

STEAM-ASSISTED FLARE

QFS Series



BURNERS | FLARES | THERMAL OXIDIZERS | VAPOR CONTROL | RENTALS | AFTERMARKET



QFS Steam-Assisted Flare

Control smoke and reduce noise.

Zeeco's QFS series flare is a proven, reliable technology that utilizes steam injection to suppress smoke. The injection of steam inspirates air into the combustion zone and provides turbulence to mix the air with the waste gas for complete smokeless combustion. The steam also lowers the local combustion temperature, reduces the high-temperature thermal cracking of many hydrocarbons, and eliminates incipient smoke. The proprietary QFS steam nozzle uses a number of injection ports to successfully reduce steam injection noise to a level well below that of conventional steam-assisted flare tips. The impact of steam injection at the flare tip exit point is critical for more than just smokeless performance. The steam also shapes the flare flame in high-wind conditions, eliminating the downwind flame impingement experienced on many non-assisted flare tips. The steam also helps reduce the radiation level at grade by lowering the emissivity of the flare flame, and by providing vertical energy to keep the flame erect in a crosswind.

Unique tab design ensures stability.

The QFS flare utilizes the unique arrangement of proprietary flame stabilization tabs to ensure stable and high-efficiency flaring through the entire design range of flows, from maximum emergency flaring rates to purge gas flows. The flame stabilization tabs create a low-pressure zone at the perimeter of the flare tip gas exit point and work in conjunction with continuous pilots to ensure proper ignition of the waste gas. Zeeco's tabs are unique investment castings that are mounted to the flare barrel using plug welds, eliminating stress risers and cracking associated with linear welding in high heat zones.

Why choose Zeeco?

Process industries around the world depend on Zeeco for superior, low-emissions combustion and environmental systems. Only Zeeco offers the global experience, breadth of knowledge, and technical creativity to develop and innovate the world's leading flare systems. For more than 40 years, Zeeco's flare systems have led the combustion industry in reliability, high performance and extra long life. Let us put our experience to work for you. Call or email us today to learn more about the full line of ZEECO® products and services.

Applications

- Refining, petrochemical, chemical, pulp and paper, pharmaceuticals, food-processing plants
- Where smokeless flaring is desired and steam is available
- Bolt-on replacement for other manufacturers' flare tips

Advantages

- High efficiency, low noise, smokeless performance
- High stability, low fuel consumption pilots are standard
- 98.5% or higher hydrocarbon destruction efficiency
- Superior materials and construction

Features

- Sizes from 2 inch (50 mm) to 120 inch (3050 mm)
- Most economical steam-assisted flare for general use
- Multi-port investment cast steam nozzles for lowest possible noise
- Steam nozzles engineered for optimum air inspiration and mixing
- Suitable for use with 50 psig (3.45 barg) to 250 psig (17.25 barg) steam
- High-stability pilots tested to 150 mph [241 Km/hr] windspeed
- Critical parts supplied as investment castings
- 310 stainless steel in high heat areas



Steam Skid



QFS Steam-Assisted Flare Tips



The Zeeco Difference

By concentrating on what we do best, Zeeco has grown into a worldwide leader in combustion and environmental solutions. We are a privately held company whose ownership stays highly involved in daily operations, with upper management comprised of the world's leading combustion experts.

When you call Zeeco, we answer. When you make a request, you get a quick, efficient response. We are lean and efficient, able to make decisions quickly, without bureaucracy and red tape. Our sales, engineering, and purchasing groups work hand-in-hand to deliver highly competitive quotes and heroic turnaround times. We stand ready and willing to travel anywhere in the world to discuss upcoming projects firsthand, and to ensure that every existing project runs seamlessly.

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