

MonAliT

DIAMOND TOOLS



TECHNOLOGY REVIEW

Sintered tools are already produced in 2 different performances: compressed and welded.

The “Sinter” tools have been manufactured by using the old world famous method of hot compression, where the powder of the metallic ligature (usually bronze), is vigorously mixed with the powder of diamonds. Temperature of 660 °C and high pressure are applied to the obtained mixture, and a composite is obtained in which diamond grains are mechanically compressed and distributed in the entire volume of a metallic matrix (Fig. 1).



Fig.1. Comparison in diamonds quantities between “Galvanic”, “Sinter” and “MonAliT” tools.

The “MonAliT” tool is manufactured using a new technology. First, the diamond grains are prepared in the specific way, to be welded to each other later on.

A shank is placed at the bottom of a special form where the diamond grains are placed without any ligature (Fig.2 - steps 1-2). A sprue with a special charge is attached on the top of the form, and the entire system is placed into a vacuum furnace inside which a high pressure and temperature are slowly and gradually applied up to 1000°C, the charge melts literally soaking the empty spaces between the diamond grains which are remained in contact with each other (Fig.2 - step 3).

A welded monolithic construction appears, in which there is no space for an additional diamond grain to add.

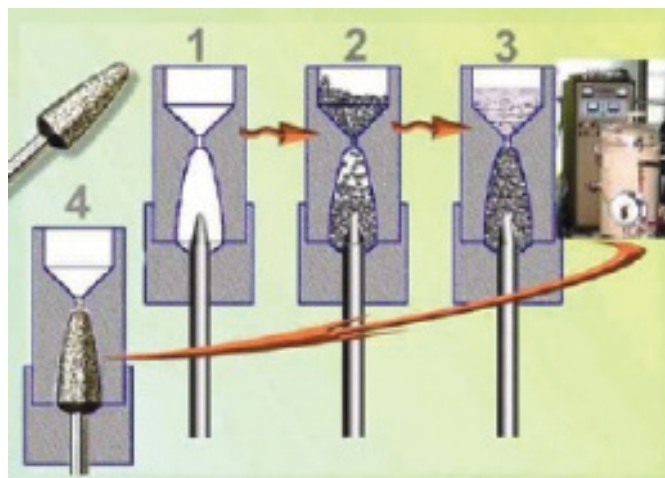


Fig.2. Technology procedure

A threshold of diamond grains concentration, as much as a compact hard connection is obtained. Consequently, all the micro defects of the diamond grains surface are filled. It creates an interspatial physico-mechanical phase through which, in the process of vacuum agglomeration, and among the grains themselves of one side and the grains and their filling on the other side, the diffusive bridges are created. However, the concentration of grains in “MonAliT” is 3 times higher (Fig.3) than in “conventional “Sinter”, and they are attached in the “Sinter” mainly due to a mechanical retention, yet in “MonAliT”, they are retained due to stable adhesive forces. Since the “MonAliT” tool is manufactured using more recent technology, its qualities are less known to specialist in the tool industry.

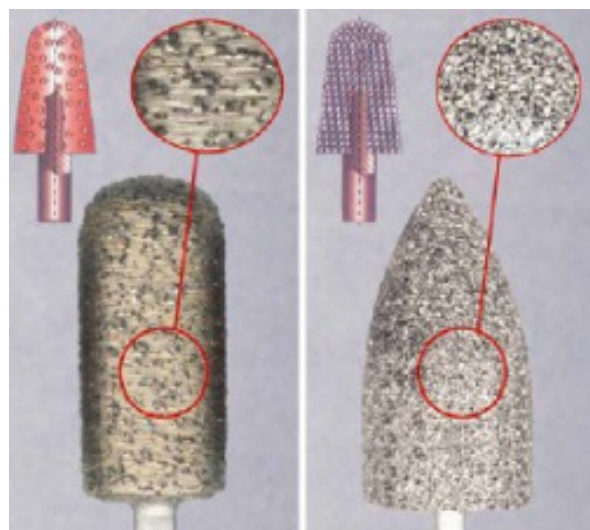


Fig.3. Concentration of diamonds in “Sinter” (left) and “MonAliT” (right).

Stability and durability

If a galvanic tool is covered with one layer of diamond grains, then as it wears out and its cutting qualities gradually diminish. Cutters possess a similar disadvantage, their cutting blades gradually grow blunt, the speed of removal decreases and the quality of the surface worsens. In any sintered tool, including “MonAliT”, the cutting qualities in the exploitation process could remain unaffected, as if the superficial layers of diamond wear off, the underlying layers, whose cutting edges aren’t blunt, are uncovered. Consequently, the quality of treatment in a sintered tool remains unchanged up till the very last layer of diamond. That’s why the stability of the cutting qualities of the tool “MonAliT” “is higher than those of the cutter and galvanic bits.

The durability of a diamond tool is determined by 3 factors:

- The quantity of diamond grains;
- Whether they withstand rubbing;
- The strength of the retention of grains in the bond.

Moreover, the technology behind the production of “MonAliT” is such, that it is impossible to add a single diamond grain to the working part.

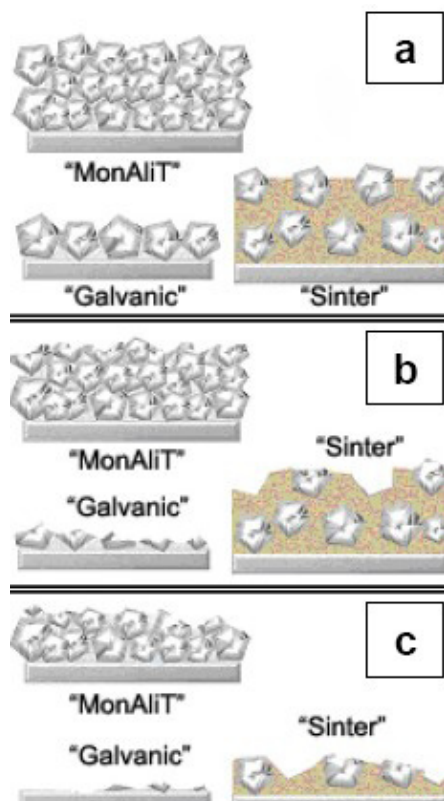


Fig.4 The worn up phases of each type of diamond tools.

In conventional “compressed Sinter” the grains are retained together by mechanical forces, since they are compressed into a bronze pack (Fig.4a). Therefore, the grains work until they reach 2/3 (maximum 1/2) in height from the top of the pack (Fig.4b). The grains beyond 1/2 in height from the top cannot anymore hold inside the bundle and simply fall (Fig.4c). In “Mon-AliT” the grains are welded to each other. Consequently, a grain can work to the very end or at least till it has a minimum of 3 contacts with the lower grains to which it is welded (Fig.4b). That’s why it “MonAliT” (taking into account the stability of the diamond grains) is 3 times more durable than “Sinter”.

Edge endurance

It is very important that in separate tools the sharp cutting part is preserved in the process of exploitation. Even if it was possible to attach one diamond grain to the metallic base using the galvanic method, its position would be highly unstable (Fig.5a).

Grain is only held in place by the metallic matrix, so it will fall off and uncover the metallic base upon the first contact with the treated surface. Meanwhile, compressed “Sinter” completely rules out the possibility of creating an edge with the thickness of 1 grain (Fig.5b), and only the method of vacuum welding of grains allows welding 1 grain to the edge itself, creating, in concept, a diamond blade (Fig.5c). At the same time, the grain has utmost stability, since it is welded. “MonAliT” tools possess a great edge endurance, which increases their functional potentialities in comparison with another tool.

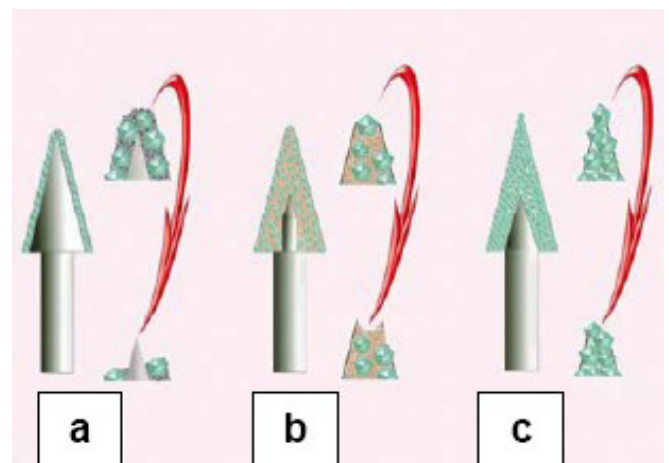


Fig.5 Comparison of the tips weariness of galvanic (a), sintered (b) and “MonAliT” (c) bits.

Regularity of surface and chippings

Since cutters remove the material by coats, these coats fall between the blades and the surface and create unevenness.

The galvanic tool is created in such a way that the diamond grains are based on its metallic foundation. Since the average dimensions of diamond grains possess an elliptical form with proportions of the long axis to the short 3:1, thus the grains can adhere to the intermediate surface in any way. As a result, the surface becomes irregular, containing separate grains that stand out like mountain peaks over a valley. Sometimes the manufacturers of galvanic tools specifically aim for such a surface (Fig.6a).

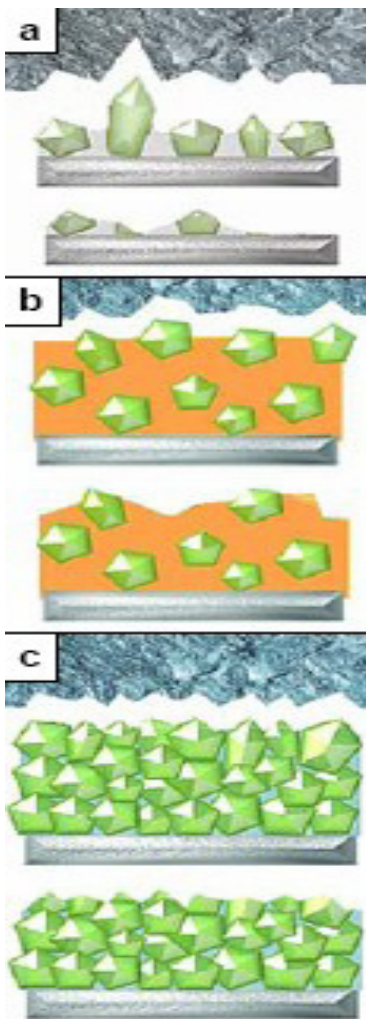


Fig.6. Surface treated by:
a – “Galvanic”;
b – “Sinter”;
c – “MonAliT”.

The conventional tool “compressed Sin-ter” is prepared in such a way that the grains within its volume are not distributed perfectly evenly (Fig.6b), as well as, very fortuitously. As a result, the surface treated by “Sinter” turns out to be far from regular.

The welded tool “MonAliT” is created in such a way that all the grains are based not on the internal intermediate surface, but on the internal surface of the form (Fig.7).

Therefore, regardless of their form, they are laid in such a way that all their peaks, without exception, are positioned on the same level as the treated surface.

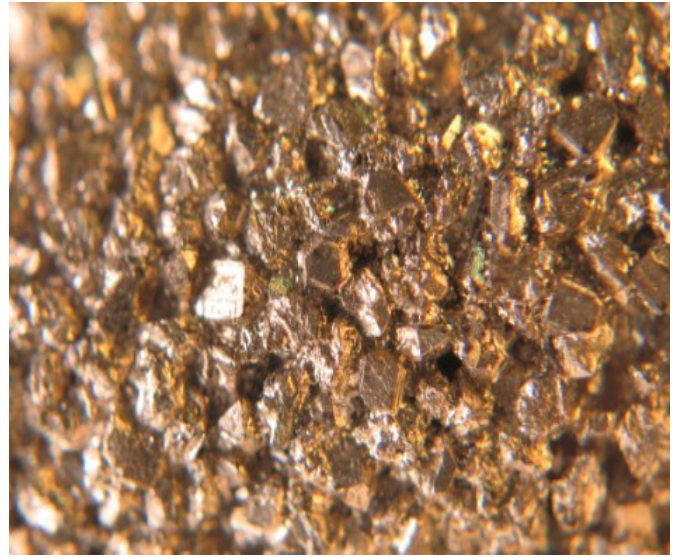


Fig.7. View of the welded diamond grains.

This principle is independent of the size of the grains and that’s why the heads of all the grains of “MonAliT” possess a threshold regularity of surface. Consequently, their appearance is very uniform (Fig.6c).

Diversity of forms:

The method of vacuum-diffusion welding allows producing the forms that are impossible to create using the compression method. An example is the monolithic tornado (Fig.8).



Fig.8. Form of a bit in the flask.

It is clear that to extract such a spiral after its compression would be extremely difficult. Conversely, using “MonAliT” technology, the form is simply cleaved.

SYSTEM OF CODE DESIGNATION

APPLICATION FIELDS

Application field	Materials
Construction	Concrete, brick
Glass industry	Glass, quartz, porcelain
Jewelry	Gems, precious stones
Processing industry*	Ceramics, hard metals, hard alloys, composites
Stone industry	Natural stone, granite, ceramogranite, marble

* - it includes aviation, automotive, cutting tool, machine-building and engineering industries.

DIAMOND GRIT DESIGNATIONS

Grain size, microns	Grain size, FEPA	Grain size, US grit (mesh)	Inland Equivalent
50-63	D 54	230/270	
63-80	D 76	200/230	
80-100	D 91	170/200	
100-125	D 126	120/140	120 grit
125-160	D 151	100/120	100 grit
160-200	D 181	80/100	80 grit
200-250	D 251	60/70	60 grit
250-315	D 301	50/60	
315-400	D 356	45/50	
400-500	D 501	35/40	
500-630	D 601	30/35	
630-800	D 711	25/30	

The diamond grit designations for diamond lapidary tools actually represent a range of dia-mond particle sizes used to manufacture that designation. Inland lists grit size for all their diamond products by the standard US convention of labeling after the larger size diamond. For example, an In-land 60 grit dia-mond wheel is made from diamond grit size 60/ 80 range. If you are used to seeing a single number grit size, all you need to do is find the range which that grit falls into and then use the lower number of that range for the comparable Inland diamond product.

ITEM CODE

The code of each instrument in the catalogue consists of 4 parts (see an example on the left). Each part con-tains information regarding the cha-racteristics and shapes of an instru-ment that is illustrated in the **Table of item codes designation.**

MD

-

DB

-

C2

-

C

Part 1

Part 2

Part 3

Part 4



Table of item codes designation

	Characteristics	Code	Designation
Part 1	1 st letter: Production technology	M	“MonAlit” technology
	2 nd letter: Material of the instrument	B	Borazon
		D	Diamond
Part 2	Product application type	B	Bit
		C	Countersink
		GP	Grinding Pin
		DB	Drilling Bit
		CDB	Countersink Drilling Bit
		MC	Milling Cutter
		P	Pin
		PB	Profile Bit
		W	Wheel
Part 3	Shape of the instrument	A1C2	Adjustable Core
		A2	Angular
		C1	Cone
		C2	Core
		C3	Cylinder
		D	Disc
		F	Flame
		H	Horseshoe
		L	Lens
		R	Rounded
		MC2	Monoblock Core
		S1	Sphere
		S2	Spiral
		S3	Straight
		T	Trapezoidal
		A2E	External Angular
		RE	External Rounded
		RI	Internal Rounded
		C1I	Inversed Cone
		C1R	Rounded End Cone
		C3R	Rounded End Cylinder
		C1T	Truncated Cone
Part 4	Type of shank	T	Shank with a thread of 1/2”
		T*	Shank with a thread of 1/4”
		C	Cylindrical shank
		U	Shank for “CNC” Units

The classification for all range of the products by application fields is represented in the **Table of products range**.

Table of item codes designation










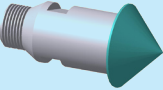
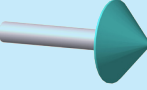
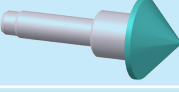



Item	Shape	Code	Image	Page	Application
Diamond pins	Cone	MD-P-C1-C			Construction Glass industry Jewelry Processing industry Stone industry
	Inversed Cone	MD-P-C1I-C			
	Rounded End Cone	MD-P-C1R-C			
	Truncated Cone	MD-P-C1T-C			
	Cylinder	MD-P-C3-C			
	Rounded End Cylinder	MD-P-C3R-C			
	Disc	MD-P-D-C			
	Flame	MD-P-F-C			
	Lens	MD-P-L-C			
	Sphere	MD-P-S1-C			
Borazon and diamond correction pins	Cylinder	MB-CP-C3-C			Processing industry
Diamond countersinks	Cone	MD-C-C1-T			Construction Glass industry
	Cone	MD-C-C1-C			
	Cone	MD-C-C1-U			
	Truncated Cone	MD-C-C1T-T			
	Truncated Cone	MD-C-C1T-C			
	Truncated Cone	MD-C-C1T-U			

Table of item codes designation

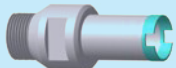

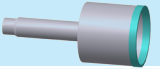
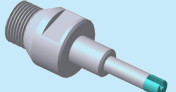
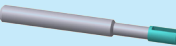
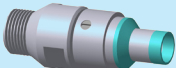
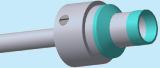
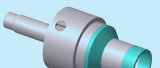
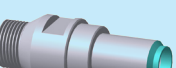
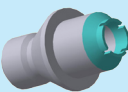
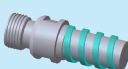
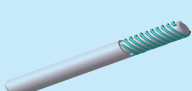
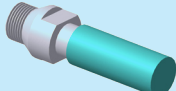
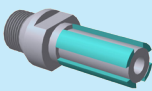
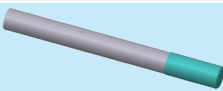
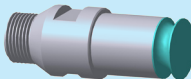
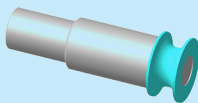
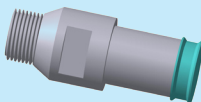
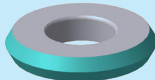
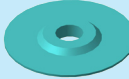

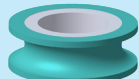

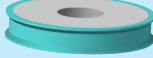
Item	Shape	Code	Image	Page	Application
Diamond drilling bits	Core	MD-DB-C2-T			Construction Glass industry Stone Industry
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		MD-DB-C2-U			
	Horseshoe	MD-DB-H-T			
		MD-DB-H-C			
Diamond countersink core bits	Adjustable	MD-CDB-A1C2-T			Glass industry
		MD-CDB-A1C2-C			
		MD-CDB-A1C2-U			
	Monoblock	MD-CDB-MC2-T			
		MD-CDB-MC2-T*			
Diamond milling cutters	Spiral Grooves	MD-MC-S2-T			Glass industry Stone Industry
	Spiral Grooves	MD-MC-S2-C			
	Cylindrical	MD-MC-C3-T			
	Straight Grooves	MD-MC-S3-T			
	Cylindrical	MD-MC-C3-C			

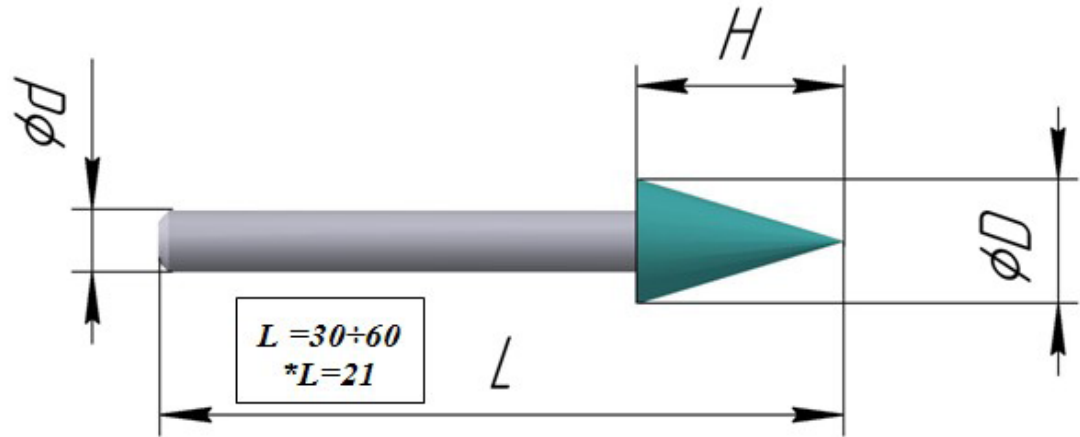
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Item	Shape	Code	Image	Page	Application	
Diamond profile bits	Rounded	MD-PB-RI-T			Construction Glass industry Stone Industry	
	Rounded	MD-PB-RI-C				
	Trapezoidal	MD-PB-T-T				
	Trapezoidal	MD-PB-T-C				
Diamond wheels	Angular	MD-W-A2E			Construction Glass industry Stone Industry	
	Disc	MD-W-D				
	Rounded	MD-W-RE				
		MD-W-RI				
	Straight	MD-W-S3				
	Trapezoidal	MD-W-T				

CONICAL DIAMOND PINS

MD-P-C1-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
2,7x7,2	●	●	●	●	—	—
4,6x11,0	—	●	●	●	●	●
5,0x12,0	—	●	●	●	●	●
5,0x14,0	—	●	●	●	●	●
5,5x13,0	—	●	●	●	●	●
6,0x13,0	—	●	●	●	●	●
6,0x15,0	—	—	●	●	●	●
7,0x10,0	—	—	●	●	●	●
12,0x6,0	—	—	●	●	●	●

The special points MD-P-C1-C of other sizes and connections are available upon customer’s request

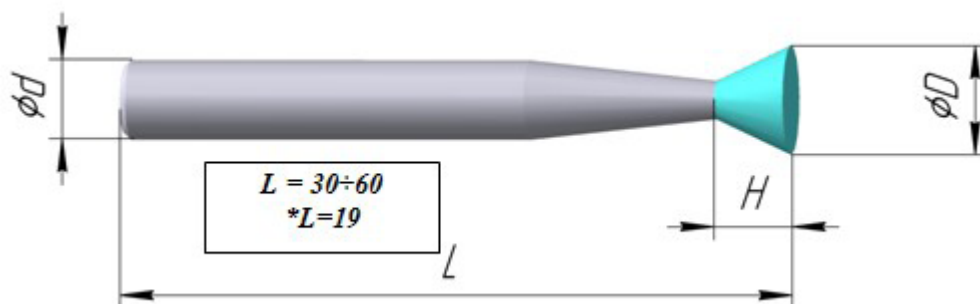
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C1-C ØD_____ x H_____ – Ød_____

INVERSED CONE DIAMOND PINS

MD-P-C1I-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,4x2,0	●	●	—	—	—	—
1,5x6,0	●	●	—	—	—	—
1,6x1,5	—	●	—	—	—	—
1,6x4,0	●	●	—	—	—	—
1,8x0,7	—	●	—	—	—	—
1,8x1,5	—	●	—	—	—	—
2,1x1,9	●	●	—	—	—	—
2,3x0,8	—	●	—	—	—	—
2,5x2,5	—	●	—	—	—	—
3,2x2,8	—	●	—	—	—	—
3,7x9,0	—	●	—	—	—	—
4,0x2,0	●	●	—	—	—	—
5,2x3,2	—	●	—	—	—	—
6,0x5,0	—	●	●	●	—	—
7,0x5,0	—	●	●	●	●	●
8,0x4,0	—	●	●	●	●	●
11,0x6,0	—	●	—	●	●	●
11,0x2,5	—	●	—	●	●	●
16,0x9,0	—	—	—	●	●	●

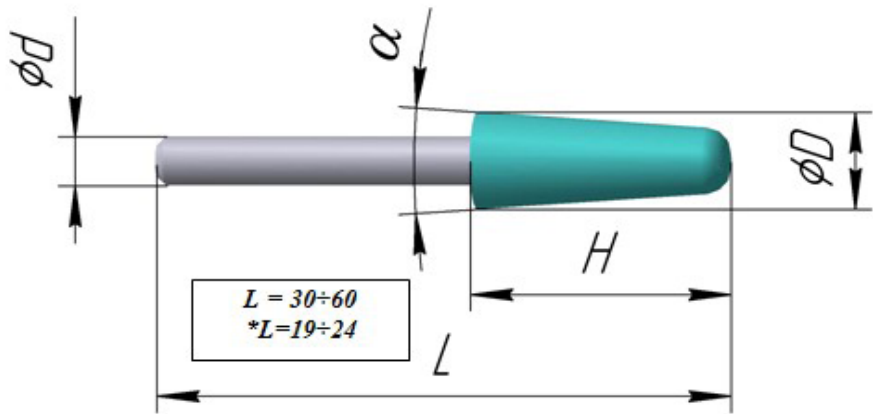
The special points MD-P-C1I-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C1I-C ØD_____ x H_____ – Ød_____

CONE DIAMOND PINS WITH A ROUNDED END

MD-P-C1R-C *L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,6x10,0	●	●	●	—	—	—
1,8x5,0	●	●	●	—	—	—
1,8x8,0	●	●	●	—	—	—
1,8x12,0	●	●	●	—	—	—
2,3x11,5	●	●	●	—	—	—
2,5x10,0	●	●	●	—	—	—
3,1x13,0	●	●	●	●	●	●
3,2x11,0	●	●	●	●	●	●
3,3x10,0	—	●	●	●	●	●
4,0x8,0	—	●	●	●	●	●
4,0x10,0	—	●	●	●	●	●
4,8x12,0	—	●	●	●	●	●
5,0x10,0	—	●	●	●	●	●
5,0x14,0	—	●	●	●	●	●
5,5x13,0	—	●	●	●	●	●
6,0x13,0	—	●	●	●	●	●
6,0x15,0	—	—	●	●	●	●
7,0x12,0	—	●	●	●	●	●
8,0x16,0	—	—	—	—	—	●
15,0x25,0	—	—	—	—	—	●

The special points MD-P-C1R-C of other sizes and connections are available upon customer’s request

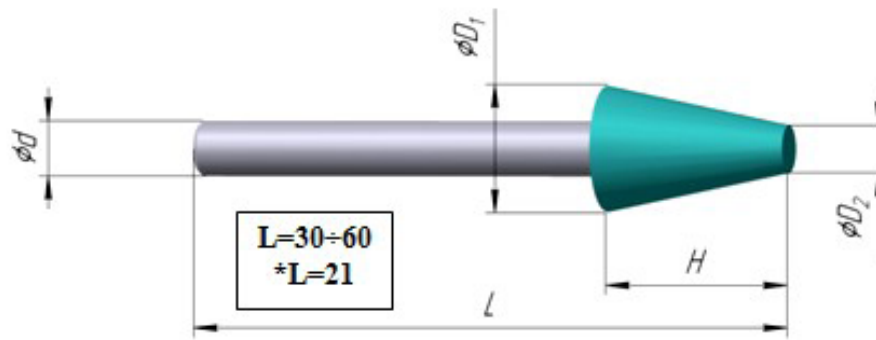
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C1R-C ØD_____ x H_____ – Ød_____

TRUNCATED CONE DIAMOND PINS

MD-P-C1T-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD ₁ / ØD ₂ x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,5/0,7x6,0	●	●	—	—	—	—
3,0/1,8x9,0	—	●	●	—	—	—
4,5/1,3x6,0	—	—	●	—	—	—
5,0/3,0x10,3	—	●	●	—	—	—
6,0/2,8x6,0	—	—	●	●	●	●
9,0/5,0x2,0	—	—	●	●	●	●
10,0/5,0x20,0	—	—	●	●	●	●
12,0/5,0x17,0	—	—	●	●	●	●
12,0/7,0x20,0	—	—	●	●	●	●

The special points MD-P-C1T-C of other sizes and connections are available upon customer's request

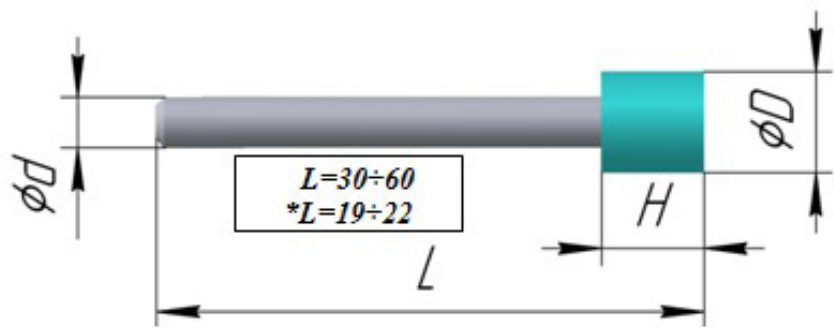
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C1T-C ØD₁/ØD₂___/___ x H___ – Ød___

CYLINDER DIAMOND PINS

MD-P-C3-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,4x4,0÷7,0	●	●	●	—	—	—
1,6x6,0÷9,0	●	●	●	—	—	—
1,7x6,0÷9,0	—	●	●	—	—	—
1,8x6,0÷9,0	●	●	●	—	—	—
3,0x5,0÷7,0	—	●	●	●	●	●
3,0x7,0÷10,0	—	●	●	●	●	●
3,5x5,0÷7,0	—	●	●	●	●	●
3,5x7,0÷10,0	—	●	●	●	●	●
4,0x5,0÷7,0	—	●	●	●	●	●
4,0x7,0÷10,0	—	●	●	●	●	●
4,0x10,0÷12,0	—	●	●	●	●	●
4,0x12,0÷15,0	—	●	●	●	●	●
4,5x5,0÷7,0	—	●	●	●	●	●
4,5x7,0÷10,0	—	●	●	●	●	●
4,5x10,0÷12,0	—	●	●	●	●	●
4,5x12,0÷15,0	—	●	●	●	●	●
5,0x5,0÷7,0	—	●	●	●	●	●
5,0x7,0÷10,0	—	●	●	●	●	●
5,0x10,0÷12,0	—	●	●	●	●	●
5,0x12,0÷15,0	—	●	●	●	●	●
6,0x5,0÷7,0	—	●	●	●	●	●
6,0x7,0÷10,0	—	—	●	●	●	●

MD-P-C3-C

ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
6,0x10,0÷12,0	—	—	●	●	●	●
6,0x12,0÷15,0	—	—	●	●	●	●
6,5x5,0÷7,0	—	—	●	●	●	●
6,5x7,0÷10,0	—	—	●	●	●	●
6,5x10,0÷12,0	—	—	●	●	●	●
6,5x12,0÷15,0	—	—	●	●	●	●
7,0x5,0÷7,0	—	—	—	●	●	●
7,0x7,0÷10,0	—	—	—	●	●	●
7,0x10,0÷12,0	—	—	—	●	●	●
7,0x12,0÷15,0	—	—	—	●	●	●
8,0x10,0÷12,0	—	—	—	●	●	●
8,0x12,0÷15,0	—	—	—	●	●	●
8,0x15,0÷18,0	—	—	—	●	●	●
8,0x18,0÷20,0	—	—	—	●	●	●
10,0x10,0÷12,0	—	—	—	●	●	●
10,0x12,0÷15,0	—	—	—	●	●	●
10,0x15,0÷18,0	—	—	—	●	●	●
10,0x18,0÷20,0	—	—	—	●	●	●

The special points MD-P-C3-C of other sizes and connections are available upon customer's request

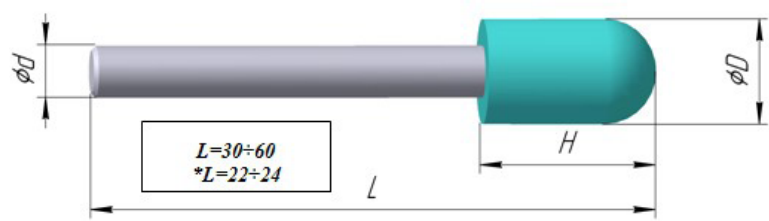
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C3-C

ØD_____ x H_____ – Ød_____

CYLINDRICAL DIAMOND PINS WITH A ROUNDED END

MD-P-C3R-C *L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,6x(8,0÷10,0)	●	●	●	●	●	●
2,0x(10,0÷15,0)	—	—	●	●	●	●
2,5x12,0	—	●	—	—	—	—
3,0x8,5	—	●	—	—	—	—
3,0x(12,0÷15,0)	—	—	●	—	—	—
4,0x8,0	—	—	—	—	—	●
4,0x10,0	—	●	●	●	●	●
5,0x10,0	—	●	●	●	●	●
6,0x(12,0÷15,0)	—	—	●	●	●	●
6,3x12,0	—	●	●	●	●	●
10,0x(8,0÷20,0)	—	—	●	●	●	●
12,0x20,0	—	—	—	—	—	●
15,0x20,0	—	—	—	—	—	●

The special points MD-P-C3R-C of other sizes and connections are available upon customer’s request

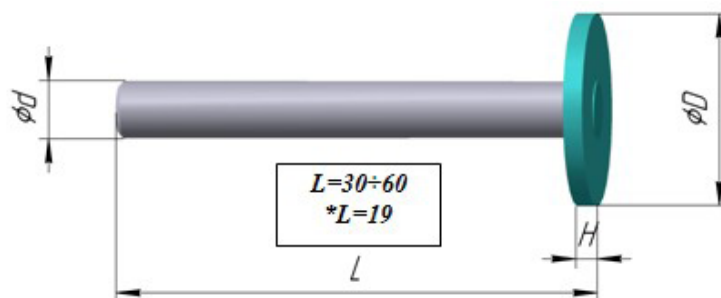
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-C3R-C ØD_____ x H_____ – Ød_____

DISC DIAMOND PINS

MD-P-D-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
(2,8÷4,6)x0,5	●	—	—	—	—	—
4,2x1,7	●	●	●	—	—	—
5,0x0,3	●	●	●	—	—	—
6,0x0,3	—	●	●	—	—	—
6,3x0,7	—	●	●	—	—	—
8,0x(0,4÷1,0)	—	●	●	●	●	—
8,0x(2,0÷3,0)	—	●	●	●	●	●
1,0x(0,3÷1,0)	—	●	●	●	●	●
10,0x3,0	—	●	●	●	●	●
11,0x1,6	—	●	●	●	●	●
13,0x(3,0÷5,0)	—	●	●	●	●	●
14,0x0,6	—	●	●	●	●	●
15,0x3,0	—	●	●	●	●	●
16,0x0,3	—	●	●	●	●	●
20,0x2,0	—	●	●	●	●	●
22,0x(0,4÷0,6)	—	●	●	●	●	●
25,0x(0,8÷1,0)	—	●	●	●	●	●
25,0x1,8	—	●	●	●	●	●
30,0x(1,0÷5,0)	—	●	●	●	●	●
32,0x0,6	—	●	●	●	●	●
35,0x2,5	—	—	●	●	●	●
40,0x(0,6÷1,0)	—	●	●	●	●	●

The special points MD-P-D-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

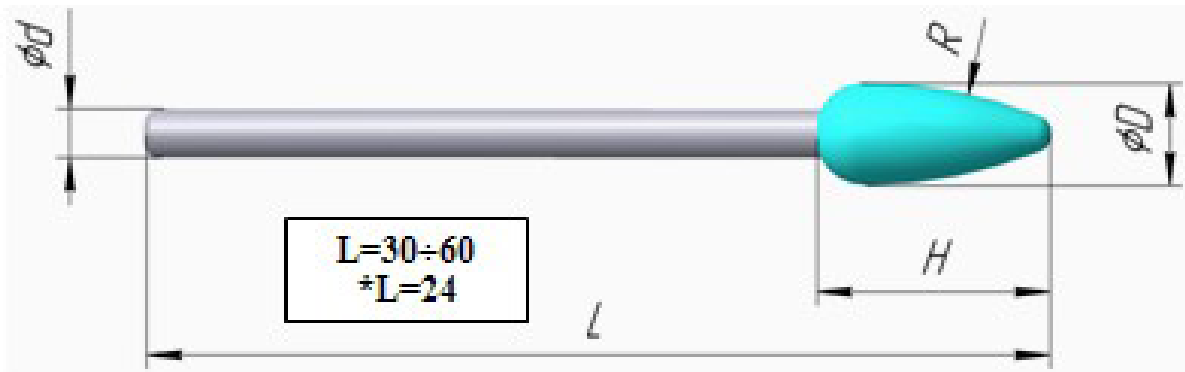
Order code: MD-P-D-C

ØD_____ x H_____ – Ød_____

FLAME DIAMOND PINS

MD-P-F-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
3,0x7,5	● R14,5	● R14,5	● R14,5	● R14,5	● R14,5	● R14,5
3,0x9,5	● R12,8	● R12,8	—	—	—	—
5,0x9,0	—	● R22,0	—	—	—	—
5,0x11,0	—	● R22,0	—	—	—	—
5,0x15,4	—	● R18,0	—	—	—	—
5,6x13,8	—	● R15,0	—	—	—	—
6,0x12,5	—	● R16,6	—	—	—	—
6,0x13,0	—	● R39,0	—	—	—	—
7,8x15,0	—	● R14,0	—	—	—	—
10,0x20,0	—	● R22,1	● R22,1	● R22,1	● R22,1	● R22,1

The special points MD-P-F-C of other sizes and connections are available upon customer’s request

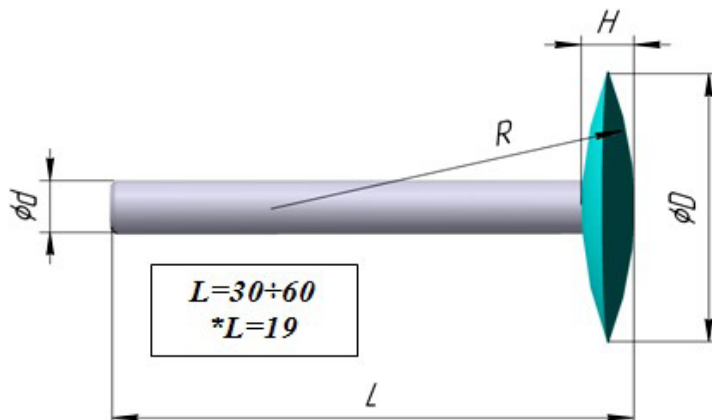
* Any order above 30mm of ØD is considered as special order

Order code: MD-P-F-C ØD_____ x H_____ – Ød_____

LENS DIAMOND PINS

MD-P-L-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD x H mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
2,1x0,7	●	●	—	—	—	—
4,0x1,0	●	●	—	—	—	—
5,0x1,4	●	●	●	—	—	—
6,0x08,7	●	●	●	●	●	●
8,0x2,0	—	●	●	●	●	●
11,2x2,0	—	●	●	●	●	●
30,0x8,0	—	—	—	—	●	●
50,0x12,0	—	—	—	—	●	●

The special points MD-P-L-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

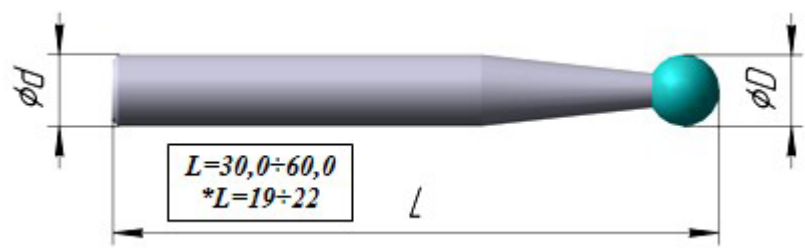
Order code: MD-P-L-C

ØD_____ x H_____ – Ød_____

SPHERE DIAMOND PINS

MD-P-S1-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



ØD mm	Ød, mm					
	Ø1,6*	Ø2,35	Ø3,0	Ø4,0	Ø5,0	Ø6,0
1,4	●	●	—	—	—	—
1,6	●	●	—	—	—	—
1,8	●	●	—	—	—	—
2,0	●	●	—	—	—	—
2,3	●	●	—	—	—	—
2,5	●	●	—	—	—	—
2,9	●	●	●	●	●	●
3,5	●	●	●	●	●	●
5,0	—	●	●	●	●	●
6,0	—	●	●	●	●	●
6,3	—	●	●	●	●	●
7,0	—	—	●	●	●	●
8,0	—	—	●	●	●	●
9,0	—	—	●	●	●	●
9,5	—	—	●	●	●	●
10,0	—	—	●	●	●	●
11,0	—	—	●	●	●	●

The special points MD-P-S1-C of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

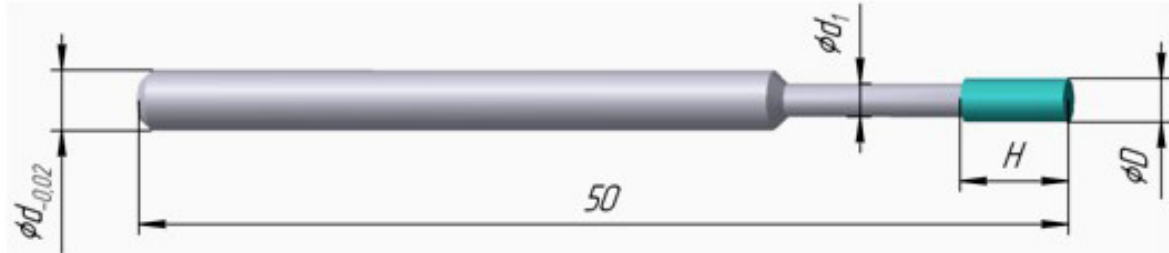
Order code: MD-P-S1-C

ØD_____ – Ød_____

CILINDRICAL BORAZON AND DIAMAND GRINDING PINS

MB-GP-C3-C

*L — length of the whole instrument with shank of Ø1,6 mm diameter



Order code	ØD, mm	H, mm	Ød, mm	Ød ₁ , mm
MB-GP-C3-C	1,0	2,0	3,0	0,8
MB-GP-C3-C	1,25	2,5		1,0
MB-GP-C3-C	1,5	3,0		1,2
MB-GP-C3-C	1,75	3,5		1,4
MB-GP-C3-C	2,0	4,0		1,6
MB-GP-C3-C	2,25	4,5		1,8
MB-GP-C3-C	2,5	5,0		2,0
MB-GP-C3-C	3,0	4,0		2,6
MB-GP-C3-C	3,5	4,5		3,0
MB-GP-C3-C	4,0	5,0		3,0
MB-GP-C3-C	4,5	5,0	4,0	4,0
MB-GP-C3-C	5,0	6,0		4,0
MB-GP-C3-C	5,5	6,0	5,0	5,0
MB-GP-C3-C	6,0	7,0		5,0
MB-GP-C3-C	6,5	8,0	6,0	6,0
MB-GP-C3-C	7,0	8,0		6,0
MB-GP-C3-C	9,0	9,0	8,0	8,0

The special points MB-GP-C3-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Processing industry: The cylindrical borazon pins are intended for cutting operations, orbital processing (processing of internal surfaces of apertures, cleaning and correction) of different steels (like (1.1625) C 80W2, (1.1645) C 105W2) etc.) and hard-alloyed steels (like (1.4125) (1.3355) S 200, (1.3343) S600/S601 etc.) for using at coordinate grinding machines.

RECOMMENDATIONS

Cutting operations: a rotation speed should be varied from 9000 to 250000 rpm (depending on the diameter of the working head) at the cutting speed 10-15 m/s.

Orbital processing: a rotation speed should be varied from 20 to 400 rpm (depending on the diameter of the aperture) at the processing speed from 7 to 15 m/min. The smaller diameter of the working part the less processing speed required.

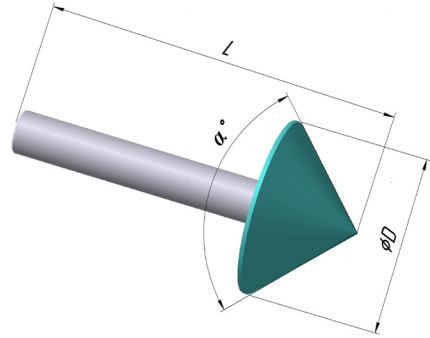
The axial displacement speed of the tool (double motion) is depended on the depth of the processed aperture and varies between 10mm/min up to 1500mm/min.

The radial supply of drilling rate is depended of both the diameter of the processed aperture and the area of the drilling part of the tool which is in average of not more than 5μ for one double motion.

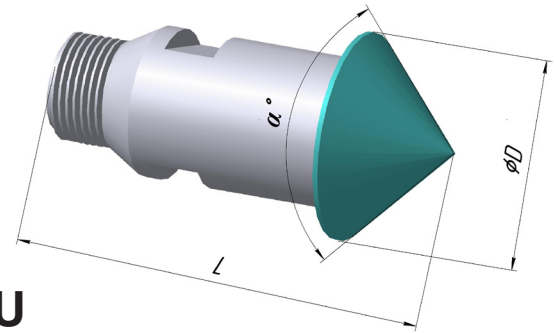
Order code: MB-GP-C3-C ØD_____ x H_____ – Ød_____

CONE DIAMOND COUNTERSINKS

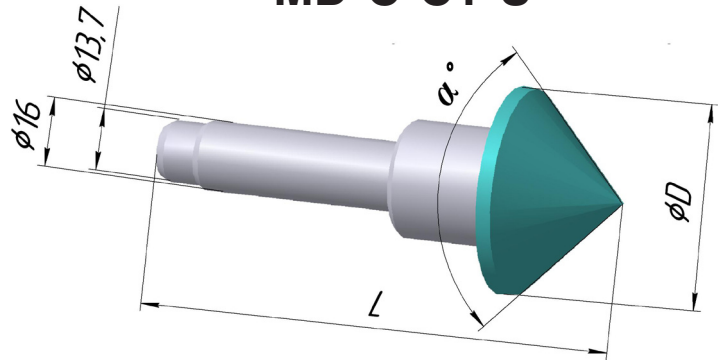
MD-C-C1-C



MD-C-C1-T



MD-C-C1-U



Order code	ØD, mm	α°	L, mm	Ød, mm
MD-C-C1-C	6	90	35	2,35
MD-C-C1-C	12	90	54	6,0
MD-C-C1-C	12	90	60	8,0
MD-C-C1-C	14	90	44	6,0
MD-C-C1-C	14	90	44	10,0
MD-C-C1-C	15	120	52	6,0
MD-C-C1-C	16	90	44	6,0
MD-C-C1-C	40	90	70	6,0
MD-C-C1-U	40	90	115	16,0
MD-C-C1-C	40	90	50	8,0
MD-C-C1-C	40	90	50	12,0
MD-C-C1-T	40	90	71	G1/2-A
MD-C-C1-C	66	110	152	10,0

The special points MD-C-C1 of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries:

Diamond countersinks are intended for shaping facets in apertures of any components and elements from glass of any forms, ceramics, quartz, pyroceramics and different composite materials.

They can be used for special machine unites, CNC unites, universal drilling and milling unites, with cooling of the working zone through special holes as much as external cooling supply.

Order code: MD-C-C1-C

Order code: MD-C-C1-T

Order code: MD-C-C1-U

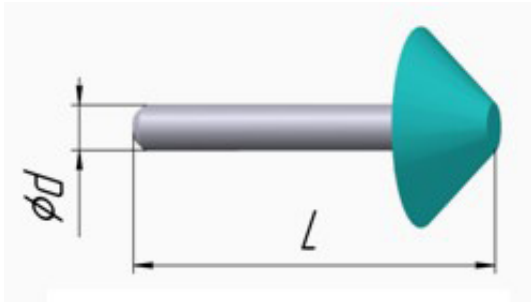
ØD__ α°__ – L__ – Ød__

ØD__ α°__ – L__

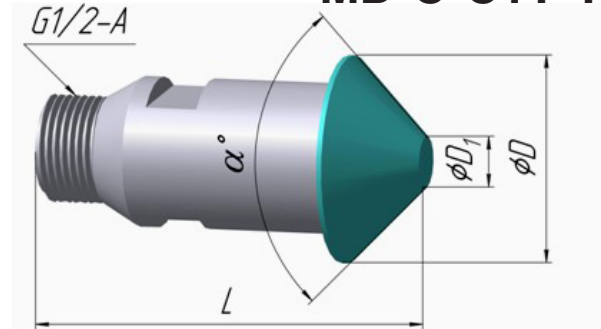
ØD__ α°__ – L__

TRUNCATED CONE DIAMOND COUNTERSINKS

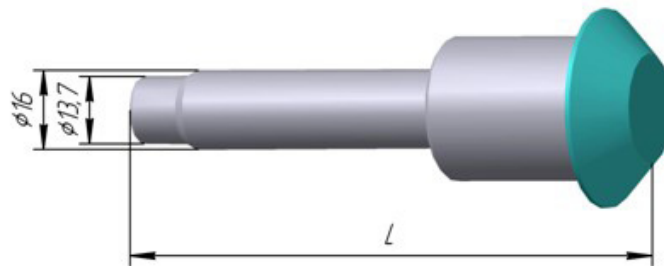
MD-C-C1T-C



MD-C-C1T-T



MD-C-C1T-U



Order code	ØD, mm	ØD ₁ , mm	α°	L, mm	Ød, mm
MD-C-C1T-C	26	10	90	46	6,0
MD-C-C1T-C	26	10	90	44	10,0
MD-C-C1T-T	26	10	90	70	G1/2-A
MD-C-C1T-T	40	10	90	75	G1/2-A
MD-C-C1T-U	40	10	90	116	16,0
MD-C-C1T-T	41	8	90	75	G1/2-A
MD-C-C1T-T	50	20	90	75	G1/2-A
MD-C-C1T-T	70	35	90	75	G1/2-A
MD-C-C1T-U	70	35	90	116	16,0

The special points MD-C-C1T of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries:

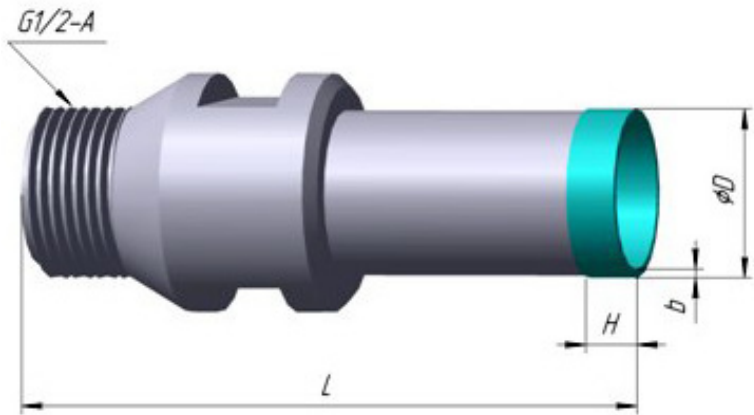
Diamond countersinks are intended for shaping facets in apertures of any components and elements from glass of any forms, ceramics, quartz, pyroceramics and different composite materials.

They can be used for special machine unites, CNC unites, universal drilling and milling unites, with cooling of the working zone through special holes as much as external cooling supply.

Order code: MD-C-C1T-C ØD/ØD₁___ α°___ – L___ – Ød___
 Order code: MD-C-C1T-T ØD/ØD₁___ α°___ – L___
 Order code: MD-C-C1T-U ØD/ØD₁___ α°___ – L___

DIAMOND DRILLING CORE BITS

MD-DB-C2-T



Order code	ØD, mm	b, mm	H, mm	L, mm
MD-DB-C2-T	3,0	0,8	5,0	75,0
MD-DB-C2-T	3,5		4,0	75,0
MD-DB-C2-T	4,0		6,0	75,0
MD-DB-C2-T	4,0			95,0
MD-DB-C2-T	4,5			75,0
MD-DB-C2-T	5,0			95,0
MD-DB-C2-T	5,0			75,0
MD-DB-C2-T	5,6			75,0
MD-DB-C2-T	6,0			75,0
MD-DB-C2-T	6,0			95,0
MD-DB-C2-T	6,5			75,0
MD-DB-C2-T	7,0			75,0
MD-DB-C2-T	8,0			75,0
MD-DB-C2-T	8,0			95,0
MD-DB-C2-T	8,5			75,0
MD-DB-C2-T	9,0			75,0
MD-DB-C2-T	10,0			75,0
MD-DB-C2-T	10,0			95,0
MD-DB-C2-T	10,5			75,0
MD-DB-C2-T	11,0			75,0
MD-DB-C2-T	11,3			75,0
MD-DB-C2-T	11,5			75,0
MD-DB-C2-T	12,0			75,0
MD-DB-C2-T	12,0			95,0
MD-DB-C2-T	12,5			75,0
MD-DB-C2-T	13,0			75,0
MD-DB-C2-T	14,0			75,0
MD-DB-C2-T	14,0			95,0
MD-DB-C2-T	15,0			75,0
MD-DB-C2-T	16,0			75,0

MD-DB-C2-T

Order code	ØD, mm	b, mm	H, mm	L, mm	
MD-DB-C2-T	16,0	0,8	6,0	95,0	
MD-DB-C2-T	16,2			75,0	
MD-DB-C2-T	17,0			75,0	
MD-DB-C2-T	18,0			75,0	
MD-DB-C2-T	18,2			75,0	
MD-DB-C2-T	18,3			75,0	
MD-DB-C2-T	19,0			75,0	
MD-DB-C2-T	20,0			75,0	
MD-DB-C2-T	21,0			75,0	
MD-DB-C2-T	22,0			75,0	
MD-DB-C2-T	23,0			75,0	
MD-DB-C2-T	24,0			75,0	
MD-DB-C2-T	24,5			75,0	
MD-DB-C-T	25,0			75,0	
MD-DB-C2-T	25,0			95,0	
MD-DB-C2-T	25,2			75,0	
MD-DB-C2-T	26,0			75,0	
MD-DB-C2-T	26,0			95,0	
MD-DB-C2-T	26,2			75,0	
MD-DB-C2-T	26,2			95,0	
MD-DB-C2-T	26,4			75,0	
MD-DB-C2-T	27,0			75,0	
MD-DB-C2-T	27,0			95,0	
MD-DB-C2-T	28,0			75,0	
MD-DB-C2-T	28,2			75,0	
MD-DB-C2-T	28,3			75,0	
MD-DB-C2-T	29,0			75,0	
MD-DB-C2-T	30,0			75,0	
MD-DB-C2-T	31,0			1,0	75,0
MD-DB-C2-T	32,0				75,0
MD-DB-C2-T	33,0				75,0
MD-DB-C2-T	34,0				75,0
MD-DB-C2-T	35,0	75,0			
MD-DB-C2-T	36,0	75,0			
MD-DB-C2-T	37,0	75,0			
MD-DB-C2-T	37,2	75,0			
MD-DB-C2-T	38,0	75,0			
MD-DB-C2-T	39,0	75,0			
MD-DB-C2-T	39,2	75,0			
MD-DB-C2-T	40,0	75,0			

MD-DB-C2-T

Order code	ØD, mm	b, mm	H, mm	L, mm
MD-DB-C2-T	41,0			75,0
MD-DB-C2-T	42,0			75,0
MD-Db-C2-T	43,0			75,0
MD-DB-C2-T	44,0			75,0
MD-DB-C2-T	45,0			75,0
MD-DB-C2-T	46,0			75,0
MD-DB-C2-T	47,0	1,0	6,0	75,0
MD-DB-C2-T	48,0			75,0
MD-DB-C2-T	49,0			75,0
MD-DB-C2-T	50,0			75,0
MD-DB-C2-T	50,0			95,0
MD-DB-C2-T	52,0			75,0
MD-DB-C2-T	53,0			75,0
MD-DB-C2-T	55,0			75,0
MD-DB-C2-T	60,0	1,2		75,0
MD-DB-C2-T	62,0			75,0
MD-DB-C2-T	65,0			75,0
MD-DB-C2-T	70,0			75,0
MD-DB-C2-T	70,0			95,0

The special points MD-DB-C2-T of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: The diamond drilling core bits are intended for drilling holes in different non-metallic materials such as glass, ceramics, porcelain, quartz, pyroceramics and different composite materials. Most widely, they are used in treating glass (including automobile glass), glass accessories, mirrors and construction panels.

They can be used with special drilling unites for one-sided or bilateral drilling, CNC unites semiautomatic and automatic. It can be also used with universal milling and drilling devices, equipped with internal pressure lubricoolant supply.

RECOMMENDATIONS

Glass industry: The drilling core bits MD-DB-C2-T without flushing notches is usually used for drilling apertures with internal lubricoolant under pressure and axial machine feeding.

The drilling core bits MD-DB-C2-T with flushing slots for lubricoolant supply into the internal cavity and external is used for drilling apertures with manual or automatic axial feed.

The rotation speed depends on the drilling core diameter (see the Table below). Available diameters: from 6 to 70 mm.

Diameter of the treated aperture, mm	Instrument rotation speed, rpm
4,0 - 6,0	5000 – 3000
6,0 - 15,0	3000 – 2500
15 - 30	2500 - 1500
30 - 45	1500 - 850
45 - 70	850 - 500

MD-DB-C2-T

RECOMMENDATIONS

Recommended feed: 1,0-1,2 mm/sec (the drilling procedure for glass of 5 mm thickness will take from 3 to 6 seconds).

It is required to clean the drilling core using a vulcanite abrasive bars every 80 – 150 apertures.

The resource exploitation of one drilling core is more than 6000 apertures (i.e. 30 meters) at the correct handling.

ADDITIONAL INFO

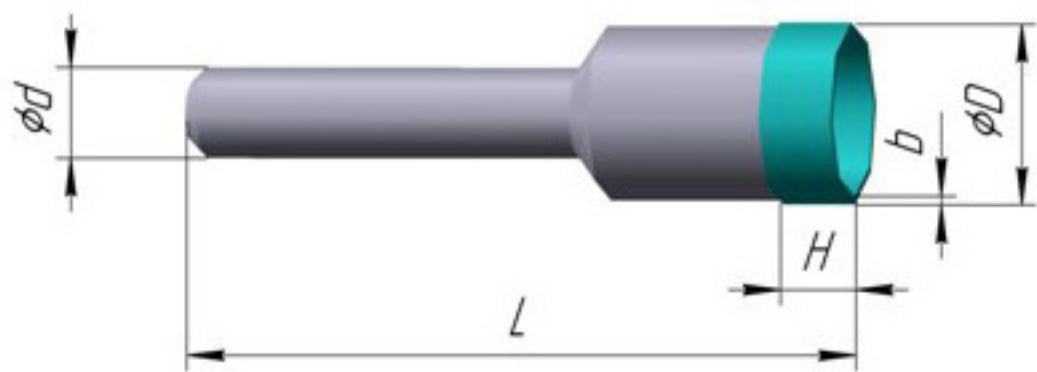
The drilling core bits can be produced with flushing notches of rectangular form having a width of 1.5 mm and depth of 2 mm.

The drilling cores can also be produced according to user needs regarding the length of diamond part (H) between 2÷6 mm

Order code: MD-DB-C2-T ØD____ x b____ – H____ – L____

DIAMOND DRILLING CORE BITS

MD-DB-C2-C



Order code	ØD, mm	b, mm	H, mm	L, mm	Ød
MD-DB-C2-C	3,0	0,7	5,0	46,0	6,0
MD-DB-C2-C	3,2	0,7	5,0	46,0	6,0
MD-DB-C2-C	3,5	0,8	5,0	46,0	6,0
MD-DB-C2-C	4,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	5,0	0,8	6,0	46,0	6,0
MD-DB-C2-C	5,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	5,5	0,9	5,0	60,0	6,0
MD-DB-C2-C	6,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	6,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	6,2	0,8	5,0	46,0	6,0
MD-DB-C2-C	7,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	7,5	0,8	5,0	46,0	6,0
MD-DB-C2-C	8,0	0,8	6,0	46,0	6,0
MD-DB-C2-C	8,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	9,0	0,8	6,0	46,0	6,0
MD-DB-C2-C	9,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	9,5	0,8	5,0	46,0	6,0
MD-DB-C2-C	10,0	0,8	6,0	65,0	6,0
MD-DB-C2-C	10,0	0,7	5,0	46,0	6,0
MD-DB-C2-C	10,5	0,8	5,0	46,0	6,0
MD-DB-C2-C	11,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	12,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	13,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	14,0	0,8	6,0	46,0	6,0
MD-DB-C2-C	15,0	0,8	6,0	46,0	6,0
MD-DB-C2-C	16,0	0,8	5,0	46,0	6,0
MD-DB-C2-C	18,0	1,0	6,0	50,0	6,0
MD-DB-C2-C	26,0	1,0	6,0	44,0	10,0
MD-DB-C2-C	26,0	1,0	6,0	50,0	6,0
MD-DB-C2-C	26,2	1,0	6,0	44,0	6,0

MD-DB-C2-C

Order code	ØD, mm	b, mm	H, mm	L, mm	Ød
MD-DB-C2-C	26,2	0,8	6,0	44,0	8,0
MD-DB-C2-C	27,0	1,0	6,0	44,0	6,0
MD-DB-C2-C	28,0	1,0	6,0	44,0	6,0
MD-DB-C2-C	35,0	1,0	6,0	44,0	8,0
MD-DB-C2-C	35,0	1,0	6,0	50,0	10,0
MD-DB-C2-C	39,0	1,0	6,0	70,0	10,0
MD-DB-C2-C	40,0	1,0	6,0	50,0	10,0
MD-DB-C2-C	50,0	1,0	6,0	50,0	10,0

The special points MD-DB-C2-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: The diamond drilling core bits are intended for drilling holes in different non-metallic materials such as glass, ceramics, porcelain, quartz, pyroceramics and different composite materials. Most widely, they are used in treating glass (including automobile glass), glass accessories, mirrors and construction panels.

They can be used with special drilling unites for one-sided or bilateral drilling, CNC unites semiautomatic and automatic. It can be also used with universal milling and drilling devices, equipped with internal pressure lubricoolant supply.

RECOMMENDATIONS

Glass industry: The drilling core bits MD-DB-C2-C without flushing notches usually used for drilling apertures with internal lubricoolant under pressure and axial machine feeding.

The rotation speed depends on the drilling core diameter (see the Table below). Available diameters: from 6 to 70 mm.

Diameter of the treated aperture, mm	Instrument rotation speed, rpm
4,0 - 6,0	5000 – 3000
6,0 – 15,0	3000 – 2500
15 - 30	2500 - 1500
30 - 45	1500 - 850
45 - 70	850 - 500

Recommended feed: 1,0-1,2 mm/sec (the drilling procedure for glass of 5 mm thickness will take from 3 to 6 seconds).

It is required to clean the drilling core using a vulcanite abrasive bars every 80 – 150 apertures.

The resource exploitation of one drilling core is more than 6000 apertures (i.e. 30 meters) at the correct handling.

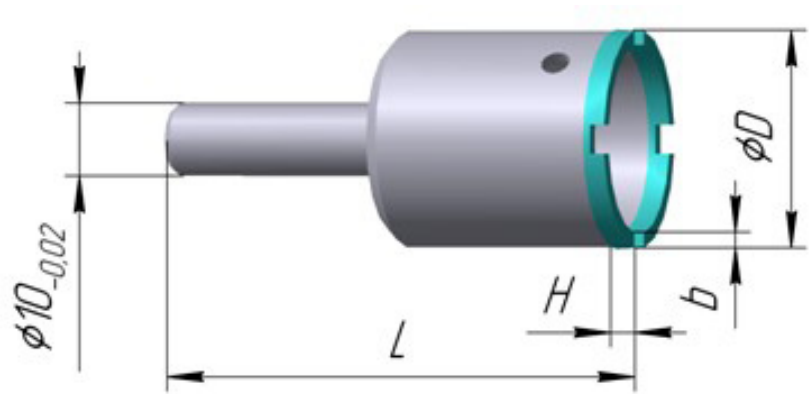
ADDITIONAL INFO

The drilling core bits can also be produced according to user needs regarding the length of diamond part (H) between 1 mm and 10 mm

Order code: MD-DB-C2-C ØD__x b__– H__– L__– Ød__

DIAMOND DRILLING CORE BITS

MD-DB-C2-C



Order code	ØD, mm	b, mm	H, mm	L, mm
MD-DB-C2-C	3,0	1,2	2,5	67,5
MD-DB-C2-C	4,0			
MD-DB-C2-C	5,0			
MD-DB-C2-C	6,0	1,4	3,0	
MD-DB-C2-C	7,0			
MD-DB-C2-C	8,0			
MD-DB-C2-C	9,0			
MD-DB-C2-C	10,0			
MD-DB-C2-C	11,0			
MD-DB-C2-C	12,0			
MD-DB-C2-C	13,0			
MD-DB-C2-C	14,0			
MD-DB-C2-C	15,0			
MD-DB-C2-C	16,0			
MD-DB-C2-C	17,0			
MD-DB-C2-C	18,0			
MD-DB-C2-C	19,0			
MD-DB-C2-C	20,0			
MD-DB-C2-C	21,0			
MD-DB-C2-C	22,0			
MD-DB-C2-C	23,0			
MD-DB-C2-C	24,0			
MD-DB-C2-C	25,0			
MD-DB-C2-C	26,0			
MD-DB-C2-C	27,0			
MD-DB-C2-C	28,0			
MD-DB-C2-C	29,0			
MD-DB-C2-C	30,0			
MD-DB-C2-C	31,0			
MD-DB-C2-C	32,0			

MD-DB-C2-C

Order code	ØD, mm	b, mm	H, mm	L, mm
MD-DB-C2-C	33,0	1,4	2,5	67,5
MD-DB-C2-C	34,0			
MD-DB-C2-C	35,0			
MD-DB-C2-C	36,0			
MD-DB-C2-C	37,0			
MD-DB-C2-C	38,0			
MD-DB-C2-C	39,0			
MD-DB-C2-C	40,0			
MD-DB-C2-C	41,0			
MD-DB-C2-C	42,0			
MD-DB-C2-C	43,0			
MD-DB-C2-C	44,0			
MD-DB-C2-C	45,0			
MD-DB-C2-C	50,0			
MD-DB-C2-C	55,0			
MD-DB-C2-C	60,0			
MD-DB-C2-C	63,0			
MD-DB-C2-C	65,0			
MD-DB-C2-C	68,0			
MD-DB-C2-C	70,0			
MD-DB-C2-C	75,0			

The special points MD-DB-C2-C of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: The core diamond drilling core bits are intended for drilling holes in different non-metallic materials such as glass, ceramics, porcelain, quartz, pyroceramics and different composite materials. Most widely, they are used in treating glass (including auto-mobile glass), glass accessories, mirrors and construction panels.

They should be used with drilling appliances of hand feed.

RECOMMENDATIONS

Glass industry: The drilling core bits MD-DB-C2-C with flushing notches and two holes for core ejection usually used for drilling apertures with external lubricoolant and axial manual feeding.

The rotation speed depends on the drilling core diameter (see the Table below). Available diameters: from 6 to 70 mm.

Diameter of the treated aperture, mm	Instrument rotation speed, rpm
4,0 - 6,0	5000 – 3000
6,0 – 15,0	3000 – 2500
15 - 30	2500 - 1500
30 - 45	1500 - 850
45 - 70	850 - 500

It is required to clean the drilling core using a vulcanite abrasive bars every 80 – 150 apertures.

MD-DB-C2-C

ADDITIONAL INFO

The drilling core bits can be produced with flushing notches of rectangular form having a width of 1.5 mm and depth of 2 mm.
The drilling cores can also be produced according to user needs regarding the length of diamond part (H) between 1 mm and 10 mm

APPLICATION

Stone industry and Construction
Diamond drilling core bits for stone processing works are intended for perforating apertures in different materials: ce-ramogranite, granite, concrete, marble, brick, porcelain, Dutch tile.
They should be used with drilling appliances of hand feed.

RECOMMENDATIONS

Stone industry and Construction
The drilling core bits MD-DB-C2-C having a cylindrical shank with flushing notches and two holes for core ejection usually used for drilling apertures with external lubricoolant and axial manual feeding.
The rotation speed depends on the drilling core diameter (see the Table below). Available diameters: from 6 to 70 mm.

Drilling ceramogranite tile:

Diameter of the treated aperture, mm	Instrument rotation speed, rpm
4,0 - 6,0	5000 – 3000
6,0 – 15,0	3000 – 2500
15 - 30	2500 - 1500
30 - 45	1500 - 850
45 - 70	850 - 500

Water supply is external. The minimum consumption of water for 1 aperture varies from 2 to 10 ml depending on the diameter size.
The drilling procedure in a ceramogranite tile with thickness of 8mm will take from 20 to 30 seconds. The re-source exploitation of one drilling core is more than 300 apertures (i.e. 2.5 meters) at the correct handling.

Drilling ceramic tile:

Rotation speed should be varied from 300 to 3000 rpm depending on diameter size.
Water supply is external. The minimum consumption of water for 1 aperture varies from 2 to 10 ml depending on the diameter size.
The drilling procedure in a ceramic tile with thickness of 8mm will take from 5 to 10 seconds.
The resource exploitation of one drilling core is more than 1000 apertures (i.e. 8 meters) at the correct handling.

Drilling granite with internal water supply

The rotation speed for drilling cores with a diameter of 6–8 mm is about 3000 rpm, for ones of larger diameter it is re-quire reducing the rotation speed.
An internal water supply should be provided with a minimum pressure of 0.6 Atmosphere.
The speed of drilling procedure for making a blind hole with a depth of 40mm in the granite varies between 40 to 50 seconds. The resource exploitation of one drilling core is more than 2000 apertures (i.e. 80 meters) at the correct han-dling.

Drilling granite with external water supply

The rotation speed for drilling cores with a diameter of 6–8 mm is about 3000 rpm.
Produced diameters: between 6 and 10 mm for conventional drill grips, and from 12 to 70 mm for special grips.
An external water supply should be provided.
Use intermittent drilling.
The speed of drilling procedure for making a blind hole with a depth of 40mm in the granite varies between 2 and 3 minutes. The resource exploitation of one drilling core is more than 300 apertures at the correct handling.

MD-DB-C2-C

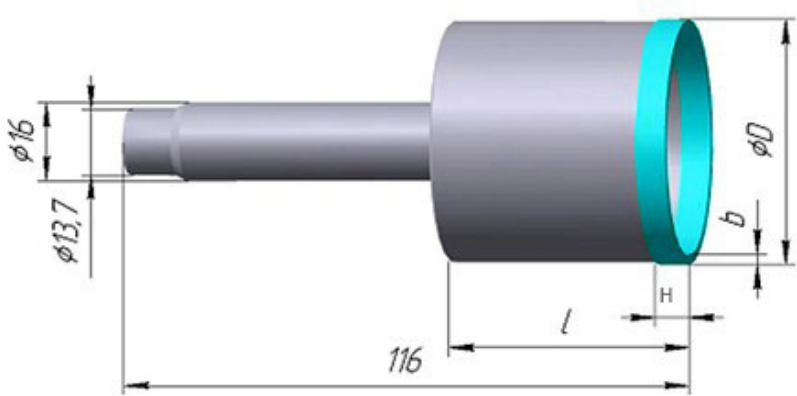
ATTENTION:

- Periodic cleaning of the instrument is required after 80–150 perforations by means of plunging 3–4 times in a vulcanite abrasive disk.
- The perforator should be positioned in a perpendicular position to the surface of the processed material.
- The drilling core can be burnt with lack of cooling (dark slime will appear) and this can lower the speed of drilling. Better to clean the instrument before the appearance of dark slime.
- After each perforation, it is necessary to remove the internal core of the processed material using a rod or pi-vot through the axial opening of the instrument.
- Use a boring stand or an angle stop for qualitative drilling result.

Order code: MD-DB-C2-C ØD__x b____– H____– L____

DIAMOND DRILLING CORE BITS

MD-DB-C2-U



Order code	ØD, mm	b, mm	L, mm	H, mm
MD-DB-C2-U	3,0	0,8	28,0	6,0
MD-DB-C2- U	4,0			
MD-DB-C2-U	5,0			
MD-DB-C2-U	6,0			
MD-DB-C2-U	7,0			
MD-DB-C2-U	8,0			
MD-DB-C2-U	9,0			
MD-DB-C2-U	10,0			
MD-DB-C2-U	11,0			
MD-DB-C2-U	12,0			
MD-DB-C2-U	13,0			
MD-DB-C2-U	14,0			
MD-DB-C2-U	15,0			
MD-DB-C2-U	16,0			
MD-DB-C2-U	17,0			
MD-DB-C2-U	18,0			
MD-DB-C2-U	19,0			
MD-DB-C2-U	20,0			
MD-DB-C2-U	21,0			
MD-DB-C2-U	22,0			
MD-DB-C2-U	23,0			
MD-DB-C2-U	24,0			
MD-DB-C2-U	25,0			
MD-DB-C2-U	26,0			
MD-DB-C2-U	27,0			
MD-DB-C2-U	28,0			
MD-DB-C2-U	29,0			
MD-DB-C2-U	30,0			
MD-DB-C2-U	31,0	1,0		
MD-DB-C2-U	32,0			

MD-DB-C2-U

Order code	ØD, mm	b, mm	L, mm	H, mm
MD-DB-C2-U	33,0	1,0	49,0	6,0
MD-DB-C2-U	34,0			
MD-DB-C2-U	35,0			
MD-DB-C2-U	36,0			
MD-DB-C2-U	37,0			
MD-DB-C2-U	38,0			
MD-DB-C2-U	39,0			
MD-DB-C2-U	40,0			
MD-DB-C2-U	41,0			
MD-DB-C2-U	42,0			
MD-DB-C2-U	43,0			
MD-DB-C2-U	44,0			
MD-DB-C2-U	45,0			
MD-DB-C2-U	46,0			
MD-DB-C2-U	47,0			
MD-DB-C2-U	48,0			
MD-DB-C2-U	49,0			
MD-DB-C2-U	50,0			
MD-DB-C2-U	52,0			
MD-DB-C2-U	53,0			
MD-DB-C2-U	55,0			
MD-DB-C2-U	60,0			
MD-DB-C2-U	65,0			

The special points MD-DB-C2-U of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: The diamond drilling core bits are intended for drilling holes in different non-metallic materials such as glass, ceramics, porcelain, quartz, pyroceramics and different composite materials. Most widely, they are used in treating glass (including automobile glass), glass accessories, mirrors and construction panels.

They can be used with special drilling units for one-sided or bilateral drilling, CNC units semiautomatic and automatic. It can be also used with universal milling and drilling devices, equipped with internal pressure lubricant supply. They should be used with drilling appliances of hand feed.

RECOMMENDATIONS

Glass industry: The drilling core bits MD-DB-C2-U without flushing notches usually used for drilling apertures with internal lubricant under pressure and axial machine feeding.

The rotation speed depends on the drilling core diameter (see the Table below). Available diameters: from 6 to 70 mm.

Diameter of the treated aperture, mm	Instrument rotation speed, rpm
4,0 - 6,0	5000 – 3000
6,0 – 15,0	3000 – 2500
15 - 30	2500 - 1500
30 - 45	1500 - 850
45 - 70	850 - 500

MD-DB-C2-U

RECOMMENDATIONS

Recommended feed: 1,0-1,2 mm/sec (the drilling procedure for glass of 5 mm thickness will take from 3 to 6 seconds).

It is required to clean the drilling core using a vulcanite abrasive bars every 80 – 150 apertures.

The resource exploitation of one drilling core bits is more than 6000 apertures (i.e. 30 meters) at the correct handling.

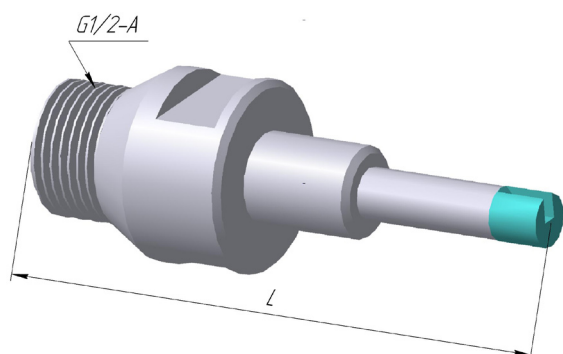
ADDITIONAL INFO

The drilling core bits can also be produced according to user needs regarding the length of diamond part (H) between 1 mm and 10 mm

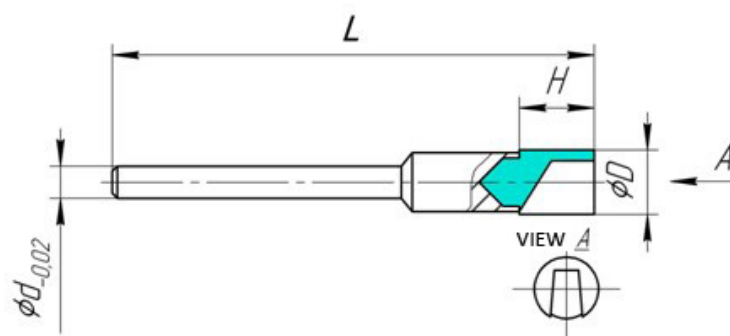
Order code: MD-DB-C2-C ØD__x b__– H__– L__

HORSESHOE DIAMOND DRILLING BITS

MD-DB-H-T



MD-DB-H-C



Order code	ØD, mm	H, mm	L, mm	Ød
MD-DB-H-T	8,0	6,0	75,0	G1/2-A
MD-DB-H-C	1,8	3,0	25,0	1,6
MD-DB-H-C	1,8	6,0		
MD-DB-H-C	2,5	5,0	36,0	2,35
MD-DB-H-C	2,5	4,0	35,0	
MD-DB-H-C	3,0	4,0	35,0	
MD-DB-H-C	3,0	5,0	85,0	
MD-DB-H-C	3,5	5,0	45,0	
MD-DB-H-C	3,5	4,0	35,0	
MD-DB-H-C	4,0	4,0	35,0	
MD-DB-H-C	4,5	4,0	35,0	
MD-DB-H-C	5,0	4,0	35,0	
MD-DB-H-C	3,2	7,0	70,0	3,0
MD-DB-H-C	3,2	7,0	45,0	
MD-DB-H-C	3,4	7,0	45,0	
MD-DB-H-C	3,5	5,0	85,0	
MD-DB-H-C	3,5	7,0	45,0	
MD-DB-H-C	3,6	7,0	45,0	
MD-DB-H-C	3,8	7,0	45,0	
MD-DB-H-C	4,0	5,0	60,0	
MD-DB-H-C	4,0	7,0	70,0	
MD-DB-H-C	4,2	7,0	45,0	
MD-DB-H-C	5,5	7,0	45,0	5,0
MD-DB-H-C	5,0	7,0	45,0	
MD-DB-H-C	5,5	5,0	40,0	6,0
MD-DB-H-C	3,0	7,0	45,0	
MD-DB-H-C	3,4	7,0		
MD-DB-H-C	3,5	7,0		
MD-DB-H-C	3,6	7,0		
MD-DB-H-C	4,5	7,0		

MD-DB-H-C

Order code	ØD, mm	H, mm	L, mm	Ød
MD-DB-H-C	5,0	7,0	45,0	6,0
MD-DB-H-C	6,0	7,0		
MD-DB-H-C	8,0	6,0	60,0	8,0

The special points MD-DB-H of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Horseshoe-shaped diamond drilling bits are intended for perforating apertures of diameter from 1 to 5 mm in various components of glass, quartz, ceramics, ferrites, pyroceramics, semi-precious stones, and other brittle nonmetallic materials. Used with external and internal cooling supply.

The basic fields of application are:

- electronics – switching apertures in passive and active base layers of microcircuits,
- optical crystal resonators generators of optical gyroscopes,
- production of communication means – apertures in structure of fiber–optics joints,
- glass optical industry – processing components and lenses from glass,
- crystal items production and others.

They can be used for special drilling devices or unites semiautomatic and automatic. Manual application is possible.

Order code: MD-DB-H-T

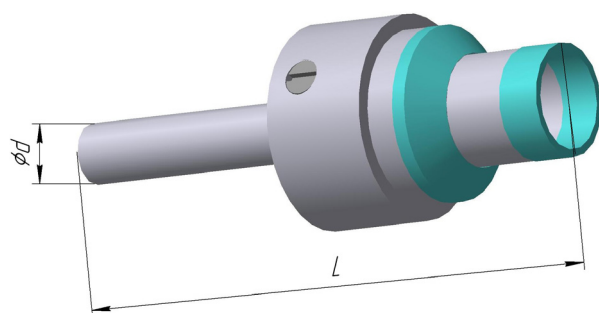
ØD____– H____– L____

Order code: MD-DB-H-C

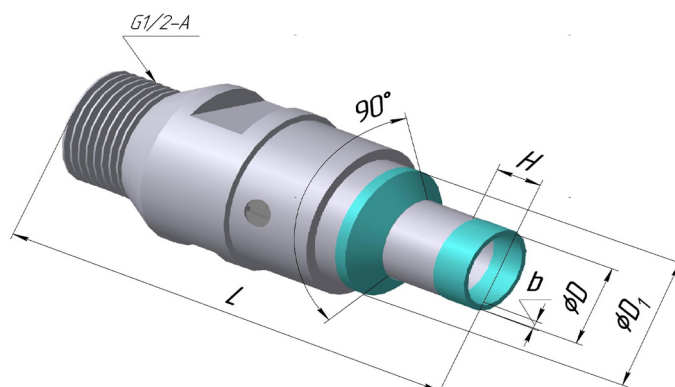
ØD____– H____– L____– Ød____

ADJUSTABLE DIAMOND COUNTERSINK CORE BITS

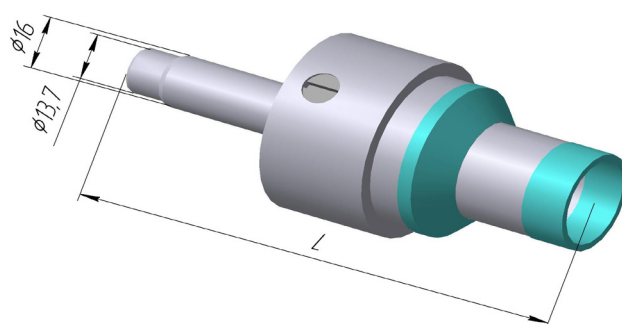
MD-CDB-A1C2-C



MD-CDB-A1C2-T



MD-CDB-A1C2-U



Order code	ØD, mm	ØD ₁ , mm	b	H, mm	L, mm	Ød, mm
MD-CDB-A1C2-T	4,0	11,0	0,8	6,0	75,0	G1/2-A
MD-CDB-A1 C2-T	5,0	11,0	0,8		75,0	
MD-CDB- A1C2-T	5,0	12,0	0,8		93,0	
MD-CDB- A1C2-T	6,0	12,0	0,8		75,0	
MD-CDB- A1C2-T	7,0	13,0	0,8		75,0	
MD-CDB- A1C2-T	7,2	12,0	0,8		75,0	
MD-CDB- A1C2-T	8,0	14,0	0,8		75,0	
MD-CDB- A1C2-T	8,0	15,0	0,8		75,0	
MD-CDB- A1C2-T	10,0	17,0	0,8		75,0	
MD-CDB- A1C2-T	11,0	16,0	0,8		75,0	
MD-CDB- A1C2-T	12,0	19,0	0,9		75,0	
MD-CDB- A1C2-T	12,0	19,0	0,9		93,0	
MD-CDB- A1C2-T	12,0	20,0	0,8		75,0	
MD-CDB- A1C2-T	12,7	19,0	0,8		75,0	
MD-CDB- A1C2-T	14,0	21,0	0,9	6,0	75,0	G1/2-A
MD-CDB- A1C2-T	14,0	21,0	0,9		93,0	
MD-CDB- A1C2-T	15,0	23,0	1,0		75,0	
MD-CDB- A1C2-T	16,0	23,0	0,8		75,0	
MD-CDB- A1C2-T	16,0	26,0	1,0		93,0	
MD-CDB- A1C2-T	16,0	26,0	1,0		75,0	
MD-CDB- A1C2-T	16,0	24,0	0,8		75,0	

MD-CDB-A1C2

Order code	ØD, mm	ØD ₁ , mm	b	H, mm	L, mm	Ød, mm
MD-CDB- A1C2-T	18,0	26,0	1,0	6,0	75,0	G1/2-A
MD-CDB- A1C2-T	18,0	28,0	1,0		93,0	
MD-CDB- A1C2-T	20,0	28,0	0,8		75,0	
MD-CDB- A1C2-T	20,0	30,0	1,0		75,0	
MD-CDB- A1C2-T	20,0	30,0	1,0		93,0	
MD-CDB- A1C2-T	22,0	32,0	1,0		75,0	
MD-CDB- A1C2-T	24,0	34,0	0,8		75,0	
MD-CDB- A1C2-T	25,0	31,0	1,0		75,0	
MD-CDB- A1C2-T	25,0	35,0	1,0		93,0	
MD-CDB- A1C2-T	26,0	32,0	0,8		75,0	
MD-CDB- A1C2-T	26,0	34,0	1,0		75,0	
MD-CDB- A1C2-T	26,0	34,0	1,0		93,0	
MD-CDB- A1C2-T	26,0	36,0	1,0		75,0	
MD-CDB- A1C2-T	26,0	36,0	1,0		93,0	
MD-CDB- A1C2-T	27,0	35,0	1,0		75,0	
MD-CDB- A1C2-T	28,2	36,2	1,0		75,0	
MD-CDB- A1C2-T	35,0	41,0	1,0		75,0	
MD-CDB- A1C2-T	35,5	42,5	0,8		77,0	
MD-CDB- A1C2-T	38,0	44,0	1,0		75,0	
MD-CDB- A1C2-T	42,0	48,0	1,0		75,0	
MD-CDB- A1C2-T	45,2	52,2	1,0		75,0	
MD-CDB- A1C2-T	55,0	55,0	1,0		75,0	
MD-CDB- A1C2-C	6,0	13,0	0,8		75,0	Ø6,0
MD-CDB- A1C2-C	7,0	12,0			60,0	Ø7,0
MD-CDB- A1C2-C	8,0	15,0			75,0	Ø6,0
MD-CDB- A1C2-C	10,0	17,0			60,0	Ø6,0
MD-CDB- A1C2-C	10,0	17,0			75,0	Ø6,0
MD-CDB- A1C2-C	11,0	18,0			75,0	Ø6,0
MD-CDB- A1C2-C	12,0	19,0			75,0	Ø6,0
MD-CDB- A1C2-C	13,0	20,0			75,0	Ø6,0
MD-CDB- A1C2-C	14,0	21,0			75,0	Ø6,0
MD-CDB- A1C2-C	26,0	32,0			60,0	Ø10,0
MD-CDB- A1C2-U	10,0	16,0			116,0	Ø16,0
MD-CDB- A1C2-U	16,0	22,0			116,0	

The special points MD-CDB-A1C2 of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Adjustable drilling counter-sinks core are intended for perforating apertures with subsequent facets shaping in different non-metallic materials: glass, ceramics, porcelain, quartz, pyroceramics and different composite materials. They can be used with special drilling units for one-sided or bilateral drilling, CNC units semiautomatic and automatic. It can be also used with universal milling and drilling devices, equipped with internal pressure lubricant supply.

MD-CDB-A1C2

RECOMMENDATIONS

Glass industry: Countersink core bits are used with an internal pressure cooling supply and lubricating, and an automatic axial feed.

Recommendations for drilling countersinks are similar to any drilling bits and countersinks core recommendations described above in the appropriate divisions.

ADDITIONAL INFO

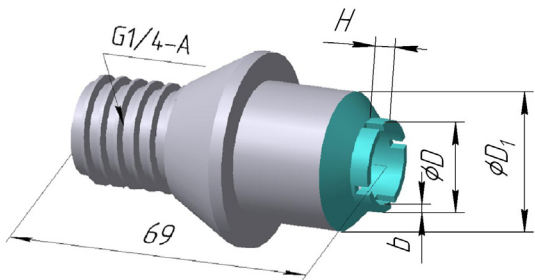
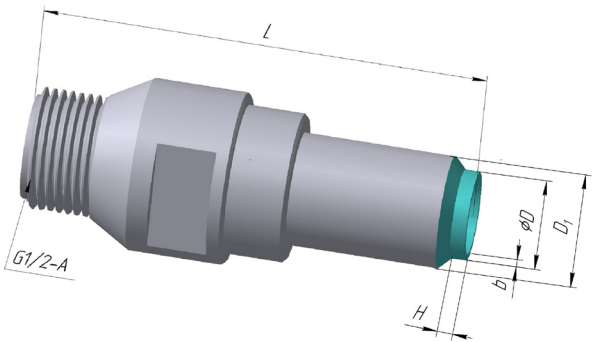
Countersink can be adapted on the drill housing with possibility of space adjustment from the drill end to the countersink end of 10–20 mm. This makes possible to process glass of different thickness using one drilling countersink, and to produce an accurate height adjustment of the countersink taking into account the wear out of the drill.

Order code: MD-CDB-A1C2-C	ØD/ØD ₁ ___/___ – L___ – Ød___
Order code: MD-CDB-A1C2-T	ØD/ØD ₁ ___/___ – L___
Order code: MD-CDB-A1C2-T	ØD/ØD ₁ ___/___ – L___

MONOBLOCK DIAMOND COUNTERSINK CORE BITS

MD-CDB-MC2-T

MD-CDB-MC2-T*



Order code	ØD, mm	ØD ₁ , mm	b	H, mm	L, mm	Ød, mm
MD-CDB-MC2-T	17,2	21,2	0,8	1,5	78,0	G1/2-A
MD-CDB-MC2-T*	10,0	15,0	0,8	2,0	34,5	G1/4-A
MD-CDB-MC2-T*	20,0	25,0	0,8	2,0	34,5	G1/4-A
MD-CDB-MC2-T*	26,0	31,0	0,8	2,0	34,5	G1/4-A

The special points MD-CDB-MC2 of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Monoblock countersink core bits are intended for processing apertures with posterior form flats in different nonmetallic materials: glasses, ceramics, porcelain, quartz, pyroceramics and different composite materials. Frequently they can be used for processing automobile glass. They can be used with special drilling unites for one-sided or bilateral drilling, CNC unites semiautomatic and automatic. It can be also used with universal milling and drilling devices, equipped with internal pressure lubricoolant supply.

RECOMMENDATIONS

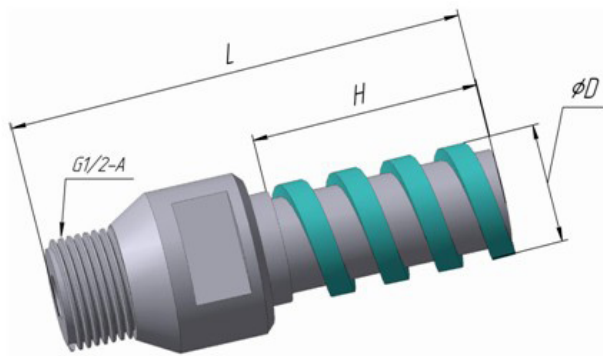
Glass industry: Countersinks drilling core are used with an internal pressure cooling supply and lubricating, and an automatic axial feed. Recommendations for drilling countersinks are similar to any drilling bits and countersinks core recommendations described above in the appropriate divisions.

Order code: MD-CDB-MC2-T
Order code: MD-CDB-MC2-T*

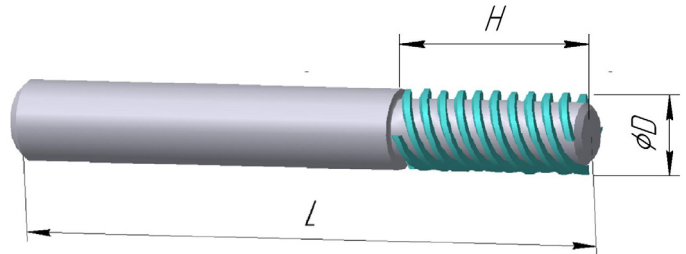
ØD/ØD₁___/___ – H___ – L___
ØD/ØD₁___/___ – H___ – L___

DIAMOND MILLING CUTTERS

MD-MC-S2-T



MD-MC-S2-C



Order code	ØD, mm	H, mm	L, mm	Sort of the working part	Ød, mm
MD-MC-S2-T	20,0	40,0	80,0	Screw trimmer 4-spirals	G1/2-A
MD-MC-S2-T	10,0	20,0	75,0	Screw trimmer 6-spirals	G1/2-A
MD-MC-S2-C	4,0	10,0	54,0	Screw trimmer 4-spirals	Ø6,0
MD-MC-S2-C	8,0	20,0	45,0	Screw trimmer 6-spirals	Ø6,0
MD-MC-S2-C	8,0	20,0	50,0	Screw trimmer 6-spirals	Ø12,0
MD-MC-S2-C	10,0	35,0	95,0	Screw trimmer 6-spirals	Ø6,0

The special points MD-MC-S2 of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Diamond cutters are intended for milling and grinding components of different nonmetallic materials: glass, ceramics, ferrite, different composite materials. They are very effective in finishing procedures.

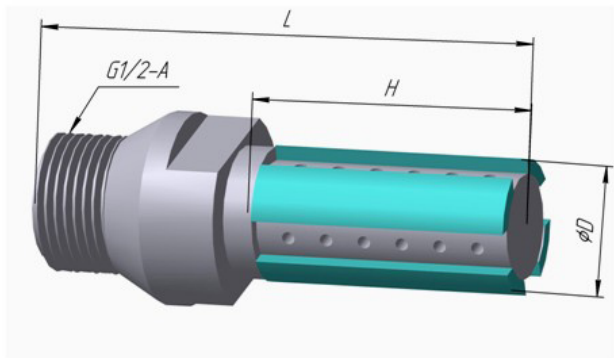
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-MC-S2-T ØD x H _____ – L _____

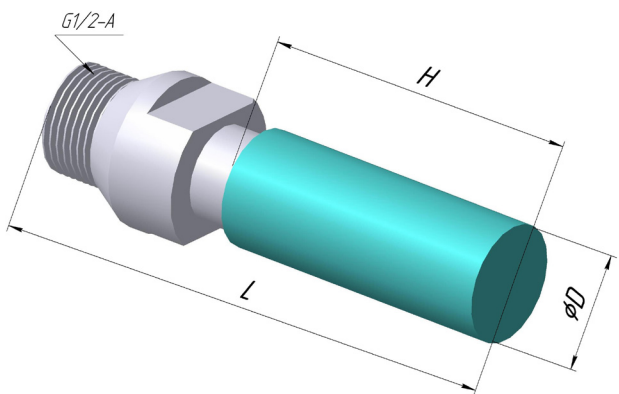
Order code: MD-MC-S2-C ØD x H _____ – L _____ – Ød _____

DIAMOND MILLING CUTTERS

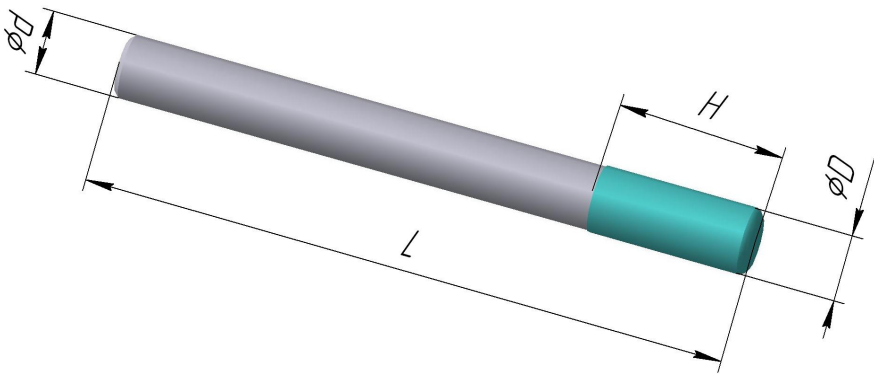
MD-MC-S3-T



MD-MC-C3-T



MD-MC-C3-C



Order code	ØD, mm	H, mm	L, mm	Sort of the working part	Ød, mm
MD-MC-S3-T	20,0	40,0	75,0	Cylindrical-4 grooves	G1/2-A
MD-MC-S3-T	20,0	40,0	75,0	Cylindrical-8 grooves	G1/2-A
MD-MC-C3-T	22,0	55,0	95,0	Cylindrical	G1/2-A
MD-MC-C3-C	6,0	8,0	45,0	Cylindrical	Ø12,0

The special points MD-MC-S3 or MD-MC-C3 of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

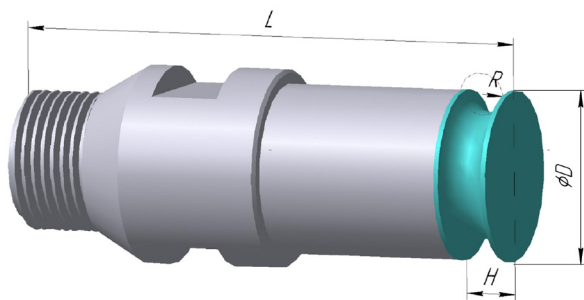
APPLICATION

Glass and processing industries: Diamond cutters are intended for milling and grinding components of different nonmetallic materials: glass, ceramics, ferrite, different composite materials. They are very effective in finishing procedures.
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

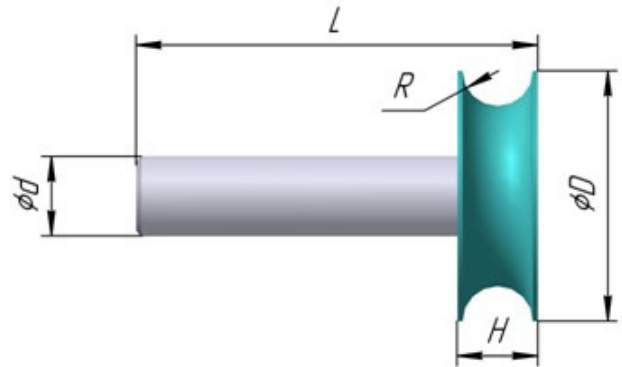
Order code: MD-MC-S3-T ØD x H _____ – L _____
Order code: MD-MC-C3-T ØD x H _____ – L _____
Order code: MD-MC-C3-C ØD x H _____ – L _____ – Ød _____

ROUNDED PROFILE DIAMOND BITS

MD-PB-RI-T



MD-PB-RI-C



Order code	$\varnothing D$, mm	H, mm	R, mm	L, mm	$\varnothing d$, mm
MD-PB-RI-T	21,0	17,6	10,9	110,0	G1/2-A
MD-PB-RI-T	25,0	8,0	3,3	75,0	
MD-PB-RI-T	25,0	11,4	5,0	75,0	
MD-PB-RI-T	50,0	8,0	3,3	75,0	
MD-PB-RI-T	50,0	11,4	5,0	75,0	
MD-PB-RI-C	20,0	10,0	5,67	40,0	$\varnothing 6,0$
MD-PB-RI-C	21,0	14,0	8,75	44,0	
MD-PB-RI-C	25,0	8,0	3,3	40,0	
MD-PB-RI-C	25,0	11,4	5,0	40,0	

The special points MD-PB-RI of other sizes and connections are available upon customer's request

* Any order above 30mm of $\varnothing D$ is considered as special order

APPLICATION

Glass and processing industries: The profile diamond bits are intended for treating glass edges with bevel, facets, flats, and radial. They are used for inter-nal and external shaping, concave and convex surfaces with curvi-linear generatrix with methods of profile, coordinate, cylindrical, centerless grinding components of glass, quartz, ceramics, pyroceramics, ferrite, semi-precious stones, granite and marble.

Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-PB-RI-T

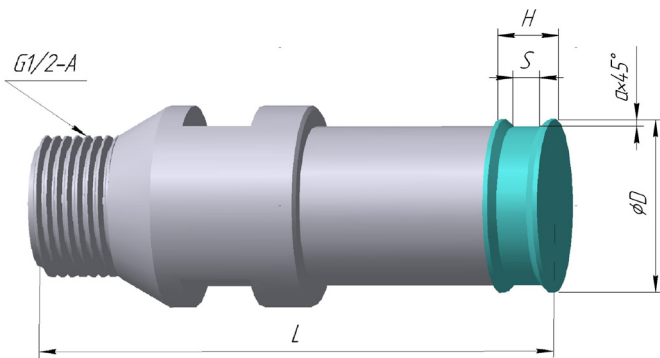
$\varnothing D \times H$ __- R __- L __

Order code: MD-PB-RI-C

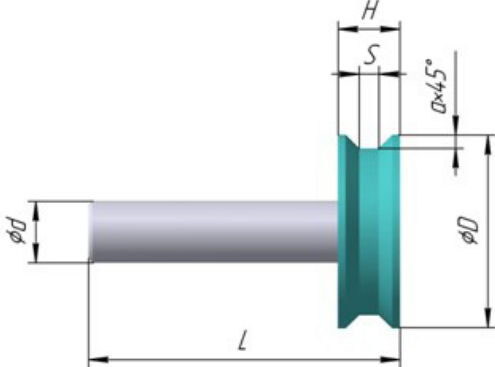
$\varnothing D \times H$ __- R __- L __- $\varnothing d$ __

TRAPEZOIDAL PROFILE DIAMOND BITS

MD-PB-T-T



MD-PB-T-C



Order code	ØD, mm	H, mm	S, mm	L, mm	a, mm	Ød, mm
MD-PB-T-T	14,0	26,0	20,0	85,0	2,0	G1/2-A
MD-PB-T-T	22,0	16,0	2,0	75,0	5,5	
MD-PB-T-T	24,0	13,6	3,6	80,0	2,0	
MD-PB-T-T	24,0	15,5	5,5	75,0	2,0	
MD-PB-T-T	24,0	17,0	7,0	75,0	2,0	
MD-PB-T-T	25,0	26,6	15,6	80,0	2,5	
MD-PB-T-T	25,0	8,0	2,5	75,0	1,75	
MD-PB-T-T	25,0	9,0	3,5	75,0	1,75	
MD-PB-T-T	25,0	10,0	4,5	75,0	1,75	
MD-PB-T-T	25,0	12,0	6,5	75,0	1,75	
MD-PB-T-T	25,0	14,0	8,5	75,0	1,75	
MD-PB-T-T	44,0	26,0	20,0	85,0	2,0	
MD-PB-T-C	15,0	8,0	2,5	44,0	1,75	Ø6,0
MD-PB-T-C	15,0	10,0	4,5	44,0	1,75	Ø8,0
MD-PB-T-C	25,0	8,0	2,5	40,0	1,75	

The special points MD-PB-T of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: The profile diamond bits are intended for treating glass edges with bevel, facets, flats, and radial. They are used for inter-nal and external shaping, concave and convex surfaces with curvi-linear generatrix with methods of profile, coordinate, cylindrical, centerless grinding components of glass, quartz, ceramics, pyroceramics, ferrite, semi-precious stones, granite and marble.
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-PB-T-T

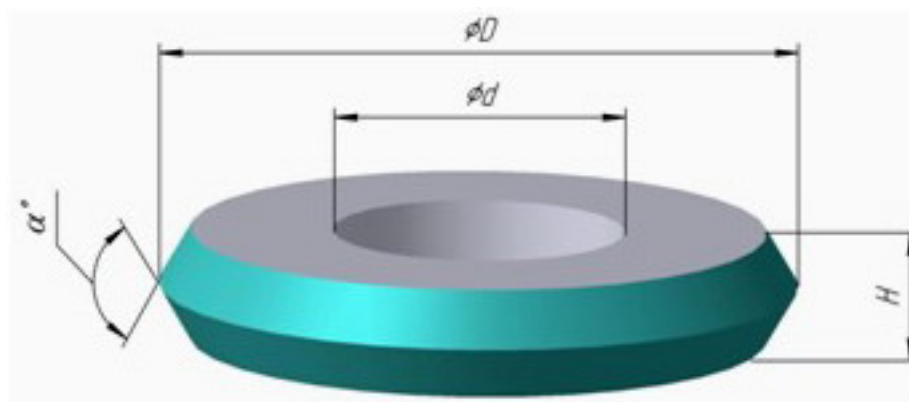
Order code: MD-PB-T-C

ØD x H__ – S__ – L__

ØD x H__ – S__ – L__ – Ød__

ANGULAR PROFILE DIAMOND WHEELS

MD-W-A2E



Order code	ØD, mm	H, mm	α°	Ød, mm
MD-W-A2E	40,0	2,0	60	14,0
MD-W-A2E	50,0	3,0	30	20,0
MD-W-A2E	50,0	3,0	45	20,0
MD-W-A2E	50,0	3,0	60	20,0
MD-W-A2E	50,0	3,0	75	20,0
MD-W-A2E	50,0	3,0	90	20,0
MD-W-A2E	50,0	10,0	90	20,0
MD-W-A2E	65,0	10,0	90	20,0
MD-W-A2E	70,0	12,0	120	32,0

The special points MD-W-A2E of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Profile diamond wheels are intended for treating glass of all forms, ceramics, quartz, composite materials. They are used for shaping edges of glassware, processing optical frame lenses, elements of glass panels, and semiconductor sheets.

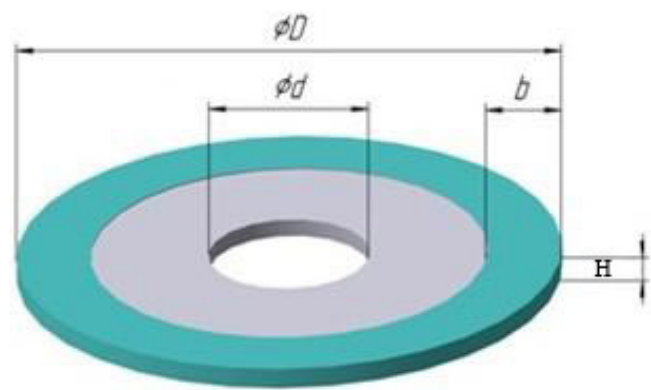
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-W-A2E

ØD x H ____ α° ____ – Ød ____

DIAMOND DISCS

MD-W-D



Order code	ØD, mm	H, mm	b, mm	Ød, mm
MD-W-D	8,0	1,0	3,0	2,5
MD-W-D	12,0	1,0	3,0	4,5
MD-W-D	16,0	1,0	3,0	6,5
MD-W-D	25,0	0,5	10,0	7,5
MD-W-D	40,0	0,8	10,0	10,0
MD-W-D	40,0	1,0	10,0	15,0
MD-W-D	50,0	1,0	10,0	20,0
MD-W-D	70,0	1,0	15,0	13,0
MD-W-D	74,0	2,0	32,0	9,0
MD-W-D	80,0	1,0	15,0	8,0
MD-W-D	80,0	1,2	15,0	8,0

The special points MD-W-D of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

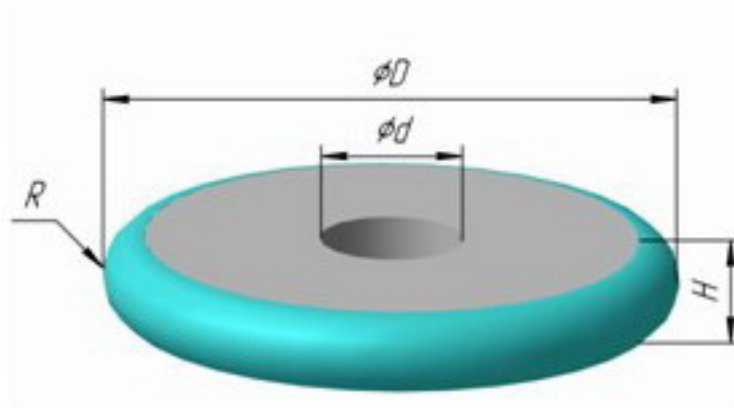
APPLICATION

Glass and processing industries: Diamond discs are intended for cutting, grooving, and carving details or components from glass, also glass cutting, crystals, ceramics, quartz, ferrites, pyroceramics, semi-precious stones, and other brittle nonmetallic materials.
Cutting disks can be used on special carving disk unites and also fit out with manual grinding machines.

Order code: MD-W-D ØD x H____– b____– Ød____

ROUNDED PROFILE DIAMOND WHEELS

MD-W-RE



Order code	ØD, mm	H, mm	R, mm	Ød, mm
MD-W-RE	30,0	3,0	1,5	12,0
MD-W-RE	50,0	3,0	1,5	20,0
MD-W-RE	50,0	4,0	2,0	20,0
MD-W-RE	50,0	5,0	2,5	20,0
MD-W-RE	50,0	6,0	3,0	20,0
MD-W-RE	50,0	7,0	3,5	20,0

The special points MD-W-RE of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Profile diamond wheels are intended for treating glass of all forms, ceramics, quartz, composite materials. They are used for shaping edges of glassware, processing optical frame lenses, elements of glass panels, and semiconductor sheets.

Recommended to be used with CNC unites, machines of CB type, special and manual tools.

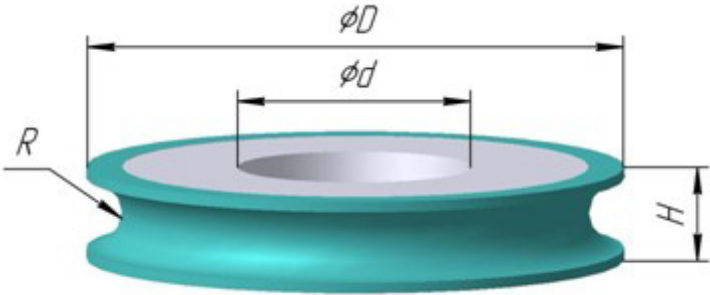
Special

Order code: MD-W-RE

ØD x H____– R____– Ød____

ROUNDED PROFILE DIAMOND WHEELS

MD-W-RI



Order code	ØD, mm	H, mm	R, mm	Ød, mm
MD-W-RE	40,0	14,0	5,0	22,0
MD-W-RE	50,0	8,6	3,3	22,0
MD-W-RE	50,0	12,0	5,0	22,0
MD-W-RE	70,0	8,0	3,3	32,0

The special points MD-W-RI of other sizes and connections are available upon customer’s request

* Any order above 30mm of ØD is considered as special order

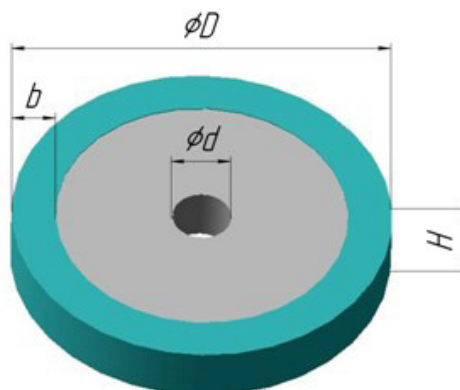
APPLICATION

Glass and processing industries: Profile diamond wheels are intended for treating glass of all forms, ceramics, quartz, composite materials. They are used for shaping edges of glassware, processing optical frame lenses, elements of glass panels, and semiconductor sheets.
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-W-RI ØD x H____– R____– Ød____

STRAIGHT DIAMOND WHEELS

MD-W-S3



Order code	ϕD , mm	H, mm	b, mm	ϕd , mm
MD-W-S3	13,0	10,0	2,0	4,0
MD-W-S3	15,0	5,0	2,0	5,0
MD-W-S3	16,0	5,0	2,0	6,0
MD-W-S3	16,0	16,0	2,0	6,0
MD-W-S3	20,0	10,0	1,5	7,0
MD-W-S3	20,0	5,0	2,0	10,0
MD-W-S3	20,0	20,0	2,0	6,0
MD-W-S3	20,0	25,0	1,5	6,0
MD-W-S3	25,0	5,0	2,0	6,0
MD-W-S3	25,0	15,0	2,0	10,0
MD-W-S3	30,0	30,0	3,0	16,0
MD-W-S3	30,0	30,0	2,0	10,0
MD-W-S3	30,0	5,0	2,0	20,0
MD-W-S3	32,0	4,0	3,5	10,0
MD-W-S3	35,0	3,5	2,0	6,0
MD-W-S3	35,0	4,0	2,0	10,0
MD-W-S3	40,0	5,0	3,0	16,0
MD-W-S3	40,0	5,0	2,0	20,0
MD-W-S3	41,7	10,0	2,0	14,0
MD-W-S3	50,0	50,0	4,0	16,0
MD-W-S3	60,0	6,0	2,0	32,0

The special points MD-W-S of other sizes and connections are available upon customer's request

* Any order above 30mm of ϕD is considered as special order

APPLICATION

Glass and processing industries: Profile diamond wheels are intended for treating glass of all forms, ceramics, quartz, composite materials. They are used for shaping edges of glassware, processing optical frame lenses, elements of glass panels, and semiconductor sheets.

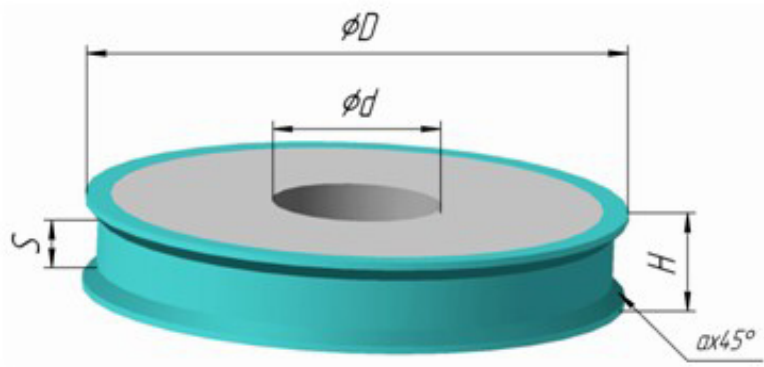
Recommended to be used with CNC units, machines of CB type, special and manual tools.

Order code: MD-W-S

$\phi D \times H$ ____– b ____– ϕd ____

TRAPEZOIDAL PROFILE DIAMOND WHEELS

MD-W-T



Order code	ØD, mm	H, mm	S, mm	a, mm	Ød, mm
MD-W-T	25,0	15,5	6,5	2,0	11,8
MD-W-T	50,0	8,0	2,5	1,75	32,0
MD-W-T	50,0	9,0	3,5		32,0
MD-W-T	50,0	10,0	4,5		32,0
MD-W-T	50,0	12,0	6,5		32,0
MD-W-T	50,0	14,0	8,5		32,0
MD-W-T	60,0	8,0	2,5		32,0
MD-W-T	70,0	12,0	6,5		22,0
MD-W-T	70,0	16,0	10,5		22,0

The special points MD-W-T of other sizes and connections are available upon customer's request

* Any order above 30mm of ØD is considered as special order

APPLICATION

Glass and processing industries: Profile diamond wheels are intended for treating glass of all forms, ceramics, quartz, composite materials. They are used for shaping edges of glassware, processing optical frame lenses, elements of glass panels, and semiconductor sheets.
Recommended to be used with CNC unites, machines of CB type, special and manual tools.

Order code: MD-W-T ØD x H____– S____– Ød____

