

Burner Pilot  
and Ignitor System

**Ultimate Reliability --  
Leading Pilots and Ignitors for  
the Petroleum and Chemical  
Refining Industries**

# The Ultimate Pilot System

The Honeywell UOP Callidus Scepter Pilot for high performance ignition in the refining and petrochemical industries.

## Addressing the rugged requirements of the refining and petrochemical industries

The Scepter Pilot was designed in our world-class research and test facility to withstand even the most rigorous conditions in the refining and petrochemical industries. Available in two models - the original permanent Scepter Pilot and the Scepter Model P1 portable lighter - each Scepter Pilot boasts high technical performance you can count on.

With self-contained electronics, stainless steel construction throughout, hermetically sealed flame and ignition rods, the Scepter Pilots stand up to rough handling and severe service. The internal high energy igniter cannot short out and the flame rod is impervious to moisture, providing reliable spark ignition, light-off and monitoring. For dependable, non-compromising pilot performance, turn to the Scepter.

### Scepter Advantages

- Internal flame rod
- Self aspirating
- 100,000 Btu/hr
- Internal direct high-energy ignition
- High intensity performance

### Proprietary Flame Rod

- Hermetically sealed insulator
- Impervious to moisture
- Cannot short out
- Internally mounted
- Service on-line

### Rugged High-Energy Igniter

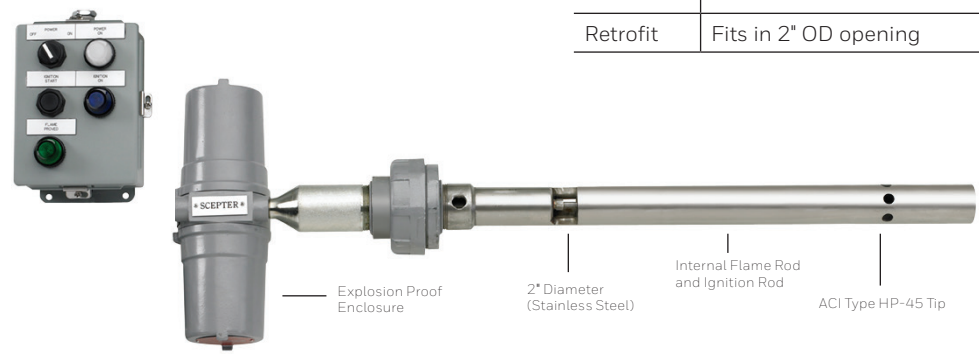
- Impervious to water
- Proprietary Scepter exciter
- Cannot short out
- Internally mounted
- Service on-line
- Available for natural draft or forced draft applications
- Scepter Pilot model S2 offers high-energy ignition.
- Scepter Pilot model S2HR offers high-energy ignition plus flame detection

### Design Features

- Compact, high capacity design
- Heavy duty construction
- Severe service rated
- 2" OD fits most burners
- Removable igniter and flame rod for on-line servicing
- ACI Type HP-45 Tip flame tip for long life
- Stainless steel construction
- Scepter S2 and Scepter S2HR are suitable for use in thermal oxidizer installation

## Design Performance Comparison

		Traditional Pilot	Sceptor Pilot
Flame Rod	Well protected	No	Yes
	Self drying	No	Yes
	Hermetically sealed	No	Yes
Ignition Source	Well protected	No	Yes
	High Energy Ignitions (HEI)	No	Yes
	Impervious to water	No	Yes
Pilot	Selectable internal or external aspiration	No	Yes
	Rugged design	No	Yes
	Continuously monitors presence or absence of flame before, during and after ignition sequence	No	Yes
Retrofit	Fits in 2" OD opening	No	Yes



## The Scepter P1 Portable Igniter for absolute reliability of on-demand portable ignition.

The Scepter Model P1 Portable Igniter was developed to work under the most demanding requirements found in the industrial, refining, and petrochemical industries. The P1 is a safe and reliable solution for the toughest burner ignition applications, including situations where steam or rain may be present. The unit is also ideal for use during the replacement of spent burner igniters or in emergency situations where the firing of burners fail due to electrical power loss.

The Scepter P1 portable igniter unit consists of the ignition lance, igniter electronics, and a MAPP gas propylene or propane bottle. No high-voltage cable or heavy battery packs are required. The compact one inch diameter igniter head fits into virtually any burner plenum for safe ignition inside the combustion area.

### Features

- Compact one inch diameter igniter head fits into virtually any burner plenum.
- High Energy Ignition lights when completely wet from steam or rain.
- Eliminates exposed flame outside heater.
- Light inside burner plenum in high draft and high force air +/- 10 inches W.C.
- Lights in turbine exhaust gas (TEG)
- Rugged yet light weight
- Standard insertion lengths: 24 to 60 inches. Custom lengths available.
- Light hundreds of burners on a single fuel tank.
- Batteries last over one year.

### Energy Sources

- Electrical: Eight (8) "C" Cell Batteries
- Fuel Gas: Standard MAPP Gas Propylene or Propane Bottle

### Right Tool for Common Problems

- Ignites the hardest to light burners.
- Stop using improvised lighting techniques such as oily rags or road flares.
- Fire on demand, shutoff on demand.







Honeywell UOP Callidus headquarters - Tulsa, Oklahoma. USA



Honeywell UOP Callidus combustion test facility - China



Honeywell UOP Callidus 82,000 sq. ft. manufacturing and fabrication facility in USA

## Global Coverage

Honeywell UOP Callidus reaches the global market through our headquarters located in Tulsa, Oklahoma, USA, with regional direct sales offices and independent sales representation around the world. Meeting our customers' expectations and setting the standards for the combustion industry have always been our goals. Each burner, flare, thermal oxidizer and catalyst system we design and manufacture is built with those goals in mind.

## Test Facility

Honeywell UOP Callidus' test facilities in the U.S. and China are used for combustion technology research and development, as well as for customer demonstrations. Our array of test systems allow us to closely match actual field operating conditions, providing results that will more accurately predict actual measured performance.

## In Addition to Scepter Pilots, Honeywell UOP Callidus Offers:

- Ultra-low NO<sub>x</sub> burners
- Flares, flare systems and flare gas recovery systems
- Thermal oxidizer systems
- Field services and parts
- CFD Modeling
- Training and schools

## ISO 9001:2008 Certification



USA Certification



China Certification

High-Performance Combustion Solutions  
Service – Parts – Installation

Contact us—we're here to help.

[CallidusHelp@Honeywell.com](mailto:CallidusHelp@Honeywell.com)

### For more information

For more information, please visit [www.callidus.com](http://www.callidus.com) to find a local sales representative

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