

Encore[®] Powder Feed Pump

Introduction

The Encore powder feed pump is used to pump organic and metallic powder coatings to powder spray guns. The pump is a venturi-type pump and is equipped with quick-disconnect couplings for the flow-rate and atomizing air.

Flow-rate air lifts fluidized powder from a vibratory box feed or a feed hopper and forces the powder through the feed hose to the spray guns. Atomizing air dilutes and atomizes the powder stream as it exits the pump.

Installation



WARNING: All conductive equipment in the spray area must be connected to a true earth ground. Ungrounded or poorly grounded equipment used in a powder spray area can become electrically charged. This charge can deliver a severe shock, or create sparks hot enough to cause a fire or explosion.

NOTE: Pump adapter O-rings are conductive silicone, to provide a ground connection between the pump body and the pickup tube or hopper lid. Do not replace these O-rings with non-conductive O-rings.

Hopper Mounting

See Figure 1. The pump is shipped with a coupling and a pump adapter. Either of these can be used to mount the pump on the hopper. Use the coupling with existing pump adapters with external O-rings. The adapter shipped with the pump replaces existing adapters with external O-rings for other types of pumps.

Coupling Installation

1. Install the pump coupling on the existing pump mount with a slight twisting motion
2. Install the pump into the coupling with a slight twisting motion.

Adapter Installation

1. Pull the installed adapter and pickup tube out of the hopper lid and unscrew the adapter from the hopper pickup tube.
2. Screw the new adapter shipped with the pump onto the pickup tube.
3. Re-install the pickup tube on the hopper lid, then install the pump into the adapter with a slight twisting motion.

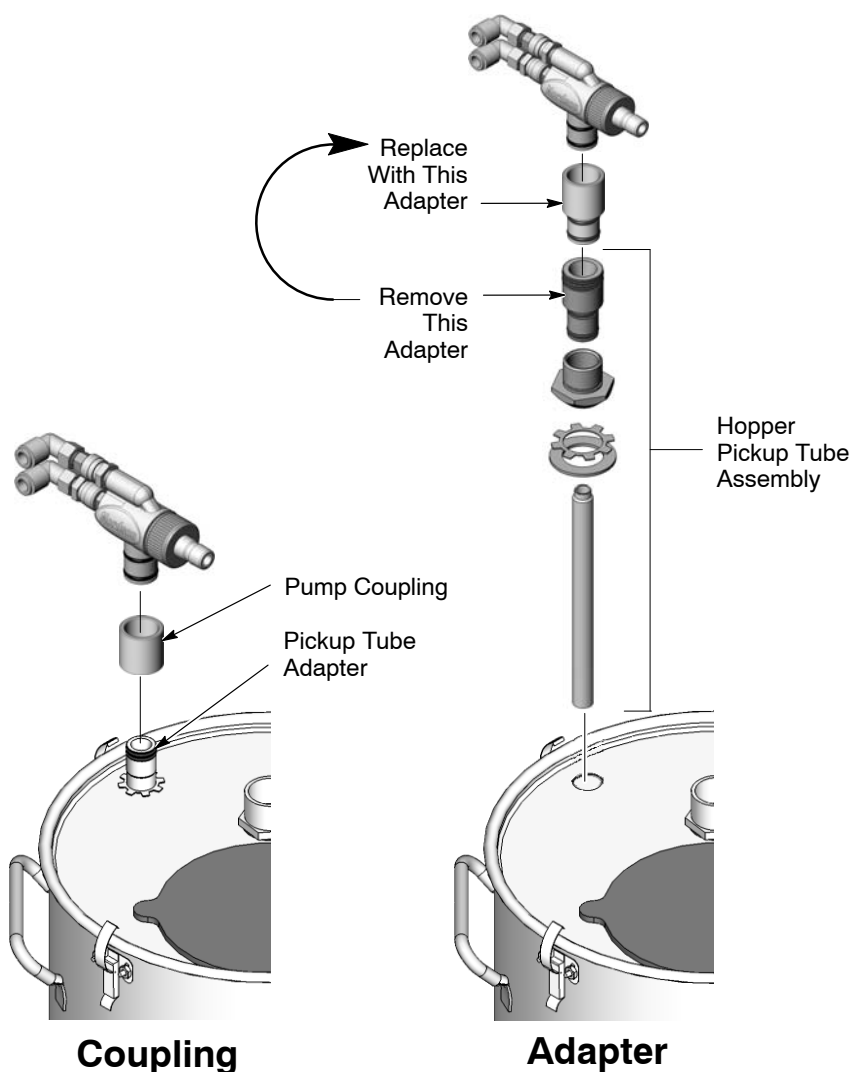


Figure 1 Installing Pump on Feed Hopper

Vibratory Box Feeder Mounting:

Encore Mobile System: Install the pump on pickup tube adapter with a slight twisting motion.

All other VBF systems: See Figure 1, Coupling. Install the pump coupling over the pick-up tube adapter with a slight twisting motion. Install the pump into the coupling with a slight twisting motion.

Pump Connections

Connect 8-mm flow-rate and atomizing air tubing to the quick-disconnect fittings and powder feed hose to the barbed throat holder.

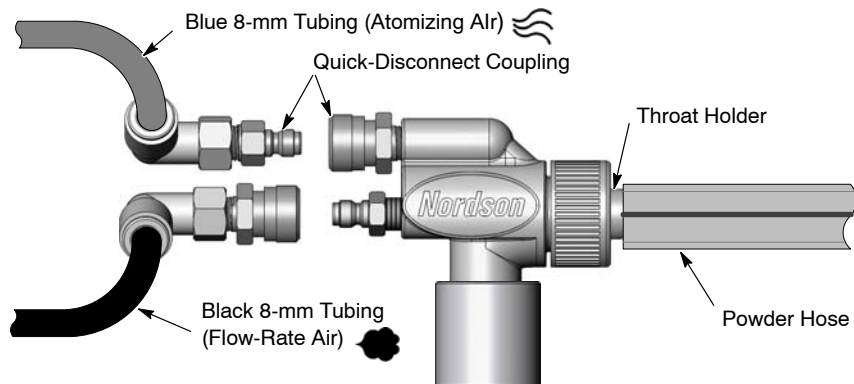


Figure 2 Pump Connections

Operation

Connect fluidizing air and ground the pickup tube or hopper according to the instructions in your system or hopper manual.

Typical pump operating pressures are:

Atomizing:	1.4 bar (20 psi)
Flow Rate:	2.1 bar (30 psi)

These pressures are average starting points. They can be adjusted higher or lower to achieve the desired delivery volume and cloud density.

Maintenance



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Daily

Disconnect the powder feed hose and the atomizing and flow-rate air, using the quick disconnect couplings, and blow out the pump with compressed air.

Blow out the powder feed hose with compressed air. Always blow out the feed hose from the pump end into the booth, not from the spray gun end into the pump. Make sure the booth exhaust fan is running.

Periodically



WARNING: Do not replace conductive O-rings with non-conductive O-rings. Conductive O-rings provide a path to ground that is required with powder spray equipment. Failure to observe this warning could result in personal injury, fire, or explosion.



CAUTION: Do not scrape impact-fused powder off the pump parts with any sharp metal tools. Powder will build up in any scratches on the powder contact surfaces, causing impact-fusion and pump clogging.

Disassemble the pump and clean the parts with low-pressure compressed air and clean, lint-free cloths. The parts may be wiped clean with a non-toxic solvent such as alcohol after removing the O-rings. The O-rings could be damaged by the solvent.

Inspect all parts and replace any that are worn or damaged.

Inspect the powder feed hoses and replace any hoses that are worn or damaged. Replace the feed hose if impact fusion is present on the inner walls.

Throat Replacement

See Figure 3.

1. Unscrew the nut (1) on the end of the pump.
2. Pull the throat holder (2) from the pump body.
3. Inspect the holder O-rings (3). Replace if necessary.
4. Pull the throat (4) from the throat holder and discard.
5. Insert a new throat in the throat holder and reassemble the pump.

Nozzle/Coupling Replacement

When replacing the nozzle (10) or the atomizing air socket-end coupling (7), observe the following torque specifications to prevent damage to the pump body:

Nozzle:	1.1 N•m (10 in-lb)
Socket-End Coupling:	2.25 N•m (20 in-lb)

Parts

To order parts, call the Nordson Finishing Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

See Figure 3.

Item	Part	Description	Quantity	Note
—	1093012	PUMP, powder feed, Encore	—	
1	1082203	• NUT, pump	1	
2	1085677	• KIT, throat holder, Encore pump	1	
3	940015	• • O-RING, silicone, 0.562 x 0.687 in.	2	
4	1082201	• THROAT, Tivar	1	A
5	1085678	• KIT, body, Encore pump	1	
6	941145	• • O-RING, silicone, conductive, 0.625 x 0.812 in.	2	
7	241041	• COUPLING, quick disconnect, socket end	2	
8	241042	• COUPLING, quick disconnect, nipple end	1	
9	1093011	• CONNECTOR, female, elbow, 8mm T x 1/8 in. RPT	2	
10	1085240	• KIT, air flow nozzle, Encore pump	1	
11	940084	• • O-RING, 0.188 x 0.312 x 0.063	1	
12	1082204	• COUPLING, pump	1	B
13	1085679	• KIT, pump adapter, Encore pump	1	C
14	941145	• • O-RING, silicone, conductive, 0.625 x 0.812 in.	2	

NOTE A: For optional PTFE throat, order part number 1084777.
 B: The coupling is used with any system that does not have an Encore pump mount.
 C: The adapter is used with pickup tubes on hopper feed systems instead of the coupling.

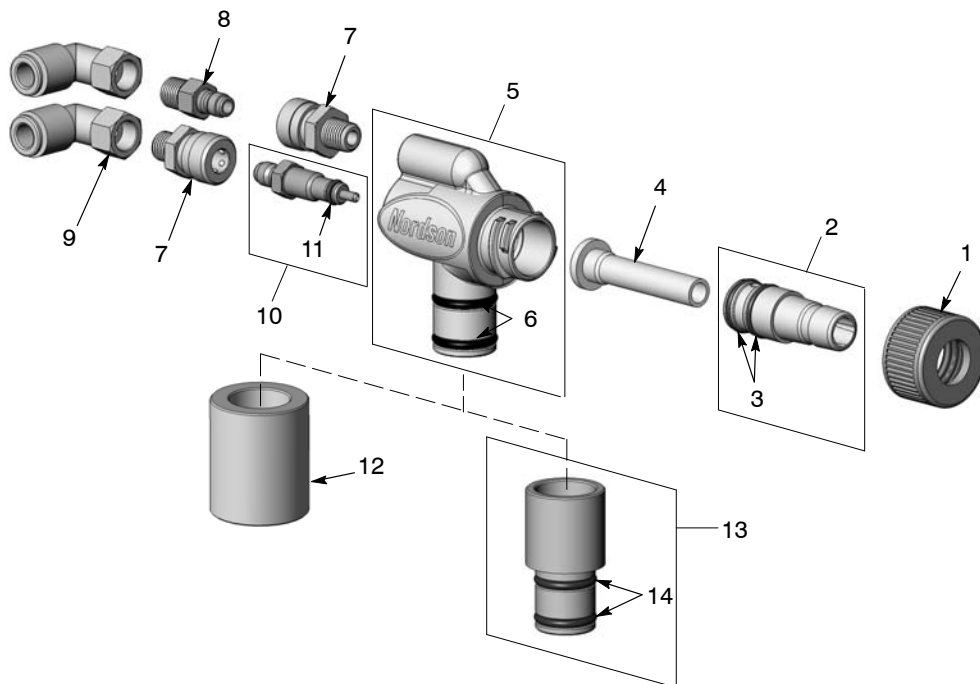


Figure 3 Pump Parts

Optional Powder and Air Tubing

Part	Description	Note
900619	TUBING, polyurethane, 8 mm OD, black	A
900618	TUBING, polyurethane, 8 mm OD, blue	B
900742	TUBING, polyurethane, 6 mm OD, blue	C
900740	TUBING, polyurethane, 10 mm OD, blue	D
768176	TUBING, powder, antistatic, 11 mm (0.43 in.) ID	E
NOTE A: Flow-rate air tubing. B: Atomizing air tubing. C: Fluidizing air tubing for vibratory box feeders and hoppers. D: Fluidizing air tubing for compressed air supply. E: Minimum order quantity for this powder feed tubing is 50 ft.		

Issued 11/08

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