

NHR-18-150 Powder Feed Hopper

Description

This instruction sheet provides specifications, installation and operation instructions, and parts lists for the NHR-18-150 powder feed hopper. Three versions of the hopper are available:

- with standard cover and vent stub
- with standard cover, vent stub, and level sensor mount
- with sieve cover and level sensor mount

The hopper is shipped fully assembled. The following items are included for installation:

- Elbow connector, 1/2-in. tube x 1/2-in. NPT
- Ground wire
- Vent hose (3.04 m, 10 ft)
- Hose clamps for vent hose and transfer hose
- Barbed elbow fittings, 3/4-in. tube x 3/4-in. NPT
- Sealing washers
- Plastic hex nuts, 3/4-in. NPT

Powder pumps and adapter kits with pickup tubes must be ordered separately.

Specifications

Powder Capacity:	68 kg (150 lb)
Pump Knockouts:	16
Transfer Hose Fitting Knockouts:	2
Dimensions	
Height:	91.5 cm (36 in.)
Diameter:	57.2 cm (22.5 in.)
Weight (Empty):	45.36 kg (100 lb)
Weight (Full to Capacity):	113.4 kg (250 lb)
Fluidizing Air Pressure:	1.0–2.7 bar (15–40 psi)
Fluidizing Air Tubing:	12-mm or 1/2-in. OD

Installation



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

Basic Installation

See Figure 1.

1. Make sure the fluidizing drum (6) and cover (2) are securely clamped to the body (3), and that all gaskets are undamaged and sealing properly.
2. Connect 12-mm or $\frac{1}{2}$ -in. flexible air tubing to the fitting labeled AUX on the rear or side of the control unit, or another a source of regulated fluidizing air. Connect the opposite end of the tubing to the fluidizing air connector (5).

NOTE: If using $\frac{1}{2}$ -in. tubing, remove the 12-mm tube connector from the fluidizing drum. Install the $\frac{1}{2}$ -in. tube connector shipped with the hopper.



WARNING: All electrically conductive equipment in the spray area must be grounded. Ungrounded or poorly grounded equipment can store an electrostatic charge which can give personnel a severe shock or arc and cause a fire or explosion.

3. Connect the ground wire shipped with the hopper from a true earth ground to the ground stud (4).
4. Connect the flexible vent hose shipped with the hopper to the vent hose adapter (1), or to the sieve vent. Secure the hose with a hose clamp. Connect the other end of the hose to the booth powder collector to prevent vented powder from contaminating the room air.

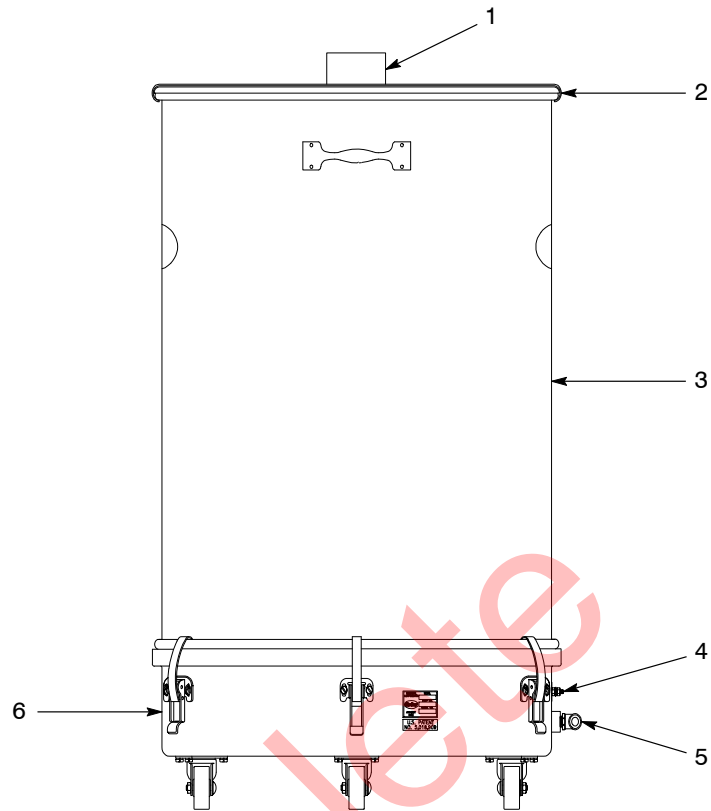


Figure 1 NHR-18-150 Powder Feed Hopper

- | | |
|----------------------|-----------------------------|
| 1. Vent hose adapter | 4. Ground stud |
| 2. Lid | 5. Fluidizing air connector |
| 3. Body | 6. Fluidizing drum |

Transfer Hose Fitting Installation

Virgin and reclaimed powder can be pumped into the hopper through $\frac{3}{4}$ -in. transfer hoses connected to the barbed elbow fittings shipped with the hopper.

See Figure 2.

1. Install one of the sealing washers (2) over the threaded end of one of the barbed elbow fittings (1).
2. Insert the threaded end of the fitting into an unused knockout in the lid (4), and secure it to the lid with one of the black plastic $\frac{3}{4}$ -in. NPT hex nuts (3).

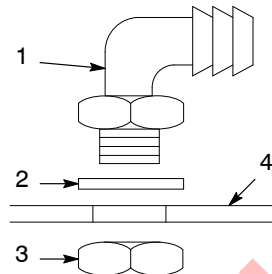


Figure 2 Installing a Transfer Hose Fitting

- | | |
|-------------------------|------------|
| 1. Barbed elbow fitting | 3. Hex nut |
| 2. Sealing washer | 4. Lid |

Powder Pump Installation

You must order a pump adapter kit for each pump. Install the adapter and pickup tube in one of the knockouts in the lid. Up to 16 pumps can be installed on the lid.

Operation



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

Filling the Hopper

Fill the hopper half full of powder to provide room for expansion as the powder is fluidized. Do not overfill the hopper. If you put in too much powder, it may not fluidize properly, clog the pumps, and cause uneven spray patterns or puffing and surging at the spray gun.

Fluidizing the Powder

Turn on the fluidizing air and adjust the regulator until the powder is gently “boiling.” The air mixed with the powder will cause it to increase in volume. Fluidize the powder for five or ten minutes to make sure it is evenly fluidized and no clumps are left before spraying.

Maintenance

Periodically, empty the hopper and clean the interior. Clean the fluidizing plate and inspect it for signs of air contamination. If the plate is discolored and appears to be contaminated, replace it. Check your air supply and correct any contamination problems.

Parts

To order parts, call the Nordson Finishing Customer Support Center at (800) 433-9391 or contact your local Nordson representative. Use the parts lists and illustrations to locate and order replacement and repair parts. Order parts by part number and description.

Hopper

See Figure 3.

Item	Part	Description	Quantity	Note
—	1080186	HOPPER, NHR-18-150	1	
	1080314	HOPPER, NHR-18-150, w/sensor mount, reclaim lid		
	1080295	HOPPER, NHR-18-150, w/sensor mount, standard lid		
1	-----	• COVER assembly, 150-lb hopper	1	A
2	7402008	• LATCH, lever, closing ring, 600-mm.	1	
3	1080438	• BODY, hopper, 150 lb	1	
3	1080462	• BODY, hopper, assembly, NHR-X-150, w/sensor		
4	-----	• DRUM, fluidizing, assembly, 150-lb hopper	1	B
5	174235	• PLATE, fluidizing, 150-lb hopper	1	
6	174495	• GASKET, U-channel, 150-lb hopper	1	
NS	970970	• CLAMP, hose, No. 52	2	
NS	243052	• HOSE, flexible	AR	C
NS	134575	• WIRE, ground	1	
NS	972184	• ELBOW, male, 1/2-in. tube x 1/2-in. NPT	1	
NS	972171	• ELBOW, male, HDPE, 3/4-in. hose x 3/4-in. NPT	2	
NS	983554	• WASHER, sealing, 3/4-in. pipe	2	
NS	984085	• NUT, nylon, 3/4-in. NPT	2	
NS	939459	• CLAMP, hose	2	
NOTE A: Refer to <i>Cover Parts</i> for a breakdown of the cover parts included in this assembly. B: Refer to <i>Fluidizing Drum Parts</i> for a breakdown of the parts included in this assembly. C: Order length needed in increments of one foot. AR: As Required NS: Not Shown				

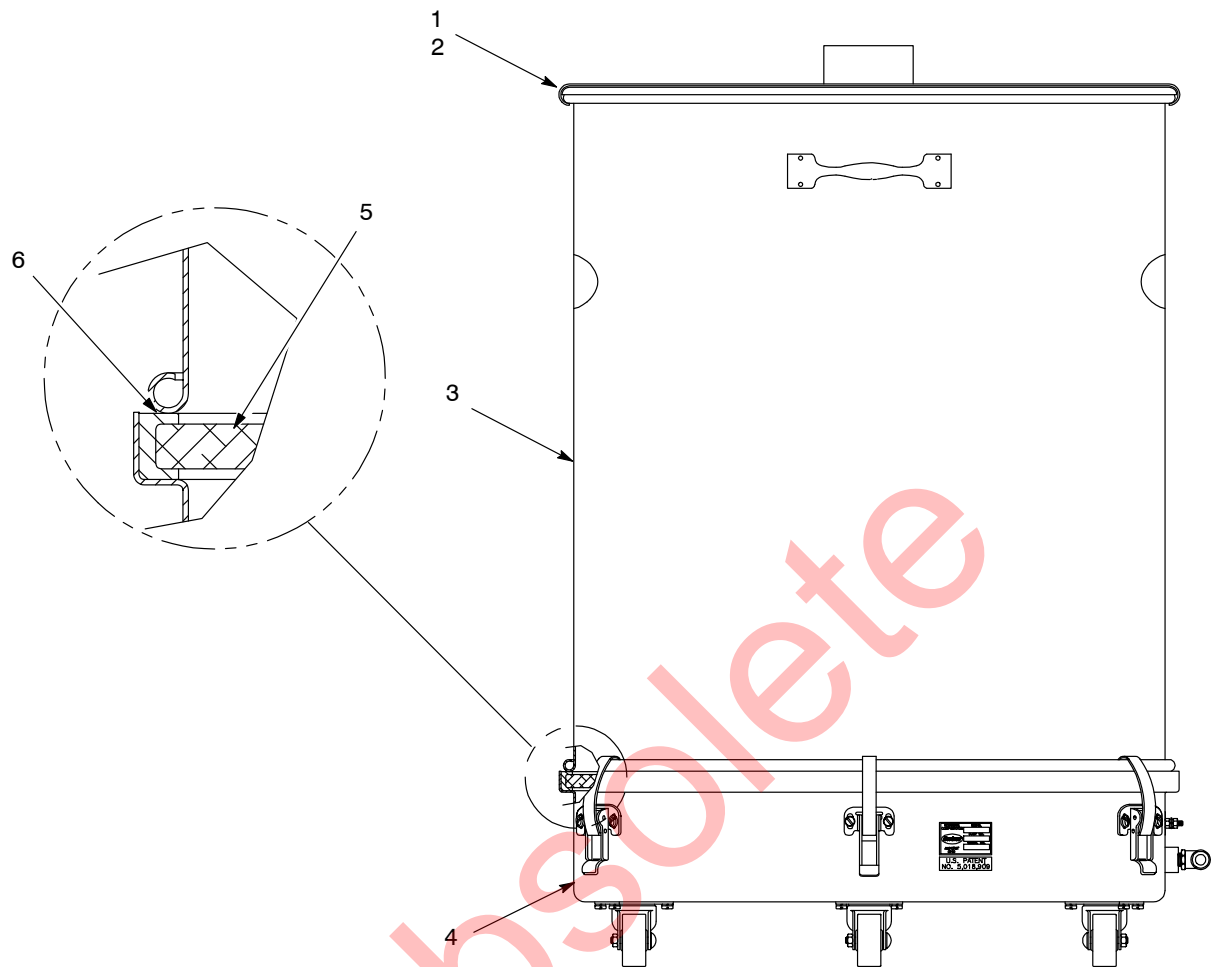


Figure 3 NHR-18-150 Hopper Parts

Cover Parts

See Figure 4.

Item	Part	Part	Description	Quantity	Note
1	1100864	–	COVER, hopper assembly, NHR-18-150, sieve mount, packaged	1	
2	–	1100865	COVER, hopper assembly, NHR-18-150, packaged		
3	–	174525	• ADAPTER, male, 3.5-in. OD, 2.50-in. NPSL	1	
4	–	321151	• WASHER, 2.88 ID x 3.50 OD x 0.13 in.	1	
5	–	174523	• NUT, lock, conduit, 2.5 in.	1	
6	1070199	1070199	• PLUG, hopper, fill	1	
7	142342	142342	• PLUG, button	18	
NS	309517	309517	• GASKET, lid, HR-150	1	A
NOTE A: Install with Scotch-Grip 847 adhesive or equivalent.					

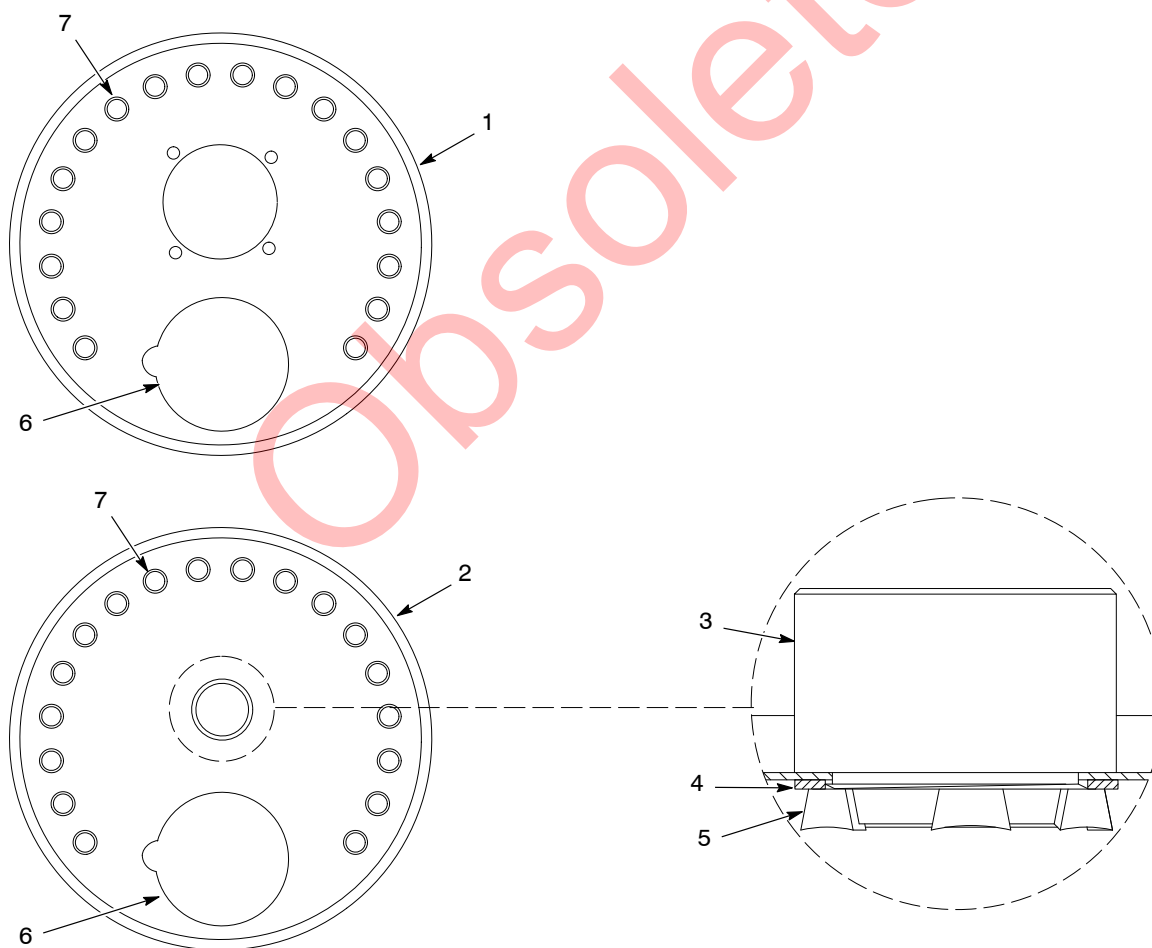


Figure 4 Cover Parts

Fluidizing Drum Parts

See Figure 5.

Item	Part	Description	Quantity	Note
—	-----	DRUM, fluidizing, assembly, 150-lb hopper	1	
1	972240	• ELBOW, male, 12-mm tube x 1/2-in. RPT	1	
2	984702	• NUT, hex, M5, brass	2	
3	983401	• WASHER, lock, split, M5, steel, zinc	31	
4	983021	• WASHER, flat, 0.203 x 0.406 x 0.040 in., brass	1	
5	982126	• SCREW, pan head, slotted, M5 x 25, brass	1	
6	240674	• TAG, ground	1	
7	174496	• CLAMP, drawlatch, large	6	
8	982000	• SCREW, pan head, slotted, M5 x 10, zinc	28	
9	983123	• WASHER, flat, 0.219 x 0.500 x 0.049 in., zinc	11	
10	984706	• NUT, hex, M5, steel, zinc	12	
11	1080412	• CASTER, swivel, 50 mm	4	

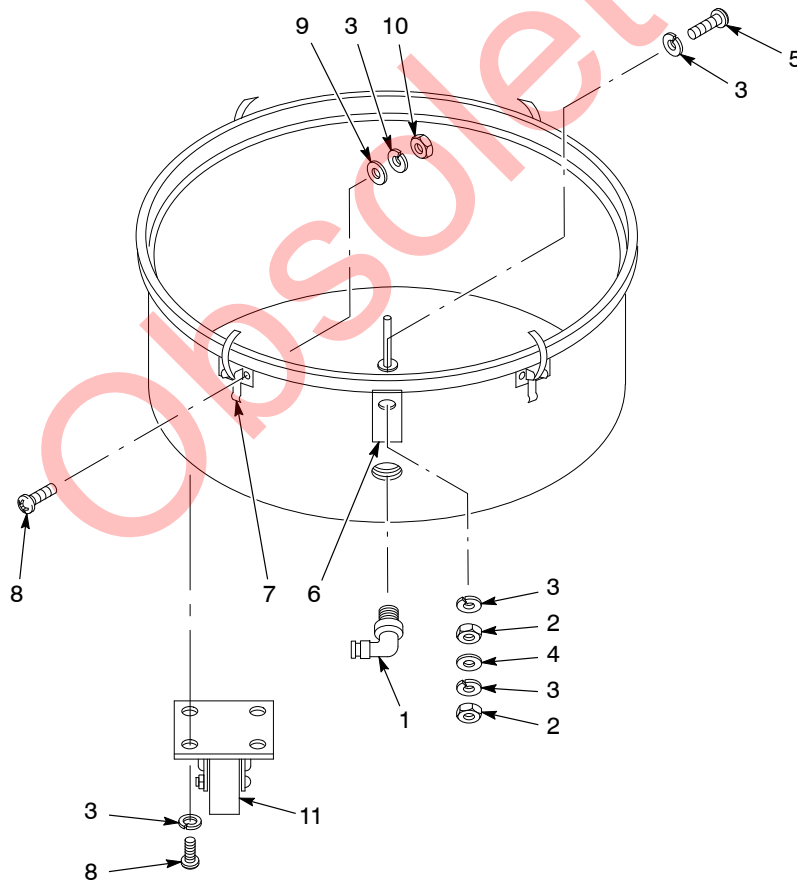


Figure 5 NHR-18-150 Hopper Fluidizing Drum Parts

Obsolete

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