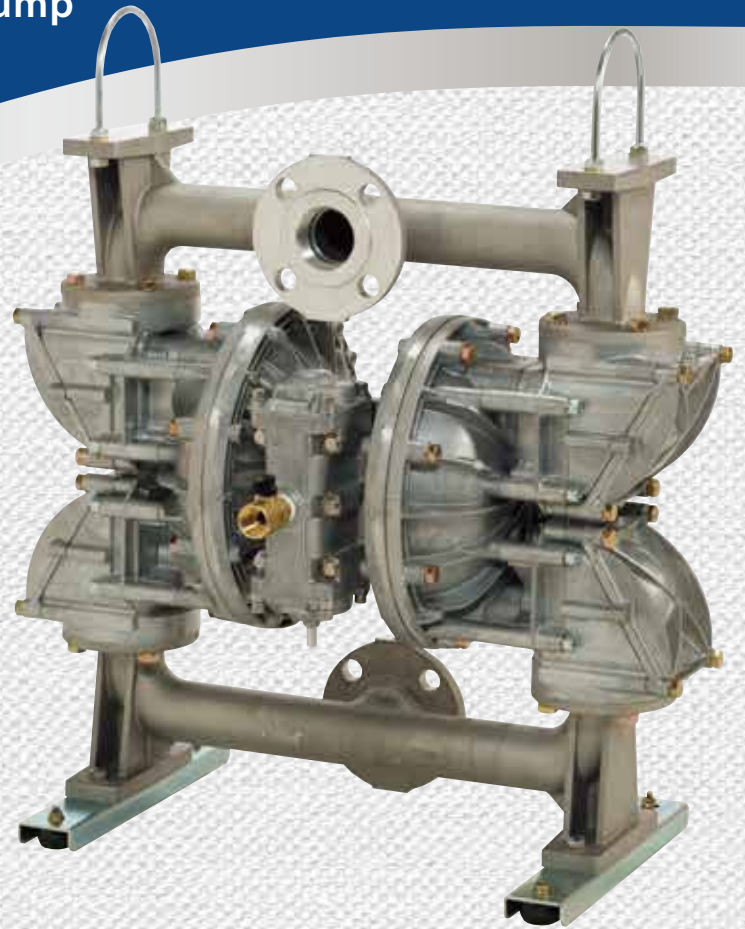


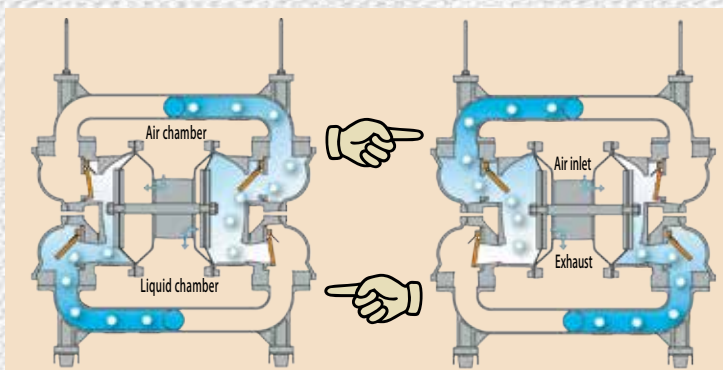
Flap Valve “Flapper” Diaphragm Pumps

The Yamada “Flapper” Pump is designed to pump fluids containing solids up to 2 inches (50mm) in diameter. Build on the foundation of the NDP series line of pumps, the “Flapper” Pumps feature Yamada’s patented stall-free/lube-free air valve and rugged, easy-to-service bolted construction. Designed for durability in the field, the “Flapper” Pumps’ innovative flap-type check valve technology provides streaming passage of solids while minimizing clogging and downtime. Four external bolts release valve covers on either side permitting service and maintenance without removing the pump from installation.



Plus.....All the benefits of every Yamada Pump

- *Non-lubricated Air-Valve*
- *Bolted Construction*
- *Short Stroke, Technology-allowing for longer diaphragm life*
- *Outside-Accessible Air Valve*
- *Modular Pilot-Valve Design-no dynamic O-Rings to replace or repair*



Principle of Operation

Compressed air enters the left air chamber, moving the center rod to the left, forcing liquid out of the left liquid chamber, while at the same time drawing liquid into the right liquid chamber.

When the center rod is fully to the left the pneumatic logic system switches the supply of air from the left air chamber to the right air chamber.

The center rod then moves to the right, forcing out the liquid from the right liquid chamber, while at the same time the left liquid chamber. Through of this action a constant flow of liquid is achieved.

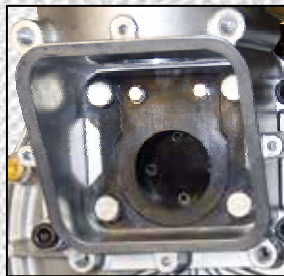
Flap Valve "Flapper" Diaphragm Pumps

Design Features

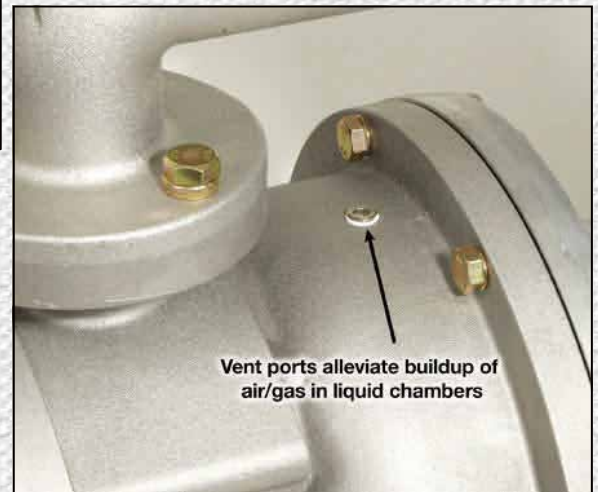
- Heavy-duty flap check valve permits passage of up to 30mm solids
- Easy access to valve chambers for ease of maintenance
- In-line maintenance facilitates servicing pump without removal from installation
- Top suction / bottom-discharge design keeps solids from settling in pump
- Vented diaphragm chambers alleviate problems associated with trapped air/gas
- Non-lubricated air valve
- Outside-accessible air valve
- Bolted construction
- Short-stroke technology improves diaphragm life
- Modular pilot valve design requires no dynamic O-rings to replace or repair



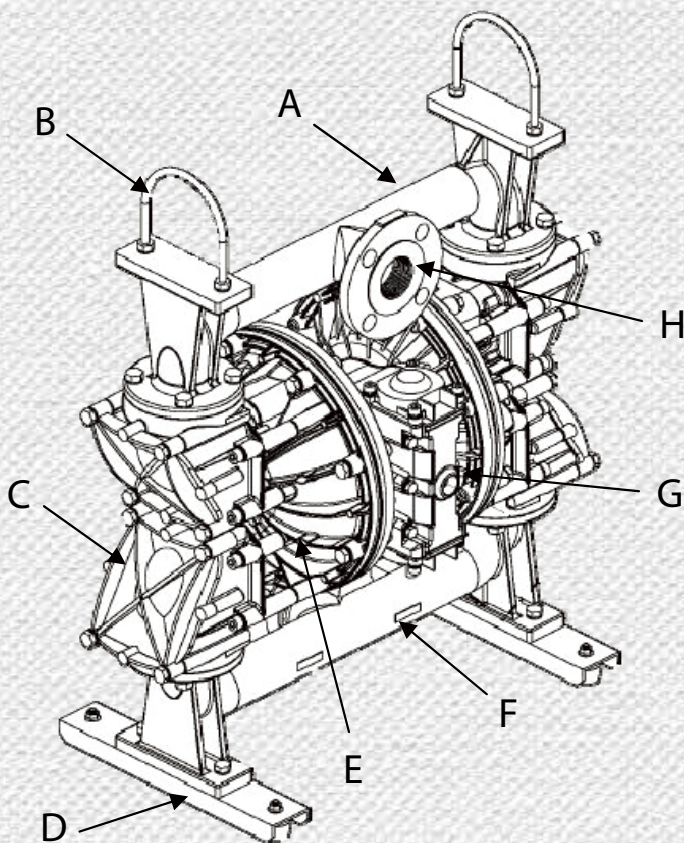
Heavy Duty Flap Check Valve



Just 4 bolts remove the side plate



Vent ports alleviate buildup of air/gas in liquid chambers



- A. Suction Manifold
- B. U-Bolts
- C. Check Valve Chambers w/access ports
- D. Removable/Replaceable Legs
- E. Liquid Chamber
- F. Discharge Manifold
- G. Non-Lube Air Motor
- H. 2" Multi-port (Flange with Rc or NPT)

Advantages

	Yamada NDP-50FAN	Leading Competitor
Weight	52kg	45kg
Dimensions	H 31" x W 25-1/2" x D 14-1/8"	H 20-5/6" x W 21-3/4" x D 13-5/8"
Intake & Discharge Ports	2" Multi-port Flange with Rc or NPT	Only NPT offered
Flow	158 gpm (600Lpm) max	140 gpm (530Lpm) max
Air Valve		
Lubrication	No Lubrication Required	Lubrication Required
Manual Override	Yes	None
Liquid Side		
In Place Clean Out Ports	Yes - can do flapper/seal assembly maintenance without pump removal	None - must be removed from service
Flapper Mating Surfaces	Rubber / Rubber (no gaskets / o'rings)	Rubber / Metal (with gaskets)
Flapper Seal	Raised angled seat compensates for normal wear and faster seating of flap valve	Once worn, will not seal
Flow Through Ports	Angled for maximum flow through	90 degree turns lead to clogging
Diaphragms	Short stroke technology for longer diaphragm life	Over stressed diaphragms lead to accelerated failure

Applications

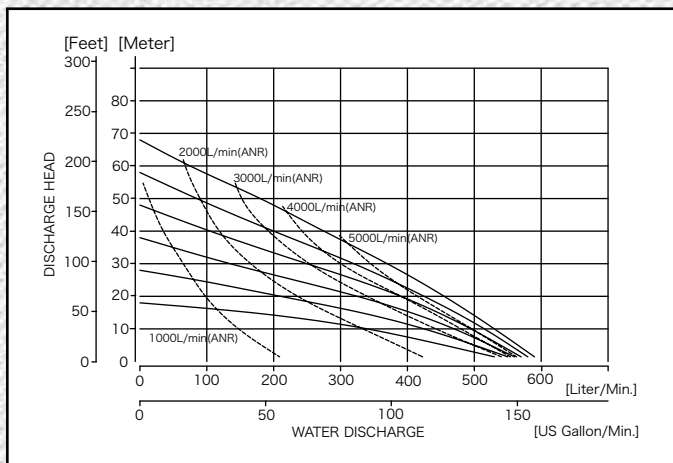
Mine Dewatering
Sumps
Drillers Mud
Powder
Food Process Waste
DAF Sludge
Deactivated Sludge

Industries Served

Mining
General Industrial
Construction
Refineries
Oil & Gas
Municipalities
Food Processing

Flap Valve "Flapper" Diaphragm Pumps

Performance Curve



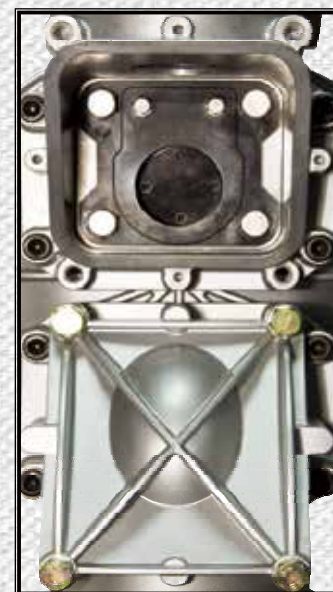
Specification

Model No.	854296(Rc)/854251(NPT)	
Model	NDP-50FAN	
Port Size	2"(50A)	
Liquid	Intake	JIS/DIN/ANSI Compatible Flange W/Rc2" or NPTF2"
	Discharge	JIS/DIN/ANSI Compatible Flange W/Rc2" or NPTF2"
Air	Supply	Rc3/4" or NPT3/4" includes ball valve
	Exhaust	Rc1" or NPT1" w/silencer
Air Supply Pressure	0.2-0.7MPa	
Maximum Discharge Pressure	0.7MPa	
Discharge Volume Per Cycle	2.4L	
Maximum Size Solid	30mm	
Maximum Dry Suction Lift	4M	
Net Weight	52.0kg	

Material

Body	Aluminum (ADC12)
Flap Valve	HNBR (SPCC*)
Valve Seat	HNBR (SPCC*)
Valve Guide	Aluminum (integral type)
Center Disk	A5056

*Material of the insert



Your Local Distributor:

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