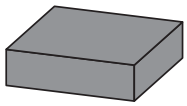
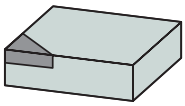
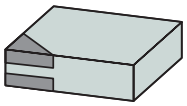
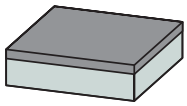
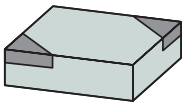
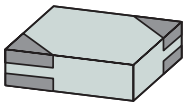
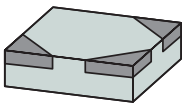
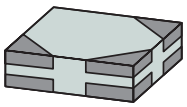
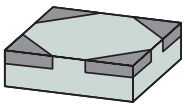
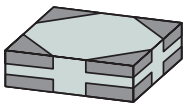
Insert Designations (continued)

ANSI / ISO STANDARD

The following table corresponds with the designations guide on **page 7.**

10 Styles					
S		A		K	
F		B		L	
		C		M	
		D		N	

Standard Edge Preparation

Material	Grade *See pg 10 for more info*	Insert Corner Radius		
		R .008 – .016" (R 0.2 – 0.4 mm)	R .031 – .047" (R 0.8 – 1.2 mm)	R .008 – .047" (R 0.2 – 1.2 mm)
		Default Edge Length and Angle		Hone Size
H Hardened Steel	IN80A	.004" (0.1 mm) x 20°	.004" (0.1 mm) x 20°	.0006" (0.015 mm)
	IN81A	.005" (0.12 mm) x 25°	.006" (0.15 mm) x 25°	.0006" (0.015 mm)
	IN82A	.005" (0.12 mm) x 25°	.006" (0.15 mm) x 25°	.0006" (0.015 mm)
	IN83A	.005" (0.12 mm) x 25°	.006" (0.15 mm) x 25°	.0006" (0.015 mm)
K Cast Iron	IN80A	.004" (0.1 mm) x 20°	.004" (0.1 mm) x 20°	.0006" (0.015 mm)
	IN80B	.008" (0.2 mm) x 20°	.008" (0.2 mm) x 20°	.0006" (0.015 mm)
S Super Alloys	IN83D *(by request)*	-	-	.0006" (0.015 mm)
	IN82F *(by request)*	-	-	.0006" (0.015 mm)

Standard Edge Treatment / Preparation

CBN is an ultra-hard material that requires special edge treatments. Understanding the application is paramount to success. Adjusting the edge preparation based on the work piece material, condition and shape, is critical for machining stability and tool life.

Additionally, there is often a need to test for the optimal cutting type for each individual processing task. Ingersoll's service team offers advice and support in choosing the appropriate solution. Please contact our expert staff with any questions.

For new materials and traditional applications, we recommend the standard edge types, E and S.

Contact Ingersoll's technical support team if you would like to try a non-standard edge preparation (i.e. F, K, P, R1, etc.). Optimize your productivity with our experience in cutting edge design.

Hone Only

Honing is used to protect the cutting edge against breakage and chipping. It provides an advantage in finishing applications with light cutting depths and low feed rates.

Chamfer With Sharp Edge

Chamfers increase both the wedge angle and the stability of the cutting edge in hard-to-machine applications; however, cutting forces are increased.

Chamfer and Hone

Chamfers increase both the wedge angle and the stability of the cutting edge in hard-to-machine applications; however, cutting forces are increased.

In extreme conditions, a combination of a chamfer + honing (micro geometry) is recommended. Cutting edge performance is vastly improved by protecting against breakage and chipping.

Finishing Chip Breaker

Ground chip breaker for optimal chip control in light cutting depths and low feed rates. Generates good surface finish.

Medium Chip Breaker

Ground chip breaker for optimal chip control in medium cutting conditions.