
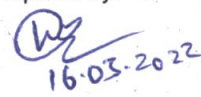
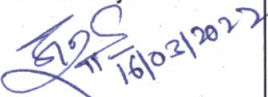
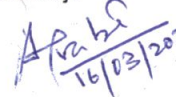



739986/2022/HEP-CDE/34000

 <div>Heat Exchanger Group BHEL BHOPAL</div>		STANDARD      QUALITY      PLAN - SQP						QA PLAN No. : CDE-22-3530					
		Item : CARBON STEEL PLATE						Revision No. : 00					
								Date of issue : 14.03.2022					
								PAGE : 1 of 2					
S. No.	Operations	Characteristics	Class	Type of Check	Quantum of Check	Reference Document	Acceptance Norms	Format of Record	*D	Agency for action			Remarks
1	2	3	4	5	6	7	8	9		S	B	C	11
1	CARBON STEEL PLATE	Chemical composition	Major	Chemical	1/Heat	IS Standard	AA10119 / IS-2062 E 250BR	MILL TC / NABL.ACCR.LA B.TC & IR	✓	P	W*	V	* Co-related mill TC to be furnished, if not then the material is to be tested in NABL ACCR. Lab & mechanical tests are to be witnessed by BHEL TPIA.
		Mechanical Properties	Major	Mechanical	1/Heat	IS Standard	AA10119 / IS-2062 E 250BR	MILL TC / NABL.ACCR.LA B.TC & IR	✓	P	W*	V	
		Ultrasonic test (UT)	Major	Mechanical	100%	ASTM standard	ASTM A435 / LEVEL- A OF A578	MILL TC / TC & IR	✓	P	W*	V	* Co-related mill TC to be furnished, if not then the material is to be Ultrasonically tested as per ASTM std. Test is to be witnessed by BHEL TPIA. Also Ref. note-5.
		Charpy V-notch Impact test	Major	Mechanical	1/Heat	IS-2062 / ASTM A370	IS-2062 / ASTM A370	MILL TC / NABL.ACCR.LA B.TC & IR	✓	P	W*	V	* Co-related mill TC to be furnished, if not then the material is to be impact tested in NABL ACCR. Lab and same to be witnessed by the BHEL TPIA.
		Bend Test	Major	Mechanical	1/Heat	IS-2062 / ASTM A370	IS-2062 / ASTM A370	MILL TC / NABL.ACCR.LA B.TC & IR	✓	P	W*	V	* Co-related mill TC to be furnished, if not then the material is to be bend tested in NABL ACCR. Lab and same to be witnessed by the BHEL TPIA.

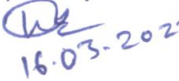


BHEL Drg No. : As mentioned in P.O.	BHEL Spec. No.: As mentioned in P.O.	Prepared by:	Reviewed by:	Approved by:
<b>Legend: *D-</b> Documents marked (✓) to be included by Supplier in Doc. Package. <b>S -</b> Trader / Manufacturer <b>P -</b> Perform <b>IR</b> : Inspection Record <b>B -</b> BHEL TPIA <b>W -</b> Witness <b>Measurt.:</b> Measurement <b>C -</b> Customer (if any) <b>V -</b> Verify I – Instrument used to check <b>TC –</b> Test Certificate		 16-03-2022 <b>Pawan Rai</b> Sr. Engineer - CDE	 16/03/2022 <b>Ashok Mahor</b> Sr. DGM(Design) - CDE	 16/03/2022 <b>S P Vatsa</b> AGM - CDE

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 <b>Heat Exchanger Group</b> <b>BHEL BHOPAL</b>		<b>STANDARD QUALITY PLAN - SQP</b>						<b>QA PLAN No. : CDE-22-3530</b> Revision No. : 00 Date of issue : 14.03.2022 PAGE : 2 of 2					
		Item : <b>CARBON STEEL PLATE</b>											
S. No.	Operations	Characteristics	Class	Type of Check	Quantum of Check	Reference Document	Acceptance Norms	Format of Record	*D	Agency for action			Remarks
										S	B	C	
1	2	3	4	5	6	7	8	9	10			11	
		Dimensional check (Measurt. of Thickness, Length, Width & Flatness)	Critical	I + Visual	100%	AA10119 / AS PER PO	AA10119 / AS PER PO	IR	✓	P	W	V	
		Condition, Surface check, appearance	Critical	Visual	100%	IS-2062	IS-2062	TC / IR	✓	P	W	V	
		Packing & Marking	Critical	Visual	100%	AA10119	AA10119	IR	✓	P	V	V	

**Notes:**

- All testing shall be carried out at NABL/BHEL approved laboratories only.
- Two (02) sets of all the above documents (i.e. MTC, TC & Inspection Record - IR) duly signed and stamped by the BHEL-IA shall be provided along with the supply.
- Sharp edges/burrs if any to be removed.
- Repair of plates by welding (for any surface defects) is not permitted.
- UT to be carried out by ISNT / ASNT NDT Level-I person under the supervision by Level-II/III person only.

BHEL Drg No. : As mentioned in P.O.	BHEL Spec. No.: As mentioned in P.O.	Prepared by:  16.03-2022 <b>Pawan Rai</b> Sr. Engineer - CDE	Reviewed by:  16/03/2022 <b>Ashok Mahor</b> Sr. DGM(Design) - CDE	Approved by:  16/03/2022 <b>S P Vatsa</b> AGM - CDE
<b>Legend: *D-</b> Documents marked (✓) to be included by Supplier in Doc. Package. <b>S</b> - Trader / Manufacturer <b>P</b> - Perform <b>IR</b> : Inspection Record <b>B</b> - BHEL TPIA <b>W</b> - Witness    Measurt.: Measurement <b>C</b> - Customer (if any) <b>V</b> - Verify I – Instrument used to check <b>TC</b> – Test Certificate				