

## LIST OF MACHINES IN PRODUCTION SECTION

SR. NO.	DESCRIPTION	MAKE MODEL	Qty	SPECIFICATIONS
01	CNC 5 AXIS MILL TURN	HERMLE C62 MT	01	X 1200 Y 1300 Z 900 MM MAX MILLING TABLE LOAD 2500 KG. MAX TURNING TABLE LOAD 1500KG SWIVELING RANGE +/- 130 DEG TABLE CLEARANCE 1100 MM COLLISION CIRCLE DIA 1400 MM MAX.
02	CNC 5 AXIS MACHINING CENTRE	HERMLE C32 MT	01	X 650 Y 650 Z 500 LATEST CONTROLLER: HEIDENHAIN ITNC 640. MAX VERTICLE TABLE CLEARANCE 600/635 MM SWIVELING RANGE: +/- 130 DEG MAX TABLE LOAD 1000 KG
		HERMLE B-300 U	01	X 800 Y 600 Z500 MM RPM 15000 HEINDENHAIN TNC 415. NC CONTROL SWIVEL +120°-30° ROTARY TABLE 280 MM
		HAAS UMC-500 SS	01	X 610 Y 406 Z 406 MM RPM 15000 HAAS CONTROL SWIVEL +120°-35° ROTARY TABLE 400 MM
03	CNC MACHINING CENTRE	DECKEL- MAHO DMC 100V	01	X 1000, Y 800, Z 550 MM RPM 15000 FEED 10000 MAX. LOAD 1000 KG HEIDENHAIN TNC – 426
		DECKEL- MAHO DMC 70V	01	X 700, Y 550, Z 500 MM RPM 15000 MAX LOAD 800 KG, HEIDENHAIN TNC – 426 PB
		DECKEL- MAHO DMC 70V hi-dyn	01	X 700, Y 550, Z 500 MM RPM 18000 MAX LOAD 800 KG HEIDENHAIN TNC – 530
		MAKINO – V 33	01	X 600, Y 400, Z 350 MM RPM 20000 MAX LOAD 300KG FANUC CONTROL 16i
		HARTFORD HB2150 SG	01	Working Surface = X 2100, Y1500, Z 800 MAX. TABLE LOAD = 7000 KG SPEED 40 ~ 4000 RPM FEED – 10 M / MIN FANUC CONTROL 18i
		HASS VM6	01	X 1626, Y 813, Z 762 MM RPM 12000 FEED 10000 MAX. LOAD 1814 KG HASS CONTROL
		HASS VF2SS	03	X = 762 MM, Y = 406, Z 508 MM MAX SPEED 12000 RPM HAAS CONTROL
		HASS – TM 1	01	X 762 MM. Y 305 MM, Z 406MM MAX. SPEED 0 – 4000 RPM HAAS CONTROL
		HASS – VF- 1D	02	X 508 MM. Y 406 MM, Z 508 MM MAX. SPEED 0 – 15000 RPM HAAS CONTROL TABLE SIZE 660 X 356 MM
04	CNC MILLING	MIKRON – UME 710	01	X 710, Y 630, Z 500 MM RPM 5000 MAX LOAD 500 KG HEIDENHAIN TNC - 415 B
		MIKRON – WF 52D	01	X 710, Y 560, Z 500 MM RPM 5000 MAX LOAD 1000 KG HEIDENHAIN TNC – 415
		ACE MCV 350	03	X 400 Y 350 Z 480 MM MAX. SPEED 0-6000 RPM TABLE SIZE 650 * 350 MM POSITIONING ACCURACY 0.01
05	CNC LATHE	HONOR VL 100 C	01	X 1100 MM, Z 700, FANUC CONTROL MAX SPEED 1500 RPM
		GILDEMEISTER CTX 400 E	01	X 250 Z 635 HEIDENHAIN MAX. SPEED 5000 RPM
		HAAS – SL-20 T	02	Dia. 262 MM RPM 5000 MAX. CUTTING LENGTH 508 MM HASS CONTROL
06	HIGH PRECISION CNC LATHE CENTRE	SCHAUBLIN CCN 125	01	MAX TURNING DIA 125 MM MAX TURNING LENGTH 265 MM SPINDLE SPEED 5000 RPM X 190 Z 370 MM
07	CNC WIRE CUT	CHARMILLES ROBOFIL CL400 SP	01	X 1450, Y 900, U800 , V550, Z 510 MM MAX LOAD 3000 KG , INTEGRATED TAPER COLLISION
		CHARMILLES ROBOFIL CL440CCS	01	X 550, Y 350, U550 , V350, Z 400 MM MAX LOAD 1500 KG, TAPER ± 30 DEG.
		CHARMILLES ROBOFIL 300	01	X 400, Y 250, U 400, V 250, Z 400 MM MAX LOAD 500 KG, TAPER ± 30 DEG.
		CHARMILLES ROBOFIL 510	01	X 700, Y 400, U 400, V 400, Z 400 MM MAX LOAD 1000 KG, MAX. TAPER ± 30 DEG.
		ELECTRONIC ULTRACUT S1	01	X 300, Y 400, U 80, V 80, Z 250 MM MAX LOAD 400 KG, MAX. TAPER ± 30 DEG.
		CHARMILLES ROBOFIL 290	01	X 300 Y 250 U 250 V 125 Z 200 MM MAX LOAD 1000 KG MAX TAPER 30 DRG
		ELECTRONICA ULTIMA 2S	01	X 600 Y 400 Z 350 MM MAX. LOAD 1000 KG MX TAPER +/- 30 DEG
08	CNC SPARK EROSION	CHARMILLES ROBOFORM 20	01	X 300, Y 250, Z 250 MM, C 360°, MAX. LOAD – 200 KG
		CHARMILLES ROBOFORM 40	01	X 500 Y 350 Z 350 MM C 360 DEG MAX LOAD 1000 KG MAX. EL LOAD 100 KG S
		AGIETRON ADVANCE	01	X 500, Y 350, Z 350 MM, C 360°, MAX. LOAD - 1818KG.
		MITSUBISHI EA 30	01	X 700 Y 500 Z 350 MM C 360 DRG MAX LOAD 2000 KG

09	HIGH SPEED EDM DRILLING	CHARMILLES ROBODRILL SH2	01	X 350, Y 250, Z100 MM
10	JIG BORING	HAUSER B-3 DR	01	X 400, Y 250, Z 450, MAX. LOAD – 300 KG
11	CNC JIG GRINDING	HAUSER H45	01	X 700 Y 5000 MM MAX. WORKPIECE WT. 500 KG TAPER GRINDING MAX. 90 DEG
12	UNIVERSAL MILLING	MIKRON WF 3 SA	01	X 500, Y 500, Z 380 MM
		UNION MILLING	01	X 1220, Y 450, Z 410 MM
		HMT M1 TR	01	X 600, Y 250, Z 300 MM
		BPW VF 3.5	01	X 600, Y 250, Z 250 MM
		BFW UF 2, 3.5	01	X 700, Y 300, Z 300 MM
13	CNC TURN MILL CENTRE	HAAS ST 20 SSY	01	X 254 Z 521 Y+/- 50.8 MM SPINDLE SPEED 5000 RPM
		ELB OPTIMAL 8550 ND	01	GRINDING AREA 800 X 550 X 400 MM MAX LOAD 850 KG.
		ELB OPTIMAL 4250 ND	01	GRINDING AREA 400 X 250 X 300 MM MAX LOAD 400 KG.
		KENT WM2 715 Series	01	TABLE SIZE = 1500 X 700 MM KENT CONTROL
		JUNG JF 520	01	WORKING AREA 600X 200 MM MAX LOAD 100 KG.
14	PRECISION SURFACE GRINDER	KENT WM 263 SERIES	01	WORKING AREA 650X300 MM MAX LOAD 420 KG SPINDLE SPEED 1450 RPM
		BLOHM PLANOMAT 408 HP	01	GRINDING LENGTH 400 * 800 MM TABLE LOAD 100 KG FEED RATE 40,000 MM/MIN Y AXIS 550 MM
		STUDDER S 33	01	φ 350 MM X 650 MM
15	CNC CYLINDRICAL GRINDER	STUDDER S 33	01	φ 350 MM X 650 MM
		SCHLEIF SA 5/2 U x 1000	01	φ 275 MM X 1000 MM
16	CYLINDRICAL GRINDER	SCHLEIF SA 5/2 U x 1000	01	φ 275 MM X 1000 MM
		SCHLEIF SA 5/2 U x 630	01	φ 275 MM X 630 MM
17	CENTRE LATHE	WEILER COMMODER	01	SWING DIA 185 MM X 1000 MM
		WEILER CONDOR	01	SWING DIA 170 MM X 750 MM
		GEEDEE WEILER	01	SWING DIA 150 MM X 550 MM
		HMT NL 22	02	SWING DIA 120 MM X 400 MM
18	ECCENTRIC PRESS	ZEULENPODA 1250 KN	01	PRESS CAP. 125 T. SHUT HT 483 MM
19	HYDRAULIC PRESS	DUNKES TYPE HZS 63	01	PRESS CAP. 63 T. SHUT HT 250 MM
20	INJECTION MOULDING M/C	L & T DEMAG DL 250 – 1340 NC4K	01	1250 KN, MAX. SHOT WT. 575 GMS
21	INJECTION MOULDING M/C	BATTENFELD BA 1000/500 T	01	1000 KN, MAX. SHOT WT. 160.6 GM
22	MECH. PRESS MACHINE	NARENDRA	01	PRESS CAP. 300 T. SHUT HT 550 MM

## LIST OF HEAT TREATMENT EQUIPMENTS

SR. NO.	DESCRIPTION	MAKE MODEL	Qty	SPECIFICATIONS
1	FLUIDISED BED FURNACE	HD 1050 45/75 FLUIDTHERM	01	DIA 450 MM, DEPTH-750 MM, TEMP. 1050°C, CAPACITY – 125 KG
2	FLUIDISED BED FURNACE	HD 650 45/75 FLUIDTHERM	01	DIA 450 MM, DEPTH-750 MM, PRE-HEATING TEMP. 650°C, CAPACITY – 125 KG
3	SINGLE CHAMBER FURNACE	NOLZEN (GERMANY)	01	CHAMBER SIZE 600 X 250 X 260 TEMP. 1200°C MAX 1050°C
4	DOUBLE CHAMBER FURNACE	NOLZEN (GERMANY)	01	LOWER CHAMBER 730 X W 400 X H 300 TEMP. 1200°C <sup>L</sup> UPPER CHAMBER 730X W 400 X H 300 TEMP. 1400°C <sup>L</sup>
5	HARDENESS TESTER	BRINAL & VICKERS	01	Brinel / Vickers
6	HARDENESS TESTER	WALL PORT	01	Rockwell
7	CARBON ANALYSOR	ELTRA METALYT – 90	01	RANGE 0.5 ACCURACY 0.002 MM

## LIST OF QUALITY CONTROL EQUIPMENTS

<b>SR. NO.</b>	<b>DESCRIPTION</b>	<b>MAKE MODEL</b>	<b>Qty</b>	<b>SPECIFICATIONS</b>
1	CNC CO-ORDINATE MEASURING MACHINE	CARL – ZEISS PRISMO 5, VAST	01	RANGE 700 X 900 X 500 MM UNCERTAINTY 1.5+L/350 μ m
		Hexagaon Metrology Global Performance 05x07x05	01	RANGE 500 X 700 X 500 MPEE 1.9 + L/333 μ m MPEE 2.0 μ m
2	LINEAR HEIGHT MASTER (ELECTRONIC)	MITUTOYO	01	RANGE 0 - 600 MM RESOLUTION 0.0005 MM
3	TOOL MAKER'S MICROSCOPE	CARL – ZEISS ( 10 X, 30 X )	01	RANGE 150 X 50 X 150 MM. RESOLUTION 0.001 MM
4	PROFILE PROJECTOR	BATTY (10X, 20X, 50X)	01	150 X 50 RESOLUTION 0.002 MM
5	SURFACE FINISH TESTER	HOMMEL	01	LC 0.02 μ
6	PRECISION COMPARATOR STAND	SYLVAC	01	RANGE 200 X 300 200 MM
7	SLIP GAUGES (CARBIDE)	KOLB + BAUMAN	01	GRADE 'O'

Apart from above, other instruments for calibration like Caliper checker, Mucchecker & Master Gauges, Optical Flat etc. are also available

## LIST OF 3D PRINTING MACHINE

<b>SR. NO.</b>	<b>DESCRIPTION</b>	<b>MAKE MODEL</b>	<b>Qty</b>	<b>SPECIFICATIONS</b>
01	3D MANUFACTURING (METAL)	EOSINT M-280 DMLS	01	BUILDING VOLUME 250* 250 * 300 MM 400 W FIBER OPTIC LASER
02	3D MANUFACTURING (PLASTIC)	P-396 SLS	01	BUILDING VOLUME 340 *340 * 600 MM
03	3D MANUFACTURING (DLP)	Figure 4 Standalone	01	BUILDING VOLUME 124.8 *70.2 * 196 MM
04	3 D SCANNER	STEINBICHLER COMET L3D	01	CAMERA RESOLUTION 2448*2050

## LIST OF MACHINES IN TRAINING SECTION

SR. NO.	DESCRIPTION	MAKE MODEL	Qty.	SPECIFICATIONS
1	CNC MACHINING CENTRE	DECKEL- MAHO 50 T	01	X 500, Y 400, Z 400 MM RPM 10 – 9000 MAX. LOAD 200 KG HEIDENHAIN TNC
2	CNC MILLING MACHINE	HASS – TM 1	04	X=762 MM, Y=400MM, Z=300MM RPM 4000 MAX LOAD 300 KG HASS CONTROL
		BFW - SURYA VF 30	02	X=800 MM, Y=350MM, Z=380MM RPM 6000 MAX LOAD 300 KG WITH SIEMENS, FANUC CONTROL
		ACE – MCV 350	03	X 400, Y 350, Z 480 MM RPM 6000 MAX. LOAD 400 KG FANUC CONTROL
		ACE – SPARK XL	02	X 400, Y 300, Z 250 MM RPM 8000 MAX. LOAD 200 KG FANUC CONTROL
		JYOTI - PX 30	03	X 760, Y 410, Z 510 MM RPM 8000 MAX. LOAD 500 KG FANUC, SIEMENS CONTROL
3	CNC LATHE MACHINE	HAAS - TL 1	05	MAX TURNING DIA X 200 MM, Z 700 MM RPM 2000 HAAS CONTROL
		JYOTI - DX150	02	MAX TURNING DIA 250 MM, Z 350MM RPM 4500 FANUC, SIEMENS CONTROL
		ACE - JOBBER JUNIOR	03	MAX TURNING DIA 200. Z 300MM, RPM 3500 FANUC, SIEMENS CONTROL
		ACE - TUTOR	03	MAX TURNING DIA 190 MM, Z 200MM RPM 3500 FANUC, SIEMENS CONTROL
		ACE - JE 06 LM	05	MAX TURNING DIA 320 MM, Z 300MM RPM 4000 FANUC CONTROL
4	CNC WIRE CUT	ELECTRONICA ECO CUT	02	X 250, Y 200, Z 200 MM ELECTRONICA CONTROL
		ELECTRONICA SPRINT CUT	01	X 300, Y 400, Z 225 MM ELECTRONICA CONTROL
5	CNC SPARK EROSION	ELECTRONICA XPERT 1	01	X 400 MM, Y 300 MM, Z 300 MM MAX. LOAD 1000 KG
6	ZNC SPARK EROSION	ELECTRONICA SMART ZNC	02	X 250 MM, Y 200 MM, Z 250 MM MAX. LOAD 1000 KG
7	3D PRINTING	AMS HYDRA 16A	01	FDM 400 X 300 X 250
		MARKFORGED MARK 2	01	FDM 320 X 132 X 154
		AD RxP 2200 Plus	01	FDM 305 X 205 X 575
8	UNIVERSAL MILLING	MIKRON WF 3 SA	01	X 500 Y 500 Z 380 MM RPM 20 – 2240 HEIDENHAIN TNC
9	CONVENTIONAL LATHES	GEDEE WEILER LZ 350	06	SWING DIA 350 X CENTRE DIA 825
		KIRLOSKAR ENTERPRISE 380	04	SWING DIA 380 X CENTRE DIA 1000
		KIRLOSKAR ENTERPRISE 355	04	SWING DIA 355 X CENTRE DIA 750
		PIONEER 175	10	SWING DIA 350 X CENTRE DIA 750
		HMT NL 22	01	SWING DIA 500 X CENTRE DIA 1500
10	CONVENTIONAL MILLING	BFW UF 2	01	X 1350 Y 315 Z 250 MM RPM 45 - 3200
		VF 2	05	X 1350 Y 315 Z 250 MM RPM 45 - 3200
		VF 1	11	X 1245 Y 250 Z 230 MM RPM 45 - 3200
		HMT FN 1U	02	X 1350 Y 800 Z 315 MM RPM 45 - 2000
		HMT M1 TR	01	X 1070 Y 230 Z 760 MM RPM 60 - 2200
11	PRECISION SURFACE GRINDER	PROTH PSGS3060BH	01	TABLE SIZE 600 X 300 MM
		KENT	01	TABLE SIZE 500 X 200 MM
12	SURFACE GRINDER	KIRLOSKAR	02	TABLE SIZE 700 X 350 MM
		ELB INDIA	01	TABLE SIZE 300 X 150 MM

13	CYLINDRICAL GRINDER	HMT K130	02	φ 125 MM MAX. DIA GROUND MAX. GRINDING LENGTH 550 MM
		PARISHUDH	01	φ130 MM X 1400 MM, TABLE TRAVEL 450 CENTRE HEIGHT 100 MM
14	SPARK EROSION MACHINE	MMT / VIDYUT SY / SP	01	X 250, Y 150, Z 200 MM, MAX. LOAD - 500KG.
15	3D PANTOGRAPH ENGRAVING	PRECISION ENGG. / MH 45R	01	X 160, Y 305 MM RPM 450 – 10000 CLAMPING AREA 320 X 450 MM
16	HYDRAULIC TRAINING KIT	FESTO (DUAL STATION)	02	--
17	PNEUMATIC TRAINING KIT	FESTO (DUAL STATION)	02	--
18	PLC	ALLEN BRADELY	01	-
		SIEMENS S7-300	07	-
		SIEMENS S7-1500	05	-
19	EMBEDDED SYSTEMS	ADM TRAINER KIT	50	-
20	VLSI	SPARTAN -3	40	-
		ALTERA	5	-
21	AC DRIVES	SIEMENS- G120	1	-
22	PRODUCT AUTOMATION (MPS)	PRODUCT AUTOMATION KITS	8	-
23	AUTOTRONICS	FULLY EQUIPED AUTOTRONICS TRAINER KITS	25	-
24	PROCESS AUTOMATION	FULLY EQUIPED PROCESS AUTOMATION TRAINER KITS	5	-
25	TOOL & CUTTER GRINDER	PRAGA 3197	01	RPM 3600 - 5000
26	SINGLE LIP CUTTER	KIRBA	02	-
27	SHAPER	RK	01	X 500 Y 350 Z 760 MM
28	PRESS / INJECTION MOULDING	OEHLASS	01	250 KGS
29	SOLAR TRAINING KIT	ON GRID SOLAR KIT	01	0.5 kw ON GRID SOLAR GENERATION SYTEM – TRAINNIG KIT (FULLY EQUIPPED)
		ON GRID SOLAR KIT	01	0.5 kw OFF GRID SOLAR GENERATION SYTEM – TRAINNIG KIT (FULLY EQUIPPED)
		SMART SOLAR STREET LIGHT SYSTEM (FULLY EQUIPPED)	01	40W SMART SOLAR STREET LIGHT SYSTEM
30	CIVIL SURVEYING	AUTOLEVEL_NIKKON	01	-
		GPS GARMIN	01	-
		TOTAL STATION NIKKON	02	-

## • CAD CAM CAE / CNC MACHINING LABS

- CAD LABS – 05
- CAM LABS – 02
- CAE LAB – 02
- CIVIL ENGINEEING SOFTWARE LAB - 03
- CNC MACHINING LAB – 05
- CNC PROGRAMING LAB – 02
- CNC SIMULATOR LAB - 02
- COMPUTER HARDWARE MAINTENANCE LAB – 01
- ADVANCE NETWORKING LAB – 02
- INTERNET LAB – 01
- METROLOGY LAB – 01
- PLC & SCADA LAB- 02
- MECHATRONICS LAB-01
- MATLABLAB – 01
- ELECTRICAL CAD- 01

- EPLAN LAB -01
- PRODUCT AUTOMATION LAB- 01
- PROCESS AUTOMATION LAB- 01
- AUTOTRONICS LAB- 01
- ELECTRICAL DRIVES LAB – 01
- EMBEDDED LAB – 01
- VLSI LAB – 01
- HYDRAULICS & PNEUMATICS LAB – 01
- SAMSUNG- 01

## • HIGH END CAD CAM CAE SOFTWARES

**PRODUCT CONCEPTUALIZATION, PRODUCT DEVELOPMENT, REVERSE ENGINEERING IS DONE WITH LATEST & UPDATED VERSION OF SOFTWARES LIKE**

### ▪ CAD

- UNIGRAPHICS – NX19
- CREOPARAMETRIC 3. 0/4.0
- CATIA – V6
- SOLIDWORKS - 2018
- INVENTOR - 9
- MDT - 6
- AUTOCAD – 2020/21/22
- ELECTRICAL CAD- 2020

### ▪ CAM

- UNIGRAPHICS – NX19
- MASTERCAM – X9
- DELCAM – 2017

### ▪ CAE

- ANSYS – 19.0
- HYPERWORKS - 2020
- MOLDEX 3D - 2021
- NASTRAN
- MOLD FLOW – MPA - 4.0
- COSMOS
- PRO PLASTIC ADVISOR

### ▪ CIVIL ENGINEERING

- AUTOCAD – 2020/21/22
- 3DS MAX - 2020/21/22
- REVIT ARCHITECTURE – 2020/21/22
- AUTOLEVEL
- STAAD PRO -V8i
- GPS
- TOTAL STATION

### ▪ CNC PROGRAMMING & MACHINING

- MTS

### ▪ AUTOMATION

- TIA- V13/V14
- WINCC COMFORT
- MICROWIND-3.8
- MATLAB-R2015b
- EPLAN ELECTRC P8
- CROSSWARE
- FLUIDSIM
- SIEMENS SINAMICS

### ▪ SAMSUNG

- RACHA
- AUDIO VIDEO
- HHP