

E103495-PR-CRK Cylinder Sleeve and Piston Ring Installation.

It may appear the new Pre Formed Piston Ring is too Large for the cylinder at first glance, but this is because the flats of the piston ring still need to be folded up over the edges of the piston rod cap for proper installation.

Please follow installation instructions for replacement of components:

With components removed from the compressor pump and cleaned, you can start the reassembly process of the new Cylinder Sleeve and RR Piston Ring.

Figure 1:



Install the new E103495-RR Pre-Formed piston ring onto the shoulder of the existing connecting rod with the concave side of the Piston Ring facing upwards.

Figure 2:



Install the Rod Cap on the top of the connecting rod and install the Rod Cap Screw. Torque the Rod Cap Screw to 51-63 Inch Pounds.

Figure 3:



With your thumbs, slowly work the edge of the Piston Ring up over the Rod Cap at least 3 to 5 times around the piston to help perform the Piston Ring and to ease the installation of the connecting rod with the new Piston Ring into the new cylinder sleeve.

Figure 4:



Drop the Connecting Rod with the Piston Ring down through the top of the cylinder sleeve at an angle while slowly and carefully rocking and rotating the assembly into the cylinder sleeve. Be careful not to fold the Piston Ring back during this process by going too fast.

Figure 5:



Inspect the Piston Ring installation and then center the Connecting Rod with your newly installed Piston Ring into the cylinder sleeve.

Inspect all components and begin the reassembly process of the connecting rod onto the compressor motor.

Service Note:

The correct color codes spacer gasket must be used when completing the repair of your oil free air compressor pump for proper function and to prevent damage from occurring.

These specific colored “spacers gaskets” are used to control the proper clearance between the connecting rod cap and the valve plate in the compressor pump assembly.
In some cases BOTH spacer gaskets may need to be used.

If your original oil free compressor pump previously had a single-colored spacer in place, then you will need to use the same color spacer from this service kit.
Each kit comes with two colored spacer gaskets with the following specifications.

Green Spacer Gasket approximately .012 - 0.15” in thickness.

Grey Spacer Gasket approximately .035 - 0.39” in thickness.

These colored gasket spacers when use is required are intended to be placed between the top of the pump casting and the cylinder sleeve.
The lip of the cylinder must sit on top of the colored spacer gasket to create the proper clearance.

Important Note:

If the incorrect spacer gasket is used or if you place them on top of the cylinder sleeve instead of under it, the conning rod cap could possibly strike the bottom of the valve plate assembly and cause severe damage.

During reassembly it is always recommended to “Rotate the pump by hand” before the final tightening of the compressor head.

This will help to ensure proper connecting rod to valve plate clearance has been achieved and that there is no binding of any reassembled components prior to the air compressor being plugged in and turning at the high RPM’s incurred and thus preventing any permanent damage.