



Dear Clients!

PrJSC “POLTAVA DIAMOND TOOLS” is the modern company with a fifty-year history, situated in Eastern Europe and has been manufacturing wide range of diamond and CBN tools for manufacturing and sharpening of tungsten carbide and HSS tools; grinding and polishing of tungsten carbide, heat resistant, alloy-treated and stainless steel parts, glass, ceramics, silicon, refractories, gem stones and other materials; cutting tungsten carbide, glass, ceramics, concrete, granite; drilling of glass, concrete, granite etc.

PrJSC “POLTAVA DIAMOND TOOLS” is looking forward to develop new technologies and it is committed to constantly improving production quality according to the customer's requirements. It helps us to produce successfully diamond tools in the following product lines:

PREMIUM – our newest line of diamond and CBN wheels specially designed for use on CNC machines and sharpening lathes of the world famous brands.

EXPERT – resin bonded diamond and CBN grinding wheels for different applications during production processes at industrial enterprises, as well as for sharpening saw blades and carbide tools.

STANDARD – resin and metal bonded diamond and CBN grinding wheels for a wide range of industrial applications.

PDT S&C – diamond tools for stone processing and construction. Our specialists have a wealth of experience in the production and use of diamond tools and ready to share it with our customers.

PrJSC “POLTAVA DIAMOND TOOLS” is always pleased to offer you our technical support and assistance in choosing of diamond wheels and tools.

WE LOOK FORWARD TO WORKING WITH YOU!

PrJSC “POLTAVA DIAMOND TOOLS”
supplies its products
to more than 40 countries of the world



PREMIUM diamond and CBN wheels for manufacturing of metal-cutting tools

Diamond and CBN wheels for use on CNC machines.

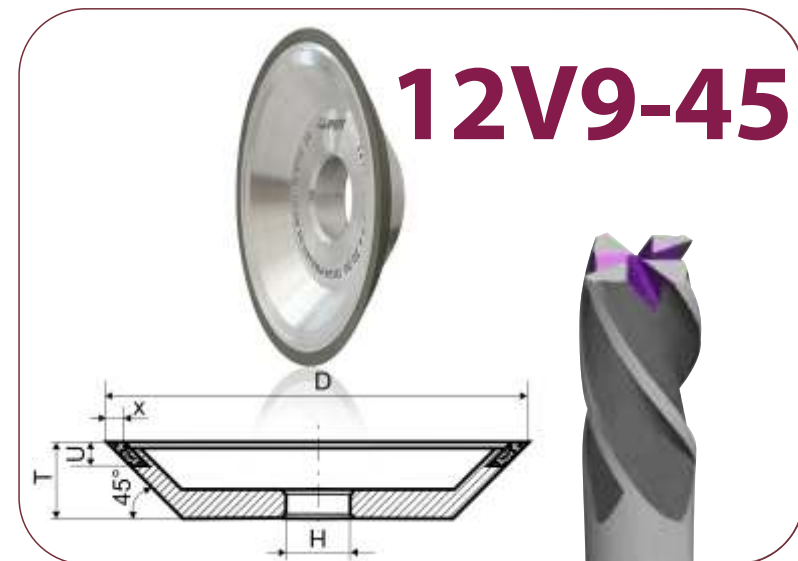
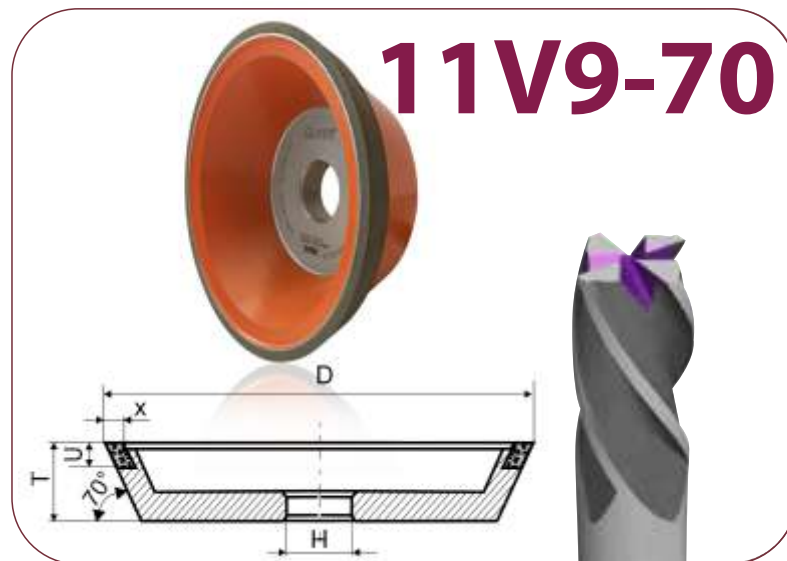
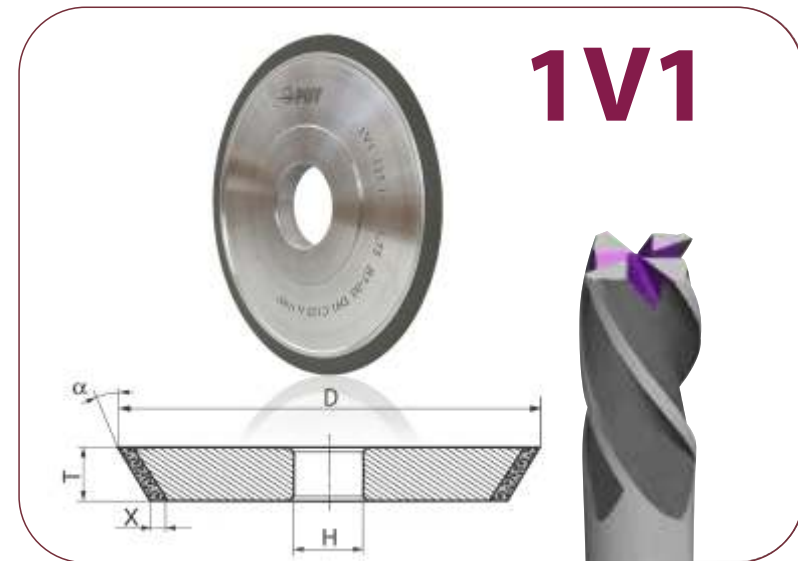
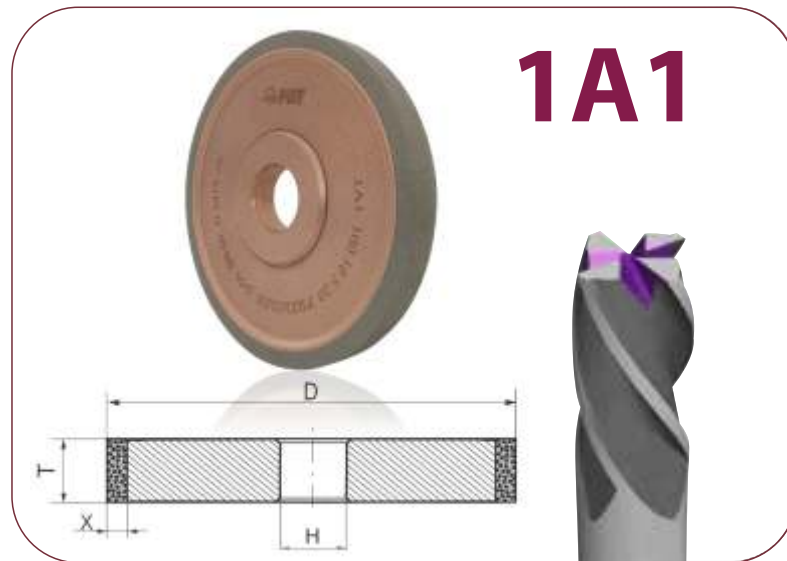
Are to be used for sharpening and manufacturing of metal-cutting tools (end-mills, drills, reamers), made from tungsten carbide and high-speed steel.

The main consumers are:

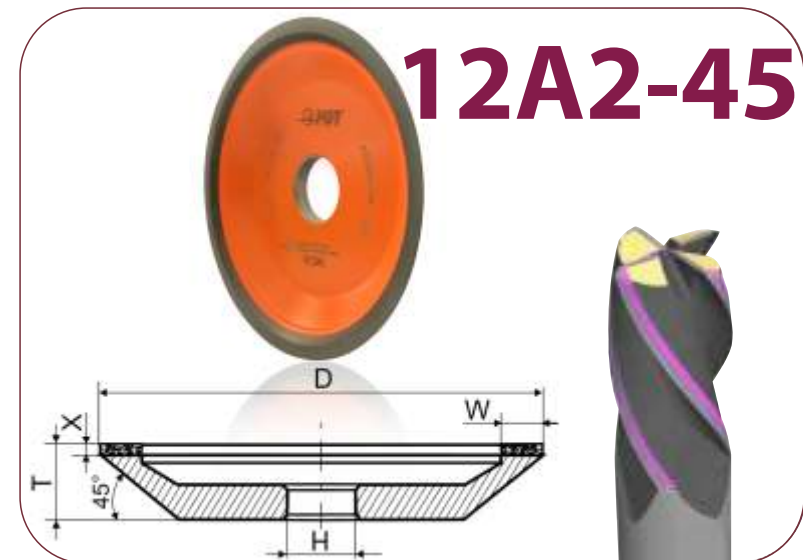
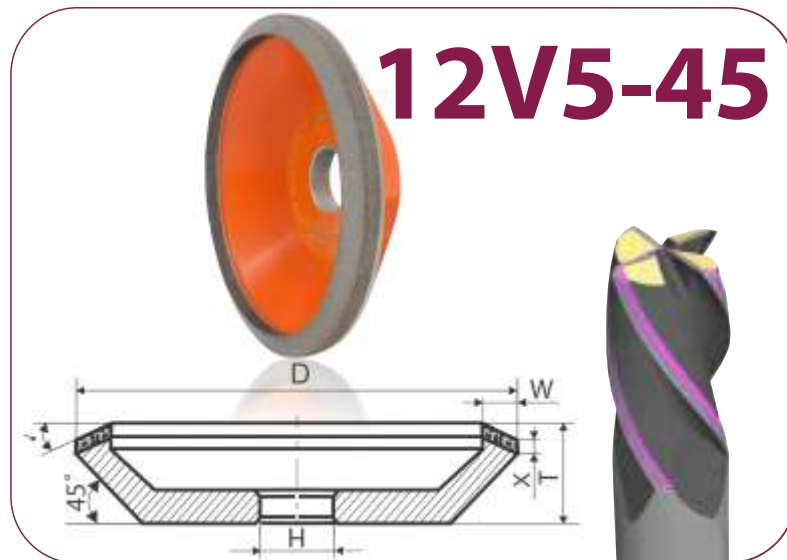
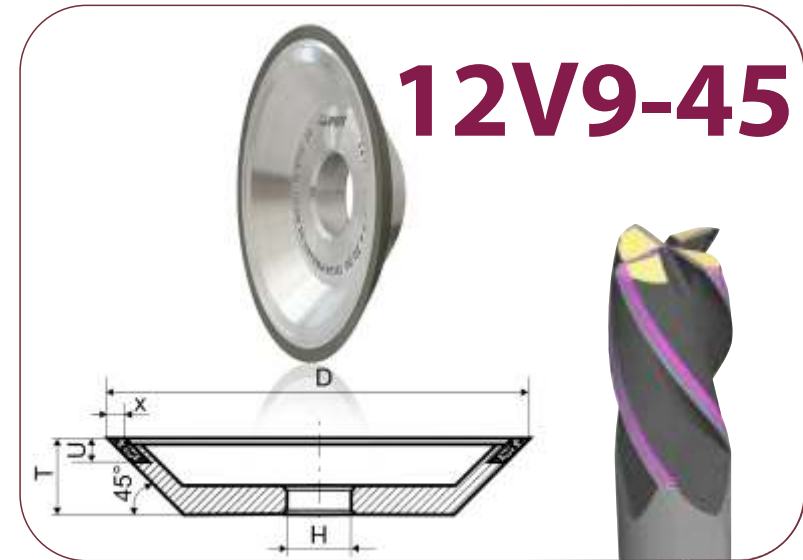
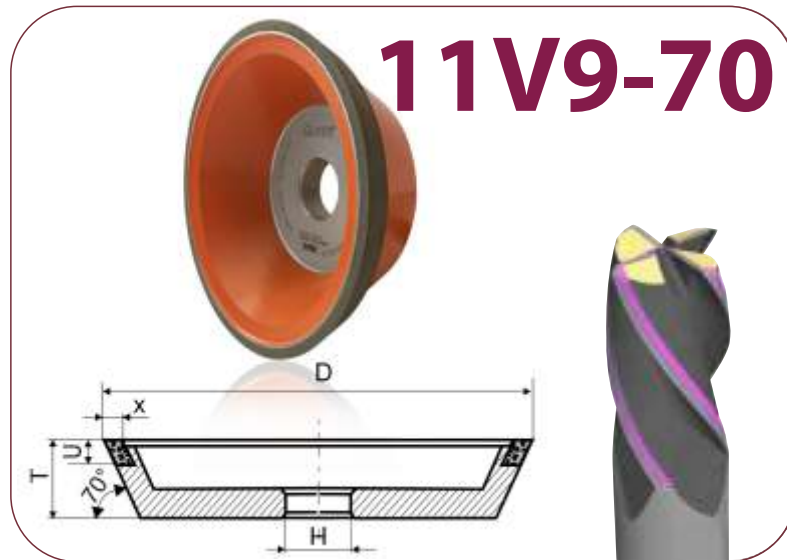
- tool companies which are manufacturing and sharpening axial metal-cutting tools;
- specialized service centers of re-sharpening of metal-cutting tools;
- tool departments of industrial companies, etc



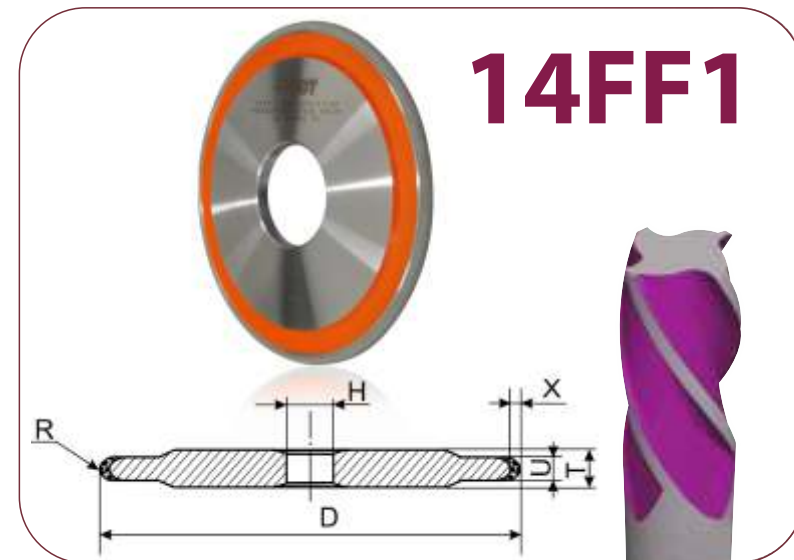
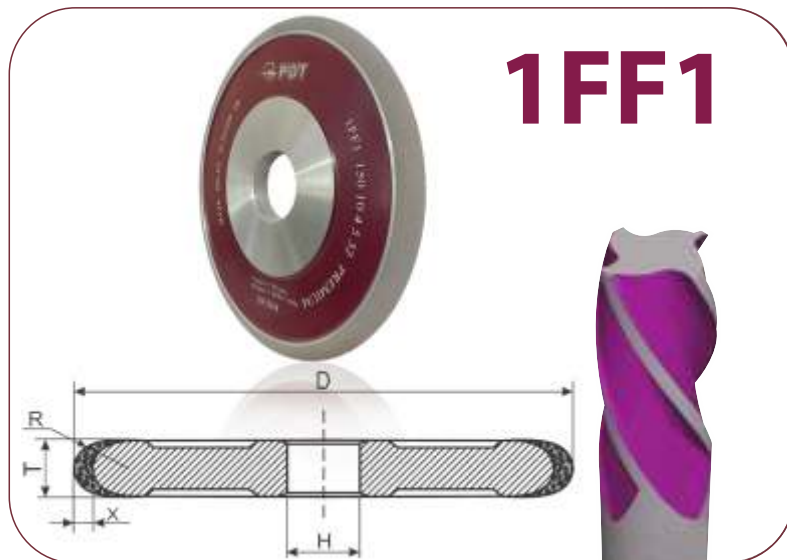
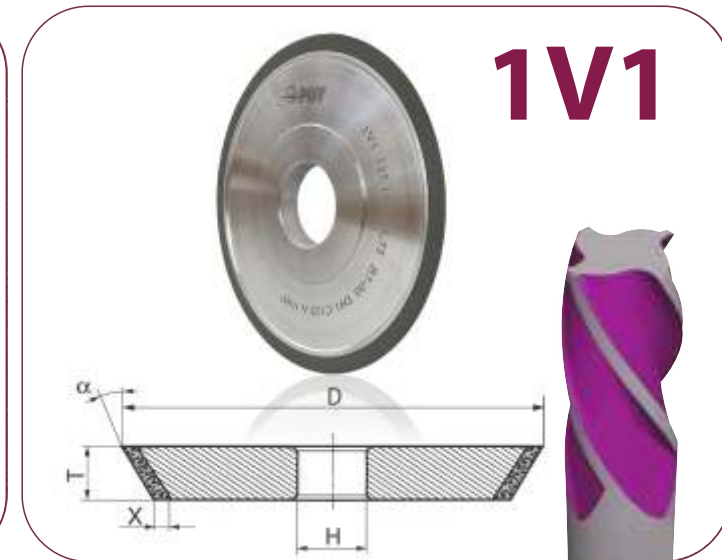
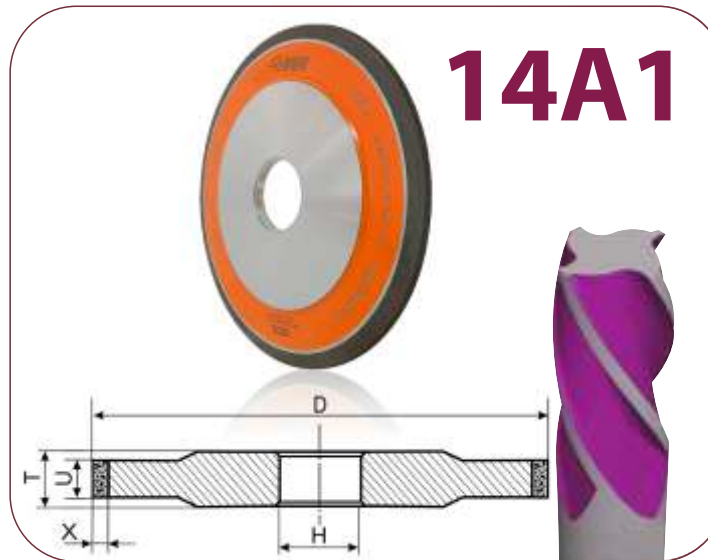
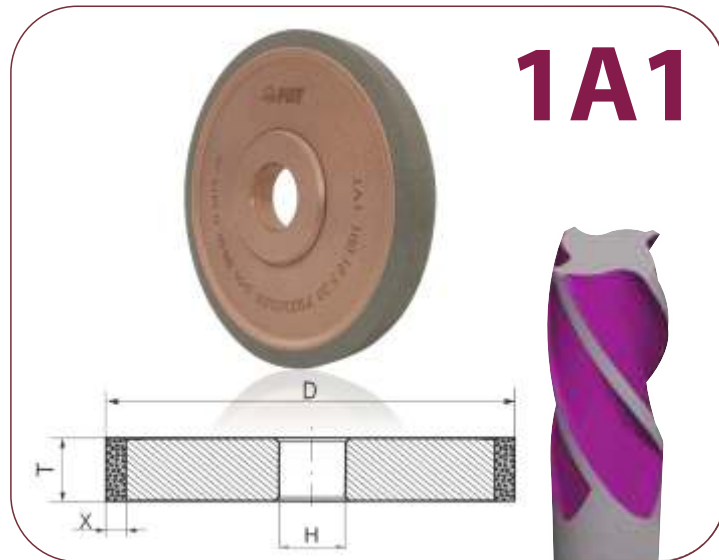
PREMIUM diamond and CBN wheels for gashing



PREMIUM diamond and CBN wheels for clearance angles grinding



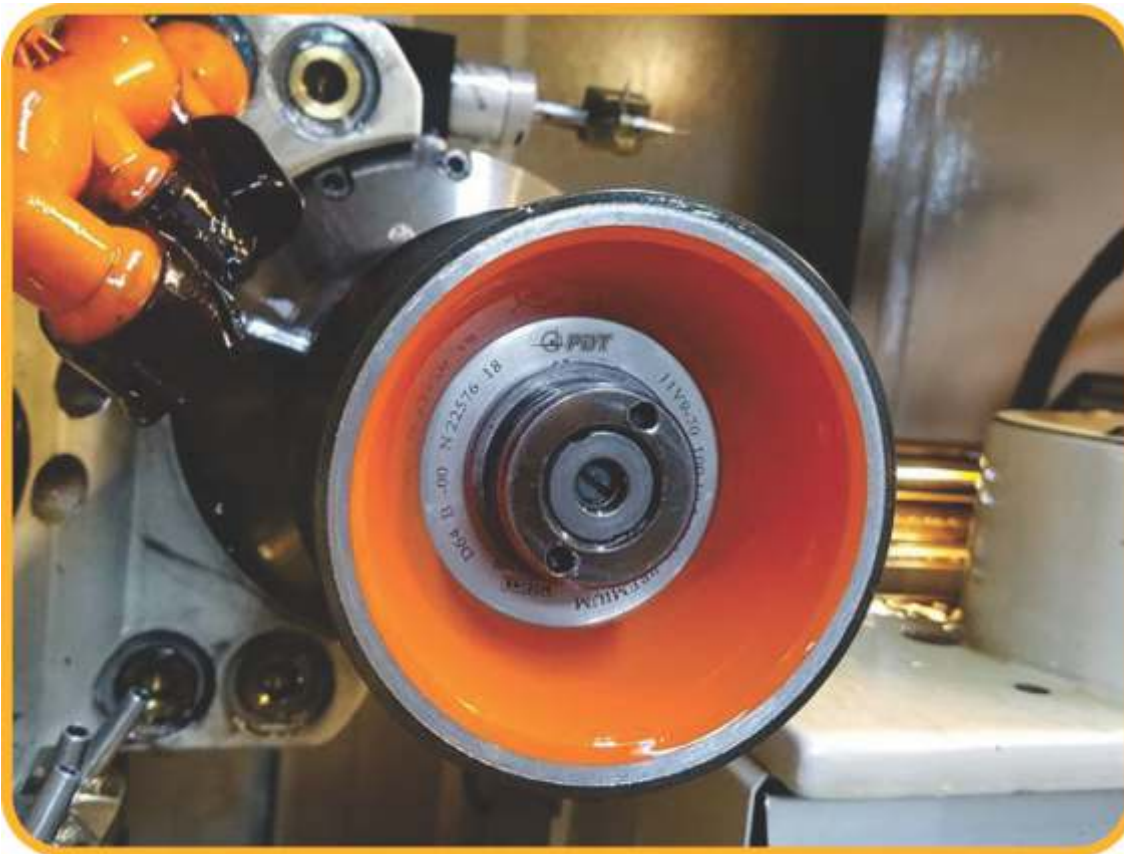
PREMIUM diamond and CBN wheels for flute grinding of axial tools



PREMIUM BONDS FOR MANUFACTURING AND SHARPENING OF METAL-CUTTING TOOLS

Item	Recommendations for usage	Recommended grinding parameters
B6-01	Resin bond for deep infeed grinding (manufacturing and sharpening) of tungsten carbide and high-speed steel tools on CNC machines with coolant. The bond has excellent cutting properties, wear resistance and high edge resistance.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s CBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=0,05 - 0,1$ m/min Infeed $a_e=\text{up to } 4,00$ mm
M7-01	Metal bond for deep infeed grinding (manufacturing) of metal cutting tools from tungsten carbide and high-speed steel on CNC machines with coolant. The bond has very high cutting properties, wear resistance and edge resistance. Works at higher feed rates than M7-00 bond.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s Feed rate $V_f=0,05 - 0,08$ m/min Infeed $a_e=\text{up to } 6,00$ mm
M7-02	Grinding wheels with metal bond M7-02 are designed for deep force grinding applicable for producing rotary metal cutting tools of tungsten carbide on CNC grinders with coolant. The bond is wear resistant, possesses high cutting abilities and keeps edge extremely well.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s Feed rate $V_f=0,05 - 0,08$ m/min Infeed $a_e=\text{up to } 6,00$ mm
RMH01	Hybrid-bond for deep infeed grinding (manufacturing) of metal cutting tools from tungsten carbide and high-speed steel on CNC machines with coolant. The bond has extremely high cutting properties, particular wear resistance and edge resistance. Easy to dress.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s CBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=0,05 - 0,1$ m/min Infeed $a_e=\text{up to } 6,00$ mm

Grinding machine types and wheels PREMIUM used for manufacturing and sharpening of metal-cutting tools



- WALTER HMC 500
- WALTER HELITRONIC MINI POWER
- WALTER HELITRONIC POWER 600
- ANCA Mx7 Linear, MX5 Linear, TXcel Linear, RX 7
- MICHAEL DECKEL S20E TURBO
- SAACKE UW1G, UW1F
- HAWEMAT 3000 CNC, etc.

PREMIUM diamond and CBN wheels for woodworking industry

Diamond and CBN wheels for use on high-productivity sharpening machines of the world famous brands.

Are to be used for sharpening:

- Circular saws with tungsten carbide teeth;
- High-speed steel circular saws;
- Band saws with tungsten carbide teeth;
- End mills and drills for wood treatment and other instruments.

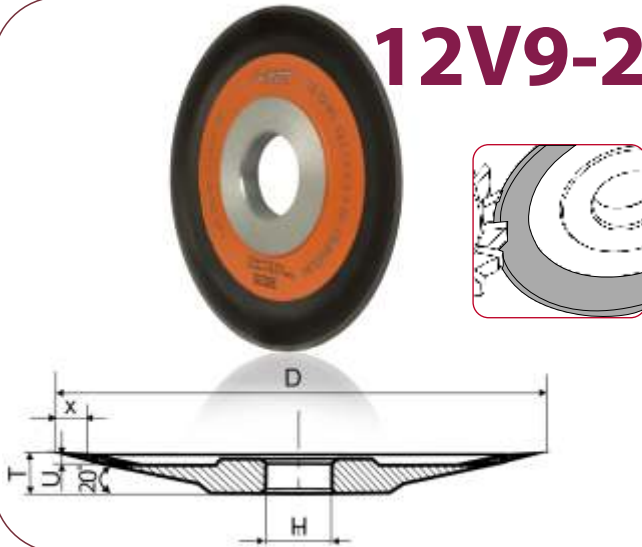
The main consumers are:

- specialized service centers of saw and tool sharpening;
- saw manufacturers;
- fiber board plants;
- furniture plants, etc.

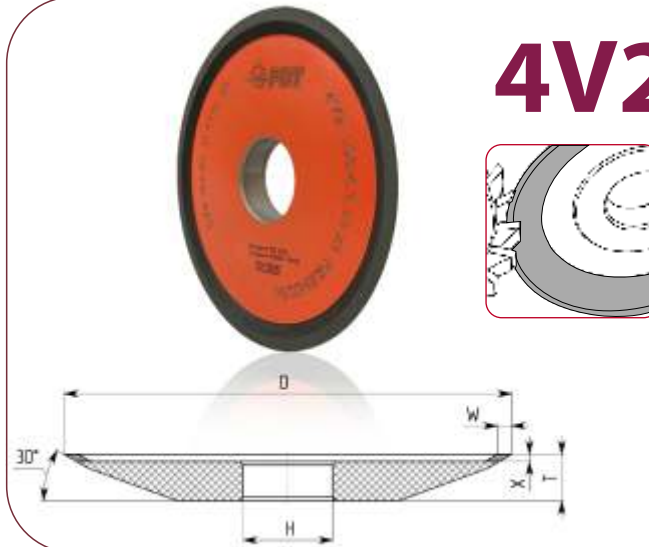


PREMIUM diamond and CBN wheels for sharpening of face surfaces of circular saw teeth

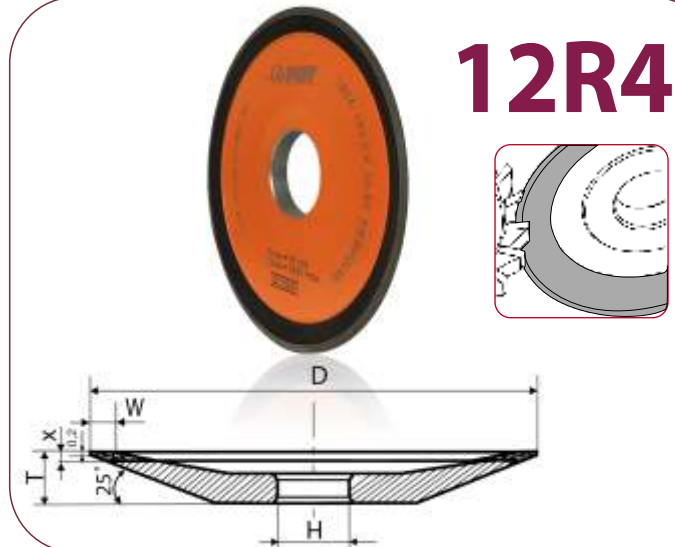
12V9-20



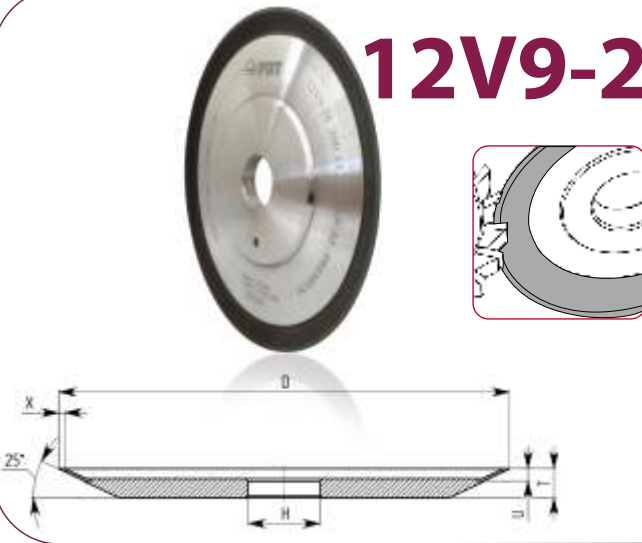
4V2



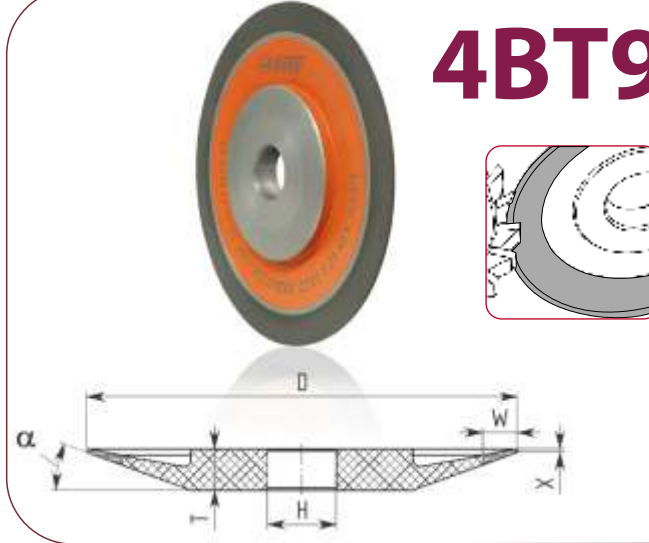
12R4



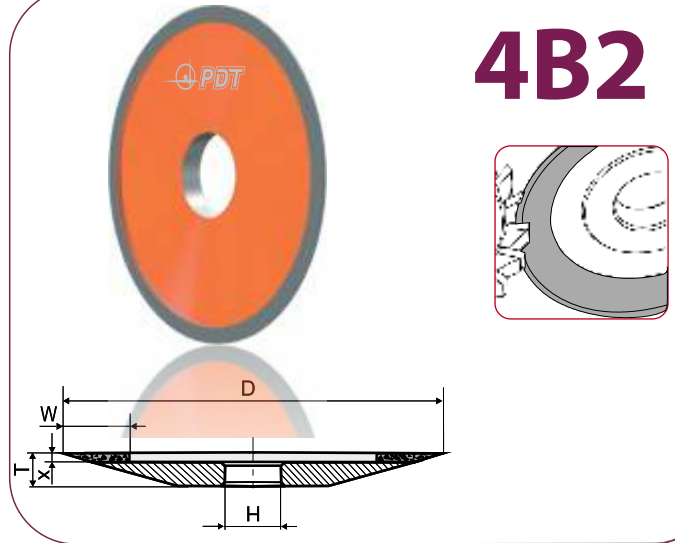
12V9-25



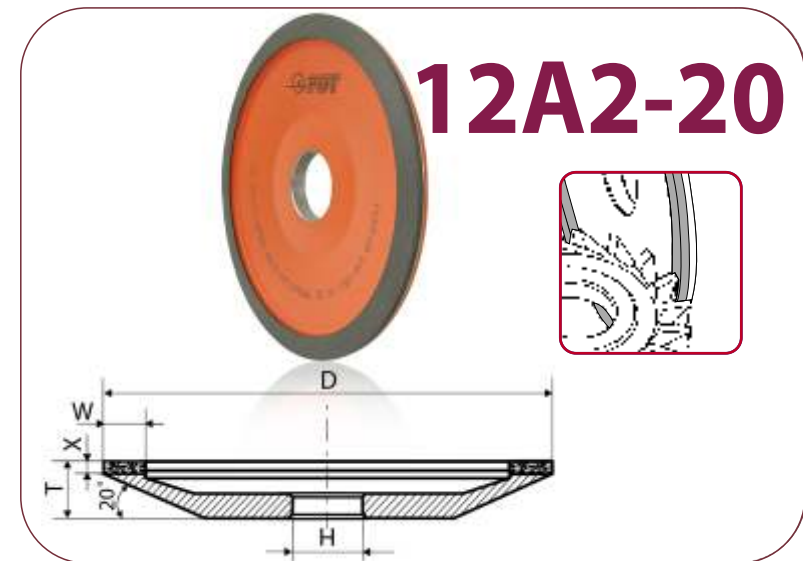
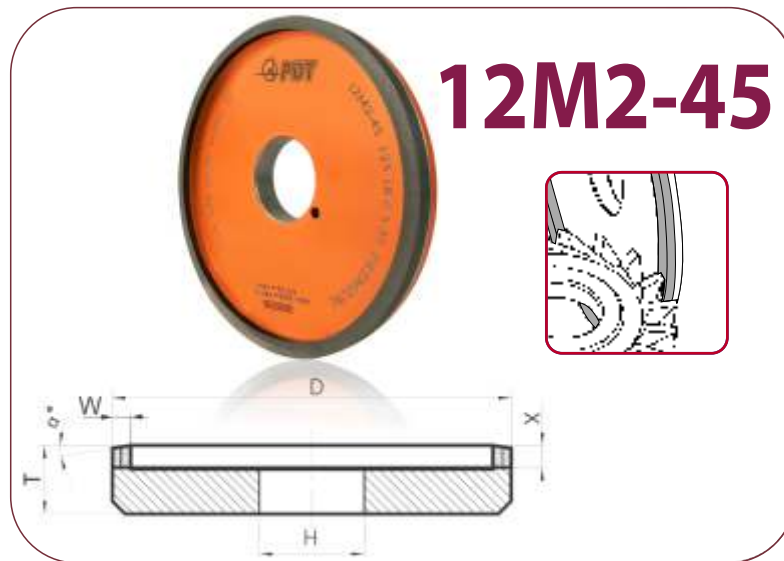
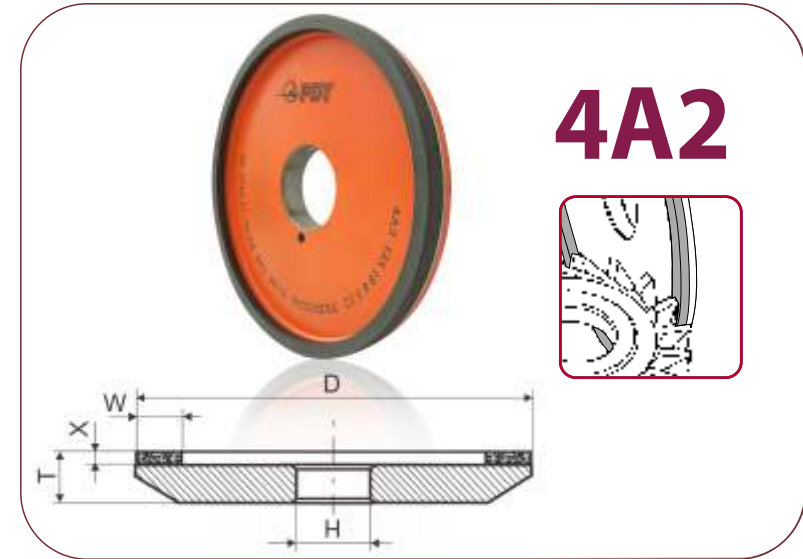
4BT9



4B2



PREMIUM diamond and CBN wheels for sharpening of back surfaces of circular saw teeth



PREMIUM BONDS FOR SAWS SHARPENING

Item	Recommendations for usage	Recommended grinding parameters
B9-00	Resin bond for grinding, sharpening and finishing of tungsten carbide and high-speed steel workpieces with coolant.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s ĆBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=0,1 - 0,25$ m/min Infeed $a_g=0,1 - 0,2$ mm
B7-00	Resin bond for manufacturing and sharpening of tools from tungsten carbide and high-speed steel on CNC machines with coolant. The bond has good cutting properties, wear resistance and high edge resistance.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s ĆBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=0,05 - 0,1$ m/min Infeed $a_g=\text{up to } 2,00$ mm
B7-01	Grinding wheels with bond B7-01 are designed for finish sharpening of carbide-tipped disc saws (face and top grinding operations). Coolant is required.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s Feed rate $V_f=0,1 - 0,25$ m/min Infeed $a_g=0,1 - 0,2$ mm
B7-02	Grinding wheels with bond B7-02 are designed for finish sharpening of carbide-tipped disc saws (face and top grinding operations). Coolant is required. Wheels with B7-02 bond provide better surface roughness in comparison with B7-01.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s Feed rate $V_f=0,1 - 0,25$ m/min Infeed $a_g=0,1 - 0,2$ mm

Grinding machine types and wheels PREMIUM used for sharpening of circular saws



- VOLLMER CP 200
- VOLLMER CHD 251
- VOLLMER CHD 270
- VOLLMER CL 200
- VOLLMER CX 100
- WALTER CNC 5
- WALTER WOODTRONIC NC3
- AKEMAT U6 R2
- WEINIG
- LINSINGER
(VOLLMER CHD 351)
- GOECKEL,
etc.



**Diamond and CBN wheels for
manufacturing and grinding
of tools for machine building**

PREMIUM BOND FOR MANUFACTURING AND GRINDING TOOLS FOR MACHINE BUILDING

Item	Recommendations for usage	Recommended grinding parameters
B9-00	Resin bond for grinding, sharpening and finishing of tungsten carbide and high-speed steel workpieces with coolant.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s ĆBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=0,1 - 0,25$ m/min Infeed $a_e=0,1 - 0,2$ mm
B1000	For cutting, sharpening and grinding of tungsten carbide and high-speed steel without coolant.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s ĆBN wheels $V_c=\text{up to } 35$ m/s
B1002	For cylindrical and flat grinding of tungsten carbide and high-speed steel workpieces with coolant.	Cutting speed: diamond wheels $V_c=15 - 25$ m/s ĆBN wheels $V_c=\text{up to } 35$ m/s Feed rate $V_f=5 - 10$ m/min Infeed $a_e=\text{up to } 0,05$ mm

EXPERT

New line of high-performance diamond and CBN tools for mechanical engineering and woodworking industries

POLTAVA DIAMOND TOOLS has begun production of diamond and CBN wheels with the new high-performance resin bond EXPERT. Grinding wheels are manufactured according to innovative technologies with usage of high-quality components, which can significantly increase the performance and durability of the wheels comparing to STANDARD line. As our test results show, EXPERT bond provides good grinding quality not only with coolant application, but also when working without it.



Application of EXPERT resin bonded wheels with synthetic diamond

Type of bond	Application	Coolant	Parameters of work
EXD21 Universal bond	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 12A2-45, 6A2, 12A2-20, 12R4 shapes and other dish and cup shaped wheels.	with coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50$ m/min
		without coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. shapes.	with coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 2,50$ m/min
		without coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 1,50$ m/min
EXD11	For sharpening of tungsten carbide tools. Most applicable for shapes 12A2-45, 6A2, 12A2-20, 12R4 and other dish and cup shaped wheels. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50$ m/min
		without coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
EXD12	For sharpening of tungsten carbide tools. Most applicable for shapes 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 1,00$ m/min
EXD31	For different shapes of wheels for multistep grinding and sharpening of tungsten carbide tools without coolant.	without coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,25$ m/min
EXD41	For grinding and sharpening PCD tools.	with coolant	Cutting speed $V_c=20...25$ m/s Grinding depth: $t=$ up to 0,20 mm



Application of EXPERT CBN resin bonded wheels



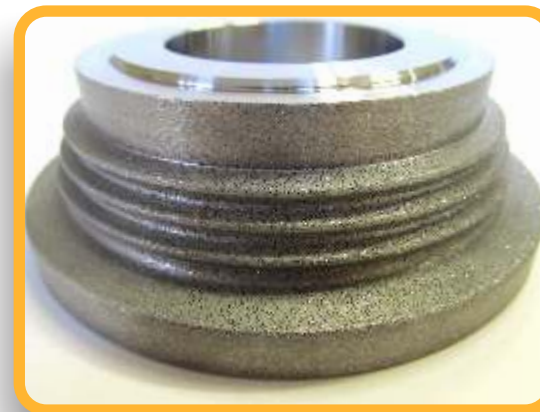
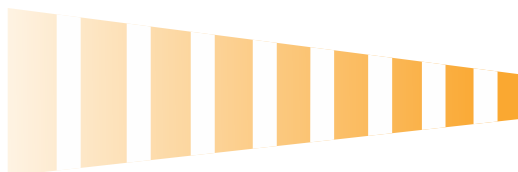
Type of bond	Application	Coolant	Parameters of work
EXB20 Universal bond	For multistep grinding and sharpening of high speed steel	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50....6,0$ m/min
		without coolant	Cutting speed: $V_c=32...35$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50....6,0$ m/min
EXB10	For sharpening of high speed steel tools. The bond is more wear-resistant and has better profile retention than EXB20	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50....6,0$ m/min
		without coolant	Cutting speed: $V_c=32...35$ m/c Grinding depth: $t=$ up to 0,12 mm Line feed: $V_f= 0,50....6,0$ m/min

POLTAVA DIAMOND TOOLS produces a wide range of diamond dressing rollers for such machine building industries as:



Aircraft construction

— manufacturing of turbine buckets for air engines;

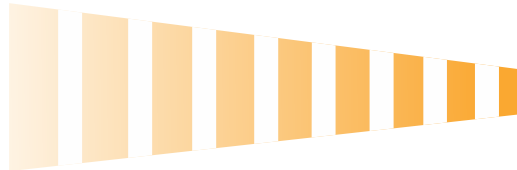


— manufacturing of various high-precision parts for aircraft construction.



Automobile and transport machine building

- producing of crankshafts;
- producing of ball pins;

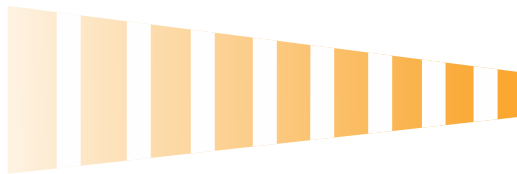


- producing of piston rings;

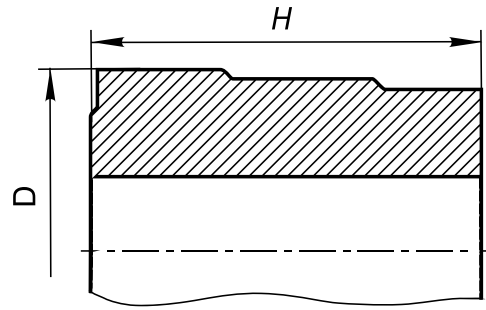


Automobile and transport machine building

- producing of valves;
- producing of gear wheels;
- producing of parts for bearings.



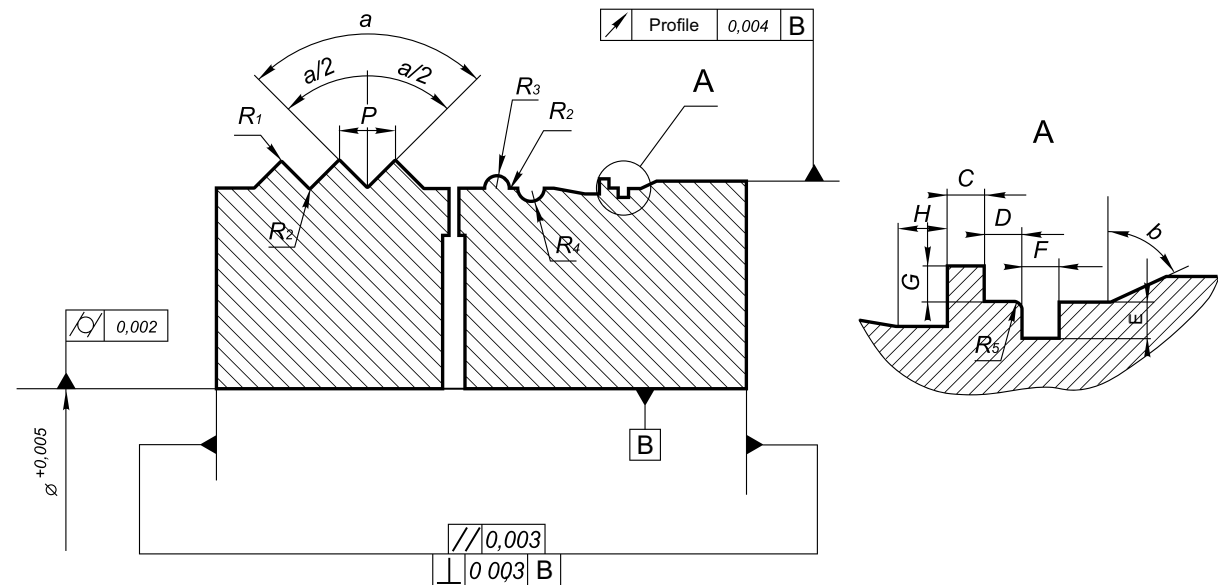
DIMENSIONS OF AVAILABLE DIAMOND ROLLERS



Parameters	Diamond roller dimensions, mm 02H*
D max	210
D min	26
H max	140
H min	8

* 02H - reverse plated method with randomly distributed diamonds

MINIMUM TOLERANCE OF DIAMOND ROLLERS SURFACES



$C = \pm 0,01$	$G = \pm 0,01$	$R_1; R_2; R_3; R_4; R_5 = \pm 0,01$
$D = \pm 0,01$	$H = \pm 0,01$	$a = \pm 3'$
$E = \pm 0,01$	$P = \pm 0,003$	$a/2 = \pm 3'$
$F = \pm 0,01$	$R_{1min} = 0,15; R_{2min} = 0,12$	$b = \pm 3'$

CBN Grinding Wheels with Vitrified Bond

The Application Area

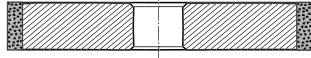



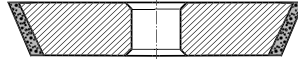


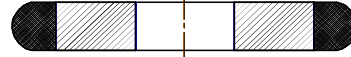
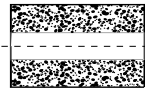
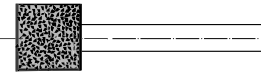
- cylindrical grinding, flat grinding, internal grinding operations
- producing of details for bearing industry etc.
- sharpening of metal cutting tools
- gear-grinding operations
- thread-grinding operations
- producing parts for turbine etc.

Main Processed Materials

- instrument steel
- bearing steel
- titanium alloy
- heat-resistant steel
- alloy-threaded steel



Main shapes of the wheels with vitrified bond

<p>1A1</p> 	<p>1E6Q</p> 
<p>14A1</p> 	<p>1E1</p> 
<p>1V1</p> 	<p>1D1</p> 
<p>3A1</p> 	<p>1F1</p> 
<p>A8</p> 	<p>AW</p> 

STANDARD diamond and CBN wheels

Resin and metal bonded **diamond and CBN wheels** for when price and quality have the optimum ratio on the market.

Are to be used for serial application in industrial processes on universal machines of industrial plants.

The main consumers are:

- machine-building industry;
- aerospace industry;
- cars manufacturers;
- manufacturers of engines and turbines;
- manufacturers of pumps and compressors;
- manufacturers of diesel and electric locomotives;
- manufacturers of agricultural machines;
- woodworking companies;
- glass industry;
- manufacturers of ceramic tile, etc.



Metal bonded diamond wheels for glass machining

Metal bonded diamond wheels for glass machining **are to be used** for :

- Machining of automobile glass;
- Machining of architectural sheet glass;
- Machining of designer glass when the furniture is producing;
- Machining of mirrors;
- Machining of optical lenses;
- Machining of crystal;
- Machining of glass dishes, etc.

The main consumers are:

- float glass manufacturing companies;
- furniture manufacturing companies;
- optical devices manufacturing plants;
- crystal manufacturing plants, etc.



Electroplated CBN wheels for sharpening of band saws

Electroplated CBN wheels are to be used for sharpening of band saws with the below mentioned teeth profiles:

- Wood-Mizer (winter, summer);
- ROMA (winter, summer);
- Fenes (winter, summer);
- and others according to the customer's requirements.

The main consumers are:

- wood – cutting companies;
- logging plants which are manufacturing wood materials for construction industry;
- saw sharpening service centers, etc.



Superabrasive PCD and PCBN cutters, inserts and removal cutting inserts

PCBN cutters and inserts

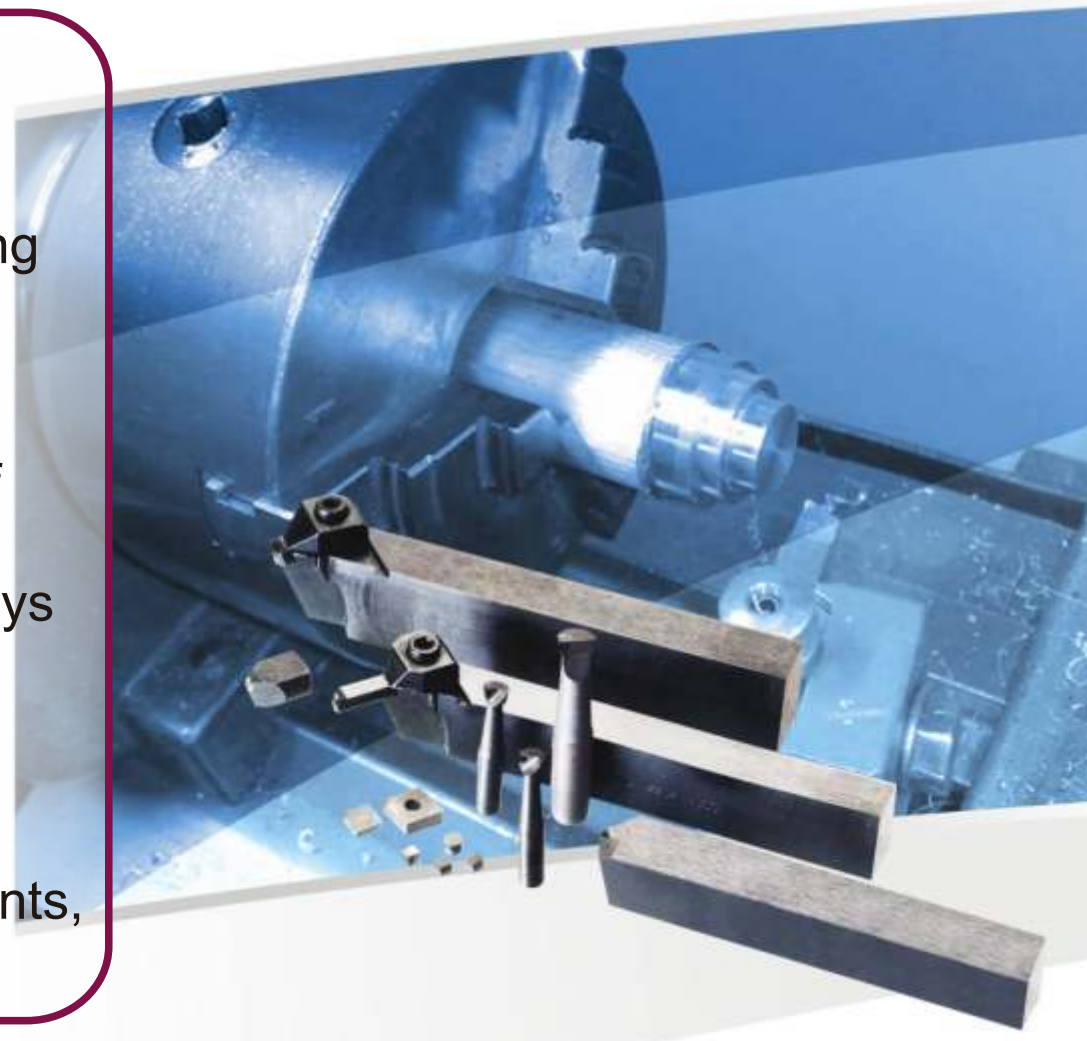
Are to be used for finish and semi-finish of tempered steel materials, cast irons, tungsten carbides and other hard-processing materials.

PCD cutters and inserts

Are to be used for finish and semi-finish of fiberglass, plastic ceramics, and graphite carbon materials, tungsten carbide and alloys of copper and titanium, etc.

The main consumers are:

- machine-building industry;
- engine and spare parts manufacturing plants, etc.



Diamond and CBN pastes

Pastes with titanium carbide powder

Diamond and CBN pastes and pastes with titanium carbide.
Are to be used for finishing and polishing products of steel and nonferrous metals, alloy - treated steels and nonferrous materials.

The main consumers are:

- machine-building industry;
- bearing manufacturers;
- shutoff fittings manufacturing companies (gates, latches, valves);
- engine and fuel fittings manufacturing companies;
- Industrial knives sharpening companies, etc.



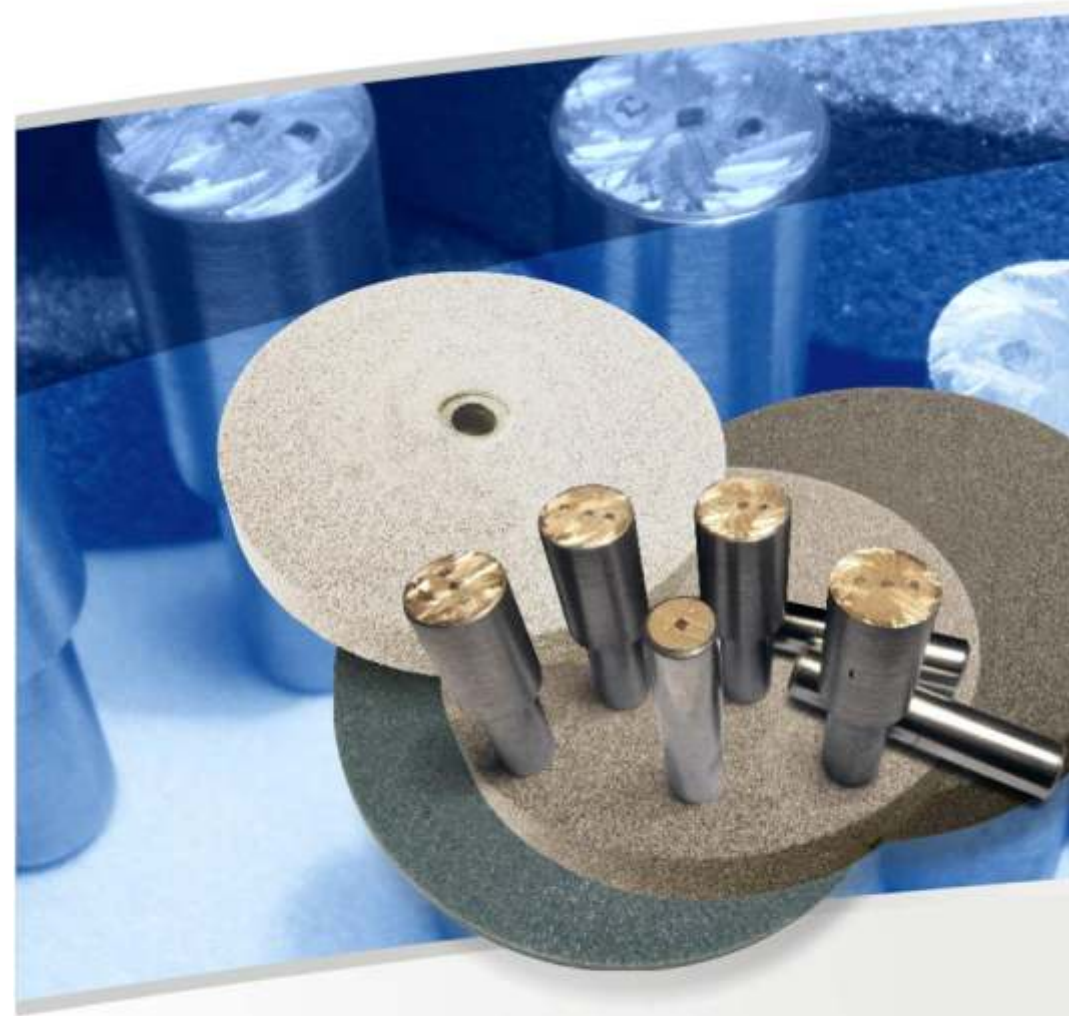
Dressing sticks

Dressing sticks

Are to be used for dressing
abrasive straight wheels and profile
dressing

The main consumers are:

- machine-building industry;
- metallurgical plant,
etc.





**POLTAVA DIAMOND TOOLS
STONE AND CONSTRACION**



Diamond cutting wheels 1A1R, 1A1R Turbo, 1A1RSS for manual tools



Wheels for cutting glazed ceramic tiles, ceramic granite, granite, marble and other materials



Wheels for cutting concrete, reinforced concrete, granite, and other materials



Diamond cut-off wheels 1A1R for stationary equipment



Wheels for cutting glazed ceramic tiles, ceramic granite, all types of granite, all types of marble and other materials



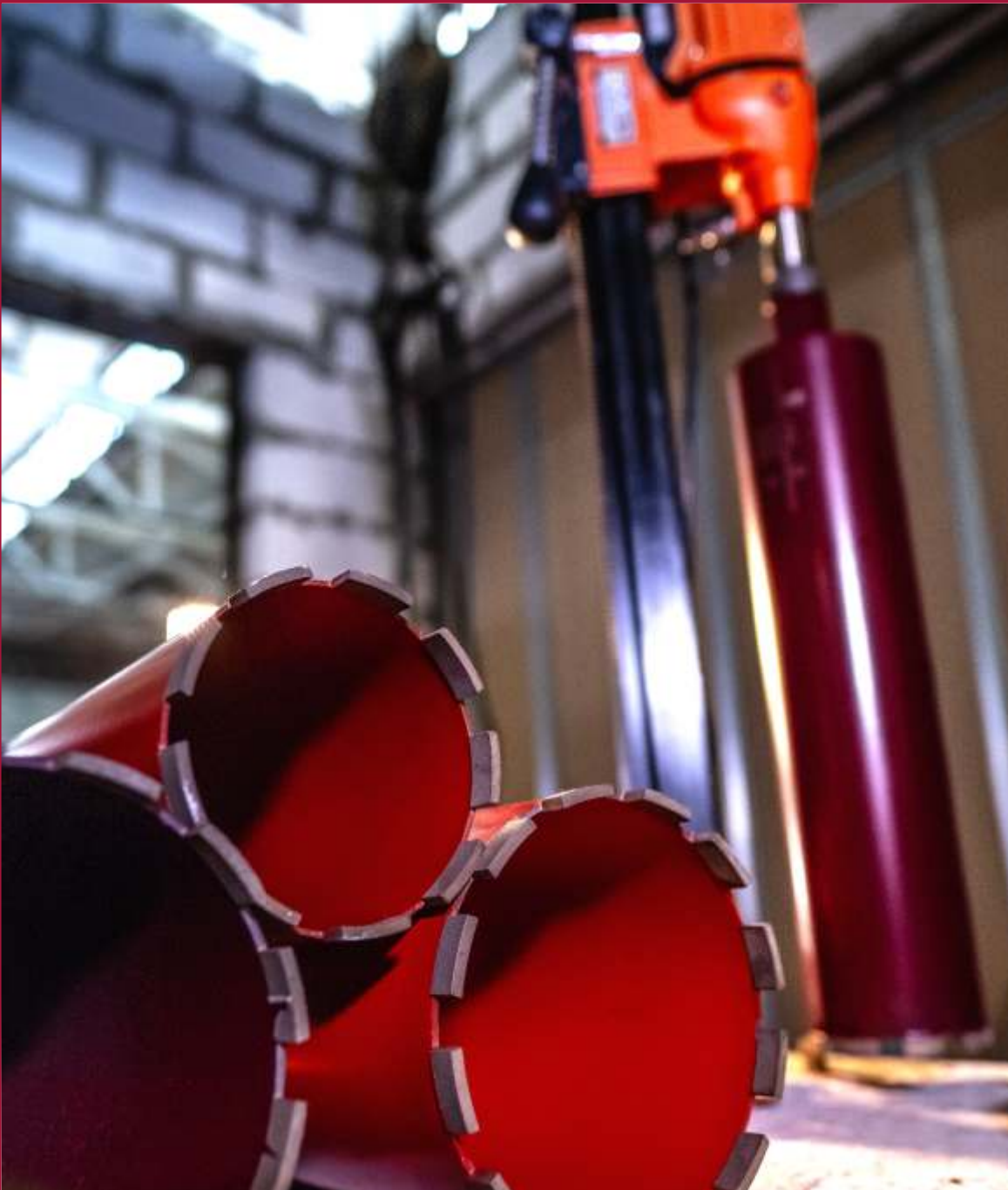
Diamond segment wheels 1A1RSS for gas-cutters, joint cutters and stationary equipment



Cutting wheels for reinforced and highly reinforced concrete, fresh concrete, asphalt, all types of granite, all types of marble, andstone, refractory products and other materials.

All segment wheels are produced by high frequency soldering of segments, as well as laser brazing of segments and body.

Wheels are made on German equipment. **DR.FRITSCH**



Diamond segment core drills



Drill bits for reinforced and highly reinforced concrete, granite and other materials.



Drills (sockets) for work on reinforced and highly reinforced concrete and other materials.

Drill bits for reinforced and highly reinforced concrete, granite and other materials. All segment drills are produced by HFS soldering segments, as well as laser welding of segments and body.

Drills are made on German equipment **DR.FRITSCH**

Product warehouse





BUREAU VERITAS
Certification

PrJSC "POLTAVA DIAMOND TOOLS"

34, Tsiolkovskogo Str., Poltava, Poltava reg., 36023, Ukraine

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

Design, development, manufacturing and supply of diamond wheels, CBN wheels, diamond and superhard materials tools, pastes and slurries of superhard and abrasive materials.

Original cycle start date: **20 December 2005**
Expiry date of previous cycle: **10 November 2020**
Certification / Recertification Audit date: **23 October 2020**
Certification / Recertification cycle start date: **11 November 2020**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **10 November 2023**

Certificate No. **UA229874** Version: **0** Revision date: **11 November 2020**


Olena Svyrydenko
Signed on behalf of BVCH SAS UK Branch


0008

Certification body address: **5th Floor, 66 Prescott Street, London E1 8HG, United Kingdom**
Local office: **5th floor, 28, Simon Petlyura St., Kyiv, 01032, UKRAINE**

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: **+380 44 354 16 00**





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to our company products**

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