

**Model HRS-II  
Feed Hopper**

Part 108 231C

Previous Generation



NORDSON CORPORATION • AMHERST, OHIO • USA

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## MODEL HRS-II FEED HOPPER

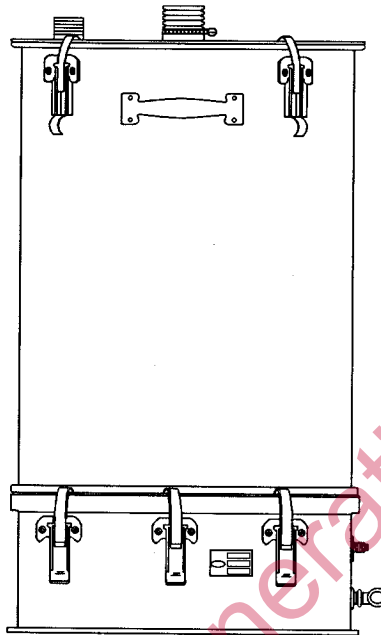


Figure 1 — Model HRS-II Feed Hopper

### INTRODUCTION

Refer to Figure 1. The NORDSON® HRS-II Feed Hopper stores and fluidizes powder coatings. The main components of the hopper are the lid, body, fluidizing plate and fluidizing drum. The powder is delivered to an electrostatic spray gun through an attached 100 PLUS® Powder Pump. The powder pump is not included and must be ordered separately. The air to powder ratio and fluidizing material sent to the spray gun is controlled by an external control unit.

### INSTALLATION



**CAUTION:** Wear a filter-type respirator whenever handling powder containers, filling hoppers, operating spray equipment, or maintaining or cleaning the system. Always wear safety glasses.

Refer to Figure 2 for component location. Installation procedures are provided in the following steps:

1. Connect the main air supply line to the  $\frac{3}{8}$  x  $\frac{1}{4}$  NPT elbow fitting located on the hopper fluidizing drum.
2. Install hose clamp onto adapter.
3. Connect flexible hose to adapter. Tighten hose clamp securely.



**CAUTION: Flexible hose must be vented or connected to booth collector before operating hopper.**

4. Connect flexible hose to a vent or booth collector.
5. Connect ground wire to the hopper ground stud.
6. Connect the ground clamp to a true earth ground point.

### **Powder Pump Installation**

A 100 Plus Powder Pump must be installed before operating the hopper. Refer to the powder pump manual for installation procedures.

### **FILLING HOPPER**

The following steps provide procedures for filling the hopper:

1. Unlatch tension latches securing lid to hopper.

**NOTE: Overfilling the hopper may affect hopper performance.**

2. Fill hopper  $\frac{1}{2}$  full with powder coating material. This leaves room for expansion caused by powder fluidization.
3. Install hopper lid and secure tension latches.

### **OPERATION**

The hopper does not contain any controls. Refer to the applicable control module manual for operating procedures. The following steps should be performed before operating the hopper:

1. Ensure all tension latches are properly secured.
2. Ensure air lines to powder pump are properly installed. Refer to powder pump manual for procedures.



**WARNING: Electrical sparks discharged from ungrounded conductive objects may start fires or cause explosions.**

3. Ensure hopper is properly grounded.

### Fluidizing Air Pressure

Typical fluidizing air pressure for operation is:

5-15 psi (0.4-1.0 kg/cm<sup>2</sup>)  
4.0 scfm (1.89 l/sec.)

**Note: The powder in the hopper appears to increase in volume and "boil" gently when the air pressure is properly adjusted.**

## DISASSEMBLY AND REPAIR

### Lid Gasket Replacement

The HRS-II Hopper Service Kit (P/N 144 818) must be used to replace the hopper lid gasket. Each kit includes a new gasket (P/N 144 820) and a tube of adhesive (P/N 900 491). Up to five (5) gaskets can be installed with one tube of adhesive. Both the gasket and adhesive can be ordered separately, in quantity.

1. Remove the old gasket from the lid and clean the area of the lid where the old gasket was installed. The lid must be clean, dry, and dust free for proper adhesion of the new gasket.
2. Apply a thin, even coat of adhesive to the lid, where the new gasket is going to be installed.
3. Press the new gasket in place, then wipe off any excess adhesive. Refer to the instructions on the adhesive tube for curing times.

## TECHNICAL DATA

**Height:**

28 in. (711 mm)

**Diameter:**

18 in. (457 mm)

**Weight:**

22 lbs. (9.98 kg)

**Capacity - Static:**

50 lbs. (23 kg)

**Fluidizing Air Requirements:**

5-15 psi (0.4 - 1.0 kg/cm<sup>2</sup>)

4.0 scfm (1.89 l/sec.)

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## MODEL HRS-II FEED HOPPER PARTS LIST

### INTRODUCTION

The parts list provides information for ordering parts for the HRS-II Feed Hopper. Refer to Figure 2 for location of parts. The following paragraphs provide information for using the parts list.

The number in the **Ref.** column indicates the number assigned to the part in the illustration preceding the list. A dash or the code NS (Not Shown) is used for parts that are not shown in the illustration.

A letter in the **Note** column refers to a note below the parts list which gives additional information concerning that part. Special attention should be given to noted parts.

The six digit number in the **Part No.** column is the Nordson part number assigned to that particular part. A series of dashes in this column means that the part cannot be ordered separately; it can only be obtained as part of the assembly or subassembly of which it is a component.

The **Description** column gives the official Nordson name of the part, together with its dimensions and other physical properties where appropriate, and is the name that should be used when ordering replacement parts. Indented parts are components of assemblies and/or subassemblies. For example:

Ref.	Note	Part No.	Description	Qty.
1		000 000	Top Level Assembly	1
2	A	000 000	. Assembly or Part	2
3		000 000	.. Subassembly or Part	1

If you order item 1, items 2 & 3 will be included.

If you order item 2, item 3 will be included.

If you order item 3, you will receive item 3 only.

The number in the **QTY.** column is the quantity required per unit or assembly. When the quantity is not applicable, a dash will appear in the column. An "ASR" in the **QTY.** column means that the quantity required per installation should be ordered.

**Parts List — Model HRS-II Feed Hopper**

Ref.	Note	Part No.	Description	Qty.
-		142 301	Hopper, Round, 50 lb., HRS-II	1
1		142 202	• Lid, Hopper, 50 lb.	1
2		104 166	• Body, Hopper, Round	1
3		104 165	• Latch, Tension	10
4		981 170	• Screw, Trs., Unslotted, #10-32 x .38	8
5		984 120	• Nut, Hex, Mach., #10-32, Sl., Zn.	19
6		981 168	• Screw, Pan Hd., #10-32 x .750, BRS	2
7		983 021	• Washer, Flat, .203 x .406, BRS	3
8		983 120	• Washer, Lock, Split, #10, Ni.	16
9		984 129	• Nut, Hex, Mach., #10-32, BRS	4
10		134 193	• Jumper, Ground Latch	1
11		900 411	• Sealant, RTV, Clear (PSNC)	ASR
12		142 201	• Drum, Fluidizing, Hopper, 50 lb.	1
13		104 078	• Spacer, .75 x .38, Threaded, #8-32	1
14		972 615	• Muffler, Filter, ¼ NPT	1
15		973 522	• Coupling, Pipe, Hyd., ¾ x ¼ NPT	1
16		973 062	• Nipple, Std. Wt., ¾ x 6.00, St.	1
17		972 183	• Elbow, Male, ¾ Tube x ¼ NPT	1
18		973 562	• Bushing, Pipe, Hyd., ¾ x ¼	1
19		900 236	• Paste, Teflon® (PSNC)	ASR
20		981 064	• Screw, Pan Hd., #8-32 x .375	1
21		983 111	• Lockwasher, Split, #8, ZN	1
22		142 222	• Disc, Hopper, Drum	1
23		981 064	• Screw, Pan Hd., #10-32 x .38	11
24		983 123	• Washer, Flat, .219 x .500 x .049	11
25		981 105	• Screw, Pan Hd., #10-24 x .38	3
26		984 518	• Nut, Spring, Type U, #10-24	3
27		104 181	• Gasket, U-channel	1
28		104 168	• Plate, Fluidizing, 16.200	1
29		114 225	• Adapter, Pump	1
30		142 382	• Nut, Ground, Pump Mount	1
31		118 740	• Tube, Pickup, PVC, Lo-Flow	1
32		940 117	• O-ring, Silicone, .312 x .438 x .063	1
33		118 742	• Restrictor, .125 Dia., Powder	1
34		942 161	• O-ring, Silicone, 1.125 x 1.375 x .125	1
35		941 185	• O-ring, Silicone, Cond., .875 x 1.062	2
36		242 402	• Hose, Flexible, 10 ft.	1
37		970 966	• Clamp, Hose	1
38		142 342	• Button, Plug, 1.094 Dia.	1
39		134 575	• Wire, Ground	1

ASR - As required.



## Parts List — HRS-II Hopper Service Kit

<b>Part No.</b>	<b>Description</b>
144 818	Service Kit, Gasket, Lid HRS-II
144 820	• Gasket, Lid, HRS-II
900 491	• Adhesive, Tube

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