Innovation in Motion

Miba Group / Miba Automation Systems

Technologies for a cleaner planet

Creating value with technology

History of Miba

Innovation in Motion

As a family-owned business, we stand for long-term orientation

1927
Company founded by Franz Mitterbauer

1949
Start of Bearing production

1960
First export projects with special machinery equipment

1963
Start of Sinter production

1975
Start of Friction production

Since 1989
Going international: USA, Slovakia, Brasil, China, India

2005
Start of Coating production

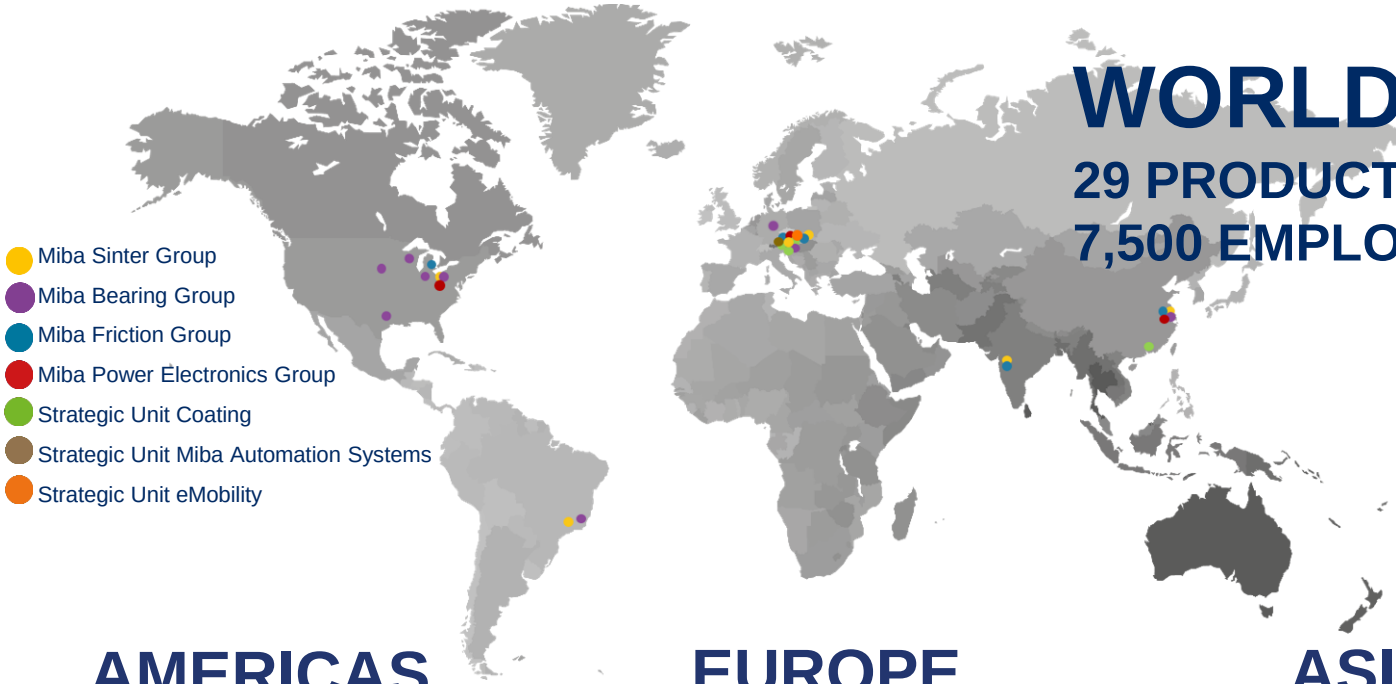
2010
Start of Power Electronics activities

2013
Introduction of corporate mission „Technologies for a cleaner planet“

2015
Start of eMobility activities

2021
Miba 100 Strategy 2027: Energize growth

Producing local-to-local



WORLDWIDE

29 PRODUCTION SITES
7,500 EMPLOYEES

AMERICAS

9 PRODUCTION SITES
1,400 EMPLOYEES

EUROPE

14 PRODUCTION SITES
4,700 EMPLOYEES

ASIA

6 PRODUCTION SITES
1,400 EMPLOYEES

Employee numbers rounded. As at January 31, 2023

Financial strength and independence

to shape the future

Innovation in Motion Miba

1,114
Revenue*
(in EUR million)

7,546
Employees
(as at Jan 31, 2023)

29
Production sites
(as at Jan 31, 2023)

391
Valid patents
(as at Jan 31, 2023)

100
Investments*
in property, plant & equipment and R&D (in EUR million)

52.8
Equity ratio*
(in percent)

around 4
Research ratio*
(in percent)

32
Patent applications**

* Fiscal year 2022/23 (02/22 – 01/23)
** Calendar year 2022

Miba Automation Systems GesmbH

Creating value with technology

Innovation in Motion

OUR CORE COMPETENCE

Innovative combination of different machining & manufacturing technologies for achieving highest accuracies in shortest time.

We design and produce special purpose machines and automation solutions for energy sector and E-Mobility applications.

Our Strengths

- In-House stator prototype manufacturing
- Complete In-House process for stator production lines from basic design to on-site commissioning
- Specialist in combination of different machining technologies and measuring technologies for stationary and mobile machines
- Leading manufacturer of weld seam preparation and weld bread removal machines for wind tower industry, pressure vessels and boilers
- Robotics and software programming

Production Range

Three major field of application

Technology for eMobility

Technical expertise and applied innovation

- Engineering
- Prototype manufacturing
- Serial line manufacturing

Special Purpose Machines

Leader in innovation

- Large stationary CNC machines
- Mobile CNC machining centres
- Flange milling machines
- Machines for wind tower production
- Machines for energy sector

Production equipment

High-tech automation

- Bearing production
- Friction disc production
- Sputter plants
- Coating machines
- EOLT machines

Continues development

more than 70 years of experience

Innovation in Motion

1927
Company founded by
Franz Mitterbauer

1955
Start with machine building activities for engine bearing production machines

1960
First export projects with special machinery equipment

2000
Leading manufacturer of mobile CNC machining for energy sector

2002
Market lunch of MIBA weld seam preparation machines

2010
Extension of product portfolio for wind industry by flange milling

2014
First full-automated stator Production line

2017
Beginning of in-house prototype stator production

2022
High volume stator lines for OEM & Tier 1

Production Range

Innovation in Motion

Technology for eMobility

Technical expertise and applied innovation

- Engineering
- Prototype manufacturing
- Serial line manufacturing

Special Purpose Machines

Leader in innovation

- Large stationary CNC machines
- Mobile CNC machining centers
- Flange milling machines
- Machines for wind tower production
- Machines for energy sector

Production equipment

High-tech automation

- Bearing production
- Friction disc production
- Sputter plants
- Coating machines
- EOLT machines

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Energy use

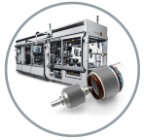
Miba eMobility solutions

Battery components

Power safety devices

Axial flux motors and actuators

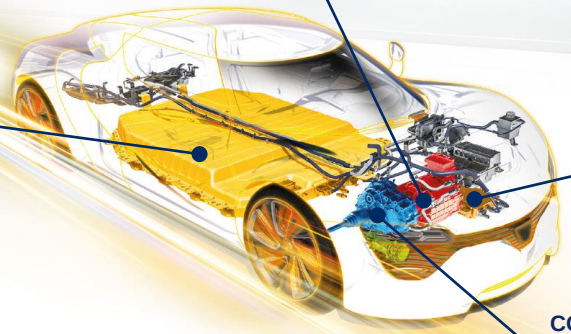
Pole wheel



Hairpin stator production and equipment

COMPONENTS FOR eMOTORS AND ACTUATORS

BATTERY SYSTEMS AND COMPONENTS



COMPONENTS FOR INVERTER

Discharge resistors

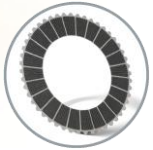
Battery systems

Precharge resistors

COMPONENTS FOR eDRIVES

Powder metal parts

Coatings



Friction materials

Production Range

Technology for eMobility
Technical expertise and applied innovation

- Engineering
- Prototype manufacturing
- Serial line manufacturing

Special Purpose Machines
Leader in innovation

- Large stationary CNC machines
- Mobile CNC machining centres
- Flange milling machines
- Machines for wind tower production
- Machines for energy sector

Production equipment
High-tech automation

- Bearing production
- Friction disc production
- Sputter plants
- Coating machines
- EOLT machines

Special Purpose machines

Your partner for (on-site) machining – all out of one hand

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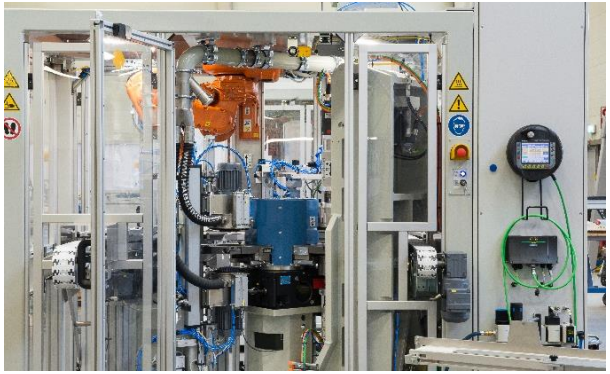
Competent support from the inquiry to the machining

Feasibility Check	Designing	Manufacturing	Commissioning	Training	On-Site support
Identification of machining simplifications	Design according to your needs	Machine build up and pre-testing in house	Worldwide support while on site commissioning	Worldwide training of operators on site	Short reaction times and machine service

Rotary transfer machines

High volume production with up to 35 servo axis and robots



Large stationary CNC machines

Machining of large components for energy segment

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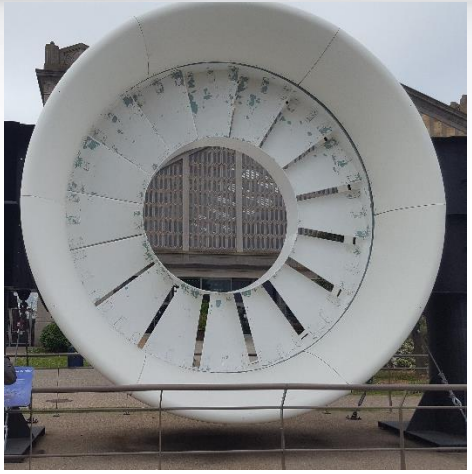
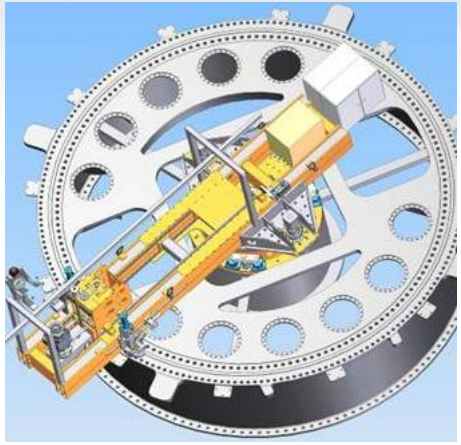


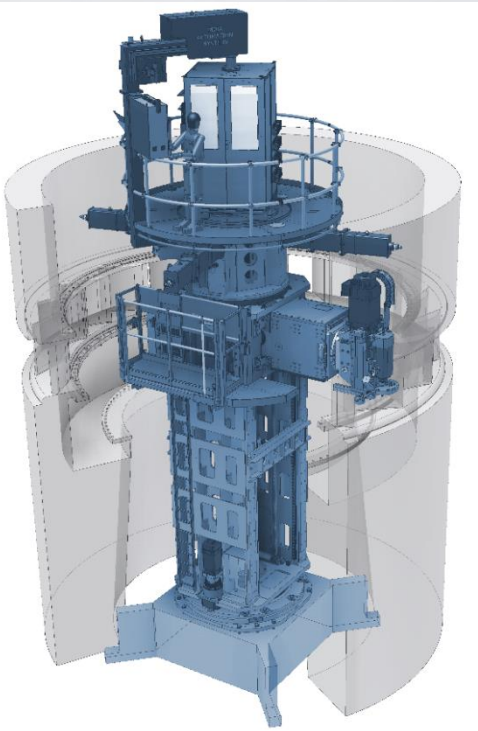
CNC Machining Center for large components (rotors and stators) for tidal turbines

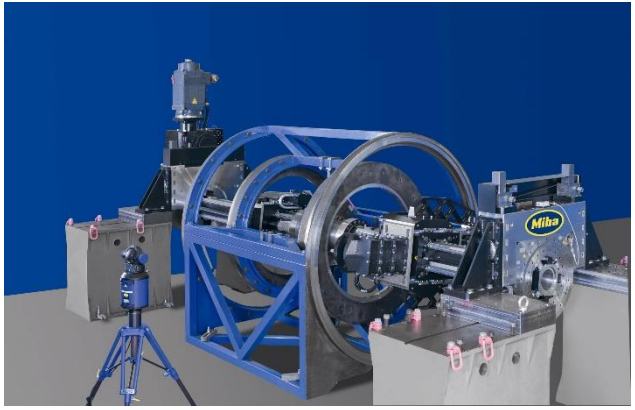
- Diameter of rotary table up to 14 meters
- Horizontal axis of 1,5 meters
- Vertical axis up to 5 meters
- Automatic reference system for datum points
- Equipped with Siemens Sinumerik 840D with HMI advanced
- Workpiece load up to 100 tons

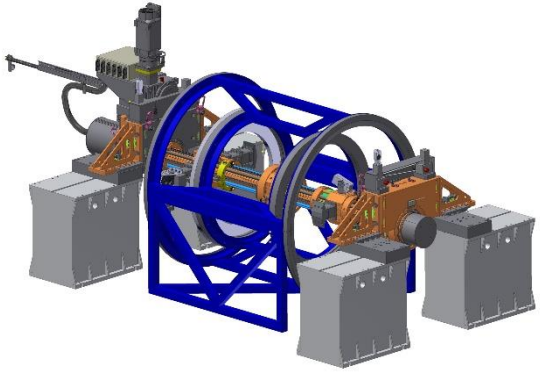
Onsite machining – some exampels

World-wide leader in mobile CNC machining



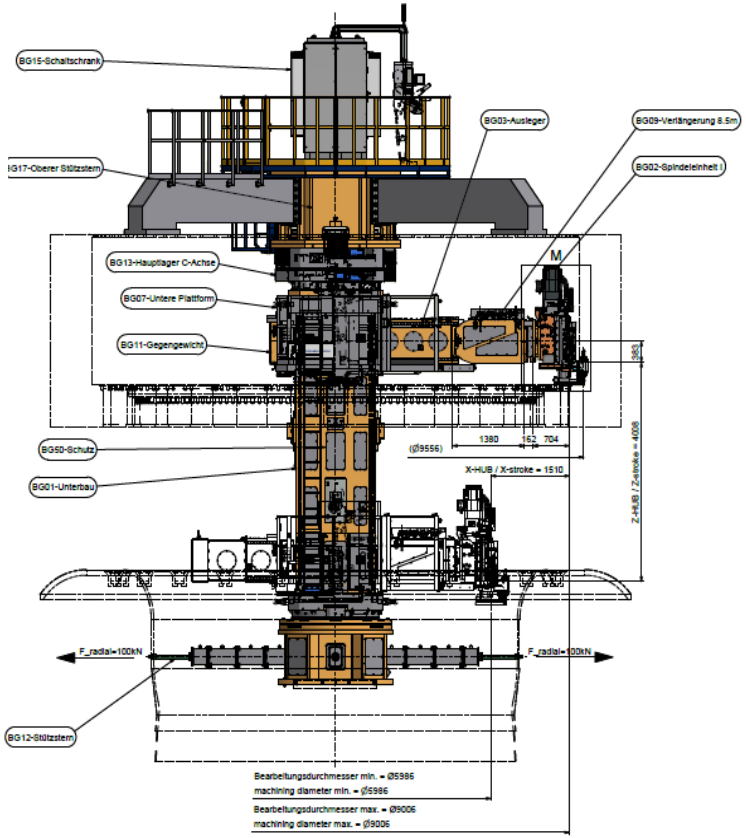






World-wide first mobile and stationary machine

Leader in mobile CNC machining technology



Mobile machining center (MMC)
for turbine housings for hydro energy

- Stationary usage in workshop
- Mobile (onsite) usage in power plant
- Transportable in containers
- CNC controlled
- Rotary axis can be used as rotary table
- Machining of turbine housings at site, valves, turbines and flanges

Miba equipment for wind industry

Leader in CNC controlled machining technology

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MIBA mobile and stationary machines

for wind tower manufacturing are a key for a high efficient wind tower production, with highest accuracy and quality.

MIBA weld seam preparation equipment for wind industry

Monopile production process

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1

Fräsen von glatten Platten
2 x nur kurze Seiten – lange Seiten bleiben roh
Milling of plain plates
2x short sides only – long sides remain raw

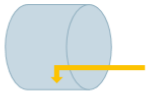
2

Schweißen von 2 glatten Platten
Welding of 2 plain plates

3

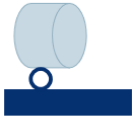
Platten Biegen
Plate Bending

4



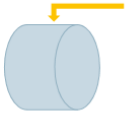
Innenschweißung – Lange Naht
Inside Welding – Long Seam

5



Längsnahtfräsen
Long Seam Milling

6

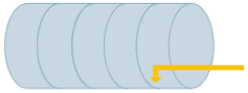


Außenschweißung – Lange Naht
Outside Welding – Long Seam

7

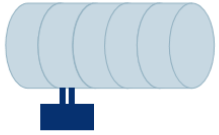
Rundschweißnahtvorbereitung – Fräsen beider Seiten
Circ Weld Seam Preparation – Milling of both sides

8



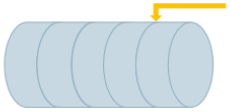
Montage: Innenschweißung Rundnähte
Assembly Line: Inside Welding Circ Seams

9



Rundnahtfräsen
Circ Seam Milling

10



Außenschweißung Rundnaht
Outside Welding Circ Seam

11

Optional: Flansch Fräsen
Optional: Flange Milling

- **Fräsprozess**
  Milling Process
- **Schweißprozess**
  Welding Process

The BIG 5

Complete process of offshore wind tower production

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BIG 5

MONOPILES I TRIPOD I JACKET

FLOATING I CONSTRUCTION

ENABL Part of Eltronic Group

Miba

LINCOLN ELECTRIC

HAEUSLER | the forming factory

LINSINGER

LINSINGER I HAUSLER I MIBA I LINCOLN ELECTRIC

Complete process of offshore wind tower production

Complete range of weld seam preparation machines

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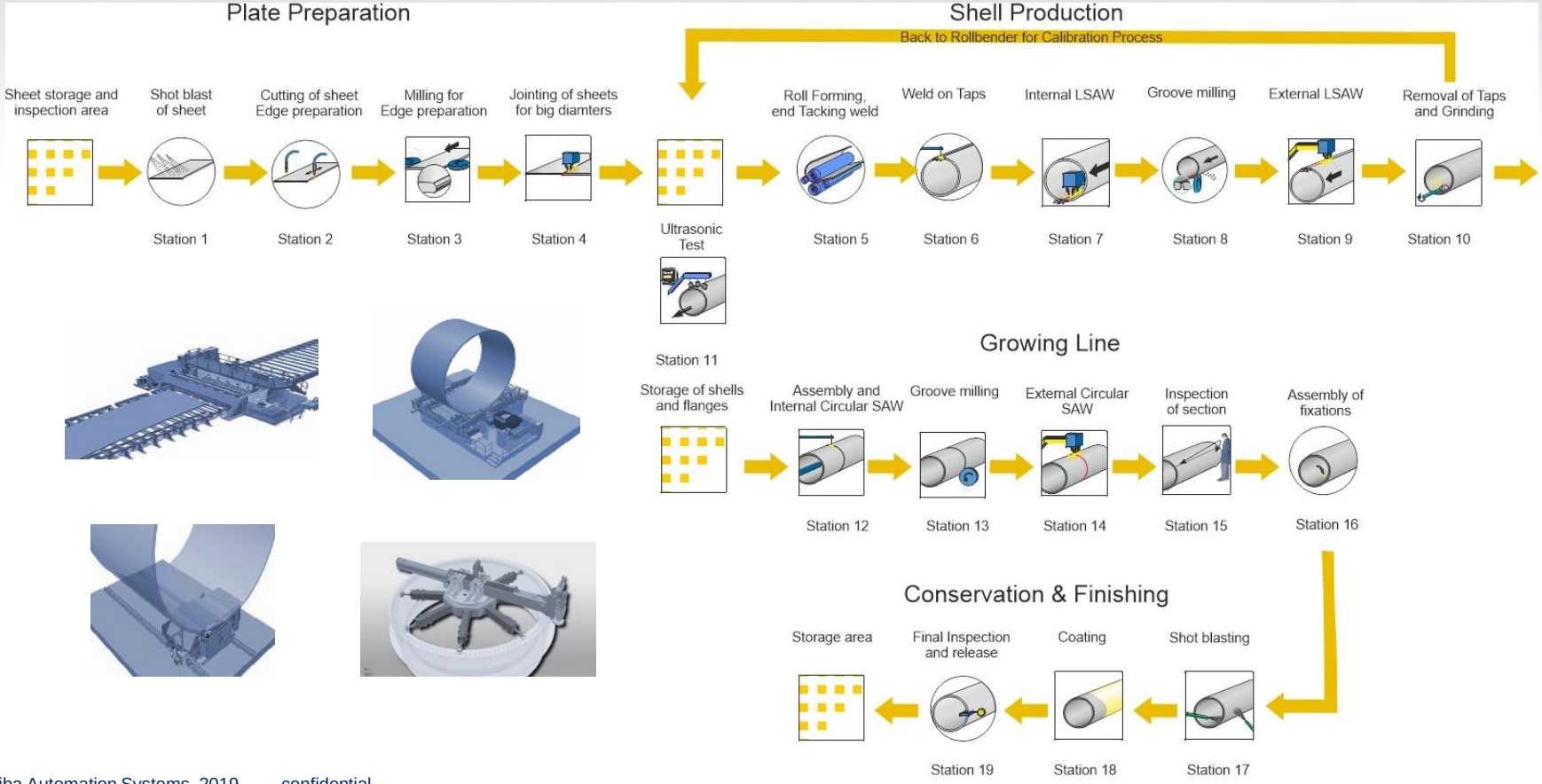

MIBA long- & circular weld seam preparation equipment

Perfect milling contour & constant seam geometry

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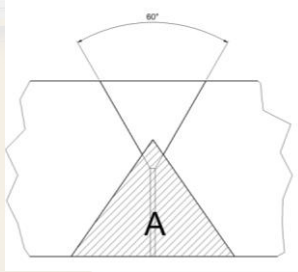
Conventional process

Seam preparation: Carbon rod gouging

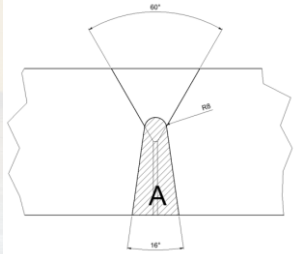
Seam volume 100%



Narrow-gap process

Seam preparation: Milling

Seam volume ~50% (depending on wall thickness)



Weld seam preparation

Maximum efficiency due to high cutting depths and uniform grooving

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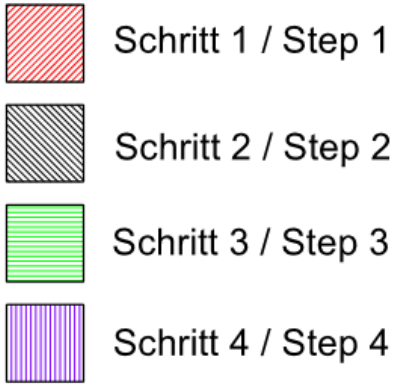
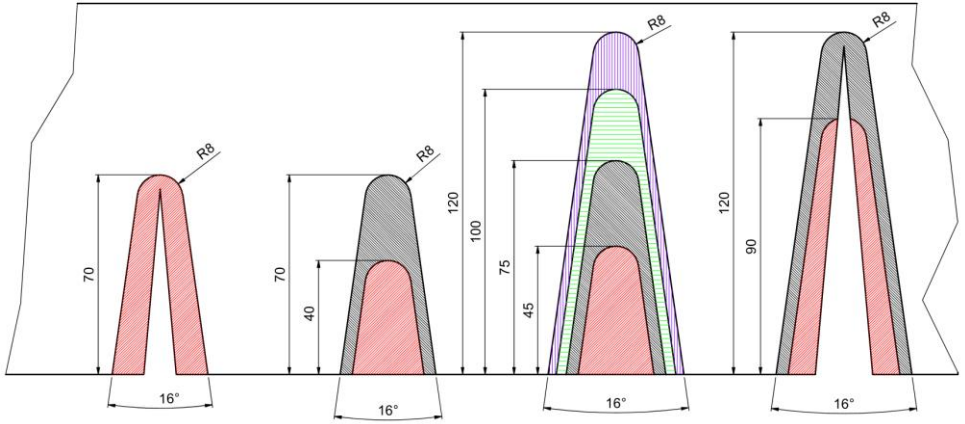
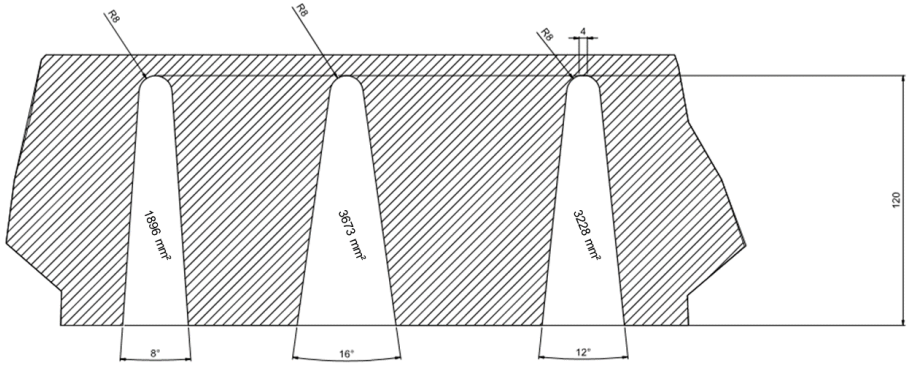




- Cutting depth up to 120 mm / 4,72” in only 4 steps
- Uniform grooving of pre-gouged plates possible
- Several tulip profiles available to reduce welding costs and time up to 40%



MIBA long- & circular weld seam preparation equipment

Significant cost & time savings as well as improvements of working conditions

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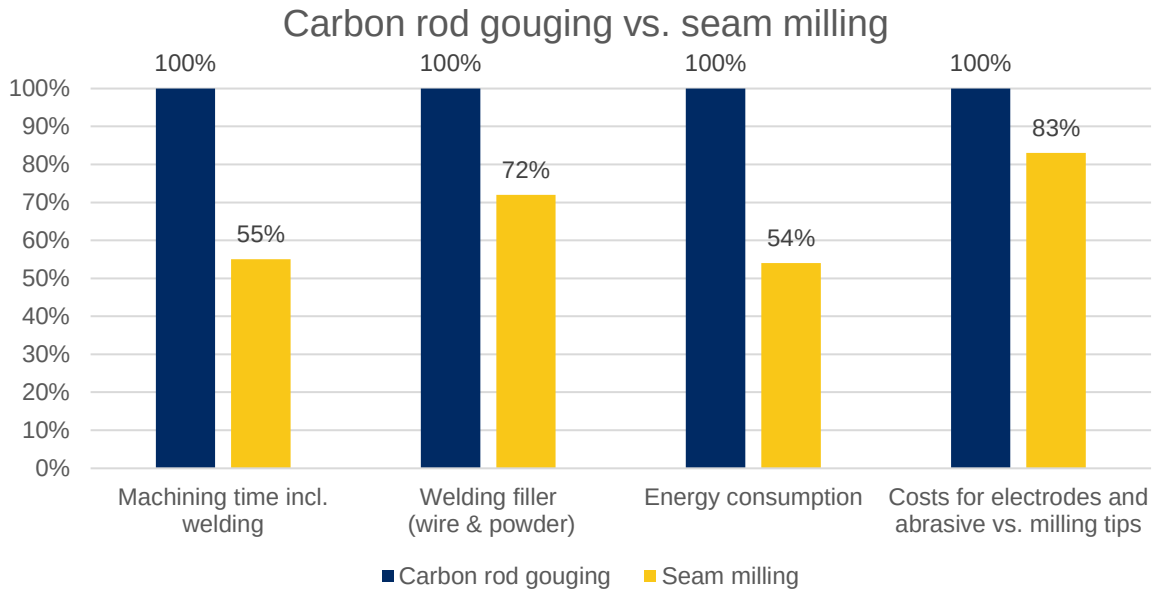
Carbon rod gouging

Seam milling



- No grinding dust
- No dirty working areas

- Low noise pollution
- No hand-arm vibrations

- No additional waste
- Recyclable chips

Circ seam milling machines

Mobile 4 o'clock, 4 o'clock on tracks and 6 o'clock on tracks

- Highest accuracy
- Cutting thickness up to 150 mm
- Easy and accurate machining of cones possible
- Angle adjustment
- Automatic tracing system and laser guided

Long seam milling machine

Including different solutions for workpiece tables

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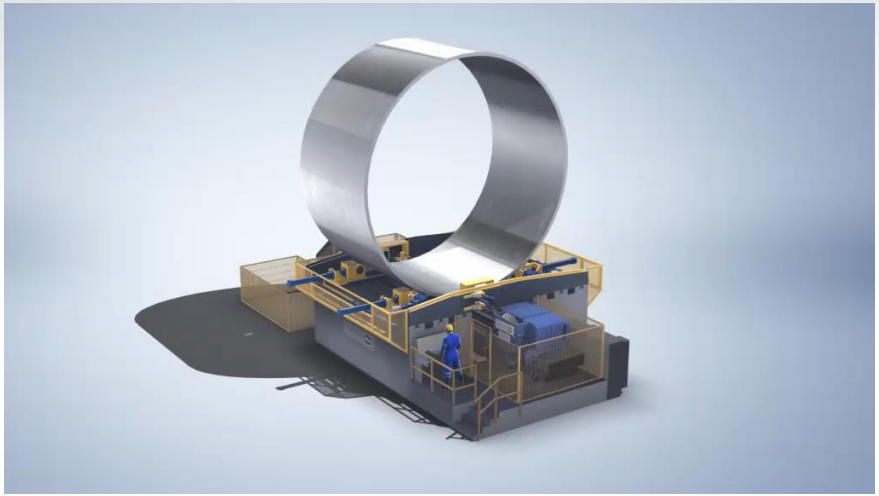

- Rotational positioning without crane
- Highest accuracy
- Cutting thickness up to 150 mm
- Automatic tracing system and laser guided
- Easy clamping system
- Camera system for automatic production control

MIBA long & circular weld seam preparation equipment

Your benefits at a glance

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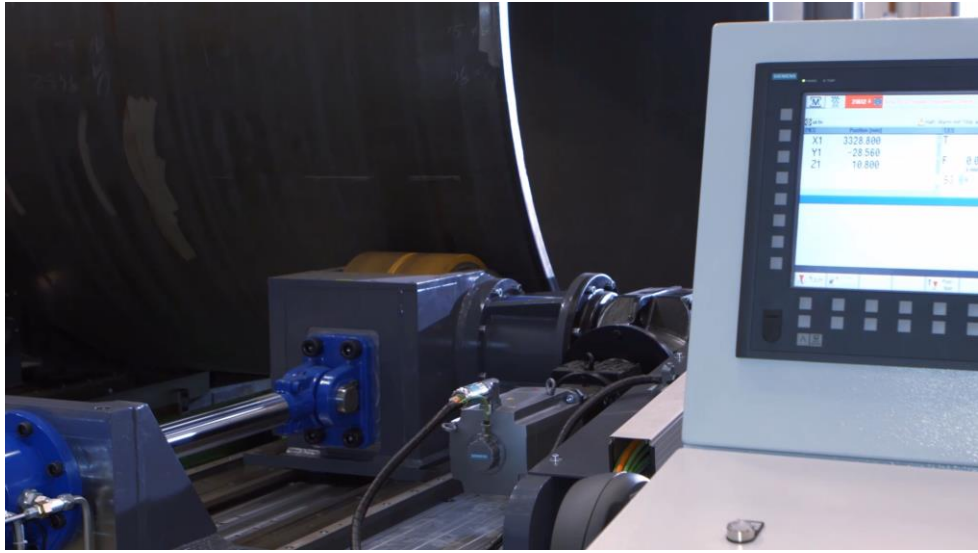
- Most powerful machines in the market in comparison with our competitors
- Several different machine types according to your production needs
- Drift compensation with highest range on the market
- Full automatic weld seam preparation process with cutting depth compensation
- Full CNC controlled machining with remote services and updates
- Special hydropol concrete basement for low vibrations



Flange milling machines

Stationary and mobile solutions up to 20 meters

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Weld Seam Milling Machine for Offshore Components

- uniform profile width and depth for proper welding conditions
- fast preparation of the weld seam profiles
- quiet machining & less dirt operation compared to other procedures
- controlled chip flow for recycling purpose

THANK YOU

Creating value with technology