

DESIGN CONDITIONS	INNER CHANNEL (A)	OUTER CHANNEL (B)
Fluid	WATER	SLUDGE
Max Allowable Working Pressure (PSIG)	80	80
Test Pressure (PSIG)	78	78
Design Temperature, Min/Max (°F)	-7 / 200	-7 / 200
Pressure Drop (PSIG)	1.08	2.83
Working Temperature (°F)	143 / 150	98 / 102
Flow Rate (GPM)	280	500
Corrosion Allowance (in.)	0	0
Construction Code	ASME Section VIII Div. 1 2017, NB Registered	
Weight (lbs)	Empty: 3600	Flooded: 4000
CONFIGURATION	INNER CHANNEL (A)	OUTER CHANNEL (B)
Channel Spacing (in.)	7/8"	1"
Strip Thickness (in.)	1/4"	1/4"
Unit Width (in.)	30 - Sludge Side Open One End / Water Side Closed	
NON DESTRUCTIVE EXAMINATION (NDE)		
Radiography (RT)	No	
Ultra Sonic Test (UT) - Welds	No	
Liquid Penetrant Test (LPT)	Yes	
Magnetic Particle Test (MT)	No	
Visual Testing	All Welds	
Positive Material Identification (PMI)	No	
Ferrite Testing	No	
Hardness Testing	No	
Impact Testing	No	
Post Weld Heat Treat (PWHT)	No	
MATERIALS OF CONSTRUCTION		
Heat Transfer Strip	SA-516 70	Outer Shell SA-516 70
Cover Liner	NA	Nozzle Reinf. Ring NA
Cover	SA-516 70 N	Bolting SA-193 B7 / SA-194 2H
Seal Ring	SA-516 70 N	Supports SA-516 70 N / A500 Gr. B
Forged Flanges	SA-105	Lifting Lugs SA-516 70
Fabricated Flanges	NA	Insulation Support NA
Pipe	SA-106 B	Hinge Support SA-516 70
Reinforcing Pad	NA	Nameplate Bracket SA-240 304/L
Packet	SA-516 70	Gaskets KLINGERSIL C4401
Packet Ends	SA-516 70	
Paint	INTERLAC 788, 3.0-4.0 mils DFT, COLOR - AL BLUE	

- NOTES:
1. Bolt holes straddle centerlines.
 2. Impact testing exempt per UG-20(f) and UCS-90(a).
 3. "U" Stamped and NB Registered.
 4. Hookbolt Torque (8-lbs) = 362 Min / 579 Max
 5. Unit to be flipped after rolling.

WARNING:
WHEN COVER IS REMOVED FOR INSPECTION OF ONE PASSAGE, BE SURE THERE IS NO PRESSURE IN THE OPPOSITE PASSAGE. IF PRESSURE IS TO BE APPLIED FOR TESTING WITH ONE COVER REMOVED, THE UNCOVERED SPIRAL MUST BE RETAINED BY SUITABLE HOLD DOWN BARS TO PREVENT PARTIAL TELESCOPING UNDER PRESSURE.

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TAG	SIZE	SCH	QTY	DESCRIPTION	SERVICE
A1	8"	STD	1	1500# R.F. SLIP ON FLG.	WATER IN
A2	8"	STD	1	1500# R.F. SLIP ON FLG.	WATER OUT
B1	8"	STD	1	1500# R.F. SLIP ON FLG.	SLUDGE IN
B2	8"	STD	1	1500# R.F. SLIP ON FLG.	SLUDGE OUT
A3	3/8"	-	6	3000# FULL CPLG THRD w/ PLUG	WATER DRAIN
B3	1"	-	1	3000# FULL CPLG THRD w/ PLUG	SLUDGE DRAIN
B4	2"	STD	2	MALE NPT W/ 3000# CAP	BACKFLUSH
B5	4"	STD	1	MALE NPT W/ 3000# CAP	POCKET CLEANOUT
N1	3/4"	-	8	3000# FULL CPLG THRD w/ PLUG	INSTRUMENTS

ITEM NO.	QTY.	DESCRIPTION	MATERIAL
8	1	ALFA LAVAL NAMEPLATE	SA-240 304L
5	1	HINGE KIT ASSEMBLY C540	-
4	28	HOOKBOLT - 1" X 8" - ZINC PLATED	SA-193 B7 / SA-194 2H
3	1	GASKET - 16" THK x 48" x 48"	KLINGERSIL C4401
2	1	COVER ASSEMBLY - 43-1/2" NOM DIA x 1-1/2" THK.	-
1	1	SHELL ASSEMBLY - 42 IN DIA NOM x 30 IN	-

Dimensions are in INCHES

Alfa Laval Inc.
Lykens, PA 17048

CITY OF WACO WWTP
Purchase Order No. 21802145

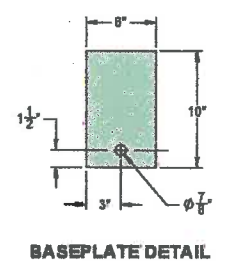
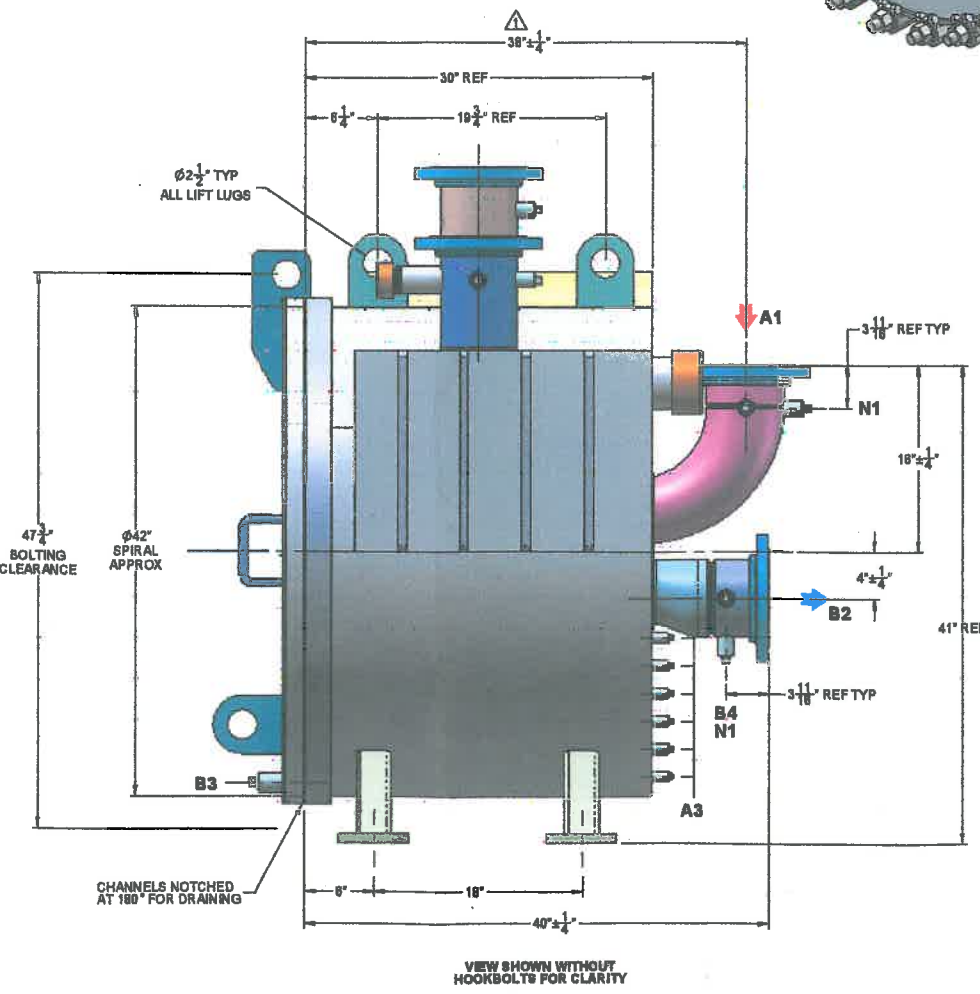
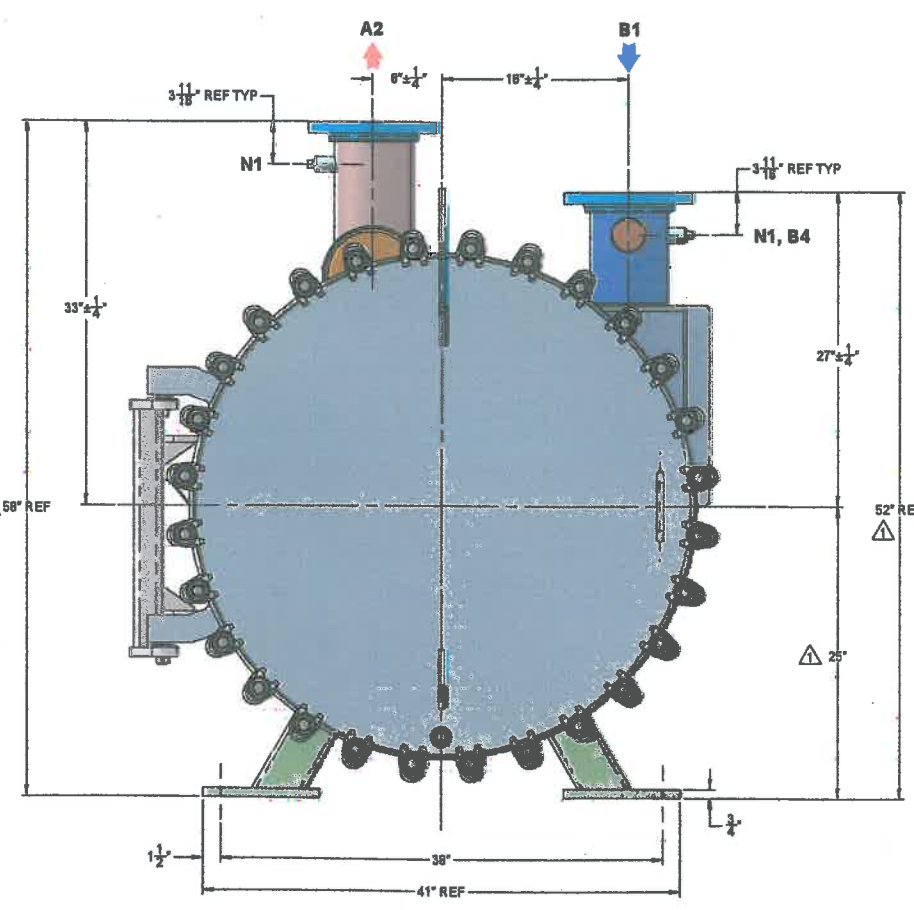
1H-SW-1W SPIRAL HEAT EXCHANGER 205 SQ FT
Model: 2500K

Serial No: 30112-70759

Scale: 1:8

Drawn: ML 7/20/18
Checked: RF 7/20/18

103-04-2201-013



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REV.	DESCRIPTION	DATE	BY
1	10hp mounting base plate height, A1 Location, Nameplate bracket material	8/2018	ML
0	Print Issue		
MC: 6785		7/20/18	ML
Checked: RF		7/20/18	RF