



How to Change High-Pressure Seals on Flow Style Intensifier Using Kit #11135

This guide will walk you through performing a standard High-Pressure seal change on a Flow Style Intensifier with kit #11135

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INTRODUCTION

Hypertherm is in no way affiliated with the above mentioned manufacturer.

TOOLS:

- High-Pressure Seal Installation Tool Kit #12387 (1)
- Rubber Mallet (1)

PARTS:

- High-pressure Seal Kit, 60K #11135 (1)
- High-pressure Cylinders, 60K #11117 (1)
- Back-up Seal Sleeve #11365 (1)
- Bronze Back-up #11134 (included in kit) (1)
- Blue Goop #11111 (1)
- Isopropyl Alcohol (1)

Step 1 — How to Change High-Pressure Seals on Flow Style Intensifier Using Kit #11135



- Remove the [high-pressure cylinder\(s\)](#) from the pump.
- Position the high-pressure cylinder on the [seal guide tool](#).
- Position the small (stepped) end of the installation tool into the top of the high-pressure cylinder.

Step 2



- Use a rubber mallet to push the internal [back-up seal sleeve](#) through the high-pressure cylinder forcing the seal and the hoop out of the other end.
 - Do not remove the sleeve from the high-pressure cylinder.
- Turn the high-pressure cylinder over so the dynamic end is facing up.
- Put the non-stepped end of the installation tool in the dynamic side of the high-pressure cylinder, push the other seal out by tapping with a rubber mallet.

Step 3



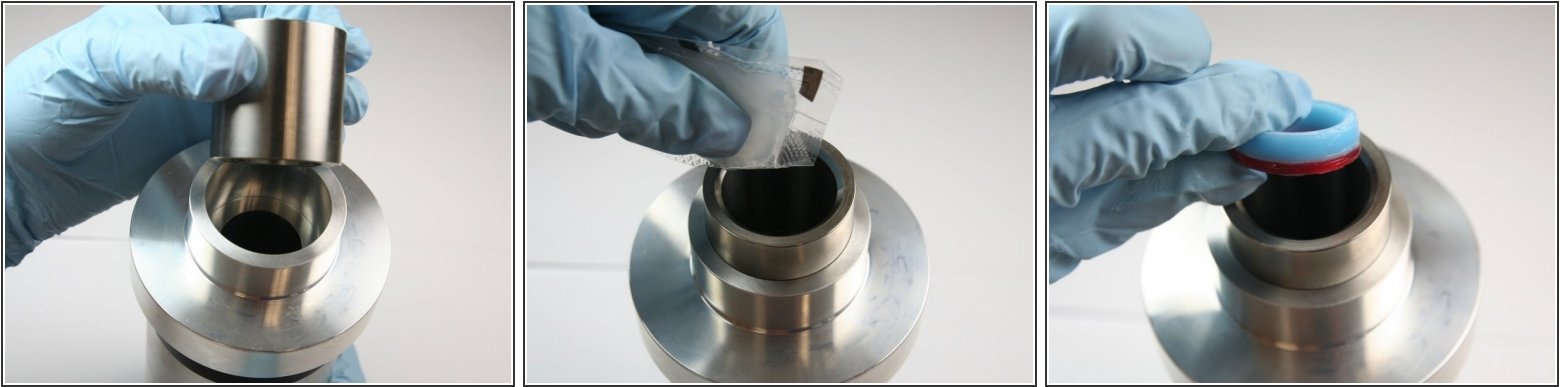
- Clean the high-pressure cylinder thoroughly after polishing.
- Visually inspect the high-pressure cylinder bore at both ends.
- If the inside bore finish is blemished, use scouring pad in both ends of the high-pressure cylinder, to smooth out blemishes, rolling back and forth.

Step 4



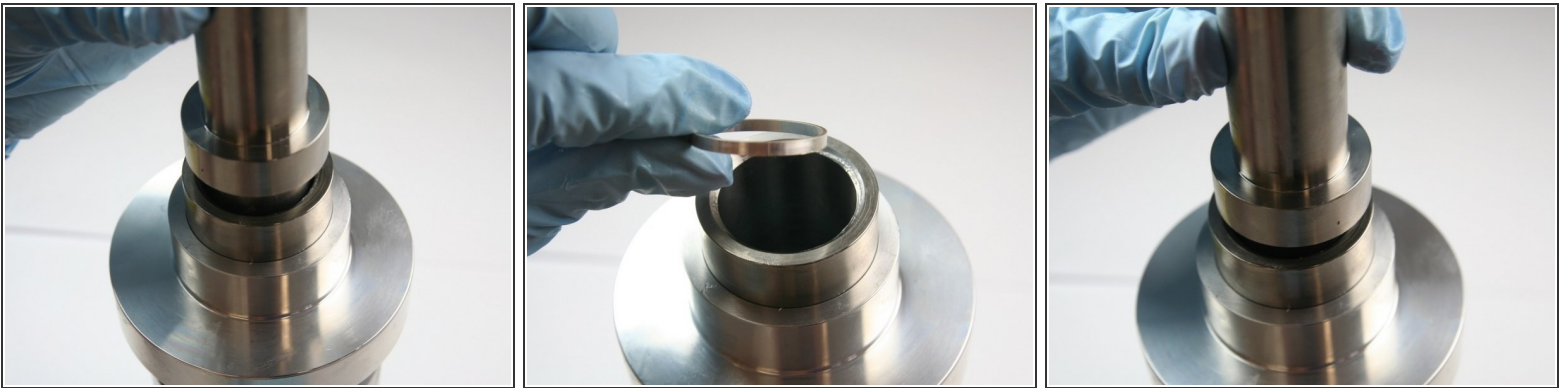
- Apply [high-vacuum grease](#) to the O-rings.
- Install all 4 O-rings onto the high-pressure seals.
 - Be sure not to twist the O-rings when installing them onto the high-pressure seals.
- Thread the seal guide tool onto the static end of the high-pressure cylinder.
 - It is helpful to begin with the flat end of the high-pressure cylinder side up.

Step 5



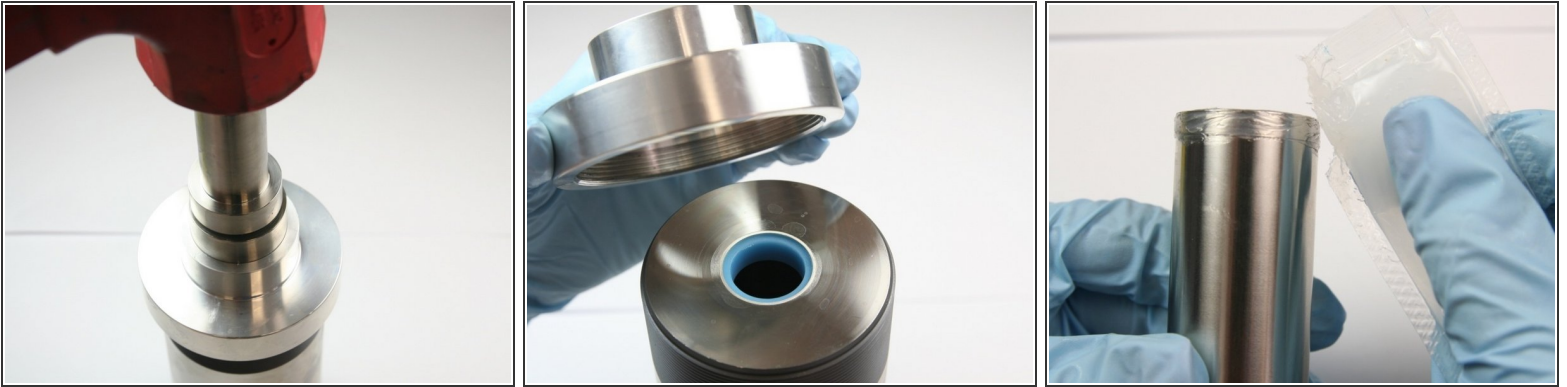
- Put the installation sleeve into the sleeve guide with the larger ID (tapered) end up.
- Lubricate the ID of the Installation sleeve with the high-vacuum grease.
- Put the high-pressure seal into the sleeve with the O-ring side down.

Step 6



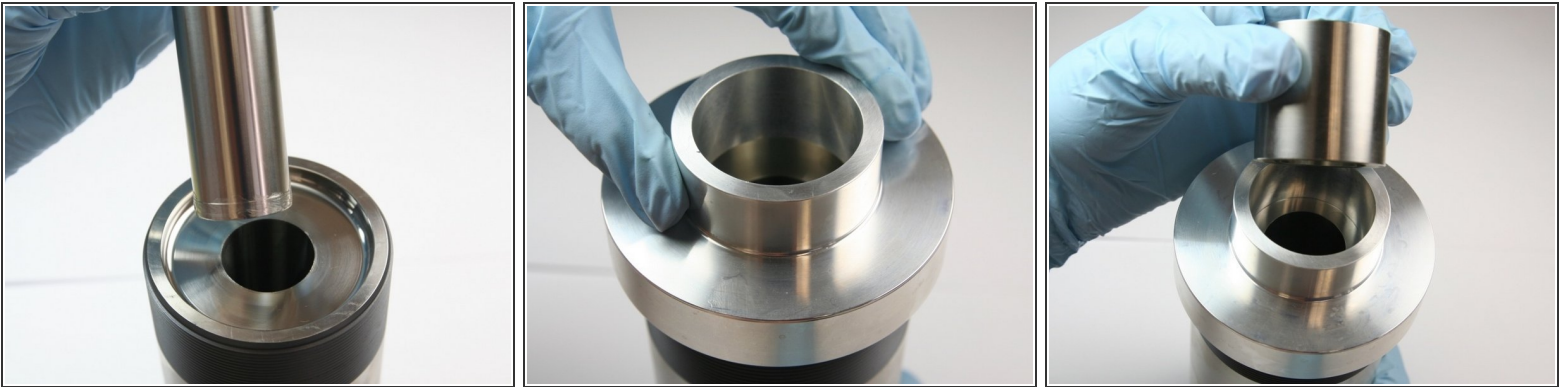
- Use the blunt (non-stepped) end of the installation tool to hand press the high-pressure seal into the high-pressure cylinder.
- Put the hoop into the sleeve with the sharp (tapered) end first.
- Push the hoop down into the sleeve with the blunt end of the installation tool.

Step 7



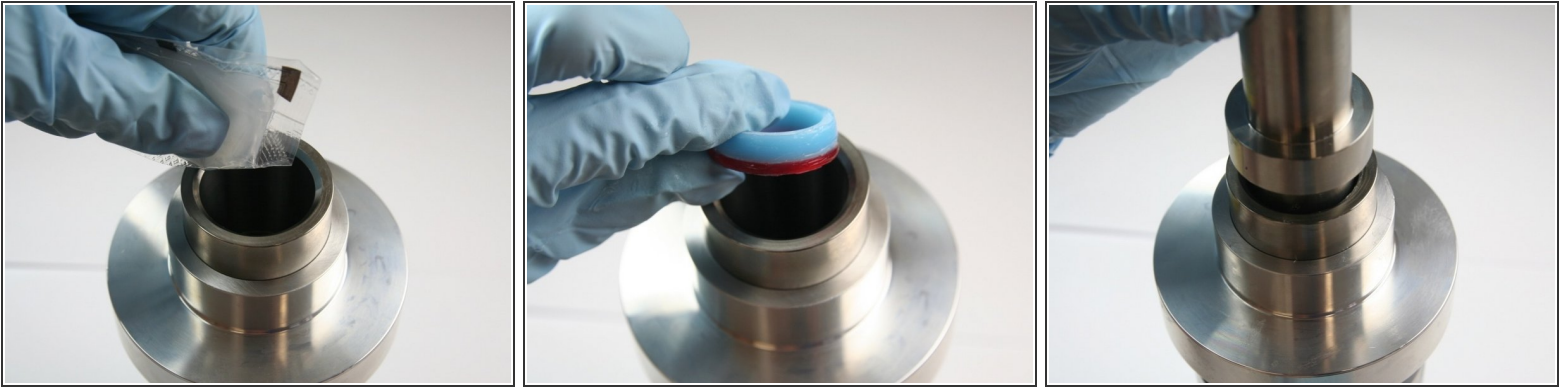
- Put the hoop in place by tapping the installation tool in with a rubber mallet until the tool bottoms at the high-pressure cylinder face.
- Remove the seal guide tools from the top of the high-pressure cylinder (static side).
- Apply a light coat of grease to both ends of the back-up seal sleeve.

Step 8



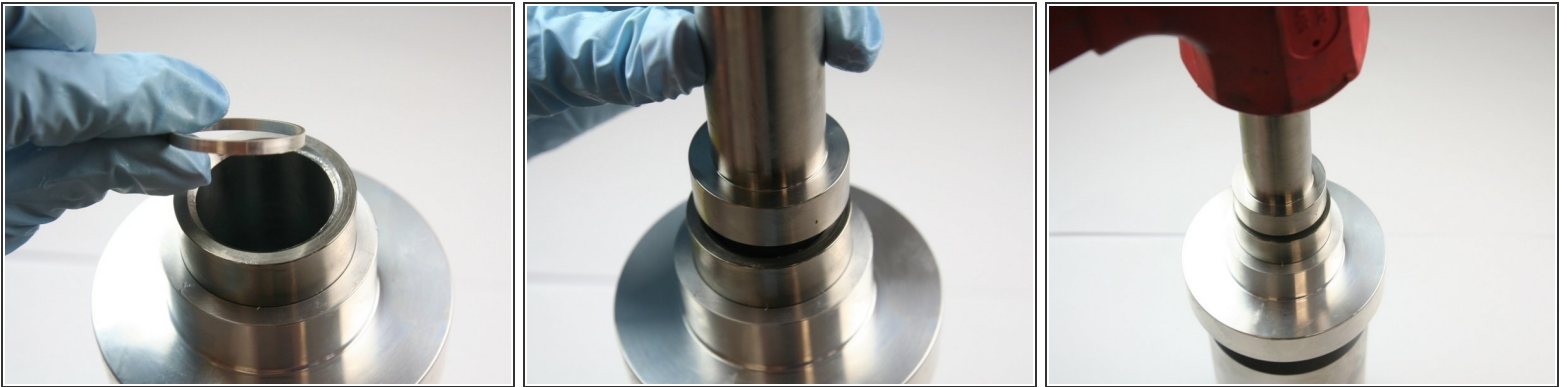
- Put the sleeve into the open end of the high-pressure cylinder and repeat the high-pressure seal installation process.
- Thread the seal guide tool onto the dynamic side of the high-pressure cylinder.
- Put the sleeve into the seal guide tool with the tapered end facing up.

Step 9



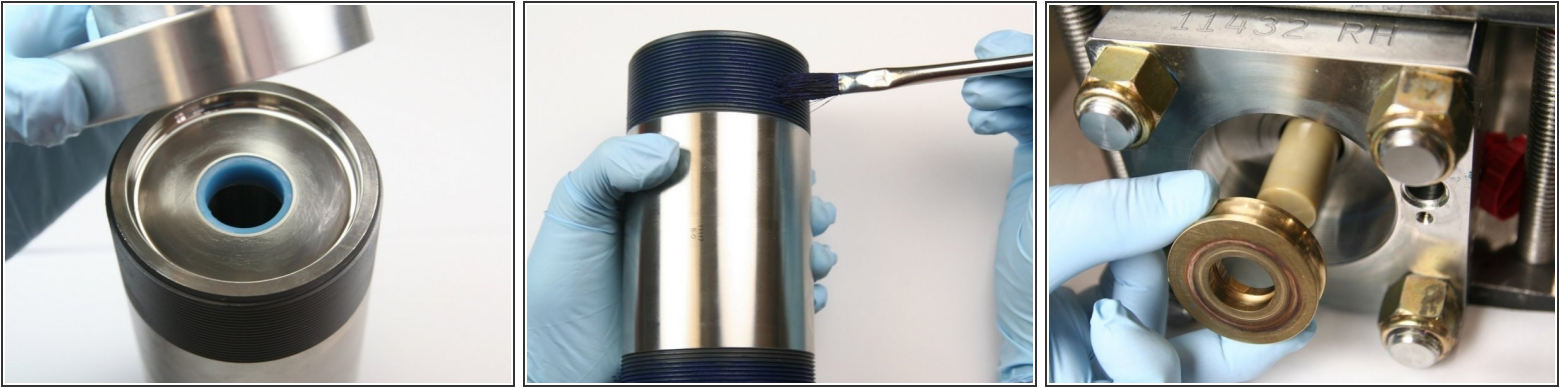
- Apply a high-vacuum grease to the ID of the sleeve.
- Put the seal assembly into the sleeve with the O-ring first.
- Use the blunt (non-stepped) end of the installation tool to hand press the high-pressure seal into the high-pressure cylinder.

Step 10



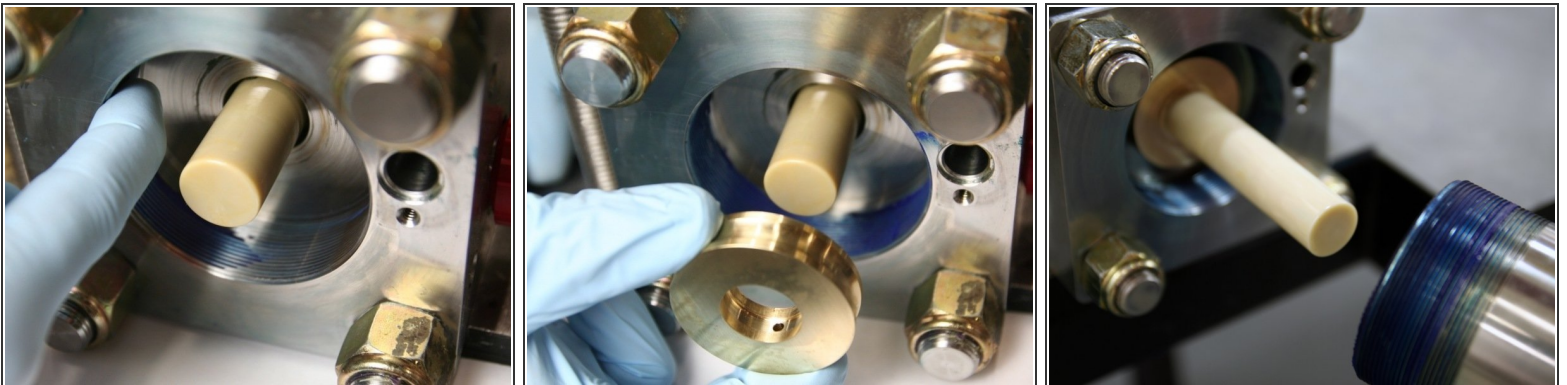
- Put the hoop into the sleeve with the sharp (tapered) end first.
- Push the hoop down into the sleeve with the blunt end of the installation tool.
- Put the hoop in place by tapping the installation tool in with a rubber mallet until the tool bottoms out on the high-pressure cylinder face.

Step 11



- Remove the seal guide tools from the dynamic side of the high-pressure cylinder.
- Apply Blue Goop to both threads of the high-pressure cylinder.
- Remove the old [bronze back-up ring](#) from the plunger.

Step 12



- Apply [Blue Goop](#) to the threads on both ends of the cylinder and to the threads on the end cap.
- Replace the bronze back-up with the new disc from the kit onto the plunger.
- Put the high-pressure cylinder on the plunger with the dynamic side first.