

Chipbreaker Selection

General Use

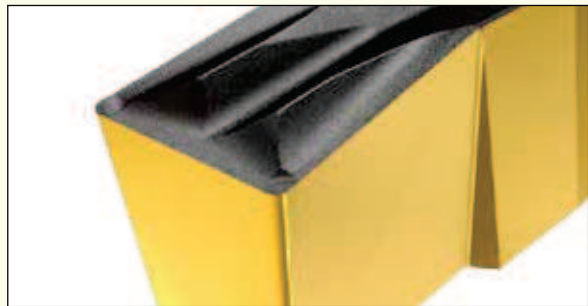
P-Type

- Very "open" geometry
- Medium to high feed in grooving and turning
- Large variety of standard sizes
- Precision ground inserts only
- Width range
External: .094 - .250"
Internal: .094 - .250"



F-Type

- First choice in grooving
- Low to medium feeds in grooving and turning
- Both precision ground and utility inserts
- Width range
External: .118 - .394"
Internal: .118 - .236"



G-Type

- Efficient chipbreaker for narrow width grooves
- Width range: .04 - .09"
- No option for turning



Y-Type

- General use in grooving and turning
- Positive top rake reduces cutting forces
- Excellent for long shafts
- Eliminates vibrations
- Both precision ground and utility inserts
- Width range
External: .315 - .787"



HG-Y-Type

- General use in grooving and turning
- Efficient for a wide range of materials and cutting conditions
- Utility inserts only
- Width range
External: .118 - .25"
Internal: .118 - .25"



Problematic and Specific Materials

N-Type

- First choice in grooving of problematic, soft and gummy materials
- Very low to medium feeds (from .002 ipr)
- Both precision ground and utility inserts
- Option for turning
- Width range
External: .118 - .315"
Internal: .118 - .197"



M-Type

- Unique chipbreaker with splitter
Chips are split into **3 Segments**
- Efficient for problematic, soft and gummy materials
- Option for light turning
- Width - .315"



A-Type

- First choice for machining cast Iron
- Peripheral 15° T-land on a flat top
- Exerts high cutting forces, therefore suitable for stable conditions
- Precision ground inserts only
- Width range
External: .118 - .315"



PA-Type

- First choice for machining aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range
External: .118 - .315"



CW-Type

- Unique chipformer for heavy-duty grooving
- Very wide chipbreaking range on carbon and alloy steel
- Width range .55 & .67"



Chipbreaker Selection

Profiling (full radius)

Y-Type

- First choice in profiling
- Positive top rake reduces cutting forces
- Excellent for long shafts
- Eliminates vibrations
- Both precision ground and utility inserts
- Width range
External: .118 - .472"



YF-Type

- First choice for profiling ductile materials
- Utility inserts only
- Width range
External: .118 - .315"



PA-Type

- First choice for profiling aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range
External: .118 - .315"



YZ-Type

- First choice for profiling ductile aluminum
- Peripheral ground and polished top rake with a very sharp edge
- Width range
External: .118 - .315"



H-Type

- Unique chipbreaker for heavy-duty profiling
- Negative T-land for extra edge toughness
- Suitable for heavy interrupted cuts and cast iron machining
- Width .472"



Chipbreaker Width Range


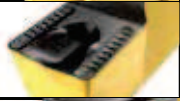



External

Insert Width									
.47				.787					
.43									
.40									
.35									
.32									
.28									
.24		.25				.25			
.20									
.16									
.12			.137						
.080	.09	.094							
.040									
	G	P	F	Y	N	HG-Y	M	A	PA

Internal

Insert Width				
.28				
.24	.25			.25
.20				
.16				
.12				
.080	.094			
.040				
	P	F	N	HG-Y

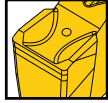
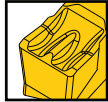
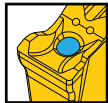
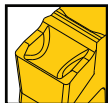

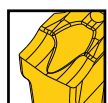
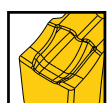
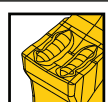
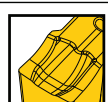
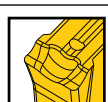
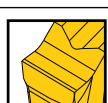
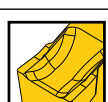
Suitable Chipbreaker and Required Feed Range for Workpiece Material

High ↑ Feed ↓ Low	Alloy Steel		Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
		P	P	P		
	HG-Y	HG-Y	Y	Y	PA*	A*
	Y	Y	F	F	P	P
	F	F	PA (finish only)			HG
	N					F

* First choice

PARTING Selection Guide

Selection of Chipformers for Various Workpiece Materials

		Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
High ↑ ↓ Feed ↑ ↓ Low	 C	✓	x	✓ (IC20 only)	✓ (IC20 only)	✓
	 W	✓	x	x	x	✓
	 C-JET (COOLANT)	✓	✓	✓	x	x
	 MF	✓	✓ Medium to high feed	✓ (IC20 only)	x	✓
	 JT	✓	✓	✓	x	✓
	 J	✓	✓	✓	✓	x
	 LFT	✓	✓	✓	x	x
	 Z	✓	✓	✓	✓	x
	 LF	✓	✓	✓	x	x
	 UT	✓	x	x	x	x
 P	✓	✓	x	✓	x	
 A	x	x	x	✓	x	

✓ First choice