



VALVE MACHINED COMPONENT PROCUREMENT WITH MATERIAL

QP NO. : SQP:IVP:02-01 REV.:01
Date : 22-06-2010
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S. NO.	COMPONENT & OPERATIONS
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S. NO.	COMPONENT & OPERATION	CHARACTERISTICS	Check Type		Quantam of Check		Reference Doc. /Acceptance Norms	Format of Record	AGENCY			REMARKS
			CL	Type	M	S			M	S	C	
This QP is applicable for Gland Follower, Rough Back Seat, Bearing Retainer, Stem, Spacer, Components for Limit Switch Arrangement, Locking Arrangement and Indicator Assembly.												
1.0	MATERIALS Forging/Bar/Plate/Sheet/ Tube/Fasteners: Gland Follower, Rough Back Seat, Bearing Retainer, Stem, Spacer, Components for Limit Switch Arrangement, Locking Arrangement and Indicator Assembly.	a) Chemical, Mechanical Properties & NDE b) Sample testing by BHEL/TPI	A	TC Verification	100%	100%	Material procured from BHEL approved sources as per Latest Applicable TDC and Standard to specifications as per drawing	TC	P	V	Refer Note: 1.	
2.0	IN PROCESS CONTROL Machining of all components	a) Dimensions	A	Measurement	100%	20%	Drawings,QCP:003 TDC, Standard and Drawings	R	P	W	Refer Note: 2.	
		b) Sample testing by BHEL/TPI	A	Chemical & Mechanical Properties, NDE#	Random	Random		R	P	W		
3.0	ASSEMBLY*	Compliance to PO/Drawing	B	Visual	100%	20%	Drawings,QCP:003	-	P	W	*Only For Indicator Assembly	
4.0	IDENTIFICATION Punching on non-critical area on Machined Components	- Raw Material Heat No., Material Specification & Grade, Material Code & Vendor Code	B	Visual	100%	20%	Drawings,QCP:003	-	P	V	Refer Note: 6.	
LEGEND: C: Class (A: Critical, B: Major, C: Minor)			Prepared By <i>Sunil Bawale</i>				Reviewed & Approved By: <i>[Signature]</i>				22/06/10	
** TPI: Third Party Inspection M: Vendor, C: Customer S: BHEL/ Nominated Inspection Agency R: Test / Dimension / Inspection Reports V: Verification of test/Dimension/Insp Reports P: Perform, W: Witness												

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M: Vendor C: Customer

M. VENNART, C. CASILLER

S: BHEL Nominated Inspection Agency

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सुभा शम्भुमेत बंगाल

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इंजीनियरिंग भाग, राष्ट्रीय औद्योगिक परिसर,
गुवाहाटी (असम) भारत (Guwahati (Assam) India)



QUALITY MANAGEMENT

IVP, GOINDWAL

STANDARD QUALITY PLAN

VALVE MACHINED COMPONENT PROCUREMENT WITH MATERIAL

(Applicable for Gland Follower, Rough Back Seat, Bearing Retainer, Stem, Spacer, Components for Limit Switch Arrangement, Locking Arrangement and Indicator Assembly.)

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NOTES:

NOTE-1: The material normally used and their TDC Nos. are given below.

Materials	TDC No.
Forgings/Bars	
SA / A105	0:309 & 0:404
SA / A182 Gr. F11 Cl. 2	0:309
Gr. F12 Cl. 2	0:309 & 0:404
Gr. F22 Cl. 3	0:309 & 0:404
Gr. F91	0:404
SA / A182 Gr F6A CL. 3	0:307 & 0:404
SA / A182 Gr F316	0:309 & 0:404
SA / A182 Gr F304, F316L	0:404
SA / A182 Gr F430 Modified (Ohtaran)	0:308
SA / A276 Gr 410, 420	0:307
SA / A479 Ty 410-Cond.2	0:307 & 0:309
SA / A565 Gr 616-Cond.HT	0:307
SA / A582 Ty 416	0:307
SA / A350 LF-2	0:404
AISI 4140	0:417
AISI 410	0:307
X20 Cr-Mo V121	0:310
IS 2004 Cl.III	As per specn.

Plates

ASME SA515 Gr 70
ASME SA387 Gr 22
ASME SA299

Fastners:

ASTM A193 B7/B16
ASTM A194 Gr.2H/Gr4/Gr7

Note-2: Raw material to be offered for inspection to BHEL / TPI before machining of components. Records of Raw material clearance by BHEL to be produced during Final inspection.

Note-3: All machined components should be suitably protected.

Note-4: Wherever special contract requirements are envisaged, a separate TDC/CQP may be issued, or special instruction may be provided through P.O or stock material may be upgraded to special requirement.

Note-5: Raw material Heat No., Material Specification & Grade to be transferred to the machined components.

Note-6: Codification may be done for Material Specification, Grade, Vendor Code and Material code after prior approval by BHEL.

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Prepared By

Suneet Bansal

22/05/10

Reviewed & Approved By:

22/06/10

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BHEL IVP GOINDWAL

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(A Govt. of India Undertaking)