

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 SERVICES

ENGINEERING, 3D MODELLING AND DRAWINGS

4 Welded joints and loads/ stresses - Basics
Stress basics

- Stress flow
- Stress distribution
- Simple way to Improve weld surface

$\sigma_{max} \dots$ max. allowable stress (table 11, from DIN 15018)

$FoS \dots$ Factor of Safety

$v \dots$ Factor for welding quality

$\sigma_{allow} \dots$ max. allowable stress

$\sigma_{comb} \dots$ combined stress

General Stress Analysis
Main equation

$$\frac{\sigma_{max}}{FoS} \cdot v = \sigma_{allow} \geq \sigma_{comb}$$

σ_{max} ... max. allowable stress (table 11, from DIN 15018)

FoS ... 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 is possible
 - e.g. roller trailers
- 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. lifting systems
- Manufacturing Equipment:**
 - not safety critical (but failure would cause machine damage to operation)
 - max. possible load is known but further loads are possible (but not likely)
 - e.g. sheet metal processing, lifting equipment (but not overhead)
- Lifting Equipment:**
 - safety critical
 - max. possible load is known
 - e.g. crane suspensions, lifting rigs of excavated transport equipment, regular load requirement

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 joint shall always be considered.

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

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

$\sigma_b \dots$ bending stress

$\tau \dots$ shear stress

$\sigma_t \dots$ tensile stress

$\sigma_c \dots$ 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.

$\tau = \frac{F \cdot A_i \cdot y_i}{I \cdot \sum a}$

$A_i \dots$ area(s) above the discussed weld

$y_i \dots$ Distance from Axis to centre of A_i

$I \dots$ Moment of Inertia of whole beam

$\sum a \dots$ sum of all welding sizes at the discussed area

$\tau_1 = \frac{F \cdot (A_i \cdot y_i + A_s \cdot y_s)}{I \cdot \gamma \cdot a}$

ENGINEERING PRODUCTS

FIRE & WASTE MANAGEMENT

FIRE FIGHTING SOLUTIONS

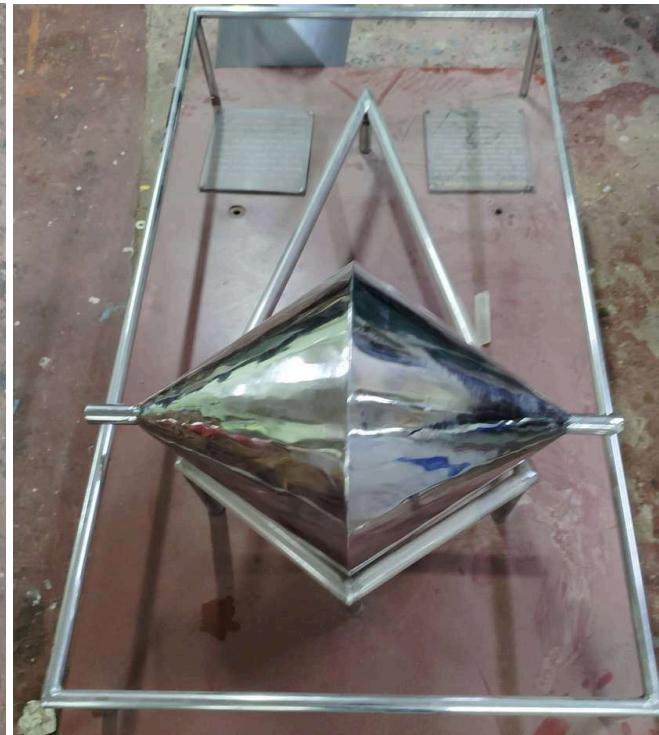
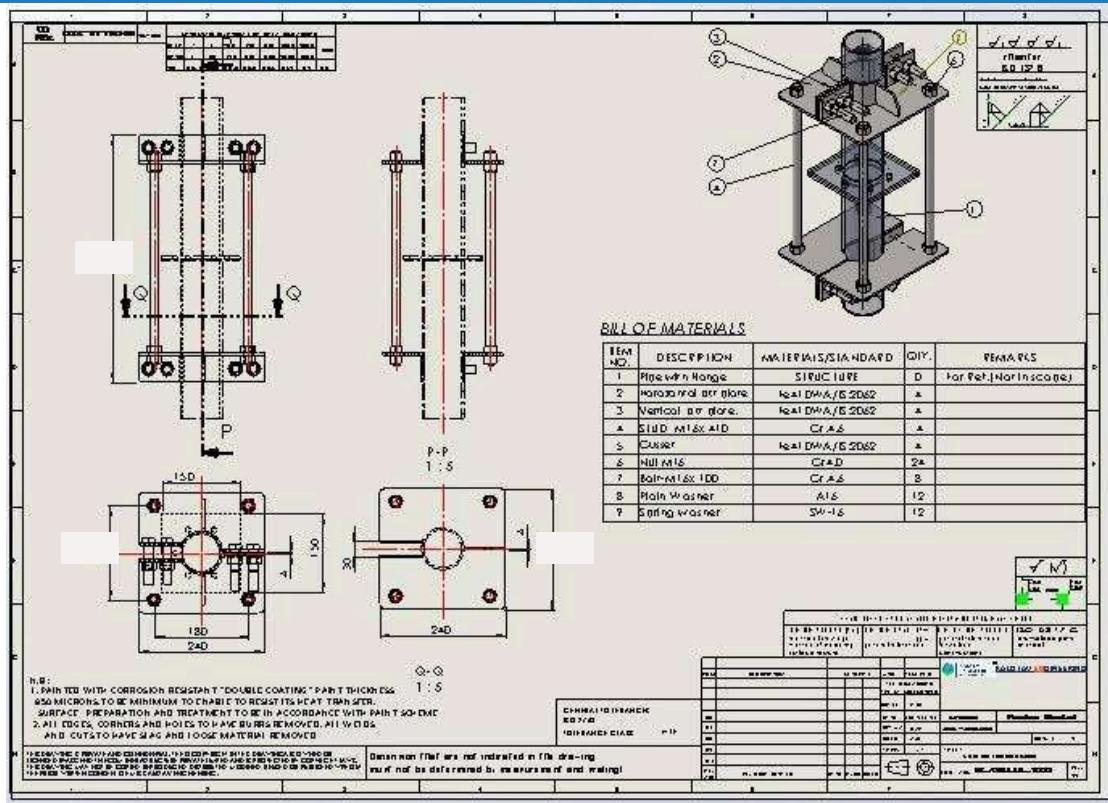
WASTE DUSTIBIN



FLOOR TILES SOLUTIONS

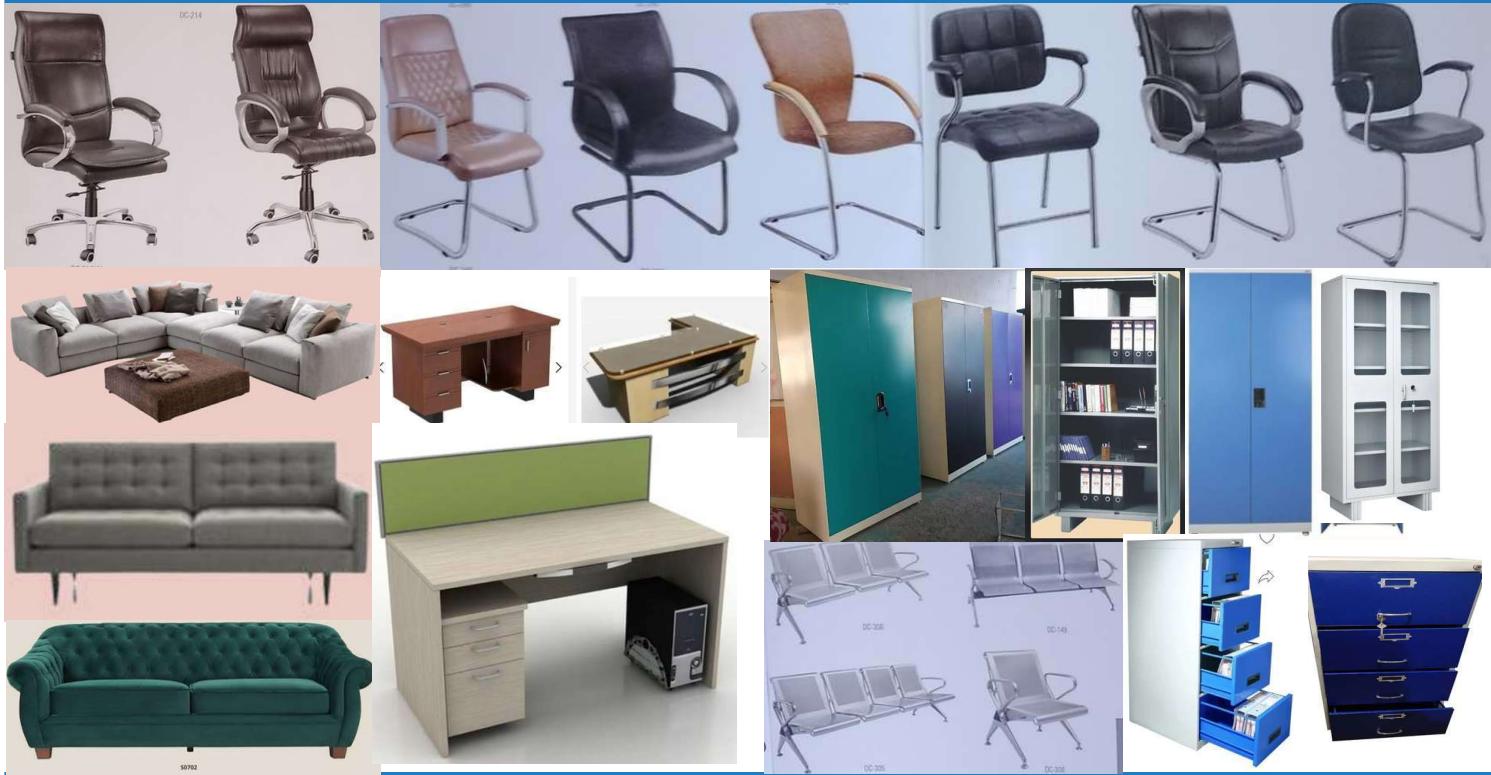


ENGINEERING, DESIGN, MODELLING, DRAWINGS & MANUFACTURING SERVICES



S E R V I C E A N D S U P P L Y

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
IMPLEMENT**



**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

SERVICES AND SUPPLY

BASIC SCIENTIFIC INSTRUMENTS

		(Flow Measurement Solution)	(Level Measurement Solution)	Measure)	Equipments	
Ammeter	Actinometer	Power Quality Analyzer	Level Transmitter & Switch	Pressure Gauge & Switch	Magnetic Stirrer With Hot Plate	Melting Boiling Point Apparatus
Electrometer	Avometer	Thermal Imaging Camera	Level Gauge(the float & Board type)	Pressure Transmitter & Differential Pressure Transmitter	Karl Fischer Apparatus	Low Temperature Bath
Electroscope	Bolometer	Infrared Temperature Gun	Ultrasonic based Level Measurement	Differential Pressure Gauge	Environmental Chamber	Constant Temperature Water Bath
Ellipsometer	Photometer	Flue Gas Analyzer / Stack Analyzer	Radar type Level Transmitter	Hygienic Pressure sensor & Flush Diaphragm Transmitter	Autoclave Machine	Viscometer Bath For Temperature Below Ambient
Galvanometer	Pyranometer	Infrared Temperature Gun	Capacitance based Level Measurement	Pressure cum switch Transmitter	Bacteriological Incubator	Autoclave Vertical
Megger	Pyrheliometer	Digital Multimeter		Pressure Meter	Conductivity Meter	Laboratory Stirrer (Gear Reduction)
Multimeter	Spectrometer	Flue Gas Analyzer / Stack Analyzer		HVAC Application	Medico Centrifuge	Viscometer Bath For Temperature
Ohmmeter		Digital Clamp Meter			Heating Mantle	Hot Air Oven
Potentiometer		Insulation Tester			Digital Polarimeter	Vacuum Oven
Voltmeter		Earth Resistance Tester			Tablet Hardness Tester	U.V. Cabinet
Watt Meter		CFM Meter / Air Velocity Meter			Hot Air Oven Lab Model	Magnetic Stirrer
		Sound Level Meter			Digital Colony Counter	Peristaltic Pump (Fixed Speed) (30 Psp)
PYRANOMETER		RPM Meter (Tachometer)			8.0.D Cooled Incubator	Centrifuge Laboratory
		Vibration Meter			Antibiotic Zone Reader	Bomb Calorimeter
		Lux meters			Water Bath Cum Oil Bath	Bod Incubator
		Digital Thermometer			Ultrasonic Cleaner	Sieves Shaker
		Refrigerant Leak Detector			Digital Antibiotic Zone Reader	Melting Point Apparatus
		PNG/LPG Gas Leak Detector			Bomb Calorimeter	Rotary Vacuum Evaporator
		Temp. & Humidity Data Loggers			Tds Meter	
		Temp. & Humidity Transmitters			Automatic Water Still	
		Moisture Meter			Humidity Oven	
		TDS / pH Meter			Environmental-Chamber	
		Cooking Oil Tester			Hot Plate	
		Air Quality Meters				
ONLINE UPS		Portable Multi Gas Detectors				
		Ultrasonic Water Flow Meter				
		Oscilloscopes				
		LCR Meter				
		Function Generators				
		Servo Stabilizer				
		On Line Ups				
		Power Supplies & many more...				
		Safety Equipment				
32 CHANNEL DATA			FLUKE TACHOMETER		MASS FLOW CONTROLLER	
						
INFRARED THERMOMETERS			ENVIRONMENTAL TEST CHAMBER			
						
ROTAMETER						
						

BASIC SCIENTIFIC INSTRUMENTS

Distance ▼	Angle ▼	Speed ▼	Temperature ▼	Time ▼	Mass ▼	Area ▼	Sound ▼	Density ▼	Torque ▼	Light ▼	Magnetic ▼
Ruler	Pratractors	Speedometer	Thermocouples	Digital stop-watch	Laboratory balance	Planometer	Audiometer	Densimeter	Torque Wrench	Apicoscope	Declinometer
Meter Stick	Universal Bevel	Tachometer	Thermistors	Electronic time	Hydrostatic balance			Pycnometer		Densitometer	Magnetometer
Tape Measure	Spirit Level	Anemometer	Resistance temperature detector		Compact scale 1000g					Refractometer	
Laser Measure	Clinometer	Liquid Flow Meter	Pyrometer		Precision Balance					Spectrophotometer	
Caliper	Sine Bar	Ranger Finder	Langmuir probes								
Wheel Measure	Autocollimators		Infrared thermometer								
Odometer	BATTERY			DIGITAL WEIGHING SCALE			AIR CONDITIONERS				
Feeler Gauge							VOLTUS				
Micrometer							LG				
Altimeter							BLUE STARS				
Dial Indicator											
Dial Bore Gauge											
Spherometer							TVS				
Binocular							SAMSUNG				
Cathetometer							PANASONIC				
							MT				
	DEHUMIDIFIERS			CIVIL ENGINEERING			INTERACTIVE PANELS				
				Ultrasonic pulse velocity tester			Display Inch				
				Concrete Resistivity			86/-75"/65"				
				One mortar mixture			Native Resolution				
				Cube Mould			3,840 x 2,160 (UHD)				
				Beam Mould			Multi Touch Point				
				Mortar Mould			390 / 390 / 390 mm				
				Concrete Mixer			Input				
							HDMI (3), USB 3.0 (3), USB 2.0 (3), RGB (1), Audio (1), RS-232C (1),				
							Output				
							Audio (1), Touch USB (2)				
	INTERACTIVE PANELS			SPLIT AC							
											

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 & TRAINNING



STATIONARIES, ELECTRICALS & HOUSE KEEPING

STATIONARIES		ELECTRICALS		HOUSE KEEPING	
1	Binder Clip of Size 32mm	43	Register-No.12	1	Harpic (1 Ltrs.)
2	Binder Clip of Size 41mm	44	Dak despatch Register No. 30	2	Detol Hand wash
3	Binder clip of size 19mm	45	Dak Receipt Register No. 30	3	Phenyl 5 Ltrs Jar (white)
4	Binder clip of size 25mm	46	Plain Envelope 11inX4.5in	4	Phenyl 5 Ltrs Jar (Black)
5	Binder clip of size 15mm	47	Plastic Scale	5	Black Hit
6	Binder clip of size 51mm	48	Scissor(17.5 cm)	6	Tissue paper
7	Correction white fluid pen	49	Rubber band of size-10	7	Detol 500 % Ltrs(Hand wash Liquid)
8	Glue Stick of 15 gms	50	Cover file	8	Garbage Bag (Big)
9	White board marker pens set of 4 colours	51	Brown Tape 2in	9	Garbage Bag (Small)
10	Permanent marker pens set of 4 colours	52	Note Pad No. 40	10	Room freshener (Air)
11	White board duster, magnetic.	53	Notepad (14.0 cm x 22.0 cm)	11	Odonil
12	Tape dispenser	54	Slip pad small size (14.0 cm x 22.0 cm)	12	Chittrolla(Floor cleaner)
13	Coloured paper clip	55	spiral note book (14.8 c.m. X 21.0 c.m)	13	naphthaline balls kg
14	Cutter knife	56	Spiral note book (17.6 c.m. X 25.0 c.m.	14	Harpic 500ml
15	Self adhesive note sheet, 2inx3in	57	Spiral Pocket note book	15	odonil
16	Self adhesive note sheet, 3inx3in	58	Uniball pen	16	Handwash 5L
17	Self adhesive note sheet, 3inX5in	59	Gel Pen	17	Napkin Paper
18	Punch machine of Big size	60	hi-tech point pen	18	Colin
19	Punch Machine DP-600 or equiv.	61	Page marker	19	Napkin Multifold
20	Stapler machine, small size, no 10	62	Book marker	20	Toilet Brush
23	Stapler Pin, size 10, 20x50	65	Adhesive Tape 1in	23	Shampoo
24	stapler pin no. 24/6	66	Eraser	24	Toothpick
25	Transparent adhesive tape of size 24 mm	67	All out machine	25	Room Freshner
26	Transparent adhesive tape of size 48 mm	68	All out refill	26	Lizol
27	Printing paper, size A4, 75 GSM	69	Good Night (Mousquitto repellant)	27	Surf Excel
28	Printing paper, size A3, 75 GSM	70		28	Wiper
29	Fullscap paper	71		29	Broom
30	Flat File with spring holder	72		30	Hand Sanitizer 5 ltr
31	Poly cotted Envelope of size 17inx14in	73		31	Register 336 page
32	Box File with spring holder	74		32	scrubber
33	Plastic Folder, both side transparent A4	75		33	Register 336 page
34	Poly cotted Envelope of size 14inX12in	76		34	scrubber
35	Medium economic range writing ball pen b	77		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		
	PIPE	BEARING
1	SEAMLES FITTINGS	SKF
2	ERW PIPE FITTINGS	FAG
3	BUTTWELD FITTINGS	NBC
4	FLANGE FORGED FITTINGS	TATA BEARING
5	MARK ii DEEPWEL	HMT
6	HAND PUMP & FITTINGS	NACHI
7	C.I PIPE & FITTINGS	ZKL
8	C.I SLUICES VALVE	FBJ
9	REFLUX VALVE	TIMKEN
10	G.M VALVE	ADL
11	AIR STEAMER BOILER	MSGILL
12		NTN
13		KAYO
14	SAFETY PRODUCTS	NSK
15		HCH
16	STAINLESS SHEETS,PLATES	IKO
17		
18	STAINLESS PIPE & FITTINGS	
19		
20	SOLUTIONS FOR INDUSTRIALS NEEDS	PULLEY & COUPLING
21	BOSCH	
22	POLYMAK	
23	SUMAKE	



MECHANICALS
SPRINGS
COMPRESSION SPRING
COUPLING SPRINGS
VOLEUIDE SPRING
CIRCLIP
DOLPHIN SPRINH
SPRING WASHER

FASTENERS
HIGH TENSILE FASTENERS
ANCHOR FASTENERS
MS BOLY & NUT
SS BOLT & NUT
GI BOL & TNUTS

HYDRAULICS & PNEUMETRIC
PNEUMETRIC & SOLENOIDS VALVES
PUSH FITTINGS
PU TUBES
HYDRAULIC FITTINGS
FLUIDS CONTROL VALVES
CLAMPS
COUPLINGS
HIGH PRESSURE HYDRAULIC HOSES & FITTINGS



SPECIAL COMPONENTS



RECENTLY COMPLETED ASSIGNMENTS



Creality3D K1
High Speed 3



Cryogenic Liquid Nitrogen
Container



BPE 20KVA ONLINE
UPS



MOTORIZED TILT TABLE
(HEIGHT ADJUSTABLE)



PARALLEL WALKING
(BAR)



SURGICAL SCRUB BIN



364LTRS HORIZONTAL
CYLINDRICAL AUTOCLAVE



AT FABRICATION WORKSHOP

Face with Fingerprint Aadhaar Biometrics

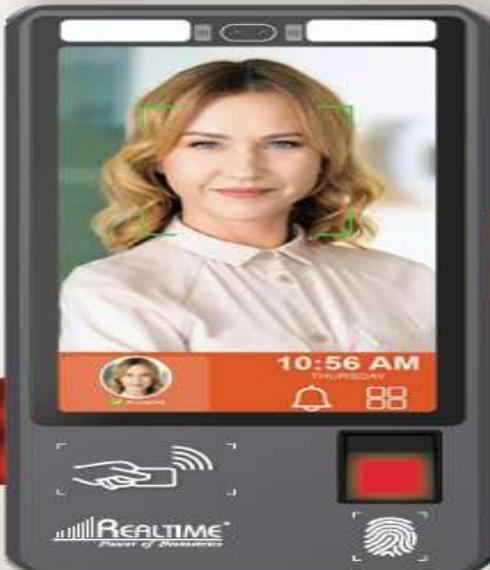
Model : T503F-L1



Face Recognition



Finger Recognition



10:56 AM
THURSDAY
88

REALTIME
Power of Biometrics



C Type



TCP/IP



Bluetooth



4G/5G



DC Charging



WiFi



USB Link



GPS



STQC Certifications



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
Government e Marketplace



Last Ping Time: 10:44:30 | Last Attendance: 10:44:30

Attendance Details:

Attendance User: 1000

Attendance Date: 10-08-2017

Attendance Time: 10:44:30

Attendance Response Time: 10:44:30

BACK

REALTIME
Power of Biometrics



**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**



3.5 Inch

3.5 Inch



**EXCEL
REPORT
DOWNLOAD**

**Card Capacity
2000**

**PIN Capacity
2000**

FASTEAST RECOGNITION



Face
Recognition



Palm
Recognition



RFID
Card



PIN
Password



Access
Control

www.realtimebiometrics.com

CLIENTELE



INDIAN EXPLOSIVE LIMITED, JHARKHAND



ICAR-CIFRI, KOLKATA



JBFS, KOLKATA



GREENVIOMENTAL GLOBAL, KOLKATA



ASSAM AGRICULTURE UNIVERSITY,
JORHAT



MECON LIMITED, RANCHI,
JHARKHAND



KAZIRANGA UNIVERSITY, JORHAT



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



INDIA METROLOGICAL DEPARTMENT



ALL INDIA INSTITUE 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

CONTACT US:

**Regd address : 704/1, Anjana Apartment
2nd Floor Jogendra Gardens Road,
Kasba, Kolkata 700078
West Bengal, India**
Mobile :9831072858 / 9836353450

**Branch Office: M/S Kaustav Engineering
H.No-3, 2nd Floor, Sanskrit College Road,
Near Raddision Blu Hotel, Gota Nagar, Jalukbari
Guwahati, Kamrup ,Assam-781014**

**Mailto: info@kaustavengineering.com
kaustavmachine20@gmail.com**

**GSTN: 19BKHPS3316P1ZH
MSME: UDYAM-WB-0004985**

www.kaustavengineering.com

Certified by :

