



A UTC Fire & Security Company

3405 Wiley Post Road
Carrollton, TX 75006
800-356-7740
Fax 972-458-6650
www.forneycorp.com



High Energy Spark Igniter (HESI)

The High Energy Spark Igniter, HESI Series 90 is a Class 3 Igniter used for direct spark ignition of oil or gas igniters or small burners. The 12 joules of energy delivered to the spark tip (3 sparks per second) easily ignites the fuel. When used in conjunction with Forney igniters, a nine out of ten starting reliability can be guaranteed.

The High Energy Spark Igniter consists of three major components: a power unit, spark rod assembly and cable assembly.

The power unit is packaged in a NEMA-4 enclosure suitable for wall mounting at the burner front. The power unit develops the 12 joules of energy delivered to the spark tip through the use of heavy duty electrical components. It has a 50% duty cycle at temperatures up to 130°F ambient. The spark gap tube is visible through a window in the front cover providing local indication that the power unit is functioning properly.

The spark rod is available in the standard rigid design or in a flexible configuration for use in a tilting tangential burner application. The spark rod features a self-cleaning surface-gap spark tip that is easily replaceable through a threaded connection. Both the rigid and flexible spark rods can come with an optional retraction assembly to allow the spark tip to be inserted and retracted from the firing position if necessary.

The cable assembly consists of heavy duty 12-gauge, 3,000-volt wire sheathed in a 1/2 inch flexible conduit terminated with quick release, military-grade connectors.

- **COST EFFECTIVE SOLUTION**
Proven technologies at an affordable price. Pre-packaged, pre-engineered product minimizes cost and lead time.
- **NON-FOULING SPARK TIP**
The surface gap spark tip emits a self-cleaning, highly reliable, 12 joule spark even in the presence of moisture, oil and carbon deposits.
- **APPLICATION FLEXIBILITY**
Standard, flexible and retractable HESI models are available to fit a variety of igniter or burner types.
- **SAFE OPERATION**
Heavy duty, UL approved flexible cable connects the power unit to the spark rod assembly ensuring operator safety.
- **REMOVABLE SPARK TIP**
The spark tip completely detaches from the spark rod through a threaded connection. Replacement of the spark tip is quick and easy.

HESI Specifications

Igniter Class:	Class 3 Special
Approval:	Factory Mutual and CE
Output Energy:	12 Joules per spark
Output Voltage:	2000VDC
Input Voltage:	120/240VAC, 50/60 Hz
Input Power:	120VAC (2-A fuse); 240VAC (1-A fuse)
Spark Rate:	3 per second (approx.)
Spark Rod Diameter:	5/8 inches
Spark Tip Type:	Surface gap
Spark Tip Material:	Stainless steel with a silicon carbide insulator
Maximum Recommended Tip Temperature:	1000°F
Power Unit Temperature Ratings:	-40°C to 80°C (-40°F to 176°F)
Power Unit Enclosure:	NEMA-4 approved cabinet
Power Cable Lengths:	6', 12', 15' (15' is standard)
Duty Cycle:	50% at temp rating
Tip Life:	1x10 ⁶

