



*PASSION FOR*  
***WATERJET CUTTING***

WATERJETSOLUTIONS



## STM Facts

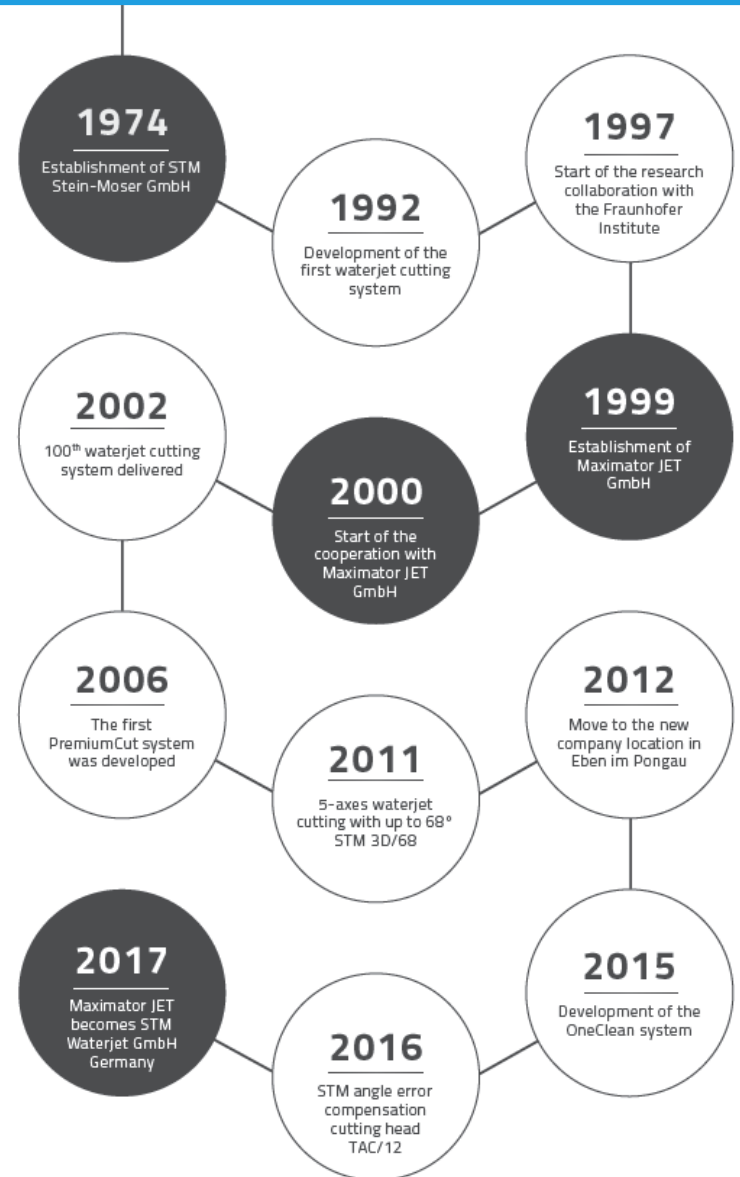
**Locations:** STM waterjet GmbH, Eben im Pongau, AT  
 STM Waterjet GmbH Germany, Schweinfurt, DE  
 STM Waterjet AG, Reiden, CH

	Management	Employees
AT	Jürgen Moser	50
DE	Sven Anders	17
CH	Roman Vogt	2

**Main markets:** DACH region, FR, BE, NL, PL

**Turnover total:** > 20 mio. €

**Export rate:** > 80 %



„Our goal is to offer the best service in the entire industry.“

# Our values. Our motivation.



Personally.  
Direct. Solution-oriented.



Economical.  
Flexible. Innovative.



Partnership.  
Service. Trust.



Sustainability.  
Responsibility. Efficiency.



# Water is for cutting.

We are convinced of that: Waterjet cutting is the ultimate cutting technology.

Cold cut, no material hardening, nearly all materials are cuttable and extremely energy- and cost-saving at that.



## STM research cooperations:

### **EUREKA**

Network for market-orientated research & development

### **Leibniz Universität Hannover**

„Arbeitskreis Wasserstrahltechnologie“ - work group waterjet technology

### **Fraunhofer-Gesellschaft e.V.**

Promotion of the applied research

### **Hochschule Karlsruhe**

Technology and economy



# Just the way **you** want it.

## Series

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<b>EcoCut</b>	entry-level modell
<b>MasterCut</b>	all-rounder
<b>PremiumCut</b>	high-end system
<b>Cube</b>	the compact one
<b>MicroCut MJ</b>	specialist for precision

## Cutting heads and modules

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<b>STM 2D Head</b>	standard cutting head
<b>STM TAC/12</b>	taper angle control cutting head
<b>STM 3D 48 °/ 68°</b>	5 axes 3D cutting head
<b>TubeCut</b>	pipe cutting module

## Recycling and cleaning

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<b>OneClean</b>	The modular allround system
<b>HF</b>	Hydro filter and cleaning
<b>WKS</b>	Water cycle system
<b>AR</b>	Abrasiv recycling

„We built exactly the waterjet cutting machine you need.“

**StM**

Waterjet solutions

# EcoCut

The economic entry to  
the world of waterjet cutting.



Nobody cuts it better.

## Modular structure

The modular system with its use of standard components enables StM waterjet cutting systems to be adapted to your requirements and upgraded.

## StM SmartCut cutting software

The easily understood StM SmartCut cutting software can be adapted to individual requirements using modular upgrades. Within the graphic user interface all parameters are able to be intuitively set and .dwg, .dxf, .step, .iges files directly imported.

## Robust construction

All components and screwed fasteners are made of wear-resistant stainless steel and aluminium. Characteristic of the low-vibration construction are the flat underside as well as the smooth side walls.

## Easy on resources and environment

StM machines are characterised by low operating costs. The waterjet cutting systems are designed to require as little compressed air, power and water as possible.



Travel speed	max. 10 m/min	Positioning accuracy	± 0,1 mm (per Meter at 20°)
Z-axis clearance	180/230 mm	Repeat accuracy	± 0,08 mm (per Meter at 20°)
Workspace	min. 1m x 1m, max. 2 m x 3 m		

**StM**

Waterjet solutions

# MasterCut

The all-round system  
for sophisticated requirements.



Nobody cuts it better.

## Maximum process safety

Automatic scanning of the workpiece as well as collision protection provides safe working. StM waterjet cutting systems are able to mark as standard and with the use of the positioning laser the workpiece can be easily set up.

## StM SmartCut cutting software

The easily understood StM SmartCut cutting software can be adapted to individual requirements using modular upgrades. Within the graphic user interface all parameters are able to be intuitively set and .dwg., .dxf, .step, .iges files directly imported.

## Top ease of use

StM waterjet cutting systems are accessible from 3 sides. Control is made via a classic Windows PC and additional features such as the manual control unit provide top ease of use.

## Profitable and long-lasting

StM plants are characterised by low operating costs. The waterjet cutting systems are designed to require as little compressed air, power and water as possible.



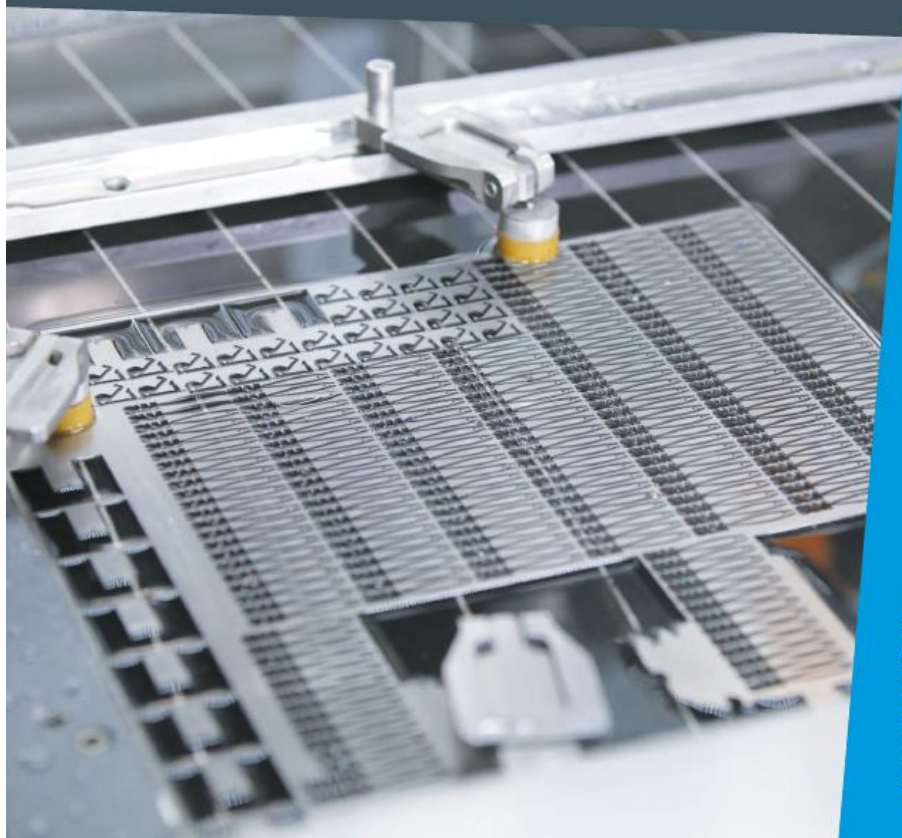
Travel speed	15 m/min	Positioning accuracy	± 0,08 mm (per Meter at 20°)
Z-axis clearance	180/230 mm	Repeat accuracy	± 0,05 mm (per Meter at 20°)
Workspace	min. 1m x 1m / max. 6,5m x 2,5 m / max. 2m x 4m		

**StM**

Waterjet solutions

# MicroCut

The specialist for highest precision and extremely filigree cuts.



Nobody cuts it better.

## Precision and speed

Innovative design in combination with the StM cutting angle compensation head for minimum cutting widths.

## Compact and fully integrated

The MicroCut combines all components in a very small space: low-vibration granite frame, high-precision clamping frame, linear motor axes, CNC control and abrasive system.

## StM SmartCut cutting software

The easy to understand StM SmartCut cutting software can be adapted to individual requirements using modular upgrades. In the graphical user interface, all parameters can be set intuitively and .dwg, .dxf, .step, .iges files can be imported directly.

## Resource-sparing and environmentally friendly

StM plants are characterised by low operating costs. The waterjet cutting systems are designed to require as little compressed air, power and water as possible.



MicroCut V1

Workspace (X, Y, Z):	700x500x150 mm
Dimensions (W x D x H):	1610x1260x2850 mm
Repeatability:	± 0,005 mm
Positioning accuracy:	± 0,005 mm
Accuracy of the waterjet:	± 0,02 mm
Travel speed max.:	10 m/min



MicroCut MJ

Workspace with TAC(X, Y, Z):	1000x500x100 mm
Max. working area (x, y, z):	1000x750x100 mm
Dimensions (W x D x H):	2200x2200x2180 mm
Repeatability:	± 0,0025 mm
Positioning accuracy:	± 0,0025 mm
Accuracy of the waterjet:	± 0,01 mm
Travel speed max.:	10 m/min

**StM**

Waterjet solutions

# StM Cube

The waterjet cutting system for maximum cleanliness.

Nobody cuts it better.

## Quiet cutting

The hood construction helps to achieve a noise insulation of 10 %. StM Cube waterjet cutting systems are about 8 dB quieter compared to other systems.

## Increased safety

The StM Cube waterjet cutting system provides the ideal conditions for cutting environments with enhanced safety requirements. New opportunities are created for research and educational establishments as well as mechanical production.

## Compact system

The StM Cube can also be set up in small production buildings without any problems. The waterjet cutting system convinces with very small space requirements.

## Optimum accessibility

The StM Cube waterjet cutting system has compact dimensions and the working area is accessible from three sides. Loading from the top by crane is also possible.

**StM**

Waterjet solutions



Workspace e.g.	1,05 m x 1,05 m / 1,05 m x 1,55 m / 1,05 m x 2,05 m		
EcoCut version:			
Travel speed max.	10 m/min	Positioning accuracy	± 0,10 mm (per meter at 20°)
Z-axis possible	100 mm	Repeat accuracy	± 0,08 mm (per meter at 20°)
MasterCut version:			
Travel speed max.	15 m/min	Positioning accuracy	± 0,08 mm (per meter at 20°)
Z-axis possible	100 mm	Repeat accuracy	± 0,05 mm (per meter at 20°)



Waterjet solutions

# PremiumCut

The waterjet cutting system  
with unlimited cutting capabilities.



Nobody cuts it better.

## Maximum process safety

The automatic scanning of the workpiece as well as the collision protection provides safe operation. StM waterjet cutting systems can mark as standard and with use of the positioning laser the workpiece can be easily set up.

## StM SmartCut cutting software

The easily understood StM SmartCut cutting software can be adapted to individual requirements using modular upgrades. Within the graphic user interface all parameters are able to be intuitively set and .dwg, .dxf, .step, .iges files directly imported.

## Top ease of use

StM waterjet cutting systems are accessible from 3 sides. Control is made via a classic Windows PC and additional features such as the manual control unit provide top ease of use.

## Low operating costs

StM machines are characterised by low operating costs. The StM waterjet cutting systems are designed to require as little compressed air, power and water as possible.



Travel speed	up to 60 m/min	Positioning accuracy	± 0.02 mm (per meter at 20°)
Z-axis clearance	300/600/900 mm	Repeat accuracy	± 0.01 mm (per meter at 20°)
A-axis feed	360 degree/sec.	Z-axis feed	360 degree/sec.

**StM**

Waterjet solutions

# PremiumCut IFC

The versatile and robust  
special construction.



Nobody cuts it better.

## Flexible and expandable

By means of the construction with flexible tank modules, the IFC systems can be expanded at any time. Even a bridge clearance of up to 1,200 mm is possible. Moreover the design simplifies transportation as well as erection of the system.

## Low operating costs

StM machines are characterised by low operating costs. The StM waterjet cutting systems are designed to require as little compressed air, power and water as possible.

## Maximum process safety

Automatic scanning of the workpiece as well as collision protection provides safe working. StM waterjet cutting systems are able to mark as standard and with the use of the positioning laser the workpiece can be easily set up.

## Stable and precise

The frame being firmly bolted to the floor guarantees absolute stability and the highest precision plus wear resistance.

**StM**

Waterjet solutions



Travel speed  
Z-axis clearance  
Workspace

max. 30 m/min  
300/600/900/1200  
min. 3 m x 2 m / max. 60 m x 5 m

Positioning accuracy  
Repeat accuracy

± 0.02 mm (per meter at 20°)  
± 0.01 mm (per meter at 20°)

# STM Cutting heads

Cut accurately  
the way you want to.

The proven PremiumCut systems can be equipped for the most diverse cutting tasks. From the classic 2D cut via heads with cutting angle compensation or complex multiple cutting head systems through to 3D cutting head with 5-axes kinematics with up to 68° swivel range.

Our solution:  
The flexible and modular  
unit assembly system



## StM 2D cutting head

- Maximum precision and cutting speed.
- Multiple cutting heads in parallel on up to 4 Z-axes
- Manually rotating holder for bevelled cuts



## StM 12° angle error compensating cutting head

- Maximum precision and cutting speed.
- Workspace A-axis and B-axis up to 12°
- The angle error compensating cutting head compensates the angle error automatically to  $\pm 0.05$  mm
- Integrated height scanning and collision protection



## StM 3D68 five-axes cutting head

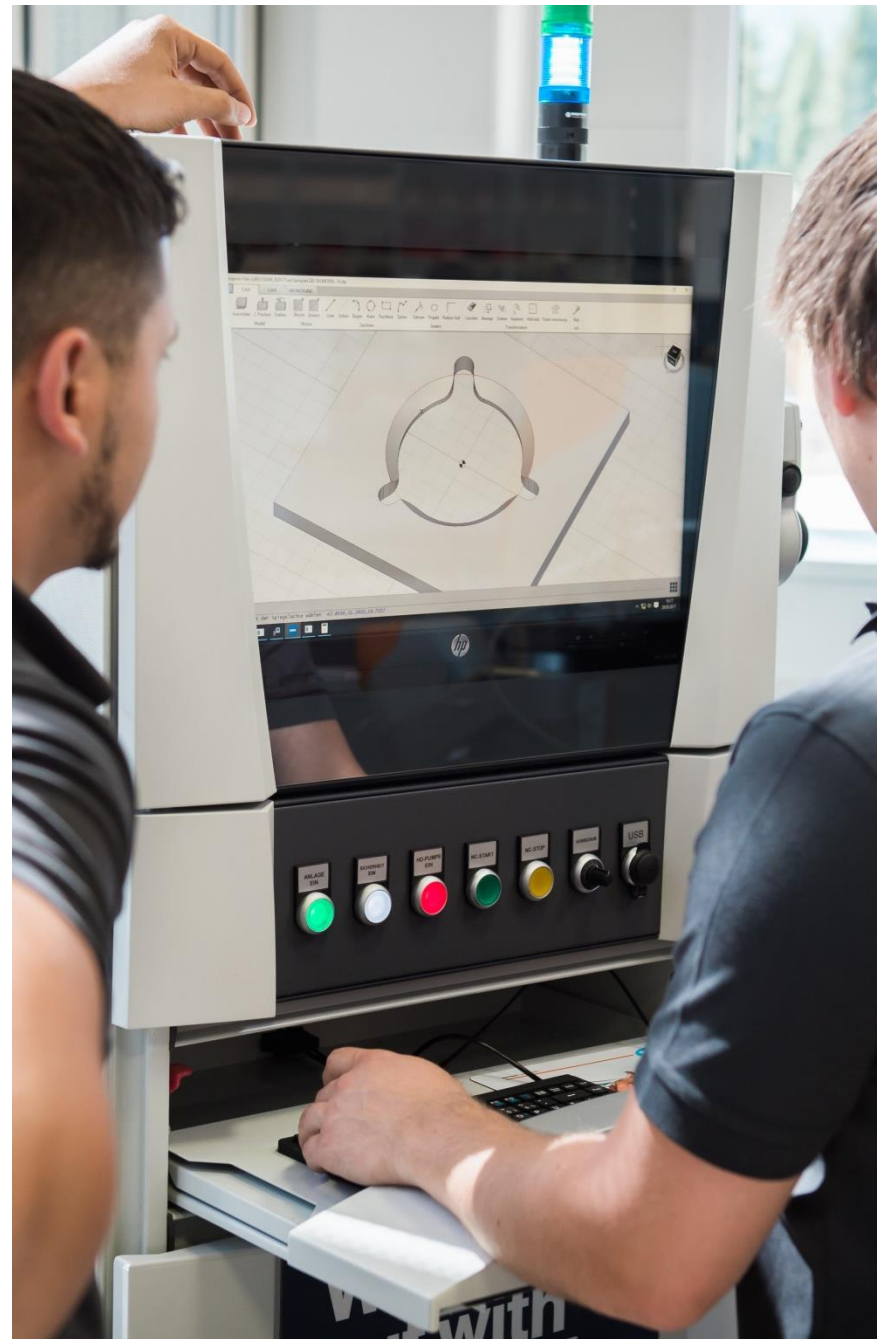
- Workspace A-axis up to 68°
- Workspace C-axis  $\pm 720^\circ$
- 5-axes cuts, cutting angle compensation and bevelled cut
- The cutting head swivels by means of the robot kinematics through the tool centre point. Cutting angle changes are possible without X/Y movement
- Upgradeable with continuously active height scanning which protects the focussing tube and the complete cutting head from colliding
- No raised construction of the cutting bridge required = low weight; thus drive system requires less power

# STM SmartCut

## The core of your cutting system.

- Intuitive user interface on a standard office computer
- No special CNC or EDP knowledge required
- Direct realization of the diagram shown on the screen
- Pre-defined cutting strategies and material database
- Automatic setting of pump pressure and abrasive quantity
- Calculation module for estimated processing time and exact costs of an order including printable report
- Remote maintenance by the STM team via remote access
- Large selection of add-on modules

„The focus is on the user.“



# You can rely on us.

## Our services for your success

- Trainings and production consulting
- Annual service and machine maintenance with guarantee extension up to 8 years
- Real-time machine monitoring
- Remote maintenance and online trainings

The most important thing about a waterjet cutting system is that it cuts. Preferably all the time. We therefore do our utmost to offer our customers perfect service.

Starting with training to comprehensive telephone support all the way to complex production consulting. Best possible service to us means that we are glad to give advice on technical problems fast, competent and friendly.

Because no distance is too far and no problem too complicated for our service engineers. You can get spare parts and operating supplies fast and without complications at the STM online shop. And when things do get complicated, our service engineers are ready to offer you solutions for your production issues. We will be happy to support you with preliminary calculations and profitability analyses.

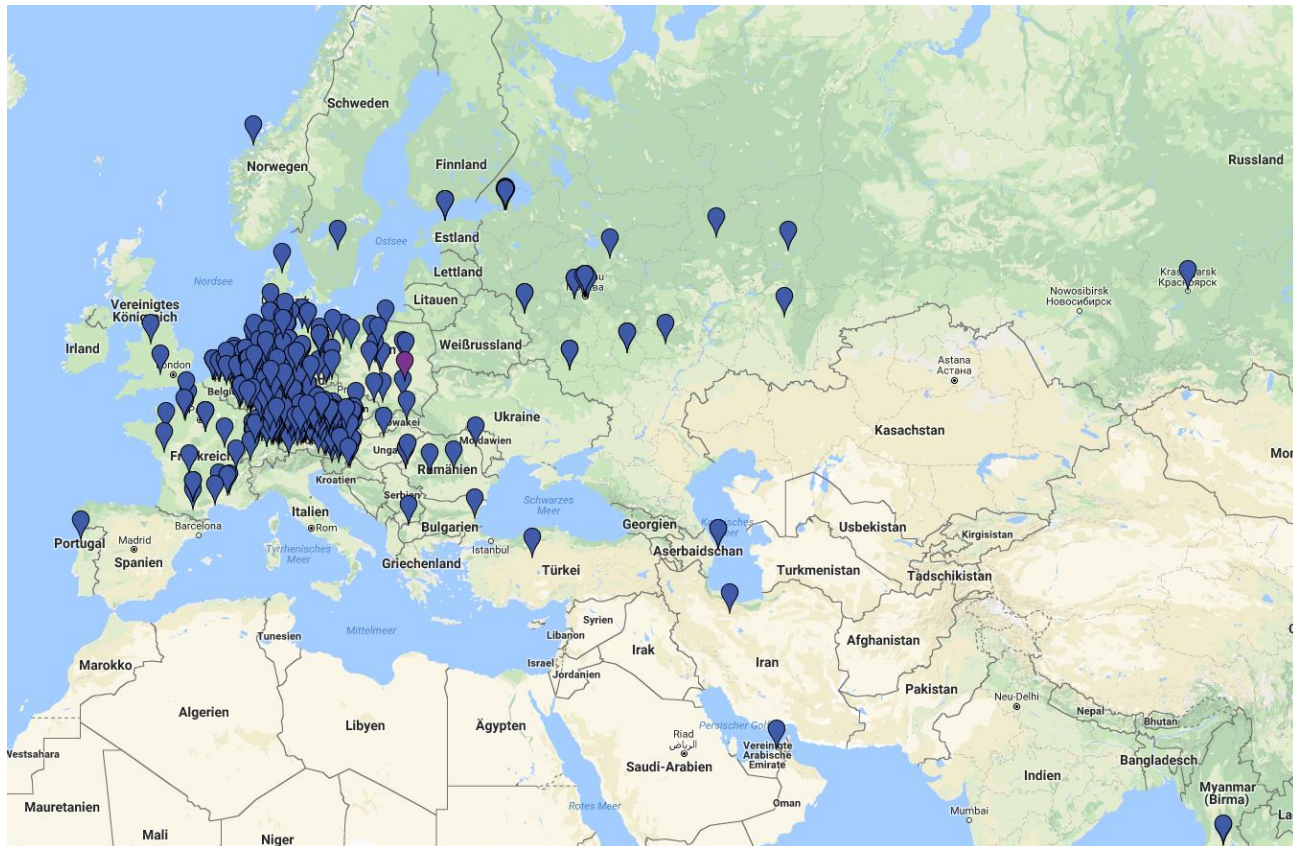
„Our goal is to offer the best service  
in the entire industry.“



# Successful together.

We always have a sympathetic ear for our customers.  
And we love finding solutions together and making them reality.

More than 700 systems worldwide already speak volumes. It is our goal to communicate with our customers at eye level. That is why we are represented in a variety of industries and like to share our specialized knowledge with you.



# Satisfied customers worldwide.

Metalworking / Mechanical engineering



Metalworking / Mechanical engineering



Research / Schools



Research / Schools



Materials / Sealing industry



Materials / Sealing industry



Plastic



Plastic



Stone



Stone



Custom cutting



Custom cutting





***THANK YOU!***

**WATERJETSOLUTIONS**

[www.stm.at](http://www.stm.at)