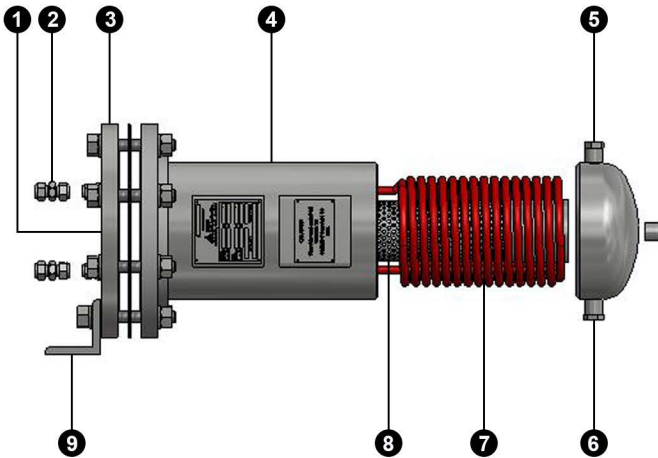


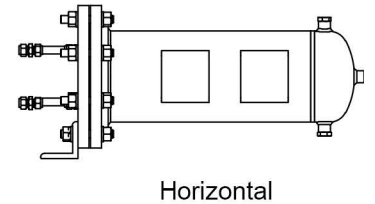
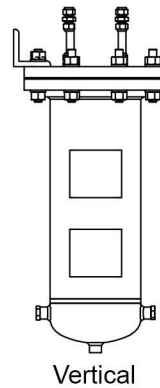
# DFS - HEW

## Model Key

- |                        |                           |
|------------------------|---------------------------|
| 1 - Cooling Water In   | 6 - Cooling Water Drain   |
| 2 - Tube Union         | 7 - Seamless Cooling Coil |
| 3 - Removable Flange   | 8 - Diffuser              |
| 4 - Reservoir          | 9 - Mounting Bracket      |
| 5 - Cooling Water Vent |                           |



## Mounting Positions



## Description

Water cooled heat exchangers are used to cool process fluids when water is available in multiple API 682 seal arrangements such as Plan 21, 22, 23, 41 and 53B.

Our three standard designs use a single wrap helical coil, made from 3/4" X .095 wall thickness tubing, for maximum surface area. We have also incorporated a unique baffle diffuser to direct cooling water flow radially against the coil walls. These heat exchangers can be mounted both in the horizontal or vertical position and are designed with removable coils for ease of maintenance.

### Standard Design Features

- ASME Sec. VIII Div. 1, 2013
- 8" Sch. 40 Shell
- Cooling Coil: 3/4" x .095 Wall
- 150# Removable Flange
- 3/4" NPTF Cooling Inlet / Outlet
- 3/4" Tube Union
- Class 3000 Couplings

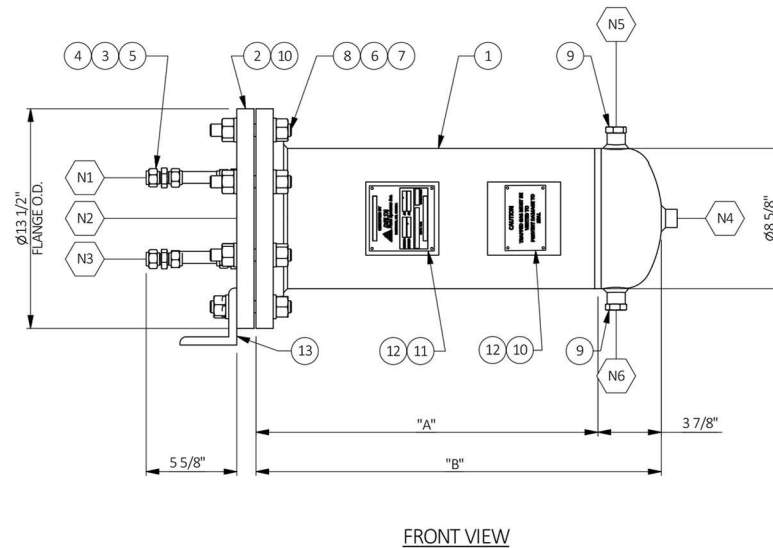
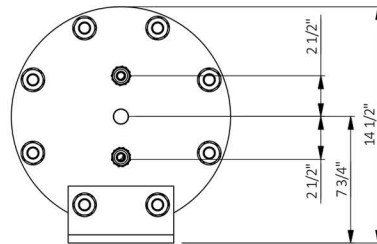
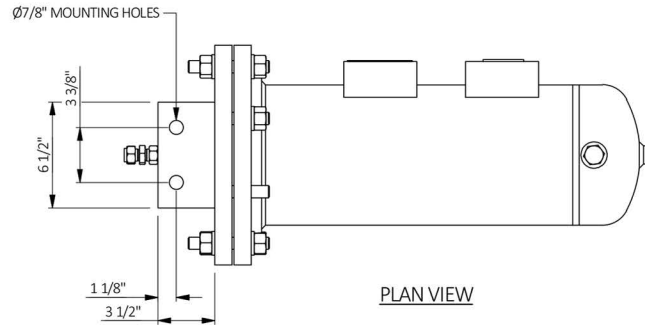
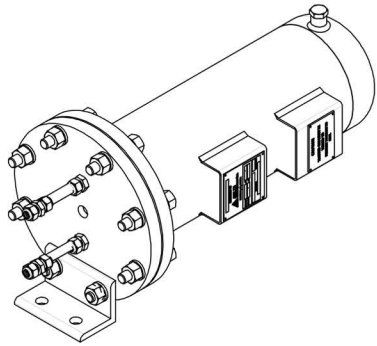
### Optional Design Features

- ASME U Stamp
- Cooling Coil: 3/4" x .065 Wall
- 300# Removable Flange
- Flanged Coil Connections
- Flanged Shell Connections
- Thermometers / Thermowells
- Temperature Transmitter
- Gate Valve Drain: Class 800
- Gate Valve Vent: Class 800
- Flow Meter
- Auxiliary Circulation Pump

### Materials of Construction

Elements	Standard	Options
Reservoir	Painted Carbon Steel	316 / 316L SS / Application Specific
Seamless Cooling Coil	316 / 316L Stainless Steel	Super Duplex / Application Specific
Studs / Nuts	Carbon Steel	316 / 316L SS / Application Specific
Tube Fittings	316 Stainless Steel	Application Specific
Flange Gasket	Non-Asbestos Fibre	316 SS / Grafoil

\*All materials used per ASME Section VIII Div. 1



PARTS LIST			
#	QTY	DESCRIPTION	MATERIAL
1	1	8" SCH40 SHELL ASSY	CS
2	1	FLANGE & DIFFUSER ASSY-40VM	CS
3	1	SEAMLESS COOLING COIL - SEE CHART BELOW	316/316L SS
4	2	TUBE FITTING 3/4" NPTM x 3/4" TUBE-BT	316/316L SS
5	2	TUBE UNION 3/4 TO 3/4	316/316L SS
6	16	HEAVY HEX NUT 3/4 - 10 ZINC PLATED	CS
7	16	3/4" FLAT WASHER	CS
8	8	3/4-10 UNC STUD 5" LG ZINC PLATED	CS
9	2	3/4 NPT HEX PLUG	CS
10	1	CAUTION PLATE	316 SS
11	1	DELTA CODE PLATE	316 SS
12	2	NAME PLATE BRACKET	CS
13	1	MOUNTING BRACKET	CS

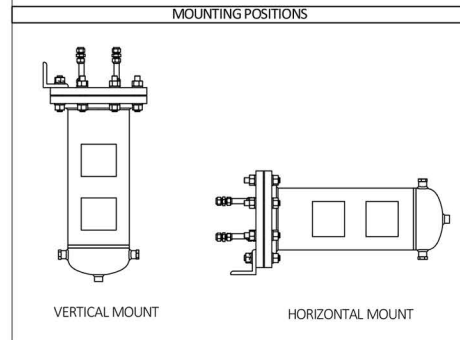
NOZZLE CONNECTION TABLE			
#	QTY	DESCRIPTION	SIZE
N1	1	PROCESS FLUID RETURN	3/4" TUBE
N2	1	COOLING WATER IN	3/4" NPTF
N3	1	PROCESS FLUID SUPPLY	3/4" TUBE
N4	1	COOLING WATER OUT	3/4" NPTF
N5	1	VENT	3/4" NPTF
N6	1	DRAIN	3/4" NPTF


DIMENSIONS			
MODEL	HEW20	HEW30	HEW40
"A"	12"	15"	21"
"B"	16"	19"	25"
COIL SIZE	3/4" TUBE 0.095" WALL	3/4" TUBE 0.095" WALL	3/4" TUBE 0.095" WALL
COIL SURFACE AREA	3.4 ft <sup>2</sup>	5 ft <sup>2</sup>	6.3 ft <sup>2</sup>

**DESIGN DATA**  
 CODE OF CONSTRUCTION ASME SEC VIII, DIV. 1 2013

SHELL  
 MAWP: 250 PSIG @ 200°F  
 MDMT: -20°F @ 250 PSIG

COIL  
 MAWP: 2500 PSIG @ 400°F  
 MDMT: -20°F @ 2500 PSIG



DRAWN: JENNIFER 28-Aug-14		
CHECKED:	CLIENT:	ORDER #:
APPROVED:	PROJECT:	TITLE: API 682 HEAT EXCHANGER
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES +/- 1/8" ANGLE +/- 1°		DWG No.: HEW-0000
		REV 0

\* REFERENCE DRAWING ONLY  
 \* BASIC MODEL SHOWN - CONFIGURATION TO CUSTOMERS REQUEST