

		STANDARD MANUFACTURING QUALITY PLAN							MQP. NO.: SMQP/FPS/07/092013				
									REV NO: 00		DATE:01/09/2013		
		PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032					PRODUCT:SOLENOID VALVE			PAGE 1 OF 3			
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	
1.0 RAW MATERIALS & BOUGHT OUT ITEMS													
	Body, Bonnet, Female outlet	Chemical, Physical	Major	Analysis Test	One/Lot	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	Lab. /Supp. Certificate	√	2	2	1	
	Spindle	Chemical, Physical	Major	Analysis Test	One/Lot	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	Lab. /Supp. Certificate	√	2	2	1	
	Spring	Chemical	Major	Analysis Test	One/Lot	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	Lab. /Supp. Certificate	√	2	2	1	
	Outer Washer, Seat Washer	Hardness	Minor	Measurement	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	Lab. /Supp. Certificate	√	2	2	1	
2.0 INPROCESS INSPECTION													
	Water tightness Seat Test	Leakage	Major	Hydro Test	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IIR	√	2	2	1	
	Hydrostatic Pressure Test	Leakage	Major	Hydro Test	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IIR	√	2	2	1	
	Operation Test	Open-close	Major	Functional	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IIR	√	2	2	1	
	Flow Test	Flow	Major	Flow	One/Lot	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IIR	√	2	2	1	
3.0 FINAL INSPECTION & TESTING													
		VISUAL & DIMENSION CHECK	Major	Visual	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1	-	

LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL / BHEL NOMINATED INSPECTION AGENCY/END USER/END USER'S REPRESENTATIVE & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREF  BHEL	APPR  BHEL	APPROVED BY CUSTOMER'S SIGNATURE & STAMP
	IMP 	IMP 	

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		HV TEST	Major	Electrical	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1	-	
		SEAT LEAKAGE TEST	Major	Leakage	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1	-	
		IR TEST	Major	Electrical	One/Lot	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1	-	
		PNEUMATIC TEST	Major	Pneumatic	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1		
		OPERATIONAL TEST INCLUDING VERIFICATION OF PICKUP AND DROP VOLTAGE	Major	Operational test	10%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1		
		BOM CHECK	Major	Verification	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	1		
4.0	PRESERVATION & PACKING												
	Identification	Marking & Stamping	Major	Verification & Stamping	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	2	1	
	Painting	Final finish & Paint DFT	Major	Visual & Measurement	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	Painting Report	√	2	1	-	
	Packing	Soundness of packing	Major	Verification	100%	Approved BHEL Spec./Drawing/datasheet	Approved BHEL Spec./Drawing/datasheet	IR	√	2	2	1	

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PREF

BHEL



APPRC

BHEL



APPROVED BY

MP

CUSTOMER'S SIGNATURE & STAMP

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NOTE:-

1. This standard MQP should be read along with specification (latest revision), approved drawings & approved data sheet.
2. Drawing/data sheet shall prevail over quality plan for contradiction if any between quality plan and drawing/specification.
3. All test certificates/reports reviewed and certified by TPI/BHEL shall be submitted to BHEL as documentation package.
4. All type test reports submitted shall not be older than 5 yrs from the date of purchase order.
5. Any project/customer specific requirements which shall be notified have to be fulfilled by the vendor at the time of execution of order.

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