

Perfect Engineers component Pvt. Ltd. Plot. No. F221 & 222 Industrial Area Khushkhera Bhiwadi Alwar (Raj.)				QUALITY ASSURANCE PLAN ROLLER								
Part Name / Description :		Rollers		Core Team :	Department	Name			QAP No. - QAP/STD/Roller/01			
Drawing Number :		Standard			Q.A.	Ravi Kumar			Doc.No. : QAP/PECPL/01			
Assembly Details :		Standard			Design	Manu Saini			Date 25-09-2025			
Customer Name :		Standard			HOD	Rajiv Ranjan			Rev No: 01			
Sr. no.	Process Name / Operation Description	Characteristics Check	Special Char. Class	Specification	Inspection Verification Method	Inspection Stage	Acceptance nomes	Sub Supplier	Perfect	Customer	Reference Documents	Remarks
1	Raw material (Pipe/Tube/Shaft)	Visual Inspection Material Test report	Critical	Material Specification	Visual/Dimension verified, Mill TC with its corelation with material	--	As per P.O.	P	R	R	MTC	100%
2	Bought out item (Seal set, bearing, Rubber ring, grease, rain/ Dust cap)	Visual inspection	Critical	Material Specification	Visual , Dimension, Mfg code (bearing)	--	As per P.O.	P	R	R	--	100%
3	In- Process Inspection											
3.1	Machining	Visual and Dimension	Class	As per apporved Drawing	Measurement	In-process	As per apporved Drawing	--	P	--	IR	1st Piece and Every 2 Hours
3.2	Pre- Welding	Visual and Dimension	Special Char. Class	ASME Sec.IX & WPS	Welder qualification validity, Electrode / filler wire, shielding gas type & certificate	In-process	ASME Sec.IX & WPS	--	P	--	-	Before Welding
3.3	Welding	Visual	Special Char. Class	WPS	Welding parameters (current, voltage, travel speed) and Interpass temperature control	In-process	WPS	--	P	--	-	Every 2 Hours
3.4	Post Welding	Visual	Special Char. Class	WPS	Visual inspection for defects (undercut, overlap, porosity, cracks)	In-process	WPS	--	P	--	Welding IR	10%
		Dimension	Special Char. Class	WPS & As per apporved Drawing	Dimensional check (weld size, reinforcement, alignment)	In-process	WPS & As per apporved Drawing	--	P	--	Welding IR	10%
		NDT	Special Char. Class	ASME Sec.V	UT / DPT / MPI as per requirement	In-process	Applicable IS standards or customer requirements	--	P	--	NDT Report	1%
		Testing	Critical	As per apporved Drawing	Measurement	Final	As per IS 8598	--	P	--	--	100%
3.3	Pre Powder Coat- Surface Prepration	Verification, Certificate Review	Special Char. Class	Applicable Specification	Material identification (substrate, coating powder batch, certificates)	In-process	Manufacturer's Test Certificate (MTC), Powder MDS	--	P	--	TC of Powder	Every batch
		Visual, Surface Cleaning			Surface cleanliness before application (3 M Solution)	In-process	As per PECPL Procedure	--	P	--	--	Before Application
		Hygrometer, Thermometer, Dew Point meter			Ambient conditions – temp., humidity, dew point	In-process	Paint spec / MDS (e.g., RH < 85%, surface temp. ≥ 3°C above dew point)	--	P	--		
4	Final Inspection											
4.1	Overall Dimension	Visual and Dimension	Critical	As per apporved Drawing	Measurement	Final	As per apporved Drawing	--	P	W	IR	2%
4.2	Run Out Test	Testing	Critical	As per apporved Drawing	Measurement	Final	As per IS 8598	--	P	W	IR	2%
4.3	water Ingress Test	Testing	Critical	As per relvent standard	Testing	Final	As per PECPL Procedure	--	P	W	IR	1 Piece per lot
4.4	Dust ingress Test	Testing	Critical	As per relvent standard	Testing	Final	As per PECPL Procedure	--	P	W	IR	1 Piece per lot
4.5	Friction Test	Testing	Critical	--	--	Final	Max. 0.02	--	P	W	--	1 Piece per lot
4.6	Shore hardness A (Where Applicable)	Testing	Critical	As per apporved Drawing	Measurement	Final	As per apporved Drawing	--	P	W	IR	2%
4.7	Painting/Powder Coating	Colour Shead, DFT, Adherence Test etc.	Critical	As per PECPL Specification	Visual,Paint DFT tester,Peel off test	Final	As per PECPL Specification (80-120Micron Minimum with Orange colour)	--	P	W	IR	1%
4.8	Identification	Stiker	Critical	As per apporved Drawing	Visual	Final	As per PECPL Procedure	--	P	R	--	Packing list per box
LEGEND :- P: Performed , R : Reviewed , W : Witness , MTC : Material Test Certificate , IR : Inspection Report				Prepared By (Perfect)		Reviewed By (Perfect)		Apporved By (Perfect)		Apporved By (CLIENT)		