Press release

**Dürr expands portfolio with enhanced simultaneous two-sided coating machine**

**Introducing the GigaCoater™: Elevating efficiency in battery electrode production**

Southfield, Michigan, USA, September 27, 2024 – **Dürr presents its latest innovation in simultaneous two-sided coating technology set to revolutionize the battery manufacturing industry. The new GigaCoater™, designed for battery cell OEMs, combines wider substrate capabilities with faster coating speeds, promising significant manufacturing cost reductions while maintaining automotive-grade quality across widths up to 1,200 mm.**

Since 2006, Dürr has led the way in simultaneous two-sided coating technology for battery electrode production, constantly refining and enhancing its offerings. This latest iteration, developed through substantial research and development investment, showcases Dürr’s commitment to providing cutting-edge solutions that drive efficiency and cost-effectiveness in manufacturing.

**Streamlined configuration for maximum efficiency**

The GigaCoater™ features a straight-path product flow with two coating stations combined in a single location, complemented by a non-contact flotation drying system. This streamlined configuration results in a more compact manufacturing footprint, reduces energy consumption, and eliminates edge curl after drying. The innovative coating process uses a slot-die against a backing roll, followed by a tensioned-web-over-slot-die (TWOSD), enabling simultaneous two-sided coating of the foil in a single pass. The air flotation dryer ensures even, non-contact drying on both sides, further improving electrode quality.

**Significant reduction in operating costs**

The simplified layout of the GigaCoater™ results in substantial operational cost savings. These savings come from reduced energy consumption thanks to the single-dryer system, reduced coil handling, fewer personnel needs thanks to the one-level design, lower material waste, and a smaller space requirement. Together, these efficiencies offer enormous annual savings.

In addition to cost savings, the GigaCoater™ enhances product quality by eliminating edge curl, ensuring uniform drying on both sides, and improving top-to-bottom alignment.

**Extension of simultaneous two-sided coating product family**

With the GigaCoater™, Dürr expands its portfolio of simultaneous two-sided coating machines, which previously consisted of the PilotCoater and ProCoater. The PilotCoater which can handle foils up to 350mm with coating speeds of up to 10 meters/minute, making it ideal for production, as well as ongoing process and product development. The ProCoater, a larger scale coating line, accommodates web widths from 350 to 700mm and coating speeds up to 50 m/min, supporting large-scale lithium-ion battery production. Both products are already in use by leading battery manufacturers worldwide.

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| --- | --- | --- | --- |
|  | **PilotCoater** | **ProCoater** | **GigaCoater****™** |
| Foil width mm | 350 | 700 | 1.200 |
| Max. mechanical speed m/min | 10 | 80 | 80 |
| Capacity MW/a | 50-100 | 500-1000 | 2.000-3.000 |
| Simultaneous  two-sided coating | Yes | Yes | Yes |
| Coating side A | Slot-die against backing roll | Slot-die against backing roll | Slot-die against backing roll |
| Coating side B | Tentioned-web-over-slot-die (TWOSD) | Tentioned-web-over-slot-die (TWOSD) | Tentioned-web-over-slot-die (TWOSD) |
| Multi-lane | Yes | Yes | Yes |
| Intermittent | Option | Option | Option |

Figure 1: Simultaneous two-sided coating machines product family



Figure 2: Demonstration GigaCoater™ at Dürr USA

**About Dürr**

The Dürr Group is one of the world's leading mechanical and plant engineering firms with particular expertise in the technology fields of automation, digitalization, and energy efficiency. Its products, systems, and services enable highly efficient and sustainable manufacturing processes – mainly in the automotive industry and for producers of furniture and timber houses, but also in sectors such as the chemical and pharmaceutical industries, medical devices, electrical engineering, and battery production. In 2023, the company generated sales of €4.6 billion. The Dürr Group has around 20,000 employees and 141 business locations in 33 countries, and it operates in the market with five divisions:

* **Paint and Final Assembly Systems:** paint shops as well as final assembly, testing, and filling technology for the automotive industry
* **Application Technology:** robots and products for the automated application of paint, sealants, and adhesives
* **Clean Technology Systems:**air pollution control, coating systems for battery electrodes, and noise abatement systems
* **Industrial Automation Systems:**automated assembly and test systems for automotive components, medical devices, and consumer goods as well as balancing and diagnostic technology
* **Woodworking Machinery and Systems:**machinery and equipment for the woodworking industry

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