

L&T VALVES LIMITED KANCHIPURAM		QUALITY ASSURANCE PLAN					Procedure No. BFV/SO	Rev.No. 0	Prepared By DMS	Appvd By SGK	DATE 17.10.2013	PAGE 1 OF 1
PRODUCT : BUTTERFLY VALVES						Size : 50 mm to 900 mm						
Customer :						P.O.:			Scope of Inspection			
SL.NO	STAGE	SECTION	COMPONENT	CHARACTERISTICS	METHOD OF CHECK	QUANTUM OF CHECK BY L&T	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	RECORD	SUB VENDOR	L&T	EXT.INSP./ CUSTOMER
1	Incoming Material	Raw Material	Castings ( Body & Disc )	Surface Quality	Visual	5% or 10 Nos max.	Material Std	Material Std	GRN	100%	Sampling	-
				Dimensions	Measurement	5% or 10 Nos max.	L&T Drawings	L&T Drawings	GRN	Sampling	Sampling	-
				Chemical ,Mechanical & Heat Treatment Properties( steel cast)	Review of vendor TC	All Heats	Relevant Standards	Relevant Standards	Vendor test certificate	100%	Review	Review
				Mechanical Properties ( other cast)	Review of vendor TC	100% (Supplier to furnish tc once in 3 months)	Relevant Standards	Relevant Standards	Vendor test certificate	100%	Review	Review (*)
				Magnetic Particle Inspection ( Body)	Dry / Wet method	100%	Relevant Standards	Relevant Standards	MPI report	100%	Review	Review
		Bought Out Finished & Sub contract Items	Machined components & Shaft	Surface Defects	Visual	Sampling plain ANSI /ASQC Z1.4 1993 AQL 4.0 ( tighten inspn)	L&T drawings/ Relevant standards & Material specs	GRN	100%	Sampling	-	
				Dimensions	Measurement			GRN	100%	Sampling	-	
				Chemical,Mechanical Properties (#)	Review of TC's			Vendor TC	100%	Review	Review(*)	
2	Inprocess Control	Line Inspection	Components Processed In-house	Surface Defects & Dimensional	Visual, Measurement	Sampling plain ANSI /ASQC Z1.4 1993 AQL 4.0 ( tighten inspn)	L&T Drawings / SPEC	L&T Report	-	Sampling	-	
		Body seat	Synthetic Rubber	Hardness	Micro Tester						-	
3	Product Evaluation	Testing	Finished valves	Shell Test	Hydrostatic	100%	Production Test asper Relevant Standards	Valve Test Report	-	100% Inspection	Witness 10 % per Size	
				Seat Test	Hydrostatic							
4	Final Inspection	Stores Credit Note	Valves	Visual, TC verification Requirements of S.O.Availability of all parts etc.	Visual	100%	L&T Drawings / Part List	Stores Credit Note	-	100% Inspection	Review	
				Dimensions	Measurement	At Random	L&T Drawings	Stores Credit Note	-	100% Inspection	10 % W	
				Positive Material Identification ( PMI ) For bottom shaft	Measurement	At Random	L&T Spec.	L&T Spec.	PMI report	-	Review	10 % W (Size up to 12")
5	Painting	Stores Credit	Valves	Visual &Coating thickness	Standard Measuring Instrument	At Random	L&T Spec.	L&T Spec.	L&T Report	-	At Random	-
6	Inspection Documents		Inspection Reports , MTC		Review	100%	Asper QAP,PO and SPEC		Inspection Reports	-	100%	R
7	Inspection Release Note		Compliance with PO		Review	100%	Asper PO		IRN	-	100%	H
ABBREVIATION USED : GRN : Goods received note (*) - No Correlation * - Critical Dimensions, # - Top Shaft , R - review , W- Witness , H-Hold												