

# **AUTOFACER®**

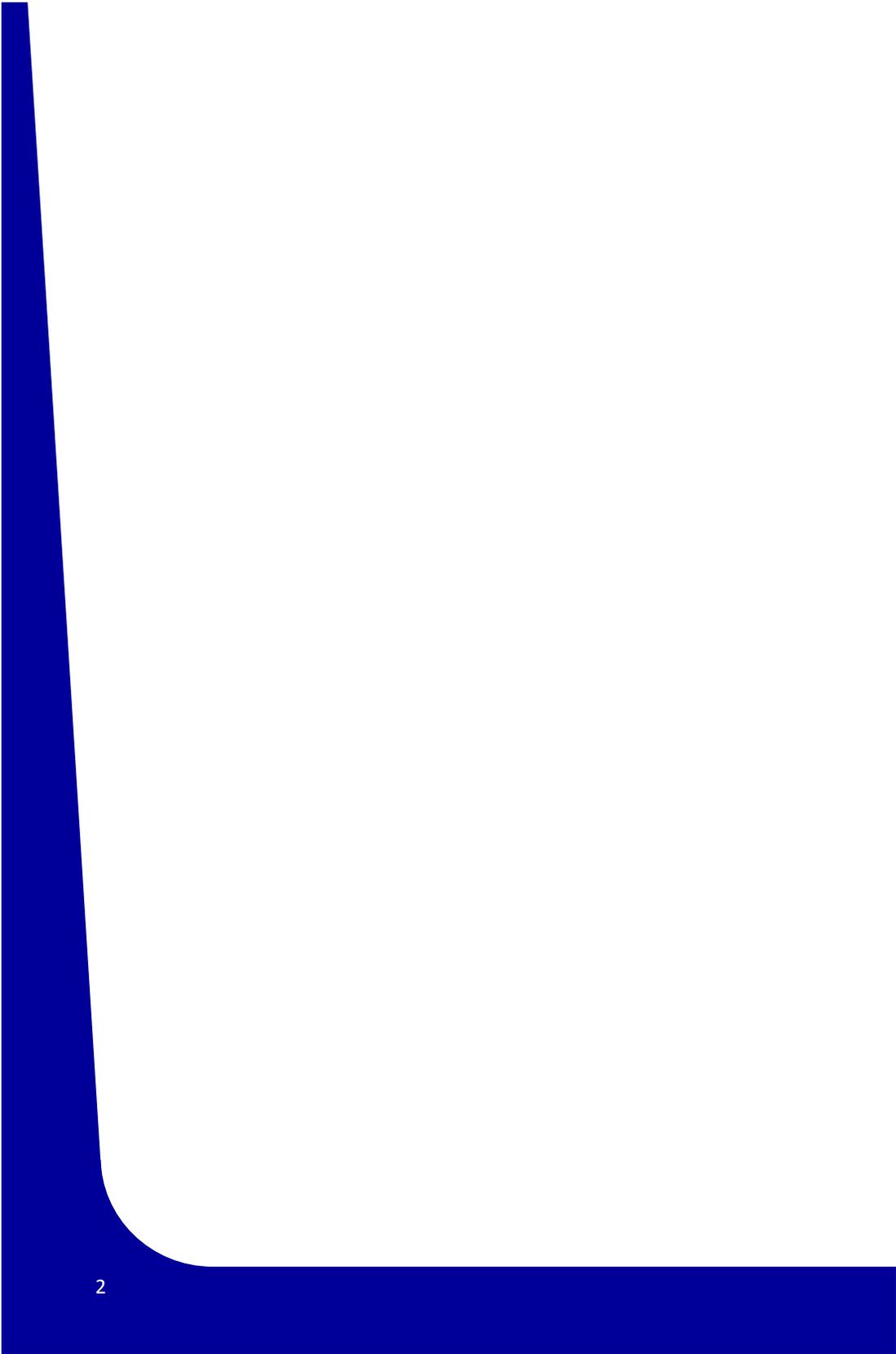
## **Operating Instructions**

### **Types of Autofacers covered in this booklet:**

- Inertia
- Torque Bar
- Activating Pad
- Bump Style



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## Things to check before operating Autofacer

1. Manually open and close Autofacer. Check for smooth activation with no obvious signs of binding.
2. Is cutting blade locked securely onto the flat of the pivot pin? See page 3 for proper blade installation instructions.

## Programming and Operating Hints

1. Turn on spindle through coolant *after* blade has opened.
2. Turn off spindle through coolant *before* blade has closed.
3. Autofacers utilizing a Shear Pin must clear work piece by minimum of 3 inches before traversing. This will allow the shank to completely pull off Cutter Body in case the Shear Pin breaks.
4. Cutting blade must be clear of all obstructions prior to opening.

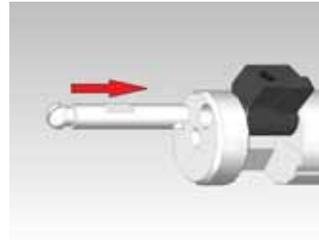


## Cutter Installation Instructions

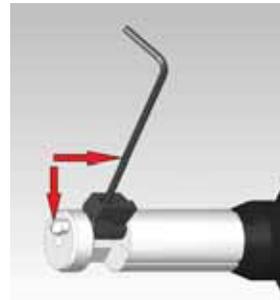
### NOTICE!

**Reliability of Autofacer depends on cutting blade being locked onto flat of Pivot Pin**

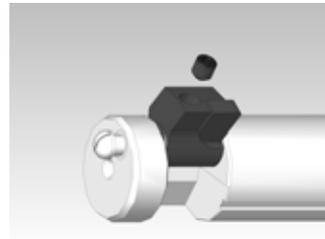
Insert pivot pin into Cutter Body and Blade. Turn Pivot Pin until it engages tang of Activating Rod.



With blade in open position, rotate clutch of tool until the alignment mark line on the pivot pin is aligned with hex wrench and set screw in blade. This will ensure that set screw is aligned with flat on Pivot Pin. (For pivot pins without alignment mark, remove screw completely and visually verify that tapped hole is lined up with flat).



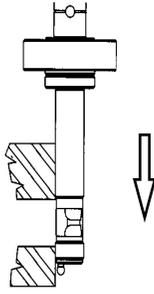
Apply a small amount of serviceable Loctite (provided) to thread of screw. Tighten set screw to 6-10 in/lbs, being careful not to overtighten. If second follow-up screw is provided, install and tighten to 6 in/lbs.



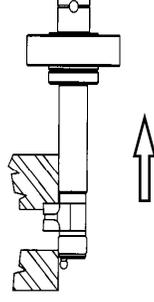
**TIP:** To verify that set screw is located on flat of Pivot Pin, loosen set screw slightly and attempt to pull Pivot Pin out of tool. The pin should only be able to slide until the set screw gets caught on the end of the Pivot Pin flat.

## Inertia Autofacer Operating Sequence

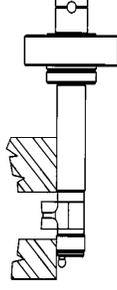
1. With through coolant off and flood coolant on, enter work hole in **clockwise** rotation at **500-800 rpm**.



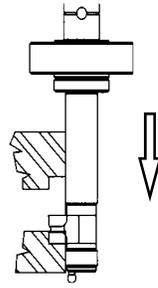
3. Back feed to counterbore depth. Dwell for 1-3 revolutions to clean up cut.



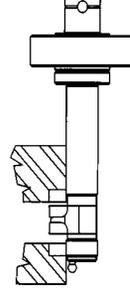
2. Reverse spindle rotation to **counterclockwise** at **500-800 rpm**. Do not stop spindle between changing rotation. Blade will open. After a 1-3 revolution dwell, increase rpm to proper cutting speed. Turn through coolant on.



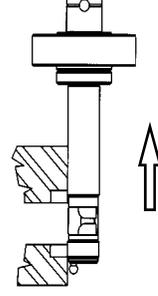
4. If front cutting, fast feed forward to approach front face, feed to depth and dwell for 1-3 revolutions.



5. Feed to clear area to clear part. Turn off through coolant. Leave flood coolant On.



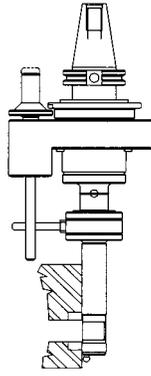
6. Set spindle to **500-800 rpm** and reverse to **clockwise**. Do not stop spindle between changing rotation. Blade will close. Fast-feed out to complete machining cycle.



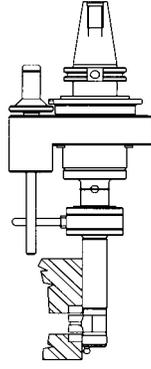
# Torque Bar Autofacer

## Operating Sequence

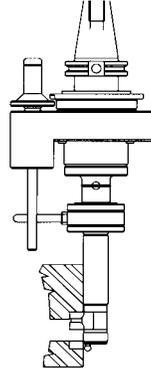
1. With through coolant off and flood coolant on, enter work hole in **clockwise** rotation at **100 rpm**.



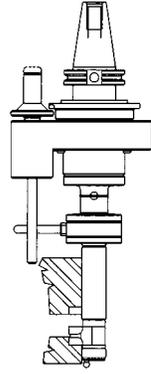
2. Reverse spindle rotation to **counter-clockwise** at **100 rpm**. Blade will open. After a 1-3 revolution dwell, increase rpm to proper cutting speed. Turn through coolant on.



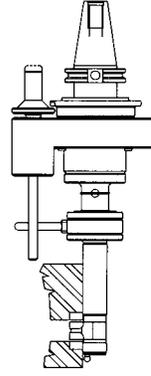
3. Back feed to counterbore depth. Dwell for 1-3 revolution to clean up cut.



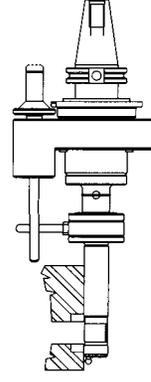
4. If front cutting, fast feed forward to approach front face, feed to depth and dwell for 1-3 revolutions.



5. Feed to clear area to clear part. Turn off through coolant. Leave flood coolant On.



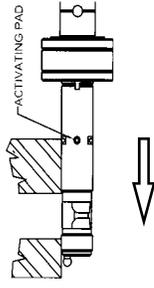
6. Set spindle to **100 rpm** and reverse to **clockwise**. Blade will close. Fast-feed out to complete machining cycle.



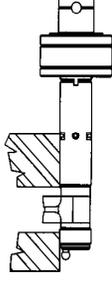
# Activating Pad Autofacer

## Operating Sequence

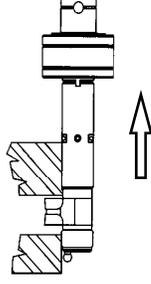
1. With through coolant off and flood coolant on, enter work hole in **clockwise** rotation at **100 rpm**.



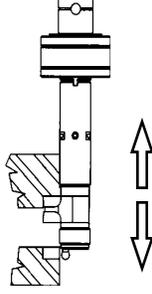
2. Reverse spindle rotation to **counter-clockwise** at **100 rpm**. Activating pads will grip ID of hole and blade will open.



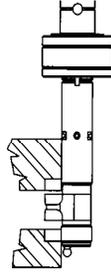
3. After a 1-3 revolution dwell, increase rpm to proper cutting speed. Turn through coolant on.



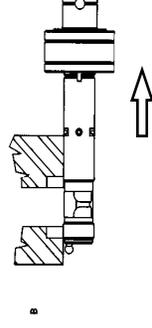
4. Back feed to counterbore depth. Dwell for 1-3 revolutions to clean up cut. If applicable, feed forward and machine front face to depth. Dwell for 1-3 revolutions.



5. Feed to clear area to clear part. Turn off through coolant. Leave flood coolant On.



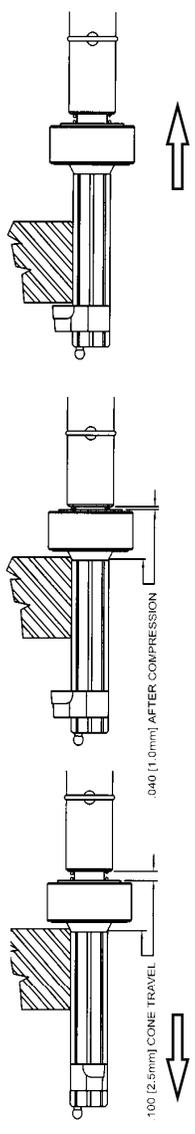
6. Set spindle to **100 rpm** and reverse to **clockwise**. Activating pads will grip ID of hole and blade will close. Fast-feed out to complete machining cycle.



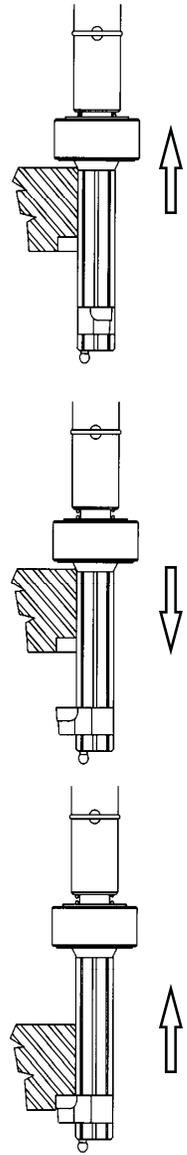
# Bump Style Autofacer

## Operating Sequence

1. With through coolant off and flood coolant on, enter work hole in **clockwise** rotation at **100 rpm** until tapered Activating Cone contacts part.
2. Compress Activating Cone .060" (1.5mm). Reverse spindle to **counter-clockwise**. Cone will grip face of part and blade will open.
3. After a 1-3 revolution dwell, increase rpm to proper cutting speed. Turn through coolant on.



4. Back feed to counterbore depth. Dwell for 1-3 revolutions to clean up cut.
5. Drop to **100 rpm**. Fast feed forward to contact Activating Cone against part. Compress Cone .060" (1.5mm). Reverse spindle to **clockwise**. Cone will grip face of part and blade will close.
6. Fast feed out of part to complete machining cycle.



## Maintenance Information

### Lubrication

- If through spindle coolant is being used, lubrication is not necessary for operation of tool.
- If through spindle coolant is not being used, the clutch components of the Autofacer should be lubricated after every 10 hours of use. Lubricate by disassembling the tool and by using the grease fitting, if applicable.
- If tool has not been in use for an extended period of time, lubricate before using with marine grease.
- If tool will not be in use for an extended period of time, make sure to clean and lubricate thoroughly before putting away using rust inhibitor.

### Inspection

- Autofacer should be inspected for excessive wear and tear every month or so.
- It is a good idea to activate the tool by hand periodically to check for a smooth action and no noticeable binding.



## **Troubleshooting**

### **The Shear Pin is breaking during machining...**

- This is caused when cutting pressure is too high due to too high of a feed rate or a dull Cutter Blade or Insert. First, check the cutting edge to see if it needs sharpening or replacing. If not, decrease the feed rate by 10-20%.

### **The chip is not breaking...**

- This is usually caused by too low of a feed rate. Autofacers are designed to be fed at high feed rates. Increase the feed rate by .001-.003 IPR (.03-.08 MMPR).
- Program periodic dwells into the feed to thin the chip out.

### **The cutter is coming loose from the Pivot Pin...**

- Apply a small drop of serviceable Loctite (provided with purchase of Autofacer) to the thread of the secondary lock screw. If there is only one screw, apply Loctite to primary screw.
- The blade may not be locked onto the flat of the Pivot Pin. Please see "Cutter Installation Instructions" in this booklet.

### **The cutter is not opening or closing all the way...**

- The blade may not be locked onto the flat of the Pivot Pin. Please see "Cutter Installation Instructions" in this booklet.
- The tool may be jammed up by chips. Make sure there are no chips in the Cutter Body pocket where the blade folds into. Also, disassemble the Autofacer and check for chips or damage to the internal components of the clutch mechanism.

### **The tool is chattering...**

- This is usually caused by too low of a feed rate. Autofacers are designed to be fed at high feed rates. Increase the feed rate by .001-.003 IPR (.03-.08 MMPR).
- The clearance between the Pilot and the work hole may be too great. The diameters should differ no more than .010" (.25mm), but no less than .002" (.05mm).



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