

## Carmex new Tiny Tool - "**CBR**"

Carmex introducing new Tiny Tool **CBR**, with advance **C**hip **B**reaker  
The new product is a combination of MTR and MPR for boring and profiling  
with improved chip evacuation.

Chip evacuation is obtained thanks to advanced **C**hip **B**reaker and the internal  
cooling through the tool, pushing the chips out of the hole.

Excellent Solution for machining stainless steels, super alloys and other  
“difficult” materials that creates curly chips around the tool and the application.  
Can be used also as general purpose for wide range of materials.

To use with standard SIM toolholders.

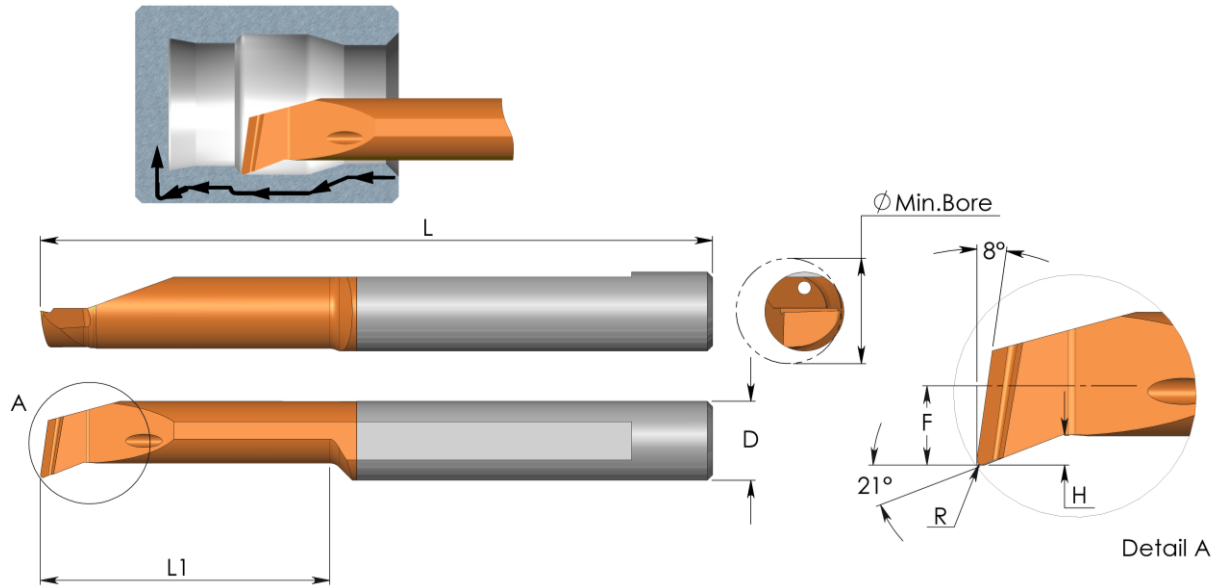
Carbide grade:

New advance carbide grade **TNX** for higher feeds and high performance, at  
medium to high cutting speed.

Extra fine grain size with high hardness and toughness combined with triple  
reddish coating , provides high edge stability and better chip flow.

# CBR Bars - Profiling and Boring

with advanced Chip Breaker



D	Ordering Code	L	L1	R	H	F	$\phi$ Min. Bore Dia.	Holder
4.0	CBR 4 R0.2 L10	51	10	0.2	0.4	1.8	4.1	SIM...H4
	CBR 4 R0.2 L15	51	15	0.2	0.4	1.8	4.1	
5.0	CBR 5 R0.2 L15	51	15	0.2	0.8	2.3	5.1	SIM...H5
	CBR 5 R0.2 L22	51	22	0.2	0.8	2.3	5.1	
6.0	CBR 6 R0.2 L15	51	15	0.2	1.0	2.8	6.1	SIM...H6
	CBR 6 R0.2 L22	51	22	0.2	1.0	2.8	6.1	

P	TNX	*
M		*
K		*
N		*
S		*
H		*

For L.H. bars specify CBL instead of CBR

## Cutting Data

ISO Standard	Material	Condition	Cutting Speed m/min
			TNX
P	Non-Alloy Steel and Cast Steel, Free Cutting Steel	Annealed < 0.25% C	30-90
		Annealed ≥ 0.25% C	
		Annealed ≥ 0.55% C	
		Quenched & Tempered < 0.55% C	
		Quenched & Tempered ≥ 0.55% C	
	Low Alloy Steel and Cast Steel (less than 5% alloying elements)	Annealed	25-60
Quenched & Tempered			
High Alloy Steel, Cast Steel, and Tool Steel	Annealed	25-60	
	Quenched & Tempered		
M	Stainless Steel and Cast Steel	Ferritic	30-70
		Martensitic	
		Austenitic	
K	Cast Iron Nodular (GGG)	Ferritic	30-90
		Pearlitic	
	Grey Cast Iron (GG)	Ferritic	30-90
		Pearlitic	
	Malleable Cast Iron	Ferritic	20-60
		Pearlitic	
N	Aluminum-Wrought Alloy	Not Cureable	60-120
		Cured	
	Aluminum-Cast, Alloyed	Not Cureable ≤ 12% Si	50-90
		Cured	
		High Temperature > 12% Si	
	Copper Alloys	Free Cutting > 1% Pb	30-70
		Brass	
		Electrolytic Copper	
	Non Metallic	Duroplastics, Fiber Plastics	40-80
		Hard Rubber	
S	High Temperature/Super Alloys (Fe based)	Annealed	15-50
		Cured	
	High Temperature/Super Alloys (Ni or Co based)	Annealed	
		Cured	
		Cast	
	Titanium Alloys	Alpha + Beta Alloys Cured	
H	Hardened Steel	Hardened 45-50 HRC	15-40
		Hardened 51-55 HRC	
		Hardened 56-62 HRC	
	Chilled Cast Iron	Cast	10-30
	Cast Iron	Hardened	10-20

Recommended Feed Rate: 0.01-0.03 mm/rev