



A UTC Fire & Security Company

Q-87 Oil Igniter

The Q-87 oil igniter offers a fully self-contained flexible solution for robust and reliable burner ignition, stabilization and warm-up.



Features & Benefits

- **CLASS 1 IGNITER**
Capacities up to 30 MBtu/hr which will provide ignition and stabilization under all burner light-off or operating conditions.
- **EASY RETROFIT**
Can be installed in burners with an opening of 4-inch diameter.
- **ATOMIZATION**
The Q-87 igniter can operate with either air, steam or mechanical atomization.
- **STABLE FLAME**
The stainless steel air diffuser creates a low pressure zone which maintains a stable flame at the tip of the igniter.
- **RELIABLE IGNITION**
The 12-joule High Energy Spark Igniter (HESI) easily ignites the fuel during igniter start cycles.

Product Overview

The Q-87 is a self-contained Class 1 oil igniter used for burner ignition, stabilization or boiler warmup. It is available in capacities ranging from 8 to 30 MBTU/hr. The Q-87 igniter, with its 4" diameter guide tube, is suitable for both new and retrofit applications in a wide variety of burner designs. The Q-87 igniter is designed for air, steam or mechanical atomized applications.

The Q-87 consists of a guide tube assembly, fuel gun and High Energy Spark Igniter (HESI). The guide tube assembly contains the working parts of the igniter and houses the oil gun and HESI rod. A stainless steel diffuser is attached to the tip of the oil gun guide tube to assist in providing a stable flame. The oil gun has a retraction assembly that moves the gun into firing position and back into the guide tube when it is not in service. The guide tube transports cooling air from a low pressure air source to the igniter tip, keeping the oil gun tip and diffuser cool, as well as foreign material away from the tip.

A factory mounted NEMA-4 junction box with all on-board electrical devices prewired to terminals is a standard feature which reduces installation time.

A 12-joule HESI provides the ignition source for the fuel. The HESI features nonfouling surface gap spark plug that is easily replaced for maintenance by a threaded connection between the HESI tip and the HESI rod.

As an option, a mount tube can be provided to support the igniter. The mount tube is typically welded to the burner front plate, and the igniter guide tube slides into the mount tube and is secured in place by a split clamping ring and packing gland assembly.

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Specifications

Fuel:	No. 2 oil
Atomization Media:	Air, Steam or Mechanical
Guide Tube OD:	4 inches
BTU Rating (MBTU/hr):	8 - 30
Fuel Pressure (psig):	60 - 125
Cooling / Combustion Air Flow (SCFM):	80
Pressure (in. WC)	6
Length:	As Required
Mount Tube OD:	4.5 inches
Atomizing Pressure: (Differential over oil pressure)	25 psig
Material of Construction:	Guide Tube and Mount Tube - Carbon Steel Furnace End of Guide Tube - 304 Stainless Steel Diffuser Cone - 309 Stainless Steel
Retract Cylinder Air Pressure:	60 to 100 psig (HESI/oil gun)

HESI Specifications

Input Voltage:	120 to 240 VAC, 50/60 HZ
Output Voltage:	2000 VDC
Output Energy:	12 joules per spark
Spark Rate:	3 per second (approx.)
Duty Cycle:	50% at temp -18°C to 57°C (0°F to 135°F Ambient)

