



HC2 HEATER

THERMAL FLUID HEATING

PRE-ENGINEERED THERMAL FLUID HEATER DESIGNS

Capacity: 500,000 - 100,000,000 BTU/HR



Vertical HC2 heater, skid mounted with burner and integrated control panel.

Pre-Engineered Designs

- » Dual helical coil design with 3 flue gas passes along the coil
- » Liquid or vapor phase service up to 675°F
- » Flue gases are significantly cooled, eliminating the need for most internal insulation
- » Vertical and horizontal configurations
- » Design ready for procurement and fabrication
- » Base efficiency can exceed 88% LHV basis (actual efficiency can be higher or lower depending on operating temperature and selected fluid)
- » Heater shell is externally insulated with mineral wool and covered with aluminum cladding
- » Advanced control systems with standard configurations for simple and cost-effective control and for PLC-based control with HMI
- » Fully compliant with NFPA 87 requirements
- » High turndown gas or oil-fired burners for use with traditional or alternative fuel sources
- » Standard configurations for general area and Class 1 Div. 2 area classifications
- » Fully assembled, wired, and tested

Options

- » Engineered control systems for PLC-based BMS, complex combustion control configurations, and/or expanded process control
- » Alternative area classifications and code compliance such as CSA, ATEX/CE, etc.
- » Ultra-low emissions burners meet the most stringent requirements
- » Economizers to increase thermal efficiency to 93% or higher LHV Basis
- » Skid mounting and interconnection with other process equipment or thermal fluid system components
- » Expanded temperature operation to 800°F or higher for ultra high-temperature thermal fluids and molten salts
- » Access ladders and platforms



Horizontal HC2 heater with integrated burner, fuel train, and control panel.

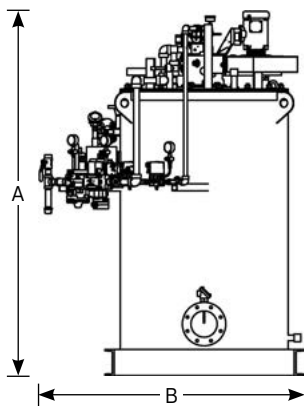
HC2 TECHNICAL SPECIFICATIONS

Models	Heat Output (MMBTU/HR)	Coil Volume (GAL)	Flow Rate (GPM)	Blower Motor (HP)
HC2-0.5-SF	0.5	8.1	25	0.5
HC2-1.0-SF	1.0	33.9	50	0.75
HC2-1.5-SF	1.5	74.0	85	0.75
HC2-2.0-SF	2.0	104.7	100	1.0
HC2-2.5-SF	2.5	138.2	125	1.0
HC2-3.0-SF	3.0	114.4	125	1.0
HC2-4.0-SF	4.0	196.1	210	2.0
HC2-5.0-SF	5.0	184.0	300	3.0
HC2-6.0-SF	6.0	233.9	350	7.5
HC2-8.0-SF	8.0	344.1	450	10.0
HC2-10.0-SF	10.0	497.4	600	15.0
HC2-12.5-SF	12.5	615.6	650	15.0
HC2-15.0-SF	15.0	788.5	850	15.0
HC2-17.5-SF	17.5	950.9	1000	15.0
HC2-20.0-SF	20.0	1054.3	1000	20.0
HC2-25.0-SF	25.0	1269.0	1000	40.0
HC2-30.0-SF	30.0	1731.1	1150	50.0
HC2-35.0-SF	35.0	1855.6	1200	50.0
HC2-40.0-SF	40.0	2166.2	1500	60.0
HC2-50.0-SF	50.0	2322.9	1500	75.0
HC2-60.0-SF	60.0	2911.0	1500	100.0
HC2-80.0-SF	80.0	7227.3	2000	125.0
HC2-100.0-SF	100.0	8396.5	2500	150.0



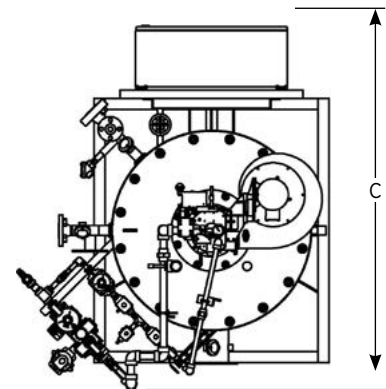
STANDARD DIMENSIONS

Models	(A)	(B)	(C)	Available Orientation	Heater Inlet/Outlet
HC2-0.5-SF	9'-0"	2'-10"	4'-8"	Vertical	1.25"
HC2-1.0-SF	10'-0"	3'-3"	5'-1"	Vertical	1.5"
HC2-1.5-SF	9'-3"	3'-4"	5'-4"	Vertical/Horizontal	2.0"
HC2-2.0-SF	9'-3"	3'-10"	6'-2"	Vertical/Horizontal	2.0"
HC2-2.5-SF	12'-5"	4'-4"	6'-3"	Vertical/Horizontal	2.5"
HC2-3.0-SF	10'-4"	4'-4"	8'-0"	Vertical/Horizontal	2.5"
HC2-4.0-SF	11'-10"	5'-0"	7'-2"	Vertical/Horizontal	3.0"
HC2-5.0-SF	14'-6"	5'-0"	8'-0"	Vertical/Horizontal	4.0"
HC2-6.0-SF	13'-6"	5'-8"	8'-4"	Vertical/Horizontal	4.0"
HC2-8.0-SF	15'-4"	5'-10"	8'-4"	Vertical/Horizontal	6.0"
HC2-10.0-SF	16'-3"	7'-3"	9'-0"	Vertical/Horizontal	6.0"
HC2-12.5-SF	18'-0"	7'-5"	9'-3"	Vertical/Horizontal	6.0"
HC2-15.0-SF	23'-6"	7'-11"	9'-3"	Horizontal	6.0"
HC2-17.5-SF	24'-3"	8'-2"	9'-3"	Horizontal	8.0"
HC2-20.0-SF	24'-3"	9'-5"	11'-3"	Horizontal	8.0"
HC2-25.0-SF	32'-8"	9'-6"	12'-10"	Horizontal	8.0"
HC2-30.0-SF	33'-6"	10'-3"	14'-0"	Horizontal	8.0"
HC2-35.0-SF	35'-0"	11'-5"	14'-0"	Horizontal	8.0"
HC2-40.0-SF	38'-5"	11'-8"	13'-0"	Horizontal	8.0"
HC2-50.0-SF	44'-3"	11'-9"	12'-6"	Horizontal	8.0"
HC2-60.0-SF	51'-0"	12'-0"	15'-0"	Horizontal	8.0"
HC2-80.0-SF	55'-0"	12'-6"	15'-6"	Horizontal	12.0"
HC2-100.0-SF	59'-9"	13'-6"	16'-0"	Horizontal	12.0"



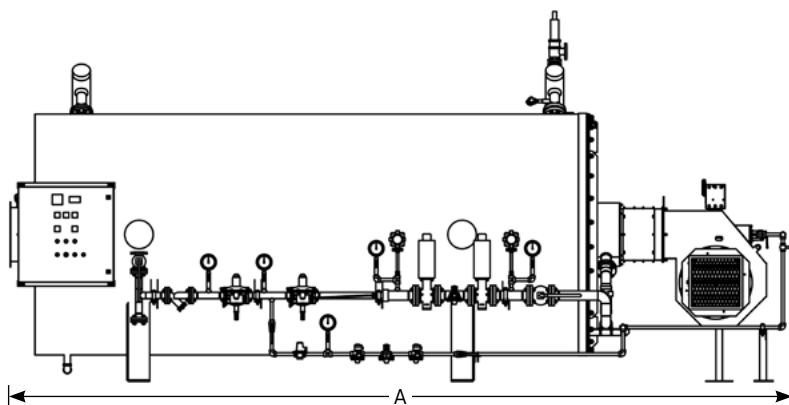
HC2 Elevation View

Vertical Dimensions

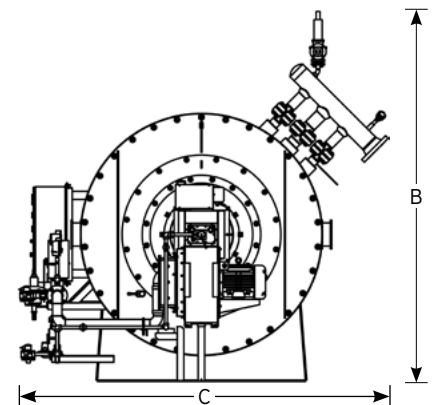


HC2 Plan View

Horizontal Dimensions



HC2 Elevation View



HC2 Elevation View

Note: Custom heater designs and configurations are also available to meet a wide variety of project-specific design challenges. Sigma Thermal also offers HC-1 thermal fluid heaters, biomass-fired thermal fluid heaters, and options for electric process circulation heaters.

