



HIMALAYA

www.himalayamachine.com



Measuring Years Through Expertise

For more than 40 years now, we, Himalaya Machinery Pvt. Ltd, (HMPL) – a heavy engineering company – have steadily worked our way to the top and are a leading brand to reckon with in India.

We are proficient manufacturer of Plate Bending Machines, Plate Straightening Machines, Plate Levelling Machines, Section Bending Machines and Special Purpose Machines like Panel Bending Machines, Shipyard and other Presses.

We operate out of an extensive manufacturing complex that spreads over a 16,000 square metres in a prime industrial zone at Vadodara that strategically allows us easy access to infrastructure facilities like transport, raw materials, skilled workforce, power supply etc.

More than 2500 machines in operation

3 + 2 year warranty

Excellent Customer Service Support (resident technicians across major Indian cities)

400+ repeat orders & growing rapidly

Very low maintenance cost, easy availability of spare-parts without age bar

Highest resale value of products

Simple to understand Hydraulic & Electrical systems & easy trouble shooting

Committed for customer services support

Hydraulic & Electromechanical options

Smaller diameter top roll for manufacturing of small diameter pipes

Accessories like side & central shell support available

First machine supplied before 40 years is still in operation & going strong

An operator friendly machine

PLC & CNC controls available



A Journey of Many Milestones

Our journey towards conquering higher peaks continues with each passing day, inspired by the need to be the best at all that we do, while keeping the faith of our stakeholders and clients intact, always.

We take pride in being producers of

Plate Bending Machine of 160 mm X 3000 mm

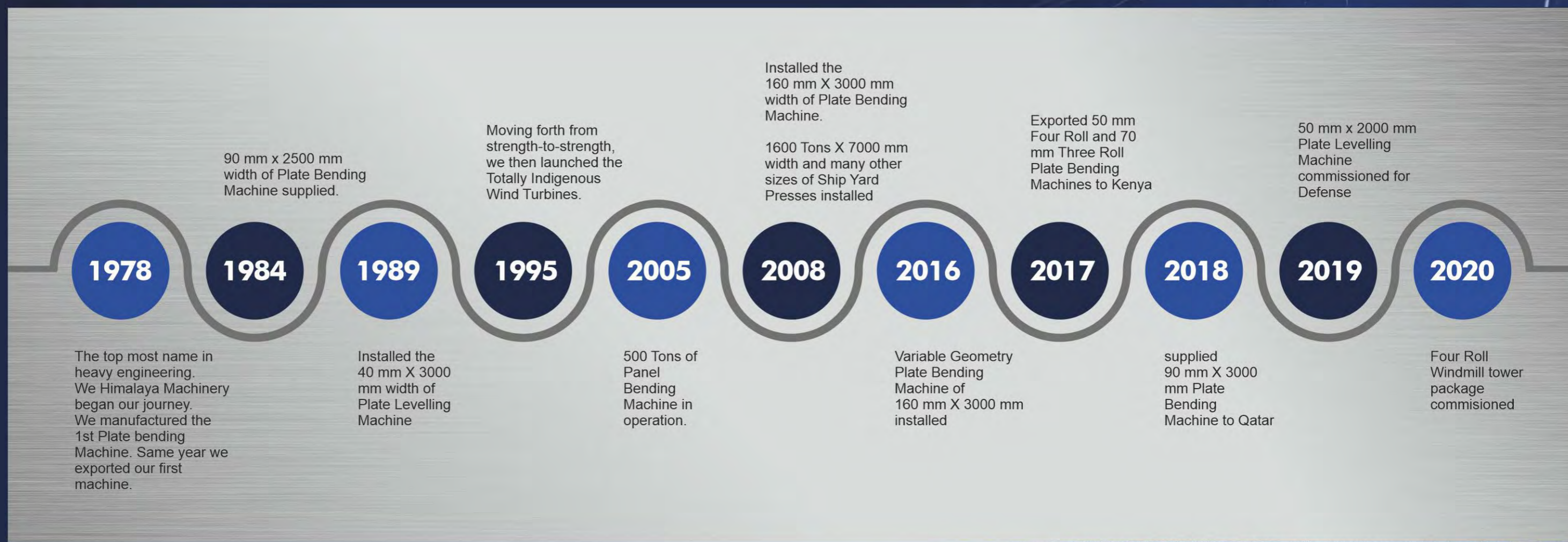
Plate Levelling Machine of 50 mm X 2000 mm for Defence

Plate Bending Machine of 80 mm X 5000 mm

Largest Plate Straightening Machine

Special Machine for Bending Rocket Shells

Totally Indigenous Wind Turbine



The timeline consists of a series of blue circles connected by a grey line, each representing a year and its corresponding milestone. The milestones are as follows:

- 1978**: The top most name in heavy engineering. We Himalaya Machinery began our journey. We manufactured the 1st Plate bending Machine. Same year we exported our first machine.
- 1984**: 90 mm x 2500 mm width of Plate Bending Machine supplied.
- 1989**: Installed the 40 mm X 3000 mm width of Plate Levelling Machine
- 1995**: Moving forth from strength-to-strength, we then launched the Totally Indigenous Wind Turbines.
- 2005**: 500 Tons of Panel Bending Machine in operation.
- 2008**: Installed the 160 mm X 3000 mm width of Plate Bending Machine. 1600 Tons X 7000 mm width and many other sizes of Ship Yard Presses installed
- 2016**: Variable Geometry Plate Bending Machine of 160 mm X 3000 mm installed
- 2017**: Exported 50 mm Four Roll and 70 mm Three Roll Plate Bending Machines to Kenya
- 2018**: supplied 90 mm X 3000 mm Plate Bending Machine to Qatar
- 2019**: 50 mm x 2000 mm Plate Levelling Machine commissioned for Defense
- 2020**: Four Roll Windmill tower package commissioned

Engineering New Benchmarks of Excellence

Excellence cannot be outsourced; it's an inherent quality that can only be nurtured within. We at Himalaya have been engineering excellence for four decades, creating state-of-the-art metal forming machines. We have also established our excellence across the various spheres of manufacturing.

Our well-equipped manufacturing set up includes:

- Assembly line
- Heavy and light machine shops
- Fabrication shop
- Heat Treatment facility
- Material testing Laboratory
- Quality Assurance system
- Testing facilities of Assemblies and Sub-Assemblies

We also have extensive material handling facilities.

We have a independent department of qualified engineers and technicians, which keeps a watchful lookout over all quality related matters.





**Powered by
People
Who Care**

At Himalaya, a promise made to you, is one we make to ourselves. Because for us it is not a one-time purchase, but an unsaid bond of trust with you for life. We have a dedicated team of engineers and technicians who lend excellent customer service support in shortest possible time.

A case in point - we're still providing spares and service support to our 1st Plate Bending Machine manufactured in late 70s.

Here Teamwork, Works!

Apart from the machines we have a team that has some of the finest engineers, technicians, quality assurance executives and other skilled and semi-skilled workforce. Their strong dedication and commitment has ensured our success and constant progress.

On our part we regularly undertake training initiatives for our employees to enhance their horizons and sharpen their skills.

Three Roll Plate Bending Machines

Our top-of-the-line Plate Bending Machines are designed for hassle-free usage and energy saving features; to ensure peace of mind and operational ease for plate bending jobs.

Machine Structure

- Coaxial planetary gear drive
- Complete overload protection
- Convenient centralized controls
- Push button operated swing arm for removal of shell
- This type of machine has linear guidance for the two bottom rolls. Its geometry has minimum distance between the bending points resulting into higher bending accuracy.
- Top roll remains fixed & bottom rolls move vertically (inclined). Two bottom rolls are power driven by planetary gearboxes with electric or hydraulic.

Performance

- Highest degree of edge-bending can be achieved
- Edge bending is possible for both ends before or after the rolling operation
- It can pre-pinch and roll the plate without removing the plate from the machine after first insertion
- Inclined movement of bottom rolls provides wider bending span as the plate thickness increases, and better grip for thinner plates

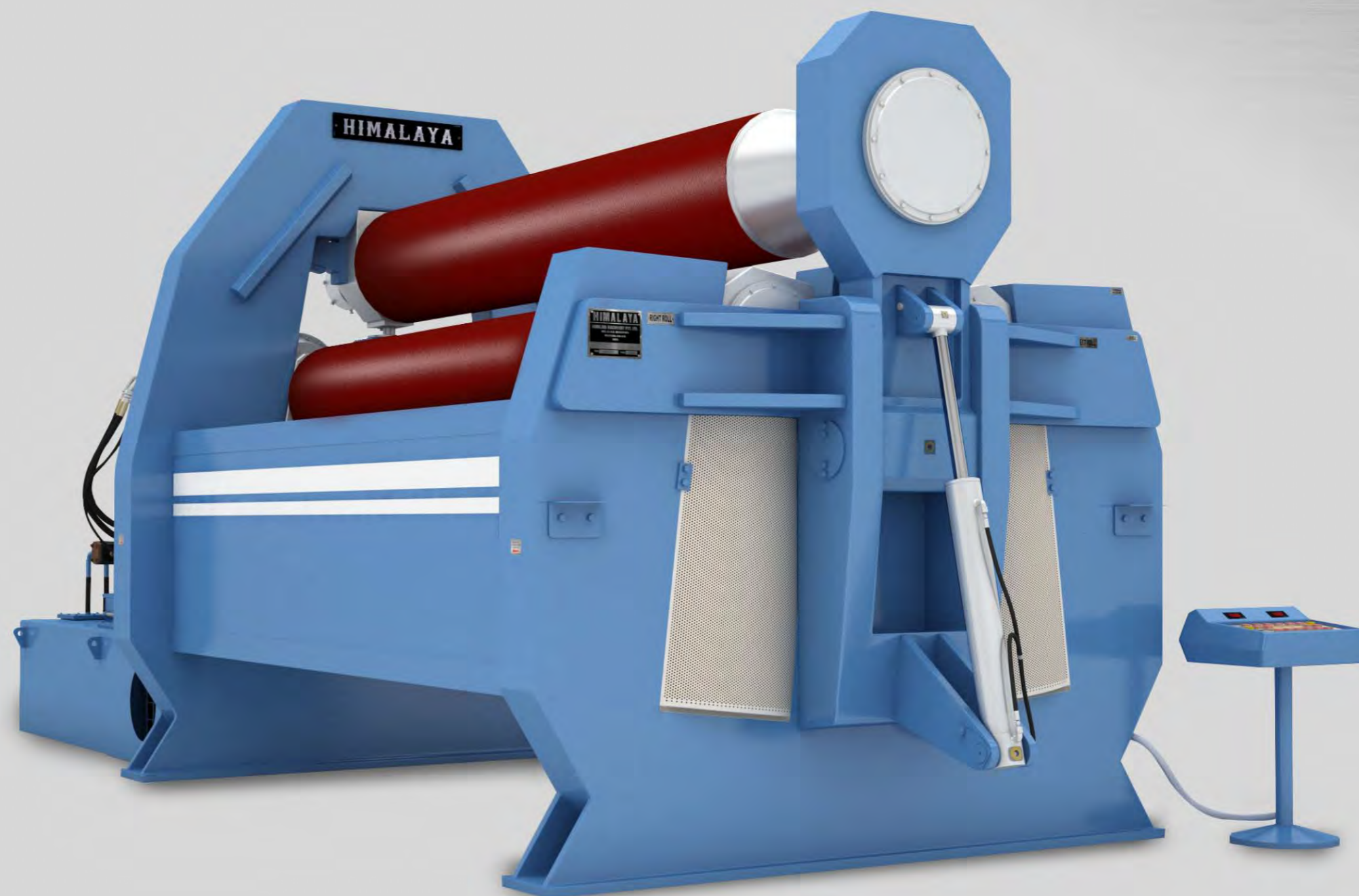
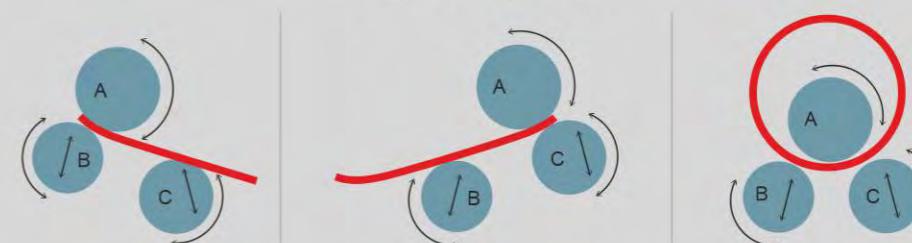


Plate Rolling Process



Three Roll Plate Bending Machines

Comfort and Peace of Mind

- Easy to understand hydraulic and electrical system reduces down time
- Spare parts have a long life, but if required are easily available
- In large machines, planetary gearboxes are driven by multiple hydraulic motors, ensuring a balanced torque transmission
- All 6 roll ends are automatically lubricated by a centralized timer control lubrication system
- Tropicalised oil cooling system ensures non stop working in Indian summers

Versatility

- Built-in cone bending without any extra attachment
- Many shapes like oil tankers and elliptical shells can be made
- Cone bending is an inherent feature of the machine that Himalaya offers without any extra cost. Many shapes like oil tankers and elliptical shells can be made
- Edge bending can be done before or after shell rolling, depending on operator skill and choice. Thin plates can be rolled and the edge bent in a single pass

Energy Saving

Energy saving is ensured in machines by a hydraulic system which can work at less than full capacity when jobs less than maximum thickness are rolled.



Facts on Edge - Bending

On any plate bending machine of the world if zero flat-end bending (pre-pinching) is achieved in front of us then we will pay double the amount of machine price to anyone who can achieve this.

Myth

Truth

Better Pre-bending is possible on 4 Roll	Pre-bending capacity is a matter of force and roll deflection. Depends on Top Roll Diameter and Nothing else.
Plate is Better Gripped on 4 Roll	Plate is gripped under hundreds of tons of force on any machine. There is no "better" or "worse" gripping.
Plate squaring is possible on 4 Roll	It can be done equally well on all machines. See Fig. 1 and 2. Better way is a simple attachment on the machine.
More skill is needed on 3 Roll machines	Once an operator is using a particular type of machine for some time, this becomes a personal opinion and habit.

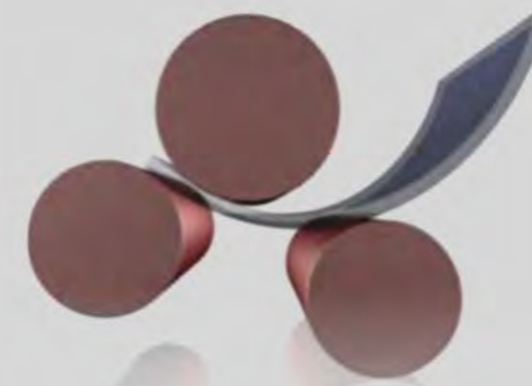


Figure 1

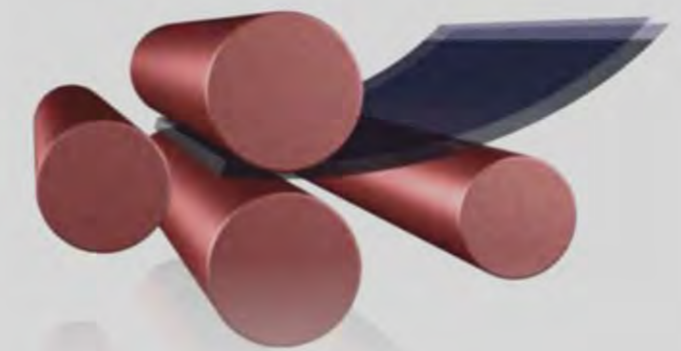


Figure 2

Advantages of Linear guideway design

Linear Guides HIMALAYA Type



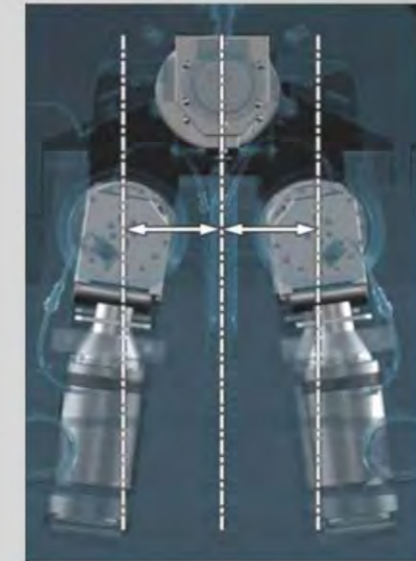
Bottom rolls are positively guided in the machine frame. Under load these guides prevent lateral movements of the rolls; hence, accuracy of resultant job is better than swing guide machine.

Linear Guides HIMALAYA Type



Bending force is directly transferred from cylinders to rolls. No linkages used. No wear and tear. Roll parallelism maintained over life of machine.

Very Reliable



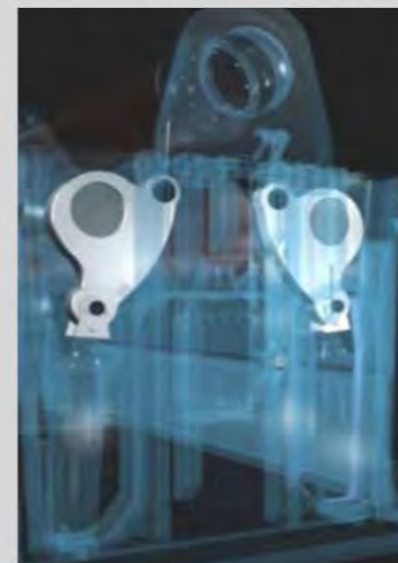
Axis of bottom rolls is closer to top roll. This gives minimum flat edges during prebending. The close spacing of bottom rolls improves circularity of shells.

Swing Guides Other Manufacturers



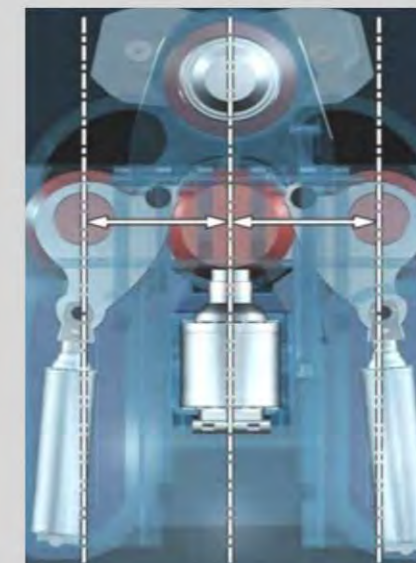
Bottom rolls are pivoted and they are not positively guided, so under load lateral movement of rolls occur, hence accuracy of resultant job suffers.

Swing Guides Other Manufacturers



Bending Force is transferred from cylinders to rolls using linkages having bushes at each end. Rolls parallelism is adversely affected.

Not Reliable



Axis of bottom rolls is away from top roll. This gives longer flat edges during prebending. The wider spacing of bottom rolls affects circularity of shells.

Four Roll Plate Bending Machines

Machine Structure

- These Plate Bending Machines have four rolls and liner guidance for the side rolls
- The top roll remains fixed, the bottom roll moves vertically, and the two side rolls move in liner guide way to form the shell
- The top and bottom rolls are power driven by planetary gearboxes with hydraulic motors
- Location of the bottom roll directly below the top roll ensures good grip on such jobs
- Thin plates need closely spaced rolls to avoid driving slippage
- Due to the high productivity of low thickness shells, the four roll machines prove to be an attractive investment for mass production of pipes and shells
- Over and above the cones, other non-circular shapes like oil tankers & elliptical shells can be made
- This type of roll configuration also facilitates CNC operation
- 20-30% higher investment for the same thickness capacity and span compared to similar three roll machine
- Ideal machine for high productivity when plate thickness is not very high

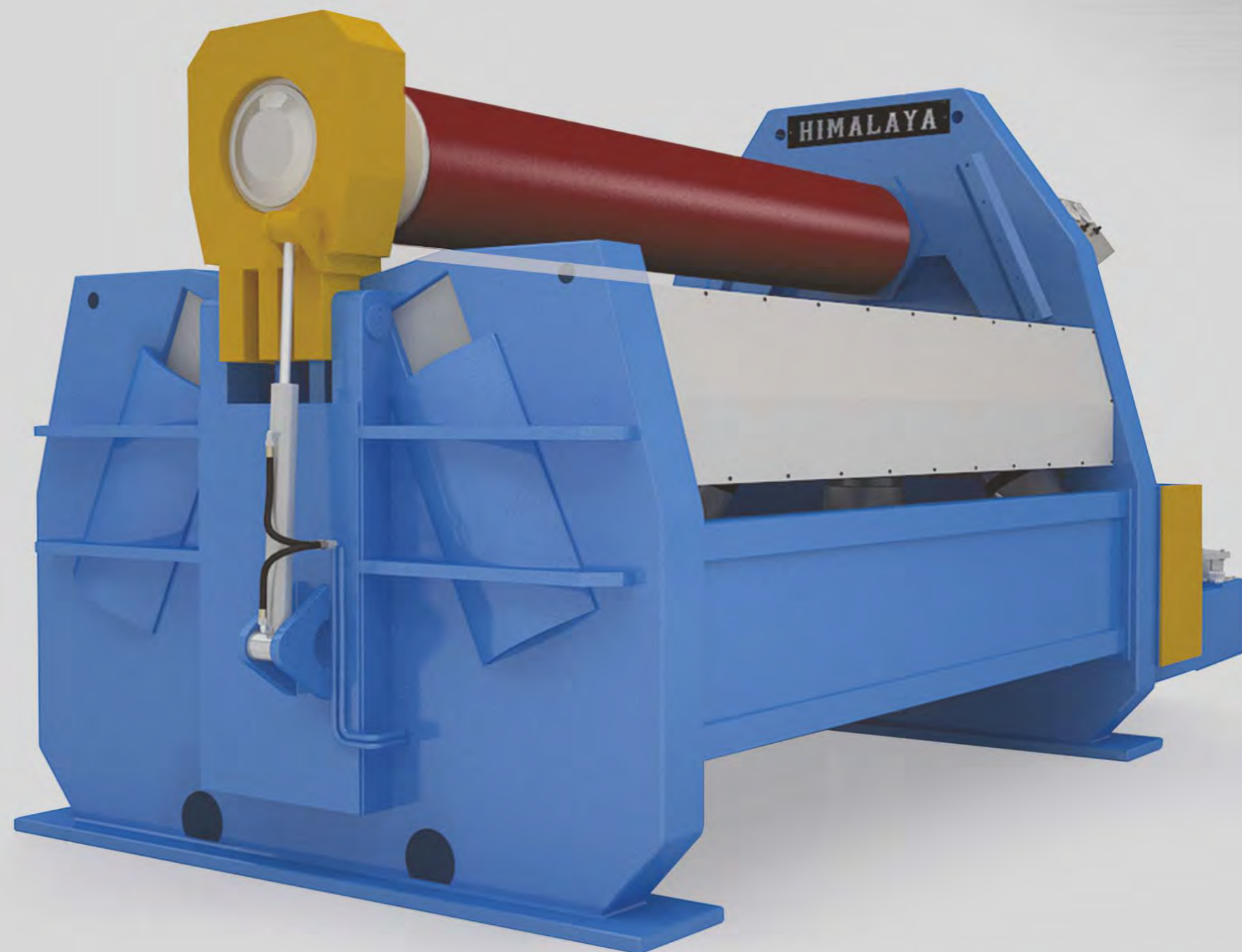
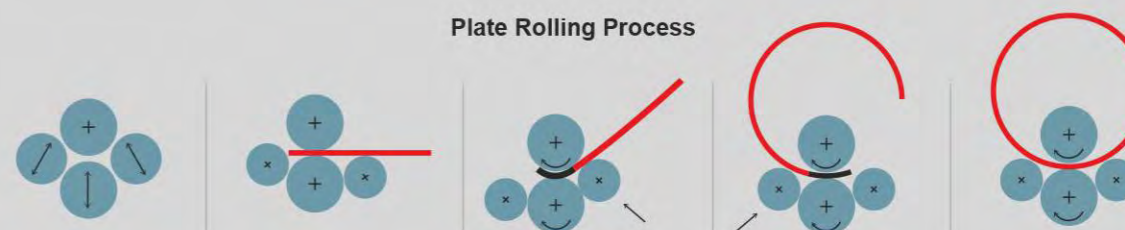


Plate Rolling Process



Variable Geometry Plate Bending Machines

Machine Structure

- Exceptionally high rolling capacity, due to variable bending span of the bottom rolls. The variable geometry machines prove to be the most attractive investment for heavy plate thickness (Above 100 mm)
- The two bottom rolls move horizontally, independent of each other and are rotated by integrated planetary gearboxes with hydraulic motor
- Thick plates need large bending span to reduce bending load, plate deformation and financial investment
- Quality edge bending requires un-symmetric placement of rolls
- The top roll moves up and down by hydraulic cylinders. Adjusting the distance between the bending points to an optimum value is ensured, by this construction
- The rolling capacity of such machines is almost double the edge bending capacity.
- An unbeatable synergy of edge bending precision along with remarkable increase of rolling power is the result of this unique geometry
- Ideal machine for heavy thickness plates



Plate Rolling Process

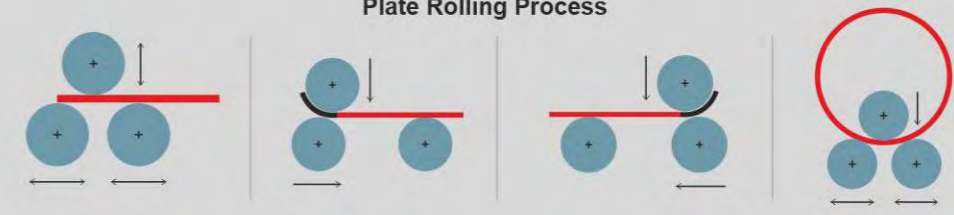


Plate Levelling Machines

Machine Structure

- Rigid structure designed to sustain the maximum separating forces generated during the levelling process

Leveller Rolls

- Made of alloy steel hardened to HRC 60 (approx.) and mounted in high grade antifriction bearings

Backup Rolls

- Designed to support the main rolls and sustain the forces created during levelling process
- They are made from alloy steel, hardened to HRC 54 (approx.) and ground lubrication
- The gear boxes of the drive are splash lubricated. The bearings of backup rolls are grease packed and provided with fittings for periodic re-lubrication

Applications

- Construction Equipment
- Locomotives
- Aero Space
- Ship Building

Accuracy

Will be within ± 0.5 to 0.2 mm per meter for the rated capacity range.

Available in 2 to 60 mm thickness in spans of 1000 to 5000 mm.



Plate Straightening Machines

Himalaya Plate straightening machines are extremely efficient, work with great accuracy & reliability, and are easy to operate and maintain.

Each straightening roll is crowned to compensate for deflection resulting into small diameter of straightening rolls, smallest possible distance between the straightening rolls, increased straightening range and best straightening results.

All rolls are mounted in high grade bronze bearings resulting into low drive power, low side pressure and low maintenance costs for the bearings.

Accuracy

Will be within ± 1 mm per meter for the rated capacity range.

Multiple roller-type machine for cold straightening of plates.

Available in 2 to 60 mm thickness in spans of 1000 to 5000 mm



Section Bending Machines

Our Section Bending Machines are engineered to offer a variety of functions. It can cold bend and coil pipes, tubes and most other sections like 'I' beams, 'H' beams, unequal angles, channels, half pipes, flats, solid bars etc. In addition, the machine can help you make circular rings of any diameter from any of these sections with perfection.



Model No.	SV 30	SV 50	SV 100	SV 150	SV 200	SV 300	SV 500
Pipe Sch. 40	2"	3"	4"	5"	6"	7"	8"
Angle	80x80x12	110x110x12	130x130x15	150x150x18	200x200x15	250x250x12 200x200x25	250x250x25
Double Channel on Web	ISMC -	ISMC 75	ISMC 100	ISMC 125	ISMC 150	ISMC 175	ISMC 250
Channel on Flange	ISMC 150	ISMC 225	ISMC 300	ISMC 400	ISMC	ISMC	ISMC
Beam on Flange	175 ISMB	225 ISMB	350 ISMB	450 ISMB	500 ISMB	550 ISMB	600 ISMB

Note: Minimum Radius of curvature = 25 x depth of section in bending plane

**Panel
bending
and
Shipyard
press**



50 mm x 3000 mm four roll plate bending machine with side shell support



160 mm x 3000 mm variable geometry plate bending machine commissioned at Phils Heavy Engineering, Mangalore

Clientele

Our customer list reads like a who is who of the Indian industry and includes:

PRIVATE SECTOR COMPANIES

- Larsen & Toubro Group
- Tata Group
- Birla Group
- Thermax
- Toshiba-Jindal
- Godrej & Boyce
- Walchandnagar Group
- GR Engineering
- Kirloskar Group
- Alfa-Laval
- Krupp India
- Elecon
- Voltas
- Crompton Group
- L&T E.C.C.
- Pipavav Shipyard
- Reliance Group
- Inox Group
- GB Engineering

PUBLIC SECTOR COMPANIES

- BARC
- BHEL
- BEML
- NTPC
- Tungabhadra Steel
- BrahMos Aerospace
- HMT
- Midhani

FERTILIZER PROJECTS

- GSFC
- GNFC
- Indo-Gulf Fertilizer
- R.C.F. Thal Project

WINDMILL TOWER

- Dhiman Industrial Fabricators And Designers
- Tool Fab Industries

More than 50 Plate Bending Machines in Operation in one Industrial Estate

STEEL

- Bhilai Steel Plant
- Alloy Steel Plant
- Visakhapatnam Steel Plant
- TISCO
- Mukund Iron

DEFENCE

- Hindustan Aeronautics Ltd.
- ISRO-VSSC
- Mazagon Dock Ltd.
- Ordnance Factory Project
- Ship Building Centre-Vizag

RAILWAYS

- Coach Workshops
- Rail Coach Factory
- Integral Coach Factory
- COFMOW
- CLW

Exports

International installations in Gulf countries, Russia, Africa, South East Asia etc.

Applications



Oil Tanks



Rocket Shells



Wind Turbines



Ship Hulls



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