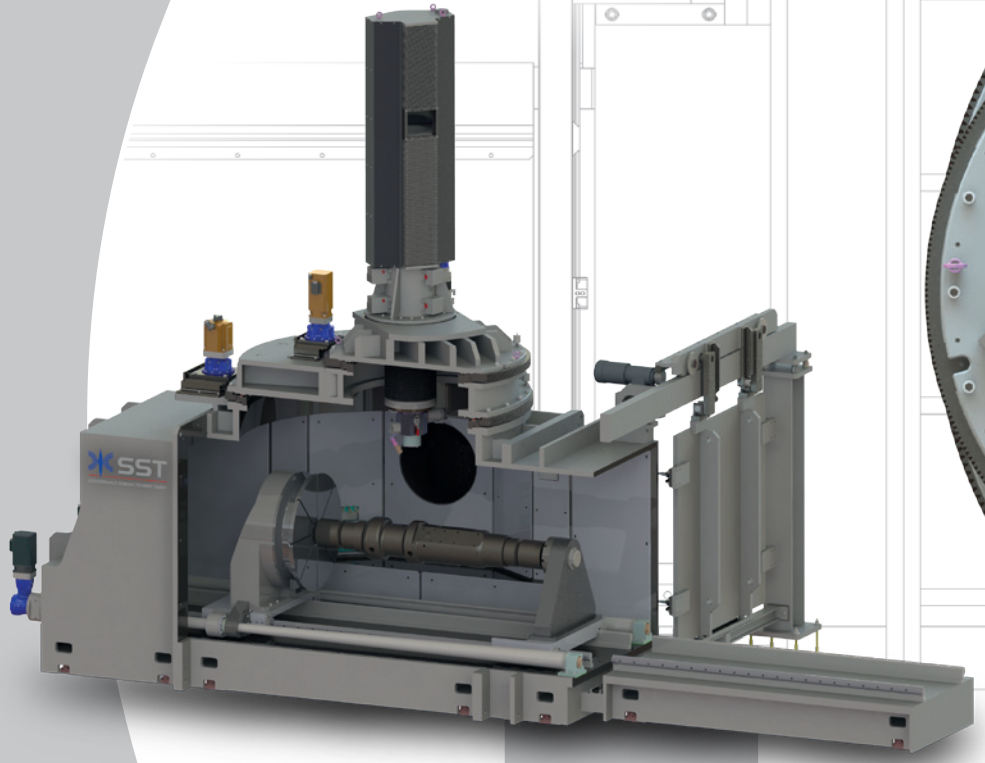
3D

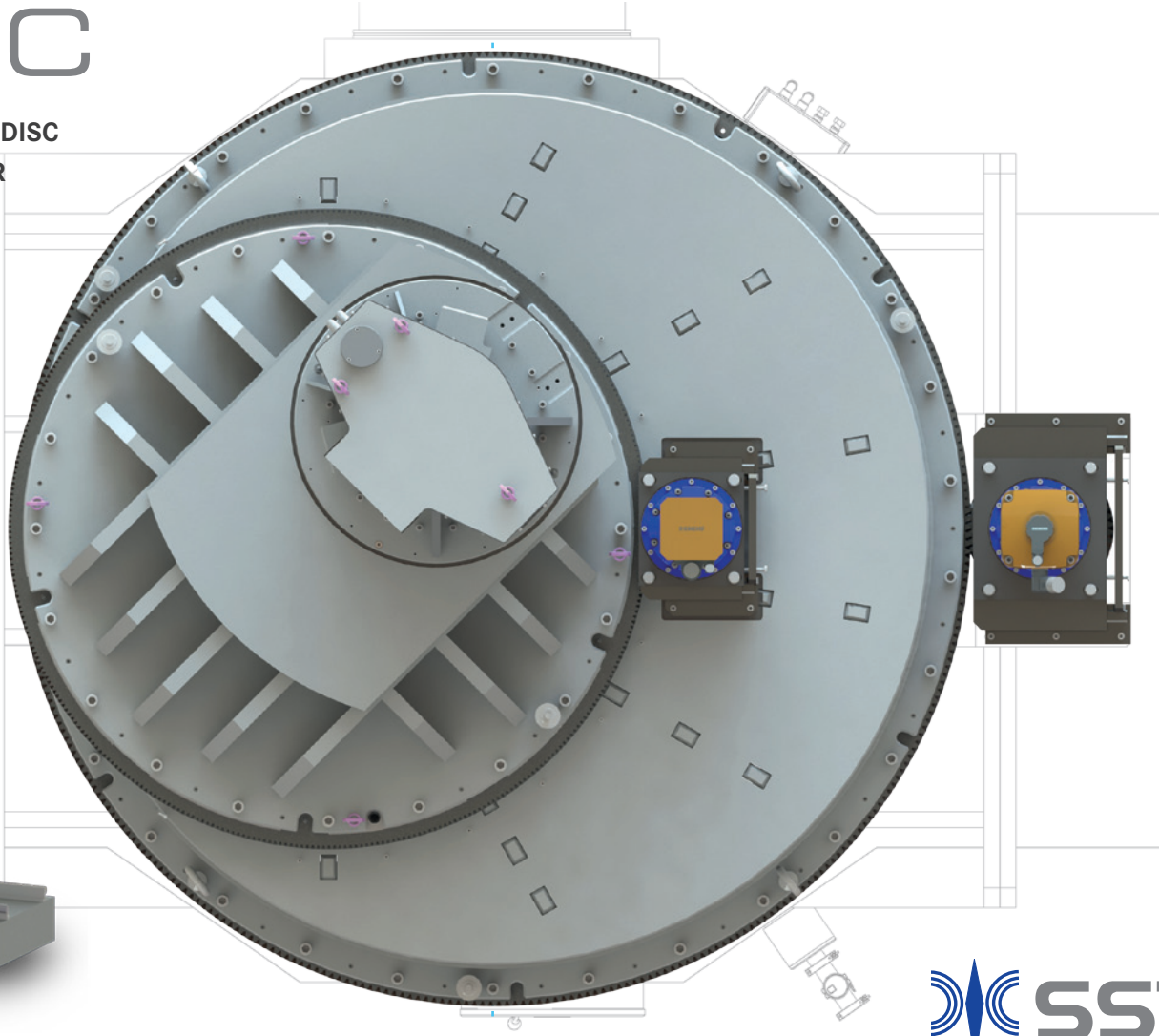
THE NEW DIMENSION
IN ELECTRON BEAM WELDING

GLOBAL Beam Technologies AG

EBODISC

EFFECTIVE BEAM DELIVERY WITH A ROTATING DISC SYSTEM WITH INTEGRATED TILTING GENERATOR





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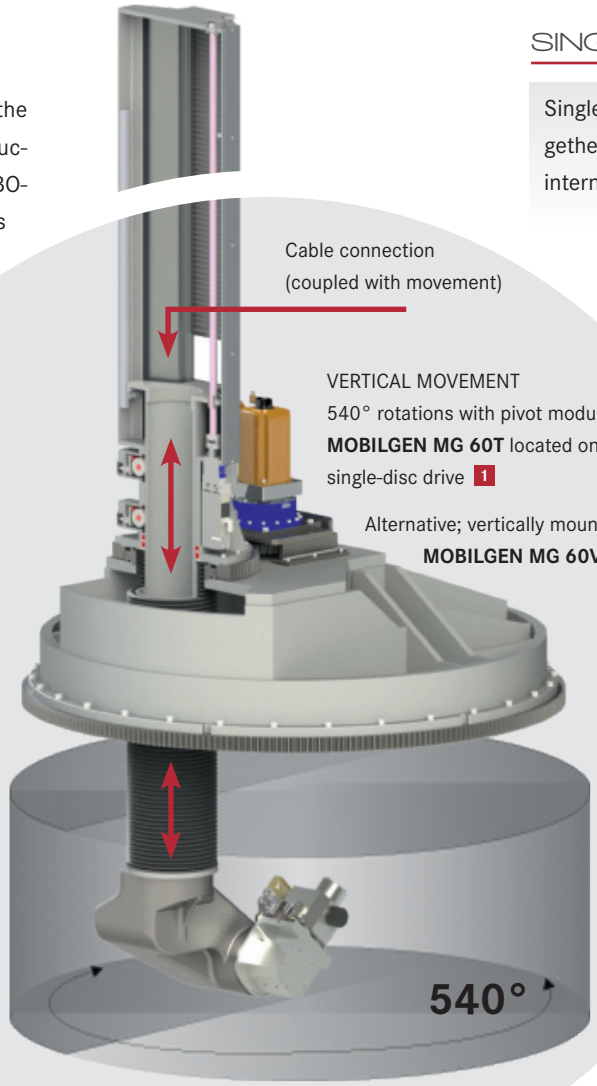
EBODISC

THE INNOVATIVE ECCENTRIC ROTATING DISC MECHANISM

The innovative rotative-disc mechanism is the defining characteristic of the modular construction of the family of chamber designs – EBODISC, providing numerous production benefits for processing a wide range of components. The rotative disc drive comprises one, two or three eccentrically driven discs together with an integrated vertically positioned, in-chamber vacuum, 60 kV EB generator, selected from the MOBILGEN family.

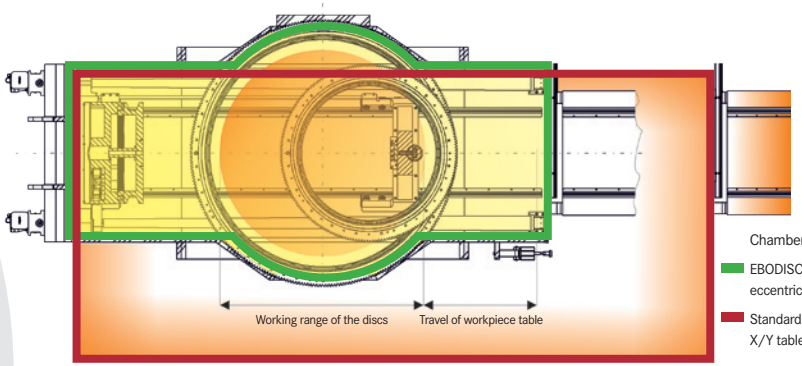


Schematic representation of the cylindrical operation region

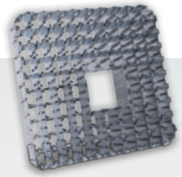
SINGLE-DISC DRIVE

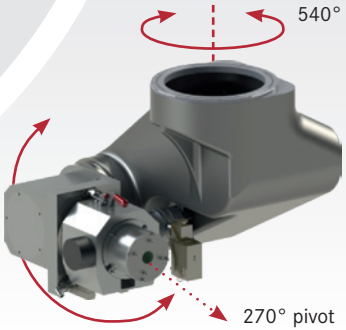
Single-disc drive with rotational vertical and pivoting generator axis is the optimum combination when operated together with the chambers linear slide, for processing components. The combination provides new space-optimised internal chamber movements for pivoting generators.

EXAMPLE OF SPACE REDUCTION

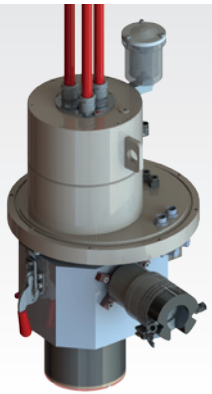


Example of space reduction; illustrated by EBODISC ED constellation (twin-disc drive with vertical generator MOBILGEN MG 60V) together with a rotational fixture of the workpiece, component cross-section of 1000 x 1000 mm and an overall length of 2000 mm. This results in an equivalent saving of chamber volume, pumping capacity and pump-down times.





1
Rotational module
with generator
MOBILGEN MG 60T

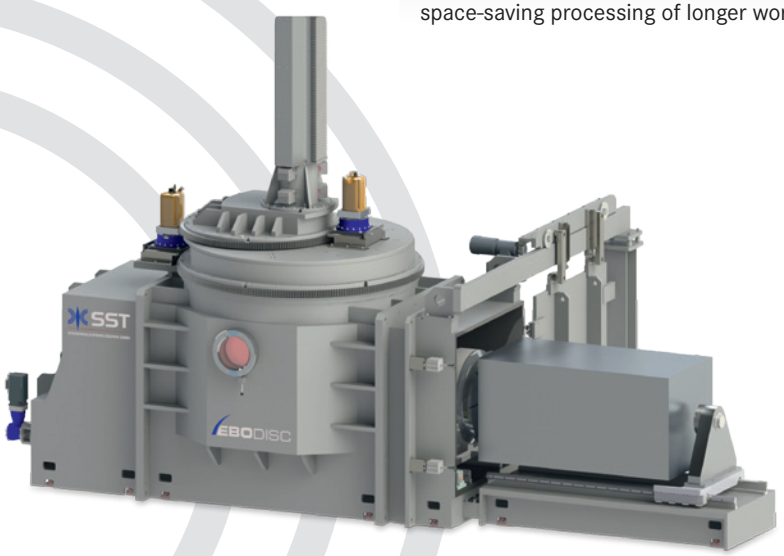


2
Vertical movement with
integrated generator
MOBILGEN MG 60V

THE (R)EVOLUTION IN ELECTRON BEAM WELDING

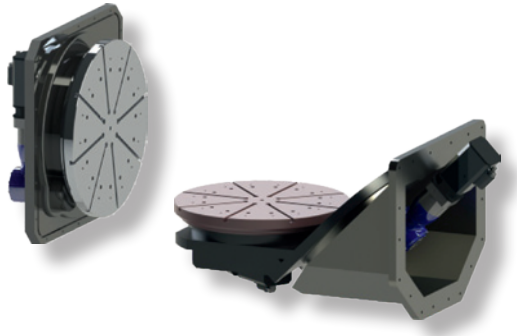
TWIN-DISC DRIVE

The twin-disc drive with vertical movement integrated onto a standard chamber design with linear axis expands the working range by providing space-saving processing of longer workpieces.



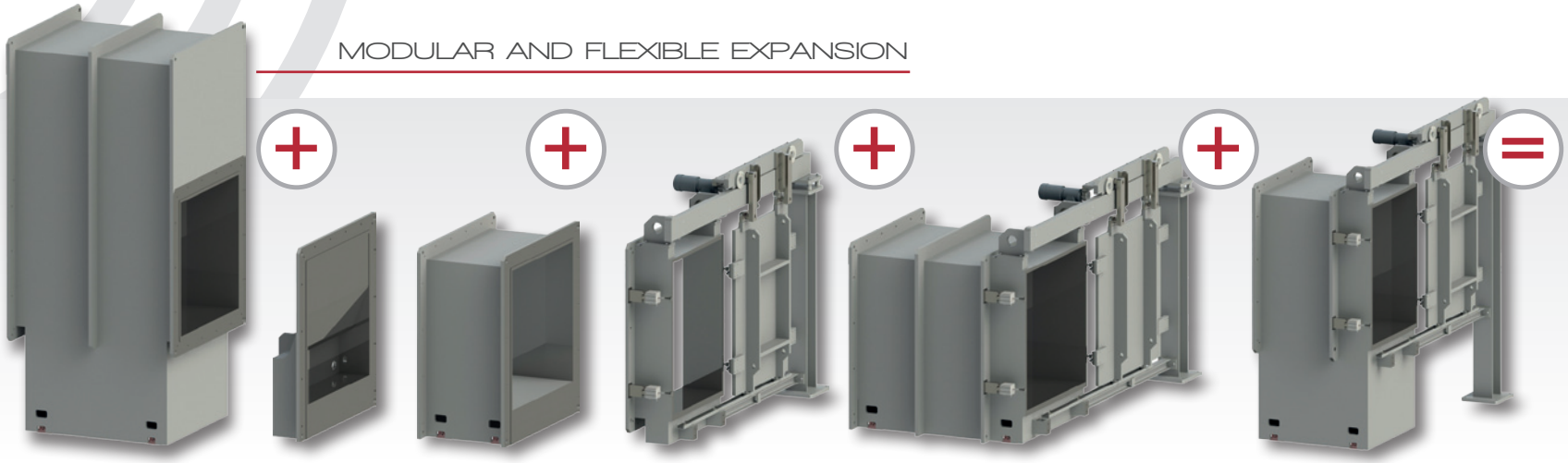
TRIPLE-DISC DRIVE

Triple-disc drive with vertical movement integrated onto a compact chamber design. This combination of integrated rotation/tilting manipulators is particularly suited to processing complex small- and medium-size components.



Rotating/Tilt port (door) for loading workpieces
(Rotation and Rotation/Tilt combinations)

MODULAR AND FLEXIBLE EXPANSION



A number of chamber expansion modules provide a wide range of production machine combinations, e.g. extensions, transfer stations, buffer and storage stations.

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MEMBER OF GLOBAL Beam Technologies AG

WORLDWIDE SALES

EBODISC

THE WELDING TECHNOLOGY REVOLUTION FROM THE DISCOVERER OF THE ELECTRON BEAM

The Physicist Dr. h.c. Karl-Heinz Steigerwald built the first Electron-beam processing machine in 1952 and founded the company Steigerwald Strahltechnik GmbH in 1963. Constant innovation and continuous development has kept our machines at the fore-front position for 50 years confirming us as world leaders in EB technology. The Eccentric-disc rotative drive is a defining improvement of the mechanical construction and processing capability of chamber-type machines, which drastically reduces both the volumes and evacuation times of machines.

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