

Boost **YOUR PRODUCTIVITY** with

SST
STAHL GMBH

MDS 5034

Mobile Diamond Wire Saw

The MDS 5034
**is revolutionising the
processing of natural-stone
rough blocks directly
in the quarry.**

By producing a
precise cut right at
the extraction site,

it significantly increases
productivity in natural-stone
extraction and
**helps achieve maximum
profitability.**



See for yourself >>



This is the Mobile Diamond Wire Saw MDS 5034

The MDS 5034 mobile diamond wire saw from SST Stahl was developed for dividing rough blocks of different types of stone and **for precisely cutting slabs directly at the extraction site.**

It delivers extremely accurate cutting quality IN the quarry and combines the flexibility of a mobile solution with the highest standards of precision and cost-effectiveness.

The sawing unit can be swivelled in all degrees of freedom and continuously adjusted to the required cutting width. Its patented folding system provides compact transport dimensions of less than 3 m in width while enabling a cutting capacity of up to 5.0 m x 3.4 m.

The fully hydraulic design of the sawing unit ensures precise control and regulation while maintaining a high level of robustness, even under very demanding operating conditions. This is complemented by a specially developed cutting-process control system that enables significantly higher feed rates.

As a result, the MDS 5034 can be efficiently integrated into existing quarry workflows without compromising cutting quality or process stability.

The patented folding system, together with the patented wire-storage and wire-deflection pulley systems, ensures extremely high stability and therefore excellent cutting performance and cutting quality.

By eliminating sliding guides, the rigidity of the sawing unit has been increased many times over, maintenance requirements have been minimised, and robustness has been improved.

The required diamond wire has a fixed length. It does not need to be lengthened or shortened and is an integral part of the sawing unit. The wire length remains the same in every operating condition, including transport, set-up and cutting.

The technical solution allows the mobile diamond wire saw to be operated in the quarry by just one person: driving from the cab and controlling the cutting process by radio remote control.



The benefits of the Mobile Diamond Wire Saw MDS 5034

In line with our clear corporate focus, “Boost YOUR PRODUCTIVITY with SST Stahl”, the MDS 5034 is consistently designed to deliver the highest possible efficiency and productivity benefits in day-to-day operation.

In particular, the precise cut IN the quarry offers significant advantages, including:

- **REDUCTION IN PROCESSING COSTS**
- **REDUCTION IN MATERIAL WASTE**
- **REDUCTION IN WASTE-TRANSPORT COSTS**

and much more.

On the following pages, we present selected, real-world calculation examples for these three benefits. These “Boost **YOUR PRODUCTIVITY**” examples are based on practical operating data.

Compared with conventional quarry wire saws, our surveys indicate potential productivity and profit improvements over only five years of:

EUR 920.150,--

Compared with drilling, the corresponding potential productivity and profit improvement over only five years increases to:

EUR 1,163.950,--

Check the figures for yourself >>

In addition to the calculation examples shown here, the MDS 5034 offers many further opportunities to increase productivity and profitability, such as:

- **Quality assessment and sorting directly in the quarry**
- **High mobility, quick repositioning and rapid readiness for operation**
- **Road transport without special permits**
- **A design and construction concept that minimises repair and maintenance requirements**
- **Savings in personnel costs**

and more.

„Boost **YOUR PRODUCTIVITY**“-Example:

REDUCTION IN PROCESSING COSTS

One of the key advantages of the MDS 5034, particularly when compared with drilling and conventional quarry wire sawing, is the **precise cut produced directly IN the quarry**. A second cut is no longer required.

This can substantially reduce day-to-day processing costs, in many cases by approximately half, and can therefore create considerable additional profit potential.

The bottom line has to add up:

For example, if the MDS 5034 reduces the labour time required
for block dressing by **50 %** , based on **500** working hours
per year and gross labour costs of **EUR 41.00**
per hour for **three** employees, the potential
personnel-cost saving is: **EUR 30,750.00** per year.

Over **five** years, this results in potential

personnel-cost savings of:..... **EUR 153.750,--**

If eliminating the second cut at the factory also saves, for example,

EUR 7,000.00 per year in energy and fuel costs,

the additional potential saving over

five years is:..... **EUR 35.000,--**

All calculation examples in this brochure were measured in practical applications. However, because operating conditions differ, the examples are non-binding and provided without warranty.

„Boost **YOUR PRODUCTIVITY**“-Example:

REDUCTION IN MATERIAL WASTE

One of the most profitable advantages of the MDS 5034 is its cutting quality. Rough blocks are divided with **precise cut surfaces directly IN the quarry**, virtually eliminating trimming waste and allowing the blocks to be processed immediately.

This leaves substantially more material available for sale: approximately 20% more compared with drilling and approximately 15% more compared with conventional quarry wire sawing. Potential sales revenue increases accordingly.

The bottom line has to add up:

If the MDS 5034 reduces material waste by only **15 %** compared

with conventional quarry wire sawing, an annual production volume of

1,000 m³ and an average selling price of

EUR 860.00 per m³ generate 15% more saleable material and

a potential additional sales volume of: **EUR 129,000.00** per year

Over **five** years, this results in potential

additional sales of: **EUR 645.000,--**

Alternatively,

with a **20%** reduction in waste compared with drilling, the potential additional

sales over **five** years

amount to: **EUR 860.000,--**

All calculation examples in this brochure were measured in practical applications. However, because operating conditions differ, the examples are non-binding and provided without warranty.

„Boost **YOUR PRODUCTIVITY**“-Example:

REDUCTION IN WASTE-TRANSPORT COSTS

Because the precise cut surfaces produced **directly IN the quarry virtually eliminate** trimming waste, approximately 20% of the extracted material compared with drilling and approximately 15% compared with conventional quarry wire sawing no longer has to be transported as waste.

This significantly reduces transport requirements because waste material does not have to be carried from the quarry to the processing plant and then transported back again.

The bottom line has to add up:

Example calculation based on the brochure figures: **two** trips per day,

a transport distance of **200 km** each way,

five days per week, **24** weeks per year, transport costs of

EUR 1.20 per km, and a **15%** reduction in waste transport compared

with conventional quarry wire sawing.

Potential annual savings: **EUR 17,280.00**

Potential savings

over **five** years: **EUR 86.400,00**

Alternatively,

with a **20%** reduction compared with drilling, the potential

savings over **five** years amount to: **EUR 115.200,00**

All calculation examples in this brochure were measured in practical applications. However, because operating conditions differ, the examples are non-binding and provided without warranty.

Directions of movement, mobility and transport

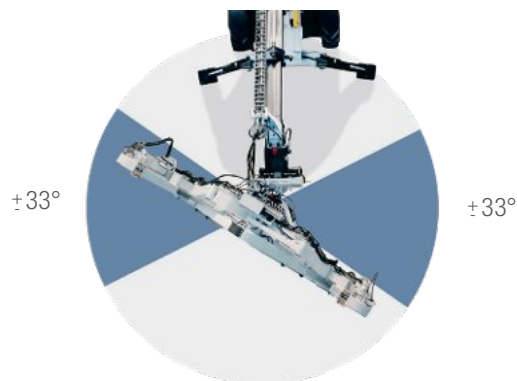
Directions of movement

Tilting range: 126° Lateral tilt range: 26°
Swivelling range: 66° Telescopic extension: 6 m

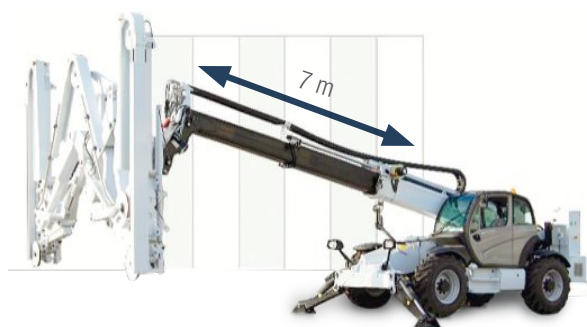
Lateral tilt range:



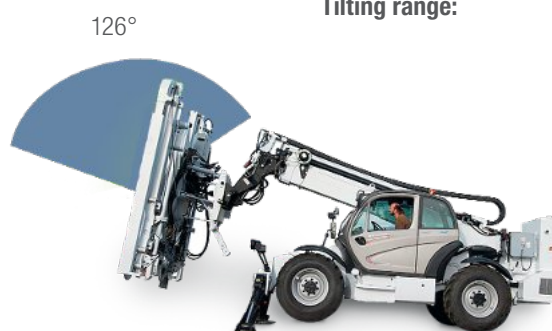
Swivelling range



Telescopic extension:



Tilting range:



The cutting path can be adjusted through multiple degrees of freedom. Parallel cuts can also be performed without repositioning the machine. Parallel cuts, cutting paths at different angles, variable cutting widths and variable cutting heights all contribute to an excellent cutting result.

For precise cutting alignment, even on difficult terrain, the machine can be adjusted through five directions of movement: raising and lowering; extending and retracting; tilting in and out; swivelling left and right; and lateral tilting left and right.

Mobility & transport

The MDS 5034 is a self-propelled machine that moves independently at the work site and reaches its operating position without additional equipment.

The machine is fully off-road capable and features all-wheel drive, inclination adjustment and three steering modes: front-wheel steering, all-wheel steering and crab steering.

Road transport on a standard low-loader is possible without special permits. Despite its enormous cutting capacity, the compact transport dimensions are achieved without conversion work.

The saw can drive directly from the low-loader to the work site and begin operating immediately.

Technical details

MDS 5034 equipment and transport data



Transport data

Transport height: 3.3 m
Transport width: 3.0 m
Transport length: 8.8 m
Weight: 14 t

Carrier vehicle

Manitou MT 1440 HA

Steering

- Front-wheel steering
- All-wheel steering
- Crab steering

Adjustment range

Cutting depth: 3.4 m
Maximum outreach: 5.0 m
Support of the sawing unit directly against the block

Diamond wire

Nominal diameter: 8.8 to 9.2 mm
Endlessly spliced, without crimp connection
Speed: 20 to 40 m/s

Radio remote control

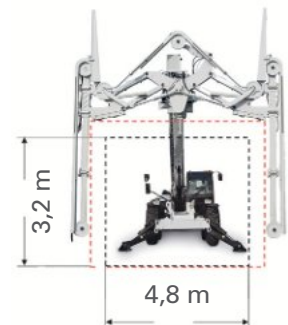
The MDS 5034 can be operated either from the workstation in the cab for driving to the site, positioning at the site and loading the machine, or by radio remote control for setting up the sawing unit and performing the cut. The radio remote control enables the telescopic handler and the sawing unit to be operated simultaneously.

Optional hybrid power supply

(Compared with the “Basic” version, which is powered only by a diesel engine)

Depending on the conditions at the site, the operator can select either the telescopic handler's onboard hydraulic system powered by the diesel engine or the additional permanently mounted electric power pack.

The MDS 5034 can therefore operate completely independently using the diesel-powered telescopic handler or, where an electrical supply is available, energy-efficiently and without local emissions using the mounted electric power pack.



More details & images of real-world applications

The “Boost **YOUR PRODUCTIVITY**” examples presented in this brochure are selected practical examples. They demonstrate the potential, generally significant increases in productivity and profitability that can be achieved in the natural-stone industry using the MDS 5034 mobile diamond wire saw.

You can see the MDS 5034 in real day-to-day applications in a video on YouTube and on our SST website, where an additional image gallery is also available.

Visit **www.sst-stahl.at**, select “Products” in the top navigation bar and then choose “MDS 5034”. Scroll down to the video.

Our MDS specialists will also be pleased to assist you. Call us without obligation and ask your questions. We look forward to hearing from you.



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