



Genuine Hypertherm Consumables

The only way to ensure maximum performance

Hypertherm

ISO 9001

They may copy our parts, but not our results.

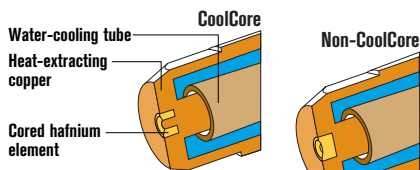
Performance begins with technology ...

For over 30 years, Hypertherm has proven that innovation, not imitation, cuts the cost of cutting metal. Our consistent focus has been to develop new technologies that improve cutting speeds, cut quality and consumable parts life. This focus has produced striking results through the development of key technologies only available from Hypertherm.

If you are not using genuine Hypertherm parts, you cannot be receiving these benefits:

HyLife™ electrode technology greatly extends parts life in low-current air or oxygen applications by maximizing hafnium cooling in the electrode.

CoolCore™ electrode technology replaces the conventional solid hafnium electrode element in high-current oxygen applications with a hafnium insert that is cored out, permitting heat-extracting copper to be in contact with its inside and outside diameter. Dramatically improved heat transfer from the hafnium results in a significant increase in electrode life.

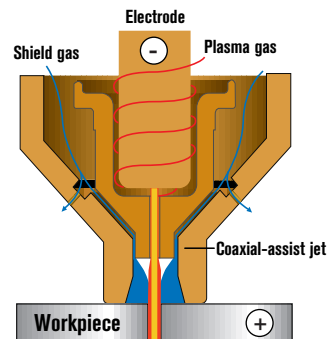


CoolCore electrode

HyFlow vortex technology: a vented two-piece nozzle stabilizes the arc precisely in the center of the electrode in HyDefinition® applications. This consistency increases electrode and nozzle process life.

Torch front-end shielding allows drag cutting in manual applications and enhances piercing capabilities, so critical in high-production mechanized cutting environments.

Coaxial-assist™ jet technology allows higher cut speeds and greater thickness capabilities by directing the shield gas flow coaxially to the plasma arc, creating greater arc stability and strength.



A coaxial-assist jet design

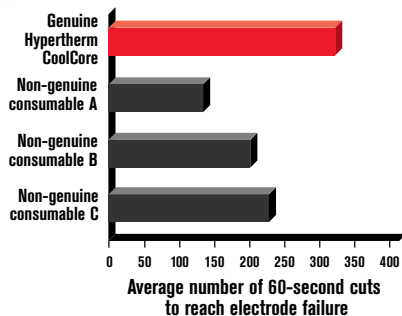
Contact-start and spiral-groove electrode technology reduces costs and simplifies operation by eliminating the use of high frequency in lower-current systems. As an additional benefit, you do not have to worry about nearby sensitive electronics.

... And it ends with quality

In addition to technological innovation, manufacturing excellence is critical if you want the consistent cut quality and performance you deserve. Hypertherm is a world-class manufacturer: in 1992, we became the first U.S. company in our industry to achieve ISO 9001 registration, tangible proof of the quality systems we have developed to ensure every consumable we sell meets your exacting standards.

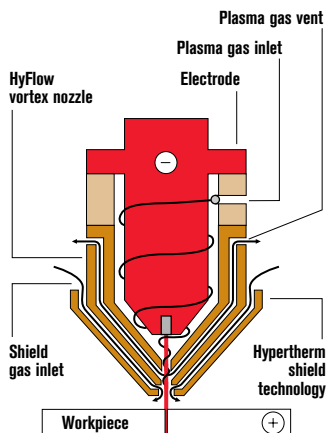
Genuine Hypertherm CoolCore test results at 340 amps

(60-second cuts)



CoolCore technology increases electrode life significantly.

Patented HyFlow vortex technology



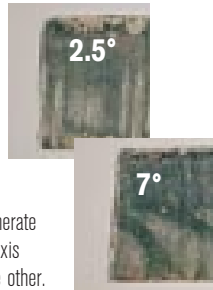


A ten-thousandth of an inch can make a difference

Consumables harness the tremendous heat and power of the plasma cutting process. If a critical dimension is off by even one ten-thousandth of an inch (0.0025 mm), the results can be dramatic. Here are just a few examples of how poorly dimensioned parts may lead to problems:

- **Cut quality.** Poor concentricity – imprecise alignment of the nozzle and electrode inside the torch – may produce cut-angle variability requiring time-consuming manual re-work and finishing that reduces productivity. The trend in today's fabricating is to specify closer tolerances around cut parts. Cut-angle variability translates into reduced part tolerances. A further effect of poor concentricity is accelerated nozzle wear due to the improperly aligned arc.
- **Consumable life.** Proper swaging of the hafnium insert in the electrode is critical. An improper swage creates spaces between the insert and the cooling surface of the copper. These gaps reduce heat transfer, resulting in severe erosion and significantly shorter electrode life (See the electrode comparison, upper right). Any savings resulting from using cheaper parts that wear out faster are far outweighed by increased downtime from more frequent replacement and the re-working mentioned above.
- **System failure.** Improperly dimensioned parts can damage torches. A mistake in the cooling channel inside an electrode can create an overheating situation. Even a simple thing like poor threading can disable a torch.

Poor concentricity produces significant cut-angle variability and adversely affects production. This is shown here, as the non-genuine parts generate a 2.5° bevel on one axis and a 7° bevel on the other.

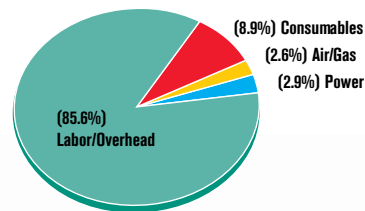


After the same number of starts, the Hypertherm electrode on the left shows a well-centered pit that will deliver many more starts. The non-genuine part on the right has eroded past the hafnium insert and must be replaced.

The true costs of cutting

Labor and overhead are by far the largest cost component of cutting metal, as shown in the chart at right. Consumables only account for about 10% of the cost associated with labor and overhead. This means that if you can cut re-work and downtime by just 5% by using superior consumables, it is equivalent to cutting consumable costs by 50%.

Typical cutting costs for 1/2-inch (12 mm) steel



Don't settle for imitation

Rely on the innovation of genuine Hypertherm consumables and get all the performance you paid for. The Hypertherm parts specifically designed and manufactured for your system are your best guarantee of enjoying the lowest possible cutting costs, highest quality and maximum productivity.

Example shows a 200-amp LongLife® system cutting 1/2-inch (12 mm) mild steel using oxygen plasma.





Laser-etched quality assurance

Every genuine Hypertherm consumable part is laser-etched with "Hypertherm" or "HT" and the part number. Look for it to make sure you are using genuine parts for your Hypertherm cutting system. Hypertherm consumables are available worldwide through an extensive network of distributors and original equipment manufacturers.



Warranty protection

Hypertherm is confident of the quality of its manufacturing process and product designs. We back up this confidence with two-year warranty coverage on each power supply and one-year coverage on each torch. Any damage caused by the use of non-genuine parts may not, however, be covered by this warranty.



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plasma cutting technology™*

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