



自贡硬质合金有限责任公司
ZIGONG CEMENTED CARBIDE CORP CO.,LTD.



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ZIGONG CEMENTED CARBIDE CORP CO.,LTD.

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ROAD MILLING AND PLANING TOOL SYSTEM

PAVEMENT MAINTAINING WORK
(MILLING, PLANING, REGENERATING ,ROAD MIXING)





Catalog

Road Milling and tools of “Chang Cheng” Brand



The road milling and tools produced by Zigong Cemented Carbide Corp., Ltd. are widely used for road milling, , pavement regenerating and ditching etc. The products are made of high quality materials, manufactured with the advanced technological process according to the high standard. We'll provide you with the more tenacious tools.

We pay extreme attention to the whole manufacturing process in order to meet fully the needs of our customers. The cemented carbide is produced with the updated technological process in order to give fully consideration to the requirements of both the optimal strength and brazing property. The special brazing and heat treating process ensures the binding strength of the cemented carbide and steel body as well as the hardness of the steel body so that a more excellent utilization performance can be achieved.

Road Milling and Tools

Catalog

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WELL-KNOWN TRADEMARK

QUALITY ACCOMPLISHES THE FUTURE

A core member of China Minmetals Group which is one the world 500 top companies.

The first home-designed and built large scale cemented carbide manufacturing enterprise in China.

One of the leading manufacturers of cemented carbides and related tools as well as other tungsten and molybdenum products in China.

A reliable supplier of the hard-facing materials with advanced world levels and their application services.

Cemented Carbide of “Chang Cheng” Brand



Zigong Cemented Carbide Corp. Ltd, is the first home designed and built large scale cemented carbide manufacturer in China. We are also one of the leading suppliers of the cemented carbide and its completed tools. Our products are widely used in different fields of the machinery, metallurgy, petroleum, mine, construction, electronics, aviation and space and road pavement engineering etc.

ZGCC is rich of technicians and pays attention especially to the technical and managing creation. We have a research and development work-station of after doctorate and a provincial rank technical center which belongs to the high tech enterprises of Sichuan province. In the recent years, using both the technical center and science and research work-station of after doctorate as a platform. ZGCC makes a good cooperation with over 10 home and abroad universities and science and technical research institutes, including Middle-South University, Scientific and Engineering University ,Wuhan Science and Engineering University, Haerbin Science and Engineering University ,Chongqing University, Sichuan University ,Kunming Science and Engineering University ,and Utah University in USA etc. with respect to the certain projects of the scientific and technical research as well as the training of the technicians, and through which a marked success has been and will have been obtained, thus pushing on the technical progress of the company greatly. Up to now, we have already applied for over 70 patents and acquired more than 40 scientific and technical achievements.

ZGCC is now also supplying and selling various kinds of road milling and planing tools. As everyone knows, a large amount of heat will occur during the cutting of various kinds of rocks, asphalts or cements., and the tools work in extremely adverse circumstance including high temperature over 1000°C , severe impact, wear and heat fatigue, so that the cemented carbide to be used must have a high hardness and fracture toughness .

A newly developed cemented carbide for mining tools is produced through a special manufacturing process, with a ultra-coarse grain size and the thickness of the cobalt binder-layer may reach some micrometers, that enables to improve the structure, heat propagation and resistance of fatigue crack. Through a large number of the site-test ,this grade of carbide shows higher fracture toughness and wear resistance and going to be widely used for “ Chang Cheng” road milling and planing tools, so that an obvious increase of the efficiency and working life of the tools has been achieved.



IS09001:
CN-CCC08Q10970
ISO14001:
CN-CCC09E22096



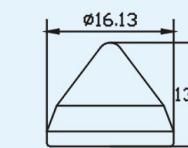
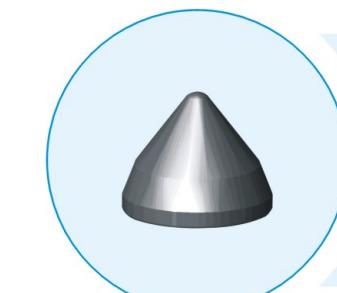
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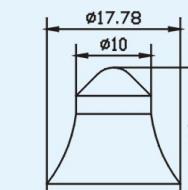
体系认证
CNAS C001-Q

Selection Guide of Carbide bits

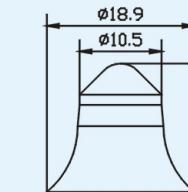
► Buttons with flat bottom



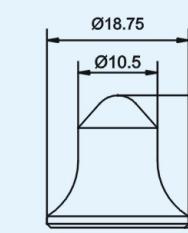
Equipment:
Suitable for the middle and small type of equipments
Road Pavement Condition:
Asphalt
Product's Features:
Optimal impact and shear resistance



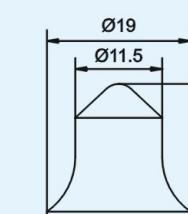
Equipment:
Suitable for all type of equipments
Road Pavement Condition:
Asphalt and cement pavement
Product's Features:
Maximal penetrating force, the design of the large round angle of the lower section enables clearly to improve the breaking resistance



Equipment:
Suitable for middle and large type of equipments
Road Pavement Condition:
Asphalt and cement pavement
Product's Features:
Extremely optimal penetrating force, and lasting high speed cutting ability



Equipment:
Suitable for large type of equipments
Road Pavement Condition:
Asphalt pavement
Product's Features:
Extremely optimal impact resistance

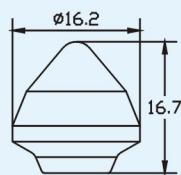
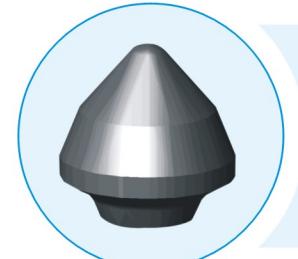


Equipment:
Suitable for large type of equipments
Road Pavement Condition:
Asphalt pavement
Product's Features:
High effective cutting under the working condition of high abrasion

Selection Guide of Carbide bits

► Cap-form button

Valve socket-wise connection for enhancing the strength and shear resistance



Equipment:

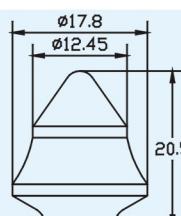
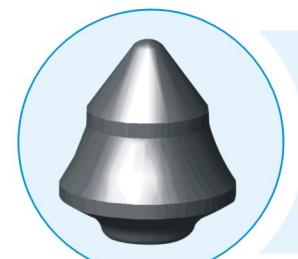
Suitable for all kinds of road pavement regenerating, milling and equipments

Road pavement condition:

Applicable under different working condition

Product's Features:

The penetrating effect is not the most important factor. The carbide tip gives the bit-steel body a good protection under different working conditions, the valve socket-wise connection makes an increase of the shear resistance clearly.



Equipment:

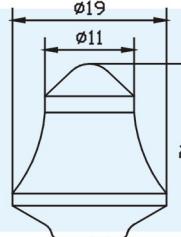
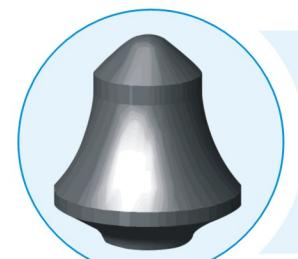
Suitable for middle and large type of equipments

Road pavement condition:

Asphalt and cement pavement

Product's Features:

Valve socket-wise connection makes an increase of the shear resistance clearly.



Equipment:

Suitable for middle and large type of equipments

Road pavement condition:

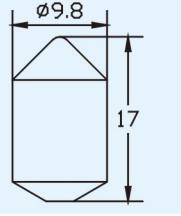
Asphalt and cement pavement

Product's Features:

Valve socket-wise connection makes an increase of the shear resistance clearly. The designed big size is applicable under the working condition of a extreme abrasion.

► Column-form button

Buttons for cement pavement coarse-making



Equipment:

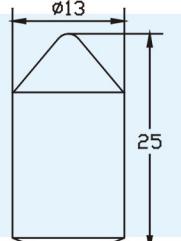
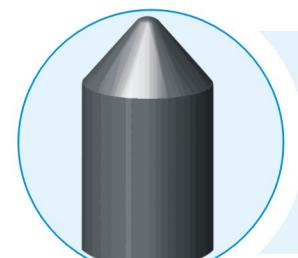
Suitable for middle and small type of equipments

Road pavement condition:

Cement pavement

Product's Features:

This type of buttons has a good shear resistance



Equipment:

Suitable for middle and large type of equipment

Road pavement condition:

Cement pavement

Product's Features:

The designed big size is applicable under the working condition of a extreme abrasion.



Influential factors on the road milling and work



I Air temperature

The temperature of the outer environment will make an influence on the milling and planing work of a asphalt road pavement. Especially the capability of the milling and planing machine and tools will be taken down up to 40%. The wear of both the carbide button and steel body of tools will occur simultaneously.

II Equipment's factors of the milling and planing machine

The following factors will cause reducing the effect of the milling and planing machine and tools, and result to a greater wear of the tools.

- The heavy wear of the transport chain plate.
- The speed of the transport chain plate is too low.
- The dip angle of the transport chain plate is too large.
- The heavy wear of the milling and planing drum.
- The heavy wear of the collecting plate and the side guard of the milling and planing drum.
- The heavy wear of the bit socket of the milling and planing tools.
- The water spray tube is stopped and the cooling effect is bad.

III Working condition

■ **Features of the pavement material:** The wear character depends on the lump size and the silicide content of material.

- Shallow milling and planing: The wear of cemented carbide is normally very high.
- Deep milling and planing: Milling and planing is normally easier, but the wear of tool's steel body is very high.

■ Asphalt concrete pavement: The wear of cemented carbide is very high, at the same time, a button break of bit may occur resulting from a vertical load.

■ Condition of contacting stress: Contacting stress is very high, and the especial compact pavement and clear wheel tracks have influence on the milling and planing effectiveness.

■ Concrete pavement : All of the types and dimensions of equipments and the lump size and the strength of material have influence on selection of types of bit's buttons.

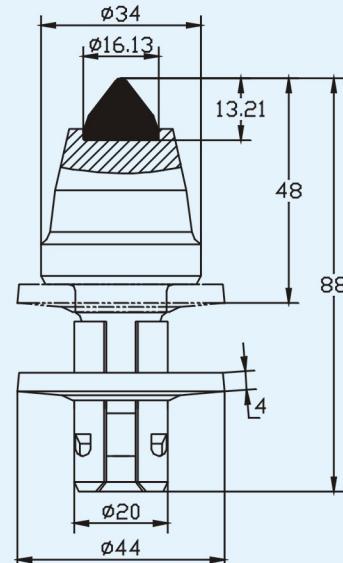
Selection Guide of Road Milling and Planing



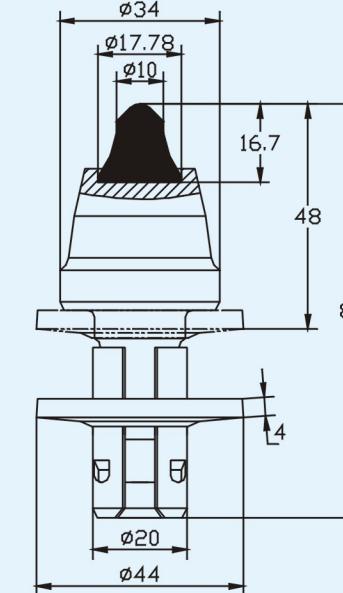
Type	Head diameter (mm)	Groove	Recommendation of application			Pieces in a box	
			Asphalt pavement		Cement pavement		
			< 1000mm	> 1000 mm			
HUB-01	34		●			50	
HUB-01C	33.5	●	●	●		50	
HUB-02	34		●	●		50	
HUB-02C	33.5	●	●	●		50	
HUB-03	34			●		50	
HUB-03C	33.5	●		●		50	
HUB-04	34			●		50	
HUB-04C	33.5	●				50	
HUB-05	34					50	
HUB-05C	33.5	●				50	
HUB-06	34		●			50	
HUB-06C	33.5	●	●	●		50	
HUZ-01	40		●	●		50	
HUZ-01C	40	●	●	●		50	
HUZ-02	40			●		50	
HUZ-02C	40	●		●		50	
HUZ-03	40			●		50	
HUZ-03C	40	●		●		50	
HUZ-04	40			●		50	
HUZ-04C	40	●				50	
HUZ-05	40					50	
HUZ-05C	40	●				50	
HUS-01	35				●	50	
HUS-02	35				●	50	

HUB series

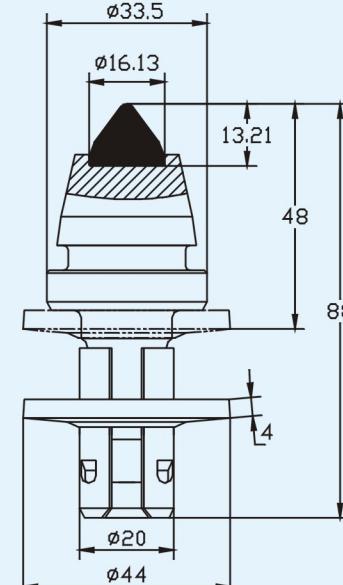
HUB-01



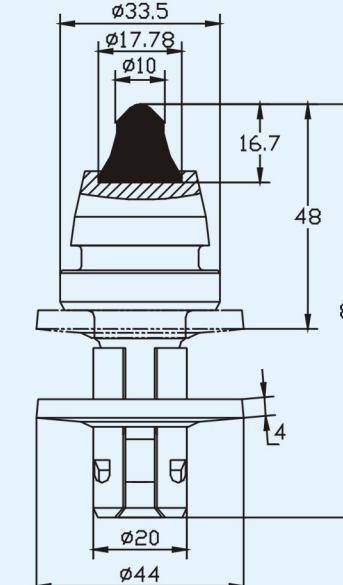
HUB-02



HUB-01C



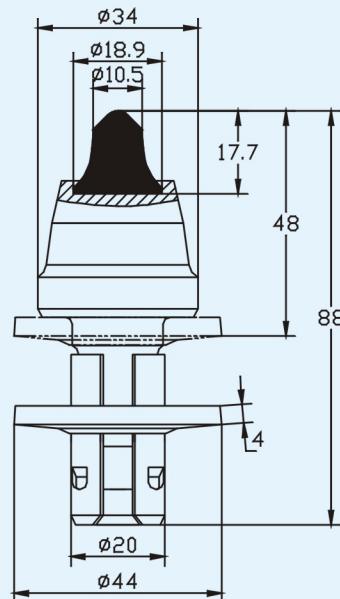
HUB-02C



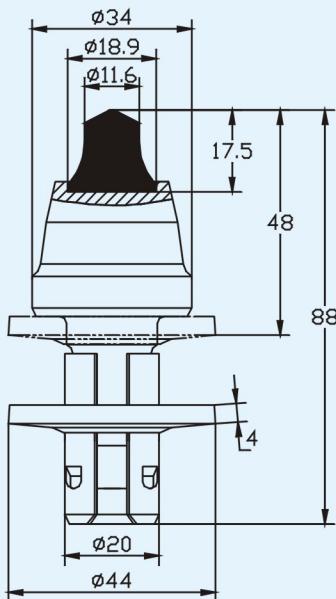
HUB series



HUB-03

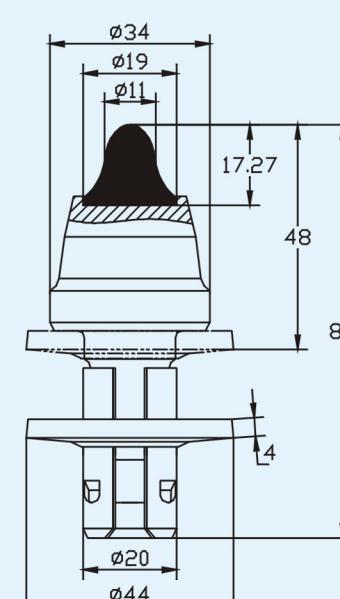


HUB-04

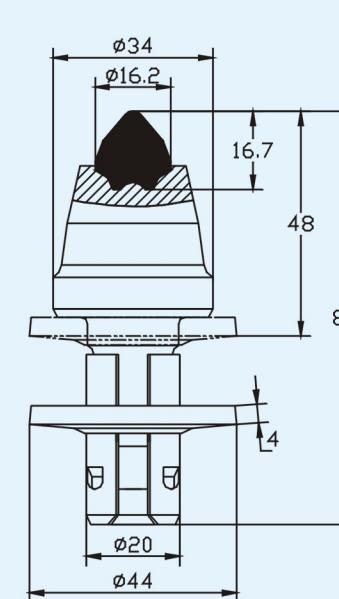


HUB series

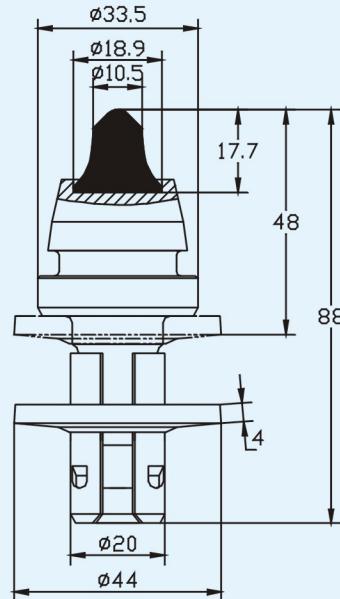
HUB-05



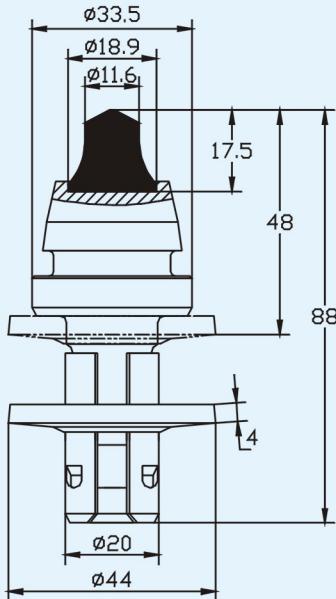
HUB-06



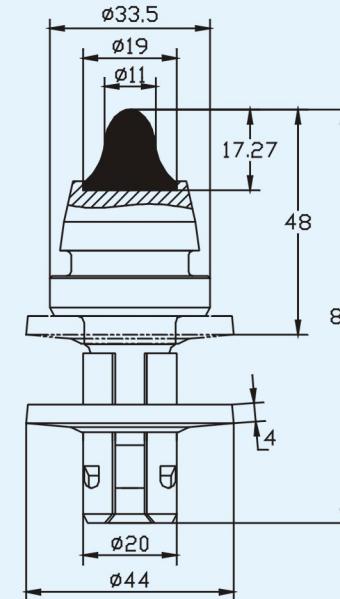
HUB-03C



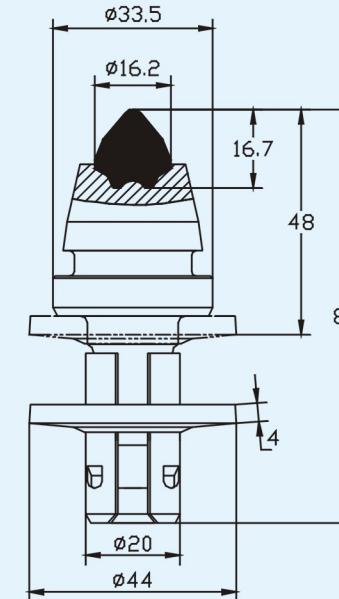
HUB-04C



HUB-05C



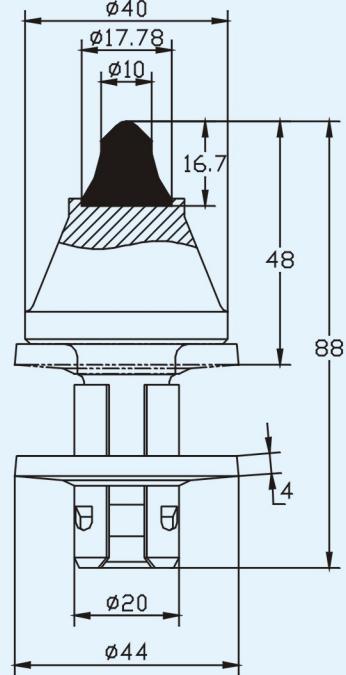
HUB-06C



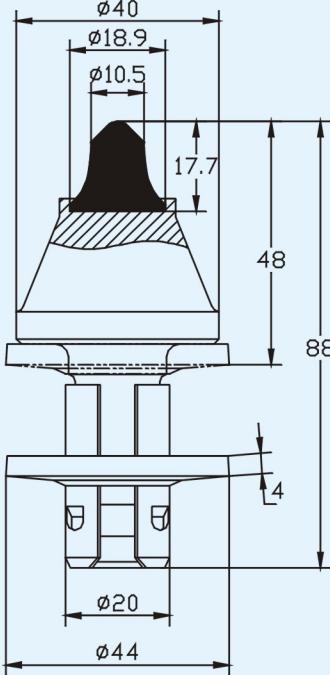
HUZ series



HUZ-01

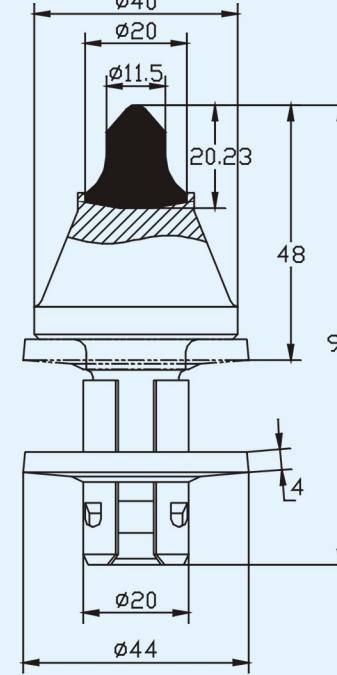


HUZ-02

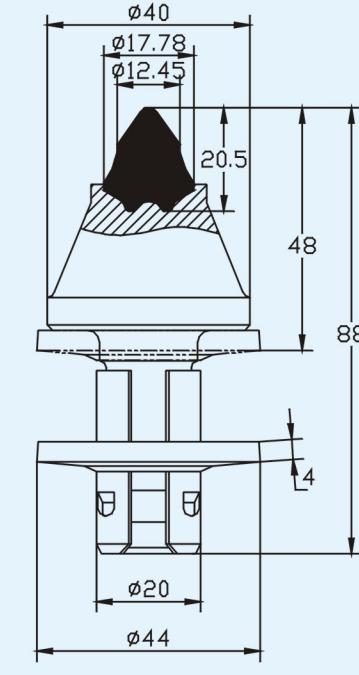


HUZ series

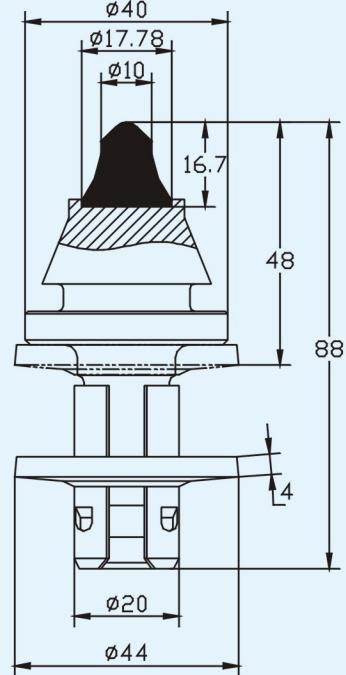
HUZ-03



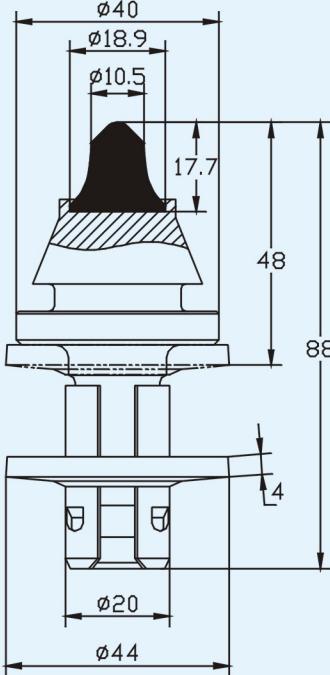
HUZ-04



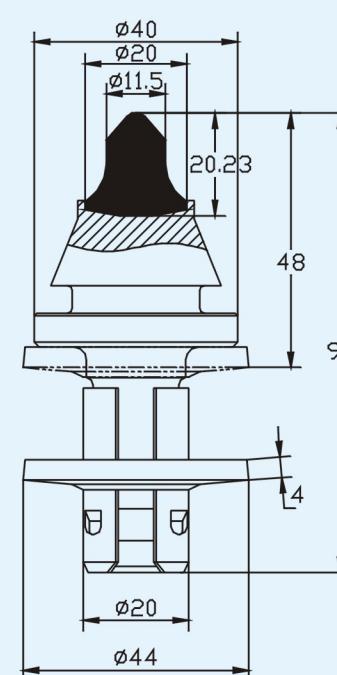
HUZ-01C



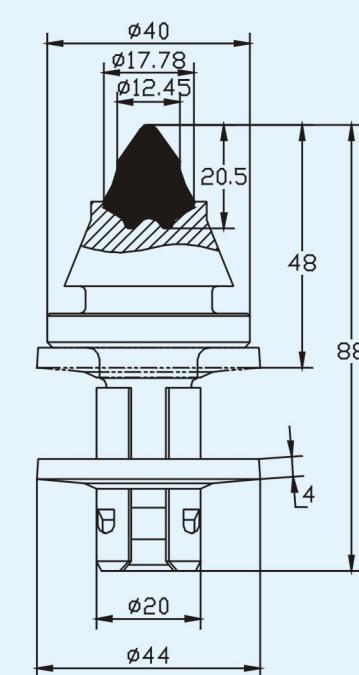
HUZ-02C



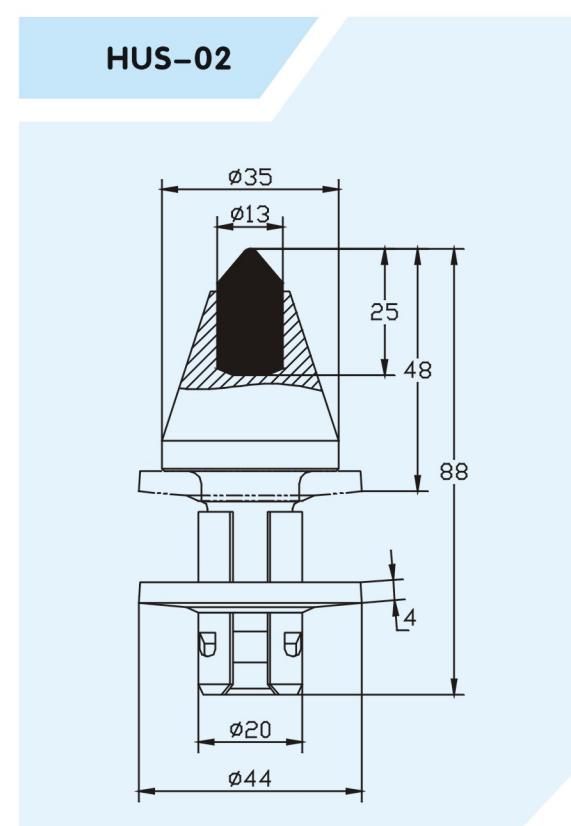
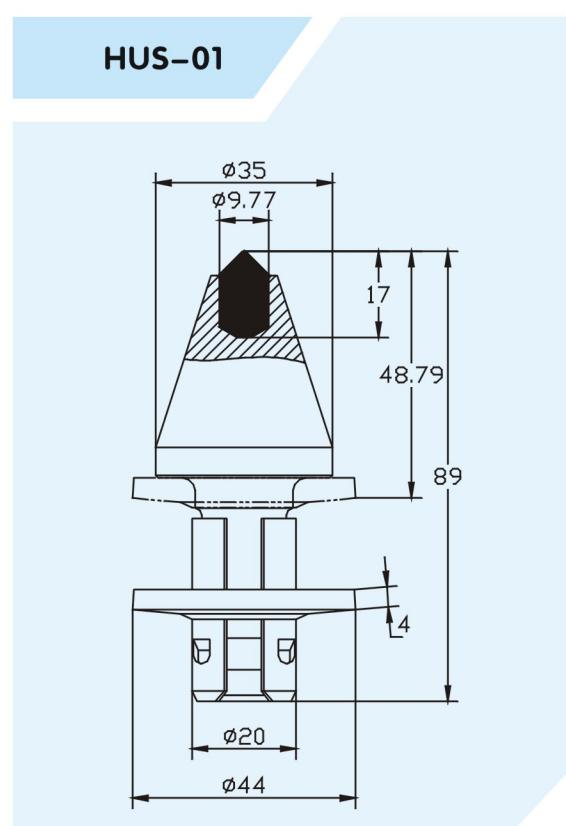
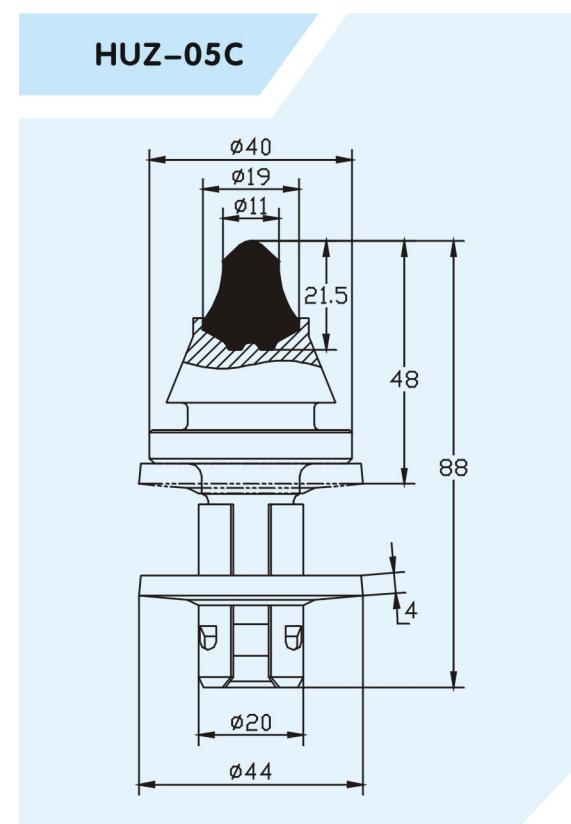
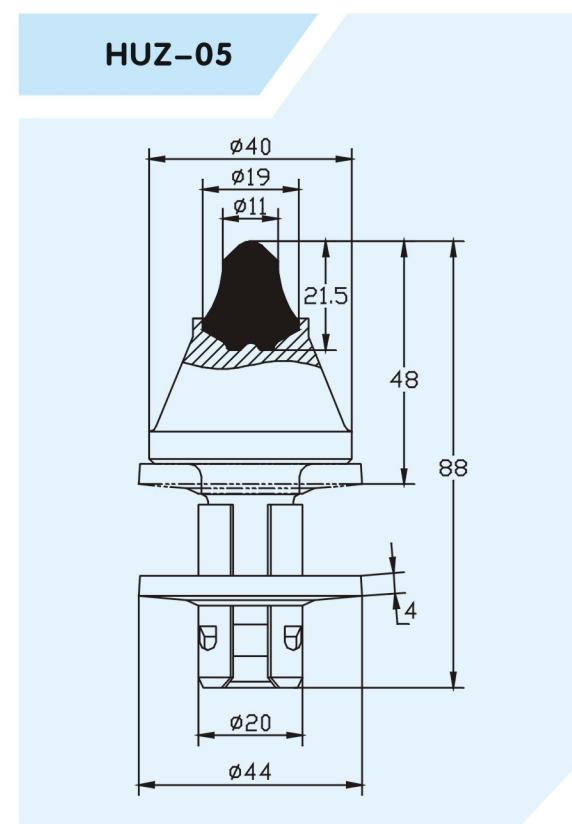
HUZ-03C



HUZ-04C



HUZ、HUS series



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