



Centricut[®] Air Curtain Installation Instructions for Quick-change Torches

ESAB[®] PT-36, PT-600, and PT19XLS

Field Service Bulletin

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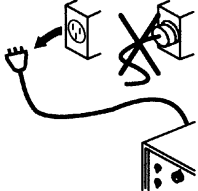
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One of Hypertherm's long-standing core values is a focus on minimizing our impact on the environment. Doing so is critical to our, and our customers', success. We are always striving to become better environmental stewards; it is a process we care deeply about.

	WARNING EXPLOSION HAZARD HYDROGEN DETONATION WITH ALUMINUM CUTTING	
<p>When you use a plasma torch to cut aluminum alloys under water or on a water table, a chemical reaction between the water and the workpiece, parts, fine particles, or molten aluminum droplets generates significantly more hydrogen gas than occurs with other metals. This hydrogen gas may get trapped under the workpiece. If exposed to oxygen or air, the plasma arc or a spark from any source can ignite this trapped hydrogen gas, causing an explosion that may result in death, personal injury, loss of property, or equipment damage.</p> <p>Consult with the table manufacturer and other experts prior to cutting aluminum to implement a risk assessment and mitigation plan that eliminates the risk of detonation by preventing hydrogen accumulation.</p>	<p>Also, make sure that the water table, fume extraction (ventilation), and other parts of the cutting system have been designed with aluminum cutting in mind.</p> <p>Do not cut aluminum alloys underwater or on a water table unless you can prevent the accumulation of hydrogen gas.</p> <p>Note: With proper mitigation, most aluminum alloys can be plasma cut on a water table. An exception is aluminum-lithium alloys. Never cut aluminum-lithium alloys in the presence of water. Contact your aluminum supplier for additional safety information regarding hazards associated with aluminum-lithium alloys.</p> <p>Refer to the cutting system manual from the table manufacturer for more information.</p>	

 	WARNING! ELECTRIC SHOCK CAN KILL
	<p>Disconnect electrical power before performing any maintenance.</p> <p>All work requiring removal of the power supply cover must be performed by a qualified technician.</p> <p>See the safety information provided with your product for more safety precautions.</p>



CUTTING CAN CAUSE FIRE OR EXPLOSION

Fire prevention

- Make sure the cutting area is safe before doing any cutting. Keep a fire extinguisher nearby.
- Remove all flammables within 35 feet (10 m) of the cutting area.
- Quench hot metal or allow it to cool before handling or before letting it touch combustible materials.
- Never cut containers with potentially flammable materials inside – they must be emptied and properly cleaned first.
- Ventilate potentially flammable atmospheres before cutting.
- When cutting with oxygen as the plasma gas, an exhaust ventilation system is required.

Explosion prevention

- Do not use the plasma system if explosive dust or vapors may be present.
- Do not cut pressurized cylinders, pipes, or any closed containers.
- Do not cut containers that have held combustible materials.



WARNING

Explosion Hazard
Argon-Hydrogen and Methane

Hydrogen and methane are flammable gases that present an explosion hazard. Keep flames away from cylinders and hoses that contain methane or hydrogen mixtures. Keep flames and sparks away from the torch when using methane or argon-hydrogen plasma.



WARNING

Explosion Hazard
Underwater Cutting with Fuel Gases
Containing Hydrogen

- Do not cut underwater with fuel gases containing hydrogen.
- Cutting underwater with fuel gases containing hydrogen can result in an explosive condition that can detonate during plasma cutting operations.

Introduction

Purpose

This Field Service Bulletin (FSB) describes the procedure for installing a Centricut air curtain on a Centricut ESAB quick-change PT-36, PT-600 or PT-19XLS torch.

Tools and materials needed

- Phillips screwdriver
- Two adjustable wrenches

Kit C122-850 contents (Air curtain kit, QC torch, standard)

Part number	Description	Quantity
C122-391	Air curtain body, std/XC	1
C122-395	Shield retainer, insulated, std	1
C122-394	Sleeve cap, std	1
C122-106	Coupler, air curtain	1

Kit C122-950 contents (Air curtain kit, QC torch, XC)

Part number	Description	Quantity
C122-391	Air curtain body, std/XC	1
C122-392	Shield retainer, insulated, XC	1
C122-393	Sleeve cap, XC	1
C122-106	Coupler, air curtain	1

Air Curtain Installation Instructions for Quick-change Torches



① Air curtain coupler
C122-106

② Air curtain body, std/XC
C122-391

③ Shield retainer, insulated, std
C122-395

④ Sleeve cap, std
C122-394

⑤ Shield retainer, insulated, XC
C122-392

⑥ Sleeve cap, XC
C122-393

Install Centricut air curtain

1. Remove ohmic contact screw from torch head. Screw may be disposed of because ohmic contact is not needed with the air curtain assembly.



2. Assemble air quick-connect coupler to air curtain hose. Use two adjustable wrenches.



Air Curtain Installation Instructions for Quick-change Torches

3. Install all consumables in the torch head, including the insulated shield retainer supplied with Centricut air curtain kit.



4. Place the air curtain body over the torch head with the consumables installed.



Air Curtain Installation Instructions for Quick-change Torches

5. Install the sleeve cap to secure the air curtain body in place. Use Centricut sleeve cap supplied with the air curtain kit.



6. Attach the air curtain and torch head onto the torch's base. Once secured, rotate the air curtain body and inlet plug to the desired position by loosening the sleeve cap. Re-tighten the sleeve cap to secure.



Air Curtain Installation Instructions for Quick-change Torches

7. Attach the air supply hose with coupler to the air curtain inlet plug. The coupler snaps on. You do not need to press the blue button.



Remove the air curtain to change consumables

1. Press and release the blue button on the air hose coupler to remove it from the air curtain body.
2. Remove the torch head and air curtain together by unscrewing the plastic coupler ring on the torch head.
3. Lower the air curtain and torch head together.
4. Bring torch head and air curtain to a clean workspace.
5. Remove worn parts and install new consumables. Lubricate all O-rings.