

# Powder Transfer Pump

## Description

The powder transfer pump is used to transfer powder coatings from bulk containers or booth collectors to powder feed hoppers. It is used primarily on the Nordson vibratory box feeder.



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

## Installation

1. Install the pump on the adapter with a slight twisting motion.
2. See Figure 1. Connect 1/2-in. air tubing from a regulated air source to the air inlet elbow (1).
3. Connect 19-mm ID powder transfer hose to the throat holder (8) and secure it with a hose clamp.
4. If necessary, install a short length of spiral wrap around the transfer tubing where it connects to the throat. This will prevent the transfer tubing from kinking or cutting off the flow of powder.

**NOTE:** For best results, the powder transfer tubing should be no longer than 7.6 meters (25 feet) and rise vertically over its length no more than 2.7 meters (9 feet).

## Operation



**WARNING:** Connect all conductive equipment in the spray area to a true earth ground. Ungrounded or poorly grounded equipment in the 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.

Operating Air Pressure	
Normal	186.9 liters/minute (6.6 scfm) @ 2.75 bar (40 psi)
Maximum	277.4 liters/minute (9.8 scfm) @ 4.1 bar (60 psi)

**NOTE:** The normal pressure is an average starting point. Adjust the pressure higher or lower to achieve the desired powder delivery volume.

## Maintenance

Frequency	Procedure
Daily	<ol style="list-style-type: none"> <li>1. Disconnect the air tubing and powder transfer hose from the pump.</li> <li>2. Blow out the pump with compressed air.</li> </ol> <p><b>CAUTION:</b> Always blow out the transfer hose from the pump end. Make sure that the booth exhaust fan is running and the feed hopper is vented into the booth.</p> <p>Blow out the powder transfer hose with compressed air.</p>
Periodically	<p>Periodically disassemble the transfer pump and clean its parts following these guidelines:</p> <p><b>CAUTION:</b> Do not scrape impact-fused powder off the pump parts with sharp metal tools. Powder will build up in scratches in the powder contact surfaces, causing impact fusion and pump clogging.</p> <ul style="list-style-type: none"> <li>• Use low-pressure compressed air and lint-free cloths.</li> <li>• The parts may be wiped clean with a non-toxic solvent such as alcohol. Remove the O-rings first so the solvent does not damage them.</li> <li>• Inspect all parts and replace any that are worn or damaged.</li> </ul>

## Parts

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

### Pump Parts

See Figure 1.

Item	Part	Description	Quantity	Note
—	244721	PUMP, powder transfer, 0.75 in. outlet	1	
1	972192	• ELBOW, male, 1/2 tube x 1/4 in. NPT	1	
2	244643	• NOZZLE, air, powder pump	1	
3	942106	• O-RING, silicone, conductive, 0.750 x 1.00 x 0.125 in.	3	
4	244641	• BODY, pump	1	
5	307439	• THROAT, with holder	1	
6	307437	• • THROAT, venturi, high flow	1	
7	940142	• • • O-RING, silicone, 0.500 x 0.625 x 0.063 in.	2	
8	307435	• • HOLDER, throat	1	
9	118832	• • TUBE, wear, holder, high flow	1	
10	942146	• O-RING, silicone, conductive, 1.000 ID x 1.250 in. OD	1	

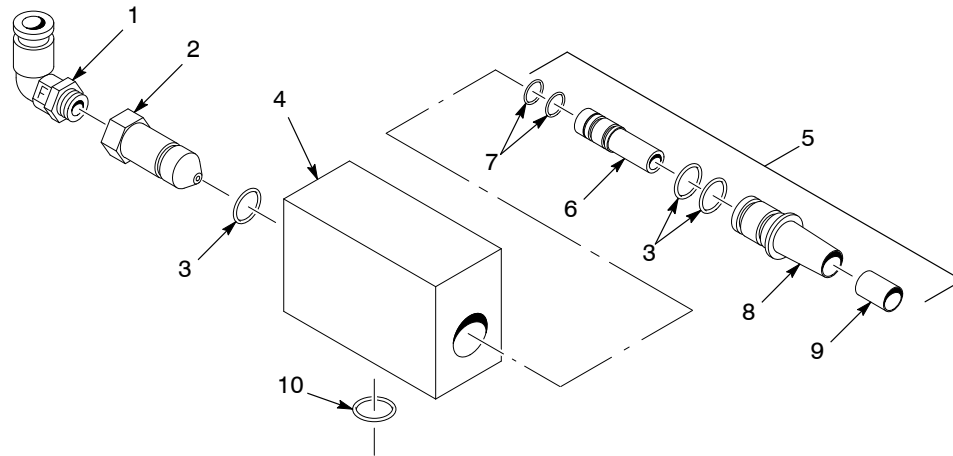


Figure 1 Pump Parts

## Optional Throats

See Figure 2.

Item	Part	Description	Quantity	Note
1	226713	THROAT, venturi, transfer, Tivar	1	
2	942101	O-RING, silicone, 0.750 x 1.00 x 0.125 in.	1	
1	244642	THROAT, venturi, transfer, PTE	1	
2	942101	O-RING, silicone, 0.750 x 1.00 x 0.125 in.	1	

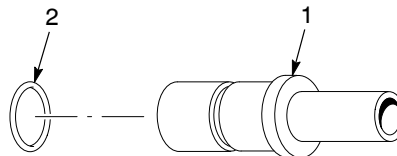


Figure 2 Optional Throats

## Optional Air Tubing and Transfer Hose

Order air and transfer hose as required in increments of one foot.

Part	Description	Note
900587	TUBING, polyethelene, 1/2 in. OD x 3/8 in. ID	
900651	TUBING, powder, transfer, 19 mm (.75 in.) ID, blue	

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