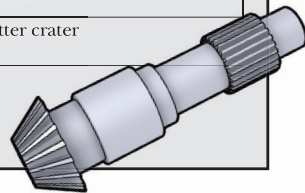


APPLICATION CASES

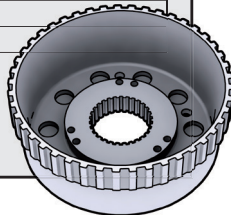
LONGITUDINAL ROUGHING

Component	Forged pinion		
Material	42CrMo4 (Seco Material Group 4)		
Insert	Reference: CNMM160616 SECO: CNMM160616-R5		
Grade	Reference	TP0500	
Cutting data	v_c	270 m/min	270 m/min
	f	0,7 mm/rev	0,7 mm/rev
	a_p	3-4 mm	3-4 mm
Coolant	No		
Criterion	Crater wear		
Result	TP0500 shows better crater wear resistance		



OD FACE + OD TURNING

Component	Ring gear carrier		
Material	AISI 1045 (Seco Material Group 4)		
Insert	WNMG080412-M5		
Cutting data	v_c	250 m/min	
	f	0.25 - 0.50mm/rev	
	a_p	1 to 2 mm	
Coolant	Yes		
Result	No of pieces: 45		



CONTACT & INFORMATION

SECO MACHINING NAVIGATOR:

Update Catalogue 2010

ONLINE INFORMATION:

Complete TP0500 information:
<http://www.secotools.com/tp0500>

Seco Tools international website:
<http://www.secotools.com>

GRADES

TURNING

TP0500



**A HIGHLY WEAR DURATOMIC™ GRADE FOR
STEEL TURNING OF LARGE COMPONENTS**

SECO

Seco Tools AB, 737 82 Fagersta, Sweden. Tel +46 223 400 00.
www.secotools.com

02739987 ST20106251 GB SECO TOOLS AB, PA Group Karlstad 2010

SECO

THE FASTEST AND MOST WEAR RESISTANT GRADE FOR STEEL APPLICATIONS

TP0500 is developed specifically for applications requiring a very high degree of heat and wear resistance, especially when the cutting conditions can be fine-tuned to achieve maximum productivity.

Metallurgically, TP0500 consists of a wear and deformation resistant substrate combined with a Duratomic® coating. Practically, this means you get the fastest and most wear resistant grade for steel applications.

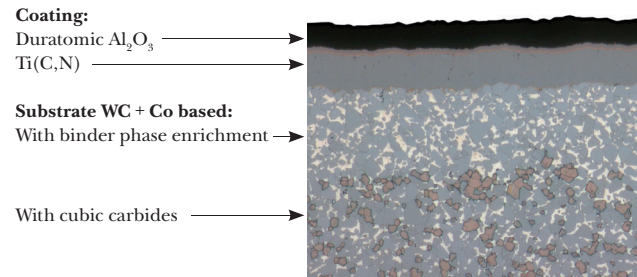
TP0500 RANGE:

INSERT TYPES:	AVAILABLE CHIPBREAKERS:
CNMG12../16../19..	M3, W-M3, MF5, M5, MR7
CNMM12../16../19..	R4, R5
DNMG15..	MF-5, M5, MR7
DNMU11..	M3
DNMX15..	W-M3
RCMX20../25../32..	
SNMG15../19..	M5, R4, 57
TNMG16../22..	M3, M5
WNMG06../08..	M3, MF5, M5

MAIN BENEFITS

- High application security in applications with stable conditions and where a lot of heat is generated.
- Ideal for applications with long machining time.
- For wet and dry machining.
- Long tool life with Duratomic coating.

GRADE PROFILE

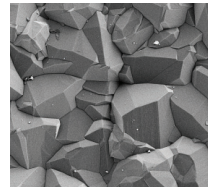


Duratomic, the tailored Al_2O_3 coating contributes to the unique ability of the grade.

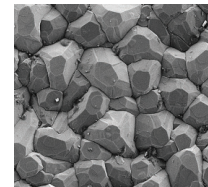
Compared with conventionally produced Al_2O_3 , the Duratomic coating shows improved durability, toughness and outstanding wear resistance.

DURATOMIC

A name created to illustrate that by controlling the surface coating, at an *atomic* level, we are able to dramatically increase the *durability* of the insert. Realigning the crystallographic direction of the coating has resulted in an increase in tool life and a coating that is tougher and harder than that achieved using conventional techniques.

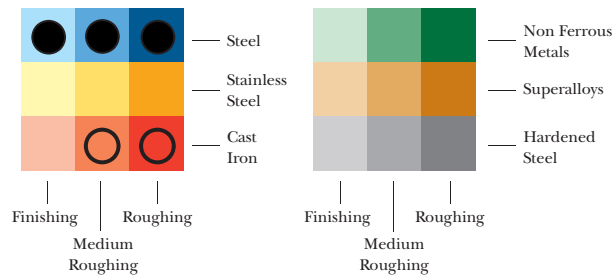


Conventional coating

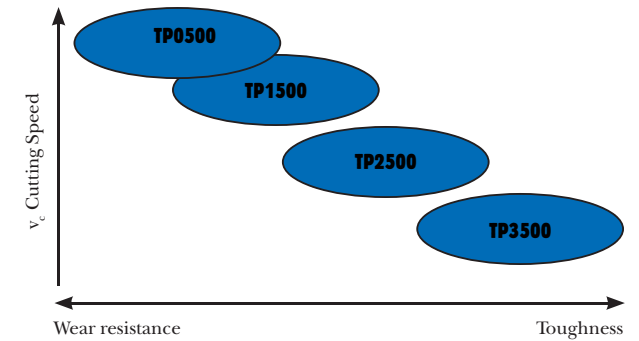


Duratomic® coating

WORKPIECE MATERIALS



APPLICATION AREA



TP0500 extends the Duratomic line-up for steel machining. Together with the three basic grades: TP1500, TP2500, and TP3500 the grade chain provides peak performance in every steel turning operation.

CHIPBREAKER OVERVIEW

RR						RR6			RR9
R				R4	R5	R6	R7	R8	
MR			MR3	MR4		MR6	MR7		
M	M1		M3	M4	M5				
MF	MF1	MF2	MF3	MF4	MF5				
F	F1	F2							
FF	FF1								
	1	2	3	4	5	6	7	8	9

The chipbreakers are designed to control the chips when turning long chipping materials. The chipbreaker designations describe the application area as follows:

Letter:
F = Finishing
M = Medium
R = Roughing

Digit:
1 = For low feed rates and easy conditions
9 = For high feed rates and rough conditions