



专业硬质材料制造商  
HARDMETAL SPECIALIST

地矿工程系列  
Mining, Construction, Oil & Gas



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ISO9001:2015



QUALITY  
CONSISTENCY  
EXPERTISE

## 公司介绍 About Us

昆山长鹰硬质材料科技股份有限公司创立于2002年，是一家专业的硬质合金、金属陶瓷材料制造商和供应商。我司生产的高性能的标准产品和特殊订制产品，可充分满足全球客户在金属加工、木材加工、采矿、建筑工程、石油和天然气、模具等行业的多种应用需求。

长鹰生产基地位于距上海50公里的昆山市，在江西有粉末原料生产基地。拥有3万平方米的生产车间、先进的实验室和完备的研发设施设备，超过500名熟练的员工，包括优秀的材质、模具和工艺设计工程师团队。

我司为德国莱茵TUV ISO9001:2015质量体系的认证企业，高标准、严要求是我们品质管理工作的核心原则。通过构建全面的品质管理系统，严格控制原材料供应链，保持生产工序的100%可追溯性，确保交付给客户品质如一的高性能产品。

长鹰坚持负责任和可持续的商业行为，包括无冲突的原材料采购，积极的员工健康管理，以及对环境影响的持续关注。开放透明的经营理念让我们的客户、员工和外部供应商对我们的业务和产品充满信心。

**CY CARBIDE MFG. CO., LTD.**, Established in 2002, is a professional manufacturer and exporter of high performance tungsten carbide products, RTP powders and CERMET materials. CYC delivers globally a high performance standard and special products offering, that meet the most challenging demands from industry sectors including...metalworking, mining, construction, oil & gas, die & mold, and woodworking.

**CYC** has two production sites which located in Kunshan city, 50 km away from Shanghai, together with the Jiangxi raw material production, consist of production, laboratories and R&D facilities. 500+ skilled employees, including tooling and material grade design engineering on site.

**CYC** High performance products are guaranteed by a strong process management system, resulting in consistent quality for every batch and product. Strict control of our raw material supply chains and 100% traceability for every product batch throughout the entire manufacturing process. A philosophy of continuous improvements within every process is a core principle in our ways of working. CYC is a ISO 9001:2015(TUV) certified business.

**CYC** Adheres to responsible and sustainable business practices, including conflict free raw material sourcing, proactive health management for our employees, and continuous concern about the environmental impacts of our business. Our open and transparent business philosophy allows our customers, employees, and external suppliers, to have confidence in our business, ways of working, and our products.



Plant # 1 13000m<sup>2</sup>



Plant # 2 33000m<sup>2</sup>



Plant # 3 54667m<sup>2</sup>

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## 发展历程 Development





## 生产工艺流程 Manufacturing Process

### 1. 材质设计 Grade Design

始终以需求和市场应用为导向进行材质设计。我们的生产制程从粉末混合开始，原材料为碳化钨 (Wc)，钴 (Co) 和其他微量元素。

CYC grades are designed upon application. Our process start with powder mixing. Raw materials includes WC, Co and other elements.



### 2. 混合料球磨 RTP Ball milling

覆盖特细、超微到特粗不同晶粒度，有超过100个材质可供客户选用。不同晶粒度的粉末在彼此隔离的系统中球磨、筛分和制粒，以避免混晶。

Wide variety of CYC designed grades from superfine to coarse grain size are available. Grades with different grain size are ball-milled, sieved, granulated in separated systems to avoid grain contamination.



### 3. 喷雾制粒 Spray Drying

喷雾制粒工艺使得粉末具备均匀的颗粒度和良好的流动性及松装比，从而减小烧结后合金坯料的尺寸波动。

Spray drying process makes the powder into superior homogeneous particle sizes with good flowability and as a result, the dimension variation on sintered blank is much smaller.



### 4. 自动压制 Direct Pressing

绝大部分地矿产品均能通过自动压制成型，我们的自动压制系统和独到的技术使得产品尺寸能保持良好的 consistency。

Most of the parts in Mining, Construction, Oil & Gas can be formed by direct pressing. CYC technical control of direct pressing system ensure consistency of dimension.

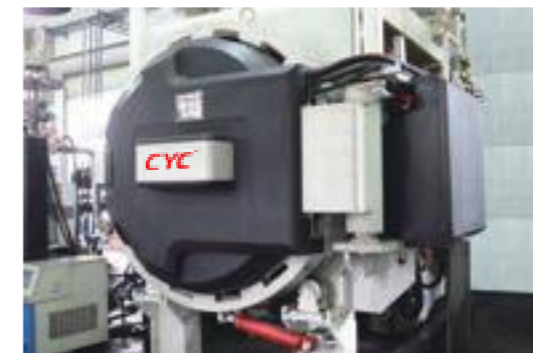


### 5. 加压烧结 Sintering

采用HIP热等静压烧结炉，经过1400°C左右的高温加压烧结，使硬质合金具备更高的物理性能来满足各项严苛和复杂的应用需求。

Green blanks are sintered at temperature around 1400 °C (cobalt melting) to become super hard and tough.

CYC utilizes HIP (hot isostatic pressure) sintering furnace which gives carbide maximum toughness to meet the most critical working applications.



### 6. 加工处理 Finishing Process

根据客户的实际应用需求，我们可以提供多种表面处理方案，包括外圆无心磨、表面抛光等，保证产品的优异性能和尺寸精度。

CYC offers multiple surface finishing options, including centerless grinding and surface polishing for high performance and product dimensional accuracy, under the most demanding applications.



### 7. 检验 Inspection

原料、混合料和烧结毛坯的关键性能指标都在我们自有的实验室得到全面的监控，以确保产品的品质和性能。所有成品都会经过严苛的尺寸检验，更有高效率的自动检验设备，确保产品合格才会发送到客户手上。

The Key properties are monitored from raw material, RTP and raw sintered parts in our laboratory for quality and performance guarantee. Strict dimensional measurements by automatic equipment will be done before the parts are shipped to the customer.







## 品质 QUALITY

稳定的品质是硬质合金的核心。  
Carbide consistent quality has to be the top priority.



## 稳定 CONSISTENCY

我们的流程完全根据ISO9001:2015(TUV)管理体系要求运转。  
品质一致性和可追溯性是我们对客户的承诺。

Our manufacturing process is operating fully in compliance with  
**ISO9001:2015 (TUV).**

**Consistency and traceability** is the promise we keep to our customers .



超过18年的硬质合金研发和制造经验，长鹰已建立一个由全球技术和商业领域专家组成的团队，专注为我们的客户提供优质的产品和服务。

Over 18 years of experience doing R&D and manufacturing carbide, CYC has built a dedicated team consisting global experts in technical and commercial areas who always stand behind our customers.

## 我们的能力 Our Capabilities

“满足并超越客户期望”是长鹰的一贯使命。  
我们专业和多样的生产能力，能为客户提供更多增值服务。

1. 特定应用的材质设计
2. 特定作业所需产品几何形状设计
3. 任意数量打样服务
4. 2D / 3D图纸制作
5. 产品表面钝化
6. 成品磨加工服务，包括：
  - 无芯磨
  - 外圆磨
  - 平面磨

The mission of meeting and exceeding customer's expectations is ongoing. CYC has a wide range of capabilities to provide more high value services.

1. Grade design for specific applications
2. Geometry design for specific jobs
3. Prototypes for any quantity
4. Issuing of 2D/3D drawings
5. Surface Passivation
6. Hard machining service include :
  - Centrless Grinding
  - Chamfer Grinding
  - Plain Surface Grinding







工程 Construction

矿山开采 Rock Drilling

油, 气田开采 Oil & Gas

煤田采掘 Coal Mining



**为严苛的应用需求提供解决方案**  
Engineered Solutions for Demanding Applications

## 矿山开采用合金齿 Inserts for Rock Drilling

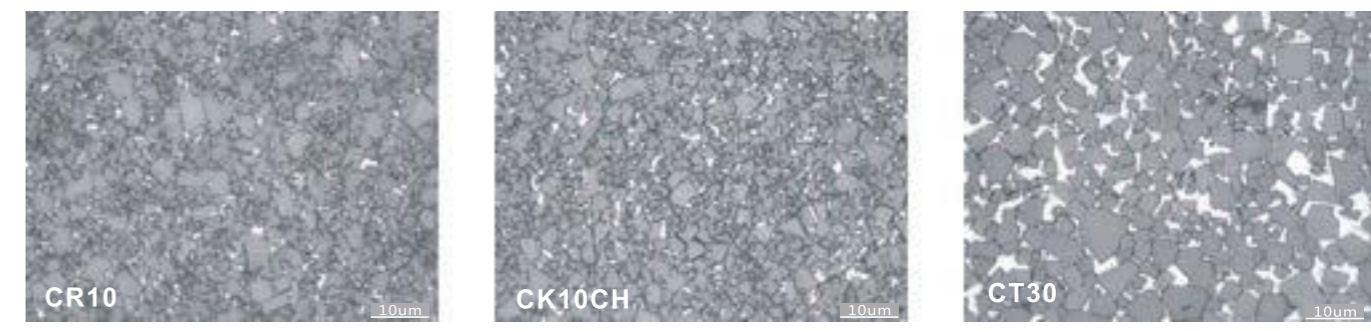
应用范围：高、低风压潜孔钻头、液压螺纹钻头等

Application: High and Low Air Pressure DTH Drill Bits, Top Hammer Bits and others.

### 牌号标准 Grade Specification

牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
CR10	6.0	中晶粒 Medium	14.85	90.4	1420	2800
CK10CH	6.5	中晶粒 Medium	14.80	90.2	1390	2600
CT30	10.0	粗晶粒 Coarse	14.50	87.8	1150	2800

### 金相图谱范例 Example of Metallography 1500X



• 所列牌号参数均为典型值，具体请参照我司材质标准技术表。 All the grade parameters are typical value, please refer to our standard grade datasheet for more details.

## 凿岩工具用高端牌号 Superior Grade for Rock Drilling Tools

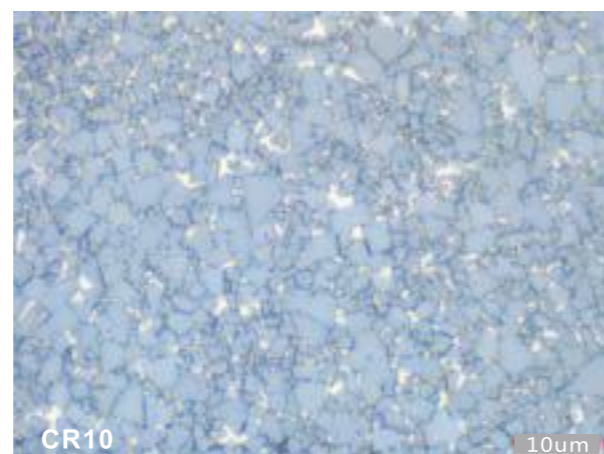
### 牌号标准 Grade Specification

#### CR10

成分 Composition 14.85g/cm<sup>3</sup>

硬度 Hardness 1420HV30  
90.4HRA

抗折力 T.R.S 2800 N/mm<sup>2</sup>



**CR10** 牌号为凿岩工具用高端牌号，通过精密的成分设计和严格的过程控制，该牌号具有很高的耐磨性和抗冲击性，大大延长钻具的使用寿命。

**CR10** 牌号广泛应用于高风压潜孔钻头，螺纹钻头以及其他硬岩凿岩钻具。

测试证实，140毫米直径的潜孔钻头使用长鹰CR10牌号的合金球齿，在硬岩层中的使用效果处于国内领先水平。

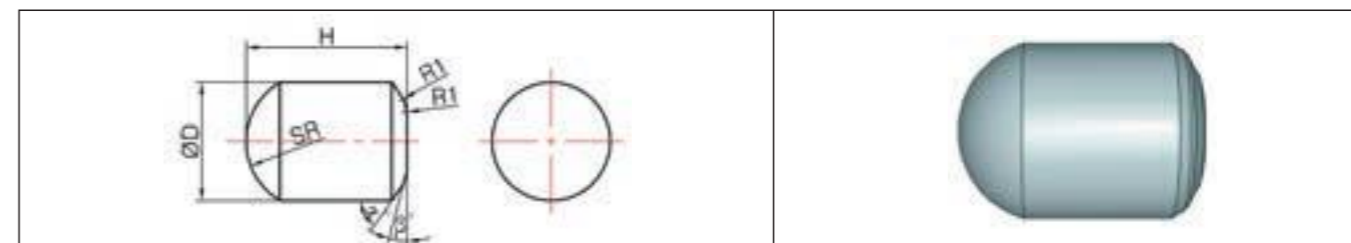
With ideal composition design and process control, rock tools using grade CR10 have best wear and impact resistance with longest tool life time.

Grade CR10 is widely used to produce High Pressure DTH Drill Bits, Top Hammer Bits and other rock drilling tools on hard rock formations.

Test confirms that the DTH Bits with 140mm diameter using CYC grade CR10 buttons in copper mine drilling applications have been proven to have excellent performance which is at the leading level of domestic market.



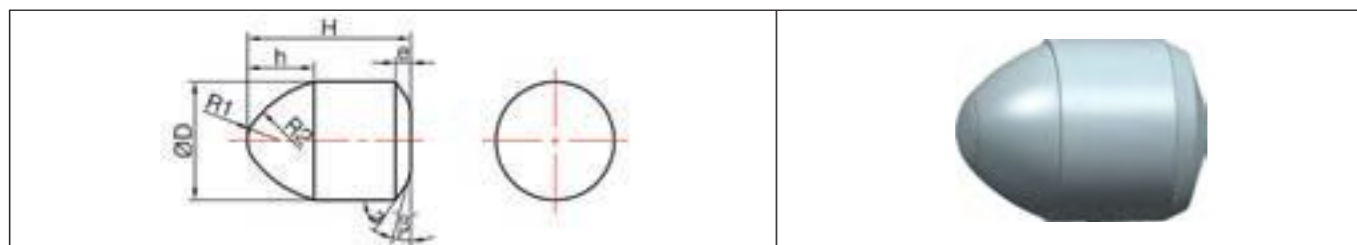
### 球形齿 Hemispherical Shaped Inserts



TYPE 型号	D	H	SR
BQ0809	8.2	9.0	4.2
BQ0812	8.2	12.0	4.2
BQ0813	8.2	13.3	4.4
BQ0913	9.2	13.5	4.7
BQ0914	9.2	14.0	5.0
BQ0915	9.2	15.0	5.0
BQ1014	10.2	14.0	5.5
BQ1015	10.2	15.0	5.5
BQ1016	10.2	16.3	5.5
BQ1017	10.2	17.3	5.5
BQ1019	10.2	19	5.5
BQ1112	11.3	12.7	5.7
BQ1116	11.3	16.0	6.0
BQ1117	11.3	17.0	6.0
BQ1119	11.3	19.0	6.0
BQ1216	12.3	16.35	6.2
BQ1217	12.3	17.1	6.6
BQ1218	12.3	18.0	6.6

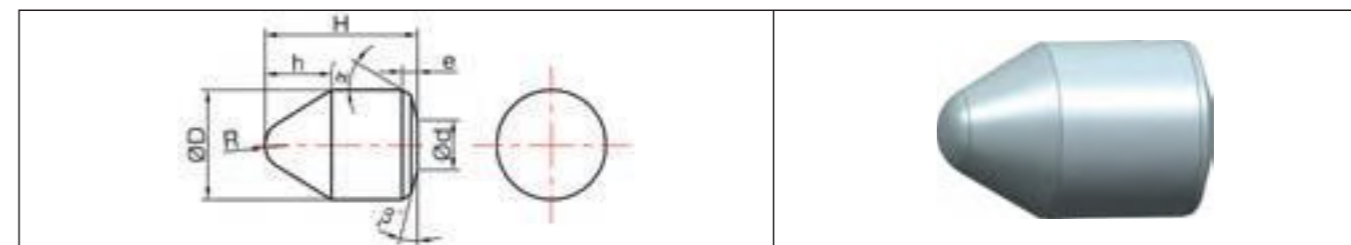
TYPE 型号	D	H	SR
BQ1219	12.3	19.0	6.6
BQ1222	12.3	22.2	6.6
BQ1318	13.3	18.0	6.7
BQ1319	13.3	19.4	6.7
BQ1320	13.3	20.0	7.0
BQ1322	13.3	22.0	7.0
BQ1420	14.3	20.0	7.7
BQ1422	14.3	22.2	7.7
BQ1423	14.3	23.0	7.7
BQ1621	16.3	21.0	8.2
BQ1624	16.3	24.0	8.8
BQ1628	16.3	28.0	8.8
BQ1726	17.3	26.0	8.8
BQ1825	18.3	25.0	9.15
BQ1826	18.3	26.0	9.15
BQ1923	19.4	23.1	10.0
BQ1928	19.4	28.6	10.0
BQ2028	20.4	28.0	10.0

### ■ 抛物线形齿 Parabolic Shaped Inserts



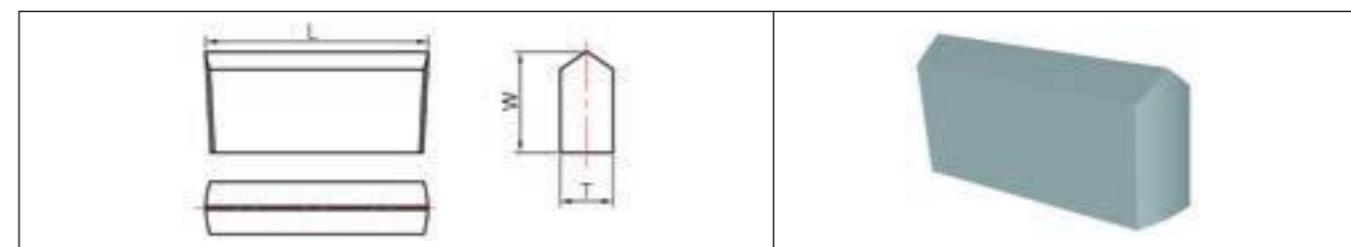
TYPE 型号	D	H	TYP E型号	D	H
BP0711	7.2	11.0	BP1218	12.3	18.0
BP0812	8.2	12.0	BP1219	12.3	19.0
BP0913	9.2	13.5	BP1221	12.3	21.0
BP0914	9.2	14.5	BP1321	13.3	21.0
BP0915	9.2	15.0	BP1323	13.3	23.5
BP1015	10.2	15.0	BP1420	14.3	20.0
BP1016	10.2	16.0	BP1422	14.3	22.0
BP1017	10.2	17.0	BP1423	14.3	23.0
BP1018	10.2	18.0	BP1425	14.3	25.0
BP1114	11.3	14.9	BP1426	14.3	26.0
BP1117	11.3	17.5	BP1625	16.3	25.8
BP1120	11.3	20.0	BP1628	16.3	28.0
BP1221	12.3	21.7	BP1632	16.3	32.0

### ■ 锥形齿 Conical Shaped Inserts



TYPE 型号	D	H	TYPE 型号	D	H
BC0709	7.2	9.7	BC1119	11.3	19.3
BC0711	7.2	11.0	BC1120	11.3	20.6
BC0712	7.2	12.7	BC1219	12.3	19.5
BC0811	8.2	11.4	BC1220	12.3	20.0
BC0813	8.2	13.0	BC1223	12.3	23.0
BC0913	9.2	13.0	BC1317	13.3	17.4
BC0914	9.2	14.0	BC1318	13.3	18.51
BC0915	9.2	15.5	BC1417	14.3	17.5
BC1015	10.2	15.5	BC1420	14.3	20.0
BC1016	10.2	16.5	BC1424	14.3	24.0
BC1017	10.2	17.0	BC1521	15.3	21.0
BC1116	11.3	16.0	BC1625	16.3	25.0
BC1118	11.3	18.5	BC1628	16.3	28.0

### ■ 矿用一字型钎片 Flat Mining Inserts



TYPE 型号	L	W	T
K030	30	18	8
K034	34	18	8
K036	36	18	10
K038	38	18	10
K040	40	18	10



## 煤田采掘用合金齿 Inserts for Coal Mining

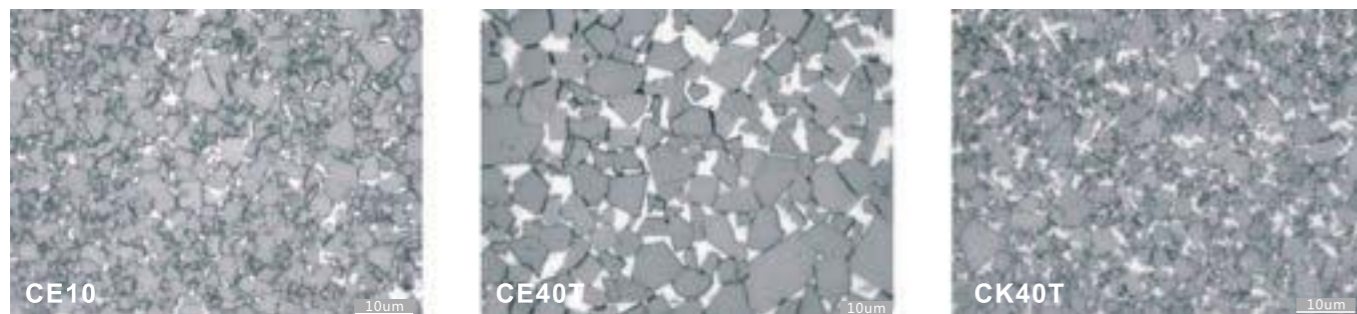
应用范围：煤田采掘用截煤齿等

Application: Round Shank Picks for Coal Mining and others.

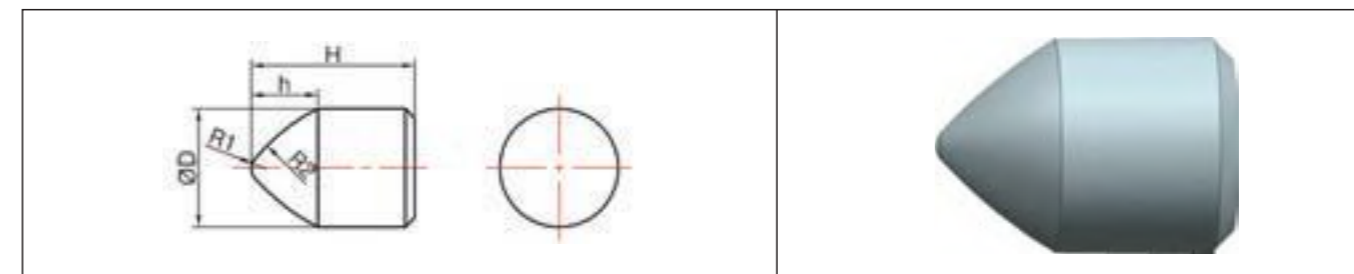
### 牌号标准 Grade Specification

牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
CE10	6.0	粗晶粒 Medium	14.95	89.7	1350	2700
	主要用于软岩层的煤矿及隧道掘进。 Suitable for coal mining on soft rock formations.					
CE40T	10.0	超粗晶粒 Extra Coarse	14.5	85.7	1000	2500
	高抗冲击性能，主要用于较硬岩层的巷道掘进。 Suitable for coal mining on hard rock formations with high impact resistance.					
CK40T	12.0	中晶粒 Medium	14.3	86.7	1060	2600
	主要用于软岩层的煤矿及隧道掘进。 Suitable for coal mining on soft rock formations.					

### 金相图谱范例 Example of Metallography 1500X

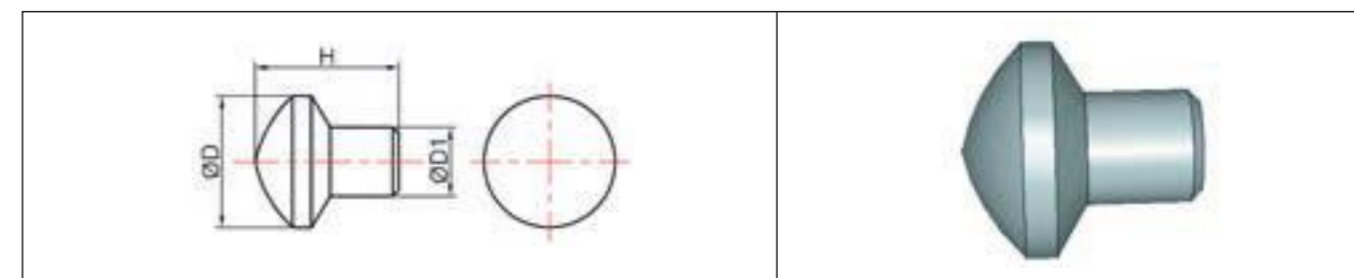


### 截齿 Round Shank Picks



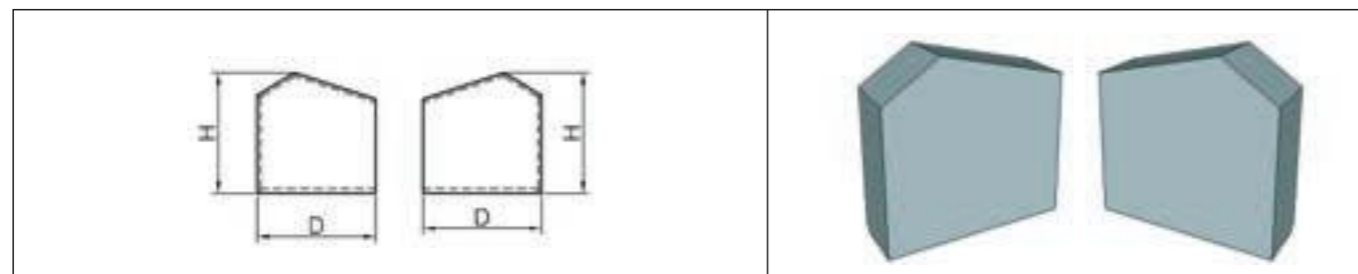
TYPE 型号	D	H
BM1524	15.0	24.0
BM1722	17.5	22.0
BM1724	17.5	24.0
BM1729	17.5	29.0
BM1926	19.0	26.0
BM1928	19.0	28.0
BM2228	22.0	28.0
BM2230	22.0	30.0
BM2234	22.0	34.0
BM2534	25.0	34.0
BM2536	25.0	36.0

### 蘑菇形截齿 Mushroom Shaped Inserts



TYPE 型号	D	H
MJ1728	17.0	28.0
MJ1931	19.0	31.0
MJ2032	20.0	32.0
MJ2236	22.0	36.0
MJ2538	25.0	38.0

### ■ 锚杆钻冲击钻片 Plates for Auger Drill Bits



TYPE 型号	L	H1	H2	B
MD143.6-L	14.05	2.1	10.6	3.6
MD143.6-R	14.05	3.5	7.6	3.6
MD1003-L	10.45	13.0	4.0	3.0
MD1003-R	10.45	13.0	6.0	3.0
MD1504-L	15.0	2.7	4.67	4.0
MD1504-R	15.0	5.49	4.67	4.0

### 工程用合金齿、刀片 Inserts and Blades for Construction

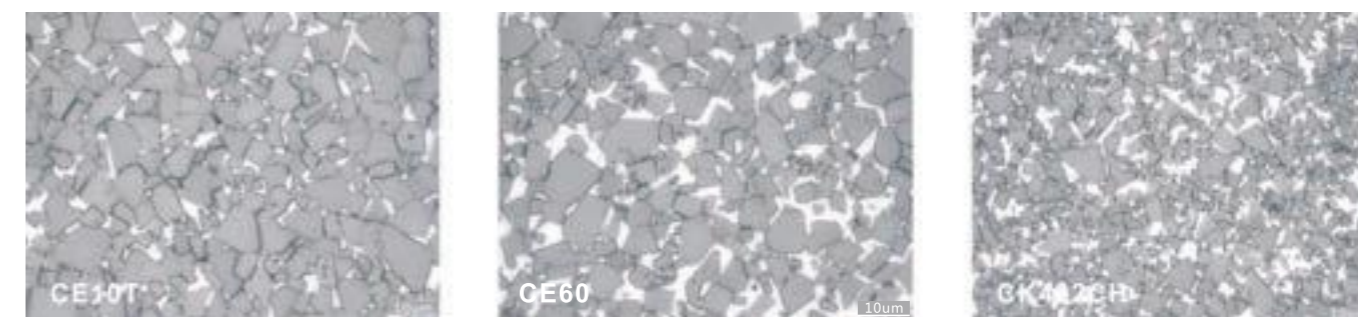
应用范围：隧道掘进，工程铣挖，路面铣刨，辊压机用合金柱等

Application: Tunnel Boring, Excavation, Road Milling, HPGR and others.

#### 牌号标准 Grade Specification

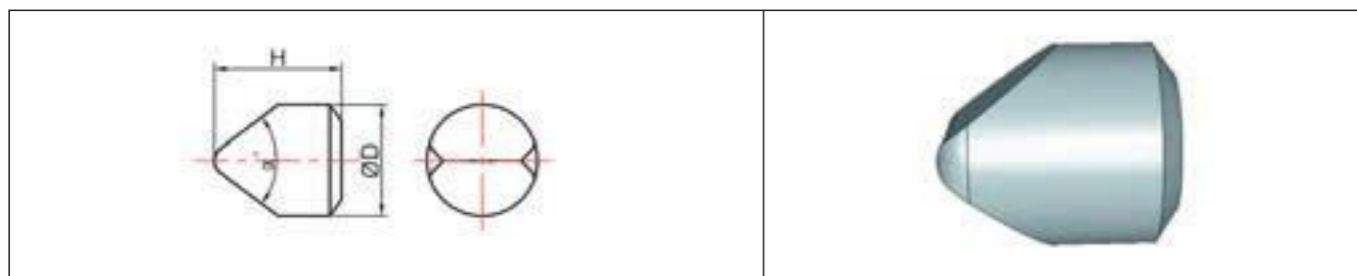
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S N/mm <sup>2</sup>
			g/cm <sup>3</sup>	HRA	HV30	
CE10T	6.0	超粗晶粒 Extra Coarse	14.85	88.0	1180	2200
CE20T	8.0	超粗晶粒 Extra Coarse	14.70	87.5	1050-1100	2200
CE40T	10.0	超粗晶粒 Extra Coarse	14.50	85.70	1000	2500
CK402CH	15.0	中晶粒 Medium	14.00	86.0	1030	2800

#### 金相图谱范例 Example of Metallography 1500X



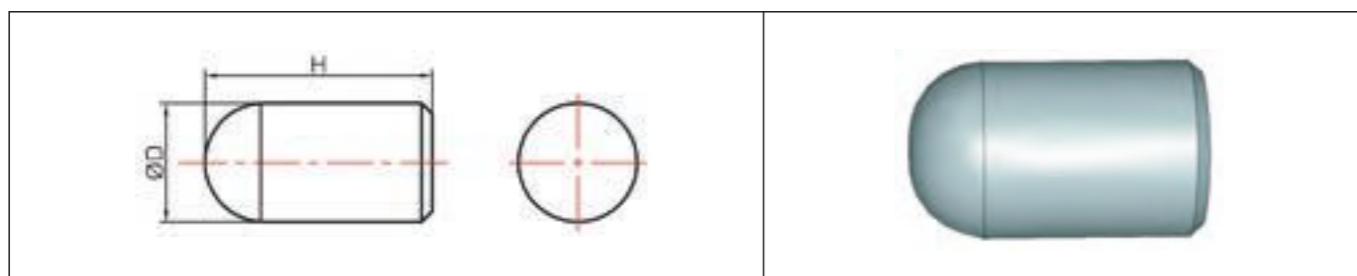


### 翼形齿 Rooftop shaped Inserts



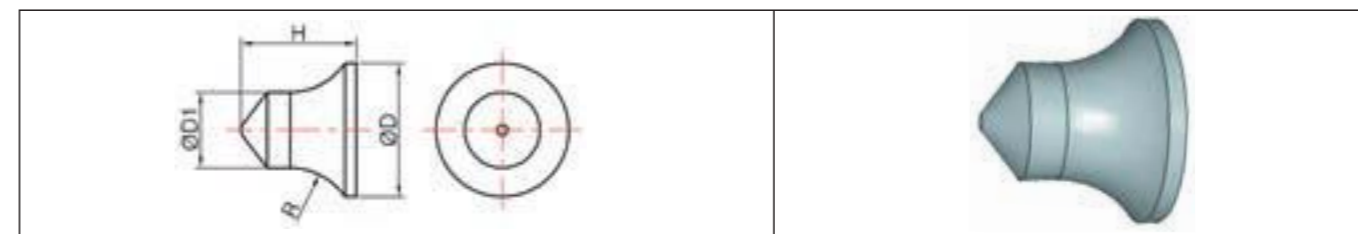
TYPE 型号	D	H
BR1222	12.0	22.0
BR1422	14.6	22.0
BR2236	22.0	36.0
BR2538	25.5	38.0

### 辊压机用合金柱 Buttons for HPGR



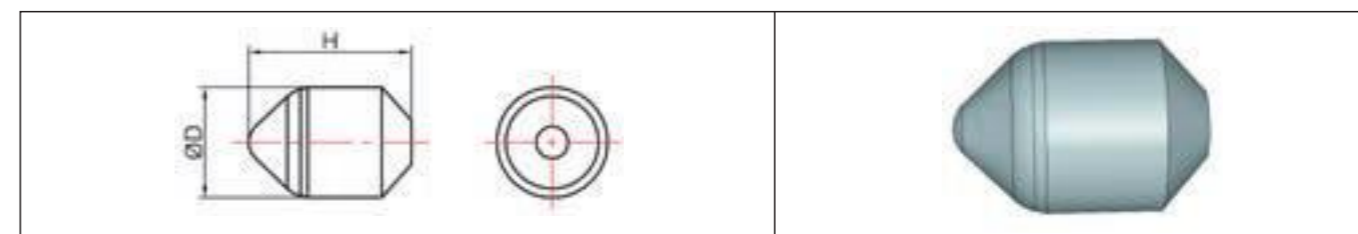
TYPE 型号	D	H
BH1040	10.2	40.0
BH1640	16.2	40.0
BH1740	17.2	40.0
BH1645	16.2	45.0
BH1850	18.2	50.0

### 帽状路面铣刨齿 Cap-Shaped Inserts



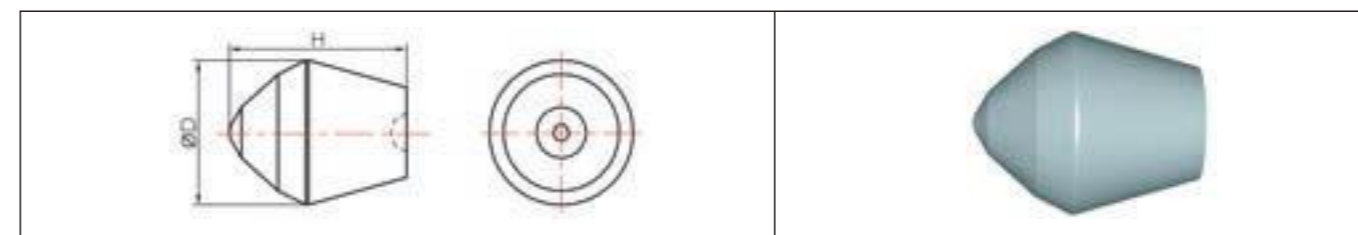
TYPE 型号	D	H
XP0914	9.30	14.5
XP1615	16.2	15.1
XP1717	17.8	17.1
XP1919	19.0	19.9
XP2119	21.0	19.7
XP2223	22.0	23.0
XP2728	27.0	28.2
XP2926	29.0	26.0

### 工程铣挖齿 Rotary Inserts



TYPE 型号	D	H
XW0812	8.0	12.0
XW1219	12.0	19.0
XW1322	13.0	22.0
XW1624	16.0	24.0

### 桩基开挖旋挖齿 Inserts for Foundation Excavation



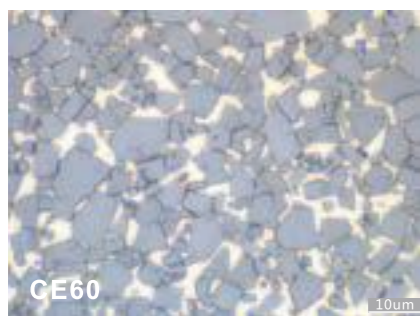
TYPE 型号	D	H
BM2329	23.5	29.0
BM2531	23.5	29.0
BM2831	28.0	31.0

## 盾构刀片 Inserts for Tunnel Boring(TBM)

### 牌号标准 Grade Specification

牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
CE30	9.0	粗晶粒 Coarse	14.60	89.0	1270	2800
	耐磨性高, 适用于超硬质岩层。 Suitable for super hard rock formations with excellent wear resistance.					
CE60	12.5	粗晶粒 Coarse	14.20	87.0	1080	2850
	韧性好, 适用于软质、中硬质和硬质岩层。 Suitable for soft, medium and hard rock formations, with high toughness.					

## 金相图谱范例 Example of Metallography 1500X

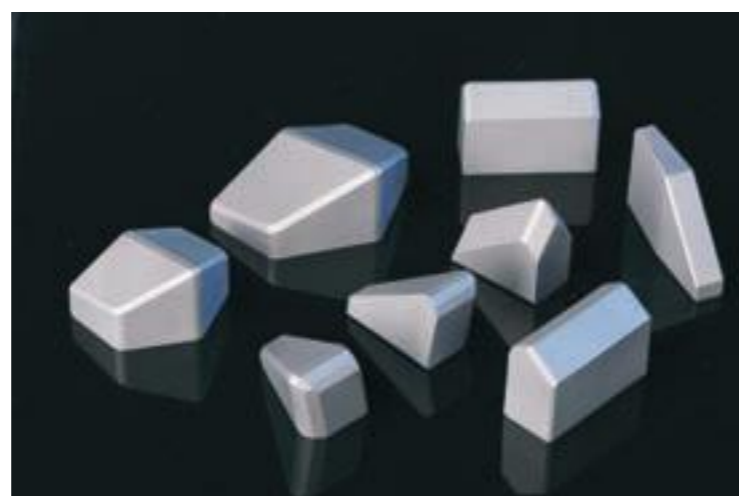


我司的盾构合金材质兼具优良的抗腐蚀性、冲击韧性及耐磨性, 在不同的地质环境中都能有出色的表现。

除了传统的模具直压成型, 我司独特的CIP成型后再修型的制造工艺, 确保复杂形状产品的物理密度和品质, 并充分满足盾构刀片形状复杂、多样、多变、少量的订单特性。

CYC grade of TBM inserts achieved ideal balance between wear and impact resistance, with excellent corrosion resistance.

CYC unique preforming process (CIP) allows supplying TBM inserts in small batch with complicated shapes and geometry.



## 砂石破碎用刀片 Carbide Crushing Blades

### 牌号标准 Grade Specification

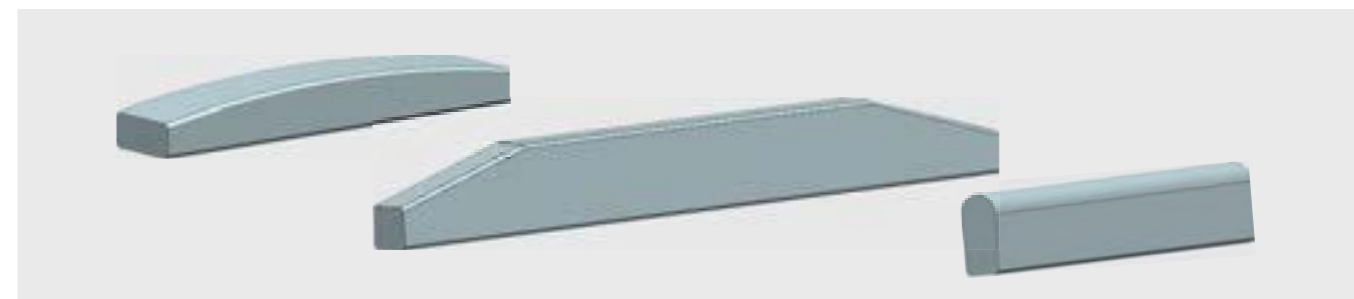
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
CR10	6.0	中晶粒 Medium	14.85	90.4	1420	2800
	适用于ZS、VSI等系列工程破碎机, 用于破碎中硬度、高硬度岩石和矿石。 Suitable for construction, rotor tips, ZS&VSI crushers on medium hard, hard rock& stone.					
CK10H	6.0	中细晶粒 Medium Fine	14.90	91.3	1500	2500
	适用于ZS、VSI等系列工程破碎机, 用于破碎中硬度、高硬度岩石和矿石。 Suitable for construction, rotor tips, ZS&VSI crushers on medium hard, hard rock& stone.					

## 方形 Rectangle

L	W	T
80.0	33.0	10.0/12.0
105.0	20.0	
110.0	20.0	
165.0	20.0	
180.0	20.0	
220.0	20.0	
250.0	22.0	
260.0	25.0	
280.0	22.0	
227.0	30.0	
210.0	40.0	



## 不规则形状 Irregular Shape





### ■ 传送带刮刀 Conveyor System Scraper

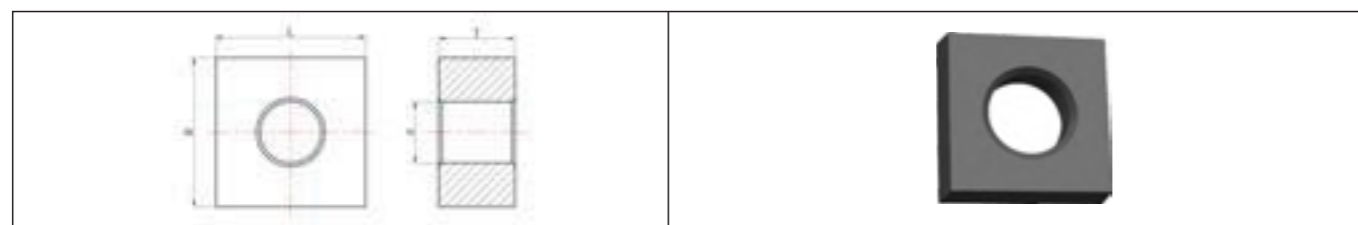
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
<b>SK10</b>	9.5(Co+Ni)	超细晶粒 Submicron	14.5	91.5	1550	3000
	适用于传送带刮刀，超强耐腐蚀性，高耐磨性。 Suitable for conveyor system scrapers, with high wear resistance and anti-corrosion properties.					

L	W	T
50.0	8.0	2.0
50.0	10.0	2.0
50.0	10.0	3.0
100.0	8.0	2.0
100.0	10.0	2.0
100.0	10.0	3.0
150.0	8.0	2.0
150.0	10.0	2.0
150.0	10.0	3.0
120.0	12.0	2.0
120.0	20.0	2.0
120.0	20.0	4.0



### ■ 链锯刀片 Carbide Chain Saw Inserts for Stone Cutting

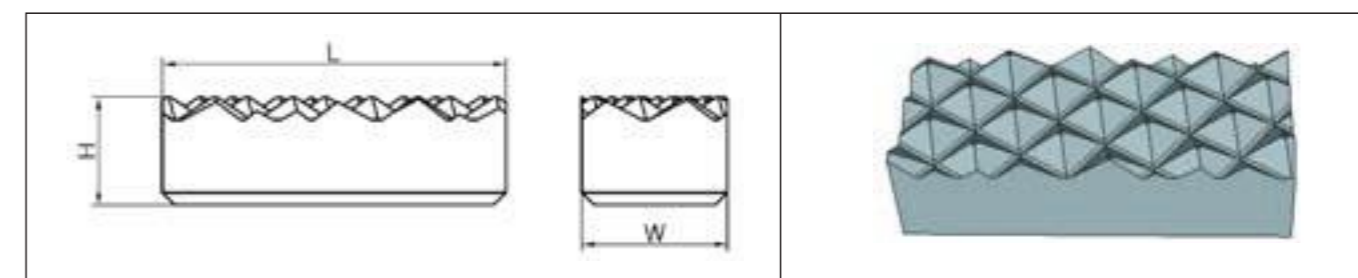
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
<b>CR10</b>	6.0	中晶粒 Medium	14.85	90.4	1420	2800
	适用于各种石材的切割、塑形。 Suitable for various types of stone cutting and shaping applications.					



L	H	T	d
12.7	12.7	5.6	5.0
12.7	12.7	6.6	5.0
12.7	12.7	6.5	5.2

### ■ 钻杆用卡瓦合金齿 Gripper Inserts for Chuck Jaws

牌号标准 Grade Specification						
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S
			g/cm <sup>3</sup>	HRA	HV30	N/mm <sup>2</sup>
<b>CE30</b>	9.0	粗晶粒 Coarse	14.60	89	1270	2800
	适用于控制钻杆开合。 Suitable for controlling Drilling Rods opening and closing.					



TYPE 型号	D	H	E
JG22X9.3X6.9	22.0	9.3	6.9
JG22.1X9.05X6.15	22.1	9.05	6.15
JG22.1X9.35X6.25	22.1	9.35	6.25
JG29X8.6X6	29	8.6	6.0

## 油、气田开采用合金齿 Inserts for Oil & Gas

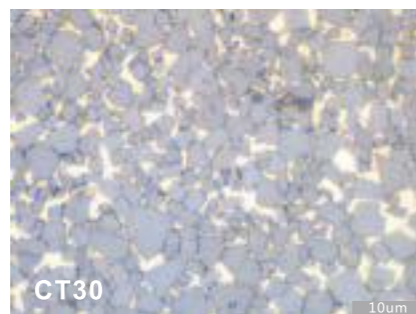
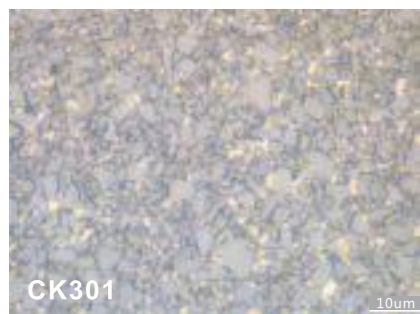
应用范围：油、气田钻井用三牙轮钻头

Application: Tricon Bits for Oil & Gas.

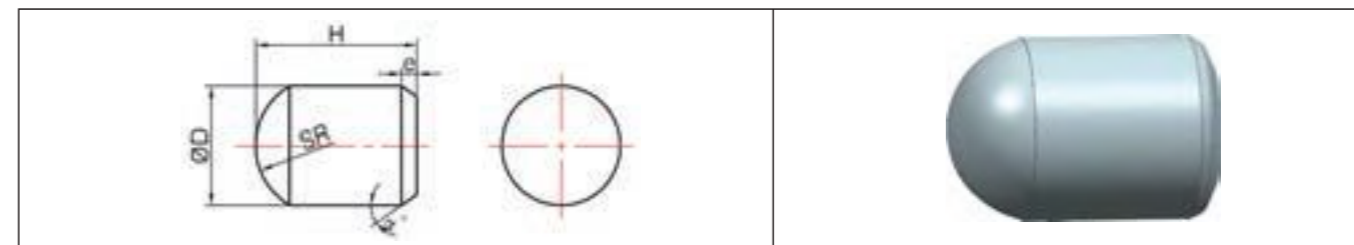
### 牌号标准 Grade Specification

牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S N/mm <sup>2</sup>
			g/cm <sup>3</sup>	HRA	HV30	
CT30	10.0	粗晶粒 Coarse	14.50	87.8	1150	2800
	适用于保径齿、背齿、锯型齿；高耐磨、高韧性牙轮钻头齿。 Suitable for various shapes and sizes inserts for cone bits with higher wear resistance and toughness.					
CK401	11.5	粗晶粒 Coarse	14.30	87.6	1130	2800
	适用于露齿矮、齿形结构简单的合金齿，钻进硬或偏软地质条件。 Suitable for drill bits with simple shape on medium hard and soft rock formations.					

### 金相图谱范例 Example of Metallography 1500X

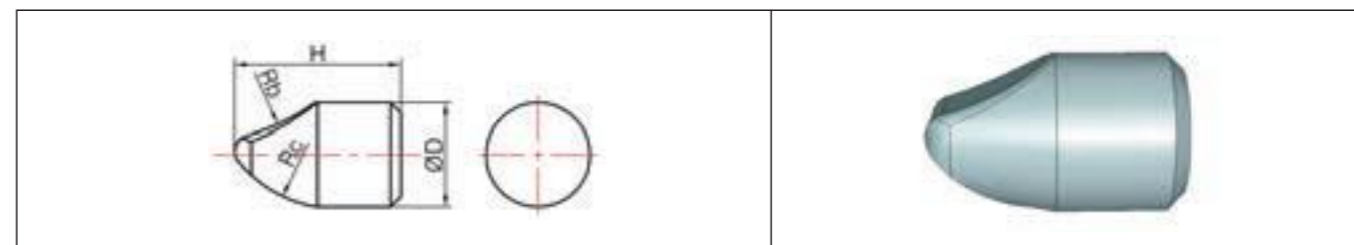


## 球形齿 Hemispherical Shaped Inserts



TYPE 型号	D	H
BQ0707-T	7.2	7.0
BQ0709-T	7.2	9.0
BQ0812-T	8.2	12.3
BQ0813-T	8.2	13.3
BQ0914-T	9.2	14.0
BQ1013-T	10.2	13.0
BQ1014-T	10.2	14.0
BQ1114-T	11.3	14.0
BQ1214-T	12.3	14.5
BQ1216-T	12.3	16.5
BQ1414-T	14.3	14.5
BQ1416-T	14.3	16.5
BQ1419-T	14.3	19.0
BQ1420-T	14.3	20.0
BQ1422-T	14.3	22.0
BQ1623-T	16.3	23.0
BQ1625-T	16.3	25.0

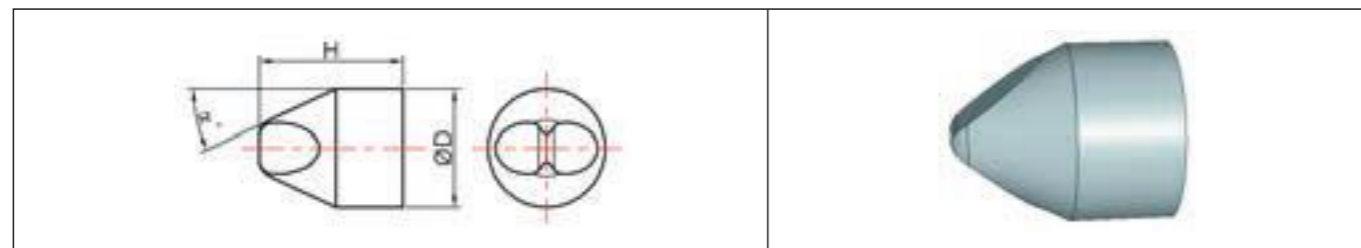
## 勺形齿 Spoon Shaped Inserts



TYPE 型号	D	H
BS1217	12.3	17.0
BS1318	13.3	18.0
BS1421	14.3	21.0
BS1623	16.3	23.0
BS1930	19.3	30.0
BS2233	22.3	33.0
BS2640	26.3	40.0

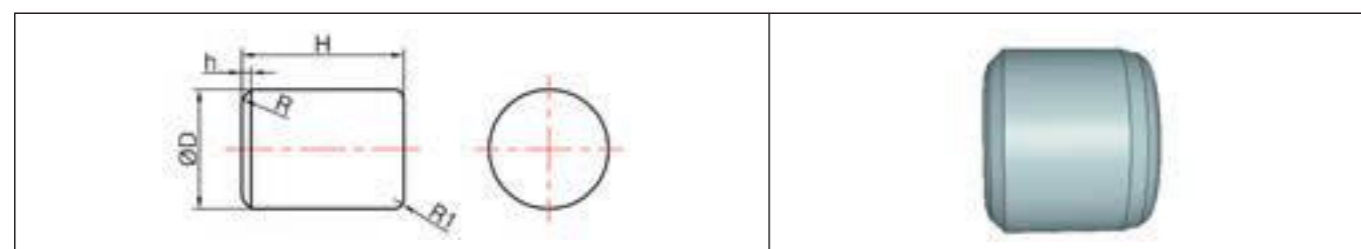


### 楔形齿 Chisel Shaped Inserts



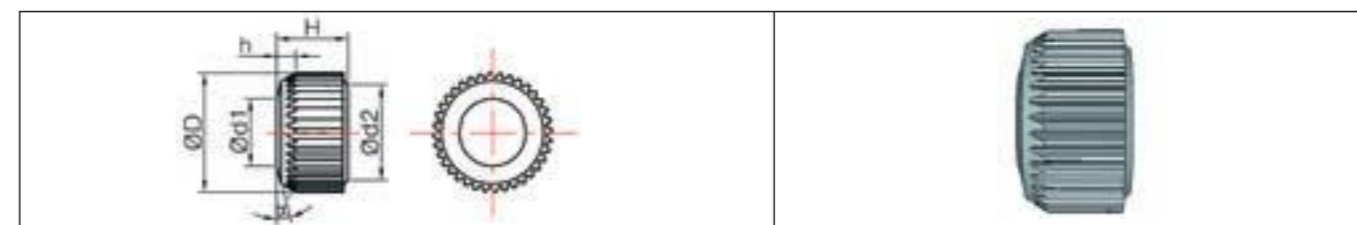
TYPE 型号	D	H
BW0810	8.2	10.55
BW0912	9.2	12.7
BW1013	10.2	13.0
BW1014	10.2	14.0
BW1112	11.3	12.4
BW1214	12.3	14.0
BW1215	12.3	15.0
BW1418	14.3	18.0
BW1420	14.3	20.0
BW1623	16.3	23.0
BW1625	16.3	25.0
BW1827	18.3	27.0
BW2030	20.3	30.0
BW2233	22.3	33.0

### 平头齿 Flat Top Inserts



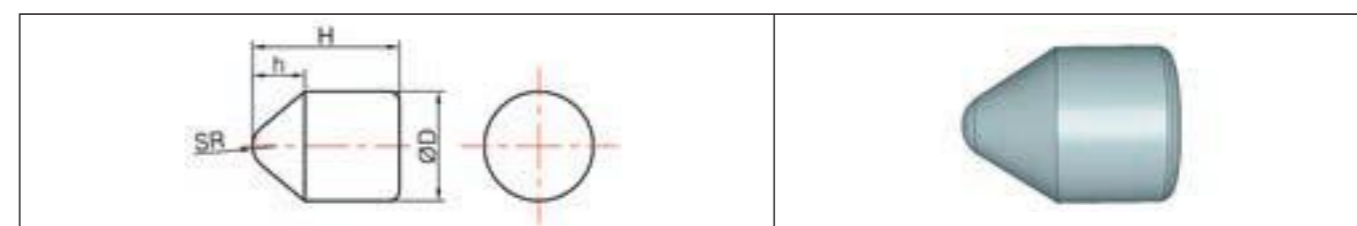
TYPE 型号	D	H
BF0404	4.82	4.8
BF0604	6.0	4.8
BF0805	8.0	5.0
BF0908	9.6	8.0
BF1008	10.0	8.0
BF1108	11.2	8.7
BF1210	12.0	10.0
BF1311	13.4	11.2
BF1415	14.9	15.0

### 锯形齿 Serrated Flat Inserts



TYPE 型号	D	H
BT0606	6.55	6.05
BT0805	8.2	5.0
BT0908	9.4	8.2
BT1108	11.2	8.3
BT1208	12.95	8.0

### 锥形齿 Conical Shaped Inserts



TYPE 型号	D	H
BC0809-T	8.3	9.8
BC0810-T	8.3	10.8
BC1012-T	10.3	12.5
BC1114-T	11.3	14.0
BC1116-T	11.3	16.5
BC1215-T	12.3	15.7
BC1318-T	13.3	18.0
BC1419-T	14.3	19.0
BC1420-T	14.3	20.0
BC1421-T	14.3	21.0
BC1618-T	16.3	18.0
BC1622-T	16.3	22.0
BC1623-T	16.3	23.0
BC1624-T	16.3	24.0
BC1625-T	16.3	25.0
BC1721-T	17.8	21.5
BC1728-T	17.8	28.0
BC1729-T	17.9	29.0
BC1730-T	17.9	30.0
BC1826-T	18.2	26.5
BC1933-T	19.3	33.0

## 金刚石复合基体 Substrates

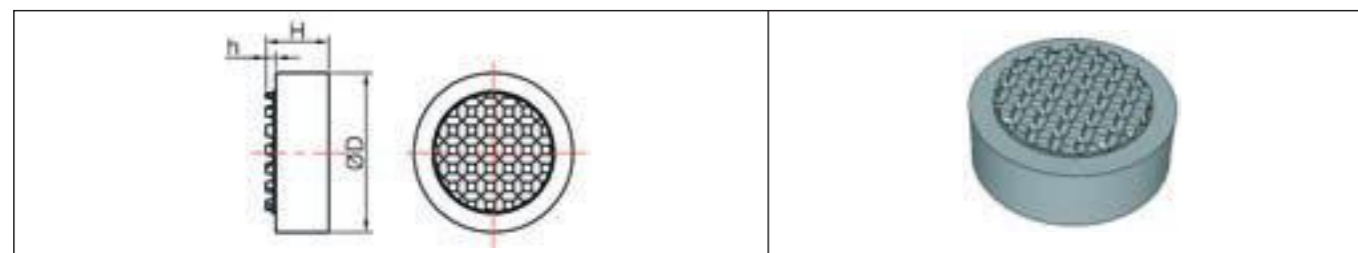
应用范围：矿山、油、气田用聚晶金刚石复合片

Application: Substrates of PDC(Polycrystalline Diamond Compact) Bits for Mining, Oil&Gas and others.

### Grade Specification

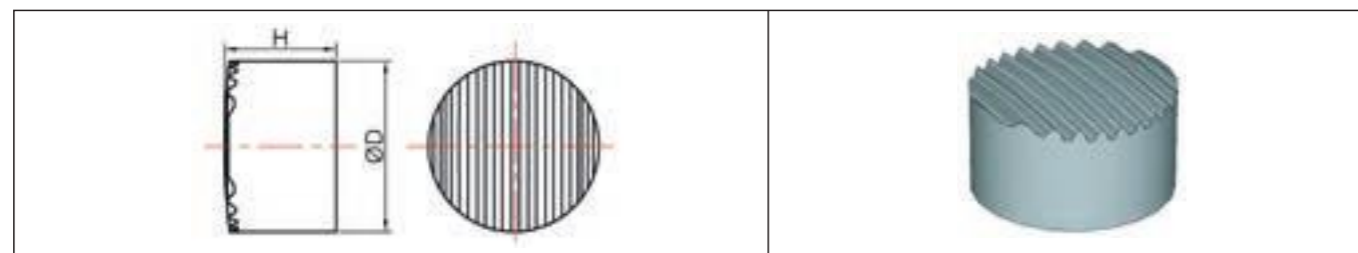
牌号 Grades	粘结相 Binder %	晶粒度 Grain Size	密度 Density	硬度 Hardness		抗折力 T.R.S N/mm <sup>2</sup>
			g/cm <sup>3</sup>	HRA	HV30	
CK401	11.5	粗晶粒 Coarse	14.30	87.6	1130	2800
CK402T	15.0	粗晶粒 Coarse	14.00	85.8	970	2600

### 矿山用基体 Substrates for Mining



TYPE	D	H
FHR1204	12.0	4.0
FHR1405	14.5	5.0

### 油田用基体 Substrates for Oil&Gas



TYPE 型号	D	H
FHO1405	14.5	5.0
FHO1708	17.2	8.0
FHO2010	20.5	10.0



1. 德国莱卡金相显微镜 Metallographic Microscope (Leica-Germany)
2. 影像测量仪 Video Measuring System
3. 日本三丰圆度测量仪 Roundness measuring instrument (Mitutoyo-Japan)
4. 日本电子扫描电子显微镜 SEM tester (JEOL-Japan)
5. 日本FT硬度测试仪 (Future tech-Japan)
6. 比饱和磁化强度测量仪 Magnetometer