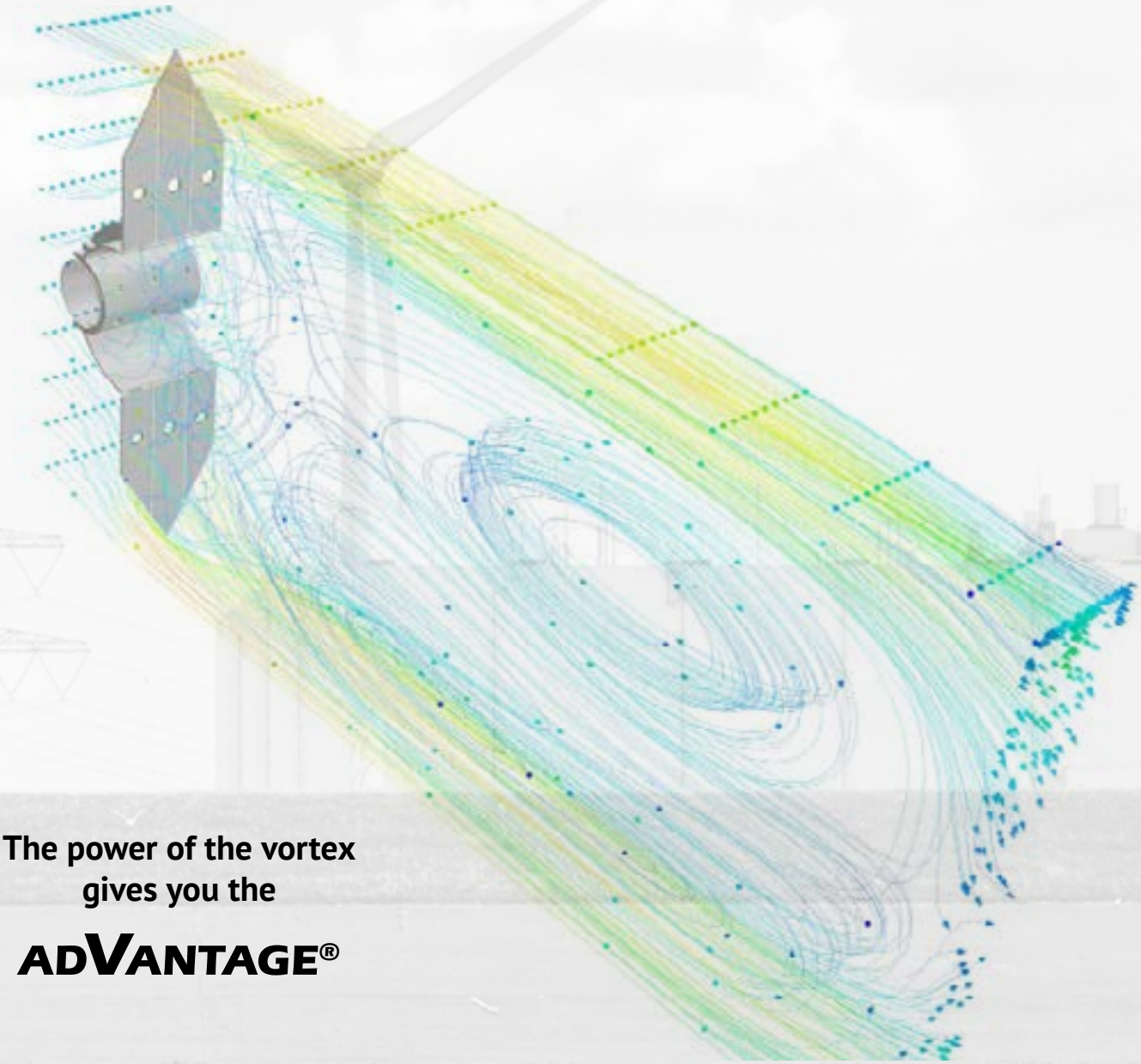
FORNEY

adVantage® Duct Burners

www.forneycorp.com

Forney's unique "wingtip vortices" make our duct burner the most reliable and robust in the industry. Designed to excel under the toughest turbine conditions, the adVantage® duct burner performs especially well in the "low-oxygen/high-water-vapor exhaust" environments found in the today's gas turbines - without augmenting air. The adVantage design duplicates the turbulent motion similar to an airplane's wingtip. Vortex streams mix fresh turbine exhaust into the flame at the edge of the envelope effectively scrubbing the CO and UBHC's. Because the vortices mix the chilled flame edge with fresh turbine exhaust while still maintaining the peaking flame temperatures at the flame front, the resulting emissions are low in CO but do not cause an increase in the NOx emissions.

Forney has been providing industry leading large-scale Duct Burners and Baffle systems for 20+ years. With over 350 systems installed ranging in size from 10 mBTU to a billion BTU, Forney's duct burner performance and reliability are proven.



The power of the vortex gives you the

adVantage®

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Why it's called the adVantage®

- Accepts lower O2, higher H2O and lower inlet temperature without the need for augmenting air.
- Vortices from wingtips improve fuel/air mixing for efficient combustion.
- Reduces CO and VOC by as much as 80%.
- No increase in NOx.
- Greater flow distribution allowances.
- Stable, reliable ignition system.
- Shorter flame lengths.
- Easy to retrofit existing duct burners.
- Improved temperature distribution.
- Lower operating costs.
- Reliable and innovative technology.

adVantage's of Forney Duct Burners

Years of maintenance free performance - all duct internals guaranteed for 10 years.

- Flame stabilizers are investment cast.
- Drilled gas orifices reduce plugging and simplify maintenance during outages.

Lower Plant Emissions

- Low CO/VOC emissions even in low oxygen and high water vapor environments.
- Lowers GT NOx by allowing more water/steam injection without burner CO constraints.
- CO emissions as low as 0.04 lb/MMBTU, HHV.

Operating flexibility to handle changing future turbine configurations without augmenting air.

- High velocity (over 4500 FPM) mixing allows operation with lower O2 levels (as low as 10.5% O2 by volume).

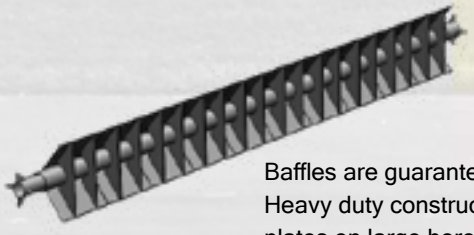
Easy setup and monitoring of combustion

- Forney HD Flame Detectors (2 included per burner element) provide state-of-the-art flame sensors, Bluetooth app for monitoring and tuning.

Reliable startup with frequent cycling - 99% lightoff.

- Forney MaxFire igniters with High Energy Spark Ignition (HESI) delivers 12 Joules per spark, 3 times per second provide a protected pilot light.

adVantage burner elements deliver 2.7MM BTU per linear foot with the lowest emissions level available.



Baffles are guaranteed for 10 years. Heavy duty construction with gusseted plates on large bore pipe.

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It's more than a burner - Forney baffle adVantage's

Forney adVantage system performance is a result of careful design integration of the burner and baffle.

- The baffle's aerodynamic design directs flue gas flow towards the burner element to induce mixing and improve emissions.
- The baffle's large bore pipe provides long term structural integrity for both the baffle and support of the burner elements.

Pricing

Burner Elements	**$18,000**
	+ $480 per linear foot*
Baffles	
For ducts up to 30 feet	**$600 per linear foot***

* Internal gas path dimension

Example:

18 foot duct that needs 3 burner elements and 4 baffles.

Elements

$18,000 + ($480 x 18 feet) = $26,640 x 3 elements = $79,920 for 3 - 18 foot elements

Baffles

$600 x 18 feet = $10,800 x 4 baffles = $43,200 for 4 - 18 foot baffles

Total

79,920 + 43,200 = $123,120

Pricing subject to change at anytime.
Pricing is for standard configurations only. Duct dimensions over 30 feet and/or firing temperatures over 1,5oo°F are considered custom configurations.
Contact Forney for pricing.