

Capacity Ratings and Specifications

For WDM 403 Series Double Pinch Pyramid Plate Rolls

STANDARD FEATURES

- 1045 Steel rolls machined to 63 micro inches
- Total hydraulic operation
- Instant start-stop-reverse
- Roll speed infinitely variable 0 to 22 FPM (0 to 14 FPM on larger machines)
- 2 Roll drive
- 3 Phase 230/460 Volts
- Electrics to NFPA-79 specifications
- 24V-120 AC control circuit
- Safety/emergency stop cable on 3 sides of the machine
- Overload protected
- TEFC main motor
- Quiet hydraulic system
- Haze gray epoxy and blue enamel finish (V.O.C. compliant)
- Sealed spherical roller bearings on all main points
- Hydraulically actuated drop-end
- 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)
- Squaring grooves in lower rolls
- Circular grooves in rolls for rolling rods or sheets with wire edges 3/8, 1/2, and 5/8
- Forward & reverse guarded foot pedal for roll rotation
- Cone attachment
- Heavy duty cone attachment
- DRO for roll position instead of dial pointer indicator (**Series 421**)
- Same as above on both ends of rolls (**Series 422**)
- DRO with 2-preset stops for roll position indicators and control (**Series 423**)
- Same as above with an additional DRO to show position of outboard end of roll (**Series 424**) useful for cone rolling
- DRO length indicator to show length rolled to facilitate forming of flat-radius-flat, etc. 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 manual valves on machine housing
- **Alpha 4, Beta 4, Gamma 4**
- Automatic cycle PLC control for high production (**Series 425-4**)
- Independent roll rotation and roll adjustment speed control (standard on larger machines 403-12 and above)
- Non-Electric version

Model	Rated Capacity	Nominal Top Roll Diameter	Horsepower	Size L x W x H	Estimated Weight
403-5-4	.164 x 4	5	3	93 x 34 x 34	2000
403-6-4	5/16 x 4	6	5	93 x 41 x 38	2850
403-7-4	3/8 x 4	7	5	95 x 41 x 38	3800
403-8-4	1/2 x 4	8	7.5	106 x 44 x 41	5000
403-9-4	5/8 x 4	9	10	106 x 44 x 41	6350
403-10-4	23/32 x 4	10	10	111 x 46 x 46	8900
403-11-4	7/8 x 4	11	15	111 x 46 x 46	11000
403-12-4	1-1/16 x 4	12	20	113 x 47 x 50	12800
403-13-4	1-1/4 x 4	13	25	113 x 47 x 50	15000
403-14-4	1-7/16 x 4	14	40	120 x 78 x 66	18800
403-15-4	1-5/8 x 4	15	50	120 x 78 x 66	22500
403-16-4	1-3/4 x 4	16	50	123 x 82 x 68	24300
403-17-4	2 x 4	17	60	123 x 82 x 68	28000
403-18-4	2-1/4 x 4	18	60	135 x 90 x 78	31100
403-19-4	2-1/2 x 4	19	75	135 x 90 x 78	35000
403-5-5	.135 x 5	5	3	105 x 34 x 34	2300
403-6-5	1/4 x 5	6	5	107 x 41 x 38	3400
403-7-5	5/16 x 5	7	5	107 x 41 x 38	4500
403-8-5	3/8 x 5	8	7.5	108 x 44 x 41	5800
403-9-5	1/2 x 5	9	10	108 x 44 x 41	7400
403-10-5	5/8 x 5	10	10	123 x 46 x 46	10300
403-11-5	28/32 x 5	11	15	123 x 46 x 46	12600
403-12-5	7/8 x 5	12	20	125 x 47 x 50	14700
403-13-5	1-1/16 x 5	13	25	125 x 47 x 50	17300
403-14-5	1-1/4 x 5	14	40	132 x 78 x 66	21300
403-15-5	1-7/16 x 5	15	50	132 x 78 x 66	25700
403-16-5	1-5/8 x 5	16	50	135 x 82 x 68	27700
403-17-5	1-3/4 x 5	17	60	135 x 82 x 68	32000
403-18-5	2 x 5	18	60	147 x 90 x 78	36000
403-19-5	2-3/16 x 5	19	75	147 x 90 x 78	40000
403-5-6	.104 x 6	5	3	117 x 34 x 34	2700
403-6-6	7/32 x 6	6	5	119 x 41 x 38	3850
403-7-6	9/32 x 6	7	5	119 x 41 x 38	5100
403-8-6	3/8 x 6	8	7.5	130 x 44 x 41	6700
403-9-6	7/16 x 6	9	10	130 x 44 x 41	8500
403-10-6	9/16 x 6	10	10	135 x 46 x 46	11600
403-11-6	11/16 x 6	11	15	135 x 46 x 46	14300
403-12-6	13/16 x 6	12	20	137 x 47 x 50	16550
403-13-6	1 x 6	13	25	137 x 47 x 50	19500
403-14-6	1-1/8 x 6	14	40	144 x 78 x 66	23900
403-15-6	1-1/4 x 6	15	50	144 x 78 x 66	29800
403-16-6	1-3/8 x 6	16	50	147 x 82 x 68	31100
403-17-6	1-1/2 x 6	17	60	147 x 82 x 68	35800
403-18-6	1-5/8 x 6	18	60	159 x 90 x 78	39900
403-19-6	1-3/4 x 6	19	75	159 x 90 x 78	44800

Model	Rated Capacity	Nominal Top Roll Diameter	Horsepower	Size L x W x H	Estimated Weight
403-5-8	.060 x 8	5	3	141 x 34 x 34	3400
403-6-8	.140 x 8	6	5	143 x 41 x 38	4800
403-7-8	3/16 x 8	7	5	143 x 41 x 38	6400
403-8-8	1/4 x 8	8	7.5	154 x 44 x 41	8500
403-9-8	5/16 x 8	9	10	154 x 44 x 41	10700
403-10-8	13/32 x 8	10	10	159 x 46 x 46	14200
403-11-8	33/64 x 8	11	15	159 x 46 x 46	17500
403-12-8	5/8 x 8	12	20	161 x 47 x 50	20400
403-13-8	47/64 x 8	13	25	161 x 47 x 50	24000
403-14-8	55/64 x 8	14	40	168 x 78 x 66	27900
403-15-8	63/64 x 8	15	50	168 x 78 x 66	33700
403-16-8	1-7/64 x 8	16	50	171 x 82 x 68	36300
403-17-8	1-17/64 x 8	17	60	171 x 82 x 68	41900
403-18-8	1-27/64 x 8	18	60	183 x 90 x 78	46600
403-19-8	1-37/64 x 8	19	75	183 x 90 x 78	52300
403-5-10	.048 x 10	5	3	165 x 34 x 34	4000
403-6-10	.094 x 10	6	5	167 x 41 x 38	5800
403-7-10	.125 x 10	7	5	167 x 41 x 38	7700
403-8-10	11/64 x 10	8	7.5	178 x 44 x 41	10400
403-9-10	15/64 x 10	9	10	178 x 44 x 41	12900
403-10-10	5/16 x 10	10	10	183 x 46 x 46	16900
403-11-10	25/64 x 10	11	15	183 x 46 x 46	20800
403-12-10	1/2 x 10	12	20	185 x 47 x 50	24200
403-13-10	19/32 x 10	13	25	185 x 47 x 50	28500
403-14-10	11/16 x 10	14	40	192 x 78 x 66	34300
403-15-10	51/64 x 10	15	50	192 x 78 x 66	41500
403-16-10	57/64 x 10	16	50	195 x 82 x 68	44600
403-17-10	1-1/32 x 10	17	60	195 x 82 x 68	51500
403-18-10	1-5/32 x 10	18	60	207 x 90 x 78	57300
403-19-10	1-9/32 x 10	19	75	207 x 90 x 78	64300
403-5-12	.035 x 12	5	3	189 x 34 x 34	4700
403-6-12	.062 x 12	6	5	191 x 41 x 38	6750
403-7-12	.094 x 12	7	5	191 x 41 x 38	9000
403-8-12	.125 x 12	8	7.5	202 x 44 x 41	11850
403-9-12	11/64 x 12	9	10	202 x 44 x 41	15100
403-10-12	15/64 x 12	10	10	207 x 46 x 46	19500
403-11-12	9/32 x 12	11	15	207 x 46 x 46	24100
403-12-12	3/8 x 12	12	20	209 x 47 x 50	2800
403-13-12	7/16 x 12	13	25	209 x 47 x 50	33000
403-14-2	35/64 x 12	14	40	216 x 78 x 66	40000
403-15-12	5/8 x 12	15	50	216 x 78 x 66	48000
403-16-2	3/4 x 12	16	50	219 x 82 x 68	51400
403-17-12	13/16 x 12	17	60	219 x 82 x 68	59300
403-18-12	15/16 x 12	18	60	231 x 90 x 78	66000
403-19-12	1 x 12	19	75	231 x 90 x 78	74100

STANDARD OPTIONS (CONT'D)

- Side supports
- Overhead supports, feed tables, automatic feeders, manual and automatic ejectors
- Special electrics
- Special customer supplied paint

NON-STANDARD OPTIONS

- Chromed rolls
- Special extra smooth rolls
- Special grooves in rolls
- High-speed version
- Many, many more. Let us know your needs.

WORKPIECE ACCURACY

In the final analysis, the proof of performance is the acceptability of the finished workpiece. With uniform quality of the workpiece blanks, our machines have historically rolled workpieces within 1/2 of 1% of perfect concentricity.

There are many variables that can affect the accuracy and repeatability either minimally or drastically. These include, but are not limited to, the following: varying material thickness; varying material temper; uneven cross section of material, i.e. wide and narrow profile of workpiece or a workpiece with holes or cutouts; and direction of grain of material.

Many of these variables can be overcome by various means. An important element for success is a knowledgeable operator who understands the characteristics of the material being formed and the various functions of the machine. If the workpiece being formed is anything other than uniform material and cylinders, and you are unsure if your pieces can be rolled practically, please, provide us with a drawing or sketch and we will be happy to evaluate it.

Also available is *The Rolling Digest* (showing many tips and procedures) at \$35.00 a copy. Order from main office.

NOTES

Capacity is based on 40,000 p.s.i. yield strength material. These machines are also available in 2, 3, 14, 16, 18, and 20 feet and longer lengths. Please inquire for price and availability. Verify dimensions and specifications.

We reserve the right to make changes in design and specifications without obligation or notification.