

N°1

IT'S AM - JUST BETTER

Additive Manufacturing with Our World-Leading Electron Beam Technology

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We meet the highest requirements of various industry standards and operates in compliance with globally certified quality management standards.

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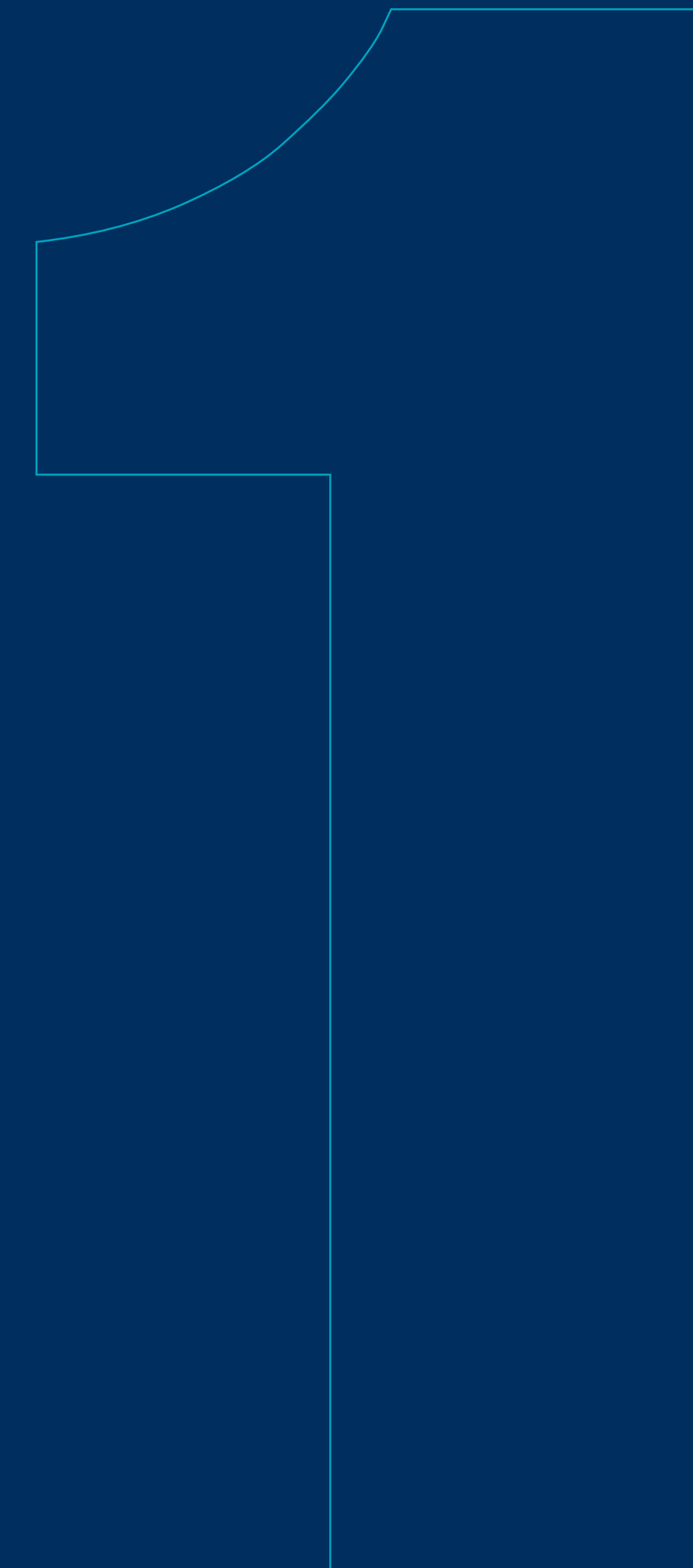
ADVANTAGES OF ADDITIVE MANUFACTURING

› Flexible production	From batch size 1 to series production
› Oxidation-free process	No oxidation for consistently high-quality components
› Material variety	Includes reactive metals like titanium and pure copper
› Multi-material flexibility	Produce components with multiple materials
› Tool-free manufacturing	Faster delivery times without tool costs
› Eliminates shielding gases	Lower production costs

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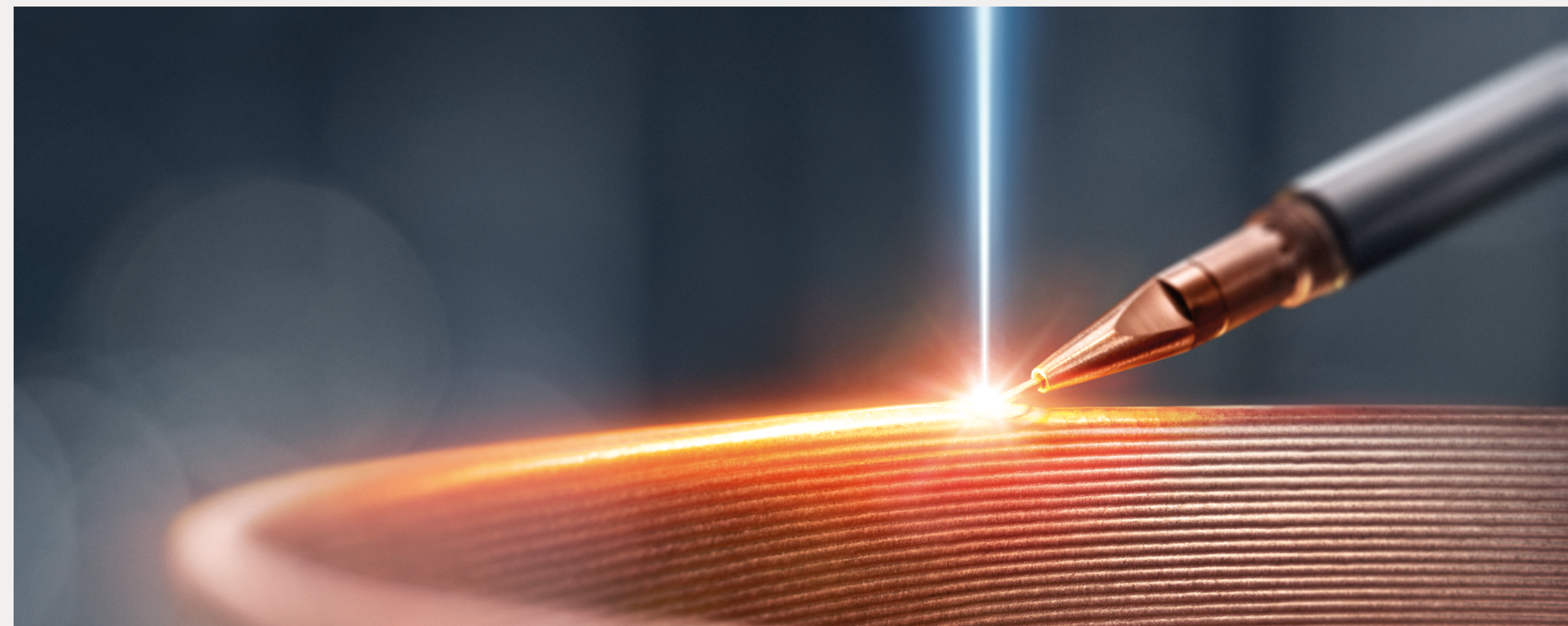
Wire Electron Beam Additive Manufacturing: Precision in Large Dimension



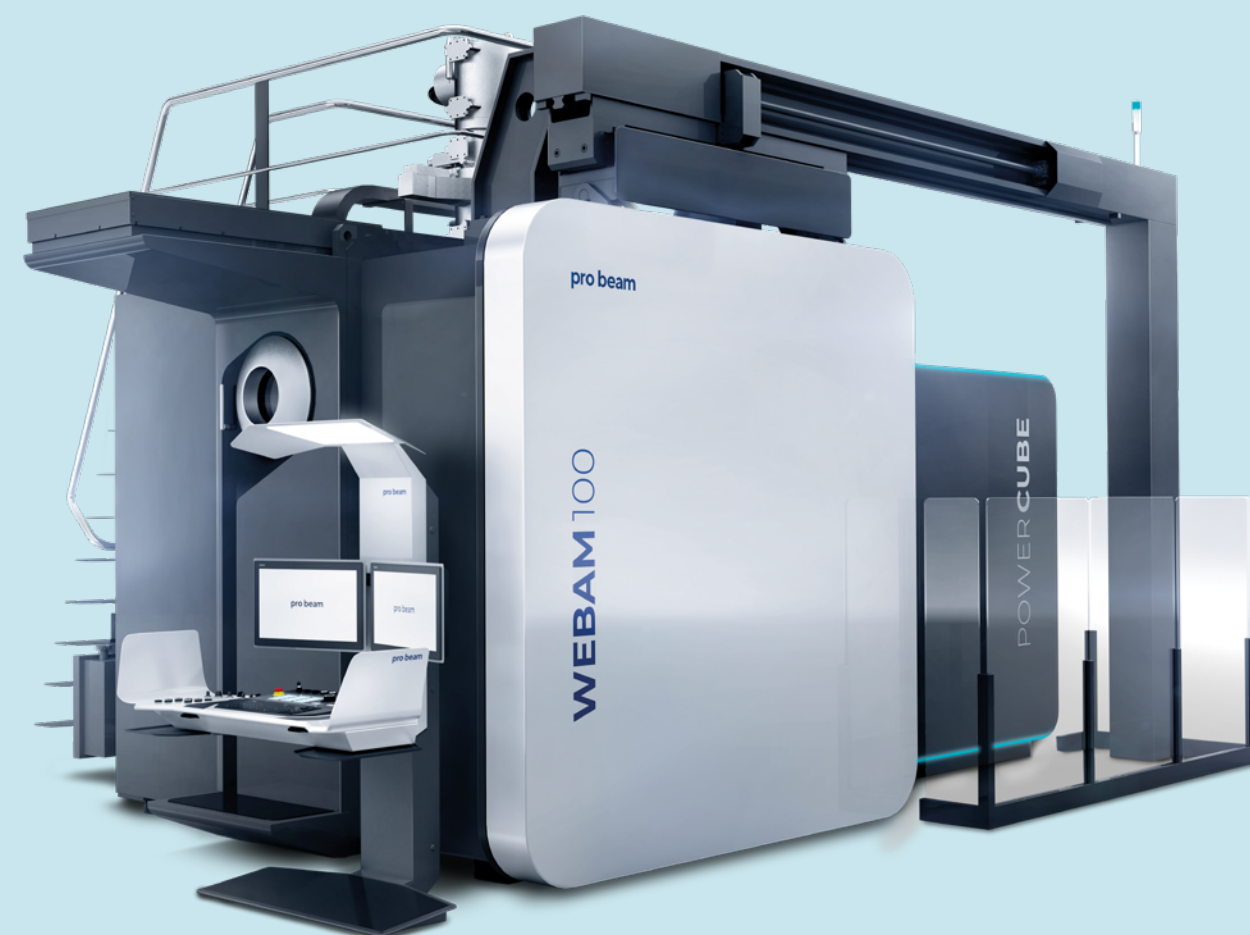
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ADVANTAGES OF WEBAM

- | | |
|---|---|
| › Affordable customization | Design adjustments are easy and cost-effective |
| › Cost-efficiency | Lower personnel costs due to automation |
| › Casting-quality microstructure | Achieves strength and consistency similar to cast steel |



Contract Manufacturing of Large Components



In many industries, the availability of spare parts is a serious problem that leads to growing stockpiles and high costs. At pro-beam we use our world leading electron beam technology to lift Additive Manufacturing to a new level, delivering cost-effective, customizable large metal components. Whether you need a single spare part or a full production run, our contract manufacturing is on your demand.

Benefit from the advantages of our innovative WEBAM technology

Additive manufacturing offers a remedy for this with numerous solutions. At pro-beam, we have focused on the manufacturing of large metal components made from demanding materials. Using an electron beam for additive manufacturing offers a reliable and efficient solution. We rely on easily available. This WEBAM process (Wire Electron Beam Additive Manufacturing) has many unique advantages.

Materials

Titanium (Ti64)

Pure copper

Inconel 71z

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Electron Beam Melting: Maximum Powder Bed Productivity



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ADVANTAGES OF EBM

› **Versatile alloy compatibility**

Use of industry-standard metal powders

› **Open system for customization**

Adjustable parameters for tailored results

› **Reliability and testing**

Quality assurance through ELO®



EBM Machines for Industrial Series Production



In today's competitive environment, manufacturing solutions need to be faster, more flexible and more cost-effective than ever. The electron beam melting (EBM) of metal powders with pro-beam's innovative machines is a highly stable and forward-looking approach that leverages the many advantages of additive manufacturing for the industrial series production of complex high-performance components, such as patient-specific implants or complex rocket components.

Experience the Advantages of our Powder Bed Technology

With pro-beam's advanced EBM machines, you achieve unmatched productivity and quality through features like flexible batch sizes, oxidation-free processing, and reduced component costs. Our open system allows for parameter customization, and we offer compatibility with a wide range of alloys, ensuring quick, cost-effective production. Each component undergoes ELO[®] testing, all while eliminating the need for shielding gases, further lowering manufacturing costs.

Good to know: With our innovative ELO[®] (Electron Optical Monitoring), we regularly generate high-contrast images while the component is still under construction, which can be used for quality control.

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TRANSFORM YOUR PRODUCTION

Take advantage of AM with pro-beam!

From high quality spare parts to high volume production, from custom implants to aerospace applications: pro-beam's AM machines meet the highest standards of quality and cost efficiency. As a reliable industry partner, we are actively involved in numerous research projects and contribute our expertise to every innovation.

**Contact us today to discover how pro-beam
can transform your production!**

CONTACT

PRO-BEAM GROUP

pro-beam at a glance.

The pro-beam Group is a global leader for electron beam technology. It provides solutions for electron beam welding and drilling, along with surface coating solutions. The portfolio is concluded by manufacturing processes and machines for the additive manufacturing of metal components.

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