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CONTENT

Directory Page 1

Who We Are

Presentation of Wasser GmbH Page 2

Modernization of Machines

Example 1 – Portal Milling Machine Page 3
Example 2 – Special Purpose Milling Machine for Switches Page 4
Example 3 – Special Purpose Milling Machine for Switches Page 5
Example 4 – Special Purpose Milling Machine for Aluminium Plates Page 6
Advantages of a modernization Page 7

New Machines

Example 5 – Special Purpose Milling Machine for Cast Products Page 8
Example 6 – Gantry Milling Machine Page 9
Example 7 – Portable Boring Machine Page 10
Example 8 – Portable Milling Machine Page 11

Milling Units & Vertical Milling Heads

Milling Units Page 12
Angle Milling Heads Page 13

General Shop Services

Presentation of our shop services Page 14

Contact

Contact Information Page 15
Directions Sketch Page 16

Who We Are

Presentation of Wasser GmbH

We are a producer of high quality, special purpose milling and boring machines both stationary and portable. Furthermore we provide machine retrofitting and modernizing for your out dated and obsolete equipment. On the following pages you will find pictures of the many possibilities available when upgrading your old equipment. In addition to these services we also offer complete disassembly and disposal of equipment that has no further value or broken beyond repair.

We offer our standard milling units and vertical milling heads as well as several special variations in this area. Over the past 25 years we have gathered extensive knowledge allowing us to find innovative solutions to some of the most difficult machining and metal working problems found in industry today. We focus heavily on the machining of many different materials such as steel castings, steel plate, and cast and billet aluminum. Our factory operates 3 shifts so you can rest assured that we can and will meet your time schedule.

The team here at our company includes 10 machine supervisors, 3 maintenance technicians, 2 computer aided design engineers, as well as 5 executive and administrative employees. Our company is conveniently situated next to the Autobahn A59 in the industrial zone of Biberweg in Troisdorf-Spich Germany, (within 5 minutes driving from the Cologne-Bonn airport.)

With over 40 years of experience in special purpose machinery, and more than 500 new and modernized machines in operation around the world **we guarantee ...**

... we have the solution for your chipping needs !

Modernization of Machines

Example 1

Machine Type:

Portal Milling Machine

Industry:

Manufacturer of **Baths & Shower Trays**

Field of application:

Mold and Die Production

Downtime:

6 month

Task:

- more powerful milling unit
- retrofit CNC control
- replace the drives
- replace electronics
- replace pneumatics
- replace hydraulics
- remove all visible and mechanical problems/defects



(machine before modernization)

Components Used:

- Milling unit **type FE-70-0 AC**, brand **Wasser GmbH** with **motor spindle** brand **Weiss (Siemens)**
- Control **Siemens 840D**
- Drives with **ball screw device**
- Linear guiding brand **THK**
- Electric (incl. switch board), pneumatic, hydraulic all new.
- Chip conveyor special construction
- **CE marking after modernization**



(machine after modernization)

Modernization of Machines

Example 2

Machine Type:

Milling Machine for Switches

Industry:

Manufacturer of **Switches** (rail technology)

Field of application:

Production of switch blades and turnout frogs

Downtime:

6 month

Task:

- more powerful milling unit
- retrofit CNC control
- replace the drives
- replace electronics.
- replace pneumatics.
- replace hydraulics.
- remove all visible and mechanical problems/defects



(machine before modernization)

Components Used:

- Milling unit **type FE-50-0 AC**, brand **Wasser GmbH**
- Control **Siemens 840D**
- Drives with **ball screw device**
- Linear guiding brand **THK**
- Electric (incl. switch board), pneumatic, hydraulic all new
- **CE marking after modernization**



(machine after modernization)

Modernization of Machines

Example 3

Machine Type:

Milling Machine for Switches

Industry:

Manufacturer of **Switches** (rail technology)

Field of application:

Production of switch blades and turnout frogs

Downtime:

6 month

Task:

- more powerful milling unit
- retrofit CNC control
- replace the drives
- replace electronics.
- replace pneumatics.
- replace hydraulics.
- remove all visible and mechanical problems/defects



(machine before modernization)

Components Used:

- Milling unit **type FE-50-0 AC**, brand **Wasser GmbH**
- Control **Siemens 840D**
- Drives with **ball screw device**
- Linear guiding brand **THK**
- Electric (incl. switch board), pneumatic, hydraulic compl. new
- Chip conveyor special construction
- **CE marking after modernization**



(machine after modernization)

Modernization of Machines

Example 4

Machine Type:	Milling Machine for Aluminium Plates
Industry:	Manufacturer of Aluminium Plates
Field of application:	Production of aluminium plates
Downtime:	6 month

Task:

- Modernization and conversion to **milling machine for aluminium plates**
- more powerful milling unit
- retrofit CNC control
- replace the drives
- replace electronics
- replace pneumatics
- replace hydraulics
- remove all visible and mechanical problems/defects



(machine before modernization)

Components Used:

- Milling unit **type FE-70-0 AC**, brand **Wasser GmbH** with a **milling head diameter of 2100mm !**
- Control **Siemens 840D**
- Drives with **ball screw device**
- Linear guiding brand **THK**
- Electric (incl. switch board), pneumatic, hydraulic all new
- Vacuum table
- **CE marking after modernization**



(machine after modernization)

The following link shows the machine in operation:

http://www.youtube.com/watch?v=AybXN1to3sM&feature=player_embedded

Modernization of Machines

Your advantages at a glance:

- Utilizing existing components from your older equipment allows for a quicker turn around time and gets you back in production with minimal downtime.
- Since the main structure of older equipment is typically of very high quality steel these parts can be refurbished and reused providing substantial savings over purchasing completely new equipment.
- Combining the main structural parts of your older equipment with the proven new technology of today high tech control systems provides you with best of both worlds. A very high quality machine at a fraction of the price for a new one.
- In most cases during the process of modernizing the machine can be customized to perform the same tasks as before with better accuracy and efficiency.

New Machines

Example 5

Machine Type:

Milling Machine for Cast Products

Industry:

Manufacturer of **Rolls and Cast Products**

Field of application:

Production of cast products

Building time:

4 month

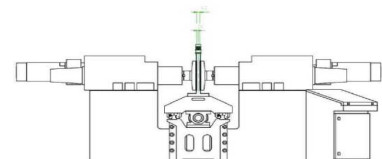
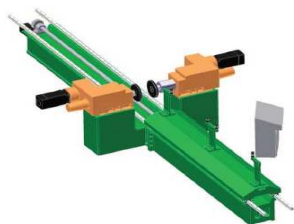
Task:

Build a double-sided milling machine to machine cast products



Components Used:

- 2 milling units each 60kW driving power, brand **Wasser GmbH**
- Table dimension 4000 x 850 mm (with roof shape for better chip drop off in the chip conveyor)
- Table feed with **ball screw device** and **linear guiding**
- Control **Siemens Typ 840D**
- Electric (incl. switch board), pneumatic, hydraulic all new
- **CE marking after completion**



New Machines

Example 6

Machine Type:

Gantry Milling Machine

Industry:

Manufacturer of **Crane Systems**

Field of application:

Production of crane segments

Building time:

9 month

Task:

Build a Gantry milling machine with 2 milling units for the production of crane segments



Components Used:

- 2 milling units with each 30 kW driving power
- 2 separate control stands
- Control Siemens
- Dimensions: length 18 m / height 4 m / each milling unit 2 m infeed
- **CE marking after completion**

New Machines

Example 7

Machine Type:

Industry:

Field of application:

Building time:

Portable Boring Machine

Ship Building Industry

Machining stern tubes and rudder trunks of vessels

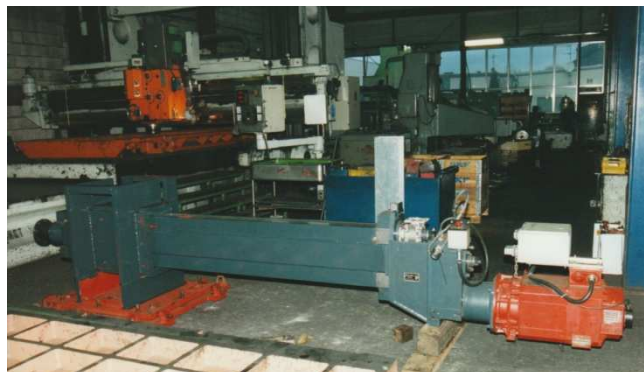
4 month

Task:

Build a portable boring machine

Technical Data:

- Length: approx. 4.500 mm
- Height: approx. 1.200 mm
- Weight: approx. 3.000 kg
- Driving power: 30 kW
- RPM: 0-200 rpm, variable speed, adjustable electronic connection between rpm and feed
- Torque: max. 4.500 Nm
- Feed: 2.000 mm (feed with ball screw device)
- **CE marking after completion**



New Machines

Example 8

Machine Type:

Industry:

Field of application:

Building time:

Portable Milling Machine

Ship Building Industry

Machining crane flanges and crane fundamentals of container vessels

5 month

Task:

Build a portable milling machine for machining crane flanges and crane fundamentals of container vessels

Technical Data:

- For max. flange diameter of **2.500 x 2.500 mm** and milling head diameter up to max. **315mm**, incl. vertical milling head type C-50 / ISO50
- Driving power: **15 kW**
- RPM: **0-150-500 U/min**
- Travel speed stepless adjustable (x / y): approx. **0-2000 mm/min**
- Travel speed stepless adjustable (z): approx. **0-1000 mm/min**
- Travel in z (incl. digital display): **approx. 600mm**
- **CE marking after completion.**



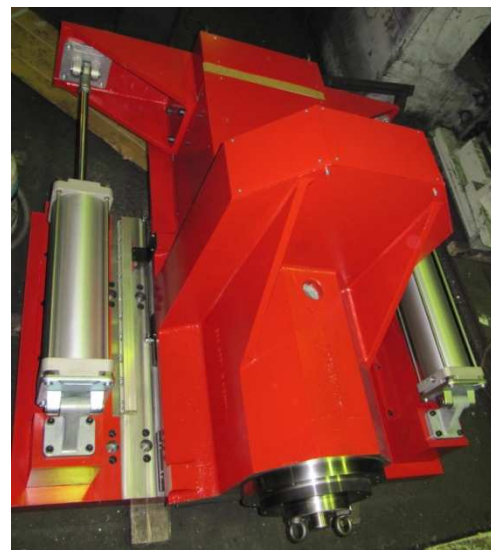
Milling Units

We design and produce **milling units** with a max. driving power of up to **160 kW** (at a rotation speed of up to **9,000 rpm**).

Specific customer wishes can be taken in consideration during the engineering process and are more than welcome!

We will be glad to assist you to find the perfect chipping and boring tools for your individual needs.

We also work with our customers providing special tooling for testing in their machines. We do this in an effort to help you find the best possible tooling solution for optimum chipping performance and efficiency.



Vertical Milling Heads

With our wide range of **90° angle milling heads** and **universal milling heads** we are able to cover most needs of our customers.

Should we not be able to find the right milling head for you in our standard range, we have the capabilities to design and produce custom solutions for your specific needs.

We offer our milling heads including the adaptation to your machine.



General Shop Services

We have the capabilities to work with most all materials with a weight of up to 25 tons. All machines start with a base that is machined to very tight tolerance straight from our production.

Furthermore we perform milling and boring work on a very large scale for many steel and engineering companies.

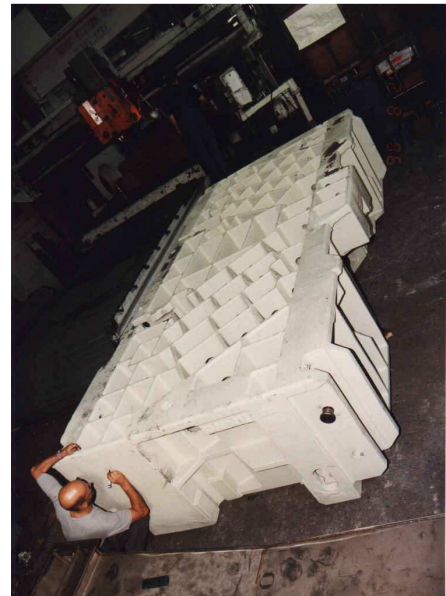
Heavy chipping, tight tolerances, and quality all come together in the production facility here at Wasser GmbH.

Some of the industries we serve are automotive, foundry, mold and tool makers, hammer forge, steel producers, and metalworkers.

We have 3 production shifts allowing us to handle the work load associated with short delivery schedules and tight timelines.

During the project we stay in close contact with our customers providing status updates on a regular basis. Keeping you involved in the process from concept to delivery is one of the many ways we ensure you get EXACTLY what you want and need for your business with no surprises.




Adherence to delivery dates is one of our many priorities and we understand the importance of your schedule in today's "Just In Time" production environment. Customer satisfaction and service after delivery is our top priority



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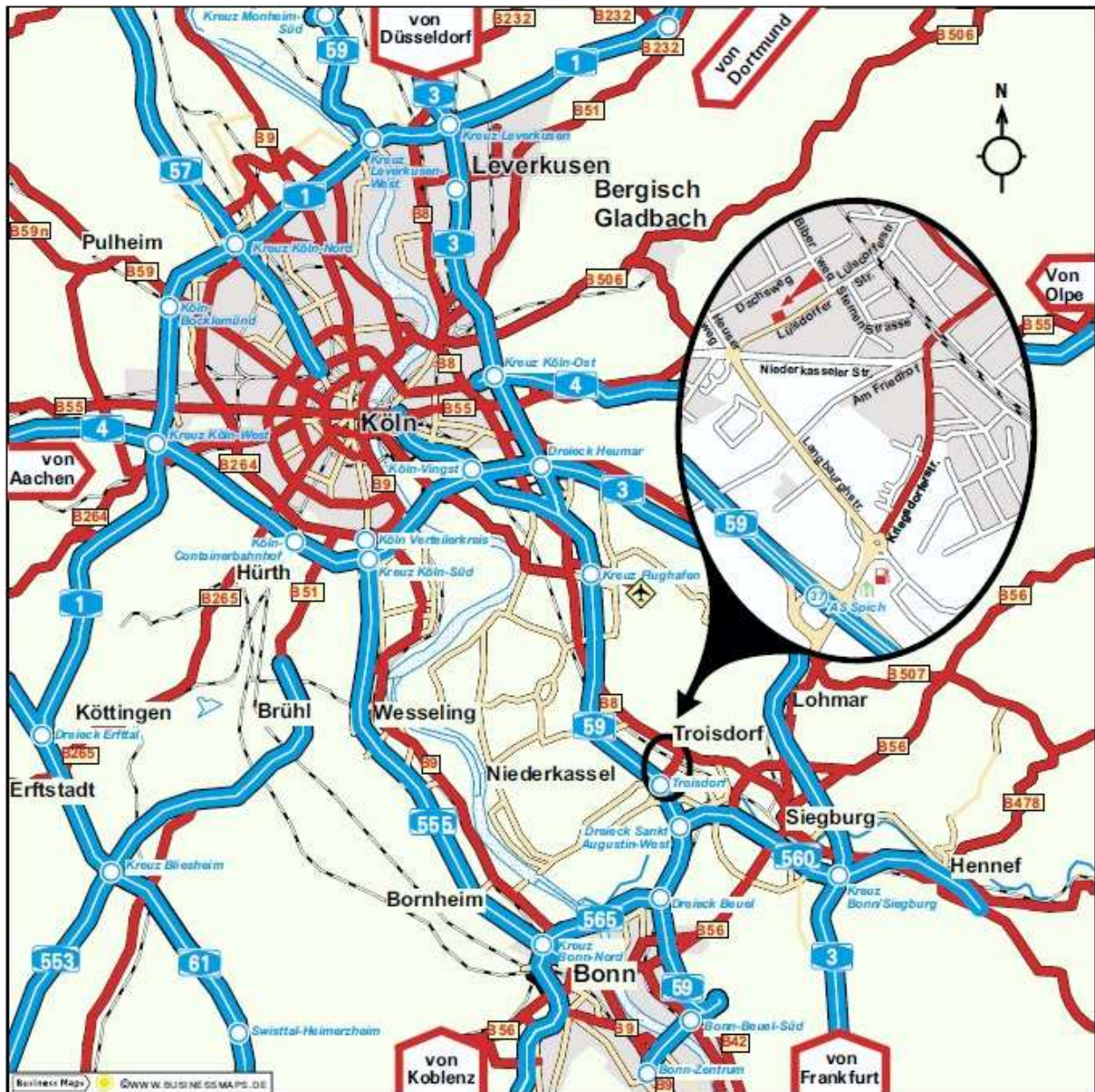
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Directions Sketch



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