



*Pines specializes in custom Tube and Pipe processing machinery. Pines provides tooling, process technology, and tube bending solutions across a wide variety of industries.*

## Pines Heavy Duty NC Pipe Bending Machines

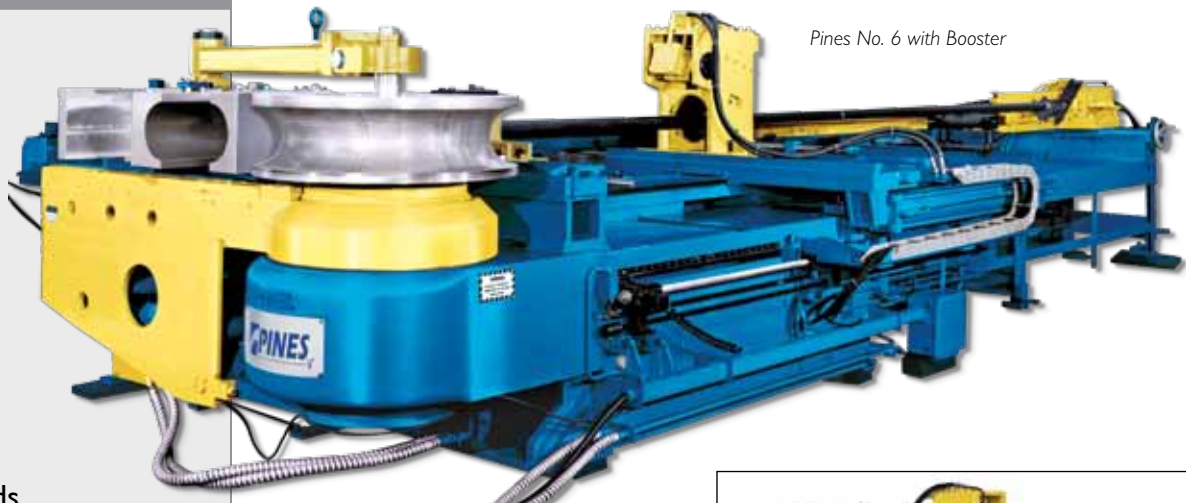


*Pines No. 6 for Hot Bending*

Offering rugged dependability and high production of multiple bend parts, Pines NC and CNC benders are capable of fast, repeatable bending of tube and pipe up to 14" O.D. These powerful automatic precision benders offer fast set-up and change-over advantages along with an advanced level of programming to deliver high performance and flexibility in bending operations. The Pines line of Heavy Duty bending machines provide tested, trusted, and tough, proven on-the-job performance in manufacturing plants around the world.

### NC FEATURE HIGHLIGHTS

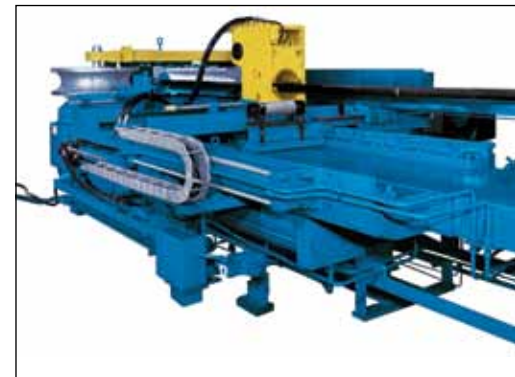
- Uni-base Construction
- Cast Bending Head
- External Valve Package
- Bend repeatability  $\pm .1^\circ$
- Enhanced User Interface
- Advanced Color Touch Screen Display
- Bending Program Storage & Recall 200 Different Parts
- Programs up to 32 Bends Per Part
- Electronic Self Diagnostics Program
- Spring-back Calculations
- Additional Safety Features Available
- Programmable Early Mandrel Extract
- Flexible Configuration
- 23 Available Options or Configurations Based on Application Requirements
- Programmable Booster



*Pines No. 6 with Booster*



*Pines No. 6 for Hot Bending*



**TESTED** TRUSTED **TOUGH**

# Pines NC Machines

## BENEFITS

- Easy Maintenance
- Rigid
- Durable
- 1 x Diameter Bends Out of the Box
- 3 year Warranty
- Flexible Product Range
- Built-in Longevity
- 99% Availability
- Repeatability with Accuracy
- Safe – OSHA compliant allowing fast operation of the machine while providing maximum safety for the operator
- Easy Set Up and Operation – Easy and Quick to Learn
- Flexible – Add or Remove Machine Options



Pines Model 8 with Integral Damp Die for Large Radii

## NC Specifications

Max. Bending Capacity and Specifications	Units of Measure	NC Machine Model				
		No. 4	No. 6	No. 8	No. 10	No. 12
Round Tubing Non Ferrous Y.P. to 25,000 psi OD X Wall	Inches	6 x .250	8 x .375	10 x .375	12 x .625	18 x .625
	mm	150 x 7	200 x 10	250 x 10	300 x 16	460 x 16
Round Tubing Y.P. to 40,000 psi OD X Wall	Inches	6 x .165	8 x .250	10 x .250	12 x .375	18 x .375
	mm	150 x 5	200 x 7	250 x 7	300 x 10	460 x 10
Round Tubing Stainless Y.P. to 60,000 psi OD X Wall	Inches	4 1/2 x .250	8 x .172	10 x .165	12 x .25	18 x .250
	mm	115 x 7	200 x 5	250 x 5	300 x 8	460 x 6.5
Steel Pipe Schedule 80	Inches	4.50 x .337	6.625 x .432	8.625 x .500	10 .75 x .594	14 x .750
	mm	115 x 8	170 x 10	220 x 12.5	273 x 15	355 x 19
Square Tubing Mild Steel	Inches	4 x .250	6 x .250	8 x .250	10 x .375	12 x .50
	mm	130 x 7	150 x 7	200 x 7	250 x 10	305 x 12
Rectangular Steel Tubing E-Plane	Inches	3 x 6 x .250	4 x 8 x .380	6 x 10 x .38	8 x 12 x .5	8 x 12 x .75
	mm	75 x 150 x 7	100 x 200 x 10	150 x 250 x 10	200 x 300 x 12	200 x 300 x 20
Rectangular Steel Tubing H-Plane	Inches	3 x 5 x .250	4 x 8 x .250	6 x 10 x .25	12 x 8 x .25	12 x 8 x 1
	mm	75 x 125 x 7	100 x 200 x 7	150 x 250 x 7	300 x 200 x 8	300 x 200 x 25
Round Bar Mild Steel	Inches	3 1/2	4 7/8	6 1/4	7 1/2	10
	mm	89	124	160	190	250
Square Bar Mild Steel	Inches	3 1/8	4 1/8	5 1/4	6 1/4	8 1/4
	mm	80	105	130	160	215
Section Modulus (z) Max., Mild Steel	Inches	4.266	12.2	24.88	45.5	98
	cm	27.52	78.70	160.50	293.50	632
Max. Horizontal & Vertical Dimensions	Inches	6	9	10	12	18
	mm	152	228	254	300	460

Pines Engineering, 29100 Lakeland Blvd., Wickliffe, OH 44092, USA

l (800) 207-8211 • (440) 278-7200 • fax: (440) 278-7210 • info@pines-eng.com • www.pines-eng.com