

# SureFire™ Model 20 Spark Igniter & Gas Pilot Kit



## SUREFIRE™

THE SUREFIRE MODEL 20 SPARK IGNITER & GAS PILOT KIT PROVIDES RELIABLE IGNITION ENERGY FOR MAIN GAS OR OIL BURNERS IN EITHER NFPA CLASS 1, CLASS 2 OR CLASS 3 APPLICATIONS, DEPENDING ON THE BURNER CAPACITY.

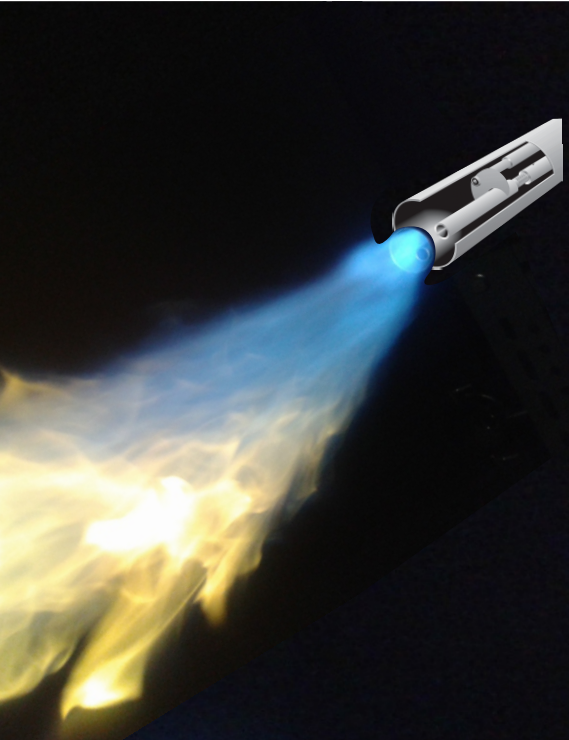
These igniters easily retrofit into many types of burners due to their size, BTUH capacity and their reliable operation.

**The SureFire Model 20 Kit consists of three major components:** a Guide Tube, a Gas Transport Tube, and a High Energy spark rod. The guide tube houses the spark rod and the gas transport tube, which are easily removed from the guide tube for maintenance purposes, by releasing the “V” band retainer. No tools are required. Cooling/combustion airflow is directed down the guide tube to support and maintain the primary combustion zone during operation and to cool the igniter when it is out of service. The controlled mixture of fuel and air inside the igniter guide tube at the primary combustion zone results in a highly reliable igniter.

The SureFire Gas Igniter is used with a High Energy Spark Igniter (HESI) spark source (power pack) and interconnecting cable, both ordered separately. The HESI produces a powerful 12-joule spark three times per second at the primary combustion zone.

The HESI spark tip is a non-fouling, surface-gap spark plug that is replaceable as a unit by a threaded connection. The remaining HESI components consist of a positioning rod (included with the Gas Igniter), power cable, and power pack (the cable and power pack are ordered separately).

Optional equipment for the SureFire Model 20 Kit includes a mount tube, a combination mount flange, a gas hose and an air hose.



HIGH ENERGY SPARK IGNITER

### LOW MAINTENANCE

- No moving parts, a self-cleaning spark tip and no tools required to perform periodic inspection.

### IGNITION SOURCE

- 12-joule High Energy Spark Igniter (HEI) with screw-on replaceable tip.

### CLASS 1, CLASS 2 OR CLASS 3 GAS IGNITER

- Capacity 1.0 MBTU/hr.

### BURNER COMPATIBILITY

- The nominal 2” diameter allows the igniters to fit into almost any burner application.

### RELIABLE OPERATION

- The protected primary combustion zone ensures successful starts.

### FUEL FLEXIBILITY

- Capable of burning natural gas or propane.

### COOLING / COMBUSTION AIR

- 12 SCFM airflow required.

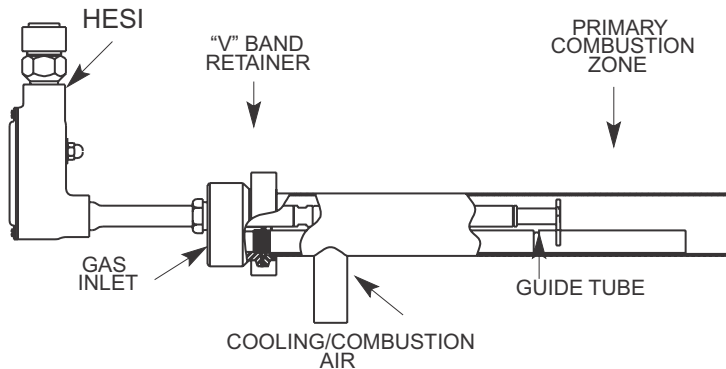


## GAS PILOT SPECIFICATIONS

### SureFire 20

Fuel:	Natural gas/propane
Guide Tube OD:	1.88"
Mounting Tube OD:	2.13"
Capacity Rating (MBTU/hr.):	1.0
Fuel Supply Requirements (psig):	10 psig
Cooling/Combustion Air Supply:	12 SCFM@3">windbox
Cooling/Combustion Air Pressure (inches w.c. measured at the sight port):	0.5
Material of Construction:	304 Stainless steel (except for gas transport extension tube and HESI rod)
Cooling/Combustion Air Connection:	1"
Ignition Method:	High Energy Igniter (HESI) 12 joule (all versions)
NFPA Class:	1, 2 or 3
Recommended Gas Hose Size:	3/4"
Gas Hose Connection Size (NPT):	1/2"
Gas Line Strainer (FNPT):	0.33"

For more comprehensive information refer to Bulletin SF-100 at [www.fireye.com](http://www.fireye.com)



## HIGH ENERGY SPARK IGNITER

## HIGH ENERGY IGNITER SPECIFICATIONS

Approval:	Factory Mutual
Output Energy:	12 joules per spark
Output Voltage:	2,000 vdc
Input Voltage:	110/220 VAC, +/- 10%, 50/60 Hz
Input Power :	110 vac (2-A fuse); 220 vac (1-A fuse)
Spark Rate:	3 sparks per second
Spark Tip Material:	Stainless steel with a silicon carbide insulator
Maximum Recommended Tip Temperature:	537.8°C (1,000°F)
Power Pack Temperature Ratings:	-18°C to 57°C (0°F to 135°F)
Power Pack Enclosure:	NEMA-4 approved cabinet (NEMA-4X optional)
Power Pack Dimensions:	10 in. high x 8 in. wide x 4.25 in deep (25.4cm x 20.3cm x 10.8 cm)
Power Cable:	12 gage, 3,000 v in. 0.5 in. (1.3cm) flexible conduit
Power Cable Lengths:	6, 9, 12, 15 ft. (1.8, 2.7, 3.7, 4.6 m) 15 ft. is standard

Fireye is a leading manufacturer of flame safeguard controls and burner management systems for commercial and industrial applications throughout the world. Our products can be found in a variety of public buildings, commercial properties, power plants, pulp and paper mills, petrochemical facilities and food processing plants. Fireye is a part of Carrier (NYSE: CARR).



[fireye.com](http://fireye.com)

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