



## Advantages of VSM DA930X

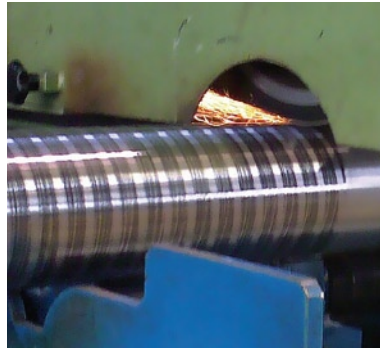
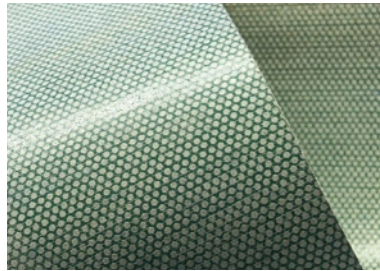
- extremely hard materials are able to be machined
- very long service life
- high stock removal rate
- consistent surface quality
- suitable for dry and wet grinding\*

Technical data	
<b>Grain type:</b>	Diamond
<b>Grit:</b>	251 µm (60-80), 126 µm (120), 91 µm (180), 64 µm (240-320), 46 µm (400)
<b>Backing material:</b>	special cloth with copper layer (pat.-reg.)
<b>Bonding:</b>	galvanic-bonded
<b>Fabricated width:</b>	325 mm

Recommended applications	
<b>Material:</b>	non-metallic materials, e.g. tungsten carbide, titanium carbide, glass, ceramic, plastic fibre glass, GRP, natural stone, Kevlar fibre etc.
<b>Workpiece:</b>	rolls (paper industry, foil and wire manufacturing), tubes coated with hard material, extruder screws, glass edges, turbine blades, blades and knives grinding, ceramic and ceramic coated parts, GRP rotor blades, PUR lacquer coatings, components of high-pressure controls, marble and granite plates
<b>Operation:</b>	automatic grinding, robotic grinding, backstand grinding, grinding by hand

Make use of the remarkable potential of DA930X on your grinding process!

We are happy to advise you how to optimise the quality and cost-effectiveness of your specific process by using DA930X.



\* To obtain optimal service life, VSM Diamond and CBN products should be used with less-than-standard amounts of coolant (e.g. water, emulsion, oil).

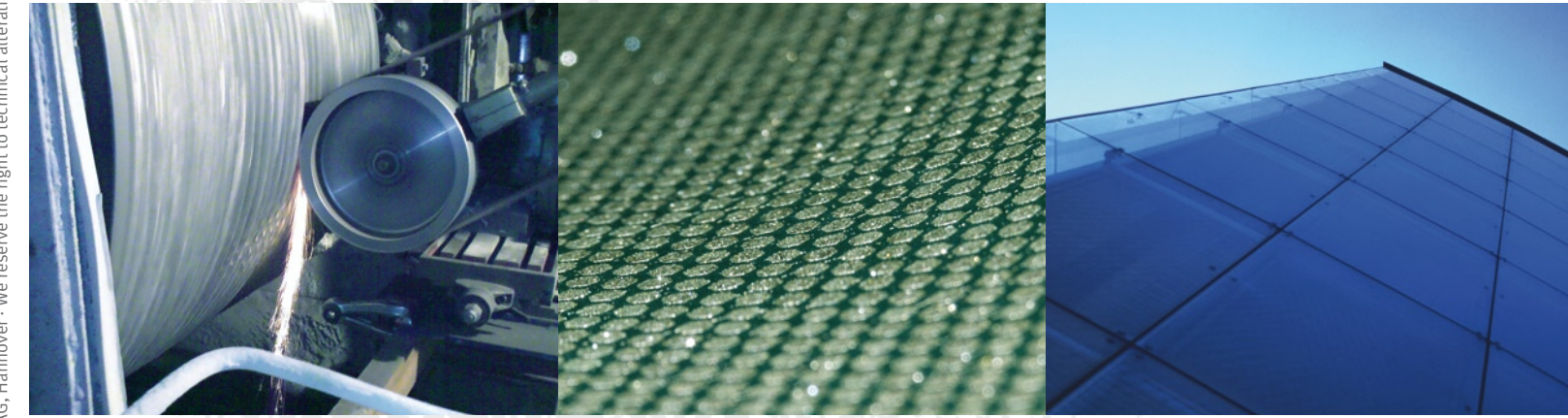


Our worldwide locations can be found at [www.vsmag.de](http://www.vsmag.de)

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## VSM DA930X Diamond products for processing extremely hard and brittle materials

SPECIALS

PRODUCTS

APPLICATIONS



## For maximum performance on the hardest materials: VSM Diamond abrasives DA930X – the new SUPER-ABRASIVE product

The new VSM Diamond products achieve outstanding results in processing very hard, non-metallic materials, e.g. tungsten carbide, glass, ceramic, plastic fibre glass, natural stone, Kevlar fibre etc.

### Very long service life Extremely hard materials can be machined High stock removal rate

- due to patent-registered manufacturing method
- due to selective and first-class grain quality
- due to the use of special cloth
- due to innovative grain and belt bonding technology

### Consistent surface quality Suitable for dry and wet grinding

- due to excellent grinding power of the diamond grains
- due to the avoidance of thermal damage to the parent material by cool grinding



## Application example 1

Workpiece: press roll made of high-quality steel with tungsten carbide coating  
Material: tungsten carbide  
Dimension: Ø 200 mm x 10,000 mm

### Grinding conditions

Grinding machine: Type SUPFINA 1 Station  
Contact wheel Ø: 105 mm  
Hardness: 90° Shore A  
Toothing: flat  
Cutting speed: 18 m/s  
Feed rate: 300 mm/min  
Belt tension: 2 bar  
Pressure force: 3.5 bar  
Belt dimension: 100 x 2,500 mm  
Grit: VSM Diamond 251 µm  
Additives: dry grinding

### Grinding task

Cylindrical grinding of rollers and removal of tungsten carbide coating



## Application example 2

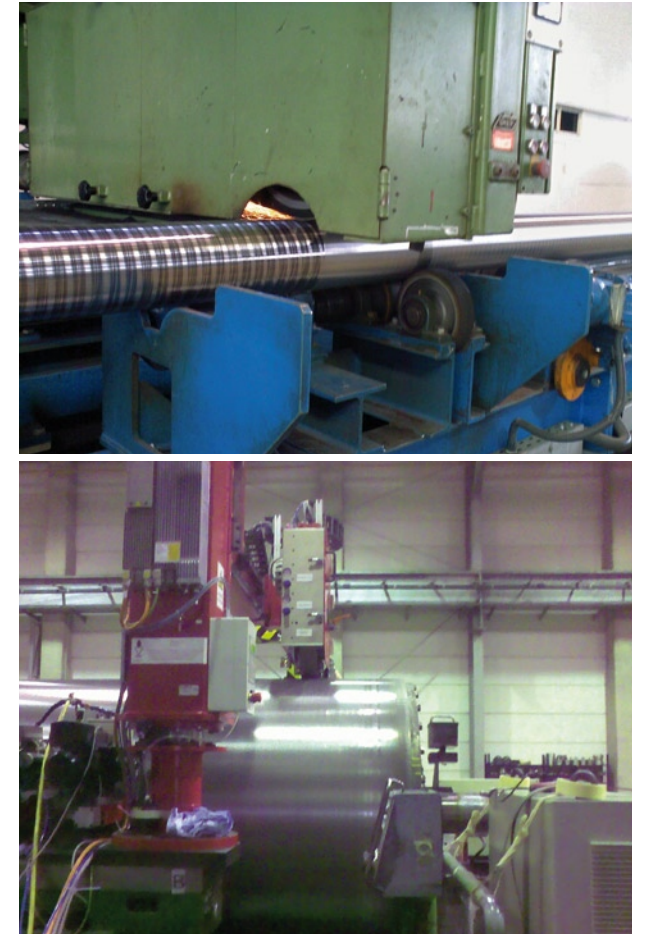
Workpiece: mandrel bar  
Material: surface-hardened steel (HRB 395)  
Dimension: Ø 181 mm x 60,000 mm

### Grinding conditions

Grinding machine: centreless  
Contact wheel Ø: 400 mm  
Hardness: 90° Shore A  
Toothing: 2:1  
Cutting speed: app. 25 m/s  
Feed rate: 0.6 – 0.8 m/min  
Pressure force: 20 – 25 A  
Belt dimension: 150 x 3,500 mm  
Grit: VSM Diamond 251 µm  
Additives: dry grinding

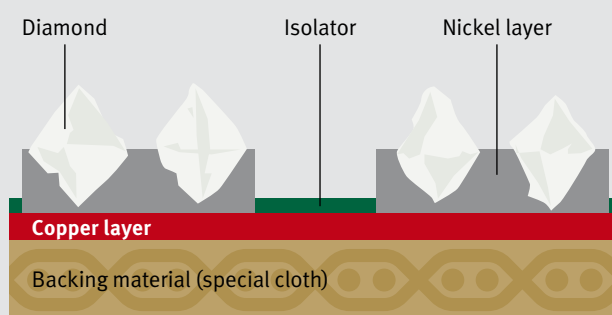
### Grinding task

Cylindrical grinding and descaling of mandrel bars



## VSM DA930X Diamond belts

**Grain type:** synthetic diamond  
**Backing material:** aramid cloth  
**Bonding:** electroplated (nickel)  
**Coverage:** dot pattern  
**Colour:** green  
**Fabricated width:** 325 mm



## Result

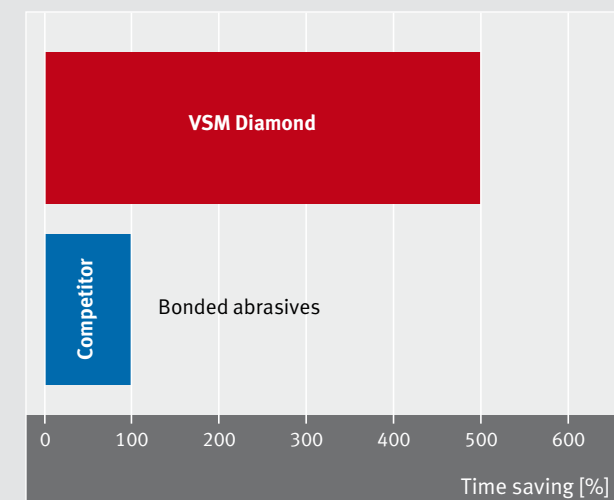
### Benchmarking with VSM DA930X Diamond belt

#### Advantages of VSM DA930X

- saving of time (app. 500 %)
- reduction of costs per workpiece
- increase in productivity

#### Machining time

- VSM DA930X: 0.5 days
- bonded abrasives of competitors: 2.5 days



## Result

### Benchmarking with VSM DA930X Diamond belt

#### Advantages of VSM DA930X

- multiple grinding performance
- saving of time
- reduction of costs per workpiece
- increase in productivity

#### Machining time

- VSM DA 930X: 96 meter (16 bars x 6 meter)
- conventional ceramic belt: 1 meter

