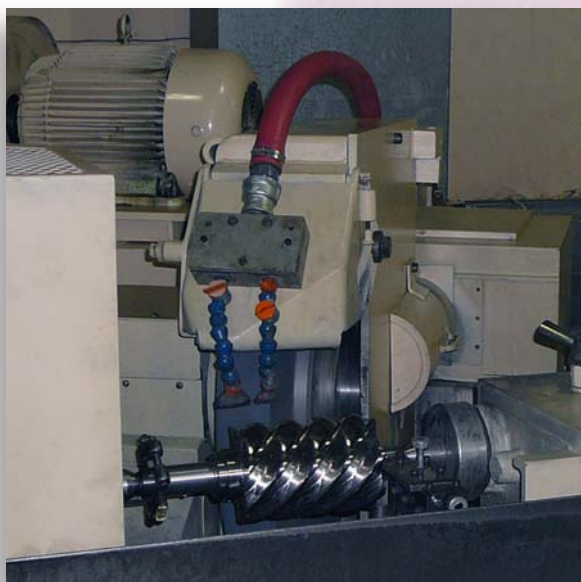




SERIES 8 CNC

GRINDING MACHINE

COMPLETE CNC PACKAGE TO SIMPLIFY GRINDING



OPERATOR INTERFACE



OPERATOR PUSHBUTTONS

Use these full travel pushbuttons for basic job setup and cycle control.

IN-PROCESS CONTROL FLEXIBILITY

Adjust X and Z axis feedrates independently during the grind cycle.

CUSTOM BUTTONS WITH LEDs

Manage machine and application specific functions easily with programmable buttons.

KEYBOARD

Enter cycle data with a tactile feedback keyboard, sealed for a harsh environment.

HANDHELD PENDANT

Jog machine axes manually to touch off the part, or to locate zero position of the dressing diamond.

TOUCHSCREEN

Access job setup menus and offset adjustments with an operator-friendly interface.



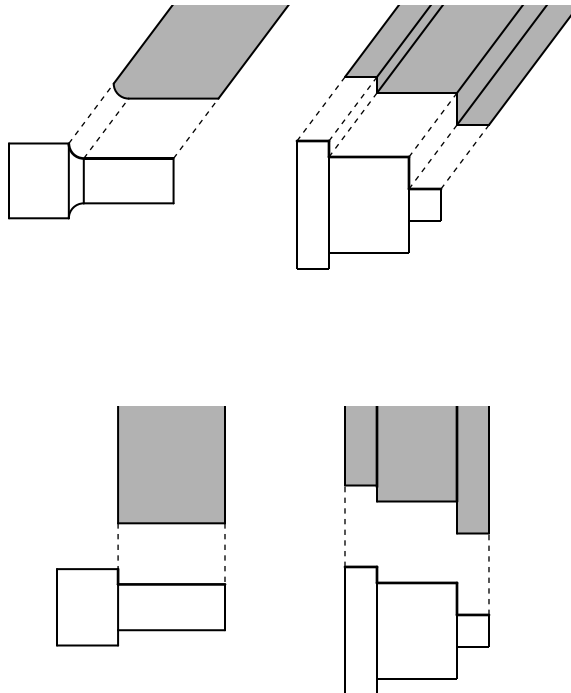
Grind Cycle Programming

Cyc Data A		Cyc Data B		Offset/Wheel	
Grind number	<input type="text" value="1"/>	Work rate (spindle RPM)	<input type="text" value="500"/>	X incremental offset adjust	<input type="text" value="0.0000"/>
Grind cycle type	<input type="text" value="TRAVERSE"/>	Clearpoint (DIA)	<input type="text" value="3.0000"/>	Z offset	<input type="text" value="0.0000"/>
Cycle chain (+ or -)	<input type="text" value="-"/>	Fast feedrate (IPR)	<input type="text" value="0.0500"/>	Z offset adjustment	<input type="text" value="0.0000"/>
Start fast (DIA)	<input type="text" value="1.5000"/>	Medium feedrate (IPR)	<input type="text" value="0.01000"/>	Width of grind wheel	<input type="text" value="5.5000"/>
Start medium (DIA)	<input type="text" value="1.3000"/>	Slow feedrate (IPR)	<input type="text" value="0.00002"/>	Overlap distance (plunge grind)	<input type="text" value="0.2000"/>
Start slow (DIA)	<input type="text" value="1.0200"/>	Dwell at end of slow	<input type="text" value="2"/>	X offset	<input type="text" value="0.0000"/>
Final diameter	<input type="text" value="1.0000"/>	Dwell left	<input type="text" value="0"/>	X total offset adjustment	<input type="text" value="0.0000"/>
Wheel left + or -	<input type="text" value="0.0000"/>	Dwell right	<input type="text" value="0"/>	Open footstock at end of cycle	<input type="text" value="on"/>
Wheel right + or -	<input type="text" value="2.0000"/>	Wheel left rate	<input type="text" value="0.200"/>	Part counter	<input type="text" value="0"/>
Pick left (traverse grind)	<input type="text" value="0.0050"/>	Wheel right rate	<input type="text" value="0.200"/>		
Pick right (traverse grind)	<input type="text" value="0.0050"/>	Work rate (RPM) in slow	<input type="text" value="300"/>		
# of dead passes (traverse)	<input type="text" value="3"/>	Clearance: trvrse after plnge	<input type="text" value="0.0000"/>		

Full capability to define PLUNGE, TRAVERSE, and MULTI-PLUNGE grind cycles, with FAST, MEDIUM, and SLOW grind features. Up to 9 grind cycles can be defined, then chained together to run a complete job. Job definitions can be saved to hard disk for later recall. In-process operator options allow independent feedrate adjusts for X and Z axes. Traverse grind cycle allows in-process option for operator to stop X-axis feed-in before final programmed diameter is reached, or to feed in beyond programmed final diameter based on actual process measurements.

Straight or Angle Head Wheel Dressing

Dress	
Dress amount, first pass	<input type="text" value="0.0020"/>
Dress feed (IPM), first pass	<input type="text" value="20"/>
Dress amount, second pass	<input type="text" value="0.0000"/>
Dress feed (IPM), second pass	<input type="text" value="20"/>
Diamond dress radius	<input type="text" value="0.0600"/>
Number of cycles between dress	<input type="text" value="0"/>
Cycles since last dress	<input type="text" value="0"/>
Dressing Z front dimension	<input type="text" value="-6.2000"/>
Dressing X shoulder dimension	<input type="text" value="-0.5000"/>
Dressing radius	<input type="text" value="0.0400"/>
Dressing repeat cycles	<input type="text" value="1"/>



Grind wheel dressing capability for both simple and complex profiles. One-touch operator button to run complete dressing cycle, including a predefined number of multiple passes. Automatic dressing cycles can be programmed to run after a defined number of grind cycles.

Gage/Part Locator

Gage	
Part locator active	<input type="text" value="on"/>
Gage 1 used in cycle	<input type="text" value="1"/>
Gage 1 activate posn	<input type="text" value="1.0100"/>
Gage 2 used in cycle	<input type="text" value="2"/>
Gage 2 activate posn	<input type="text" value="1.1500"/>
Gage 3 used in cycle	<input type="text" value="0"/>
Gage 3 activate posn	<input type="text" value="0.0000"/>
Gage 4 used in cycle	<input type="text" value="0"/>
Gage 4 activate posn	<input type="text" value="0.0000"/>

GAGE INTERFACES (up to 4) may be defined to control part sizes during the grind cycle.

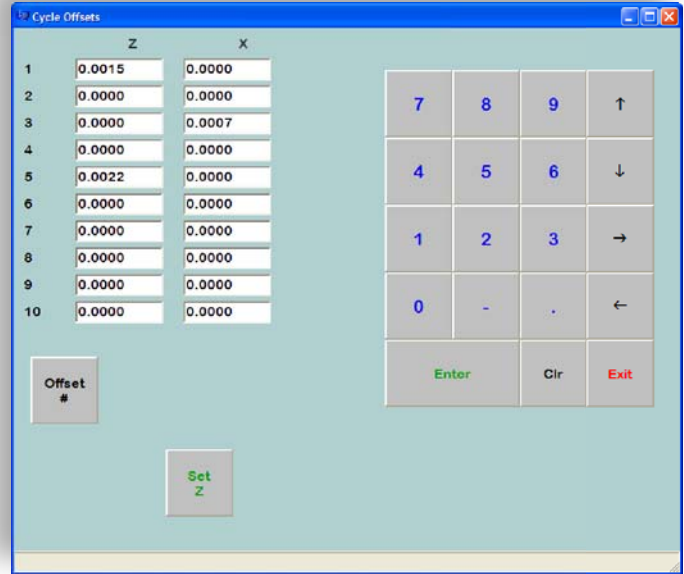
PART LOCATOR control provides the ability to offset the Z-axis position of the grinding wheel from one part to the next using a high resolution encoder feedback of the part locator position.

GRINDING SIMPLIFIED

SERIES 8 CNC CONTROL

SOFTWARE FEATURES

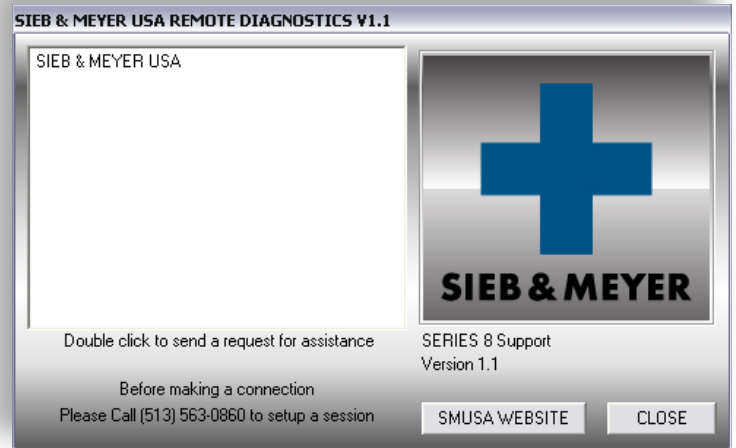
- » menu driven, touch screen operator interface
- » up to 9 cycles definable in a job
- » cycle prove-out safety check mode
- » independent offsets for X & Z of each grind cycle
- » independent control of X & Z feedrate overrides
- » rear station wheel dressing
- » profile wheel dressing
- » dressing cycle count
- » automatic footstock control
- » automatic steadyrest control
- » gaging interface
- » part locator interface
- » grind wheel overload protection
- » variable speed workhead rotation
- » automatic diameter adjustment after wheel dressing
- » cycle restart override



Independent X & Z offsets of each grind cycle

HARDWARE FEATURES

- » digital servo drive system
- » industrial PC
- » SIEB & MEYER motion control card
- » touch screen
- » handheld pendant for machine setup
- » high speed serial bus digital I/O system
- » complete control integration
- » ethernet interface
- » USB port for upload/download of programs



Let SIEB & MEYER USA's engineers remotely diagnose your machine's control issues.

CONTACT INFORMATION

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**SIEB & MEYER USA CAN DESIGN AND
 BUILD THE ENTIRE ELECTRICAL INTERFACE**

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