



HI-SPURT CONTROL
SYSTEM

Hi-Spurt Control System

The Only Solution

INDUSTRIAL | COMMERCIAL | RAILWAYS

COMPANY
PORTFOLIO



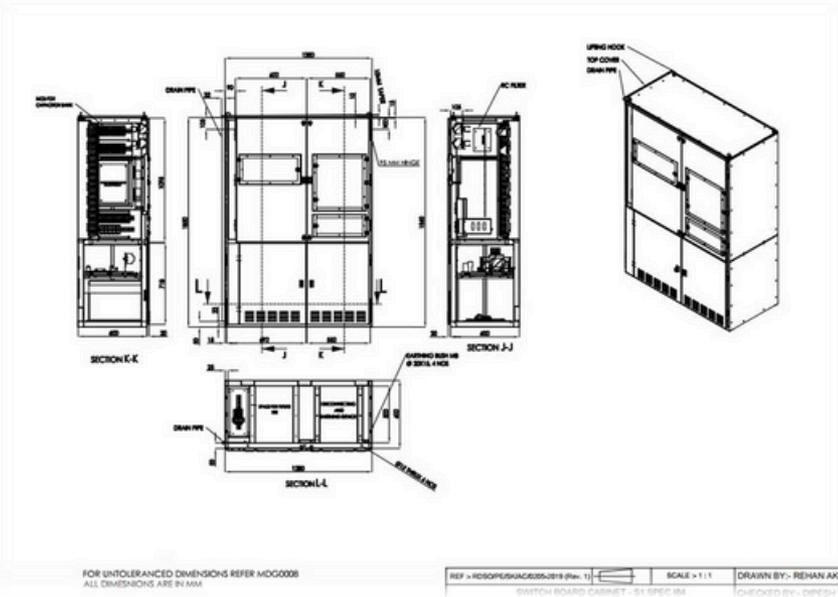
ELECTRICAL AND MECHANICAL WORKS

With over 10 years of experience, our Senior Design & Development Engineer brings a strong blend of technical expertise and project management capabilities to deliver innovative solutions for complex design challenges.

Skilled in prototyping, simulation, assembly, and testing, we ensure project success through cost-effective and efficient design approaches. Our team possesses deep hands-on experience in 2D and 3D CAD modeling, enabling precise visualization and execution of design specifications.

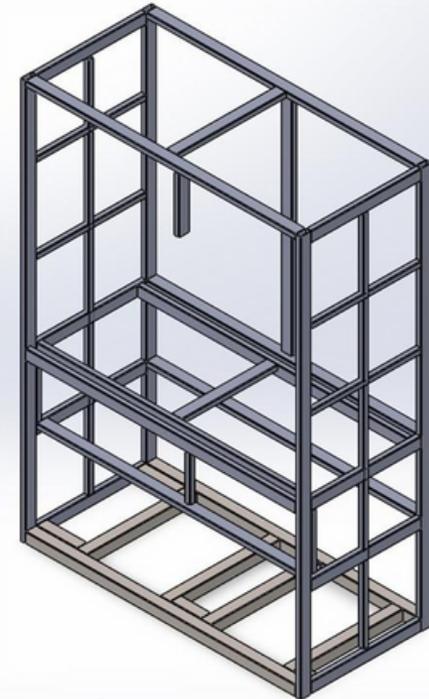


RDSO Reference Drawing



Structure

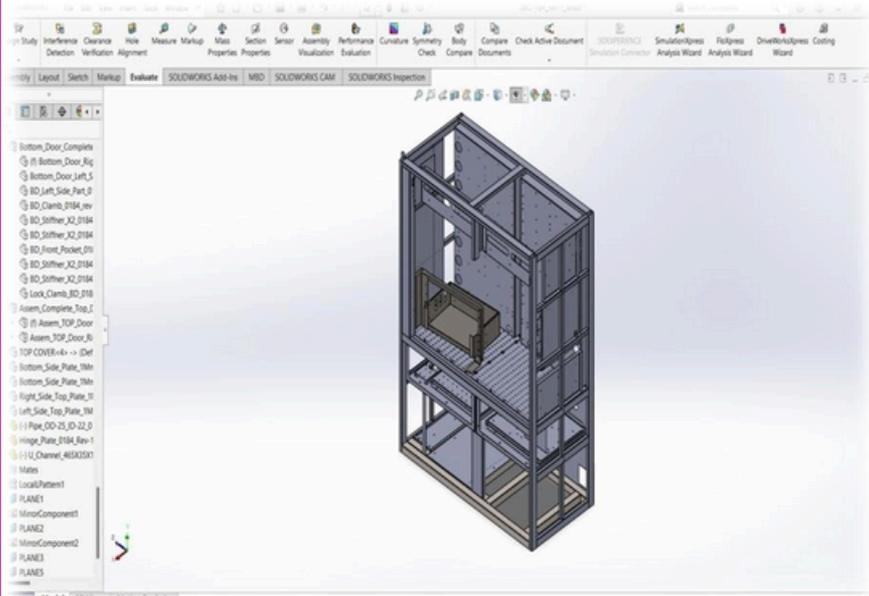
Start from Scratch



Switch Board Cabinet for LHB Type AC EOG Coaches 184

1. Electrical Requirement - 125 A (max), 3 Phase, 750 Volts, 50 Hz
2. Constructional Requirement - 1850x1283x940 mm, CRCA steel confirming to IS:513-1994

CAD Model

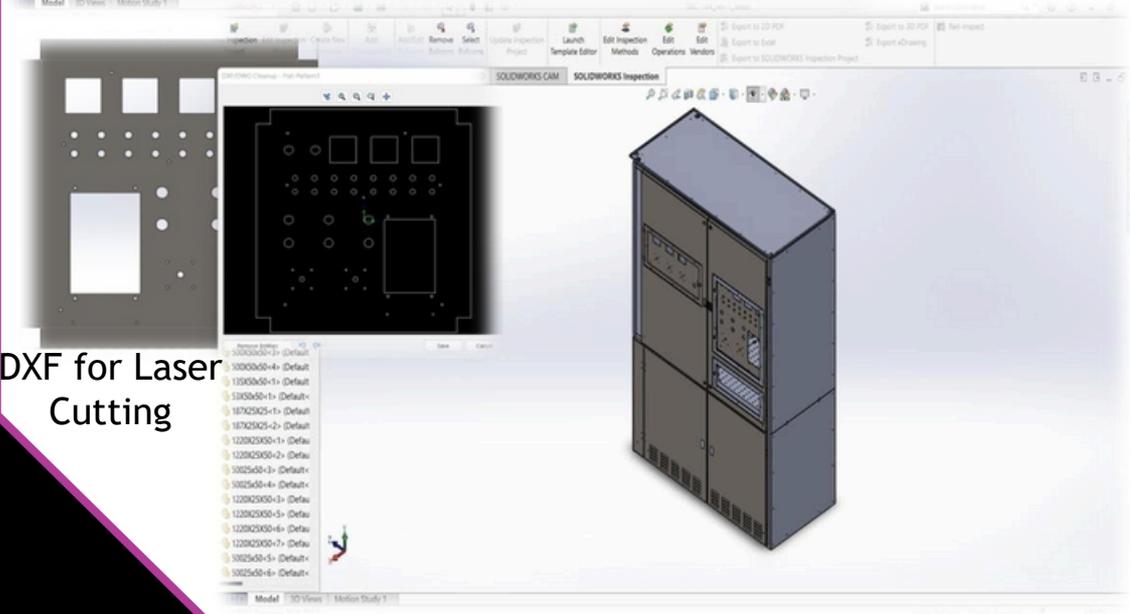


Final Product

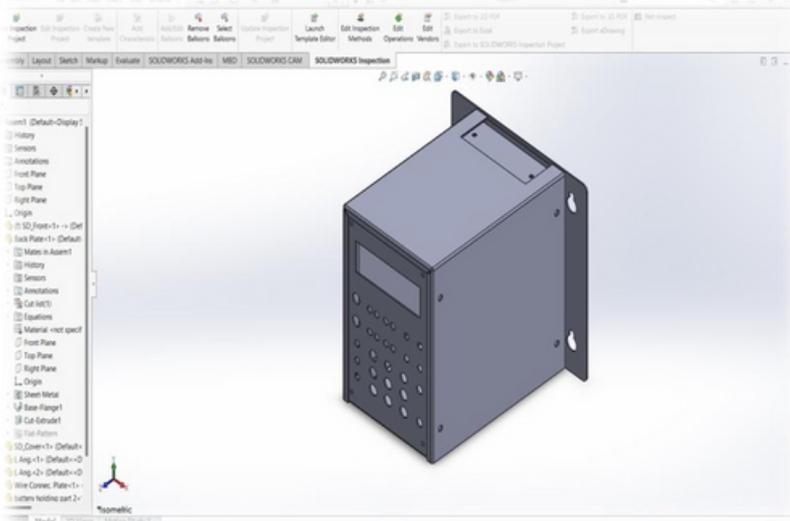
Prototype



DXF for Laser Cutting

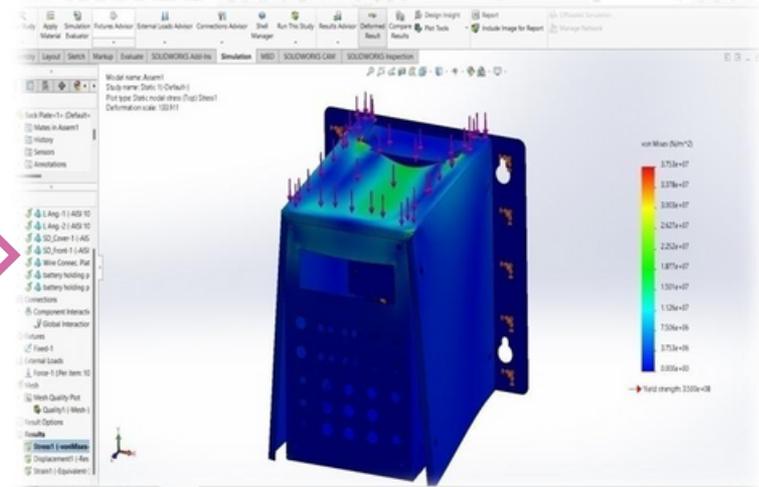


CAD Model



Simulation

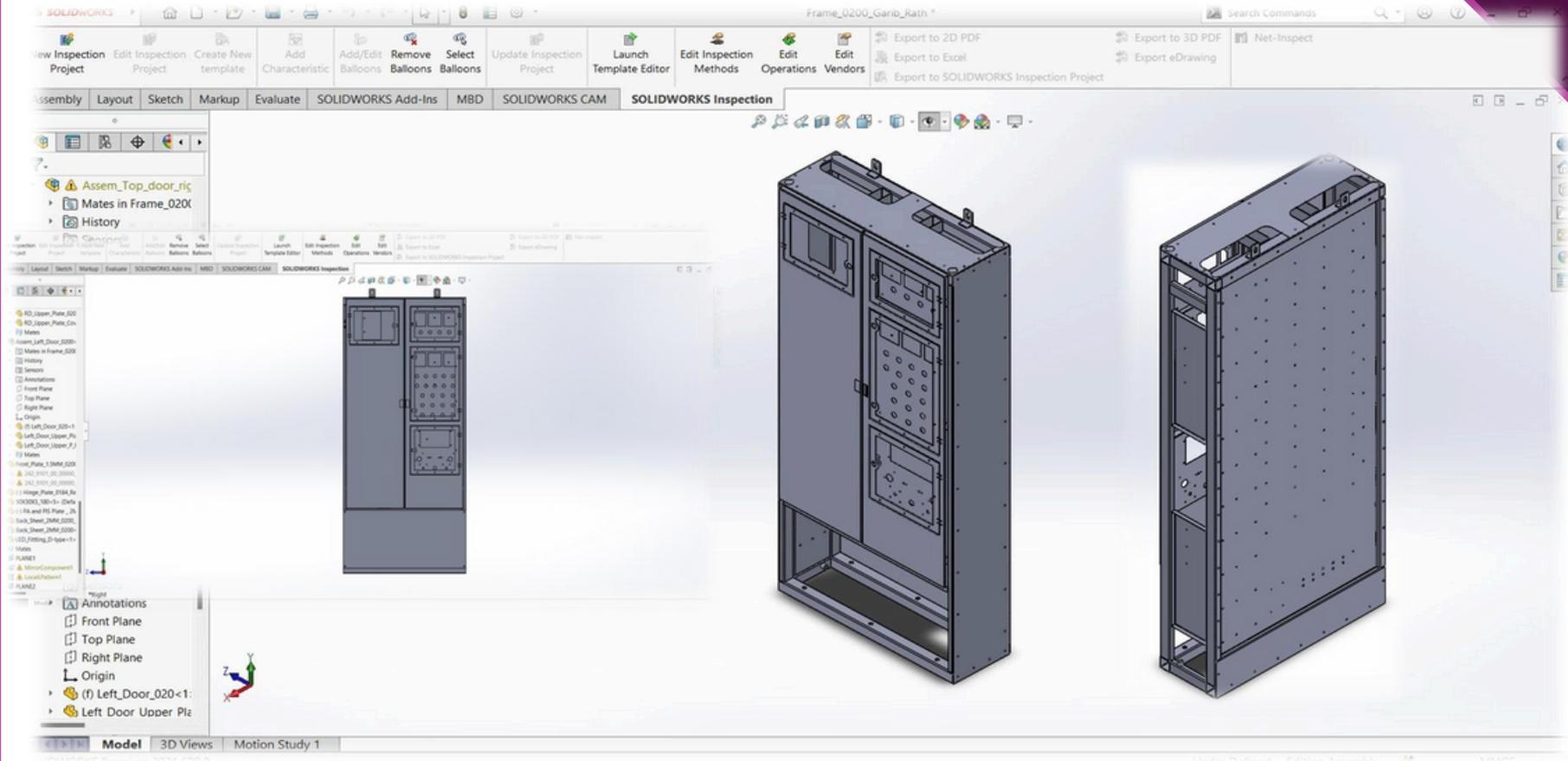
Simulation



Automatic Fire Detection & Alarm Systems

Smoke/fire detection with alarm system for very early warning for smoke/fire incidence in Indian Railway's fully air conditioned coach/coaches (e.g. all type coaches of Rajdhani/Garib Rath/Duranto/Shatabditrains etc.)

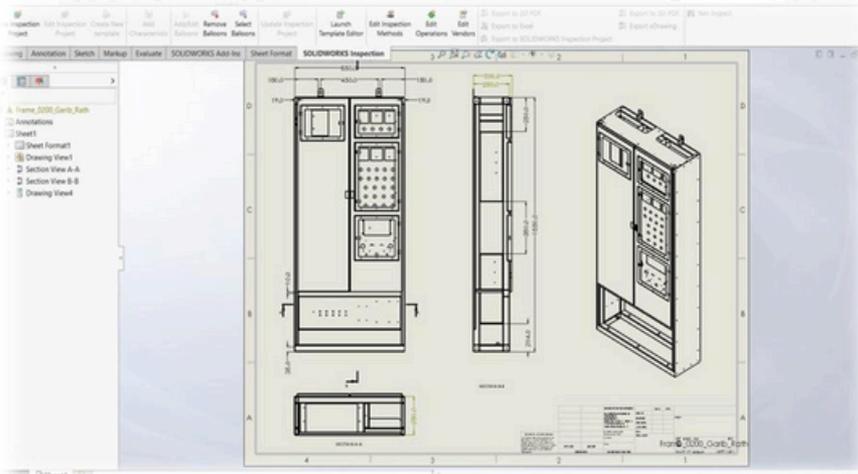
CAD Model



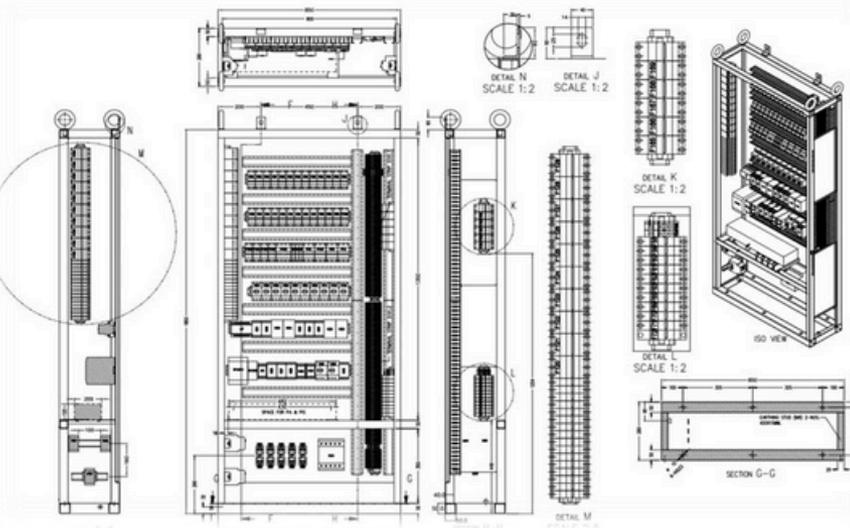
Switch Board Cabinet for LHB EOG/HOG Coaches 200

LHBEOG/HOGGARIB RATHTYPE ACCOACHES. OF INDIAN RAILWAYS

Drafting



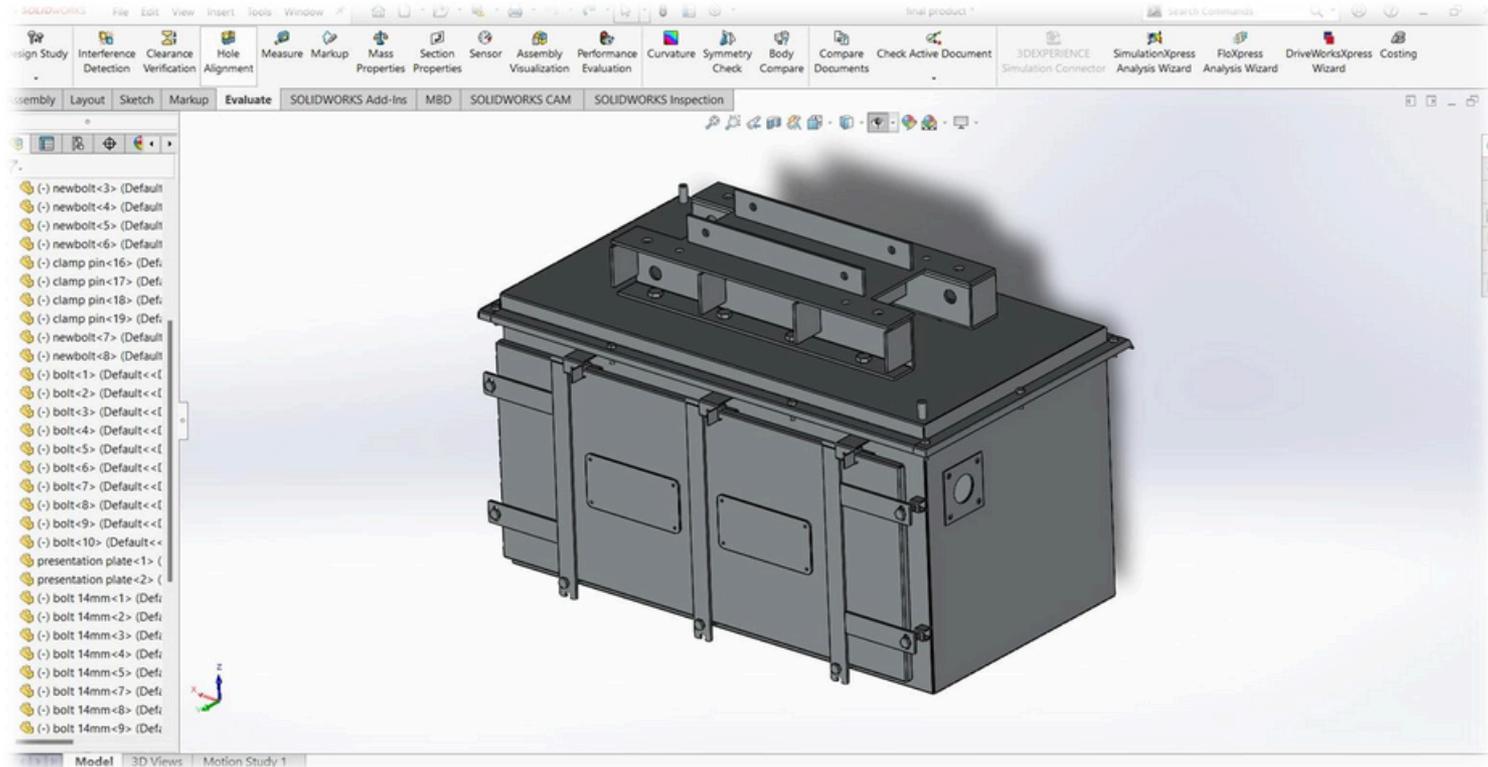
Final Product



Switch Board Cabinet for LHB EOG/HOG Coaches 200

LHBEOG/HOGGARIB RATHTYPE ACCOACHES. OF INDIAN RAILWAYS

CAD Model

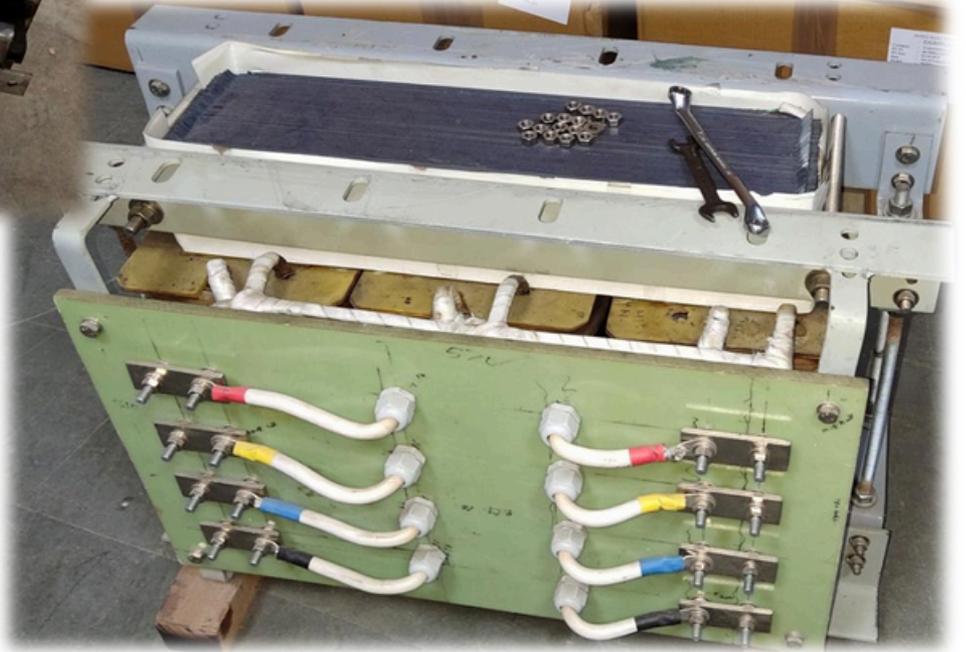


60KVA Transformer

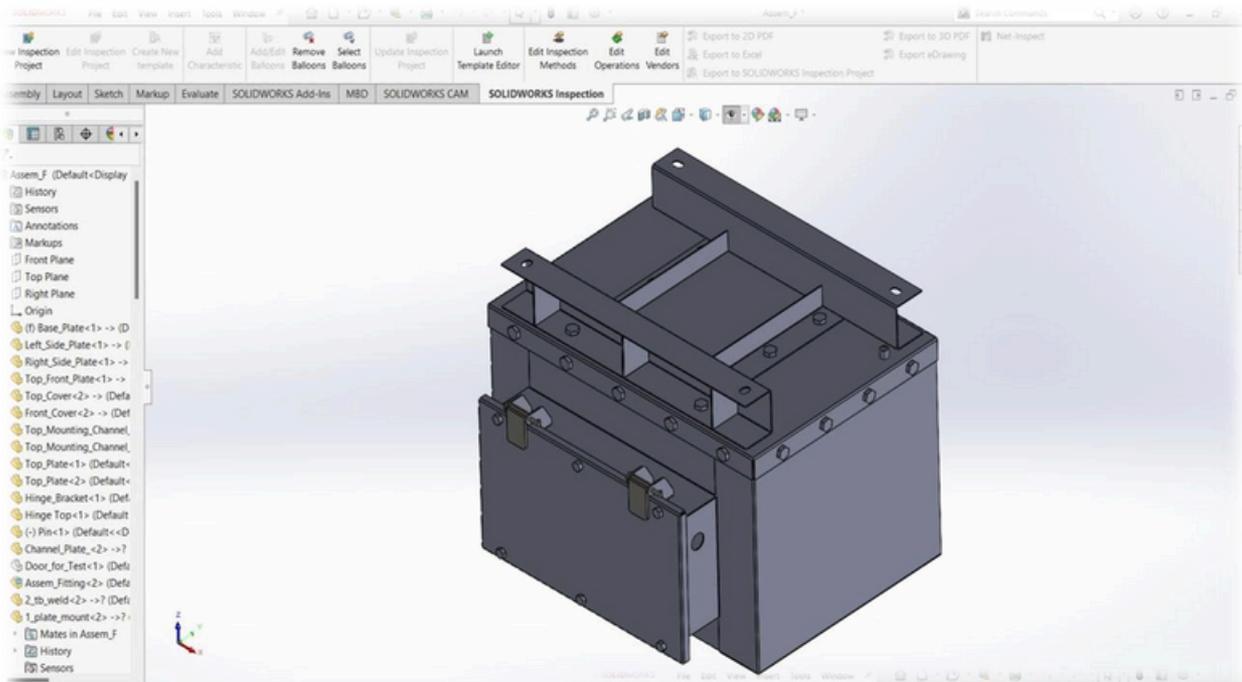
60 KVA Three phase 750/415V 50 Hz transformer in stainless steel enclosure is used in new LHB type Coaches as under slung. This is approved by RDSO. It has under gone various external government laboratory (CPRI, Bangalore/DRDO, Hyderabad) testing and got cleared



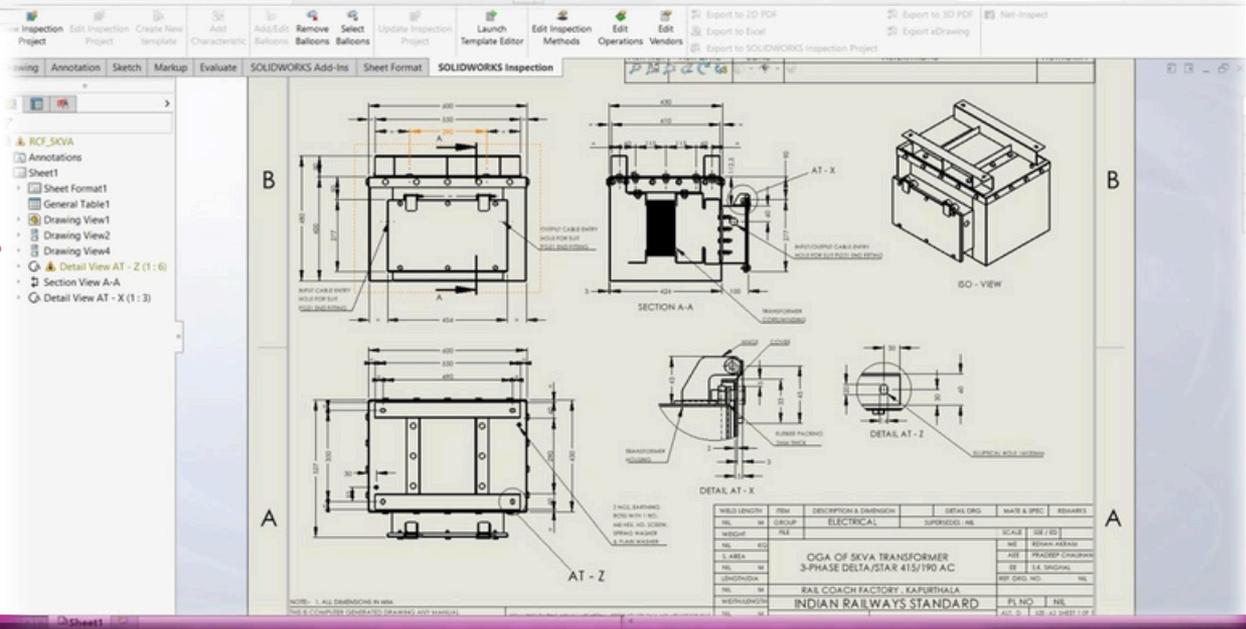
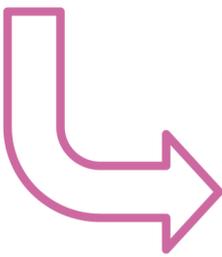
Prototype for RDSO Approval



Final Product



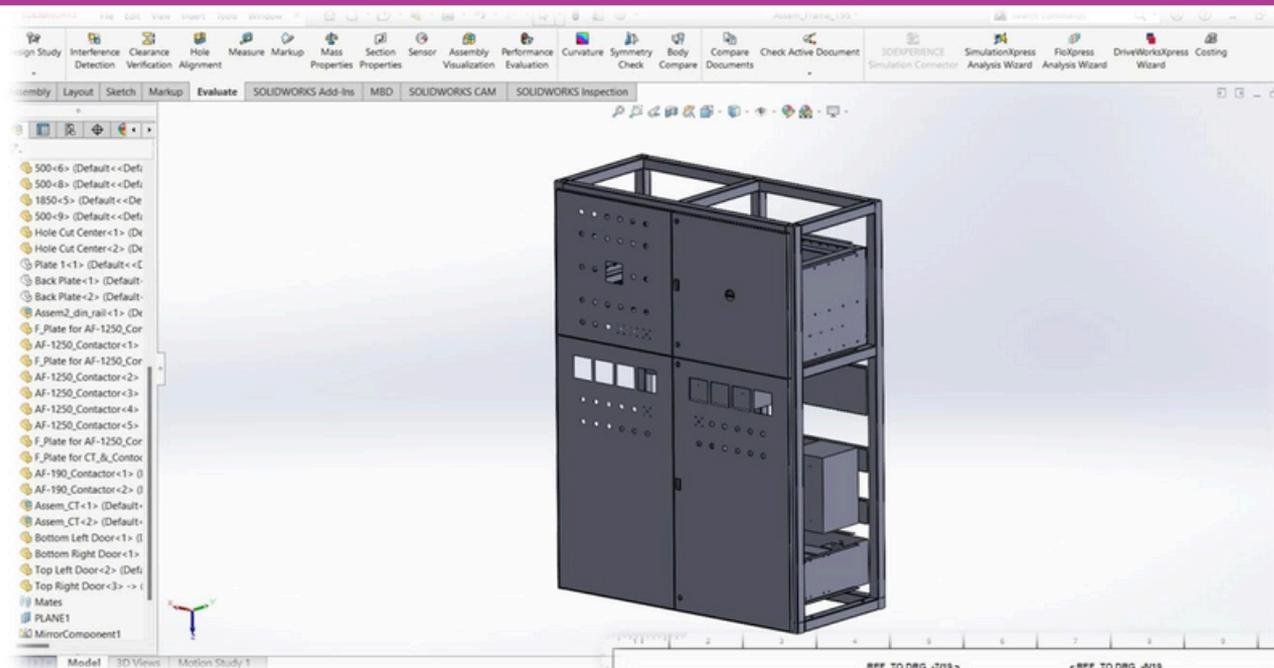
5KVA Transformer For RCF



5KVA Transformer
Prototype

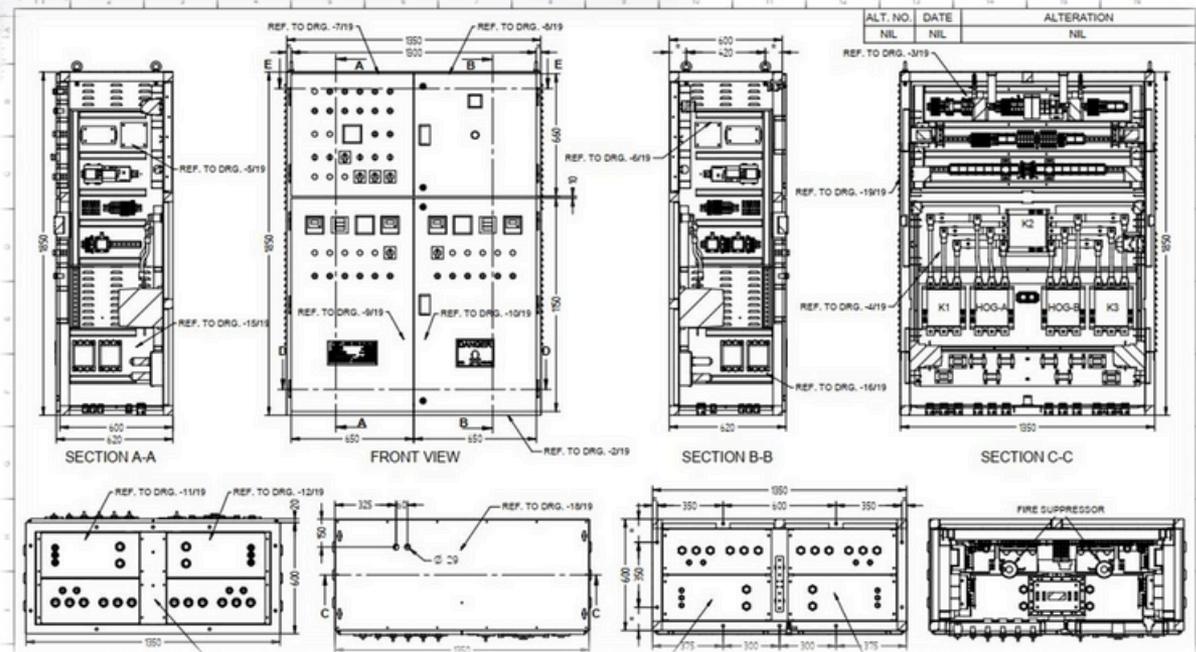


Final Product

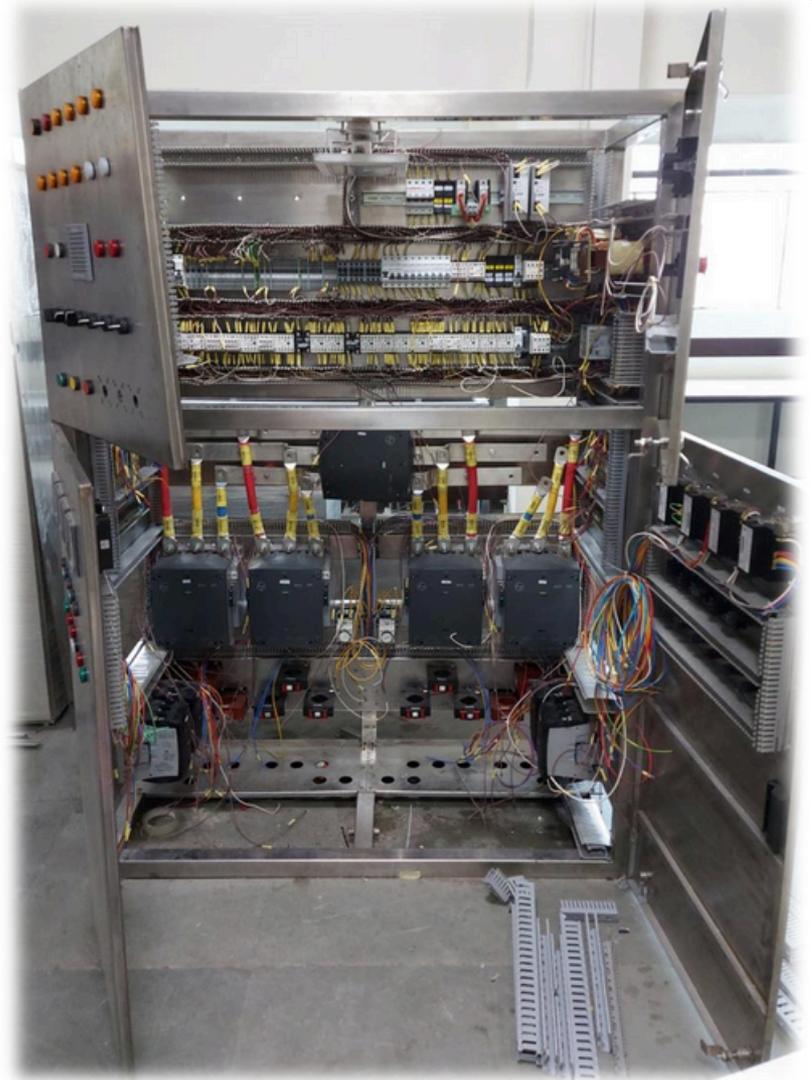


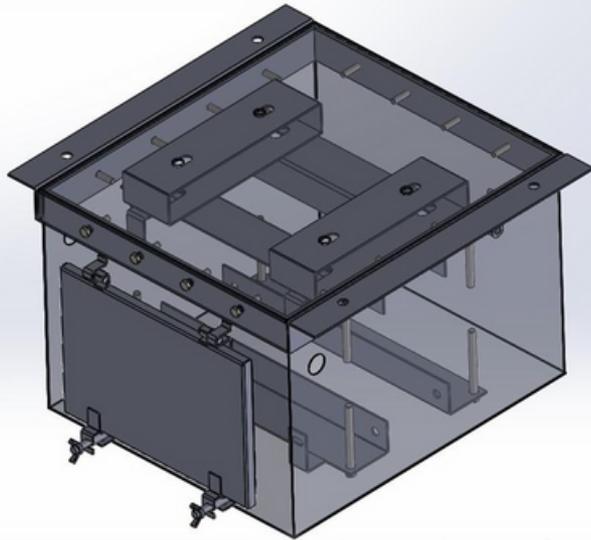
CAD Model For SBC Panel 195

2D Drawing



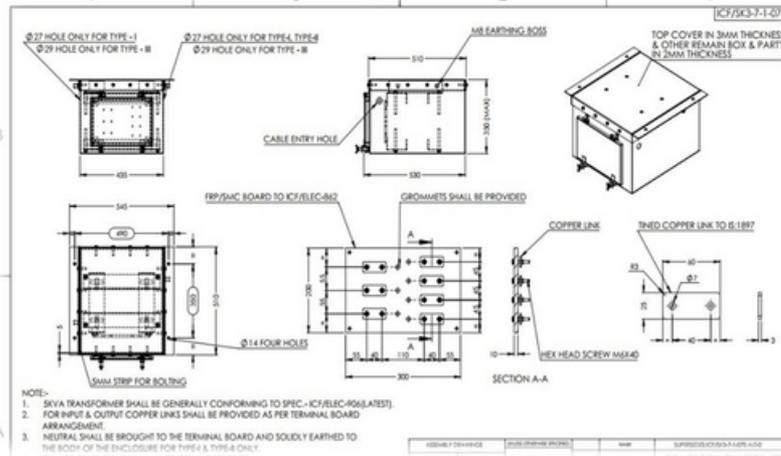
Prototype





CAD Model For 5KVA Transformer for ICF

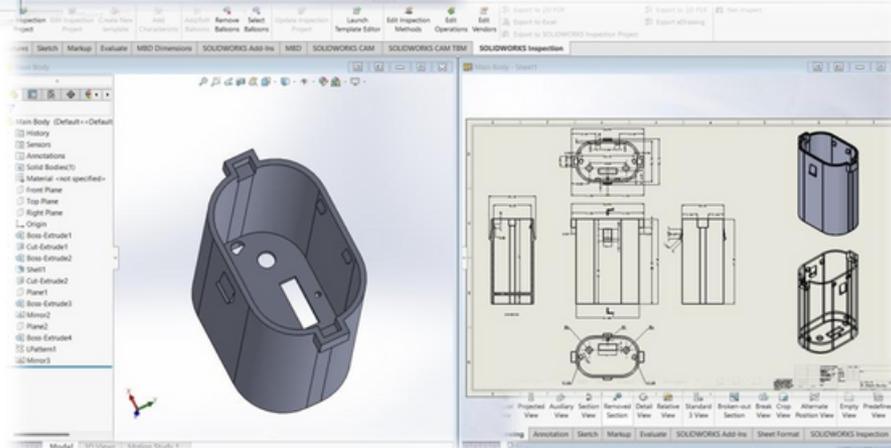
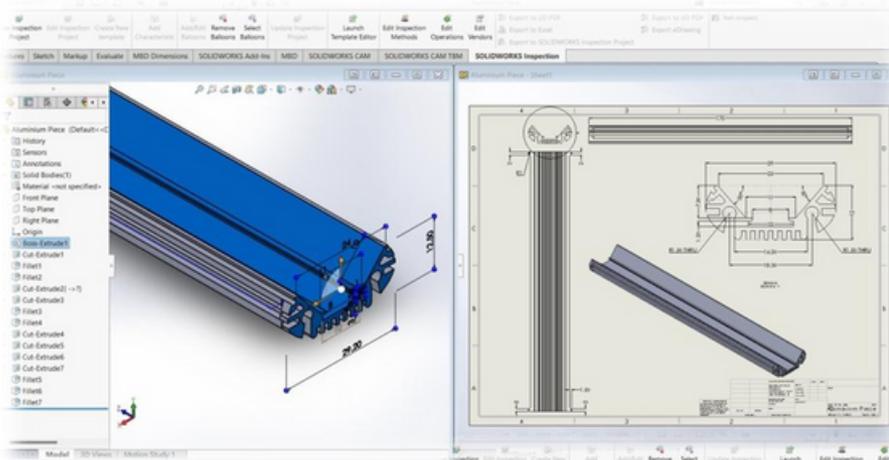
2D Drawing



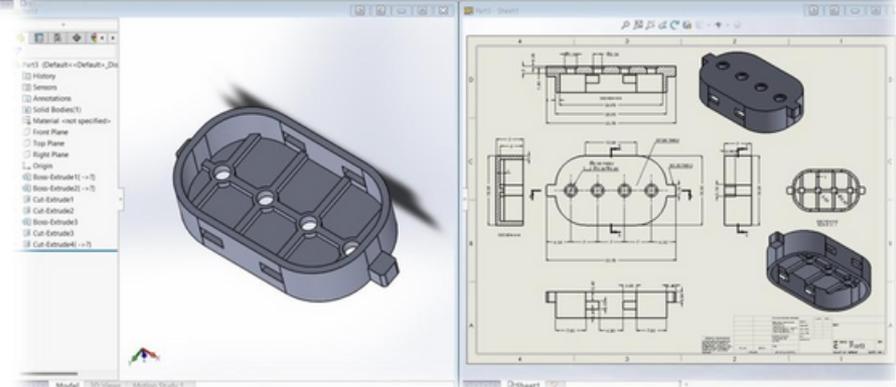
Prototype



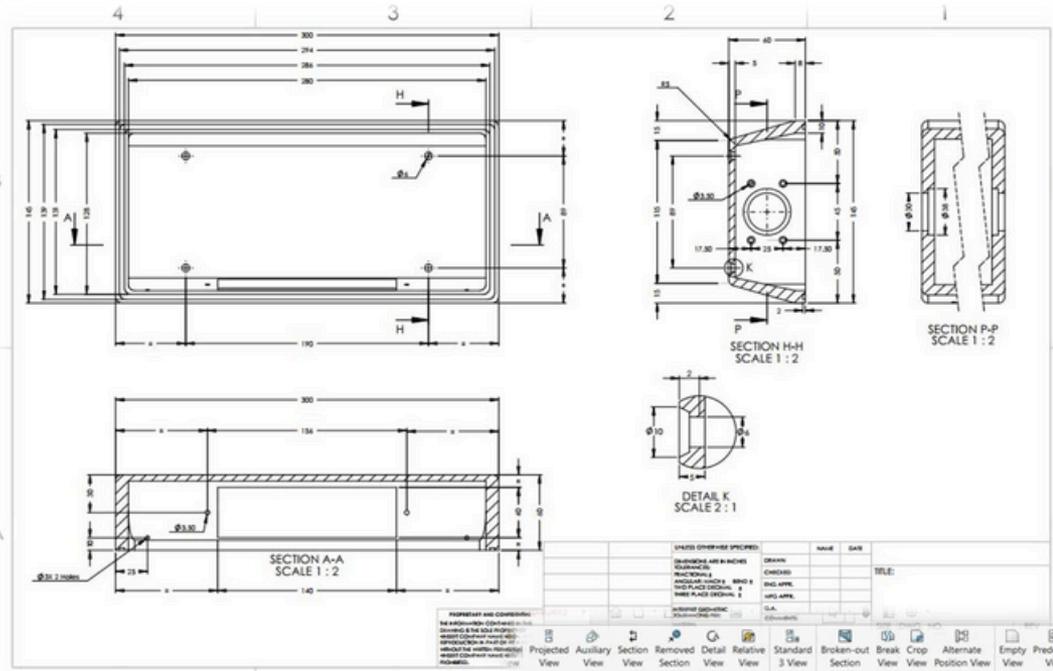
CAD Drawing for Diffuser



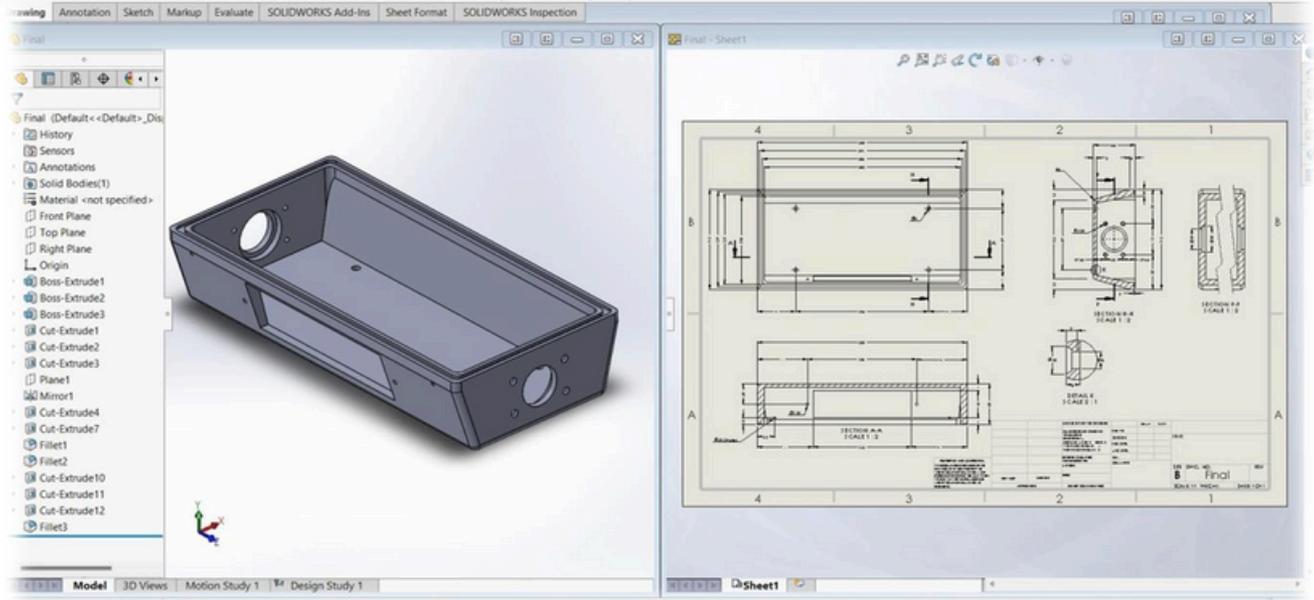
Plastic Moulding Part's

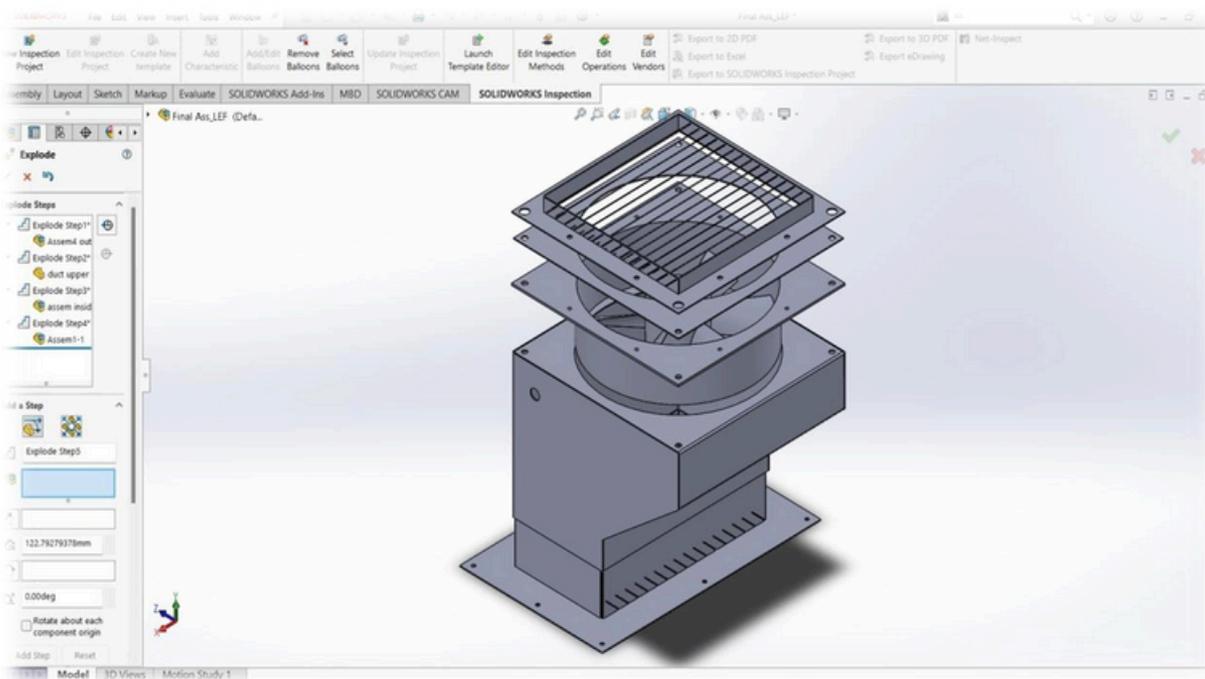


CAD Drawing for LED Light Used in Passenger Coaches



Aluminium Casting Drawing

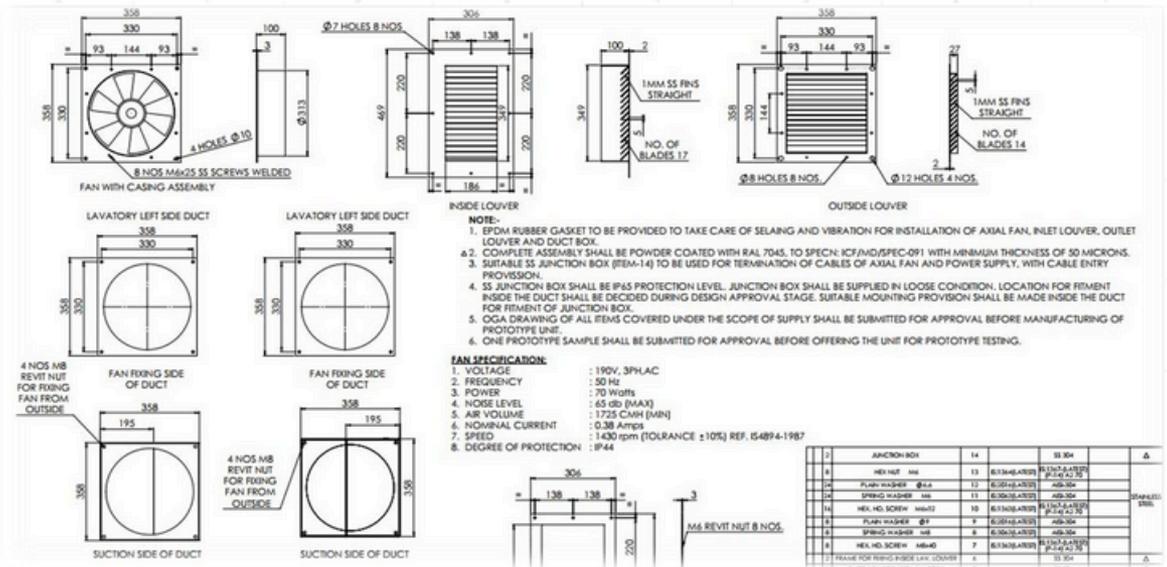


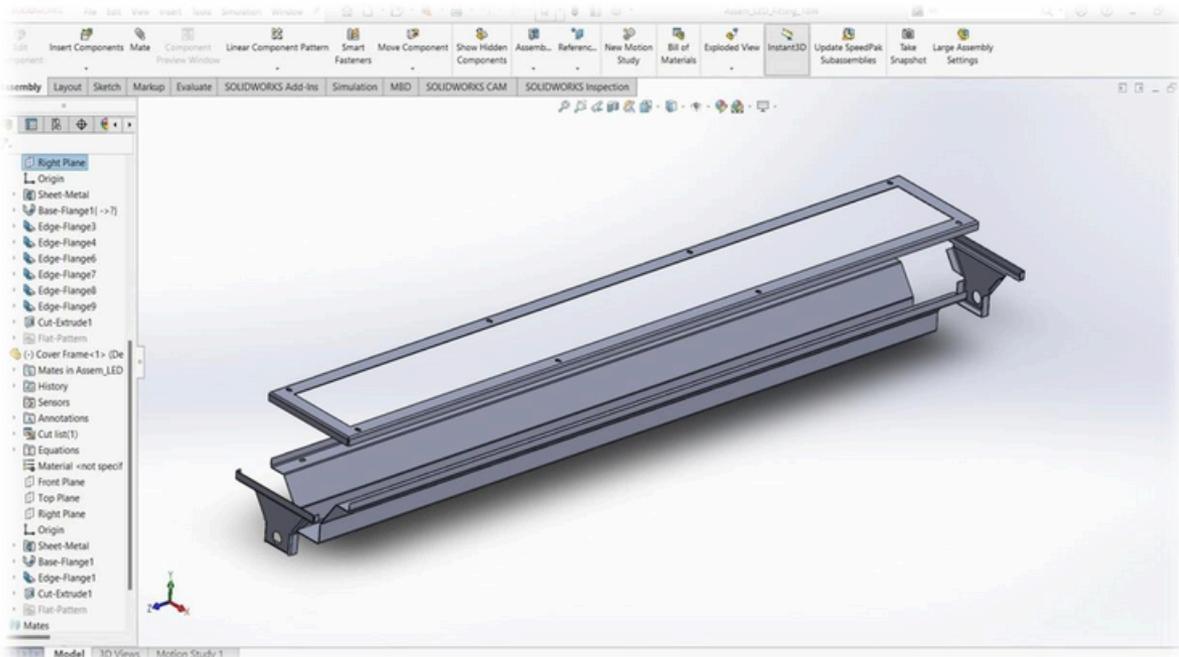


CAD Drawing for Lavatory Exhaust Fan

Manufacturing Process

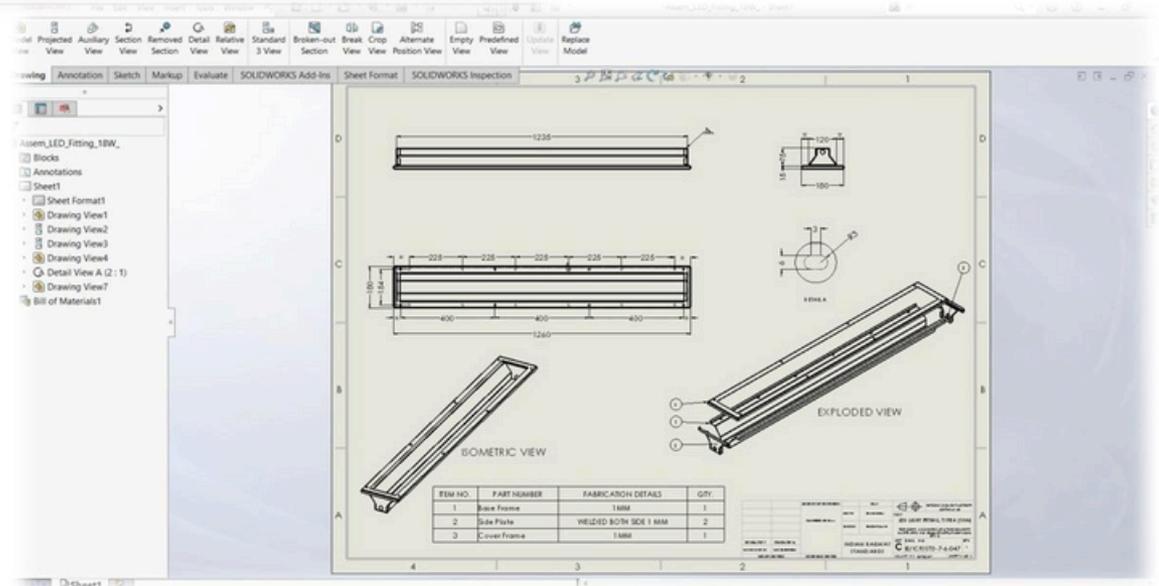
- Laser Cutting
- CNC Bending
- MIG Welding

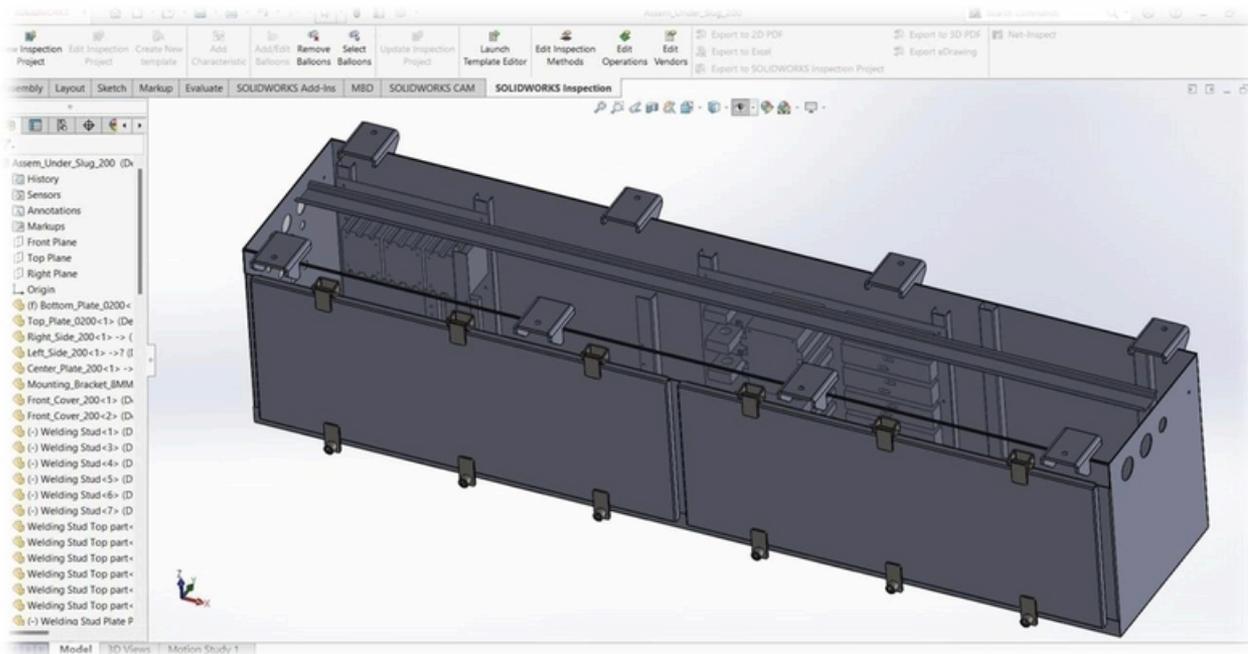




CAD Drawing for LED Fitting

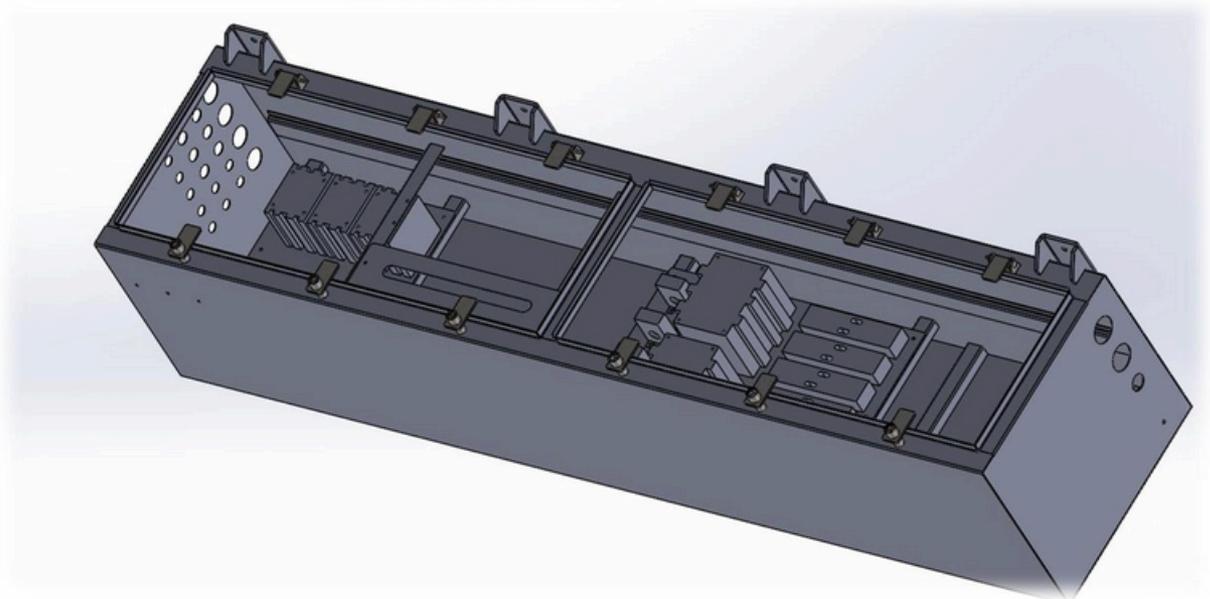
Manufacturing Process Deep Drawing Die

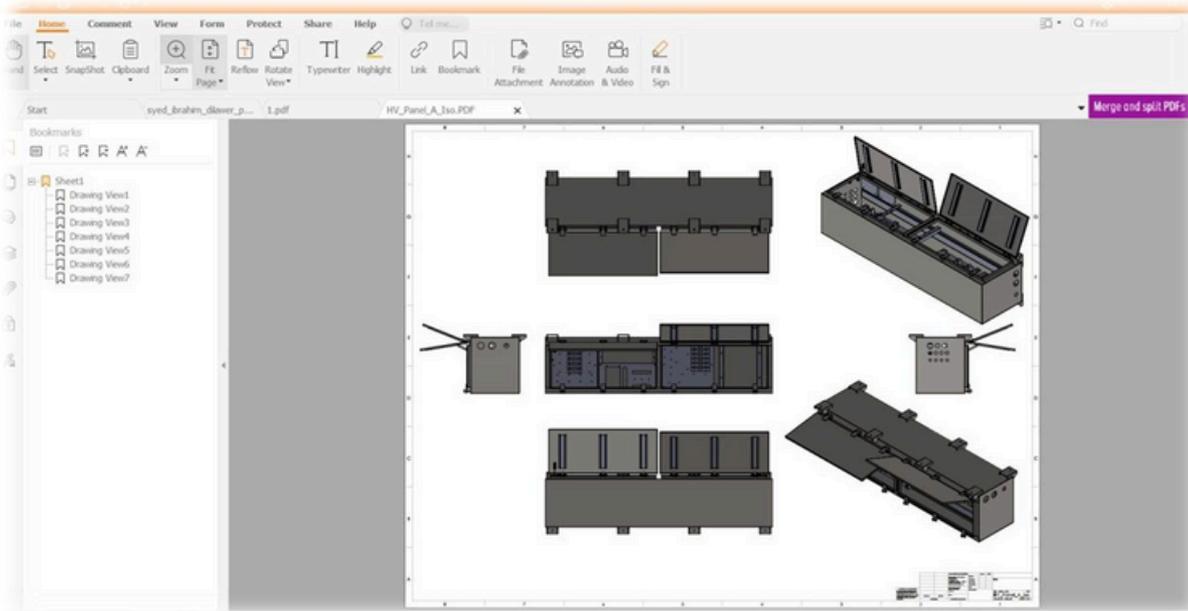




CAD Model

EDTS-0200
SBC Panel for Garib Rath Train
Indian Railways





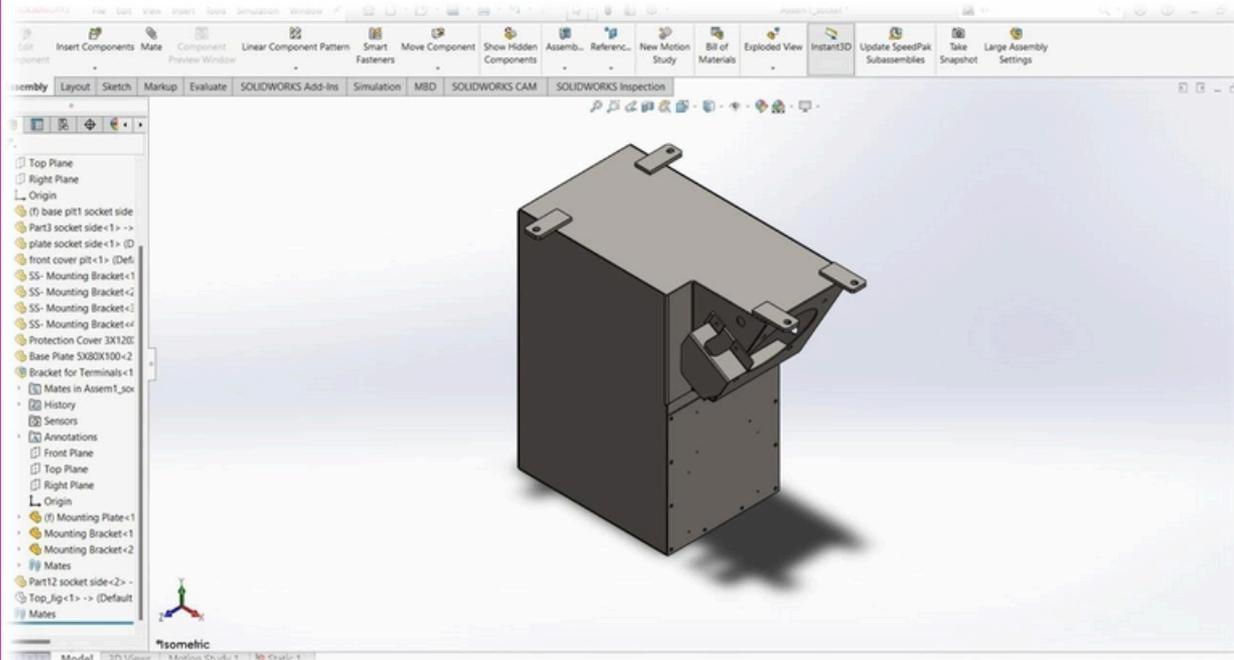
Isometric View's

Prototype

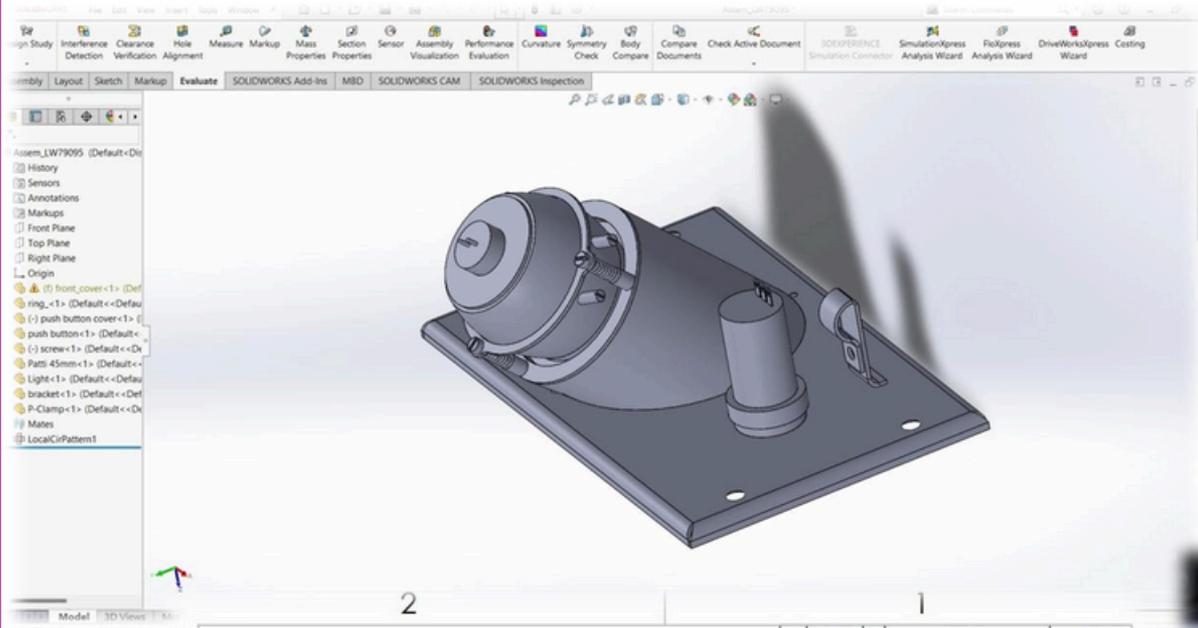


CAD Model Feeder Junction Box

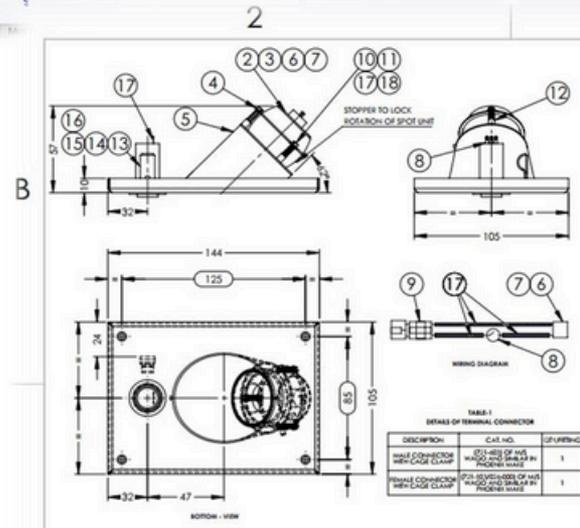
Prototype



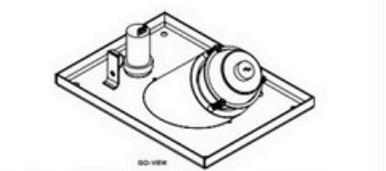
Feeder Junction Boxes are having working voltages up to 75 Volts and above 750 Volts. They contain polyamide conduits and accessories, terminal connectors, crimping sockets etc. as per the technical specification and drawing of Feeder Junction Boxes for respective railway coach.



LED Light For Berth Reading Light



ITEM NO.	DESCRIPTION	QTY	REVISIONS	AUTHORITY
1	LED LIGHT FITTING FOR BERTH READING LIGHT (UPPER BERTH) FOR LHB COACHES, TYPE-F2 (2W) (AS PER SPEC. NO. 8055/PT/ENG/TL/2011-2014, REV.3)	1		DR. H. S. KUMAR

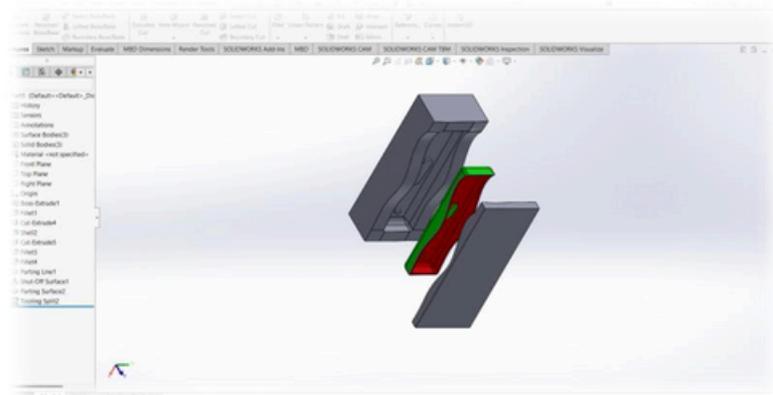
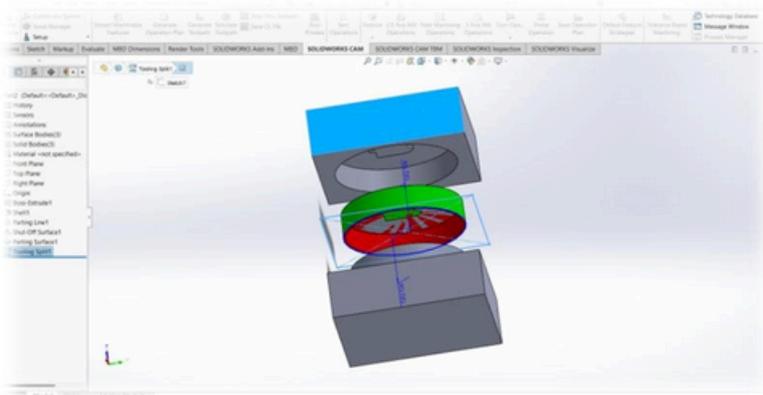


ITEM NO.	DESCRIPTION	QTY	REVISIONS	AUTHORITY
1	PHILIPS T8 LED COLOUR TEMPERATURE: 6500K, 18W, 2.0A, 24V	1		DR. H. S. KUMAR
2	PLAIN WASHER Ø 3.5	1		DR. H. S. KUMAR
3	RETAINER SLEEVE Ø 3.5 x 1.5	1		DR. H. S. KUMAR
4	HEX. NUT M3	1		DR. H. S. KUMAR
5	CHESS HD. SCREW W/SHS	1		DR. H. S. KUMAR
6	P-CLAMP	1		DR. H. S. KUMAR
7	BRACKET	1		DR. H. S. KUMAR
8	SCREWING PICE Ø 4x4	1		DR. H. S. KUMAR
9	STEEL SPRING Ø 4x4	1		DR. H. S. KUMAR
10	CHESS HD. SCREW W/SHS	1		DR. H. S. KUMAR
11	TERMINAL CONNECTOR CAGE CLAMP TYPE	1		DR. H. S. KUMAR
12	WIRE BUSH (PUSH-ON) WITH TERMINAL COVER	1		DR. H. S. KUMAR
13	LED CONNECTOR	1		DR. H. S. KUMAR
14	WIRE CIRCUIT HOLDER WITH (PRE-CABLED TYPE) LED & HEAT SHIELD	1		DR. H. S. KUMAR
15	BASE ASSEMBLY	1		DR. H. S. KUMAR
16	HOLDING RING	1		DR. H. S. KUMAR
17	CLAMP HOLDING RING	1		DR. H. S. KUMAR
18	SPOT LAMP	1		DR. H. S. KUMAR
19	HEAT COVER	1		DR. H. S. KUMAR
20	LED CONNECTOR & CIRCUIT HOLDER	1		DR. H. S. KUMAR

12. ITEM-12 SHALL BE COLOUR ANODISED TO MATCH WITH THE COLOUR SHADE OF THE FITTING AND SHALL BE SUPPLIED LOOSE FOR EACH FITTING.
11. SUITABLE STOPPER TO BE PROVIDED TO LOCK CIRCULAR LOCK ROTATION OF THE SPOT LAMP.
10. ADEQUATE HEAT SHIELD WITH PROPER THERMAL MANAGEMENT SHALL BE PROVIDED WITH LED MODULE.
9. LED CIRCUIT MODULE SHALL BE THE PART OF THE LED (PRE-ASSEMBLED TYPE) MADE OF NON-METALLIC PTFE MATERIAL AND UNIVERSAL DESIGN SUITABLE FOR 120V AC/DC SUPPLY. THE OPERATING VOLTAGE SHALL VARY FROM 10V TO 140V WITH THE HELP OF.
8. ENTIRE WIRING AND HOUSINGS SHALL BE COVERED WITH 1MM THICK FIRE RESISTANT SLEEVES AND FULLY SECURED WITH THE HELP OF ITEM-14.
7. WIRING TO BE DONE WITH 1.5/2.5 MM² PTFE CABLE OR SILICON CABLE OF RISCO APPROVED MAKE ONLY.
6. ITEM NO. 4 & 3 TO BE OVAL ANODISED TO BE 3MM. DRAC.S.
5. TERMINAL CONNECTOR SHALL BE OF CAGE CLAMP TYPE AND COMPONENTS MAKE AS INDICATED IN THE TABLE.
4. ALL STEEL ITEMS INCLUDING HARDWARE SHALL BE GIVEN SURFACE TREATMENT FOR ANTI-RUST & ANTI-CORROSION BEFORE FINISHING WITH POWDER COATING. THICKNESS OF POWDER COATING SHALL NOT BE LESS THAN 40 MICRONS TO WHITE COLOUR (SHADE NO. D40 "98 WHITE" OF MIRA BINDER OR BULKER IN THIS ASSEMBLY) (FUSIBLE COATING MAKE PANTO) WITH GLOSSY FINISH.
3. ONLY TIG WELDING SHALL BE DONE AS PER REQUIREMENT. NO OTHER WELDING IS ACCEPTABLE.
2. TREATED HOUSING DIMENSIONS ARE TO BE STRICTLY ADHERED TO BY 30 PUNCHES.

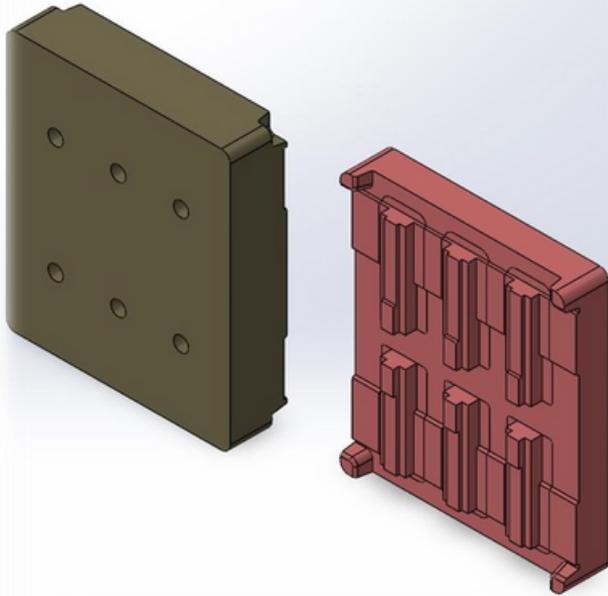


Sheet Metal Die

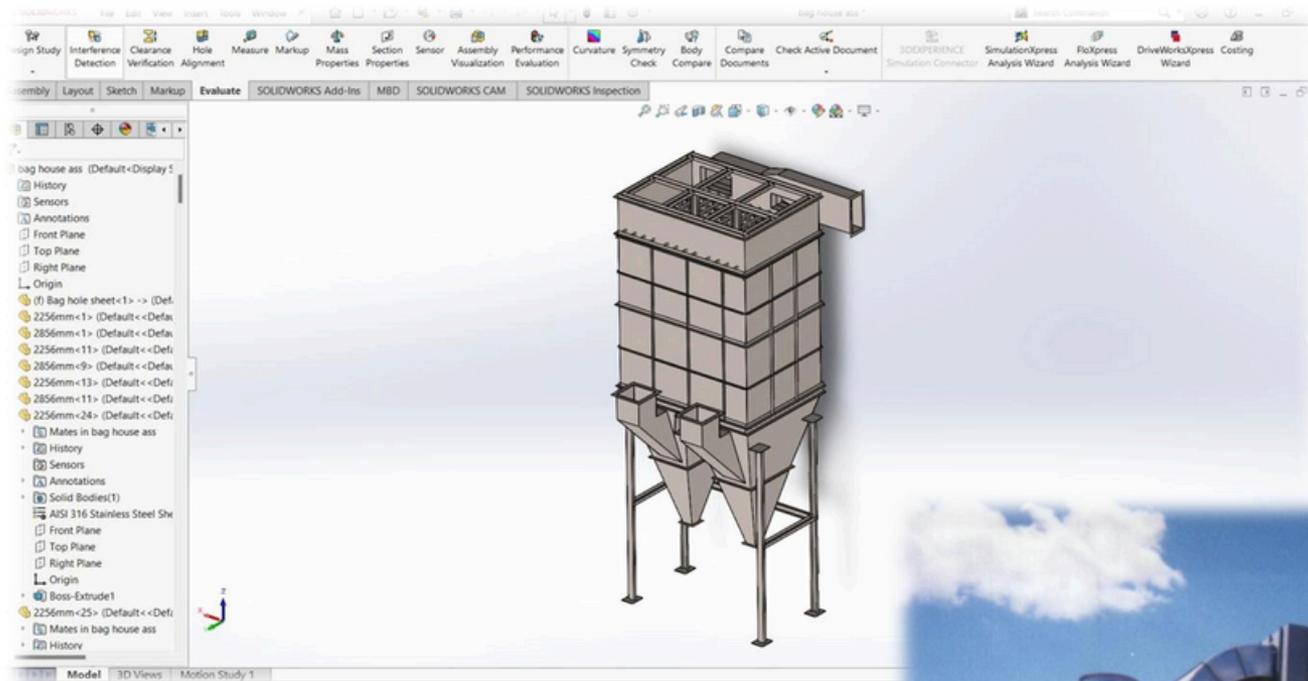


Welding Machine
Ear thing Clamp

Moulding Die



Project -Lead Recycling Plant

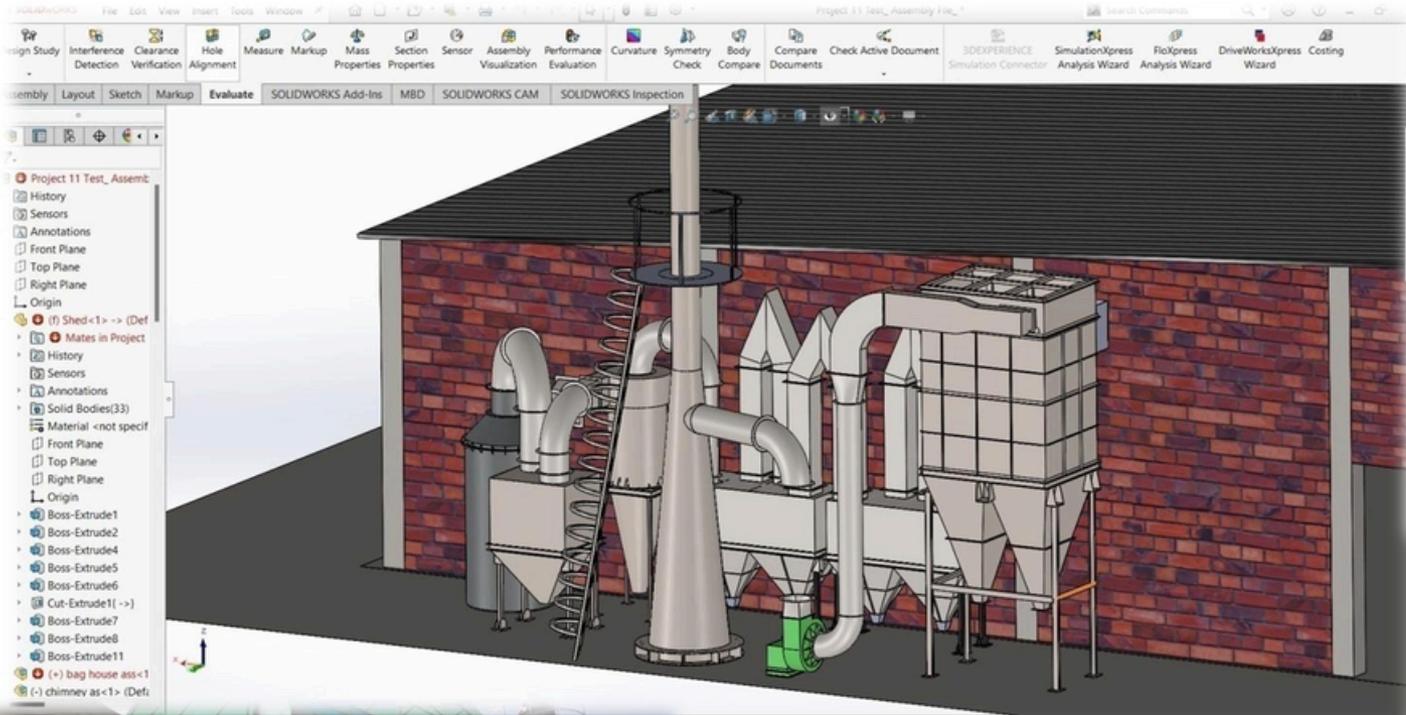


APC Bag Filter Unit

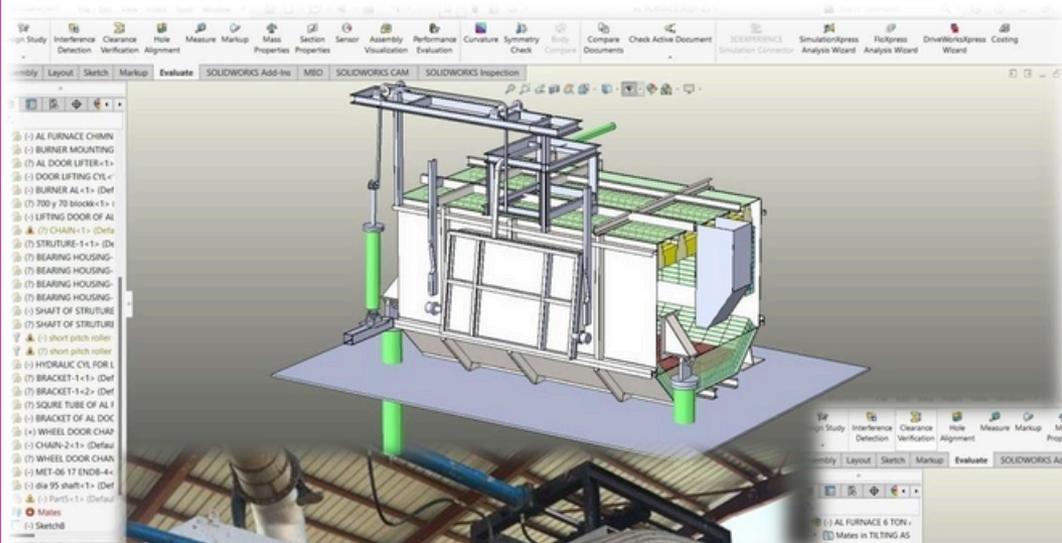
PURPOSE: Filter fine suspended particles from the gas stream so as to meet the standards required.



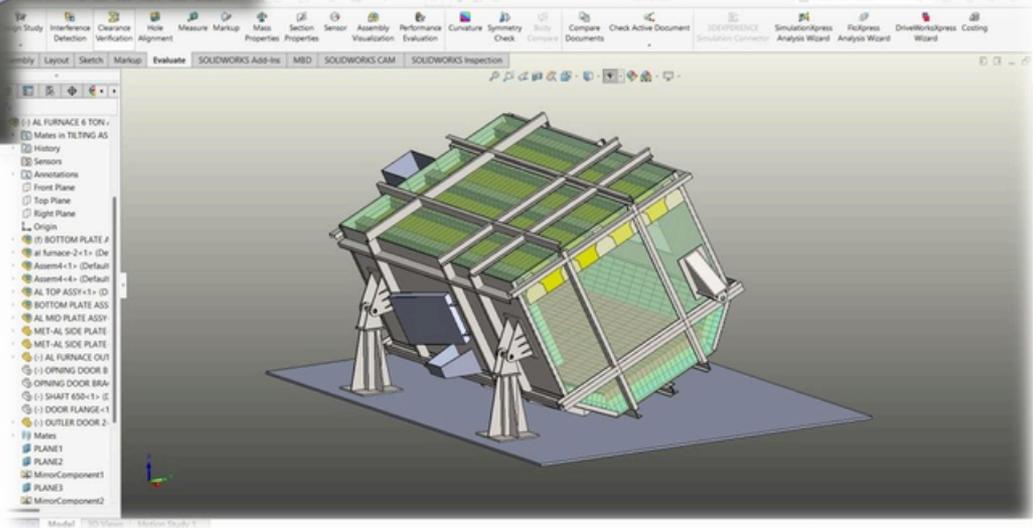
Air Pollution Control Unit



**CAD Model
Rendering**



Aluminium Furnace



The furnace will be mounted on a Fabricated Steel Structure Brackets suitable for hydraulic tilting arrangement, capable enough to bear the load of furnace. A couple of Burners will be mounted at one end of the furnace.

On-Site Commissioning

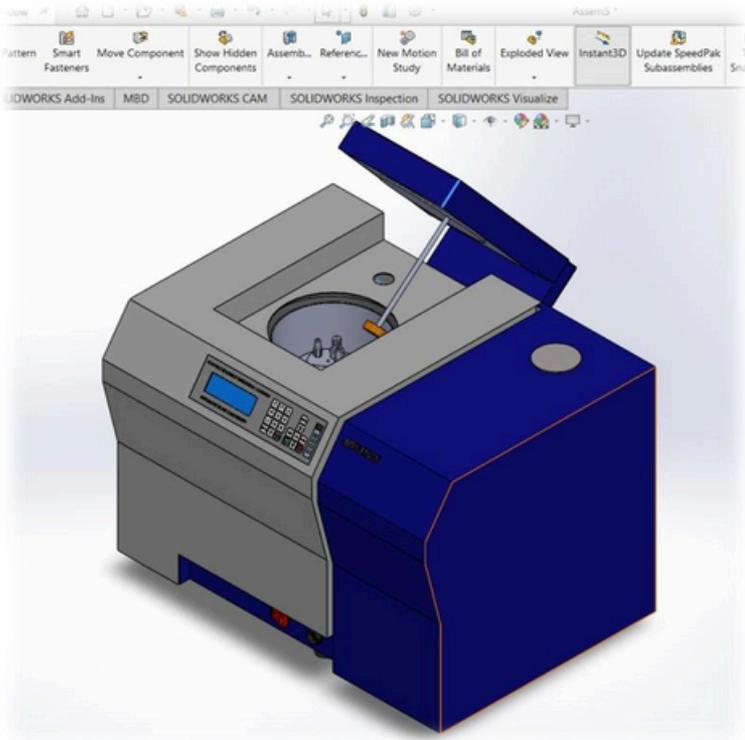
Turn-key solutions for Lead Acid Battery Recycling



CAD Model

Rotary furnace is design for treatment and recovery of Lead from Lead Acid Batteries Scrap and for the reduction of Lead Sulphate, Lead Oxides, Lead Concentrates, Lead Dross and Lead Ore. Rotary Furnace will work at temperature of about 1000-1200 C. The Inside Temperature

Isothermal Calorimeter CAD Model



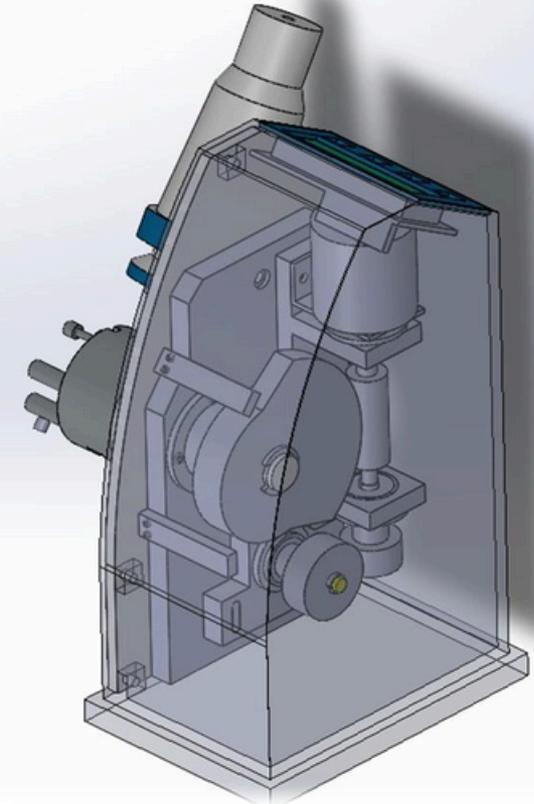
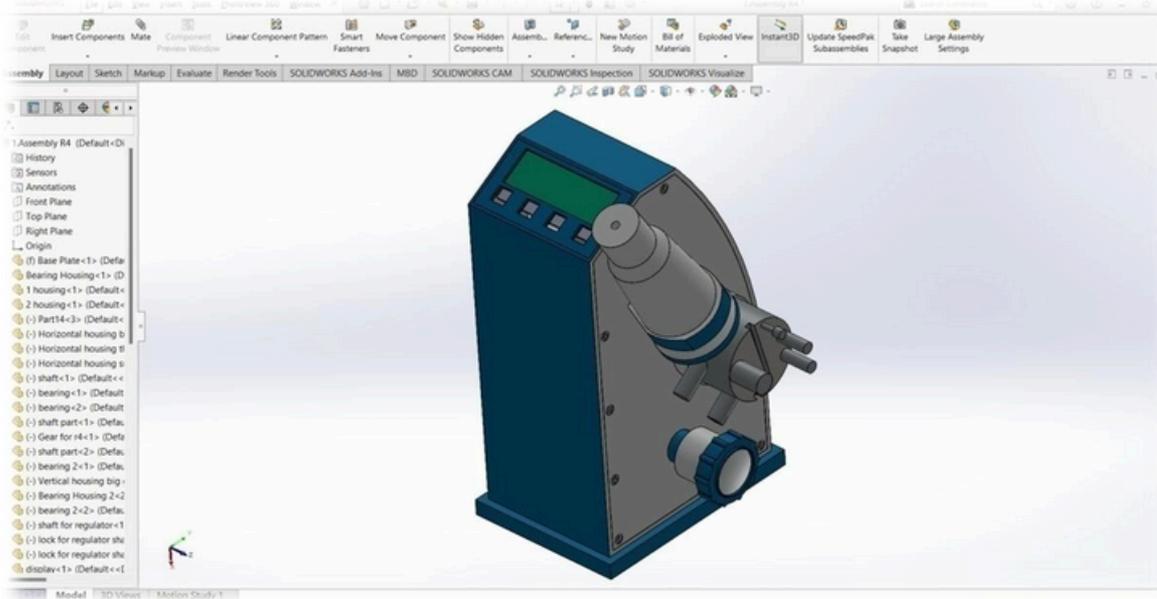
Rendering



Prototype

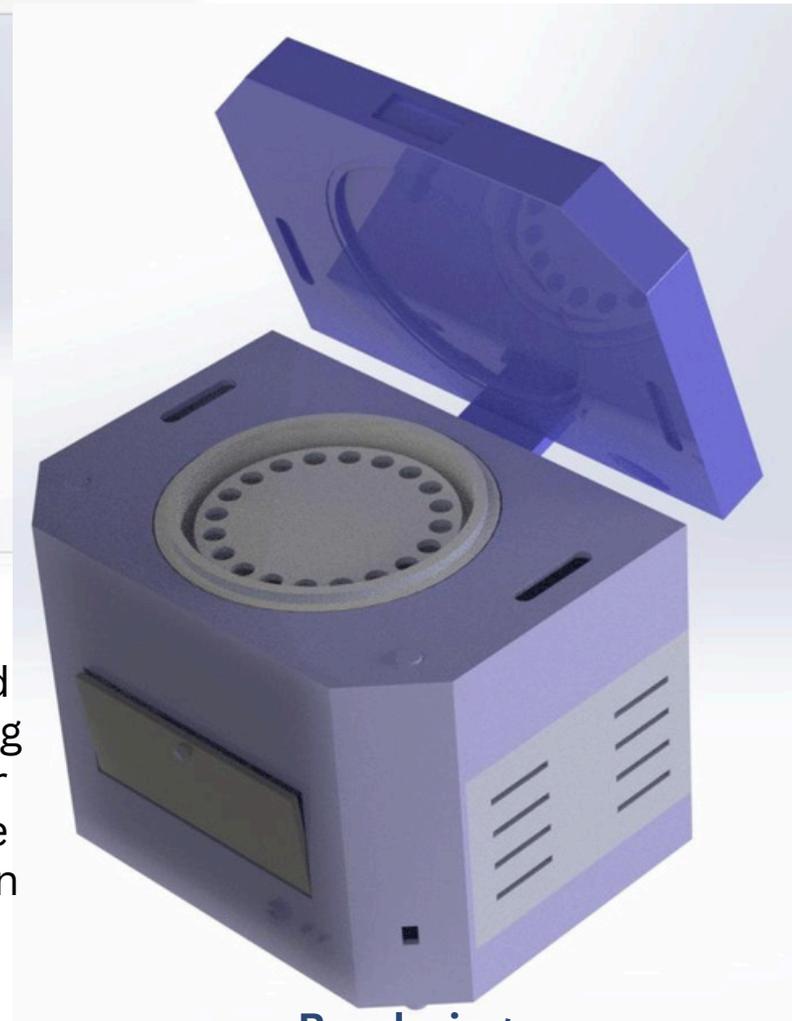
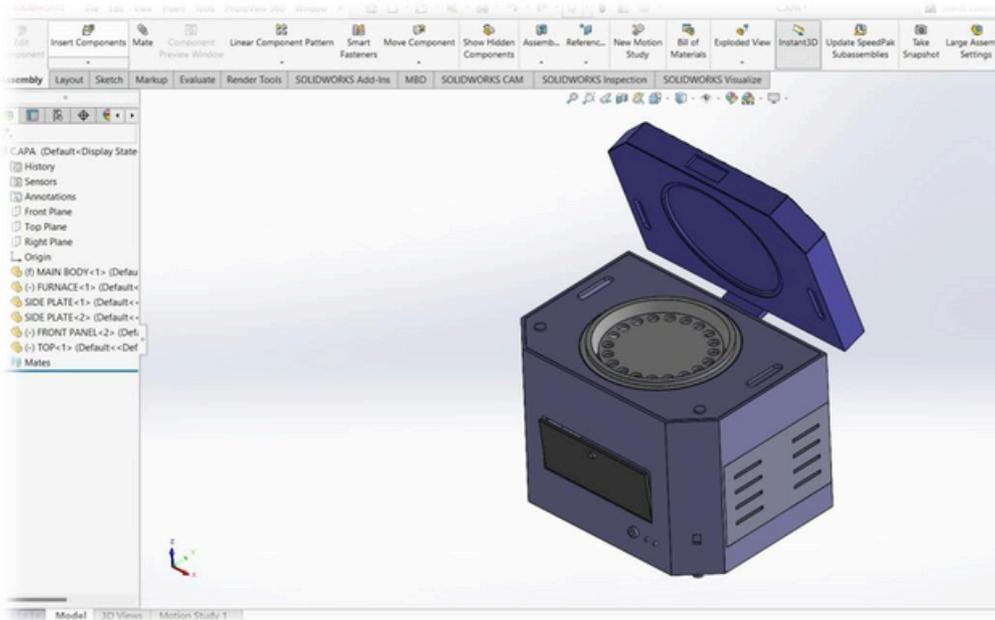
A calorimeter is an object used for calorimetry, or the process of measuring the heat of chemical reactions or physical changes as well as heat capacity.

Digital Refractometer-CAD Model



A refractometer is a laboratory or field device for the measurement of an index of refraction. The index of refraction is calculated from the observed refraction angle using Snell's law.

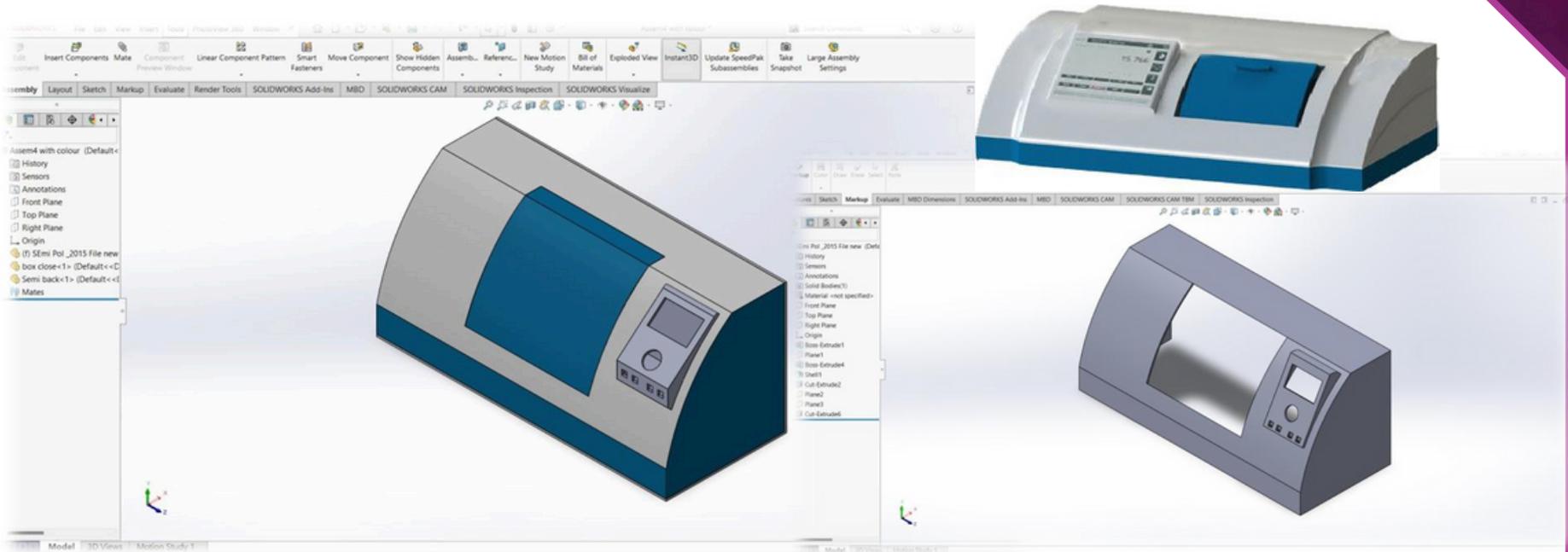
Automatic Proximate Analyzer -CAD Model



Rendering

Fully Automatic Proximate Analyzer is based on Thermogravimetry principle for measuring Air - Dry basis Moisture, Ash, Volatile Matter & Calorific Value in Coal. Each furnace in the instrument is integrated with a high precision electronic balance.

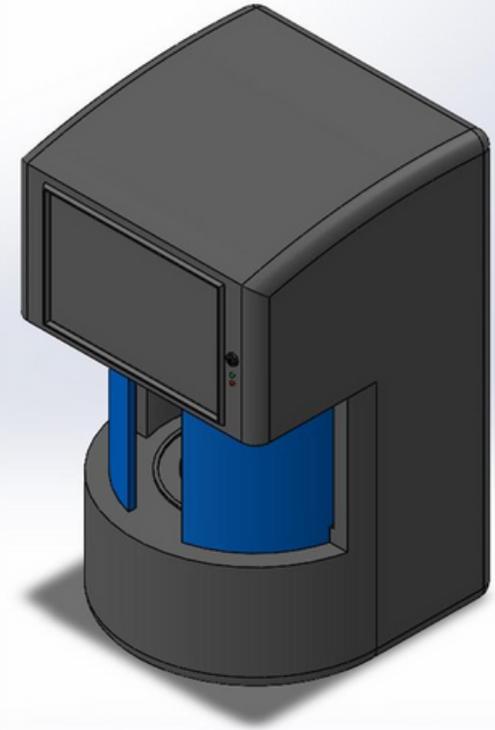
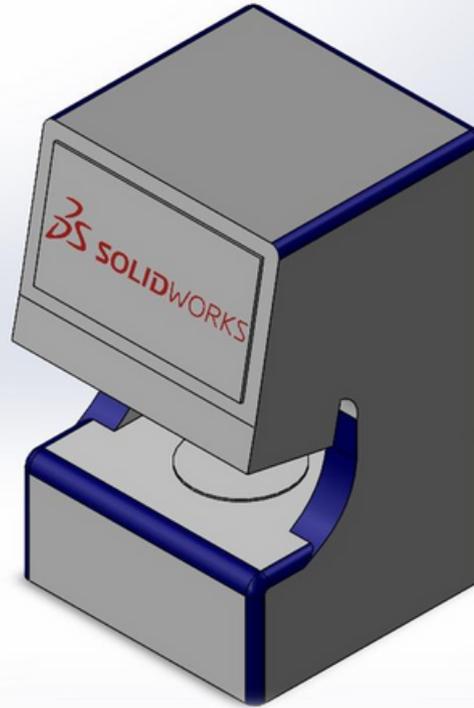
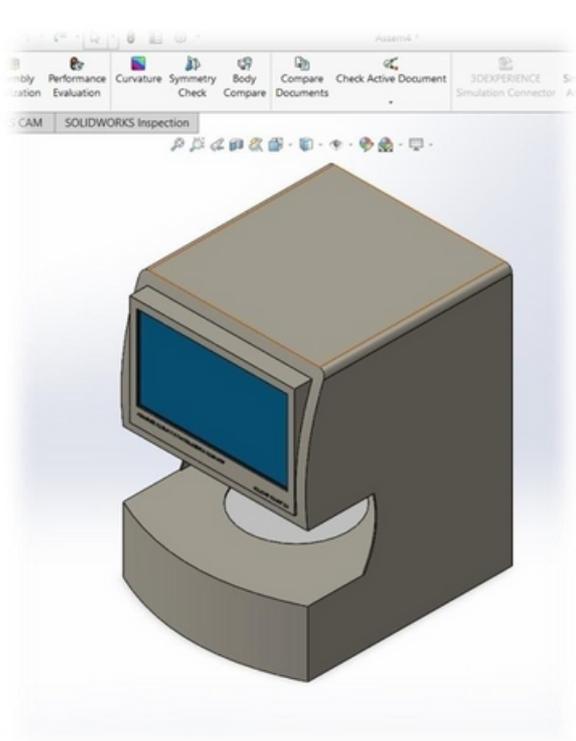
Automatic Polarimeter-CAD Model



Semi-automatic Polarimeters are suitable for measuring the proportion, purity, concentration and content of rotatory organic material. Some of applications are: Pharmaceutical Industry: For analyzing antibiotics, vitamins, glucose.

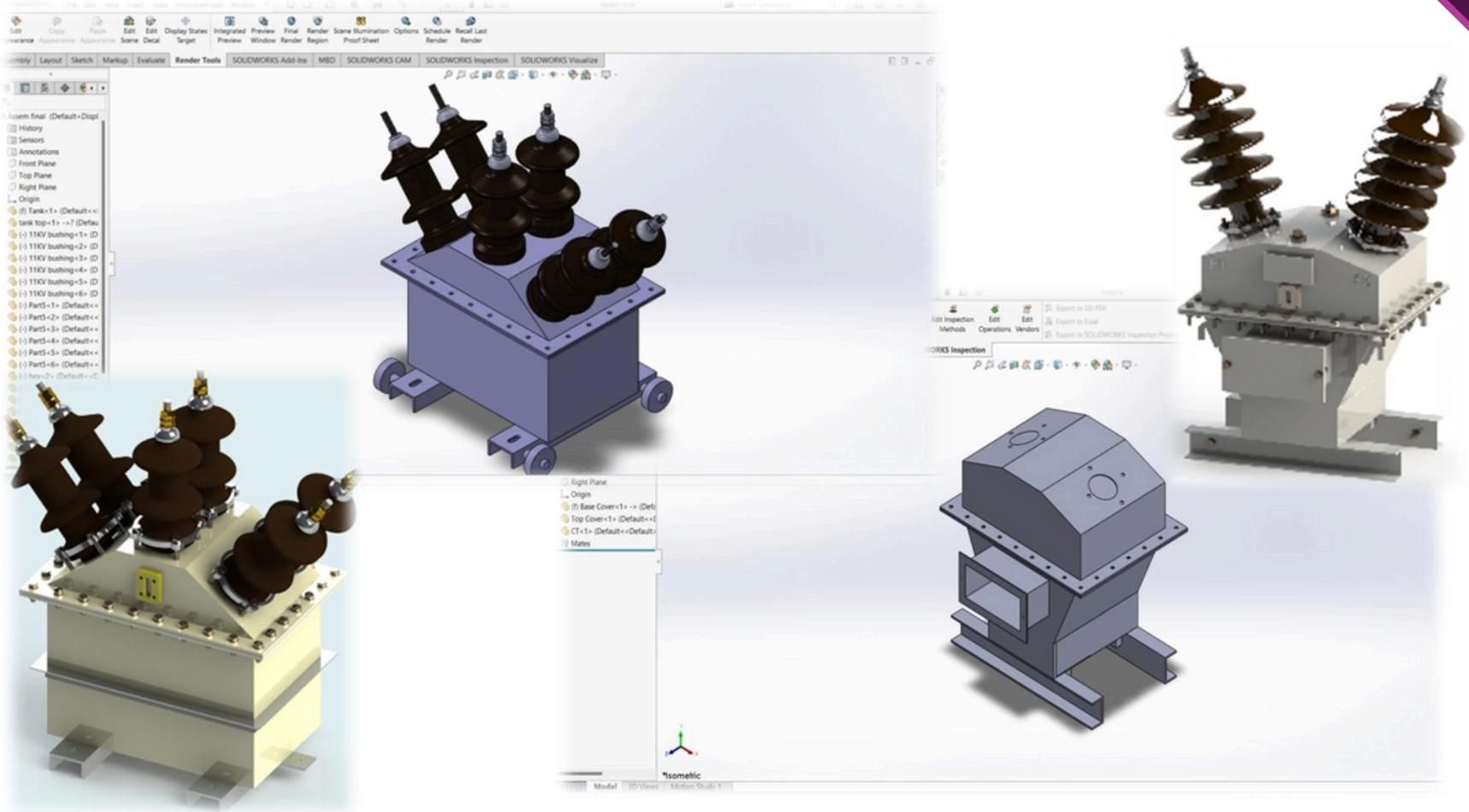
Food Industry: For determining the productive process of sugars, soy sauce or other food additives as well as examining their finished products. Determining the sugar content in food.

Colony Counter -CAD Model Industrial Design



Biological procedures often rely on an accurate count of bacterial colonies and cells. Colony counters are used to estimate a liquid culture's density of microorganisms by counting individual colonies on an agar plate, slide, mini gel, or Petri dish.

Medium Voltage Instrument Transformers -CAD Model



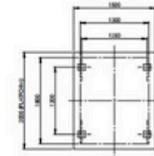
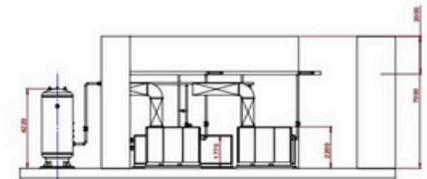
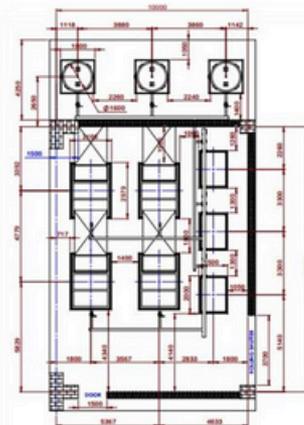
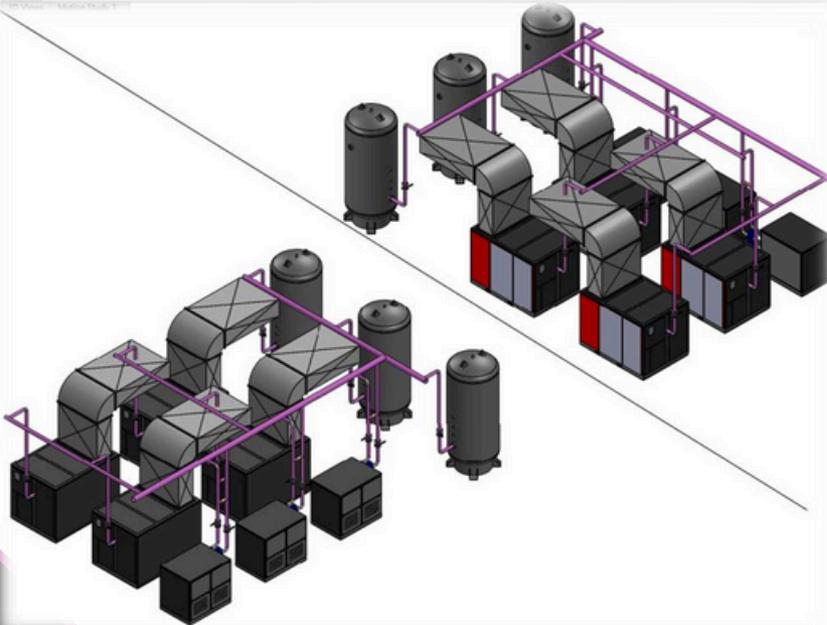
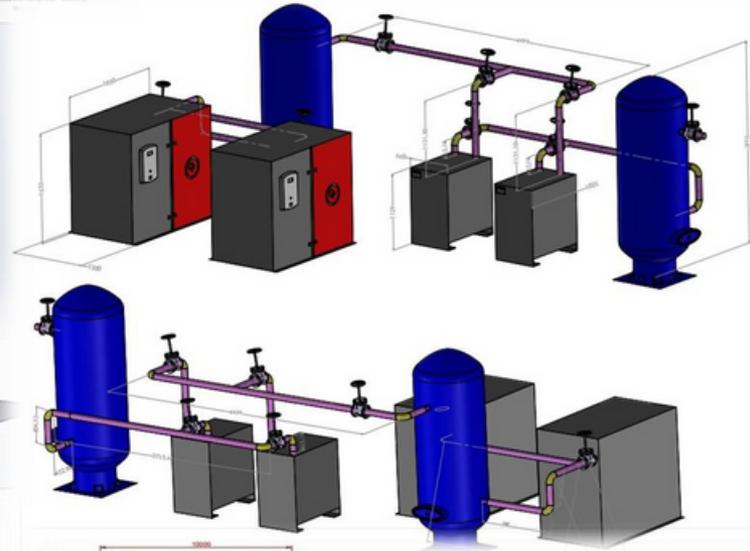
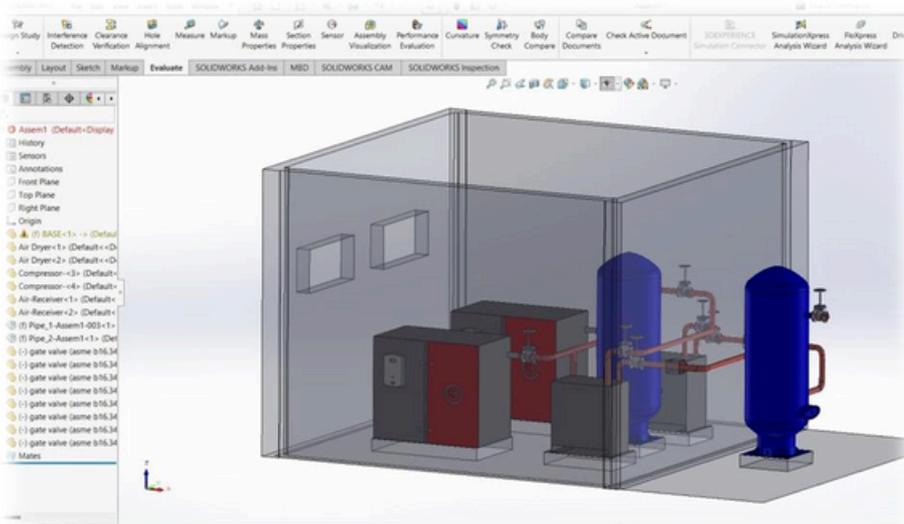
Medium voltage current transformers are suitable for measuring current in energy meters and switchgear panels with rated frequency 50Hz or 60Hz with nominal system voltage up to 33KV. They are intended to supply electrical measuring instruments, meters, relays or other protection devices.

Meter Box Enclosure -CAD Model

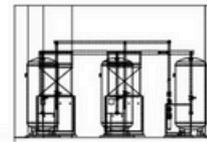


Polycarbonate enclosures are suitable for accessories for household and similar fixed electrical installations, low voltage switchgear and control gear assemblies and energy meters

Compressor House – Piping Project



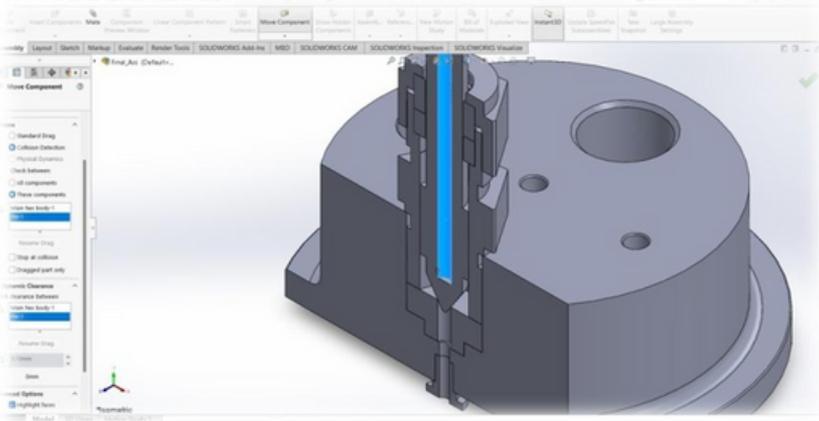
FOUNDATION DETAILS



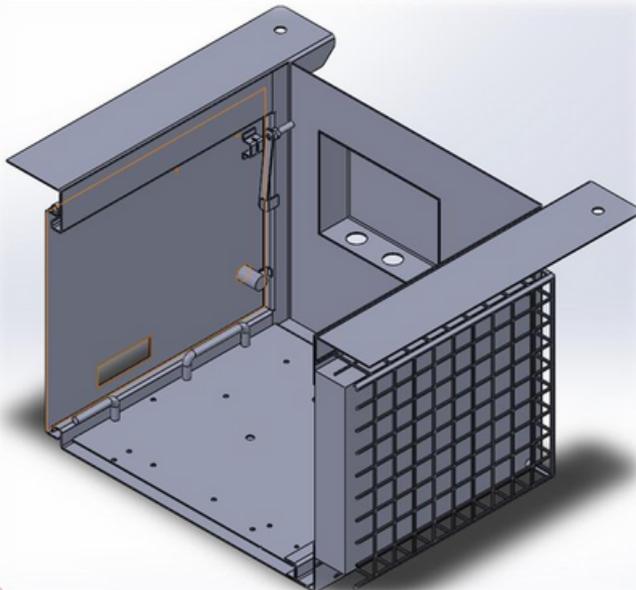
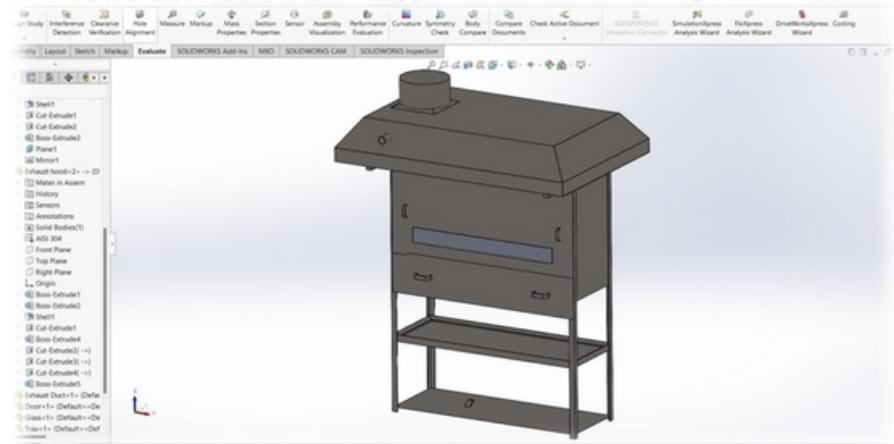
AutoCAD Detail Drawing

CAD Model's

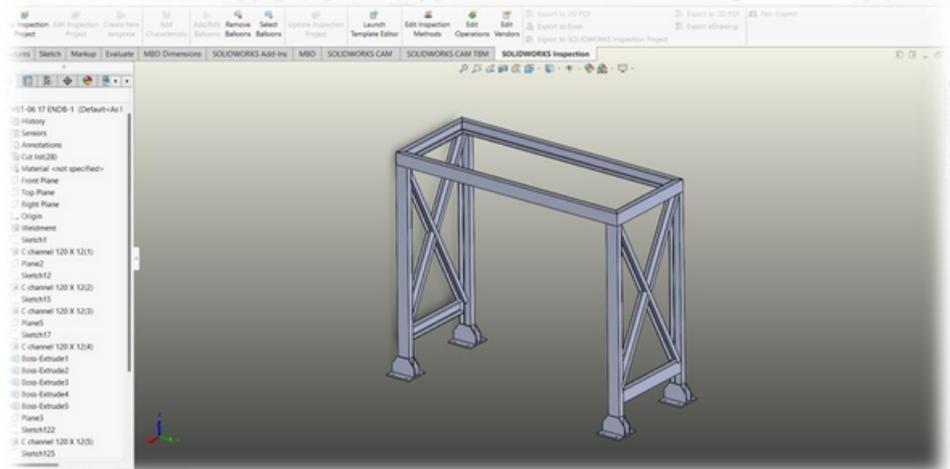
Lid Calorimeter Part



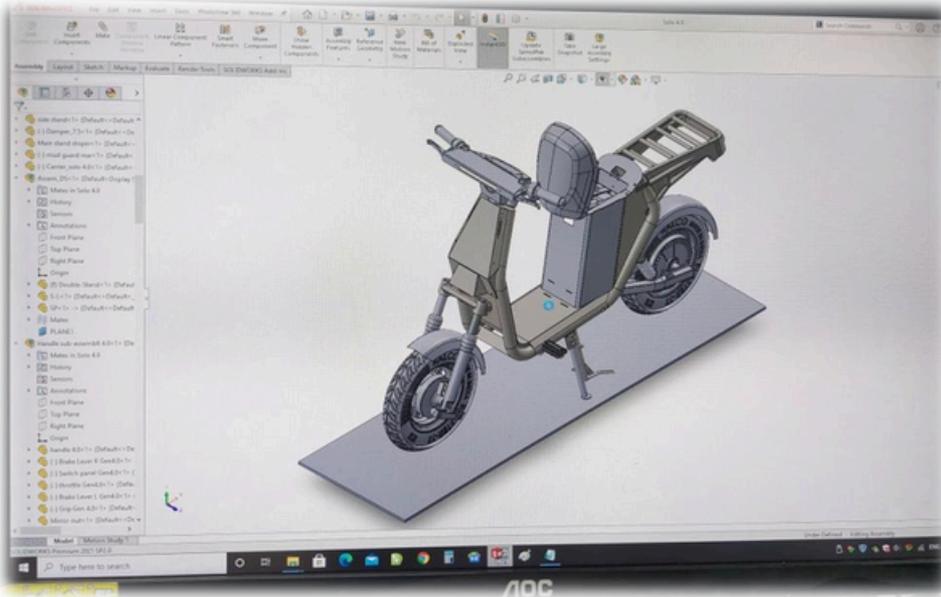
Fire Testing



2.5KVA Inverter Section Drawing



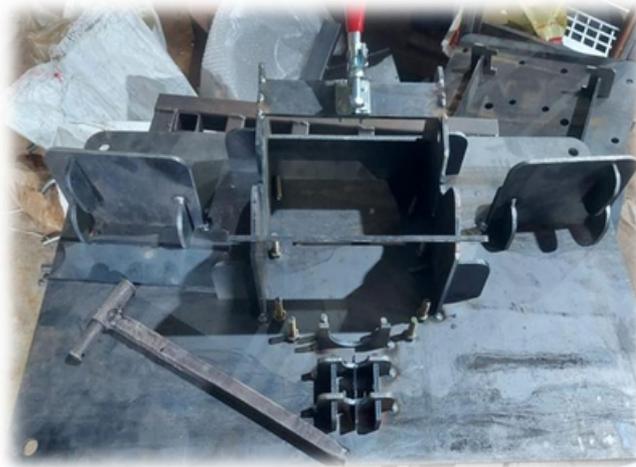
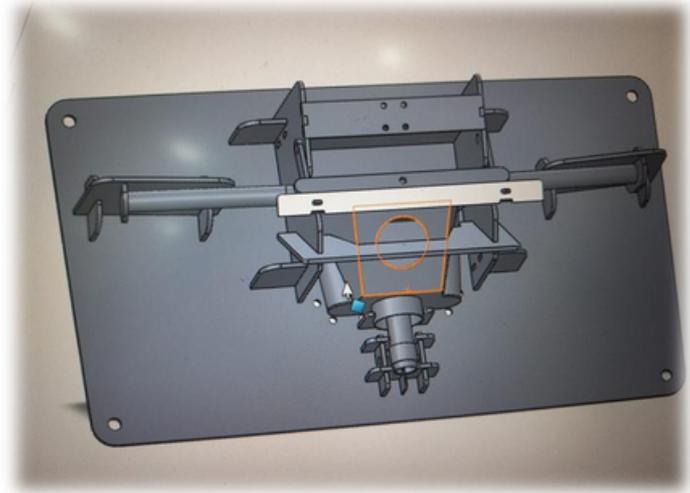
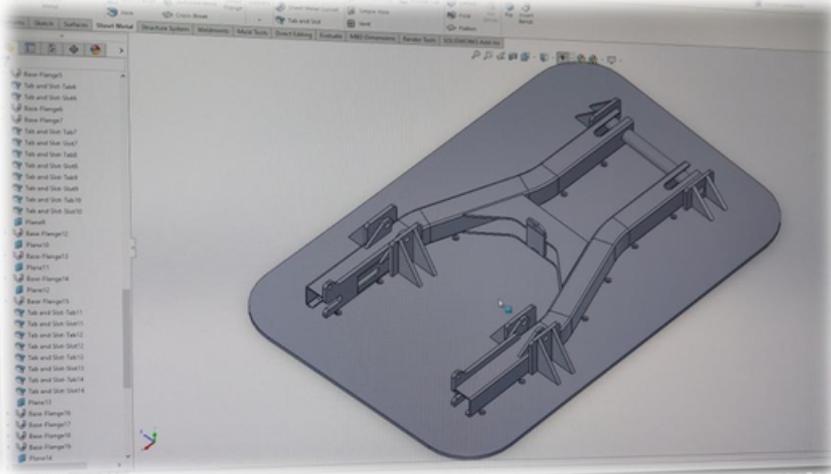
Weldment Structure Drawing



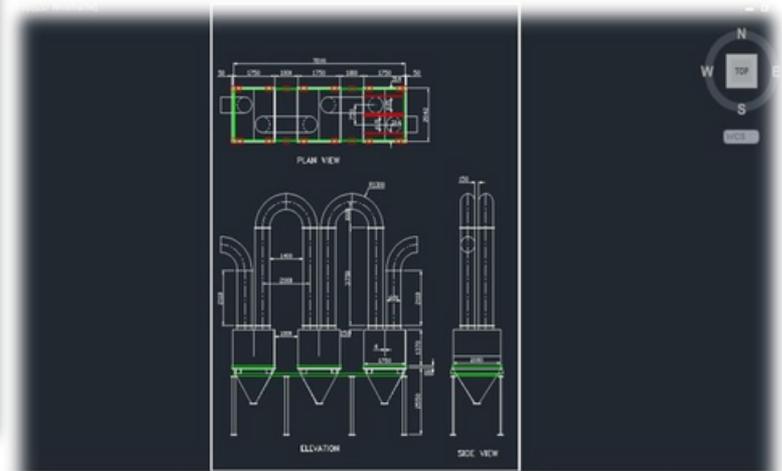
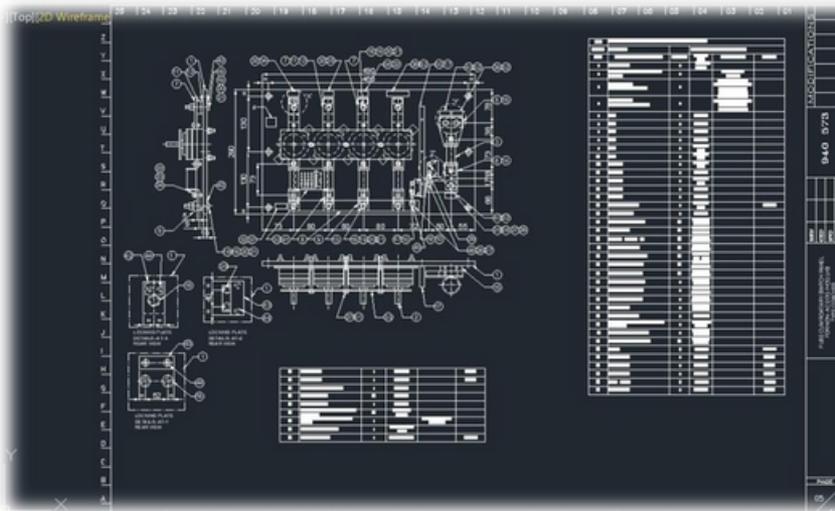
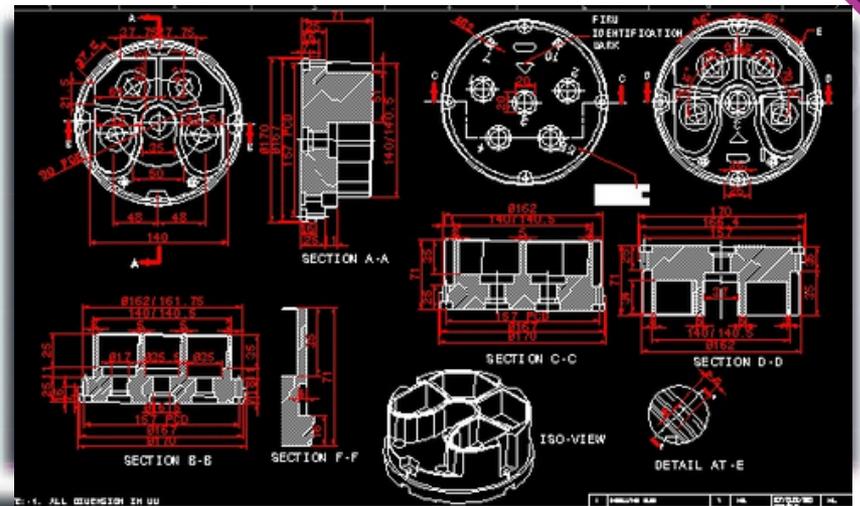
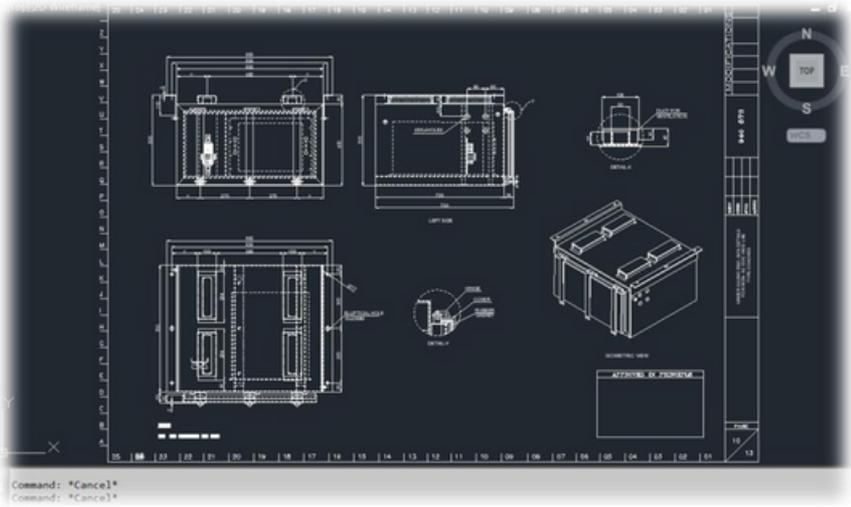
Project - Electric Bike & Battery Swap Station



Jig's & Fixture's



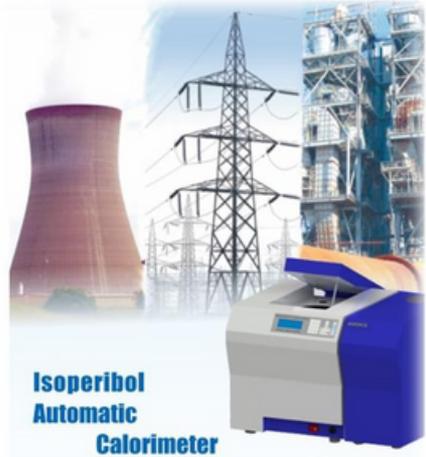
AutoCAD Drawing's



Extra Skill's -Graphic Designing

ADVANCE Isoperibol Bomb Calorimeter Technical and Ordering Information

Section	Model SP - 1	Model SP - 2	Model SP - 3
Model Range	ICP 10000 Series	ICP 20000 Series	ICP 30000 Series
Capacity	10000 Series	20000 Series	30000 Series
Sample Size	10000 Series	20000 Series	30000 Series
Sample Weight	10000 Series	20000 Series	30000 Series
Sample Material	10000 Series	20000 Series	30000 Series
Temperature Range	10000 Series	20000 Series	30000 Series
Temperature Resolution	10000 Series	20000 Series	30000 Series
Accuracy	10000 Series	20000 Series	30000 Series
Testing Time	10000 Series	20000 Series	30000 Series
Water Connection	10000 Series	20000 Series	30000 Series
Gas Connection	10000 Series	20000 Series	30000 Series
Power Supply	10000 Series	20000 Series	30000 Series



Isoperibol Automatic Calorimeter

ADVANCE: Your source for Fuel Analysis



ADVANCE RESEARCH INSTRUMENTS COMPANY
 C-22, G-22, Ghazi Industrial Area, Phase - I, New Delhi - 110 020
 Tel No. : +91-11-26810150 Telefax : +91-11-26813734
 E Mail : info@arcindia.com / advr22@rediffmail.in / advr@rediffmail.in
 URL : www.arcindia.com / www.arcindia.in

Advance Research Instruments Company

Automatic Proximate Analyzer

Main Features

- Analysis of all dry basis moisture, Ash & Volatile Content in Coal
- Measures upto 18 samples in one experiment
- Advanced detection and fast analysis
- Controlled precise and quick temperature
- Collection of Caloric Value, Total Carbon and Hydrogen in the samples
- Advanced Dry Furnace configuration with built-in High Precision Electronic Scales (AISI-316)
- Automatic Data Collection, Tabulation & Printing through PC
- Complete Windows Support

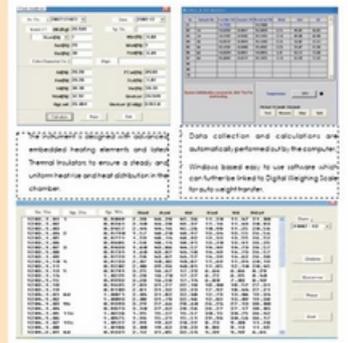
Designed to Meet Your Requirements

Proximate Analyzer is based on Thermogravimetry principle for measuring Air Dry Basis Moisture, Ash, Volatile Matter & Caloric Value in Coal.



Each furnace in the instrument is integrated with a high precision electronic balance, using Thermogravimetry principle. The system, automatic and continuously feeds 18 samples in every experiment. The Air Dry Basis Moisture and Ash can be tested of around 120 minutes, while Volatile Matter takes around 7 minutes per sample. The system can thereafter automatically calculate the Caloric Value, Total Carbon and Hydrogen content of the sample.

The user has a choice of Dual Furnace configuration where Moisture and Ash are tested in one furnace and Volatile Content in the other furnace (as per ASTM D3142 and 3171) or Single Furnace (as per ASTM D3142).



Standard Accessories

Accessories	Price	Accessories	Price
Automatic Proximate Analyser	15000	Coal Test Basket	1500
Automatic Proximate Analyser	15000	Automatic Proximate Analyser	15000
Automatic Proximate Analyser	15000	Automatic Proximate Analyser	15000

www.arcindia.com



Automatic Digital Polarimeter

- GLP Compliant
- Inbuilt Data Storage Memory
- Direct Printout Facility
- Temperature Control Cells
- Measured Denier Sample
- Touch Screen Operation

Advance Research Instruments Company



Fully Type Tested by CPRI & ERDA

- Conforming to :
- IS : 2705
 - IS : 3156
 - IS : 3427
 - IEC : 60044-1
 - IEC : 60044-2

- Outdoor Oilcooled CT's, PT's and CT-PT Combined Units
- Indoor Resin Cast CT's and PT's
- Dry Type CT-PT Combined Units
- Metering Cubicles / Panels
- L. T. Tape Wound & Resin Cast CT's
- Control Transformers
- Indoor Resin Cast CT's and PT's Suitable for Different Make Panels / Switchgears



Advance Research Instruments Company



ADVANCE Automatic Proximate Analyser, Technical and Ordering Information

Specifications	Automatic Proximate Analyser Model APT-1 (Coal Furnace)	Proximate Analyser Model APT-2 (Furnace)
Furnace Size	Coal (Proximate & Volatile)	Single
Furnace Temperature	1000 °C	1000 °C
Temperature controlling precision	± 0.1 °C	± 0.1 °C
Weight of sample	10 to 150 mg	10 to 100 mg
Sample number	18 samples per experiment	18 samples per experiment
Testing time	See table 1 for sample 100 to 150 mg See table 2 for sample 10 to 15 mg	See table 1 for sample 100 to 150 mg See table 2 for sample 10 to 15 mg
Calorific Pressure	100 mmHg	100 mmHg
Weighting Balance Accuracy	0.0001 gm (Pan & Inbuilt weighing balance)	0.0001 gm (Pan & Inbuilt weighing balance)
Power	2000 VA/30A	2000 VA/30A
Dimension	550mm x 550mm x 400 mm (Pan & Inbuilt Furnace)	400mm x 550mm x 400 mm
Weight	45kg (Pan & Inbuilt on Furnace)	45kg

ADVANCE: Your source for Fuel Analysis



ADVANCE RESEARCH INSTRUMENTS COMPANY
 C-22, G-22, Ghazi Industrial Area, Phase - I, New Delhi - 110 020
 Tel No. : +91-11-26810150 Telefax : +91-11-26813734
 E Mail : info@arcindia.com / advr22@rediffmail.in / advr@rediffmail.in
 URL : www.arcindia.com



Automatic Proximate Analyser

Advance Research Instruments Company

Thank you for taking the time to view our company portfolio.

- We take pride in delivering innovative, high-quality solutions that drive success for our clients.
- Our portfolio reflects our commitment to excellence, creativity, and strategic execution.
- We look forward to the opportunity to collaborate and bring value to your organization.

GAGANDEEP SINGH GARCHA

Managing Director

+91 9646240492

gagandeep@hi-spurt.com

www.hi-spurt.com

Regd. off:- 1079/15, Dhandari kalan, Industrial Area, Ludhiana (PB.)-141010