

EDT ABOUT US

关于我们

桂林卡乐工程钻石科技有限公司（以下简称卡乐）位于广西桂林，致力于生产顶尖级质量的聚晶金刚石复合片（简称PCD），主要用于石油、天然气开采。卡乐生产的PCD复合片的使用成效在整个北美地区都一致得到客户的肯定，卡乐自主设计并压制完成高性能PCD产品以满足客户的需求。

PCD系列产品包括用于石油牙轮钻头/钎头/潜孔钻头的半圆顶复合球齿和PCD复合平齿，其运用自主研发的过渡层技术去优化其抗冲击性，及以加厚加硬的金刚石层增强其耐磨性。卡乐以坚定不移的高品质，优质的服务和专业团队的不断研发创新，来满足客户对石油/天然气行业的勘探和开发项目的需求。

Guilin Color Engineered Diamond Technology (GCEDT) located in Guilin, Guangxi province, China produces premier quality long-lasting polycrystalline diamond (PCD) inserts for applications in down-hole drilling tools. GCEDT inserts have performed exceptionally well in harder to drill formations all over North American region. GCEDT designs, engineers, presses, and finishes its own polycrystalline diamond (PCD) products to exact customer specifications to ensure confidence that their high-performance product will perform under demanding down hole conditions.

PCD product family includes round top dome inserts for Hammer bits and Tricone Bits, flat cutters for PDC drag bits using proprietary transition layer technology to optimize impact resistance as well as thicker and harder diamond layers that improves the abrasion resistance of the PCD layer. GCEDT prides itself on an uncompromising commitment to outstanding quality, superior customer service, and continuous improvement through our engineering teams to meet high performance demands of our customers in most demanding oil exploration and development projects.

PROFILE

Shri Navin B Parsana entered the Diamond Business individually in Bombay from 1975. He started a Diamonds manufacturing unit in Bombay and also traded in Diamonds. In 1980 he joined hands with Shri Ashwin B. Choksi who also had experience in the line of manufacturing and exporting of diamonds, both joined together and started a partnership firm "PINK STAR" for setting up a traditional method of unit for cutting and polishing of diamonds.

Subsequently Mr. Navin B. Parsana went to Belgium and obtained a diploma as a "DIAMOND CUTTER" in Antwerp in the field of semi automatic method of Diamond Cutting and Polishing.

In order to achieve the objective of starting a semi automatic method of cutting and polishing unit, another partnership firm was established the name and style of "THE DIAMOND CORPORATION" during 1984. The said firm then installed semi automatic polishing mills for manufacturing of diamonds at Virwani Industrial Estate, Goregaon (E), Mumbai-400063. The entire production of polished diamonds was manufactured with the then new technology of semi automatic cutting and polishing concept by using sophisticated high tech tools like double head bruiting machines, sawing machines, Laser machine, semi automatic dops and tangs, press pots etc and exported to various countries.

Another firm by the name "The Laser Diamond Corporation" was formed and the first Laser machine to cut (Cleave) rough diamonds was imported from USA to India in 1985. Also the group of companies became agents of various semi automatic diamond cutting & polishing machinery suppliers from Belgium.

Another private limited firm by the name Heaven Diamonds Pvt. Ltd., was started during 1985. Additional Semi Automatic Polishing Benches were installed to cater to the demand for the export market. Along with the new semi automatic polishing benches and other type of new machinery, one sophisticated CNC Lathe from MAZAK Company Japan was also imported to increase the accuracy and production.

Indian manufacturing were facing stiff competition with the traditional method in the early 80' to match the International standard of cutting and polishing (Quality & Quantity wise). In 3 years the company converted the Indian Diamond Cutting & Polishing Industry from the traditional method to the Semi Automatic method for which the Indian Government gave "The Rajiv Gandhi Award to Navin B Parsana. An award which is given by the Indian Government for special achievement. The company developed expertise over the years in the line of cutting & polishing of Rough Diamonds which are comparable with the Cut & Polished Diamond of Belgium & Israel in the International market.

Australian Rough Diamonds from the Argyle Mines of Australia started coming to India and Belgium for trading & manufacturing. These Australian rough diamonds were very hard to polish, so in 1989 the company started producing the Diamond Impregnated Scaife. And PCD to brut diamond. Heaven Diamonds Pvt.Ltd. was the first company in India to invent The Diamond Impregnated COBALT FREE scaife. With the help of this invention the Australian hard Rough Diamond could be cut & polished 20 times faster.

With the help of the Semi Automatic method rough sawn diamonds could be cut & polished faster with precision and maximum yield. The Bruting (Shaping) of the sawn rough diamonds was done with the help of low quality Boat Diamonds. The company then started manufacturing the PCD in 1989 and started using them to recondition scaife, OPEN SCAIFE FOR POLISHING and brut (shape) rough sawn diamonds.

Subsequently our company became one of the biggest manufacturers of Diamond scaife in India and then slowly other Indian companies also started manufacturing them. Now in order to maintain a consistent production of good quality Diamond Scaife some of the raw materials like Metal powder, suitable cobalt & tungsten powder, etc. needed to be imported regularly, but due to high import custom duties, custom harassments and inconsistent supply form the foreign suppliers, we decided to start manufacturing them in India so from 1998 we started manufacturing Cobalt, Carbide and Carbo substrate for manufacturing PDC/PCD, Tungsten powder, and PCD in Daman & AVIS MACHINE PVT.LTD. At Surat (Gujarat) India.

SERVICE.

Since 1985 the group of companies provided services as under:-

1. Set up a cutting & polishing factory on turn key basis since 1985.
2. Set up a factory to manufacture diamond impregnated scaife to polished diamonds and PCD /PDC since 1987.
3. Set up a factory to manufacture PCD since 1989, as we know the behavior of natural and synthetic diamonds because we are in the diamond trade since 1975.

CONSULTANCY

We provide consultancy as under:-

1. To select the press and matrix
2. To select the diamond powder suitable for PCD/PDC application.
3. To select the treatment for powder.
4. To select the carbide Substrate.
5. To select the suitable cleaning/ annealing process for carbide.
6. To select the Anvil
7. Provide Cube Manufacturing process.
8. To select the HPHT process.
9. To provide lapping process.
10. To provide the grinding process.
11. To provide the testing method.
12. To select various type of machinery for diamond assortment, cutting & polishing, laser machine, planning machine, etc. to set up a diamond cutting & polishing factory.

»»» 半球形金刚石复合片

EDT半球形金刚石复合片为双层制品，主要用于高冲击、耐磨损操作如油气冲击钻探等。双层结构还可用于三牙轮钻头。两种类型的钻头均可在我公司获得相应尺寸的金刚石复合片。我们全部的产品都是无任何铜焊的一个整体。

»»» PCD HAMMER BIT INSERTS

EDT-Diamond dome inserts are two layered engineered products designed for high impact and wear resistant applications such as encountered in percussive drilling for oil and gas. Two layered structures have also found application in three cone rock bits. They are available in sizes suitable for both types of bits.

All our long product is one piece (SINGLE PIECE WITHOUT BRAZING).



公司生产的3/4英寸, 7/8英寸和1英寸半球形金刚石复合片已销往东、西德克萨斯州, 新墨西哥州, 俄克拉何马州, 阿肯色州, 西弗吉尼亚州以及NEUS地区。

Our 3/4 inch, 7/8 inch and 1 inch dome inserts have found successful application in geographical locations ranging from West and East Texas, New Mexico, Oklahoma, Arkansas, WV and NEUS regions

» 我公司通过显微镜对产品截面进行观察评估金刚石复合片的冶金特性下面的显微照片显示为：

- (1) 工作层完整性;
- (2) 工作层与过渡层之间的粘合;
- (3) 过渡层与合金基体之间的界面完整性。如下照片所示, 各层构造相同且粘合良好。

» Inserts are evaluated for their metallurgical features by microscopic examination of the section Following micrographs show :

- 1) the working layer integrity
- 2) the bonding between the working layer and the transition layer and
- 3) the interface integrity between transition layer and the carbide substrate.

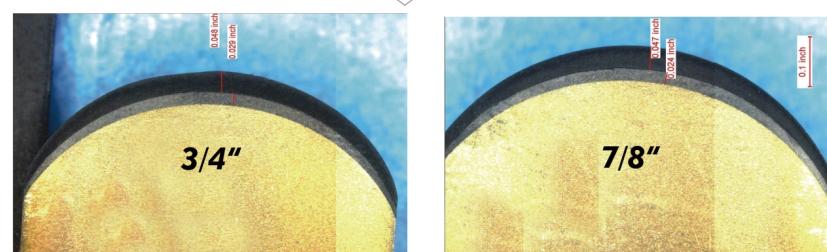
As can be seen in the following micrographs, the layers are homogenous and well bonded.

»»» 涂层厚度

EDT金刚石冲击钻用复合片的第一层涂层相比目前市场上其他同类产品厚。典型厚度超过0.045英寸, 过渡层超过0.030英寸。

»»» LAYER THICKNESS

EDT-Diamond Hammer bit inserts are characterized by highest thickness of first layer than found in any competitive product in the market place. Typical thickness for the first layer is in excess of 0.045 inch and transition layer of 0.030 inch.



照片显示了3/4英寸金刚石复合片（左图）以及7/8英寸金刚石复合片（右图）的半剖面图。图上标明了过渡层和第一层的厚度。

Photograph shows half cut view of both 3/4 inch insert(left) and 7/8 inch insert (right). Transition layer and first layer can be seen with layer thicknesses marked.



3/4英寸和7/8英寸金刚石复合片截面图

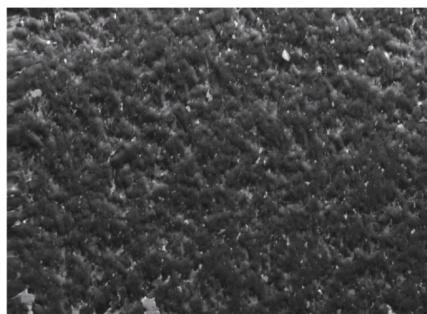
EDM section of both 3/4 inch and 7/8 inch insert

》》》 显微切削结构

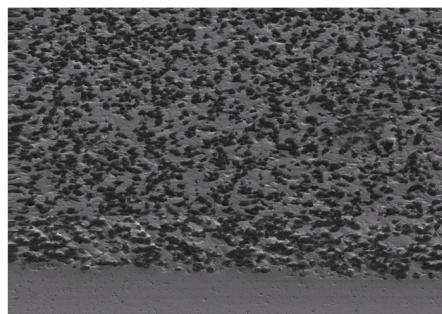
外层工作层的电子扫描显微照片。该层90%成分为金刚石，紧接着是一层特制的过渡层，使之与硬质合金基体紧密粘合，如下所示。

》》》 MICROGRAPH OF CUTTING STRUCTURE

Scanning electron micrograph of outer working layer. The layer is more than 90% by volume diamond followed by a specially engineered transition layer that intimately bonds with the carbide substrate as shown below.



》》》 第一层
FIRST LAYER



》》》 过渡层/硬质合金基体界面
TRANSITION LAYER/ CARBIDE SUBSTRATE INTERFACE



》》》》 质量把关和冲击试验

金刚石复合片是在高温高压设备严格操作下生产出来的，其原材料也同样要经受严格把关。我公司生产的每批金刚石复合片都必须通过以下测试：

- 染料渗透测试，检查产品体表是否存在裂缝；
- 热稳定性试验；
- 落锤试验；
- 高频率冲击，用质量为5吨的机械对固定着的金刚石复合片进行每分钟20次的高频率冲击。

》》》》 QUALITY CONTROL AND TESTING

Inserts are manufactured under strict guideline where all high pressure and high temperature components, raw materials for inserts are regulated. All batches of inserts are checked for the following:

1. Dye penetration to check presence of cracks
2. Thermal stability test
3. Drop Weight Test and
4. Impact Fatigue where inserts are subjected to impact at a rate of 20 hits per minute using a 5 Ton machine.



落锤试验
Photograph of the drop weight test machine



在夹持器中的金刚石复合片
Insert in a holder

"EDT" BALLASTIC PCD/PDC Inserts Specifications 子弹头形PCD/PDC复合片规格

"EDT" BALLASTIC pcd/pdc inserts Will be available with various diamond grade for the best combination of abrasion and impact resistance: 我们提供各种金刚石等级牌号的高耐磨和耐冲击性的子弹头形复合片。

we have designed our inserts in such a way that because of the transition layers between the diamond layer and the tungsten carbide the thermal integrity and impact strength have vastly improved. **ALL OUR LONG PRODUCT IS ONE PIECE (SINGLE PIECE WITHOUT BRAZING)**
我们设计的在金刚石和硬质合金之间的过渡层对耐热性和冲击强度有巨大的改善。我们全部的产品都是无任何铜焊的一个整体。

Product Code 产品编码	Size 尺寸	\varnothing D	L	R1	R2	T	\varnothing D	L	T	Grade 等级
		(in)英寸	(in)英寸	(in)英寸	(in)英寸	(in)英寸	(mm) 英寸	(mm) 毫米	(mm) 毫米	
2500-500-BL	1/4"	0.2500	0.5000	2 to 3	0.65	0.110	6.35	12.50	2.80	
3150-500-BL	6/16"	0.3150	0.500	2 to 3	0.40	0.150	8.00	12.70	3.81	
4000-600-BL	3/8"	0.4000	0.600	2 to 3	0.45	0.225	10.16	15.24	5.72	
4750-750-BL	7/16"	0.4750	0.750	2 to 3	0.65	0.290	12.07	19.05	7.37	
5040-950-BL	1/2"	0.5040	0.950	2 to 3	1.10	0.300	12.80	24.13	7.62	
5650-800-BL	9/16"	0.5650	0.800	2 to 3	1.10	0.350	14.35	20.32	8.89	
6350-950-BL	5/8"	0.6350	0.950	2 to 3	0.75	0.350	16.13	24.13	8.89	
7500-1000-BL	3/4"	0.7500	1.000	3 to 4	1.00	0.550	19.05	25.40	13.97	
8150-1000-BL	13/16"	0.8150	1.000	3 to 4	1.10	0.560	20.70	25.40	14.22	
8750-1000-BL	7/8"	0.8750	1.000	3 to 4	1.10	0.600	22.23	25.40	15.24	
10000-1100-BL	1"	1.0000	1.100	3 to 4	1.20	0.650	25.40	27.94	16.51	



Tolerances 公差:

\varnothing D	$\pm 0.0005"$	\varnothing D	$\pm 0.013.MM$	AVAILABLE PREMIUM GRADE "FX", "F082", "TENAX", "G2" 优质级 "FX", "F082", "TENAX", "G2"
L	$\pm 0.0003"$	L	$\pm 0.008.MM$	
R1	0.04	R1	1	
R2	0.1	R2	2	
Chamfer	0.020"x45°	Chamfer	0.020"x45°	

The Diameter, Length and the Carbide Chamfer Machined to Customer Specifications.
产品直径, 长度和合金倒角可按客户要求进行加工。

Tolerances: 公差

\varnothing D	$\pm 0.0005"$	D	$\pm 0.013.MM$	COMMERCIAL 商业级
\varnothing D	$\pm 0.0003"$	D	$\pm 0.008.MM$	PREMIUM 优质级
\varnothing D	$\pm 0.0002"$	D	$\pm 0.005.MM$	PREMIUM 优质级
L	$\pm 0.002"$	L	$\pm 0.051.MM$	
DOME HEIGHT 圆顶高度	$\pm 0.01"$	DOME HEIGHT 圆顶高度	$\pm 0.254.MM$	

The Diameter, Length and the Carbide Chamfer Machined to Customer Specifications. 产品直径, 长度和倒角可按客户要求规格加工。

"EDT" Domed PCD/PDC Inserts Specifications 半球形金刚石复合片规格

"EDT" Domed inserts Will be available with various diamond grade for the best combination of abrasion and impact resistance: Due to the transition layers between the diamond layer and the tungsten carbide the thermal integrity and impact strength have vastly improved. **ALL OUR LONG PRODUCT IS ONE PIECE (SINGLE PIECE WITHOUT BRAZING)**

"EDT" PDC复合片有多种金刚石牌号, 且都有很好的抗磨耗, 抗冲击的特性, 由于复合片的过渡层关系, 产品的热完整性和冲击强度都有了巨大的提高。我们所有的产品都是一个整体 (没有任何焊接)。

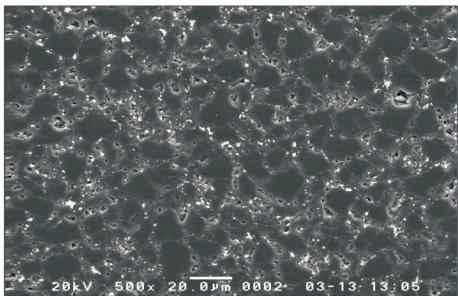
Product Code 产品编号	Size 尺寸	D Ø 直径 (in) 英寸	L 长度 (in) 英寸	Dome Height 圆顶高度 dr-(in) 英寸	Dome Radius 圆顶半径 (mm) 毫米	D Ø 直径 (mm) 毫米	L 长度 (mm) 毫米	DOME HEIGHT 圆顶高度 DH (mm) 毫米	DOME RADIUS 圆顶半径 DR(mm) 毫米	Grade 等级
250	1/4"	0.2500	0.1950	0.0580	0.1720	6.35	4.95	1.47	4.37	
250-U	1/4"	0.2500	0.4500	0.0580	0.1720	6.35	11.43	1.47	4.37	
312/316-V	5/16"	0.3125	0.2500	0.0750	0.2010	7.94	6.35	1.91	5.11	
316-U	5/16"	0.3160	0.3960	0.1120	0.1670	8.03	10.06	2.84	4.24	
375-VO	3/8"	0.3750	0.2970	0.0720	0.2800	9.53	7.54	1.83	7.11	
375-VH/VF	3/8"	0.3775	0.4970	0.1550	0.1950	9.59	12.62	3.94	4.95	
375-RH	3/8"	0.3790	0.4600	0.1550	0.1950	9.63	11.68	3.94	4.95	
379	3/8"	0.3790	0.4600	0.1550	0.1950	9.63	11.68	3.94	4.95	
395-SK	3/8"	0.3954	0.5610	0.1620	0.1970	10.04	14.25	4.11	5.00	
395-SKB	3/8"	0.3954	0.5610	0.2240	0.0980	10.04	14.25	5.69	2.49	
438	7/16"	0.4380	0.5000	0.2120	0.2180	11.13	12.70	5.38	5.54	
440	7/16"	0.4415	0.5450	0.2180	0.2180	11.21	13.84	5.54	5.54	
440-CH	7/16"	0.4409	0.6692	0.2440	0.2440	11.20	17.00	6.20	6.20	
440-RH	7/16"	0.4472	0.5450	0.2180	0.2180	11.36	13.84	5.54	5.54	
440-VH/VF	7/16"	0.4405	0.5650	0.2180	0.2180	11.19	14.35	5.54	5.54	
480-CH	31/64"	0.4803	0.7086	0.2350	0.2677	12.20	18.00	5.97	6.80	
500-TURBO	1/2"	0.5000	0.3800	0.0800	0.4310	12.70	9.65	2.03	10.95	
500-VH/VF	1/2"	0.5015	0.6000	0.3650	0.2250	12.74	15.24	9.27	5.72	
500-CH	1/2"	0.5196	0.7480	0.2800	0.2834	13.20	19.00	7.11	7.20	
560	9/16"	0.5615	0.8000	0.3650	0.2970	14.26	20.32	9.27	7.54	
565-ATC	9/16"	0.5653	0.6720	0.2360	0.2970	14.36	17.07	5.99	7.54	
625	5/8"	0.6296	0.9400	0.2410	0.3250	15.99	23.88	6.12	8.26	
630-RH	5/8"	0.6230	0.9000	0.2410	0.3250	15.82	22.86	6.12	8.26	
630-A1	5/8"	0.6246	0.9500	0.2350	0.3250	15.86	24.13	5.97	8.26	
630-A2	5/8"	0.6246	1.1256	0.2350	0.3250	15.86	28.59	5.97	8.26	
630-T	5/8"	0.6270	0.9470	0.2370	0.3250	15.93	24.05	6.02	8.26	
630-RC	5/8"	0.6300	0.8150	0.2610	0.3250	16.00	20.70	6.63	8.26	
630-CH	5/8"	0.6299	0.9448	0.3000	0.2834	16.00	24.00	7.62	7.20	
690	11/16"	0.6920	0.8000	0.4550	0.3000	17.58	20.32	11.56	7.62	
7506	3/4"	0.7480	0.6000	0.3650	0.3900	19.00	15.24	9.27	9.91	
7500	3/4"	0.7515	0.9000	0.3650	0.3900	19.09	22.86	9.27	9.91	
7535	3/4"	0.7535	0.9000	0.3650	0.3900	19.14	22.86	9.27	9.91	
750125	3/4"	0.7526	1.1250	0.3650	0.3900	19.12	28.58	9.27	9.91	
8150	13/15"	0.8145	0.9000	0.3130	0.4213	20.69	22.86	7.95	10.70	
8750	7/8"	0.8770	0.9000	0.3700	0.4450	22.28	22.86	9.40	11.30	
8770	7/8"	0.8790	0.9000	0.3700	0.4450	22.33	22.86	9.40	11.30	
875125	7/8"	0.8770	1.1250	0.3700	0.4450	22.28	28.58	9.40	11.30	
9395	1"	0.9395	0.9000	0.3150	0.5250	23.86	22.86	8.00	13.34	
10000	1"	1.0015	1.0000	0.3680	0.5250	25.44	25.40	9.35	13.34	
100125	1"	1.0015	1.1250	0.3680	0.5250	25.44	28.58	9.35	13.34	
122125	1.22"	1.2200	1.1250	0.4460	0.6400	30.99	28.58	11.33	16.26	

AVAILABLE PREMIUM GRADE "FX", "F082" AND NEW GRADE "TENAX" & "G2"



》》》》 高耐磨性、高韧性切割结构

》》》》 CUTTING STRUCTURE DESIGNED FOR HIGH ABRASION RESISTANCE AND TOUGHNESS



PCD/PDC 刀具规格 PCD/PDC CUTTER SPECIFICATIONS

"EDT" PDC / PCD-CUTTER WILL BE AVAILABLE WITH VARIOUS DIAMOND GRADE FOR THE BEST COMBINATION OF ABRASION AND IMPACT RESISTANCE. DUE TO THE TRANSITION LAYERS BETWEEN THE DIAMOND LAYER AND THE TUNGSTEN CARBIDE THE THERMAL INTEGRITY AND IMPACT STRENGTH HAVE VASTLY IMPROVED.

"EDT" PDC 复合片有多种金刚石牌号，且都有很好的抗磨耗，抗冲击的特性，由于复合片的过渡层关系，产品的热完整性和冲击强度都有了巨大的提高。

Product Code 产品编号	SIZE 尺寸	DΦ 直径 (IN) 英寸	L (IN) 英寸	DIAMOND HEIGHT 金刚石层厚度 (T) (IN) 英寸	DΦ 直径 (mm) 毫米	L (mm) 毫米	DIAMOND HEIGHT 金刚石层厚度 (T) (mm) 毫米	REMARK 备注	Grade 等级
		(IN) 英寸	(IN) 英寸	(mm) 毫米	(mm) 毫米	(mm) 毫米	(mm) 毫米		
0505	3/16"	0.1970	0.19702	0.0800	5.00	5.003	2.03	FLAT BOTTOM平底	
0804	5/16"	0.3150	0.1575	0.0800	8.00	4.00	2.03	FLAT BOTTOM平底	
0808	5/16"	0.3150	0.3150	0.0800	8.00	8.00	2.03	FLAT BOTTOM平底	
0810	5/16"	0.3150	0.3937	0.0800	8.00	10.00	2.03	FLAT BOTTOM平底	
0911	25/64"	0.3710	0.4200	0.0700	9.42	10.67	1.78	FLAT BOTTOM平底	
1008	13/32"	0.4060	0.3150	0.0700	10.31	8.00	1.78	FLAT BOTTOM平底	
1010	13/32"	0.4060	0.3937	0.0700	10.31	10.00	1.78	FLAT BOTTOM平底	
1204	1/2"	0.4920	0.1770	0.0700	12.50	4.50	1.78	FLAT BOTTOM平底	
1205	1/2"	0.4920	0.1970	0.0700	12.50	5.00	1.78	FLAT BOTTOM平底	
1304	1/2"	0.5290	0.1772	0.0700	13.44	4.50	1.78	FLAT BOTTOM平底	
1305	1/2"	0.5290	0.1970	0.0700	13.44	5.00	1.78	FLAT BOTTOM平底	
1308	1/2"	0.5290	0.3170	0.0800	13.44	8.05	2.03	FLAT BOTTOM平底	
1308-B	1/2"	0.5290	0.3170	0.0800	13.44	8.05	2.03	FLAT BOTTOM平底	
1313	1/2"	0.5290	0.5200	0.0800	13.44	13.21	2.03	FLAT BOTTOM平底	
1315	1/2"	0.5290	0.5905	0.0800	13.44	15.00	2.03	SPHERICAL BOTTOM球底	
1313GT	1/2"	0.5290	0.5200	0.0800	13.44	13.21	2.03	FLAT BOTTOM平底	
1608	5/8"	0.6250	0.3170	0.0800	15.88	8.05	2.03	FLAT BOTTOM平底	
1610	5/8"	0.6250	0.3937	0.0800	15.88	10.00	2.03	FLAT BOTTOM平底	
1616	5/8"	0.6300	0.6300	0.0800	16.00	16.00	2.03	FLAT BOTTOM平底	
1613	5/8"	0.6250	0.5200	0.0800	15.88	13.21	2.03	FLAT BOTTOM平底	
1619	5/8"	0.6250	0.7480	0.0800	15.88	19.00	2.03	SPHERICAL BOTTOM球底	
1908	3/4"	0.7500	0.3170	0.0800	19.05	8.05	2.03	FLAT BOTTOM平底	
1913	3/4"	0.7500	0.5200	0.0800	19.05	13.21	2.03	FLAT BOTTOM平底	
1916	3/4"	0.7500	0.6250	0.0800	19.05	15.88	2.03	FLAT BOTTOM平底	
1919	3/4"	0.7500	0.7480	0.0800	19.05	19.00	2.03	SPHERICAL BOTTOM球底	
1920	3/4"	0.7500	0.7875	0.0800	19.05	20.00	2.03	SPHERICAL BOTTOM球底	
1924	3/4"	0.7500	0.9450	0.0800	19.05	24.00	2.03	SPHERICAL BOTTOM球底	
1925	3/4"	0.7480	1.0000	0.0800	19.00	25.40	2.03	SPHERICAL BOTTOM球底	

Tolerances: 公差		
Diameter =D	=±0.0012"	Diameter =D 直径 OD =±0.03.MM
Length =L	=±0.004"	Length =L 长度 -L =±0.1.MM
Thickness=T	=±0.004"	Thickness=T 厚度 -T =±0.1.MM
Perpendicularity	=±0.0016"	Perpendicularity 垂直 =±0.04.MM
Parallelism	=±0.0016"	Parallelism 平行 =±0.04.MM
Diamond Chamfer Chinese standard	0.012"×45°	Diamond Chamfer Chinese standard 金刚石倒角 中国标准 0.3.mm×45°
Diamond Chamfer US standard	0.025"×45°	Diamond Chamfer US standard 金刚石倒角 美国校准 0.6.mm×45°
CarbideSubstrate Chamfer	0.020"×45°	CarbideSubstrate Chamfer 硬质合金倒角 0.5.mm×45°

The Diameter, Length, Diamond and the Carbide Chamfer Machined to Customer Specifications.

产品直径，长度，金刚石和合金倒角可按客户要求规格加工。

LCC=LOW CATALYST CUTTER

GCEDT has developed a new family of cutters called LCC (**LOW CATALYST CUTTER**) cutters characterized by low volume percent of non diamond phase in the structure. LCC cutters are not affected by the leaching process and perform exceptionally well against commercially available leached cutters. Leached cutters have voids in their structure and are prone to cracking.

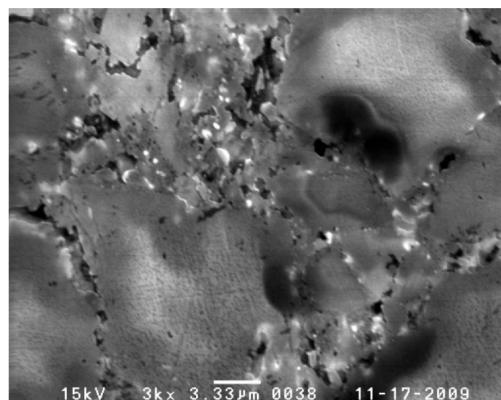
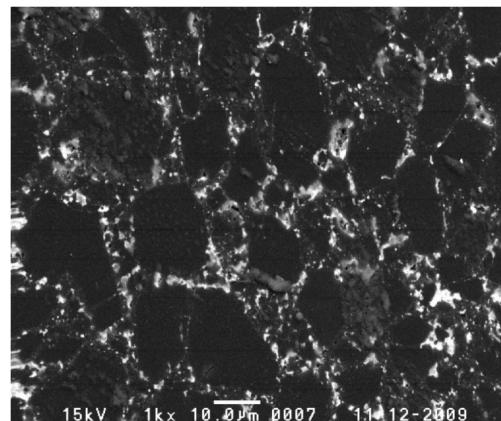
ROLE OF BINDER PHASE IN PCD

- ALL PCD CUTTERS CONTAIN VARYING AMOUNT OF BINDER ALSO CALLED CATALYTIC MATERIAL

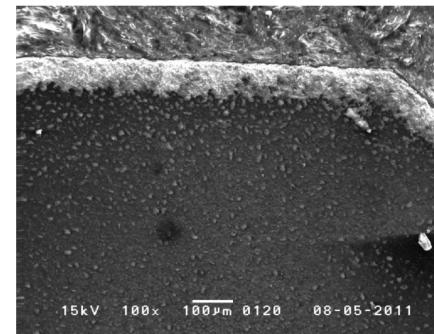
- PROPERTIES OF PCD IS DETERMINED BY THE AMOUNT AND TYPE OF BINDER IN THE STRUCTURE

- AS TEMPERATURE OF PCD INCREASES DURING DRILLING, BINDER EXPANDS MORE THAN DIAMOND CAUSING DIAMOND TO DIAMOND BOND

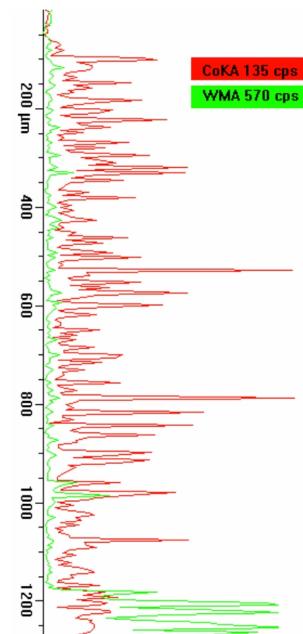
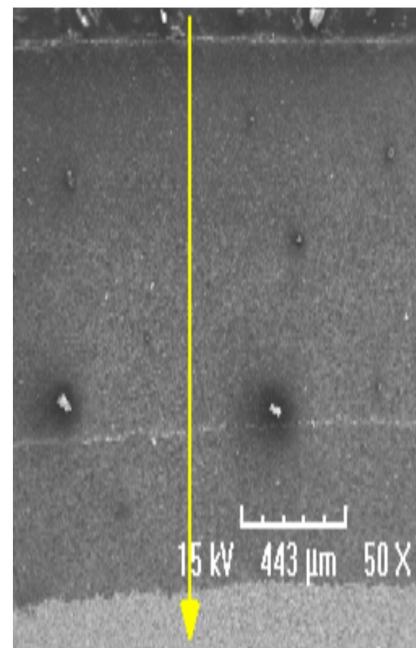
- PARTIAL LEACHING (SHALLOW OR DEEP) IS EMPLOYED TO REDUCE THE AMOUNT OF BINDER PHASE, HOWEVER IT CREATES VOIDS IN THE STRUCTURE



EFFECT OF LEACHING (ON GCEDT PCD PRODUCT)



COBALT AND TUNGSTEN AMOUNT IS REDUCED HOWEVER, ACID CAN NOT PENETRATE BEYOND 50 TO 60 MICRON DEPTH FROM THE SURFACE SINCE BINDER PHASE IS NOT CONTIGUOUS



WEAR LIP



GCEDT:
EDT1313-D #1 – 5 passes
 1.19mm^2

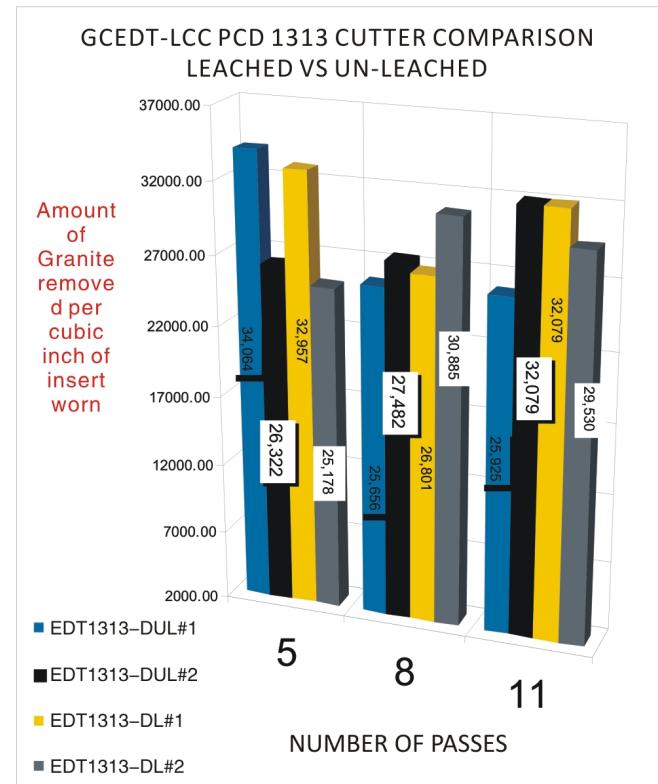


GCEDT:
EDT1313-D #1 – 8 passes
 2.66mm^2



GCEDT:
EDT1313-D #1 – 11 passes
 2.78mm^2

Granite Log Wear Testing Report



SUMMARY

- SPECIFIC GRAVITY OF PCD LAYER CAN BE USED TO DETERMINE THE AMOUNT OF BINDER CONTENT OF THE PCD LAYER.
- WHEN THE AMOUNT OF BINDER IN THE PCD STRUCTURE IS SMALL, THE PERFORMANCE OF CUTTER IS THE SAME AS LEACHED PRODUCT.
- PCD CUTTERS WITH SMALL AMOUNT OF BINDER SHOW INSIGNIFICANT DEPTH OF LEACHING (LESS THAN 40 MICRON) EVEN AFTER SUBJECTED TO LONG EXPOSURE TO LEACHING EITHER BY ELECTROLYTIC OR ACID LEACHING PROCESS.

>>>> 采用立式六角车床进行花岗岩磨损试验
采用花岗岩的立式六角车床（VTL）试验通常用于油气钻井应用的不同聚晶金刚石（PCD）复合片性能的测试及比较。我们已开发出进行本公司系列PCD产品测试的系统和程序。

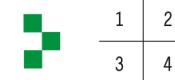
>>>> **GRANITE ABRASION TEST USING VERTICAL TURRET LATHE (VTL)**
VTL tests employing granite logs are commonly used to test and compare properties of different PCD cutters used in oil and gas drilling applications. We have developed system and procedures to conduct tests for our own family of PCD products.



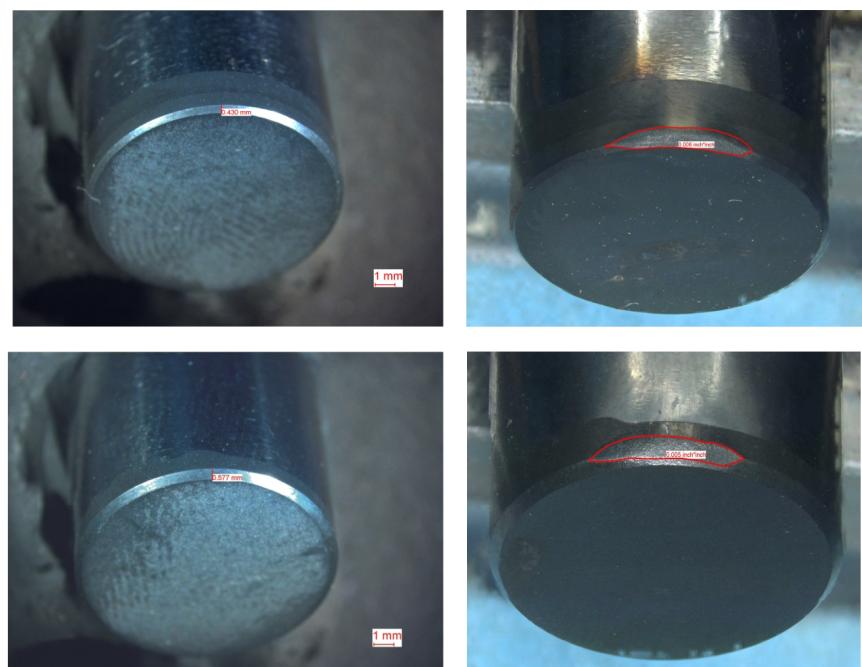
A-US -1313复合片 (VTL试验前)
(A) US-CUTTER-1313 BEFORE VTL TEST

A-US -1313复合片
(A) US-CUTTER-1313 AFTER VTL TEST

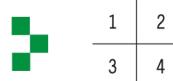
>>>> 采用立式六角车床进行花岗岩磨损试验
GRANITE ABRASION TEST USING VERTICAL TURRET LATHE (VTL)



1. B-1313复合片 (VTL试验前)
(B) US-CUTTER-1313 BEFORE VTL TEST
2. B-1313复合片 (VTL试验后)
(B) US-CUTTER-1313 AFTER VTL TEST
3. C-US-CUTTER-1313复合片 (VTL试验前)
(C) US-CUTTER-1313 BEFORE VTL TEST
4. C-US-CUTTER-1313复合片 (VTL试验后)
(C) US-CUTTER-1313 AFTER VTL TEST



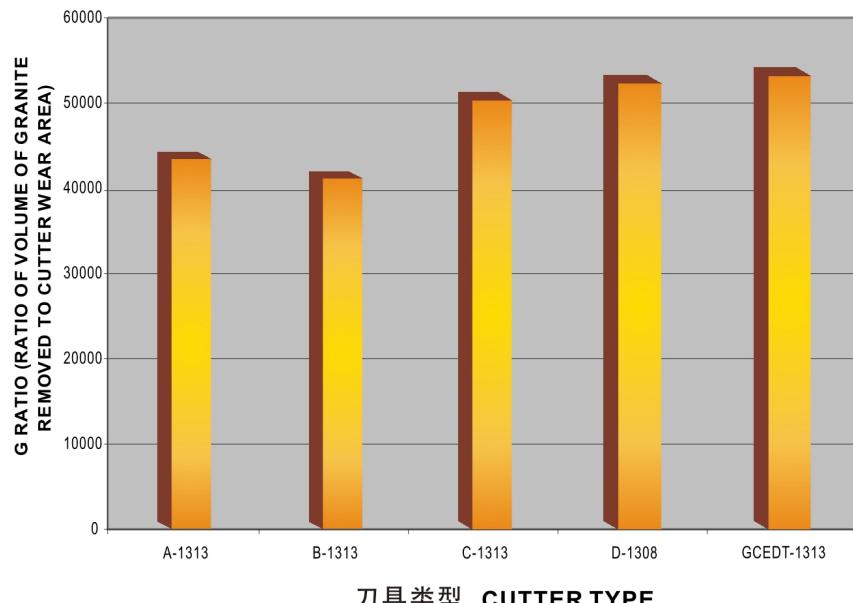
>>>>> 采用立式六角车床进行花岗岩磨损试验
GRANITE ABRASION TEST USING VERTICAL TURRET LATHE (VTL)



1. D-US-CUTTER-1308复合片 (VTL试验前)
(D US-CUTTER-1308 BEFORE VTL TEST)
2. D-US-CUTTER-1308复合片 (VTL试验后)
(D US-CUTTER-1308 AFTER VTL TEST)
3. GCEDT-1313复合片 (VTL试验前)
GCEDT-1313 BEFORE VTL TEST
4. GCEDT-1313 (VTL试验后)
GCEDT-1313 AFTER VTL TEST



>>>>> 采用立式六角车床(VTL)进行花岗岩磨损试验
GRANITE LOG ABRASION TEST USING VERTICAL TURRET LATHE (VTL)



>>>>> 上图中, 参数G是指去除的花岗岩体积对复合片侧面磨损面积比。

Parameter G in this graph is defined as ratio of volume of granite rock removed to flank wear area of the cutter.

»»» 热循环试验

所有商用PCD(聚晶金刚石)复合片结构在非金刚石相时具有变化的重量百分比。非金刚石相与金刚石相比起来在热传导性,热膨胀系数和弹性模量等方面都具有不同的性能。经过加热及冷却,非金刚石相由于其较高的热膨胀系数往往会引起孔隙或开裂。热循环试验通常用于检测聚晶金刚石(PCD)产品的质量。在AC金刚石进行热试验时,复合片在750°C的空气中继续放置一段时间,然后迅速冷却到室温,检查有没有产生孔隙或开裂,然后再放入炉子中进行进一步的热循环。

»»» THERMAL CYCLING TEST

All commercially available PCD cutters have varying weight percentage of non diamond phase in their structure. The non diamond phases have different properties compared to the diamond phase in terms of thermal conductivity, thermal expansion and elastic modulus. Upon heating and cooling non diamond phase tend to cause development of porosity or cracking due to their higher coefficient of thermal expansion. Thermal cycling test is a useful test that is commonly used to determine quality of PCD products. In Diamond thermal test, cutters are exposed to 750°C in air for duration of time and then rapidly cooled to room temperature. They are then inspected for any cracks and porosity and then put in to the furnace for further cycling.



显示A-US CUTTER-1313热循环前后特征 (14次循环)。

Photographs show features of A-US CUTTER-1313 before and after thermal cycling (14 cycles).



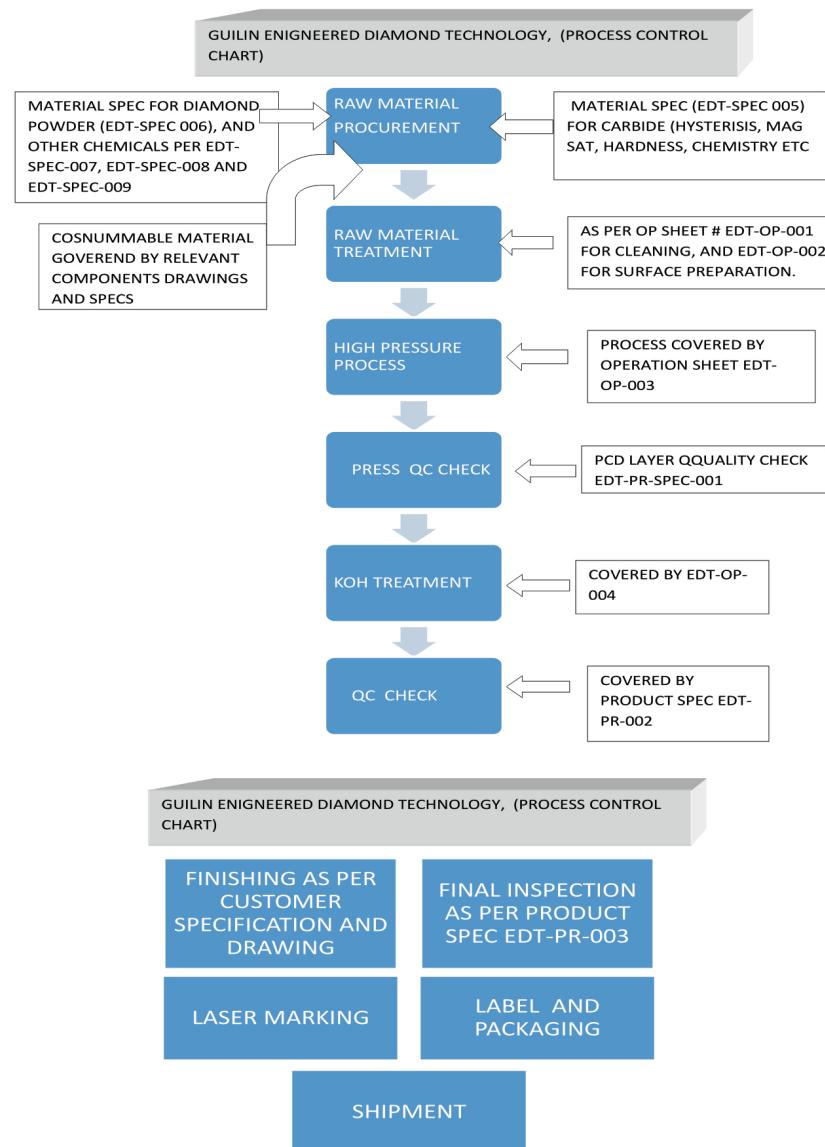
照片显示D-US CUTTER-1308热循环前后特征 (14次循环)。通过渗出的染料可以看出已产生了孔隙或次表层存在裂纹。

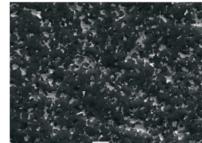
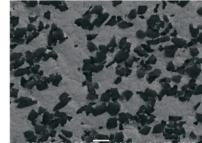
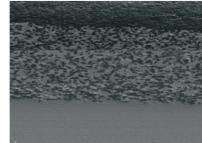
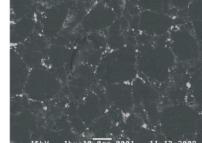
Photographs show features of D-US CUTTER-1308 before and after thermal cycling(14 cycles). Development of porosity or presence of sub surface cracksis indicated by oozing of dye after application of developer.



照片显示GCEDT-1313 热循环前后特征 (14次循环)。没有存在孔隙或次表层开裂迹象。

Photograph shows features of GCEDT-1313 before and thermal cycling (14 cycles). There are no signs of porosity or sub surface cracks.



牌号 GRADE	描述 DESCRIPTION	特性 CHARACTERISTICS	显微结构 MICROSTRUCTURE
FX	AVERAGE GRAIN SIZE 8 MICRON NON DIAMOND SECOND PHASE 10 VOL% EXCELLENT DIAMOND GRAIN BONDING USED FOR ROUND TOP DOME PRODUCTS HAMMER BITS	TWO LAYERED PRODUCT -FIRST LAYER (CONTAINS HIGHER AMOUNT OF DIAMOND PHASE) -TRANS LAYER (CONTAINS SMALLER AMOUNT OF DIAMOND PHASE) GOOD ABRASION RESISTANCE GOOD IMPACT RESISTANCE	 FIRST LAYER
	平均粒度8微米 第二层10VOL%优质结合 金刚石颗粒可用于球形圆顶产品专为牙轮钻头和空气锤潜孔钻头设计	双层制品 第一层(包含较多金刚石) 过渡层(包含少量金刚石) 高耐磨性 高抗冲击力	
F082	AVERAGE GRAIN SIZE 8 MICRON NON DIAMOND SECOND PHASE 15 VOL% EXCELLENT DIAMOND GRAIN BONDING AVAILABLE FOR ROUND TOP DOME PRODUCTS DESIGNED FOR ROLLWER CONE AND HAMMER BITS	SIMILAR FEATURES AS IN FX SERIES OFFERS EXCELLENT IMPACT RESISTANCE	 TRANS LAYER
	平均粒度8微米 第二层15VOL%优质结合 金刚石颗粒可用于球形圆顶产品专为牙轮钻头和空气锤潜孔钻头设计	与FX系列特征相似 可提供优越的抗冲击力	
F100	AVERAGE GRAIN SIZE 10 MICRON NON DIAMOND SECOND PHASE 5-7 VOL% EXCELLENT DIAMOND GRAIN BONDING AVAILABLE FOR ROUND TOP DOME & CUTTING TOOLS	EXCELLENT ABRASION RESISTANCE GOOD IMPACT RESISTANCE	 F100
	平均粒度10微米 第二层5-7VOL% 优质结合金刚石颗粒 这个牌号适用于圆顶复合齿和切削工具	极佳的耐磨性 高抗冲击力	
DL2500	AVERAGE GRAIN SIZE 25 MICRON NON DIAMOND SECOND PHASE LESS THAN 5 VOL% EXCELLENT DIAMOND GRAIN BONDING AVAILABLE IN 9 MM, 13 MM, 16 MM AND 19 MM CUTTING TOOLS	EXCELLENT ABRASION RESISTANCE WIDELY USED AS PDC BIT INSERTS USED FOR DOWN HOLE MOTOR BEARING	 DL2500
	平均粒度25微米 第二层少于5VOL% 优质结合金刚石颗粒 可用于直径9mm, 13mm, 16mm, 19mm切削工具	极佳的耐磨性 广泛用于PDC钻头插片， 用于井下电机轴承 极佳的抗冲击力 广泛用于PDC 钻头插片	



- How to test HPHT treated Diamonds
- How to select Ila type Diamond for Decolorisation
- How to test a Mounted Diamond

Diamond Spotter

Select Ila type brown diamond which can become white or pink by HPHT



We convert Brown Diamonds into colorless & other fancy colors by HPHT Process



Sr No	NATURAL COLOR DIAMOND	HPHT PROCESS & INSERT GAS FURNACE PROCESS DIAMOND	FINAL POLISH DIAMOND
1			
2			
3			
4			



"EDT" Specification of Carbide Substrate For Pcd/Pdc mining oil and gas exploration.

开采勘探石油和天然气 pcd/pdc复合片的硬质合金基体规格

"EDT" Standard Carbide Substrate Will be available with various grade for the best combination of pcd/pdc manufacturing. EDT 提供制造PCD/PDC最佳组合的各种等级牌号的硬质合金基体

Carbide Specification for pcd/pdc manufacturing 硬质合金基体规格

Product Code 产品编号	Size 尺寸 (in) 英寸	ØD 直径	L 长度 (in) 英寸	Dome Height 圆顶高度 (in) 英寸	Dome Radius 圆顶半径 (in) 英寸	D Ø 直径 (mm) 毫米	L 长度 (mm) 毫米	Dome Height 圆顶高度 (mm) 毫米	Dome Radius 圆顶半径 (mm) 毫米	Grade 等级
		(in) 英寸	(in) 英寸	(in) 英寸	(mm) 毫米	(mm) 毫米	(mm) 毫米	(mm) 毫米	(mm) 毫米	
300	5/16"	0.300	0.200	0.085	0.175	7.62	5.08	2.16	4.45	
350	11/32"	0.350	0.250	0.098	0.200	8.89	6.35	2.49	5.08	
410	13/32"	0.410	0.450	0.165	0.205	10.41	11.43	4.19	5.21	
480	1/2"	0.480	0.520	0.205	0.225	12.19	13.21	5.21	5.72	
550	35/64"	0.550	0.650	0.220	0.260	13.97	16.51	5.59	6.60	
600	5/8"	0.605	0.675	0.225	0.305	15.37	17.15	5.72	7.75	
670	21/32"	0.670	1.100	0.250	0.335	17.02	27.94	6.35	8.51	
700	45/64"	0.700	0.890	0.300	0.360	17.78	22.61	7.62	9.14	
740	47/64"	0.740	0.980	0.320	0.380	18.80	24.89	8.13	9.65	
7806	25/32"	0.780	0.600	0.286	0.405	19.81	15.24	7.26	10.29	
7809	25/32"	0.780	0.890	0.286	0.405	19.81	22.61	7.26	10.29	
7811	25/32"	0.780	1.080	0.286	0.405	19.81	27.43	7.26	10.29	
8559	55/64"	0.855	0.900	0.384	0.430	21.72	22.86	9.75	10.92	
9159	29/32"	0.915	0.900	0.380	0.460	23.24	22.86	9.65	11.68	
91511	29/32"	0.915	1.100	0.380	0.460	23.24	27.94	9.65	11.68	
98090	31/32"	0.980	0.900	0.394	0.502	24.89	22.86	10.01	12.75	
100960	1"	1.040	0.960	0.390	0.540	26.42	24.38	9.91	13.72	
101100	1"	1.040	1.100	0.390	0.540	26.42	27.94	9.91	13.72	
125110	1 1/4"	1.250	1.100	0.490	0.650	31.75	27.94	12.45	16.51	
¶ 41544	13/32"	0.415	0.440	flat-non planer		10.54	11.18	flat-non planer		
¶ 57635	37/64"	0.576	0.350	flat-non planer		14.63	8.89	flat-non planer		
¶ 57650	37/64"	0.576	0.500	flat-non planer		14.63	12.70	flat-non planer		
¶ 66035	21/32"	0.660	0.350	flat-non planer		16.76	8.89	flat-non planer		
¶ 66050	21/32"	0.660	0.500	flat-non planer		16.76	12.70	flat-non planer		
¶ 78335	25/32"	0.783	0.350	flat-non planer		19.89	8.89	flat-non planer		
¶ 78350	25/32"	0.783	0.500	flat-non planer		19.89	12.70	flat-non planer		
¶ 112218	1 1/4"	1.122	0.180	flat planer		28.50	4.57	flat planer		
¶ 126018	1 1/4"	1.260	0.180	flat planer		32.00	4.57	flat planer		

Tolerances 公差:

D	=± 0.001"	D	=± 0.025.MM	COMMERCIAL
L	=± 0.002"	L	=± 0.051.MM	
Dome Height 圆顶高度	=± 0.01"	Dome Height 圆顶高度	=± 0.254.MM	

The Diameter, Length , Dome Radius and Chamfer Machined to Customer Specifications. 产品直径，长度，圆顶半径和合金倒角可按客户要求规格加工。

Carbide substrate for flat products available both in planar and non-planar geometries. 硬质合金基体有平面和几何图案两种。



"EDT" SPECIFICATION OF METAL CAN FOR PCD/PDC
MANUFACTURING. 金属盖规格

STANDARD SIZE CAN WILL BE AVAILABLE WITH METAL Mo/Ti/Zr/Ta/Nb & VARIOUS GRADE FOR THE BEST COMBINATION OF PCD/PDC MANUFACTURING: 我们提供各种等级的钼/钛/锆/钽/铌盖用于复合片的加工.

STANDARD SIZE METAL CAN SPECIFICATION (METAL THICKNESS IS 0.2.MM)
金属盖规格(材料厚0.2MM)

Product Code 产品编号	SIZE 尺寸	\varnothing D	H	DOME HEIGHT 圆顶高度	DOME RADIOUS 圆顶半径	D Ø	H	DOME HEIGHT 圆顶高度	DOME RADIOUS 圆顶半径	GRADE 金属材质
		(IN) 英寸	(IN) 英寸	(IN) 英寸	(mm) 英寸	毫米	毫米	(mm) 毫米	(mm) 毫米	
300	5/16"	0.320	0.200	0.870	0.183	8.13	5.08	22.10	4.65	
350	11/32"	0.370	0.220	0.106	0.208	9.40	5.59	2.69	5.28	
410	13/32"	0.430	0.350	0.180	0.213	10.92	8.89	4.57	5.41	
480	1/2"	0.500	0.433	0.215	0.233	12.70	11.00	5.46	5.92	
550	35/64"	0.570	0.464	0.230	0.268	14.48	11.79	5.84	6.81	
600	5/8"	0.625	0.475	0.235	0.313	15.88	12.07	5.97	7.95	
670	21/32"	0.690	0.528	0.260	0.343	17.53	13.41	6.60	8.71	
700	45/63"	0.720	0.633	0.320	0.368	18.29	16.08	8.13	9.35	
740	47/64"	0.760	0.675	0.330	0.388	19.30	17.15	8.38	9.86	
7806	25/32"	0.800	0.603	0.286	0.405	20.32	15.32	7.26	10.29	
7809	25/32"	0.800	0.770	0.286	0.405	20.32	19.56	7.26	10.29	
7811	25/32"	0.800	0.900	0.286	0.405	20.32	22.86	7.26	10.29	
8559	55/64"	0.875	0.800	0.436	0.428	22.23	20.32	11.07	10.87	
9159	29/32"	0.935	0.900	0.380	0.460	23.75	22.86	9.65	11.68	
91511	29/32"	0.935	0.900	0.380	0.460	23.75	22.86	9.65	11.68	
98090	31/32"	1.000	0.900	0.410	0.510	25.40	22.86	10.41	12.95	
100960	1"	1.060	0.900	0.434	0.540	26.92	22.86	11.02	13.72	
101100	1"	1.060	1.000	0.434	0.540	26.92	25.40	11.02	13.72	
125110	1 1/4"	1.270	1.000	0.536	0.650	32.26	25.40	13.61	16.51	
41544	13/32"	0.435	0.440	FLAT CAN		11.05	11.18	FLAT CAN		
57635	37/64	0.596	0.350	FLAT CAN		15.14	8.89	FLAT CAN		
57650	37/64	0.596	0.500	FLAT CAN		15.14	12.70	FLAT CAN		
66035	21/32"	0.680	0.350	FLAT CAN		17.27	8.89	FLAT CAN		
66050	21/32"	0.680	0.500	FLAT CAN		17.27	12.70	FLAT CAN		
78335	25/32"	0.803	0.350	FLAT CAN		20.40	8.89	FLAT CAN		
78350	25/32"	0.803	0.500	FLAT CAN		20.40	12.70	FLAT CAN		
112218	1 1/4"	1.145	0.180	FLAT CAN		29.09	4.57	FLAT CAN		
126018	1 1/4"	1.280	0.180	FLAT CAN		32.51	4.57	FLAT CAN		

TOLERANCES 公差:

D	=±0.001"	D	=±0.025.MM
H	=±0.002"	H	=±0.051.MM
DOME HEIGHT	=±0.01"	DOME HEIGHT	=±0.254.MM

ALSO THE DIAMETER, LENGTH, DOME RADIUS AND THICKNESS WILL BE SUPPLIED AS PER CUSTOMER SPECIFICATIONS. 直径, 长度, 圆顶直径和材料厚度可根据客户要求进行调整。

"EDT" standard high pressure cube and cube components Specifications
EDT复合块&相关辅件规格

GCEDT provides standard high pressure cube and cube components for industrial diamond synthesis and for PCD products (Polycrystalline diamond compacts). Orders for cubes are accepted for two types of cubes (1) standard cubes based on natural pyrophyllite and (2) cubes having proprietary synthetic material based on talc and other chemicals. Both type of cubes have proven record in diamond crystal and PCD manufacturing. Cube sizes are available for all standard press systems commonly used in Chinese market and elsewhere. We recommend Cube curing temperature between 105 to 120 °C for 10 to 50 hours for better anvil life.
***** FORMULA FOR CUBE SIEZ=ANVILE FACE x1.25 *****

我们提供用于合成工业金刚石, 复合片产品的高压复合块及其辅件。我们的复合块材料有两种: (1) 传统叶腊石块; (2) 以滑石及其它化工材料组合并注册有技术专利的合成材料; 这两种复合块在合成金刚石和PCD领域上均已得到认可/证实。我们可生产国内现有的各种尺寸复合块。我们建议复合块在105-120的温度下烘烤10-50个小时, 以延长顶锤使用寿命。复合块的尺寸=顶锤锤面尺寸×1.25

CUBE SIZE AND SPECIFICATIONS 复合块尺寸及规格

Product Code 产品编码	Size 尺寸 (in) 英寸	D Ø (IN) 英寸	Hole Ø (IN) 英寸	T	Size 尺寸 (mm) 毫米	D Ø (mm) 毫米	H Ø (mm) 毫米	T	HPHT Press cylinder diameter 压机缸体直径
CU-765-6860-120	3.012	3.0122	2.677	2.362	76.50	76.50	68.00	60.00	12.0
CU-765-6860-095	3.012	3.0122	2.677	2.362	47.2	47.2	68.00	60.00	9.5
CU-760-6861-120	2.992	2.992	2.677	2.402	76.00	76.00	68.00	61.00	12.0
CU-755-6660-120	2.972	2.972	2.598	2.362	47.50	47.50	66.00	60.00	12.0
CU-750-6659-120	2.953	2.953	2.598	2.323	47.50	47.50	66.00	59.00	12.0
CU-735-6559-120	2.894	2.894	2.559	2.323	47.50	47.50	65.00	59.00	12.0
CU-730-6458-120	2.874	2.874	2.520	2.283	47.30	47.30	64.00	58.00	12.0
CU-730-6458-095	2.874	2.874	2.520	2.283	37.00	37.00	64.00	58.00	9.5
CU-720-6460-120	2.835	2.835	2.520	2.362	47.20	47.20	64.00	60.00	12.0
CU-695-6154-110	2.736	2.736	2.402	2.126	46.90	46.90	61.00	54.00	11.0
CU-690-6155-120	2.736	2.736	2.402	2.165	46.90	46.90	61.00	55.00	12.0
CU-685-6152-110	2.697	2.697	2.402	2.047	46.80	46.80	61.00	52.00	11.0
CU-680-6153-110	2.677	2.677	2.402	2.087	46.80	46.80	61.00	53.00	11.0
CU-680-6152-110	2.677	2.677	2.402	2.008	46.80	46.80	61.00	51.00	11.0
CU-640-5649-950	2.520	2.520	2.205	1.929	46.00	46.00	56.00	49.00	9.5
CU-610-5042-090-B	2.402	2.402	1.969	1.673	45.50	45.50	50.00	42.50	9.0
CU-610-5444-011-E	2.402	2.402	2.126	1.732	46.00	46.00	54.00	44.00	11.0
CU-590-5246-090-E	2.323	2.323	2.047	1.831	45.90	45.90	52.00	46.50	9.0
CU-590-5244-011	2.323	2.323	2.047	1.732	45.90	45.90	52.00	44.00	11.0
CU-590-5244-095	2.323	2.323	2.047	1.732	45.90	45.90	52.00	44.00	9.5
CU-580-5143-011	2.283	2.283	2.008	1.693	45.80	45.80	51.00	43.00	11.0
CU-580-5143-090	2.283	2.283	2.008	1.693	45.80	45.80	51.00	43.00	9.0
CU-580-5242-011	2.283	2.283	2.047	1.654	45.80	45.80	52.00	42.00	11.0
CU-580-5242-090	2.283	2.283	2.047	1.654	45.80	45.80	52.00	42.00	9.0
CU-580-5243-090	2.283	2.283	2.047	1.713	45.80	45.80	52.00	43.50	9.0
CU-560-4032-100	2.205	2.205	1.575	1.280	45.60	45.60	40.00	32.50	10.0
CU-550-4238-080-G	2.165	2.165	1.673	1.417	45.50	45.50	42.50	36.00	8.0
CU-550-4737-115	2.165	2.165	1.850	1.457	45.50	45.50	47.00	37.00	11.5
CU-550-4335-090	2.165	2.165	1.693	1.358	45.50	45.50	43.00	34.50	9.0
CU-545-3531-090	2.146	2.146	1.378	1.240	45.40	45.40	35.00	31.50	9.0
CU-550-3625-090-B	2.008	2.008	1.417	0.984	45.10	45.10	36.00	25.00	9.0
CU-550-3621-090-B	2.165	2.165	1.417	0.827	45.50	45.50	36.00	21.00	9.0
CU-510-4234-080-B	2.008	2.008	1.654	1.339	45.10	45.10	42.00	34.00	8.0

Tolerances 公差:

\varnothing D	=±0.008"	\varnothing D	=±0.2.MM
\varnothing H	=±0.005"	\varnothing H	=±0.13.MM
T	=±0.01"	T	=±0.25.MM
length length width width	=±0.008"	length length width width	=±0.2.MM





产品介绍 Products

EDT GENERAL PURPOSE BROCHURE



STANDARD GCEDT CUBE, ANVIL SIZE & DIMENSION

"GCEDT" synthetic cube & carbide anvil for HPHT presses, available in various sizes/grades to increase consistency.

各种可增加稳定性的复合块/顶锤尺寸和牌号

CUBE & CARBIDE ANVIL SIZE & SPECIFICATIONS 复合块及硬质合金顶锤尺寸规格

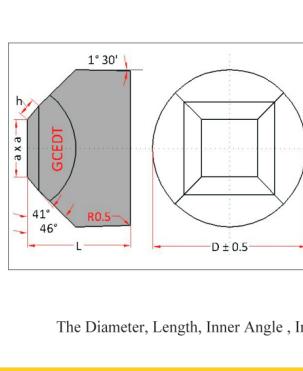
SR NO	EDT CUBE Size mm 顶锤尺寸 英寸	Anvile Size 顶锤直径 (in) 英寸	Anvil length "L"高度 (in) 英寸	ANVIL FACE SIZE 锤面尺寸 (in) 英寸	"h" (in) 英寸	Anvile Size 顶锤直径 (mm) 毫米	Anvil length "L" 高度 (mm) 毫米	ANVIL FACE SIZE 锤面尺寸 (mm) 毫米	"h" (mm) 毫米	ANGLE 角度 (°)	Grade 等级
1	29.4	Ø 4.803	3.543	1.614 X1.614	0.472	Ø 71	53.0	24.0X24.0	11.0	41.5°	
2	31.3	Ø 2.835	2.126	0.984 X0.984	0.433	Ø 72	54.0	25.0X25.0	11.0	41.5°	
3	34.4	Ø 3.189	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	12.0	41.5°	
4	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	11.0	41.5°	
5	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	12.0	41.5°	
6	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	11.0	41.5°	
7	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	12.0	41.5°	
8	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	11.0	41.5°	
9	33.8	Ø 3.181	2.539	1.063 X1.063	0.433	Ø 81	64.5	27.0X27.0	12.0	41.5°	
10	34.4	Ø 3.181	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	11.0	41.5°	
11	34.4	Ø 3.181	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	12.0	41.5°	
12	34.4	Ø 3.181	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	12.0	41.5°	
13	34.4	Ø 3.181	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	11.0	41.5°	
14	34.4	Ø 3.181	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	12.0	41.5°	
15	34.4	Ø 3.189	2.539	1.083 X1.083	0.433	Ø 81	64.5	27.5X27.5	12.0	41.5°	
16	34.4	Ø 3.189	2.559	1.083 X1.083	0.433	Ø 81	65.0	27.5X27.5	12.0	41.5°	
17	35.6	Ø 3.228	2.579	1.122 X1.122	0.433	Ø 82	65.5	28.5X28.5	11.0	41.5°	
18	36.3	Ø 3.248	2.539	1.142 X1.142	0.433	Ø 83	64.5	29.0X29.0	12.0	41° To 43°	
19	37.5	Ø 3.346	2.539	1.181 X1.181	0.433	Ø 85	64.5	30.0X30.0	12.0	41° To 43°	
20	38.8	Ø 3.350	2.539	1.220 X1.220	0.433	Ø 85	64.5	31.0X31.0	12.0	41° To 43°	
21	41.3	Ø 3.406	2.598	1.299 X1.299	0.433	Ø 87	66.0	33.0X33.0	13.0	41° To 43°	
22	38.8	Ø 3.445	2.579	1.220 X1.220	0.433	Ø 88	65.5	31.0X31.0	12.0	41° To 43°	
23	35.6	Ø 3.543	2.756	1.122 X1.122	0.433	Ø 90	70.0	28.5X28.5	12.0	41° To 43°	
24	35.6	Ø 3.543	2.756	1.122 X1.122	0.433	Ø 90	70.0	28.5X28.5	12.0	41° To 43°	
25	35.6	Ø 3.543	2.756	1.122 X1.122	0.433	Ø 90	70.0	28.5X28.5	13.0	41° To 43°	
26	36.8	Ø 3.543	2.756	1.157 X1.157	0.433	Ø 90	70.0	29.4X29.4	13.0	41° To 43°	
27	36.8	Ø 3.543	2.756	1.157 X1.157	0.433	Ø 90	70.0	29.4X29.4	12.0	41° To 43°	
28	36.8	Ø 3.543	2.756	1.157 X1.157	0.433	Ø 90	70.0	29.5X29.5	12.0	41° To 43°	
29	36.9	Ø 3.543	2.756	1.161 X1.161	0.433	Ø 90	70.0	29.5X29.5	12.0	41° To 43°	
30	36.9	Ø 3.543	2.756	1.161 X1.161	0.433	Ø 90	70.0	29.5X29.5	12.0	41° To 43°	
31	36.9	Ø 3.543	2.756	1.161 X1.161	0.433	Ø 90	70.0	29.5X29.5	12.0	41° To 43°	

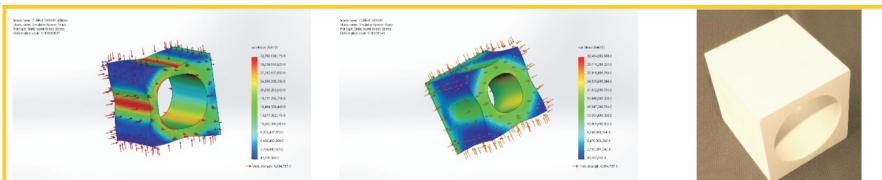
32	37.5	Ø 3.543	2.756	1.181 X1.181	0.433	Ø 90	70.0	30.0X30.0	12.0	41° To 43°
33	37.5	Ø 3.543	2.756	1.181 X1.181	0.433	Ø 90	70.0	30.0X30.0	12.0	41° To 43°
34	37.5	Ø 3.543	2.756	1.181 X1.181	0.433	Ø 90	70.0	30.0X30.0	13.0	41° To 43°
35	37.5	Ø 3.547	2.697	1.181 X1.181	0.433	Ø 90	68.5	30.0X30.0	13.0	41° To 43°
36	39.4	Ø 3.547	2.756	1.240 X1.240	0.433	Ø 90	70.0	31.5X31.5	13.0	41° To 43°
37	38.8	Ø 3.602	2.736	1.220 X1.220	0.433	Ø 92	69.5	31.0X31.0	13.0	41° To 43°
38	40.0	Ø 3.602	2.815	1.260 X1.260	0.433	Ø 92	71.5	32.0X32.0	12.0	41° To 43°
39	36.9	Ø 3.701	2.835	1.161 X1.161	0.433	Ø 94	72.0	29.5X29.5	12.0	41° To 43°
40	36.9	Ø 3.701	2.835	1.161 X1.161	0.433	Ø 94	72.0	29.5X29.5	13.0	41° To 43°
41	40.0	Ø 3.819	2.874	1.260 X1.260	0.433	Ø 97	73.0	32.0X32.0	12.5	41° To 43°
42	40.6	Ø 4.055	2.992	1.280 X1.280	0.433	Ø 103	76.0	32.5X32.5	11.5	41° To 43°
43	40.6	Ø 4.055	3.268	1.280 X1.280	0.433	Ø 103	83.0	32.5X32.5	12.5	41° To 43°
44	40.6	Ø 4.055	3.031	1.280 X1.280	0.433	Ø 103	77.0	32.5X32.5	12.5	41° To 43°
45	40.6	Ø 4.055	2.992	1.280 X1.280	0.433	Ø 103	76.0	32.5X32.5	11.5	41° To 43°
46	40.6	Ø 4.055	3.268	1.280 X1.280	0.433	Ø 103	83.0	32.5X32.5	12.5	41° To 43°
47	40.6	Ø 4.055	3.031	1.280 X1.280	0.433	Ø 103	77.0	32.5X32.5	12.5	41° To 43°
48	41.3	Ø 4.055	3.031	1.299 X1.299	0.433	Ø 103	77.0	33.0X33.0	12.5	41° To 43°
49	41.3	Ø 4.055	3.031	1.299 X1.299	0.433	Ø 103	77.0	33.0X33.0	12.5	41° To 43°
50	41.9	Ø 4.055	3.031	1.319 X1.319	0.433	Ø 103	77.0	33.5X33.5	12.5	41° To 43°
51	41.9	Ø 4.055	3.031	1.319 X1.319	0.433	Ø 103	77.0	33.5X33.5	13.0	41° To 43°
52	45.0	Ø 4.069	2.953	1.417 X1.417	0.433	Ø 103	75.0	36.0X36.0	13.0	41° To 43°
53	45.0	Ø 4.114	2.992	1.417 X1.417	0.433	Ø 105	76.0	36.0X36.0	14.0	41° To 43°
54	46.3	Ø 4.134	3.012	1.457 X1.457	0.433	Ø 105	76.5	37.0X37.0	14.0	41° To 43°
55	44.5	Ø 4.154	2.992	1.402 X1.402	0.433	Ø 106	76.0	35.6X35.6	14.0	41° To 43°
56	45.0	Ø 4.154	3.071	1.417 X1.417	0.433	Ø 106	78.0	36.0X36.0	15.0	41° To 43°
57	45.0	Ø 4.154	3.307	1.417 X1.417	0.433	Ø 106	84.0	36.0X36.0	14.0	41° To 43°
58	50.0	Ø 4.154	3.248	1.575 X1.575	0.433	Ø 106	82.5	40.0X40.0	13.0	41° To 43°
59	50.0	Ø 4.173	3.071	1.575 X1.575	0.433	Ø 106	78.0	40.0X40.0	13.0	41° To 43°
60	48.1	Ø 4.291	3.150	1.516 X1.516	0.433	Ø 109	80.0	38.5X38.5	13.0	41° To 43°
61	48.1	Ø 4.291	3.150	1.516 X1.516	0.433	Ø 109	80.0	38.5X38.5	13.0	41° To 43°
62	48.1	Ø 4.291	3.130	1.516 X1.516	0.433	Ø 109	79.5	38.5X38.5	13.0	41° To 43°
63	48.8	Ø 4.291	3.150	1.535 X1.535	0.433	Ø 109	80.0	39.0X39.0	13.0	41° To 43°
64	48.8	Ø 4.291	3.150	1.535 X1.535	0.433	Ø 109	80.0	39.0X39.0	13.0	41° To 43°
65	45.0	Ø 4.311	3.150	1.417 X1.417	0.433	Ø 110	80.0	36.0X36.0	13.0	41° To 43°
66	51.9	Ø 4.331	3.150	1.634 X1.634	0.433	Ø 110	80.0	41.5X41.5	14.0	41° To 43°
67	48.8	Ø 4.370	3.169	1.535 X1.535	0.433	Ø 111	80.5	39.0X39.0	13.0	41° To 43°

Anvil Grade - 103, 203, 304 and 303

直径Diameter =D	=±0.002"	直径Diameter =D	=±0.05.MM
高度Length =L	=±0.004"	高度Length =L	=±0.102.MM
"h"	=±0.001"	"h"	=±0.025.MM
Inner Angle	41° to 42°	Inner Angle	41° to 42°
Break Angle	46°	Break Angle	46°
Anvil Chamfer	0.040"x45°	Anvil Chamfer	1.0.mm x45°

The Diameter, Length, Inner Angle , Inner Angle Length and the Anvil Chamfer Machined to Customer Specifications.
各项尺寸可根据客户要求而进行调整。





STANDARD GCEDT CUBE, ANVIL SIZE & DIMENSION

"GCEDT" synthetic cube & carbide anvil for HPHT presses, available in various sizes/grades to increase consistency.

各种可增加稳定性的复合块/顶锤尺寸和牌号

CUBE & CARBIDE ANVIL SIZE & SPECIFICATIONS 复合块及硬质合金顶锤尺寸规格

SR NO	EDTCUBE size mm 复合块尺寸 (in)英寸	Anvil Size 顶锤直径 (in)英寸	Anvil length "L"高度 (in)英寸	ANVIL FACE SIZE 锤面尺寸 (in)英寸	"h" (in)英寸	Anvil Size 顶锤直径 (mm) 毫米	Anvil length "L" 高度 (mm) 毫米	ANVIL FACE SIZE 锤面尺寸 (mm) 毫米	"h" (mm) 毫米	ANGLE 角度 (°)	Grade 等级
		(in)英寸	(in)英寸	(in)英寸	(in)英寸	(mm)	(mm)	(mm)	(mm)	(°)	
68	29.4	Ø 4.803	3.543	1.614 X 1.614	0.472	Ø 115	83.0	38.0 X38.0	13.0	41° To 43°	
69	50.0	Ø 4.508	3.307	1.575 X 1.575	0.512	Ø 115	84.0	40.0 X40.0	15.0	41° To 43°	
70	45.6	Ø 4.528	3.228	1.437 X 1.437	0.512	Ø 115	82.0	36.5 X36.5	15.0	41° To 43°	
71	45.6	Ø 4.528	3.228	1.437 X 1.437	0.512	Ø 115	82.0	36.5 X36.5	13.0	41° To 43°	
72	49.4	Ø 4.528	3.189	1.555 X 1.555	0.512	Ø 115	81.0	39.5 X39.5	13.0	41° To 43°	
73	49.4	Ø 4.528	3.189	1.555 X 1.555	0.512	Ø 115	81.0	39.5 X39.5	13.0	41° To 43°	
74	50.0	Ø 4.528	3.248	1.575 X 1.575	0.512	Ø 115	82.5	40.0 X40.0	13.0	41° To 43°	
75	50.0	Ø 4.528	3.248	1.575 X 1.575	0.512	Ø 115	82.5	40.0 X40.0	13.0	41° To 43°	
76	51.3	Ø 4.528	3.189	1.614 X 1.614	0.512	Ø 115	81.0	41.0 X41.0	13.0	41° To 43°	
77	51.3	Ø 4.528	3.189	1.614 X 1.614	0.512	Ø 115	81.0	41.0 X41.0	13.0	41° To 43°	
78	56.3	Ø 4.528	3.248	1.772 X 1.772	0.512	Ø 115	82.5	45.0 X45.0	12.0	41° To 43°	
79	53.8	Ø 4.567	3.248	1.693 X 1.693	0.512	Ø 116	82.5	43.0 X43.0	14.0	41° To 43°	
80	54.4	Ø 4.587	3.327	1.713 X 1.713	0.512	Ø 117	84.5	43.5 X43.5	13.0	41° To 43°	
81	51.9	Ø 4.783	3.583	1.634 X 1.634	0.512	Ø 122	91.0	41.5 X41.5	13.0	41° To 43°	
82	55.0	Ø 4.783	3.346	1.732 X 1.732	0.512	Ø 122	85.0	44.0 X44.0	12.0	41° To 43°	
83	54.4	Ø 4.803	3.543	1.713 X 1.713	0.512	Ø 122	90.0	43.5 X43.5	13.0	41° To 43°	
84	51.3	Ø 4.803	3.543	1.614 X 1.614	0.512	Ø 122	90.0	41.0 X41.0	13.0	41° To 43°	
85	53.8	Ø 4.803	3.543	1.693 X 1.693	0.512	Ø 122	90.0	43.0 X43.0	12.0	41° To 43°	
86	54.4	Ø 4.803	3.543	1.713 X 1.713	0.512	Ø 122	90.0	43.5 X43.5	12.0	41° To 43°	
87	51.9	Ø 4.803	3.543	1.634 X 1.634	0.512	Ø 122	90.0	41.5 X41.5	13.0	41° To 43°	
88	54.4	Ø 4.803	3.543	1.713 X 1.713	0.512	Ø 122	90.0	43.5 X43.5	13.0	41° To 43°	
89	55.0	Ø 4.803	3.543	1.732 X 1.732	0.512	Ø 122	90.0	44.0 X44.0	15.0	41° To 43°	
90	58.8	Ø 4.803	3.543	1.850 X 1.850	0.512	Ø 122	90.0	47.0 X47.0	15.0	41° To 43°	
91	56.3	Ø 4.862	3.583	1.772 X 1.772	0.512	Ø 124	91.0	45.0 X45.0	13.5	41° To 43°	
92	55.0	Ø 4.980	3.740	1.732 X 1.732	0.512	Ø 127	95.0	44.0 X44.0	12.5	41° To 43°	
93	51.3	Ø 5.000	3.701	1.614 X 1.614	0.512	Ø 127	94.0	41.0 X41.0	13.0	41° To 43°	
94	55.0	Ø 5.000	3.701	1.732 X 1.732	0.512	Ø 127	94.0	44.0 X44.0	13.0	41° To 43°	
95	59.4	Ø 5.000	3.701	1.870 X 1.870	0.512	Ø 127	94.0	47.5 X47.5	12.0	41° To 43°	
96	54.4	Ø 5.000	3.661	1.713 X 1.713	0.512	Ø 127	93.0	43.5 X43.5	13.0	41° To 43°	
97	54.4	Ø 5.000	3.346	1.713 X 1.713	0.512	Ø 127	85.0	43.5 X43.5	15.0	41° To 43°	
98	54.4	Ø 5.000	3.661	1.713 X 1.713	0.512	Ø 127	93.0	43.5 X43.5	13.0	41° To 43°	

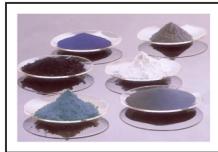
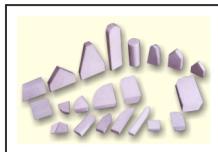
Anvil Grade - 103, 203, 304 and 303

99	57.5	Ø 5.000	3.740	1.811 X 1.811	0.512	Ø 127	95.0	46.0 X46.0	13.5	41° To 43°
100	58.8	Ø 5.020	3.740	1.850 X 1.850	0.512	Ø 128	95.0	47.0 X47.0	12.5	41° To 43°
101	51.3	Ø 5.039	3.740	1.614 X 1.614	0.512	Ø 128	95.0	41.0 X41.0	12.5	41° To 43°
102	51.9	Ø 5.039	3.740	1.634 X 1.634	0.512	Ø 128	95.0	41.5 X41.5	13.0	41° To 43°
103	55.0	Ø 5.039	3.740	1.732 X 1.732	0.512	Ø 128	95.0	44.0 X44.0	13.0	41° To 43°
104	57.5	Ø 5.039	3.740	1.811 X 1.811	0.512	Ø 128	95.0	46.0 X46.0	15.0	41° To 43°
105	58.8	Ø 5.059	3.780	1.850 X 1.850	0.512	Ø 129	96.0	47.0 X47.0	15.0	41° To 43°
106	60.0	Ø 5.067	3.740	1.890 X 1.890	0.512	Ø 129	95.0	48.0 X48.0	14.0	41° To 43°
107	59.4	Ø 5.079	3.661	1.870 X 1.870	0.512	Ø 129	93.0	47.5 X47.5	15.0	41° To 43°
108	58.8	Ø 5.098	3.701	1.850 X 1.850	0.512	Ø 130	94.0	47.0 X47.0	13.5	41° To 43°
109	60.0	Ø 5.098	3.740	1.890 X 1.890	0.512	Ø 130	95.0	48.0 X48.0	13.0	41° To 43°
110	57.5	Ø 5.118	3.740	1.811 X 1.811	0.512	Ø 130	95.0	46.0 X46.0	15.0	41° To 43°
111	61.3	Ø 5.118	3.740	1.929 X 1.929	0.512	Ø 130	95.0	49.0 X49.0	15.0	41° To 43°
112	58.8	Ø 5.177	3.780	1.850 X 1.850	0.512	Ø 132	96.0	47.0 X47.0	13.5	41° To 43°
113	66.3	Ø 5.335	3.858	2.087 X 2.087	0.512	Ø 136	98.0	53.0 X53.0	13.5	41° To 43°
114	68.8	Ø 5.571	3.937	2.165 X 2.165	0.512	Ø 142	100.0	55.0 X55.0	15.0	41° To 43°
115	61.3	Ø 5.591	4.016	1.929 X 1.929	0.512	Ø 142	102.0	49.0 X49.0	13.0	41° To 43°
116	61.3	Ø 5.591	4.016	1.929 X 1.929	0.512	Ø 142	102.0	49.0 X49.0	15.0	41° To 43°
117	62.5	Ø 5.650	4.075	1.969 X 1.969	0.512	Ø 144	103.5	50.0 X50.0	15.0	41° To 43°
118	65.0	Ø 5.827	4.252	2.047 X 2.047	0.512	Ø 148	108.0	52.0 X52.0	13.5	41° To 43°
119	67.5	Ø 5.846	4.055	2.126 X 2.126	0.512	Ø 149	103.0	54.0 X54.0	15.0	41° To 43°
120	67.5	Ø 5.846	3.937	2.126 X 2.126	0.512	Ø 149	100.0	54.0 X54.0	15.0	41° To 43°
121	71.3	Ø 5.866	4.272	2.244 X 2.244	0.512	Ø 149	108.5	57.0 X57.0	14.0	41° To 43°
122	68.8	Ø 5.906	3.996	2.165 X 2.165	0.512	Ø 150	101.5	55.0 X55.0	15.0	41° To 43°
123	70.0	Ø 6.299	4.606	2.205 X 2.205	0.512	Ø 160	117.0	56.0 X56.0	15.0	41° To 43°
124	76.3	Ø 6.299	4.528	2.402 X 2.402	0.512	Ø 160	115.0	61.0 X61.0	13.0	41° To 43°
125	77.5	Ø 6.299	4.528	2.441 X 2.441	0.512	Ø 160	115.0	62.0 X62.0	15.0	41° To 43°
126	77.5	Ø 6.303	4.331	2.441 X 2.441	0.512	Ø 160	110.0	62.0 X62.0	14.0	41° To 43°
127	80.0	Ø 6.378	4.587	2.520 X 2.520	0.512	Ø 162	116.5	64.0 X64.0	15.0	41° To 43°
128	72.5	Ø 6.496	4.756	2.283 X 2.283	0.512	Ø 165	120.8	58.0 X58.0	14.0	41° To 43°
129	77.5	Ø 6.496	4.724	2.441 X 2.441	0.512	Ø 165	120.0	62.0 X62.0	15.0	41° To 43°
130	77.5	Ø 6.890	5.039	2.441 X 2.441	0.512	Ø 175	128.0	62.0 X62.0	15.0	41° To 43°
131	81.9	Ø 6.890	5.039	2.579 X 2.579	0.512	Ø 175	128.0	65.5 X65.5	15.0	41° To 43°
132	78.8	Ø 6.894	5.039	2.480 X 2.480	0.512	Ø 175	128.0	63.0 X63.0	15.0	41° To 43°
133	96.3	Ø 7.839	5.591	3.031 X 3.031	0.512	Ø 199	142.0	77.0 X77.0	16	41° To 43°
134	100.0	Ø 8.071	5.709	3.150 X 3.150	0.512	Ø 205	145.0	80.0 X80.0	16	41° To 43°

The Diameter, Length, Inner Angle , Inner Angle Length and the Anvil Chamfer Machined to Customer Specifications.
各项尺寸可根据客户要求而进行调整。
直径Diameter =D =±0.002"
直径Diameter =D =±0.05.MM
高度Length =L =±0.004"
高度Length =L =±0.102.MM
"h" =±0.001"
"h" =±0.025.MM
Inner Angle 41°to 42°
Inner Angle 41°to 42°
Break Angle 46°
Break Angle 46°
Anvil Chamfer 0.040"x45°
Anvil Chamfer 1.0.mm x45°

Anvil Grade - 103, 203, 304 and 303

Page 29



HDPL Avis

THE CUTTING EDGE

A venture set up by a committed team of techno-savvy professionals in 1998 at Surat, Avis produces metal

powders and tungsten carbide products of international standards. First making a name for itself in national market, quality at par with the world players, Avis products soon became a force to reckon with in its field.

Qualified and experienced technocrats are available at Avis to help you select the right cobalt powder grade for

your requirements, be it diamond tools industry, cemented carbide tools or any other specialized and exclusive applications.

Housed with state-of-the-art-machinery, well developed research laboratory and knowledgeable service team, the company is in a position to meet the meticulous requirements of any demanding customer to his full satisfaction.



PROCESS & PRODUCTION LINE

Purity 99.7% min.. Assured quality. To provide the customers with products of global standards, Avis has redefined the process and production line with machinery and instruments that are state of the art and abreast of technological upgradation.



HI-TECH INSTRUMENTS

It is true that there is no substitute for brain. But brains must be supported with the latest instruments to increase productivity and to acquire the desired optimum quality. Avis has all modern instruments like AAS, FSSS, Hydrogen loss determination, density meter, hardness tester, microscope, analytical balance.



SEARCH & RESEARCH

Well developed laboratory. The nucleus of quality maintenance and innovation. It is here where the Avis products are analyzed to the exact specifications for critical requirements. It is the center of innovation and search for perfection.



EXTRA FINE COBALT POWDER

Fisher grain size
1.1 to 1.5 micron

Chemical analysis

Co	99.8 %	Min.	Co	99.8 %	Min.
Fe	0.05 %	Max.	Fe	0.05 %	Max.
Mn	0.001 %	Max.	Mn	0.001 %	Max.
Zn	0.003 %	Max.	Zn	0.003 %	Max.
Na	0.03 %	Max.	Na	0.03 %	Max.
O ₂	0.6 %	Max.	O ₂	0.8 %	Max.

ULTRA FINE COBALT POWDER

Fisher grain size
0.9 to 1.1 micron

Chemical analysis



Principal Applications

Diamond tools, cemented carbide tools, hard metals, glass industries, diamonds polishing scaives.

Packing

1 kg. Packing available in cardboard box with inner LDPE bags sealed in inert atmosphere.
25 kg. & 50kg. Packing in metal drum with inner LDPE bags sealed in inert atmosphere.



REDUCED IRON METAL POWDER

Apparent density	:	2.4-2.5 g/cm ³
Chemical purity	:	99.8 %
Hydrogen loss	:	0.8 %
Particle Size	:	2-4 micron.

Typical application: Manufacturing of Diamond tools, ferrite cores, Sintered machine parts.

COBALT OXIDE POWDER

Chemical Analysis

Assay (As Co)	:	72.5 % Min
Fe	:	100 ppm max.
Mg	:	100 ppm max.
Ni	:	150 ppm max.
Na	:	050 ppm max.
Zn	:	003 ppm max.
Particle Size	:	-300 Mesh.

Typical application: Used in manufacturing ceramics, glass, enamals, catalysts, inks, rubber, oil, greases, cosmetics food additives etc.

TUNGSTEN CARBIDE POWDER (WC)

Physical Properties

Av. particle size	2.0-4.0	5.0-7.0	7.0-9.0	10.0-15.0
F.S.S. (Mm)	2.5-3.0	3.0-4.0	3.5-4.0	4.0 - 6.0
Apparent density g/cc.				

Chemical composition

Total Carbon as C-TOT, %	6.12-6.16	6.12-6.16	6.12-6.15	6.12-6.13
Free Carbon as C _{FREE} %	0.04	Max.	0.05	Max.
Bonded Carbon by diff., %	6.08	Min.	6.08	Min.
Oxygen as O ₂ , %	0.04	Max.	0.04	Max.
Iron as Fe, %	0.05	Max.	0.05	Max.
Molybdenum as Mo, %	0.03	Max.	0.03	Max.
Silicon as Si, %	0.003	Max.	0.003	Max.
Sodium as Na, %	0.002	Max.	0.002	Max.
Potassium as K, %	0.001	Max.	0.001	Max.
Calcium as Ca, %	0.002	Max.	0.002	Max.

Other grain sizes and mixed carbide - cobalt are available upon request.

Principal applications:

Tungsten carbide powders are used to manufacture various graded powder for cemented tungsten carbide products and manufacture of diamond segments to increase the hardness and abrasion resistance of the tools.

Packing

1 kg and 5 kg packing in polythene bags.



TUNGSTEN METAL POWDER (W)

Physical Properties

Av. particle size	1.5-3.0	4.0-6.0	6.0-9.0	9.0-15.0
F.S.S.S. (Mm)	2.2-3.0	3.0-4.0	3.8-5.8	4.0-6.0
Apparent density g/cc.				

Chemical composition

Tungsten (excluded O ₂) as W, %	99.8 Min.	99.8 Min.	99.8 Min.	99.8 Min.
Oxygen content as O ₂ , %	0.40 Max.	0.30 Max.	0.30 Max.	0.25 Max.
Iron as Fe, %	0.05 Max.	0.05 Max.	0.05 Max.	0.05 Max.
Molybdenum as Mo, %	0.03 Max.	0.03 Max.	0.03 Max.	0.03 Max.
Silicon as Si, %	0.003 Max.	0.003 Max.	0.003 Max.	0.003 Max.
Sodium as Na, %	0.003 Max.	0.003 Max.	0.003 Max.	0.003 Max.
Potassium as K, %	0.001 Max.	0.001 Max.	0.001 Max.	0.001 Max.
Calcium as Ca, %	0.002 Max.	0.002 Max.	0.002 Max.	0.002 Max.

Other grain sizes are available upon request.

Principal applications:

These powder are mostly used in the manufacture of diamond segments by hot pressing as additives in the metal matrix to improve the diamond reteation and cutting ability. Also, these powders are used to manufacture electrical contact and tungsten carbide powders.

Packing

1 kg and 5 kg packing in polythene bags.



FUSED TUNGSTEN CARBIDE POWDERS (FTC)

Chemical Composition:

Tungsten as W, %	95.0-97.0	95.0-97.0
Total Carbon as C _{TOT} , %	2.5-3.5	2.5-3.5
Free Carbon as C _{FREE} , %	0.1 max.	0.1 max.
Iron as Fe, %	0.4 max.	0.4 max.
Cobalt as Co, %	-	0.2-0.4

- Mesh size as per ASTM/BSS standard, -20 to +600 as per requirement of the customer.
- Sieve analysis can be provided as per the required size on request.

Principal applications

These powders have very high hardness and outstanding abrasion resistance. These are used to manufacture diamond tools for cutting of very abrasive materials.

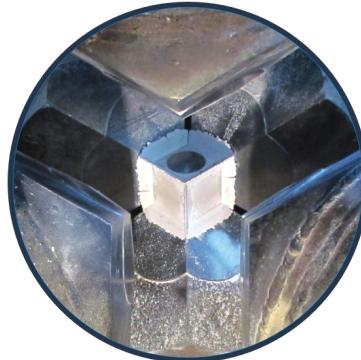
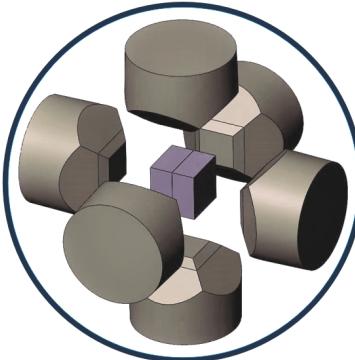
F.T.C. is also useful to :

- (1) Manufacture self lubricating sintered bearing.
- (2) Manufacture contact material of current flow performance in arc resistance, adhesion resistance & contact resistance.
- (3) Manufacture brushes application in electric motors & generators.
- (4) Friction material for brakes.

Packing

1 kg and 5 kg packing in polythene bags.

人造复合粉末/复合块



产品简介:

- 应用于高温高压的合成材料。
- 用于工业金刚石和金刚石复合片的合成材料。
- 工程高压材料。
- 过去几年广泛使用于美国市场。
- 持有专利技术，并经长期验证。



产品优势:

- 1.可以节省约10–20%的电。
- 2.相比传统的叶腊石块,我们的合成材料可以使顶锤的使用寿命延长30–40%。
- 3.提高金刚石的产量。
- 4.提高人造金刚石的色泽。
- 5.传压性能好。
- 6.提高质量的稳定性。
- 7.我们根据客户不同的需求提供不同牌号的复合粉末。



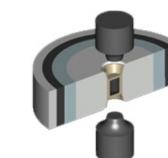
购买人造复合粉末，我们将提供完整的制块步骤。

Diamax Powder for Cube

- Synthetic Material for High Pressure Applications.
- Gasket Material for Industrial Diamond & PCD.
- Engineered High Pressure Material.
- Used for High Pressure High Temperature Application since many years in USA.
- Patented, Proven Technology.

Benefits are as below:

1. Save 10–20% of Electric Power Consumption.
2. Anvil life is 30–40% more than Pyrophyllite Cube.
3. This will Give More yield of Diamond.
4. Will improve the Color of the synthetic Diamond.
5. Pressure transmission is even and Smooth.
6. Will give consistent quality.
7. Diamax powder available for different grade for different application as per client's requirement.



We provide cube manufacturing technical know-how.

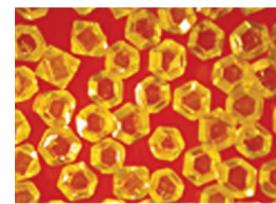


为客户提供多元化的高温高压优化钻石选择，包括浅粉红色、深粉红色、绿色、黄色、浅黄色、浅紫色等颜色不同切割及尺寸。

HPHT treated Diamonds White pink&Vivid pink,Green Yellow Canary Yellow, Voiliet Red,All colors,cut and size available.

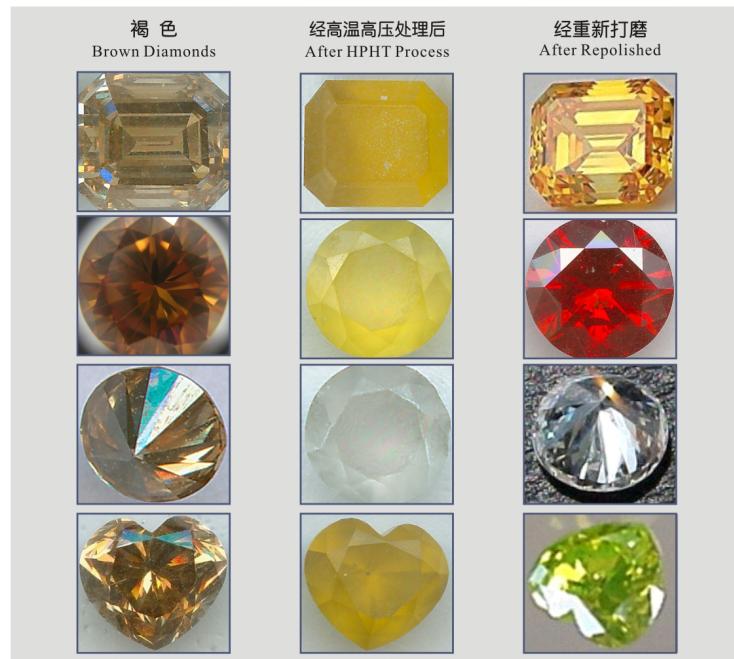
我们亦生产每克拉10至50颗的人造金刚石（合成钻石）

We also manufacture manmade diamonds(synthetic diamonds)from size 10 To 50Pcs/Ct

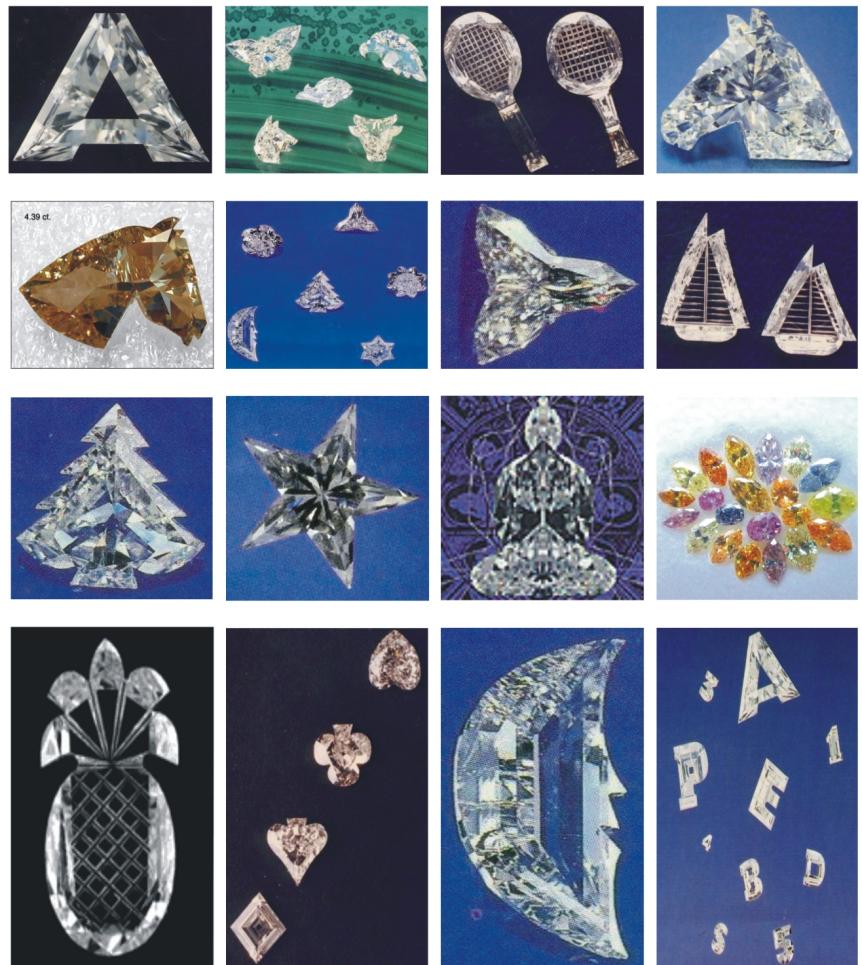


我们采用高温高压处理把色钻优化成白钻或其他颜色彩钻。

We convert Brown Diamonds into colorless&other fancy colors by HPHT Process.



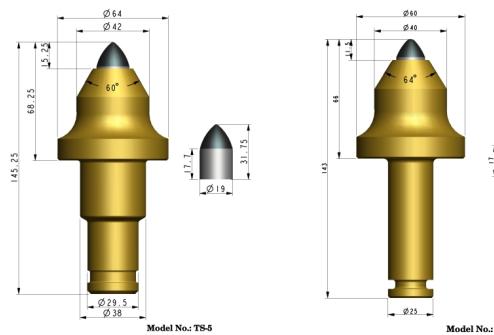
Following Diamonds are made using CNC grinding machine



天然钻石由CNC磨床加工而成

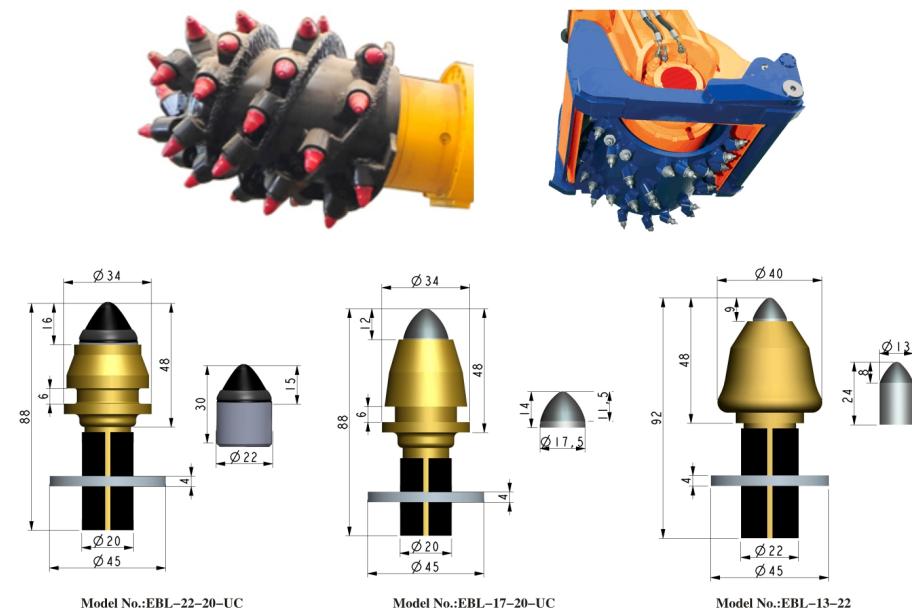
DESCRIPTION OF OUR PRODUCT FOR SURFACE MINING AND ROAD MILLING

- * OUR TOOL/BIT BODY IS MADE OF HIGH QUALITY ASTM4142 OR 42CrMo ALLOY STEEL, HEAT TREATED UP TO 40 - 44 HRC HARDNESS, HAS HIGH TOUGHNESS AND WEAR RESISTANCE WITH PCD TIP.
- * OUR PCD IS MADE TO BE COMPATIBLE WITH THE MACHINE IN REGARDS TO FEATURES LIKE HIGH FEED RATE, WEAR RESISTANCE, LONG AND DURABLE SERVICE LIFE AND SHORT TOOL CHANGING TIME.
- * OUR PCD TOOL/BIT IS MAINLY USED FOR ROAD MILLING, MINING, TUNNELING, TRENCHING, WALL FOUNDATION, SURFACE MINING AND MANY OTHER MINING/MILLING APPLICATIONS.
- * OUR PCD TOOL TIP LIFE IS 30 TO 40 TIMES HIGHER THAN THE TUNGSTEN CARBIDE TIP, AND PRICE IS 8-10 TIMES HIGHER THAN CARBIDE.
- * OUR PCD TOOL/BIT WORKS AT A VERY HIGH SPEED COMPARED TO CARBIDE TIP STILL CONSUMES LESS POWER COMPARATIVELY.
- * OUR PCD TOOL/BIT REDUCES THE VIBRATION IN THE MACHINE.
- * OUR PCD TOOL/BIT IS MADE TO GIVE ECONOMICAL DAILY PRODUCTION VOLUME.
- * WE PROVIDE PROFESSIONAL SERVICE IN FINDING A SUITABLE TOOL/BIT FOR YOUR TARGET PROJECTS.
- * WE SHALL SUPPLY PARTS ON REQUEST / DEMAND IMMEDIATELY.



OUR COMPANY SUPPLIES VARIOUS ROAD MILLING BITS AS UNDER

GCEDT PART NO	APPLICATIONS	ROAD MILLING APPLICABLE MACHINES
EBL-22-20-UC	Asphalt	W1900, W2000, PM200, PL2000, SM200, BG2000, CM200, XM200
EBL-19-20	Asphalt	W100F, W120F, W130F, W150, W1900, W2000, W200
EBL-13-22	Concrete	WR2000, WR2400, WR2500, WR240, WR250
EBL-19-22	Asphalt	WR2000, WR2400, WR2500
EBL-14-20	Concrete	W100F, W120F, W130F, W150, W1900, W2000, PM200, PL2000, SM200, BG2000, CM200, XM200
EBL-19-20-UC	Asphalt	W100F, W120F, W130F, W150, W1900, W2000, W200
EBL-22-20	Asphalt	W1900, W2000, PM200, PL2000, SM200, BG2000, CM200, XM200
EBL-20-20	Asphalt	W150, W1900, W2000, W2100, W2200
EBL-20-20-UC	Asphalt	PM200, SM2100, BG2100, PL2100, W150, W1900, W2000, W2100, W2200
EBL-17-20	Asphalt	W35, W50, W60
EBL-17-20-UC	Asphalt	W35, W50, W60
EBL-20-20-T	Asphalt	W2000, W2100, W2200, PM200, SM2000, CM2000, BG2100



WE ALSO OFFER PCD TOOLS/BIT/PICK AS PER FOLLOWING

(1)KENNAMETAL CODE: C31, C31HD, C21, C21HD, C23, C23HD, CM42, SM42HP17, SM42LR19, SM42LR22, SM42LR22 P, SM42LR25, SM42HP25, SM42LR17 HF89, SM42LR25 HF89, SM42LR27 HF89, SM42BS.

(2)BETEK CODE: B47K19, B47K24LK70-F, B47K17.5H, B47K25-F, B47K17.5LK70/60, B47K19H, B47K19/60, B46K12LK77, B47K22/P, B47K12/60, B46K12,B3KS, B1HDK11/22/S, B1HDK11/22.

YOU CAN CONTACT US FOR OUR PROFESSIONAL GUIDANCE HELP IN SELECTING A CORRECT & SUITABLE PRODUCT FOR YOUR PROJECT. WE ALSO MAKE TOOLS/PICK AS PER CUSTOMER REQUIREMENTS.


EDT

HPHT PRESS

HPHT PRESS

HDPL AVIS

URL : www.avismetal.net / www.guilinedt.com / www.heavendiamonds.com



常规金刚石复合片
EDT GENERAL PURPOSE BROCHURE

FOR NOTES



FOR NOTES
EDT GENERAL PURPOSE BROCHURE

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