**PRESS RELEASE**

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# Implementing sustainability permanently

## Exhibitors at EMO Hannover 2025 present solutions and processes

**Frankfurt am Main, June 24, 2025** – Resource-conserving production, reduced emissions and a circular economy protect the environment and climate. Companies that act sustainably not only secure their competitiveness, but also take responsibility for future generations. Sustainability is also one of the focal topics at EMO Hannover 2025.

Sustainable products and processes are the key to a society worth living in. The following examples from the metalworking industry show where the journey is heading.

### Sustainability as a mission

As one of the leading suppliers of carbide solutions, Ceratizit Deutschland GmbH from Kempten is intensively committed to greater sustainability in the industry. To this end, the company is pursuing a comprehensive strategy with numerous levers for reducing $CO_2$. In order to achieve its ambitious sustainability targets, Ceratizit is implementing targeted measures along the entire value chain, with recycling being a key



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component. The specially developed and optimized recycling process makes it possible to obtain a particularly high proportion of the raw material used for tools and hard material solutions from secondary raw materials. In addition to conserving resources, the use of recycled carbide significantly reduces the product carbon footprint (PCF) of products.

“Our aim is to establish a common standard for calculating and classifying the carbon footprint of cutting tools, hard material solutions and carbide powders on the market. This enables us to offer customers the transparency they want in terms of their carbon footprint,” explains CEO Dr. Andreas Lackner. Ceratizit, headquartered in Luxembourg, has therefore developed a calculation model for the PCF values, including classification. This has now also resulted in the VDMA standard sheet 35111, which was developed in a consortium. The model serves as a standardized method for calculating the product carbon footprint for precision tools.

In order to combine maximum performance with the best possible sustainability, the global player develops carbide grades with the most extensive material cycles in their category. The latest development, a special milling cutter line, for example, consists of at least 99 percent recycled carbide and has the lowest $CO_2$ emissions in its class. Thanks to the latest geometry and coating technology, these milling cutters achieve up to 30 percent higher performance than other universal tools. They are suitable for many materials, which increases efficiency in production and minimizes the ecological footprint at the same time. At the EMO in Hanover, interested parties can find out about the latest developments directly from the supplier.

**Numerous sustainability measures already implemented**
At Ingersoll Werkzeuge GmbH, which is based in Haiger in Germany, sustainability and environmental protection are central components of the corporate philosophy. “We have taken various measures to reduce our ecological footprint while remaining economically efficient,” reports Leon Pulverich, Environmental and Energy Management Officer. “A key step in this direction is the switch to sustainable packaging for many of our products. By using environmentally friendly materials and reducing packaging materials overall, we are helping to minimize waste and protect the environment." Ingersoll also offers regrinding of its solid carbide

tools. This practice regrinding service extends the service life of the tools and reduces the need for new raw materials.

“Another highlight of our sustainable initiatives is the installation of a photovoltaic (PV) system on the company premises,” adds Leon Pulverich. “With an annual electricity generation of around 700,000 kWh, we can save around 184 tons of $CO_2$. This measure was also implemented in response to the rise in energy prices and will help us to reduce costs in the long term while also protecting the environment.” In addition, those responsible place great importance on energy efficiency when selecting new machines. Modern machines help to reduce both energy consumption and operating costs. This is a further step towards making production processes more sustainable. These and other measures underline Ingersoll’s commitment to a sustainable future. “We are convinced that economic success and environmental protection can and must go hand in hand,” concludes Leon Pulverich. “At EMO Hannover, we are sure to find plenty of impetus to continue along this path successfully.”

**Taking step after step towards greater sustainability**
From combination tools and tool reconditioning, through to excellent hydraulic chucks: At Mapal Dr. Kress SE & Co. KG from Aalen, the responsible use of resources is just as much a part of daily operations as the aspiration to help protect the environment and reduce $CO_2$ emissions with every new tool. All product and company divisions play their part in this. Combination tools, for example, are a key to efficient and sustainable production. If different work steps are combined within one tool, this saves tool changes and reduces travel distances. Shorter machine running times also require significantly less energy. Furthermore, less material is required for combination tools than for individual tools.

MQL-compatible tools enable ecological machining processes by minimizing the use of cooling lubricants (minimum quantity lubrication, minimal quantity lubrication) – this significantly reduces the waste of contaminated lubricants as well as disposal and recycling costs. Efficient use of resources is also achieved with replaceable head systems and indexable inserts. Here, only the drilling or milling heads are replaced and the inserts turned instead of replacing the entire tool. PCD (polycrystalline diamond) and solid metal tools, indexable inserts and ISO

elements can also score points for durability thanks to reconditioning. By regrinding, replacing the guide pads, replacing the cutting edges or applying new coatings, the tools regain full performance. “Sustainability is not a foreign concept at Mapal, but an absolute matter of course in our ideas and developments, and in our daily work,” emphasizes Jacek Kruczynski, Chief Technology Officer (CTO). "Many of our products stand for precision, durability and reliability – if it says Mapal on it, it is always of the quality that you would expect from Mapal." Last but not least, the Uniq hydraulic chuck, which has won several design awards, is a sustainable alternative to traditional shrink fit chucks. Its reduced energy consumption reduces $CO_2$ emissions, while the elimination of shrinking processes means that the material does not fatigue. The hydraulic chuck also offers a service life that is ten times longer.

**Machine manufacturer optimizes energy and material usage**
Based on decades of experience combined with innovative ideas, Kapp Niles GmbH & Co. KG in Coburg and Berlin produces modern generating and profile grinding machines. Sustainable options have been developed for many components: Finite element method (FEM) analyses, for example, are used to design components with high rigidity and minimal use of materials. This reduces moments of inertia and saves drive power. Hydraulic components were largely replaced by electronic ones and the remaining functional units were optimized by efficient hydraulic units with low consumption: Compared to a hydraulic output of 13.5 kW installed 25 years ago, frequency-controlled pumps with 2.2 kW are now available, with a consumption of 0.04 kW/h during production. Reduced oil volume, low-watt valves and pump drive with frequency converter reduce operating costs and maintenance costs.

Additively manufactured coolant nozzles increase the efficiency of the cooling lubricant supply by 60 percent and help to reduce energy consumption in the cooling lubricant system. Changing the material of the machine bed from gray cast iron to recyclable mineral casting saves 1.6 tons of $CO_2$ per ton of material over the entire life cycle. Intelligent switch-off functions and a calendar-controlled warm-up program minimize the time the machines are switched on. Reduced operating pressure and a demand-oriented sealing air supply reduce compressed air consumption. “The EU Ecodesign Regulation 2024/1781 presents machine manufacturers with new challenges in product development and

marketing. These include resource efficiency or the disclosure of the $CO_2$ or environmental footprint. Kapp Niles has always dealt with this topic in the past, including as part of the VDMA's *Blue Competence* initiative. We see the ambitious sustainability targets we have set ourselves internally as an opportunity to secure competitive advantages in the future," emphasizes Ralf Dremel, Head of Product Management at Kapp Niles.

With the three focus topics of sustainability, automation and digitalization, EMO Hannover 2025 offers a clear view of the production of tomorrow with efficient processes. Countless examples at the world's leading trade fair offer visitors the unique opportunity to gather unfiltered, well-founded information, forge ideas and initiate joint projects – for greater competitiveness and a more sustainable future.

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The direct link to the press release: https://vdw.de/presse-oeffentlichkeit/pressemitteilungen/

((INFOBOX Ingersoll Werkzeuge GmbH))

**Ecology as a strategy**

Interested parties can find out how Ingersoll Werkzeuge GmbH assumes responsibility with its environmental and energy management, packaging and much more via the following link. Here you can also find a **video** about generating electricity with the PV system: www.ingersoll-imc.de/ueber-uns/gogreen/oekologie-iso-14001-50001

((INFOBOX Mapal))

**Special tools reduce machining processes**

One of the combination tools developed by Mapal – which are generally special tools – allows the finishing of narrow diameter tolerances with a long overhang length, but also guarantees high dimensional accuracy thanks to precisely ground cutting edges. Three steps are possible in the machining process, starting with solid drilling with a so-called QTD cutting insert, followed by finish machining of the bore using a strip-guided fine boring cutter for tight tolerance requirements. Finally, the tool is used to circularly mill the chamfer with exchangeable tangential cutting edges at the rear.

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**Background**
**EMO Hannover 2025 – the world's leading trade fair for production technology**
Under the motto *Innovate Manufacturing*, EMO will showcase the entire metalworking value chain from September 22 to 26, 2025. These are cutting and

forming machine tools, manufacturing systems, precision tools, automated material flow, computer technology, industrial electronics and accessories. EMO takes place in a sequence of “Hanover – Hanover – Milan” every two years and will celebrate its 50th anniversary in 2025. Most recently in 2023, more than 1800 exhibitors attracted a good 92,000 visitors from all over the world to Hanover. As the most important platform for metalworking worldwide, the event stands for **innovation** – EMO is a source of inspiration and a global leader when it comes to new products, manufacturing solutions and services. **Internationality**: International market leaders from 45 countries exhibit at EMO. The trade visitors – from around 140 countries – come from all major customer industries such as mechanical and plant engineering, the automotive industry and its suppliers, aerospace technology, precision mechanics and optics, shipbuilding, medical technology, tool and mold making, steel and lightweight construction. **Inspiration**: No other trade fair presents the full breadth and depth of international manufacturing technology like EMO. Exhibitors and visitors with a high level of expertise discuss the megatrends in manufacturing, exchange ideas with representatives of international production research and develop solutions to existing challenges.

**Metalworking**: *Innovate Manufacturing* remains a constant challenge for the industry. EMO points the way to the limitless possibilities of industrial manufacturing.

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