



Tiruchirappalli Engineering and Technology Cluster (TREAT)

It is an initiative to position SMEs on a level playing field with large players while retaining their character as an individual business



TREAT

We, Tiruchirappalli Engineering and Technology Cluster (TREAT) are having High precision Heavy Engineering Machining facilities and Pre Processing Facility under one roof at Trichy, Tamilnadu.

TREAT has started its services in the year 2014. It is a section 8 Company (Not for Profit) with the funding support from Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India for setting up such a state of art facilities to support the industries in and around Trichy.

TREAT has entered a Joint Venture Agreement with Tamilnadu Industrial Development Corporation (TIDCO) for participation in the Project.

The project was developed in the outskirts of Trichy on the Trichy-Chennai national highway. The total ground area of TREAT is 15 acres. It has three covered sheds with total area of 2,14,000 Sq.ft for housing the state of art machinery in 3 bays in the first shed, second shed for fabrication unit with 2 bays and third shed for shot blasting and painting facility with modern equipment's - 3 bays.

TREAT as a Common Facility Centre has capability for manufacturing, designing, marketing and skill development. It enables 80+ members with 150-200 Acres for fabrication facility and machining facility available at TREAT and having a manufacturing capacity of 1,00,000MT per year to enhance their manufacturing capabilities to diversify their product line and grow in their business.



TREAT has installed large machining facilities, Heavy Plate Rolling/Forming up to 150mm thick steel plate, Laser Cutting, Dish Forming Facility, and Heat Treatment Facility etc. The following are the details of some of the machineries installed.

MACHINING FACILITIES

- **VTL** - VERTICAL TURRET LATHE (Ø5.3m x Ø6.3m x 3.5m (H)).
- **HBM** - FLOOR TYPE HORIZONTAL BORING MACHINE (X-10m, Y-3.5m, Z+W-2m Rotary Table 2 x 2.5m).
- **HMC** - HORIZONTAL MACHINING CENTRE (X-2.8m, Y-1.6m & Z-1.8m & Rotary Table 1.6 x 2.3m).
- **HDM** - HORIZONTAL DRILLING MACHINE (X-6m, Y-2.5m & Z-0.8m).
- **RDM** - RADIAL DRILLING MACHINE (R-0.5m to 2.35m).

PRE-PROCESSING FACILITIES

- **CNC PROFILE CUTTING MACHINE** - 3m (W) x 32m (L).
- **CNC LASER CUTTING MACHINE** - 3m (L) x 1.5m (W).

FORMING FACILITIES

- **ROLLING** - HYDRAULIC PLATE ROLLING MACHINE (3m (W) x Ø960mm / Ø800mm ROLLER & THK 25mm to 150mm).
- **DISH FORMING** - AUTOMATIC MANIPULATOR FOR DISH MODEL (Ø2m to Ø5m & THK 10mm to 28mm).
- **SPINNING** - HYDRAULIC FLANGING MACHINE (Ø2m to Ø5m & THK 10mm to 28mm).

POST-PROCESSING FACILITIES

- **BLASTING AND PAINTING FACILITY** (Automatic & Manual Blasting) shed coverage area of 1,00,000 Sq.Ft and having 1000 MT current capacity per month, which comprises of Surfex Auto Blasting along with Painting Booth (Booth size : 4m x 4m x 22m) and a separate Mechshot Manual Blasting Booth along with Painting booth for huge components (Each Booth Size: 6m x 6m x 32 mtrs). A separate grid (G40 Grid & S330 Steel Shot) for Blasting with motorized trolley facility (2.5m x 6 mtrs) capacity – 15 T 2 Nozzle can be used simultaneously.



FURNACE

- 5.5 X 5.5 X 2.8 Mtr – 30 ton capacity - 1100° Max Temperature

CNC PIPE PROFILE CUTTING MACHINE

- OXY FUEL CUTTING: DIA 50 to 610 mm - length 375 – 6000 mm – 3mm to 50 mm thickness
- PLASMA CUTTING : DIA 50 to 610 mm - length 375 – 6000 mm – 3mm to 31 mm thickness

QUALITY MEASURING FACILITIES

- CMM - COORDINATE MEASURING MACHINE - FARO -EDGE ARM 12Ft, 7 Axis

We offer space for large assembly with use of handling facilities.

EOT CRANE - DEMAG

- 75 /10 T – 2 NOS
- 40/10 T – 2 NOS
- 30/5 T – 2 NOS

MOBILE CRANE - ESCORT

- 14T CRANE – 2 NOS

Further, TREAT facilitates Consortium approach for undertaking Project Execution, and product Development for optimum utilization of its own and members' capacity. TREAT is governed By

Vision: To bring TREAT as a “Centre of Excellence” in fabrication Industry and THE BEST offline Engineering service center in all over India.

Mission: TREAT's initiative is to position MSMEs on a level playing field with the large players while retaining their character as individual business.





Floor Type CNC Horizontal Boring Machine

- Make/Model: JUARISTI MX 7 RAM
- HEADSTOCK-MX7 RAM 51KW $\phi 160$ 3000 MIN-1
- Main Spindle Diameter 160mm
- Longitudinal travel X = 10000mm
- Vertical travel Y = 3500mm
- Ram cross travel Z+W = 2000mm (Z 1200mm, W 800mm)
- Heidenhain measuring systems
- Spindle Speed: 10 - 3000 RPM
- Siemens 840D-SL (Solution Line) + Electronic hand-wheel HT-2
- Headstock preparation for manual attachment change
- Universal manual milling head
- D'andrea UT5-630-S facing head
- Rotary table MG 20; Table size: 2000 x 2500, V=1500
- Rotary table capacity - 18 Tons



CNC - Vertical Turret Lathe

- Make/Model: WMW-NILES (Germany)
- Max. swing diameter - 6300mm
- Table diameter - 5300mm
- Max. working height - 3500mm
- CNC system - Sinumeric 802C
- Max. weight of work piece - 70 Tons
- Main motor power - 110KW
- Two RAM Heads



CNC - Horizontal Machining Centre

- Make/Model: BURKHARDT + WEBER
- X-Axis (Horizontal) 2800mm
- Y-Axis (Vertical) 1600mm
- Z-Axis (Column Longitudinal) 1800mm
- Quill length 400mm
- Max. table load: 8 Tons
- Max Torque. NM 3470 (ED 100%)
- ATC with 168 tools
- Number of pallets: 2
- Pallet size: 1600 x 2300mm



CNC - Horizontal Drilling Machine

- Make/Model : VHSM V5537
- Longitudinal X axis - 6000 mm
- Vertical travel Y axis - 2500 mm
- Ram travel - Horizontal Z axis - 800mm
- Ram size - 340mm x 340mm
- Spindle - ISO 50
- Power of spindle - 30/37 KW
- Spindle speed 50-2000 RPM
- CNC systems - Siemens 828 D SL
- Servo motor for axis - 36NM
- Machine Weight - 25 Tons



Radial Drilling Machine

- Make - HMT- RM-63
- Drilling Radius - 550 mm - 2350 mm
- Spindle Tapper - MT5
- Drilling in Steel - 50 mm
- Drilling cast Iron - 60 mm



Heavy Plate Rolling

- Make/Model: SERTOM, Model - EMO 30-150
- Cold Rolling thickness : 30mm - 150 mm
- Rolls table length: 3100mm
- Top roll diameter: 960mm
- Side rolls diameter: 800mm
- Pre bending thickness: 150mm
- Max. opening between top and side roll: 250mm
- Max. working height from the ground: 2040mm
- Max. load of top roll: 21 Tons
- Tilting of top roll: 10mm



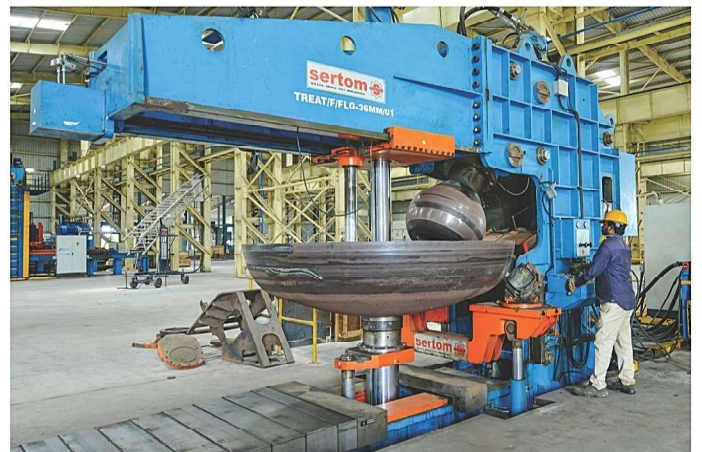
CNC - Dish Forming with authomatic Manipulator

Manipulator

- Make/Model: SERTOM MA 1000
- Max. load of the manipulator: 10000kg
- Max. diameter of the plate: 5000mm
- Min. diameter of the plate: 1500mm

Press

- Max capacity: 800 Tons; stoke length : 800 mm
- Max. length: 8000mm
- Plate thickness SS : 8 mm-28 mm
- Plate thickness MS: 8 mm-36 mm
- Aprox. weight: 25 Tons



Hydraulic Flanging Machine

- Make/Model: SERTOM, Model - FMS 5000-36
- Plate thickness for MS: 10 - 36 mm
- Plate thickness for SS : 10 - 28 mm
- Plate Diameter Max : 5 Mtrs.
- Plate Diameter Min : 2 Mtrs.
(1 Mtr - 2 Mtr additional attachment)
- Max. knuckle radius R: 800mm
- Min. knuckle radius R: 100mm
- Torispherical shape heads R=D
Max: 5000mm, Min: 1000mm
- Elliptical shape heads R = 0,8D
Max: 4000mm, Min 1000mm



Portable CMM - Faro

Make / Model: Faro / Edge Arm

- 7 axis Co-ordinate measuring system.
- Portable and easy measurement of co-ordinates of job at its place.
Max L = 3.6 Mtrs.
- Geometric and True position computation of Jobs. Relates 2D and 3D and all shapes measurements.



CNC Profile Cutting Machine

- Make / Model : L&T Messers
- MS plate upto 20mm(Plasma)
- SS plate upto 32mm(Plasma)
- MS plate upto 150mm(oxyfuel)
- Track width: 4000mm
- Overall width: 5070mm
- Working width: 3000mm
- Track length: 34000mm
- Working length: 32000mm



Laser Cutting

Make / Model: Farley - Laser Lab-3015

- Cutting Area (L x W) : 3000 mm X 1500 mm
- Laser source : 3 KW Fibre Laser (TRUMPF – TRUDISK)
- Maximum Plate Weight: 720 Kg
- Cutting Capacity:
Carbon Steel Up to 16 mm
Stainless Steel Up to 10 mm
- CNC Control System: Siemens 840 D
- Exchangeable Transfer Working Table



EOT Cranes Detail

- Make/Model: DEMAG, Pune
- Double girder E.O.T. crane type: 75/10T x 18.35m span - 10m hook path (2 no.) - Bay length: 160m
- Double girder E.O.T. crane type: 40/10T x 18.25 span - 9m hook path (2 no.) - Bay length: 160m
- Double girder E.O.T. crane type: 30/5T x 18.25 span - 9m hook path (2 no.) - Bay length: 160m



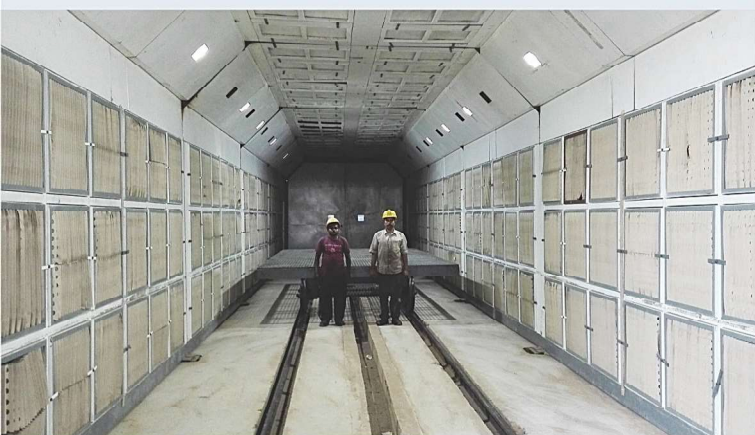
Auto Blasting Machine

- Auto Blasting Machine- Steel shot S330 & Grid G40
- Booth Size: 1100 mm x 1100 mm x Conveyor length 20 Metre.
- Impeller: 6 Nos on 360 degree.
- Maximum weight 7 MT on conveyor



Manual Blasting Booth

- Booth Size :6m x 6m x 32mtrs
- Equipped automated shot collecting mechanism
- Having motorized trolley (2.5m x 6mtrs)
Capacity –15T
- 2 Nozzle can be used simultaneously
- Using G40 Grid & S330 Shot for Blasting



Manual Paint Booth

- Paint Booth Size :
 - 6Mtrs x 6Mtrs x 32Mtrs
 - 4Mtrs x 4Mtrs x 22Mtrs
- Dust Free & No Dry Spray
- Having motorized trolley (2.5m x 6mtrs)
Capacity –15T



Furnace

- Make: USV instruments
- Temperature Max - 1100°c.
- Capacity – 30 Ton
- working size:
5.5Mtrs(L) x 5.5Mtrs(W) x 2.8Mtrs(H)



CNC Pipe Profile Cutting Machine

- Make HGG PC 600
- Machine size: 9143 mm x 1945 mm x 2418 mm
- Maximum pipe length: 375 mm - 6000 mm
- Maximum pipe weight: 3000 kg
- Total machine weight: 2650 kg
- Oxyfuel cutting diameter: 50 mm - 610 mm
- Plasma cutting diameter: 50 mm - 610 mm
- Plasma cutting wall thickness : 3 mm - 31 mm
- Oxyfuel cutting wall thickness: 3 mm - 50 mm

OUR DEFENCE & AEROSPACE PRODUCTS



**BRAHMOS AEROSPACE LIMITED
MOTOR CASING (PDV)**



CBRDE - HULL ASSEMBLY (ARJUN)



MOULD FOR SSLV OGIVE PLF



MOULD FOR DRDO - OGIVE



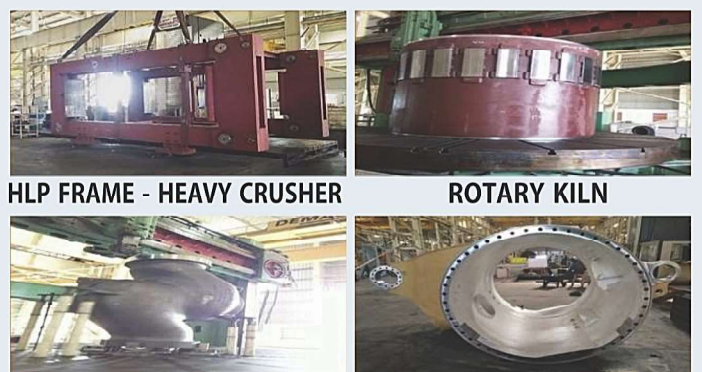
ISRO - AIPL - MOVABLE DIFFUSER



ISRO - AIPL - VARIABLE DIFFUSER



LEOSCHE - MILL BODY



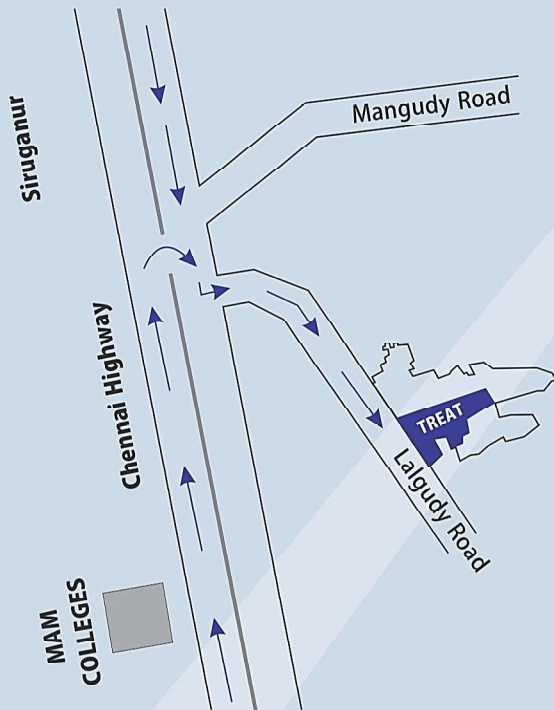
HLP FRAME - HEAVY CRUSHER

ROTARY KILN

VALVE BODY - SANMAR

BEML - REAR AXLE

Location Map



Tiruchirappalli Engineering and Technology Cluster (TREAT)

Regd. Office & Factory

Tiruchirappalli Engineering and Technology Cluster,
P2, Adjacent to GK Industrial Park Pvt. Ltd.,
Reddimangudi Village, Siruganoor,
Lalgudi Taluk, TRICHY 621 105.

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marketing@treat-trichy.in

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Kindly scan the following
QR Code for Virtual visit of our factory



Services Offered

TREAT is situated at Siruganur on Trichy - Chennai National Highways at 23KM from Trichy in the total land area of 15 acres and in which two machine shops with fully covered area admeasuring 1,50,000 Sq.ft. with facilities and machines as shown in the catalogue. The following services will be added shortly.

1. Raw Material Bank

TREAT provides this facility to cater the need of the members in procuring the raw materials according to their requirements at a competitive rate which also ensure the reduction of lead time involved in purchase of raw materials, minimize the off-cuts to the maximum possible level. They also avail the monetary benefit arising out of Bulk Purchase. A web based nesting and material management software is also available for member's use.

2. Testing and Calibration Lab

This common testing lab will enable the cluster units to overcome the issue of unavailability of specialized testing and measuring equipments.

3. Common Website (E-Portal)

Most of the cluster units do not have access to high end domestic and export markets which will be addressed through this facility.

4. Display and Conference Facility

This facility along with common marketing approach using Information Technology to identify various other horizons for expanding the wings of the cluster members.

5. Software simulation for training and job work

As most cluster firms do not prepare technical file which defines standards for manufacturing process, material, product specification etc., this facility would offer high quality training to Cluster firms to have standardisation in their process to maximise their output.

6. Skill Development Centre

This facility will impart necessary training to improve the skill of work force of cluster units using conventional class room model and software simulation based training for ultimate improvement in the operation of cluster firms.