PLASMATIC
Installation Manual

PowerMax 65/85/105/125Amp

Pre-Install

Power and Gas Requirements for your Hypertherm Power Supply will be found in the Specification or Install and set-up section of the Operator Manual associated with your Model Plasma. See the examples below.

System configurations

The Powermax65 SYNC, Powermax85 SYNC, and Powermax105 SYNC systems are universal plasma power supplies that automatically adjust to operate with various AC voltages. The following system configurations are available:
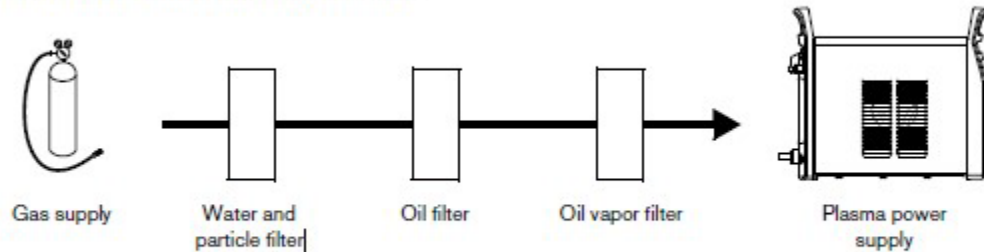
Model	Configurations	AC Voltages
Powermax65 SYNC and Powermax85 SYNC	200 V – 600 V CSA	200 V – 480 V (1-phase)
		200 V – 600 V (3-phase)
	380 V CCC / 400 V CE	380 V / 400 V (3-phase)
Powermax105 SYNC	200 V – 600 V CSA	200 V – 600 V (3-phase)
	230 V – 400 V CE	230 V – 400 V (3-phase)
	380 V CCC / 400 V CE	380 V / 400 V (3-phase)

Please have a licensed Electrician look over these requirements to ensure personal safety, and Proper Operation.

Gas type	Air	Nitrogen	F5[HH]
Gas quality	Clean, dry, oil-free per ISO 8573-1 Class 1.4.2 Refer to page 55.	99.95% pure	99.98% pure (F5 – 95% nitrogen [N_2], 5% hydrogen [H_2])
Recommended gas inlet flow rates			
Cutting	210 slpm (450 scfh, 7.5 scfm) at a minimum 5.9 bar (85 psi)		
Maximum Removal gouging	210 slpm (450 scfh, 7.5 scfm) at a minimum 4.8 bar (70 psi)		
Maximum Control gouging	210 slpm (450 scfh, 7.5 scfm) at a minimum 4.8 bar (70 psi)		

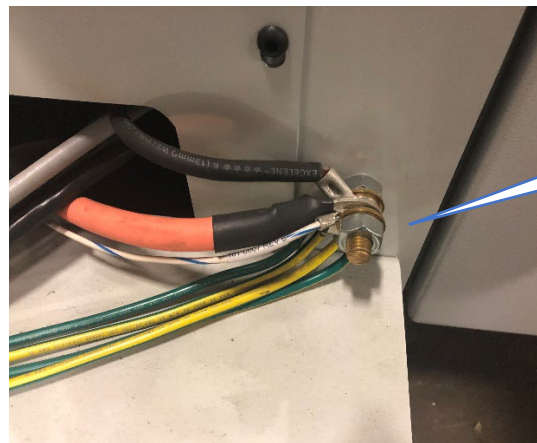# Note that the Compressed Air needs to be Clean, Dry, and Oil-free.

A 3-stage coalescing filtration system is recommended. A 3-stage filtering system works as follows to clean contaminants from the gas supply.

Gas supply   Water and particle filter   Oil filter   Oil vapor filter   Plasma power supply

The filtering system must be installed between the gas supply and the plasma power supply.

A Grounding Rod needs to be installed within a 20ft radius of the cutting table

A ground rod (a PE ground) that meets all applicable local and national electric codes must be installed within 6 m (20 ft) of the cutting table. The PE ground must be connected to the cutting table grounding Bolt (see pic below) using a minimum 13.3 mm$_2$ (6 AWG) green and yellow grounding cable.
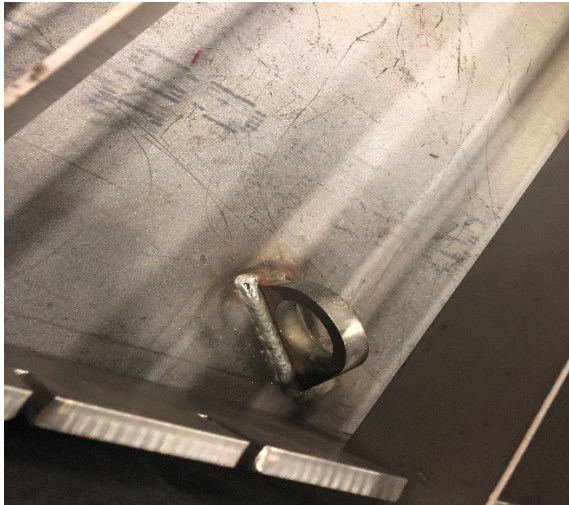
Located on the Cable track side

Once all that's complete it's time to look at how you're getting your table from the truck to its destination.

The PLASMATIC has two built in options available.

4 welded lifting lugs centered for even lifting and 2 Forklift tubes that can be accessed from either end of the table.

The Approx. Weight is 3,750lbs

Install the leveling feet during this step.

If there are feet in the middle of the table (water table) screw those in further so only the four corner feet touch when lowering to the floor.

Installation

Tools needed

7/8 open end wrench

15/16 open end wrench

Or

Open end adjustable wrench

Precision Level

Set of Metric Allen Wrenches
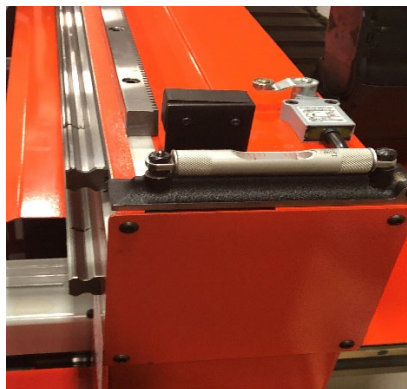

Leveling the Table

Once the Table is in place and the shipping braces have been removed, manually push the bridge to the front of the table near the Controller. Place the level on the bridge gear rack as close to center as possible.
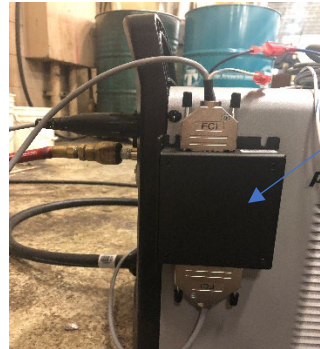See image on next page.

(Wipe Clean the rack and level surfaces if needed)

Then proceed with adjusting the front table legs until left/right level is achieved (Bubble is dead center). Remove the level and slowly push the bridge near the middle of the table. Then place the level on the left or right side of the bridge as shown below. Now adjust the back leg until front/back level is achieved. Repeat this step on the opposite side. Push the bridge to the back of the table and check the left/right level at the backend. Theoretically this should be level, adjust if necessary. Now that true table level has been achieved, lower the middle legs to the floor. And don't forget to roll the lock nuts up to the table base to lock each leg in place.

Power Supply Hook-up

Flashcut THC
Isolation Box

Once you have your power supply unboxed and put into place let's hook up the essentials before we plug it in. Look for the bundle of wires placed near the back of the table.

Ground lead, Torch lead, Air/Gas, and Flashcut THC Isolation Box connections

Ground lead

Insert

and turn clockwise to lock

Torch lead

Insert until it clicks in place
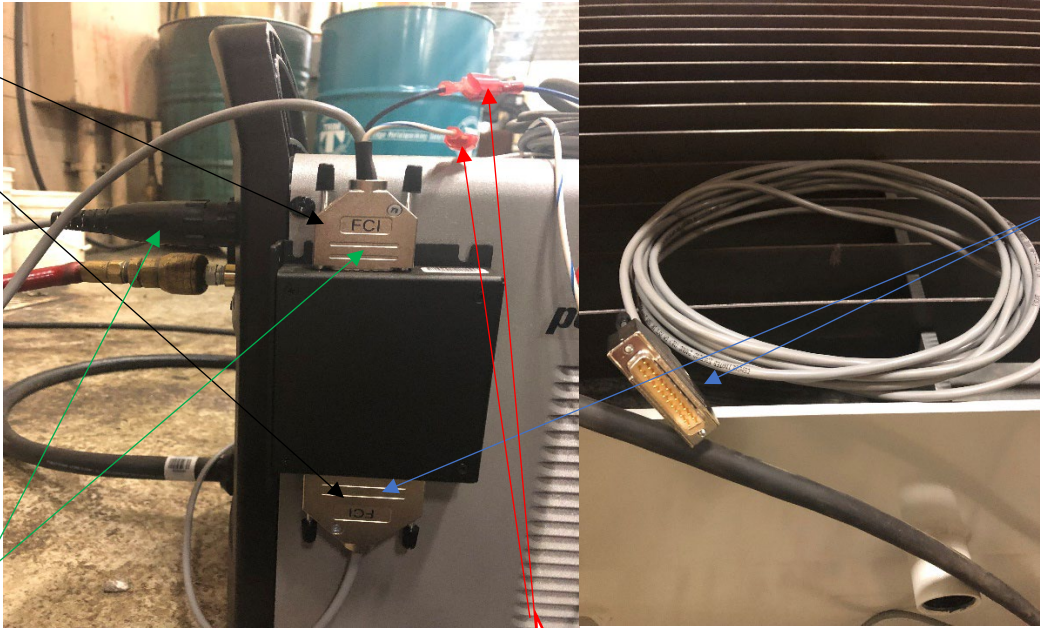
Air

Clean/dry and oil free Air supply

Flashcut THC Isolation Box connections

Insert

15 pin

25 pin

Connectors into Iso box

15 pin connection is a short cable with the opposite side going to the Machine interface port in the back of the power supply

Connect

Power

(Blue to Blue) and Common

(White/Blue to White/Blue)

25 pin connection from the cable track to Iso Box

Powering up Power supply and Controller

<u>Grounding the Table</u>

Table Grounding needs to be attached to the PE grounding rod with a minimum

6 Awg cable.

8ft minimum depth

Plug in the Controller and Power Supply

Power Supply plugs will vary per voltage rating for your plasma unit and should be installed by your electrician

The controller is 120v single phase

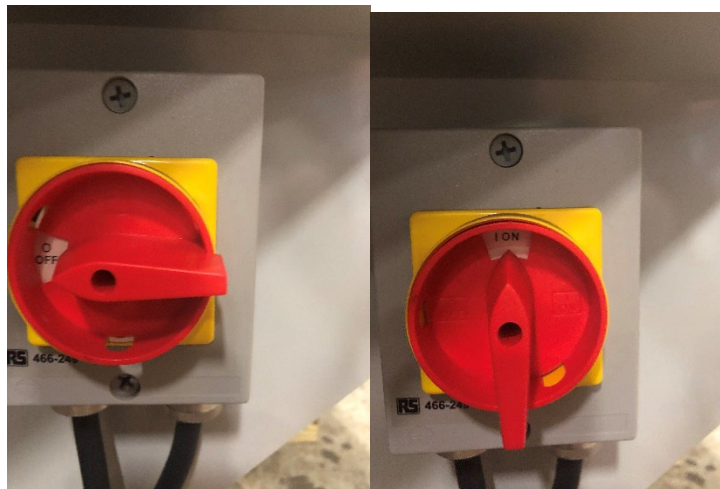And the plug should be installed by your electrician

Turn on Power Supply

Turn on the Controller Breaker

Located on
the back
side wall of
the rear
extrusion

Turn on the Controller

Power

Button

Wait for the computer to boot-up and you're ready to go.