N°1
World-Leading
Electron Beam Technology

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IT'S AM – JUST BETTER

Industrial Manufacturing of Large Components **with Wire**

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PB WEBAM

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The PB WEBAM gives users the flexibility to build large components from various high-performance metals in a material-efficient manner. This process is also capable to manufacture multi-material components. The robust WEBAM (Wire Electron Beam Additive Manufacturing) process from pro-beam ensures reproducible quality for a variety of applications: it is suitable for layered structures for both new components as well as structures on existing metal components.

With high deposition rates (kg/h), this machine enables a fast provision of near-net-shape workpieces. The wire feeder developed by pro-beam is integrated into the control system. It enables a precise setting of the wire feed as well as a simple and flexible integration of the wire feeder data with the process data. The machine also operates with an open system that allows the access to all parameters and their individual coordination.

Thereby the machine addresses all those who not only use additive manufacturing with the electron beam, but also want to view, understand, seamlessly trace and automatically control the particular process. The PB WEBAM is based on the pro-beam Group's long-standing expertise in the areas of technology development, series production and plant engineering. It is available in **varied sizes** and **with different kinematics.**

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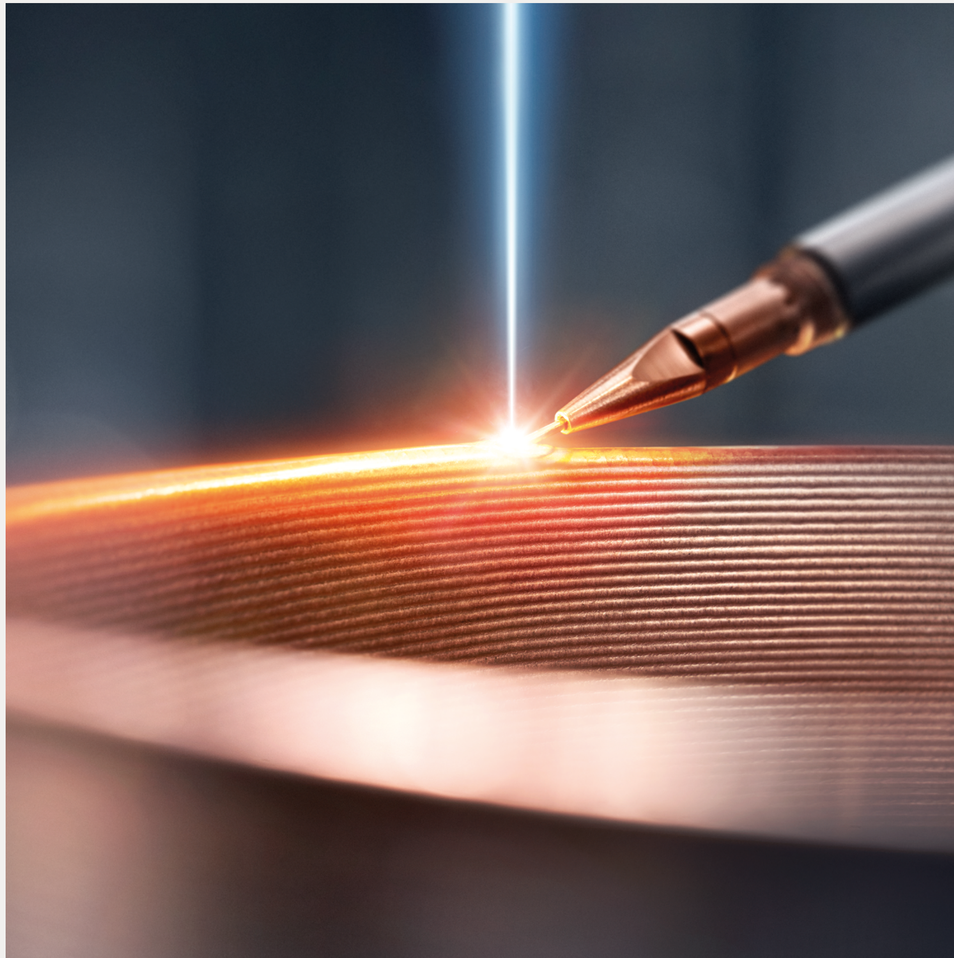
ADVANTAGES OF WEBAM

- Large components with best surface quality
- Large variety of metals, incl. reactive metals
- Less material – less machining
- One-time development and reproducible production
- Flexible and fast production
- Multi-material components
- Inert environment due to vacuum
- Digitally controlled process



PB WEBAM | TECHNICAL DATA

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PROCESS SPECIFICATIONS

Manufacturing method	WEBAM (Wire Electron Beam Additive Manufacturing)
Electron beam output / Max. beam power	60 kV / 10 kW
Process pressure	10^{-4} mbar
Wire deposition rate	Up to 10 m/min

MATERIAL

Material source	Spool, drum
Wire size	0,8 – 1,6 mm
Metals	Titanium, inconel, copper, steel and refractory metals etc.

MACHINE

Control system	Based on CNC (Siemens Sinumerik One)
Optional: software interface	E.g. Siemens NX
Build size	Customer specifications on request

EXAMPLE PB WEBAM 100 (SEE IMAGE ON FRONT SIDE)

Plant dimensions	10 x 7 x 3,4 m
Evacuating time	10 - 15 min
Build size	1370 x 1260 x 1115 mm
Kinematics	WEBAM-Kinematics, 5-axis linear generator shift

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