



公司简介

柘城鸿祥超硬材料有限公司，成立于1990年，我们是一家集开发，生产，销售为一体的专业合成金刚石粉及金刚石工具公司，是专业经验丰富的中国合成金刚石和金刚石工具制造商。工厂位于中国河南省中部占地124000多平方米。“高品质的产品，有竞争力的价格和经典的服务”是我们业务的灵魂。

我们在这个领域拥有超过30年的丰富经验，始终致力于生产金刚石工具的高品质和最好的服务。

我们的产品包括：合成钻石、金刚石粉、金刚石锯片、金刚石钻头、多晶金刚石复合材料（PDC）PCD拉丝模具、钻石玻璃工具、金刚石抛光垫、钻石切割工具、金刚石磨具、钻石轮、钻石工具等。

我们支持定制业务，我们拥有丰富的OEM订单经验，拥有先进的生产设备，以及自己的设计团队，可以帮您定制包装以及您想要定制的各种服务。同时我们拥有省级工程技术中心支持通过D&B和ISO9001质量体系认证。

热烈欢迎加入我们互利合作。

COMPANY PROFILE

HNHONGXIANG is a professional diamond powder & diamond tools company integrating development, production and sales. Factory located in middle of China-Henan, with more than 124,000m². "High quality products, competitive prices, and classic services" is the soul of our business.

Our main products are diamond powder and diamond tools, including diamond powder, diamond wheels, diamond drills, diamond saw blades, diamond polishing pads, tec.

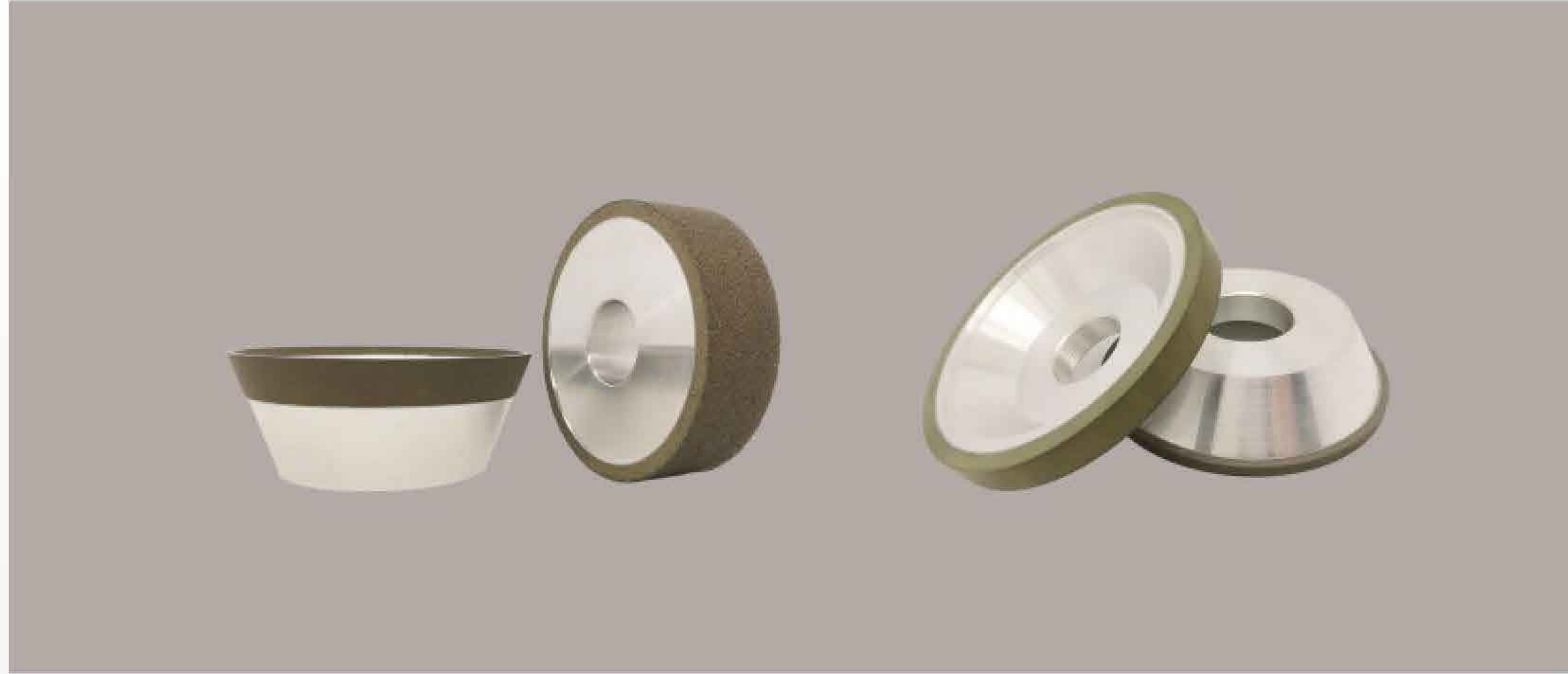
What does HNHONGXIANG have?

1. Since 1990, with over 30 years diamond tools manufacturer experience.
2. Rich experience in OEM order.
3. Advanced production equipment.
4. Own design team, can help you custom the packaging.
6. D&B and ISO9001 Certificates
5. Own provincial engineering technology center.

Warmly welcome all partners to join us for mutual benefits cooperation.



金刚石砂轮/Diamond grinding wheel



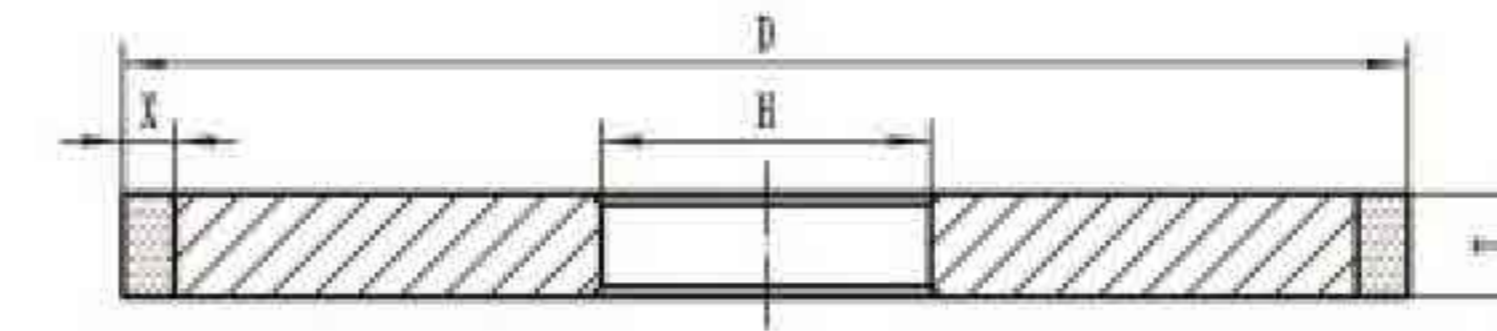
特点:

1. 磨削效果好, 工作寿命长;
2. 自锐性好, 磨削时发热量小, 不易堵塞, 减少了磨削时出现工作烧伤的现象;
3. 砂轮具有一定的弹性, 有利于改善工作表面的粗糙度;
4. 金刚石树脂砂轮是生产周期短, 高的去除率, 容易成型复杂性面的砂轮;

Feature:

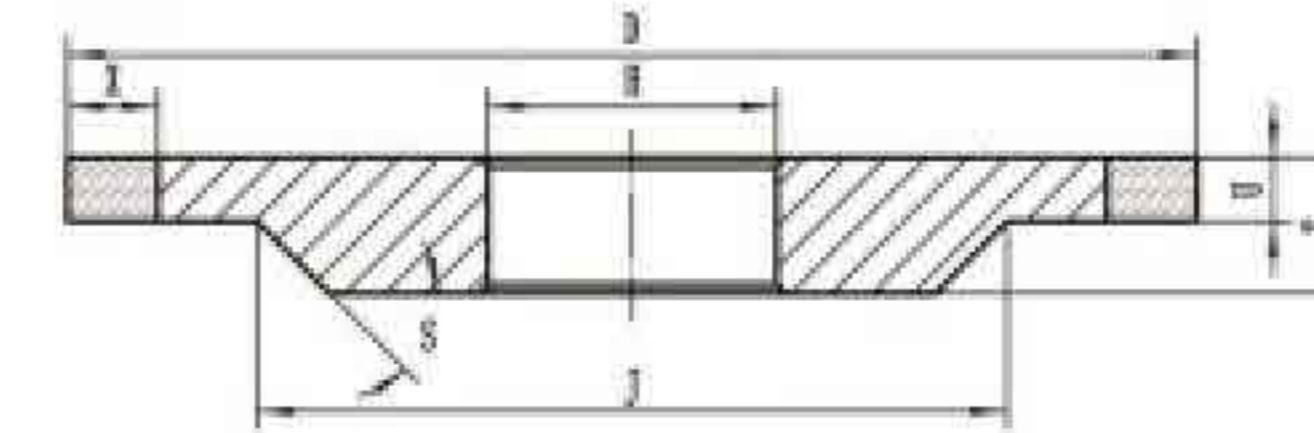
1. High grinding efficiency; Long working life;
2. Good self-sharpening, lower grinding temperature; less block; less surface burn of workpieces
3. With certain elasticity, improving the surface roughness
4. Shorter production cycle time; higher removal rate, easily to make complex wheels.

平行系金刚石砂轮 Straight-Diamond Wheel



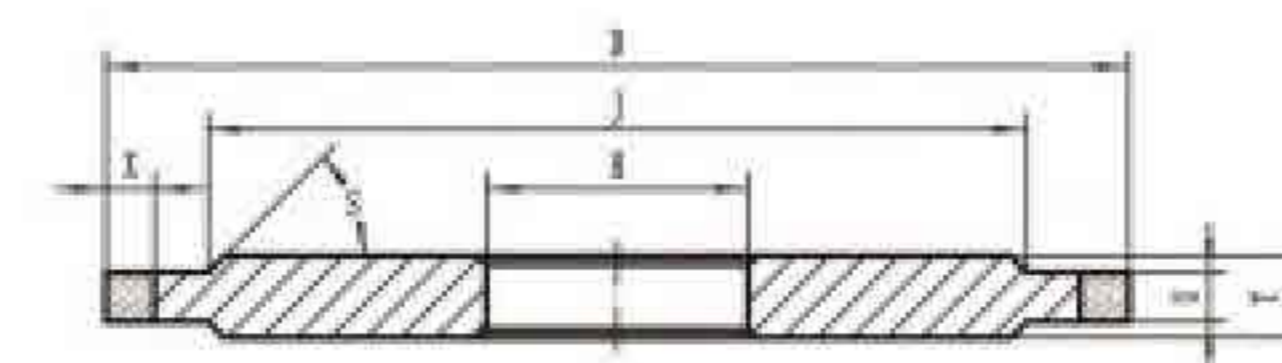
D – Wheel Diameter-(80mm 700mm)
 H – Arbor (Hole Diameter)
 X – Diamond Width
 T – Wheel Thickness
 U – Diamond Thickness
 Can be custom-made
 Applications: Cylindrical grinding and edge grinding of workpiece faces.

Shape: 1A1



D – Wheel Diameter –100mm 150mm
 H – Arbor (Hole Diameter)
 X – Diamond Width
 T – Wheel Thickness
 U – Diamond Thickness
 Can be custom-made
 Applications: Cylindrical grinding and edge grinding of workpiece faces.

Shape: 3A1



D – Wheel Diameter –100mm 150mm
 H – Arbor (Hole Diameter)
 X – Diamond Width
 T – Wheel Thickness
 U – Diamond Thickness
 Can be custom-made
 Applications: Surface and profile grinding

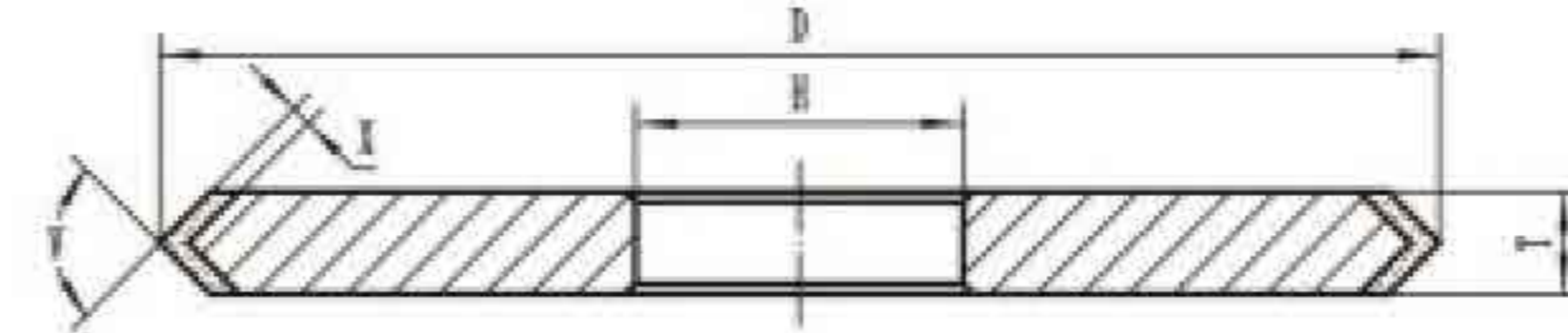
Shape: 14A1



平行系金刚石砂轮 Straight-Diamond Wheel

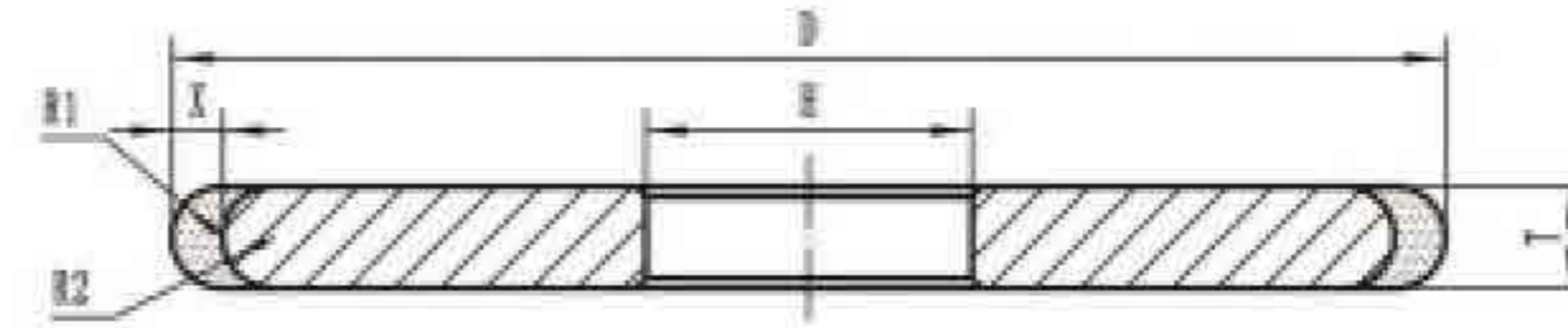
Shape: 1EE1 ("EE" Face)

- D - Wheel Diameter
- H - Arbor (Hole Diameter)
- X - Diamond Width
- T - Wheel Thickness
- V - Included Angle
- Can be custom-made
- Applications: Profile grinding. Internal and external thread
- Cutting and grinding. Carbide tool fluting.



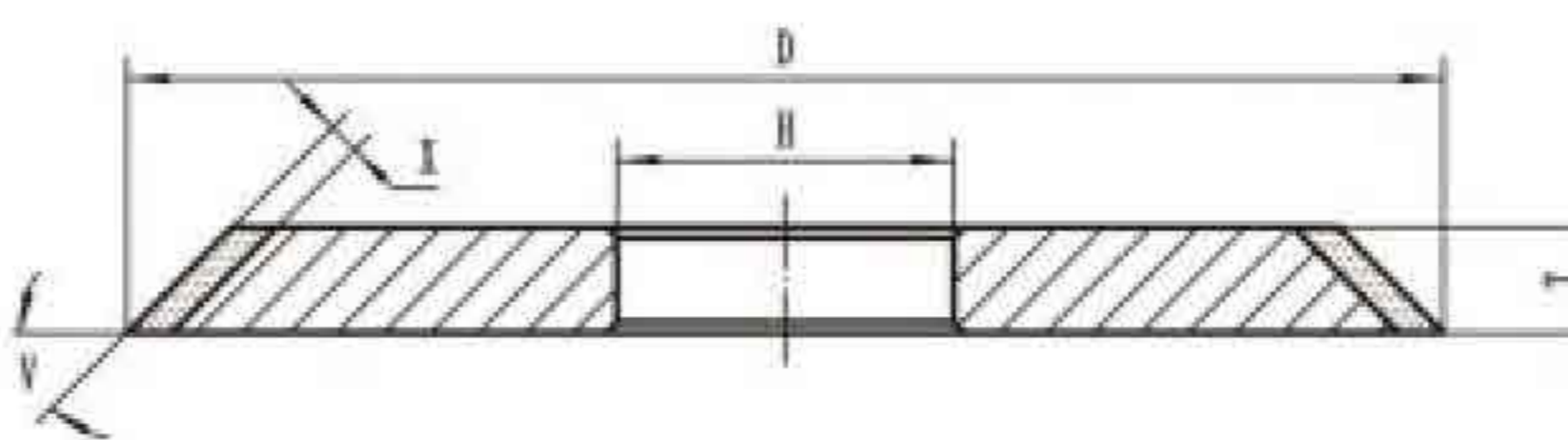
Shape: 1FF1 ("FF" Face)

- D - Wheel Diameter
- H - Arbor (Hole Diameter)
- X - Diamond Width
- T - Wheel Thickness
- R - Radius on Face
- Can be custom-made
- Applications: Grinding concave wood milling cutters, form grinding, fluting.



Shape: 1V1 ("V" Face)

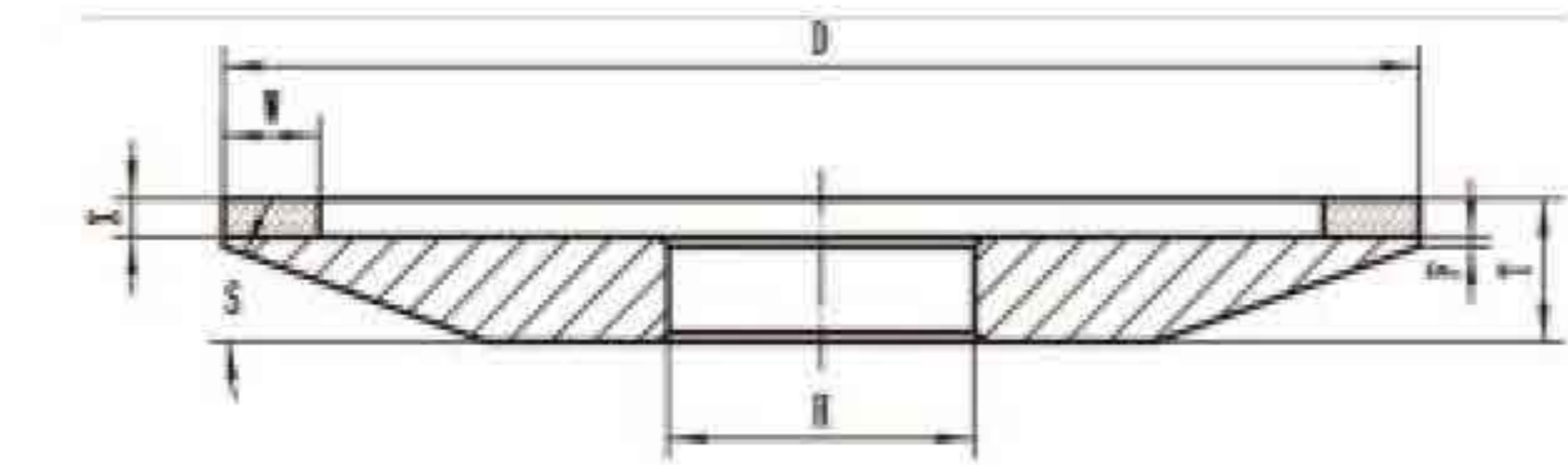
- D - Wheel Diameter -100mm -400mm
- H - Arbor (Hole Diameter)
- X - Diamond Depth
- T - Wheel Thickness
- V - Bevel angle
- Can be custom-made
- Applications: Fluting grinding and gashing.



蝶形系金刚石砂轮 Dish-Diamond Wheel

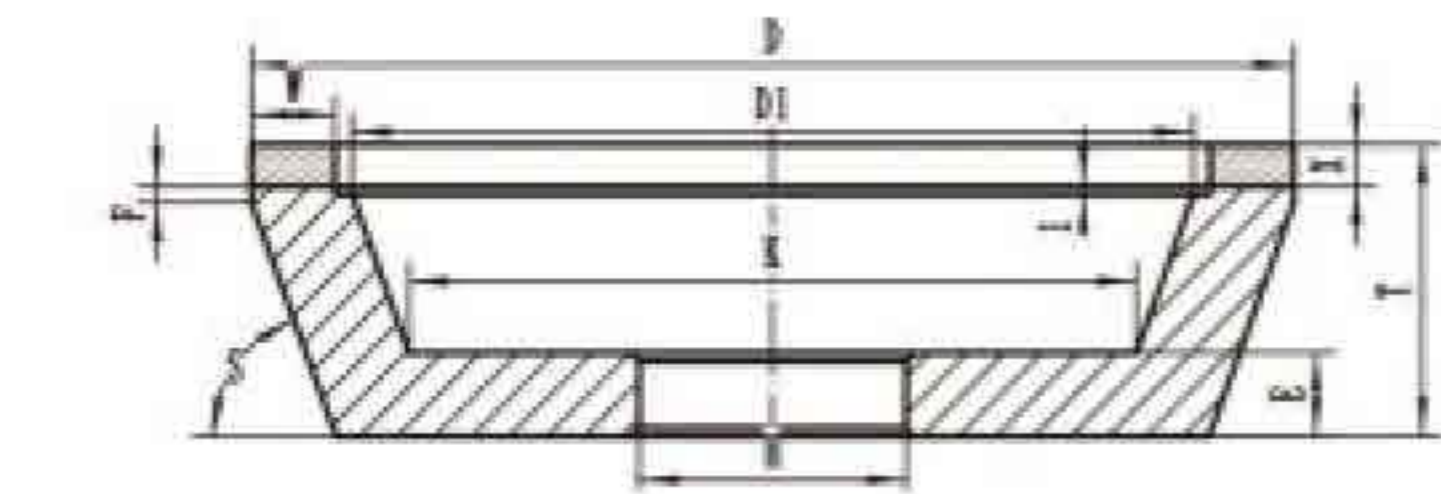
Shape: 4A2

- D - Wheel Diameter
- H - Arbor (Hole Diameter)
- W - Diamond Width
- T - Wheel Thickness
- X - Diamond Thickness
- Can be custom-made
- Applications: Universal grinding Face and clearance grinding.



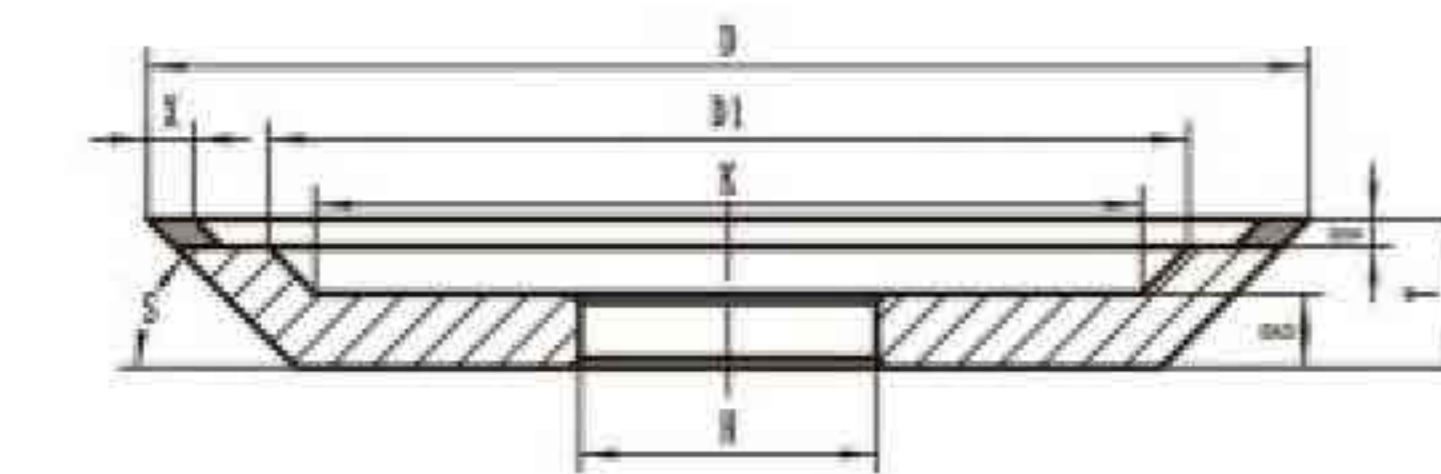
Shape: 12A2

- D - Wheel Diameter
- H - Hole
- T - Wheel Thickness
- X - Diamond Thickness
- W - Diamond Width
- E - Base Thickness
- S - Angle
- Can be custom-made
- Applications: Tool and cutter grinding and finishing.
- Surface grinding.



Shape: 12V2

- D - Wheel Diameter
- H - Hole
- T - Wheel Thickness
- X - Diamond Width
- U - Diamond Thickness
- S - Angle
- E - Base Thickness
- Can be custom-made
- Applications: Tool and cutter grinding and finishing.
- Surface grinding.

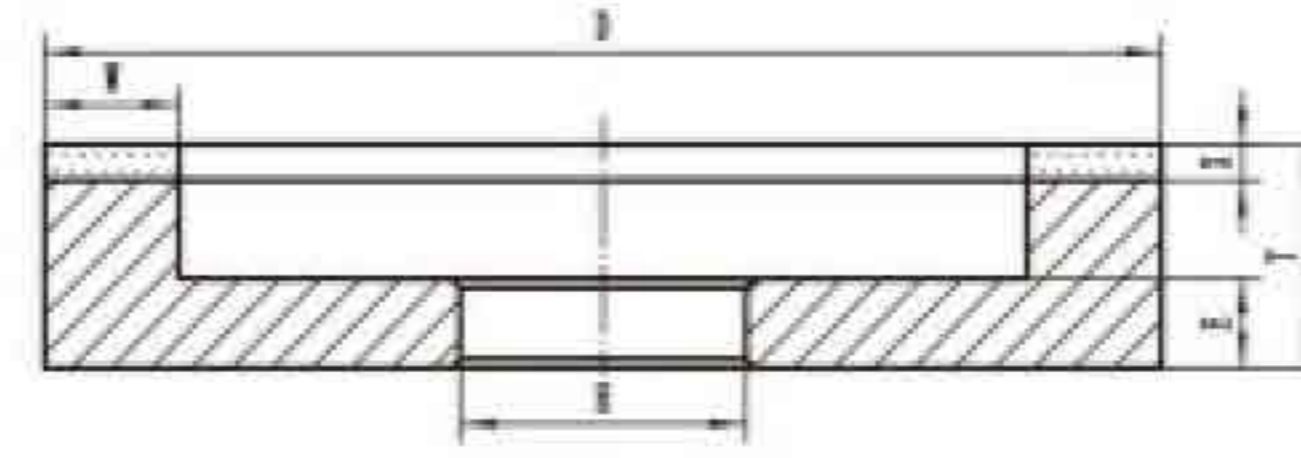


杯型系金刚石砂轮 Cup-Diamond Wheel

Shape: 6A2

D - Wheel Diameter
 H - Hole
 T - Wheel Thickness
 X - Diamond Thickness
 W- Diamond Thickness
 E - Base Thickness
 Can be custom-made

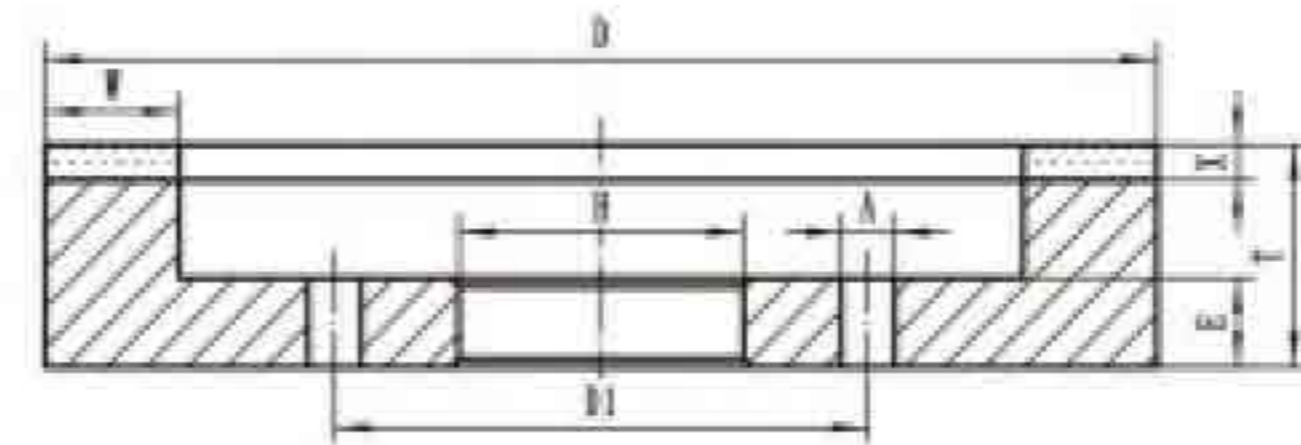
Applications: Grinding and finishing cutting tools. Surface grinding.



Shape: 6A2H

D - Wheel Diameter
 H - Hole
 T - Wheel Thickness
 W- Diamond Thickness
 X - Diamond Thickness
 E - Base Thickness
 Can be custom-made

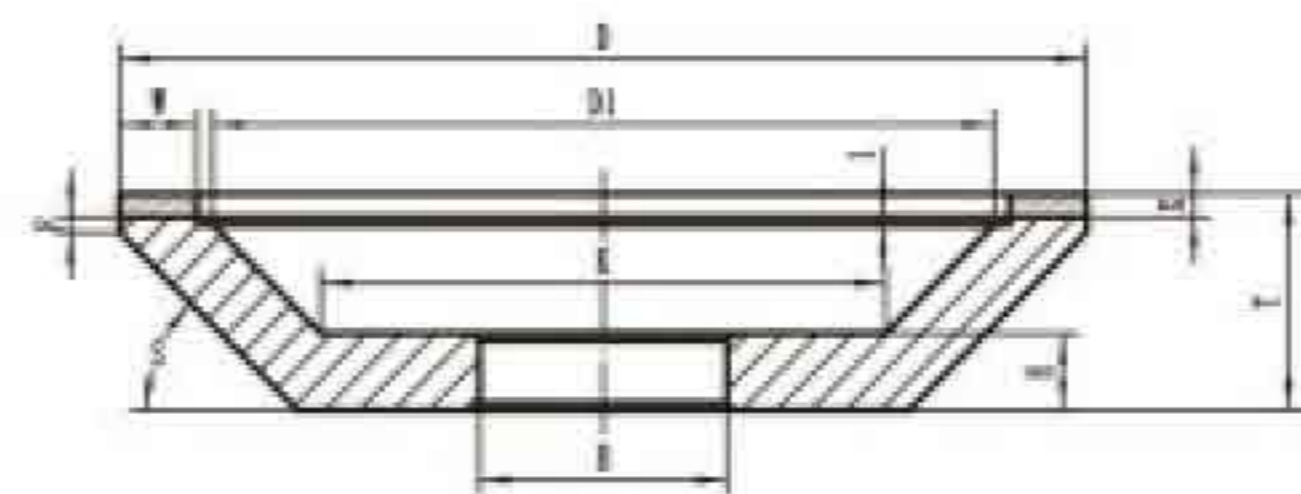
Applications: Tool and cutter grinding and finishing. Surface grinding.



Bowl Shape: 11A2

D - Wheel Diameter
 T - Wheel Thickness
 H - Hole
 X - Diamond Thickness
 U - Diamond Thickness
 S - Angle
 E - Base Thickness
 Can be custom-made

Applications: Tool and cutter grinding and finishing. Surface grinding.



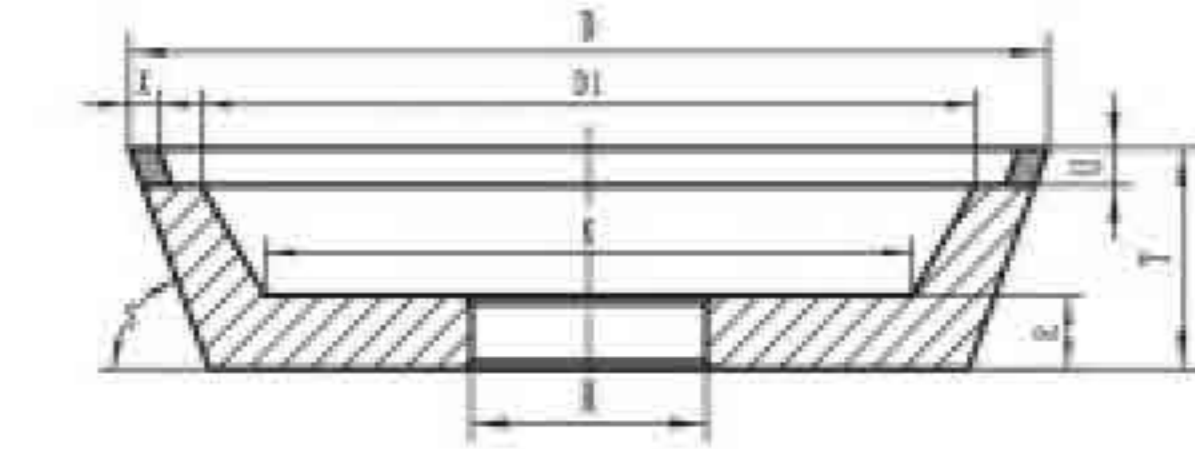
碗型系金刚石砂轮 Bowl-Diamond Wheel

Shape: 11V2

D - Wheel Diameter
 H - Hole
 T - Wheel Thickness
 U - Diamond Thickness
 X - Diamond Width
 E - Base Thickness
 S - Angle

Can be custom-made

Applications: Grinding and finishing cutting tools. Surface grinding.

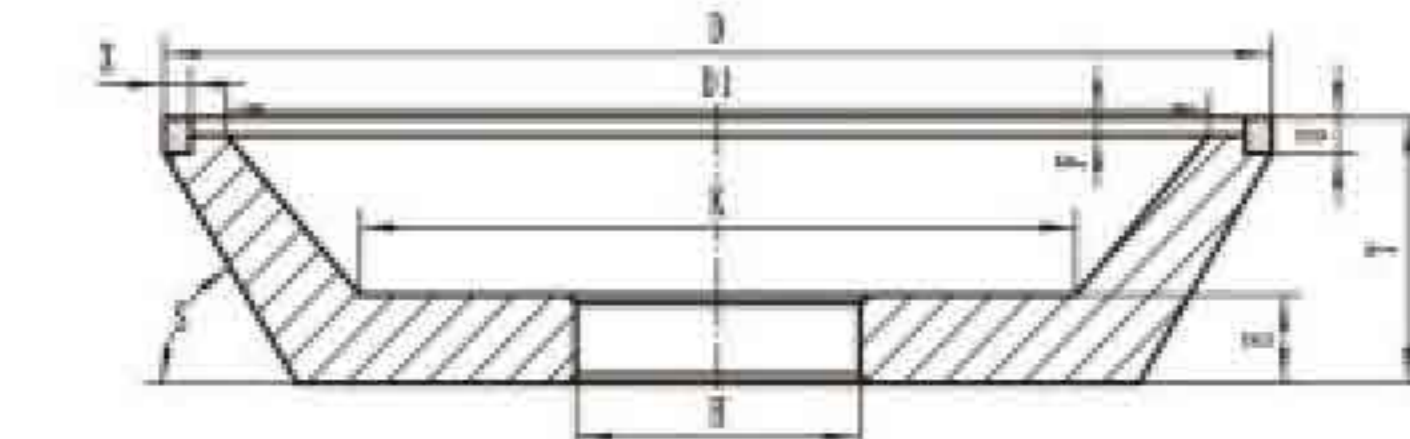


Shape: 11A9

D - Wheel Diameter
 H - Hole
 T - Wheel Thickness
 U - Diamond Thickness
 X - Diamond Width
 E - Base Thickness
 S - Angle

Can be custom-made

Applications: Tool and cutter grinding and finishing. Surface grinding.

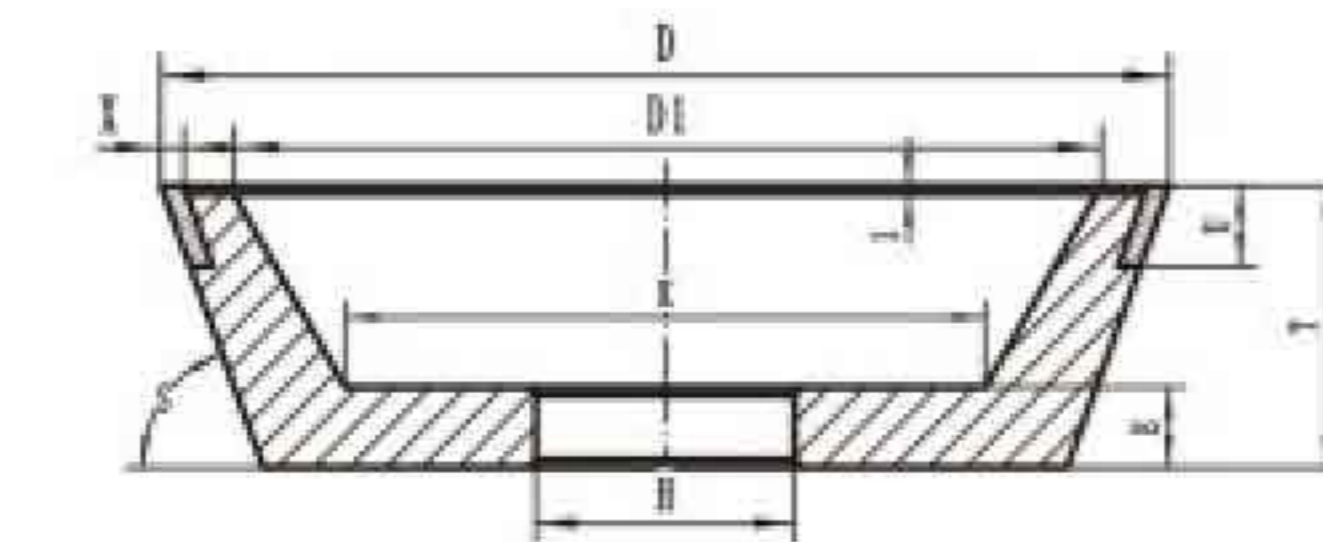


Shape: 11V9

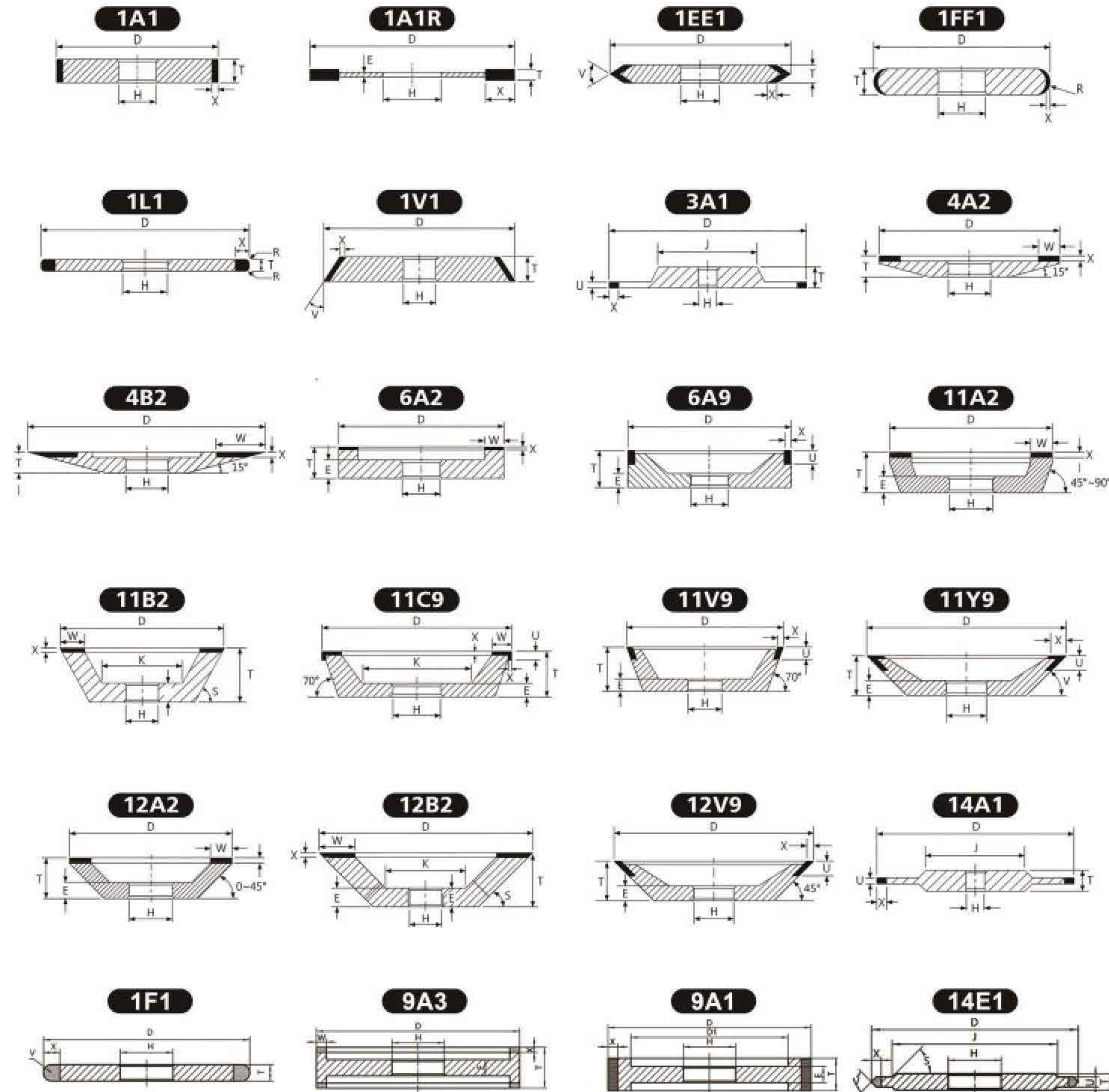
D - Wheel Diameter
 H - Hole
 T - Wheel Thickness
 U - Diamond Thickness
 X - Diamond Width
 E - Base Thickness
 S - Angle

Can be custom-made

Applications: Grinding and finishing broaches, reamers, drills and others cutting tools.



砂轮图纸 The types of Wheel shape



金刚石和立方氮化硼的种类

The types of Diamond & CBN

磨料种类 Type of abrasive

- D ---天然金刚石 Natural diamond
- S D ---合成金刚石 Synthetic diamond
- S D C ----带金属镀层的合成金刚石
Synthetic diamond with metal coating
- CBN --- 立方氮化硼 Cubic Boron Nitride
- CBNC ----带金属镀层的合成立方氮化硼
Cubic Boron Nitride with metal coating

硬度级别 Grade of Hardness

- R --- 较硬 Harder
- J --- 较软 Softer
- L --- 软 Soft
- N --- 中 Normal
- P --- 硬 Hard

结合剂种类 Type of Bond

- B --- 树脂结合剂 Resin
- M --- 金属结合剂 Metal
- V --- 陶瓷结合剂 Vitrified
- P --- 电镀 Electroplated





磨料含量 (Contents of Abrasives)

浓度 Concentration	代号 Code	体积% (Volume)	克拉 (Ct/cm ³)
25%	25	6.25	1.1
50%	50	12.5	2.2
75%	75	18.75	3.3
100%	100	25	4.4
125%	125		5.5
150%	150	37.5	6.6

注释: 金刚石的比重为 3.52g/cm³
Note: The proportion of diamond is 3.52g/cm³

金刚石粒度和磨削深度的关系

Diamond grit-grinding depth relation

金刚石粒度 Diamond grit	磨削深度 Grinding depth	
	树脂结合剂 (Resin bond)	金属结合剂 (Metal bond)
80-120	0.01-0.015	0.01-0.025
150-240	0.005-0.01	0.01-0.015
280	0.002-0.005	

粒度 预期的抛光面效果

粒度	预期的抛光面效果
80	24-30
100	18-24
120	16-18
150	14-16
180	12-14
200	10-12
240	8-10
320	8
400	6-8



GRIT SIZE CHART

Effect on grit sizes for Diamond & CBN on Surface Finish

Effect of grit size on Surface Finish	Diamond & CBN U.S Standard		FEPA Standard	
	Diamond	CBN	Diamond	CBN
Rough Grinding (1.8-3.61μm)	60/70		D213	B213
	70/80		D181	B181
	80/100		D151	B151
	120/140		D126	B126
	140/170		D107	B107
Medium Grinding (0.48-1.32μm)	170/200		D91	B91
	200/230		D76	B76
	230/270		D64	B64
	270/325		D54	B54
	325/400		D46	B46
Finishing (0.23-0.38μm)	500		D30-40	B30-40
	600		D22-36	B22-36
	800		D15-5	B15-5
	1000		D10-20	B10-20
	1200		D8-16	B8-16
Super Finishing (0.1μm and below)	1500			

各种磨削方式建议用磨削深度

Grinding depth recommending for various grinding methods

磨削方式 Grinding methods	内圆磨 Surface grinding	外圆磨 Exteunal grinding	平面磨 Internal Grinding	刃磨 Edge grinding
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树脂金刚石砂轮图片参考





常见磨削问题及解决方案

常见磨削问题及解决方案

外圆磨 Cylindrical grinding

常见问题 Common Problem	主要原因 Main Reason	解决方案 Solution
工件表面有螺旋纹 The surface of the workpiece has a spiral	工件顶针松动 Loose thimble 台面导轨润滑不够 Table rail lubrication is not enough	检查卡盘和顶针是否松动 Check if the chuck and thimble are loose 调整或更换润滑油 Adjust or replace the lubricant
工件以切入式进行磨削时，其圆度效果不佳 When the workpiece is ground in a plunge type, the roundness is not good.	中心孔有毛刺或不圆，松动或不够深 The center hole has burrs or is not round, loose or not deep enough 工件被顶得太紧 The workpiece is too tight 冷却液量不够 Insufficient amount of coolant	检查中心孔 Inspection center hole 调节尾架弹簧 Adjusting the tailstock spring 调节冷却液 Adjusting the coolant
表面粗糙度差 Poor surface roughness	砂轮硬度不合适 Inappropriate hardness of the grinding wheel 金刚石修整器走刀速度太快 Diamond dresser is moving too fast 金刚石修整器不够锋利 Diamond dresser is not sharp enough	选择合适的砂轮硬度 Choose the right grinding wheel hardness 将走刀速度调慢 Slow down the speed of the diamond dress 转动修整器角度或更换它 Turn the dresser angle or replace it
工件表面有烧伤及裂纹 Burn and crack on the surface of the workpiece	砂轮组织太紧密 Grinding wheel organization is too close 冷却液流量不够或者喷嘴方向不正确 Insufficient coolant flow or incorrect nozzle orientation 砂轮尚未修整到位 The grinding wheel has not been trimmed in place	尝试较开放组织结构的砂轮 Try a more organized and loose structure wheel 调节冷却方式 Adjust cooling method 重新按正确的方法修整砂轮 Re-trimming the grinding wheel in the correct way

平面磨 surface grinding

常见问题 Common Problem	主要原因 Main Reason	解决方案 Solution
工件表面不平或者不平行 The surface of the workpiece is uneven or not parallel	工件烧伤 Workpiece burn 进刀量过大 The amount of feed rate is too large 砂轮轴没调好 The wheel axis is not adjusted well	使用正确的粒度，硬度 Use the correct particle size, hardness 减少进刀量，尤其在精磨阶段， especially during the fine grinding stage 重新调节砂轮使砂轮轴同台面平行 Re-adjust the grinding wheel so that the grinding wheel shaft is parallel to the table
砂轮表面有刮痕 There are scratches on the surface of the grinding wheel	冷却液不干净 Coolant is not clean 砂轮太软 The grinding wheel is too soft 砂轮太粗 The grinding wheel is too rough	清洁冷却槽或更换冷却液 Clean the cooling tank or replace the coolant 选用较硬的砂轮 Use a harder grinding wheel 选用较硬的砂轮或将砂轮修正速度放慢 Use a harder grinding wheel or slow down the grinding wheel
工件有振纹 The workpiece has the machining vibrations	主轴轴承磨损 Spindle bearing wear 砂轮有颤动 The wheel has vibration 砂轮太硬 The grinding wheel is too hard	检查主轴轴承 Check spindle bearing 重新修整砂轮并检查安装 Re-trimming the wheel and checking the installation 选用较软的砂轮 Use a softer grinding wheel
工件产生烧伤或在磨削中途停止 The workpiece has burns or stops in the middle of the grinding process	装夹有松动 Loosely clamped 砂轮偏硬 The grinding wheel is too hard 进刀量太大 The feed rate is large 冷却液流量太小 Coolant flow is too small	检查法兰螺栓 Check flange bolts 选用较软较粗的砂轮 Use a softer and rougher grinding wheel 减小进刀量 Reduce the amount of feed rate 增大冷却液流量 Increase coolant flow



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