



**THCS 1000 Series Vertical
CLEAN STEAM GENERATOR**



ELECTROPNEUMATIC
PLC VERSION SHOWN

DIMENSIONS			
A	B	C	D
89	20	20	20

DIMENSIONS ARE IN INCHES

- NOTES: 1. UNIT HYDROTESTED BEFORE SHIPMENT.
 2. UNIT SHOWN IS ELECTROPNEUMATIC HMI VERSION
 3. 115 VOLT/1PHASE/60HZ POWER REQUIRED FOR OPERATION.
 4. MOUNTING FRAME PRIMED AND PAINTED.
 5. CONTROL PANEL NEMA 4 CONSTRUCTION UL LISTED.
 6. CONTINUOUS BLOW DOWN SYSTEM AVAILABLE.
 7. SEE THCS 2500, 4500 and 6000 SERIES FOR HIGHER CAPACITIES



Manufacturing Facilities: 12249 Nations Ford Road Pineville, N.C, 28134
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 www.thermafloengineering.com MADE IN USA PRODUCTS

GENERAL DATA SHEET

THERMAFLO THCS-1000VPN STANDARD FEATURES

- ASME CODE SECTION VIII DIV1 U/UB STAMPED CONST
- 100% FACTORY STEAM TESTED BEFORE SHIPMENT
- GLOBE TYPE ELECTROPNEUMATIC CONTROL VALVE 50:1 FLOW CONTROL AND SINGLE SEATED FOR DEAD TIGHT SHUTOFF ON NO LOAD CONDITIONS
- INTERNAL CARRYOVER SEPARATOR ASSEMBLY
- 316L STAINLESS STEEL SHELL CONSTRUCTION
- 316L STAINLESS STEEL TUBES AND TUBE SHEET CLEAN STEAM CONSTRUCTION
- 316 STAINLESS STEEL LEVEL GAUGE/TRANSMITTER
- SAFETY HIGH LIMIT ALARM AND SHUTDOWN SYSTEM
- FAIL SAFE CLEAN STEAM OUTLET PRESSURE CONTROLLER AND DIGITAL PRESSURE GAUGE
- EMS INTERFACE OUTPUT FOR ALARMS
- SURFACE BLOW DOWN CONTROL SYSTEM
- SHELL BLOW DOWN VALVE AND EXPANDABLE TUBE DESIGN TO REMOVE INTERNAL SCALE BUILDUP
- 2" THICK INSULATION HEAVY METAL STEEL JACKET

HEAT EXCHANGER DESIGN STANDARDS			
	MAXIMUM WORKING PRESSURE PSIG	MAXIMUM TEMPERATURE	TEST PRESSURE
SHELL SIDE	150 PSIG	375F	300 PSIG
TUBE SIDE	150 PSIG	325F	300 PSIG
ASME CODE SECTION VIII, DIV 1 STAMP UB			
RELIEF VALVE SET @ 125 PSIG			

CONNECTIONS

FEEDWATER INLET: 1/2"
 BLOW DOWN OUTLET: 1.5"
 STEAM INLET: AS REQUIRED
 CONDENSATE OUTLET: 1.5" NPT
 CLEAN STEAM OUTLET: 4" 150lb Fig
 RELIEF VALVE OUTLET: 1.5"
 SURFACE BLOWDOWN OUTLET: 1/2"

DIMENSIONS SHOWN ARE IN INCHES

MATERIALS OF CONSTRUCTION	
SHELL	316L STAINLESS STEEL
TUBESHEET	316L STAINLESS STEEL
TUBES	316L STAINLESS STEEL
STEAM HEAD	CLOSE GRAIN CAST IRON

- NOTE: 1. DOUBLE WALL TUBE CONSTRUCTION AVAILABLE.
 2. CARBON STEEL STEAM HEAD ALSO AVAILABLE.
 3. CARBON STEEL SHELL AVAILABLE
 4. 316 STAINLESS STEEL HEAD AVAILABLE

STANDARD CAPACITIES

SUPPLY STEAM PRESSURE	OUTLET CLEAN STEAM PRESSURE	CLEAN STEAM OUTLET FLOW CAPACITY
15 PSIG	5 - 10 PSIG	100 lbs/hr
25 PSIG	10 - 15 PSIG	300 lbs/hr
50 PSIG	10 - 15 PSIG	550 lbs/hr
75 PSIG	15 - 30 PSIG	650 lbs/hr
100 PSIG	15 - 30 PSIG	800 lbs/hr
125 PSIG	15 - 30 PSIG	1000 lbs/hr

1. Multiply capacity by .0032 for feedwater GPM rate.
 2. Multiply lbs/hr of outlet clean steam flow capacity by 1.31 for approximate source steam capacity required.
 3. Capacities listed are based on 3/4" OD .049 wall 316 stainless steel tube materials and dry saturated source steam, 50F feed.

THERMAFLO ENGINEERING COMPANY		
THCS-1000VPN CLEAN STEAM GENERATOR PACKAGED WITH PN ELECTROPNEUMATIC VALVE DIMENSIONAL/FEATURE DRAWING		
DWN BY: SCALE: None CHKD: KB	DATE: 1/09 APPD: RFJ	DWG NO# CS10V09