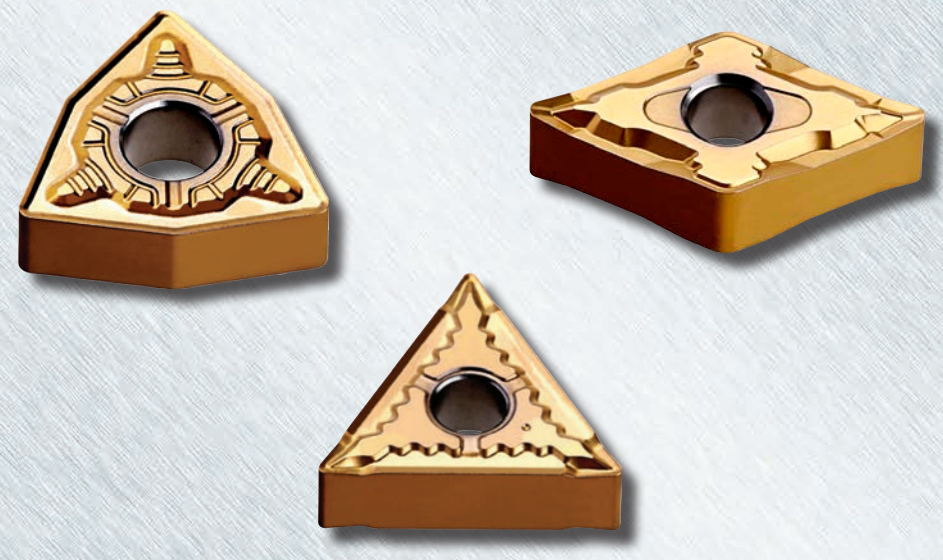
T-TURN™



ISO Class
M30 – M50
S30 – S50

Insert Shapes & Sizes
CNMG – .500" IC
DNMG - .500" IC
TNMG - .375" IC
WNMG - .375" IC
WNMG - .500" IC

Chip Breakers
EA
EM
ML
MP

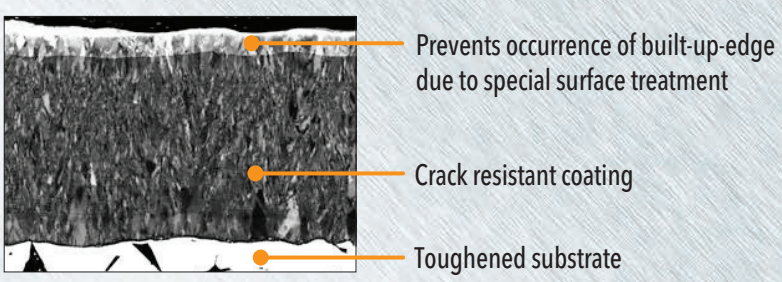
NEW PRODUCT ANNOUNCEMENT ·2016·

TT8080 – For Superior Performance in Stainless and High Temperature Alloys

Grade TT8080 has been developed to improve wear resistance in difficult turning applications, primarily in stainless steel and high temp alloys.

The substrate is identical to our existing TT8020 grade and provides excellent toughness with the highest level of resistance to chipping and fracturing. A new PVD coating has been added that provides longer tool life and higher machining stability through improved wear resistance.

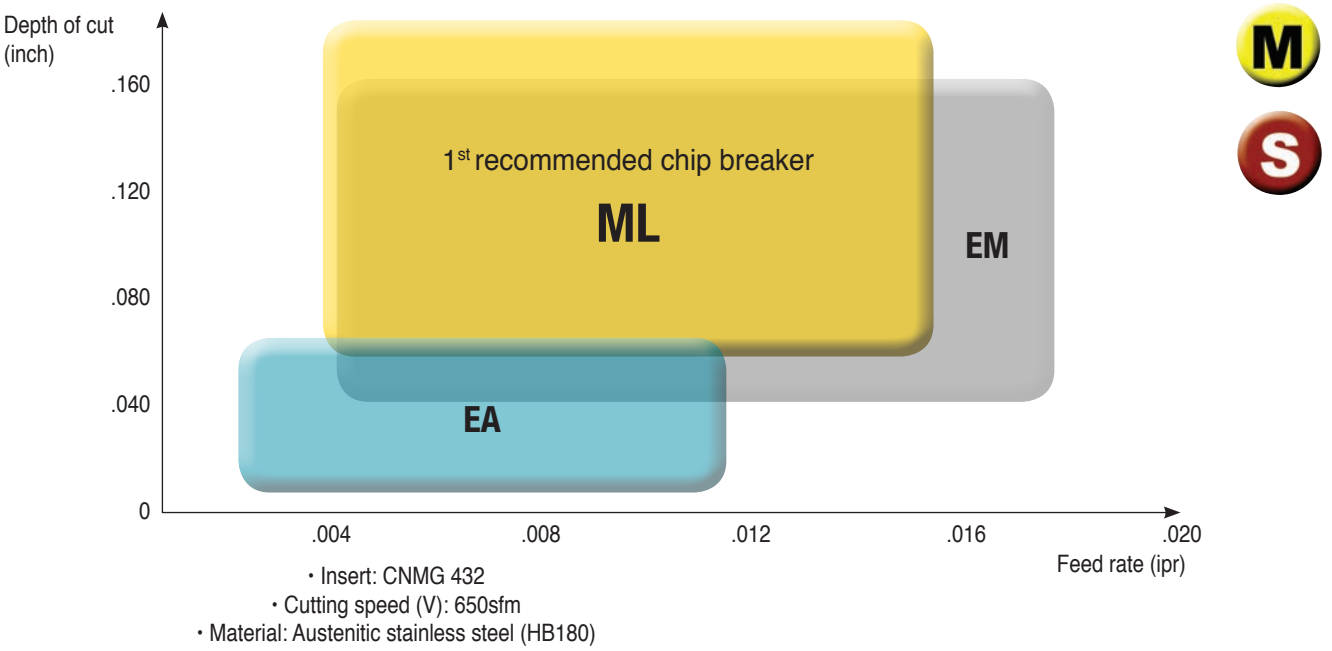
TT8080 is suitable for interrupted cuts and rough machining where predictable tool life is desired.



- Excellent machining performance in stainless steel under low cutting speed and interrupted cutting conditions.
- Improved coating tech with enhanced wear resistance for long tool life.
- Very strong coating adhesion eliminates coating layer delamination.
- Features post-coat GoldRush™ treatment for reduced build-up and a more stable cutting edge.

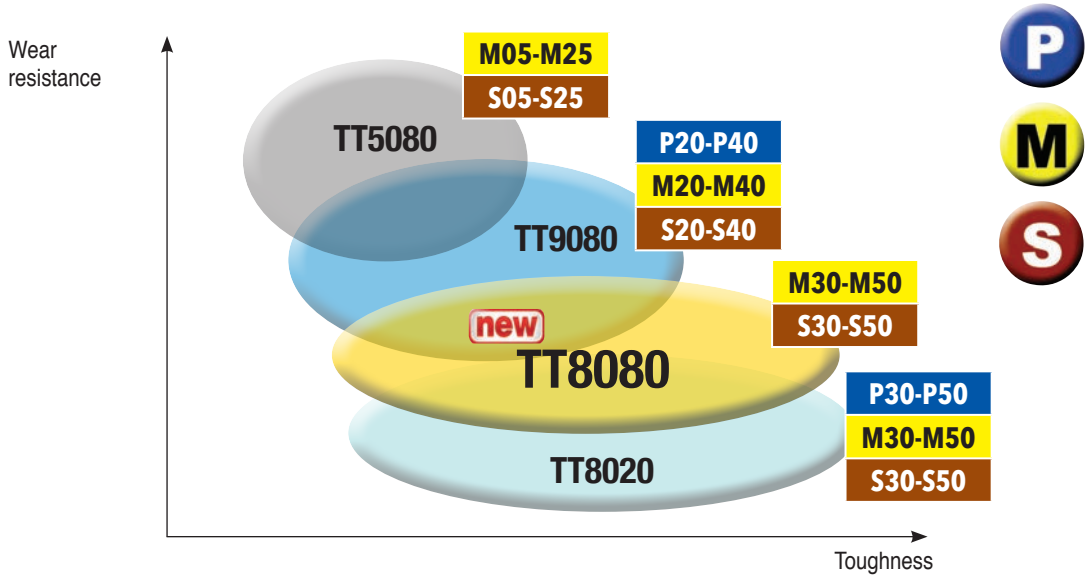
Member IMC Group Ingersoll Cutting Tools

TT8080 grade chip breaker range



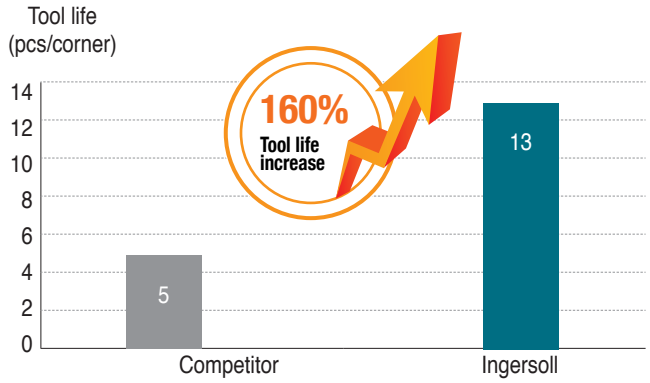
- Insert: CNMG 432
- Cutting speed (V): 650sfm
- Material: Austenitic stainless steel (HB180)

PVD coating application range



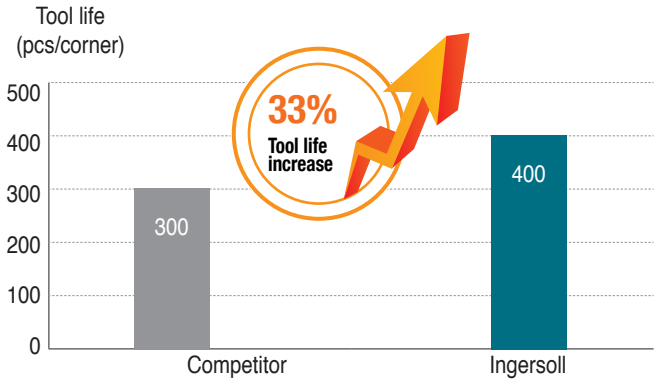
Case study 1

		Competitor	Ingersoll
Component		Valve body	
Workpiece material		SUS 316 (1.4436)	
Operation		Interrupted facing	
Insert		CNMG 432	CNMG 432 ML TT8080
Cutting speed	V (sfm)	250-310	250-310
Feed rate	f (ipr)	.005-.006	.005-.006
Depth of cut	ap (inch)	.080	.080
Coolant		wet	wet
Tool life (pcs/corner)		5	13



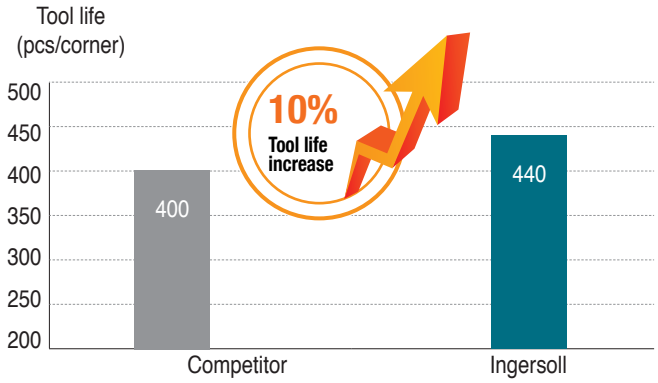
Case study 2

		Competitor	Ingersoll
Component		Ring	
Workpiece material		SUS 316 (1.4436)	
Operation		External continuous	
Insert		CNMG 431	CNMG 431 ML TT8080
Cutting speed	V (sfm)	820	820
Feed rate	f (ipr)	.008	.008
Depth of cut	ap (inch)	.020	.020
Coolant		wet	wet
Tool life (pcs/corner)		300	400



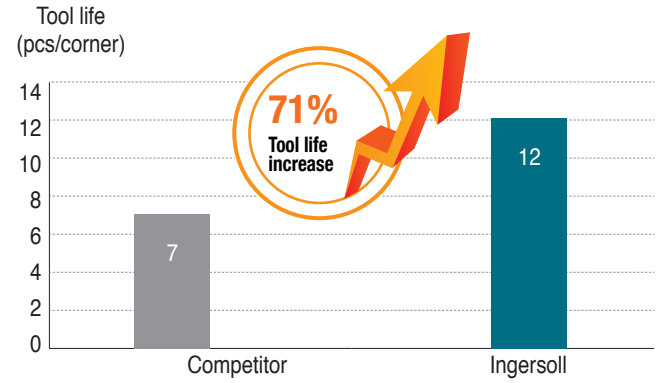
Case study 3

		Competitor	Ingersoll
Component		Pipe fitting (Hexa)	
Workpiece material		SUS 316 (1.4436)	
Operation		External interrupted	
Insert		CNMG 432	CNMG 432 EM TT8080
Cutting speed	V (sfm)	300	300
Feed rate	f (ipr)	.010	.010
Depth of cut	ap (inch)	.080	.080
Coolant		wet	wet
Tool life (pcs/corner)		400	440



Case study 4

		Competitor	Ingersoll
Component		Pipe fitting (2 inch hexa)	
Workpiece material		SUS 316 (1.4436)	
Operation		External interrupted	
Insert		CNMG 432	CNMG 432 ML TT8080
Cutting speed	V (sfm)	310	310
Feed rate	f (ipr)	.006	.006
Depth of cut	ap (inch)	.040-.160	.040-.160
Coolant		wet	wet
Tool life (pcs/corner)		7	12



Grade TT8080 Item List

ASA Description		ISO Description	
CNMG431EA	TT8080	CNMG120404EA	TT8080
CNMG431EM	TT8080	CNMG120404EM	TT8080
CNMG431ML	TT8080	CNMG120404ML	TT8080
CNMG431MP	TT8080	CNMG120404MP	TT8080
CNMG432EM	TT8080	CNMG120408EM	TT8080
CNMG432ML	TT8080	CNMG120408ML	TT8080
CNMG432MP	TT8080	CNMG120408MP	TT8080
CNMG433ML	TT8080	CNMG120412ML	TT8080
DNMG431EA	TT8080	DNMG150404EA	TT8080
DNMG431ML	TT8080	DNMG150404ML	TT8080
DNMG432EM	TT8080	DNMG150408EM	TT8080
DNMG432ML	TT8080	DNMG150408ML	TT8080
TNMG331EA	TT8080	TNMG160404EA	TT8080
TNMG331ML	TT8080	TNMG160404ML	TT8080
TNMG332EM	TT8080	TNMG160408EM	TT8080
TNMG332ML	TT8080	TNMG160408ML	TT8080
WNMG332EM	TT8080	WNMG060408EM	TT8080
WNMG431EA	TT8080	WNMG080404EA	TT8080
WNMG431EM	TT8080	WNMG080404EM	TT8080
WNMG432EM	TT8080	WNMG080408EM	TT8080
WNMG432ML	TT8080	WNMG080408ML	TT8080