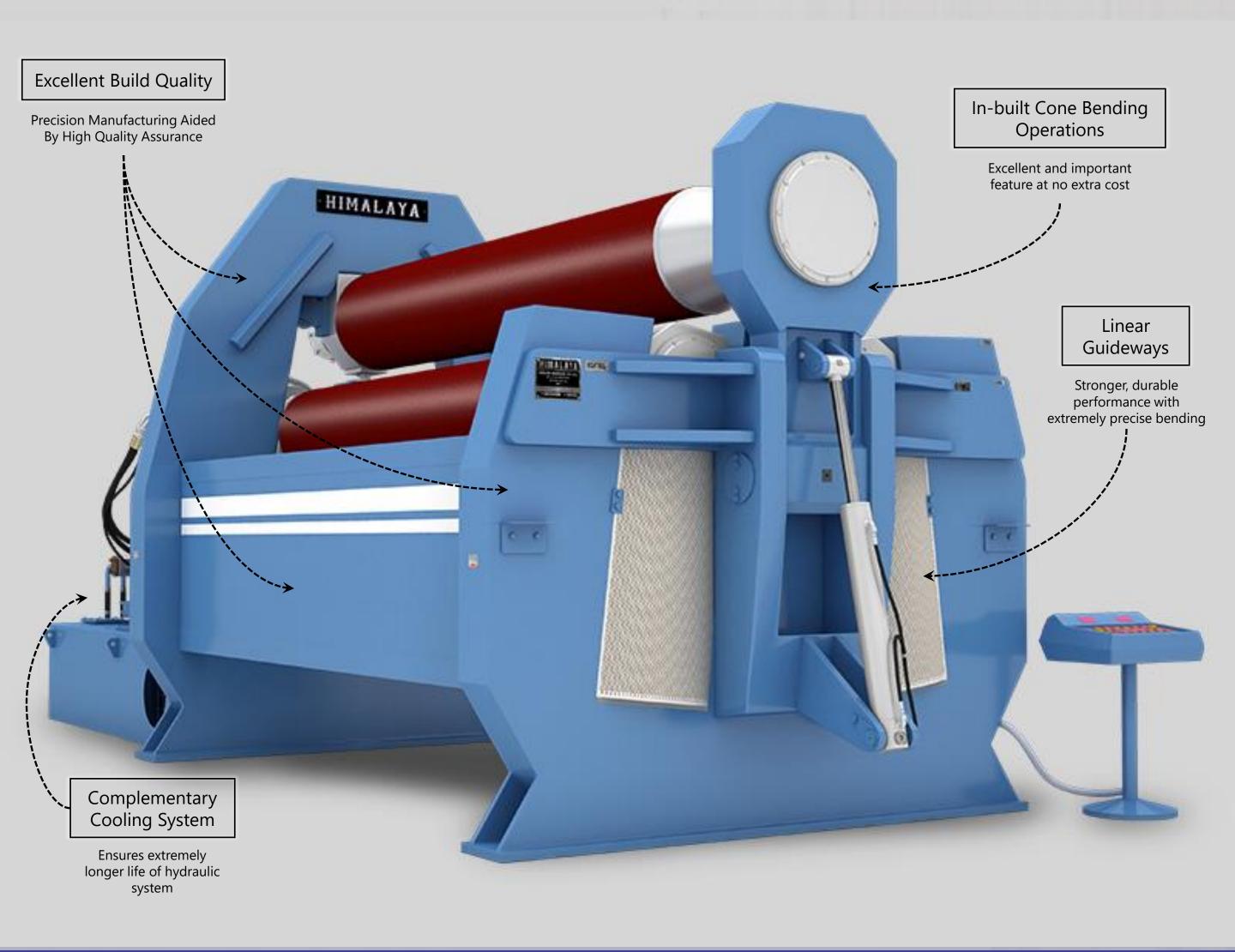




# K-SERIES THREE ROLL PLATE BENDING MACHINE



# 24 DIFFERENT MODELS

Supporting The Widest Range Of Applications

# **UNBEATABLE DESIGN**

Perfected Over 40+ Years Of
Design Excellence And Innovation

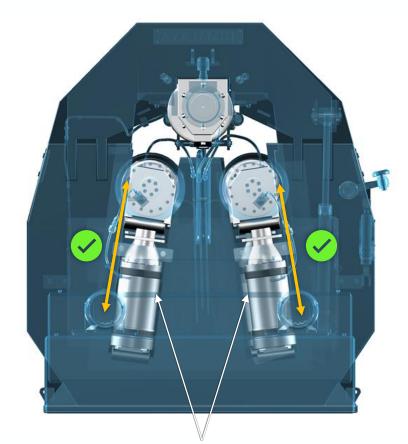
# HIMALAYA ASSURANCE

Underpinned By Experience
Of 2500+ Machines



# **ADVANTAGES** OF LINEAR GUIDEWAY DESIGN

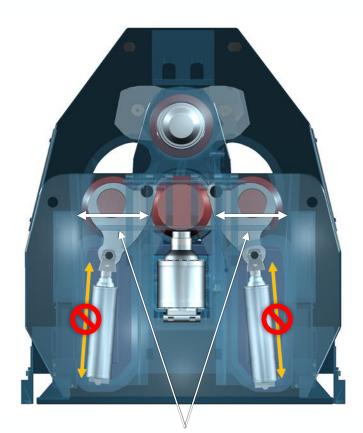
# ROLL MOVEMENT IN LINEAR GUIDEWAY DESIGN



#### **Positively Guided**

- ✓ No Lateral Movement
- ✓ Direct Force Transfer
- ✓ Reduced Wear & Tear

# ROLL MOVEMENT IN SWING ARM DESIGN



**Not Positively Guided** 

- Force Transferred To Links

Himalaya's Linear Guided Machines deliver at par performance and flexibility at much lower costs compared to the more expensive 4-roll plate bending machines. They are also extremely durable and accurate compared to swing guide machines and are therefore ideal for medium-to-heavy duty rolling.

The bottom rolls in our linear guideway machines, are **positively guided** in the machine frames. The axis of bottom rolls is closer to the top roll. The close spacing between top roll and bottom rolls improves circularity of the rolled shell. Hence accuracy of resultant job is better than swing guide or variable geometry machines.

Our design ensures that the bending forces are directly transferred from cylinders to rolls, as no linkages are involved in our design. Hence, there is no wear and tear of the guideways and roll parallelism is maintained. Compared to this, the swing-guide design transfers the load to the links on which the rolls are hinged which are weakest part of the joint and can result into increased chances of fatigue and failure.

The front and back frames of our machines are cut and machined together as a single piece. This leads to an extremely accurate alignment of the guideways in which the bottom rolls move. This results in excellent precision of roll movement and superlative bending quality.

Himalaya's linear guided machines deliver a multi-fold advantage to your fabrication infrastructure - a remarkably efficient and lasting performance, an unbeatable edge bending precision, reduced capital expenditure, and lower ongoing operational and maintenance costs.



# 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.



# HIMALAYA

# 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.

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





# K-SERIES PRODUCT RANGE

All Sizes in mm

					All Sizes in mm
Model	Width	Top Roll Size	<b>Bottom Roll Size</b>	Rolling	Pre-pinching
FULLY ELECTRO-MECHANICAL MACHINES					
PCE/25	2500	230	210	13	10
PEE/25	2500	275	250	18	13
PCE/30	3000	230	210	10	6.5
PEE/30	3000	275	250	14	11
FULLY HYDRAULIC MACHINES					
KGH/25	2500	335	290	25	19
KHH/25	2500	365	325	30	26
KJH/25	2500	410	360	36	28
KKH/25	2500	430	390	40	35
KLH/25	2500	470	425	56	44
KMH/25	2500	540	460	65	48
PNH/25	2500	570	510	75	56
PPH/25	2500	640	560	85	60
KGH/30	3000	335	290	20	15
KHH/30	3000	365	325	25	19
KJH/30	3000	410	360	32	24
KKH/30	3000	430	390	37	31
KLH/30	3000	470	425	50	37
KMH/30	3000	540	460	60	42
PNH/30	3000	570	510	70	48
PPH/30	3000	640	560	80	58
PQH/30	3000	680	600	90	74
PSH/30	3000	760	700	104	90
PTH/30	3000	830	760	130	-
PUH/30	3000	900	800	160	-

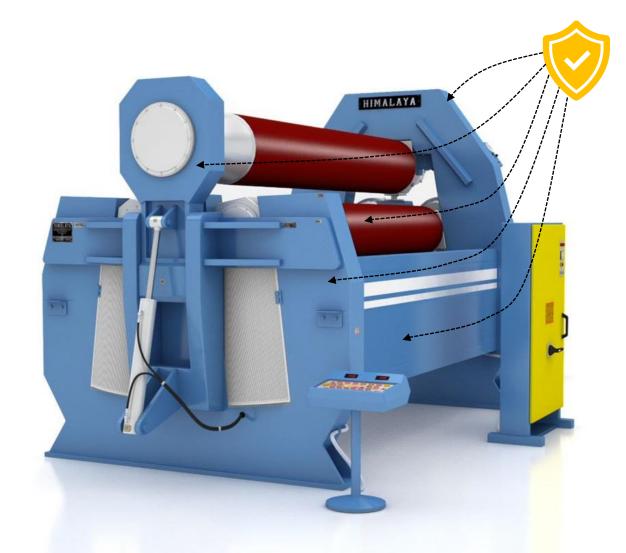
We offer machines with fixed as well as variable speeds according to your application and feed requirements.



# 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. The roll guideways are machined together utilizing a fixed single reference point which allows for parallelism of all axes and precise surfaces, as well as longevity and precision of the critical characteristics of the machine.

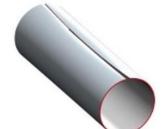


#### **ROLLS**

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.

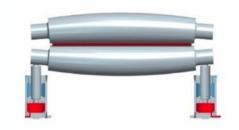
#### **CROWNING**













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 heavy-transmission systems and yet achieves the goal of speed reduction by increasing the stages in gears and pinions.



# **OPERATIONAL** BENEFITS

# **Easy Cone Bending**

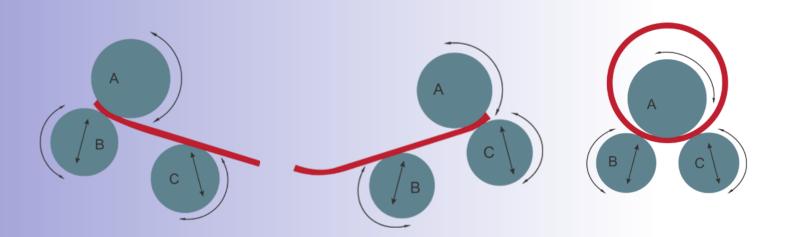


The cone bending process with the K series is simple. The bottom rolls need to be inclined to achieve cone bending geometry. This is controlled and monitored by electronic microprocessor (on some select models).

Our control system also ensures easy and accurate return to parallel setting after cone bending resulting into precision on repetitive jobs.

# Pre-Pinching (Pre-Bending)

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 non-stop 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 exceptional build quality, failure-resistant linear guideway design, high operational precision, and a wide range of jobs that can accurately rolled, the K 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 also promise a low running cost.



# 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** CONTROL

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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