

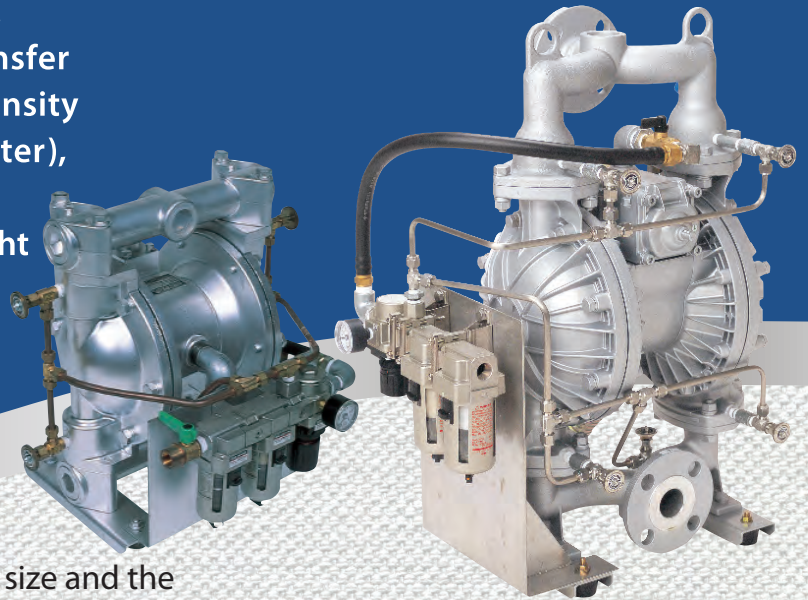
# Powder Transfer Diaphragm Pumps

The Yamada Powder Transfer Pumps were specifically designed to move bulk solids more effectively throughout your process.

They are a cost effective replacement for Augers and Conveyors and eliminate unsafe and labor intensive means of moving bulk powders.

These heavy duty pumps consistently transfer fine-grained (100µm or finer), low bulk density (5 to 10 lbs/cubic feet or 0.08 to 0.16kg/liter), dry powders in a dust-free operation.

Yamada offers a base unit specifically for light powders, which include the following standard features.



- Conveying distance depends upon the micron size and the bulk density of the powder. For example, fumed silica can be conveyed a maximum of 150 feet (45m). Flour can be conveyed a maximum of 40 feet (12M). Refer to the Yamada "Pumpable Powders" data sheet for specific materials.
- Powder must be 150 mesh(106 micron) or smaller size particle / powder and dry. The Pump will not pump crystals or flakes and the bulk density should be less than 50lbs/cubic feet.(0.8kg/liter) The higher the bulk density, the shorter the conveying distance and the lower the flow rate.
- The Pump can be located a maximum of 15feet(4.5M) above powder source.
- Yamada recommends aeration / fluidization of the powder a minimum of 10 to 15 seconds prior to starting the pump-premature diaphragm, center shaft, and center disk failure can be avoided.
- PTFE check balls are recommend for sticky powders.
- Yamada recommends regulating compressed air to 70PSI(0.5MPa) Maximum.

## Condition of powder

- Apparent specific gravity is 0.5 or less
- Angle of repose is 30 degree or less
- Powder must be completely dry
- Powder must have large fluidity

## Applications

Activated Carbon	Dust
Acrylic Resins	Pearlite
Aluminum Oxide	Pesticides
Bentonite	Pharmaceuticals
Carbon Black	Pigments
Cereal Flours	Powder Coatings
Clay Powder	Powdered Plastics
Diatomaceous Earth	Powdered Rock
Expanded Mica	Quartz Powder
Fire - extinguishing Powder	Salicylic Acid
Fumed Silica	Silicones
Ground Limestone	Starch
Kaolin	Talc
Micro Dolomite Filter	Toners
	And many more...

## **REMARK**

*The performance data for powder transfer is highly dependent upon the material being pumped and the application. A trial of the pump in the actual use environment is recommended to verify the actual performance capabilities for any given material.*



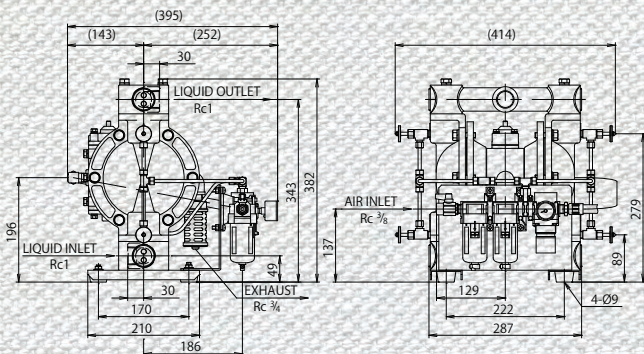
# Powder Transfer Diaphragm Pumps

## Specifications

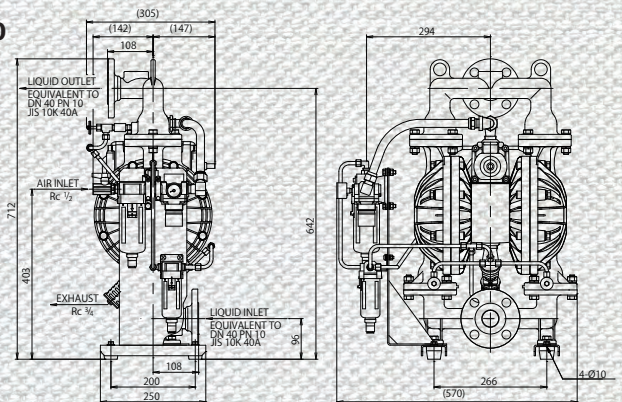
Model	NDP-25				NDP-40				NDP-50				NDP-80				
	BAC	BAN	BSC	BSN	BAC	BAN	BSC	BSN	BAC	BAN	BSC	BSN	BAC	BAN	BSC	BSN	
Nominal port size	1"(25A)				1-1/2"(40 A)				2"(50A)				3"(80A)				
Connection to liquid	Inlet	Rc1				JIS 10K40A				JIS 10K50A				JIS 10K80A			
	Outlet	Rc1				JIS 10K40A				JIS 10K50A				JIS 10K80A			
Air connection	Inlet	Rc3/8				Rc1/2				Rc3/4				Rc3/4			
	Outlet	Rc3/4				Rc3/4				Rc1				Rc1			
Material	Wetted body	ADC12		SCS14		ADC12, AC4C-T6		SCS14		ADC12, AC4C-T6		SCS14		ADC12, AC4C-T6		SCS14	
	Non wetted body	ADC12				ADC12				ADC12				ADC12			
	Diaphragm, Ball	CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR
	Ball seat	SMS1025		SUS316		CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR	CR	NBR
	Center disk	SUS316				A5056		SUS316		A5056		SUS316		A5056		SUS316	
Air supply pressure range	0.2-0.7 MPa																
Max discharge pressure	0.7 MPa																
Max discharge volume	Approx 200kg/h				Approx 500kg/h				Approx 1000kg/h				Approx 1500kg/h				
Max air consumption	1600L/min(ANR)				4000L/min(ANR)				6000L/min(ANR)				6000L/min(ANR)				
Max slurry diameter	3mm or smaller				7mm or smaller				8mm or smaller				10mm or smaller				
Ambient temp range	0~70°C																
Noise level	97dB				95dB				94dB				92dB				
Weight	13kg		20kg		29kg		40kg		37kg		60kg		65kg		102kg		

## Dimensions

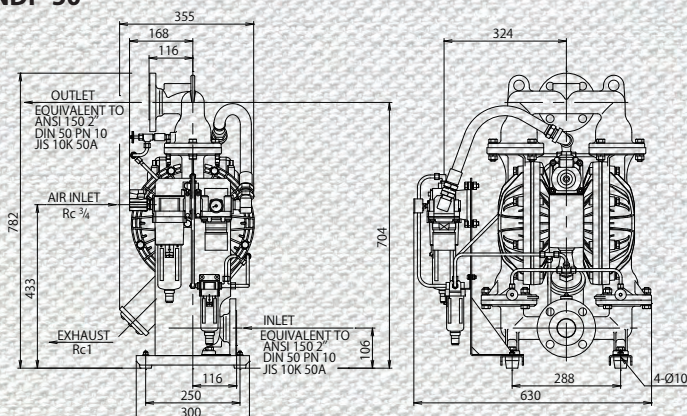
NDP-25



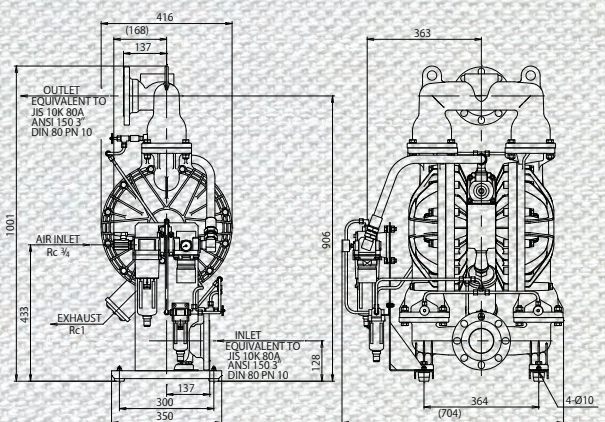
NDP-40



NDP-50



NDP-80



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