



## Gas Turbine High Energy Spark Igniter

Forney's High Energy Spark Igniter (HESI) provides a highly reliable, non-fouling source of ignition for gas turbines.



# PRODUCT OVERVIEW

The High Energy Spark Igniter (HESI) is a Class 3 Igniter used for direct spark ignition of gas turbines. Forney's HESI provides a highly reliable source of ignition for a wide range of industry igniters utilizing a 12 joule source of energy delivered to the spark tip (3 sparks per second) which easily ignites the fuel.

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 or 4X enclosure suitable for wall mounting around the turbine area. The power unit develops 12 joules of energy delivered to the spark tip through the use of heavy duty electrical components. It has a 15-minute on and 30-minute off maximum fire cycle at temperatures up to 140°F (60°C). As an option, the power unit is available with dual connectors to power two turbine igniters.

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.

# FEATURES & BENEFITS

- **Non-Fouling Spark Tip**

The surface gap spark tip emits a selfcleaning, highly reliable, 12 joule spark even in the presence of moisture, oil and carbon deposits.

- **Application Flexibility**

Models are available to fit a variety of turbine types. HESI can be fitted for each turbine application.

- **Cost Effective Solution**

Proven technologies at an affordable price. Pre-packaged, pre-engineered product minimizes cost and lead time.

- **Safe Operation**

Heavy duty, UL approved flexible cable connects the FM approved power unit to the spark rod assembly ensuring operator safety.



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## Products and Accessories:

370032-01	HESI Westinghouse 301G Turbine Igniter
365012-xx	HESI Westinghouse 501A/D Turbine Igniter - various lengths
408925-01	HESI Westinghouse 501G Turbine Igniter
370209-01	HESI Assy with cylinder & Flange GE Frame 5 & 7B Turbine w/ Straight J-box
370209-02	HESI Assy with cylinder & Flange GE Frame 5 & 7B Turbine w/ 90° J-box
370216-01	HESI Rod Frame 5 & 7B Turbine w/ Straight J-box
370216-02	HESI Rod Frame 5 & 7B Turbine w/ 90° J-box
370441-01	HESI Rod 7FA Turbine
361864-xx	HESI Connecting Cable Assembly

## Power Pack Options:

358447-05	120VAC, 60Hz, Carbon Steel
358447-06	230VAC, 60Hz, Carbon Steel
397860-03	120VAC, 50Hz Carbon Steel
397860-01	230VAC, 50Hz, Carbon Steel
358447-07	120VAC, 4X, 60Hz, Stainless Steel
397860-02	230VAC, 4X, 50Hz Stainless Steel
370041-01	Dual Connector, 120VAC, 60Hz, Carbon Steel
370041-02	Dual Connector, 230VAC, 60Hz, Carbon Steel
370041-03	Dual Connector, 120VAC,4X, 60Hz, Stainless Steel
370041-04	Dual Connector, 230VAC, 4X, 60Hz, Stainless Steel

## Specifications

Igniter Class:	Class 3 Special
Approval:	Factory Mutual
Input Voltage:	120 to 240 VAC, 50/60 Hz
Input Power:	120 VAC @ 1.5 A (2-A fuse); 240 VAC @ 0.75A (1-A fuse)
Output Voltage:	2000 VDC
Output Energy:	12 joules per spark
Spark Rate:	3 per second (approximately)
Spark Rod Diameter:	5/8 inches
Spark Tip Type:	Gas tight, surface gap
Spark Tip Material:	High temperature alloy with a silicon carbide insulator
Operating Tip Temperature:	1112°F (600° C); Higher temperature during duration of light-off
Power Unit Temperature Ratings:	-40°C to 60°C ( -40°F to 140°F )
Power Unit Enclosure:	NEMA-4 or 4X approved cabinet
Power Cable Lengths:	6', 12', 15' (15' is standard)
Maximum Firing Cycle:	15 minutes on and 30 minutes off (maximum ambient temperature of 60°C (140°F))

