

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.

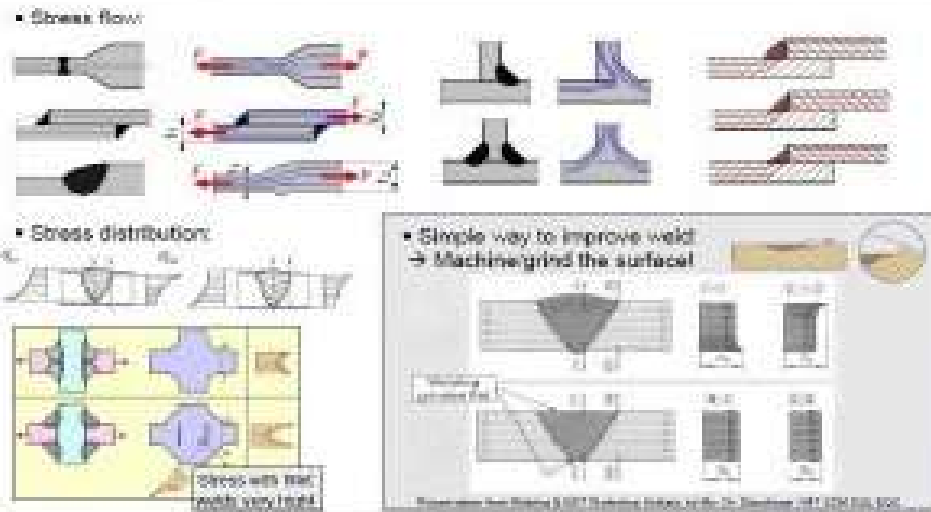
Responsibility

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



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 DIN15018)
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 so further load possible e.g. Crane tracks	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 structure, support frame	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 equipment, lifting equipment but not safety critical	FoS = 1.75
• Lifting Equipment • safety critical • max. possible load is known e.g. Lifting equipment, lifting equipment but not safety critical	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 joint shall always be considered

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

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

σ_b ... bending stress
 τ ... shear stress
 σ_{tc} ... tensile stress
 σ_{cc} ... compressive stress

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

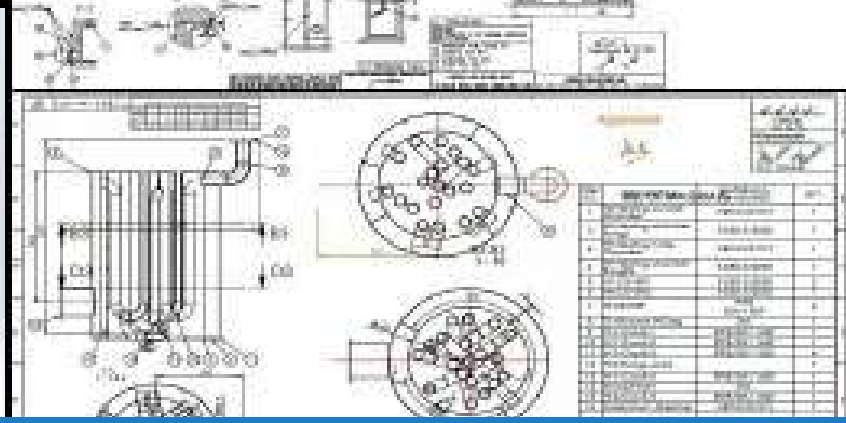
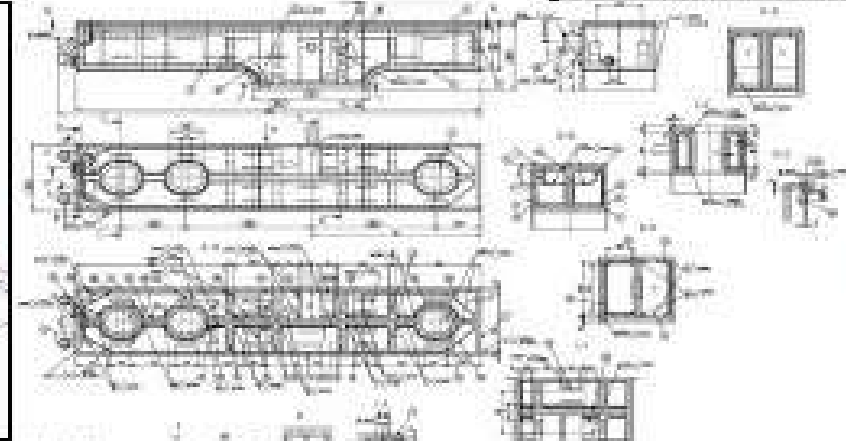
General Stress Analysis

Shear stress in longitudinal welding seams in beams

$$\tau = \frac{F \cdot A_1 \cdot y_1}{I \cdot \sum a}$$

τ ... shear in longitudinal welds in a beam
 F ... force
 A_1 ... Area(s) above the discussed weld
 y_1 ... Distance from Axis to centre of A_1
 I ... Moment of Inertia of whole beam
 $\sum a$... sum of all welding sizes at the discussed area

$$\tau_b = \frac{F \cdot (A_1 \cdot y_1 + A_2 \cdot y_2)}{I \cdot \sum a}$$



ENGINEERING PRODUCTS



FIRE & WASTE MANAGEMENT

FIRE FIGHTING SOLUTIONS

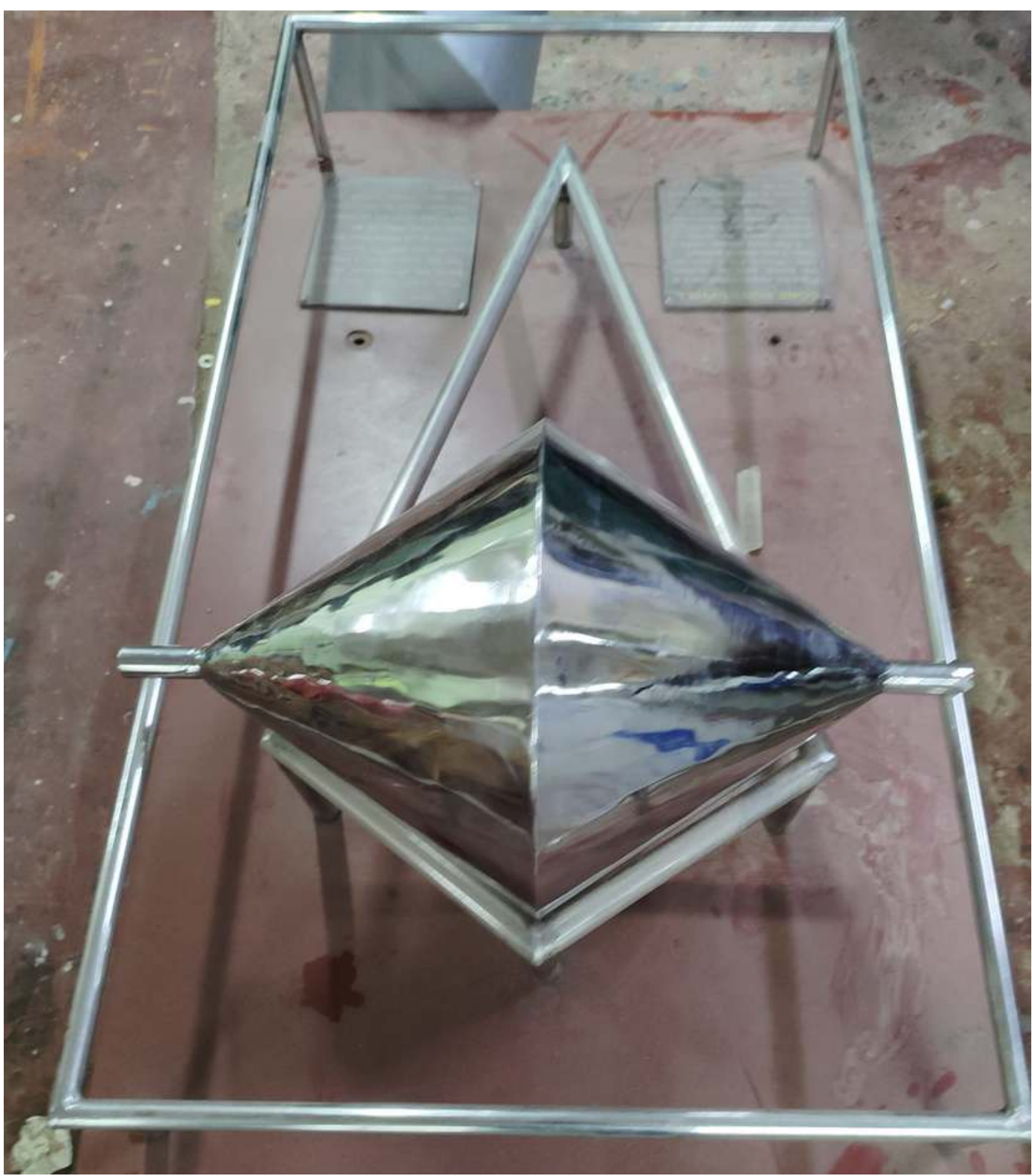
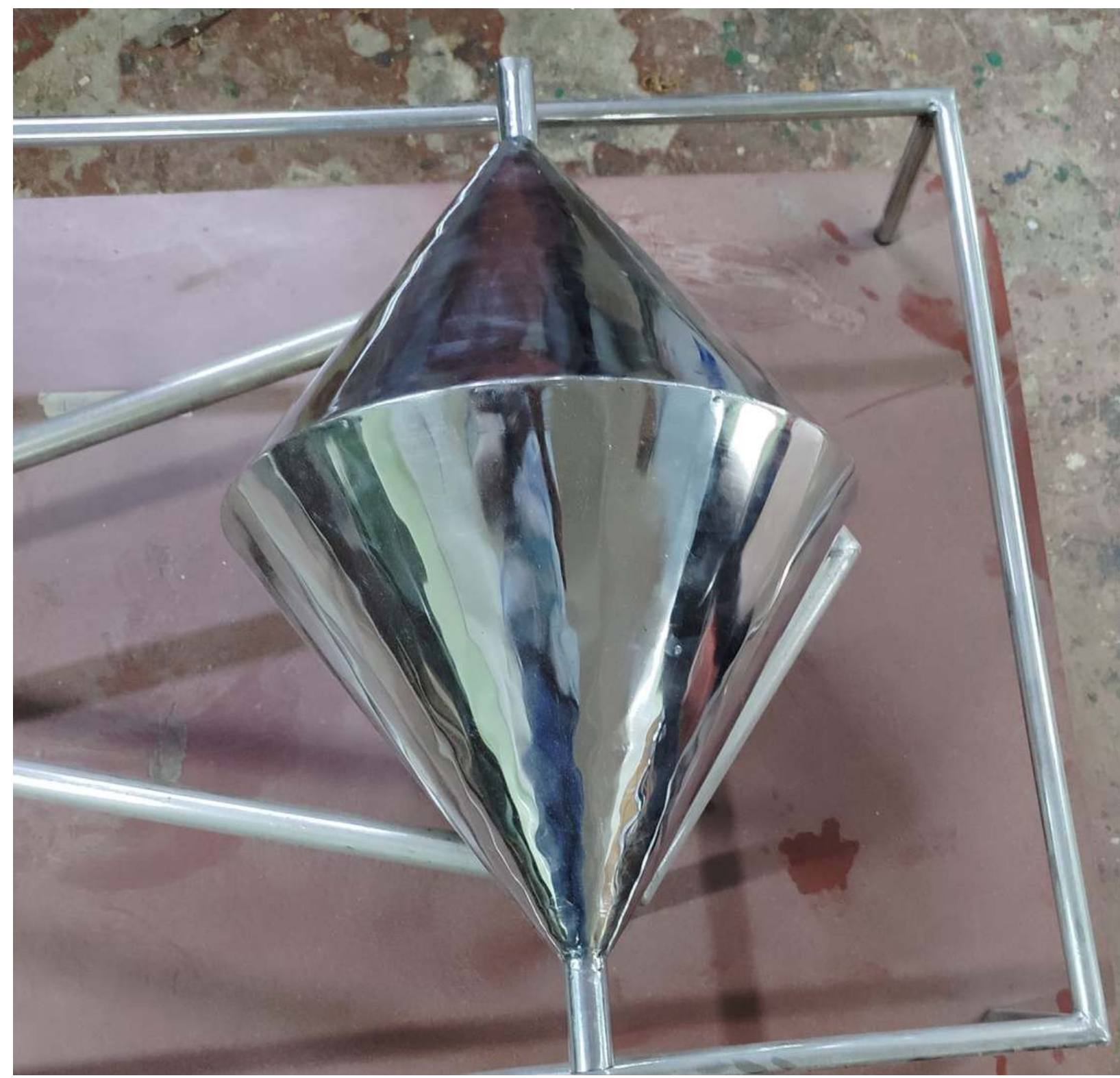
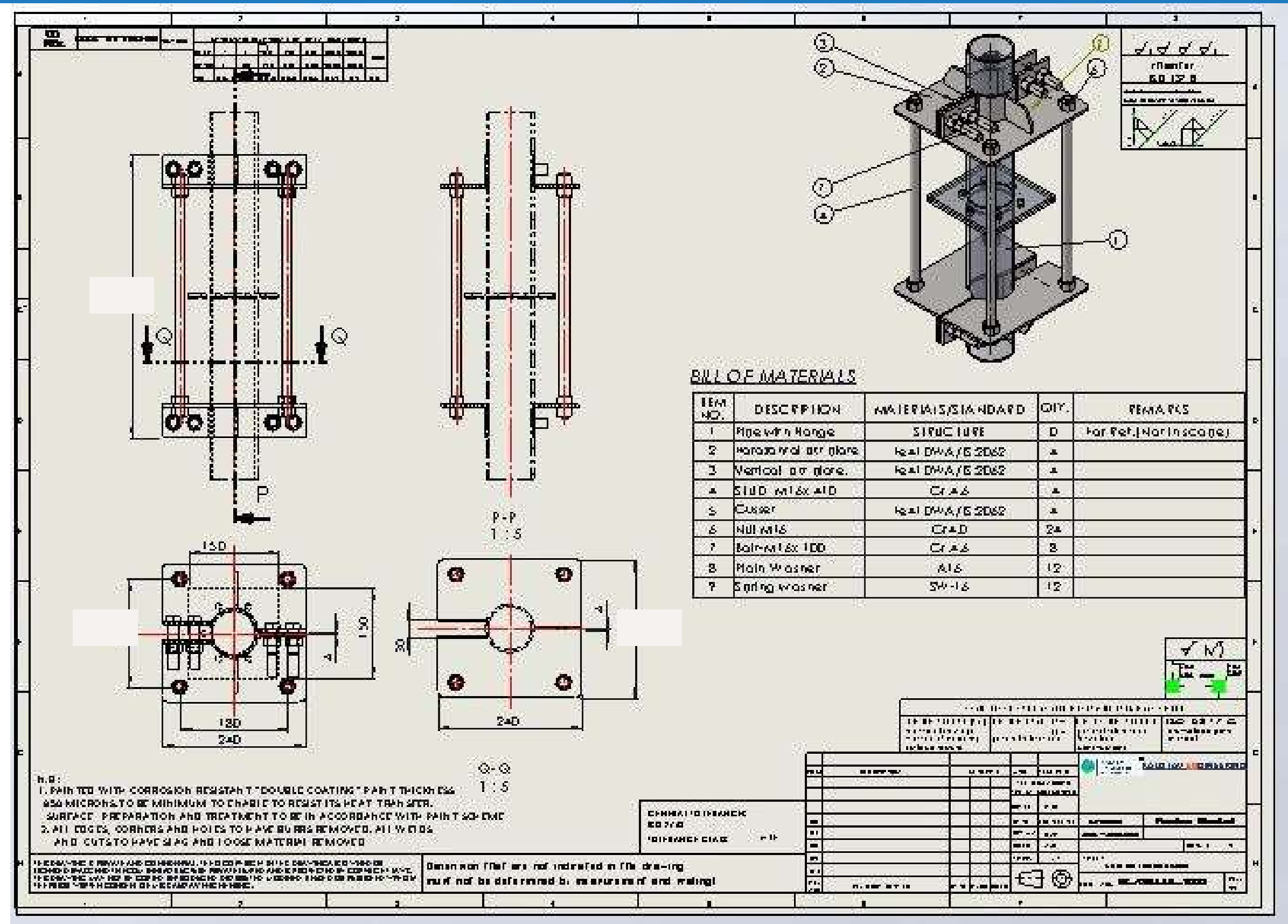
WASTE DUSTIBIN



FLOOR TILES SOLUTIONS

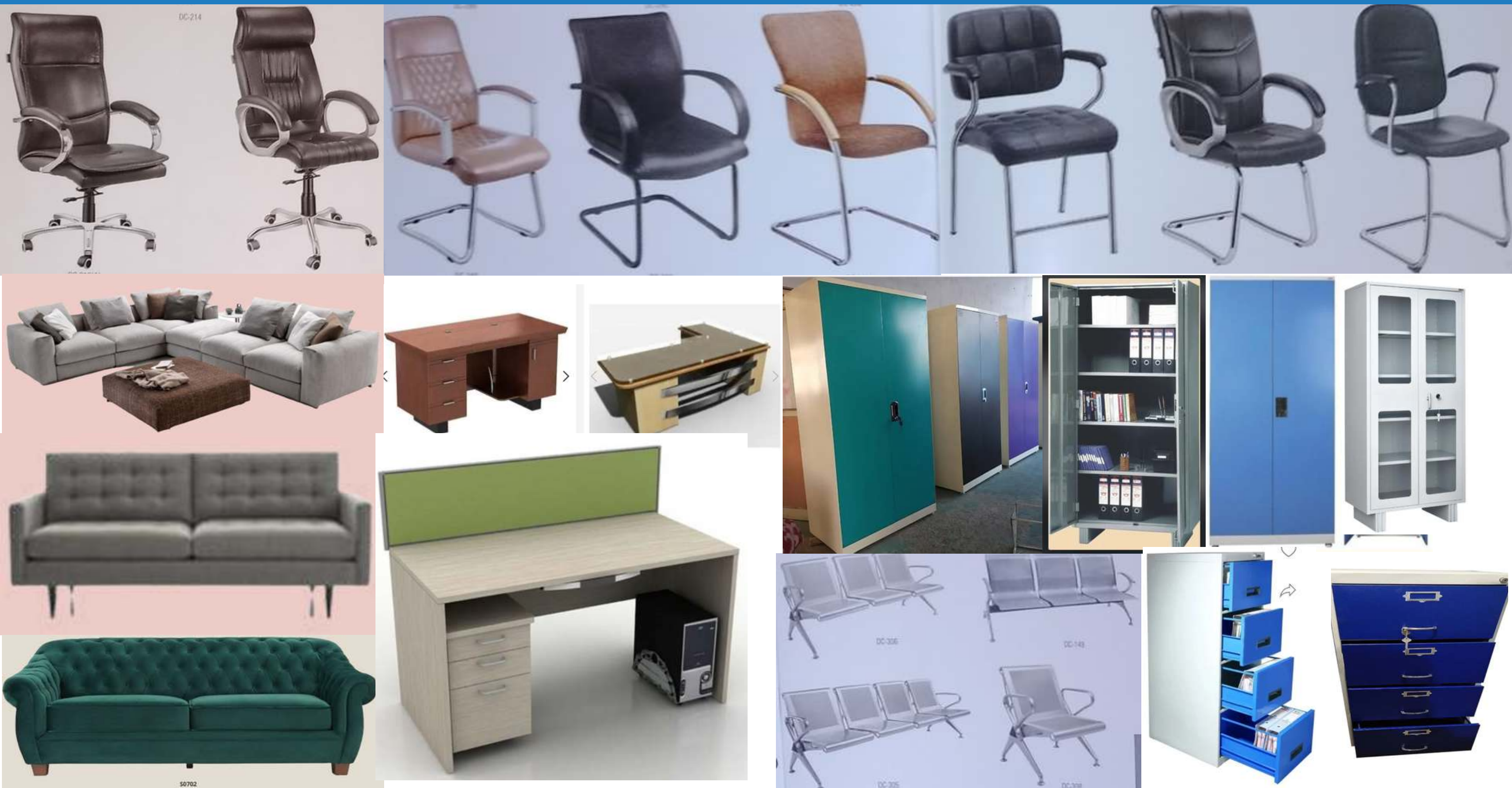


ENGINEERING, DESIGN, MODELLING, DRAWINGS & MANUFACTURING SERVICES



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

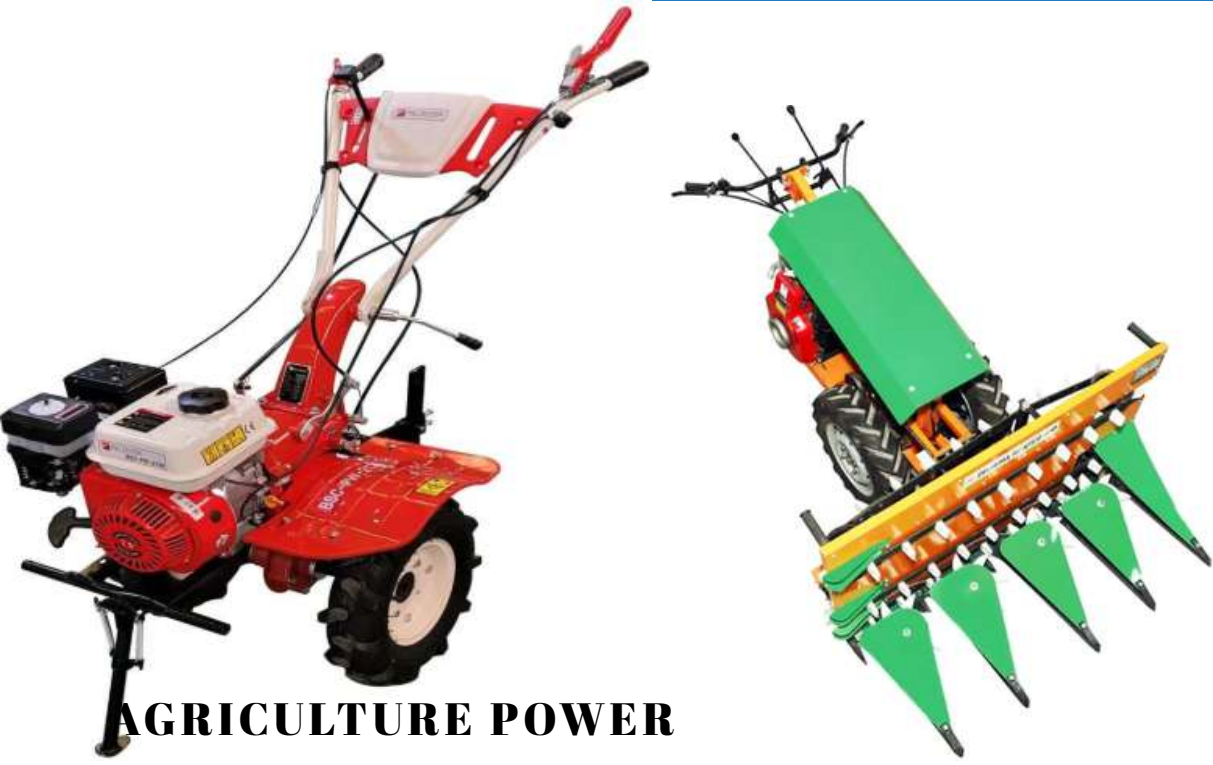


Bookshelf



SERVICE AND SUPPLY

AGRICULTURAL MACHINES



**AGRICULTURE POWER
WEEDER**

PADDY REAPER



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**

	(Flow Measurement Solution)	(Level Measurement Solution)	Measurent)	Equipments	
Ammeter	Actinometer	Power Quality Analyzer	Level Transmitter & Switch	Pressure Gauge & Switch	Magnetic Stirrer With Hot Plate
Electrometer	Avometer	Thermal Imaging Camera	Level Gauge(the Float & Board type)	Pressure Transmitter & Differential Pressure Transmitter	Karl Fischer Appartus
Electroscope	Bolometer	Infrared Temperature Gun	Ultrasonic based Level Measurement	Differential Pressure Gauge	Environmental Chamber.
Ellipsometer	Photometer	Flue Gas Analyzer / Stack Analyzer	Radar type Level Transmitter	Hygienic Pressure sensor & Flush Diaphragm Transmitter	Autoclave Machine
Galvanometer	Pyranometer	Infrared Temperature Gun	Capacitance based Level Measurement	Pressure cum switch Transmitter	Bacteriological incubator
Megger	Pyrheliometer	Digital Multimeter		Pressure Meter	Conductivity Meter
Multimeter	Spectrometer	Flue Gas Analyzer / Stack Analyzer		HVAC Applicatio	Medico Centrifuge
Ohmmeter		Digital Clamp Meter			Heating Mantle
Potentiometer		Insulation Tester			Digital-Polarimeter
Voltmeter		Earth Resistance Tester			Tablet Hardness Tester
Watt Meter		CFM Meter / Air Velocity Meter			Hot Air Oven Lab Model
		Sound Level Meter			Digital Colony Counter
		RPM Meter (Tachometer)			B.O.D Cooled Incubator
		Vibration Meter			Antibiotic Zone Reader
		Lux meters			Water Bath Cum Oil Bath
		Digital Thermometer			Ultrasonic Cleaner
		Refrigerant Leak Detector			Digital Antibiotic Zone Reader
		PNG/LPG Gas Leak Detector			Bomb Calorimeter
		Temp. & Humidity Data Loggers			Tds Meter
		Temp. & Humidity Transmitters			Automatic Water Still
		Moisture Meter			Humidity Oven
		TDS / pH Meter			Enviromental-Chamber
		Cooking Oil Tester			Hot Plate
		Air Quality Meters			
		Portable Multi Gas Detectors			
		Ultrasonic Water Flow Meter			
		Oscilloscopes			
		LCR Meter			
		Function Generators			
		Servo Stabilizer			
		On Line Ups			
		Power Supplies & many more...			
		Safety Equipment			

FLUKE TACHOMETER

32 CHANNAEL DATA

INFRARED THERMOMETERS

ENVIROMENTAL TEST CHAMBER

ROTAMETER

MASS FLOW CONTROLLER

PYRANOMETER

ONLINE UPS

Distance ▼	Angle ▼	Speed ▼	Teperature ▼	Time ▼	Mass ▼	Area ▼	Sound ▼	Dencity ▼	Torque ▼	Light ▼	Magnetic ▼		
Ruler	Pratractors	Speedometer	Thermocouples	Digital stop-watch	Laboratory balance	Planometer	Audiometer	Densimeter	Torque Wrench	Apicoiscope	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 CONDITONERS					
Feeler Gauge								VOLTUS		1T/1.5T/2T			
Micrometer								LG					
Altimeter								BLUE STARS					
Dial Indicator													
Dial Bore Gauge	DEHUMIDIFIRE				PAD VENDING MACHINE			TVS					
Spherometer				CIVIL ENGINEERING				LG		55"/65"/85"/			
Binocular								SAMSUNG					
Cathetometer								PANASONIC					
								MI					
								INTERACTIVE PANELS					
	INTERACTIVE PANELISL							Display Inch		86/-75"/165"			
								Native Resolution		3,840 × 2,160 (UHD)			
								Multi Touch Point		390 / 390 / 390 nit			
								Input		HDMI (3), USB 3.0 (3), USB 2.0 (3), RGB (1), Audio (1), RS-232C (1),			
								Output		Audio (1), Touch USB (2)			
					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 & TRAINING



STATIONARIES, ELECTRICALS & HOUSE KEEPING

STATIONARIES			
1	Binder Clip of Size 32mm	43	Register-No.12
2	Binder Clip of Size 41mm	44	Dak despatch Register No. 30
3	Binder clip of size 19mm	45	Dak Receipt Register No. 30
4	Binder clip of size 25mm	46	Plain Envelope 11inX4.5in
5	Binder clip of size 15mm	47	Plastic Scale
6	Binder clip of size 51mm	48	Scissor(17.5 cm)
7	Correction white fluid pen	49	Rubber band of size-10
8	Glue Stick of 15 gms	50	Cover file
9	White board marker pens set of 4 colours	51	Brown Tape 2in
10	Permanent marker pens set of 4 colours	52	Note Pad No. 40
11	White board duster, magnetic.	53	Notepad (14.0 cm x 22.0 cm)
12	Tape dispenser	54	Slip pad small size (14.0 cm x 22.0 cm)
13	Coloured paper clip	55	spiral note book (14.8 c.m. X 21.0 c.m)
14	Cutter knife	56	Spiral note book (17.6 c.m. X 25.0 c.m.
15	Self adhesive note sheet, 2inx3in	57	Spiral Pocket note book
16	Self adhesive note sheet, 3inx3in	58	Uniball pen
17	Self adhesive note sheet, 3inX5in	59	Gel Pen
18	Punch machine of Big size	60	hi-tech point pen
19	Punch Machine DP-600 or equiv.	61	Page marker
20	Stapler machine, small size, no 10	62	Book marker
23	Stapler Pin, size 10, 20x50	65	Adhesive Tape 1in
24	stapler pin no. 24/6	66	Eraser
25	Transparent adhesive tape of size 24 mm	67	All out machine
26	Transparent adhesive tape of size 48 mm	68	All out refill
27	Printing paper, size A4, 75 GSM	69	Good Night (Mousquitto repellant)
28	Printing paper, size A3, 75 GSM	70	
29	Fullscap paper	71	
30	Flat File with spring holder	72	
31	Poly cotted Envelope of size 17inx14in	73	
32	Box File with spring holder	74	
33	Plastic Folder, both side transparent A4	75	
34	Poly cotted Envelope of size 14inX12in	76	
35	Medium economic range writing ball pen b	77	
36	Higher economic range ball pen red		
37	Higher economic range ball pen green		
38	Higher economic range ball pen black		
39	Standard Calculator		
40	Register-No.6		



ELECTRICALS	
1	PVC SWITCH BOARD 10 X 8
2	18 WATT LED TUBE FITTING
3	9 WATT LED BLUB
4	ALUMINIUM BTC WIRE - 10 SQ MM
5	40 AMP SP MCB 10 KA (BB10400C)
6	16 AMP SP MCB 10 KA (BB10160C)6-16 Amp
7	15 AMP S.S. COMBIND WITH BOX
8	6 AMP S.S. COMBIND WITH BOX
9	15 WATT LED BULB
10	BULKHEAD FITTING LED 10 Wt / HAV
11	16 AMP SP MCB 10 KA (BB10160C)
12	6 AMP SWITCH
13	ALUMINIUM BTC WIRE - 6 SQ MM
14	PENDENT HOLDER
15	10 WATT LED TUBE FITTING
16	32 AMP SP MCB 10 KA (BB10320)
17	HAV DB 6WAY SPN S/D
18	16 AMP SWITCH
19	ANC SWITCH 6A (38014 / 50010)
20	16 AMP SOCKET
23	16 AMP SOCKET
24	ALUMINIUM BTC WIRE - 2.5 SQ MM
25	25 MM CASSING CAPPING
26	PHILIPS 12W LED EMERGENCY BULB
27	CROMPTON LSORMN SLIM FLAT 12W LED PANNEL LIGHT
28	CROMPTON 15W COLOUR LED ROUND PANEL
29	DURAVOLT DLITE POLYCARBONATE BATTEN HOLDER
30	POLYCAB ETIRA /FINOLEX CU MULTISTRAND WIRE1.0SQMM FR 90
31	6 AMP ANCHOR PENTA SWITCH(Modular)
32	HAVELLS 20W TUBE LIGHTS
33	AA Cell
34	AAA Cell
35	All types of ables



HOUSE KEEPING	
1	Harpic (1 Ltrs.)
2	Detol Hand wash
3	Phenyl 5 Ltrs Jar (white)
4	Phenyl 5 Ltrs Jar (Black)
5	Black Hit
6	Tissue paper
7	Detol 500 ½ Ltrs(Hand wash Liquid)
8	Garbage Bag (Big)
9	Garbage Bag (Small)
10	Room freshener (Air)
11	Odonil
12	Chittrolla(Floor cleaner)
13	naphthaline ballis kg
14	Harpic 500ml
15	odonil
16	Handwash 5L
17	Napkin Paper
18	Colin
19	Napkin Multifold
20	Toilet Brush
23	Shampoo
24	Toothpick
25	Room Freshner
26	Lizol
27	Surf Excel
28	Wiper
29	Broom
30	Hand Sanitizer 5 ltr
31	Register 336 page
32	scrubber
33	Register 336 page
34	scrubber
35	scrubber
36	
37	
38	
39	
40	

SPECIAL COMPONENTS

The collage displays a variety of products offered by Kaustav Engineering Co. The items include:

- SAFETY CONE/ROAD BARRIED**: Red and white traffic cones and large red plastic barriers.
- CEILING PANEL LIGHTS**: Circular and square recessed ceiling lights, along with LED strip lights.
- PLANT GROWTH CHAMBER**: A white cabinet with glass doors containing potted plants.
- HIGH PRESSURE WASHER**: A yellow and black Kärcher pressure washer with accessories.
- AUTOMATIC WEATHER CHAMBER**: A large industrial chamber with a digital display and control panel.
- BATTERIES**: A large red Exide Xpress battery and a smaller Amaron Quanta battery.
- Other equipment**: A large stainless steel industrial machine, possibly a autoclave or reactor, and various electrical components like switches and motors.

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

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 ERRI RESEARCH RESEARCH
AND TRAINING INSTITUTE



KRISHNA KANTA HANDIQUI STATE OPEN
UNIVERSITY



ASCEND TELECOM INFRASTRUCTURE
PRIVATE LIMITED

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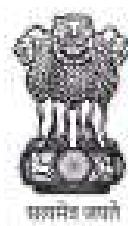
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Certified by :



MSME
सूक्ष्म, लघु एवं मध्यम उद्यम
MICRO, SMALL & MEDIUM ENTERPRISES



GeM
Government
e Marketplace

