

Discover the Power and Precision

of WDM's 4-Roll Plate Bending Machines

When it comes to bending metal plates quickly, accurately, and with minimal flats, WDM's **4-roll bending machines stand out as a top choice for modern fabricators**. These workhorses are made with care in the USA and built to last. Whether you're producing tanks, ventilation systems, or other curved metal components, our advanced machines offer the **performance and efficiency** you need to get the job done right the first time.

What is a 4-Roll Machine?

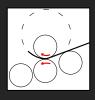
A 4-roll machine is a robust and powerful piece of industrial equipment designed to roll flat metal sheets into curved shapes like cylinders, cones, or custom forms. The "4-roll" name refers to its four rollers: Top, Pinch, and two Bending Rolls. This configuration enables the operator to roll the work-piece from the leading to the trailing edge in a single pass with minimal flats.

SEE HOW WE ROLL

How It Works...



The work-piece is entered into the machine and squared against the far bending roll. The pinch (center) roll is raised to grip the work-piece.



The rolls are rotated forward until the pre-bend is complete.



The far bending roll is lowered. Then the rolls are reversed until the leading edge of the work-piece nears the center of the rolls.



The near bending roll is lowered. The far bending roll is raised to the rolling position.



The near bending roll is raised to the pre-bend position.



The work-piece is rolled to completion.

Training on Site

Our location in eastern central United States puts us in close proximity to all major industrial regions in the eastern United States. **We have techs that can come to your location and provide training for your team.** Additionally, we can provide service and yearly PM's.

Our machines are designed using standardized components that are readily available from local supply houses or from our stock.

Quality Guarantee

At WDM, quality isn't just a feature—it's the foundation of everything we build. Each 4-roll plate bending machine is engineered and manufactured in the **USA** with precision craftsmanship, durable components, and strict quality control standards. From the raw materials to the final test run, every step is guided by our commitment to delivering machines that perform reliably, last longer, and exceed expectations. When you choose WDM, you're not just getting advanced forming technology—you're investing in a legacy of American-made quality trusted by fabricators nationwide.

403 Series

Versatile Precision for Everyday Bending

The 403 Series is WDM's flagship line of 4-roll plate bending machines, designed for everyday precision and dependable performance. Built with rugged construction and intuitive controls, these machines are ideal for rolling cylindrical parts quickly and accurately. With standard features like 1045 Carbon Steel Rolls, hydraulic drive systems, and operator-friendly controls, the 403 Series delivers exceptional

value and versatility making it a go-to choice for fabricators



404 Series

Electric Gear Motor Roll Drives for Demanding Applications

When your projects demand more muscle, the 404 Series steps up. Engineered for heavyduty plate rolling, this series is built to handle thicker materials and higher forming forces with ease. With a larger top roll diameter and powerful electric motors, the 404 Series is a reliable solution for

pressure vessels, large-diameter pipes, and heavy fabrication.



For more information, check out our website

430 Series

Precision and Automation for a Variety of Parts

The 430 Series is built for productivity. With our advanced "Passive Crown System" you never need to worry about deflection issues again, boosting your shop's speed and efficiency. This series is ideal for a shop that rolls a wide range of thicknesses – increasing versatility, precision, and speed. The 430 Series combines WDM's legendary build quality with modern control technology to keep your production moving efficiently.



4RR Series

Reinforced Strength for Tight Radii and Long Work-Pieces

WDM's Rigidized Rolls option enhances bending performance for long work-pieces and small-diameter applications. Designed with an extended frame with double bearings at both ends of the top roll, this configuration allows the top roll to be pre-loaded rigidizing the machine for increased strength and capacity. Ideal for demanding rolling jobs that require tighter radii without compromising accuracy, this upgrade is

giving fabricators more flexibility and control when handling challenging projects.





403 & 404 Standard Features

Shown with

attachment

optional cone

The 403 and 404 Series 4-Roll Plate Bending Machines are designed with efficiency, reliability, and operator convenience in mind. Each machine in the series comes equipped with a full range of standard features that set the benchmark for performance. Whether you're rolling simple cylinders or tackling complex shapes, the standard configuration of the 403 and 404 Series ensures smooth, accurate bending with minimal setup and maximum productivity.

Hydraulic Operated

Drop End Support

Hydraulic Driven Rolls (403 Series)

Electric Gear Motor Driven Rolls (404 Series)

Two Roll Drive

Variable frequency drive providing electronic overload protection and infinitely variable speed from 0-22 FPM

Electronics meet NFPA 79 specifications

Machine Sets Directly on the Level Floor

SKF Spherical Roller Bearings on All Main Bearings

Safety Trip Cable Around Perimeter of the Machine 1045 Carbon Steel Rolls Ability to roll symmetrical steel sections without additional attachments

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4R-AP Rolling
Console Control

Control Options

WDM offers multiple control options for its 4-roll plate bending machines to suit different production needs and budgets, ranging from manual to CNC automation.



BETA 4.2 – Manual Control

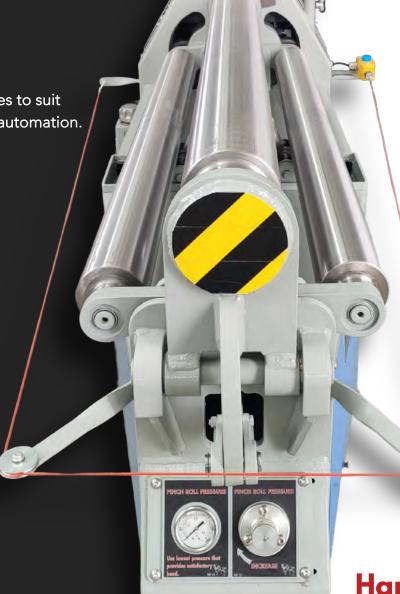
Included with Base Machine

- Free with machine.
- Basic manual operation shown with optional rotation readout.
- Recommended for small batch jobs or manual control environments.



PRE 4.2 - Preset Control

- Push buttons for rolls, drop end, emergency stop.
- Selector switches for trim and reroll.
- Digital readouts for roll positions.
- System speed dial.
- Suitable for job shops and part batches up to 10 pieces.



4-Roll Machine Additional Options

Cone Attachment

Tube with a snubber that slides over the top roll and makes it possible to roll conical sections.

Heavy Duty Cone Attachment

Built for thicker plates and larger cones, this upgraded attachment has a roller instead of a snubber with increased support.

Hardened Only Rolls

Flame-hardened to 55-60 RC, these rolls enhance durability and resistance to wear, ideal for working with abrasive materials or extended production runs.

Hardened & Polished Rolls

Combines wear resistance with a smooth, polished finish to reduce marking on sensitive or high-finish materials and aids in rolling cones.

Circular Grooves 3/8, 1/2, 5/8

Machined into the rolls to accommodate and guide round bar stock, ideal for rolling pipes or reinforcing rings.

Side Support

Supports that stabilizes the cylinder and keeps it from bending under its own weight. This addition is recommended when the diameter is more than 300X the thickness of material.

Overhead Support

Prevents the material from collapsing under its own weight when rolling thin material or to a larger diameter. It is also helpful to keep from double rolling as the leading edge comes around.

FS 2.2 – Dual Footswitch Option

- Footswitch with cycle start, pinch roll Up/Dn, or rotation Fwd/Rev controls.
- Compatible with all control types.
- Enhances operator convenience.

4R-AP - CNC Control

- Full automation with modes: Manual, Preset, Auto.
- Push buttons, joysticks, and selector switches for all functions.
- HMI interface to name parts, set modes, and view roll positions.
- 1,000-part memory for high-volume batch jobs (50+ pieces).
- Designed for maximum productivity with plug-and-play upgrades.



Have questions about accessories?

Our team is always ready to assist in your research and purchases.

Looking for Something Different?

Below is a summary of the additional roll configurations that we offer. Each model can come in a variety of sizes, and **we can custom build a roll to best suit your needs**. Check out the different models and see which is best for your company needs!

310 Series

The WDM 310 Series are an allelectric, initial pinch plate machine built primarily for the sheet metal industry and small maintenance shops.

101 Series

The WDM 101 Series is a pinch pyramid style roll making it a very versatile machine. It can roll square and rectangle tubing, channel, I-beam on flange, and fabricated panels without additional attachments.



K Series

The WDM K Series initial pinch plate bending machines are well designed, robust machines that feature a wedge actuated pinch roll positioning system, as well as a fully hydraulic operation.

PR Series

The WDM PR Series is an angle roll that can be equipped with changeable dies for rolling angle, pipe, tubing, channel, and I-beam. Perfect for production.



101 Series

AR Series

The WDM AR Series is an angle roll that can be equipped with changeable dies for rolling angle, pipe, tubing, channel, and I-beam.

Custom-Made

Not seeing the exact machine that your company needs? WDM offers specialty machines with custom modifications to fit your requirements.

Please contact us and we can help consult you in finding the best roll for your needs.

Scan the QR Code to reach our Contact Form!





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