Troubleshooting Thread Milling

Solutions

Problems	Possible Cause	Reduce cutting speed	Increase feed rate and reduce radial passes	Check coolant pressure/flow direction	Check stability	Reduce feed rate	Add radial passes	Increase cutting speed	Reduce overhang	Use zero compensation	Check CNC program	Adjust cutting conditions	Add sufficient coolant	Reduce cutting conditions	Clamp tool to the minimum overhang length	Adjust feed/speed	Check tool and workpiece clamping
Flank Wear	High cutting speed	●															
Flank Wear	Chip too thin		●														
Flank Wear	Insufficient coolant			●													
Fracture/Chipping	Vibrations				●												
Fracture/Chipping	High load on cutting edge					●	●										
Build up edge	Cutting speed too low							●									
Build up edge	Insufficient coolant			●													
Thread Surface Chatter Marks /Vibrations	Feed rate is too high					●											
Thread Surface Chatter Marks /Vibrations	Large profile						●										
Thread Surface Chatter Marks /Vibrations	Thread lenght is too long						●		●								
Thread Accuracy (GO/NO GO Gauge)	Tool deflection					●	●			●							
Thread Accuracy (GO/NO GO Gauge)	CNC program error										●						
Insert/Tool Breakage	High load on the cutting edge					●											
Insert/Tool Breakage	Im proper cutting conditions															●	
Insert/Tool Breakage	Chip Evacuation													●			
Insert/Tool Breakage	CNC program error										●						
Tapered Thread	Tool cutting load					●									●		
Tapered Thread	Tool overhang															●	
Short Tool Life	Unsuitable cutting condition															●	
Short Tool Life	Vibrations															●	●

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