

**" B Series"  
Initial Pinch Sheet  
Bending Rolls**

**Waldemar Design & Machine LLC**  
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January 2011

# B Series Machines

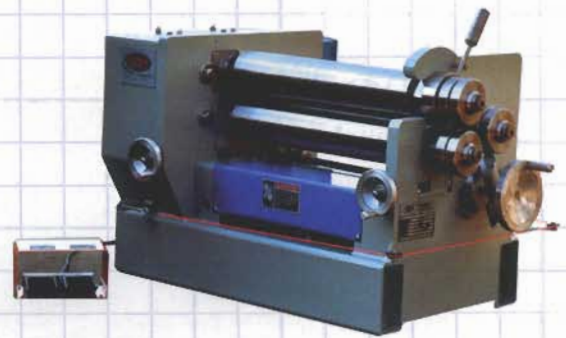
The WDM B Series machines are built primarily for the sheet metal industry and small maintenance shops. To keep their cost low, the basic machine has few extras, although it does have the main WDM features of robust fabricated steel frame and sealed spherical roller bearings on main rolls.

The drive system is of hydraulic design with instant start, stop, and reverse features. The bending roll can be angled for rolling tapered parts.

The machine is shipped complete and ready to run and only requires the application of power and topping off the hydraulic reservoir. The machine is then ready to produce accurate cylinders for you. There are many options you can add to enhance the machines. These include: special hardened and polished rolls, mechanical digital readouts, electrical digital readouts for roll position, special grooved rolls, starting grooves, bar and angle attachments, and many more. See pages 6 and 7.



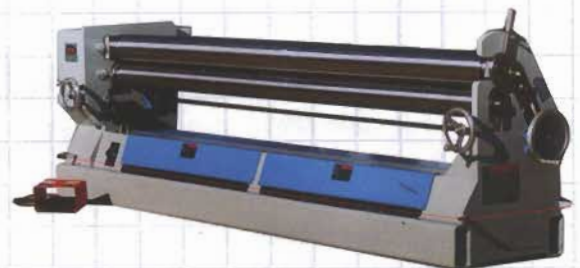
A group of B-5-60 (10 gauge x 5'), the flag ship of the B Series machines awaiting packaging and shipment.



GP-5-2 (3/8 x 24") with optional extended rolls, and bar and angle attachment. This is a compact machine designed specifically for the steel wheel industry. This machine could have many other uses.



B-6-48 (5/16 x 4') with no optional equipment.



B-6-96 (.140 x 8') with variable speed drive.



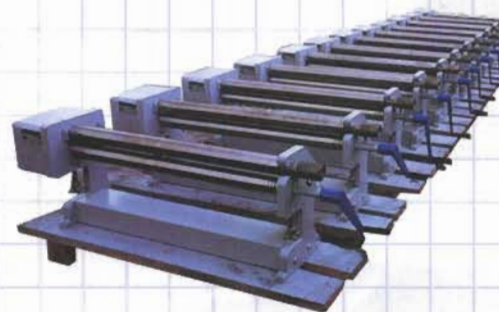
B-6-72 (7/32 x 6') with extended shafts, and bar and angle attachment.



B-5-96 (16 gauge x 8') with variable speed drive, electrical digital readout, and customer specified green paint.



B-1.5-16 power sheet roll (20 gauge x 16") used for filter and silencer manufacturers, model makers, labs, and similar applications.



Group of 2.5-36 manual sheet rolls used in maintenance shops and sheet metal trades.

### MADE IN THE USA

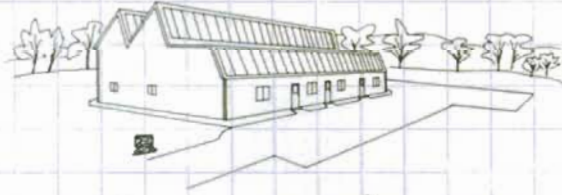
For two generations the family business of Waldemar Design and Machine has been designing and manufacturing metal forming machines for industry small and large. We build these machines in a simple setting exercising serious craftsmanship and integrity. Many of the high quality components are manufactured in our shops in Kentucky, USA, or purchased from domestic or worldwide suppliers. Special attention is paid to quality, availability, and durability.

Your satisfaction and the performance of our machines is held in highest regard.

-Owners

### LOCATION AND SERVICE

Our plants in Liberty, Kentucky, house our sales, engineering, manufacturing, R & D, parts, and accounting departments. We are represented in the USA, Canada, Central and South America by independent sales representatives and dealers.



Our location in east central United States puts us in close proximity to all major industrial areas in the eastern United States. Our machines are designed to use many standard off-the-shelf components that are readily available from industrial supply houses or from our stock.

### WARRANTY

Waldemar Design & Machine warrants its products to be free from defects in material and workmanship for a period of one year from date of manufacture.

Waldemar's obligation is to replace, free of charge, any defective part of any product that its inspection shows to be defective, including the lowest priced round trip transportation to Waldemar's plant in Liberty, KY, from any point in the 48 contiguous states.

Waldemar shall not be liable for installation and removal expense, loss of time, manufacturing costs, labor, material, loss of profits, or consequential damages direct or indirect, because of defective products. There is no other warranty, express or implied.

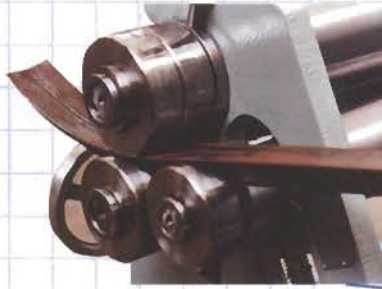
### TRAINING

Waldemar Design & Machine strongly encourages the dealer and/or customer to visit our plant upon completion of the machine to receive free training on the machine's operation and maintenance.

# Features of WDM B Series



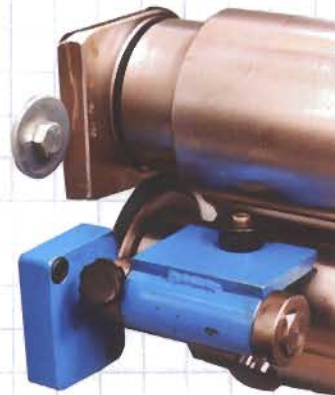
Heavy duty all gear drive for rolls. Roller chain drive for power bending adjustment.



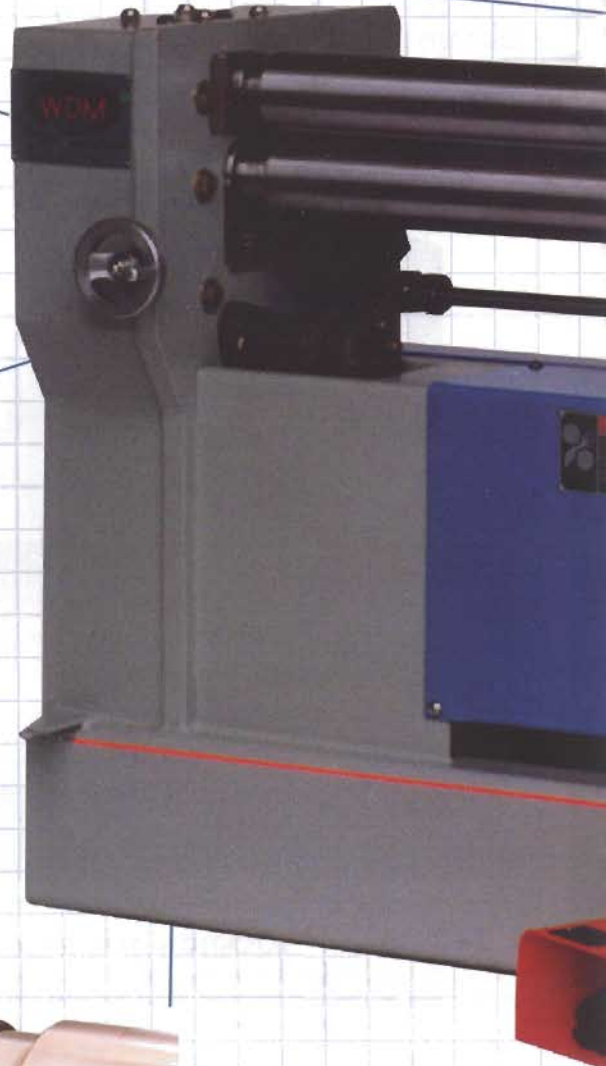
Optional angle section dies to roll angle in pairs, flat bars on edge, squares, and small round bars. Pipe tubing and many other dies available.



Shows massive drive housing and arrangement.  
Series B-6 and B-7



Cone attachment mounted on drive end.



This is the model B-3.5

# s Sheet and Plate Rolls



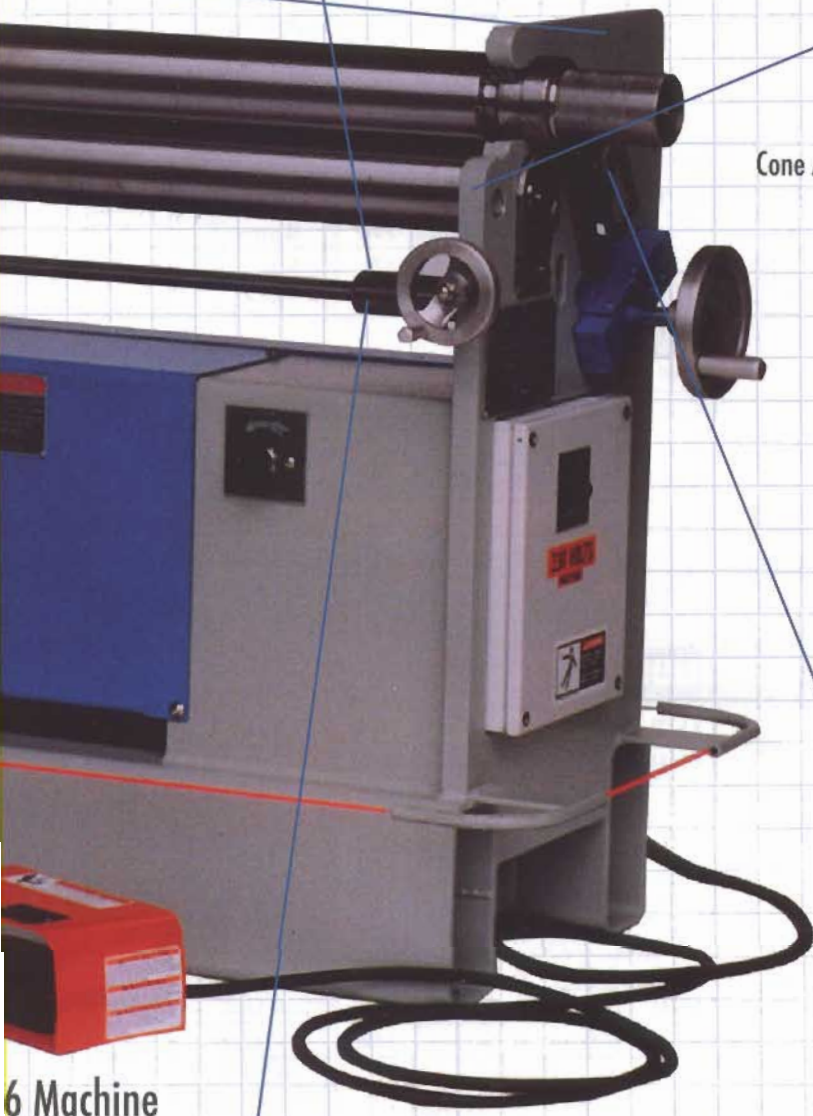
**Bending Roll**  
Drive disconnect collar with detent position to allow tilting the back roll for rolling cones and similar parts.  
(Shown disconnected for tilting.)



Cone Attachment mounted on drop end.



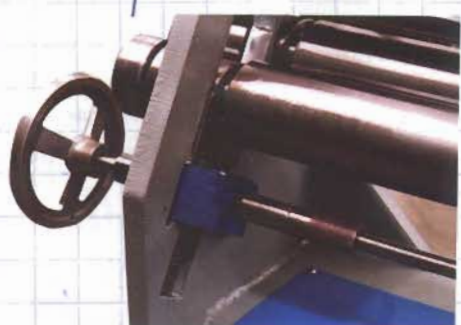
Heavy duty worm gear screw jack arrangement for positioning bending rolls. Alloy steel guide block holds SKF sealed spherical roller bearings.



6 Machine



Drop end view of B machine shows location of electrical box, pinch roll adjusting hand wheel, and position scale. Notice the alloy steel bearing case and wedge screw arrangement for accurate positioning of the pinch roll.



Shows roll tilt clevis in lock position



Shows standard scale pointer which shows the position of the bending roll.

# CAPACITY AND RATING SPECIFICATIONS

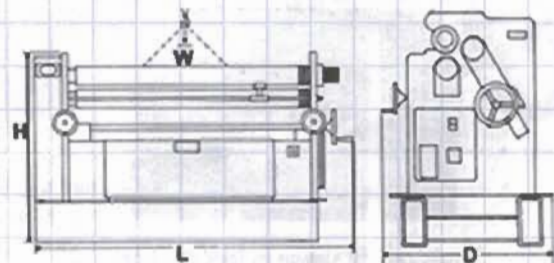
## STANDARD FEATURES

- 1045 Steel rolls machined to 63 micro inches
- Total hydraulic operation
- Instant start-stop-reverse
- 2 Roll drive
- 3 Phase 230/460 Volts
- Electrics to NFPA-79 specifications
- 120 Volt Control Circuit
- Pinch roll starting groove
- Overload protected
- TEFC motor
- Quiet hydraulic system
- Haze gray epoxy and blue enamel finish (V.O.C. compliant)
- Sealed spherical roller bearings on all main points
- Manually operated drop end collar with swing out top roll.
- Accurately machined, compact, streamlined, all welded steel frame
- Manufactured in Casey County, Kentucky, USA

## STANDARD OPTIONS

- Hardened and polished rolls 28-32 Rc. (4140 HT)
- Hardened and polished rolls 55-60 Rc. (1045 flame hardened)
- Roll speed infinitely variable 0 to 14 FPM
- Other alloys and finishes are available , inquire
- Squaring grooves in lower rolls
- Circular grooves in rolls for rolling rods or sheets with wire edges 3/8, 1/2, and 5/8
- Other special circular grooves for extrusions etc...
- Forward & reverse guarded foot pedal for roll rotation
- Cone attachment
- Third roll drive
- Heavy duty cone attachment
- DRO for roll position instead of dial pointer indicator (**Series 421**)
- DRO with 2-preset stops for roll position indicators and control (**Series 423**)
- DRO length indicator to show length rolled to facilitate forming of flat-radius-flat, ect. type workpiece (**Series L**)
- Same as above with 2 presets (**Series LP**)
- Same as above with 6 presets (**Series LP6**)
- Electric roving pendant control to replace foot pedal and push button control.
- Moveable console electric control to replace foot pedal and push button control.

Model	L	D	H	W	Rated Capacity	HP
B-2.6-36	48	17	22	600	16 gauge x 3'	2
B-2.6-48	60	17	22	570	20 gauge x 4'	2
B-2.6-60	72	17	22	710	24 gauge x 5'	2
B-2.6-72	84	17	22	850	26 gauge x 6'	2
B-3.5-36	56	22	37	820	12 gauge x 3'	2
B-3.5-48	68	22	37	950	14 gauge x 4'	2
B-3.5-60	80	22	37	1,165	16 gauge x 5'	2
B-3.5-72	92	22	37	1,400	20 gauge x 6'	2
B-4-36	56	24	37	2,235	10 gauge x 3'	2
B-4-48	68	24	37	2,430	12 gauge x 4'	2
B-4-60	80	24	37	2,625	14 gauge x 5'	2
B-4-72	92	24	37	2,820	16 gauge x 6'	2
B-4-84	104	24	37	3,015	18 gauge x 7'	2
B-4-96	116	24	37	3,210	20 gauge x 8'	2
B-5-36	56	28	39	2,460	7 gauge x 3'	3
B-5-48	68	28	39	2,730	8 gauge x 4'	3
B-5-60	80	28	39	3,000	10 gauge x 5'	3
B-5-72	92	28	39	3,270	12 gauge x 6'	3
B-5-84	104	28	39	3,540	14 gauge x 7'	3
B-5-96	116	28	39	3,810	16 gauge x 8'	3
B-5-120	128	28	39	4,350	18 gauge x 10'	3
B-6-36	66	38	40	3,900	3/8 x 3'	5
B-6-48	78	38	40	4,200	5/16 x 4'	5
B-6-60	90	38	40	4,600	1/4 x 5'	5
B-6-72	102	38	40	5,200	7/32 x 6'	5
B-6-96	114	38	40	6,900	.140 x 8'	5
B-6-120	126	38	40	8,600	.094 x 10'	5
B-6-144	138	38	40	10,400	.062 x 12'	5
B-7-36	66	38	40	5,100	7/16 x 3'	7.5
B-7-48	78	38	40	5,700	3/8 x 4'	7.5
B-7-60	90	38	40	6,200	5/16 x 5'	7.5
B-7-72	102	38	40	7,100	9/32 x 6'	7.5
B-7-96	114	38	40	9,400	3/16 x 8'	7.5
B-7-120	126	38	40	11,800	.125 x 10'	7.5
B-7-144	138	38	40	14,200	.094 x 12'	7.5
GP-5-2	43	33	31	2,500	24" x 3/8"	3
					16" x 1/2"	
					10" x 5/8"	
					6" x 3/4"	
GP-5-4	67	33	31	3,750	8 gauge x 4'	3



# MACHINE IN ACTION

- Automatic cycle PLC controlled for high production
- Side supports
- Overhead supports, feed tables, automatic feeders
- Special electrics
- Special customer-supplied paint

## NON-STANDARD OPTIONS

- Chromed rolls
- Special extra smooth rolls
- Special grooves in rolls
- High-speed version

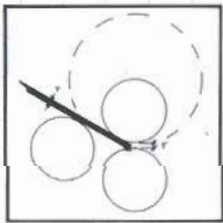


Shows proper starting for a flat sheet.

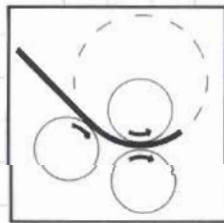


Notice straight seam as part nears completion.

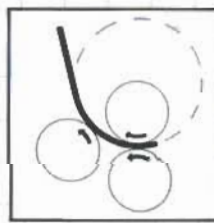
## Rolling Procedure that produces true round cylinders



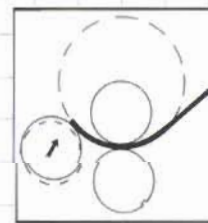
Pinch roll is adjusted to metal thickness. Bending roll is adjusted to pre-bend position. Workpiece is entered from rear of machine and engaged into starting/squaring groove.



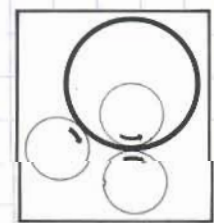
Rolls are rotated to feed work piece into machine a short distance, completing the pre-bend.



Rolls are rotated in opposite direction and workpiece is removed.



Workpiece is turned and re-entered from opposite (front) side of machine. Bending roll is adjusted upwards to finish roll position.



Rolls are rotated and workpiece rolled to completion.

# Other Machines By WDM



403-7-5 (5/16" x 5') with digital readout and 421-3 control.



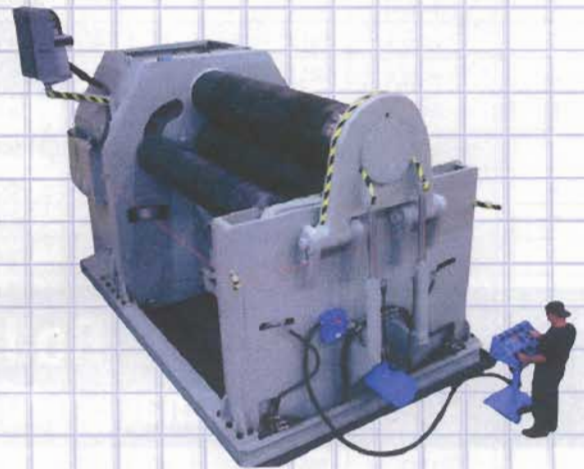
AR-31 angle roll with standard equipment. Notice pendant with digital readout series 520 pendant control.



101-10-8 (1/2" x 8') hydraulic pinch pyramid plate bending machine.



Four roll cone rolling machine model CTR-12/2-2 with interchangeable top rolls. This machine is used to fabricate fish pumps, to pump live fish and crustacean.



403-29-10.5 (3" x 10 1/2") cold mild steel.

## PUBLIC NOTICE

*Some distributors including those listed sell WDM machines via the internet. WDM however does not, nor does it have a website or fax. You may reach us by phone, mail or courier. (We accept courier collect charges for urgent inquiries or drawings.)*

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