



V-SERIES VARIABLE GEOMETRY PLATE BENDING MACHINE



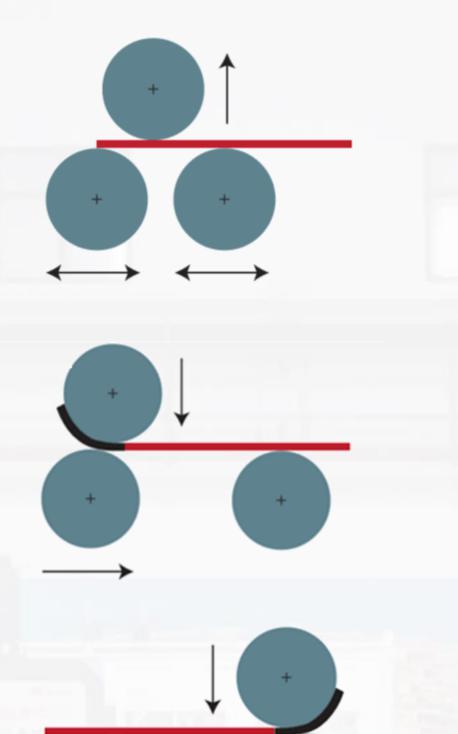
Standard Models

Model	Top Roll Size	Bottom Roll Size	Rolling	Pre-pinching
VMH/30/2	535	465	72	42
VAH/30/0	730	600	125	74
VSH/30/0	830	710	150	90



SUPERIORITY OF VARIABLE GEOMETRY DESIGN

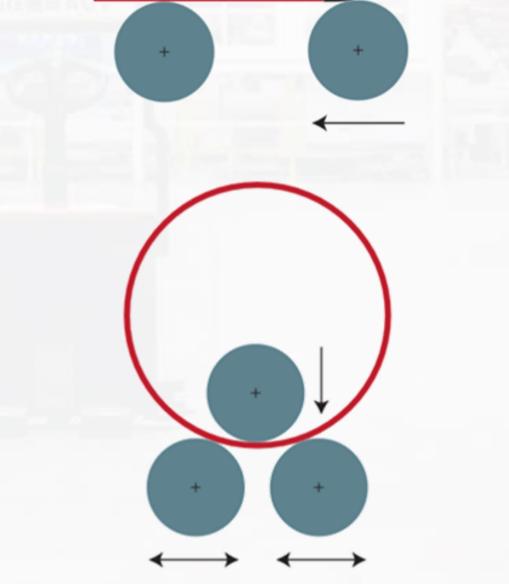
STAGE-WISE ROLLING (PLATE BENDING) PROCESS



Himalaya Variable Geometry machines deliver performance equivalent to that obtained with the more expensive 4-roll plate bending rolls and are therefore ideal for medium-to-heavy duty rolling.

Exceptionally high rolling capacity is achieved due to variable bending span of the bottom rolls. the rolling capacity can be 15-20 % higher than linear guideway and swing-guide designs of same top roll dia. machines.

The special configuration of this design provides for the plate bending rolls to move independently by hydraulic cylinders – the top roll moves vertically; the bottom rolls move horizontally – and are rotated by integrated planetary gearboxes with hydro-motors. This allows for optimal central distance between the bottom rolls and the distance between the bending points offering immense advantages.



For thin plates, the roll span can be drastically reduced, generating excellent traction, and avoiding driving slippage and spring-back. For thick plates, the bending span can be significantly increased thus reducing the bending load and plate deformation.

Additionally, bottom rolls can be moved independent to each other and can be placed asymmetrically to achieve high quality edge bending.

Another key benefit of horizontally moving bottom rolls is that the plates can be fed using a simple unpowered conveyor, saving costs.

The variable geometry machines deliver a multiple advantages to your fabrication infrastructure - a remarkably increased rolling capacity, reduced capital expenditure and lower ongoing operational costs. They prove to be the most attractive investment for heavy plate thickness (Above 80mm) applications.



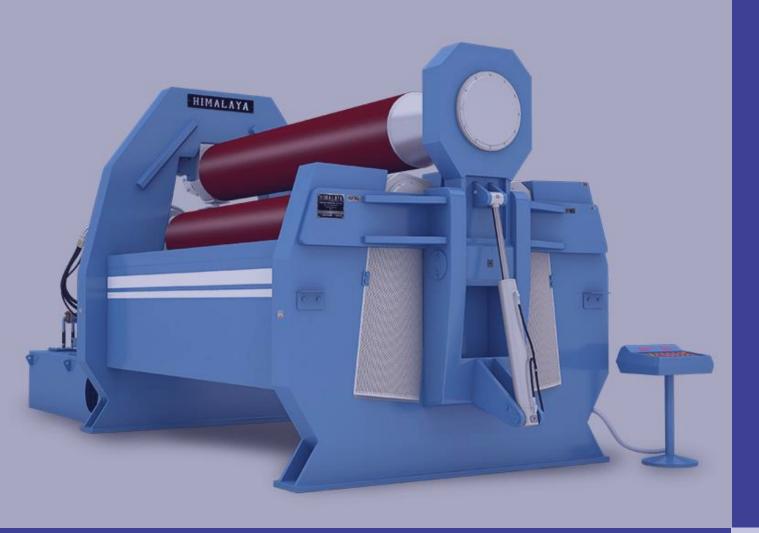
THE HIMALAYA ADVANTAGE

Extensive Manufacturing Complex

16,000 square meters of manufacturing facility in Vadodara, India's Engineering Hub that strategically allows us easy access to infrastructure facilities like transport, raw materials, skilled workforce, power supply etc.

40+ Years Of Excellence

Our manufacturing excellence is underpinned by continuous product development. We have been leading the industry since over 40 years in design, build quality, performance and value for money. All our designs have been developed in-house and are fully supported by us.





Over 2500 Machines In Operation

We have manufactured and commissioned over 2500 machines across India and overseas. The first machine we ever sold is still in operation and is proudly supported by us.

400+ Repeat Customers

We enjoy loyalty of over 400 delighted customers. Beyond excellent performance of our machines, they also enjoy our on-demand service and our ever-ready inventory of a full set of spares for all machines we manufacture.

3-Year Manufacturer's Warranty

We have immense confidence in our build quality, durability and performance of our machines. Hence we offer a 3-year manufacturer's warranty

Beyond that, we also offer an additional 2-year extended warranty at marginal costs.

This gives you tremendous peace of mind that you are in good hands.





BUILD QUALITY & BENEFITS

STURDY STEEL STRUCTURE

Himalaya machines have a robust steel structure made from heavy metal plates. The frames are connected to each other by a strong box design chassis. The frames have interlocks & strengthening ribs.

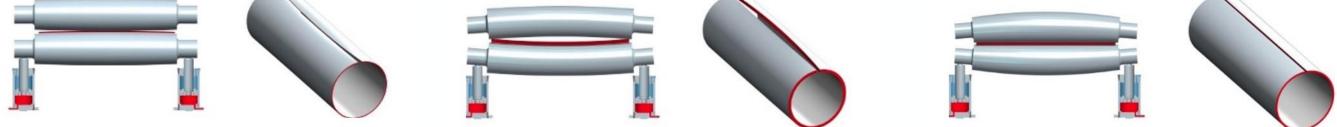


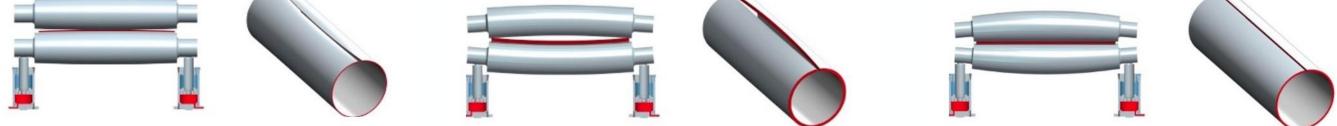
ROLLS

The rolls are the most important elements of our machines. Himalaya designs the rolls with optimal diameter and uses forged carbon steel rolls that are machined by high precision CNC lathes. Our rolls have a special spline-based design that is extremely efficient in connecting the rolls with the planetary gear system. This diminishes points of roll failure compared to welded connections provided by other manufacturers.

CROWNING













Our rolls are crowned to compensate for roll deflection during the bending process. Custom crown-machined rolls for different materials or thickness can be selected when ordering.

HYDRAULIC GEAR SYSTEM



Additional energy saving is ensured in our variable geometry machines by a hydraulic system which can work at less than full capacity when jobs less than maximum thickness are rolled. Twin speed operation also reduces the energy consumption up to 50% when slower operating speed is selected.

Himalaya Planetary driving system [™] used in our machines is efficient and eliminates energy wastage associated with heavytransmission systems and yet achieves the goal of speed reduction by increasing the stages in gears and pinions.



OPERATIONAL BENEFITS

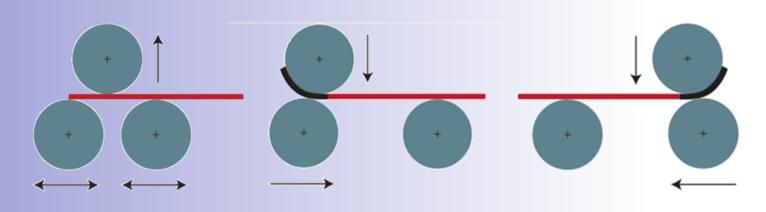
EASY CONE BENDING



The cone bending process with the V series is simple. As the bottom rolls move horizontally, plate feeding is highly convenient. Only the Top roll needs to be inclined to achieve cone bending geometry. This is controlled and monitored by electronic microprocessor (in case of PLC Machines). Our control system also ensures accuracy on repetitive jobs and easy return to parallel setting after cone bending.

PRE-PINCHING (PRE-BENDING)

The pre bending operation does not require the plate to tilt below the feeding level saving handling time. Edge bending can be done before or after shell rolling depending on operator skill and choice. Thin plates can be rolled and edge-bent in a single pass.



HIGH PRODUCTIVITY

Our machines are state-of-the-art in forming cylinders and cones.

They are easy to install, extremely user-friendly and convenient to service. Our machines are simple to learn and operate. They don't require extensive operator training due to simplistic design.

Spare parts are rarely needed due to robust construction and readily available with us.

Tropicalized oil cooling system ensures nonstop operations in hot working conditions.

Easy to understand hydraulic and electrical system reduce unwanted down time.

VERSATILITY

Other than cylinders and cones, other non-circular shapes like oil tankers and elliptical shells can be made using a PLC version. The machine can also be used as a heavy-duty press brake for other forming operations.

ECONOMY

Due to the exceptionally high rolling capacity, and a wide range of jobs that can accurately rolled, the V series machines prove to be the most attractive investment for any type of industry, regular production or a job shop. Due to a variety of accessories that are available to enhance the

machine capability, the investment is justified in more than one way. The energy saving features and negligible maintenance cost promise a low running cost also.



ADDITIONAL FEATURES

Alongside our excellent design and build quality, we provide the following additional features and accessories upon request from our client.

SURFACE-HARDENED ROLLS

Induction Hardened Rolls having Surface Hardness between 42 to 55 HRC for additional durability and longevity.

INTERCHANGEABLE TOP ROLLS

Interchangeable top rolls to add versatility to your large size machines for rolling small diameters shells. For e.g. interchangeable top roll of 350 mm diameter, on a machine having top roll of 470 mm diameter.



HARD CHROME PLATED ROLLS

Hard chrome plated rolls for special applications in Pharma and Dairy Industry.

CENTRAL & SIDE SHELL SUPPORTS

Central & side shell supports provide ease of operation, operational cost

saving and productivity while increasing safety of workers.



TILTING TABLE

Tilting tables for support while feeding plates at specific angles. Specially useful for plates of larger lengths.

CONVEYORS

Powered Conveyors that provide ease of plate feeding in case of longer plate lengths, improved machine performance and longevity.





PLC Controllers provide precision, ease of operation, while identifying needs for preventive maintenance to increase machine life and optimize productivity.





Unmatched capacity.

Superlative precision.

Optimal turnout.

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