

Part process number	Process Name Operation Description	Machine Device, Jig, Tools For Mfg.	Characteristics				Methods				Control Method	Reaction Plan		
			No.	Product	Process	Special features	Product/Process Specification/ Tolerance	Evaluation/Measurement Technique	Sample					
									Size	Freq				
120	Sintering	Vacuum sintering furnace			before heating		Homemade furnace: 1030-1135 (°C)	Vacuum instrument	100%	Continuous	Vaccum sintering operation instruction (WIPD.GC-05)	Mark/Adjust/re-sinter/degade/scrap/reaction		
					Sintering temperature	※	Homemade furnace: 500~940 (°C)	Temperature control unit						
				Vacuum temperature maintain furnace		Maintain temperature(1)	※	Homemade furnace: 480-640 (°C)	Temperature control unit	100%		Continuous	Mark/Adjust/re-sinter/degade/scrap/reaction	
						Maintain time(1)		Time:0.5h~4.5h	Time control unit					
				Vacuum temperature maintain furnace		Maintain temperature(2)	※	Homemade furnace: 500~940 (°C)	Temperature control unit	100%		Continuous	Mark/Adjust/re-sinter/degade/scrap/reaction	
						Maintain time(2)		Time:2h~4h	Time control unit					
130	Rough magnet inspection	Rough magnet inspection		Apperance		M	No Oxidation on surface, No Crack, No distortion	By visual	100%	Each stove	Rough magnet inspection instruction(ZY-8.2.4-06)	Move singly, Degrade		
				Dimension		M	51 ^{±0.05} *51 ^{±0.05} *27.2 ^{±0.05} (mm)	Digital Vernier Caliper	GB2828 Normal II AQL=0.6	Each stove		Move singly, Degrade		
				Property		M	N35SH Br:11.7~12.2KGs; Hcb:>11.0KOe; Hcj:>20.0KOe; (BH)max:33~36MGOe	Property inspection equipment	>5 pcs	Each stove		Move singly, Degrade, resintering		
150	Wire Cutting	Wire Cutting machine					Φ4.70±0.02mm	0.01mm Micrometers	GB2828 Normal II AQL=0.65	Each lot	Grinding inspection record	Rework/Reject, Adjust the machine		
				Appearance			No Burr, No Dirt, No Damage, No Oxidation, No Accumulation	By visual	100%	Each lot	By visual	Isolate/Re work/Reject		
160	Centerless grinding	Centerless grinding machine		Tolerance			Φ4.50 ^{0/-0.15} mm	0.001mm Micrometers	GB2828 Normal	Each lot	Inspection record	Rework/Reject		
				Appearance			No Burr, No Dirt, No Damage, No Oxidation, No Accumulation	By visual	100%	Each lot	By visual	Isolate/Re work/Reject		
170	Cutting	Cutting machine		Tolerance			6.00 ^{+0.0/0.5} mm	0.01mm Micrometers	GB2828 Normal II AQL=0.65	Each lot	Grinding inspection record	Rework/Reject, Adjust the machine		
				Appearance			No Burr, No Dirt, No Damage, No Oxidation, No Accumulation	By visual & statistic	100%	Each lot	By visual	Isolate/Re work/Reject		
180	Machining Inspection			Tolerance			Φ 4.50 ^{0/0.15} *6.00 ^{+0.5/0} (mm)	0.01mm micrometers; R Gauge	GB2828 Normal II AQL=0.6	Each lot	Unplating magnet inspection instruction(ZY-8.2.4-08)	Rework/Reject		
				Appearance			No broken edges, Crack	By visual	100%	Each lot		Isolate/Re work/Reject		
				Weak magnetic			Do not Attract three staple	By visual	1-10pcs	Each lot		Isolate/Re work		
		Roller burnishing machine		Grinding stone	Burnishing		14×14 Griding stuff	Visual inspection	100%	Each lot	NdFeB chamfer working instruction, transfer technics card	Rework		
				Put in grinding			38~50 (Kg)	Box						
				Put in magneti steel volume			20~30(Kg)	Electronic balance						
				Abrading time			8~12 (h)	Time relay	100%			Each lot	NdFeB chamfer working instruction transf	Rework
				Edge-breaking			R ≤ 0.2	Projection	5PCS					
		Pre-handling slot		Acid lotion concentration	Pre-handling		2~5(%)	Replacing	100%	Each lot	Working instruction of plating	Adjust		
				Acid washing time			30~90(s)	Clock	100%					
				Activation time			10~30(s)	Clock	100%	Each lot				
				Clean time of ultrasonic			10~30 (s)	Clock	100%					
		Plating NI Slot		PH			4.0~4.6	PH meter	Continuous	Each lot	Working instruction of plating	Adjust		
				Temperature			45~55	Thermometer	Continuous	Each lot	Working instruction of plating	Adjust		
				Time			70~100	Timer	Continuous	Each lot	Working instruction of plating	Adjust		
				Electric current			30~40A	Ammeter	Continuous	Each lot	Working instruction of plating	Adjust		

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190	Plating NiCuNi	Plating Cu Slot		Temperature			40~50	Thermometer	Continuous	Each lot	Working instruction of plating	Adjust	
				Time			25~35	Timer	Continuous	Each lot	Working instruction of plating	Adjust	
				Electric current			70~100	Ammeter	Continuous	Each lot	Working instruction of plating	Adjust	
		Plating NI Slot		PH			4.0~4.6	PH meter	Continuous	Each lot	Working instruction of plating	Adjust	
				Temperature			45~55	Thermometer	Continuous	Each lot	Working instruction of plating	Adjust	
				Time			70~100	Timer	Continuous	Each lot	Working instruction of plating	Adjust	
				Electric current			30~40A	Ammeter	Continuous	Each lot	Working instruction of plating	Adjust	
		Plating NI Slot		PH			4.0~4.6	PH meter	Continuous	Each lot	Working instruction of plating	Adjust	
				Temperature			45~55	Thermometer	Continuous	Each lot	Working instruction of plating	Adjust	
				Time			70~100	Timer	Continuous	Each lot	Working instruction of plating	Adjust	
				Electric current			30~40A	Ammeter	Continuous	Each lot	Working instruction of plating	Adjust	
		Test		Dimension/Thickness of coating				15~31μm	Coating thickness gauge	2~5pcs	Each lot	Inspection record	Rework/Reject
				Appearance				Surface without broken, dirt, bared and banked	By visual	100%	Each lot	Inspection record	Degrade/Reject
				Chamfer				R<0.50mm	Projector	5pcs	Each lot	Chamfer Record	Adjust machine
		200	Final magnets inspection			Dimension (Tolerance)		M	Φ 4.50 ^{0/0.15} *6.00 ^{0.5/0} (mm)	0.001mm Micron micrometers	GB2828 Normal II	Each lot	Final magnet inspection instruction(ZY-8.2.4-09)
	Appearance					M	No bleach, feculence, broken of the coating	By visual	100%	Each lot	Isolate/Rework/Reject		
	No harmful substance						Do meet EU RoHS environmental requirements	Products sent to SGS for testing	200cm2	One Year	Rework/Reject		
210	Magnetizing	Magnetizing machine					Voltage Current Time	Operation instruction	Machine automatism	100%	Each Squad	Magnetizing operation instruction(ZY-6.3-03-45)	Adjust machine
220	Packaging	vacumm packing machine, packing machine		Apperance				Carton size:320*24*13(mm)	By visual	100%	Each lot	Packaging operation instruction(ZY-6.3-03-44)	All Inspection
230	Warehousing and Delivery			carton mark including quantity, grade ,size				According to customers' mark request and shipping method	By visual	100%	Each lot		Rework