### tools





Radius milling and generator tools



Tools for concave and convex shapes







Polishing tools









Pre-, fine- and superfine grinding tools

Grinding wheels



Grinding wheels for toric lenses

Radius milling tools



### Developing Efficiency



Conditioning tools for polishing pads



Radius milling tools for submicrolenses ( $\emptyset < 0,5 \,\text{mm}$ )









Fully covered grinding wheels



Pellet covered grinding wheels



Face milling tools



Grinding wheels



Fully covered grinding wheels

Pellet covered grinding wheels

Segmented grinding wheels



dopa Entwicklungsgesellschaft für Oberflächenbearbeitungstechnologie mbH

Zu den Krugwiesen 1 / 13057 Berlin / Germany

**fon** +49(0)30.585842800 **fax** +49(0)30.585842899

info@dopa-diatools.com www.dopa-diatools.com

# DIAMOND TOOLS

### Developing Efficiency

#### dopa

Developing and manufacturing high precision grinding and polishing tools



#### we are dopa

dopa – for over 20 years we are your competent and internationally established partner for the development and production of diamond tools and the design of whole production processes.

At this we have specialized us on the processing of optical glass, special ceramics and crystals. Our tools distinguish themselves by the fact that they produce also at high stock removal rates very fine, homogenous and scratch free surfaces, which have nearly no sub surface damage. This leads in the following manufacturing steps to a decrease of generally minimum 35% of your polishing time. Furthermore it raises your products quality and stabilizes remarkably your processes. With their low wear our tools enable you moreover to produce very flat parts.

We own in our Berlin test laboratory most different grinding and polishing machines plus a wide range of measurement instruments. On those machines, that depict the state of the art technology in multiple industries, we run machining trials under real production conditions and optimize the tools and processes already here so far, that they can be implemented in our customer's production as a complete system.

Improving existing technologies or visualizing whole technology changes as for example from lapping with loose abrasive to fine grinding or from polishing with diamond slurry to super fine grinding can be shown here while considering all economical and technological aspects.

Using this our customers can cut down the long, hard and cost intensive implementation of new technologies at their end to a minimum or save it fully. Furthermore they are able to react much faster to changing market needs while not interrupting their running production.

To push your borders we gladly assist you with our funded knowledge in choosing and making the right tools for your application.



#### polishing pellets

We create polishing tools, which produce optical polished surfaces with no or several times lower utilization of polishing powder. Those tools furthermore produce lenses with laser cosmetics and very high radius accuracies. They are for example very gladly used in micro optics.

#### fine grinding diamond pellets

You are able to get our innovative diamond tools also in the shape of diverse pellets, bars or segments. Due to always having several thousands of pellets on stock we are able to deliver your tools instantly. The big variety of standard pellet shapes gives us the furthermore the chance to pick your tools right out of those. If you should need any other shapes are these producible as well.

We are equally flexible in the choice of grit sizes, bond types and grit concentrations. In order to select the right solution we gladly assist you with our profound machining knowledge at any time. **Please contact us!** 





#### cutting Iubricant

We produce lubricants that are tuned on our grinding tools. On the one hand they increase the tools' cutting rate and hold them sharp for a long time. On the other hand our lubricants improve the workpieces surface so, that you can cut down their polishing time further more.

#### grinding, lapping and polishing carriers

We produce grinding, lapping and polishing carriers for most different machines as e.g. Carlap, Diskus, Engis, FLP Microfinishing, Fujikoshi, Hahn & Kolb, Hamai, Lapmaster, Leico, Melchiorre, Norton, Peter Wolters, PR-Hoffmann, Somos, Speedfam, Spitfire, Stähli, Stock, Strassbaugh, Supfina.

Materials: most different plastic materials, PVC, lamitex, G10; glass inforced plastics, blue steel and other metals Thicknesses: starting at 0,15 mm Sizes: carriers up to a diameter of 1500 mm





generator tools

Our most in CNC optic machines used generator tools are renowned for the very homogenous, scratch free surfaces they produce and the minimal sub surface damage they conduct into your optics. We naturally produce those in diverse grit sizes and dimensions. You can get them in the mostly used 6 mm, 12 mm and 25 mm shanks but also in specific mounts for your machines.

## polishing and diamond slurries

Apart from milling, grinding and polishing tools we are also producing polishing and diamond slurries. In the choice of polishing agents we are here as flexible as with our grinding tools. Our slurries are famous for their very homogenous grit dispersion, grit quality and their chemical properties. They therefore produce no scratches as other slurries. As our products settle very, very slowly they enable a much more efficient mode of operation.

#### conditioning tools for polyurethane and other polishing pads

Equally we have developed conditioning tools for polishing pads that can be ground in and corrected much faster than conventional tools. This is not only easier and more convenient, it does also save a lot of precious production time.



We are able to help you with applications, where you need diamond powder for. We have poly crystalline and mono crystalline diamond powder in all grit sizes, shapes and hardnesses. Due to our development and production of diamond tools we stock always high quantities of most different abrasives. Hereby we are not only able to provide you with highest quality abrasives but can also deliver immediately a lot of different products with very competitive pricing.



