Product Bulletin

HDS(X) Series Burners

High Efficiency, Low Excess Air, Low Emissions

Burner Sizes:
200 HP up to 1650 HP HDS
200 HP up to 1500 HP HDSX
Benefits Of HDS(X) High Swirl Firing

Webster's unique high swirl firing head technology provides superior mixing of fuel and air which allows the HDS burners to operate with low excess air across a wide operating range.

Using less excess air means high fuel efficiency and high turndown means less of the heat loss that occurs from cycling on and off when a burner is continually stopping and starting.

The firing head places a high spin on the combustion air which in turn improves fuel mixing and flame stability. This allows the burner to operate with higher flue gas recirculation rates for lower NOx emissions.

The firing head is designed to keep the low fire flame off of the burner head, allowing it to operate at lower rates without heat damage. HDS(X) burners from Webster are manufactured with the industrial user in mind, using heavy gauge metal and heavy duty components built to last in even the most difficult operating environments.

When combined with Webster's patented air density control system, Temp A Trim™, the HDS(X) burner will maintain low excess air levels as operating conditions change, saving fuel and electricity and lowering maintenance costs. The HDS(X) is available for Scotch-Marine, firetube, watertube, flextube, firebox and other heaters and vessel types.

The high swirl burner head on the HDS(X) mixes fuel and air more efficiently.
HDS(X) Features And Applications

• High turndown rates
  • Up to 12 to 1 on Gas firing
  • Up to 10 to 1 on Oil firing
• Excellent flame stability for reliable low NOx performance
• Low excess air for extremely efficient operation
• Fire multiple fuels
  • Natural, LP or Digester gas
  • No. 2 through No. 6 oils
• Configurable blower housing to match application requirements
• Field-proven ignition system with an extremely stable pilot
• High efficiency combustion air fans to optimize electrical needs
• IFGR system with a shutoff valve in the flue gas recirculation duct to prevent flue gas from re-entering the burner during the purge cycle
• Easy access to firing head, fan and FGR duct for convenient maintenance
• Improved air damper with adjustable opening speeds for better turndown
• UL/cUL approved up to 600HP for Natural Gas and No. 2 oil applications
• Integral combustion air fan and motor are housed in a single assembly for easy removal and inspection
• Options for both pressure and air atomized oil

Webster Combustion has the best lead times in the industry. To configure the perfect HDS(X) burner for your application and obtain current scheduling information, contact Webster or visit www.webster-engineering.com to locate a sales office in your area.
## HDS(X) Burners

### HDS(X) Standard Arrangement End View

### HDS(X) Standard Arrangement Side View

### HDS(X) Alternate 45° Mounting (SR) Slant Right

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Min Req'd Gas Press. (PSIG)</th>
<th>Std Gas Train Size (MBH) STD</th>
<th>Max Firing Rate (MBH w/FGR)</th>
<th>Fan Motor HP</th>
<th>DIMENSIONS</th>
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<tbody>
<tr>
<td>HDS(X)11*-750H</td>
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* Can be "G" (Gas), "O" (Oil) or "C" (Combination Gas/Oil)

* Includes silencer which is standard on units with 30 HP and larger motors.

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**Represented By**

**WEBSTER COMBUSTION**

A Selas Heat Technology Company

**The Better Boiler Burner.**

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