

“THCS CleanPak” Clean Steam Generator Specification

General: Furnish horizontal steam-to-steam generator complete factory packaged and tested on steam service ready for installation and startup.

Unit shall produce _____ lbs/hr of ____ psig clean steam from the shell when supplied with _____ lbs/hr of ____ psig plant steam to the tubes.

The steam-to-steam generator shall be ASME Code Constructed and stamped with the “UB” stamp, Section VIII for unfired boilers.

The shell shall be constructed of 316L stainless steel with 100% X-Ray of all seam welds with post weld heat treatment.

The tubes shall be 316L stainless steel .049 wall seamless construction with internal saddle support. The tube sheet shall be a 2 Pass configuration and constructed of 316L stainless steel.

The plant steam head shall be close grain cast iron with 316L stainless steel bolting and belviel washers.

Shell shall be factory insulated with 3” of high-density fiberglass covered with a non-painted stainless steel jacket.

Steam Generator shall be furnished prepiped, wired, and tested with the following:

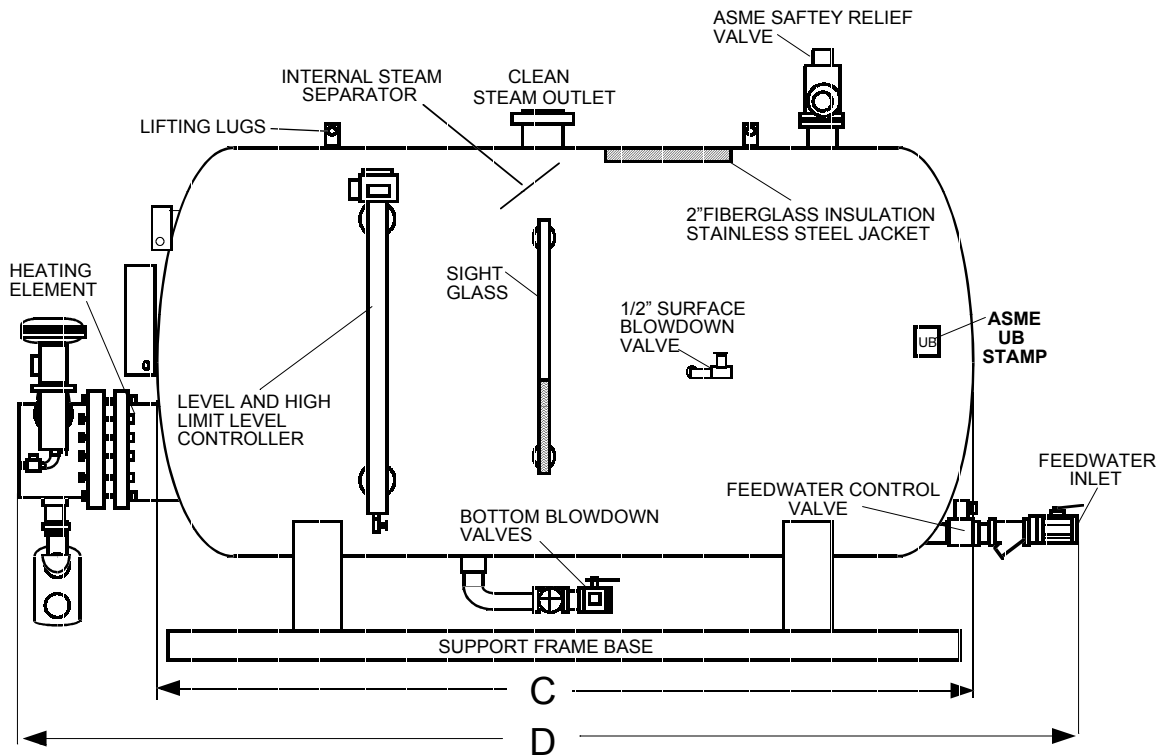
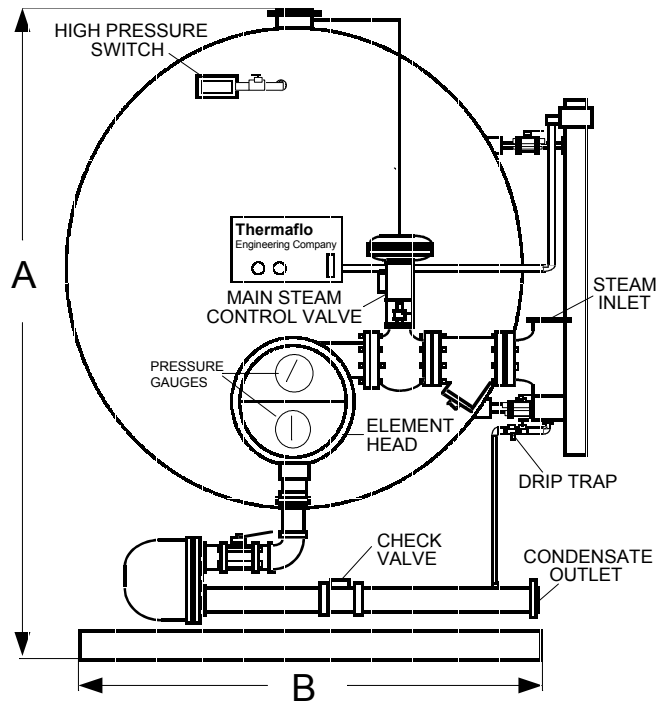
- Automatic Blowdown Controller with internal 316L quill
- 316 stainless steel surface blowdown valve actuated by automatic blowdown controller
- Double tandem 316L stainless bottom blowdown valves
- Safety Relief Valve, 316L stainless steel wetted base and nozzle, set for full rated capacity of plant steam at 3% overpressure.
- High Level Alarm Switch, 316 stainless steel construction
- Low Level Alarm Switch, 316 stainless steel construction
- Makeup Water Level Controller, 316 stainless steel construction and Makeup Water Control Valve
- Vacuum Breaker, 316 stainless steel construction
- Steam Pressure Control Valve, balanced single seated construction, pneumatic or pilot-operated as required to control outlet clean steam pressure.
- High Pressure Switch wired to control panel
- UL Listed Control Panel with high, low level alarm lights, horn with silencer, makeup water on indicator, blowdown on indicator, and high pressure shutdown with EMS interface for alarms
- Main Plant Steam Float & Thermostatic Steam Trap Assembly for tube side condensate drainage

Unit shall be hydro and steam tested prior to shipment with test papers furnished.

U-1 ASME Code Data Sheets furnished on shipment.

Clean Steam Generator shall be model “THCS” as manufactured by Thermaflo Engineering Company,
Charlotte, NC.

“THCS” CLEANPAK SERIES CLEAN STEAM TO STEAM GENERATOR PACKAGE



Model No.	Vessel Size	Dimensions in Inches				Source Steam Pressure	Output Steam Pressure	15	25	50	100	150
		A	B	C	D			15	25	50	100	150
THCS-20	20" X 50"	42"	26"	50"	68"			112	147	322	566	669
THCS-24	24" X 64"	46"	30"	64"	80"	Capacities are based on an inlet makeup water temperature of 40F, fouling factor of .0005, 3/4" OD .049 wall 316L stainless steel tubes.	218	309	671	1186	1388	
THCS-30	30" X 72"	49"	40"	72"	371		523	1123	1994	2289		
THCS-36	36" X 98"	54"	44"	98"	1280		1812	3854	6654	7945		
THCS-42	42" X 120"	59"	54"	120"	1941		2728	5845	10213	11983		
THCS-48	48" X 120"	64"	58"	120"	2889		4062	8699	14954	17790		
THCS-54	54" X 120"	70"	62"	120"	4203		5933	12712	20122	20984		
THCS-60	60" X 120"	76"	70"	120"	4310		6121	13234	21453	21990		