

Powder Pump

Yamada® Powder 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 (100um or finer), low bulk density (5 to 50 lbs. / cubic foot), dry powders in a dust-free operation.

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



	BH-1	BH-2	BH-3
1-1/2 to 3" port	√	√	√
AL, CI, or SS housing	√	√	√
One piece manifold	√	√	√
316SS center shaft	√	√	√
Patented air valve	√	√	√
Bolted mating surface	√	√	√
Portable	√	√	√
Conveys up to 7 cubic ft. per minute	√	√	√
Compressed air induction system	-	√	√
Independent port for inert gas fluidization	-	-	√
Delay timer	-	-	√



Additional Literature:

Consult Yamada for Pumpable Powders specification sheet, Form# PP0802.



Principles of Operation

Specifications:

- Conveying distance depends upon the micron size and the bulk density of the powder. For example fumed silica can be conveyed 150 feet while flour a maximum of 40 feet. 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. The higher the bulk density, the shorter the conveying distance and the lower the flow rate.
- The Pump can be located a maximum of 15 feet 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.
- Teflon® check balls are recommend for sticky powders.
- Yamada recommends regulating compressed air to 70PSI Maximum.
- Air volume requirements & capacity:

NDP-40 (1-1/2" port): = 15 to 90 SCFM.
Maximum flow rate: 144 cubic feet/hr,
2.4 cubic ft/minute

NDP-50 (2" port): = 20 to 105 SCFM.
Maximum flow rate: 210 cubic feet/hr,
3.5 cubic ft/minute

NDP-80 (3" port): = 30 to 120 SCFM.
Maximum flow rate: 420 cubic feet/hr,
7.0 cubic ft/minute

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...

Note: Add the Kit # to the standard Yamada nomenclature when ordering.
Example: NDP-50BAC-BH-2 for a 2" Aluminum Pump with Neoprene elastomers & Series BH-2 powder features.

Kit#	Description
BH-1	Kit includes Vacuum Actuated Aeration Valve on Suction Side of Pump.
BH-2	Kit includes Vacuum Actuated Aeration Valve on Suction Side of Pump & Air Induction System at Check Valves.
BH-3	Kit includes Vacuum Actuated Aeration Valve on Suction Side of Pump, Air Induction System at Check Valves, Inert Gas Port Option, and Time Delay pump purge.

Label:

