

**CUT
BEND
ROLL
PUNCH**

the **complete**
range of **solution**

$$\begin{aligned} hn &= \omega \cdot \sigma_1 \\ k'n &= \omega \cdot KN \\ k'l' &= \rho \cdot c \\ hn &= \sigma_\eta \cdot mn \\ mn &= P_{\eta\theta_2} \cdot k'l' - Q_{\theta_2\eta} \cdot k'n \\ mn &= P_{\eta\theta_2} \cdot \rho \cdot c - Q_{\theta_2\eta} \cdot \omega \cdot KN \\ \omega &= \frac{P_{\eta\theta_2} \cdot \rho \cdot c}{\frac{\sigma_1}{\sigma_\eta} + Q_{\theta_2\eta} \cdot KN} \end{aligned}$$



www.energymission.com

GENERAL PORTFOLIO
ALL PRODUCTS



SCAN FOR LIVE CHAT



ENERGYMISSION
MACHINERIES (INDIA) LIMITED



Energy Mission Machineries (India) Ltd. was established in 1999 with strong vision to deliver most reliable & economical solutions in sheet metal industry. Today Energy Mission is one of the fastest growing company with maximum satisfied customer base in India and Abroad. In 2024, Energy Mission become a Public Limited company by listing on NSE Emerge Enhancing our transparency, reliability and trustworthiness.

WE ARE LEADING MANUFACTURER OF

- ♦ CNC Servo Hybrid & Synchro Press Brakes
- ♦ NC / Conventional Hydraulic Press Brakes
- ♦ Servo Electric Press Brake
- ♦ CNC / NC / Conventional Hydraulic Shearing Machines
- ♦ Four / Three Roll Plate Rolling Machines
- ♦ Hydraulic Iron Workers
- ♦ Hydraulic / NC Busbar Cutting, Bending & Punching Machines
- ♦ Single / Double / Triple Action Deep Drawing Presses
- ♦ CNC Servo H & C Type Presses
- ♦ CNC V Grooving Machines

OUR STRENGTH

- ♦ 25+ years of Experience in Manufacturing
- ♦ World Class manufacturing facility spread in 2,50,000 sq. ft.
- ♦ Production capacity of 1000+ machines per annum
- ♦ More than 7500+ installation across India & Abroad
- ♦ Trained & qualified team of 350+ employees
- ♦ First Public Limited company in our field of work
- ♦ Dedicated team for design & development
- ♦ Sales and service network all over India, Middle East & North America
- ♦ Keen quality control on each component & process
- ♦ Awarded as "Outstanding Entrepreneur of Year" in Year 2008-09 & Year 2014-15, Dr. Ambedkar Business Excellence Award 2021-2022

OUR VISION

We at "Energy Mission" believe to deliver high quality products at competitive price supported by best service support. To achieve this mission, we have developed in-house manufacturing facilities, focused manufacturing processes with in-depth technology know-how, sales network associates across India & abroad. Enthusiastic team of customer care is always ready to rush within shortest time at the doorstep of customer or any requirements. Our skilled workforce has a proven performance record in satisfying diverse needs of customers around the globe.

CNC PRESS BRAKE

EFFICIENT / EFFICIENT+ SERIES

ACCURATE | RELIABLE
CONSISTENT

SALIENT FEATURES

- ♦ 3 Axis machine with automatic, accurate & fast back gauge
- ♦ CybTouch 8PS Controller from CYBELEC Switzerland
- ♦ Rigid upper beam guide on 12-point roller bearings
- ♦ Ultrasonically & tensile tested IS:2062 grade steel structure ensures the rigidity & avoid deflection.
- ♦ The frame is machined on Floor Boring Machine ensuring single reference accurate machining.
- ♦ Quick release clamps
- ♦ Back gauge assembly included ball screw, AC Servo drive, LM guides & timer belt
- ♦ Back gauge fingers mounted on LM guide
- ♦ Quick 'V' groove change over with self centred die with rail.
- ♦ Hardened & grounded 2'V' / 4'V' die & semi gooseneck punch
- ♦ Front sliding sheet support with LM guides for easy movement

ACCURACIES

- ♦ Press Beam Depth Accuracy : $\pm 0.01\text{mm}$
- ♦ Press Beam Depth Repeatability : $\pm 0.01\text{mm}$
- ♦ Back Gauge Accuracy : $\pm 0.1\text{mm}$
- ♦ Back Gauge Repeatability : $\pm 0.1\text{mm}$



RANGE	30 MT to 2000 MT
LENGTH	1250 mm to 10000 mm

CNC PRESS BRAKE

SPLENDID / SPLENDID+ SERIES

HIGH SPEED
LOW POWER

SALIENT FEATURES

- ♦ Higher productivity & lesser cycle time by High speed beam movements
- ♦ Energy Efficient - Reduce power consumption by 40% ~ 45%
- ♦ High bending accuracy and repeatability
- ♦ Fast up & down beam speed up to 160 mm/sec, Pressing speed up to 10 mm/sec.
- ♦ 3 Axis machine with automatic, accurate & fast back gauge
- ♦ CybTouch 8PS Controller from CYBELEC Switzerland
- ♦ Very low noise, Silent & smooth machine operation
- ♦ Rigid upper beam guide on 12-point roller bearings
- ♦ The frame is machined on FLOOR BORING MACHINE ensuring single reference accurate machining
- ♦ Stable hydraulic oil temperature ensures consistent accuracy

ACCURACIES

- ♦ Press Beam Depth Accuracy : $\pm 0.01\text{mm}$
- ♦ Press Beam Depth Repeatability : $\pm 0.01\text{mm}$
- ♦ Back Gauge Accuracy : $\pm 0.1\text{mm}$
- ♦ Back Gauge Repeatability : $\pm 0.1\text{mm}$



RANGE	30 MT to 325 MT
LENGTH	1250 mm to 10000 mm

CNC PRESS BRAKE

OPTIMA SERIES

INTELLIGENT
GREEN POWER

SALIENT FEATURES

- ♦ Servo motor in combination of hyd. Pump controls the accurate positioning of Y1 & Y2 axis
- ♦ Energy Efficient - Reduce power consumption by 45% ~ 50%
- ♦ Fast up & down beam speed up to 220mm/sec, Pressing speed up to 16 mm/sec
- ♦ CybTouch 8PS Controller from CYBELEC Switzerland
- ♦ 3 Axis machine with automatic, accurate & fast back gauge
- ♦ Rigid upper beam guide on 12-point roller bearings
- ♦ The frame is machined on FLOOR BORING MACHINE ensuring single reference accurate machining
- ♦ Very low noise level, Silent & smooth machine operation
- ♦ Stable hydraulic oil temperature ensures consistent accuracy
- ♦ Lesser oil quantity

ACCURACIES

- ♦ Press Beam Depth Accuracy : $\pm 0.01\text{mm}$
- ♦ Press Beam Depth Repeatability : $\pm 0.01\text{mm}$
- ♦ Back Gauge Accuracy : $\pm 0.1\text{mm}$
- ♦ Back Gauge Repeatability : $\pm 0.1\text{mm}$



RANGE	30 MT to 325 MT
LENGTH	1250 mm to 10000 mm

CNC PRESS BRAKE

TANDEM / TRIDEM CNC PRESS BRAKES

SOLUTIONS FOR

- ♦ LIGHTING POLES
- ♦ WIND MILLS
- ♦ STEEL TOWER INDUSTRY
- ♦ AUTOMOBILE INDUSTRIES
- ♦ RAILWAY & INFRASTRUCTURE

SALIENT FEATURES

- ♦ The TANDEM / TRIDEM press brakes are the combination of two or more press brakes synchronized by one controller
- ♦ Facility to use both or Individual to improve production efficiency
- ♦ Longer bending jobs, Higher tonnage machines with simple construction
- ♦ Add on options are available
- ♦ Various sheet handling accessories are available



RANGE	100 MT to 2000 MT / 160 MT to 6000mm MT
LENGTH	3000 mm to 16000 mm / 4500mm to 24000mm

CNC / NC HYDRAULIC SHEARING MACHINE

SALIENT FEATURES

- ♦ AC Servo Motor & drive for High-speed back gauge movement
- ♦ User friendly Colour LCD screen for easy programming
- ♦ High-speed back gauge assembly with ball screw & timer belt
- ♦ Repeated position accuracy in $\pm 0.1\text{mm}$
- ♦ Multiple back-gauge position with stroke counting on screen
- ♦ Automatic Rake angle adjustment by controller
- ♦ Automatic Stroke length control by controller
- ♦ Automatic back gauge retraction after holding the sheet
- ♦ Multi Step positions on back gauge with desired no. of strokes on each position.
- ♦ The back gauge is equipped with hardened ball screw & LM Guides



RANGE	3 mm to 40 mm
LENGTH	1250 mm to 12000 mm

NC HYDRAULIC PRESS BRAKE

SALIENT FEATURES

- ♦ Suitable for complex job bending
- ♦ Quick changeover for sample production & mass production
- ♦ 5.7" Colour graphic LED back light Screen
- ♦ Two axis automatic control - bending degree (Y Axis) & back gauge (X-Axis) program
- ♦ Multiple bends with different back gauge positions can be programmed
- ♦ 200 programs & 24 bends with individual back gauge positions in one program
- ♦ The back gauge position accuracy is 0.1mm
- ♦ Bend angle & depth mode program can be possible
- ♦ Programable back gauge retraction
- ♦ Programable angle correction & back gauge correction
- ♦ Programable open height on each bend
- ♦ Job counter on screen
- ♦ Suitable for upgradation with special optional features

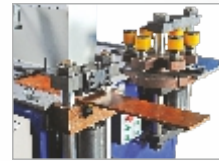


RANGE	30 MT to 600 MT
LENGTH	1250 mm to 8000 mm

BUSBAR BENDING | CUTTING | PUNCHING



Bending Station



Cutting Station



Punching Station

OPTIONAL TOOLS



Embossing Tool



Edge Bending Tools



Twisting Tool



Special Tools for Punching / Bending Station

SALIENT FEATURES

- ♦ Energy Mission Busbar Machine is design to give effective solution for Busbar Cutting, Bending & Punching in One Machine
- ♦ Manual Turret Punching design with Six station which avoid time to change Die & Punch in Punching station
- ♦ Direct Shearing Avoids any waste of Material
- ♦ Horizontal Bending Operation Suitable for Complex & Z Type Bending
- ♦ Manual Gauge stopper for Shearing & Punching Station
- ♦ Parallel Operation for all three work station

STANDARD ACCESSORIES

- ♦ Main Drive Motor
- ♦ Electric Control Panel
- ♦ Hardened & Grounded HCHCr Blade on Shearing Station
- ♦ Six different type of Punches & Dies mounted in Punching Station
- ♦ Two Dies & Two Punches Suitable to Bending Station

HYDRAULIC IRON WORKER - SIGMA

EM IW - 50 / 80 / 110 / 165

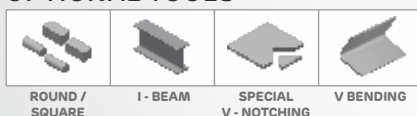
SALIENT FEATURES

- ♦ Energy Mission Hydraulic Iron Worker (SIGMA) is designed to give an effective solution to all the cutting & punching problems of flat & Section with satisfactory work quality from robust and compact machine
- ♦ Unique compact design by using ultra-sonically tested steel plates
- ♦ Five work station catering '7' different operation
- ♦ International brands hydraulic & electrical components ensure trouble free operation
- ♦ Sequential operation of punching station with other work station
- ♦ Direct shearing avoids any waste of materials
- ♦ Hydraulic Holding Cylinder for Material Holding. (Shearing / Angle & Punching Station)

STANDARD TOOLS



OPTIONAL TOOLS

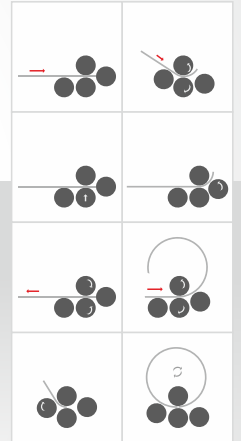
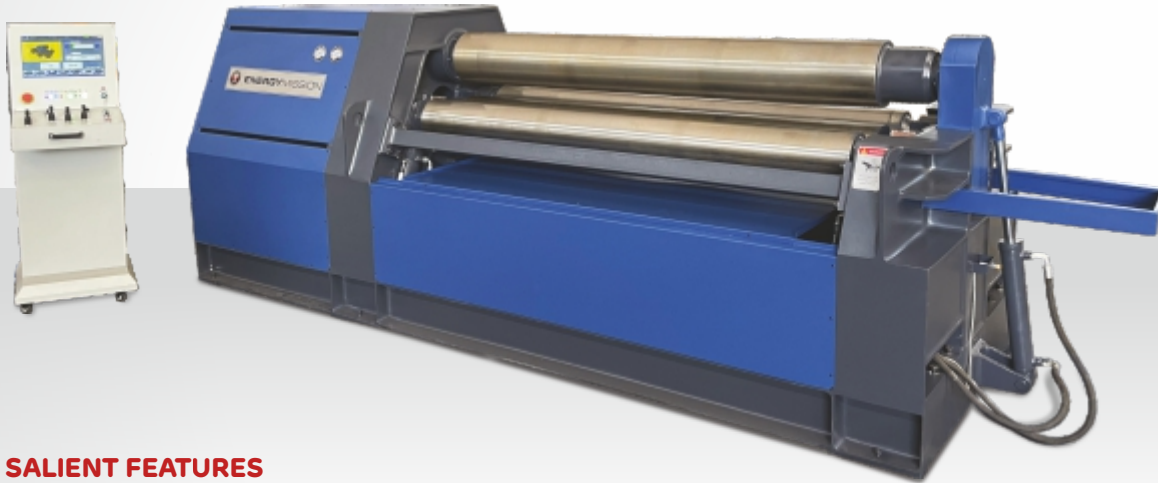


4 ROLL PLATE BENDING

EM 4RL PBM SERIES

RANGE : 6 mm to 100 mm
LENGTH : 1250 mm to 4000 mm

4 ROLL PYRAMID TYPE DOUBLE
PRE PINCH PLATE ROLLING



SALIENT FEATURES

- ♦ 4 Roll PYRAMID type design with double pre -pinching arrangement
- ♦ High rolling Precision, no obvious residual straight seam, no need to rolling again
- ♦ High rolling roundness consistency
- ♦ It is high efficiency equipment for batch Rolling round multi section arc, Square, Conical and Special Shaped workpiece
- ♦ Top roll is fixed, bottom roll moves up & down and Side Rolls Move Inclined
- ♦ Side & Bottom rolls up-down through hydraulic cylinders
- ♦ Top Roll is power driven by planetary gear box
- ♦ Bending rolls are made of alloy steel
- ♦ Dropper end operation by hydraulic cylinders
- ♦ Overload protection
- ♦ Low role, smooth operation & less power consumption due to hydraulic system operates at lower pressure in smaller thickness
- ♦ Built - in - cone bending attachment
- ♦ International quality Hydraulic & Electrical Component

PLATE ROLLING

EM DP PBM SERIES

RANGE : 6 mm to 100 mm
LENGTH : 1500 mm to 4000 mm

3 ROLL PYRAMID TYPE DOUBLE
PRE PINCH PLATE ROLLING



SALIENT FEATURES

- ♦ 3 roll PYRAMID type design with double pre - pinching arrangement
- ♦ Top roll is fixed and bottom rolls moves up & down
- ♦ Bottom rolls up-down through hydraulic cylinders
- ♦ Two bottom rolls are power driven by planetary gearbox with electric or hydraulic motor
- ♦ Bending rolls are made of alloy steel.
- ♦ Dropper end operation by hydraulic cylinders
- ♦ Overload protection
- ♦ Low role, smooth operation & less power consumption due to hydraulic system operates at lower pressure in smaller thickness
- ♦ Built - in - cone bending attachment
- ♦ International quality Hydraulic & Electrical Component



Align the plate using the alignment grooves in the lower rolls or against the rear roll. The pre-bending is accomplished by clamping the plate between the top roll & one of the lower rolls.



The plate is bent towards the top roll by the other roll; and the plate edge is pre bent to minimum flat end possible. A length of plate is rolled & radius is checked.



Lower the clamping roll & raise the other roll until the plate is clamped again. Roll the plate into a closed cylinder & prebend the second plate edge.



Roll the plate through the machine and bend to desired diameter.



Finished cylinder is released from the machine by lowering the drop end.

PLATE BENDING

EM HM PBM SERIES

3 ROLL PYRAMID TYPE HYDRO
MECHANICAL PLATE ROLLING



RANGE : 3 mm to 30 mm
LENGTH : 1250 mm to 3000 mm

The EM HM PBM Series 3 Roll Pyramid Type Hydro Mechanical Plate Rolling Machines are designed with top roll UP & DOWN movement by hydraulic cylinder. This saves time & labor to adjust top roll. This feature makes the machine more productive and suitable for handling heavy jobs. Dropper end movement is done by hydraulic cylinder.



EM HM PBM SERIES (HYDRO-MECHANICAL)

SALIENT FEATURES

- ♦ 3 roll PYRAMID type design machine
- ♦ The robust welded structure is made of UT tested IS:2062 M.S. plates
- ♦ The top roll adjustment is by Hydraulic Cylinder
- ♦ Bottom rolls are power driven
- ♦ Bending rolls are made of alloy steel

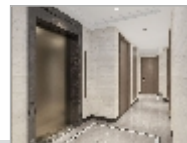
CNC V GROOVING



V GROOVING APPLICATION

SALIENT FEATURES

- ♦ Fast, precise & accurate V grooving
- ♦ Machine structure is made from Ultrasonically & tensile tested IS:2062 grade steel to ensure the rigidity
- ♦ Large table to easy working. The working area is max. 1.5 meter wide & up to 4.0 meter long
- ♦ 4 axis CNC controller with 15" Touch screen & graphics
- ♦ Finger profiling is possible
- ♦ Possible to V Groove in embossed plate
- ♦ Uses Servo Motor, Ball Screw & LM Guide to ensure high accuracy
- ♦ Rack & Pinion is used for High Speed & Precise positioning
- ♦ Hydraulic clamps to ensure rigid clamping of work piece
- ♦ Carriage of Four single point cutting tools, The cutting amount is evenly distributed, reducing deformation of the machined part
- ♦ Air gun for removing metal chips from table



Elevator Entry Area



Elevator Cabin Interior



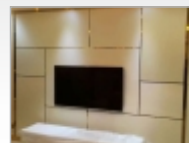
Wall Cladding



Exterior Wall Cladding



Retail Fixture



Decorative Wall



HYDRAULIC DEEP DRAWING PRESS

RANGE | 50 Tons to 2000 Tons

SALIENT FEATURES

- ♦ Customized Indigenous robust FE Analysed structure design
- ♦ The robust frame is fabricated from UT tested IS2062 grade steel plates
- ♦ Deep drawing presses are available in various designs like Single Action Deep Drawing, Double Action Deep drawing or triple action deep drawing press
- ♦ Adjustable 8 points Self Lubricated (Graphite impregnated bronze material) Oil less guide ways ensure smooth operation & long life of the press
- ♦ Hydraulic Holding plates / Cushion structure with hydraulic cushion arrangement is provided on deep drawing presses
- ♦ Multiple speed for Approach, pressing & return strokes saves cycle time
- ♦ Detachable bolster design
- ♦ Hydraulic Cylinders made of seamless hone tubes & hard chrome plated rod
- ♦ Latest technology PTFE seals with bronze guide Flats in hydraulic cylinders ensure long life
- ♦ Compact Hydraulic systems with Logic, conventional & Servo valves
- ♦ Two-hand operator safety to ensure accident-free operation
- ♦ Specially designed Positive locked load bearing structure for longer life (no load on welding)
- ♦ The frame is machined on FLOOR BORING MACHINE ensuring single reference accurate machining.
- ♦ Illuminated working area



APPLICATIONS



HYDRAULIC C-FRAME PRESS

RANGE | 30 Tons to 300 Tons

SALIENT FEATURES

- ♦ Customized Indigenous robust FE Analysed structure design
- ♦ C Frame presses are available in various table sizes and throat depth designs to facilitate the various job requirement.
- ♦ Suitable for jobs which need three side open area accessibility
- ♦ The cylinder is self guided and outer cylindrical guide arrangements are specially designed to suit the operation requirement for longer life.
- ♦ Optional multiple speed for approach, pressing & return strokes saves cycle time.
- ♦ International quality hydraulic & electrical components to ensure long service life
- ♦ Hydraulic cylinders made of seamless hone tubes & hard chrome plated rod. Latest technology PTFE seals with bronze guide tapes in hydraulic cylinders ensure long life.
- ♦ Open Throat welded Structure

These presses are designed for various applications like straightening, trimming, Punching & stamping applications. Its unique design offers the flexibility & ease of operation as three sides are open.

APPLICATIONS

- ♦ Hole, capsule & Square Punching in various sections & plates
- ♦ Various embossing shapes in sheet metal
- ♦ Straightening of round bar, I-beam & plates
- ♦ Punching & cutouts in panel enclosure & busbar



- ♦ Bending of sheet metal and plates
- ♦ Forming of different shapes in sheets & plates
- ♦ Blanking, Trimming, Punching & Stamping Applications in plates

HYDRAULIC H-FRAME PRESS

RANGE | 50 Tons to 2000 Tons

SALIENT FEATURES

- ♦ Customized Indigenous robust FE Analysed structure design
- ♦ H Frame presses are designed to take heavy loads
- ♦ Heavy adjustable dovetail guides are capable of taking Axial and side thrusts
- ♦ Suitable for long forming jobs due to rigid close frame structure
- ♦ The cylinder is self guided and outer cylindrical guide arrangements are specially designed to suit the operation requirement for longer life.
- ♦ Optional multiple speed for approach, pressing & return strokes saves cycle time.
- ♦ International quality hydraulic & electrical components to ensure long service life
- ♦ Hydraulic cylinders made of seamless hone tubes & hard chrome plated rod. Latest technology PTFE seals with bronze guide tapes in hydraulic cylinders ensure long life.

These presses are designed for various applications like blanking, trimming & Punching applications. It's unique H Frame design allows to take heavy loads at minimum deformation.



APPLICATIONS

- ♦ Forming of various automobile parts
- ♦ Various embossing shapes in sheet metal
- ♦ Straightening of I-beam and plates
- ♦ Dish end forming
- ♦ Forming of different shapes in sheets & plates
- ♦ Blanking, Trimming & Punching Applications



HYDRAULIC SERVO PRESS

RANGE | 50 Tons to 300 Tons

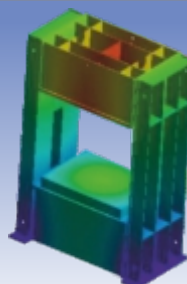
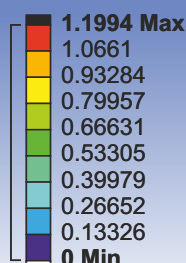
SALIENT FEATURES

- ♦ Customized Indigenous robust FE Analysed structure design
- ♦ Available in H Type, C Type & Pillar Type Design
- ♦ Specially designed Positive locked load bearing structure for longer life
- ♦ High-Speed Ram movements ensure Higher productivity & lesser cycle time
- ♦ Energy Efficient - Reduce power consumption up to 60% in different operating of condition
- ♦ High positioning accuracy & repeatability
- ♦ High up & down Ram speed up to 180mm/sec, Drawing speed up to 20 mm/sec
- ♦ Microprocessor based PLC based controller with on screen controls of functions and productivity reports
- ♦ Silent & smooth machine operation with Very low noise level
- ♦ The frame is machined on FLOOR BORING MACHINE ensuring single reference accurate machining
- ♦ Stable hydraulic oil temperature ensures consistent accuracy
- ♦ Detachable bolster design
- ♦ Illuminated working area



FEA FINITE ELEMENT ANALYSIS

C:Static Structural
Total Deformation
Type: Total Deformation
Unit: mm
Time: 1
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We carry out Finite element analysis for all customised / standard Press structures with in house design studio.

FEA is a computerized analysis & stimulation of structure under load to ensure stability & Rigidity.



FLOOR BORING MACHINE



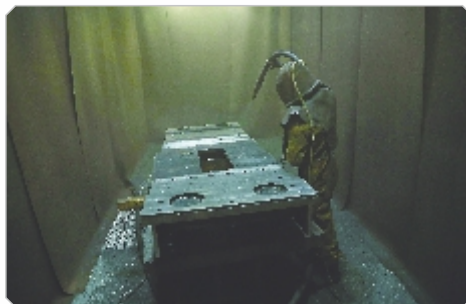
CNC TURNING & VERTICAL MILLING CENTRE



DOUBLE COLUMN VERTICAL MACHINING CENTRE



CNC PLASMA CUTTING



SHOT BLASTING UNIT



PAINT BOOTH UNIT



ENERGYMISSION
MACHINERIES (INDIA) LIMITED

REGISTER OFFICE & FACTORY

E-9/3 & E-12, Bol GIDC, Sanand-II Industrial Area, Ta. Sanand,
Dis. Ahmedabad - 382170, Gujarat - India.

DOMESTIC : +91 70690 02878 | info@energymission.com
INTERNATIONAL : +91 89800 10114 | export@energymission.com