

BHEL		STANDARD MANUFACTURING QUALITY PLAN							MQP. NO.: SMQP/FPS/21/092013				
PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032						PRODUCT: QB DETECTOR			REV NO: 00		DATE: 01/09/2013		
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												
1.1	BODY (BRASS)	Chemical	Major	Chem. Analysis	One (1) Per heat or Batch	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	Lab./Mfg. TC	√	2	-	1	
		Dimn. Check	Major	Measurements	2 Nos./ Heat or Batch	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
		Surface Defects	Major	Visual	100%	Surface free from harmful defects	Surface free from harmful defects	IR	-	2	2	1	
1.2	CAP & DEFLECTOR	Chemical	Major	Chem. Analysis	One (1) Per heat or Batch	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	Lab./Mfg. TC	√	2	-	1	
		Dimn. Check	Major	Measurements	2 Nos./ Heat or Batch	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
1.3	LIQUID FILLED BULB	Physical observation	Major	Visual	100%	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
2.0	INPROCESS INSPECTION												
2.1	BODY	Machining & dimn. Check	Major	Measurement & gauge check	100%	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
2.2	CAP + DEFLECTOR	Machining & dimn. Check	Major	Measurement & gauge check	100%	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
2.3	ASSY.	Fitment & assembly check	Major	Visual	100%	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
2.4		Hydro test (30 kg/cm ² for 5 min)	Critical	Leak proof test (pressure test)	100%	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	2	1	
		& Burst test	Critical	B. P. test	1/Lot	App. TDS/Drg./ Spec.	App. TDS/Drg./ Spec.	IR	-	2	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.						PREPARED BY BHEL		APPROVED BY BHEL QA		APPROVED BY CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)			

 STANDARD MANUFACTURING QUALITY PLAN PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032 PRODUCT: QB DETECTOR MQP. NO.: SMQP/FPS/21/092013 REV NO: 00 DATE: 01/09/2013 PAGE 2 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	
2.5	QBD. BULB (WITH LIQUID)	Leak Test	Critical	Leakage test	100%	App. TDS/Drg./Spec.	App. TDS/Drg./Spec.	IR	-	2	2	1	
3.0	FINAL INSPECTION & TESTING												
3.1	Q.B.D (Complete Assembly)	Physical observation & dimn. Check	Major	Visual check surface, make, logo Model, UL mark & Measurement	20% at random	App. TDS/Drg./Spec.	App. TDS/Drg./Spec.	IR, Dimn. Check	√	2	1	-	
		Hydro Test	Major	Pressure Test (Leak Proof Test) 30 kg/cm2 for a period of 5 min.	10% at random	App. TDS/Drg./Spec.	App. TDS/Drg./Spec.	IR /TC	√	2	1	-	
4.0	PRESERVATION & PACKING												
4.1	Q. B. D. Assy	Properly packing with necessary marking	Major	Visual	100%	App. TDS/Drg./Spec.	App. TDS/Drg./Spec.	Packing report	-	2	2	-	
		Preservation must be maintained at proper place	Major	Visual	100%	App. TDS/Drg./Spec.	App. TDS/Drg./Spec.	Packing report	-	2	2	-	

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.	PREPARED BY	APPROVED BY	APPROVED BY
	BHI  VP	BHEL QA 	CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)

		STANDARD MANUFACTURING QUALITY PLAN							MQP. NO.: SMQP/FPS/21/092013				
									REV NO: 00		DATE: 01/09/2013		
		PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032					PRODUCT: QB DETECTOR			PAGE 3 OF 3			
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*	AGENCY			REMARKS
									D	P	W	V	

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.

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.	PREPARED BY  MP		APPROVED BY  BHEL QA		APPROVED BY CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)
	BHI				