

METROLAB ENGINEERING PVT LTD

29/13,D-Block,MIDC,Chinchwad,Pune(MH) 411019 India

METROlabE

COMPLETE ENGINEERING SOLUTION





VISION

- CONTRIBUTE TO CUSTOMER THROUGH SINCERITY WITH DEDICATION AND AIM AT COEXISTENCE AND DEVELOPMENT IN INDIA AND INTERNATIONAL MARKET

MISSION STATEMENT

1. ESTABLISHMENT OF A CORPORATE ENVIRONMENT FOR EMPLOYEE BY EMPLOYEE
2. REGENERATION & ENHANCEMENT OF “MANUFACTURING CAPACITY” CENTERING ON CORE TECHNOLOGIES AND CORE PRODUCTS
3. PROVIDE THE HIGHEST STANDARDS OF SERVICE AVAILABLE THROUGH OUR HIGHLY TRAINED, FIELD REPRESENTATIVES AND CUSTOMER SERVICE PERSONNEL

COMPANY VERTICALS

METROLAB ENGINEERING PVT LTD

- INSPECTION FIXTURES, WELDING FIXTURES, BIW FIXTURES
- ROBOTIC WELDING SPM FOR HEAVY THICKNESS.
- ENGINEERING SERVICES
- AEROSPACE TOOLINGS
- RAILWAYS TOOLINGS AND SYSTEMS.

ADD: Gat No.43, Navlakh Umbre, Talegaon MIDC – 410507, Pune, Maharashtra India.

PLANT SIZE: 12000 Sq.ft.

METROLAB AUTOMATION PVT LTD

- AUTOMATION & PLASTIC POST-PROCESS SPMS
- (Ultrasonic , Heat Stake, Hot Plate Welding SPM, Hydraulic, Hydro-Pneumatic, Pneumatic Punching SPM, Automated Assembly Station, Leak Testing SPM, POKA-YOKE station, EOL-E Checking Station, Robotic Ultrasonic SPM, etc.)

ADD: 29/13, D-2 Block, MIDC, Chinchwad, Pune (MH) 411019, INDIA

PLANT SIZE: 7000 Sq.ft.

METROLAB PRIME TECHNOLOGIES LLP

Expert in Material Handling Automation for all Peripherals.

- Automotive Assembly line automation
- Packaging & Box Ream Handling System
- ASRS, EOT Cranes, Goods cum Passenger Lifts.
- Tube Pipe, Fin Bar & Boiler Panel, Paper Reel Handling System.
- Test Rigs.

ADD: SR NO. 37/2, Shed No.1,Nr. Canara Bank, Narhe Dhayari Road, Narhe Pune-411041, INDIA.

PLANT SIZE: 10000 Sq.ft.

METROLAB PRECIMECH PVT. LTD.

Expert in High Precision Shaft, Piston components, Fabricated Assemblies

ADD: Gat No.43, Navlakh Umbre, Talegaon MIDC – 410507, Pune, Maharashtra India.

PLANT SIZE: 40000 Sq.ft.

METROLAB HOLDINGS INC.

Sales Office in USA

ADD: 110 L Bristol Drive, Bloomingdale, IL 60108.

METRIKLAB ENGINEERING AND AUTOMATION GmbH

Sales Office in Germany

ADD: Ueber Der Glone 11, 85238, Petershausen, Germany.

COMBAT ROBOTICS PVT LTD.

Best Start-up in the area of Defence, EVs, Solar Industries.

ADD: Gat 767, Spine Rd, Pawar Vasti, Chikhali, Maharashtra 412114.

PLANT SIZE: 10000 Sq.ft.

STHENOS COMPOSITS.

Leader in area for Composites Tooling, Components, Carbon Fibre Components, Vaccum Forming, Thermoforming.

ADD: Gat. No. 619, MIDC Road, Kuruli Chakan, Khed, Pune 410501,

PLANT SIZE: 35000 Sq.ft.

GLOBAL PRESENCE



CONTACT PERSON:

METROLABE INDIA	: MR. YOGESH AMTE
2MI	: MR. PASCAL RENAUD
TSA	: MR. SYLVAIN GUILLOT
PJF	: MR. DAN KETELAAR

● MARKETING/SERVICES OFFICE ● MANUFACTURING PLANT

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METROLAB
ENGINEERING PVT
LTD

INFRASTRUCTURE

MACHINING SETUP



VMC MACHINE
- 04 NOS.



MILLING MACHINE
- 12 NOS.



LATHE MACHINE -
06 NOS.



SURFACE GRINDING MACHINE - 01 NO.



M1TR MACHINE - 07 NOS.



SIP JIG BOARING- 01 NO.

INSPECTION SETUP



ACCURATE BRIDGE CMM- 01 NO.
- 800 X 1000 X 600 mm



HEXAGON BRIDGE CMM- 01 NO.
- 900 X 1500 X 800 mm



HEXAGON BRIDGE CMM- 01 NO.
- 800 X 1000 X 600 mm



ACCURATE CANTILEVER CMM- 01 NO.
- 3500 X 1600 X 1600 mm



HEXAGON CMM ARM - ROAMER
- 2.5Mtr (02 NOS.)
- 3 Mtr (01 NO.)



HEXAGON RS4 ARM SCANNER
- 2.5Mtr (01 NO.)

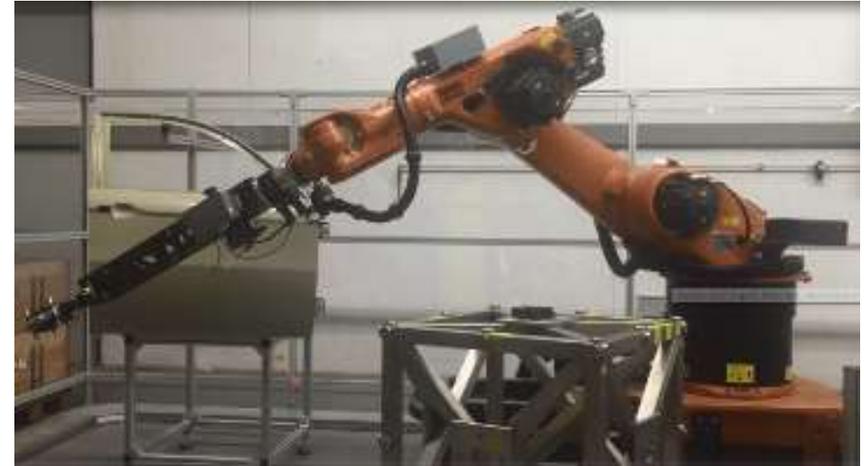


LEICA SWITZERLAND LEICA TRACKET AT402
- 01 NO.
RANGE: +-120M



LEICA SWITZERLAND LEICA TRACKET AT960- 01 NO.
T- PROBE
T SCAN 5
RANGE: 60M

LEICA AT 960+T SCAN+T PROBE



LEICA SWITZERLAND
LEICA TRACKET AT960- 01 NO.
T- PROBE
T SCAN 5
RANGE: 60M

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ENGINEERING SERVICES:

CMM SERVICES, TRACKER SERVICES, SCANNING AND REVERSE ENGINEERING

AUTOMOTIVE



AEROSPACE



OTHERS



LM WINDPOWER - BANGLORE



ENGINEERING SERVICES

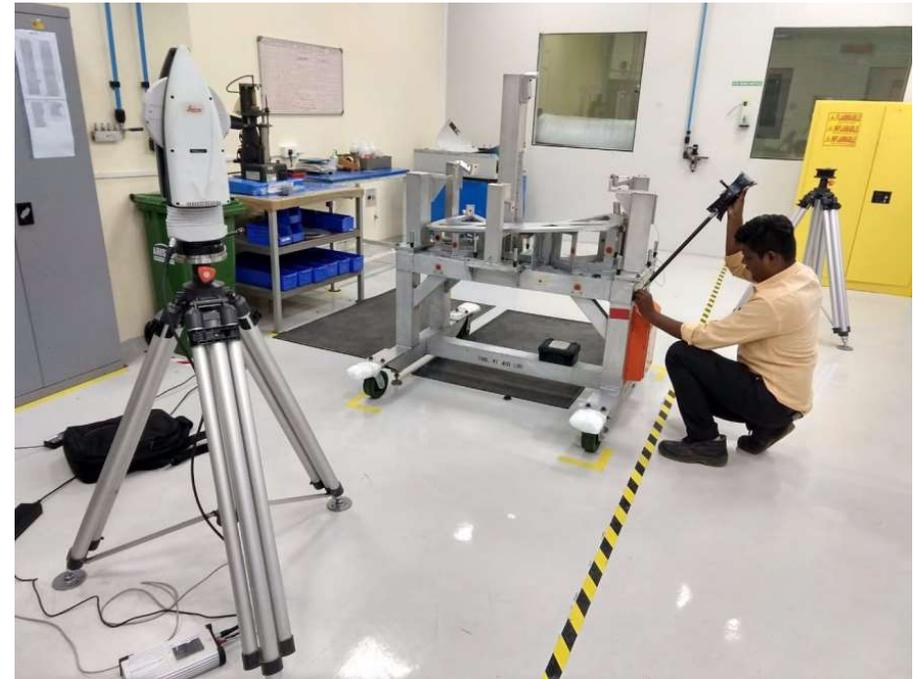
SCANIA - THIALAND



L&T RPM – VEDAL CHENNAI



TAML- BANGLORE



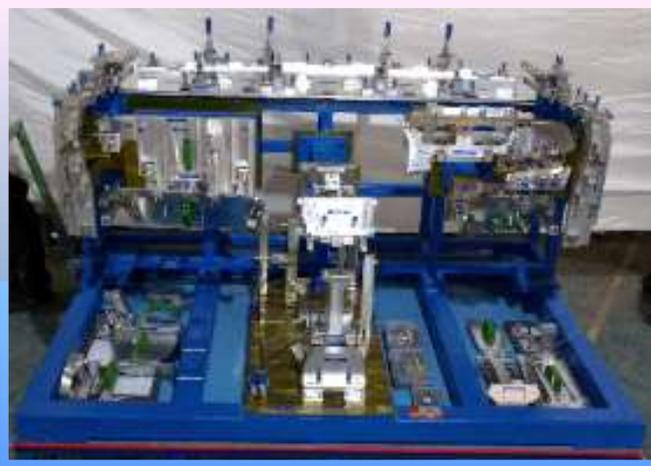
AUTOMATION OF METROLOGY
MAHINDRA PRESS PART SCANNING



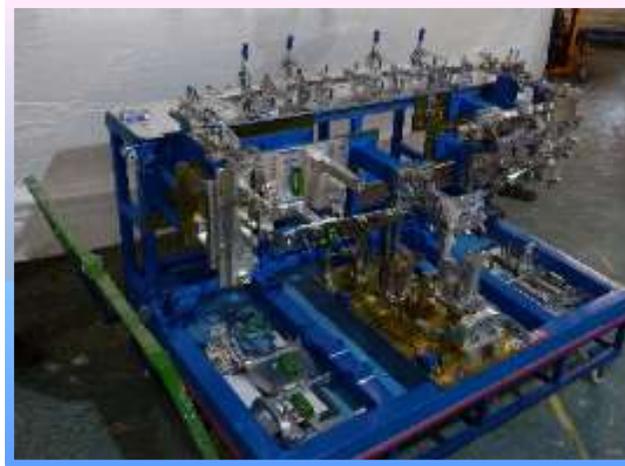
Scope of Delivery:

1. Modular Fixtures for W601 and Z101 Project, Total 46 Component
2. Leica Hardware
3. Complete Integration with Tscan, Robot, Rail
4. Offline programming and Prove out for all component till automatic Report Generation.
5. IOT through Polyworks Dataloop for Automatic communication with Server, SPC & MSA Study. Creating Dashboard which can be access through mobile or system.

INSPECTION FIXTURES



IAC: U321 COCKPIT FIXTURE



TBI: DOOR ASSY CF



MUTUAL : BUMPER CHECKING FIXTURE



TACO : BUMPER CHECKING FIXTURE



FAURECIA : CONSOLE CHECKING FIXTURE

BIW ASSEMBLY CHECKING FIXTURES:



MAHINDRA: U321 BSO LH/RH CF



MAHINDRA: U321 DOOR LH/RH CF



MAHINDRA: U321 TAILGATE LH/RH CF



METRO lab **A**

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METROLAB
AUTOMATION PVT
LTD

SPECIAL PURPOSE MACHINE



MUTUAL- BUMPER PUNCHING & SENSOR PASTING SPM



TACO-TAILGATE WAIST TRIM USW SPM



TACO-CENTER FASCIA USW SPM



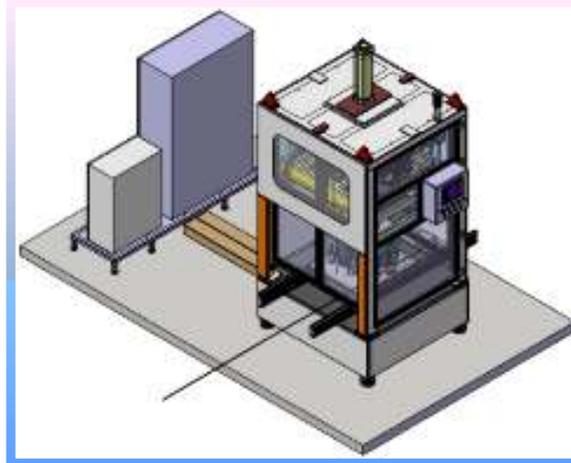
TACO- IP HEAT STAKE WELDING SPM



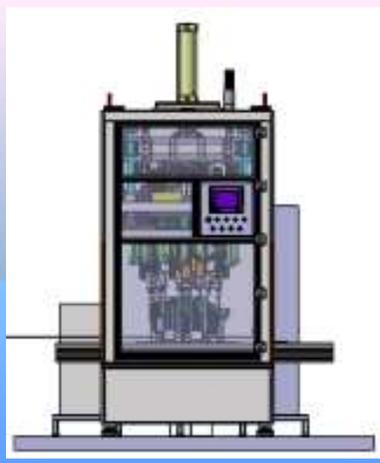
MSSL- BUMPER PUNCHING & USW SPM, SOUTH AFRICA



PO- BUMPER PUNCHING & USW SPM



DENSO- USW SPM, ITALY



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EOL ECHECKING, POKAYOKE & LEAK TESTING SPM

COMPLETE ENGINEERING SOLUTION



TACO - E CHECKING SPM



TACO - E CHECKING SPM



DENSO - LEAK TESTING SPM, ITALY



VALUABLE CLIENTS

OEM's



Tier 1



Tool Makers



Collaborators



EXPORT CUSTOMER LIST:

TTL , USA



DELTA AIRLINE
ATLANTA TECHOPS, USA

TTL , USA



BOMBARDIAR
DALLAS, USA

TTL , USA



STRATA
ABU DHABI

TTL , USA



CATERPILLAR
USA

2MI, FRANCE



FRANCE

2MI, FRANCE



SLOVAKIA

MSSL , DELHI



SOUTH AFRICA

MSSL , DELHI



CZECH REPUBLIC

MSSL , DELHI



THIALAND

MRO TOOLS : DELTA TECHOPS (Atlanta USA)

Through TTL USA

GTF TOOLS:

Total No. Of MRO Tools : 300++

Project Value: \$2 ++ Million

Project Duration: Delivery on pro rata basis

Project Shipment: By Air & Ship, Atlanta USA



PROCESSES:

Self Anodizing
Gold Anodizing
Painting
PVC Coating
Nylon Fusion Bond
HALAR Coating
Thermoforming

TEST DONE INHOUSE:

Dead Load Test
Hydraulic Test
Pilling Test
Leak Test

RAW MATERIAL:

ALUMINUM

AL 6061-T6
AL 5083
AL 2024
AL 7075

STEEL

VASCOMAX C250
VASCOMAX C350
SAE 4140
SAE 1018
4130

**PEEK, DELRIN, NYLON 66,
ABS (THERMOFORM), PVC, NEOPRENE.**

AEROSPACE MRO TOOLINGS:

DELTA AIRLINE ENGINE ASSY TOOLINGS, USA (Developed More than 300 Tools)



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MRO TOOLS:



SCAFFOLDING

End Customer: BOMBARDIER Aerospace USA, Through TTL USA

Project Duration: 17 weeks

Project Shipment : By Sea - Dallas, USA

DESCRIPTION:

Scaffolding In AL 6061T6 Material

For Aerospace Wing Assembly

Application : Wing Assembly LH/RH

SIZE: 5 MT X 3 MT X 4 MT



SPECIAL ITEMS:

Air Bearings for 16 TON Capacity

Sliders in Steel and Aluminum

AL Painting and Antiskid Painting



SCISSOR LIFT For Assembly Of Tail Vertical Wing

End Customer: STRATA, ABHU DHABI

Project Duration: 12 Weeks

Project Shipment: By Sea, Abu Dhabi

SIZE: 3 MT X 1.3 MT X 2 MT

QTY : 4 NOS



DESCRIPTION:

Scissor Lift For Wing Assembly,

Electrically Operated With 2 Hydraulic cylinders.

PLC Controlled With Complete POKAYOKE

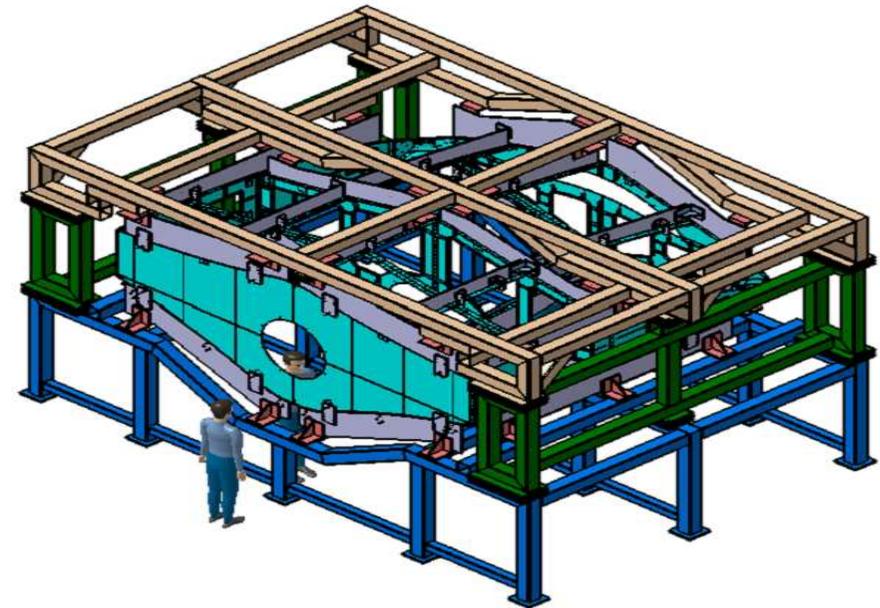
With Electric Safety Curtains.



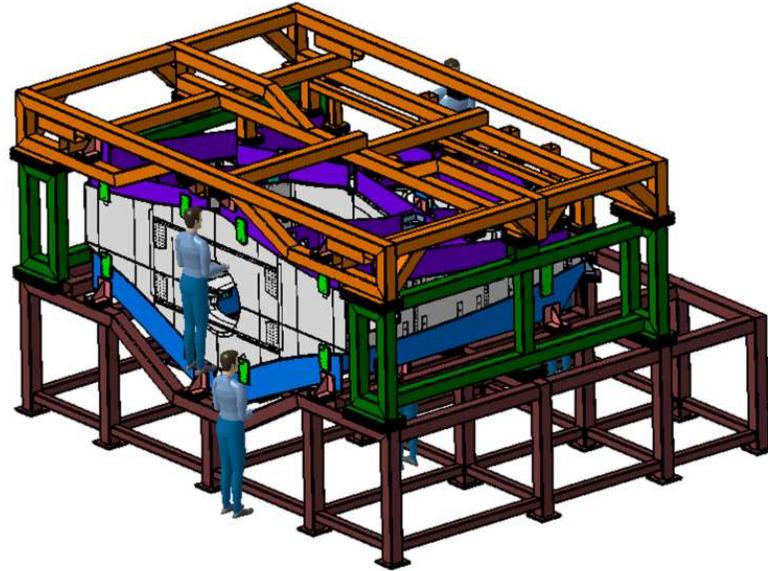
TOOLINGS FOR GHATAK UAV

Scope: Design & Mfg and Assembly of UAV

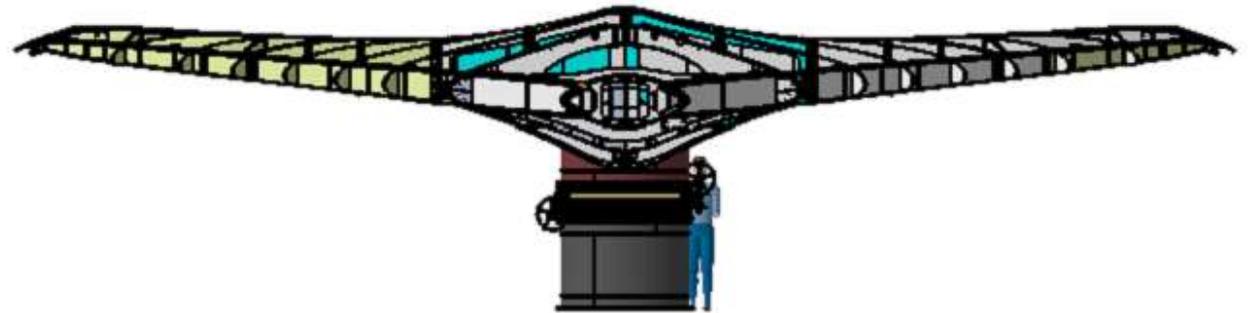




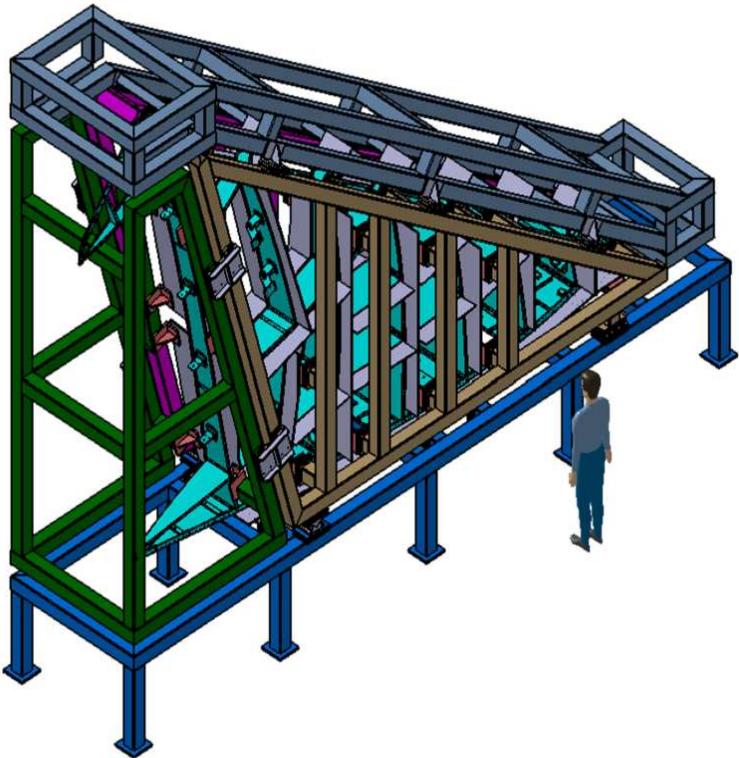
Centre Fuselage Assembly Jig



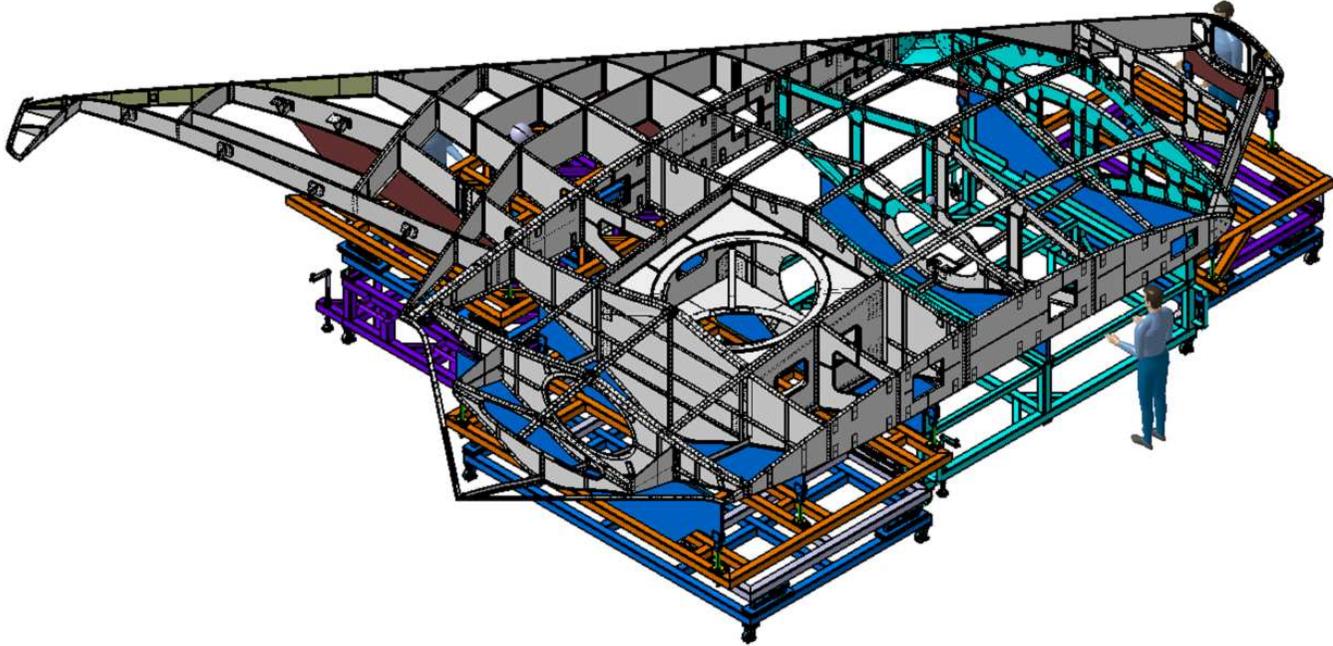
Rear Fuselage Assembly Jig



Pylon



Wing Assembly Jig



Integration Fixture

HEAVY ENGINEERING TOOLINGS:

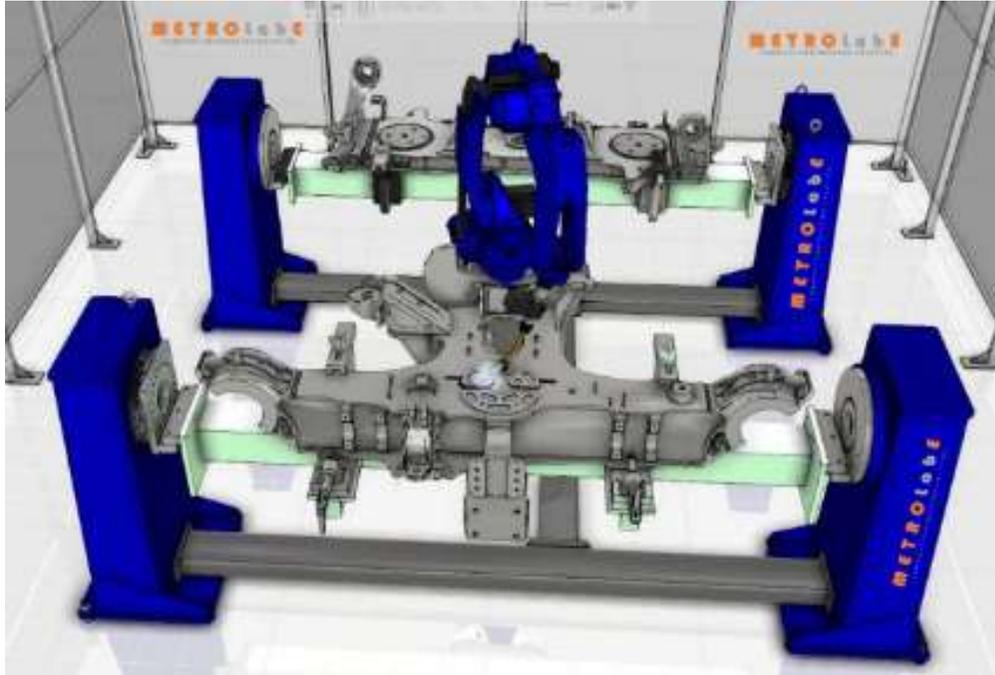
TTL: CATERPILLAR MEXICO UNIVERSAL WELDING FIXTURE
SIZE : 12 MT X 12 MT
WEIGHT : 45 TONN



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RAILWAYS TOOLINGS:





METROLAB PRIME
TECHNOLOGIES LLP

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MATERIAL HANDLING AUTOMATION



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MATERIAL HANDLING AUTOMATION

COMPLETE ENGINEERING SOLUTION



METROLAB
PRECIMECH PVT LTD



COMPANY INTRODUCTION

- **WE AT METROLAB PRECIMECH PVT. LTD. A TEAM OF ENGINEERS,LED BY PERSONNEL HAVING 18+ YEARS VARIED EXPERIENCE IN FABRICATION & MACHINING OF COMPLEX COMPONENTS AND ASSEMBLIES,INDIGENIZATION AND PROJECT MANAGEMENT.**
- **WE DIFFERENTIATE OURSELVES WITH AN APPROACH OF PROCESS ENGINEERING, ROBUST QUALITY ASSURANCE & EFFECTIVE EXCECUTION.**
- **IN BUILT QUALITY & ON TIME DELIVERY -- THRUST OF OUR BUSSINESS MODEL.**
- **METROLAB PRECIMECH PVT. LTD. IS A ISO 9001:2005 CERTIFIED COMPANY.**
- **WE TRUST & BELIEVE IN STRONG FUTURISTIC RELATIONSHIP WITH OUR CUSTOMERS.**



FACILITY



TOTAL AREA OF 25000 SQ.FT

FACILITY



MACHINING CAPABILITIES

Vertical Machining Centre – 1no.



Ace Micromatics VMC
Model: MCV-450
Spindle Taper: ISO 40, Speed: 6000 RPM max.
Bed Size: 1000mm x 450mm
X: 450mm, Y: 800mm, Z: 500mm
Repeatability: X: 0.010mm, Y: 0.010mm, Z: 0.026mm

CNC Lathe – 1no.



Make: BFW Orbitur
Max Turning Dia: 300mm
Max Turning length between Center: 400mm
Cross Slide Travel: 150mm
Spindle Speed: 4000 RPM max.
Repeatability: X: 0.0085mm, Y: 0.027mm
Turret: 8 Station, Hydraulic

MACHINE CAPABILITIES



Cylindrical Grinding- 1no.

Make: Hi Life
Grinding Dia.: 300mm
Distance Between Center: 1200
Work Head Speed: 1200 RPM
Admit Between Centre: 1500mm



CNC Flat Bed Lathe - 1no.

Make: Machtool Controller
Chuck Dia: 400mm, Max Turning Dia: 550mm
Max Turning length between Center: 2400mm
Cross Slide Travel: 305mm
Spindle Speed: 3000 RPM max.
Repeatability: X: 0.0085mm, Y: 0.027mm,
Turret: 8 Station

MACHINE CAPABILITIES

20 ft. LATHE: 1 Nos.



Center Height: 304mm. (12")
Bed Length: 6050mm
Admit Between Centre: 4900mm
Cross Slide Travel: 305mm
Swing Over Bed: 580mm, Swing Over Cross Slide: 400mm

CYLINDRICAL GRINDING : 1 Nos.



Make: Cincinnati
Swing Over Bed: 350mm
Distance Between Center: 144" (3657mm)
Work Head Speed: 1200 RPM
Admit Between Centre: 4000mm
Cross Slide Travel: 210mm

MACHINE CAPABILITIES

Huron Milling Machines (DRO) – 2nos.



Milling Machine

Make: Huron, Model: HV 100A

Spindle Taper: ISO 40, Spindle Speed: 2200 RPM max.

Bed Size: 2000mmx460mm

X: 1500mm, Y: 700mm, Z: 460mm

MTR Milling - 2nos.(DRO), 2nos. (Conv)



MTR Machine

Make: JMC, Model: 4KS

Spindle Taper: ISO 30, Spindle Speed: 4514RPM max

Bed Size: 1270mmx550mm

X: 700mm, Y: 370mm, Z: 340mm

FABRICATION CAPABILITIES



F
a
b.
S
h
o
p



Plasma X-Y Profile Cutting



Hypertherm Hand Plasma



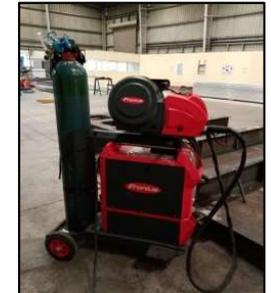
KEMPPi ARC Welding



MIG Welding



ADVANCE TIG Welding



Fronius TPA 400 - 1nos.

QUALITY ASSURANCE LAB



CMM (Coordinate Measuring Machine)
Hexagon, Model: Global Performance 7.10.7
Measuring strokes X: 700mm, Y: 700mm, Z: 660mm
Max. Part Weight: 900kgs
Accuracy: 1.5+ 2.8L/1000 um to 1.5 um
Resolution: 0.039um



Advanced Surface Roughness Tester
Mitutoyo, Model: Surf Test, SJ-411
Range: X axis: 25mm, Z axis: 25mm
Z axis: 800µm to 2400µm
Min. resolution: 0.000125µm
Tilt adjustments = +1.5°, Height adjustment = 10mm

PRECISION MACHINE PARTS



Components for chemical Industries.

“4 Bolt Flange”

Material :- SS 316L / ASTM A105



Components for Pharma & Food Industries

“Tri-clover Flange” : 1” to 8”

“Tri-clover Clamp”

Material :- SS316L / SS316

PRECISION MACHINE PARTS



Components for energy transmission shafts:
Hard Chrome Plated plain Shafts: Length 500mm to 4000mm
Material:- C38, C40, C45, EN8D



Roller and Shafts:
Hard Chrome Plated plain
Shafts: Length 500mm to 4000mm
Material:- C38, C40, C45, EN8D

FABRICATED PARTS & ASSEMBLIES



**Fabricated Structure & Assemblies for
L&T defence**

FABRICATED PARTS & ASSEMBLIES



**Fabricated Structure & Assemblies for
L&T defence**

FABRICATED PARTS & ASSEMBLIES



Components for fertilizer Industries
Material : SS304 / SS316L
Stacking Pallet



Tanks With Fitting
Type :- Hydraulic, Gasoline, Urea

FABRICATED PARTS & ASSEMBLIES



HEAVY FABRICATION



PRECISION MACHINE PARTS



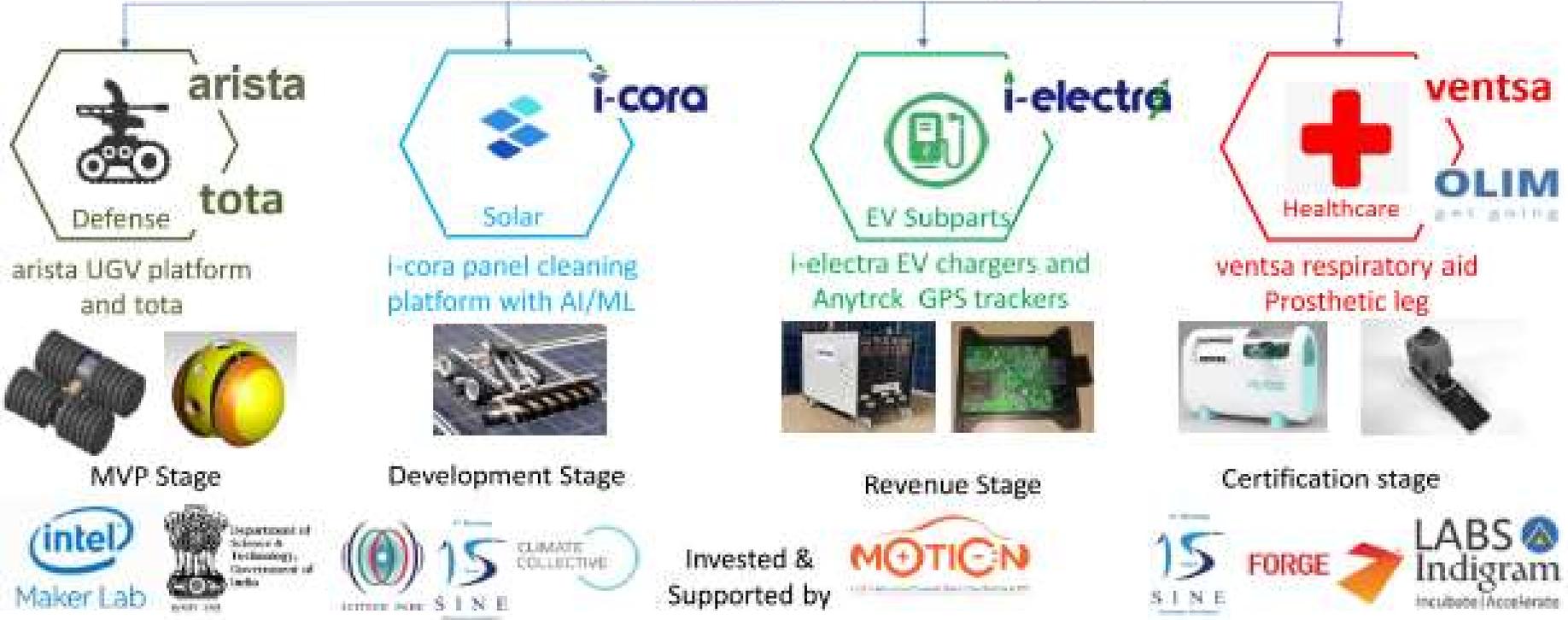


COMBAT ROBOTICS PVT LTD

COMBAT ROBOTICS PVT LTD



Holding company 6 Patents in following Areas
Incorporated in 2015, Pune
Investment Opportunity in holding company or product



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STHENOS
COMPOSITES

- Design Facility - CATIA., SolidWorks
- COMPOSITES- HLU, LRTM, RTM. Infusion, Preperg Molding
- Vacuum Forming For Thermoplastics Sheets
- VMC – BFW 2 Nos For Plastics, Metal & Patterns Machining
- High Temperature Oven 3mX3mX5m
- Vacuum Casting**
- SLA,SLS**
- Injection Molding**
- Injection molding Soft tooling
- Metal Fabrication Assembly in Steel & Aluminium
- Professional Painting Facility
- Contemporary Inspection Tools (FARO Portable CMM)



Vacuum Forming

- Materials Available –**
- ABS (Up to 8 mm thick)
 - Hips (Up to 8 mm thick)
 - TPO (Up to 6 mm thick)
 - PVC (Up to 4 mm thick)
 - PET For Packaging



- In house Capability**
1. Proto molds – MDF
 2. Low Volume Mold- Epoxy Molds
 3. High Volume Production molds in Aluminium



Wind Deflector -Vacuum formed in Acrylic

COMPOSITES Molds

- Molds in Zero Shrink Vinyl Ester / ISO-NPG tooling system
- Mold Reinforcement by Welded Tubular structures or Egg Crate light weight reinforcement
- High Gloss Molds (Gloss 95 ++)
- Molds QC based on FARO Arm CMM





HLU, Vacuum Bag



- Better thickness control, reduced part porosity & higher fiber content
- Accurate Placement of inserts
- SMC Like Parts
- Complete Assembly with metal & other Plastic components



Prototype Assembly

Judicious use of SLS, vacuum casting coupled with FRP helps in reducing cost.

- B surface details/assembly features in Vacuum casting, FRP adhesively bonded to main panels.
- Class A body panel paint with lacquering for OE like painting.
- Complete proven assembly and assembly support.
- Design to Assembly time – 16 days.

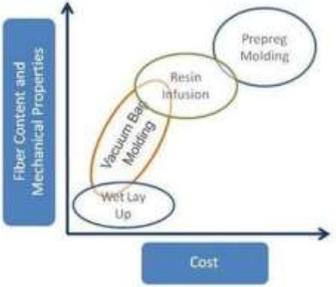


STHENOS COMPOSITES

Sthenos COMPOSITES-Prepreg Molds



Infusion/ LRTM/RTM Prepreg Molding



LRTM



CFRP



CFRP Mold for prepreg molding of Air intake duct



CFRP Mold



CFRP Mold for prepreg molding of air scoop



GFRP side body panel mold for vacuum bag molding



Resin Infusion



Phenolic Prepreg



STHENOS COMPOSITS

Large Format SCADA Controlled, Electrically Heated Molds



- Very large format toolings
- Glass-epoxy, Carbon-Epoxy or Cynate Ester molds by infusion with integral heating system for max 180 degC cure.



Vehicle Build/Buck Builds



- scaled models, single prototype parts
- buck builds using, COMPOSITES, plastics, wood, etc.

METRO lab E

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THANKS

YOGESH V. AMTE
MANAGING DIRECTOR

CELL : +91 955 252 9963

EMAIL: yogesh.amte@metrolab.engineering