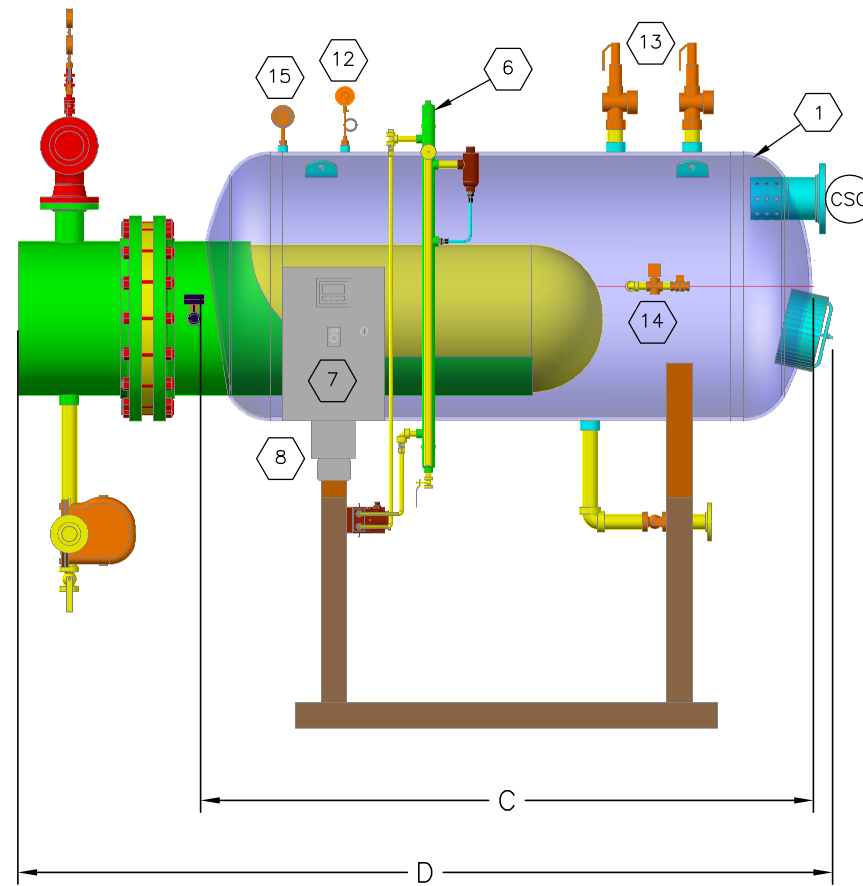


SIDE VIEW



FRONT (TRANSPARENT) VIEW

**FEATURES**

- > COMPLETE 316L STAINLESS STEEL CLEAN STEAM CONSTRUCTION
- > DRY QUALITY CLEAN STEAM UNDER ALL CONDITIONS
- > COMPLETELY REMOVABLE INTERNAL TUBE BUNDLE
- > UNIQUE STILLING WELL LEVEL CONTROL
- > V PORT 100:1 TURNDOWN STEAM CONTROL VALVE
- > FULLY ELECTRONIC, NO AIR REQUIRED
- > COMPLETE ELECTRONIC INTERFACE WITH EMC MODBUS / BACNET / TOPWORKS
- > MADE IN THE USA AND STEAM TESTED BEFORE SHIPMENT

**TYPICAL BILL OF MATERIALS**

TAG	QTY.	DESCRIPTION	SIZE/MODEL
1	1	THERMAFLO CLEAN STEAM GENERATOR, 316L STAINLESS STEEL SHELL, ASME CODE STAMPED: U/UB - UNFIRED STEAM BOILER W/ 316L SS INTERNAL HEATING TUBE BUNDLE, FABRICATED STEEL STEAM HEAD, ASME CODE STAMPED AND 2" HIGH DENSITY REMOVABLE INSULATION JACKET	TBD
2	1	THERMAFLO BV V-BALL CONTROL VALVE, 316 SS BODY, BALL, & STEM, HIGH TEMP. REINFORCED 450°F SEATS & SEALS W/ ELECTRONIC FAIL SAFE MODULATING ACTUATOR, POSITION INDICATOR, MANUAL OVERRIDE 0-10 VOLT INPUT, 24 VOLT POWER SUPPLY, CLEAN STEAM PRESSURE CONTROL VALVE	TBD
3	1	THERMAFLO FLOAT & THERMOSTATIC STEAM TRAP, DUCTILE IRON BODY, SS INTERNALS	TBD
4	1	GRANZOW SURFACE BLOWDOWN VALVE, 316SS CONSTRUCTION, 120V OPERATION NORMALLY CLOSED, NEMA4 RATED 280°F @ 300PSIG	TBD
5	1	THERMAFLO BV V-BALL CONTROL VALVE, 316 SS BODY, BALL & STEM, TEFLON SEATS & SEALS, MODULATING ACTUATOR, POSITION INDICATOR, MANUAL OVERRIDE 0-10V INPUT 24V POWER SUPPLY, FEEDWATER MAKEUP CONTROL	TBD
6	1	THERMAFLO CLS LEVEL MANIFOLD, 316SS CONSTRUCTION, W/ CONRBACO SIGHT GLASS AND	TBD
7	1	THERMAFLO CONTROL PANEL NEMA 4 CONSTRUCTION, W/ CLEAN STEAM PID LOOP, BLOWDOWN, LEVEL ALARMS, HIGH PRESSURE ALARMS W/ SHUTDOWN & DRY CONTACT, EMS INTERFACE / REMOTE OPERATION AND ALARM HORN W/ SILENCE	TBD
8	1	LMI CONDUCTIVITY BLOWDOWN CONTROLLER NEMA 4 HARDWIRED, OPERATES TIMED BLOWDOWN & CONDUCTIVITY CONTROL	TBD
9	1	THERMAFLO 0-160 PRESSURE GAUGE, 316SS BOURDON TUBE & SOCKET W/STEAM SYPHON & ISO VALVE TAG:MAIN STEAM SUPPLY	TBD
10	1	THERMAFLO 0-160 PRESSURE GAUGE, 316SS BOURDON TUBE & SOCKET W/STEAM SYPHON & ISO VALVE	TBD
11	1	THERMAFLO VACUUM BREAKER SS CONSTRUCTION	TBD
12	1	DIGITAL PRESSURE GAUGE TRANSMITTER, 316SS INTERNALS, 4-20ma OUTPUT TO CONTROL PANEL FITTED W/316SS SYPHON & ISO VALVE	TBD
13	2	THERMAFLO STEAM PRESSURE RELIEF VALVE SET @ 75PSIG 316SS NOZZLE & DISC, BRONZE CAP W/ LIFTING LEVER, ASME CODE SECTION VIII CONSTRUCTION & STAMP	TBD
14	1	LMI CONDUCTIVITY SENSOR PROBE MOUNTED IN TEE CONFIGURATION OUTPUT TO ITEM 11	TBD
15	1	BIMETAL THERMOMETER, 316SS STEM & WELL, RANGE 50-400°F	TBD
16	1	SWING CHECK VALVE	TBD

**DIMENSIONS and STEAM DATA**

MODEL	VESSEL SIZE (In.)	DIMENSIONS (In.)				SOURCE STEAM PRESSURE OUTPUT STEAM PRESSURE				
		A	B	C	D	15	25	50	100	150
THCS - 20	20 X 50	42	26	50	68	5	10	15	15	25
THCS - 24	24 X 64	46	30	64	80	112	147	322	566	669
THCS - 30	30 X 72	50	40	72	90	218	309	671	1186	1388
THCS - 36	36 X 98	54	44	98	114	371	523	1123	1994	2289
THCS - 42	42 X 120	60	54	120	140	1280	1812	3854	6654	7945
THCS - 48	48 X 120	64	58	120	140	1941	2728	5845	10213	11983
THCS - 54	54 X 120	70	62	120	140	2889	4062	8699	14954	17790
THCS - 60	60 X 120	76	70	120	140	4203	5933	12712	20122	20984
						4310	6121	13234	21453	21990

*Capacities are based on an inlet makeup water temperature of 40°F, fouling factor of .0005, 3/4"OD .049 wall 316L stainless steel tubes.*

NOTE: CONSULT FACTORY FOR CAPACITIES OTHER THAN SHOWN.

**CONNECTION SCHEDULE**

MODEL	(SI) STEAM INLET (In.)	(CO) CONDENSATE OUTLET (In.)	(CSO) CLEAN STEAM OUTLET (In.)	(FI) FEEDWATER INLET (In.)
THCS - 20	2	1 1/2	2 1/2	1/2
THCS - 24	2 1/2	1 1/2	2 1/2	1/2
THCS - 30	3	2	3	1/2
THCS - 36	3	2	3	3/4
THCS - 42	3	2	3	3/4
THCS - 48	4	2	6	3/4
THCS - 54	6	2 1/2	6	3/4
THCS - 60	6	2 1/2	8	1

NOTE: TYPICAL APPLICATION ONLY, SIZE MAY VARY WITH SPECIFIC REQUIREMENTS / UNIT INSTALLATION

- NOTE:
1. CARBON STEEL SHELL AVAILABLE AS OPTION.
  2. COPPER OR CUPRONICKEL TUBES AVAILABLE AS OPTION.
  3. FEEDWATER RECOMMENDED TO BE ABSENT OF ANY MEASURABLE CHLORINE CONTENT AND HAVE A HARDNESS BELOW 1 GRAIN PER GALLON SOFTENED.
  4. ALLOW CLEARANCE FOR BUNDLE REMOVAL - VARIES W/ UNIT SIZE.

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**THERMAFLO** ENGINEERING INC. Since 1986

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SIGNATURES		DATE
DRAWN	TCru	09/18/24
DESIGN	RFJ	09/18/24
CHK	RFJ	09/18/24
APP	RFJ	09/18/24

TITLE GENERAL ARRANGEMENT:  
CLEAN STEAM GENERATOR  
HORIZONTAL MODEL THCS

CUST. —

SSI # — SCALE NTS

DWG. NO. THCS TIS REV