

## OEM Machine Control Upgrades from Pines Technology



### NC Bender Controls

#### Dial-A-Bend SC Standard Equipment

This state-of-the-art Programmable Logic Controller has been completely updated with enhanced user interface capabilities and an advanced touch screen display for outstanding production control and bender performance. The DAB SC provides state-of-the-art controls technology for semi-automatic tube benders. Featuring bending program storage and recall, electronic self-diagnostics, and programmable spring-back capabilities, the DAB SC control provides high productivity and efficiency in bending operations.



#### Dial-A-Bend SE Special Equipment

The most advanced version of the patented Digital Dial-A-Bend' Control with the DAB SE. This state-of-the-art Programmable Logic Controller has been completely updated with enhanced user interface capabilities and an advanced color touch screen display for outstanding production control and bender performance. The DAB SE provides the ultimate in NC bender controls technology for semi-automatic benders. Featuring bending program storage and recall, electronic self-diagnostics, and programmable spring-back capabilities, the DAB SE control provides high productivity and efficiency in bending operations.



### CNC Bender Control

#### TS 2000 6 + Axis

Pines Technology latest technical innovation is a powerful, state of the art TOUCH SCREEN CONTROL. The TS2000 control features an Intel Based Industrial PC, color touch screen, keyboard access and a Windows XP operating system. Programming available from a remote networked PC. Programs can be stored and retrieved from a server. Most popular cad system conversion  
2 Levels of up grade – with or without servo and motor replacement. Depends on condition and serviceability.

A DAB SC or SE retrofit on a Digital or analog Dial-a-bend controlled bender provides both operational and safety advantages. For quick and easy set-up, improved reliability, and easier maintenance and repair, Pines DAB is an essential component in the technology process for a wide range of bending applications.

Feature Highlights:	Feature Highlights:	Feature Highlights:
Mandrel	Mandrel	Mandrel Extractor
Mandrel Early Extract	Mandrel Early Extract	Mandrel Lubricator
Mandrel Sequence	Mandrel Sequence	Pressure Die Assist
Mandrel Always Advanced	Mandrel Always Advanced	Safety Mats / Light Curtain
Mandrel Lube	Mandrel Lube	Independent Clamp & Pressure Die
Dual Speed	Dual Speed	Control
Each Bend Speed Adjustable Slow/Fast	Each Bend Speed Adjustable Slow/Fast	Dual Speed Bend Arm
Pressure Die Assist	Pressure Die Assist	Soft Clamp Feature
PDA or Booster Preload	PDA or Booster Preload	Booster Programming
Remote Stand	Remote Stand	Early mandrel extract
Semi Auto	Semi Auto	Oscillating mandrel
Independent Clamp & Pres. Die	Independent Clamp & Pres. Die	2 Stack configuration
Safety Mat	Safety Mat	Variable Bend Arm speed
Programmable Spring-back	Programmable Spring-back	Programmable from CAD sources
	Oscillating Mandrel	Mandrel Extractor
	Wiper Die Lube	Variable Speed PDA or Booster
	Variable Speed PDA or Booster	Variable Pressure PDA or Booster
	Variable Pressure PDA or Booster	Master Bar Reset
	Master Bar Reset	Direct Acting Press. Die
	Booster, Three Speed	Dual Speed Bend Arm
	Booster Clamp	Soft Clamp Feature
	Part Ejector using the Booster	
	M21 Carriage	
	Arm Delay Last Bend	
	Arm Lock	
	Hold Forward Button	
	Remote Clamp	
	Close PD First Then Stop	
	Direct Acting Clamp Die	
	Direct Acting Press. Die	
	Tiger Stop	
	Tension Device	
	Clamp Die Closed End of Bend	
	Hold Reverse Button	

Installation	Installation	Installation
Designed for self install. Easy instructions provided.	Recommended installation by Pines technician on site	Must be installed in Pines facility