

# Waxer Pressure Reducing Diaphragm Regulator



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

### Description

The Nordson waxer diaphragm regulator reduces high primary pressures to lower secondary pressures. It is a non-venting regulator designed for use in systems with low fluid flow rates.

Delivery pressure is increased by turning the control knob. The control knob applies a load through a spring to the diaphragm. Rotating the knob clockwise raises the outlet pressure, while a counterclockwise rotation lowers the outlet pressure.

#### **Specifications**

Maximum inlet pressure	241 bar (3500 psi)
Maximum outlet pressure	6.89 bar (100 psig)
Operating temperature	-40 to 74 °C (-40 to 165 °F)
Weight	0.9 kg (2 lb)



Figure 1 Waxer Regulator Dimensions

## Installation



**WARNING:** System may be pressurized. Relieve pressures. Failure to observe this warning may result in serious injury or death.



**WARNING:** A regulator is not intended to be used as a shutoff device. When the regulator is not in use, the inlet supply should be turned off. As a safety precaution, a pressurized relief device should be installed downstream of the regulator.

See Figure 2.

- 1. Power off the CanNeck<sup>™</sup> lubrication system.
- 2. Apply a thin uniform coating of lubrication to the regulator O-rings.
- 3. Screw the regulator into the CanNeck system as shown.



Figure 2 CanNeck Lubrication System Regulator Assembly Location

### Repair



**WARNING:** System may be pressurized. Relieve pressures. Failure to observe this warning may result in serious injury or death.



**WARNING:** A regulator is not intended to be used as a shutoff device. When the regulator is not in use, the inlet supply should be turned off. As a safety precaution, a pressurized relief device should be installed downstream of the regulator.

Repair is limited to replacing the parts included in the service kit. See *Parts* section for available rebuild kit.

**NOTE:** To replace the regulator assembly, refer to the *Installation* section of this instruction sheet.

#### Rebuilding the Regulator

See Figure 3.

- 1. Clamp the regulator body (10) in a vise by the flats on the bottom of the regulator body.
- 2. Turn the control knob (1) counterclockwise to insure removal of all spring force on the diaphragm.
- 3. Unscrew the housing (2) from the regulator body.
- 4. Remove the spring top cap (3), spring (4), spring bottom cap (5), and valve stem seat (9) and set aside.
- 5. Remove and discard:
  - Diaphragm (6)
  - Retainer seat assembly (7)
  - Valve stem assembly (8)
  - Large O-ring (11), small O-ring (13), and white back-up O-ring (12)
- 6. Replace the O-rings and back-up ring on the regulator body.
- 7. Insert the valve stem seat (9) flat side down in the regulator body.
- 8. Insert the replacement valve stem assembly (8) plastic side down into the regulator body as shown.
- 9. Insert the replacement retainer seat assembly (7) thread side down into the retainer body. Tighten the retainer seat assembly to 7.9–9 N•m (70–80 in-lbs)
- 10. Replace the diaphragm (6) indented side down on the regulator body (1).
- 11. Balance the spring bottom cap (5) on the diaphragm indented side up as shown.
- 12. Place the spring (4) on the bottom cap.
- 13. Place the spring top cap (3) on the spring pointed side down.
- 14. Balance the parts and carefully screw the housing (2) onto the regulator body (10). Tighten the housing to 142.4–155.9 N•m (105–115 ft-lbs).



Figure 3 Waxer Pressure Reducing Diaphragm Regulator

- 1. Control knob
- 2. Housing
- 3. Spring top cap
- 4. Spring
- 5. Spring bottom cap

- 6. Diaphragm
- 7. Retainer seat assembly
- 8. Valve stem assembly
- 9. Valve stem seat

- 10. Body
- 11. Large O-ring
- 12. Back-up O-ring (white)
- 13. Small O-ring

# **Parts**

#### Waxer Regulator

See Figure 4.

Part	Description	Quantity	Note
1604839	REGULATOR, waxer	1	



Figure 4 Waxer Regulator

#### Waxer Regulator Rebuild Kit

See Figure 5.

Item	Part	Description	Quantity	Note
	1604880	SERVICE KIT, rebuild, waxer, regulator	1	
1		DIAPHRAGM	1	
2		ASSEMBLY, retainer seat	1	А
3		ASSEMBLY, stem valve	1	А
4		O-RING, Buna N (large)	1	
5		BACK-UP RING, PTFE	1	
6		O-RING, Buna N (small)	1	
NOTE A: This item is shipped pre-assembled.				



Figure 5 Waxer Regulator Rebuild Kit

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