

NRPS-100 Rotary Sieve Rotor and End Door NRPS-200 Retrofit Kit



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

Introduction

This instruction sheet describes how to retrofit your existing NRPS-100 rotary sieve with the new NRPS-200 rotor and end door assembly. A retrofit kit is available and can be used to upgrade the following NRPS-100 rotary sieve assemblies:

NRPS-100 Rotary Sieve Part Numbers	
223920	226670
223921	226671
226669	226672

NOTE: The new NRPS-200 rotor and end door assembly must be installed together as a set. Do not use a new NRPS-200 rotor with an old NRPS-100 end door assembly (or vice-versa) as the parts are not compatible.

Disassembly



WARNING: Before performing the following procedures, disconnect the electrical power to the rotary sieve. Lock and tag as required. Failure to observe this warning may result in personal injury or death.

1. Shut off power at the system electrical panel. Unplug the sieve power and control cords from the booth base receptacles.
2. See Figure 1. Make sure the sieve has come to a full stop. Disconnect the purge air tubing from the end door (2).
3. Release the door latches (4) and slide the end door off the rotor (3).
4. Turn the screen frame (1) counterclockwise to release the outlet screen ring from behind the locking block (5).
5. Remove the screen frame and rotor from the sieve housing.

Disassembly *(contd)*

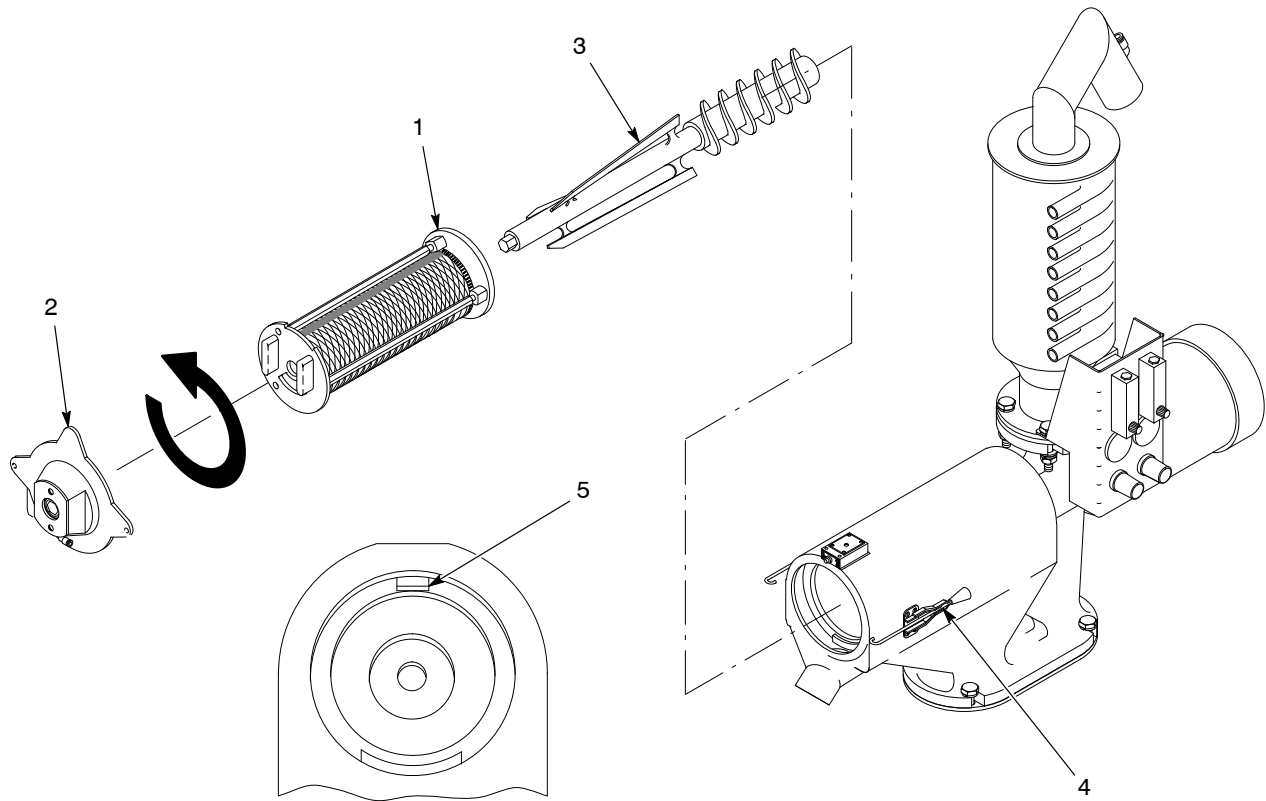


Figure 1 Disassembling the NRPS-100 Rotary Sieve

- 1. Screen frame
- 2. NRPS-100 end door

- 3. NRPS-100 rotor
- 4. Door latch

- 5. Locking block

6. See Figure 2. Look inside the sieve housing and determine if the sieve has a male hex adapter (4) installed on the motor shaft (2) end.

If Yes: Continue on with step 7.

If No: Skip to the *Assembly* procedure.

7. Use a $\frac{1}{2}$ -in. hex wrench to remove the plug bolt from the side of the sieve housing opposite the purge air fitting. Do not lose the plug bolt.

NOTE: Depending on which version of the NRPS-100 rotary sieve you are using there may be a set screw or a pan-head screw in place of the plug bolt. Whichever it is, remove it and do not lose it.

8. Rotate the male hex adapter and motor shaft until the $\frac{1}{8}$ -in. set screw (3) on the side of the adapter lines up with the plug bolt opening on the side of the sieve housing.
9. Through the opening, use a $\frac{1}{8}$ -in. hex wrench to remove the set screw from the side of the male hex adapter. Do not lose the set screw.
10. Reach into the end door opening and remove the hex adapter from the motor shaft. The hex has a drive key (5) between it and the motor shaft that will come out with the hex adapter. Do not lose the hex adapter or the drive key.

11. Install the plug bolt (set screw or pan-head screw) into the side of the sieve housing on the opposite side of the purge fitting.

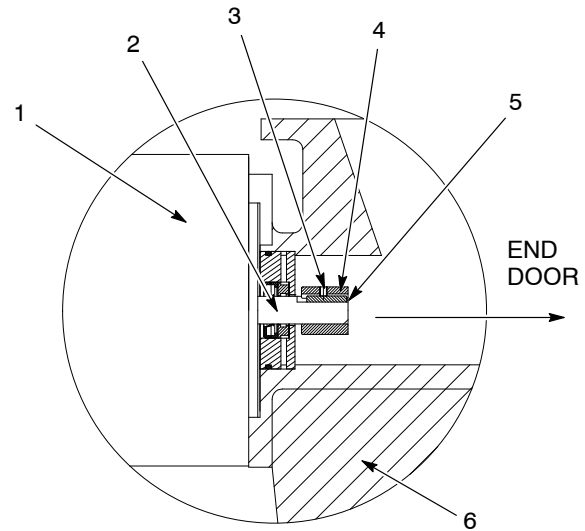


Figure 2 NRPS-100 Rotary Sieve Housing with a Male Hex Adapter (Section view shown with rotor removed)

1. Motor
2. Motor shaft
3. Set screw
4. Male hex adapter
5. Drive key
6. Sieve housing

Assembly

See Figure 3.

1. Install the new rotor (5) into the housing by sliding the female end of the rotor over the motor shaft.
2. Slowly rotate the rotor until the key pins line up with the motor shaft keyways. Once aligned, slide the rotor fully onto the motor shaft.
3. Install the screen frame (1) over the rotor and into the housing.
4. Slide the flats on the outer screen ring (2) past the locking block (8). Rotate the screen frame clockwise to lock the ring behind the locking block.
5. Make sure the O-ring (4) is undamaged and correctly installed on the end door (3).
6. Align the two dog point setscrews inside the new end door external bearing with the two keyways on the rotor end shaft and slide the new end door assembly over the end of the new rotor.
7. Clamp the end door in place with the door latches (7). Make sure the limit switch (6) closes.
8. Connect the purge air tubing to the new end door.
9. Connect the rotary sieve power cord.
10. Set the purge air pressure for the end door and motor bearing to no greater than 5 psig.

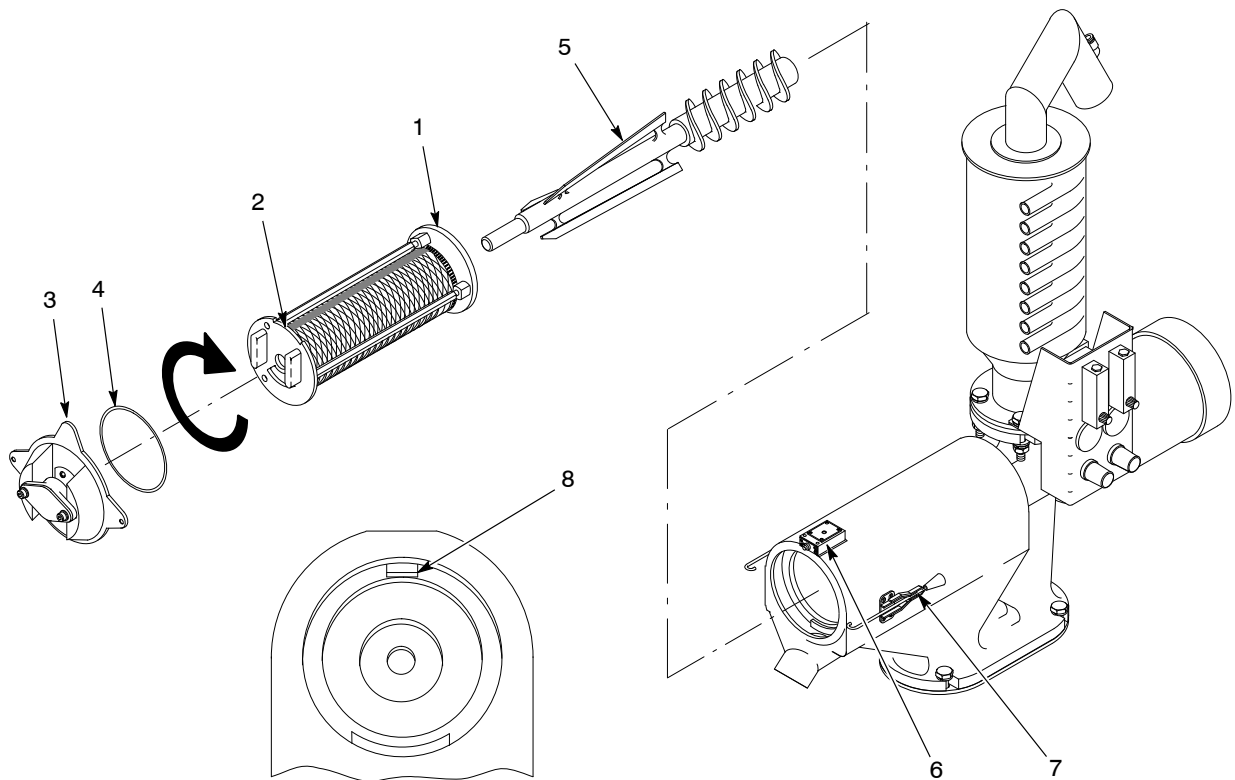


Figure 3 Assembling the Rotary Sieve with the New NRPS-200 Rotor and End Door

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|-------------------------------|-------------------|------------------|
| 1. Screen frame assembly | 4. O-ring | 7. Door latches |
| 2. Flats on outer screen ring | 5. NRPS-200 rotor | 8. Locking block |
| 3. NRPS-200 end door | 6. Limit switch | |

Parts

See Figure 3.

Item	Part	Description	Quantity	Note
—	1025050	KIT, rotor/end door retrofit	1	
3	1025041	• DOOR, end, assembly, NRPS sieve	1	
NS	942510	• • O-RING, silicone, 5.125 x 5.375 x 0.125 in.	1	
NS	1025619	• • DOOR, end, sieve, NRPS-200	1	
NS	971110	• • CONNECTOR, male, 6-mm tube x 1/4- in. UNI	1	
NS	226695	• • SEAL, lip, PTFE, sieve, NRPS	1	
NS	226681	• • RING, lantern, brass, NRPS	1	
NS	1025049	• • BEARING, external, end door, NRPS sieve	1	
NS	226687	• • COVER, end, NRPS, sieve	1	
NS	981145	• • SCREW, pan head, #10-24 x 0.500 in., slotted, zinc	2	
5	1025040	• ROTOR, assembly, NRPS sieve	1	

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