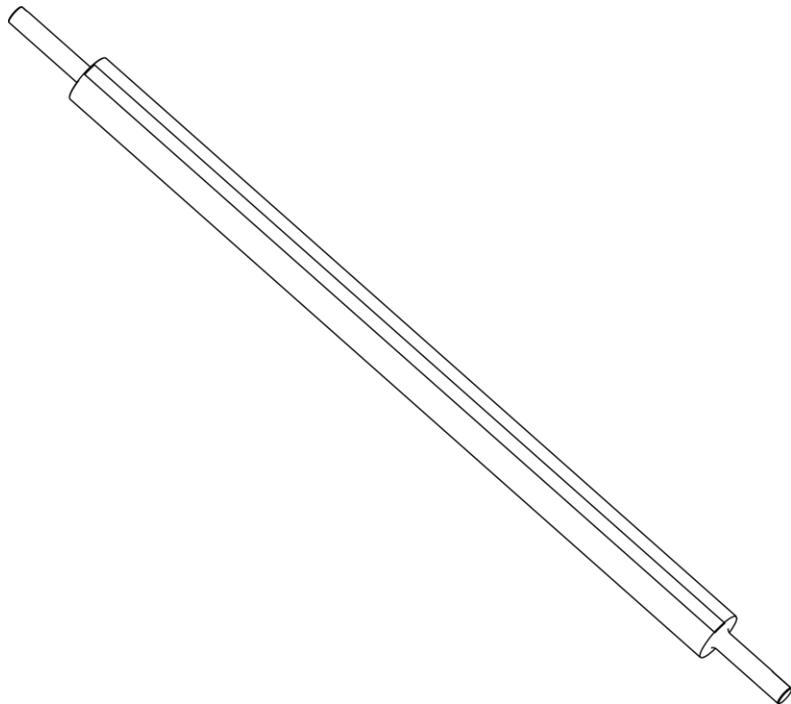




## Tidland Slitter Shafts

### Installation, Operation and Maintenance

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EN

MI 666265 1 D

Knife Shaft (tubular) – KT  
Knife Shaft (solid) – KS  
Anvil Roll (KS with sleeves) – AR

# IMPORTANT SAFETY INSTRUCTIONS

When using this Tidland product, basic safety precautions should always be followed to reduce the risk of personal injury. Your company's safety instructions and procedures should always be followed. When using this product with any other equipment or machinery, all safety requirements stipulated by that equipment or machinery manufacturer must be followed. Compliance with local, state, and federal safety requirements is your responsibility. No part of these or the following instructions should be construed as conflicting with or nullifying the instructions from other sources. Be familiar with the hazards and safety requirements in your work environment and always work safely.

1. Read and understand all instructions and shaft design application limits before operation.
2. Never use this product for a purpose or in a machine that it was not specifically designed for. See Product Safety Data Sheet (PSDS), if applicable.
3. Do not exceed the operation loads for this shaft as noted on its PSDS, Product Safety Data Sheet, if applicable.
4. Follow all warnings and instructions marked on the product and on the PSDS, if applicable.
5. Inspect the shaft for wear and/or other safety and functional deficiencies daily, before each use.
6. Wear safety glasses or proper eye protection when inflating or deflating or otherwise operating the air system, if applicable.
7. Do not remove or otherwise alter any setscrews or fastening devices prior to using this product.
8. Do not operate this product if any setscrews or fastening devices are missing.
9. Do not lift shaft manually if it is beyond your capacity. Loads over 1/3 your body weight may be prohibitive. Consult your company safety policy.
10. When lifting a shaft, use proper lifting techniques, keeping back straight and lifting with the legs.
11. Do not carry or lift this product over wet or slippery surfaces.
12. Use appropriate mechanical lifting devices, such as a hoist or shaft puller, for heavier shafts.
13. When performing maintenance or repair procedures, if applicable, do not pressurize the shaft if journal setscrews are loose or missing.
14. When performing maintenance procedures, if applicable, do not pressurize the shaft if the journal is missing.
15. All replacement parts used on this product should be made to original Tidland specifications.
16. All maintenance and repair procedures performed on this product should be done to Tidland specifications by qualified personnel.

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## CAUTION

- Tidland Slitter Shafts are designed to hold anvil rings in place during slitting operations.
- Knife blades and anvil rings are sharp! Avoid injury— always wear stainless steel protective gloves when handling knife blades and rings.



## CUSTOMER SERVICE

1.360.834.2345

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## RECOMMENDED TOOLS

- Stainless Steel Protective Gloves (Part No. 132084)
- Hex drive wrench kit  
Part No. 128363: L-Handle; 1.5, 2, 2.5, 3, 4, and 5mm  
Part No. 132146: T-Handle; 2.5, 3, 4, 5, and 6mm)
- Wet/dry sandpaper – 600 grit (for removing small scratches and burrs shaft)

## MAINTENANCE SCHEDULE

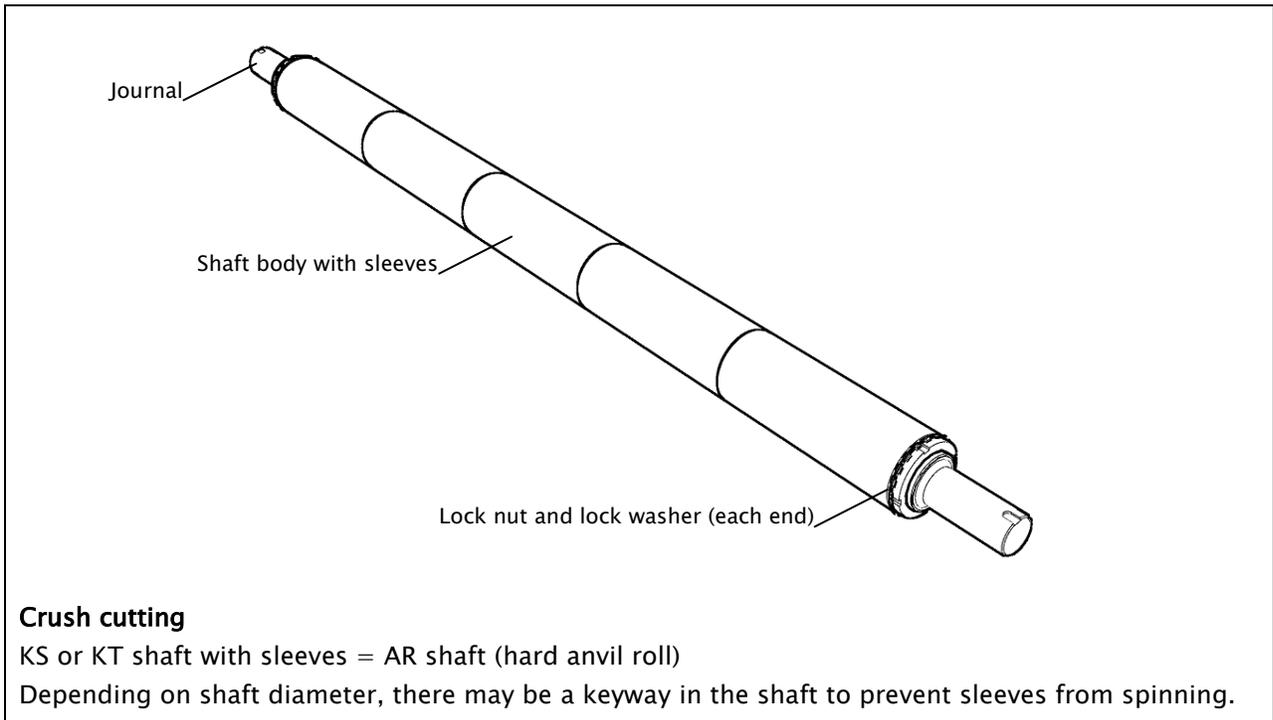
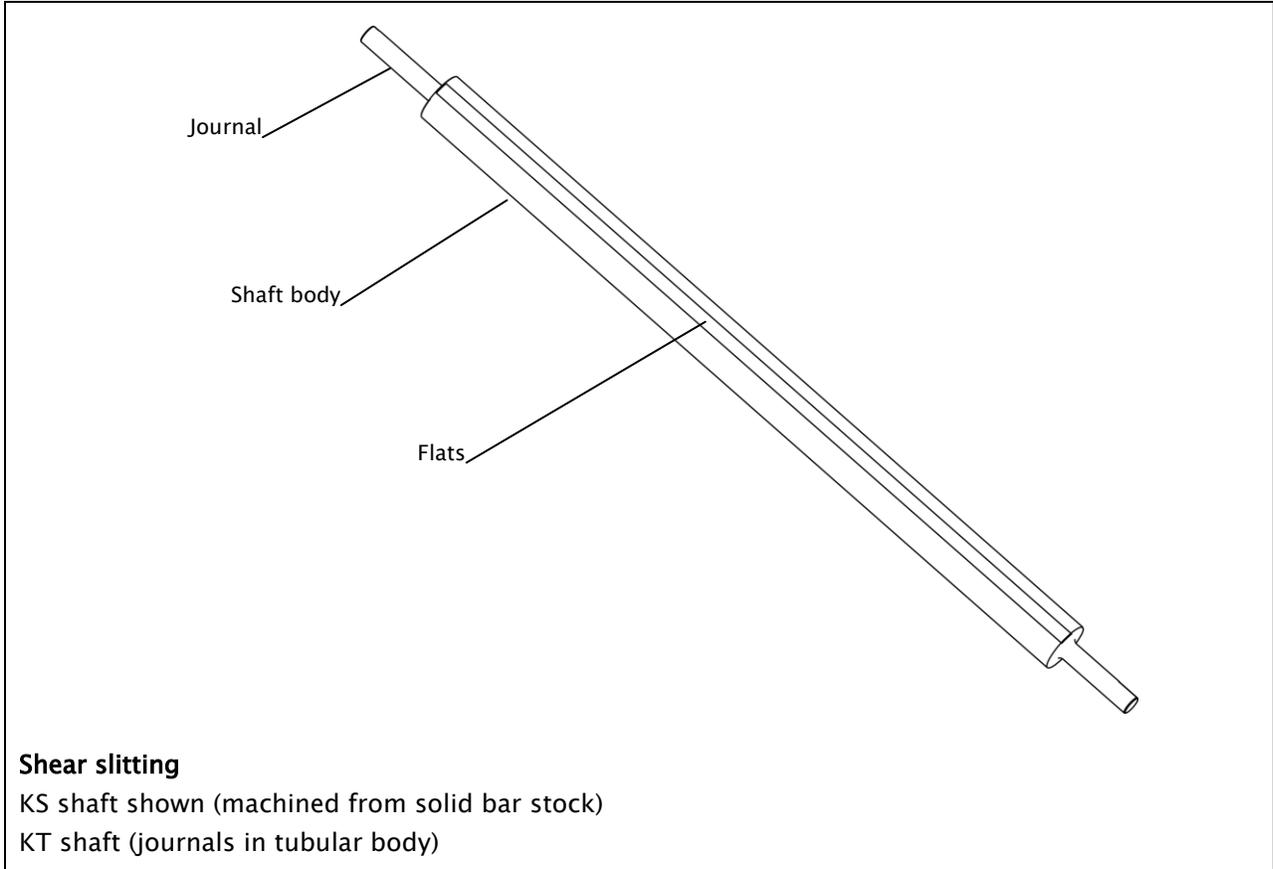
**Wear eye protection when using tools or compressed air.**



### Daily

- Throughout the operation shift, use clean compressed air to remove dust and debris from the shaft.
- Use a mild solvent, such as rubbing alcohol, to clean residue from the shaft. Dry shaft thoroughly.
- Before each operation, the shaft body for scratches that may prevent the anvil rings from moving freely along the shaft.
- Any large burrs or scratches on the shaft must be removed.
  - Use 600 grit wet/dry sandpaper to smooth out the surface.
  - Heavily gouged or deformed shafts should be replaced.  
Call Maxcess Customer Service 1.360.834.2345.

## Shaft Nomenclature



# INSTALLATION

## Shaft Notes

- Tidland Slitter Shafts are designed to hold anvil rings in place during slitting operations.
- Install shaft as required for your specific application: you may need to install anvil rings prior to shaft installation.
- Before each operation, inspect the body for scratches that may prevent the anvil rings from moving freely along the shaft.
- Any large burrs or scratches on the shaft must be removed.
  - Use 600 grit wet/dry sandpaper to smooth out the surface.
  - Heavily gouged or deformed shafts should be replaced.  
Call Maxcess Customer Service 1.360.834.2345.

## To Install Anvil Rings (Initial Setup)



### HAND HAZARD

Keep hands away from knife blades at all times.  
Knife blades can cause serious injury.

1. Complete your company lock-out/tag-out procedures to lock out system power.
2. Wear protective gloves when working with knife blades and anvil rings. Tidland recommends stainless steel gloves.
3. Make sure that the shaft is clean and dry.
4. Install the anvil rings (and spacers, if applicable), making sure that sharpened edges are toward the slitting sides of the knife blades.  
**Note:** Standard Tidland anvil rings are reversible with dual slitting edges. Otherwise, install the anvil ring with the sharpened edge toward the slitting side of the knife blade.
5. Lock the anvil rings in place by tightening the three brass-tipped setscrews onto the steel body. **Note:** The Series 905/910 (KT and KS) shafts are designed with a keyway along the length of the shaft. Setscrews must be aligned in the keyway before tightening.
6. Reverse your company lock-out/tag-out procedures to restore system power.

**See your Tidland Knifeholder Manual for detailed knifeholder setup and operation.**



**WARNING!**

**Hand hazard.**

**Blades are sharp.**

**Avoid injury—wear stainless steel protective gloves when handling blades.**

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## To Reposition Anvil Rings

1. Stop shaft rotation.
2. Complete your company lock-out/tag-out procedures to lock out system power.
3. Ensure that the shaft is clean and dry.
4. Loosen the setscrews that secure the anvil rings (and spacers, if applicable).
5. Move the anvil rings (and spacers, if applicable) to the desired location.
6. See your knifeholder manual for repositioning and setup at new anvil ring locations.
7. Lock the anvil rings in place by tightening the three brass-tipped setscrews onto the steel body. Align the setscrews in the flats before tightening.
8. Reverse your company lock-out/tag-out procedures to restore system power.
9. Resume shaft rotation.

## To Reposition Hardened Anvil Sleeves

If your shaft is equipped with adjustable hardened anvil sleeves, you may need to reposition the sleeves when a groove has worn in the anvil sleeve from prolonged slitting.

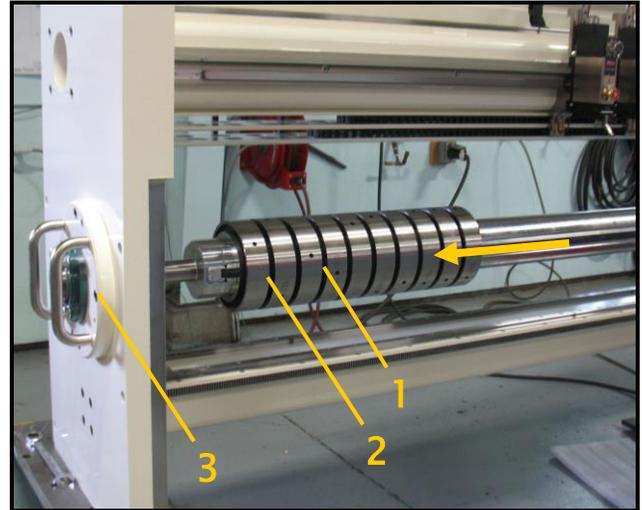
1. Stop the slitting operation and retract the knifeholder blades.
2. Bend the tabs up on the lock washers, if installed\*, at each end of the shaft to loosen the lock nuts.
3. At one end of the shaft, move the lock nut to a new location. Align a lock washer tab with the notch in the lock nut and bend the tab into the nut to lock in place.
4. Tighten the lock nut on the other end, pushing the sleeves toward the first nut. Align a lock washer tab with the notch in the remaining nut and bend the tab to lock. Once locked, sleeves should not move axially.
5. Resume slitting operation.

\* If your anvil roll is equipped with the dual locknut design, loosen the two locknuts that are locked together. After moving the anvil sleeves, tighten the nuts against each other to secure the sleeves in place on the anvil roll.

# MAINTENANCE

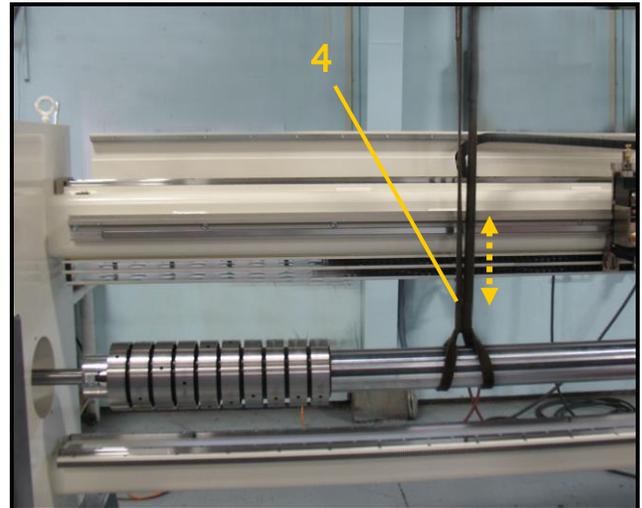
## Removing Anvil Rings from the Shaft

1. Exhaust all air from the expanded external elements  
OR  
Loosen the set screws (1) in the anvil rings
2. Slide the anvil rings (2) along the anvil shaft toward the removable bearing (3).  
Note: For large quantities of anvils, you may need to move the anvils in smaller groups at a time.



3. Provide support (4) for the slitler shaft before removing the bearing.
  - a. Position the strap directly over the anvil shaft.
  - b. Put enough tension in the strap to prevent the shaft from dropping when the bearing is removed.

**Caution:** Too much tension in the strap can cause excessive stress and possible damage to the shaft journals.

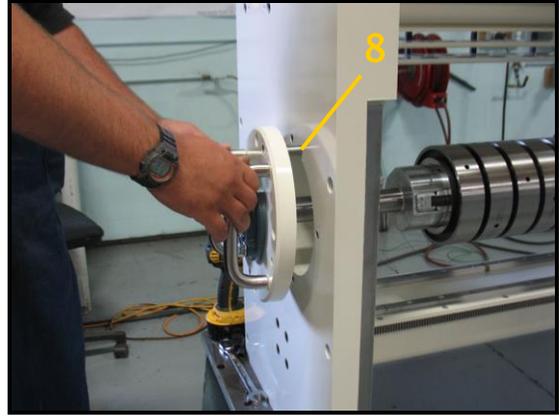
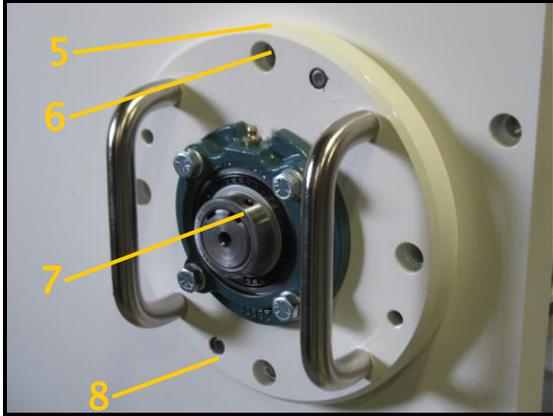


The shaft can also be supported from underneath with the use of a jacking system. The same caution applies: do not put excessive stress on the shaft journals.

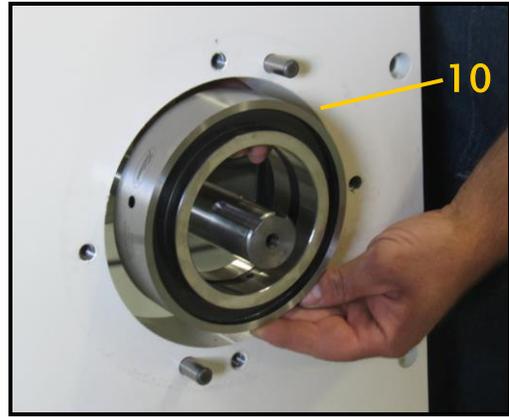
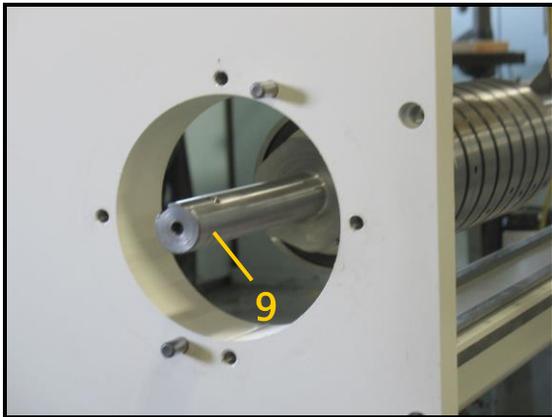
*continued*

## MAINTENANCE

4. When slitter shaft is properly supported, remove the bearing.
  - a. Note the match mark (5) punched on the top of the bearing cover.
  - b. Remove four socket head fasteners (6).
  - c. Loosen two set screws (7) in the bearing collar.
  - d. Slide the bearing and cover off of the two alignment (8) pins located in the side frame.



5. The shaft journal (9) should be centered in the side frame opening after the bearing is removed.
6. Remove anvil rings (and spacers, if installed) by sliding them off the shaft through the opening (10) in the side frame. **Caution:** Anvil edges are very sharp.



**Leave the shaft in a supported position during maintenance and anvil reinstallation.**

1. Slide the anvil rings (and spacers, if applicable) onto the shaft, making sure that sharpened edges are toward the slitting sides of the knife blades.
2. Reinstall the removable bearing and bearing cover (positioned with the match mark at the top).
3. Reinstall cover fasteners and tighten.
4. Align the bearing collar set screws with the flats (if applicable) on the shaft journal and tighten.
5. Remove the shaft support.
6. Move the anvil rings (and spacers, if installed) to the desired location.
7. See your knifemaker manual for positioning and setup at new anvil ring locations.
8. Lock the anvil rings in place: inflate the external elements, OR, tighten the three brass-tipped set screws onto the steel body, making sure that the set screws are aligned in the shaft keyway before tightening.
9. Reverse your company lock-out procedures to unlock the system power.
10. Resume slitting operation.

## TROUBLESHOOTING

<b>Problem</b>	<b>Possible Cause</b>	<b>Recommended Solution</b>
Anvil rings do not slide on the shaft	Anvil ring setscrews are still tightened.	Loosen anvil ring setscrews.
	External elements not fully deflated	Deflate shaft completely.
	Shaft body may be badly scratched.	Scratches and burrs along the shaft body can be removed by using 600 grit wet/dry sandpaper. Smooth the surface until the anvil rings move freely on the shaft.





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