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PRODUCT SCOPE

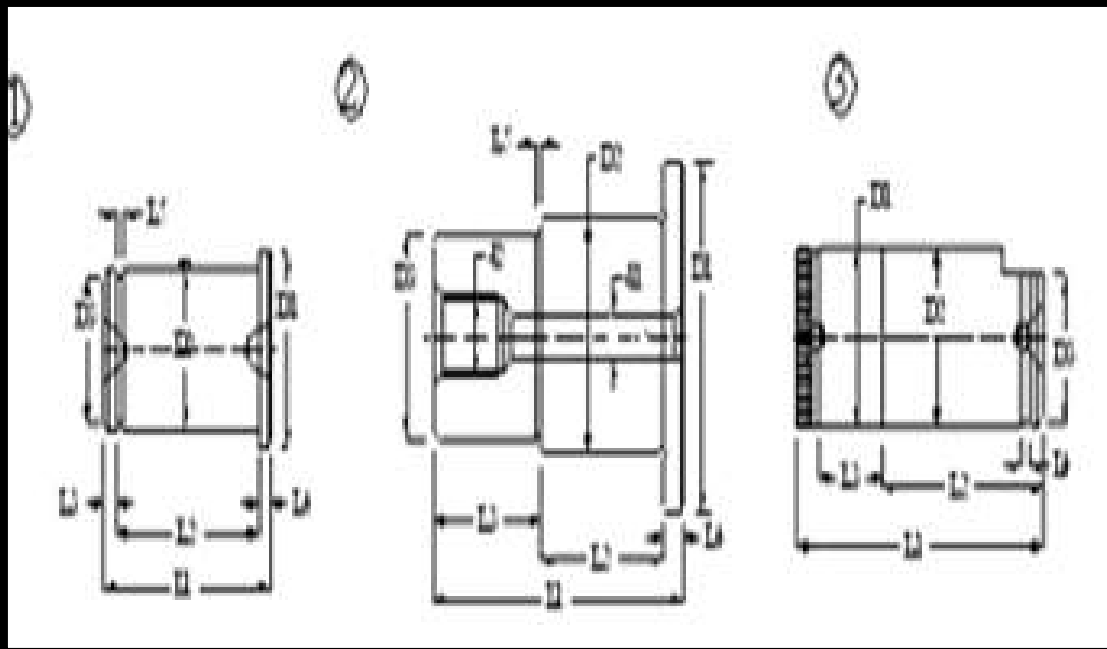


In general, the Core competency of JMC has been the manufacturing of High Precision, Hardened & Ground Engineering Components required by Transmission / Gearbox / Hydraulic Pumps Manufacturing Companies having heavy duty applications.

In Particular, we have been regularly manufacturing and supplying the products like:

- Pins
- Planetary Carrier Pins / Perno
- Planetary Axles
- Planet Carrier Bolts,
- Shafts,
- Rings
- Ring Nuts
- Bushes / Sleeves

PRODUCT GALLERY



GENERAL PRODUCT SPECIFICATIONS



MOC (RM Grades)	20MnCr5	
	EN355	
	EN19	
	SAE4140	
	SAE52100	
	18NiCrMo7-6	
	17CrNiMoS6	
	18NiCrMo5	



Capacity		Min	Max	Accuracy	Dia	0.008 mm
	Dia	20	150		Length	+0.1 mm
					Roundness	0.002 mm
	Length	40	500		Cylindricity	0.004 mm
					Surface Finish	0.2 Ra



Heat Treatment	Through Hardening	Hardness	58 To 62	HRC
	Toughening	Hardness	27 To 42	HRC
	Case Hardening	Hardness	58 To 62	HRC
		Case Depth	0.4 To 2.00	mm

TYPICAL PROCESS FLOW



- Raw Material Receipt
- RM Inspection
- Cutting
- CNC Machining
- Knurling, if required
- CNC Milling & Drilling, if required
- Marking
- Heat Treatment
- Grinding
- Final Inspection
- Packing
- Dispatch

QUALITY ASSURANCE



- Quality is monitored at every stage through robust Quality assurance System supported with fully customised ERP System that enables tracking of quality at all stages of production starting from Raw Material Inspection to Final Inspection.
- Raw Material is sourced from only Approved Steel Mills. Each RM lot procured is inspected and RM Inspection Report is prepared.
- For each process, a Process Plan is made that spells out all the specifications and Control methods for both Product and Process Characteristics.
- Quality is regularly monitored through First Piece Approval, On Line Inspection, Run Charts, Stage Inspection And Final inspection.

TRACEABILITY



OUR QA SYSTEM AND MATERIAL HANDLING METHODOLOGY ENABLES US TO ENSURE THE TRACEABILITY IN THE MOST RELIABLE MANNER

- Production is done against internally issued Work Order. For each Work Order, raw material received against only one RM Inspection Report can be issued.
- For each WO, after the RM is cut, the lot is given one big tray that accommodates full quantity of the WO. This tray also is marked with the WO number. Material is transferred from one process to the next in the same tray till the WO is finished.
- Material from a given Work Order is transferred from one process to the next process only after full Work Order is completed in the first process.
- The standard Work Order quantity for each part code has been determined based on optimum batch size for Heat Treatment for each part code.
- Fully Customised ERP System tracks all the Inspection reports against a particular WO starting from RM Inspection Report To Final Inspection Report.
- It ensures that:
One Work Order \leftrightarrow One RM Inspection Report
(So No mixing up of RMs of two lots in one WO)
- It ensures that:
Material from Two different WOs don't get mixed up during the process.
- It ensures that:
Material from Two different WOs don't get mixed up during the process.
- It ensures that:
Each WO gets linked with a specific Heat treatment batch number
- It ensures that:
The traceability for each Final Inspection Report with RM Inspection Report



APPLICATIONS

The Parts produced by JMC have been used for variety of applications like:

- Wind Mill Gearbox
- Wind Mill Planetary Gearbox
- Cement Concrete Mixer Planetary Gearbox
- Electric Vehicle Planetary Gearbox
- Tractor Planetary Gearbox
- Heavy Duty Planetary Gearbox
- Stone / Sugarcane Crusher Gearbox
- Off highway Vehicles
- Construction & Mining Machinery etc



LIST OF MACHINERY SET-UP			
DESCRIPTION	QTY.	MAKE & MODEL NO.	CAPACITY
For manufacturing of Pins, Shafts etc.			
HIGH SPEED CUTTER SAW MACHINE	1	ITL	MAXIMUM DIA.245.00
CNC LATHE	15	LMW, Jyoti, ACE	MAXIMUM DIA 350 mm MAX LENGTH 850mm
THREAD ROLLING MACHINE MODEL MTR-15	2	MTE - MTR 15	MAXIMUM DIA 50.00 mm
CNC VERTICAL MACHINING CENTRE (VMC)	1	HAAS USA- VF-1	TRAVEL :X:510mm Y:405 mm Z:550 mm
CNC VERTICAL MACHINING CENTRE (VMC)	1	HAAS USA - VF-2	TRAVEL X:762.0 mm Y:508.0 mm Z:550 mm
DOT PINNING MARKING MACHINE	1	Vihan	NA
LAZER MARKING MACHINE	1	Suresh Indo Lazer	Lazer range 250*250
SEALED QUENCH FURNACES	2	Bharat Gears	650 KG EACH
CNC CYLINDRICAL GRINDER [ANGULAR PLUNGE]	5	SRB	MAX DIA 350 mm
			MAX LENGTH 700 mm

LIST OF MACHINERY SET-UP



DESCRIPTION	QTY.	MAKE & MODEL NO.	CAPACITY
For manufacturing of other Components			
CNC VERTICAL TURNING LATHE(VTL)	1	TAL - VTL-800	MAXIMUM DIA 800 mm*LENGTH 650mm
CNC WIRE CUT MACHINE [EDM]	1	ELECTRONICA	JOB HEIGHT 550 mm
CNC VERTICAL GRINDING MACHINE - TAIYO KOKI	1	TAIYO KOKI - NVG-5	MAXIMUM DIA : 560 mm MAXIMUM Length : 500 mm
CYLINDRICAL GRINDER	1	NORTON - USA	MAXIMUM I. D. 350 mm MAXIMUM O.D. 400 mm BETWEEN CENTRE 1300 mm
CENTRELESS GRINDER	1	CINCINNATI	DIA 4 mm To 75 mm
CNC CYLINDRICAL INTERNAL GRINDER	1	WMW GERMANY	MAXIMUM ID 1000 mm MAXIMUM OD 750 mm MAXIMUM JOB LENGTH 250 mm
SUBZERO RE-TEMPER SUB ZERO CHAMBER WITH WORKSPACE DIMENSIONS OF 1000X1000X1000 MM	1	OWN DESIGN	RANGE +210 DEG.TO -80 DEG C
RADIAL DRILLING MACHINE	1	ENERGY	1.1/2"
DRILLING & TAPPING MACHINES	3	THAKOOR	DIA UPTO 20 mm
COIL WINDING MACHINE	1	SPM	
HYDRAULIC PRESS	1	ELETRO-PNUEMATICS	32 TONS
BAND SAW	1	SPM ENGG	DIA 180 mm

LIST OF QUALITY MEASUREMENT EQUIPMENTS



DESCRIPTION	QTY.	MAKE	RANGE
MODEL : CONTRACER, CV-2100M4	1	MITUTOYO	
MODEL : LINEAR HEIGHT, LH600-EG	1	MITUTOYO	
PROFILE PROJECTOR	1	DELTA	L.C. 1.0 u
DIGITAL SURFACE FINISH TESTER	1	MITUTOYO	Ra 0.05 u
ROCKWELL HARDNESS TESTER	1	AKASH -A1-RAS	Max.250 mm scale HRB HRC
ROCKWELL HARDNESS TESTER	1	FINE-TSM	Max.300 mm scale HRA HRB,HRC
MICRO HARDNESS TESTER	1	MITUTOYO HM-113	Traverse method HV, Case depth 4 max.
GRANITE SURFACE PLATE	1	JAFUJI	600 x 1000 x 180 mm
GRANITE SURFACE PLATE	1	JAFUJI	1200 x 800 x 160 mm
DIGITAL OUTSIDE MICROMETER	2	MITUTOYO	0.0 - 25.00 mm
	3		25 --50.00 mm, 50 - 75.00mm , 75 - 100 mm
OUTSIDE MICROMETER	3	MITUTOYO	300 TO 400mm.



LIST OF QUALITY MEASUREMENT EQUIPMENTS			
OUTSIDE MICROMETER	9	MITUTOYO	0.0 - 25.0
	8		25 - 50.0
	16		50 - 75, 75 - 100 , 100 - 125, 125 - 150, 150 - 175, 175 - 200 , 200 - 225 , 225 - 250 , 250 - 275, 275 - 300
DIAL VERNIAR CALIPER	17	MITUTOYO	0.00 - 200.0 mm
VERNIAR CALIPER	3	MITUTOYO	0.0 - 450 , 0.00 - 600 , 0.0 - 1000 mm
DIAL BORE GAUGE	5	MITUTOYO	18 TO 400mm.
DIGITAL VERNIER CALIPER	1	MITUTOYO	0 TO 150mm. L.C. 0.01 u.
PLUNGER DIAL GAUGES	20	MITUTOYO	0.001 ,0.010, 0.10 mm LC
LEAVER DIAL GAUGES	4	MITUTOYO	0.002 ,0.010mm LC
AIR GAUGE	1	ACCURATE	40 u. , L.C. 0.5 u.
DIAL COMPARATOR WITH STAND	8	MITUTOYO	0 TO 0.2 mm.
SLIP GAUGE	1	LIMBACH	1.001 TO 100mm.
	1	STD.	0.5 TO 100 mm.
DEGREE PROTRACTOR	2	INOX	5´
		DDR	5´
BLADE MICROMETER	2	MITUTOYO	0 - 25 mm
			25 - 50 mm
SINE BAR	1	SUPREME	100 TO 300 mm.

OTHER CAPABILITIES



OUR TWO DECADE LONG EXPERIENCE OF CATERING TO GLOBAL REQUIREMENTS HAS HARNESED VARIOUS CAPABILITIES NECESSARY TO BECOME POSITIVE CONTRIBUTOR TO THE GLOBAL VALUE CHAIN.

- We are ISO 9001:2015 company for last one decade
- Currently we are upgrading our system to meet the requirements of IATF 16949
- We monitor the performances of our various departments through KPIs.
- Our development team is well-versed with the procedure and documentation of APQP and PPAP
- We regularly monitor the machine capabilities to identify any maintenance need in time.
- Our dedicated Quality Engineer monitors the training needs of our operators, inspectors as well as Subcontractors and also ensures their continuous upgradation.
- We are proud of our legacy of almost zero attrition over several decades.
- This has helped us evolve a unique intellectual property amongst all our operators and inspectors who understand and know the process and product requirements thoroughly well.
- We have our own customized ERP system and we keep it continually improving.



THANK YOU!

