One Stop Solution For
HYDRAULIC PRESS
& SPM MACHINE
Manufacturers in INDIA

ISO 9001:2018 CERTIFIED COMPANY

BUILDING YOUR FUTURE WITH MHPL PRODUCTS
100% QUALITY ASSURANCE..

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The **Micro Hydrotechnic Pvt Ltd** Company is Started by a Young Dynamic Technocrat with a vision of Manufacturing High Precision Hydraulic Press Machines in India

Micro Brand is a Trusted name in the Manufacturing of Customized Hydraulic Presses solutions conventional and servo Motors and Servo Hydraulic Presses from 10 Ton to 20,000 Tons, with sui – Generis Designs for the Variety of Industry Applications

with a Highly Skilled and Expert Team, we are able to deliver the Sui- Generis Solutions to our Customers, which no other Manufacturer can deliver. We work with Customers with Proximity from The Inception of Project to the post After Sale Service Activities. with Decades of experience and continuous improvement, Micro has earned the reputation as one of the finest, most dependable press machinery companies in the world.

### DESIGN

We at MHPL Believe that the machine design should be sui- Generis. MHPL Design Team work work with sophisticated Equipments and Softwares to Achieve the world Class Designs. Our Project Success is due to diverse Engineering Knowledge, Engineering expertise, Recommended Machine design, Focus and Baseline Centric Method. Here we have a perfect amalgamation of people and Softwares.

- Solid Works
- Computer Aided Design (CAD)
- Finite Element Analysis (FEA)

### MISSION

The Mission of Micro is to Deliver the Best Hydraulic Press Technology solutions to OEM Globally at an Affordable Price and to create an Ethical and Healthy Environment for Country, Employees, Customers and Society.
In order to maintain the International standards., testing facilities are made available in-house only. All Components go through strict Quality Checking Parameters with High Precision Measuring Equipment's and on 3D CMM machine so that when final Machine is Assembled with these Components, our Customers get the Sui-Generis Performance of the Machine.

- Impeccable Planning
- Requirement Analysis
- Certified Performance
- Feedback
- Control
- Value for money
- Timely Delivery

Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirements

Our strengths

We have set five parameters that are also considered to be our strength and they are:

- Quality
- Timely delivery
- Prompt response
- Customer satisfaction
- Competitive price
- After sales services
Our corporate culture has been developed by many peoples and cultures, respecting each other, respecting women staff, and everybody is allowed to give suggestion. We motivate our employees by giving them freedom to take decision. We believe in working honestly with our employees, Business Partners, Government Institutions, Societies etc. and always encourage a corrupt free environment.

In order to meet the latest demands of our customers in this competitive world. We invest a lot in our Research & Development department so that new up-gradation can be done and we believe that this is the only way to counter the competition in this corporate world.
Cold forging Process is defined as forming or forging of a bulk material at room temperature with no initial heating of the preform or intermediate stages. Cold extrusion is a special type of forging process wherein the cold metal flows plastically under compressive forces into a variety of shapes.

Micro Design Team has indigenously designed and developed Semi Automatic and Fully Automatic Versions of The Hydraulic Cold Forging Press Ranging from 20 Tons to 10000 Tons. The Structures of these Machines are Rigid and conforming to the Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). and meeting Safety Norms as per CE / OSHA Requirement . with Proper Guiding Arrangement which assure the Accuracy of the Movement of Machine Beds.

Straightening is the Key requirement in Components of Auto Industry & General Industry, Components get deformed after being processed and the same has to be Straighten by removing the deformation in workpiece with respect to the requested tolerances.

Micro Team has indigenously designed and developed the Straightening Hydraulic Presses on customer request. These machines are having C frame types welded and precisely Machined Stress Relieved Fabricated Structures with extended Beds having a Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirements, and is put to use by both light engineering industries as well as the heavy engineering industries.

Gamut of these semi Automatic and Automatic Straightening Machines is from 20 Tons to 1000 Tons.
The Challenge of Making the Large parts in the Automobile Industry the Solutions such as SMC – Sheet Moulding Compound and BMC – Bulk Moulding Compound are used regularly. The excellent part reproducibility, it is cost effective as low labor requirements per production level is very good and industry scrap is reduced substantially. These compounds are Moulded at High temperature and High Pressure so that a Final Shape of the Component has been made with high Geometrical Accuracies.

Micro has indigenously designed and developed SMC / BMC Hydraulic Presses of Capacity 20 Tons to 2000 Tons, where the Above Components can be Moulded.

These Presses comes in H – Frame Construction and in Pillar Construction, with Geometrical Tolerances as per JIS b 6403: 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). and meeting Safety Norms as per CE / OSHA Requirement, with Proper Guiding Arrangement which assure the Accuracy of the Movement of Machine Beds.

Due to the Growing Demands of Components in Automobile Industry, Powder Metallurgy is Rapidly Growing Technology of making components within Ferrous and Non Ferrous Material, Enormous Variety of Component Shapes can be Formed in which the Machining is almost Negligible.

To Manufacture the Components Micro Technical Team indigenously designed and developed Precision Hydraulic Press of Tonnage from 25 Ton to 1500 Ton. These High Precision Machines are in Pillar Type Construction Conforming to the Geometrical Tolerances as per JIS b 6403: 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirement, with Proper Pillar Guiding Arrangement and Automatic Lubrication System which assure the Accuracy of the Movement of Machine Beds in Microns.
TRIMMING HYDRAULIC PRESS

The Trimming Presses are used for demurring the flashes in castings of Aluminum, Magnesium and Zinc as shown in Images, which are casted from High Pressure Die Casting Machine (HPDC) and Gravity Die Casting Machine. As it is not Practical to Machine the Flashes therefor to debur the Flashes Micro Has Designed and Developed a Hydraulic Trimming Press Machine Solution to Remove the Flashes.

These machines are in Pillar type Construction, having a Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirements

We have indigenously designed and developed a standard Gamut of Trimming Hydraulic press Solutions from a Range of 20 Ton to 150 Ton

SWAGING MACHINE

The Hydraulic Swaging Machine is put to use when the clients want to reduce the diameter of the solid rod or the pipe to a particular length. We manufacture different types of Hydraulic Swaging Machine to meet the requirement of our clients. With the help of this machine a pipe as well as rod, both can be swaged. When you are using our products, you will enjoy certain advantages like:

- **Low wastage of raw material**
- **Absence of stress concentration**
- **Low Noise**
- **Temperature process is low**
- **High Productivity**
Compression moulding is the simplest and the economical methods to make a rubber product. This process is used for Small Volume of Productions. In This Process Uncured Rubber is kept between the Heated Mould in which the rubber melts and Take the Shape of the cavity in the Mould

Micro Technical Team has Indigenously designed and developed Up – Stroking Rubber compression Hydraulic Presses from 10 ton to 1500 Tons with Multiple Station and Multiple Daylight with a Platen size range from 300 mm x 300 mm to 1500 mm x 1500 mm and Automatic Precise Temperature Control up to 300 Degree Celsius ( Customized Platen Size in Press is also manufactured as per customer Request ).

Transfer molding is typically used for thermoset materials and is slightly different from traditional compression molding. It is a combination of injection and compression molding process. In this process, the polymer is preheated in a holding chamber called the pot. A plunger / pot is then used to transfer the polymer from the pot into the closed heated mold, then compressed into desired shape

Micro Technical Team has Designed and Developed Up – Stroking Transfer Moulding Hydraulic press of Range from 20 Ton To 1500 Ton with Various Bed Sizes. for making the Products from Thermoset Material. These Machines are in Pillar Type Construction Conforming to the Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirement. with Proper Pillar Guiding Arrangement and Automatic Lubrication System which assure the Accuracy of the Movement of Machine Beds.
Laboratory Presses is required in many industries for checking the quality of the running compounds and used for the development of the new products.

Micro Technical Team has designed and developed up-stroking and down-stroking laboratory presses as per customer request for rubber industry, plastic industry, etc. Micro brand presses are very precise machines and come with conventional hydraulic system and servo hydraulic system.

These machines are in pillar type construction proper pillar guiding arrangement and automatic lubrication system which assure the accuracy of the movement of machine beds.

Speed, pressure, and temperature up to 500 degree Celsius, controlled cooling are controlled through touch screen on the panels. Integrated with industrial – PC with the machine so that entire process data can be recorded for analysis.

Micro Technical Team has designed and developed rubber bale cutting machine that is required in rubber industry for cutting of the rubber bales of various sizes. The machine comes manual control and push button control with relay logic. The hardened rollers are incorporated for the free movement of the bale. These machines are in H frame fabricated and the tonnage capacity is up to 100 Ton.
**DEEP DRAW HYDRAULIC PRESS**

Deep drawing is a compression-tension forming process according to DIN 8582. Micro Team has Indigenously Designed and Developed Micro Brand Double Acting Deep Draw Hydraulic Press from a range of 20 tons to 10,000 Tons, which is used for various applications such as Aluminum Cans, Steel Utensils, LPG Cylinders, Fire Extinguisher etc.

The Machine Frame is Rigid Fabricated and Precisely Machined, Conforming to the Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA Requirement.

With Proper GiB Guiding Arrangement which assure the Accuracy of the Movement of Machine Beds. Micro Deep Draw Hydraulic Press comes with Semi Automatic and Automatic Versions with Conventional Hydraulic System and with Servo Hydraulic System, with servo Hydraulic System we are Giving 40 – 50 Percent of Power Saving as Compared to Convention Hydraulic Systems. We can also Integrate Robots with the Machine from Pick and Place of the Components. Ancillary Equipment’s such as Tool Lubrication Devices, Conveyors can also be integrated on Customer Request. Other Features such as Pressure & Flow Control, Ejection Device, Lubrication System, Safety Guards, Foot Switch and Peripheral Equipment’s are Standard Scope of Supply.

**SCRAP BALING MACHINE**

Due to Expansion in Industry, To keep the Scrap generated through Turning, Chipping, Require Huge Space to Keep the Scrap in Factories, Scrap Yards, Ferrous smelting plants, Non-Ferrous Metal remolding Plants which is very costly. To Overcome the Situation Micro Technical Team has Indigenously Designed and Developed Scrap Baling Machines. The Loose Scrap (Turning Scrap, Wire, Cans, etc.) is Compressed inside the Baling Machines and after compaction for Getting Square or Cuboidal Shape.

Micro Team Has Developed Various Models of Double and Triple Acting Scrap Baling Press with Manual and PLC Controls conforming Safety Norms as per CE / OSHA Requirement.

Micro Brand Scrap Baling machine compress the bale to make a High Density bale of various sizes start from 8’ x 8” to 24” x 24”. These Machines has the capacity to Convert Looses Scrap of 8 – 20 Tons into bale in a Day. Other Features such as Pressure & Flow Control, Ejection Device, Lubrication System, Safety Guards, Foot Switch and Peripheral Equipment’s are Standard Scope of Supply.

Integration of Converyer System and Hooper System with Variable speed for Handling the Bail is on Customer Request.
Press brake, also known as a brake press, is a machine tool for bending sheet and plate material, most commonly sheet metal. It forms predetermined bends by clamping the workpiece between a matching punch and die. We are leading name in the field of manufacturing accurate and highly productive Hydraulic CNC press brake. Gamut of Tonnage from 40 Ton to 500 Ton.

Further, these Conventional Press Brakes are available in options of 2500 mm to 4000 mm with the structure stress relieved and accurately machined for achieving optimum rigidity.

**Standard Hydraulic Press Solutions**

MHPL make Standard Series Hydraulic Presses with Various Frame Types C-Frame, H-Frame and Pillar Type. Hydraulic Presses Range from 10 Ton to 1000 Ton.

Micro Team has an In depth Knowledge in Designing and Manufacturing of Special Purpose Machines exactly as per the customer Specifications. We have successfully Designed and commissioned variety of SPM for various Industry Applications. Some of the SPM Names are described hereunder.

- **Swaging Machine**
- **Castor Wheel Load testing Machine**
- **Bracket Machine**
Micro Team has an in-depth knowledge in designing and manufacturing of customized hydraulic systems exactly as per the customer specifications. We have successfully designed and commissioned variety of hydraulic systems with conventional and servo valves with slip-in cartridges and screw-in cartridges for many industry applications whose detail is described hereunder.

- Marine applications
- Wind turbine applications
- Rubber moulding
- Rubber compression moulding
- Hydraulic test benches
- Extrusion plants
- Dams
- Servo applications
- Mobile applications
- Tippers
- Shearing & press brakes
- Metal forming presses
- Waste compaction plant

Micro Team has designed and delivered hydraulic cylinders for various applications:

- Machine tool
- Wind turbine
- Dams
- Servo applications

MHP Brand Machines Conform to the Geometrical Tolerances as per JIS b 6403 : 1973 ‘Test code for performance and accuracy for hydraulic presses’ issued by Japanese Industrial Standard Committee (JIS). In addition, meeting Safety Norms as per CE / OSHA.
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