SERIES
3000
Double Pinch Angle Rolls

NEED TO BEND REALLY BIG MATERIAL?

Industry Standard New Generation ANGLE ROLLS

The Carell 3000 series of angle rolls gives fabricators a wide range of choices from small footprint to large plant equipment, all designed for long life, reliability, consistent fabrication output, and heavy-duty application. This is particularly beneficial when companies and clients need angle rolls for applications where the workspace is limited in size and scope. When you need manufacturing equipment that is going to deliver consistently,

get the right choice for your shop or production line the first time...
Start with Solutions from Carell.

CARELL® CORPORATION
FABRICATING MACHINERY
Providing Fabricating & Manufacturing Solutions For Today's Industry
P.O. Box 850, Stapleton, AL 36578
Tel: (251) 937-0948
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www.carellcorp.com

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CARELL® CORPORATION
FABRICATING MACHINERY

SERIES
3000
Double Pinch Angle Rolls

New Generation
Efficient & Versatile Machines with Unparalleled Standard Features

15 MODELS
Capacities
1" to 10" ANGLE

The Ideal Choice for All Applications!

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CARELL CORPORATION Established In: 1993 SUPERIOR FABRICATING MACHINES & SERVICE

DOUBLE PINCH ANGLE ROLLS

15 MODELS 1" TO 10" ANGLE

Designed for Long Life, Reliability & Heavy-Duty Horizontal/Vertical Application.

3000 SERIES

Full CNC Controls Available ALL MODELS

NOTES: Chart indicates minimum suggested inside diameter with maximum profile size, using mild steels rolling generally in multiple passes. • Data is approximate specified inches u.n.o. • Custom tooling for some profiles may be required for volume production and minimum rolling diameters are limited to level of acceptable deformation. • The manufacturer and Carell Corp. reserve the right to revise design, construction and specifications without prior notice .• Ratings based on material yield of 36KSI. • Machines with extended shafts or shortened shafts are available. • We build totally custom geometries and configurations for highly specific manufacturing requirement. • Call us if you have questions on applications or capacities.
Series 3000 machines are designed compliant with EEC norms and bear CE plates. Units are designed to comply with ANSI B11.12.1996 standards. The employer of the operator is responsible for providing and insuring the usage of point of operation guards and/or properly applied and adjusted point of operation safety devices are required to meet OSHA, state and local safety requirements.

SERIES 3000 CAPACITIES & SPECIFICATIONS

Series 3000 Model	302HV	303HV	304HV	305HV	306HV	307HV
Flats, Hard	2 x 5/16 Ø16	2-3/8 x 3/8 Ø20	2-¾ x ½ Ø28	3 x 5/8 Ø30	4 x 5/8 Ø42	4 x 1 Ø44
Flats, Easy	2-3/8 x 5/8 Ø18	3 x ¼ Ø18	4 x 1 Ø26	5 x 1 0 Ø26	6 x 1 Ø30	7 x 1-3/8 Ø32
Square Bar	1 Ø12	1-¼ Ø18	1 ½ Ø20	1-¾ Ø22	2 Ø26	2-½ Ø32
Angle, L-Out	2 x 3/16 Ø24	2 x ¼ Ø28	2-½ x 5/16 Ø30	3 x 3/8 Ø42	3-½ x 3/8 Ø48	4 x ½ Ø48
Angle, L-In	1-½ x 3/16 Ø18	2 x 3/16 Ø28	2 x 5/16 Ø30	2-½ x 5/16 Ø42	3 x 3/8 Ø40	4 x 3/8 Ø50
Tee, L-Out	2 x ¼ Ø20	2-3/8 x¼ Ø24	2-½ x 5/16 Ø26	3 x 3/8 Ø34	3-½ x 3/8 Ø38	4 x ½ Ø54
Tee, L-In	1-½ x 3/16 Ø20	2 x 3/16 Ø22	2 x 5/16 Ø26	3 x 5/16 Ø36	3-½ x 5/16 Ø38	4 x 3/8 Ø60
C, Legs-out	2 x 1-½ Ø16	3 x 1-¾ Ø24	4 x 1-¾ Ø28	5 x 2 Ø28	6 x 2-½ Ø30	7 x 2-½ Ø36
C, Legs-in	2x1 Ø20	2-½ x 1-5/8 Ø30	3 x 1-¾ Ø28	4 x 2 Ø36	5 x 2-½ Ø40	7 x 2-½ Ø48
Round Bar	1-3/16 Ø14	1-3/8 Ø16	1-¾ Ø20	2 Ø22	2-½ Ø30	Ø30
1 Pipe, Sch. 40	1-¼ Ø20	1-½ Ø20	2 Ø24	2-½ Ø32	3 Ø42	4 Ø45
1 Round Tube	2 x 16Ga	2-3/8 x 14Ga	3 x 14Ga	3-½ x 14Ga	4-½ x 12Ga	5-½ x 10Ga
2 Square Tube	1-½ x 14Ga	2 x 14Ga	2-¼ x 11Ga	2-½ x 10Ga	3 x 3/16	3-½ x ¼
2 Recl. Tube	1-½ x ¾x 13Ga	2 x 1-¼ x 12Ga	2-½ x 1-¼ x 11Ga	3 x 1-½ x 10Ga	4 x 1-½ x 3/16	5 x 2 x 3/16
I Beam EZ		S3 x 5.7 Ø24	S4 x 7.7 Ø30	S5 x 10 Ø32	S6 x 17 Ø36	S7 x 20 Ø48
H Beam EZ					M4x 13 Ø72	W5 x 16 Ø60
3 C, On Edge						C3 x 6 Ø96
3 1 Beam HW						S5 x 15 Ø100
3 H Beam HW						

Section Modulus in.³	0.20	0.40	0.61	1.10	1.5 - 2.26	2.8 - 4.9
Rolling Speed fpm	20	20	20	20	0-23	0-23
Power Output HP	3.8	4	4.7	6.5	10	15
Roll Diameters in.	5.70	7.0	8.07	9.65	10.83	12.40
Shaft Diameters in.	1.57	1.97	2.36	2.76	3.54	3.94
Approx. Weight lbs.	1,200	1,720	2,420	3,450	5,725	8,210

LEGEND: (1) Set of 3 rolls required for each tube or pipe size, (2) Special rolls may — improve results on these profiles, (3) Special Beam On-Edge Traction Device required

SERIES 3000 CAPACITIES & SPECIFICATIONS

308HV	309HV	310HV4	311HV4	312HV4	313HV4	314HV4
5-½ x ¾ Ø60	6 x 1 Ø60	6 x 1-½ Ø60	8 x 1-¼ Ø100	8 x 2 Ø100	10 x 2 Ø120	10 x 2-½ Ø120
8 x 2 Ø42	9 x 2 Ø48	10 x 2-½ Ø60	12 x 2-½ Ø60	16 x 2-½ Ø76	18 x 2-½ Ø80	20 x 3 Ø90
3 Ø36	3-3/8 Ø48	3-¾ Ø60	4 Ø54	4-½ Ø66	5 Ø78	6 Ø90
5 x ½ Ø60	5 x 5/8 Ø54	6 x ¾ Ø72	6 x 1 Ø96	8 x 1 Ø120	8 x 1 Ø80	8 x 1-¼ Ø80
4 x ½ Ø48	5 x ½ Ø60	5 x 5/8 Ø60	6 x 1 Ø120	8 x ¾ Ø140	8 x 1 Ø100	8 x 1-1/8 Ø80
4-½ x ½ Ø48	5 x ½ Ø60	6 x ½ Ø75	6 x 5/8 Ø96	7-½ x 5/8 Ø96	8 x 5/8 Ø96	10 x ¾ Ø144
4 x ½ Ø50	4-½ x ½ Ø60	5 x ½ Ø75	6 x ½ Ø96	7-½ x 5/8 Ø96	8 x 5/8 Ø96	10x5/8 Ø144
8 x 3 Ø36	10 x 3 Ø48	12 x 3 Ø48	15 x 3-½ Ø48	16 x 4 Ø60	18 x 4 Ø60	20 x 4 Ø72
8 x 3 Ø48	10 x 3 Ø60	12 x 3 Ø60	15 x 3-½ Ø60	16 x 4 Ø60	18 x 4 Ø60	20 x 4 Ø72
3-3/8 Ø40	3-½ Ø40	4-½ Ø60	5 Ø60	5-½ Ø60	6 Ø72	7 Ø90
5 Ø70	6 Ø120	6 Sch80 Ø100	8 Ø100	10 Ø160	12 Ø160	12 Scd80 Ø200
6-½ x 9Ga	7 x 3/16	8 x 3/16	10 x 3/16	12 x 3/16	14 x 3/16	14 x 5/16
4 x 5/16	5 x 5/16	5-½ x 5/16	6 x 3/8	7 x 3/8	8 x ½	10 x 7/16
5-½ x 2 x 5/16	6 x 3 x ¼	7 x 3 x 5/16	8 x 3-½ x 3/8	8 x 4 x 3/8	10 x 4x ½	10 x 6 x ½
S8 x 23 Ø48	S10 x 35 Ø48	S12 x 40 Ø48	S15 x 50 Ø48	S18 x 54 Ø72	S18 x 70 Ø80	S20 x 96 Ø86
W6 x 20 Ø60	W8 x 24 Ø72	W8x31 Ø72	W10 x 45 Ø108	W10 x 54 Ø120	W12 x 72 Ø96	W18 x 106 Ø120
C5 x 9 Ø140	C6 x 13 Ø200	MC7 x 17 Ø250	C8 x 18.75 Ø300	C10 x 25 Ø400	MC12 x 50 Ø450	C15 x 34 Ø600
S6 x 17 Ø120	S7 x 20 Ø150	S8 x 23 Ø200	S8 x 23 Ø140	S10 x 35 Ø300	S12 x 50 Ø300	S15 x 50 Ø550
W4 x 13 Ø100	W5 x 19 Ø100	W6 x 20 Ø180	W6 x 25 Ø120	W8 x 28 Ø300	W10 x 33 Ø400	W12 x 35 Ø500

4.3 - 7.4	6.2 - 10	9 - 15	14 - 21	20 - 36	28 - 44	40 - 62
0-23	0-23	0-23	0-23	0-23	0-23	0-23
20	24	30	40	55	90	120
15.375	17	18.75	22	25.25	28.375	33
5.3/4.7	6.3/5.3	7.3/6.7	8.5/7.9	9.8/9.1	11.6/10.7	12.6/11.8
10,000	15,180	20,500	28,800	41,000	54,500	99,000

FEATURES

- Three driven rolls, smooth surfaced for optimal profile traction and surface finish
- Double Pinch Geometry permits pre-bending without removal from the machine
- Dual LED Digital Displays / Emergency stop
- Monolithic single weldment frames heavily reinforced at load points.
- Detached mobile control stand, low voltage controls
- Horizontal/vertical operation on models 302 thru 309
- NiCrMo Bending rolls hardened for optimal performance
- Top roll drive incorporates overload protection which allows differing roll speeds when bending tall sections
- Variable speed hydraulic drive train 306 - 315 with direct coupled hydraulic motors and planetary speed reducers. Electro-mechanical drive on 302- 305
- Shafts journaled in dual self-aligning high dynamic load roller bearings
- Tri-Directional Lateral Guides
  Manual Adjust : 302 - 305
  Hydraulic Powered Models: 306-314

STANDARD EQUIPMENT

- LED Digital Displays on all 3000 Series Angle Rolls
- Telescoping Modular Multi-Component roll set specifically designed to bend standard sections including angle Leg-In/Out and Square/Rectangular Tube as well as other shapes in a variety of material types

OPTIONS

- Rolls for tubes, pipes and special profiles
- Tooling for production of half tubes
- Overhead supports for coil production
- Compression and tension tooling for C channel, & I beam hard way bending
- NC & CNC Controls with various automation levels for repetitive jobs and production of variable radius bends and parts with multiple bends
- Powered lateral material guides on models 302-305
- LED digital displays for lateral guide movements

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