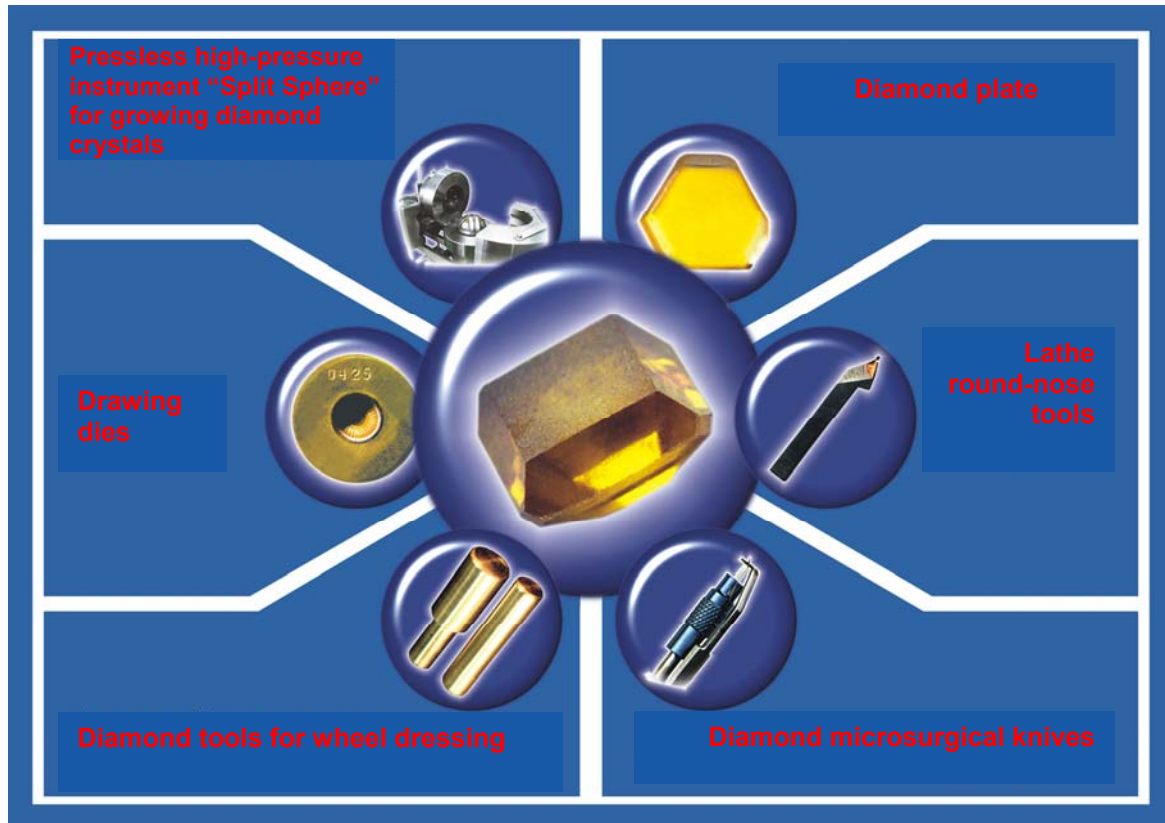


PRECISION DIAMOND TOOLS

Description

Production of precision diamond tools is based upon high-performance technologies of BARS pressless high-pressure growing of crystals and their subsequent thermal-chemical treatment by catalytic gasification at 600-1300°C. The weight of crystals varies from 0.02 to 0.50 carat depending on the tool type.



Precision diamond tools.

Technical appraisal and economic benefits

The possibility to cut diamond crystals along any crystallographic orientation ensures production of high-quality diamond microsurgical knives, lathe round-nose tools, and other kinds of tools hard to achieve with the usual machining.

Application areas

Diamond tools are used in many modern industries for working of nonferrous metals and non-metallic materials (machine building, instrument-making, radio electronics, optics, etc.), as well as in medicine and biology for obtaining superfine sections of tissues.

Development stage

Production and supply of pilot models by the Institute of Mineralogy and Petrography, Siberian Branch of the Russian Academy of Sciences.

Patent situation

Patents of the Russian Federation, 1999-2001; patent holders are KTI MK and OOO "MAIN".

Commercial offers

Production and supply contracts.

Estimated cost

10 – 200 US\$ for a piece, depending on the tool type.

Contacts

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