



KAUSTAV ENGINEERING

Mechanical Equipments Solutions

ABOUT US

M/s KAUSTAV ENGINEERING is a Leading Mechanical engineering Firm specializing in providing a wide range of Engineering services and supply solutions. With a commitment to excellence, innovation, and customer satisfaction, we have established ourselves as a trusted partner in the Engineering industry. Our expertise encompasses various domains within Mechanical engineering, and we leverage cutting-edge technologies to deliver superior results to our clients.

OUR MISSION

Our mission is to provide innovative, cost-effective, and sustainable engineering solutions and supply services through the utilization of advanced technologies, best practices, and a dedicated team of professionals. We aim to contribute to the growth and success of our clients, while promoting environmentally friendly practices in the engineering & others sector.

CORE SERVICES

- Engineering Design and Consulting
- Equipment Supply
- Project Management
- Maintenance and Repairs
- Energy Efficiency and Sustainability
- Supply Through-GeM & CPP

OUR SERVICES

- Mechanical Equipment's Basic and Detail Engineering
- Reverse Engineering
- 3D Modelling, Simulation & FEA
- New Product Development
- Standardization of the Products
- Layout design
- Refurbishment Jobs
- Sheet Metals and Switch Gear Panels(CNC Punching, Bending & Nesting)
- 2D to 3D conversion (Any Format)
- Design & 2D drawing Preparation.
- Brush Up training NX, SolidEdge, SolidWorks, AutoCad Mechanical, ZW CAD application with Live project Experience



WHY WE?

- We do everything in Standards and following all the conventions required in the field of Manufacturing, Engineering, understanding and presentations.
- Qualified and Experienced Professional Team
- Cost Efficiency
- Accuracy and Innovation
- On-Time Delivery
- Fast Delivery: Same-day delivery within city
- Custom Orders: Special product bundling
- Application High End Engineering Tools-NX, SOLID EDGE, SOLID WORKS, AUTOCAD MECHANICAL etc
- Post sale services

QUALITY

M/s Kaustav Engineering is an innovative Engineering & Manufacturing company associated with Engineering, Design & Manufacturing of construction Machineries.

Commitment

The organization is committed to work persistently to meet or exceed the customer's requirements. We are also committed for the continual improvement of the system.

Objectives

Our objectives are to maintain the highest level of customer satisfaction through continuous improvement of processes and to continually strive at keeping work related injuries to a minimum. These objectives are achieved through teamwork and as per the standard procedures which provide the framework for the realization of our quality process.

Responsibility

The Management of **M/s Kaustav Engineering** accepts full responsibility for allocating the necessary resources in training, initiatives and technology required to maintain this Quality System.

This Quality Policy shall be posted, understood and implemented at all levels of the organization.



ENGINEERING, 3D MODELLING AND DRAWINGS

4 Welded joints and loads/ stresses - Basics

Stress basics

- Stress flow
- Stress distribution
- Simple way to improve weld → Machine/grind the surface

General Stress Analysis

Main equation

$$\frac{\sigma_{max}}{F.o.S.} \cdot v = \sigma_{allow} \geq \sigma_{comb}$$

σ_{max} ... max. allowable stress (table 11, from DIN 15018)
 $F.o.S.$... Factor of Safety
 v ... Factor for welding quality
 σ_{allow} ... max. allowable stress
 σ_{comb} ... combined stress

General Stress Analysis

Factor of safety add, given max. stress

The factor of safety is individually defined by the kind of application.

- Ground Equipment with defined load**
 - not safety critical (no danger for persons if weld fails)
 - max. possible load is known and no further load possible e.g. Caster brackets**FoS = 1.25**
- General Ground Equipment**
 - not safety critical (no danger for persons if weld fails)
 - max. possible load is known but further loads are possible but not likely e.g. General brackets, support frames**FoS = 1.50**
- Manipulating Equipment**
 - not safety critical but failure would cause massive damage to operation
 - max. possible load is known but further loads are possible but not likely e.g. Mechanical hoists, lifts, trolleys and for not certified**FoS = 1.75**
- Lifting Equipment**
 - safety critical
 - max. possible load is known e.g. hoist suspension, lifting top of overhead transport equipment, liquid steel equipment**FoS = 2.00**

All are only applicable for the General Stress Analysis but NOT for Fatigue Analysis acc. DIN 15018

General Stress Analysis

Combined stress

The combination of several stresses in one part shall always be considered

$$\sigma_{comb} = \sqrt{\sigma_b^2 + 3 \cdot \tau^2}$$

σ_b ... bending stress
 τ ... shear stress
 σ_t ... tensile stress
 σ_c ... compressive stress

Depending on the type of stresses which are in the joint, the applicable formula shall be used:

General Stress Analysis

Shear stress in longitudinal welding seams in beams

1. ... there in longitudinal welds in a beam

F ... force
 A_w ... Area(s) above the dissection weld
 y_1 ... Distance from Axis to centre of A_w
 I_x ... Moment of inertia of whole beam
 $\Sigma A_w \cdot y_1$... sum of all welding sizes at the dissection area

$$\tau = \frac{F \cdot A_w \cdot y_1}{I_x \cdot \Sigma a}$$
$$\tau_1 = \frac{F \cdot (A_w \cdot y_1 + A_w \cdot y_2)}{I_x \cdot \Sigma a}$$

ENGINEERING PRODUCTS



FIRE & WASTE MANAGEMENT

FIRE FIGHTING SOLUTIONS

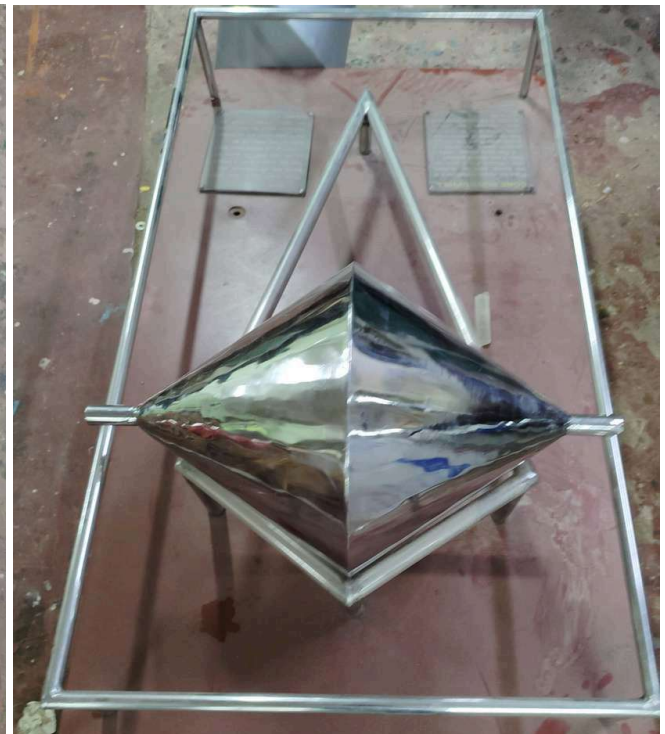
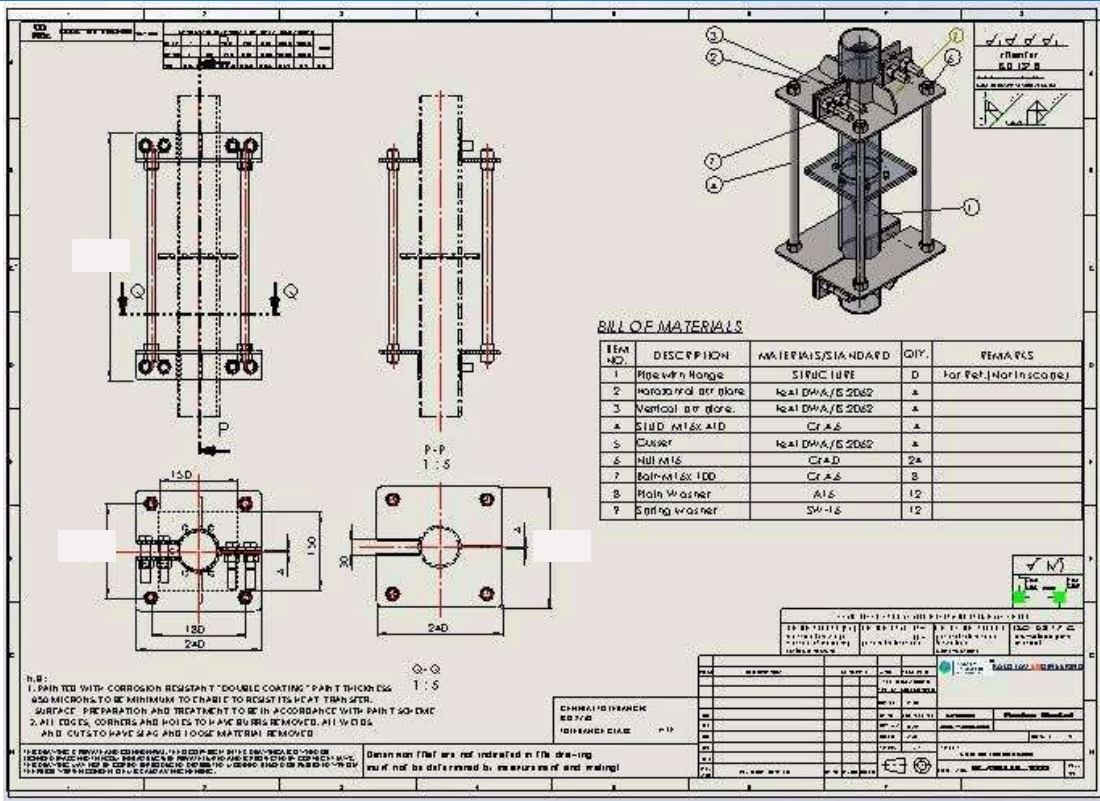
WASTE DUSTIBIN



FLOOR TILES SOLUTIONS

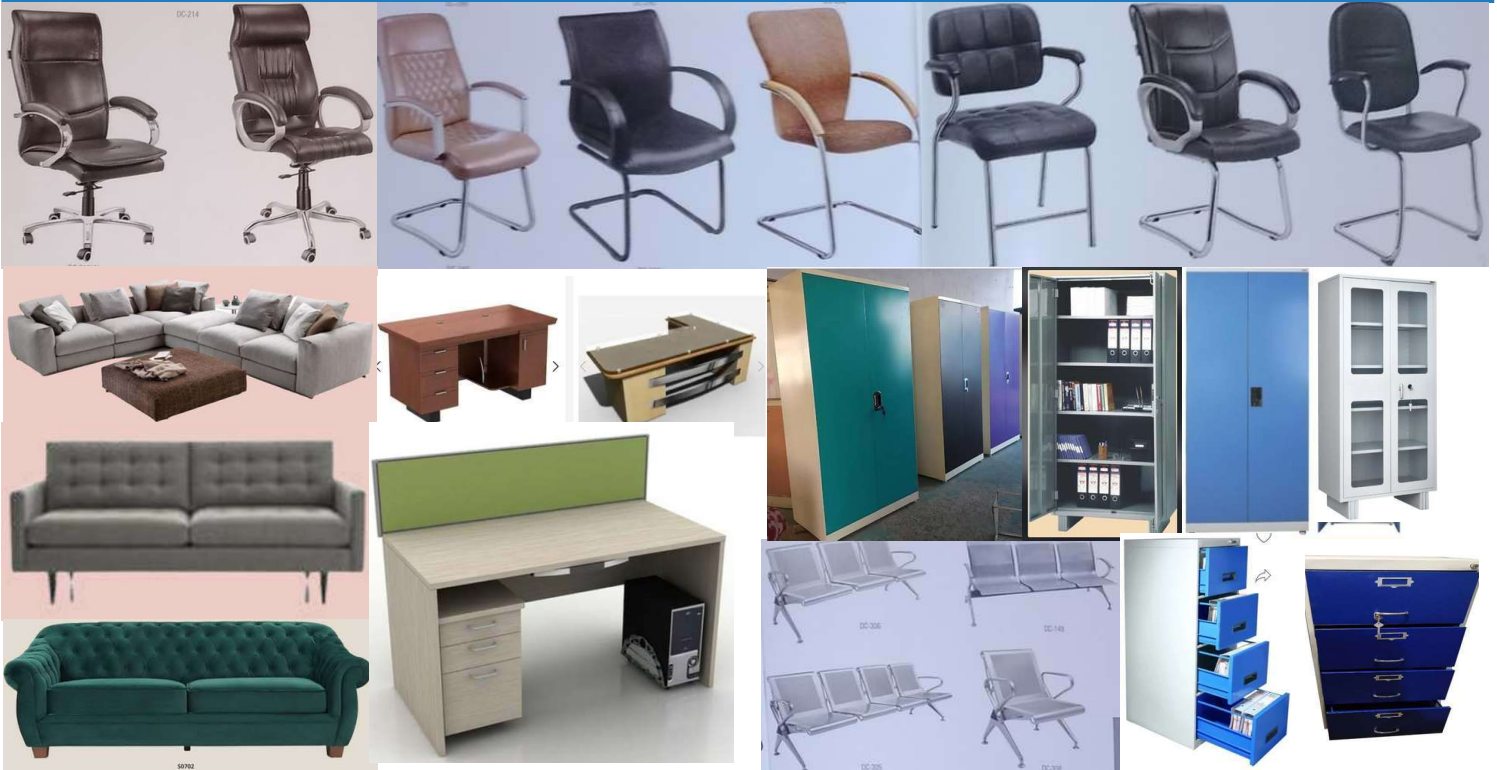


ENGINEERING, DESIGN, MODELLING, DRAWINGS & MANUFACTURING SERVICES



SERVICE AND SUPPLY

FURNITURES & PUBLIC SEATINGS



SOLAR, LAB FURNITURE, MEDICAL OT BEDS, MONITORS & FURNITURE



SERVICE AND SUPPLY

KAUSTAV **ENGINEERING** STORAGE SYSTEMs

MEZZANINE FLOORS



Catwalk Storage System



Slotted Angle Mezzanine Floor



SLOTTED ANGLE RACK



SLOTTED ANGLE RACK



Wire Mesh Trolley

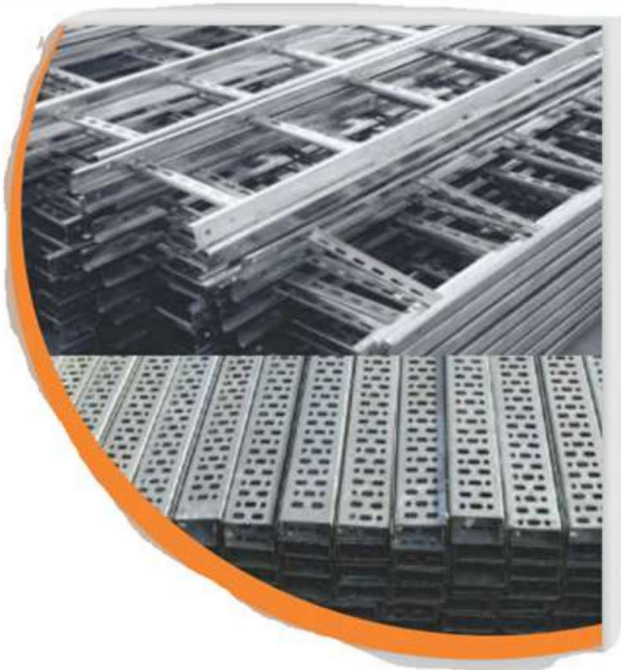


Goods Trolley



SERVICE AND SUPPLY KAUSTAV ENGINEERING STORAGE SYSTEMs

CABLE TRAY



Movable Rack



Two-Tier Rack



Bend Tee Reducer



SERVICE AND SUPPLY KAUSTAV ENGINEERING STORAGE SYSTEMs

MULTI TIER RACK



Cantilever Type Rack



PALLETS RACK



PALLETS PLATE



MOBILE RACK



Hand Pallet Truck



Plastic Drawer



Plastic Bins



Bins



Plastic Crate



Dogleg Stair



Bookshelf

SERVICE AND SUPPLY

KAUSTAV **ENGINEERING**

SCHOOL/COLLEGE FURNITURES



SERVICE AND SUPPLY

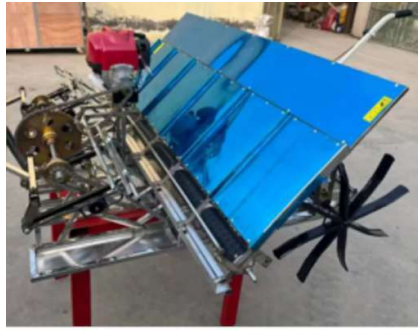
AGRICULTURAL MACHINES



**AGRICULTURE POWER
WEEDER**



PADDY REAPER



POWER TILLER



ROTAVATOR MULTI SPEED



CULTIVATOR



DELIVERY PUMP



DELIVERY PIPE



CHAFF CUTTER



**RICE THRESHER
MACHINE**



**AGRICULTURAL
IMPLEMENTS**



**MANUAL PADDY
THRESHER MACHINE**



SPRAYER MACHINE



TRACTOR

SERVICE AND SUPPLY

RESERACH & SCIENTIFIC INSTRUMENTS



HORIZONTAL AUTOCLAVE



VERTICAL AUTOCLAVE



**LABORATORY BOD
INCUBATOR**



**PLANT GROWTH
CHAMBER**



ROTARY EVAPORATOR



HOT AIR OVEN DRYER



DEEP FREEZER



BIOSAFETY CABINET



PH METER



**LABORATORY BOD
INCUBATOR**



TEST TUBE ROTATOR



**WATER TESTING
METER**

[illegible]

Environment Monitoring Automation Solutions

1.COMPACT WEATHER STATION



2.LIVE REMOTE TEMPERATURE , HUMIDITY MONITORING AND ALERT SYSTEM



3.WEATHER INFORMATION OUTDOOR DISPLAY



4.TEMPERATURE & HUMIDITY SENSOR



5.SOIL MOISTURE SENSOR



6.AIR QUALITY MONITOR (INDOOR)



7.WATER QUALITY METER



8.DIGITAL WATER LEVEL RECORDER



9.WIND SPEED & DIRECTION



10.PYRANOMETER



ACTIVITIES

ALL GEARED MILLING & DRILLING

METAL SHELVES RACK



ACTIVITIES

ACTIVITIES & TRAINING



STATIONARIES, ELECTRICALS & HOUSE KEEPING

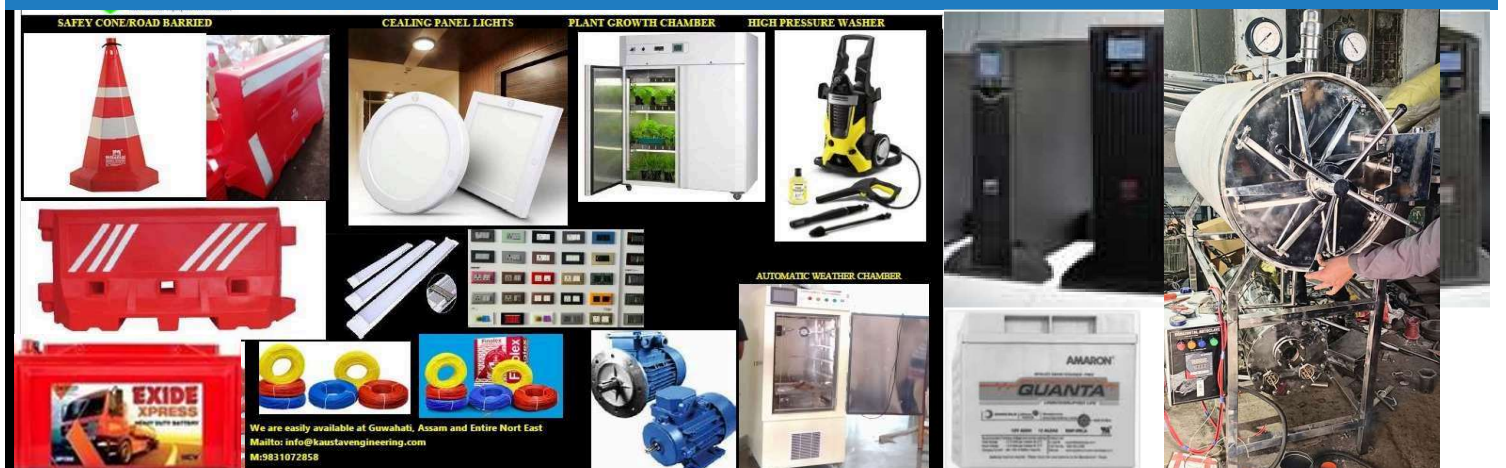
STATIONARIES			ELECTRICALS			HOUSE KEEPING		
1	Binder Clip of Size 32mm	43	Register-No.12	1	PVC SWITCH BOARD 10 X 8	1	Harpic (1 Ltrs.)	
2	Binder Clip of Size 41mm	44	Dak despatch Register No. 30	2	18 WATT LED TUBE FITTING	2	Detol Hand wash	
3	Binder clip of size 19mm	45	Dak Receipt Register No. 30	3	9 WATT LED BLUB	3	Phenyl 5 Ltrs Jar (white)	
4	Binder clip of size 25mm	46	Plain Envelope 11inX4.5in	4	ALUMINIUM BTC WIRE - 10 SQ MM	4	Phenyl 5 Ltrs Jar (Black)	
5	Binder clip of size 15mm	47	Plastic Scale	5	40 AMP SP MCB 10 KA (BB10400C)	5	Black Hit	
6	Binder clip of size 51mm	48	Scissor(17.5 cm)	6	16 AMP SP MCB 10 KA (BB10160C)6-16 Amp	6	Tissue paper	
7	Correction white fluid pen	49	Rubber band of size-10	7	15 AMP S.S. COMBIND WITH BOX	7	Detol 500 ½ Ltrs(Hand wash Liquid)	
8	Glue Stick of 15 gms	50	Cover file	8	6 AMP S.S. COMBIND WITH BOX	8	Garbage Bag (Big)	
9	White board marker pens set of 4 colours	51	Brown Tape 2in	9	15 WATT LED BULB	9	Garbage Bag (Small)	
10	Permanent marker pens set of 4 colours	52	Note Pad No. 40	10	BULKHEAD FITTING LED 10 Wt / HAV	10	Room freshener (Air)	
11	White board duster, magnetic.	53	Notepad (14.0 cm x 22.0 cm)	11	16 AMP SP MCB 10 KA (BB10160C)	11	Odonil	
12	Tape dispenser	54	Slip pad small size (14.0 cm x 22.0 cm)	12	6 AMP SWITCH	12	Chittrola(Floor cleaner)	
13	Coloured paper clip	55	spiral note book (14.8 c.m. X 21.0 c.m)	13	ALUMINIUM BTC WIRE - 6 SQ MM	13	naphthaline balls kg	
14	Cutter knife	56	Spiral note book (17.6 c.m. X 25.0 c.m.	14	PENDENT HOLDER	14	Harpic 500ml	
15	Self adhesive note sheet, 2inx3in	57	Spiral Pocket note book	15	10 WATT LED TUBE FITTING	15	odonil	
16	Self adhesive note sheet, 3inx3in	58	Uniball pen	16	32 AMP SP MCB 10 KA (BB10320)	16	Handwash 5L	
17	Self adhesive note sheet, 3inx5in	59	Gel Pen	17	HAV DB 6WAY SPN S/D	17	Napkin Paper	
18	Punch machine of Big size	60	hi-tech point pen	18	16 AMP SWITCH	18	Colin	
19	Punch Machine DP-600 or equiv.	61	Page marker	19	ANC SWITCH 6A (38014 / 50010)	19	Napkin Multifold	
20	Stapler machine, small size, no 10	62	Book marker	20	16 AMP SOCKET	20	Toilet Brush	
23	Stapler Pin, size 10, 20x50	65	Adhesive Tape 1in	23	16 AMP SOCKET	23	Shampoo	
24	stapler pin no. 24/6	66	Eraser	24	ALUMINIUM BTC WIRE - 2.5 SQMM	24	Toothpick	
25	Transparent adhesive tape of size 24 mm	67	All out machine	25	25 MM CASSING CAPPING	25	Room Freshner	
26	Transparent adhesive tape of size 48 mm	68	All out refill	26	PHILIPS 12W LED EMERGENCY BULB	26	Lizol	
27	Printing paper, size A4, 75 GSM	69	Good Night (Mousquito repellent)	27	CROMPTON LSDRMN SLIM FLAT 12W LED PANNEL LIGHT	27	Surf Excel	
28	Printing paper, size A3, 75 GSM	70		28	CROMPTON 15W COLOUR LED ROUND PANEL	28	Wiper	
29	Fullscap paper	71		29	DURAVOLT DLITE POLYCARBONATE BATTEN HOLDER	29	Broom	
30	Flat File with spring holder	72		30	POLYCARB ETIRA /FINOLEX CU MULTISTRAND WIRE1.0SQMM FR 90	30	Hand Sanitizer 5 ltr	
31	Poly cotted Envelope of size 17inx14in	73		31	6 AMP ANCHOR PENTA SWITCH(Modular)	31	Register 336 page	
32	Box File with spring holder	74		32	HAVELLS 20W TUBE LIGHTS	32	scrubber	
33	Plastic Folder, both side transparent A4	75		33	AA Cell	33	Register 336 page	
34	Poly cotted Envelope of size 14inx12in	76		34	AAA Cell	34	scrubber	
35	Medium economic range writing ball pen b	77		35	All types of ables	35	scrubber	
36	Higher economic range ball pen red					36		
37	Higher economic range ball pen green					37		
38	Higher economic range ball pen black					38		
39	Standard Calculator					39		
40	Register-No.6					40		

PRODUCTS AND SUPPLY

MECHANICAL COMPONENTS

MECHANICALS		MECHANICALS		MACHINES	
PIPE		BEARING		SPRINGS	
1	SEAMLES FITTINGS	2	SKF	1	POWER TOOLS
2	ERW PIPE FITTINGS	3	FAG	2	WELDING MACHINES
3	BUTTWELD FITTINGS	4	NBC	3	HYDRO TEST PUMP
4	FLANGE FORGED FITTINGS	5	TATA BEARING	4	HYDRAULIC JACK
5	MARK II DEEPWEL	6	HMT	5	PIPE BENDER
6	HAND PUMP & FITTINGS	7	NACHI	6	CHAIN PULLEYS
7	C.I PIPE & FITTINGS	8	ZKL	7	HAND TOOLS
8	C.I SLUCES VALVE	9	FBJ		
9	REFLUX VALVE	10	TIMKEN		
10	G.M VALVE	11	ADL		
11	AIR STEAMER BOILER	12	MSGILL		
12		13	NTN		
13		14	KAYO		
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SPECIAL COMPONENTS



RECENTLY COMPLETED ASSIGNMENTS



Creality3D K1
High Speed 3



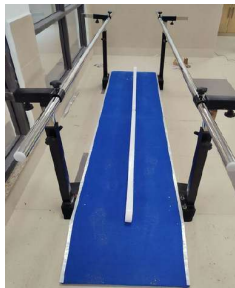
Cryogenic Liquid Nitrogen
Container



BPE 20KVA ONLINE
UPS



MOTORISED TILT TABLE
(HEIGHT ADJUSTABLE)



PARALLEL WALKING
(BAR)



SURGICAL SCRUB BIN



364LTRS HORIZONTAL
CYLINDRICAL AUTOCLAVE



AT FABRICATION WORKSHOP

Face with Fingerprint Aadhaar Biometrics

Model : T503F-L1



Face Recognition



Finger Recognition



C Type

TCP/IP

Bluetooth

4G/5G

DC Charging

WiFi

USB Link

GPS

STQC Certification

Safety Net Pass

Face With Fingerprint Aadhaar Biometrics
Attendance System

FACE RECOGNITION
IN AADHAAR ENABLE

SUPPORT ALL READERS

MANTRA IRI TECH

FM 220U MANTRA

MORPHO PRECISION

GeM



FACE RECOGNITION

6GB RAM
128GB Storage

8.5 Inch
SCREEN SIZE

4 Hours
Battery Backup

Available on GEM

C Type | TCP/IP | DC Charging | Wi-Fi | Bluetooth | 4G/5G | USB Link | GPS

REALTIME TD1D (FP)
FACE & PALM RECOGNITION

Palm Recognition 1000

Face Recognition 2000



FASTEST RECOGNITION

Face Recognition

Palm Recognition

RFID Card

PIN

Password

Access Control

www.realtimebiometrics.com



CLIENTELE



INDIAN EXPLOSIVE LIMITED, JHARKHAND



ICAR-CIFRI, KOLKATA



JBFS, KOLKATA



GREENVIROMENTAL GLOBAL, KOLKATA



ASSAM AGRICULTURE UNIVERSITY,
JORHAT



MECON LIMITED, RANCHI,
JHARKHAND



KAZIRANGAN UNIVERSITY, JORHAT



INSTITUTE OF ADVANCED STUDIES OF SCIENCE AND
TECHNOLOGY (IASST, GUWAHATI)



INDIA METROLOGICAL DEPARTMENT



ALL INDIA INSTITUTE OF MEDICAL
SCIENCE, GUWAHATI



TEZPUR UNIVERSITY, TEZPUR



TEA BOARD OF INDIA, GUWAHATI



IIT, GUWAHATI, ASSAM



JORHAT ENGINEERING COLLEGE, JORHAT



NUMALIGARH REFINERY LIMITED, GUWAHATI



NATIONAL INSTITUTE OF
TECHNOLOGY, MEGHALAYA



SPORTS AUTHORITY OF INDIA



BRAHMAPUTRA CRACKER AND
POLYMER LIMITED



GAUHATI UNIVERSITY



AIRPORTS AUTHORITY OF INDIA



INSTITUTE FOR PLASMA RESEARCH



NORTH EAST DISTILLERIES
PRIVATE LIMITED



CENTRAL MUGA ERII RESEARCH RESEARCH
AND TRAINING INSTITUTE



KRISHNA KANTA HANDIQUI STATE OPEN
UNIVERSITY



ASCEND TELECOM INFRASTRUCTURE
PRIVATE LIMITED

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Certified by :



GeM
Government
e Marketplace

