



TOOLMAKER SOLUTIONS BY CERATIZIT

HARD METALS FOR

# STONE WORKING

2016

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HARD METALS FOR  
**STONE WORKING**



## Dear customers,

For the first time, we would like to present you with our current catalogue for stone working as part of the new top-class brand Toolmaker Solutions by CERATIZIT. Under this new name, you can receive innovative carbide products for your own manufacture of tools.

Gain the competitive advantage and profit from decades of experience in the development of customised solutions for the machining of concrete, ferro-concrete, stone, masonry and other materials.

Simply place an order from our standard programme of carbide inserts for percussion and hammer drills, stone cutting drill tips and saw tips, just to name a few. Furthermore, we develop specific solutions for you in various geometries, cut precisely to your application. Our applied carbide grades are impact-resistant, extremely wear-resistant and guarantee your tools a long life.

Your CERATIZIT team

**INTRODUCTION**

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## INTRODUCTION

### CARBIDE – A COMPOSITE MATERIAL

### Carbide – a composite material with valuable properties

Carbides are composite materials consisting of a hard material and a comparatively soft binder metal, like cobalt (Co). The performance characteristics of carbide are determined by hardness, transverse rupture strength and fracture toughness. With regard to their application, important parameters for the optimisation of these characteristics are the cobalt content and the grain size of the metal binder phase. The tungsten carbide grains have an average size of less than 0.2  $\mu\text{m}$  up to several micrometres ( $\mu\text{m}$ ). The cobalt fills the gaps between the carbide grains. When extremely high toughness is required, the

cobalt content can amount up to 30%, whereas, for maximum wear resistance, the cobalt content is reduced and the grain size decreased to the nano-crystalline range of  $< 0.2 \mu\text{m}$ .

CERATIZIT produces far more than 100 different carbide grades, thus offering a customised solution for every application.



## Carbide production

Carbide production at CERATIZIT started in 1929. Last but not least, thanks to long-standing experience CERATIZIT handles the entire process chain, from the raw material to the dispatching of the finished products to customers. The production process of powder-metallurgical products basically includes the four steps of powder preparation, forming, sintering and finishing.

## Tungsten carbide production

The APT (ammonium para-tungstate) is calcined into tungsten oxide under high temperature. Subsequently the oxide is reduced to tungsten metal in a hydrogen atmosphere. The metal powder is then mixed with carbon and carburised under inert atmosphere at high temperatures. The production parameters are decisive for the WC grain size in the sintered carbide.

## Powder preparation

The tungsten carbide is intensely mixed with the binder metal cobalt, nickel or iron, various grain growth inhibitors and materials, which promote compaction, by wet grinding so that a homogeneous suspension is created. Afterwards, the suspension is dried in a spray tower to produce a granulate with good flow characteristics. This granulate represents the basis for all forming processes.

APT (ammonium para-tungstate)



Yellow tungsten oxide



Blue tungsten oxide



Tungsten



Tungsten carbide





# INTRODUCTION

## CARBIDE – PRODUCTION

### Metal forming – pressing – machining

#### Metal forming

The objective of the forming process is to obtain a near net shape sample. Pressing is normally carried out at room temperature with pressures reaching up to several tons per square centimetre.

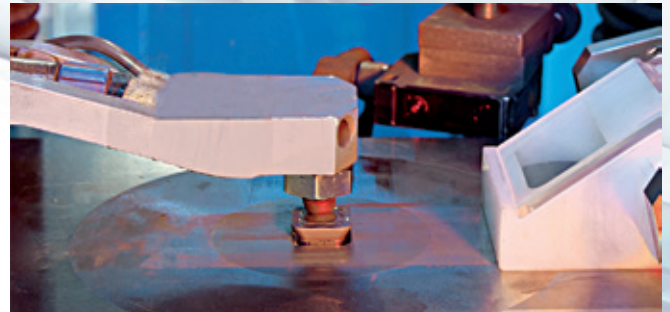
There are several ways of pressing blanks:

During isostatic cold pressing the powder is filled into an elastic flexible hose and pressed into a compacted form through high liquid pressure. The powder blocks which are produced in this way can then be processed mechanically. All common machining methods like milling, cutting, drilling or turning may be applied.

In uniaxial pressing the pressing tool consists of a die and an upper and a lower punch. The carbide powder is filled into the die and then compacted to create the so called green carbide, which is ejected from the pressing die.

Extrusion pressing is mainly used to produce rectangular bar or cylindrical rod, with or without axial hole(s). A plasticiser is added to the powder. The resulting paste is pressed through an extrusion nozzle. Before sintering, the plasticiser must be evaporated in special drying furnaces.

Metal Injection Moulding (MIM) is a process used to produce more complex forms which cannot be produced by direct pressing. The paste preparation is similar to the extrusion process.



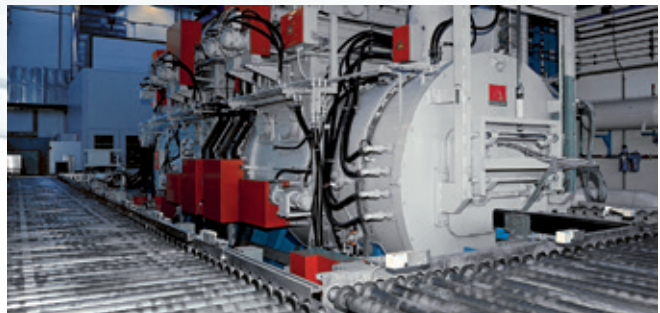
Pressing



## Sintering

### Sintering process

The sintering process converts the blank into a homogeneous and dense carbide with a high level of hardness. The material is sintered at temperatures between 1,300 and 1,500 °C (liquid phase sintering) and sometimes also at high pressure (up to 100 bar). The volume is reduced by up to 50 % during this process.



Sintering

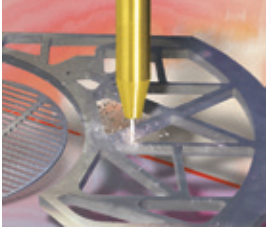


# INTRODUCTION

## CARBIDE – PROPERTIES

### Carbide properties depending on the Co contents and C grain size

#### Hardness (wear resistance)

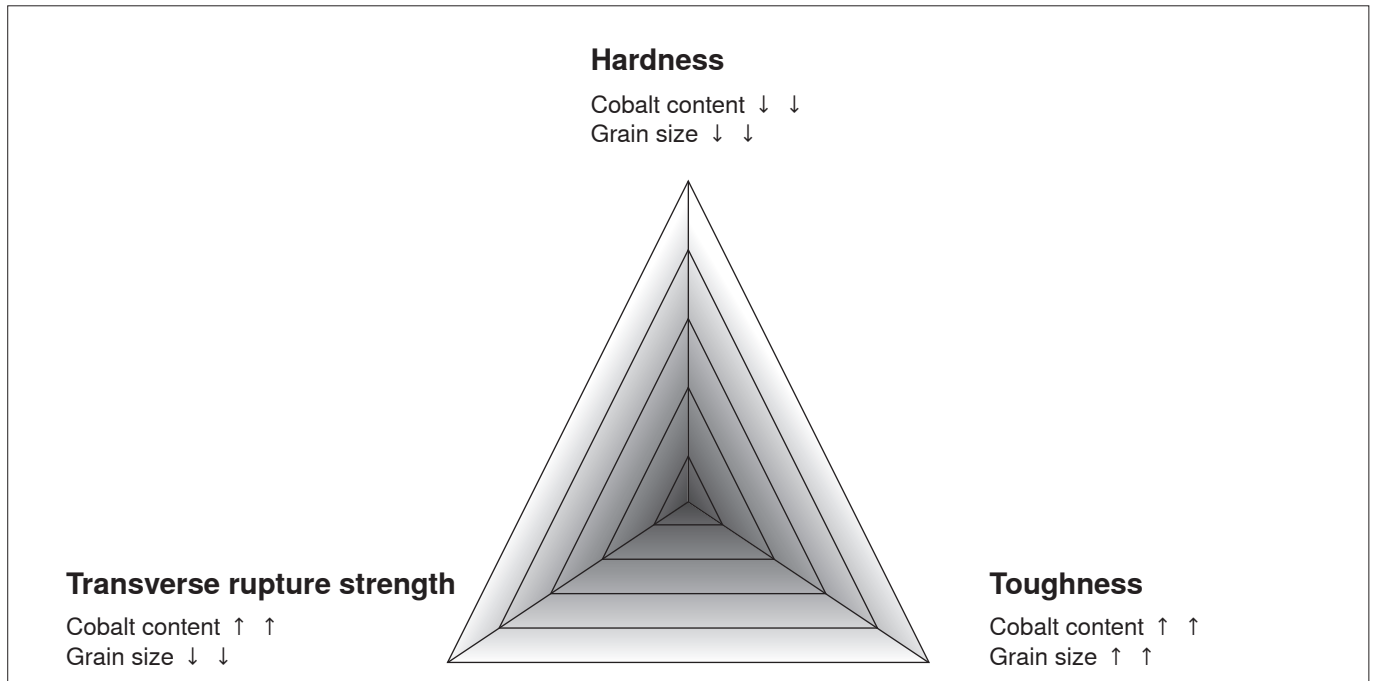


##### Nozzles for water jet cutting

- Type of stress
- ▲ Wear
  - ▲ Corrosion

##### Carbide grade

- ▲ Very high hardness: 2650 HV30
- ▲ Small grain size: < 0.5 μm
- ▲ Low Co content: 0.4%
- ▲ Corrosion resistance when adding Cr<sub>3</sub>C<sub>2</sub>



#### Transverse rupture strength

##### Micro-drilling

- Type of stress
- ▲ Wear
  - ▲ Deflection

##### Carbide grade

- ▲ T.R.S.: > 4000 MPa
- ▲ Small grain size: < 0.5 μm + VC
- ▲ Low Co content ~ 8.5%
- ▲ High wear resistance: 1930 HV30



#### Toughness

##### Hot rolling

- Type of stress
- ▲ Wear due to abrasion
  - ▲ Built-up edge
  - ▲ Impact stress

##### Carbide grade

- ▲ Sufficient fracture toughness: Co content 20%
- ▲ Good wear resistance: 1030 HV30
- ▲ Medium grain size coarse or extra-coarse

**Production site**  
**Produktionsstandort**  
**Site de production**  
**Sede produttiva**  
**Centro de producción**



## **Mamer (Luxembourg)**

The CERATIZIT Group has its headquarters in Mamer in Luxembourg. Today the plant in Mamer has more than 1.150 employees and concentrates on industrial wear protection, wood and stone machining as well as inserts and tools.

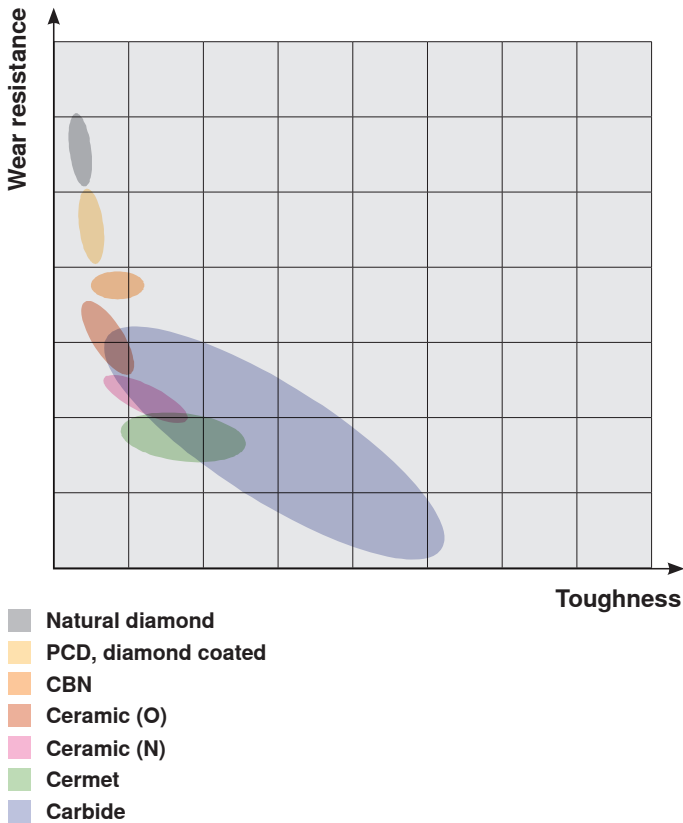
● **Mamer**



**Grades**  
**Sorten**  
**Nuance**  
**Gradi**  
**Calidades**

# GRADES

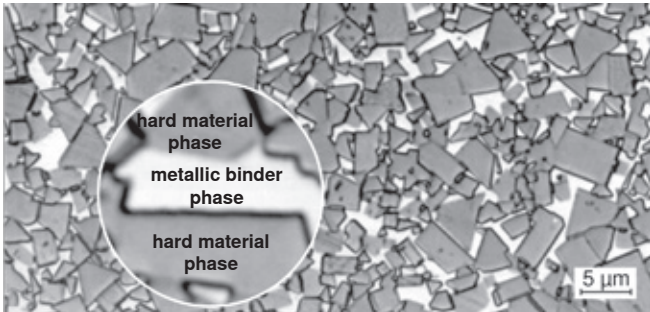
## TAILOR-MADE CARBIDES FOR STONE WORKING



Carbide is a hard material with mechanical properties that can be adjusted within a very wide range, given its composition and microstructure. The hardness and toughness range of the CERATIZIT grades includes everything from wear-resistant tool steel to super-hard ceramic materials.

### Criteria relevant for application

- ▲ Wear resistance, hardness
- ▲ Compressive strength
- ▲ Impact strength
- ▲ Transverse rupture strength
- ▲ Tribological properties
- ▲ Specific weight
- ▲ Magnetic properties
- ▲ Modulus of elasticity, rigidity
- ▲ Thermal properties
- ▲ Corrosion resistance, resistance to oxidation
- ▲ Toughness



Micrograph of WC-Co carbide

### The hard material provides the necessary

- ▲ Hardness
- ▲ Wear resistance

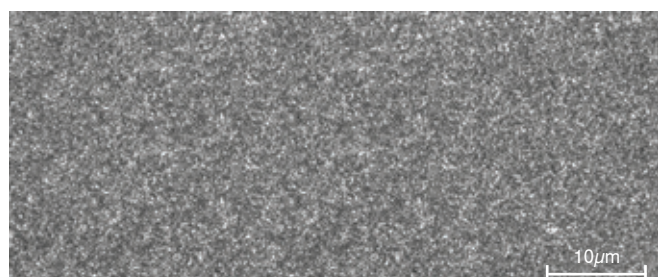
### The metallic binder provides

- ▲ Toughness

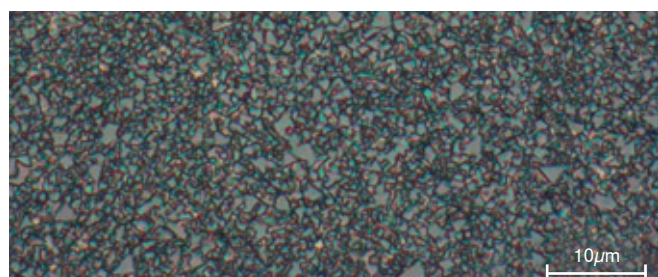
The graphic illustrations below show that the mechanical properties of the carbide mainly depend on the binder content (Co) and the TC grain size. Hardness, i.e. wear resistance, increases inversely proportional to the fracture toughness. This means that the harder the material the more it reacts to notch tensions and impact stress (the 'impact resistance' parameter, which cannot be precisely defined, correlates with the fracture toughness of the material).

On the other hand, the transverse rupture strength does not directly depend on the hardness but rather on the TC grain size and the cobalt content. The adhesive wear (tendency to

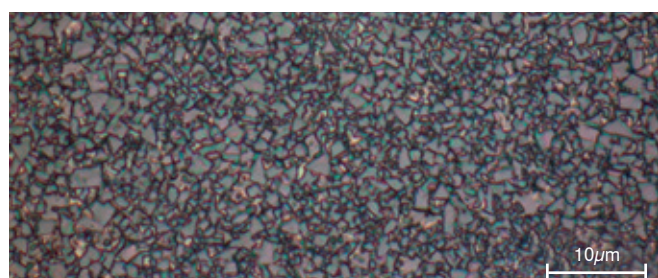
stick), however, decreases with the grain size and the cobalt content of the carbide used. The list of the mentioned interdependencies, which could be extended at will for other wear and failure mechanisms, show that it is only possible to choose the correct carbide grade following a systematic procedure and/or based on experience with similar applications.



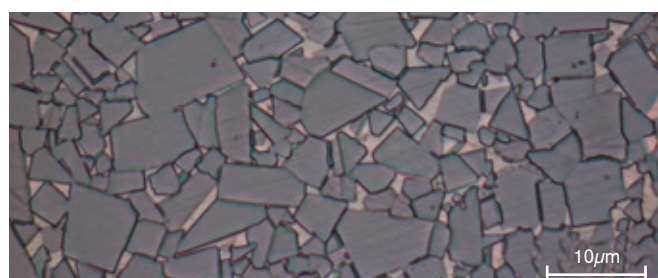
Ultrafine grades



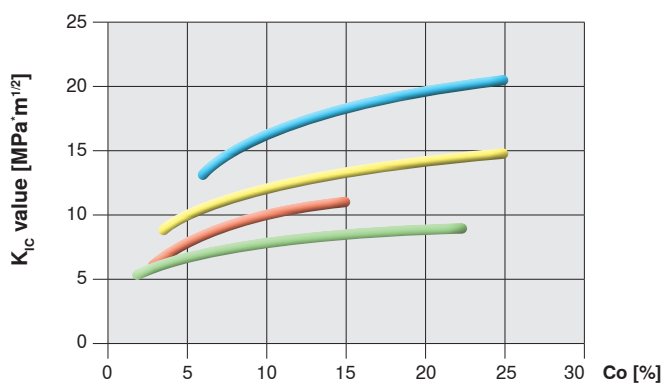
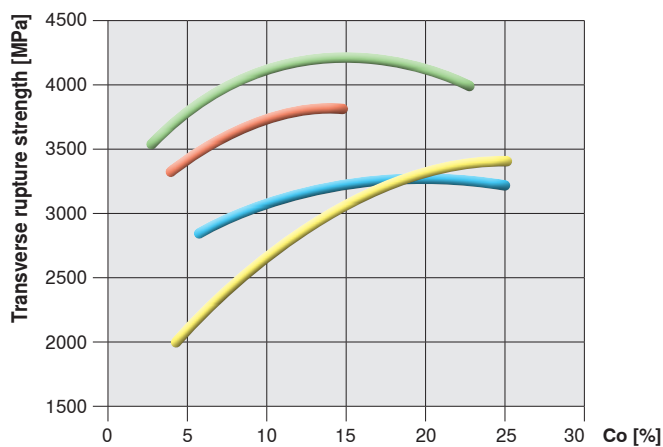
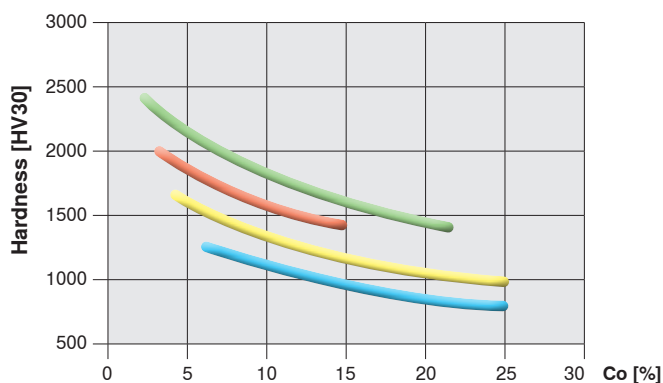
Submicron grain



Fine / medium grain



Coarse grain





# GRADES

## COMPOSITION AND PROPERTIES

### Grades for stone working – composition and properties Sorten für Steinbearbeitung – Zusammensetzung und Eigenschaften Nuances pour les applications de la pierre – composition et caractéristiques Gradi applicazioni pietra – composizione e caratteristiche Calidades para piedra – composición y características

CERATIZIT grade code	ISO code	U.S. code	Binder Binder Liant Legante Ligante [m %]	Density Dichte Densité Densita Densidad [g/cm³]	Hardness Härte Dureté Durezza Durezza			Transverse Rupture Strength Biegebruchfestigkeit Résistance à la rupture Resistenza alla rottura Resistencia a la ruptura transversal	
					HV10	HV30	HRA	[MPa]	[P.S.I.]

#### Chromium grade

##### Submicron grain

CTS06-KC	KCR06	–	3.0	15.30	1950	1910	93.6	2300	334.000
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#### WC-Cobalt Grades

##### Submicron grain

CTS20-BC	MG18	–	10	14.45	1680	1660	92.3	3700	537.000
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##### Fine grain

CTF08-BC	BC01	–	4.0	15.15	1845	1815	93.1	2050	298.000
CTF11-BC	BC03	–	5.6	14.95	1760	1730	92.7	2150	312.000
CTF12-BC	BC05	C2	6.0	14.95	1640	1620	92.1	2200	319.000
CTF24-BC	BC30	C11	12.0	14.30	1330	1320	89.7	3000	435.000
CTF30-BC	BC40	C13	15.0	14.05	1250	1240	88.8	3100	450.000

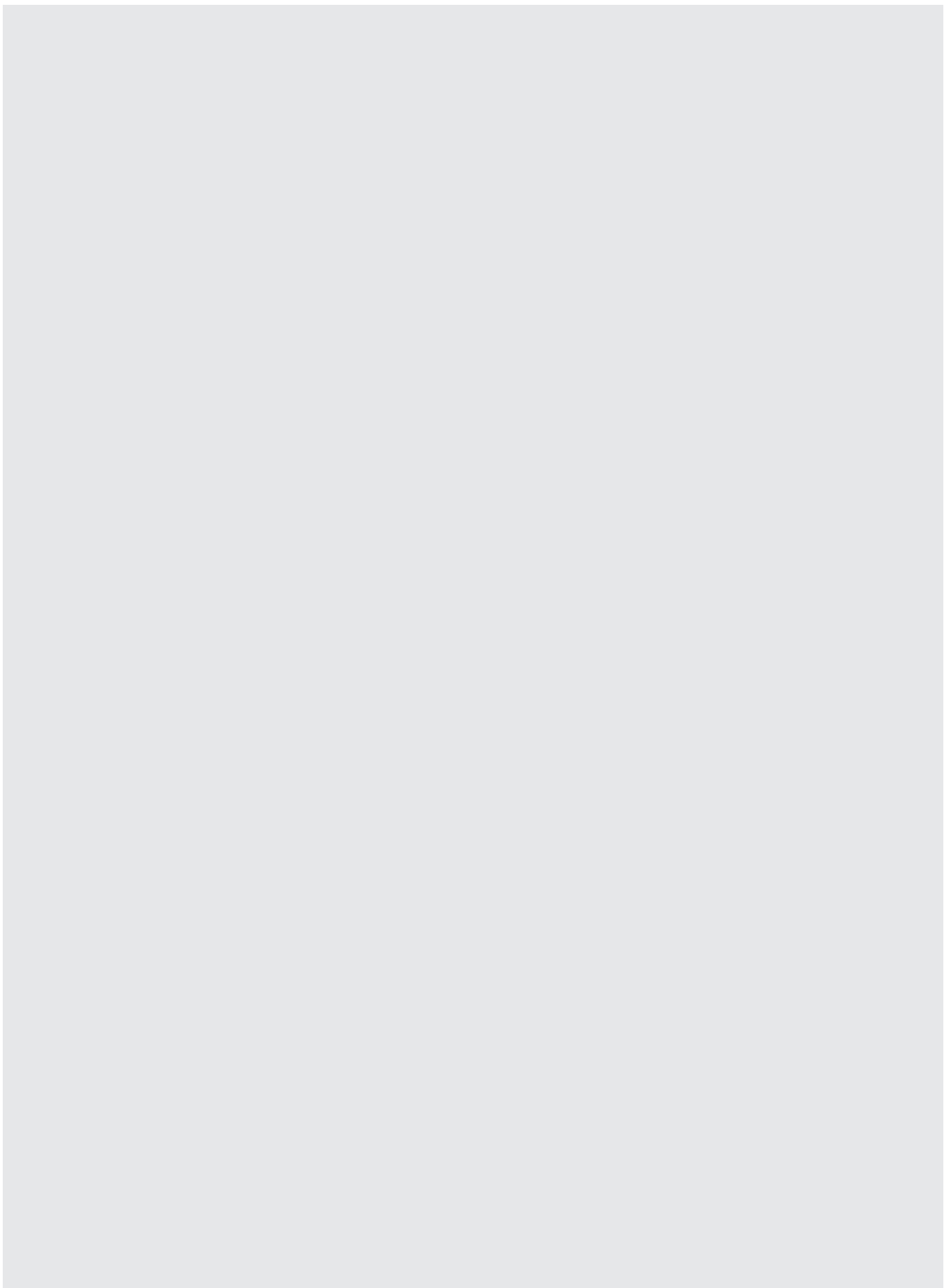
##### Medium grain

CTM14-BC	BC10	C2	7.0	14.90	1550	1530	91.5	2600	377.000
CTM17-BC	BC20	C1	8.5	14.65	1420	1400	90.4	2800	406.000
CTM18-BC	HC35	C1	9.0	14.60	1400	1380	90.3	2800	406.000

##### Coarse grain

CTE20-BC	BC45	–	10.0	14.60	1130	1120	87.6	2600	377.000
CTE30-BC	BC50	C14	15.0	14.05	970	960	85.6	2800	406.000
CTE35-BC	BC55	–	17.5	13.80	920	910	85.0	2850	414.000

Classification of the WC grain size		CERATIZIT code
Average grain size [µm]	Classification	
< 0.2	nano	<b>N</b>
0.2 - < 0.5	ultrafine	<b>U</b>
0.5 - < 0.8	submicron	<b>S</b>
0.8 - < 1.3	fine	<b>F</b>
1.3 - < 2.5	medium	<b>M</b>
2.5 - < 6.0	coarse	<b>C</b>
> 6.0	extra-coarse	<b>E</b>







**Hammer drill tips**

**Hammerbohrerplatten**

**Plaquettes pour mèche marteau**

**Placchette per punte a percussione**

**Puntas de brocas para percusion**

**HAMMER DRILL TIPS**

PRODUCTS UPON CUSTOMER REQUEST

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TOOLMAKER SOLUTIONS BY  
**CERATIZIT**

NON STANDARD PARTS

HAMMER DRILL TIPS

**Products upon customer request**  
**Produkte nach Kundenwunsch**  
**Produit sur demande de client**  
**Prodotti a richiesta del cliente**  
**Productos sobre deseo del cliente**

**Can't find what you're looking for?**

Our catalogue displays the wide range of products which we frequently have in strong demand. Aside from this, we are of course in the position to make other products and have a flexible range of manufacturing methods and means at our production sites, allowing us to create special products with short delivery times. Our extensive experience and investment in research and development means we can provide you with the support you need to get the most out of your tools. We will be pleased to receive your enquiries for any custom-designed. Our local representatives will gladly talk with you about your exact requirements and can also provide you with technical guidance and know-how for anything related to production possibilities and application fields. If you have any further questions or requests we invite you to give us a call – we are here to help.

**Sie finden nicht was Sie benötigen?**

Unser Katalog zeigt das Produktprogramm, das häufig nachgefragt wird. Wir können natürlich auch andere Produkte herstellen und haben dazu die Fertigungsmethoden und Kapazitäten an unseren Produktionsstandorten, die es uns erlauben, Sonderprodukte mit kurzen Lieferzeiten zu produzieren. Unsere umfassende Erfahrung und Kompetenz in Forschung und Entwicklung bedeutet, wir können Ihnen die Unterstützung zur Verfügung stellen, die Sie benötigen, um ein Maximum für Ihre Werkzeuge zu erzielen. Wir freuen uns auf Ihre Anfragen um Produkte nach Ihren speziellen Wünschen und Ausführungen zu produzieren. Unser für Sie zuständiger Mitarbeiter bespricht gerne Ihre genauen Ausführungswünsche und stellt sein technisches Wissen bezüglich Produktionsmöglichkeiten und Anwendungsgebiete gerne zur Verfügung. Wenn Sie weitere Fragen oder Wünsche haben, rufen Sie uns an, wir beraten Sie gerne.

**Vous ne trouvez pas ce dont vous avez besoin?**

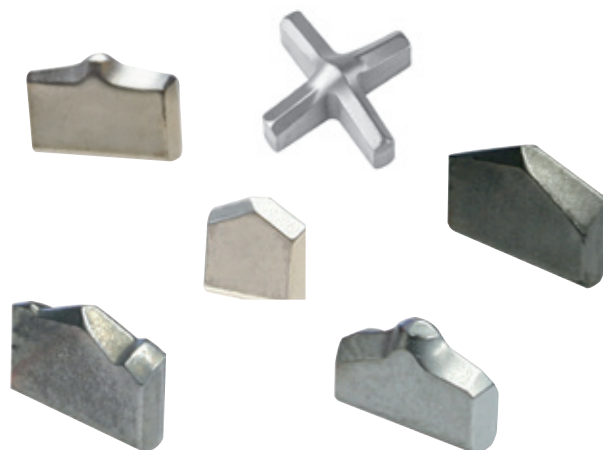
Notre catalogue comprend les produits que nos clients commandent fréquemment. Nous sommes bien sûr aussi à même de fabriquer des produits suivant les souhaits ou les exigences de nos clients et disposons à cette fin des méthodes de fabrication les plus modernes ainsi que de capacités suffisantes sur nos sites de production, ce qui nous permet de réaliser des produits spéciaux dans les meilleurs délais. Notre expérience approfondie et nos compétences en matière de recherche et développement nous permettent de vous fournir l'assistance et le support que vous recherchez pour garantir une utilisation optimale de vos outils. Nous sommes heureux de recevoir vos demandes de produits que nous réaliserons suivant vos attentes et exigences. Votre interlocuteur personnel discutera volontiers avec vous de vos souhaits précis relatifs à l'exécution et mettra à votre disposition toutes ses connaissances techniques en ce qui concerne les possibilités de fabrication et les domaines d'application. Si vous avez des questions supplémentaires ou déjà un produit spécifique en tête, n'hésitez pas à nous contacter. Nous nous ferons un plaisir de vous conseiller et de vous assister.

**Se non trovate ciò che fa al caso vostro .....**

Il nostro catalogo riporta la gamma dei prodotti maggiormente richiesti dalla nostra clientela. Ovviamente siamo anche in grado di produrre altri articoli disponendo di metodi di produzione e capacità presso le nostre sedi produttive altamente flessibili che ci permettono di fabbricare particolari non standardizzati in tempi brevi. Grazie alla nostra esperienza pluriennale ed ai continui investimenti in ricerca e sviluppo possiamo garantirvi tutto il supporto affinché otteniate il massimo rendimento dai vostri utensili. Saremo lieti di ricevere le vostre richieste per utensili speciali da realizzare su disegno. I nostri funzionari di vendita gestiranno con la loro competenza professionale le vostre richieste specifiche fornendovi tutti i dettagli tecnici necessari anche per settori applicativi o produttivi particolarmente complessi. In caso di chiarimenti e informazioni supplementari vi invitiamo a contattarci; potete contare sulla nostra collaborazione, in qualsiasi momento.





**¿No encuentra lo que necesita?**






Nuestro catálogo incluye los productos más demandados por nuestros clientes. Desde luego también somos capaces de fabricar productos según los deseos o las exigencias de nuestros clientes y disponemos de los métodos de fabricación más modernos así como de capacidad suficiente en nuestras plantas de producción, lo que nos permite realizar productos especiales en plazos de entrega muy ajustados. Gracias a nuestra amplia experiencia y nuestras competencias en materia de investigación y desarrollo, podemos ofrecerle la asistencia y el soporte que usted precise para asegurar una utilización óptima de sus herramientas. Nuestro técnico comercial pondrá a su disposición todos sus conocimientos técnicos en cuanto a las posibilidades de producción y los campos de aplicación. Para cualquier pregunta en general o relacionada a algún producto concreto, no dude en contactarnos. Será un placer poderle asesorar.








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PREMIUM HAMMER DRILL TIPS		
 <b>CT4</b>	<b>METRIC (Ø mm)</b> Ø 5 – 16	<b>PGM</b> 24
 <b>46000</b>	<b>METRIC (Ø mm)</b> Ø 4 – 52	<b>PGM</b> 25
 <b>46600</b>	<b>ANSI (Ø inch)</b> Ø 1/8" – 2"	26
 <b>47500</b>	<b>JAPAN (Ø mm)</b> Ø 3.4 – 22	27

STANDARD HAMMER DRILL TIPS		
 <b>50850</b>	<b>METRIC (Ø mm)</b> Ø 4 – 20	<b>PGM</b> 28
 <b>50850</b>	<b>ANSI (Ø inch)</b> Ø 5/32" – 5/16"	28
 <b>11384</b>	<b>METRIC (Ø mm)</b> Ø 4 – 52/130°	<b>PGM</b> 29
 <b>17871</b>	<b>ANSI (Ø inch)</b> Ø 1/8" – 2"/130°	30–31
 <b>26000</b>	<b>JAPAN (Ø mm)</b> Ø 4 – 22/130°	32

SPECIAL HAMMER DRILL TIPS		
 <b>14444</b>	<b>METRIC (Ø mm)</b> Ø 4 – 8/130°	33
 <b>38500</b>	<b>METRIC (Ø mm)</b> Ø 3 – 4.5/130°	33
 <b>38911</b>	<b>METRIC (Ø mm)</b> Ø 4 – 6/130°	33
 <b>39742</b>	<b>METRIC (Ø mm)</b> Ø 3.5/130°	34
 <b>40429</b>	<b>METRIC (Ø mm)</b> Ø 3.5/130°	34

# GRADES FOR STONE WORKING

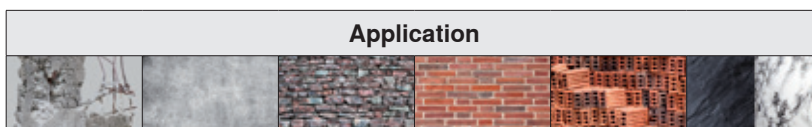
COMPOSITION AND PROPERTIES

**Grades for stone working – composition and properties**  
**Sorten für Steinbearbeitung – Zusammensetzung und Eigenschaften**  
**Nuances pour les applications de la pierre – composition et caractéristiques**  
**Gradi applicazioni pietra – composizione e caratteristiche**  
**Calidades para piedra – composición y características**

Standard grade	Hammer						Masonry					
	Grades / Sorten / Nuance / Gradi / Calidades						Grades / Sorten / Nuance / Gradi / Calidades					
	CERATIZIT grade code	ISO code	Grain	%Co	HV10	TRS	CERATIZIT grade code	ISO code	Grain	%Co	HV10	TRS
Small Diameter	CTM17-BC	BC20	<b>M</b>	8.5	1420	2800	CTF11-BC	BC03	<b>F</b>	5.6	1760	2300
Large Diameter	CTM17-BC	BC20	<b>M</b>	8.5	1420	2800	CTF12-BC	BC05	<b>F</b>	6.0	1640	2200
Special for low impact	CTM14-BC	BC10	<b>M</b>	7	1550	2600	CTF08-BC	BC01	<b>F</b>	4.0	1840	2200
Special for heavy duty	CTF24-BC	BC30	<b>F</b>	12	1330	3000	CTM14-BC	BC10	<b>M</b>	7.0	1550	2600

Classification of the WC grain size		CERATIZIT code
Average grain size [µm]	Classification	
< 0.2	nano	<b>N</b>
0.2 - < 0.5	ultrafine	<b>U</b>
0.5 - < 0.8	submicron	<b>S</b>
0.8 - < 1.3	fine	<b>F</b>
1.3 - < 2.5	medium	<b>M</b>
2.5 - < 6.0	coarse	<b>C</b>
> 6.0	extra-coarse	<b>E</b>

**Applications**  
**Anwendungen**  
**Applications**  
**Applicazioni**  
**Aplicacion**



PGM	Type, description	Application						METRIC	ANSI	JAPAN
		Rebar	Concrete	Stone & Rock	Bricks	Blocks	Granit & Marble			
✓	CT4	–	●	●	●	●	●	✓		
✓	46000	●	●	●	●	●	–	✓		
	46600	●	●	●	●	●	–		✓	
	47500	●	●	●	●	●	–			✓
✓	50850	●	●	●	●	●	–	✓		
	50850	●	●	●	●	●	–		✓	
✓	11384	●	●	●	●	●	●	✓		
	17871	●	●	●	●	●	●		✓	
	26000	●	●	●	●	●	●			✓
	14444	●	●	●	●	●	●	✓		
	38500	●	●	●	●	●	●	✓		
	38911	●	●	●	●	●	●	✓		
	39742	●	●	●	●	●	●	✓		
	40429	●	●	●	●	●	●	✓		

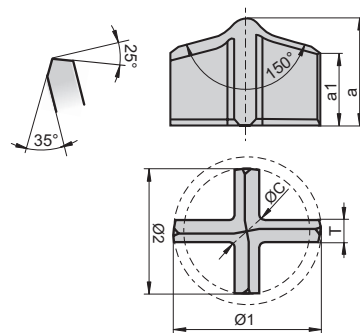
● Optimum  
 ○ Not optimum




# HAMMER DRILL TIPS – METRIC

CT4..

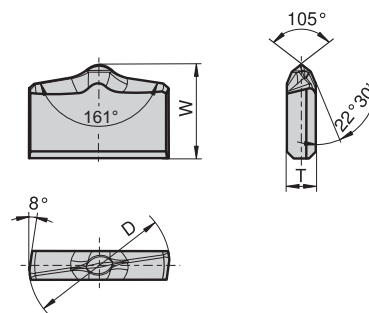
**Hammer drill tips – METRIC**  
**Hammerbohrerplatten – METRIC**  
**Plaquettes pour mèche marteau – METRIC**  
**Placchette per punte a percussione – METRIC**  
**Puntas de brocas para percusion – METRIC**




Type, description	Ø [mm]	Height a [mm]	Tol. [mm]	Height a1 [mm]	Ø1 [mm]	Tol. [mm]	Ø2 [mm]	Tol. [mm]	ØC (Center) [mm]	T (Thickness) [mm]
<b>CT4..</b>  Conforming to PGM	5.00	4.100	±0.10	0.950	5.285	±0.075	5.085	±0.075	1.590	0.950
	6.00	4.850	±0.10	0.950	6.285	±0.075	6.085	±0.075	1.960	1.150
	6.50	5.200	±0.10	0.950	6.725	±0.075	6.525	±0.075	1.960	1.150
	7.00	5.550	±0.10	0.950	7.285	±0.075	7.085	±0.075	1.960	1.150
	8.00	5.650	±0.15	0.950	8.285	±0.075	8.085	±0.075	2.610	1.550
	10.00	7.050	±0.15	0.950	10.300	±0.090	10.000	±0.090	2.890	1.750
	12.00	8.500	±0.15	1.150	12.340	±0.090	12.040	±0.090	3.250	1.950
	14.00	9.900	±0.15	1.150	14.355	±0.105	14.055	±0.105	3.500	2.125
16.00	9.650	±0.15	1.350	16.355	±0.105	16.055	±0.105	4.090	2.425	

Product portfolio to be further extended in 2016.

**Hammer drill tips – METRIC**  
**Hammerbohrerplatten – METRIC**  
**Plaquettes pour mèche marteau – METRIC**  
**Plachcette per punte a percussione – METRIC**  
**Puntas de brocas para percusion – METRIC**



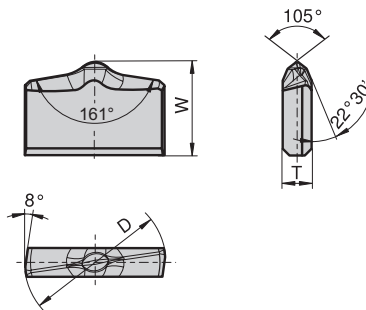
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
 Conforming to PGM	4.00	4.285	±0.075	4.15	±0.10	0.950	±0.05
	5.00	5.285	±0.075	4.65	±0.10	1.350	±0.05
	5.50	5.785	±0.075	4.95	±0.10	1.350	±0.05
	6.00	6.285	±0.075	4.85	±0.10	1.550	±0.05
	6.50	6.725	±0.075	5.30	±0.10	1.550	±0.05
	7.00	7.285	±0.075	5.35	±0.10	1.550	±0.05
	8.00	8.285	±0.075	5.95	±0.15	1.950	±0.05
	8.50	8.740	±0.09	6.30	±0.15	1.950	±0.05
	9.00	9.300	±0.09	6.30	±0.15	1.950	±0.05
	10.00	10.300	±0.09	6.85	±0.15	2.125	±0.075
	10.50	10.800	±0.09	7.30	±0.15	2.125	±0.075
	11.00	11.340	±0.09	7.70	±0.15	2.125	±0.075
	12.00	12.340	±0.09	8.25	±0.15	2.425	±0.075
	13.00	13.355	±0.105	8.70	±0.15	2.725	±0.075
	14.00	14.355	±0.105	8.95	±0.15	2.925	±0.075
	15.00	15.355	±0.105	9.35	±0.15	2.925	±0.075
	16.00	16.355	±0.105	9.35	±0.15	2.925	±0.075
	17.00	17.355	±0.105	9.35	±0.15	2.925	±0.075
	18.00	18.355	±0.105	9.65	±0.25	3.400	±0.10
	19.00	19.430	±0.12	10.40	±0.25	3.400	±0.10
	20.00	20.430	±0.12	11.25	±0.25	3.400	±0.10
	22.00	22.380	±0.12	12.30	±0.25	3.900	±0.10
	23.00	23.380	±0.12	12.30	±0.25	3.900	±0.10
	24.00	24.380	±0.12	13.30	±0.25	4.400	±0.10
	25.00	25.380	±0.12	13.25	±0.25	4.400	±0.10
	26.00	26.380	±0.12	13.25	±0.25	4.400	±0.10
	28.00	28.380	±0.12	14.70	±0.25	4.900	±0.10
	29.00	29.380	±0.12	14.70	±0.25	4.900	±0.10
	30.00	30.380	±0.12	14.70	±0.25	4.900	±0.10
	32.00	32.520	±0.15	16.80	±0.25	5.400	±0.10
35.00	35.520	±0.15	18.00	±0.25	5.900	±0.10	
36.00	36.520	±0.15	18.25	±0.25	5.900	±0.10	
38.00	38.570	±0.20	18.25	±0.25	5.900	±0.10	
40.00	40.545	±0.225	19.75	±0.25	6.400	±0.10	
42.00	42.545	±0.225	19.25	±0.25	6.400	±0.10	
44.00	44.545	±0.225	20.75	±0.25	6.900	±0.10	
45.00	45.545	±0.225	20.75	±0.25	6.900	±0.10	
50.00	50.635	±0.265	22.75	±0.25	6.900	±0.10	
52.00	52.635	±0.265	23.50	±0.25	6.900	±0.10	

Codification code example: 46000- 4.0 CTM17-BC

# HAMMER DRILL TIPS – ANSI

46600..

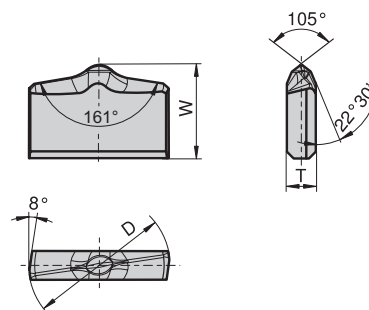
**Hammer drill tips – ANSI**  
**Hammerbohrerplatten – ANSI**  
**Plaquettes pour mèche marteau – ANSI**  
**Placchette per punte a percussione – ANSI**  
**Puntas de brocas para percusion – ANSI**



Type, description	Ø [inch]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
46600..	1/8"	3.485	±0.075	4.00	±0.10	0.950	±0.050
	5/32"	4.265	±0.075	4.15	±0.10	0.950	±0.050
	11/64"	4.675	±0.075	4.65	±0.10	1.150	±0.050
	3/16"	5.130	±0.10	4.65	±0.10	1.150	±0.050
	13/64"	5.510	±0.10	5.25	±0.10	1.150	±0.050
	7/32"	5.920	±0.10	5.30	±0.10	1.350	±0.050
	15/64"	6.300	±0.10	5.30	±0.10	1.550	±0.050
	1/4"	6.710	±0.10	5.30	±0.10	1.550	±0.050
	17/64"	7.110	±0.10	6.15	±0.10	1.550	±0.050
	9/32"	7.620	±0.10	6.15	±0.10	1.550	±0.050
	5/16"	8.410	±0.10	6.45	±0.10	1.950	±0.050
	3/8"	10.010	±0.10	6.85	±0.10	2.125	±0.075
	7/16"	11.765	±0.125	7.70	±0.10	2.125	±0.075
	1/2"	13.335	±0.125	8.70	±0.10	2.725	±0.075
	9/16"	14.915	±0.125	9.10	±0.10	2.925	±0.075
	5/8"	16.635	±0.125	9.40	±0.10	2.925	±0.075
	11/16"	18.235	±0.125	9.65	±0.10	3.400	±0.100
	3/4"	19.840	±0.150	11.55	±0.10	3.400	±0.100
	13/16"	21.410	±0.150	11.55	±0.10	3.400	±0.100
	27/32"	22.230	±0.150	12.15	±0.10	3.900	±0.100
	7/8"	23.140	±0.150	12.15	±0.10	3.900	±0.100
	15/16"	24.740	±0.150	13.25	±0.10	4.400	±0.100
	1"	26.320	±0.150	13.25	±0.10	4.400	±0.100
	1 1/16"	28.080	±0.190	14.70	±0.10	4.900	±0.100
	1 1/8"	29.660	±0.190	14.70	±0.10	4.900	±0.100
	1 1/4"	32.830	±0.190	16.80	±0.10	5.400	±0.100
	1 5/16"	34.530	±0.190	16.80	±0.10	5.400	±0.100
	1 3/8"	36.010	±0.190	16.80	±0.10	5.400	±0.100
	1 7/16"	37.580	±0.190	17.35	±0.10	5.900	±0.100
	1 1/2"	39.180	±0.190	17.35	±0.10	5.900	±0.100
	1 9/16"	40.585	±0.255	19.75	±0.10	6.400	±0.100
	1 3/4"	45.265	±0.255	20.75	±0.10	6.900	±0.100
2"	51.815	±0.255	23.50	±0.25	6.900	±0.100	

Codification code example: 46600- 1/8" CTM17-BC

**Hammer drill tips – JAPAN**  
**Hammerbohrerplatten – JAPAN**  
**Plaquettes pour mèche marteau – JAPAN**  
**Placchette per punte a percussione – JAPAN**  
**Puntas de brocas para percusion – JAPAN**



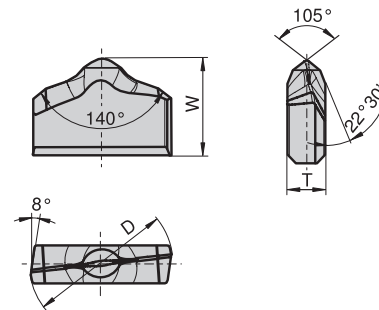
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
47500..	3.4	3.500	±0.10	3.75	±0.10	0.950	±0.05
	3.5	3.520	±0.10	3.75	±0.10	0.950	±0.05
	3.8	3.900	±0.10	3.75	±0.10	0.950	±0.05
	4.0	4.100	±0.10	3.95	±0.10	0.950	±0.05
	4.3	4.400	±0.10	4.15	±0.10	0.950	±0.05
	4.8	4.900	±0.10	4.45	±0.10	0.950	±0.05
	5.0	5.100	±0.10	4.65	±0.10	1.150	±0.05
	5.3	5.400	±0.10	4.65	±0.10	1.150	±0.05
	5.4	5.500	±0.10	4.95	±0.10	1.350	±0.05
	6.0	6.100	±0.10	4.85	±0.10	1.350	±0.05
	6.4	6.525	±0.125	5.15	±0.10	1.350	±0.05
	7.0	7.125	±0.125	5.35	±0.10	1.550	±0.05
	8.0	8.125	±0.125	5.95	±0.15	1.950	±0.05
	9.0	9.125	±0.125	6.30	±0.15	1.925	±0.075
	9.5	9.625	±0.125	6.30	±0.15	1.925	±0.075
	10.0	10.125	±0.125	6.85	±0.15	2.125	±0.075
	10.5	10.650	±0.15	7.30	±0.15	2.125	±0.075
	11.0	11.150	±0.15	7.70	±0.15	2.125	±0.075
	12.0	12.150	±0.15	8.25	±0.15	2.425	±0.075
	12.5	12.650	±0.15	8.25	±0.15	2.425	±0.075
	12.7	12.850	±0.15	8.25	±0.15	2.425	±0.075
	13.5	13.650	±0.15	8.70	±0.15	2.725	±0.075
	14.3	14.450	±0.15	8.95	±0.15	2.925	±0.075
	14.5	14.650	±0.15	8.95	±0.15	2.925	±0.075
	15.0	15.150	±0.15	9.35	±0.25	2.925	±0.075
	16.0	16.150	±0.15	9.35	±0.25	2.925	±0.075
16.5	16.650	±0.15	9.35	±0.25	2.925	±0.075	
17.0	17.150	±0.15	9.35	±0.25	2.925	±0.075	
17.5	17.650	±0.15	9.35	±0.25	2.925	±0.075	
18.0	18.175	±0.175	9.65	±0.25	3.400	±0.10	
19.0	19.175	±0.175	10.40	±0.25	3.400	±0.10	
20.0	20.175	±0.175	11.25	±0.25	3.400	±0.10	
21.5	21.675	±0.175	12.15	±0.25	3.900	±0.10	
22.0	22.175	±0.175	12.30	±0.25	3.900	±0.10	

Codification code example: 47500- 3.4 CTM17-BC


# HAMMER DRILL TIPS – METRIC & ANSI

50850..

**Hammer drill tips – METRIC**  
**Hammerbohrerplatten – METRIC**  
**Plaquettes pour mèche marteau – METRIC**  
**Plachcette per punte a percussione – METRIC**  
**Puntas de brocas para percusion – METRIC**

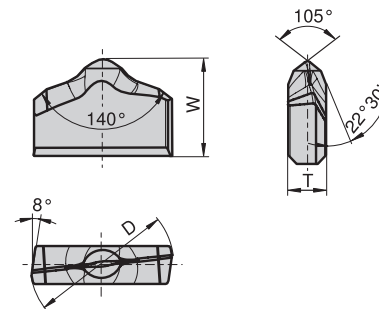


METRIC 50850.., ANSI 50850..

Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
 Conforming to PGM	4.0	4.285	±0.075	3.60	±0.10	1.350	±0.05
	5.0	5.285	±0.075	4.10	±0.10	1.550	±0.05
	5.5	5.785	±0.075	4.50	±0.10	1.550	±0.05
	6.0	6.285	±0.075	4.90	±0.10	1.750	±0.05
	6.5	6.785	±0.075	5.30	±0.10	1.750	±0.05
	7.0	7.285	±0.075	5.70	±0.15	1.950	±0.05
	8.0	8.285	±0.075	5.75	±0.15	2.250	±0.05
	10.0	10.300	±0.090	7.15	±0.15	2.425	±0.075
	12.0	12.340	±0.090	8.55	±0.15	2.725	±0.075
	20.0	20.430	±0.120	12.25	±0.25	3.900	±0.100

HAMMER DRILL TIPS

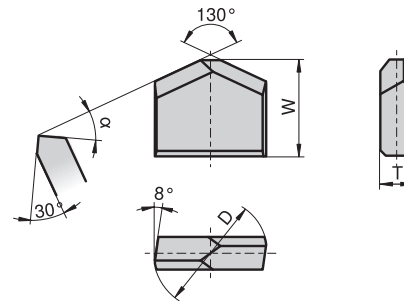
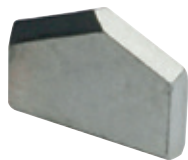
**Hammer drill tips – ANSI**  
**Hammerbohrerplatten – ANSI**  
**Plaquettes pour mèche marteau – ANSI**  
**Plachcette per punte a percussione – ANSI**  
**Puntas de brocas para percusion – ANSI**




Type, description	Ø [inch]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
50850..	5/32"	4.265	±0.075	3.60	±0.10	1.350	±0.05
	3/16"	5.130	±0.100	4.10	±0.10	1.550	±0.05
	7/32"	5.920	±0.100	4.50	±0.10	1.550	±0.05
	5/16"	8.410	±0.100	5.75	±0.15	2.250	±0.05

Codification code example: 50850- 4.0 CTM17-BC

**Hammer drill tips – METRIC**  
**Hammerbohrerplatten – METRIC**  
**Plaquettes pour mèche marteau – METRIC**  
**Plachcette per punte a percussione – METRIC**  
**Puntas de brocas para percusion – METRIC**



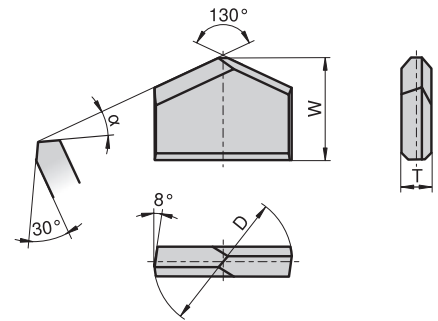
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
<b>11384...</b>  Conforming to PGM	4.0	4.21	+0.15	4.5	+0.20	1.0	-0.10	20°
	5.0	5.21	+0.15	5.0	+0.20	1.2	-0.10	20°
	5.5	5.71	+0.15	5.3	+0.20	1.4	-0.10	20°
	6.0	6.21	+0.15	5.3	+0.20	1.4	-0.10	20°
	6.5	6.65	+0.15	5.8	+0.20	1.4	-0.10	20°
	7.0	7.21	+0.15	5.8	+0.20	1.6	-0.10	20°
	8.0	8.21	+0.15	6.5	+0.30	2.0	-0.10	20°
	8.5	8.65	+0.18	6.9	+0.30	2.0	-0.10	20°
	9.0	9.21	+0.18	6.9	+0.30	2.0	-0.15	20°
	10.0	10.21	+0.18	7.5	+0.30	2.2	-0.15	20°
	10.5	10.71	+0.18	8.0	+0.30	2.2	-0.15	20°
	11.0	11.25	+0.18	8.5	+0.30	2.2	-0.15	20°
	12.0	12.25	+0.18	9.0	+0.30	2.5	-0.15	20°
	13.0	13.25	+0.21	9.5	+0.30	2.8	-0.15	30°
	14.0	14.25	+0.21	9.8	+0.30	3.0	-0.15	30°
	15.0	15.25	+0.21	10.5	+0.50	3.0	-0.15	30°
	16.0	16.25	+0.21	10.5	+0.50	3.0	-0.15	30°
	17.0	17.25	+0.21	10.5	+0.50	3.0	-0.15	30°
	18.0	18.25	+0.21	11.0	+0.50	3.5	-0.20	30°
	19.0	19.31	+0.24	12.0	+0.50	3.5	-0.20	30°
	20.0	20.31	+0.24	13.0	+0.50	3.5	-0.20	30°
	22.0	22.26	+0.24	14.0	+0.50	4.0	-0.20	30°
	23.0	23.26	+0.24	14.0	+0.50	4.0	-0.20	30°
	24.0	24.26	+0.24	15.0	+0.50	4.5	-0.20	30°
	25.0	25.26	+0.24	15.0	+0.50	4.5	-0.20	30°
	26.0	26.26	+0.24	15.0	+0.50	4.5	-0.20	30°
	28.0	28.26	+0.24	17.0	+0.50	5.0	-0.20	30°
	29.0	29.26	+0.24	17.0	+0.50	5.0	-0.20	30°
	30.0	30.26	+0.24	17.0	+0.50	5.0	-0.20	30°
	32.0	32.37	+0.30	19.0	+0.50	5.5	-0.20	30°
35.0	35.37	+0.30	20.5	+0.50	6.0	-0.20	30°	
36.0	36.37	+0.30	21.0	+0.50	6.0	-0.20	30°	
37.0	37.27	+0.40	21.0	+0.50	6.0	-0.20	30°	
38.0	38.37	+0.40	21.0	+0.50	6.0	-0.20	30°	
40.0	40.32	+0.45	23.0	+0.50	6.5	-0.20	30°	
42.0	42.32	+0.45	24.0	+0.50	6.5	-0.20	30°	
44.0	44.32	+0.45	24.0	+0.50	7.0	-0.20	30°	
45.0	45.32	+0.45	24.5	+0.50	7.0	-0.20	30°	
50.0	50.37	+0.55	26.0	+0.50	7.0	-0.20	30°	
52.0	52.37	+0.55	26.0	+0.50	7.0	-0.20	30°	

Codification code example: 11384- 4.0 CTM17-BC

# HAMMER DRILL TIPS – ANSI

17871..

**Hammer drill tips – ANSI**  
**Hammerbohrerplatten – ANSI**  
**Plaquettes pour mèche marteau – ANSI**  
**Placchette per punte a percussione – ANSI**  
**Puntas de brocas para percusion – ANSI**



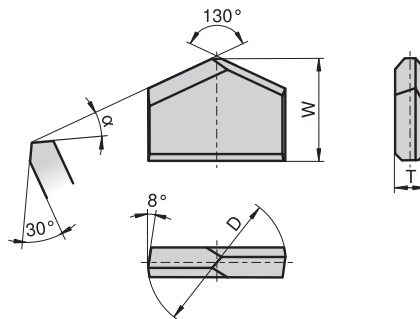
Type, description	Ø [inch]	ANSI code	D [inch]	Tol. [inch]	W [inch]	Tol. [inch]	T [inch]	Tol. [inch]	α
17871..	1/8"	HDG 2	0.140	-0.006	0.165	+0.010	0.035	-0.004	20°
	5/32"	HDG 2.5	0.171	-0.006	0.177	+0.008	0.039	-0.004	20°
	11/64"	HDG 2.75	0.187	-0.006	0.197	+0.008	0.047	-0.004	20°
	3/16"	HDG 3	0.206	-0.008	0.197	+0.008	0.047	-0.004	20°
	13/64"	HDG 3.25	0.221	-0.008	0.220	+0.008	0.047	-0.004	20°
	7/32"	HDG 3.5	0.237	-0.008	0.220	+0.008	0.055	-0.004	20°
	15/64"	HDG 3.75	0.252	-0.008	0.220	+0.008	0.055	-0.004	20°
	1/4"	HDG 4	0.268	-0.008	0.220	+0.008	0.055	-0.004	20°
	17/64"	HDG 4.24	2.877	-0.008	0.256	+0.008	0.063	-0.004	20°
	9/32"	HDG 4.5	0.304	-0.008	0.256	+0.008	0.063	-0.004	20°
	5/16"	HDG 5	0.335	-0.008	0.256	+0.008	0.078	-0.004	20°
	3/8"	HDG 6	0.398	-0.008	0.295	+0.008	0.086	-0.006	20°
	7/16"	HDG 7	0.468	-0.010	0.334	+0.008	0.086	-0.006	20°
	1/2"	HDG 8	0.530	-0.010	0.374	+0.008	0.110	-0.006	30°
	9/16"	HDG 9	0.592	-0.010	0.374	+0.008	0.118	-0.006	30°
	5/8"	HDG 10	0.660	-0.010	0.413	+0.008	0.118	-0.006	30°
	11/16"	HDG 11	0.723	-0.010	0.433	+0.008	0.137	-0.008	30°
	3/4"	HDG 12	0.787	-0.012	0.512	+0.008	0.137	-0.008	30°
	13/16"	HDG 13	0.849	-0.012	0.512	+0.008	0.137	-0.008	30°
	27/32"	HDG 13.5	0.881	-0.012	0.551	+0.008	0.157	-0.008	30°
	7/8"	HDG 14	0.917	-0.012	0.551	+0.008	0.157	-0.008	30°
	15/16"	HDG 15	0.980	-0.012	0.590	+0.008	0.177	-0.008	30°
	1"	HDG 16	1.042	-0.012	0.590	+0.008	0.177	-0.008	30°
	1 1/8"	HDG 18	1.175	-0.015	0.669	+0.008	0.196	-0.008	30°
1 1/4"	HDG 20	1.300	-0.015	0.748	+0.008	0.216	-0.008	30°	
1 3/8"	HDG 22	1.425	-0.015	0.748	+0.008	0.216	-0.008	30°	
1 1/2"	HDG 24	1.550	-0.015	0.827	+0.008	0.236	-0.008	30°	
2"	-	2.050	-0.020	1.024	+0.020	0.276	-0.008	30°	

ANSI 17871..

HAMMER DRILL TIPS

Codification code example: 17871- 1/8" CTM17-BC

Hammer drill tips – ANSI  
 Hammerbohrerplatten – ANSI  
 Plaquettes pour mèche marteau – ANSI  
 Placchette per punta a percussione – ANSI  
 Puntas de brocas para percusion – ANSI



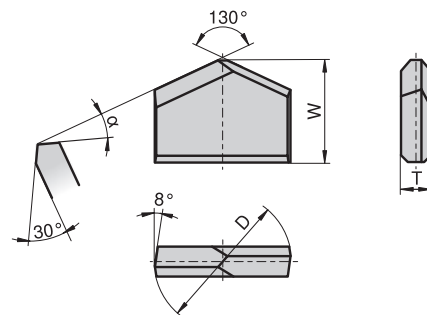
Type, description	Ø [inch]	ANSI code	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
17871..	1/8"	HDG 2	3.55	-0.15	4.16	+0.25	0.9	-0.10	20°
	5/32"	HDG 2.5	4.34	-0.15	4.50	+0.20	1.0	-0.10	20°
	11/64"	HDG 2.75	4.75	-0.15	5.00	+0.20	1.2	-0.10	20°
	3/16"	HDG 3	5.23	-0.20	5.00	+0.20	1.2	-0.10	20°
	13/64"	HDG 3.25	5.61	-0.20	5.60	+0.20	1.2	-0.10	20°
	7/32"	HDG 3.5	6.02	-0.20	5.60	+0.20	1.4	-0.10	20°
	15/64"	HDG 3.75	6.40	-0.20	5.60	+0.20	1.4	-0.10	20°
	1/4"	HDG 4	6.81	-0.20	5.60	+0.20	1.4	-0.10	20°
	17/64"	HDG 4.24	7.31	-0.20	6.60	+0.10	1.6	-0.10	20°
	9/32"	HDG 4.5	7.72	-0.20	6.60	+0.20	1.6	-0.10	20°
	5/16"	HDG 5	8.51	-0.20	6.60	+0.20	2.0	-0.10	20°
	3/8"	HDG 6	10.11	-0.20	7.50	+0.20	2.2	-0.15	20°
	7/16"	HDG 7	11.89	-0.25	8.50	+0.20	2.2	-0.15	20°
	1/2"	HDG 8	13.46	-0.25	9.50	+0.20	2.8	-0.15	30°
	9/16"	HDG 9	15.04	-0.25	9.50	+0.20	3.0	-0.15	30°
	5/8"	HDG 10	16.76	-0.25	10.50	+0.20	3.0	-0.15	30°
	11/16"	HDG 11	18.36	-0.25	11.00	+0.20	3.5	-0.20	30°
	3/4"	HDG 12	19.99	-0.30	13.00	+0.20	3.5	-0.20	30°
	13/16"	HDG 13	21.50	-0.30	13.00	+0.20	3.5	-0.20	30°
	27/32"	HDG 13.5	22.38	-0.30	14.00	+0.20	4.0	-0.20	30°
	7/8"	HDG 14	23.29	-0.30	14.00	+0.20	4.0	-0.20	30°
	15/16"	HDG 15	24.89	-0.30	15.00	+0.20	4.5	-0.20	30°
	1"	HDG 16	26.47	-0.30	15.00	+0.20	4.5	-0.20	30°
	1 1/8"	HDG 18	29.85	-0.38	17.00	+0.20	5.0	-0.20	30°
1 1/4"	HDG 20	33.02	-0.38	19.00	+0.20	5.5	-0.20	30°	
1 3/8"	HDG 22	36.20	-0.38	19.00	+0.20	5.5	-0.20	30°	
1 1/2"	HDG 24	39.37	-0.38	21.00	+0.20	6.0	-0.20	30°	
2"	-	-	52.07	-0.51	26.00	+0.50	7.0	-0.20	30°



# HAMMER DRILL TIPS – JAPAN

26000..

**Hammer drill tips – JAPAN**  
**Hammerbohrerplatten – JAPAN**  
**Plaquettes pour mèche marteau – JAPAN**  
**Placchette per punte a percussione – JAPAN**  
**Puntas de brocas para percusion – JAPAN**

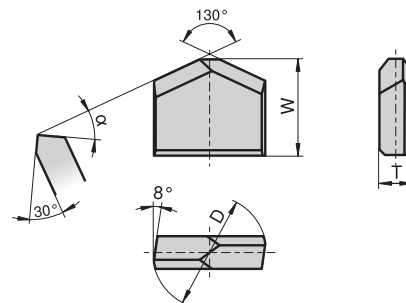


Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]		T [mm]		α
26000..	4.0	4.0	+0.20	4.2	+0.20	1.0	-0.10	20°
	4.3	4.3	+0.20	4.5	+0.20	1.0	-0.10	20°
	4.8	4.8	+0.20	4.8	+0.20	1.0	-0.10	20°
	5.0	5.0	+0.20	5.0	+0.20	1.2	-0.10	20°
	6.0	6.0	+0.20	5.3	+0.20	1.4	-0.10	20°
	6.4	6.4	+0.25	5.6	+0.20	1.4	-0.10	20°
	7.0	7.0	+0.25	5.8	+0.20	1.6	-0.10	20°
	8.0	8.0	+0.25	6.5	+0.30	2.0	-0.10	20°
	9.0	9.0	+0.25	6.9	+0.30	2.0	-0.15	20°
	9.5	9.5	+0.25	6.9	+0.30	2.0	-0.15	20°
	10.0	10.0	+0.25	7.5	+0.30	2.2	-0.15	20°
	10.5	10.5	+0.30	8.0	+0.30	2.2	-0.15	20°
	11.0	11.0	+0.30	8.5	+0.30	2.2	-0.15	20°
	12.0	12.0	+0.30	9.0	+0.30	2.5	-0.15	20°
	12.5	12.5	+0.30	9.0	+0.30	2.5	-0.15	20°
	12.7	12.7	+0.30	9.0	+0.30	2.5	-0.15	20°
	13.5	13.5	+0.30	9.5	+0.30	2.8	-0.15	30°
	14.5	14.5	+0.30	9.8	+0.30	3.0	-0.15	30°
	15.0	15.0	+0.30	10.5	+0.50	3.0	-0.15	30°
	16.0	16.0	+0.30	10.5	+0.50	3.0	-0.15	30°
	16.5	16.5	+0.30	10.5	+0.50	3.0	-0.15	30°
	17.0	17.0	+0.30	10.5	+0.50	3.0	-0.15	30°
17.5	17.5	+0.30	10.5	+0.50	3.0	-0.15	30°	
18.0	18.0	+0.35	11.0	+0.50	3.5	-0.20	30°	
19.0	19.0	+0.35	12.0	+0.50	3.5	-0.20	30°	
20.0	20.0	+0.35	13.0	+0.50	3.5	-0.20	30°	
22.0	22.0	+0.35	14.0	+0.50	4.0	-0.20	30°	

# HAMMER DRILL TIPS – METRIC

14444..., 38500..., 38911..

Hammer drill tips – METRIC  
 Hammerbohrerplatten – METRIC  
 Plaquettes pour mèche marteau – METRIC  
 Placchette per punta a percussione – METRIC  
 Puntas de brocas para percusion – METRIC



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
14444..	4.0	4.20	+0.10	5.0	+0.20	1.4	-0.10	30°
	5.0	5.21	+0.15	5.0	+0.20	1.6	-0.10	30°
	5.5	5.71	+0.15	5.3	+0.20	1.8	-0.10	30°
	6.0	6.21	+0.15	5.3	+0.20	1.8	-0.10	30°
	6.5	6.71	+0.15	5.8	+0.20	1.8	-0.10	30°
	7.0	7.21	+0.15	6.0	+0.20	2.0	-0.10	30°
	8.0	8.21	+0.15	6.5	+0.30	2.3	-0.10	30°



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
38500..	3.0	3.15	+0.10	3.5	+0.20	0.8	-0.10	30°
	3.5	3.65	+0.15	3.5	+0.20	1.2	-0.10	30°
	4.5	4.65	+0.15	5.0	+0.20	1.4	-0.10	30°



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
38911..	4.00	4.30	+0.15	5.1	±0.10	1.2	-0.07	20°
	5.00	5.20	+0.15	5.1	±0.10	1.4	-0.07	20°
	6.00	6.25	+0.15	5.4	±0.10	1.6	-0.07	20°

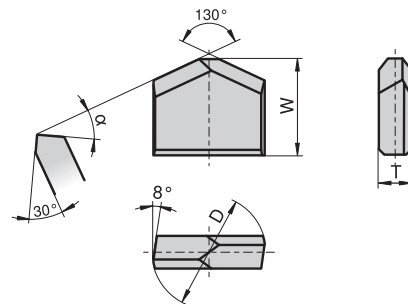
Codification code example: 14444- 4.0 CTM17-BC

# HAMMER DRILL TIPS – METRIC

39742.., 40429..



**Hammer drill tips – METRIC**  
**Hammerbohrerplatten – METRIC**  
**Plaquettes pour mèche marteau – METRIC**  
**Placchette per punte a percussione – METRIC**  
**Puntas de brocas para percusion – METRIC**



Type, description	∅ [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
39742..	3.5	3.5	+0.10	4.0	+0.25	0.8	-0.07	20°

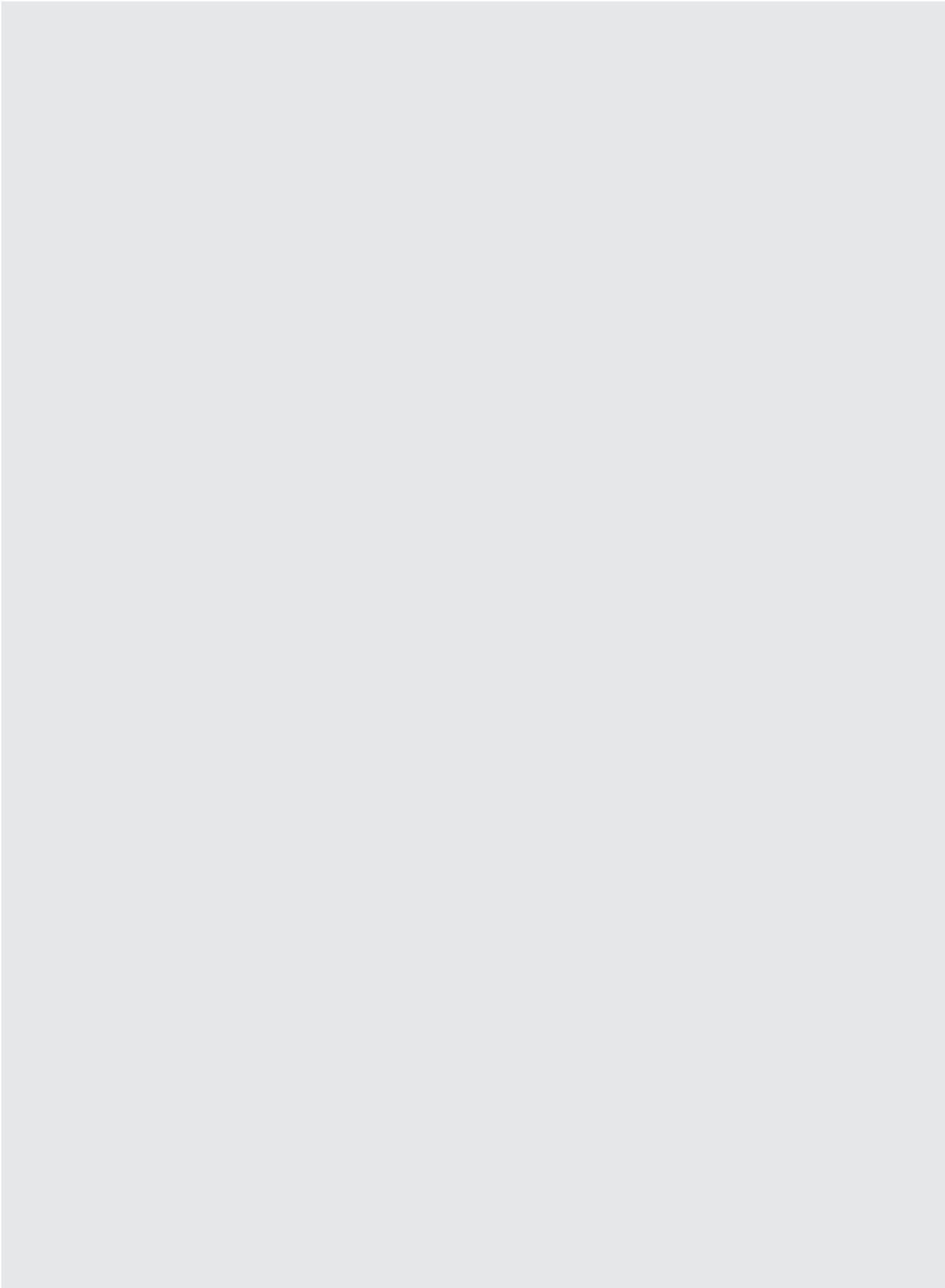
METRIC 39742.., 40429..



Type, description	∅ [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
40429..	3.5	3.5	+0.10	3.5	+0.20	1.2	-0.10	30°

HAMMER DRILL TIPS

Codification code example: 39742- 3.5 CTM17-BC







**Masonry drill tips**  
**Schlagbohrerplatten**  
**Plaquettes pour mèche maçonnerie**  
**Placchette per punte a forare**  
**Puntas de brocas para hormigon**

## MASONRY DRILL TIPS

PRODUCTS UPON CUSTOMER REQUEST

38

TOOLMAKER SOLUTIONS BY  
CERATIZIT

NON STANDARD PARTS

MASONRY DRILL TIPS

### Products upon customer request

Produkte nach Kundenwunsch

Produit sur demande de client

Prodotti a richiesta del cliente

Productos sobre deseo del cliente

#### Can't find what you're looking for?

Our catalogue displays the wide range of products which we frequently have in strong demand. Aside from this, we are of course in the position to make other products and have a flexible range of manufacturing methods and means at our production sites, allowing us to create special products with short delivery times. Our extensive experience and investment in research and development means we can provide you with the support you need to get the most out of your tools. We will be pleased to receive your enquiries for any custom-designed. Our local representatives will gladly talk with you about your exact requirements and can also provide you with technical guidance and know-how for anything related to production possibilities and application fields. If you have any further questions or requests we invite you to give us a call – we are here to help.

#### Sie finden nicht was Sie benötigen?

Unser Katalog zeigt das Produktprogramm, das häufig nachgefragt wird. Wir können natürlich auch andere Produkte herstellen und haben dazu die Fertigungsmethoden und Kapazitäten an unseren Produktionsstandorten, die es uns erlauben, Sonderprodukte mit kurzen Lieferzeiten zu produzieren. Unsere umfassende Erfahrung und Kompetenz in Forschung und Entwicklung bedeutet, wir können Ihnen die Unterstützung zur Verfügung stellen, die Sie benötigen, um ein Maximum für Ihre Werkzeuge zu erzielen. Wir freuen uns auf Ihre Anfragen um Produkte nach Ihren speziellen Wünschen und Ausführungen zu produzieren. Unser für Sie zuständiger Mitarbeiter bespricht gerne Ihre genauen Ausführungswünsche und stellt sein technisches Wissen bezüglich Produktionsmöglichkeiten und Anwendungsgebiete gerne zur Verfügung. Wenn Sie weitere Fragen oder Wünsche haben, rufen Sie uns an, wir beraten Sie gerne.

#### Vous ne trouvez pas ce dont vous avez besoin?

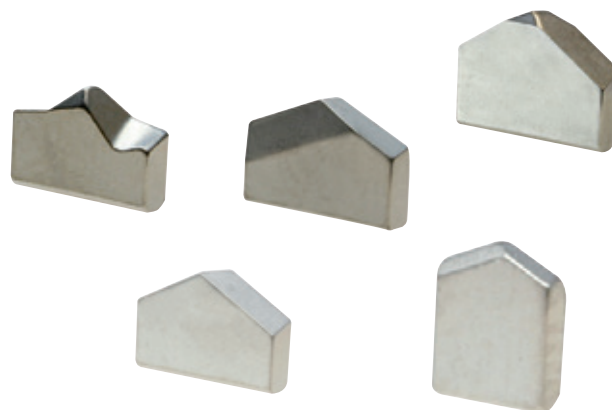
Notre catalogue comprend les produits que nos clients commandent fréquemment. Nous sommes bien sûr aussi à même de fabriquer des produits suivant les souhaits ou les exigences de nos clients et disposons à cette fin des méthodes de fabrication les plus modernes ainsi que de capacités suffisantes sur nos sites de production, ce qui nous permet de réaliser des produits spéciaux dans les meilleurs délais. Notre expérience approfondie et nos compétences en matière de recherche et développement nous permettent de vous fournir l'assistance et le support que vous recherchez pour garantir une utilisation optimale de vos outils. Nous sommes heureux de recevoir vos demandes de produits que nous réaliserons suivant vos attentes et exigences. Votre interlocuteur personnel discutera volontiers avec vous de vos souhaits précis relatifs à l'exécution et mettra à votre disposition toutes ses connaissances techniques en ce qui concerne les possibilités de fabrication et les domaines d'application. Si vous avez des questions supplémentaires ou déjà un produit spécifique en tête, n'hésitez pas à nous contacter. Nous nous ferons un plaisir de vous conseiller et de vous assister.

#### Se non trovate ciò che fa al caso vostro .....

















Il nostro catalogo riporta la gamma dei prodotti maggiormente richiesti dalla nostra clientela. Ovviamente siamo anche in grado di produrre altri articoli disponendo di metodi di produzione e capacità presso le nostre sedi produttive altamente flessibili che ci permettono di fabbricare particolari non standardizzati in tempi brevi. Grazie alla nostra esperienza pluriennale ed ai continui investimenti in ricerca e sviluppo possiamo garantirvi tutto il supporto affinché otteniate il massimo rendimento dai vostri utensili. Saremo lieti di ricevere le vostre richieste per utensili speciali da realizzare su disegno. I nostri funzionari di vendita gestiranno con la loro competenza professionale le vostre richieste specifiche fornendovi tutti i dettagli tecnici necessari anche per settori applicativi o produttivi particolarmente complessi. In caso di chiarimenti e informazioni supplementari vi invitiamo a contattarci; potete contare sulla nostra collaborazione, in qualsiasi momento.

#### ¿No encuentra lo que necesita?

Nuestro catálogo incluye los productos más demandados por nuestros clientes. Desde luego también somos capaces de fabricar productos según los deseos o las exigencias de nuestros clientes y disponemos de los métodos de fabricación más modernos así como de capacidad suficiente en nuestras plantas de producción, lo que nos permite realizar productos especiales en plazos de entrega muy ajustados. Gracias a nuestra amplia experiencia y nuestras competencias en materia de investigación y desarrollo, podemos ofrecerle la asistencia y el soporte que usted precise para asegurar una utilización óptima de sus herramientas. Nuestro técnico comercial pondrá a su disposición todos sus conocimientos técnicos en cuanto a las posibilidades de producción y los campos de aplicación. Para cualquier pregunta en general o relacionada a algún producto concreto, no dude en contactarnos. Será un placer poderle asesorar.



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# GRADES FOR STONE WORKING

COMPOSITION AND PROPERTIES



**Grades for stone working – composition and properties**  
**Sorten für Steinbearbeitung – Zusammensetzung und Eigenschaften**  
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Standard grade	Masonry						Hammer					
	Grades / Sorten / Nuance / Gradi / Calidades						Grades / Sorten / Nuance / Gradi / Calidades					
	CERATIZIT grade code	ISO code	Grain	%Co	HV10	TRS	CERATIZIT grade code	ISO code	Grain	%Co	HV10	TRS
Small Diameter	CTF11-BC	BC03	<b>F</b>	5.6	1760	2300	CTM17-BC	BC20	<b>M</b>	8.5	1420	2900
Large Diameter	CTF12-BC	BC05	<b>F</b>	6.0	1640	2200	CTM17-BC	BC20	<b>M</b>	8.5	1420	2800
Special for low impact	CTF08-BC	BC01	<b>F</b>	4.0	1840	2200	CTM14-BC	BC10	<b>M</b>	7	1550	2600
Special for heavy duty	CTM14-BC	BC10	<b>M</b>	7.0	1550	2600	CTF24-BC	BC30	<b>F</b>	12	1330	3000

Classification of the WC grain size		CERATIZIT code
Average grain size [µm]	Classification	
< 0.2	nano	<b>N</b>
0.2 - < 0.5	ultrafine	<b>U</b>
0.5 - < 0.8	submicron	<b>S</b>
0.8 - < 1.3	fine	<b>F</b>
1.3 - < 2.5	medium	<b>M</b>
2.5 - < 6.0	coarse	<b>C</b>
> 6.0	extra-coarse	<b>E</b>

GRADES FOR STONE WORKING

MASONRY DRILL TIPS

**Applications**  
**Anwendungen**  
**Applications**  
**Applicazioni**  
**Aplicacion**



		Application									
PGM	Type, description	Concrete	Stone	Bricks	Granit & Marble	Roofing tile	Tiles	Metal	Wood	METRIC	ANSI
✓	58000	●	●	●	●	●	–	–	–	✓	
	58000	●	●	●	●	●	–	–	–		✓
✓	11400	●	●	●	–	○	–	–	–	✓	
	46973	●	●	●	–	○	–	–	–		✓
	32222	○	–	●	●	●	●	●	●	✓	
	37071	●	●	●	–	–	–	–	–	✓	
✓	12500	○	●	●	●	●	●	●	●	✓	
	22000	○	●	●	●	●	●	●	●		✓
✓	16300	○	●	●	●	●	●	●	●	✓	
✓	23500	○	●	●	●	●	●	●	●	✓	
✓	24323	●	●	●	–	○	○	–	–	✓	
✓	43500	○	●	●	●	●	●	●	●	✓	
✓	16000	●	●	●	–	○	○	–	–	✓	
	28500	○	–	●	●	●	●	●	●		✓
	46716	○	–	●	●	●	●	●	●	✓	
✓	50210	●	–	●	–	○	○	–	–	✓	

● Optimum  
 ○ Not optimum

APPLICATIONS

MASONRY DRILL TIPS

# MASONRY DRILL TIPS

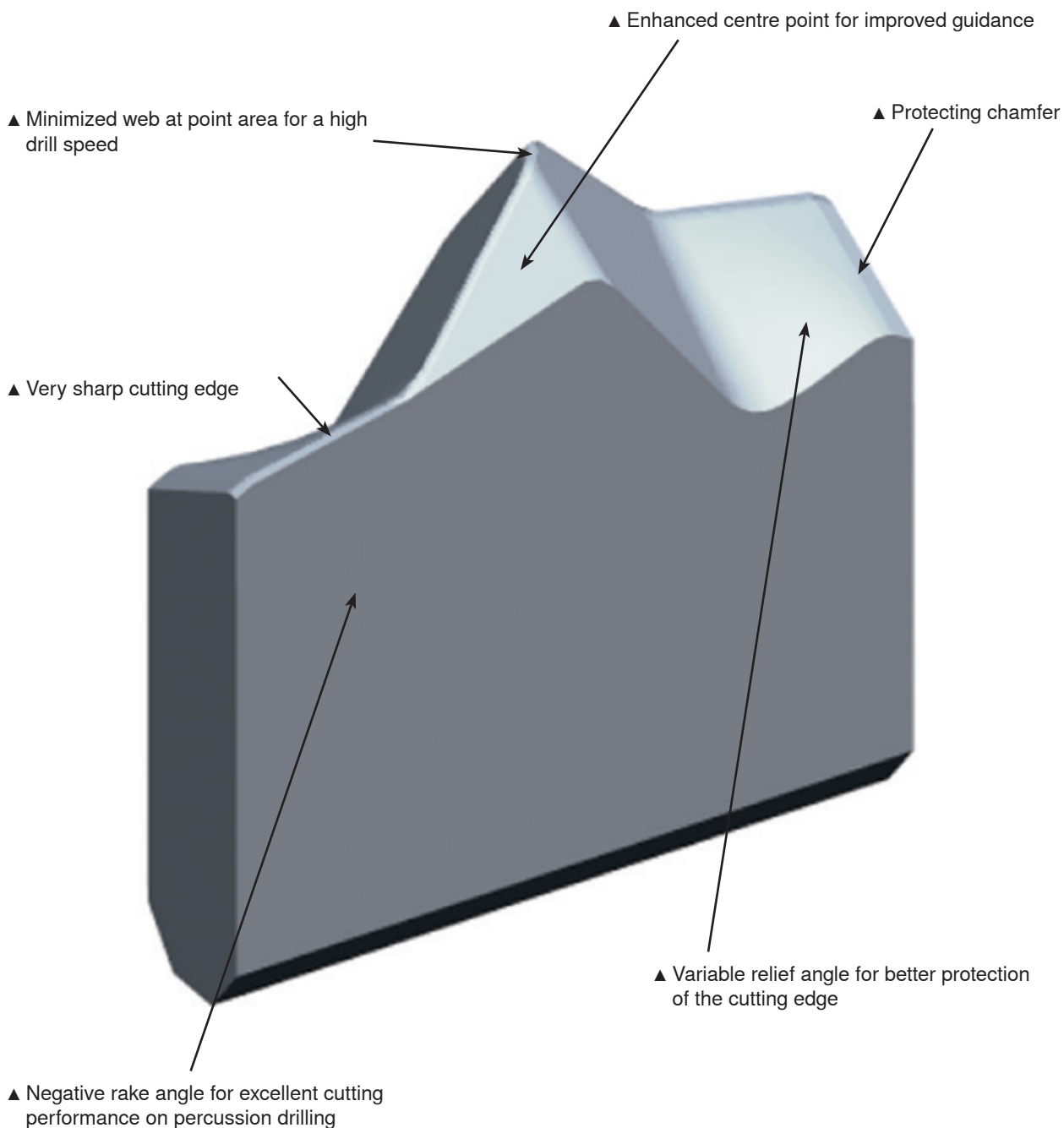
CERATIZIT STYLE 58000



## CERATIZIT Style 58000

### Advantages of Style 58000

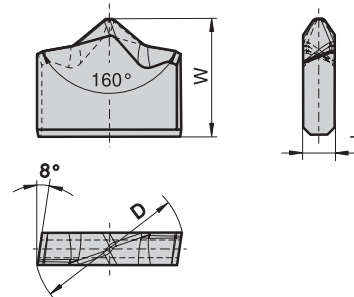
- ▲ Optimised CERATIZIT grade CTF12-BC with a hardness of 1640 HV10
- ▲ Especially well suited for cordless drills




CERATIZIT STYLE 58000

MASONRY DRILL TIPS

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punta a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



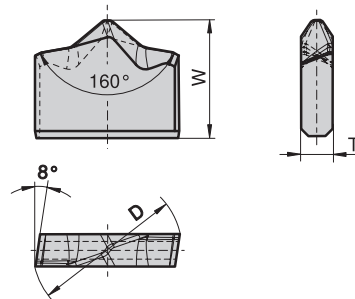
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
 Conforming to PGM	4.0	4.18	+0.12	3.30	±0.10	1.00	-0.07
	5.0	5.18	+0.12	4.15	±0.10	1.20	-0.07
	5.5	5.68	+0.12	4.55	±0.10	1.20	-0.07
	6.0	6.18	+0.12	4.95	±0.10	1.40	-0.10
	6.5	6.68	+0.12	5.35	±0.10	1.40	-0.10
	7.0	7.21	+0.15	5.75	±0.10	1.60	-0.10
	8.0	8.21	+0.15	5.80	±0.15	1.80	-0.10
	9.0	9.21	+0.15	6.50	±0.15	2.00	-0.10
	10.0	10.21	+0.15	7.20	±0.15	2.20	-0.15
	12.0	12.23	+0.20	8.60	±0.15	2.50	-0.15
	13.0	13.23	+0.20	9.30	±0.15	2.50	-0.15
	14.0	14.23	+0.20	10.00	±0.15	2.80	-0.18
	16.0	16.23	+0.20	9.95	±0.25	2.80	-0.18
	18.0	18.23	+0.20	11.15	±0.25	2.80	-0.18
20.0	20.24	+0.28	12.40	±0.25	3.00	-0.18	

# MASONRY DRILL TIPS – ANSI

58800..



**Masonry drill tips – ANSI**  
**Schlagbohrerplatten – ANSI**  
**Plaquettes pour mèche maçonnerie – ANSI**  
**Placchette per punte a forare – ANSI**  
**Puntas de brocas para hormigon – ANSI**



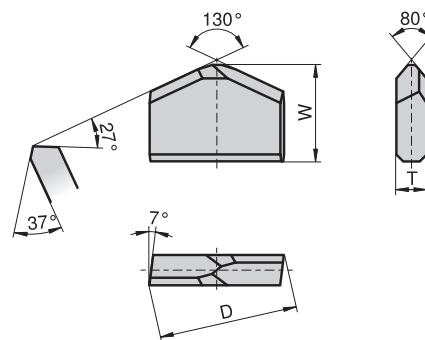
Type, description	Ø [inch]	D [mm]	Tol. [mm]	W		T	
				[mm]	Tol. [mm]	[mm]	Tol. [mm]
58800..	1/8"	3.55	-0.15	2.70	±0.125	0.89	-0.07
	5/32"	4.30	-0.12	3.30	±0.10	1.00	-0.07
	3/16"	5.23	-0.20	4.00	±0.125	1.15	-0.07
	7/32"	5.80	-0.12	4.55	±0.10	1.55	-0.07
	1/4"	6.80	-0.20	5.30	±0.125	1.52	-0.07
	5/16"	8.36	-0.15	5.80	±0.15	1.80	-0.10
	3/8"	10.10	-0.20	6.85	±0.125	1.98	-0.07
	7/16"	11.88	-0.25	8.05	±0.19	1.98	-0.07
	5/8"	16.76	-0.25	9.90	±0.19	2.50	-0.15
	3/4"	19.98	-0.30	11.80	±0.19	3.20	-0.18
1"	26.46	-0.30	14.40	±0.19	3.50	-0.18	


ANSI 58800..

MASONRY DRILL TIPS

Codification code example: 58800- 1/8" CTF12-BC

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punta a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
<b>11400..</b>  Conforming to PGM	3.0	3.0	+0.25 / +0.15	3.20	+0.20	0.8	-0.07
	4.0	4.0	+0.30 / +0.18	3.20	+0.20	1.0	-0.07
	4.5	4.5	+0.30 / +0.18	3.60	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.00	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.40	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.80	+0.20	1.4	-0.10
	6.5	6.5	+0.30 / +0.18	5.20	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.60	+0.20	1.6	-0.10
	7.5	7.5	+0.36 / +0.21	6.00	+0.30	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.60	+0.30	1.8	-0.10
	9.0	9.0	+0.36 / +0.21	6.30	+0.30	2.0	-0.10
	9.5	9.5	+0.36 / +0.21	6.70	+0.30	2.0	-0.10
	10.0	10.0	+0.36 / +0.21	6.80	+0.30	2.2	-0.15
	11.0	11.0	+0.43 / +0.23	7.70	+0.30	2.2	-0.15
	12.0	12.0	+0.43 / +0.23	8.20	+0.30	2.5	-0.15
	13.0	13.0	+0.43 / +0.23	8.90	+0.30	2.5	-0.15
	14.0	14.0	+0.43 / +0.23	9.50	+0.30	2.8	-0.18
	16.0	16.0	+0.43 / +0.23	9.60	+0.50	3.0	-0.18
	18.0	18.0	+0.43 / +0.23	10.50	+0.50	3.0	-0.18
	20.0	20.0	+0.52 / +0.24	11.65	+0.50	3.5	-0.20
22.0	22.0	+0.52 / +0.24	12.50	+0.50	3.5	-0.20	
25.0	25.0	+0.52 / +0.24	13.80	+0.50	4.0	-0.20	
28.0	28.0	+0.52 / +0.24	15.00	+0.50	4.5	-0.20	
32.0	32.0	+0.52 / +0.24	17.00	+0.50	5.0	-0.20	
35.0	35.0	+0.52 / +0.24	18.60	+0.50	5.5	-0.20	



METRIC 11400..

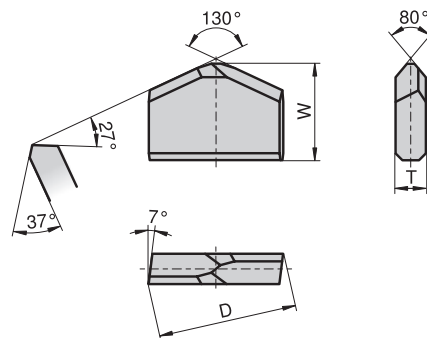
MASONRY DRILL TIPS

# MASONRY DRILL TIPS – ANSI

46973..



**Masonry drill tips – ANSI**  
**Schlagbohrerplatten – ANSI**  
**Plaquettes pour mèche maçonnerie – ANSI**  
**Placchette per punte a forare – ANSI**  
**Puntas de brocas para hormigon – ANSI**



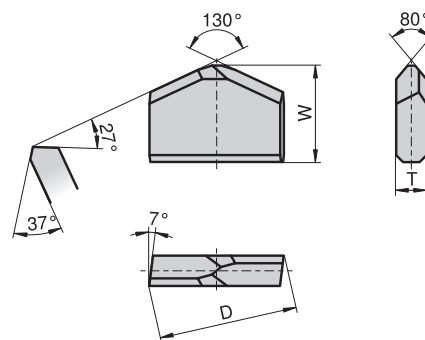
Type, description	Ø [inch]	D [mm]	Tol. [mm]	W		T	
				[mm]	Tol. [mm]	[mm]	Tol. [mm]
46973..	1/8"	3.475	±0.075	4.285	±0.125	0.855	±0.035
	3/16"	5.130	±0.100	5.125	±0.125	1.115	±0.035
	5/16"	8.400	±0.100	6.725	±0.125	1.485	±0.035
	3/8"	10.000	±0.100	8.245	±0.125	1.945	±0.035
	7/16"	11.755	±0.125	9.710	±0.190	1.945	±0.035
	5/8"	16.635	±0.125	13.140	±0.190	2.260	±0.050
	3/4"	19.830	±0.150	15.370	±0.190	2.260	±0.050
	7/8"	23.140	±0.150	16.700	±0.190	2.260	±0.050
	1"	26.310	±0.150	18.420	±0.190	3.030	±0.050

ANSI 46973..

MASONRY DRILL TIPS

Codification code example: 46973- 1/8" CTF12-BC

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
32222..	3.0	3.0	+0.25 / +0.15	3.50	+0.20	0.80	-0.07
	4.0	4.0	+0.30 / +0.18	3.30	+0.20	1.00	-0.07
	5.0	5.0	+0.30 / +0.18	4.20	+0.20	1.20	-0.07
	6.0	6.0	+0.30 / +0.18	4.70	+0.20	1.40	-0.10
	6.5	6.5	+0.30 / +0.18	4.85	+0.20	1.40	-0.10
	7.0	7.0	+0.36 / +0.21	5.15	+0.20	1.60	-0.10
	8.0	8.0	+0.36 / +0.21	5.65	+0.30	1.80	-0.10
	10.0	10.0	+0.36 / +0.21	6.55	+0.30	2.20	-0.15



METRIC 32222..

MASONRY DRILL TIPS

Codification code example: 32222- 3.0 CTF12-BC

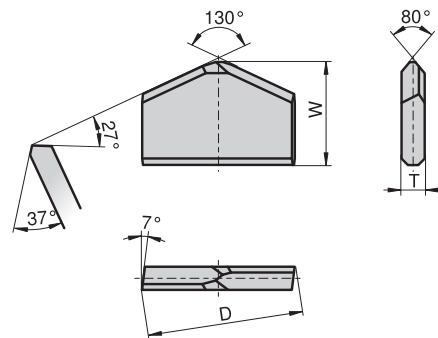


# MASONRY DRILL TIPS – METRIC

37071..



**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



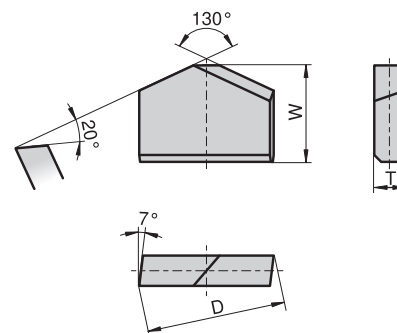
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α	β	γ
37071..	3.4	3.40	+0.15 / +0.05	4.16	+0.25	0.89	-0.07	20°	30°	9°
	3.5	3.50	+0 / +0.20	4.20	+0.25	1.00	-0.10	20°	30°	9°


METRIC 37071..

MASONRY DRILL TIPS

Codification code example: 37071- 3.4 CTF12-BC

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punta a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



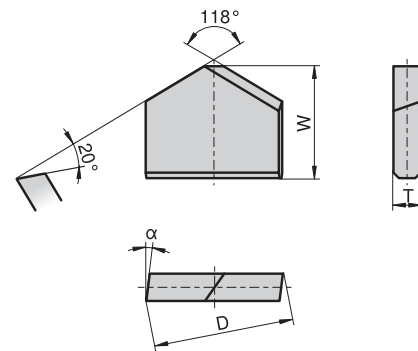
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
<b>12500..</b>  Conforming to PGM	3.0	3.0	+0.25 / +0.15	3.2	+0.20	0.8	-0.07
	3.5	3.5	+0.25 / +0.15	3.6	+0.20	1.0	-0.07
	4.0	4.0	+0.30 / +0.18	3.2	+0.20	1.0	-0.07
	4.5	4.5	+0.30 / +0.18	3.6	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.0	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.4	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.8	+0.20	1.4	-0.10
	6.5	6.5	+0.30 / +0.18	5.2	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.6	+0.20	1.6	-0.10
	7.5	7.5	+0.36 / +0.21	6.0	+0.20	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.6	+0.30	1.8	-0.10
	9.0	9.0	+0.36 / +0.21	6.3	+0.30	2.0	-0.10
	9.5	9.5	+0.36 / +0.21	6.7	+0.30	2.0	-0.10
	10.0	10.0	+0.36 / +0.21	6.7	+0.30	2.2	-0.15
	11.0	11.0	+0.43 / +0.23	7.7	+0.30	2.2	-0.15
	12.0	12.0	+0.43 / +0.23	8.2	+0.30	2.5	-0.15
13.0	13.0	+0.43 / +0.23	8.7	+0.30	2.5	-0.15	
14.0	14.0	+0.43 / +0.23	9.3	+0.30	2.8	-0.18	

# MASONRY DRILL TIPS – ANSI

22000..



**Masonry drill tips – ANSI**  
**Schlagbohrerplatten – ANSI**  
**Plaquettes pour mèche maçonnerie – ANSI**  
**Placchette per punte a forare – ANSI**  
**Puntas de brocas para hormigon – ANSI**



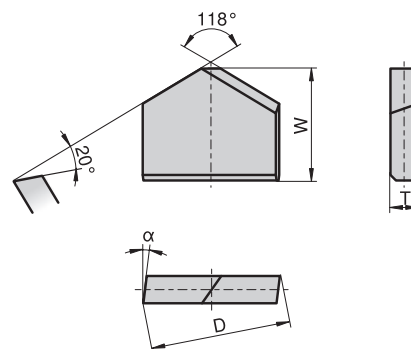
Type, description	Ø [inch]	ANSI code	D [inch]	Tol. [inch]	W [inch]	Tol. [inch]	T [inch]	Tol. [inch]	α
22000..	1/8"	MDG 2	0.140	-0.006	0.164	+0.010	0.035	-0.003	9°
	5/32"	MDG 2.5	0.171	-0.006	0.180	+0.010	0.035	-0.003	9°
	3/16"	MDG 3	0.206	-0.008	0.197	+0.010	0.045	-0.003	8°
	7/32"	MDG 3.5	0.237	-0.008	0.220	+0.010	0.045	-0.003	8°
	1/4"	MDG 4	0.268	-0.008	0.220	+0.010	0.060	-0.003	8°
	9/32"	MDG 4.5	0.304	-0.008	0.260	+0.010	0.060	-0.003	7°
	5/16"	MDG 5	0.335	-0.008	0.260	+0.010	0.060	-0.003	7°
	3/8"	MDG 6	0.398	-0.008	0.320	+0.010	0.078	-0.003	7°
	7/16"	MDG 7	0.468	-0.010	0.375	+0.015	0.078	-0.003	7°
	1/2"	MDG 8	0.530	-0.010	0.430	+0.015	0.091	-0.004	7°
	9/16"	MDG 9	0.592	-0.010	0.472	+0.015	0.091	-0.004	7°
	5/8"	MDG 10	0.660	-0.010	0.510	+0.015	0.091	-0.004	7°
	3/4"	MDG 12	0.787	-0.012	0.598	+0.015	0.091	-0.004	7°
	7/8"	MDG 14	0.917	-0.012	0.650	+0.015	0.091	-0.004	7°
	1"	MDG 16	1.042	-0.012	0.718	+0.015	0.122	-0.005	7°
	1 1/8"	MDG 18	1.175	-0.018	0.758	+0.020	0.122	-0.008	7°
	1 1/4"	MDG 20	1.300	-0.018	0.758	+0.020	0.122	-0.008	7°
1 3/8"	MDG 22	1.425	-0.018	0.843	+0.020	0.122	-0.008	7°	
1 1/2"	MDG 24	1.550	-0.018	0.843	+0.020	0.122	-0.008	7°	

ANSI 22000..

MASONRY DRILL TIPS

Codification code example: 22000- 1/8" CTF12-BC

Masonry drill tips – ANSI  
 Schlagbohrerplatten – ANSI  
 Plaquettes pour mèche maçonnerie – ANSI  
 Placchette per punte a forare – ANSI  
 Puntas de brocas para hormigon – ANSI



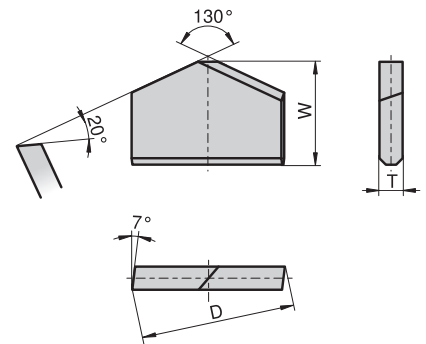
Type, description	Ø [inch]	ANSI code	D		W		T		α
			[mm]	Tol. [mm]	[mm]	Tol. [mm]	[mm]	Tol. [mm]	
22000..	1/8"	MDG 2	3.55	-0.15	4.16	+0.25	0.89	-0.07	9°
	5/32"	MDG 2.5	4.34	-0.15	4.57	+0.25	0.89	-0.07	9°
	3/16"	MDG 3	5.23	-0.20	5.00	+0.25	1.15	-0.07	8°
	7/32"	MDG 3.5	6.01	-0.20	5.58	+0.25	1.15	-0.07	8°
	1/4"	MDG 4	6.80	-0.20	5.58	+0.25	1.52	-0.07	8°
	9/32"	MDG 4.5	7.72	-0.20	6.60	+0.25	1.52	-0.07	7°
	5/16"	MDG 5	8.50	-0.20	6.60	+0.25	1.52	-0.07	7°
	3/8"	MDG 6	10.10	-0.20	8.12	+0.25	1.98	-0.07	7°
	7/16"	MDG 7	11.88	-0.25	9.52	+0.38	1.98	-0.07	7°
	1/2"	MDG 8	13.46	-0.25	10.92	+0.38	2.31	-0.10	7°
	9/16"	MDG 9	15.03	-0.25	11.98	+0.38	2.31	-0.10	7°
	5/8"	MDG 10	16.76	-0.25	12.95	+0.38	2.31	-0.10	7°
	3/4"	MDG 12	19.98	-0.30	15.18	+0.38	2.31	-0.10	7°
	7/8"	MDG 14	23.29	-0.30	16.51	+0.38	2.31	-0.10	7°
	1"	MDG 16	26.46	-0.30	18.23	+0.38	3.09	-0.12	7°
	1 1/8"	MDG 18	29.84	-0.45	19.25	+0.50	3.09	-0.20	7°
1 1/4"	MDG 20	33.02	-0.45	19.25	+0.50	3.09	-0.20	7°	
1 3/8"	MDG 22	36.19	-0.45	21.41	+0.50	3.09	-0.20	7°	
1 1/2"	MDG 24	39.37	-0.45	21.41	+0.50	3.09	-0.20	7°	


Codification code example: 22000-1/8" CTF12-BC

# MASONRY DRILL TIPS – METRIC

16300..

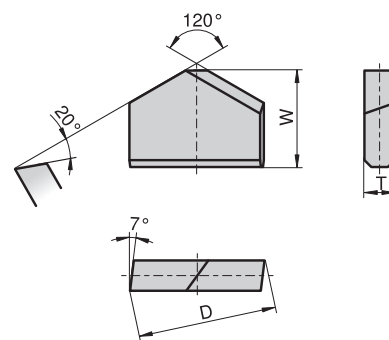
**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**




Type, description	Ø [mm]	D [mm]	Tol. [mm]	W		T	
				[mm]	Tol. [mm]	[mm]	Tol. [mm]
<b>16300..</b>  Conforming to PGM	12.0	12.0	+0.43 / +0.23	8.0	+0.30	1.8	-0.15
	13.0	13.0	+0.43 / +0.23	8.7	+0.30	2.0	-0.15
	14.0	14.0	+0.43 / +0.23	9.3	+0.30	2.1	-0.18
	15.0	15.0	+0.43 / +0.23	9.6	+0.30	2.2	-0.18
	16.0	16.0	+0.43 / +0.23	9.6	+0.50	2.2	-0.18
	17.0	17.0	+0.43 / +0.23	10.5	+0.50	2.2	-0.18
	18.0	18.0	+0.43 / +0.23	10.5	+0.50	2.2	-0.18
	19.0	19.0	+0.43 / +0.23	11.5	+0.50	2.5	-0.18
	20.0	20.0	+0.52 / +0.24	11.5	+0.50	2.5	-0.20
	22.0	22.0	+0.52 / +0.24	12.5	+0.50	2.5	-0.20
	24.0	24.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20
	25.0	25.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20
	26.0	26.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20
30.0	30.0	+0.52 / +0.24	16.0	+0.50	4.0	-0.20	

Codification code example: 16300- 12.0 CTM17-BC

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
 Conforming to PGM	3.0	3.0	+0.25 / +0.15	3.2	+0.20	0.8	-0.07
	3.5	3.5	+0.25 / +0.15	3.6	+0.20	1.0	-0.07
	4.0	4.0	+0.30 / +0.18	3.2	+0.20	1.0	-0.07
	4.5	4.5	+0.30 / +0.18	3.6	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.0	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.4	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.8	+0.20	1.4	-0.10
	6.5	6.5	+0.30 / +0.18	5.2	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.6	+0.20	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.6	+0.30	1.8	-0.10
	9.0	9.0	+0.36 / +0.21	6.3	+0.30	2.0	-0.10
	10.0	10.0	+0.36 / +0.21	7.0	+0.30	2.2	-0.15
	11.0	11.0	+0.43 / +0.23	7.7	+0.30	2.2	-0.15
	12.0	12.0	+0.43 / +0.23	8.4	+0.30	2.5	-0.15
	13.0	13.0	+0.43 / +0.23	9.1	+0.30	2.5	-0.15
	14.0	14.0	+0.43 / +0.23	9.3	+0.30	2.8	-0.18
	16.0	16.0	+0.43 / +0.23	9.6	+0.50	3.0	-0.18
18.0	18.0	+0.43 / +0.23	10.50	+0.50	3.0	-0.18	
20.0	20.0	+0.52 / +0.25	11.50	+0.50	3.5	-0.20	

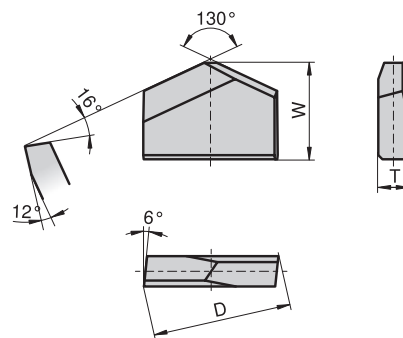
Codification code example: 23500- 3.0 CTF12-BC


# MASONRY DRILL TIPS – METRIC

24323..



**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



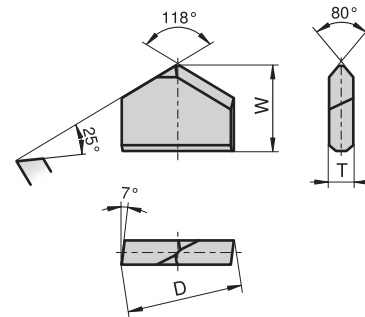
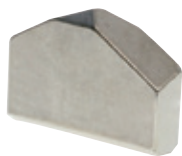
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W		T	
				[mm]	Tol. [mm]	[mm]	Tol. [mm]
 Conforming to PGM	4.0	4.0	+0.30 / +0.18	3.2	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.0	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.4	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.8	+0.20	1.4	-0.10
	6.5	6.5	+0.36 / +0.21	5.2	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.6	+0.20	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.6	+0.30	1.8	-0.10
	9.0	9.0	+0.36 / +0.21	6.3	+0.30	2.0	-0.10
	10.0	10.0	+0.36 / +0.21	7.0	+0.30	2.2	-0.15
	12.0	12.0	+0.43 / +0.23	8.4	+0.30	2.5	-0.15
	14.0	14.0	+0.43 / +0.23	9.75	+0.30	2.8	-0.18
	16.0	16.0	+0.43 / +0.23	9.6	+0.50	3.0	-0.18


METRIC 24323..

MASONRY DRILL TIPS

Codification code example: 24323- 4.0 CTM14-BC

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punta a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
 Conforming to PGM	3.0	3.0	+0.25 / +0.15	3.2	+0.20	0.8	-0.07
	4.0	4.0	+0.30 / +0.18	3.2	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.0	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.4	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.8	+0.20	1.4	-0.10
	6.5	6.5	+0.30 / +0.18	5.2	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.6	+0.20	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.6	+0.30	1.8	-0.10
	9.0	9.0	+0.36 / +0.21	6.3	+0.30	2.0	-0.10
	10.0	10.0	+0.36 / +0.21	7.0	+0.30	2.2	-0.15
	11.0	11.0	+0.43 / +0.23	7.7	+0.30	2.2	-0.15
	12.0	12.0	+0.43 / +0.23	8.4	+0.30	2.5	-0.15
	14.0	14.0	+0.43 / +0.23	9.8	+0.30	2.1	-0.18
	16.0	16.0	+0.43 / +0.23	9.8	+0.50	2.2	-0.18

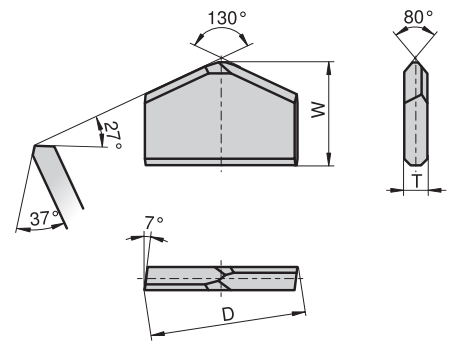
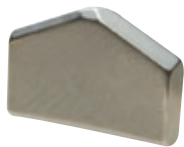



# MASONRY DRILL TIPS – METRIC

16000..



**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



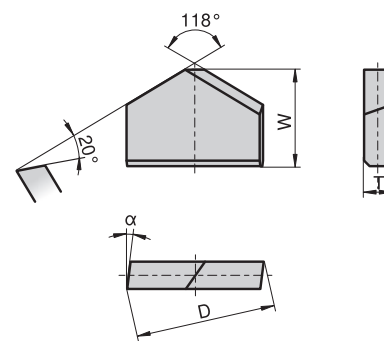
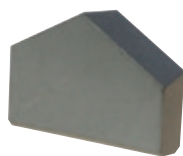
Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α	β	γ
<b>16000..</b>  Conforming to PGM	12.0	12.0	+0.43 / +0.23	8.2	+0.30	1.8	-0.15	27°	37°	7°
	13.0	13.0	+0.43 / +0.23	8.7	+0.30	2.0	-0.15	27°	37°	7°
	14.0	14.0	+0.43 / +0.23	9.3	+0.30	2.1	-0.18	27°	37°	7°
	15.0	15.0	+0.43 / +0.23	9.6	+0.30	2.2	-0.18	27°	37°	7°
	16.0	16.0	+0.43 / +0.23	9.6	+0.50	2.2	-0.18	27°	37°	7°
	17.0	17.0	+0.43 / +0.23	10.5	+0.50	2.2	-0.18	27°	37°	7°
	18.0	18.0	+0.43 / +0.23	10.5	+0.50	2.2	-0.18	27°	37°	7°
	19.0	19.0	+0.43 / +0.23	11.5	+0.50	2.5	-0.18	27°	37°	7°
	20.0	20.0	+0.52 / +0.24	11.5	+0.50	2.5	-0.20	27°	37°	7°
	22.0	22.0	+0.52 / +0.24	12.5	+0.50	2.5	-0.20	27°	37°	7°
	24.0	24.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20	27°	37°	7°
	25.0	25.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20	27°	37°	7°
	26.0	26.0	+0.52 / +0.24	15.0	+0.50	3.0	-0.20	27°	37°	7°
	28.0	28.0	+0.52 / +0.24	15.0	+0.50	4.0	-0.20	27°	37°	7°
30.0	30.0	+0.52 / +0.24	16.0	+0.50	4.0	-0.20	27°	37°	7°	

METRIC 16000..

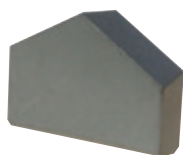
MASONRY DRILL TIPS

Codification code example: 16000- 12.0 CTM17-BC

**Masonry drill tips – ANSI**  
**Schlagbohrerplatten – ANSI**  
**Plaquettes pour mèche maçonnerie – ANSI**  
**Placchette per punte a forare – ANSI**  
**Puntas de brocas para hormigon – ANSI**



Type, description	Ø [inch]	D [inch]	Tol. [inch]	W [inch]	Tol. [inch]	T [inch]	Tol. [inch]	α
28500..	1/8"	0.140	-0.006	0.138	+0.010	0.035	-0.003	9°
	5/32"	0.171	-0.006	0.158	+0.010	0.035	-0.003	9°
	3/16"	0.206	-0.008	0.177	+0.010	0.045	-0.003	8°
	1/4"	0.268	-0.008	0.197	+0.010	0.060	-0.003	8°
	5/16"	0.335	-0.008	0.236	+0.010	0.060	-0.003	7°
	3/8"	0.398	-0.008	0.276	+0.010	0.078	-0.003	7°
	1/2"	0.530	-0.010	0.335	+0.015	0.091	-0.004	7°
	5/8"	0.660	-0.010	0.394	+0.015	0.091	-0.004	7°
	3/4"	0.787	-0.012	0.473	+0.015	0.091	-0.004	7°
	7/8"	0.917	-0.012	0.532	+0.015	0.091	-0.004	7°
	1"	1.042	-0.012	0.575	+0.015	0.122	-0.005	7°
	1 1/8"	1.175	-0.018	0.630	+0.020	0.122	-0.008	7°
	1 1/4"	1.300	-0.018	0.650	+0.020	0.122	-0.008	7°
	1 3/8"	1.425	-0.018	0.689	+0.020	0.122	-0.008	7°
1 1/2"	1.550	-0.018	0.709	+0.020	0.122	-0.008	7°	



Type, description	Ø [inch]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	α
28500..	1/8"	3.55	-0.15	3.5	+0.25	0.89	-0.07	9°
	5/32"	4.34	-0.15	4.0	+0.25	0.89	-0.07	9°
	3/16"	5.23	-0.20	4.5	+0.25	1.15	-0.07	8°
	1/4"	6.80	-0.20	5.0	+0.25	1.52	-0.07	8°
	5/16"	8.50	-0.20	6.0	+0.25	1.52	-0.07	7°
	3/8"	10.10	-0.20	7.0	+0.25	1.98	-0.07	7°
	1/2"	13.46	-0.25	8.5	+0.38	2.31	-0.10	7°
	5/8"	16.76	-0.25	10.0	+0.38	2.31	-0.10	7°
	3/4"	19.98	-0.30	12.0	+0.38	2.31	-0.10	7°
	7/8"	23.29	-0.30	13.5	+0.38	2.31	-0.10	7°
	1"	26.46	-0.30	14.6	+0.38	3.09	-0.12	7°
	1 1/8"	29.84	-0.45	16.0	+0.50	3.09	-0.20	7°
	1 1/4"	33.02	-0.45	16.5	+0.50	3.09	-0.20	7°
	1 3/8"	36.19	-0.45	17.5	+0.50	3.09	-0.20	7°
1 1/2"	39.37	-0.45	18.0	+0.50	3.09	-0.20	7°	

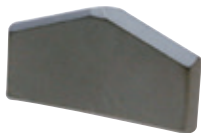
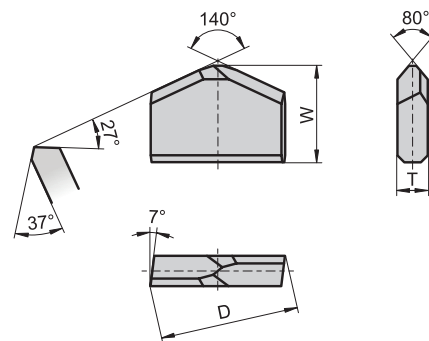
Codification code example: 28500- 1/8" CTM17-BC

# MASONRY DRILL TIPS – METRIC

46716..



**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
46716..	6.0	6.240	±0.060	3.90	±0.10	1.050	±0.050
	6.5	6.740	±0.060	4.40	±0.10	1.050	±0.050
	8.0	8.285	±0.075	5.15	±0.15	1.125	±0.050
	10.0	10.285	±0.075	5.55	±0.15	1.325	±0.075

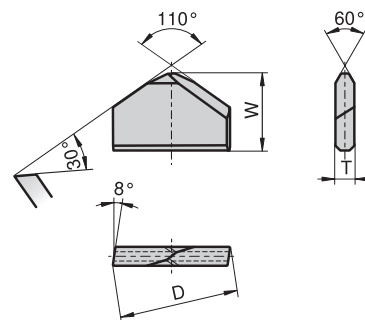
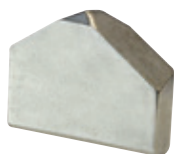
METRIC 46716..


MASONRY DRILL TIPS

Codification code example: 46716- 6.0 CTM14-BC

# MASONRY DRILL TIPS – METRIC 50210..

**Masonry drill tips – METRIC**  
**Schlagbohrerplatten – METRIC**  
**Plaquettes pour mèche maçonnerie – METRIC**  
**Placchette per punte a forare – METRIC**  
**Puntas de brocas para hormigon – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
<b>50210..</b>  Conforming to PGM	4.0	4.0	+0.40 / +0.15	3.40	+0.20	1.0	-0.07
	4.5	4.5	+0.40 / +0.15	3.90	+0.20	1.0	-0.07
	5.0	5.0	+0.40 / +0.15	4.30	+0.20	1.2	-0.07
	5.5	5.5	+0.40 / +0.15	4.70	+0.20	1.2	-0.07
	6.0	6.0	+0.40 / +0.15	5.20	+0.20	1.4	-0.10
	6.5	6.5	+0.40 / +0.15	5.70	+0.20	1.4	-0.10
	7.0	7.0	+0.45 / +0.20	6.10	+0.20	1.6	-0.10
	8.0	8.0	+0.45 / +0.20	6.05	+0.30	1.8	-0.10
	10.0	10.0	+0.45 / +0.20	7.60	+0.30	2.2	-0.15
	12.0	12.0	+0.50 / +0.20	9.35	+0.30	2.0	-0.15
	13.0	13.0	+0.50 / +0.20	10.05	+0.30	2.2	-0.15
	14.0	14.0	+0.50 / +0.20	10.85	+0.30	2.5	-0.18
	16.0	16.0	+0.50 / +0.20	10.90	+0.50	2.5	-0.18
	18.0	18.0	+0.50 / +0.20	12.10	+0.50	3.0	-0.18
	20.0	20.0	+0.55 / +0.20	13.45	+0.50	3.2	-0.20
	22.0	22.0	+0.55 / +0.20	13.70	+0.50	3.5	-0.20
25.0	25.0	+0.55 / +0.20	15.50	+0.50	4.1	-0.20	





**Special Tips**  
**Sonderplatten**  
**Plaquettes spéciales**  
**Plachette non standard**  
**Puntas especiales**

**SPECIAL TIPS**

PRODUCTS UPON CUSTOMER REQUEST

62

TOOLMAKER SOLUTIONS BY  
**CERATIZIT**

NON STANDARD PARTS

SPECIAL TIPS

**Products upon customer request**  
**Produkte nach Kundenwunsch**  
**Produit sur demande de client**  
**Prodotti a richiesta del cliente**  
**Productos sobre deseo del cliente**

**Can't find what you're looking for?**

Our catalogue displays the wide range of products which we frequently have in strong demand. Aside from this, we are of course in the position to make other products and have a flexible range of manufacturing methods and means at our production sites, allowing us to create special products with short delivery times. Our extensive experience and investment in research and development means we can provide you with the support you need to get the most out of your tools. We will be pleased to receive your enquiries for any custom-designed. Our local representatives will gladly talk with you about your exact requirements and can also provide you with technical guidance and know-how for anything related to production possibilities and application fields. If you have any further questions or requests we invite you to give us a call – we are here to help.

**Sie finden nicht was Sie benötigen?**

Unser Katalog zeigt das Produktprogramm, das häufig nachgefragt wird. Wir können natürlich auch andere Produkte herstellen und haben dazu die Fertigungsmethoden und Kapazitäten an unseren Produktionsstandorten, die es uns erlauben, Sonderprodukte mit kurzen Lieferzeiten zu produzieren. Unsere umfassende Erfahrung und Kompetenz in Forschung und Entwicklung bedeutet, wir können Ihnen die Unterstützung zur Verfügung stellen, die Sie benötigen, um ein Maximum für Ihre Werkzeuge zu erzielen. Wir freuen uns auf Ihre Anfragen um Produkte nach Ihren speziellen Wünschen und Ausführungen zu produzieren. Unser für Sie zuständiger Mitarbeiter bespricht gerne Ihre genauen Ausführungswünsche und stellt sein technisches Wissen bezüglich Produktionsmöglichkeiten und Anwendungsgebiete gerne zur Verfügung. Wenn Sie weitere Fragen oder Wünsche haben, rufen Sie uns an, wir beraten Sie gerne.

**Vous ne trouvez pas ce dont vous avez besoin?**

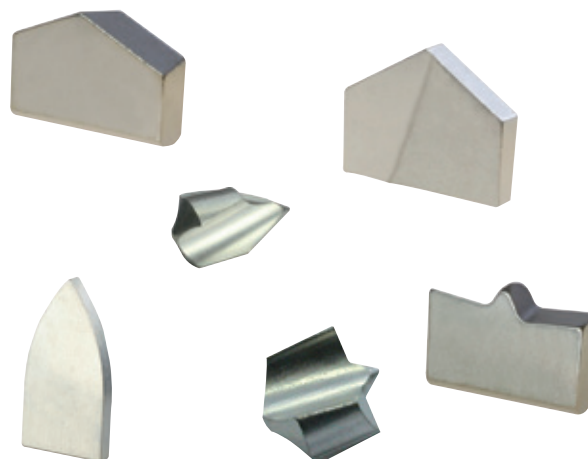
Notre catalogue comprend les produits que nos clients commandent fréquemment. Nous sommes bien sûr aussi à même de fabriquer des produits suivant les souhaits ou les exigences de nos clients et disposons à cette fin des méthodes de fabrication les plus modernes ainsi que de capacités suffisantes sur nos sites de production, ce qui nous permet de réaliser des produits spéciaux dans les meilleurs délais. Notre expérience approfondie et nos compétences en matière de recherche et développement nous permettent de vous fournir l'assistance et le support que vous recherchez pour garantir une utilisation optimale de vos outils. Nous sommes heureux de recevoir vos demandes de produits que nous réaliserons suivant vos attentes et exigences. Votre interlocuteur personnel discutera volontiers avec vous de vos souhaits précis relatifs à l'exécution et mettra à votre disposition toutes ses connaissances techniques en ce qui concerne les possibilités de fabrication et les domaines d'application. Si vous avez des questions supplémentaires ou déjà un produit spécifique en tête, n'hésitez pas à nous contacter. Nous nous ferons un plaisir de vous conseiller et de vous assister.

**Se non trovate ciò che fa al caso vostro .....**









Il nostro catalogo riporta la gamma dei prodotti maggiormente richiesti dalla nostra clientela. Ovviamente siamo anche in grado di produrre altri articoli disponendo di metodi di produzione e capacità presso le nostre sedi produttive altamente flessibili che ci permettono di fabbricare particolari non standardizzati in tempi brevi. Grazie alla nostra esperienza pluriennale ed ai continui investimenti in ricerca e sviluppo possiamo garantirvi tutto il supporto affinché otteniate il massimo rendimento dai vostri utensili. Saremo lieti di ricevere le vostre richieste per utensili speciali da realizzare su disegno. I nostri funzionari di vendita gestiranno con la loro competenza professionale le vostre richieste specifiche fornendovi tutti i dettagli tecnici necessari anche per settori applicativi o produttivi particolarmente complessi. In caso di chiarimenti e informazioni supplementari vi invitiamo a contattarci; potete contare sulla nostra collaborazione, in qualsiasi momento.

**¿No encuentra lo que necesita?**

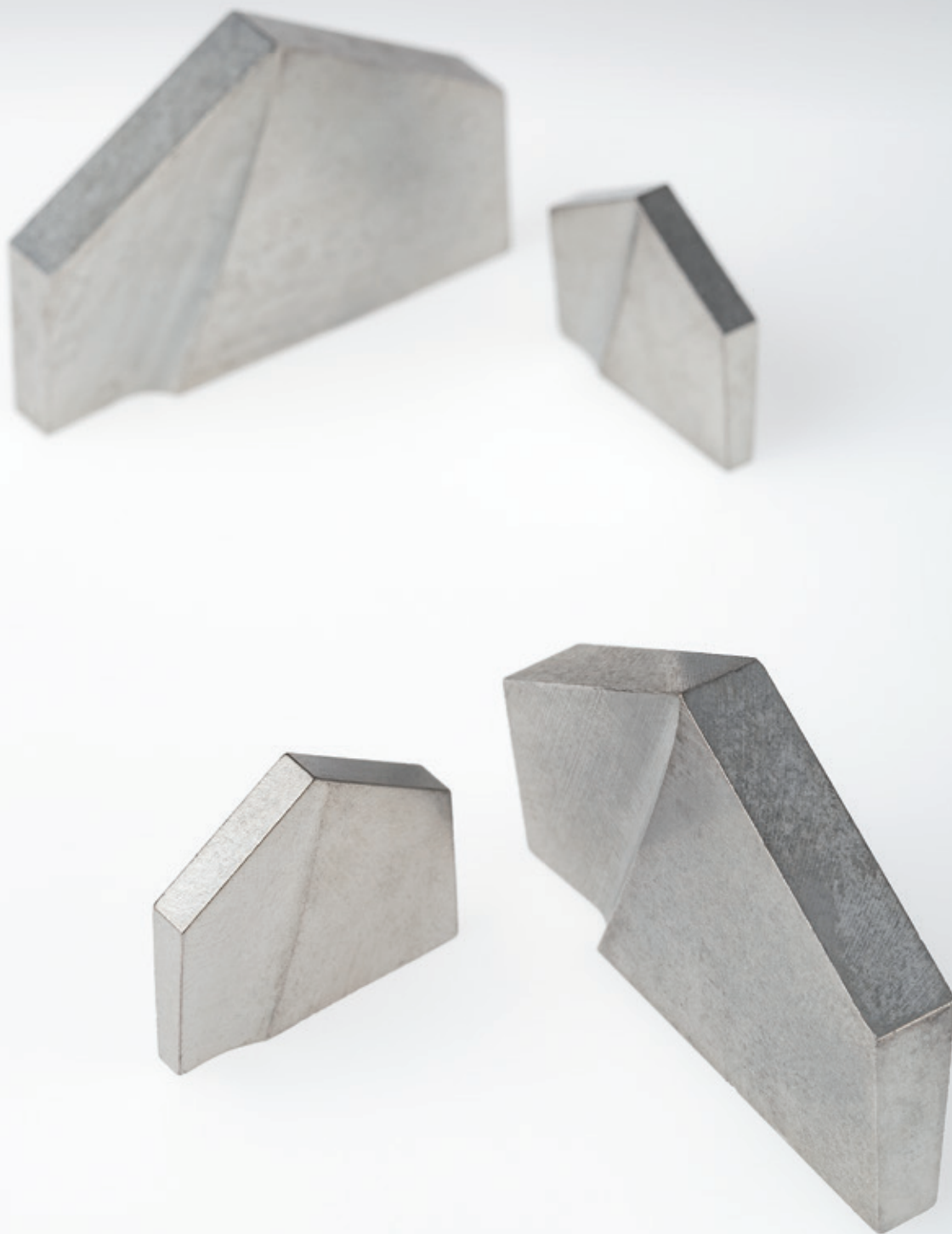
Nuestro catálogo incluye los productos más demandados por nuestros clientes. Desde luego también somos capaces de fabricar productos según los deseos o las exigencias de nuestros clientes y disponemos de los métodos de fabricación más modernos así como de capacidad suficiente en nuestras plantas de producción, lo que nos permite realizar productos especiales en plazos de entrega muy ajustados. Gracias a nuestra amplia experiencia y nuestras competencias en materia de investigación y desarrollo, podemos ofrecerle la asistencia y el soporte que usted precise para asegurar una utilización óptima de sus herramientas. Nuestro técnico comercial pondrá a su disposición todos sus conocimientos técnicos en cuanto a las posibilidades de producción y los campos de aplicación. Para cualquier pregunta en general o relacionada a algún producto concreto, no dude en contactarnos. Será un placer poderle asesorar.



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**Applications**  
**Anwendungen**  
**Applications**  
**Applicazioni**  
**Aplicacion**

Type, description	Application	
	Metal	METRIC
12500	○	✓
14818	●	✓

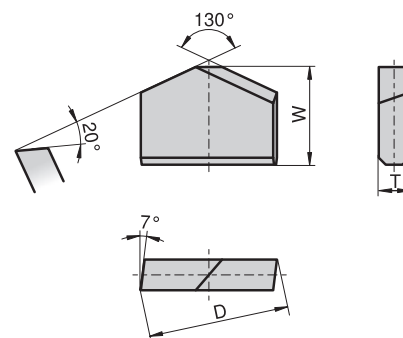
● Optimum  
○ Not optimum

# METAL CUTTING TIPS – METRIC

12500..



**Metal cutting tips – METRIC**  
**Metallbohrerplatten – METRIC**  
**Plaquettes pour coupe métaux – METRIC**  
**Plaquette per punte per lavorazione metalli – METRIC**  
**Puntas de broca para metallo – METRIC**



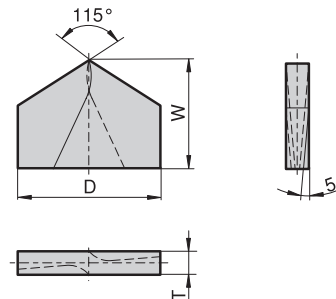
Type, description	∅ [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
12500..  Grade Recommendation: CTS20-BC CTS18D	3.0	3.0	+0.25 / +0.15	3.2	+0.20	0.8	-0.07
	3.5	3.5	+0.25 / +0.15	3.6	+0.20	1.0	-0.07
	4.0	4.0	+0.30 / +0.18	3.2	+0.20	1.0	-0.07
	4.5	4.5	+0.30 / +0.18	3.6	+0.20	1.0	-0.07
	5.0	5.0	+0.30 / +0.18	4.0	+0.20	1.2	-0.07
	5.5	5.5	+0.30 / +0.18	4.4	+0.20	1.2	-0.07
	6.0	6.0	+0.30 / +0.18	4.8	+0.20	1.4	-0.10
	6.5	6.5	+0.30 / +0.18	5.2	+0.20	1.4	-0.10
	7.0	7.0	+0.36 / +0.21	5.6	+0.20	1.6	-0.10
	7.5	7.5	+0.36 / +0.21	6.0	+0.20	1.6	-0.10
	8.0	8.0	+0.36 / +0.21	5.6	+0.30	1.8	-0.10

METRIC 12500..

SPECIAL TIPS

Codification code example: 12500- 3.0 CTS18D

**Metal cutting tips – METRIC**  
**Metallbohrerplatten – METRIC**  
**Plaquettes pour coupe métaux – METRIC**  
**Plaquette per punte per lavorazione metalli – METRIC**  
**Puntas de broca para metallo – METRIC**

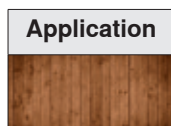


Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	T [mm]	Tol. [mm]
14818..  Grade Recommendation: CTS20-BC CTS18D	8.0	8.5	+0.5	7.1	1.6	-0.15
	8.5	9.0	+0.5	8.0	2.0	-0.15
	9.0	9.5	+0.5	8.0	2.0	-0.15
	9.5	10.0	+0.5	8.5	2.0	-0.15
	10.0	10.5	+0.5	8.5	2.0	-0.20
	10.5	11.3	+0.5	9.5	2.2	-0.20
	11.0	11.8	+0.5	9.5	2.2	-0.20
	11.5	12.3	+0.6	10.6	2.5	-0.20
	12.0	12.8	+0.6	10.6	2.5	-0.20
	13.0	13.8	+0.6	12.5	2.5	-0.20
	14.0	14.8	+0.7	12.5	2.5	-0.20
	15.0	15.8	+0.7	14.0	2.8	-0.25
	16.0	16.8	+0.7	14.0	2.8	-0.25
	17.0	17.8	+0.7	16.0	3.0	-0.25
	18.0	18.8	+0.7	16.0	3.0	-0.25
	19.0	19.8	+0.7	18.0	3.5	-0.30
	20.0	20.8	+0.8	18.0	3.5	-0.30
	21.0	22.8	+0.8	18.0	3.5	-0.30
	22.0	23.0	+0.8	19.0	4.0	-0.30
23.0	24.0	+0.8	19.0	4.0	-0.30	

Codification code example: 14818- 8.0 CTS18D



**Applications**  
**Anwendungen**  
**Applications**  
**Applicazioni**  
**Aplicacion**



Type, description	Wood	METRIC
CTDD..RI / LE	●	✓
CTDT..RI / LE	●	✓
CTDP	●	✓
CTDT	●	✓

- Optimum
- Not optimum

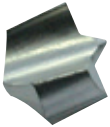


# BLANKS FOR WOOD MACHINING DRILL TIPS – METRIC

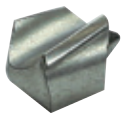
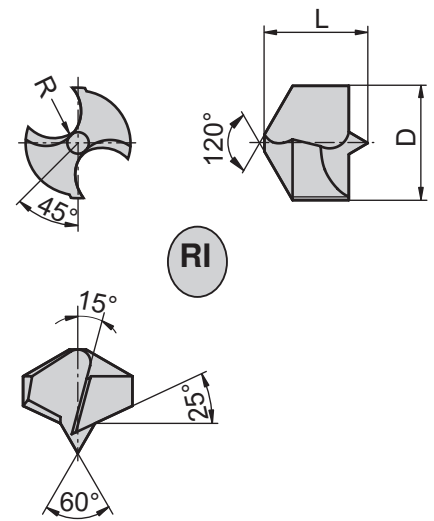
CTDD..RI, CTDD..LE



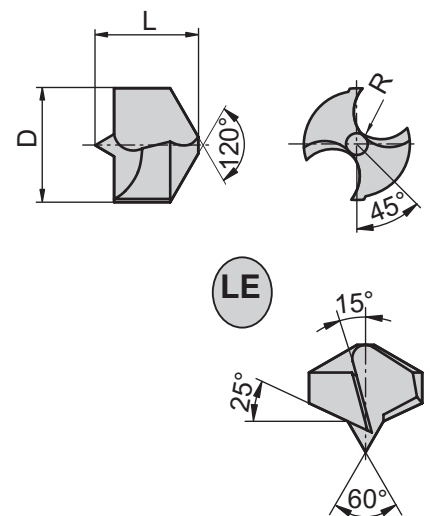
**Blanks for wood machining drill tips – METRIC**  
**Rohlinge für Holzbohrer – METRIC**  
**Ébauches pour mèches à bois – METRIC**  
**Placchette per punte per cerniere – METRIC**  
**Preformados para brocas de madeira – METRIC**



Type, description	Ø [mm]	D [mm]	x	L [mm]	x	R [mm]
<b>CTDD..RI</b>  Grade Recommendation: CTM17-HC CTM18-HC CTS20-HC CTS18D	4.0	4.6	x	6.9	x	1.3
	5.0	5.6	x	7.1	x	1.8
	6.0	6.6	x	7.1	x	2.2
	6.5	7.1	x	7.7	x	2.7
	7.0	7.6	x	7.9	x	2.7
	8.0	8.6	x	9.1	x	3.2
	9.0	9.6	x	10.1	x	3.7
	10.0	10.6	x	11.0	x	4.2
	11.0	11.6	x	11.9	x	4.2
	12.0	12.6	x	12.8	x	4.3
	13.0	13.6	x	13.6	x	4.5
	14.0	14.6	x	14.4	x	4.7
	15.0	15.6	x	15.2	x	5.0
	16.0	16.6	x	16.0	x	5.2
	18.0	18.6	x	16.2	x	5.6
	19.0	19.6	x	17.5	x	6.1
	20.0	20.6	x	19.1	x	6.7



Type, description	Ø [mm]	D [mm]	x	L [mm]	x	R [mm]
<b>CTDD..LE</b>  Grade Recommendation: CTM17-HC CTM18-HC CTS20-HC CTS18D	4.0	4.6	x	6.9	x	1.3
	5.0	5.6	x	7.1	x	1.8
	6.0	6.6	x	7.1	x	2.2
	6.5	7.1	x	7.7	x	2.7
	7.0	7.6	x	7.9	x	2.7
	8.0	8.6	x	9.1	x	3.2
	9.0	9.6	x	10.1	x	3.7
	10.0	10.6	x	11.0	x	4.2
	11.0	11.6	x	11.9	x	4.2
	12.0	12.6	x	12.8	x	4.3
	13.0	13.6	x	13.6	x	4.5
	14.0	14.6	x	14.4	x	4.7
	15.0	15.6	x	15.2	x	5.0
	16.0	16.6	x	16.0	x	5.2
	18.0	18.6	x	16.2	x	5.6
	19.0	19.6	x	17.5	x	6.1
	20.0	20.6	x	19.1	x	6.7



Codification code example: CTDD..RI- 4.0 CTS18D

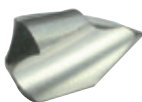
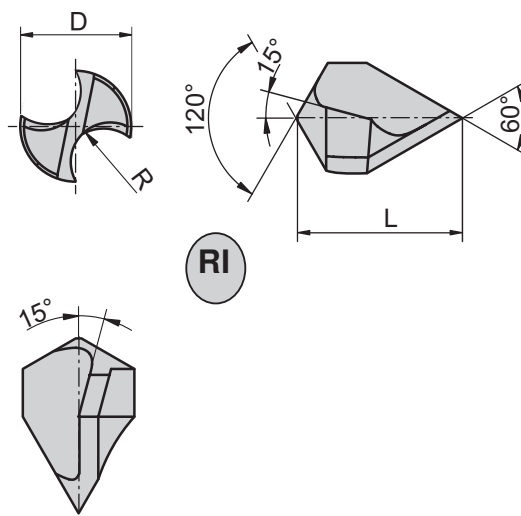
# BLANKS FOR WOOD MACHINING DRILL TIPS – METRIC

CTDT..RI, CTDT..LE

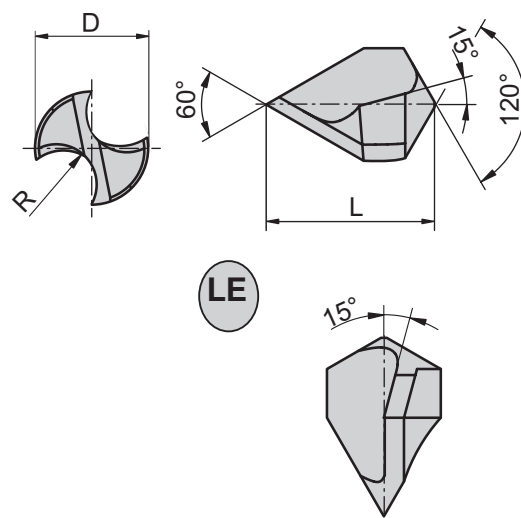
**Blanks for wood machining drill tips – METRIC**  
**Rohlinge für Holzbohrer – METRIC**  
**Ébauches pour mèches à bois – METRIC**  
**Placchette per punte per cerniere – METRIC**  
**Preformados para brocas de madeira – METRIC**



Type, description	Ø [mm]	D [mm]	x	L [mm]	x	R [mm]
CTDT..RI  Grade Recommendation: CTM17-HC CTM18-HC CTS20-HC CTS18D	4.0	4.5	x	9.0	x	1.3
	5.0	5.6	x	10.5	x	1.8
	6.0	6.6	x	11.5	x	2.2
	6.5	7.1	x	12.2	x	2.7
	7.0	7.6	x	13.0	x	2.7
	8.0	8.6	x	14.5	x	3.2
	9.0	9.6	x	16.8	x	3.7
	9.5	10.1	x	17.7	x	3.7
	10.0	10.6	x	18.7	x	4.2
	11.0	11.6	x	21.0	x	4.2
	12.0	12.6	x	22.1	x	4.3
	13.0	13.6	x	24.3	x	4.5
	14.0	14.6	x	25.5	x	4.7
	15.0	15.6	x	26.0	x	5.0
	16.0	16.6	x	27.0	x	5.2
	18.0	18.6	x	28.0	x	5.6
	20.0	20.6	x	33.5	x	6.7



Type, description	Ø [mm]	D [mm]	x	L [mm]	x	R [mm]
CTDT..LE  Grade Recommendation: CTM17-HC CTM18-HC CTS20-HC CTS18D	4.0	4.5	x	9.0	x	1.3
	5.0	5.6	x	10.5	x	1.8
	6.0	6.6	x	11.5	x	2.2
	6.5	7.1	x	12.2	x	2.7
	7.0	7.6	x	13.0	x	2.7
	8.0	8.6	x	14.5	x	3.2
	9.0	9.6	x	16.8	x	3.7
	9.5	10.1	x	17.7	x	3.7
	10.0	10.6	x	18.7	x	4.2
	11.0	11.6	x	21.0	x	4.2
	12.0	12.6	x	22.1	x	4.3
	13.0	13.6	x	24.3	x	4.5
	14.0	14.6	x	25.5	x	4.7
	15.0	15.6	x	26.0	x	5.0
	16.0	16.6	x	27.0	x	5.2
	18.0	18.6	x	28.0	x	5.6
	20.0	20.6	x	33.5	x	6.7



Codification code example: CTDT..RI- 4.0 CTS18D

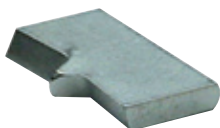


# BLANKS FOR WOOD MACHINING DRILL TIPS – METRIC

CTDP., CTDТ.

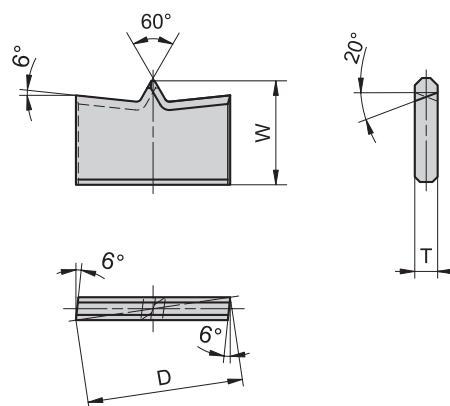


**Blanks for wood machining drill tips – METRIC**  
**Rohlinge für Holzbohrer – METRIC**  
**Ébauches pour mèches à bois – METRIC**  
**Placchette per punte per cerniere – METRIC**  
**Preformados para brocas de madeira – METRIC**



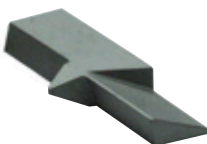
Type, description	Hole Ø [mm]	D [mm]	x	W [mm]	x	T [mm]
CTDP..	5	5.20	x	4.5	x	1.2
	6	6.20	x	5.0	x	1.2
	8	8.25	x	6.0	x	1.5
	10	10.25	x	7.0	x	1.8
	12	12.30	x	8.0	x	2.0
	14	14.30	x	9.0	x	2.2
	15	15.30	x	10.0	x	2.2
16	16.30	x	10.0	x	2.5	

Grade Recommendation:  
 CTM17-HC  
 CTM18-HC  
 CTS20-HC  
 CTS18D



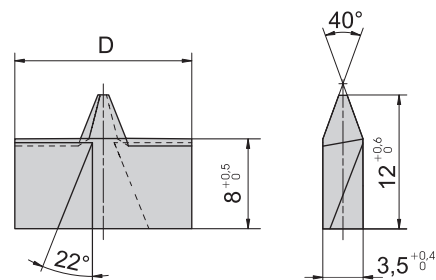
METRIC CTDP., CTDТ.

SPECIAL TIPS

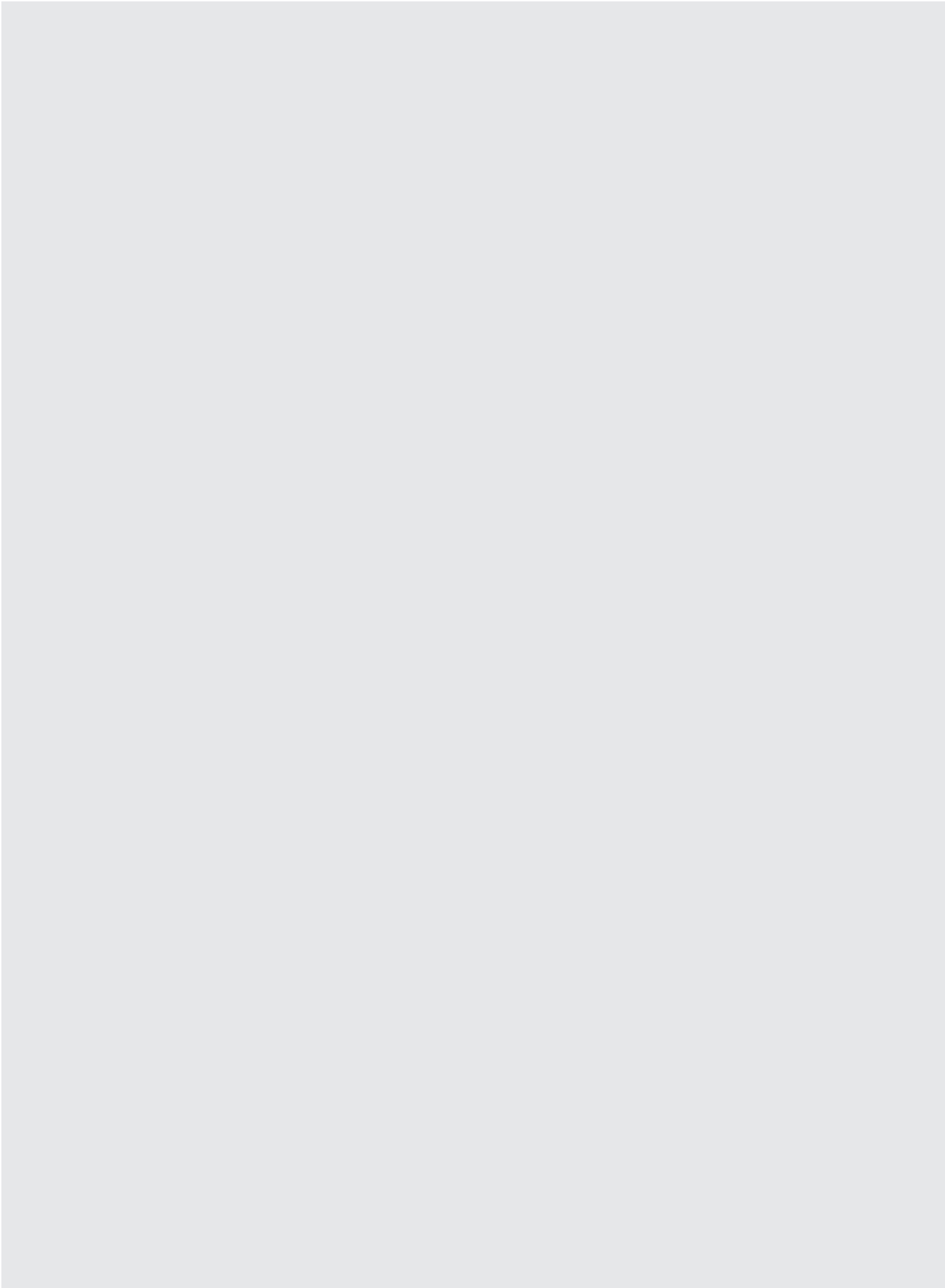


Type, description	Hole Ø [mm]	D [mm]
CTDТ.	15	16
	20	21
	25	26
	30	31
	35	36
	40	41
50	51	
60	61	

Grade Recommendation:  
 CTM17-HC  
 CTM18-HC  
 CTS20-HC  
 CTS18D



Codification code example: CTDP- 5.0 CTS18D





**Applications**  
**Anwendungen**  
**Applications**  
**Applicazioni**  
**Aplicacion**

Type, description	Application		METRIC
	Glass	Tiles	
17353	●	●	✓
50278	●	●	✓

- Optimum
- Not optimum

# GLASS DRILL TIPS – METRIC

17353..



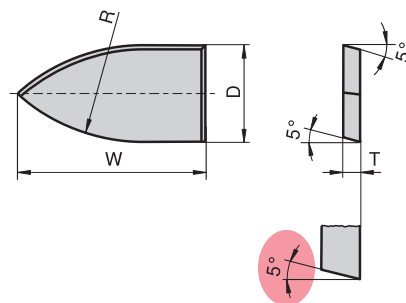
**Glass drill tips – METRIC**

**Glasbohrerplatten – METRIC**

**Plaquettes mèche pour le travail du verre – METRIC**

**Placchette per punte per lavorazione vetro – METRIC**

**Puntas de broca para vidrio – METRIC**



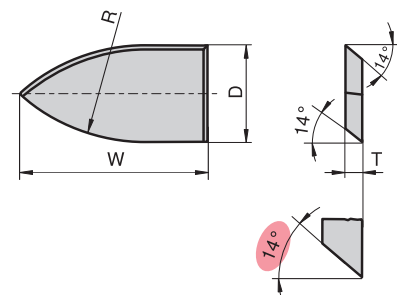
Type, description	Ø [mm (Inch)]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	R [mm]
<b>17353..</b>  Grade Recommendation: CHROMIUM GRADE: CTS06-KC WC-Cobalt GRADE: CTF12-BC CTS15E	3.0	3.4	-0.20	6.2	±0.20	1.1	-0.10	6
	4.0	4.4	-0.20	8.2	±0.20	1.1	-0.10	8
	5.0	5.4	-0.20	10.2	±0.20	1.3	-0.10	10
	6.0	6.4	-0.20	12.2	±0.20	1.3	-0.10	12
	6.5 (1/4")	6.8	-0.20	12.2	±0.20	1.5	-0.10	13
	7.0	7.4	-0.25	14.2	±0.20	1.5	-0.10	14
	8.0	8.4	-0.25	16.2	±0.20	1.8	-0.10	16
	9.0	9.4	-0.25	18.2	±0.20	1.8	-0.10	18
	10.0 (3/8")	10.4	-0.25	20.2	±0.20	1.8	-0.10	20
	12.0	12.4	-0.25	24.2	±0.20	2.3	-0.10	24
	13.0 (1/2")	13.4	-0.30	26.2	±0.20	2.3	-0.10	26

METRIC 17353..

SPECIAL TIPS

Codification code example: 17353- 3.0 CTF12-BC

**Glass drill tips – METRIC**  
**Glasbohrerplatten – METRIC**  
**Plaquettes mèche pour le travail du verre – METRIC**  
**Placchette per punte per lavorazione vetro – METRIC**  
**Puntas de broca para vidrio – METRIC**



Type, description	Ø [mm]	D [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]	R [mm]
<b>50278</b>	4.0	4.4	-0.20	8.2	±0.10	1.1	-0.10	8
Grade	5.0	5.4	-0.20	10.2	±0.10	1.3	-0.10	10
Recommendation: CHROMIUM GRADE: CTS06-KC	6.0	6.4	-0.20	12.2	±0.15	1.3	-0.10	12
WC-Cobalt GRADE: CTF12-BC CTS15E	8.0	8.4	-0.30	16.2	±0.15	1.8	-0.10	16
	10.0	10.4	-0.30	20.2	±0.20	1.8	-0.10	20

## OTHER PRODUCTS



**Other Products**  
**Weitere Produkte**  
**Autres produits**  
**Altri prodotti**  
**Otros productos**

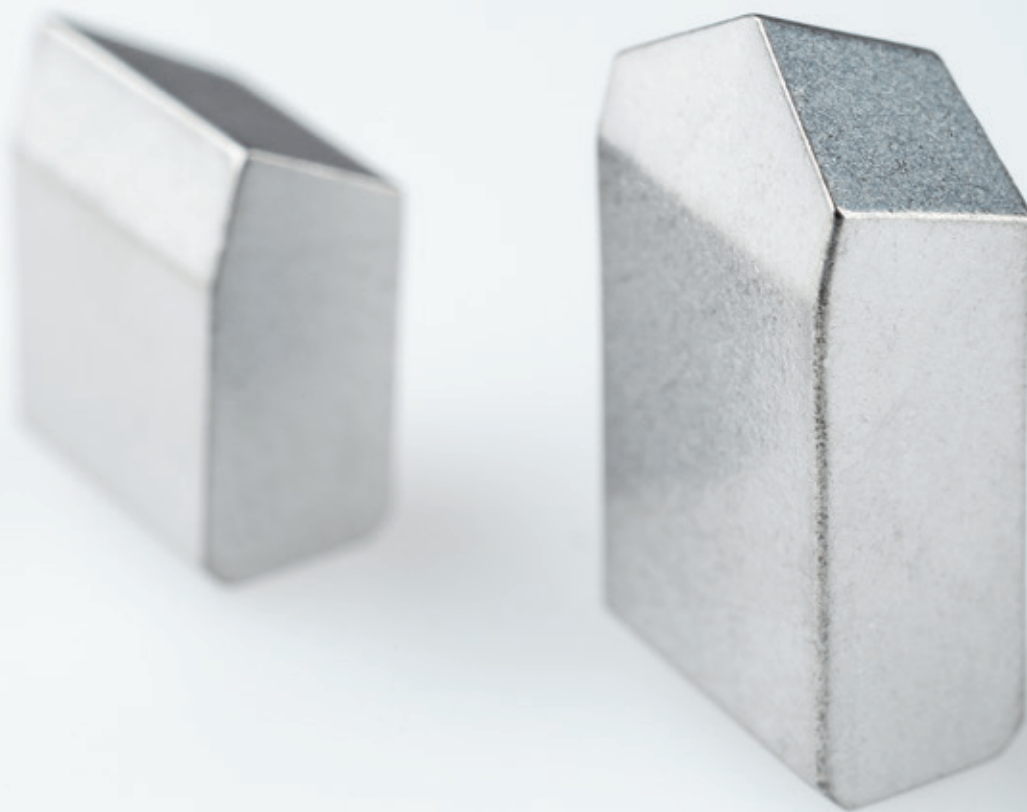
OTHER PRODUCTS

SPECIAL TIPS











**Core drill tips**  
**Bohrkronenplatten**  
**Plaquettes pour trépan**  
**Placchette per punte a corona**  
**Plaquetas para trepano**

## CORE DRILL TIPS

PRODUCTS UPON CUSTOMER REQUEST

82

TOOLMAKER SOLUTIONS BY  
CERATIZIT

NON STANDARD PARTS

CORE DRILL TIPS

### Products upon customer request Produkte nach Kundenwunsch Produit sur demande de client Prodotti a richiesta del cliente Productos sobre deseo del cliente

#### Can't find what you're looking for?

Our catalogue displays the wide range of products which we frequently have in strong demand. Aside from this, we are of course in the position to make other products and have a flexible range of manufacturing methods and means at our production sites, allowing us to create special products with short delivery times. Our extensive experience and investment in research and development means we can provide you with the support you need to get the most out of your tools. We will be pleased to receive your enquiries for any custom-designed. Our local representatives will gladly talk with you about your exact requirements and can also provide you with technical guidance and know-how for anything related to production possibilities and application fields. If you have any further questions or requests we invite you to give us a call – we are here to help.

#### Sie finden nicht was Sie benötigen?

Unser Katalog zeigt das Produktprogramm, das häufig nachgefragt wird. Wir können natürlich auch andere Produkte herstellen und haben dazu die Fertigungsmethoden und Kapazitäten an unseren Produktionsstandorten, die es uns erlauben, Sonderprodukte mit kurzen Lieferzeiten zu produzieren. Unsere umfassende Erfahrung und Kompetenz in Forschung und Entwicklung bedeutet, wir können Ihnen die Unterstützung zur Verfügung stellen, die Sie benötigen, um ein Maximum für Ihre Werkzeuge zu erzielen. Wir freuen uns auf Ihre Anfragen um Produkte nach Ihren speziellen Wünschen und Ausführungen zu produzieren. Unser für Sie zuständiger Mitarbeiter bespricht gerne Ihre genauen Ausführungswünsche und stellt sein technisches Wissen bezüglich Produktionsmöglichkeiten und Anwendungsgebiete gerne zur Verfügung. Wenn Sie weitere Fragen oder Wünsche haben, rufen Sie uns an, wir beraten Sie gerne.

#### Vous ne trouvez pas ce dont vous avez besoin?

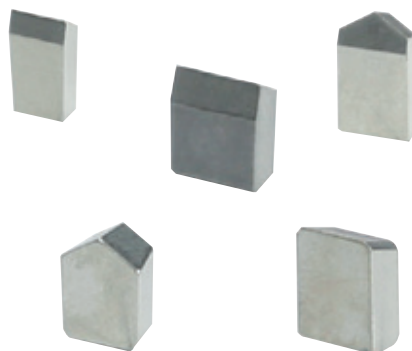
Notre catalogue comprend les produits que nos clients commandent fréquemment. Nous sommes bien sûr aussi à même de fabriquer des produits suivant les souhaits ou les exigences de nos clients et disposons à cette fin des méthodes de fabrication les plus modernes ainsi que de capacités suffisantes sur nos sites de production, ce qui nous permet de réaliser des produits spéciaux dans les meilleurs délais. Notre expérience approfondie et nos compétences en matière de recherche et développement nous permettent de vous fournir l'assistance et le support que vous recherchez pour garantir une utilisation optimale de vos outils. Nous sommes heureux de recevoir vos demandes de produits que nous réaliserons suivant vos attentes et exigences. Votre interlocuteur personnel discutera volontiers avec vous de vos souhaits précis relatifs à l'exécution et mettra à votre disposition toutes ses connaissances techniques en ce qui concerne les possibilités de fabrication et les domaines d'application. Si vous avez des questions supplémentaires ou déjà un produit spécifique en tête, n'hésitez pas à nous contacter. Nous nous ferons un plaisir de vous conseiller et de vous assister.

#### Se non trovate ciò che fa al caso vostro .....

Il nostro catalogo riporta la gamma dei prodotti maggiormente richiesti dalla nostra clientela. Ovviamente siamo anche in grado di produrre altri articoli disponendo di metodi di produzione e capacità presso le nostre sedi produttive altamente flessibili che ci permettono di fabbricare particolari non standardizzati in tempi brevi. Grazie alla nostra esperienza pluriennale ed ai continui investimenti in ricerca e sviluppo possiamo garantirvi tutto il supporto affinché otteniate il massimo rendimento dai vostri utensili. Saremo lieti di ricevere le vostre richieste per utensili speciali da realizzare su disegno. I nostri funzionari di vendita gestiranno con la loro competenza professionale le vostre richieste specifiche fornendovi tutti i dettagli tecnici necessari anche per settori applicativi o produttivi particolarmente complessi. In caso di chiarimenti e informazioni supplementari vi invitiamo a contattarci; potete contare sulla nostra collaborazione, in qualsiasi momento.

#### ¿No encuentra lo que necesita?

Nuestro catálogo incluye los productos más demandados por nuestros clientes. Desde luego también somos capaces de fabricar productos según los deseos o las exigencias de nuestros clientes y disponemos de los métodos de fabricación más modernos así como de capacidad suficiente en nuestras plantas de producción, lo que nos permite realizar productos especiales en plazos de entrega muy ajustados. Gracias a nuestra amplia experiencia y nuestras competencias en materia de investigación y desarrollo, podemos ofrecerle la asistencia y el soporte que usted precise para asegurar una utilización óptima de sus herramientas. Nuestro técnico comercial pondrá a su disposición todos sus conocimientos técnicos en cuanto a las posibilidades de producción y los campos de aplicación. Para cualquier pregunta en general o relacionada a algún producto concreto, no dude en contactarnos. Será un placer poderle asesorar.



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Composition and properties / Zusammensetzung und Eigenschaften / Composition et caractéristiques /  
Composizione e caratteristiche / Composicion y características

84

**STANDARD CORE DRILL TIPS**



12083

METRIC (Ø mm) Ø 9.0 x 4.5 x 3.0

86



12641

METRIC (Ø mm) Ø 9.0 x 6.5 x 4.0  
Ø 10.0 x 6.5 x 4.0

86



13326

METRIC (Ø mm) Ø 9.0 x 5.5 x 3.5

86



14420

METRIC (Ø mm) Ø 10.0 x 5.0 x 3.5

86

**WITH CHAMFER / MIT FASE / AVEC CHANFREIN / CON SMUSSO / CON CHAFLÁN**



14157

METRIC (Ø mm) Ø 12.0 x 7.0 x 4.0

87



23985

METRIC (Ø mm) Ø 8.0 x 6.6 x 4.1

87



28537

METRIC (Ø mm) Ø 12.5 x 7.2 x 4.1

87



30838

METRIC (Ø mm) Ø 8.1 x 7.1 x 4.1

87

**WITH POINT / MIT SPITZE / AVEC POINTE / CON PUNTA / CON PUNTA**



16623

METRIC (Ø mm) Ø 8.5 x 6.5 x 3.9

88



39241

METRIC (Ø mm) Ø 8.0 x 4.0 x 3.0  
Ø 8.0 x 5.5 x 3.6

88



42067

METRIC (Ø mm) Ø 10.3 x 5.0 x 3.0

88



50809

METRIC (Ø mm) Ø 8.0 x 7.2 x 4.0  
Ø 12.5 x 7.2 x 4.0

88

# GRADES FOR STONE WORKING

## COMPOSITION AND PROPERTIES

84



**Grades for stone working – composition and properties**  
**Sorten für Steinbearbeitung – Zusammensetzung und Eigenschaften**  
**Nuances pour applications pierre – composition et caractéristiques**  
**Gradi applicazioni pietra – composizione e caratteristiche**  
**Calidades para piedra – composición y características**

CERATIZIT grade code	ISO code	U.S. code	Binder Binder Liant Legante Ligante [m %]	Density Dichte Densité Densita Densidad [g/cm³]	Hardness			Transverse Rupture Strength	
					HV10	HV30	HRA	[MPa]	[P.S.I.]

### WC-Cobalt Grades

#### Fine grain

CTF12-BC	BC05	C2	6.0	14.95	1640	1620	92.1	2200	319.000
CTF24-BC	BC30	C11	12.0	14.30	1330	1320	89.7	3000	435.000
CTF30-BC	BC40	C13	15.0	14.05	1250	1240	88.8	3100	450.000

#### Medium grain

CTM14-BC	BC10	C2	7.0	14.90	1550	1530	91.5	2600	377.000
CTM17-BC	BC20	C1	8.5	14.65	1420	1440	90.4	2800	406.000

Classification of the WC grain size		CERATIZIT code
Average grain size [µm]	Classification	
< 0.2	nano	<b>N</b>
0.2 - < 0.5	ultrafine	<b>U</b>
0.5 - < 0.8	submicron	<b>S</b>
0.8 - < 1.3	fine	<b>F</b>
1.3 - < 2.5	medium	<b>M</b>
2.5 - < 6.0	coarse	<b>C</b>
> 6.0	extra-coarse	<b>E</b>



# CORE DRILL TIPS – METRIC

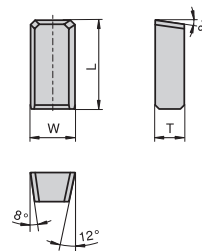
12083.., 12641.., 13326.., 14420..



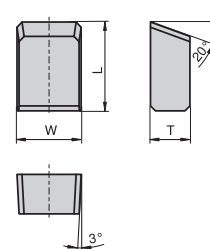
**Core drill tips – METRIC**  
**Bohrkronenplatten – METRIC**  
**Plaquettes pour trépan – METRIC**  
**Plachette per punta a corona – METRIC**  
**Plaquetas para trepano – METRIC**



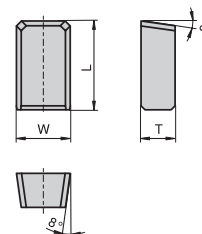
Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
12083..	9.0 x 4.5 x 3.0	9.0	±0.10	4.5	±0.05	3.0	-0.10



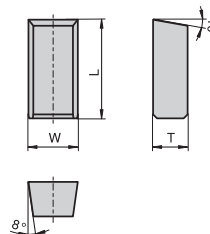
Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
12641..	9.0 x 6.5 x 4.0	9.0	±0.10	6.5	±0.07	4.0	±0.05
	10.0 x 6.5 x 4.0	10.0	±0.10	6.5	±0.07	4.0	±0.05



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
13326..	9.0 x 5.5 x 3.5	9.0	±0.10	5.5	-0.10	3.5	-0.10



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
14420..	10.0 x 5.0 x 3.5	10.0	±0.10	5.0	±0.10	3.5	±0.15



Codification code example: 12083- 9.0x4.5x3.0 CTM17-BC

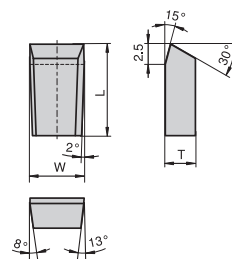
METRIC 12083.., 12641.., 13326.., 14420..

CORE DRILL TIPS

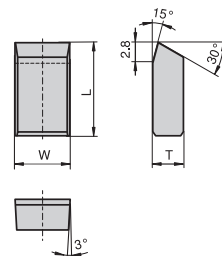
# CORE DRILL TIPS – METRIC

14157.., 23985.., 28537.., 30838..

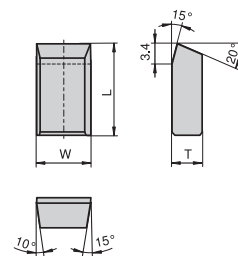
**Core drill tips – METRIC**  
**Bohrkronenplatten – METRIC**  
**Plaquettes pour trépan – METRIC**  
**Plachette per punte a corona – METRIC**  
**Plaquetas para trepano – METRIC**



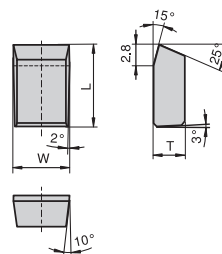
Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
14157..	12.0 x 7.0 x 4.0	12.0	±0.10	7.0	+0.20	4.0	-0.10



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
23985..	8.0 x 6.6 x 4.1	8.0	±0.10	6.6	±0.10	4.15	-0.15



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
28537..	12.5 x 7.2 x 4.1	12.5	±0.15	7.2	±0.20	4.1	-0.10



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
30838..	8.1 x 7.1 x 4.1	8.1	±0.10	7.1	±0.10	4.1	-0.10

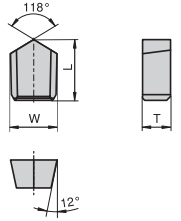
Codification code example: 14157- 12.0x7.0x4.0 CTF12-BC



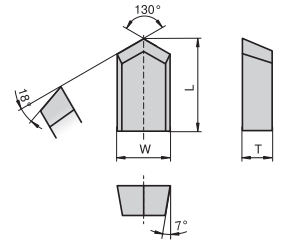
# CORE DRILL TIPS – METRIC

16623..., 39241..., 42067..., 50809..

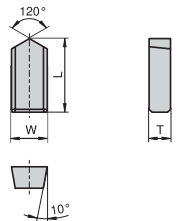
**Core drill tips – METRIC**  
**Bohrkronenplatten – METRIC**  
**Plaquettes pour trépan – METRIC**  
**Plachette per punte a corona – METRIC**  
**Plaquetas para trepano – METRIC**



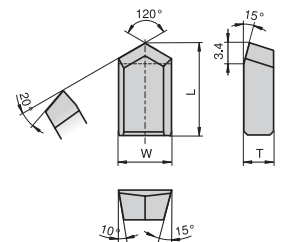
Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
16623..	8.5 x 6.5 x 3.9	8.5	±0.10	6.25	±0.05	3.915	±0.035



Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
39241..	8.0 x 4.0 x 3.0	8.0	±0.10	4.0	±0.10	3.0	±0.05
	8.0 x 5.5 x 3.6	8.0	±0.10	5.5	±0.10	3.6	±0.05

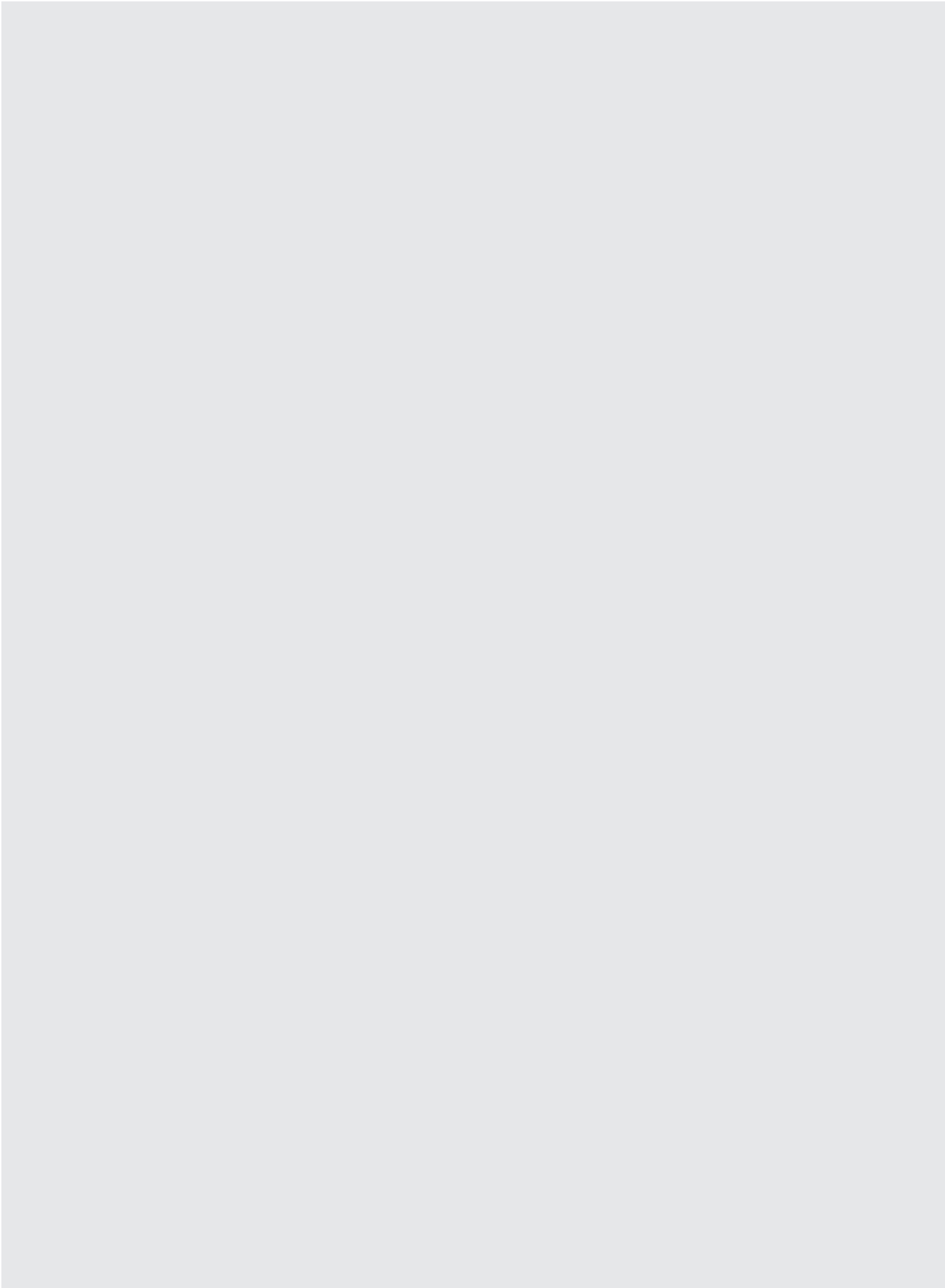


Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
42067..	10.3 x 5.0 x 3.0	10.3	±0.10	5.0	±0.10	3.0	±0.07

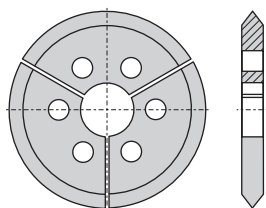


Type, description	Codification [mm]	L [mm]	Tol. [mm]	W [mm]	Tol. [mm]	T [mm]	Tol. [mm]
50809..	8.0 x 7.2 x 4.0	8.0	±0.10	7.2	+0.20	4.1	-0.10
	12.5 x 7.2 x 4.0	12.55	±0.15	7.2	+0.20	4.1	-0.10

Codification code example: 16623- 8.5x6.5x3.9 CTM17-BC







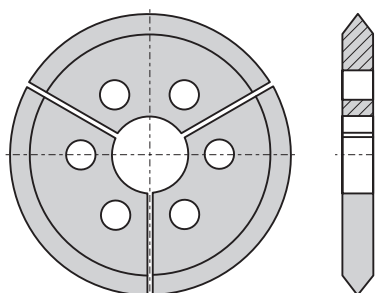
**Fluterolls for drillproduction**  
**Nutwalzrollen für Bohrerfertigung**  
**Outils pour la fabrication de cannelures des forêts**  
**Utensili per scanalatura per punte a forare**  
**Rueda párrafo los taladros de la torcedura**

# FLUTEROLLS FOR DRILLPRODUCTION

SW5, SW6, SW10, SW13, SW 16, SW20, SPECIAL

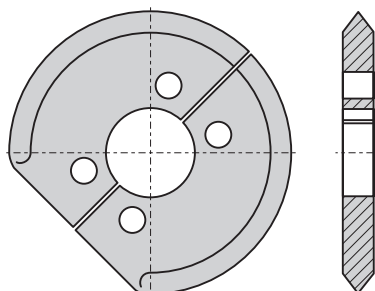
**Fluterolls for drillproduction**  
**Nutwalzrollen für Bohrerfertigung**  
**Outils pour la fabrication de cannelures des forêts**  
**Utensili per scanalatura per punte a forare**  
**Rueda párrafo los taladros de la torcedura**

SW5  
SW6  
SW10



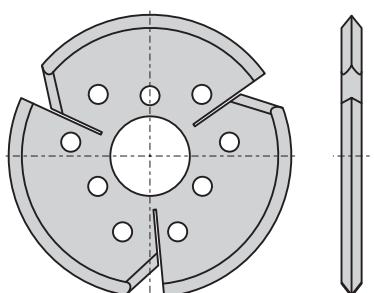
Codification
SW5
SW6
SW10

SW13  
SW16



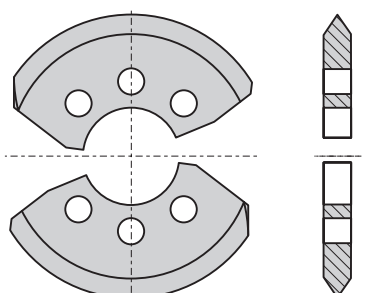
Codification
SW13
SW16

SW20

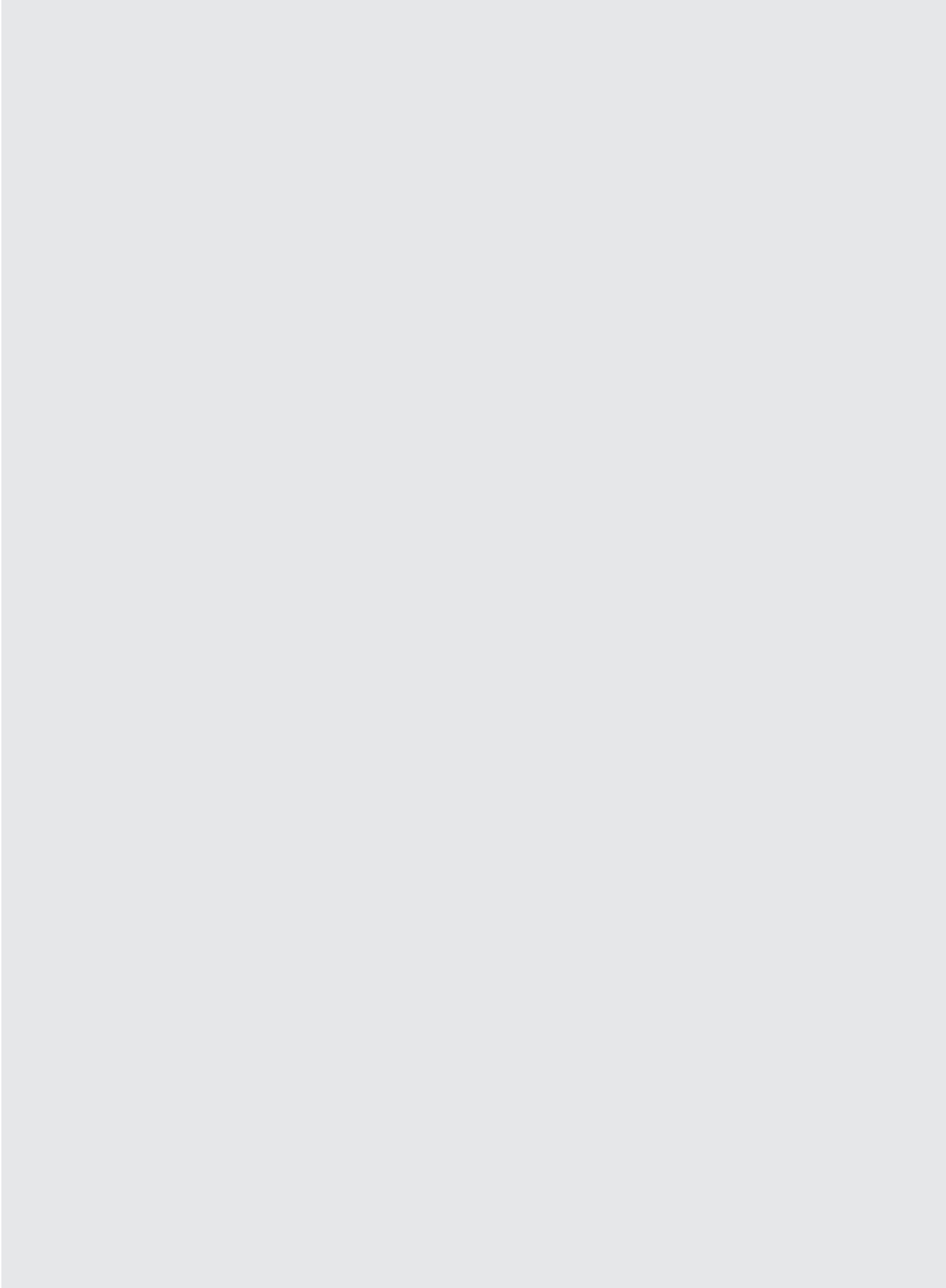


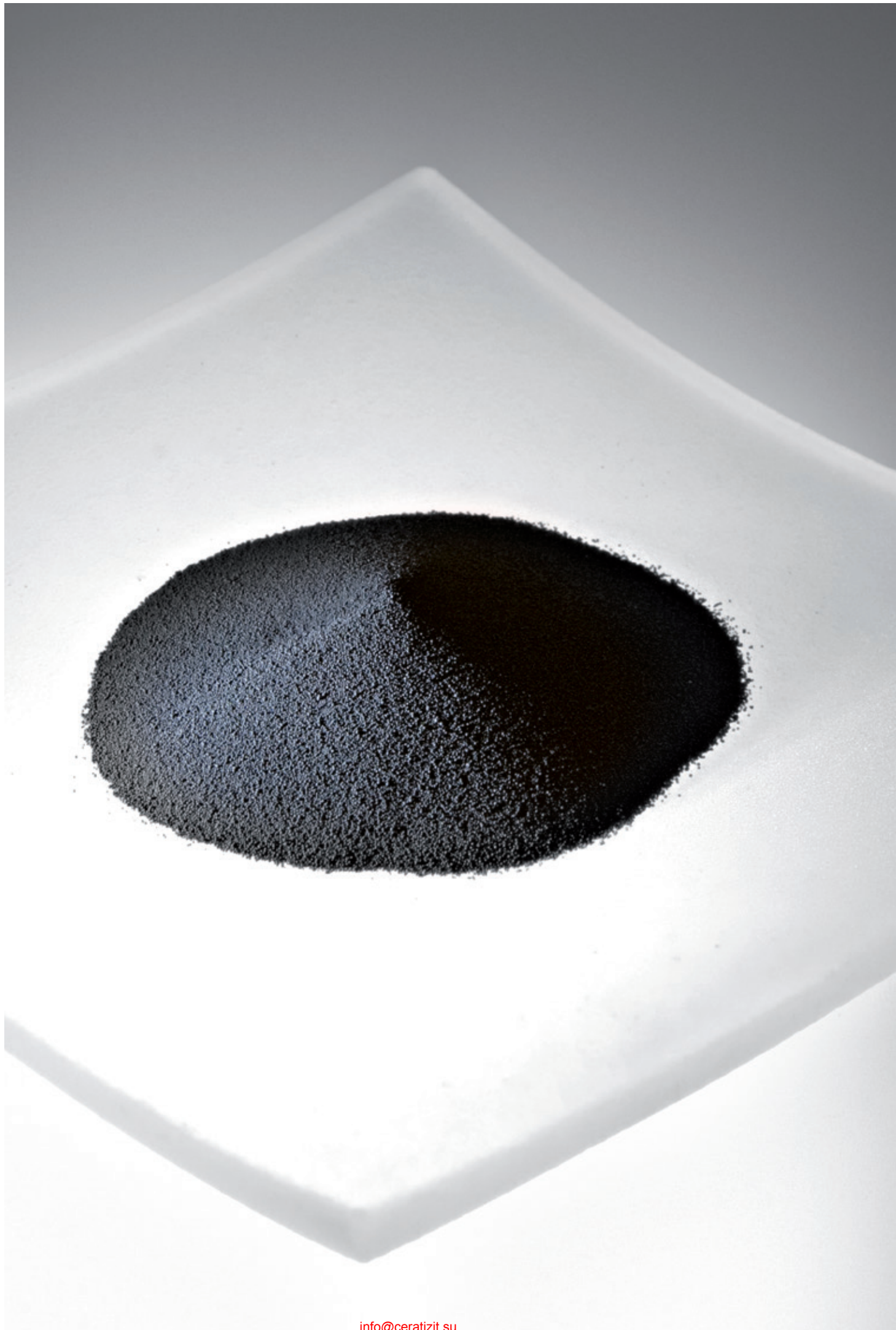
Codification
SW20

SPECIAL



Codification
SPECIAL







**Powder & grit**  
**Pulver & Grit**  
**Poudres & grit**  
**Polvere & graniglia**  
**Polvo & arenilla**



**POWDER & GRIT**

PROGRAMME

96



**Powder & grit**  
**Pulver & Grit**  
**Poudres & grit**  
**Polvere & graniglia**  
**Polvo & arenilla**

We also offer carbide powder with various grain sizes. You can choose from a variety of carbide grades with mechanical properties tailored to the application. As well as the powder we also produce sharp-edged and flaky grit.

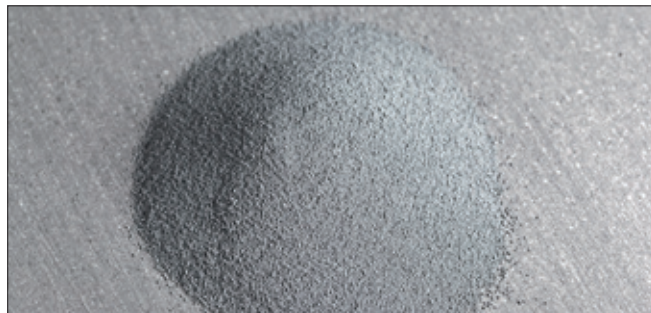
**Tungsten carbide powder**

Smallest packaging unit: 15 kg  
 Minimum order quantity: 100 kg

Product range

Material	Grain size [µm]
6010216	0.8 - 0.9
6010326	1.1 - 1.3
6010427	1.3 - 1.5
6010219	1.6 - 2.0
6010220	1.8 - 2.1
6010223	2.8 - 3.3
11469150	4.5 - 5.0
6010225	9.0 - 12.0
6010226	13.7 - 22.5

According to measuring standard FSSS

**Powder RTP (ready to press)**

Smallest packaging unit: 15 kg  
 Minimum order quantity: 100 kg

Technical specifications available upon request only

**Grit**

Available sharp-edged or in form of plates



**Sharp-edged grit**



Smallest packaging unit: 15 kg  
Minimum order quantity: 100 kg

Product range

Material	Grain size [mm]
11982134	0.6 - 1.0
11738926	1.0 - 1.5
11793886	1.6 - 3.2
11793887	3.2 - 4.8
11793888	4.8 - 6.4
11793890	6.0 - 10.0

**Grit in form of plates**



Smallest packaging unit: 15 kg  
Minimum order quantity: 100 kg

Product range

Material	Grain size [mm]
11564149	1.0 - 1.5

## DRILL TIPS

<b>1</b>	
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38911 METRIC	33
39241 METRIC	88
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CTDP METRIC	72
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SW13, -16	92
SW20	92

## POWDER &amp; GRIT

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11469150	96
11564149	97
11738926	97
11793886	97
11793887	97
11793888	97
11793890	97
11982134	97

<b>6</b>	
6010216	96
6010219	96
6010220	96
6010223	96
6010225	96
6010226	96
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6010427	96