



Alr-X-Changers

Harsco

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JOB NO. 095247

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1	Purchaser	ENERFLEX	Ultimate User	EOG RESOURCES
2	Inquiry	TAG 090650 / PO 0960645	Destination	TATOO / HORN RIVER, BC
3	No. Units	1	Model:	108F3S
4	Assembly:	PACKAGED	Draft:	FORCED
			Reference	G3608LE - JGC/4 @ 2370 BHP
			Overall Size (WxLxH),	~12.00x45.00x10.50
			Est. Wt., lbs.	42,650

PERFORMANCE

Service	EJW	TAW/ELW/CW	IC/AC	AC
Flow	266.5GPM	300GPM	45.8MMSCFD	31.4MMSCFD
Fluid	50%GLY	50%GLY	0.6953SPGR	0.6953SPGR
Temp. In / Out, f	191.5 / 176.5	149.6 / 130.0	162.0 / 120.0	245.0 / 120.0
Pressure, psia			1,015.0	1,830.9
Pressure Drop, psi	8.0	11.8	8.3	3.9
Heat Load, btu/hr	1,869,054	2,624,204	2,457,334	5,745,748
True LMTD, f	39.2	26.2	30.3	49.2
Overall Rate, U, btu/hr ft ² f	155.0	166.7	107.5	111.0
Fouling Factor, ft ² hr f / btu	0.0005	0.0005	0.0020	0.0020
Surface, Bare / Extended, sq.ft.	309 / 5783	619 / 13236	756 / 14136	1077 / 23040
Sections, No./Connected	(1) COMBINED w/2	(1) COMBINED w/1	(1) SINGLY	(1) SINGLY
Design Temp. (Max / Min), f	300/-20	300/-20	350/-20	350/-20
Design / Test Press., psig	*14 / 65	*14 / 65	1287 / 1674	2400 / 3120
Pass Arrangement	COUNTERFLOW	CROSSFLOW	CROSSFLOW	CROSSFLOW
No. Tube Rows/Tube Passes	4 / 2	4 / 2	3 / 2	4 / 2
Section Weight, lbs	6900	Combined w/1	6550	9350
Tubes, OD x BWG	1-1/2X16	1X16	1-1/2X16	1X16
Material	SA214	SA214	SA210 A1 STEEL	SA210 C STEEL
No. Per Section / Length, ft	18 / 44	54 / 44	44 / 44	94 / 44
Retarders				
Accelerators				
Fins, Type	L-TENSION / WHEEL	L-TENSION / WHEEL	L-TENSION / WHEEL	L-TENSION / WHEEL
Material	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
Nozzles, Rating/Type	150 RF	150 RF	600 RF	1500 RF
Material	SA105	SA105	SA105	SA105
(No. Inlets) / Size, in	(1) / 6IN	(1) / 6IN	(1) / 6IN	(1) / 6IN
(No. Outlets) / Size, in	(1) / 6IN	(1) / 6IN	(1) / 6IN	(1) / 6IN
Headers, Type	BOX W/PLUGS	BOX W/PLUGS	BOX W/PLUGS	BOX W/PLUGS
Material	SA516 70	SA516 70	SA516 70	SA516 70
Corrosion Allow., in			0.1250	0.1250
Grooved Tubesheet	YES	YES	YES	YES
Plugs, Type	SHOULDER	SHOULDER	SHOULDER	SHOULDER
Plugs Material	SA105	SA105	SA105	SA105
Industry Specifications	AXC-STD	AXC-STD	AXC-STD	AXC-STD
ASME Code Stamp / N.B.			YES	YES
Canadian Registration #			YES	YES
PWHT			YES	YES
NACE			YES	YES
Inspection/NDT			UB	UB

F= 100% R.T of all header seam & nozzle butt welds PLUS 100% U.T. of all attachment welds. S= Spot R.T. of 1 long seam & 1 end closure, per header
 U = 100% UT of all header seam, attachment & nozzle butt welds. B= 100% R.T. of all nozzle butt welds.
 SB= S PLUS B as each are described above. UB= U PLUS B as each are described above.

AIR-SIDE PERFORMANCE		FAN DATA		DRIVER DATA		REDUCER DATA	
45	Ambient Air Temp., In, f	95	No. / Make 3 / MOORE-CL10K-HD	Type	ENGINE DRIVE	Type	REDUCER BY OTHERS
46	Elevation, ft	2080	Blade Material ALUMINUM				
47	Air Flow, SCFM	304,000	HP@RPM 27.84 @ 311				
48	Air Temp., Out, f	133	Dia., in / No. Blades 108 / 8				
49	Min. Ambient, f	-20	Blade Angle, Deg 15.1 @ Clevis				
50			Series/Blade Adj. 48-HDVT/Manual				
51			Fan Hub Bushing TAPER				

* Actually built to standard 50# design. Designated 14# to eliminate necessity of Provincial registration.

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55	Fan noise: 85 dBA @ 1 meter, 65 dBA @ 15 m.						
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