Callidus Production Flare Technology

Production Flares for the Oil and Gas Industry

Advanced Combustion Solutions for Production Applications
Meet the Experts in Onshore and Offshore Production Flare Technology

We Pride Ourselves On Quality

Honeywell UOP Callidus is the industry’s recognized leader in flare technology due to our engineering expertise, manufacturing capabilities, worldwide service and exceedingly high quality standards. We develop flare systems for hydrocarbon processing, oil and gas production, steel, carbon black and petrochemical processing industries. Each flare system is built to match the customer’s specific process criteria and performance requirements. Our team has hundreds of years of experience in the design of flare systems and has been involved in the design, fabrication, and startup of hundreds of flare systems worldwide.

Our manufacturing facilities comply with the highest quality standards in the industry. Many of our own internal quality assurance programs require higher performance standards than some industry certifications.

Our manufacturing techniques use state-of-the-art equipment and our employees are highly trained for their specialized tasks. Ongoing training is regularly scheduled through our research and development group to ensure that the highest level of quality and performance is maintained for each project.

Honeywell UOP quality assurance personnel thoroughly inspect each flare system prior to shipment, reducing installation time. Our project execution and manufacturing is certified to USA and China ISO 9001:2008.

Production Flare

We have developed a wide range of production flare technologies for the oil and gas production industry, both onshore and offshore. Our innovations have resulted in the development of flares that produce low thermal radiation levels at all flow rates with dramatic reduction in flare tip weight.

Through our client driven research and development programs, the Honeywell UOP Callidus flare R&D group has developed many distinct production flare technologies, each with unique advantages.

- **The EXPERT** - This proprietary tip design is coupled with extended periphery exit nozzles to produce a high flow, low thermal radiation flame.
- **The QUATRO** - This flare tip design produces an extremely short, low thermal radiation flame.
- **The HEMISFLARE** - This product group of flares utilizes a variable exit area principle to produce increased air/fuel mixing resulting in increased smokeless capacity and lower radiation.

All production flare tips use high temperature stainless steel construction with CK-20 investment cast accessories. The flare tips incorporate many design and manufacturing features that optimize the flare tip’s usable lifespan.

The extremely stable pilot system has been tested in hurricane wind conditions (125 miles per hour) with heavy rainfall (greater than 2 inches per hour). Our production pilot system is a partial-premix pilot system that incorporates a windshield, strainer and mixing venturi in a compact, easy to maintain package. The unique pilot design is capable of operating on multiple fuels including natural gas, propane and high hydrogen mixtures.

**Callidus Advantages:**
- Low radiation levels
- Light weight
- Short flare boom
- Short rigid flame
- Smokeless flaring
- Low emissions

**Production Flare**
- Low radiation over wide range
- Choice of multiple state of the art technologies to match individual requirements
- Long service life
- Low weight

- High smokeless capacity
- Short boom length/less boom weight
- Extremely stable pilot
- Investment cast burners and components
**Multipoint Flare System**

Sometimes used in the offshore arena, the CAL-MP (Multipoint) Flare System is the result of more than 20 years of work in the development of multipoint flare designs. Honeywell UOP Callidus’ unique burner system develops significantly higher surface to area relationships for the waste gas exit. This feature provides more air inspiration and greater turndown capability.

Multipoint flares offer unlimited smokeless capacity and the lowest possible radiation. Reductions in thermal radiation levels of 60% or greater are often achieved. Our MP burners are high quality stainless steel castings with thicker metal cross sections, longer life, better waste gas flow patterns and lower internal pressure drops. These high quality castings also dramatically reduce the potential of cracking. MP Flares are in service both onshore and offshore, with smokeless capacities in excess of 4,000,000 lbs/hr.

**Multipoint Flare System**
- Unique burner design provides high surface to area relationship
- Unlimited smokeless capacity
- Extremely stable pilots
- Easy maintenance—all equipment at grade
- Low radiation and no radiation designs available
- Cast stainless steel burners
- High turndown ratio staging system
- Extremely long life burners

**Totally Enclosed Ground Flare**

Our CAL-TEGF Totally Enclosed Ground Flare was developed to burn flare gases with minimal environmental impact. The flame burns completely concealed from view with no smoke, very low noise, reduced emissions and no direct thermal radiation outside the combustor. The CAL-TEGF is ideal for FPSO/FSO applications where constant flaring can occur.

The CAL-TEGF flare utilizes a refractory lined combustor with highly efficient burners. Most equipment is located near grade for easy and online maintenance. Both forced-draft and natural-draft systems are available. Our engineering team has been involved in the design of enclosed flares for more than 200 combined years. Our experience provides a one stop source for enclosed flares from vapor inlet to combustor stack. Callidus enclosed flares are available completely skid mounted, pre-wired, pre-piped, and tested. Applications include truck, marine and rail car terminals, production onshore and offshore (FPSO), refining, and petrochemical plants.

**Totally Enclosed Ground Flare**
- Easy, online maintenance
- Sole source systems including installation
- Skids 100% pre-wired, pre-piped, assembled and tested
- Flame finder technology
- Smokeless combustion
- Very low noise levels
- No radiation outside the combustor
- Reduced emissions

**Callidus Advantages:**
- Lower pressure drop or higher flow at a given pressure
- Plug welded brackets
- High quality investment cast stainless steel burner
- Longer burner life
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 Production Flares, Honeywell UOP Callidus Offers:
- Ultra-low NO, 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.

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For more information
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