

TROUBLE SHOOTING GUIDE

ID Multi-Roller Tool



Result	Possible Reasons	Corrective Action
Bell mouth on entry and or exit	<ul style="list-style-type: none"> • Tool runout • Alignment between tool and part 	<ul style="list-style-type: none"> • Zero the tool to reduce runout • Alignment between tool & part
Taper in the bore	<ul style="list-style-type: none"> • Tapered bore prior to burnishing • Incorrect feed rate <i>(feeding the tool too slow can cause the rolls to walk down the mandrel's taper and lose size)</i> • Attempting to shift too much stock from pre-burnished finish 	<ul style="list-style-type: none"> • Inspect the pre-burnished bore • Set feed rate to recommended values
Cloudy finish	<ul style="list-style-type: none"> • Worn rolls • Dirty coolant • No lubrication <i>(coolant concentration too low)</i> 	<ul style="list-style-type: none"> • Inspect the pre-burnished bore • Set feed rate to recommended values • Add coolant to increase concentration <i>(minimum 6%; 8%+ recommended)</i>
Size changing through the bore	<ul style="list-style-type: none"> • Incorrect feed rate <i>(feeding the tool too slow can cause the rolls to walk down the mandrel's taper and lose size)</i> • Removing the tool from the bore without using a rapid feed <i>(causes intermediate burnishing as you retract)</i> 	<ul style="list-style-type: none"> • Set feed rate to recommended values • Increase speed when tool is removed from the bore
Spiral lines or nicks	<ul style="list-style-type: none"> • Excessive tool runout <i>(tool pushing too heavy on one side can cause the cage to drag while retracting)</i> • Material stuck to a roll or lodged inside the cage's cavity • Cage stops rotating / tool is locked up 	<ul style="list-style-type: none"> • Correct the tool runout • Inspect the cage and rolls for material build-up, damage, or worn spots • Clean the tool and inspect for worn, damaged, or bent components that would prevent it from working correctly
Nicks on the part's face	<ul style="list-style-type: none"> • If the tool is rotating, the rolls will flare out to the tool's maximum size • If the tool is horizontal in a lathe, the bottom will sag 	<ul style="list-style-type: none"> • Increase the lead chamfer (if possible) or a tight lipped cage may be required

For additional technical support:

1-800-332-0447
 sales@elliott-tool.com
 www.elliott-tool.com

