



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



159mm Mandrel First Bend

Pines Heavy Duty CNC Pipe Bending Machines

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.

CNC CONTROL FEATURES

- PC Based Touch Screen Control with Full Keyboard Support
- On-Screen Self Diagnostics
- Parts Counter Capability
- Bending Program Storage & Recall
- Hitch Feed Program
- Automatic Spring-back Compensation
- Pressure Die Interference Zone Recapture
- Automatic & Semiautomatic Mode
- Remote Operator Control Stand
- Remote Diagnostics
- Power Loss Resume Without Scrapping a Bend
- Automatic Bend Angle Correction (Option)
- Off the Shelf Components
- Color Touch Screen Displays and Rotates Parts in 3D
- Edit/Display Part Programs in XYZ, YBC, or ABS Formats
- Edit/Display Part Programs in Millimeters, Inches, or Feet and Inches
- Bends in Open Collet and Closed Collet
- Part Programs can be Stored on a Local Hard Disk or Remotely Through a Network
- Automatic Backup of Part Programs
- No Limit On Part Length (no mandrel)
- CMM Integration
- Direct Programming from Design Data



Pines CNC-150 Heavy Duty Pipe Bender with Automatic Pipe Loading

Pines Technology, 30505 Clemens Road, Westlake, Ohio 44145, USA

1-800-207-8211 • 440-835-5553 • fax: 440-835-5556 • www.pinestech.com • email: info@pinestech.com

Pines CNC Machines



TS 2000 Control Console

No Need To Modify Tools

Designed to open automatically, the pressure die and optional (patented) swing-away wiper die on these heavy duty CNC benders eliminate the carriage interference that other benders commonly experience.

No Need To Trim Scrap

Parts can be cut to length before bending on these CNC machines. Closed loop electronics with in-process monitoring of part configuration guarantee the repeatability of each part shape during the bending operation.

Any Length Part

Pines patented hitch feed feature makes it possible to bend parts of virtually any length. By eliminating tool/carriage interference on the final bend, the hitch feed program increases machine productivity and reduces material waste.

CNC Features Highlights

The Pines' TS2000 control represents breakthrough technology that virtually eliminates manual operator set-ups. The TS control was designed by the people who know how to bend for people who bend for a living. The easy to use control features completely programmable machine axes, a variety of editing options and bending modes. The TS2000 control offers complete flexibility in tube bending for a wide range of applications.

Programming can be done off line or downloaded directly from a CAD package. Pines Heavy Duty CNC machines use the same electronic encoders for monitoring and controlling machine movements as their expensive electric counterparts thereby providing equally accurate bends.



CNC-150 Heavy Duty Carriage



Optional Automatic Pipe Loader

AVAILABLE OPTIONS

- Special Heavy Duty Carriage
- Swing-Away Wiper Die Holder
- Overhead Tie Bar
- Pressure Die Assist Booster (open loop) Programmable
- Clockwise Rotation
- Base Extensions for Extra Carriage Travel or Long pipe
- Tropicalization
- Off-Line PC Programming Package
- Programmable Clamp and Pressure Die Pressures
- Pipe Loading Devices
- Mandrel Extractor
- Split Die Actuation
- Powered Pipe Support Rollers

CNC - Heavy Duty Pipe Bending Machine Specifications

Features	Machine Model	CNC-150		CNC-250		CNC-350	
		Inches	mm	Inches	mm	Inches	mm
Capacity Schedule 80 Pipe		4" IPS	114.3 X 8.5	10" IPS	219.1 X 25	14" IPS	355 x 19
Arm Rotation		CW or CCW		CW		CW	
Maximum CLR (Standard)		18	460	32	800	42	1420
Minimum CLR		ID		ID		ID	
Maximum DOB		180 deg+ 15 deg overbend		180 deg+ 15 deg overbend		180 deg+ 15 deg overbend	
Arm Speed		3.4rpm	20 deg/s	1rpm	6 deg/s	0.45rpm	2.7 deg/s
"Y"- Axis Speed		1200 ipm	30m/min	400 ipm	10 m/min	200 ipm	5 m/min
"B"- Axis Speed		3 rpm	18 deg/sec	3 RPM	18 deg/sec	3 RPM	18 deg/sec
DOB Repeatability		0.1 deg	0.1 deg	0.1 deg	0.1 deg	0.1 deg	0.1 deg
POB Repeatability		0.1 deg	0.1 deg	0.1 deg	0.1 deg	0.1 deg	0.1 deg
DBB Repeatability		0.004	0.1	0.006	0.15	0.008	0.2
Operating Pressure		2000 psi	13.8 N/mm	2000 psi	13.8 N/mm	2000 psi	13.8 N/mm
Motor Horsepower		40HP	30Kw	120HP(3@40)	90Kw	120HP(3@40)	90Kw
Reservoir Capacity		150 US gal	570 liters	300 US gal	1135 liters	300 US gal	1135 liters
Weight		45,812 lbs.	20780 kg.	89,950 lbs.	40800 kg.	109,950 lbs.	49872 kg.
Machine Dimensions							
Overall Length (See Note)		304	7,730	495	12,573	525	13,335
Swing Arm Radius		89	2,260	118	2997	130	3302
Std. Carriage Travel		195	4950	335	8500	335	8500
Centerline Height		44	1120	66	1680	72	1830