

 METAFORGE ENGG INDIA PVT LTD CONTROL PLAN																												
Prototype		Pre Launch		Production		Key Contact / Phone :Mr Santhosh-8605305929				F/QA/ 025 Rev. 04 Date : 20.07.2021																		
Control Plan Number : MEPL - CP - AF-01						Core Team : Mr. Santhosh, Jaikishan, Deepak, Adarsh, Vijay,shubham				Customer Engineering Approval/Date(if Reqd.)																		
Part Number/Description : All revits						Supplier/Plant Approval Date				Customer Quantity Approval/Date(if Reqd.)																		
Customer/Plant : All Customers						Other Approval Date(if reqd.)				Other Approval Date(if reqd.)																		
Part / Process Number	Process Name / Operation Description	Machine, Device, Jig, Tools for Mfg.	Characteristics				Methods					Reaction plan																
			No.	Product	Process	Spec Char. Class	Product / Process specification / Tolerance	Evaluation Measurement Technique	Sample		Control Method																	
									Size	Freq.																		
10	Receiving inspection	Visual & weighing scale	1	inspected material	---	--	No crack/rust/bend	Visual	Every Lot		Rockwell hardness tester calibrator/Weighing scale calibration as per plan	Incoming material hardness range exceptable within 5 HRB. In case above 5 HRB material will be taken for revalidation & trails.																
			2	incoming inspection	checked as per SOP (WI-PDN-007)	--	92-96 HRB (SAE1010)	Rockwell Hardness Tester HRB scale	Every lot checking 10 nos in HRB																			
			3	Weight			As per received traceability tag	Weighing scale	Every Lot																			
20	Loading	Manual rope crane	1	Stacked material	---	--	Adequate spacing	Visual	Every Lot		As per Procedure	communicate to Shift supervisor/supervisor																
30	Annealing	V R Annealing furnace (AF-01)	1	Annealing	Annealing Temp - 550 °c to 680°c Annealing Time - 60 to 180 mints (As per annexure - 03)	0	Hardness HRB - 50 TO 75 (As per annexure - 03)	Timer, Temperature Controller , Alarm etc.	Every lot checking 5 nos from each Tray)		Inprocess record	Rework the lot																
				Quenching	Air Cooling	--																						
40	Unloading		1	Force cooling	Fan circulation	(I)	15 mints	Detection Alarm	Every lot		Production Register	Communicate to Shift supervisor																
			2	Natural cooling stablization	Natural cooling	(I)	10 mints	Detection Alarm																				
50	Inspection	Rockwell Hardness Tester	1	Hardness	Checking as per SOP (WI-PDN -007)	--	1) Hardness-50-75 HRB (As per annexure - 03)	Rockwell Hardness Tester	Every lot checking 5 nos from each Tray)		Test Report,Calibration as per plan	Rework for high hardness																
		Microscope	2	Microstructure	Checking as per SOP (WI-PDN -06)	--	Annealed micro ferrite +pearlite	Microscop	As per customer requirement																			
60	Ready for Despatch	Weighing scale	1	Qty/ Weight	-	--	Qty/Weight Verify	Weighing scale	100%		Weighing scale calibration as per plan	weight difference																
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