



Smith Steam Boilers [Series 28HE]

Smith

CAST IRON BOILERS



High Efficiency

Smith is the only manufacturer offering a high-efficiency steam boiler; replace an aging or failed system and still attain fuel cost savings.

Efficiency [makes replacement the smart choice]

When you can get extensive savings from a high efficiency steam boiler, extensive costs of system conversion are no longer justified. When plans require an eye on value over time, and call for less hands-on operation and maintenance, Smith will get you there. Proven in decades past, proving it for decades to come.



Simple Install & Maintenance

Smith designs products with the needs of the contractor and end-user in mind. Our sectional design installs easily within existing mechanical rooms. Easy access for service and maintenance provides a longer service life.



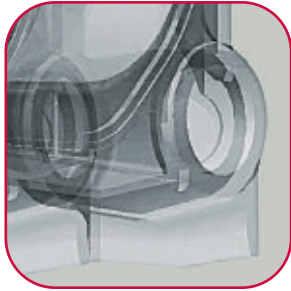
Optimal Operation

Larger heat transfer surface and cast-in heat transfer pins allow for maximum thermal efficiency—during the course of its lifetime, the boiler pays for itself several times over. Additionally, our integral flue gas collector enables quieter operation.

Engineered [to be your long-term answer]



When you choose a replacement boiler, you want one that won't itself need replacement or extensive service. Smith's specialized machining and components ensure your decision stands up over time.



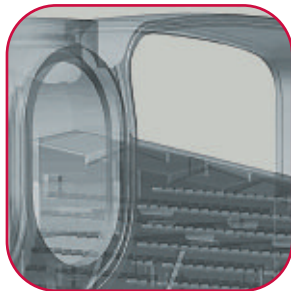
1. Machined Feet

Smith boilers ship with their own steel floor rails that match section feet assembly; no need for shims or field adjustments. Sections are drawn together pair-by-pair to reduce stress for simplified, no-jack connection



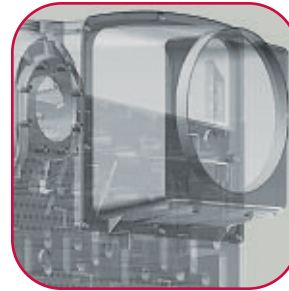
2. Indestructible Port Connectors

Precise sectional alignment accommodates graphite port connectors that permanently withstand exposure to flue gases or water, up to 15 psi, and any water pH factor



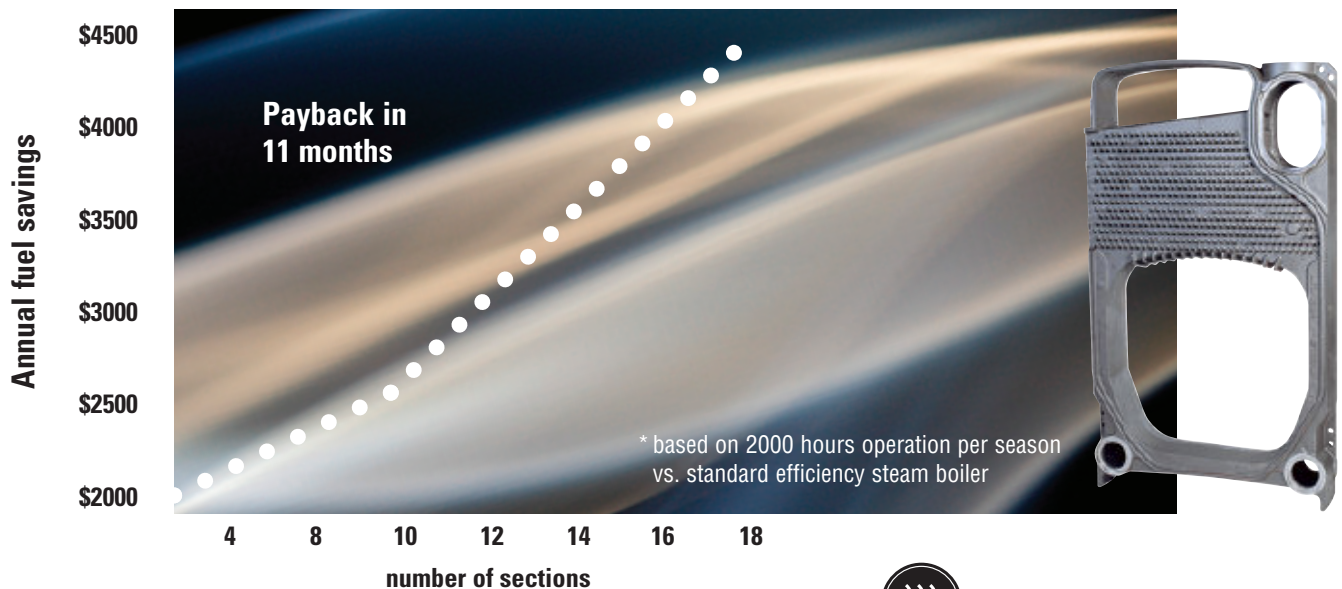
3. Large Steam Chest

The obround design of the upper port provides improved internal circulation and a drier steam, enhancing performance



4. Continuous Seal/Integral Smokehood

The exact alignment of the sections allows for a convenient continuous ceramic rope seal, as well as a cast-in smokehood in order to reduce the operational noise



STEAM STANDARD EQUIPMENT

- Cast iron wet-base sections
- Insulated metal jacket
- Cast iron smokehood with integral damper
- Burner mounting plate with insulation block
- Front and rear flame observation ports
- Stack thermometer
- Steel angle floor rails
- Ceramic fiber rope seal between sections
- Graphite port connectors
- Low NO_x available
- 15 psi working pressure sections
- ASME relief valve, 15 psi
- Steam gauge
- Manual reset, Hi-Limit pressuretrol (Boiler/Burner units only)
- Operating pressuretrol (Boiler/Burner units only)
- Gauge glass and fittings

I B R Ratings, Burner Capacities and Dimensions (inches)

Designed and tested according to the A.S.M.E. boiler and pressure vessel code, section IV for maximum allowable working pressure, steam 15 psig.

| Boiler Number (Note 1) | Boiler Horse-power | I=B=R Gross Output (MBH) | Net I=B=R Ratings (Note 2) | | | | Water Contents (Gals.) | Boiler Jacket Length | Dia. Vent Conn. | Thermal Efficiency | | Combustion Efficiency | |
|---------------------------|--------------------|--------------------------|----------------------------|------|-----------------------|------------------|------------------------|----------------------|-----------------|--------------------|------|-----------------------|------|
| | | | Steam | | I=B=R Burner Capacity | | | | | Oil | Gas | Oil | Gas |
| | | | Sq. Ft. | MBH | Oil GPH (Note 3) | Gas MBH (Note 4) | Steam | | | | | | |
| †28HE-S-4 | 27 | 931 | 2908 | 698 | 7.9 | 1143 | 103.8 | 35 | 10 | 83.9 | 81.4 | 86.2 | 83.6 |
| †28HE-S-5 | 35 | 1194 | 3733 | 896 | 10.2 | 1458 | 125.8 | 43 | 10 | 84.4 | 81.9 | 86.2 | 83.6 |
| †28HE-S-6 | 43 | 1458 | 4625 | 1110 | 12.2 | 1773 | 147.8 | 51 | 10 | 84.8 | 82.2 | 86.1 | 83.5 |
| †28HE-S-7 | 51 | 1722 | 5542 | 1330 | 14.4 | 2088 | 169.8 | 59 | 12 | 85.0 | 82.5 | 86.1 | 83.5 |
| †28HE-S-8 | 59 | 1985 | 6421 | 1541 | 16.6 | 2403 | 191.8 | 69 | 12 | 85.2 | 82.6 | 86.1 | 83.5 |
| †28HE-S-9 | 67 | 2249 | 7275 | 1746 | 18.8 | 2718 | 213.8 | 75 | 14 | 85.3 | 82.7 | 86.1 | 83.5 |
| †28HE-S-10 | 75 | 2513 | 8129 | 1951 | 21.0 | 3033 | 235.8 | 83 | 14 | 85.4 | 82.8 | 86.1 | 83.5 |
| †28HE-S-11 | 83 | 2776 | 8979 | 2155 | 23.0 | 3348 | 257.8 | 91 | 14 | 85.5 | 82.9 | 86.0 | 83.5 |
| †28HE-S-12 | 91 | 3040 | 9833 | 2360 | 25.5 | 3663 | 279.8 | 99 | 14 | 85.6 | 83.0 | 86.0 | 83.5 |
| †28HE-S-13 | 98 | 3304 | 10,688 | 2565 | 27.5 | 3978 | 301.8 | 107 | 14 | 85.6 | 83.0 | 86.0 | 83.5 |
| †28HE-S-14 | 106 | 3567 | 11,538 | 2769 | 29.5 | 4293 | 323.8 | 115 | 16 | 85.7 | 83.1 | 86.0 | 83.5 |
| †28HE-S-15 | 114 | 3831 | 12,392 | 2974 | 32.0 | 4608 | 345.8 | 123 | 16 | 85.7 | 83.1 | 86.0 | 83.4 |
| †28HE-S-16 | 122 | 4095 | 13,246 | 3179 | 34.0 | 4923 | 367.8 | 131 | 16 | 85.7 | 83.2 | 86.0 | 83.4 |
| †28HE-S-17 | 130 | 4358 | 14,100 | 3384 | 36.5 | 5238 | 389.8 | 139 | 18 | 85.8 | 83.2 | 86.0 | 83.4 |
| †28HE-S-18 | 138 | 4622 | 14,954 | 3589 | 38.5 | 5553 | 411.8 | 147 | 18 | 85.8 | 83.2 | 86.0 | 83.4 |

(Note 1) Important ordering information

(†) Add prefix for type of fuel to be burned. "LO" for Light Oil, "G" for Gas or "GO" for Gas/Oil.

(Note 2) Ratings for steam boilers are based on piping and pick-up factor as follows:

4 and 5 section = 1.333 6 and 7 section = 1.305 8 section and larger = 1.288

(Note 3) Light Oil having a heat content of 140,000 BTU/Gal.

(Note 4) Gas having a heat content of 1,000 BTU/Cu. Ft., 0.60 specific gravity.



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