

# 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 50% duty cycle at temperatures up to 135°F ambient. 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 self-cleaning, 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.



# Gas Turbine High Energy Spark Igniter

Pub # 404006-20  
Rev 01/2017

## Products and Accessories:

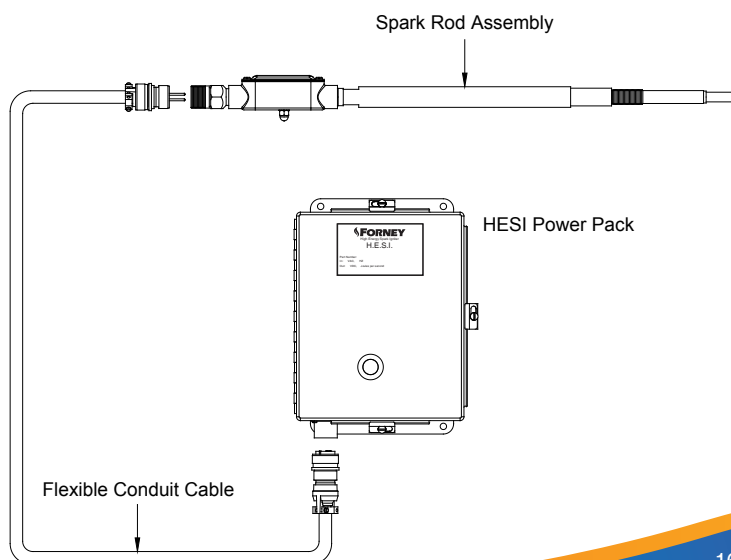
|           |  |
|-----------|--|
| 370032-01 | HESI Westinghouse 301G Turbine Igniter                                     |
| 365012-xx | HESI Westinghouse 501A/D Turbine Igniter - various lengths                 |
| 408925-01 | HESI Westinghouse 501G Turbine Igniter                                     |
| 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:                      | Surface gap  |
| Spark Tip Material:                  | Stainless steel with a silicon carbide insulator       |
| Maximum Recommended Tip Temperature: | 1000°F   |
| Power Unit Temperature Ratings:      | 0°F to 135°F (-18°C to 57°C)                           |
| Power Unit Enclosure:                | NEMA-4 or 4X approved cabinet                          |
| Power Cable Lengths:                 | 6', 12', 15' (15' is standard)                         |
| Duty Cycle:                          | 50% at temperature rating                              |



**Forney Corporation**

16479 North Dallas Parkway, Suite 600 • Addison, TX 75001  
800-356-7740 • Fax 972-458-6650 • www.forneycorp.com