

Minimum Design Metal Temperature Results Summary :

Description	Notes	Curve	Basic MDMT °C	Reduced MDMT °C	UG-20 (f) MDMT °C	Thickness ratio	Gov Thk mm	E*	PWHT reqd
SHELL	[8]	B	-16	-25	-29	0.844	15.000	0.85	No
Tubesheet: SS	[13]	B	18	18		0.994	53.000	1.00	No
Warmest MDMT:			18	18					
Nozzle Flg	[4]	B	-29	-104					
LHS CHN FLG	[11]	C	-16	-17		0.997	30.000	1.00	No
RHS CHN FLG	[11]	C	-16	-17		0.997	30.000	1.00	No
Nozzle Flg	[4]	B	-29	-104					
LHS CHN ID876	[8]	D	-40	-48	-29	0.841	20.000	1.00	No
LHS CHN CONE	[8]	D	-30	-32		0.973	30.000	1.00	No
LHS CHN ID1397	[8]	D	-30	-39		0.842	30.000	1.00	No
RHS CHN ID1397	[8]	D	-30	-39		0.842	30.000	1.00	No
RHS CHN CONE	[8]	D	-30	-32		0.973	30.000	1.00	No
RHS CHN ID876	[8]	D	-40	-48	-29	0.841	20.000	1.00	No
Tubesheet: CS	[14]	!	-10	-10	-29	0.994	53.000	1.00	No
Warmest MDMT:			-10	-10					

Exchanger Side	Computed MDMT °C	Required MDMT °C	Pass/Fail
<i>Shell</i>	<i>18</i>	<i>-10</i>	<i>Fail</i>
Channel/Tube	-17	-10	Pass

Notes:

- [!] - This was an impact tested material.
- [1] - Governing Nozzle Weld.
- [4] - ANSI Flange MDMT Calcs; Thickness ratio per UCS-66(b)(1)(-c).
- [5] - ANSI Flange MDMT Calcs; Thickness ratio per UCS-66(b)(1)(-b).
- [6] - MDMT Calculations at the Shell/Head Joint.
- [7] - MDMT Calculations for the Straight Flange.
- [8] - Cylinder/Cone/Flange Junction MDMT.
- [9] - Calculations in the Spherical Portion of the Head.
- [10] - Calculations in the Knuckle Portion of the Head.
- [11] - Calculated (Body Flange) Flange MDMT.
- [12] - Calculated Flat Head MDMT per UCS-66.3
- [13] - Tubesheet MDMT, shell side, if applicable
- [14] - Tubesheet MDMT, tube side, if applicable
- [15] - Nozzle Material
- [16] - Shell or Head Material
- [17] - Impact Testing required
- [18] - Impact Testing not required, see UCS-66(b)(3)