

## HORN IGNITERS

**THE FORNEY HORN IGNITER IS USED ON TANGENTIALLY FIRED BOILERS AS A CLASS 2 IGNITER FOR BURNER IGNITION AND WARM-UP.** The horn igniter comes in three models: the DURAFire horn for #2 oil, the MAXFire horn for natural gas and the Dual Fuel horn for both oil and gas. The benefits of the igniters are they incorporate the Forney standard DURAFire Igniter (#2 oil) or the standard MAXFire Igniter (natural gas) into the horn design. The high reliability and stability inherent in the DURAFire and MAXFire are carried over into the horn application.

Forney's horn igniter consists of the igniter (DURAFire or MAXFire), a front plate with matching hole pattern and HESI power pack cable and spark rod. Cooling / combustion air is supplied from the existing igniter windbox (retrofit applications) or from a separate blower in new installations.

An added benefit of the DURAFire/MAXFire igniter design is the ability to interchange internals to convert from one fuel to another. If changing over from one fuel to another is desired, without the changing of equipment, the Dual fuel horn is the choice. This design retains the stability and reliability of the "Protected Primary Combustion Zone" feature inherent in the DURAFire and MAXFire igniters. To further assure reliable light off, all of the horn igniters use a 12 joule high energy spark igniter (HESI) with its self cleaning, non-grounding features.

Forney can also supply complete control panels with OEM interfaces for a complete retrofit project. The supporting control panel features NFPA approved shut off valves, flame detection, oil pressure indication and igniter safety logic replicating the OEM logic for direct tie into the existing BMS. This control panel can even be supplied with matching cannon connectors used as the original field wiring.

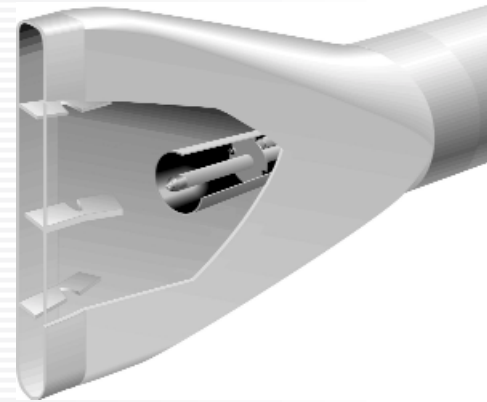
- **CLASS 2 IGNITER** – Capacity up to 4 MBTU/hr (gas) for ignition of main gas, oil or coal burners.
- **OPTIONAL FLAME DETECTION**– The flame detector senses the flame inside the primary combustion zone and discriminates it from flames outside the horn.
- **RELIABLE IGNITION** – Proven repeatable ignition created by the “protected primary combustion zone” in the igniter.
- **DUAL FUEL CAPABILITY** – The Single Fuel Horn Igniter fires either oil or gas with a simple change of the fuel gun; the Dual Fuel Horn Igniter fires either oil or gas without a change of equipment.
- **STABLE FLAME** – The primary combustion zone raises the secondary combustion zone to auto ignition temperature.



Re-powering your world



IGNITERS





## HORN IGNITER

### SPECIFICATIONS

|                                  |   |
|----------------------------------|---|
| Fuel:                            | No. 2 Oil, Propane or Natural Gas             |
| BTU Rating (mmBTU/hr)– Oil:      | 2 – 4 (consult factory for higher BTU rating) |
| – Gas:                           | 2 – 6   |
| Fuel Pressure (psig) – Oil:      | 60  |
| – Gas:                           | 15  |
| Atomizing Media Pressure (psig): | 25  |
| (differential over oil pressure) |   |
| Cooling/Combustion Air           |   |
| Flow (SCFM):                     | 110   |
| Pressure (in. WC):               | 4 – 6   |
| (above furnace pressure)         |   |

### HESI SPECIFICATIONS

|                 |  |
|-----------------|--|
| Input Voltage:  | 120 – 240 VAC, 50/60 Hz                      |
| Output Energy:  | 12 joules per spark                          |
| Output Voltage: | 2000 VDC                                     |
| Spark Rate:     | 3 per second (approximately)                 |
| Duty Cycle:     | 100% at temp –18°C to 57°C<br>(0°F to 135°F) |
| Tip Life:       | 1 x 10 <sup>6</sup> sparks                   |

