

Flap Valve Diaphragm Pump

"Flapper Pump"



CAUTION WHEN SELECTING A PUMP

Yamada offers a large range of Air Operated Double Diaphragm Pumps to cater for many different kinds of materials and conditions. When selecting the most appropriate pump for a particular selection and installation please consult your local Yamada Pump Distributor or Yamada Corporation.



CAUTION

Due to Japanese and other international trade laws, products contained within this catalogue may require licensing prior to export or re-export. We request that when dealing with Yamada products that you take the utmost care in ensuring that all requested legal procedures are carried out correctly.

■ Local Distributor

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* The specifications contained herein may be changed at any time without warning.

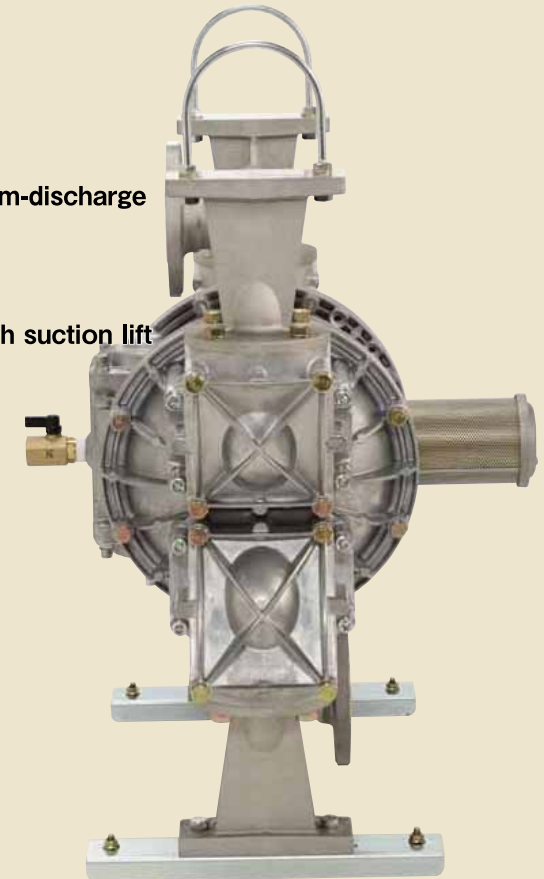
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Flap Valve Diaphragm Pump

"Flapper Pump"

- Heavy-duty
- Easy access
- In-line maintenance
- Top-suction / bottom-discharge
- Bolted construction
- Outside-accessible
- Self priming and high suction lift



Flap Valve Diaphragm Pump

"Flapper Pump"

■ Flapper Pump for Solids Handling

Yamada's *Flapper Pump* is designed to support passage of solids up to 30 mm in diameter. Designed for durability in the field, the Flapper's 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.

■ Applications

- Mud water handling at mining/construction site
- Wastewater handling at sewage plant, livestock farm and food factory
- Wastewater handling at petrochemical plant

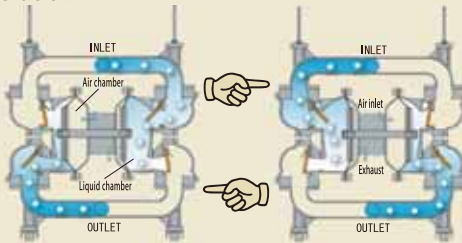


Model NDP-50FAN Model No.854296

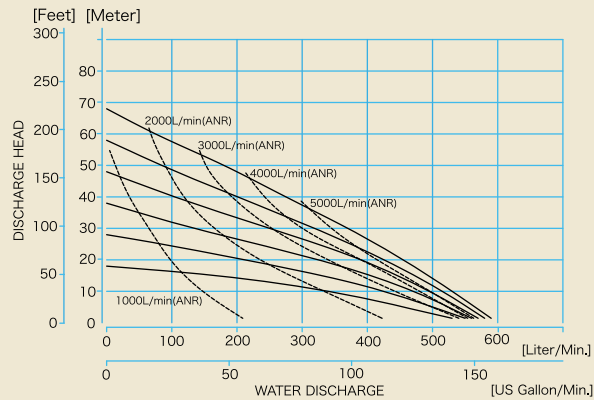
■ Principle of Operation

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 drawing liquid into the left liquid chamber. Through of this action a constant flow of liquid is achieved.



■ Performance curve

The performance curve shown indicates the data measured with fresh water (viscosity 1mPa · s, specific gravity 1.0) by dip grazing. The amount of liquid discharged from the pump greatly varies depending on various factors such as the "viscosity, specific gravity and slurry concentration of liquid to be transferred", "suction lift", "discharge head" and "pneumatic transportation distance".

■ Specifications

Nominal port size	2" (50A)	
Air connection	Inlet	Rc3/4 (with an air cock)
	Outlet	Rc1 (Equipped with a muffler)
Air supply pressure range	0.2MPa~0.7MPa	
Limit of slurry	30mm or less	
Material of the main body (wetted part)	Aluminum (ADC12/AC4C-T6)	
Material of Flap Valve	NBR (SPCC)※1	
Material of Valve Seat	NBR (SPHC)※1	

※1 Insert material

Connection to liquid	Inlet	Flange JIS 10K50A or equivalent
	Outlet	Flange JIS 10K50A or equivalent
Discharge volume / cycle	2400 mL / cycle	
Maximum discharge volume	600L/min	
Maximum discharge pressure	0.7MPa	
Maximum air consumption	7000L/min [ANR]	
Noise level	94dB	
Weight	52kg	

■ Design Features

Heavy-duty flap check valve permits passage of solids up to 30 mm.

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

Bolted construction

Self priming and high suction lift up to 4M



■ Dimensions

