



CNC TUBE BENDERS



CNC-90

- Draw + Push-Roll Bending
- 3-6 Servo Controlled Axes
- Windows XP Embedded Operating System
- 3D Simulation of Bending Process
- Touch Screen Software
- XYZ or LRA Data Input
- AutoCAD / DXF conversion to YBC
- Self Diagnostic Program
- Available to work with automatic and robotic tube loaders
- Safety package available with scanner and machine enclosures

- Automatic mandrel lubrication function
- Programmable anticipated mandrel retraction
- Elongation and Spring-back compensation
- Multiple Bend Radii
- Multiple Axes working simultaneously to reduce bending cycle time



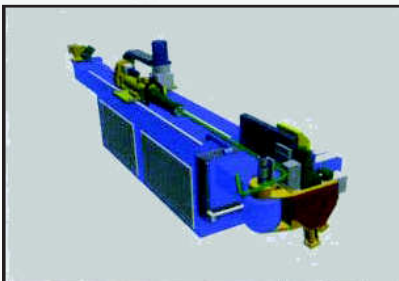
CNC-101



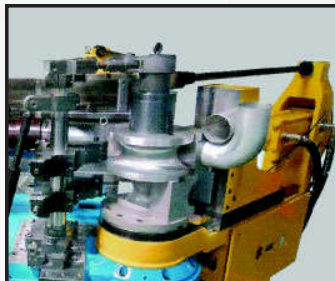
CNC-150



3D Part Visualization



3D Bending Simulation



Bending Head



Multiple Level Bending



J&S Machine, Inc.

W6009 490th Avenue

Ellsworth, WI 54011

Ph: 715-273-3376

Fax: 715-273-5241

E-mail: sales@jsmachine.com

Web site: www.jsmachine.com

Machine Specifications

Model		90	100	101	130	150
Centerline Radius Range		.866" - 9¾"	.866" - 14⅛"	.866" - 9¾"	1¼" - 19⅝"	2" - 14½"
Max. Bending Angle		190°	190°	190°	190°	190°
Max. Mandrel Working Distance		98⅝"	141¾"	157½"	177"	157½"
Motion Speed	Tube Feeding Speed	31"/sec	24"/sec	28"/sec	24"/sec	28"/sec
	Tube Rotation Speed	210°/sec	180°/sec	180°/sec	160°/sec	100°/sec
	Tube Bending Speed	60°/sec	30°/sec	47°/sec	25°/sec	42°/sec
Repetition	Tube Feeding Resolution	±0.004"	±0.004"	±0.004"	±0.004"	±0.004"
	Tube Rotation Resolution	±0.1°	±0.1°	±0.1°	±0.1°	±0.1°
	Tube Bending Resolution	±0.1°	±0.1°	±0.1°	±0.1°	±0.1°
Total Power (kW)		48	33½	69	47	133.4
Hydraulic Motor (kW)		15	22.4	30	37.5	60
Oil Tank Capacity (Gallons)		111	185	119	211	317
Cooler (GPM)		66	158	158	158	158
Overall Weight (lbs)		19,205	20,950	19,845	31,535	38,590
Machine Length		240"	278"	301"	338¾"	339¾"
Machine Width		82¾"	75"	71½"	86½"	86"
Machine Height		71"	75"	79"	75"	82½"
Operating Height		49¼"	47¼"	49¼"	47¼"	47¼"



Maximum Bending Capacities

Model	90	100	101	130	150
Round Tubing - Mild steel - Y.P to 40,000 psi OD x Wall - 1D Bend	3" x .083"	2½" x .083"	2½" x .083"	3" x .083"	6" x .120"
Round Tubing - Mild steel - Y.P to 40,000 psi OD x Wall - 1.5D Bend	3½" x .120"	4" x .157"	4" x .157"	5" x .200"	6" x .190"
Round Tubing - Stainless 304 - Y.P to 60,000 psi OD x Wall - 1D Bend	2" x .083"	2" x .083"	2⅜" x .083"	4" x .083"	6" x .083"
Round Tubing - Stainless 304 - Y.P to 60,000 psi OD x Wall - 1.5D Bend	3" x .083"	3" x .120"	3" x .120"	4" x .120"	6" x .120"
Round Pipe - Schedule 40 OD x Wall	2"	2½"	2½"	3"	4"
Round Pipe - Schedule 80 OD x Wall	2"	2½"	2½"	3"	3½"
Square Tubing - Mild steel or SS 2.5D bend	2½" x .083"	3" x .098"	3" x .098"	3½" x .120"	
Rectangle Tubing - Mild steel E-plane		4" x 2" x .078"	4" x 2" x .078"		
Rectangle Tubing - Mild steel H-plane		3" x 1½" x .078"	3" x 1½" x .078"		
Round Bar - Mild steel 1.5D Bend	1¾"	2"	2"	2⅜"	
Square Bar - Mild steel		2"	2"		

Note: Technical data and machine design subject to change without notice.