Torch Rebuild and Filter Kit Maintenance Guide

HPR® and HPRXD®

⚠WARNING!

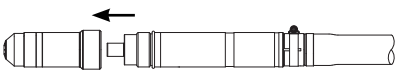
READ THE SAFETY INFORMATION

Before operating or maintaining any Hypertherm equipment, read the Safety and Compliance Manual (80669C) for important safety information.

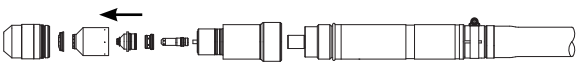
You can find the Safety and Compliance Manual in the "Downloads library" at www.hypertherm.com.

Rebuild the torch

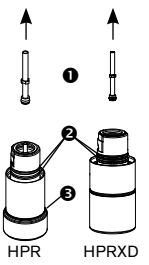
1. Turn OFF the power to the system.
2. Remove the quick-disconnect torch from the quick-disconnect receptacle.



3. Remove the consumables.

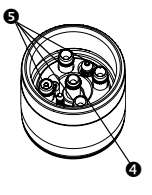


4. Replace the following parts:
   - Water tube ❶
     - Insert the tube until it comes to a stop. The tube will move slightly from its base to allow it to align with the electrode, but the tube should not disconnect from the torch.

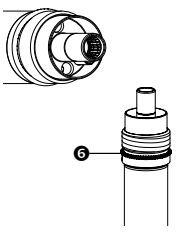


HPR HPRXD

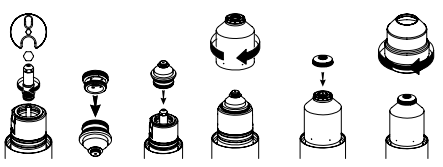
   - (2) O-rings ❷ on the front of the torch body
     - Apply a thin layer of silicon lubricant to each new O-ring before you install it. The O-rings should look shiny, but there should not be too much lubricant.
   - *HPR only*: Seal ❸ on the front of the torch below the Hypertherm logo
   - O-ring on the coolant-in connection ❹ and (4) bullet plugs ❺
     A. Use pliers to pull the old bullet plugs straight out.
     B. Apply a thin layer of lubricant to the new O-ring.
     C. Carefully install the O-ring onto the coolant-in connector.
     D. Install the new bullet plugs. (Make sure each new bullet plug is fully seated and has 2 O-rings. Apply a thin layer of lubricant to each O-ring. Do not use tools to push the plugs into the slots. This can damage the plugs.)



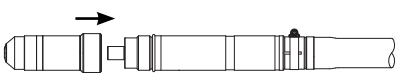
   - O-ring ❻ on the bottom of the quick-disconnect receptacle
     - Do not lubricate this O-ring.



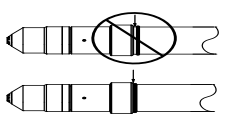
5. Examine the consumables, and remove any contamination.
6. Install the consumables.



7. Assemble the quick-disconnect torch and receptacle.

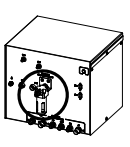


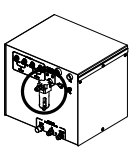
   - To prevent damage, make sure to correctly align the torch and receptacle.
   - Make sure that there is no space between the torch body and the O-ring on the torch quick-disconnect receptacle.



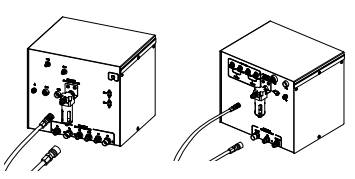
8. Turn ON the power to the system.

Replace the air filter element (HPRXD systems *only)*

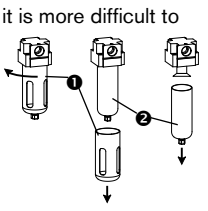

Selection console
HPRXD auto gas


Gas console
HPRXD manual gas

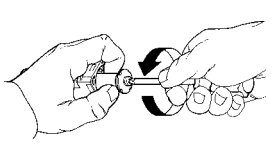
1. Turn OFF the power to the system.
2. Turn OFF the air and nitrogen (N_2) supplies.
3. Disconnect the air and nitrogen hoses.



   - If you do not remove the gas hoses, it is more difficult to remove the filter housing.



4. Remove the filter housing ❶.
5. Remove the filter bowl ❷.
6. Apply a thin layer of silicone lubricant to the O-ring around the top of the filter bowl.
   - The O-ring should look shiny, but there should not be too much lubricant.
7. Remove the filter element from the filter bowl.



8. Install the new filter element.
   - Do not let the filter element turn when you loosen the screw.
9. Install the filter bowl and the filter housing.
10. Reconnect the air hose to the air filter and the nitrogen hose to the selection console or gas console.
11. Turn ON the air and nitrogen supplies.
12. Turn ON the power to the system.

Replace the coolant filter element

HPR130, HPR260, HPR130XD, HPR260XD power supply

HPR400XD cooler

HPR800XD chiller

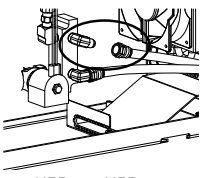
1. Turn OFF the power to the system.
2. ***Drain the coolant.***
3. Remove the filter housing ❶.
4. Remove and discard the filter element ❷.

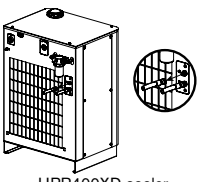
5. Install the new filter element.
6. Install the housing.
7. Fill the coolant tank to the fill line with clean coolant.
8. Turn ON the power to the system.

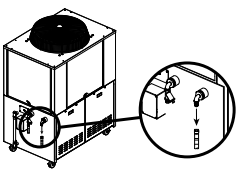
Replace the torch coolant

Drain the coolant

1. Turn OFF the power to the system.
2. Remove the red coolant hose from the coolant system and put it in a 20 liter (5 gallon) container.


HPR130, HPR260, HPR130XD, HPR260XD power supply


HPR400XD cooler


HPR800XD chiller

3. Turn ON the power to the system.
4. Run the system until the coolant tank is empty.
   - You can get coolant flow errors. These errors cause the system to shut down. If the system shuts down, turn ON the power to the system and repeat this step.

Clean and fill the coolant tank

1. Turn OFF the power to the system.
2. Attach the coolant hose to the coolant tank.
   - Empty the container.
3. Fill the tank with clean coolant or water, and drain the tank again. (Repeat ***Drain the coolant***.)
4. Fill the tank to the fill line with clean coolant.
5. Turn ON the power to the system.
6. Run the system to fill the hoses and leads with coolant.
7. If necessary, add more coolant to the tank to fill it to the fill line.