FLUID HEAT TRANSFER SYSTEMS

WG250 SERIES

SPECIFICATIONS

- Electrically operated
- Temperatures to 250°F
- 10 to 480 kW and higher
- Centrifugal pump
- 208 to 575 volts, 3 phase
- NEMA 12, 4, or 7
- For water and water/glycol service

DESCRIPTION

The WG series of heat transfer systems is designed for closed loop temperature control of water or water/glycol mixtures. The WG250 is a completely packaged system designed for a maximum operating temperature of 250°F. WG series standard components include an electric heater, centrifugal water circulation pump with mechanical seal, thermal expansion tank, relief valve, and a complete control center all mounted on a drip proof base. Each unit is furnished completely piped and wired, and includes insulation on internal piping and heater chamber. The system is given an operating test prior to shipment. WG systems are available with a variety of standard options and custom designs, some of which are listed on the back of this bulletin.

FEATURES

- Mechanical seal on pump
- Insulation of internal piping
- Drip proof base
- Sheet metal panels on 3 sides and top
- Discharge pressure gauge
- Digital temperature controller
- High limit device with manual reset on heater circuit
- Expansion tank shipped loose for mounting at the highest point in the piping system
- Operating test of system prior to shipment

APPLICATIONS

- REACTORS
- KETTLES
- DRYERS
- PLATENS
- MOLDS
- DIES
- EXTRUDERS
- TANKS
- EXCHANGERS
- LINE TRACING
- ROLLS
- PRESSES

HEAT EXCHANGE AND TRANSFER, INC.

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WG250 SERIES

STANDARD MODEL SPECIFICATIONS

kW	BTU/Hr Output	Centrifugal Pump Data			Piping Connection (150# flange)	Expansion Tank		Overall Dimensions (inches)			Approx. Weight (lbs.)	Model No.
		gpm	hp	Total Delivery Head (feet**)		gal.	Pipe Connection Size (in.)	W	D	H*		
10	34,130	25	2	80	1 1/2	10	3/4	24	24	50	600	WG250-10
20	68,260	25	2	80	1 1/2	10	3/4	24	24	50	600	WG250-20
30	102,390	25	2	80	1 1/2	10	3/4	24	24	50	600	WG250-30
40	136,520	25	2	80	1 1/2	10	3/4	24	24	50	600	WG250-40
60	204,780	60	3	80	2	10	3/4	36	42	82	1200	WG250-60
80	273,040	60	3	80	2	10	3/4	36	42	82	1200	WG250-80
100	341,300	60	3	80	2	18	3/4	36	42	82	1400	WG250-100
120	409,560	60	3	80	2	18	3/4	36	42	82	1400	WG250-120
140	477,820	90	5	100	2	24	3/4	36	42	82	1500	WG250-140
160	546,080	90	5	100	2	24	3/4	36	42	82	1500	WG250-160
180	614,340	90	5	100	2	24	3/4	36	42	82	1600	WG250-180
200	682,600	150	7 1/2	120	3	30	1	48	48	82	1900	WG250-200
240	819,120	150	7 1/2	120	3	30	1	48	48	82	2000	WG250-240
280	955,640	150	7 1/2	120	3	40	1	48	48	82	2100	WG250-280
320	1,092,160	150	7 1/2	120	3	40	1	48	48	82	2200	WG250-320
360	1,228,680	150	7 1/2	120	3	40	1	48	48	82	2300	WG250-360
400	1,365,200	240	15	120	4	60	1 1/2	48	48	82	2600	WG250-400
440	1,501,720	240	15	120	4	60	1 1/2	48	48	82	2700	WG250-440
480	1,638,240	240	15	120	4	60	1 1/2	48	48	82	2800	WG250-480

* Height dimension does not include expansion tank. ** TDH (Ft.) = (psi x 2.31) / SG

OPTIONS AND CUSTOM DESIGNS

BLOCK VALVES are used on the supply and return lines for isolating the system from the process.

RETURN LINE STRAINER will remove coarse particles of rust, millscale and organic debris.

TOP MOUNTED EXPANSION TANK is installed on top of the system frame when remote mounting is undesirable. Refer to Service Manual SM–100 for additional information needed for reliable operation.

LOW LEVEL FLUID ALARM is mounted in the expansion tank. It automatically shuts the system down and turns an alarm light "ON", if the expansion tank fluid drops below the desired level.

HIGH PRESSURE ALARM automatically shuts the system down and turns an alarm light "ON", if the system's pressure rises above the desired level.

THE CIRCULATING FLUID LOW FLOW ALARM automatically turns the heater "OFF" and turns an alarm light "ON" if the flow drops below the desired limit.

SCR POWER CONTROLLER will proportionally control the heater output depending upon the difference between the actual temperature and the system's controller set point.

HAZARDOUS AREA DESIGNS are available using a cast NEMA-7 enclosure or with an air purge, which is normally less expensive. X purge is used in Division 1 areas. Z purge is used in Division 2 areas.

ASME DESIGN & STAMP – The heating chamber and expansion tank can be built in accordance with requirements of the ASME Boiler and Pressure Vessel Code.

COOLING can be by direct injection, series or parallel flow path using a shell & tube exchanger, plate and frame exchanger or mechanical refrigeration.

CUSTOM DESIGNS for special applications such as "wash down" service or all stainless construction are available.