

 Heat Exchanger Group BHEL Bhopal		STANDARD QUALITY ASSURANCE PLAN (SQAP)							QAP No.		CDE-20-3463		
									Revision No.		00		
		ITEM	ROLLED & MACHINED NAVAL BRASS TUBE PLATE FOR COOLERS							Date of Issue		13.02.2020	
										Page		Page 1 of 2	
S.No.	Components & Operations	Characteristics	Category	Type / Method of Check	Quantum of check	Reference Document	Acceptance Norms	Format of Records	Agency			Remarks	
									1	2	3		
1	2	3	4	5	6	7	8	9	10			11	
1.0	TUBE PLATE												
1.1	MATERIAL INSPECTION												
a.	Verification of Co-related Mill Test Certificates – MTCs .	- Chemical composition - Mechanical Properties	Major	Visual	100%	SB 171 C46400	SB 171 C46400	MTC	P	R	-	- NABL accreditation of Lab to be furnished if testing is done in house/by manufacturer. - If testing is done outside ,vendor to carry out these tests at NABL approved lab only on test samples from finished tube plate	
b.	Ultrasonic test report	UT of plates	Major	NDT	100%	SA 435	SA 435	MTC	P	R	-		
1.2	FINAL INSPECTION												
a.	Dimensional check	Measurement of overall dimension (e.g. TK, Length, Width & diagonal distance).	Critical	I + Visual	100 %	Annexure-A to PI	Annexure-A to PI	IR	P	W	-		
b.	Flatness check	Flatness	Critical	I + Visual	100%	Annexure-A to PI	Annexure-A to PI	IR	P	W	-		
e.	Documentation	Verification of Quality Documents .	Minor	Visual	100%	BHEL Drawing	BHEL Drawing	Two (02) sets of all the above documents (i.e. MTC & Inspection Reports-IR) duly signed and stamped by the BHEL-IA.	P	R	-	Out of two sets, minimum one set shall be in original format.	

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Approval does not relieve supplier from meeting our requirements as per the drawing / specification.													
Note : (a) All the inspection report & test certificates shall be part of the final QA Document. (b) Sharp edge/burrs if any to be removed.													
LEGEND: 1: Supplier, 2: BHEL IA, 3: Customer; P-Perform, W-Witness, R-Record review, MTC : Mill test Certificates, IR : Inspection report, IA : Inspection Agency, I : Instrument to be used for check.													
							Prepared by : -Sd-- ALPA TOPPO Dy Mgr (D) CDE			Reviewed & Approved by : -Sd-- S P Vatsa Add.Gen. Manager (D) CDE			