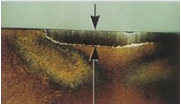
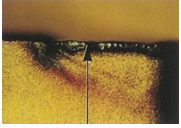








Problem	Description	Possible Solutions											
		Increase feed rate (IPR)	Reduce feed rate (IPR)	Increase speed (SFM)	Reduce speed (SFM)	Reduce depth of cut (DOC)	Use harder grade	Use tougher grade	Use coated grade	Review edge preparation	Apply coolant	Check system rigidity	Increase lead angle
Excess Edge Wear 	Smooth, regular wear along the flank face of the insert. The most desirable form of tool failure.	●			●		●		●				
Chipping 	Small particles of the insert break free from the cutting edge.							●	●		●	●	
Thermal Cracking 	Cracks on the insert's rake surface, usually perpendicular to the cutting edge.		●		●			●		●			
Deformation 	The cutting edge is plastically deformed rather than worn away		●		●	●	●			●			
Cratering 	A smooth, regular depression worn on the insert's rake face. If not corrected, the crater grows until it breaks through the cutting edge.		●		●			●		●			
Built-Up Edge 	Workpiece material is deposited on the insert's rake face. When these deposits break free and cause chips, they leave a pattern of irregular depressions along the cutting edge.	●		●				●	●	●			
Notching 	Localized wear on both the rake face and flank of the insert at the depth of cut line.		●						●			●	
Fracture 	A portion of the insert breaks off.		●			●		●			●		