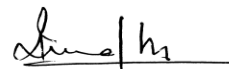


 Ranipet		MANUFACTURER'S NAME AND ADDRESS M/S BHEL: BAP: RANIPET 632 406 TAMIL NADU		STANDARD QUALITY PLAN ITEM: VACCUM BELT FILTER SYSTEM: FGD										QP NO		FGS:725	
														REV. NO:		00	
														DATE:		12.02.2019	
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					M	C/N				D *	M	C	N				
1.	2.	3.	4.	5.	6.		7.	8.	9.	D *	** 10.			11.			
1.0 RAW MATERIAL (*Material shall be as per Drawing)																	
1.1	Vacuum Pump	Material TC (Physical & chemical) for impeller. Casing, Shaft	Major	Review of TC	100%		Approved drawing/data sheet	TC	√	P	V	V					
		NDT of impeller & Shaft	Major	UT	100%		ASTM A 388/ASME sec.V	TC	√	P	V	V	UT of shaft ≥ φ40mm				
		Capacity power, pressure efficiency noise, Vibration	Major	Measurement	100%		Approved drawing /data sheet	TC	√	P	W	V					
1.2	Speed reducer	Visual, dimension, Run test including of leakage, temp. rise, Noise level and vibration.	Major	Visual & Measurement	100%		Approved data sheet / Drawing	TC	√	P	V	V					
1.3	AC Drive	Type, Make, Rating, Routine test.	Major	Visual & measurement	100%		Approved Drawing/Data sheet	TC	√	P	V	V					

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PREPARED BY



Rakesh Kumar Madhu, (SEr/QA)

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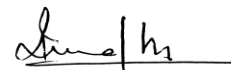


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					M	C/N				D *	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D *	** 10.			11.
1.4	Belt	Visual & review of test certificate (tensile, Elongation, Thickness)	Major	Review of documents	100%		Approved data sheet/Drawing		TC	√	P	V	V	
1.5	Filter Cloth	Visual & Review of physical properties (Tensile, Elongation, Thickness, air permeability test. Etc.)	Major	Review of documents	100%		Approved data sheet/Drawing		TC	√	P	V	V	
1.6	Belt Wash Pump	Chem & mech Properties of Impeller, Casting, Shaft	Major	Review of documents	100%		Approved data sheet/Drawing		TC	√	P	V	V	UT of shaft ≥ φ40mm
		Balancing of Rotating Parts	Major	Static & Dynamic Balancing	100%		ISO 1940 Gr.6.3		TC	√	P	V	V	
		Hydro test of casing	Major	Static pressure testing	100%		Approved Data Sheet/Drawing		TC	√	P	V	V	Hydrostatic testing of casings for

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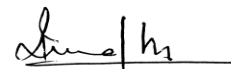


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1.	2.	3.	4.	5.	6.	7.	8.	9.	D *	** 10.			11.	
														30min at 1.5 times of shut-off head or 2 times pump rated head which ever higher
		Run test (Capacity, Head, efficiency, brake horse power, Noise and vibration)	Major	Measurement	100%	Approved Data Sheet/Drawing	TC	√	P	W	V			
1.7	Hydro cyclone	Visual & Dimension	Major	Visual & Measurement	100%	Approved Data Sheet/Drawing	TC	√	P	W	V			
1.7 (a)	Rubber Composition	Material content	Major	Measurement	1/Batch	Manufacturer standard	COC	√	P	V	V			
1.7 (b)	Rubber lining	Spark test at accessible area	Major	Inspection check	100%	Technical Spec/Relevant standard	IR	√	P	W	V			Spark test 10-12.5KV min

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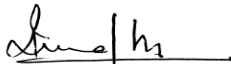


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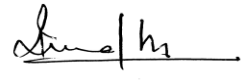


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					M	C/N				M	C	N		
1.	2.	3.	4.	5.	6.		7.	8.	9.	D *	** 10.			11.
1.8	LT Motor	Make, Rating, Type, Routine test, Paint	Major	Measurement	100%		Approved Data sheet		TC	√	P	V	V	For Motor up to 30KW COC Above 30KW up to 50KW motor routine test shall be witnessed my BHEL. 50KW & Above separate QP to be submitted. Applicable for all MQP will be submitted.
1.9	Instruments	COC/Functional Check	Major	Measurement	100%		Approved Data Sheet/Drawing		TC	√	P	V	V	
2.0 FINAL INSPECTION														
2.1	Vacuum belt filter assembly	Visual, Dimensional	Major	Dimensional	100%		Approved Drawing			√	P	W	W	
2.2		Run test (for 30 minutes)	Major	Visual, Measurement	100%		Approved Drawing			√	P	W	W	
2.3	All components required paints.	Visual, DFT	Major		100%		Approved Painting Scheme			√	P	W	V	
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1.	2.	3.	4.	5.	6.		7.	8.	9.	D *	** 10.			11.

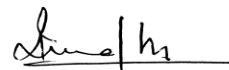
1	VACCUUM TANK (RAW MATERIAL INSPECTION)												
1.1	Plates for shell and dished ends & structural	Chemical & Physical	Major	Chemical & Physical	1/ Heat	Approved Data Sheet/ Drawing		TC	√	P	V	V	
2.0	IN PROCESS CONTROLS												
2.1	Welding (As applicable)	WPS,PQR,WPQ	CR	Verification	100%	ASME Sec. IX/Relevant Standard		Repor rts	√	P	V	V	
2.2	Stress Relieving	Physical	Major	Review	100%	Relevant Standard / Manufacturer standard		HT chart	√	P	V	V	AS applicable
2.3	All Weld	Weld Quality	Major	DPT	10%	Relevant Standard / ASME Sec- VIII Div:1		IR	√	P	V	V	
2.4	Weld quality of circumferential & longitudinal seams	CR	UT	As Per Code	ASME Sec- V/ Appd.Drg	Relevant Standard / ASME Sec- VIII Div:1		IR	√	P	V	V	Only butted Welds
3.0	FINAL INSPECTION												
3.1	Complete Vessel	Dimensional	Major	Dimension	100%	Approved drawing		IR	√	P	V	V	
3.2		Nozzle Orientation	CR	Dimension	100%	Approved drawing		IR	√	P	V	V	
3.3		Hydro Test	CR	Hydro Test	100%	2X working PR or 1.5x design PR Whichever is higher for 30 minutes duration	NO Leakage	IR	√	P	V	V	

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					M	C/N				M	C	N		
1.	2.	3.	4.	5.	6.		7.	8.	9.	D *	** 10.			11.
3.4		Pneumatic Test of RF pads (as applicable) for soundness/leakages	CR		100%		ASME SEC-VIII/appd. Drg/appd. Datasheet	No leakage	IR	√	P	V	V	
3.5 (a)	Rubber Lining of tank	Rubber lining	Major	Spark test	100%			Technical spec/Data sheet	IR	√	P	W	V	Spark test 10-12.5KV min
3.5 (b)	Rubber Lining of tank	Rubber lining	Major	Hardness testing	100%			Technical Spec/Data sheet	IR	√	P	W	V	Shore hardness value shall be within 60
3.6	Painting & Marking	Finish / DFT	Major	Visual	100%		Appd. Drg /Data Sheet		IR	√	P	V	V	
3.7	Quality Dossier	Document	Major	Review of document	100%		Compilation of all documents		Quali ty Dossi er	√	P	V	V	

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