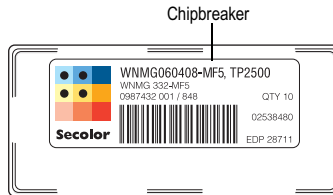


Chipbreakers

The chipbreakers are designed to control the chips when turning long chipping materials.
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



Type of operation ↑	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	→ Edge strength/feed rate

Chipbreaker programme

	<p>-M1</p>	<p>Chipbreaker intended for superalloys and titanium alloys. It has a positive cutting rake angle which is slightly honed to increase the edge strength. Also available with a perfectly sharp edge (type ..GG insert). The M1 is intended for light roughing and for semi-finishing. Machining range: $f = 0,2-0,4$ mm/rev, $a_p = 1,5-5,0$ mm.</p>
	<p>-M3</p>	<p>First choice for medium-rough machining and also the most versatile Seco chipbreaker. In most cases, it is the only chipbreaker needed. Offers the best useful life and best chipbreaking in a wide range of cutting data and workpiece materials. Suitable for precision forged and cast workpieces (NNS or Near Net Shape workpieces) as regards both chip control and edge strength. Machining range: $f = 0,15-0,50$ mm/rev, $a_p = 0,5-5,0$ mm.</p>
	<p>-M4</p>	<p>Chipbreaker intended for cast iron. Positive rake angle with a narrow T-land gives low cutting forces. First choice for cast iron machining at high speeds. Machining range: $f = 0,1-0,7$ mm/rev, $a_p = 0,2-7,0$ mm.</p>
	<p>-M5</p>	<p>First choice for roughing by means of double-sided inserts. Intended for demanding operations at high feed rates in steel, stainless steel and cast iron. Combines high edge strength with comparatively low cutting forces. Machining range: $f = 0,3-0,7$ mm/rev, $a_p = 1,5-7,0$ mm.</p>
	<p>-MR3</p>	<p>Chipbreaker with positive cutting rake angle reduces cutting forces, which gives a very high edge strength. Intended for medium-rough and rough machining of superalloys, titanium alloys and hardened steel. Machining range: $f = 0,2-0,6$ mm/rev, $a_p = 1,5-7$ mm.</p>
	<p>-MR4</p>	<p>The MR4 has a negative T-land, which gives extremely high edge strength. The chipbreaker is intended for more difficult machining applications on superalloys and titanium alloys, such as intermittent cuts and the machining of parts with raw surface. Machining range: $f = 0,15-0,50$ mm/rev, $a_p = 1,5-7,0$ mm.</p>
	<p>-MR6</p>	<p>Chipbreaker for medium and medium roughing of steel. Very easy cutting and open geometry. Double and single-sided. Machining range: $f = 0,25-0,80$ mm/rev, $a_p = 0,9-5,0$ mm.</p>
	<p>-MR7</p>	<p>The strongest chipbreaker for double-sided inserts. The MR7 is suitable for high feed rates and depths of cut that normally require a single-sided insert. The chipbreaker has a wide negative T land, which gives high edge strength. Machining range: $f = 0,35-0,90$ mm/rev, $a_p = 1,5-7,0$ mm.</p>

CVD coated grades

	TP1000	<p>The most wear-resistant of the Seco grades for finishing and medium-roughing of steel and alloyed steel. TP1000 shows outstanding wear resistance and toughness that brings long and predictable tool life. The appropriate choice when there are increasing demands on productivity. Ti(C,N) + Al₂O₃ + Ti(C,N) + TiN</p>
	TP1500	<p>Intended for general turning of steel and alloyed steel. The high wear resistant offers high speed capability. Ti(C,N) + Al₂O₃ DURATOMIC™</p>
	TP2000	<p>TP2000 is intended for general turning on steel and alloyed steel. The toughness and edge strength is enough to permit unfavourable cutting conditions and the speed capability high enough to make the grade the first choice in batch machining. Ti(C,N) + Al₂O₃ + Ti(C,N) + TiN</p>
	TP2500	<p>TP2500 is intended for a wide range of turning applications in both steel and stainless steel and is also a good choice for cast iron. The wear resistance and edge strength together with the high versatility make the grade the first choice in a large number of applications. Ti(C,N) + Al₂O₃ DURATOMIC™</p>
	TP3000	<p>TP3000 is intended for turning applications where the primary demand is for toughness and reliability in machining steel and stainless steel. Ti(C,N) + Al₂O₃ + TiN</p>
	TP200	<p>TP200 is a universal grade with high versatility. The grade is intended for a wide range of turning applications in both steel and stainless steel and is also a good choice for cast iron. Ti(C,N) + Al₂O₃ + TiN</p>
	TP40	<p>TP40 is the basic grade for turning in the P40 range. Very tough grade for demanding operations on steel castings and forging, and on all types of stainless steel. TiC/Ti(C,N) + TiN</p>
	TM2000	<p>TM2000 is the most wear-resistant of the grades intended for machining of stainless steel. The higher wear resistance offers higher speed capability. Ti(C,N) + Al₂O₃ DURATOMIC™</p>