

CombiFlash® NextGen 100 Pump Seal Replacement Instructions



Instruction Sheet 69-5253-095
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Overview

This document covers the proper installation of the pump seals for the CombiFlash NextGen 100 system.

Note

Pumps require regular seal replacement.

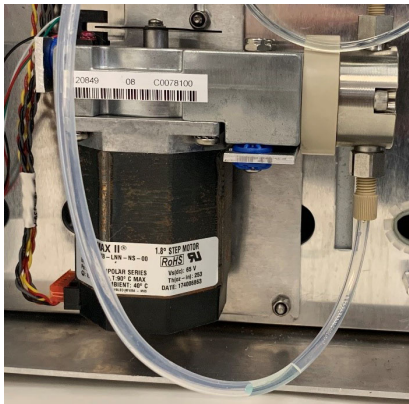


Figure 1: NextGen 100 pump

Installation Procedure

Before removing the pump head:

- Turn OFF the unit and wait 45seconds.
 - Remove the power cord from the system.
 - Disconnect the inlet and outlet lines from the check valve housings.
1. Remove the two pump head fasteners using a $\frac{5}{32}$ " hex key (Figure 2).



Figure 2: Removing the fasteners

2. Carefully pull the pump head forward and off the guide pins. Pull straight and slowly to prevent damage to the piston (Figure 3).



Figure 3: Removing the pump head

3. Insert the flanged end of the seal insertion/removal tool into the seal cavity on the pump head. Tilt it slightly so that the flange is under the seal, and pull out the seal (Figure 4).

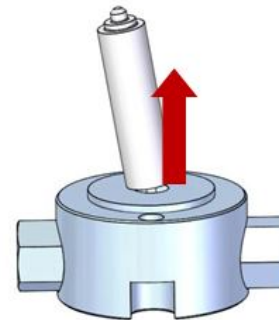


Figure 4: Removing the seal

CAUTION

Using any other "tool" will scratch the finish of the sealing surface and create a leak.

4. Use the scouring pad included in the seal replacement kit to clean the piston. Gently squeeze the piston within a folded section of the pad and rub the pad along the length of the piston. Rotate the piston frequently to assure the entire surface is scrubbed. After scouring, use a lint-free cloth, dampened with alcohol, to wipe the piston clean (Figure 5).

Note

Do not exert pressure perpendicular to the length of the piston, as this may cause the piston to break.

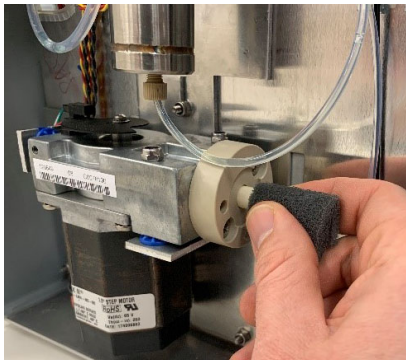


Figure 5: Cleaning the piston

- Place a high pressure replacement seal on the rod-shaped end of the seal insertion/removal tool so that the spring (energizer) is visible when the seal is fully seated on the tool. Insert the tool into the pump head (Figure 6).

✓ Note

Be careful to line up the seal with the cavity while inserting.

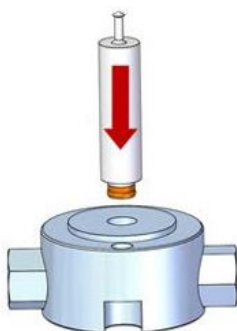


Figure 6: Replacing the seal

- Place the seal back-up washer on the piston. Replace the pump head. Make sure the arrow is pointing up (Figure 7).

✓ Note

Note: Push onto guide pins straight and slowly to prevent damage to the piston. Do not force the self-flush housing or pump head into place.



Figure 7: Reinstalling the pump head

- Reinstall fasteners. As you tighten, alternate side-to-side until snug. For recessed nuts, turn 1 flat past snug using a $5/32$ " hex key. For thumb nuts, turn $1/6$ rotation past snug (Figure 8).



Figure 8: Reinstalling the fasteners

Condition the Seals

New seals must be conditioned prior to use. Conditioning is the process of running the seals wet under controlled conditions to allow surfaces to seat and break-in for proper function of the seal.

✓ Note

Use only pure solvents to condition new seals. Buffer solutions and salt solutions should never be used to condition new seals.

Suggested Conditioning Parameters:

In the MANUAL CONTROL screen run the pump with a 50:50 solution of IPA/Water or Methanol/Water for 30 minutes at 30ml/min.

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