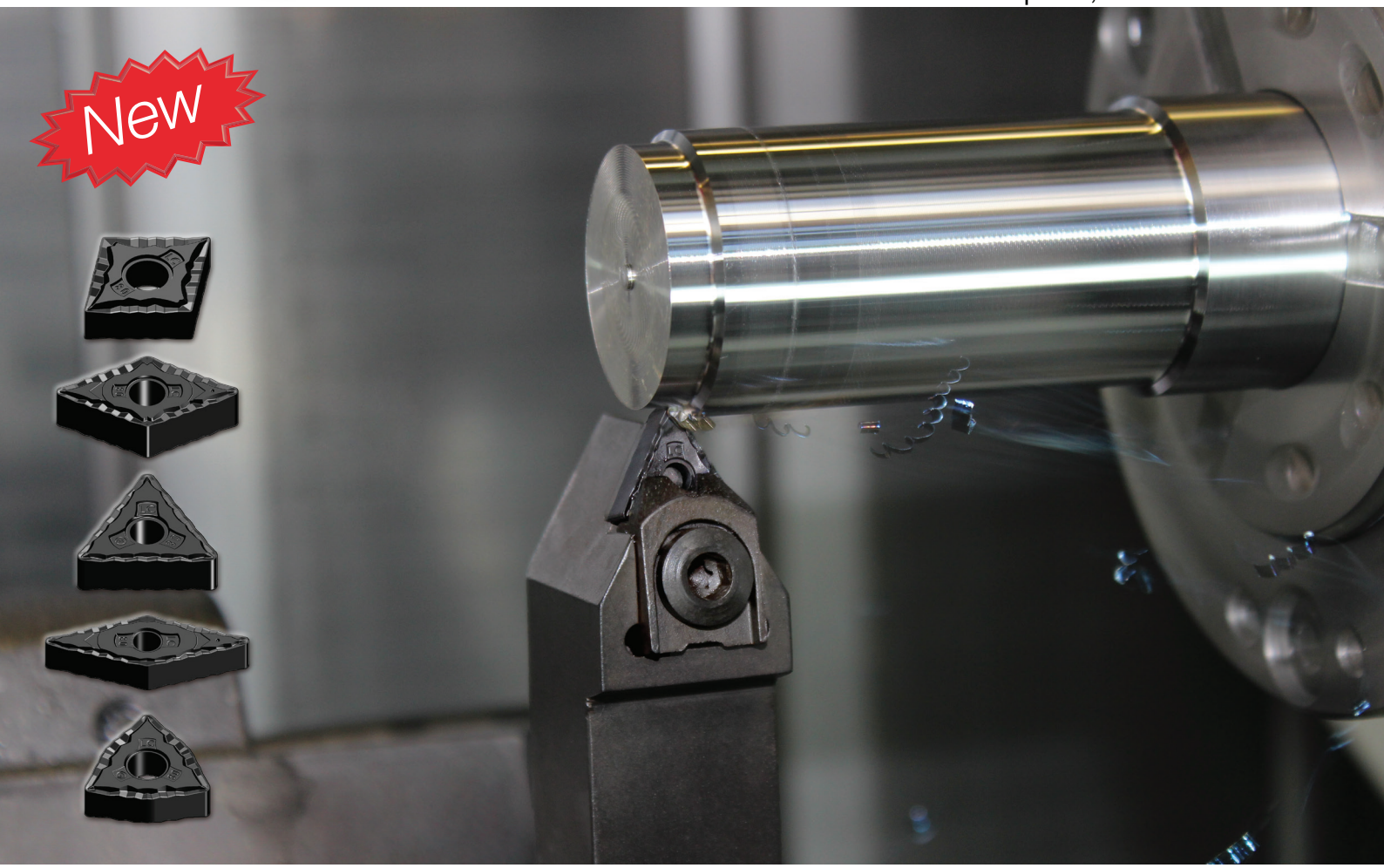
LC Chip Breaker

For low carbon steels

Up to 0,3% carbon content



Holders

- (P) - Lever Lock *
- (D) - Dimple Lock *
- (M) - Wedge Clamp
- (M- K) - Double Lock

* Holders first choice

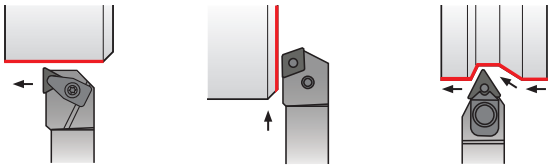
Inserts

- CNMG
- DNMG
- TNMG
- VNMG
- WNMG

Advantages

- Better chip control
- Better chip breaking
- Surface finishing improvement
- Suitable for various D. O. C.
- Productivity improvement
- For medium to finishing operations

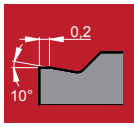
Applications



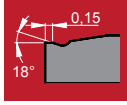
Longitudinal Turning | **Facing** | **Profiling**

LC Chip Breaker

The "Zig-Zag" insert side prevents long chips at medium to finishing D.O.C.



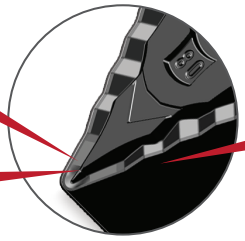
The side breaker profile with a reinforced "T-Land" ensures good performance in operations with bigger D.O.C.



The nose radius breaker profile with small "T-land" and bigger rake angle is suitable for finishing operations.

The conical shape of the nose radius improves the chip forming at finishing operations (small feeds and depths of cut).

The nose radius inside wall with two different heights ensures good chip forming and direction at small depths of cut.



A special treatment before and after coating improves the edges and insert surface quality, reducing friction and temperature.

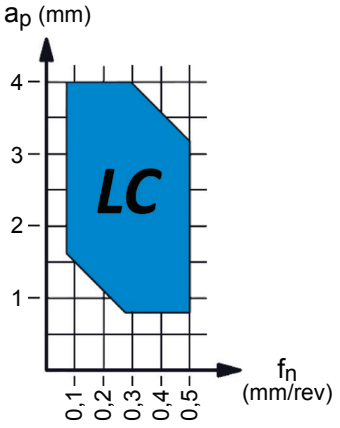
LC Chip Breaker Range

(1) Geometry Code	(2) Grade Code		P		Dimensions (mm)				Cutting Conditions					
	ISO Ref.	ANSI Ref.	L7 PH5115	L8 PH5125	D	S	Re	d1	a_p (mm)	Min	Max	f_n (mm/rev)	Min	Max
1122024	CNMG 120404-LC	CNMG 431-LC	◬	◬	12,700	4,76	0,4	5,16	1,0	0,4	2,5	0,10	0,07	0,3
1122021	CNMG 120408-LC	CNMG 432-LC	◬	◬	12,700	4,76	0,8	5,16	1,5	0,4	2,5	0,15	0,10	0,4
1123662	DNMG 150404-LC	DNMG 431-LC	◬	◬	12,700	4,76	0,4	5,16	1,0	0,4	2,5	0,15	0,07	0,3
1123663	DNMG 150408-LC	DNMG 432-LC	◬	◬	12,700	4,76	0,8	5,16	1,5	0,4	2,5	0,20	0,10	0,4
1123664	DNMG 150412-LC	DNMG 433-LC	◬	◬	12,700	4,76	1,2	5,16	2,0	0,8	3,0	0,25	0,15	0,5
1122020	DNMG 150604-LC	DNMG 441-LC	◬	◬	12,700	6,35	0,4	5,16	2,0	0,4	3,0	0,15	0,07	0,3
1122007	DNMG 150608-LC	DNMG 442-LC	◬	◬	12,700	6,35	0,8	5,16	2,0	0,4	3,0	0,20	0,10	0,4
1123655	DNMG 150612-LC	DNMG 443-LC	◬	◬	12,700	6,35	1,2	5,16	2,5	0,8	3,5	0,25	0,15	0,5
1123638	TNMG 160404-LC	TNMG 331-LC	◬	◬	9,525	4,76	0,4	3,81	1,0	0,4	2,5	0,15	0,07	0,3
1122025	TNMG 160408-LC	TNMG 332-LC	◬	◬	9,525	4,76	0,8	3,81	1,5	0,4	2,5	0,20	0,10	0,4
1123656	TNMG 160412-LC	TNMG 333-LC	◬	◬	9,525	4,76	1,2	3,81	2,0	0,8	3,0	0,25	0,15	0,5
1123660	TNMG 220408-LC	TNMG 432-LC	◬	◬	12,700	4,76	0,8	5,16	2,0	0,4	3,0	0,20	0,10	0,4
1123657	TNMG 220412-LC	TNMG 433-LC	◬	◬	12,700	4,76	1,2	5,16	2,5	0,8	3,5	0,25	0,15	0,5
1123659	VNMG 160408-LC	VNMG 332-LC	◬	◬	9,525	4,76	0,8	3,81	1,5	0,4	2,5	0,15	0,10	0,4
1123658	WNMG 080408-LC	WNMG 432-LC	◬	◬	12,700	4,76	0,8	5,16	1,5	0,4	2,5	0,15	0,10	0,4

◬ First choice / 1ª escolha / 1ª opción ◬ Stock items / Itens de stock ◯ Available under request / Disponibilidade sob consulta / Disponible bajo consulta

Insert Order Code = (1) Geometry Code + (2) Grade Code

Chip Control Range



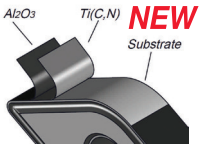
Cutting Conditions

ISO	MATERIAL	HB (Brinell) / Grade fn (mm/rev)	CVD Coating ← Wear Resistance — Toughness →					
			PH5115			PH5125		
			0.2	0.4	0.8	0.2	0.4	0.8
P	Unalloyed steel	125	250 - 350	180 - 270	170 - 220	200 - 295	170 - 240	150 - 215

Grades

PH5115

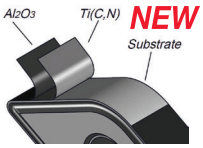
(P01-P30)



Medium temperature CVD coating with α-Al_2O_3. Carbide grade with a gradient layer close to the surface. Suitable for high to medium cutting speeds on steels, cast steels & cast irons.

PH5125

(P10-P35)



Carbide grade suitable for medium machining of steels & cast steels at medium cutting speeds. The substrate is suitable for the adhesion of the Alumina coating (α-Al_2O_3) medium temperature - CVD, improving the tool life.