

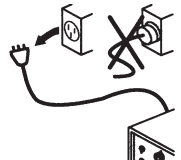
***Pump Upgrade
HT4400 and HD4070
Field Service Bulletin***

804840 – Revision 1 – April, 2004

Hypertherm®

*The world leader in
plasma cutting technology™*

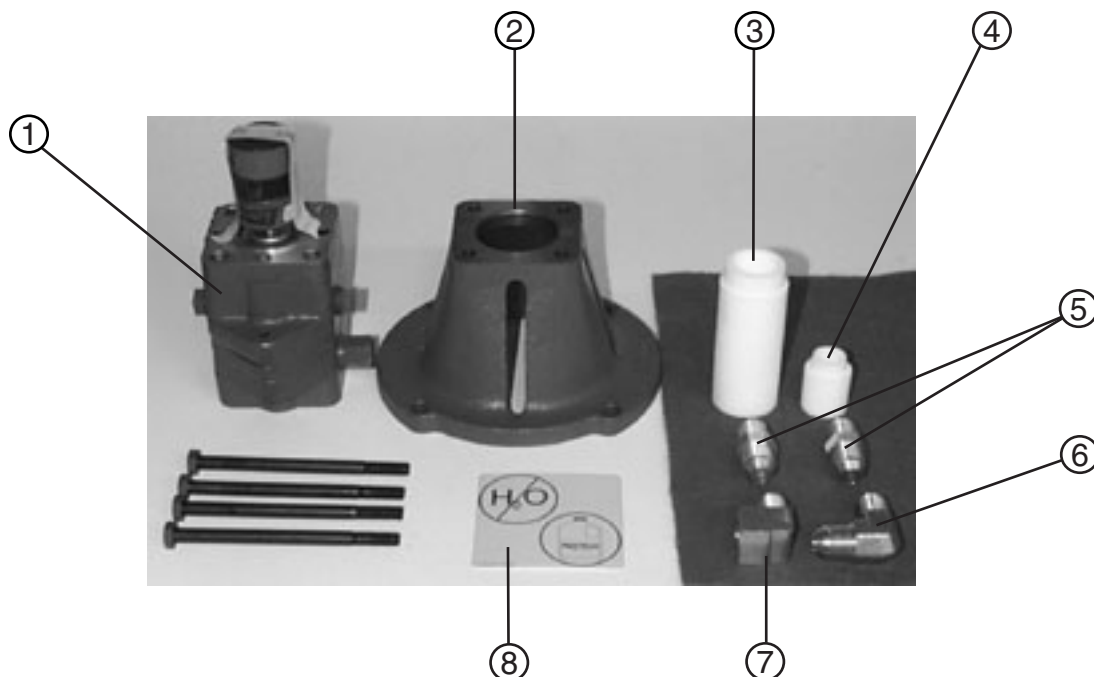
Hypertherm, Inc.
Etna Road, P.O. Box 5010
Hanover, NH 03755 USA
603-643-3441 Tel 603-643-5352 Fax
www.hypertherm.com

		WARNING ELECTRIC SHOCK CAN KILL
 <p>Disconnect all electrical power before performing any maintenance. Read and follow precautions in the <i>Safety Section</i> of the system's Instruction Manual when performing any maintenance.</p>		

Introduction


128906 – Kit contents

Item	Part number	Description	Qty
1	229012	Pump subassembly (includes 4 – 3.5" bolts and coupling)	1
2	104147	Pump bracket	1
3	027664	Filter insert for 027634	1
4	027927	Filter insert for 027926	1
5	015327	Adapter: 3/8" NPT X #8 male	2
6	015662	Adapter: 3/8" NPT X #8 male, 90°	1
7	015531	Fitting: 3/8", 90°	1
8	110507	Label: NO WATER	1



Preparation

1. Flush and drain system twice before removing pump.
2. Disconnect all power to the system.

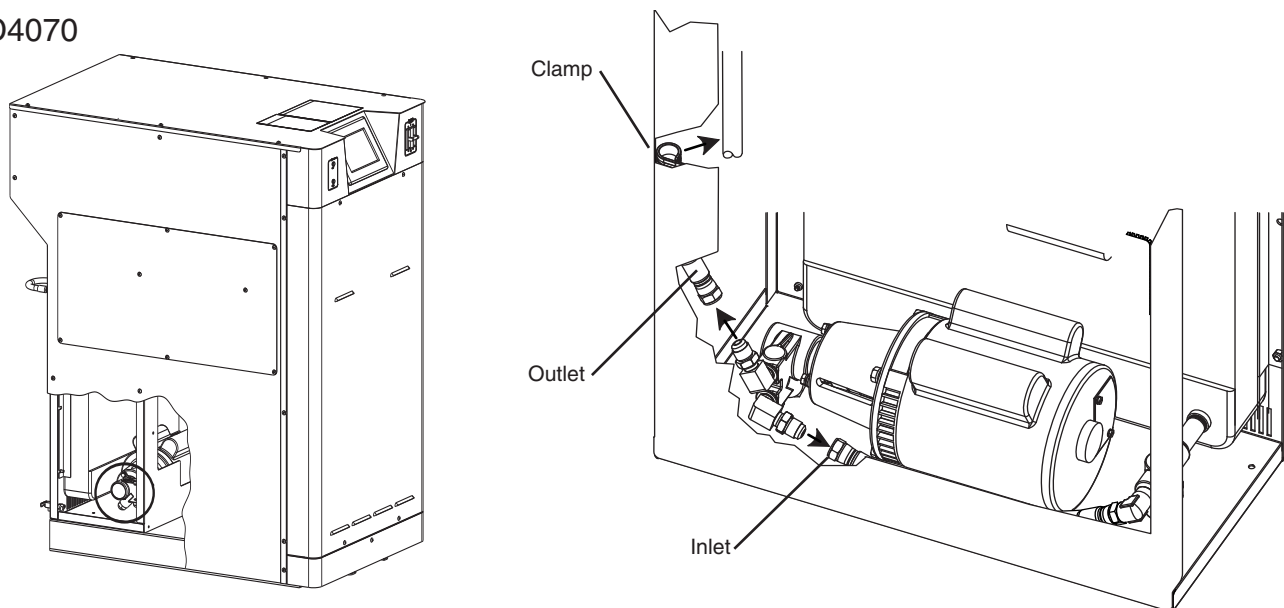
	Caution
	Use Hypertherm coolant (P/N 028872) only or catastrophic damage to pump will occur.

Pump removal

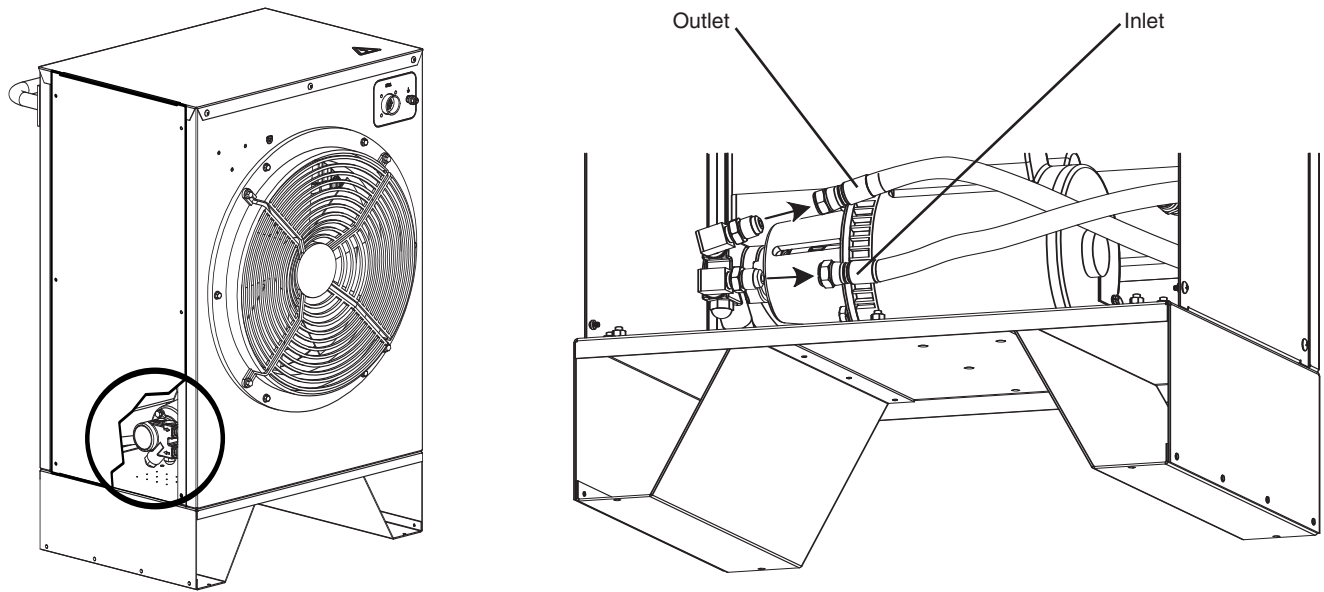
1. Mark inlet and outlet hoses and disconnect them from the pump.

Note: Remove the outlet hose from the clamp on HD4070. Do not use hose clamp when attaching outlet hose to new pump

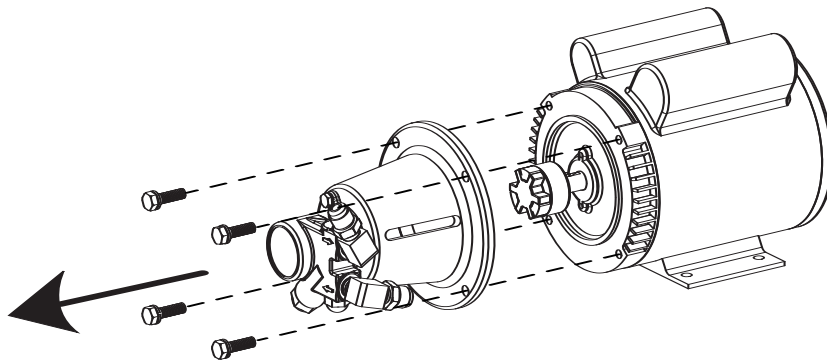
HD4070



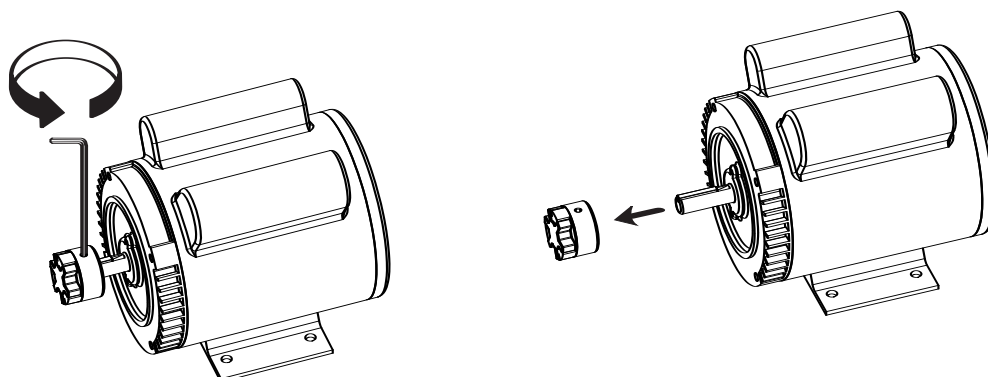
HT4400



2. Remove 4 bolts from the pump bracket and take pump-bracket assembly off. Save bolts for reuse. Discard old pump-bracket assembly.



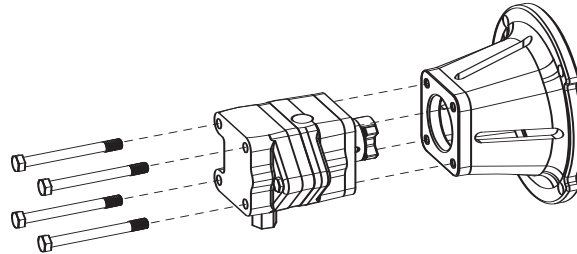
3. Loosen hex bolt and remove existing coupling from motor shaft. Discard coupling.



New pump installation

Note: Remove tape from coupling to access motor side half of coupling

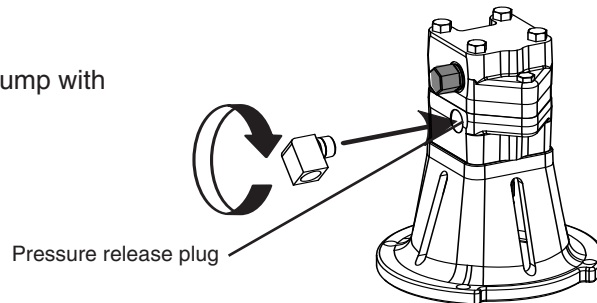
Mount pump (P/N 229012) to bracket (P/N 104147) using 4 long bolts provided in kit. Orient pump as shown.



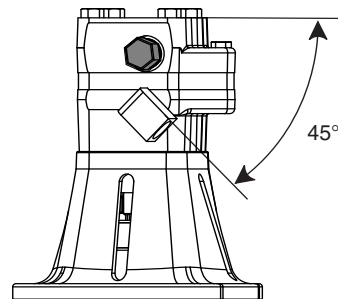
Install fittings onto pump

Note: Use thread sealant when installing all fittings. DO NOT use pipe tape.

1. Install 90° fitting (P/N 015531) onto the side of the pump with the pressure release plug.

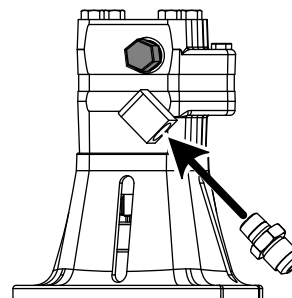


2. The fitting must be oriented 45° from top of pump when tight.

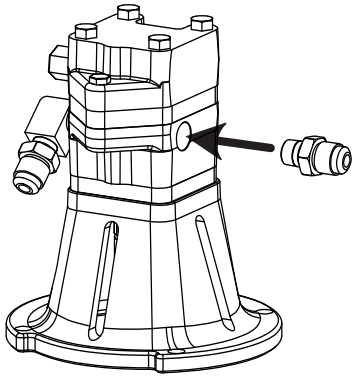


3. Install straight fitting (P/N 015327) onto the 90° fitting.

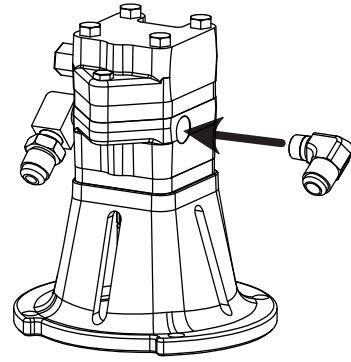
Note: Steps 1-3 are the same for the HD4070 and the HT4400.



4. Install fitting onto the side of the pump opposite the pressure release plug. Use the straight fitting (P/N 015327) for the HD4070. Use the 90° fitting (P/N 015662) for the HT4400. Orient this fitting in the same direction and at the same angle as the first fitting for the HT4400.



HD4070

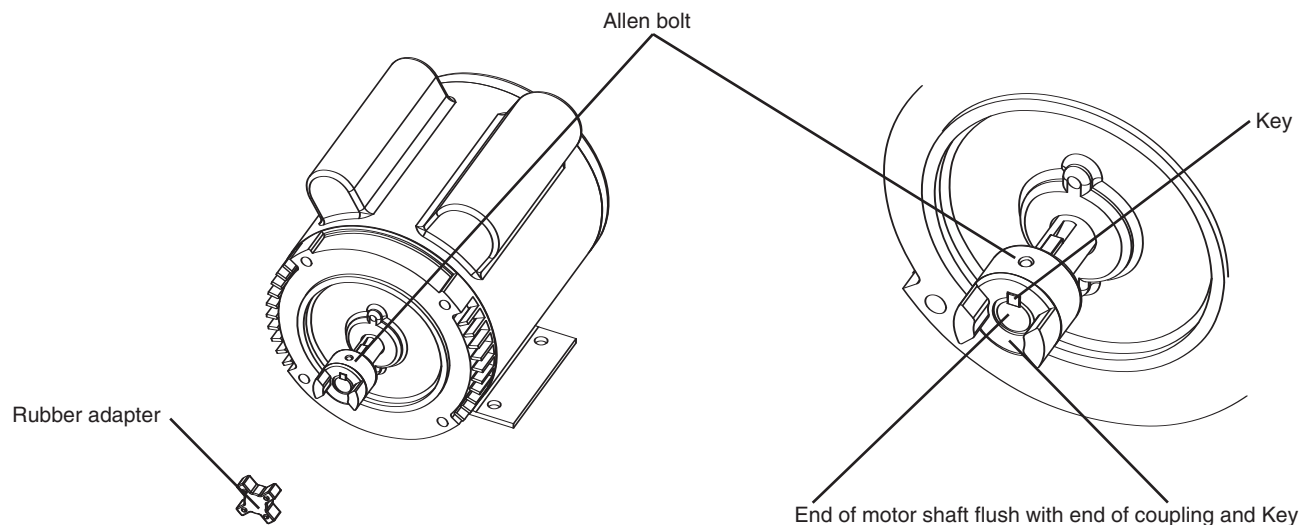


HT4400

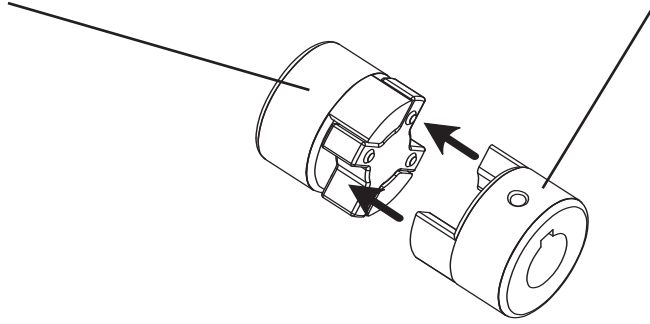
Install pump-bracket assembly to motor

1. Install the coupling onto the motor shaft with the ends flush. Orient the coupling with the hex bolt positioned as shown. Temporarily tighten the hex bolt.

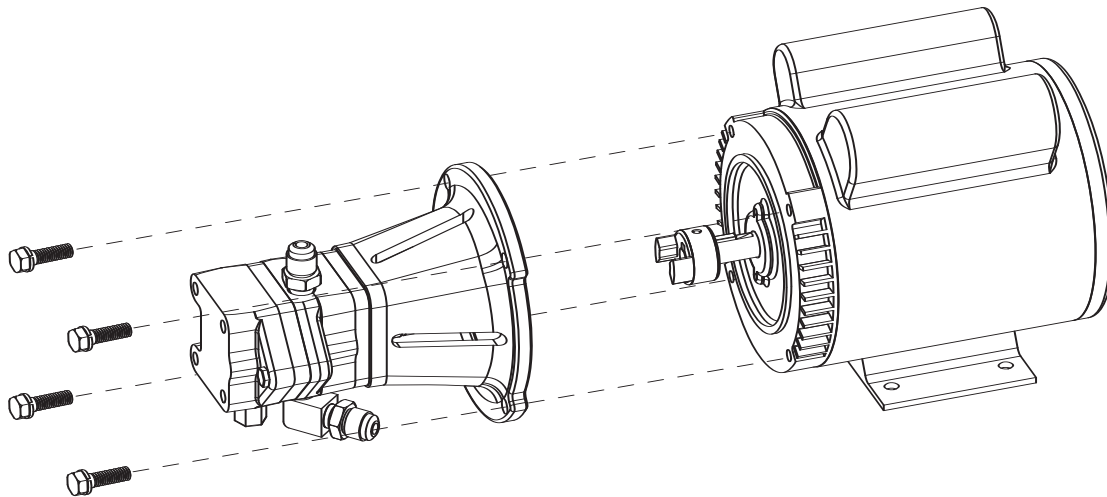
Note: Rubber adapter can be removed temporarily to ease installation. It must be put back in place.



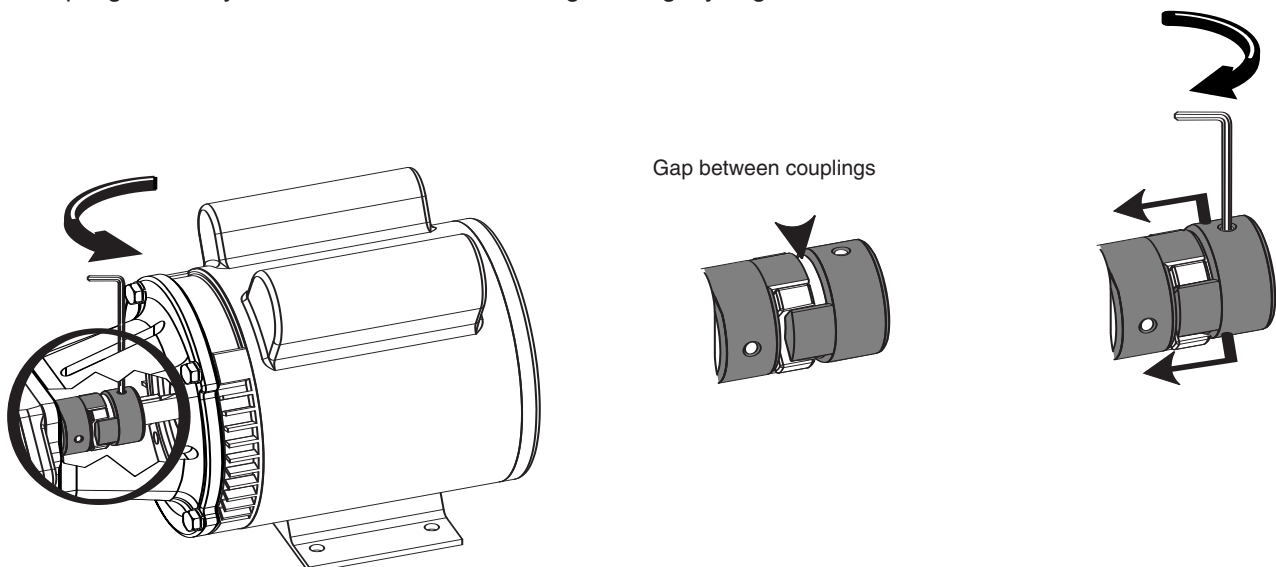
2. Align the coupling on the pump shaft so that it will mate with the coupling on the motor shaft.



3. Attach the pump-bracket assembly to the motor using the 4 bolts that were removed earlier.



4. Use a long hex key to access the motor shaft coupling through the top slot in the bracket. Close the gap between couplings by loosening the hex bolt on the motor shaft coupling and sliding it towards the pump shaft coupling until they touch. Do not force them together tightly. Tighten hex bolt.

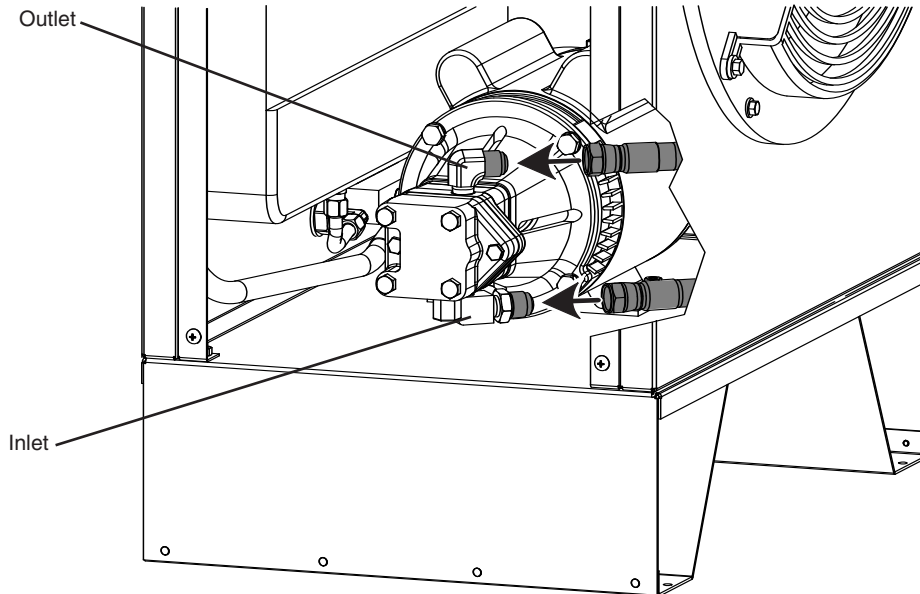


Hose installation

Note: for ease of installation, it may be easier to attach inlet line to pump before installing assembly into the enclosure.

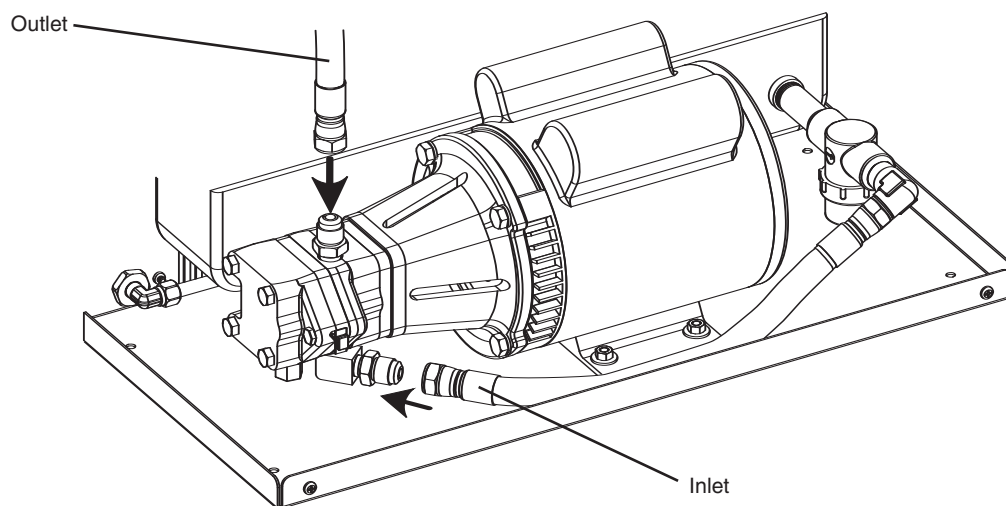
HT4400

Reattach the hoses that were disconnected and marked when the old pump was removed.



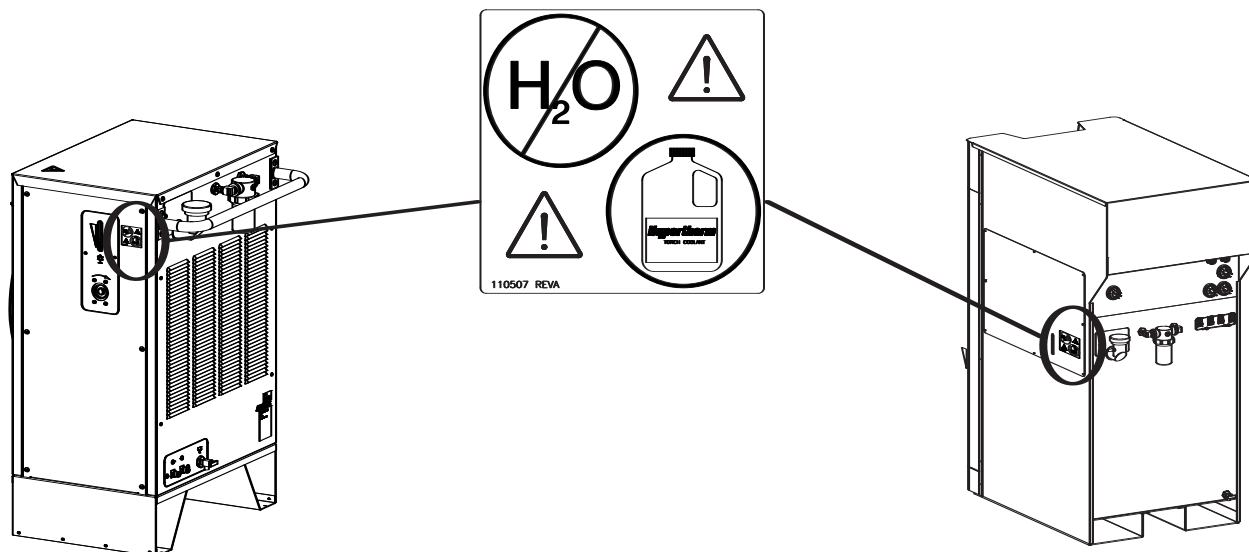
HD4070

Reattach the hoses that were disconnected and marked when the old pump was removed.



Place sticker on power supply

Apply sticker (P/N 110507) to power supply as shown.



	Caution
	Use Hypertherm coolant (P/N 028872) only or catastrophic damage to pump will occur.

Change filter elements and fill power supply with coolant

Follow the instructions in the system's instruction manual for:

- Changing filter elements
- Filling the power supply with coolant and for start-up.

© Copyright 2004 Hypertherm, Inc.
All Rights Reserved

Hypertherm, HT and HD are trademarks of Hypertherm, Inc.
and may be registered in the United States and/or other countries.