

DIAMUT unleashes Hyper-Speed tools with unprecedented performance

Diamut is a brand leader in the production and sale of tools for working glass, stone and ceramic materials, used on the majority of the machines on the market. Thanks to over 30 years of experience in the sector, in-depth specialised technical awareness and to consolidated knowledge of production processes Diamut was able to develop Hyper-Speed: a new range of high speed tools, ideal for vertical and horizontal grinding machines, developed to help customers boost the productivity of their production cycles.

INNOVATIVE NEW GRINDING WHEEL

The set of Hyper-Speed grinding wheels consists of an innovative segmented grinder with filler, the newly designed continuous band grinder and the polishing grinder. Manufacturing this set requires production processes that differ from the standard processes used for the creation of traditional grinding wheels. The key novelty is the addition of a resin as a filler in the segmented grinder, which fills the gaps between the segments and

guarantees a very high level finish, reducing the size of the shards compared to those left by a traditional open segment grinder.

In addition, the roughing grinder in the Hyper-Speed set, designed with a special profile that removes 80 percent of the material, en-

sures that the second pass with the next grinder operates on glass that has been pre-shaped and therefore has less material to remove, which saves time, boosting efficiency and sparing the profile of the subsequent grinder.



Diamut's new Hyper-Speed tools were developed to help customers boost the productivity of their production cycles. They feature faster and more glass processing while also boasting more efficient cooling, lower environmental impact, and reduced waste disposal costs derived from material processing.

HIGH PERFORMANCE BINDER

Another strength of Hyper-Speed grinder is the new high-performance binder, derived from the Automotive sector. The binder was obtained through new sintering technology that allows for increases in temperature and pressure to be controlled constantly during the cycle. This process enables the production of binders with an elevated fluid phase that contain metals to help reduce the temperature on the piece during grinding.

Furthermore, the continuous band grinding wheel for finishing is equipped with a high number of open cuts, optimising the flow of the refrigerant fluid and of the material being removed. All of these factors produce a noticeable increase in performance: for example, on 10 millimetre thick glass, trapezoidal shape, there's a close to 60 percent increase compared to grinding with traditional tools. In terms of metres per minute, the change is from 4 metres per minute with the traditional line, to 6 metres per minute with the Hyper-Speed Line. Meanwhile, for 6 millimetre thick glass, with a trapezoidal profile and double pass, the increase is even greater, with performance improving by 100 percent. One final example is provided

by the single pass grinding of a 4 mm neck profile. In this case the change is from 10 metres fed per minute with traditional tools to 20 metres fed per minute with Hyper-Speed tools, a 100 percent increase.

In all cases, the elevated feed speed does not put additional strain on the machine and in no way harms the lifespan of the components. In fact, tests conducted during the development phase monitored compliance with all machining, and therefore exertion, parameters.

The new Hyper-Speed line makes optimal use of geometry and technology to achieve feed speeds that would be unthinkable with traditional grinders, borrowing from the peculiarities of tools used in the Automotive sector.

Hyper-Speed is the answer to the market's unmet need for ever-higher speed and performance levels, while maintaining high quality standards.

Diamut's commitment to research and innovation has led to the definition of a new cobalt-free binder used on all products. This latest generation binder has been made using metal powders with a low environmental impact and are not harmful to the health of operators. The use of cobalt-free powders provides a benefit to the op-



erator during the entire production process of the tool, including the disposal of its processing waste. It also represents an important advantage for customers by granting a savings on waste disposal costs deriving from material processing.

The most advanced technology for the tool manufacturing process and the great know-how of the Diamut staff are the keys to its success in achieving top quality standards in the sector, and the secret

strength of an organisation that knows how to hear the needs of individual customers and respond by designing not just tools, but complete solutions.

 **Diamut**

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