

QUALITY ASSURANCE PLAN

Manufacturer Name & Address				QAP No. _____			
Project:		Customer: BHEL Corporate R&D		Ref. Technical Specification No.:		Sheet 1 of 1	
Item: Tray		System: Pump Module					

SL. No.	Component / Operations	Characteristics	Type of Check	Quantum of Check		Reference Document	Acceptance Norms	Format of Record	Agency		Remarks
				M	BHEL				M	BHEL	
1.0	RAW MATERIAL										
1.1	Bar	Chemical Properties	Chemical Analysis	1/ Batch	1/ Batch	Aluminium Alloy AA7075 T6 as per QQ-A-250/12E	Technical Spec.	Test Certificate	P	V	
		Hardness	Hardness Test	1/ Batch	1/ Batch	ASTM E10	ASTM E10	Test Certificate	P	V	
		Tensile Properties		1/ Batch	1/ Batch	ASTM E8	ASTM E8	Test Certificate	P	V	Test report should include: UTS, 0.2% Proof test & percentage elongation
		Sub surface defects	NDE (Ultrasonic Test)	1/ Batch	1/ Batch	ASTM B 594-90 class A	ASTM B 594-90 class A	NDT Report	P	V	NDT to be carried out by Level-II Qualified personnel only.
2.0	IN-PROCESS										
2.1	Machining	Dimensions	Visual	100%	100%	BHEL Drawing	BHEL Drawing	Dimension Report	P	V	
2.2	Engraving	Dimensions	Visual	100%	100%	BHEL Drawing	BHEL Drawing	Dimension Report	P	V	
2.3	Chromate Conversion (Monoblock)	Adhesion/ Thickness	Measurement	100%	100%	MIL-DTL-5541F CLASS 1A	MIL-DTL-5541F CLASS 1A	Test Certificate	P	V	
4.0	Plating	Dry Film Thickness (DFT)	Measurement	100%	100%	MIL-C-20674 CLASS 2	THICKNESS 12-15 MICRONS	Test Report	P	W	
5.0	Documentation					As per approved MQP			P	V	

Notes:

1. All instruments used for Tests shall be calibrated at NABL accredited Laboratories.
2. Mechanical/ Chemical Tests shall be carried out at NABL accredited Laboratories.

Legends:

M: Manufacturer/ Supplier/ Sub-Supplier; **P:** Perform; **V:** verification; **W:** Witness

Manufacturer			Review & Approval by BHEL Corporate R&D	
	Name	Signature & Date	Document No.	
Prepared by				
Checked by				