

Encore™ and Spectrum® (Global) Powder Feed Center Clamping Cylinder



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

This document provides instruction to remove and replace the clamping cylinder for Encore™ and Spectrum® Global Powder Feed Centers. The clamping cylinder is located at the bottom of the feed center beneath the hopper box table.

Replacing Clamping Cylinder

Removing Hopper Box Table

1. Raise the lance assembly to its highest point.
2. Press the E-Stop button on the feed center control panel to shut off the power and air. This relieves the air pressure and mechanically locks the lift cylinder in position.
3. See Figure 1. Remove the hopper/box table from the enclosure:
 - a. Remove the nuts (2) from the isolation mounts (1).
 - b. If using a vibrator motor, loosen the motor cable cord grip and pull the cable slack through the grip.
 - c. Lift the table (3) up off the isolation mounts and move it enough to gain access to the purge manifold assembly.

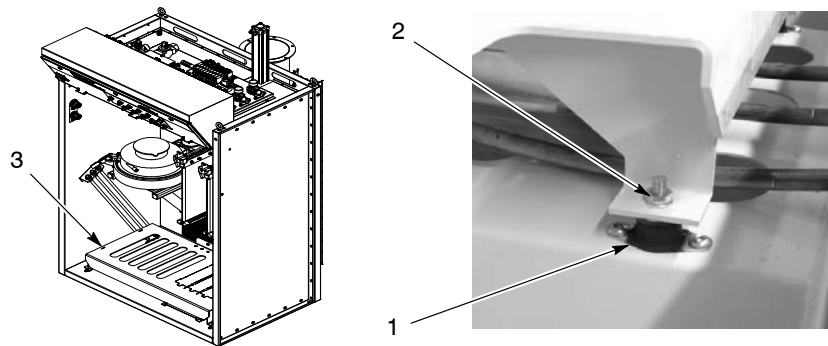


Figure 1 Hopper Box Table Removal (Encore Powder Feed Center Shown)

4. **Spectrum Global Feed Center Only:** Remove the lower front panel to access the clamping cylinder assembly.

Clamping Cylinder Removal

1. See Figure 2. Disconnect air tubing from the cylinder flow control valves (7, 9).
2. Remove the clamp screws (5) from each lever (4), then remove the cylinder and lever assembly from the hex bars (11).
3. Discard old cylinder assembly according to local laws and regulations, including auto switches and levers.

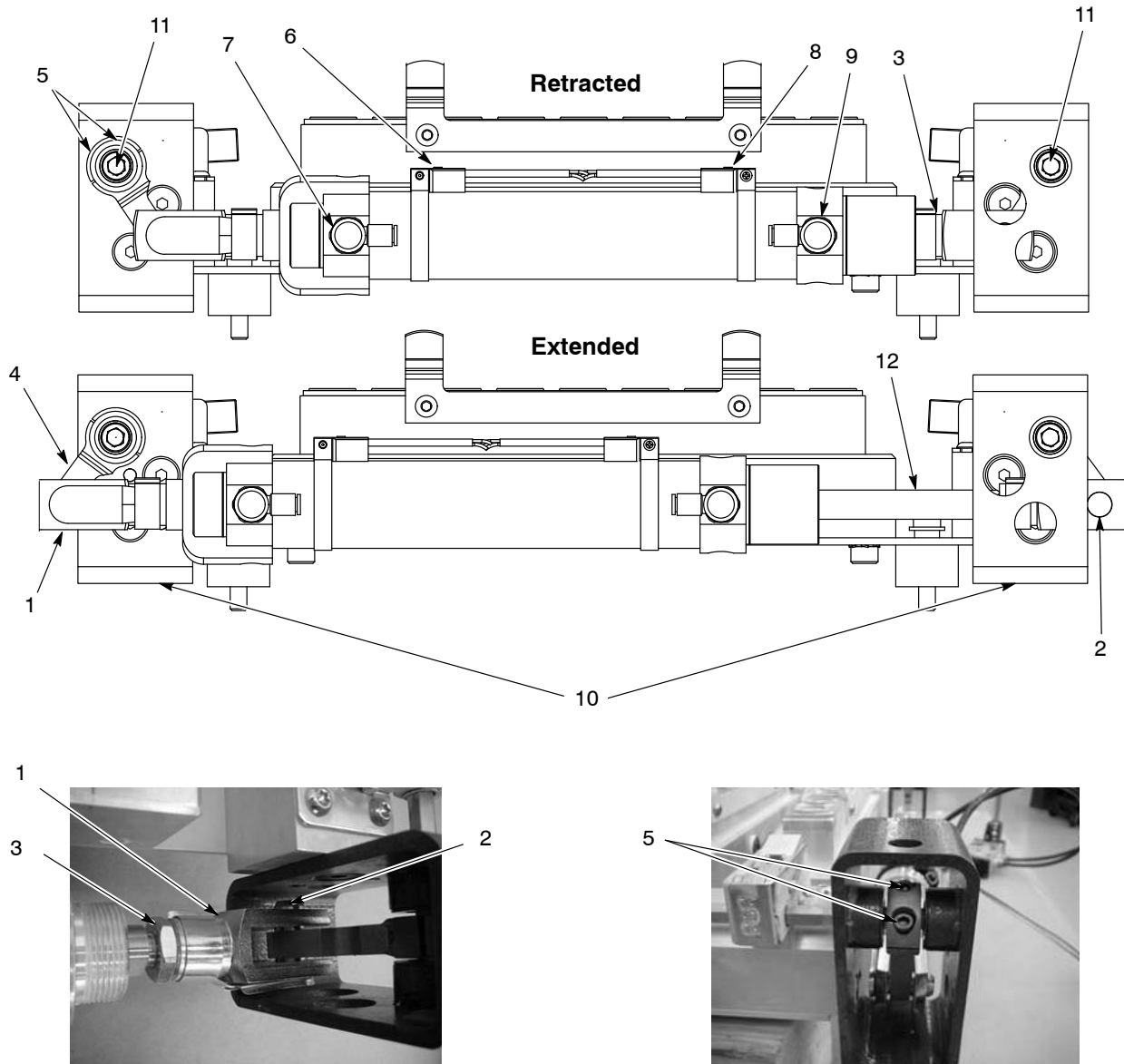
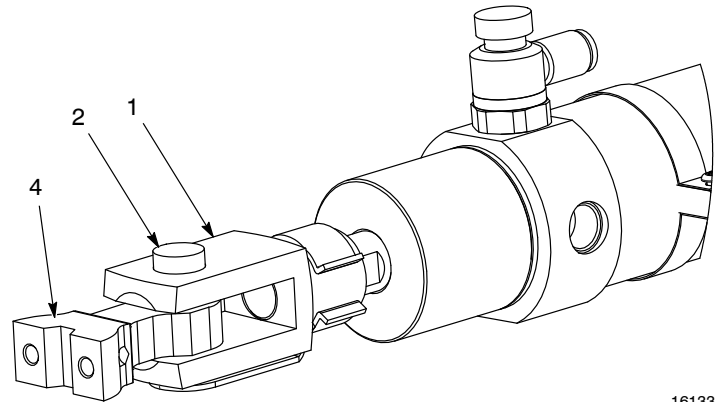


Figure 2 Clamping Cylinder Replacement

- | | | |
|----------------|-------------------------------------|-------------------------------|
| 1. Clevises | 5. Lever clamp screws | 9. Retract flow control valve |
| 2. Clevis pins | 6. Retract proximity switch (LS404) | 10. Valve blocks |
| 3. Spacer | 7. Extend flow control valve | 11. Hex bars |
| 4. Levers | 8. Extend proximity switch (LS403) | 12. Cylinder rod |

Clamping Cylinder Installation

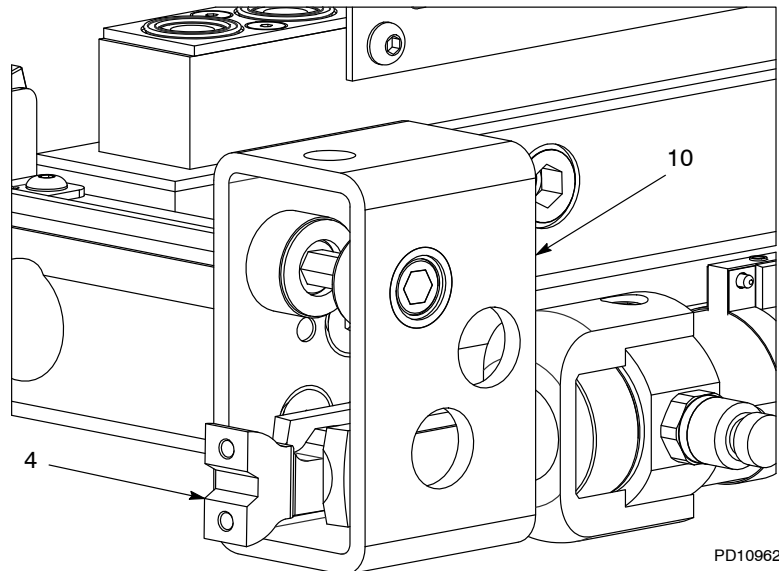
1. Install all the hardware and fittings included in kit onto the new cylinder.
2. See Figures 2 and 3. Connect the new cylinder lever ends (4) to clevises (1) on both sides using clevis pins (2).



1613398

Figure 3 Clamping Cylinder Lever End

3. Refer to the electrical schematics foldout in the product manual. Install the proximity switches as follows:
 - Extend (Engaged): LS403 – Install on rod end.
 - Retract (Released): LS404 – Install on fixed end.
4. With the new cylinder rod (12) retracted, install the cylinder onto the purge manifold yoke assembly.
5. See Figure 4. Center the assembly inside valve blocks (10) with cylinder fully retracted and all levers (4) in the full open position.



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Figure 4 Cylinder Lever Positioning

NOTE: Indentations in lever must be facing inwards.

6. Attach the levers to the hex bars (11), ensuring that the assembly remains centered and latches remain open.

NOTE: Lever clamp screws will require an M5 Allen Wrench.

7. Push the cylinder rod (12) into the cylinder until it is fully retracted. The clevis pins (2) should now be slightly loose in the levers (4). Rotate the cylinder rod to thread it in or out of the rod end and adjust the play between the clevis pins and the levers. Tighten the locknuts.
8. Verify that when the cylinder is extended, the levers (4) are making contact with the clevises (1).
9. Connect the air tubing to the appropriate cylinder flow control valves. Refer to the pneumatic schematic foldout in product manual.

Feed Center Preparation

1. Turn on the feed center air supply.
2. Lower the lance onto the purge manifold and set the purge air pressure to zero. Refer to *Air Pressure Settings* in product manual for the location of purge air pressure regulator.
3. Select *Gun Purge* on the control panel, and adjust the extend flow control valve for a 3 second extend. Turn *Gun Purge* off and adjust the retract flow control valve for a 3 second retract. Toggle *Gun Purge* on and off as needed while adjusting the valves.
4. Select *Gun Purge* and clamp the lance. Position the extend proximity switch (LS403):
 - a. Slide the switch on the cylinder until it senses the magnet in the cylinder piston and the LED lights.
 - b. Note the position where the LED turned on, then continue sliding it in the same direction until the LED turns off.
 - c. Position the switch in the midpoint between LED off positions and tighten the clamp screw to secure it in place.
5. Turn off the *Gun Purge* and allow the cylinder to retract. Adjust the retract proximity switch at the fixed end of the cylinder in the same way as the extend switch.
6. Raise the lance and re-install the hopper/box table.
7. Adjust the purge air pressure to 5.5 bar (80 psi).

Parts

To order parts, contact Nordson Industrial Coating Systems Customer Support at (800) 433-9319 or contact a local Nordson representative.

Refer to the following parts list.

Item	Part	Description	Quantity	Note
—	1613398	KIT, cylinder, clamping, global PFC	1	
1	1613479	• CYLINDER, clamping latch, global PFC	1	
2	1613391	• LEVER, purge latch, 40 mm	2	

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