

# Aris Global Forging & Machining LLP

#### ENGINEERING WITH INTEGRITY

Survey No. 34, Plot No. 4 & 5, Sardar Industrial Area, Village: Bharudi, Taluka: Gondal, District: Rajkot, Gujarat (INDIA) 360 311.

Email: info@arisqlobalforging.com











Total Area: 35,000 Sq. ft.

Covered area: 25,000 Sq. ft.

### INTRODUCTION

- We "Aris Global Forging and Machining LLP" are engaged in manufacturing and supplying a wide range of precise Forged and Machined components globally. Our product range encompasses carbon steel, stainless steel, Alloy steel and other ferrous and non-ferrous material.
- Our capable workforce is complimented by a state-of-the-art infrastructure. AGFM is an integrated
  one stop solution for your RM Cutting, Close-die & Ring Rolling Forging, Heat Treatment and
  Machining requirements. Advanced Quality Measurement and Management system to test our
  products on well-defined world class quality parameters.
- In order to keep up with the growing demand we expand our capability to various Industrial segments like Automotive, Railway, Defence, Aerospace, Heavy Engineering, Earth moving, Gear and Transmission, Agriculture, Marine, Electric transmission and Industrial machinery equipments.
- Aris Global Forging and Machining LLP is an excellent development partner manufacturing unit. We provide custom made solutions in cost effective manner. Our quality standards have made us an ISO 9001:2015, IATF 16949: 2016 and PED certified organization.

### **OUR VISION**

✓ To create world class **Forged and Machined products** that transform our reputed clients' and customer's using experience.

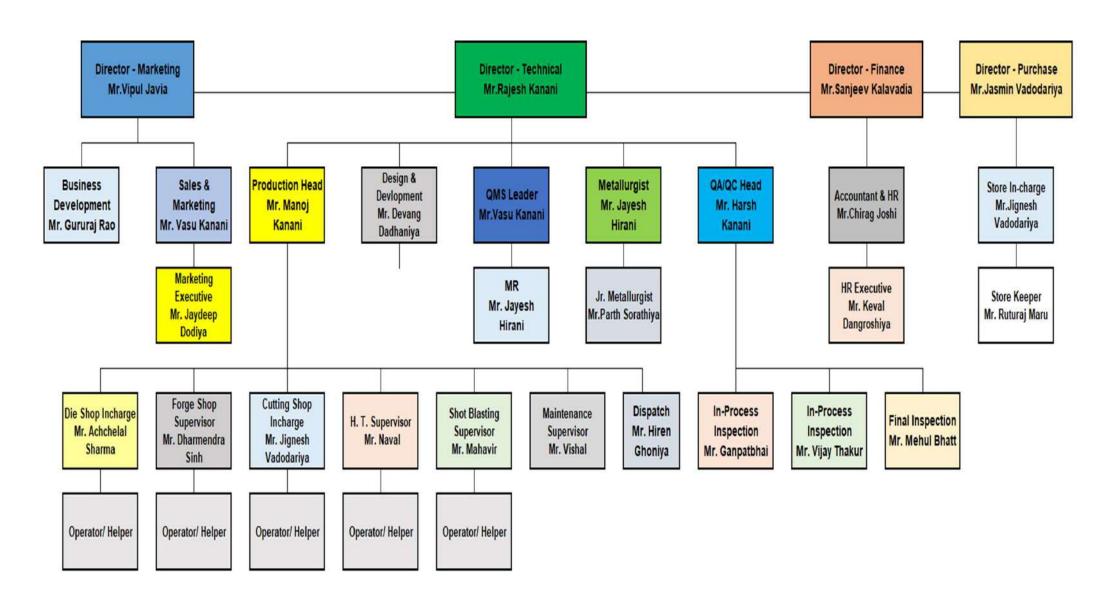
### **OUR MISSION**

✓ We take part in the global supply chain to generate values to our customers and sustainable growth.

# **QUALITY POLICY**

✓ "Aris global forging and machining LLP" is committed to achieve total customer satisfaction through timely supply of quality products as per National & International standards through constant adherence to Quality Management System & In Compliance to Statutory & Regulatory Requirements & Continual organizational Improvement.

### **ORGANISATION CHART**



### **MATERIAL**

#### Carbon Steel

St52-3, SAE 1018, SAE 1045, EN 8D, EN 9, SAE 1141, A105 etc.

#### Alloy steel

SAE 8620, EN 353, 42CrMo4, 41Cr4, 25CrMo4, SAE 4140, SAE 4130, 20MnCr5, EN 19, EN 24 etc.

#### Stainless Steel

SS 316, SS 304, SS 410, SS 420

Other Ferrous and non-Ferrous on case-to-case basis

### PRODUCT APPLICATION SECTOR

- Automotive
- Railways
- Industrial machinery parts
- Defence
- Aerospace
- Heavy Engineering
- Agriculture Equipment

- Textile industries
- Marine
- Electrical transmission
- Construction equipment
- Gear and Transmission
- Power Generation
- Oil and natural gas

### **OUR CAPABILITY**

- Tooling and die developing
- Laboratory and Inspection of Raw Material
- Raw Material Cutting
- Close die Forging
- Ring rolling Forging
- Heat treatment (Normalizing / ISO Annealing / Quenching & Tempering)
- Shot blasting
- Fettling
- NDT testing (UT, MPI & Dye penetrant inspection)
- Machining
- Surface treatment (Passivation, Zinc Plating)
- Identification Marking
- Packing & Storage

### PROCESS FLOW CHART

#### **Manufacturing Process**



# PLANT LAYOUT





Doc. No.: D/MNT/01

Rev. No.: 01

Sr. No.	Description of Machine/ Equipment	Code No.	Make / Model	Year of Install	Location	Preventive Maint. Required (Yes / No)	Remarks / Sign. / Date
1	Induction Heating Furnace 250kw	AG/MC-01	R A Induction	2021	Forge shop	Yes	
2	Hammer 1.5 Ton	AG/MC-02	Ratan Hammar	2021	Forge shop	Yes	
3	Trimming press	AG/MC-03	Mico Hydraulic	2021	Forge shop	Yes	
4	Lathe machine	AG/MC-04	Techno	2021	Die shop	Yes	
5	Lathe machine	AG/MC-05	Ronak	2021	Die shop	Yes	
6	Lathe machine	AG/MC-06	Local	2021	Die shop	Yes	
7	Drilling machine	AG/MC-07	Prashant	2021	Die shop	Yes	
8	Milling machine	AG/MC-08	Local	2021	Die shop	Yes	Sell Out
9	Milling machine	AG/MC-09	VEB machine tools	2021	Die shop	Yes	
10	Bench Grinder	AG/MC-10	HMP	2021	Plant	No	
11	Trimming press	AG/MC-11	Mico Hydraulic	2021	Forge shop	Yes	
12	Hammer 1 Ton	AG/MC-12	Ratan Hammar	2021	Forge shop	Yes	
13	Hammer 3 Ton	AG/MC-13	Ratan Hammar	2021	Forge shop	Yes	
14	Heat Treatment furnace	AG/MC-14	Patel Electric Furnace	2021	HT Area	Yes	
15	Heat Treatment furnace	AG/MC-15	Patel Electric Furnace	2021	HT Area	Yes	
16	Shot Blasting Machine	AG/MC-16	Surfex	2021	Plant	Yes	
17	Cooling tower	AG/MC-17	Raj Cooling World	2021	Plant	Yes	
18	Air compressor	AG/MC-18	Vijay	2021	Plant	Yes	
19	Air compressor	AG/MC-19	Micro compressor	2021	Plant	Yes	
20	Upsetting press	AG/MC-20	Mico Hydraulic	2021	Forge shop	Yes	



Doc. No.: D/MNT/01

Rev. No.: 01

Sr. No.	Description of Machine/ Equipment	Code No.	Make / Model	Year of Install	Location	Preventive Maint. Required (Yes / No)	Remarks / Sign. / Date
21	Punching press	AG/MC-21	Mico Hydraulic	2021	Forge shop	Yes	Sell Out
22	Trimming Press	AG/MC-22	Mico Hydraulic	2021	Forge shop	Yes	Sell Out
23	Vertical ring rolling	AG/MC-23	Mico Hydraulic	2021	Forge shop	Yes	Sell Out
24	Sizer Press	AG/MC-24	Mico Hydraulic	2021	Forge shop	Yes	Sell Out
25	Band saw machine	AG/MC-25	S Tech	2021	Cutting shop	No	Sell Out
26	Band saw machine	AG/MC-26	Universal	2021	Cutting shop	Yes	
27	Band saw machine	AG/MC-27	Universal	2021	Cutting shop	Yes	
28	Band saw machine	AG/MC-28	Universal	2021	Cutting shop	Yes	
29	Band saw machine	AG/MC-29	Universal	2021	Cutting shop	Yes	
30	Rockwell hardness tester	AG/MC-30	Meta Test	2021	Lab	Yes	
31	Impact testing Machine	AG/MC-31	FSA	2021	Lab	Yes	
32	Universal Testing Machine	AG/MC-32	FSA	2021	Lab	Yes	
33	Jominy End Quench machine	AG/MC-33	FSA	2021	Lab	No	
34	Band saw machine	AG/MC-34	Universal	2021	Cutting shop	Yes	
35	Induction Heating Furnace 180kw	AG/MC-35	R A Induction	2021	Forge shop	Yes	
36	Crane 2 Ton	AG/MC-36	Induct Crane	2021	Die shop	Yes	
37	Crane 2 Ton	AG/MC-37	Induct Crane	2021	Die shop	Yes	
38	Double Disc Polishing Machine	AG/MC-38	Radical	2021	Lab	No	
39	Hand Grinder	AG/MC-39	Matika	2021	Die shop	No	
40	Hand Grinder	AG/MC-40	Matika	2021	Die shop	No	



Doc. No.: D/MNT/01

Rev. No.: 01

Sr. No.	Description of Machine/ Equipment	Code No.	Make / Model	Year of Install	Location	Preventive Maint. Required (Yes / No)	Remarks / Sign. / Date
41	Die Grinder	AG/MC-41	Dong-Cheng	2021	Die shop	No	
42	Bench Grinder	AG/MC-42	Rajlaxmi	2021	Plant	Yes	
43	Bench Grinder	AG/MC-43	Rajlaxmi	2021	Plant	Yes	
44	Double side Belt Grinder	AG/MC-44	Rajlaxmi	2021	Plant	Yes	
45	Magnetic Partical Inspection machine AG/MC-45 New magnetic		New magnetic	2021	Dispatch area	Yes	
46	Brinell Hardness testing Machine	AG/MC-46	Fasne	2017	Dispatch area	Yes	
47	Radial & Pillar drilling Machine	AG/MC-47	Prakash	2021	Die shop	Yes	
48	Band saw machine	AG/MC-48	Local	2021	Cutting shop	Yes	Sell Out
49	Welding machine - 400 A	AG/MC-49	HMP	2021	Die shop	No	
50	Welding machine - 400 A	AG/MC-50	Vulcan	2021	Die shop	No	
51	Welding machine - 600 A	AG/MC-51	Vulcan	2021	Die shop	No	
52	Forklift 5 ton	AG/MC-52	Godrej	2021	Plant	No	
53	Transformer	AG/MC-53	Vidyut	2021	Plant	Yes	
54	EOT Crane 5 Ton	AG/MC-54	Mech Tech Industries	2021	Plant	Yes	
55	Weigh Scale-30kg	AG/MC-55	Electro	2021	Cutting shop	Yes	
56	Weigh Scale-100kg	AG/MC-56	Electro	2021	Cutting shop	Yes	
57	Bosch Cutter	AG/MC-57	Bosch	2021	Plant	No	
58	Muffle furnace	AG/MC-58	Yuri	2021	Lab	No	
59	Spectrometer	AG/MC-59	Ametek	2021	Lab	Yes	
60	Band saw machine	AG/MC-60	Universal	2021	Cutting shop	Yes	



Doc. No.: D/MNT/01

Rev. No.: 01

				Rev Date.: 01/07/202			
Sr. No.	Description of Machine/ Equipment	Code No.	Make / Model	Year of Install	Location	Preventive Maint. Required (Yes / No)	Remarks / Sign. / Date
61	Band saw machine	AG/MC-61	Universal	2021	Cutting shop	Yes	
62	Metallurgical Microscope	AG/MC-62	Radical	2021	Lab	Yes	
63	Induction Heating Furnace 250kw	AG/MC-63	RA Induction	2021	Forge shop	Yes	
64	Oil Fired Furnace	AG/MC-64	New Tech	2021	Forge shop	Yes	
65	Hydraulic Trimming Press	AG/MC-65	Mico Hydraulic	2021	Forge shop	Yes	
66	Magnetic Partical Inspection machine	AG/MC-66	Magnafield Controls	2021	Forge shop	Yes	
67	Band Saw Machine	AG/MC-67	Universal	2021	Cutting shop	Yes	
68	Packaging machine	AG/MC-68	Icon packaging solution	2021	MPI Area	No	
69	Oil Fired Furnace	AG/MC-69	New Tech	2021	Forge shop	Yes	
70	Portable Infrared Thermometer	AG/MC-70	нтс	2021	Lab	No	
71	Surface Grinder (spectro)	AG/MC-71	R.K.Scientific & Tradelink	2022	Lab	No	
72	Hammer 0.75 Ton	AG/MC-72	Ratan Hammar	2022	Forge shop	Yes	
73	Trimming press	AG/MC-73	Mico Hydraulic	2022	Forge shop	Yes	

# RAW MATERIAL



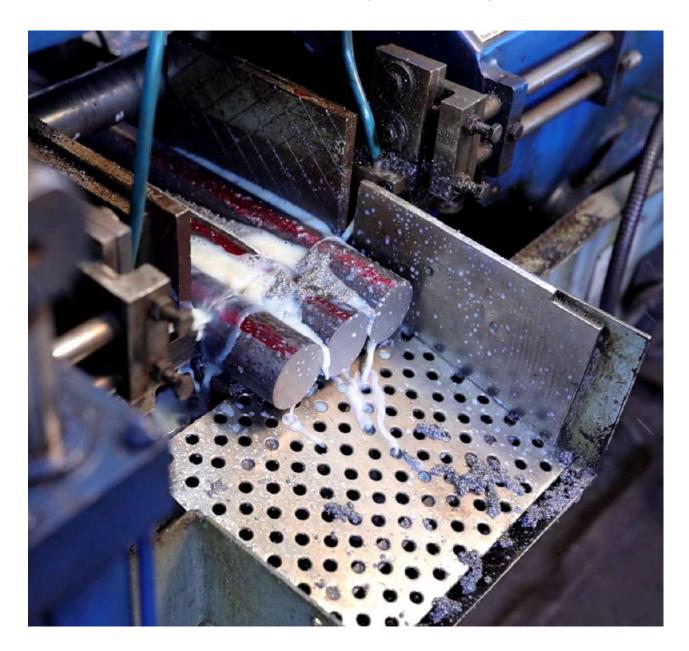


#### **List of Raw Material Colour Code**

Doc. No.: D/QA/04 Rev. No.: 03 Rev. Date : 01/01/2023

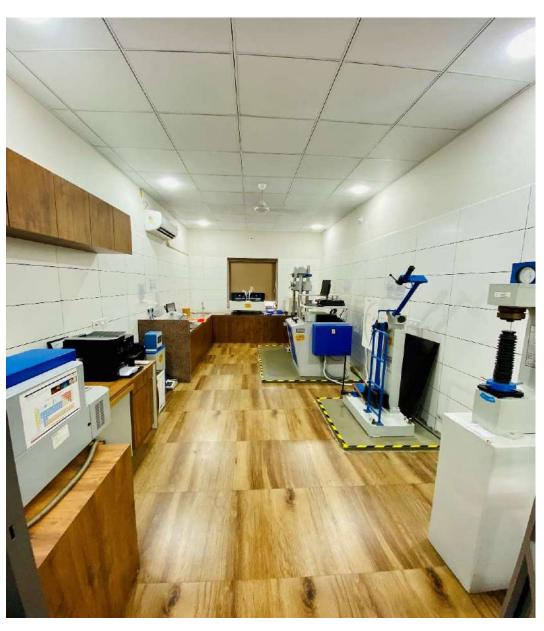
1	A 105	GREY		16	SS 303 / DIN 1.4305	BROWN & YELLOW	
2	SAE 8620 / SAE 8620H	GREEN		17	SS 304 / DIN 1.4301	BROWN & RED	
3	SAE 1018 / IS 2830 (C18HMn) / MS	ORANGE	Ì	18	SS 304 L / DIN 1.4307	BROWN & WHITE	
4	ST 52.3 / Fe 410 / S355J2	BLUE		19	SS 316 / DIN 1.4401	SKY BLUE & PURPLE	
5	C 50 / SAE 1050	BLACK / ORANGE		20	SS 316 L / DIN 1.4404	SKY BLUE	
6	EN8D / CLASS-4 / SAE 1040	YELLOW		21	SS 410 / DIN 1.4006	SKY BLUE & GREY	
7	CK 45 / C 45 / SAE 1045	PURPLE		22	SAE 52100 / EN 31	BLACK & WHITE	
8	16MnCr5	BLACK		23	P250GH	RED & GREEN	
9	20MnCr5	WHITE		24	A 350 LF 2	RED & WHITE	
10	42CrMo4	BROWN		25	16Mo3	YELLOW & ORANGE	
11	EN 353	BLACK & GREEN		26	25CrMo4	PURPLE & WHITE	
12	EN 9 / C 55	BROWN & BLACK		27	30CrNiMO8	PINK & GREY	
13	EN 19	PINK & YELLOW		28	SAE 4130	WHITE & GREEN	
14	SAE 4140	GREY & BLUE		29	41Cr4	YELLOW & BLUE	
15	SAE 1141	ORANGE & GREEN		30	EN 24	PURPLE & YELLOW	

# RAW MATERIAL & CUTTING AREA





### LABORATORY & INSPECTION



- Spectrometer SPECTOMAXX Make
- Metallurgical Microscope Radical Make
- Rockwell Hardness Tester Meta test make
- Brinell Hardness tester Tirupati
   Instruments
- Tensile Testing Machine FSA make
- Impact Testing Machine FSA make
- Muffle furnace & Jominy end quinch test
- Double disk polishing machine



#### List of Lab Instruments & Calibration Status

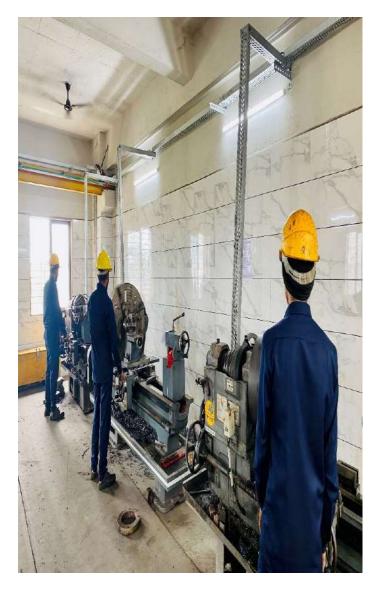
Doc. No.: D/QA/02 Rev. No.: 01

Rev. Date.: 01/07/2022

4.0										Rev. Date.: 01/0	11/2022
Sr. No.	Instruments	Instrument Code	Machine Code No	Make	Size/Range/ Capacity	Least Count	Calibration Date:	Due Date	Certificate No	Calibration Agency	Remark
1	Rockwell Hardness tester	MRB-250	AG/MC/30	Meta Test	HRA, HRB, HRC	1 HRA, HRB, HRC	11.09.2023	10.09.2024	CC312623000024595F	ARSH	
2	Impact Test Machine	AIT-300-EN	AG/MC/31	FSA	300 J	2 J	09.09.2023	09.09.2024	SCSPL/09-2023/ITM/1155	SUPER CALIBRATION	
3	Universal Testing Machine	TUE-C-400	AG/MC/32	FSA	0-400KN	0.02KN	15.09.2023	14.09.2024	SCS/15230901/01	STAR CALIBRATION	
4	Micro Polishing Machine	AGMC/38	AG/MC/38	Radical		5		N/A			
5	Muffle Furnace	AGMC/33	AG/MC/58	NewTech	Amb. To 1200°C	1° C	01.08.2023	31.07.2024	UL/2023/02476	UNIMARK LAB	
6	Metallurgical Microscope	QA/W/02	AG/MC/62	Radical	50X, 100X, 200X, 500X	9	15.05.2023	14.05.2024	UL/2023/01499	UNIMARK LAB	
7	Jominy Quenching Apratus	AGMC/62	AG/MC/62	FINE SPAVY	-	=	N/A				
8	Spectrometer	LMF- 05/132046	AG/MC/59	AMETECH	Carbon Steel and Alloy Steel	=	09.02.2024	09.06.2024	MT/TC/AG/10-23	M-TECH	
9	Brinell Hardnes Tester 3000kg	AKB-3000	AG/MC/46	FASNE	-	=1	11.09.2023	10.09.2024	CC312623000024596F	ARSH	
10	Magnatic Particle Machine	AGMC/45	AG/MC/45	MAGNAFIELD	27	5 51	15.05.2023	14.05.2024	UL/2023/01500/1501	UNIMARK LAB	
11	Infrared Thermometer (Pyrometer Gun)	нтс	<u>#</u>	нтс	- 50 to 1550° C	0.1 / 1° C	20.03.2023	19.03.2024	2303/0377/01	EXCELLENT SERVICE	
12	Heat Treatment Furnace	PATEL	AG/MC/14	PATEL	-	=	02.07.2023	01.07.2024	UL/2023/02173	UNIMARK LAB	
13	Heat Treatment Furnace	PATEL	AG/MC/15	PATEL	9-1	-1	04.07.2023	03.07.2024	UL/2023/02174	UNIMARK LAB	
			-	*		*		8	×	8	
,								s <sub>2</sub> .			

Approved By : Mr. Harsh Kanani

# TOOLING AND DIE DEVELOPING







# BELT DROP HAMMER





0.75 MT, 1, 1.5, 3 MT Hammer

### **CLOSE DIE FORGING**

Job handling capacity = 0.100 KG to 75 KG





# RING ROLLING FORGING



#### RING ROLLING FORGING

Outer Dia = 50 mm to 600 mm Work piece Weight = 0.100 KG to 75 KG

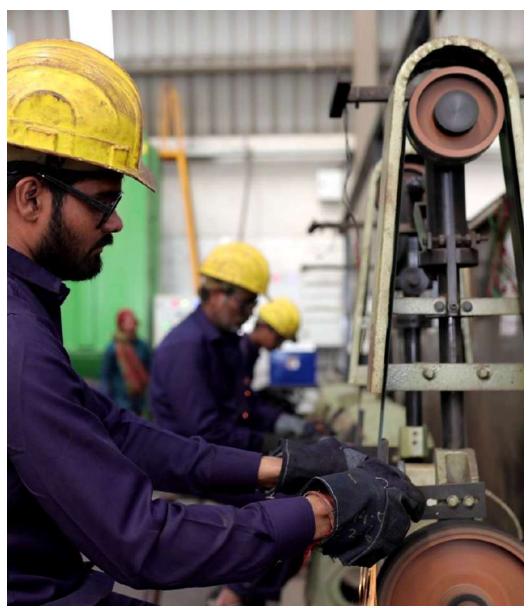




### **HEAT TREATMENT**



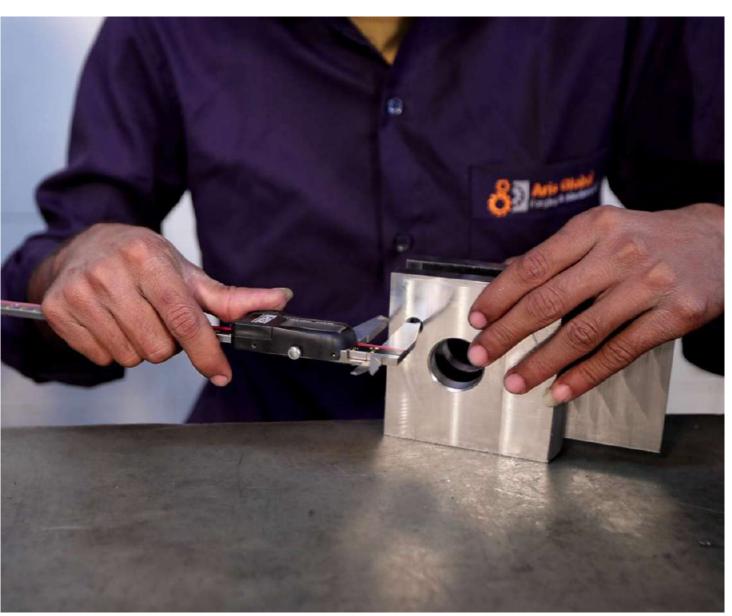
#### **FETTLING & SHOT BLASTING**





### MPI & FINAL INSPECTION





# FORGING COMPONENTS











ARIS GLOBAL FORGING & MACHINING LLP

# MACHINING FACILITY



ARIS GLOBAL FORGING & MACHINING LLP

# MACHINING FACILITY





# **CNC MACHINING**





# VMC MACHINING



ARIS GLOBAL FORGING & MACHINING LLP

# **MACHINING COMPONENTS**



ARIS GLOBAL FORGING & MACHINING LLP

# **MACHINING COMPONENTS**









# INSPECTION FACILITY







Roughness tester



2D Height gauge

# **INSPECTION FACILITY**

#### Mitutoyo









ARIS GLOBAL FORGING & MACHINING LLP

# FINAL INSPECTION FACILITY







#### List of Measuring Equipment & Calibration Status

Doc. No.: D/QA/02

Rev. No.: 01 Rev. Date.: 01/07/2022

Discription of Size/Range/C Sr Code No. Least Calibration Status Machine code Make Remarks **Measuring Device** / Serial No. Location apasity Date **Due Date** Certificate No. Count Agency Vernier Height Gauge CC282023000004409F 1 2002664 VHG-01 0-600mm 21-04-23 20-04-24 Baker 0.02mm Mascot Vernier Caliper CC282023000004406F 3 20100902 VC-02 Baker 0-300mm 0.02mm 21-04-23 20-04-24 Mascot 4 Vernier Caliper 20100118 VC-03 0-300mm 0.02mm 27-04-23 26-04-24 CC282023000004736F Baker Mascot Vernier Caliper 5 J 19029642 VC-04 Yuri 0-300mm 0.02mm 21-04-23 20-04-24 CC282023000004407F Mascot 6 Vernier Caliper J 19029555 VC-05 27-04-23 26-04-24 CC282023000004735F Yuri 0-300mm 0.02mm Mascot 7 Digital Vernier Caliper 2805211885 VC-06 0-300mm 0.01mm 21-04-23 20-04-24 CC282023000004408F Insize Mascot Mech. Vernier Caliper J 19029224 19-02-23 22/K/19/04/01 8 VC-07 Yuri 0-300mm 0.02mm 18-02-24 Phoenix 9 Dial Vernier Caliper S-5.18111008 VC-08 0-300mm 22/K/19/04/02 Yuri 0.02mm 19-02-23 18-02-24 Phoenix Digital Weight Balance 0.005 kg UL/2023/01287 10 AG/MC-055 AG/MC-055 Electro 0-30 kg 29-04-23 28-04-24 Unimark UL/2023/01286 Digital Weight Balance AG/MC-056 AG/MC-056 Electro 0-100 kg 0.010 kg 29-04-23 28-04-24 Unimark 11 AG/MC-075 AG/MC-075 UL/2023/01285 Digital Weight Balance Electro 0-50 kg 0.005 kg 29-04-23 28-04-24 Unimark 12 Thermocouple 16-04-24 UL/2023/01158 211020-06 AG/MC-14-01 0-1200° C 1°C 13 Patel 17-04-23 Unimark Thermocouple AG/MC-14-02 0-1200° C 1°C UL/2023/01156 14 211020-03 Patel 17-04-23 16-04-24 Unimark 1°C Thermocouple UL/2023/01155 15 211020-02 AG/MC-15-01 Patel 0-1200° C 17-04-23 16-04-24 Unimark Thermocouple UL/2023/01157 AG/MC-15-02 0-1200° C 1°C 16 211020-04 Patel 17-04-23 16-04-24 Unimark AICS/0559 Pyrometer AG/PYT-01 AG/MC-01 250°-1700° C 1°C 31-05-23 30-05-24 Absolute 17 Pantech 1.5 T AICS/0560 19 Pyrometer AG/PYT-03 AG/MC-035 AST 250°-1700° C 1°C 31-05-23 30-05-24 Absolute 1.0 T 20 Pyrometer AG/PYT-04 AG/MC-72 Keller MSR 250°-1600° C 1°C 09-03-23 08-03-24 0323/021 Keller MSR 0.75 T Thermocouple ECS/23/227 21 34934 AG/MC-01 Electro 0-1600° C 1°C 27-06-23 26-06-24 Electro 1.5 T Thermocouple ECS/23/228 22 34935 AG/MC-13 Electro 0-1600° C 1°C 27-06-23 27-06-24 Electro 3.0 T UL/2023/01151 23 Temprature Controller AG/MC-14-1 AG/MC-14 Yudian 0-1200° C 1°C 17-04-23 16-04-24 Unimark Temprature Controller AG/MC-14-2 AG/MC-14 Yudian 0-1200° C 1°C 16-04-24 UL/2023/01152 24 17-04-23 Unimark Temprature Controller AG/MC-15-1 AG/MC-15 Yudian 0-1200° C 1°C UL/2023/01153 25 17-04-23 16-04-24 Unimark Temprature Controller AG/MC-15-2 16-04-24 UL/2023/01154 26 AG/MC-15 Yudian 0-1200° C 1°C 17-04-23 Unimark

Approved By :- Mr. Harsh Kanani

# MAJOR CUSTOMER

Volvo Eicher Commercial Vehicles Limited



Action Construction Equipment LTD (ACE)



Tafe Motors and Tractors LTD



- Tirth Agro Technologies (SHAKTIMAN)
- Synnova Gears & Transmission
- TNE International, LLC (USA)

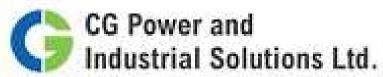


- CG Power & Industrial Solution
- L & T Construction



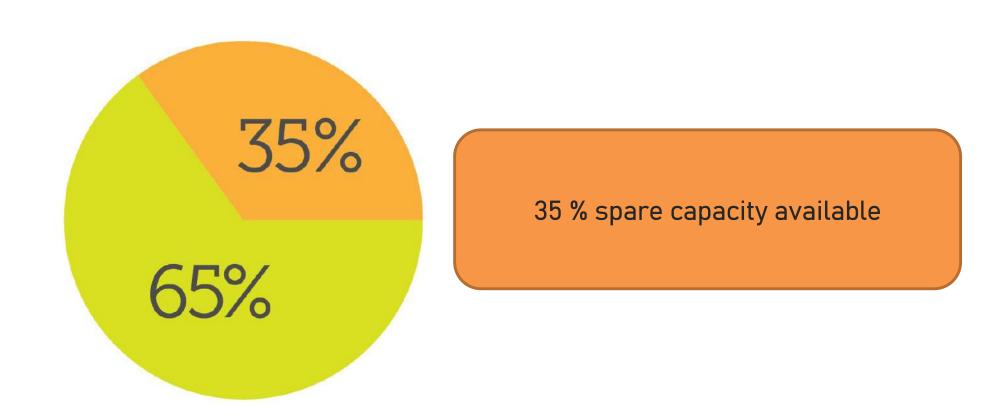






# **CAPACITY**

✓ Total Working Capacity: 7000 MT/Annum



# Thank You

