BLMA-Plate Rolling Machine



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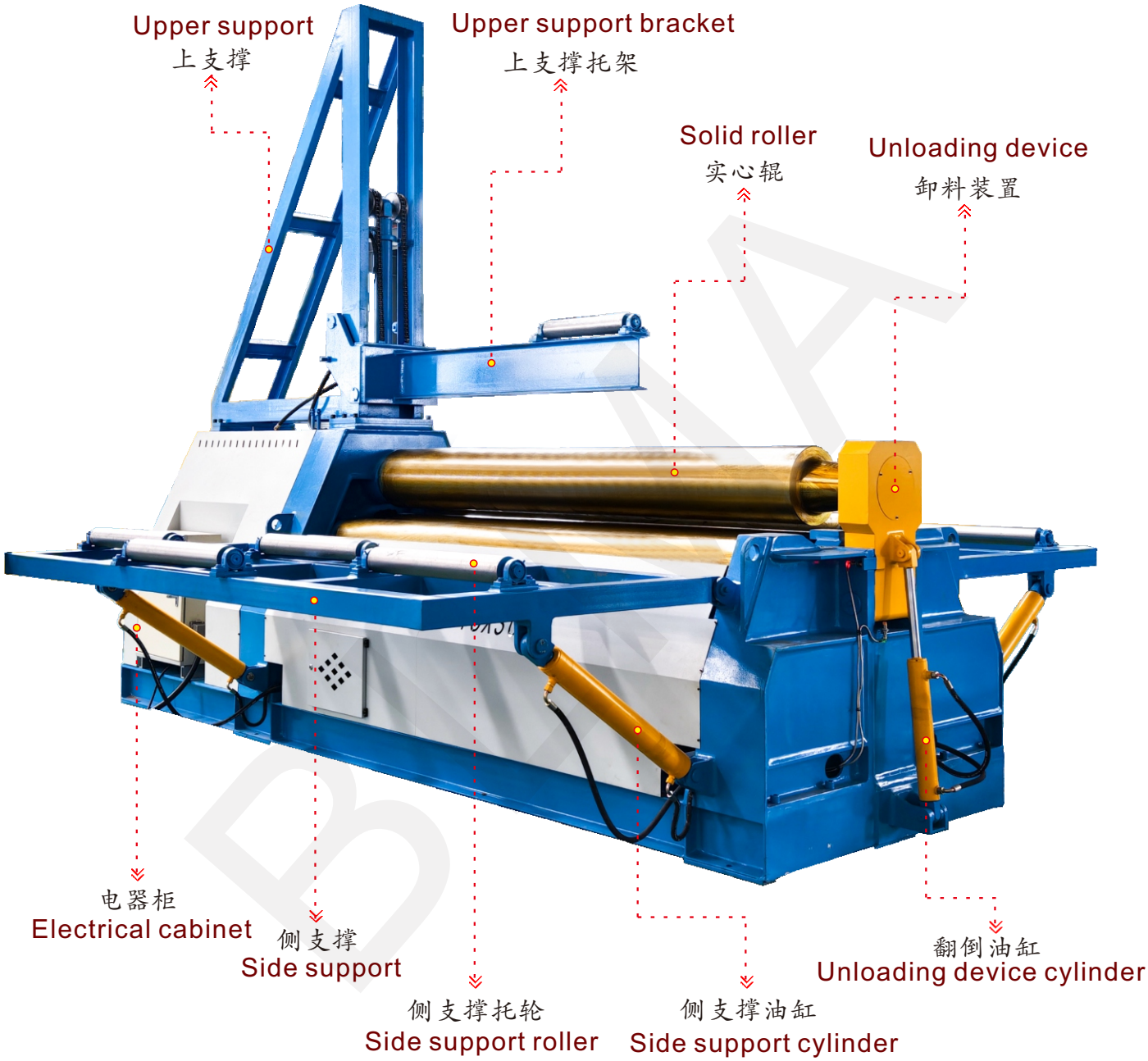


Features:

1. Easy and simple operation with various rolling methods.
2. CNC control with digital display of roller displacement, ensuring high rolling accuracy and good roundness.
3. Fully hydraulic drive, energy-efficient, with a driving power equivalent to only 60% of traditional machines.
4. One-pass rolling for cylindrical shapes, increasing production efficiency by 50%-80% compared to three-roll machines.
5. Convenient material handling, preventing edge misalignment.
6. Optional conical rolling device for easy production of conical shapes.
7. Permanent lubrication technology (no need to add lubricating oil during the bearing's lifespan).
8. The plate is always clamped between the upper and lower rollers during the rolling process, preventing slipping.
9. Capable of rolling cylindrical shapes with a diameter up to 1.1 times that of the upper roller; the straight edge length during plate pre-bending is smaller than other types of plate rolling machines.
10. Additional options for material handling devices, feeding systems, and support equipment.

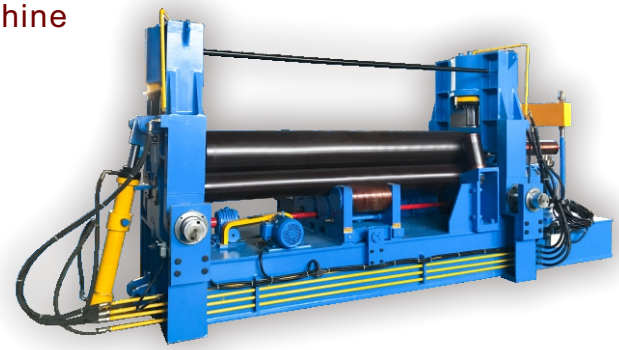


W12 4-rollers plate rolling machine

BLMA 4-roller Plate rolling machine represents the pinnacle of advanced technology for rolling metal sheets ranging from 1-20mm to 80-100mm in thickness. Designed for precision, ease of use, and efficiency, these 4-roll machines offer intuitive operation and can roll sheets at speeds of up to 6 meters per minute, as well with edge pre-bending.

W11S Upper Roller Universal Plate Rolling Machine

Plate rolling machine with universal upper roller is equipped with a powerful hydraulic system and three working rolls, ensuring uniform pressure across the entire length of the metal beam. This guarantees flawless bending results without compromising the material's integrity. The equipment is widely used in the production of ventilation components, drainage systems, cylindrical and conical parts.





W11 3-rollers mechanical plate rolling machine

BLMA 3-roller Plate rolling machines are characterized by their user-friendly operation and intuitive interface, making them exceptionally easy to use. The hardened rolls provide unmatched durability and a long service life, while the convenient side unloading system significantly boosts machine productivity.

W24S fully hydraulic profile bending machine

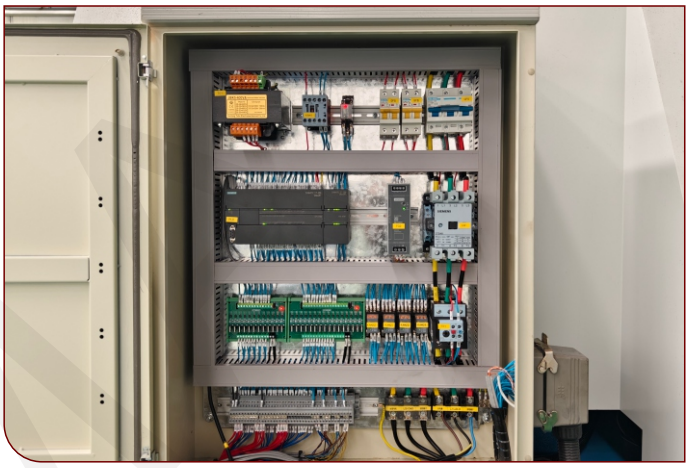
BLMA profile bending machines offer versatile operation with the ability to switch between horizontal and vertical configurations.
It is equipped with reliable overload protection in both the hydraulic and electrical systems, ensuring safe and efficient performance.
All rolls are powered by a hydro motor with a planetary or gear mechanism, delivering consistent operation.





CNC controller

Manages roller positions, speed, and pressure for accurate results. It offers real-time monitoring, automatic adjustments, and a user-friendly interface to enhance efficiency, safety, and productivity.



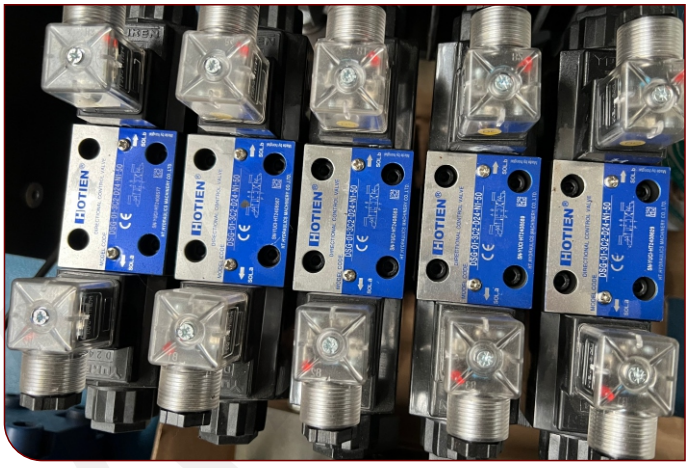
Electrical cabinet

Uses reliable branded components, with a user-friendly control panel, efficient wiring, and safety features. It ensures stable operation, easy maintenance, and long-lasting performance.



Hydraulic motor

The hydraulic motor is from a trusted brand, offering reliable performance, energy efficiency, and long-lasting durability. It provides smooth, quiet operation with no emissions, meeting eco-friendly standards.



Hydraulic valve

The valve offers precise control, fast response, and smooth operation. It's energy-efficient, low-maintenance, and reliable, with dust and water protection. It's easy to install and controlled by a PLC system.

Optional:

Siemens controller

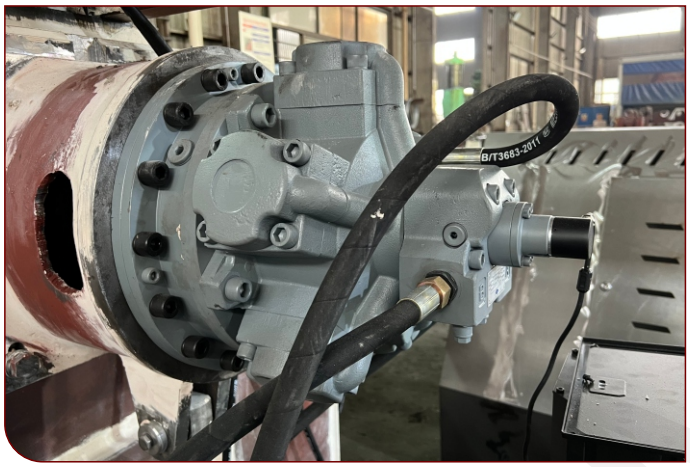


Upper support



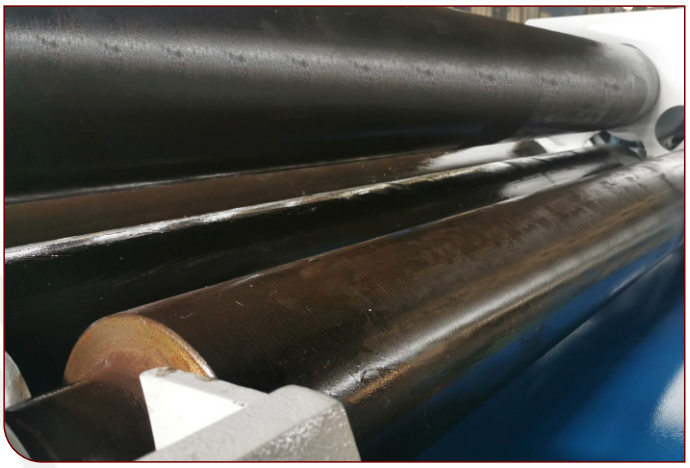
Side support





Single drive(Optional Double drive)

Single drive uses one power source for either the top or bottom roller, making it simple and suitable for small parts,
Double drive uses separate drives for both rollers, ensuring balanced tension and less deformation.
It's more precise and stable, ideal for large, heavy plates, but more costly and complex.



Rollers

The rollers are solid and precision-ground for high accuracy and durability. Their smooth, finely polished surface ensures even pressure distribution and consistent bending results, contributing to improved performance and longer lifespan.



Hydraulic cylinders

The hydraulic cylinders are made from high-quality materials, ensuring they work smoothly and efficiently. They provide steady power, making the machine easy to operate and helping it perform reliably over time.

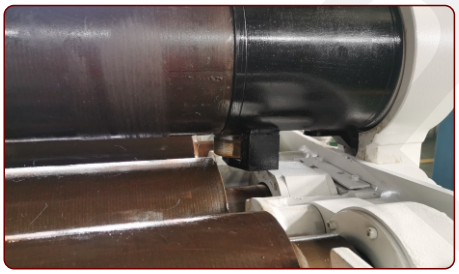


Unloading device

It is used to balance the upper roller during the unloading process. The device is operated by a hydraulic cylinder, which performs both the unloading and recovery functions.

Optional:

Cone bending device



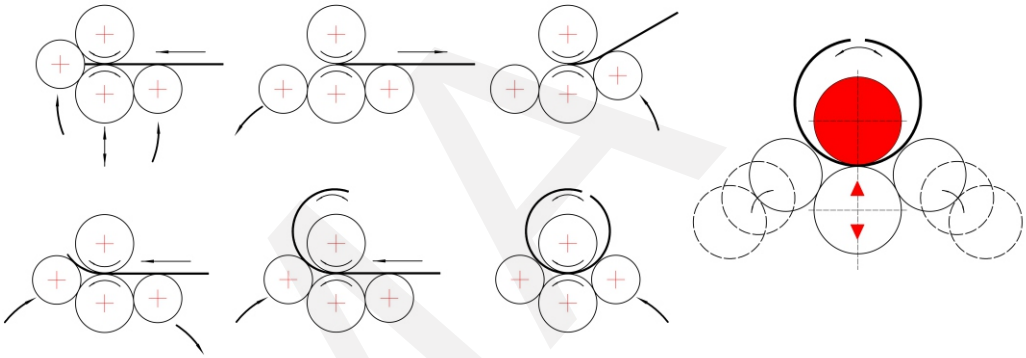
Main servo motor



Rubber roller



Working principle:



1.Initial Plate Positioning:

The metal plate is placed between the rollers, with the top (driven) roller above the two lower rollers. The plate is then fed through the gap between them.

2.Pre-bending (Initial Roll)

The plate is fed into the machine, where the bottom rollers pinch it in place. The top roller presses down to bend one end, creating the first curvature.

3.Roll Bending

After the initial curve, the machine starts the main rolling. The lower rollers apply pressure, and the upper roller controls the bend. The plate moves through the rollers, gradually achieving the desired shape.

4.Edge Bending (Pre-bending the Other Side)

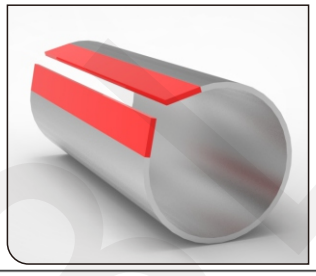
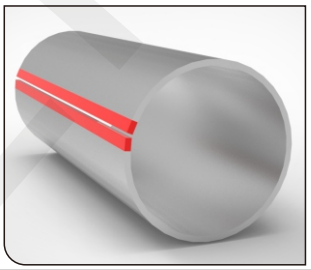
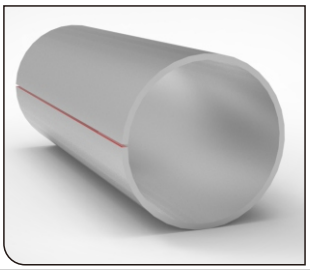
To complete the cylinder, the machine pre-bends the opposite edge. The plate is rotated and passed through the rollers again, ensuring both ends are bent evenly with no flat spots.

5.Final Bending

After both edges are pre-bent, the plate is rolled through the machine until it reaches the desired shape. The rollers apply pressure, gradually forming the plate into a cylinder or cone.

6.Shape Control

The bending process is controlled by adjusting the rollers' position, pressure, and speed, ensuring precise, uniform, and accurate bending.

Mode	W11	W11S	W12
Amount of rollers	3	3	4
Hydraulic/Mechanical	Mechanical	Hydraulic	Hydraulic
Pre-bending effect			
Productivity	50%	70%	100%
Wasting material	5%	2%	0%

W12 Hydraulics Plate Rolling Machine With 4 Rolls Technical Parameters								
Model	Max.Bending thickness(mm)	Pre-bending thickness(mm)	Max.Working length of rolls (mm)	Yield limit (Mpa)	Top roller diameter(mm)	Bottom roller diameter(mm)	Side roller diameter(mm)	Main power (Kw)
W12 -4X2000	4	3.5	2050	245	160	140	120	3
W12-6X2000	6	5	2050	245	190	170	150	4
W12-8X2000	8	6.5	2050	245	210	190	170	5.5
W12-10X2000	10	8	2050	245	230	210	190	7.5
W12-12X2000	12	10	2050	245	270	250	210	11
W12-16X2000	16	13	2050	245	300	270	220	11
W12-20X2000	20	16	2050	245	330	300	240	11
W12-25X2000	25	20	2050	245	360	330	250	15
W12-30X2000	30	25	2050	245	390	360	300	18.5
W12-35X2000	35	28	2050	245	430	390	330	22
W12-40X2000	40	32	2050	245	460	420	360	30
W12-45X2000	45	36	2050	245	510	460	390	37
W12-50X2000	50	40	2050	245	550	510	420	45
W12-4X2500	4	3.5	2550	245	190	170	150	4
W12-6X2500	6	5	2550	245	210	190	170	5.5
W12-8X2500	8	6.5	2550	245	230	210	190	7.5
W12-10X2500	10	8	2550	245	270	250	210	11
W12-12X2500	12	10	2550	245	300	270	220	11
W12-16X2500	16	13	2550	245	330	300	240	11
W12-20X2500	20	16	2550	245	360	330	250	15
W12-25X2500	25	20	2550	245	390	360	300	18.5
W12-30X2500	30	25	2550	245	430	390	330	22
W12-35X2500	35	28	2550	245	460	420	360	30
W12-40X2500	40	32	2550	245	510	460	390	37
W12-45X2500	45	36	2550	245	550	510	420	45

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Model	Max.Bending thickness(mm)	Pre-bending thickness(mm)	Max.Working length of rolls (mm)	Yield limit (Mpa)	Top roller diameter(mm)	Bottom roller diameter(mm)	Side roller diameter(mm)	Main power (Kw)
W12-4X3000	4	3.5	3100	245	210	190	170	5.5
W12-6X3000	6	5	3100	245	230	210	190	7.5
W12-8X3000	8	6.5	3100	245	270	250	210	11
W12-10X3000	10	8	3100	245	300	270	220	11
W12-12X3000	12	10	3100	245	330	300	240	11
W12-16X3000	16	13	3100	245	360	330	250	15
W12-20X3000	20	16	3100	245	390	360	300	18.5
W12-25X3000	25	20	3100	245	430	390	330	22
W12-30X3000	30	25	3100	245	460	420	360	30
W12-35X3000	35	28	3100	245	510	460	390	37
W12-40X3000	40	32	3100	245	550	510	420	45
W12-50X3000	50	40	3100	245	610	560	480	55
W12-60X3000	60	48	3100	245	670	620	520	75
W12-4X4000	4	3.5	4100	245	270	250	210	11
W12-6X4000	6	5	4100	245	300	270	220	11
W12-8X4000	8	6.5	4100	245	330	300	240	11
W12-10X4000	10	8	4100	245	360	330	250	15
W12-12X4000	12	10	4100	245	390	360	300	18.5
W12-16X4000	16	13	4100	245	430	390	330	22
W12-20X4000	20	16	4100	245	460	420	360	30
W12-25X4000	25	20	4100	245	510	460	390	37
W12-30X4000	30	25	4100	245	550	510	420	45
W12-35X4000	35	28	4100	245	610	560	480	55
W12-40X4000	40	32	4100	245	670	620	520	75



01

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100+ Patented solutions that transform the industry

02

03

Up to 36 months of warranty,and lifetime high-quality service

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