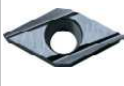
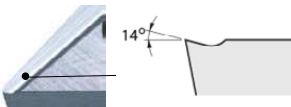

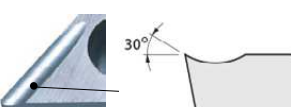

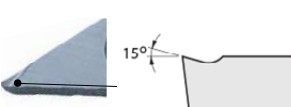

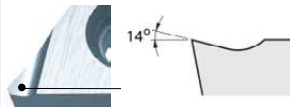

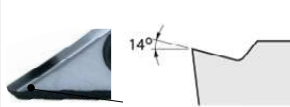

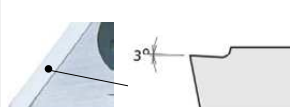


CHIPBREAKER SELECTION (POSITIVE INSERTS)


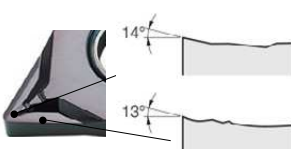
Steel


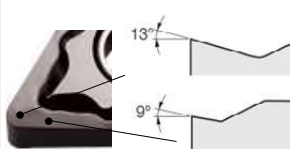
1 Ground Chipbreaker - Positive

Low Feed	J			14°	Slant chipbreaker width and chip control at various D.O.C..
Low Feed	U			30°	Good chip control at low feed rate and varied D.O.C. with low cutting force. Suitable for automatic lathes.
Finishing	F			15°	Good chip control at finishing to light cutting with low cutting force.

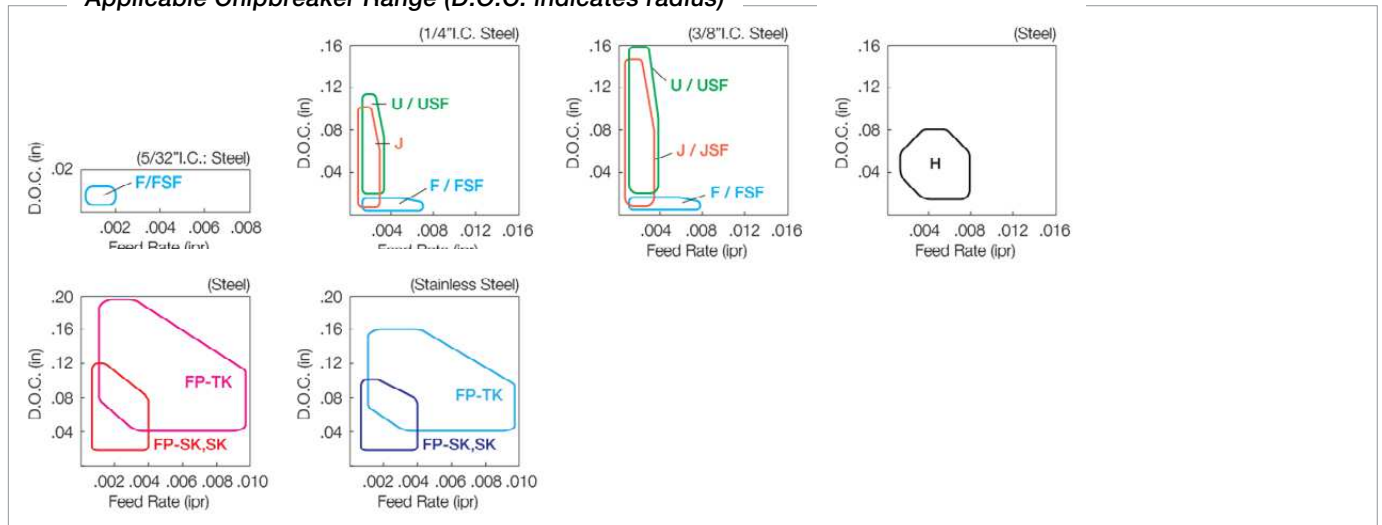
Finishing	Land (Without Indication)			14°	Good chip control at finishing to light cutting with low cutting force.
Finishing-Medium	Y			14°	Sharp cutting performance and good surface finish.
Finishing-Medium	H			3°	Sharp cutting performance and small curled chips.

Steel / Stainless Steel (for Negative Small Parts Machining)

Finishing-Medium	SK			14° 13°	For finishing to medium machining with automatic lathes. Sharp Edge / Polished: Sharp Cutting. Smooth chipbreaker geometry improves chip flow with less adhesion. Large curled chips. FP-SK: Mirror Finish -SK: Honing
------------------	----	--	--	------------	--

Medium-Roughing	FP-TK			13° 9°	For medium to high feed with automatic lathes (when cutting medium to large diameter workpieces). Sharp Edge / Polished: Sharp Cutting. Smooth chipbreaker geometry improves chip flow with less adhesion. Large curled chips.
-----------------	-------	---	--	-----------	--

Applicable Chipbreaker Range (D.O.C. indicates radius)



How to Select Chipbreakers

Advantages	Application	Chipbreaker name
Chip control ("G" class / sharp edge)	Minute Depths of Cut	CF
	Small Depths of Cut	GF
	Medium to high feed	GQ
High precision (Ground Chipbreaker)	Small diameter parts with less rigidity	U (USF)
	Improved chip control in various Depths of Cut	J (JSF)
	Finishing	F (FSF), Lead (Without Symbol)
Sub Chipbreaker	Lower cutting resistance, improved adhesion resistance	CK

GRADES	A
INSERTS	B
CBN & POD	C
TURNING	E
BORING	F
GRINDING	G
CUT-OFF	H
THREADING	J
SOLID END MILLS	L
MILLING	M
SPARE PARTS	P
TECHNICAL	R
INDEX	T