

VSM CERAMICS Plus VSM CERAMICS

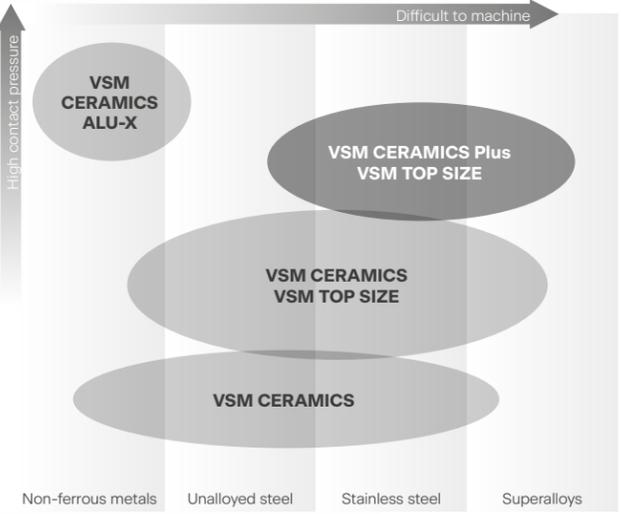
Self-sharpening ceramic grain abrasives
for high stock removal

VSM CERAMICS – for maximum productivity



Your advantages at a glance

- > **VSM CERAMICS** and **VSM CERAMICS Plus** represent two innovative grain technologies, each tailored for specific applications.
- > A proven track record of up to **40% increase in stock removal and service life** as compared to conventional ceramic grain abrasives
- > Lower grinding zone temperatures thanks to the grinding-active **VSM TOP SIZE** layer.
- > With **VSM ALU-X** technology, chip adhesion is drastically minimized.
- > VSM consistently delivers premium-quality products, proudly **Made in Germany**.



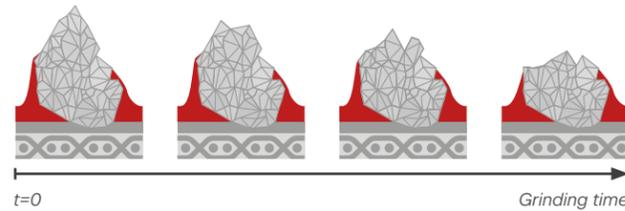
Your application



Turbine blades Tools Tubes Plants and containers Metal fabrication Fittings Castings and forged parts Medical instruments

VSM CERAMICS abrasives for demanding grinding tasks

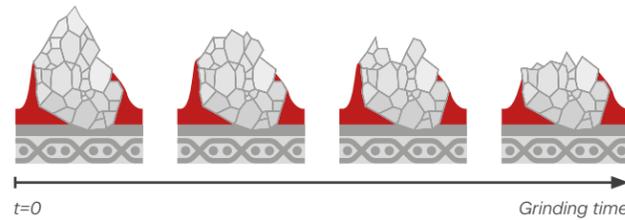
VSM CERAMICS Plus (CER Plus)



VSM CERAMICS Plus grains feature an improved self-sharpening effect when machining high-alloyed steels and super alloys, which are materials that require high contact pressure.

The unique structure of microcrystals enables a much more subtle break down of the grain and produces sharper edges. This leads to lower temperatures in the contact area and an extended service life.

VSM CERAMICS (CER)



VSM CERAMICS deliver outstanding stock removal rates and are the top choice for a wide range of stationary and mobile grinding applications. They also stand out for their excellent price-performance ratio.

Producing our own raw materials in-house is a special feature of VSM's abrasive production

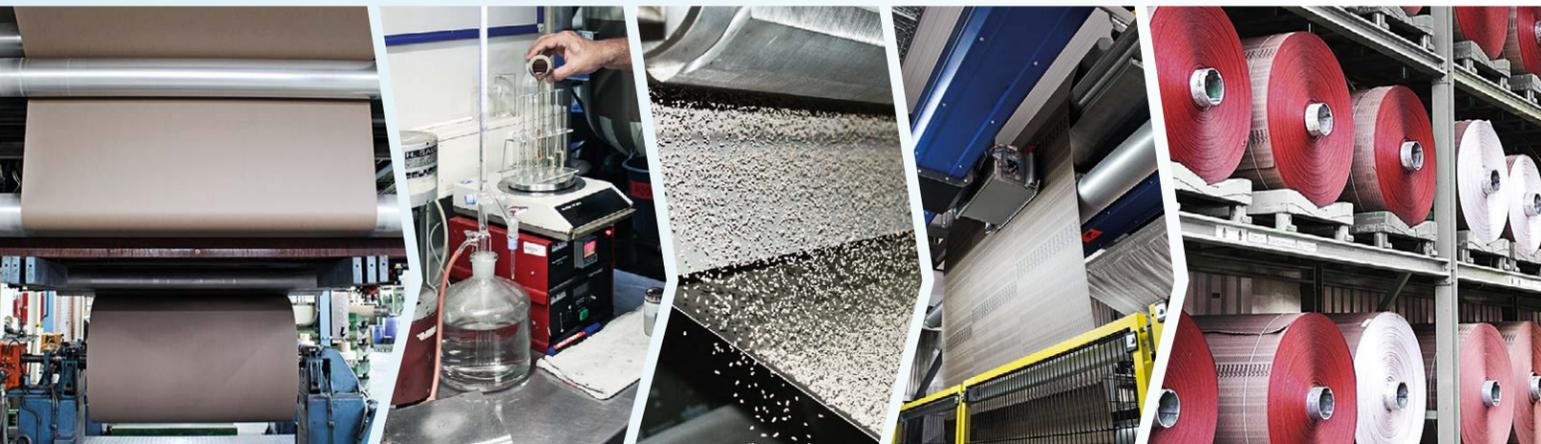
Finishing of backing materials

Resin production

Production of abrasive grain

Coating and spreading

Basic goods



Our Products

CERAMICS PLUS

VSM Series	Max. width	Wide belts	Narrow belts	Resin fiber	Quick change	PSA	H&L	Backing	Features	Stock removal	Surface
XF885				●	●			Fiber	▼ TOP SIZE		
XK285T	58 in		⊙			⊙		T-Cotton	▼ TOP SIZE		
XK885Y	58 in	●	●		●	●		Y-Polyester	▼ TOP SIZE ∅		
XK880Y	58 in	⊙	⊙			⊙		Y-Polyester	▼ TOP SIZE ∅		
XP780	57 in	○	○				○	F-Paper			

CERAMICS

VSM Series	Max. width	Wide belts	Narrow belts	Resin fiber	Quick change	PSA	H&L	Backing	Features	Stock removal	Surface
XF733				⊙				Fiber	ALU-X		
XF760				⊙				Fiber			
XF870				⊙				Fiber	▼ TOP SIZE		
XK733X	58 in	⊙	⊙			⊙	⊙	X-Polyester	∅ ALU-X		
XK747Z	58 in	●	●			●		Z-Polyester	∅		
XK760X	58 in	⊙	⊙			⊙	⊙	X-Polyester	∅		
XK760Y	58 in	⊙	⊙			⊙		Y-Polyester	∅		
XK770Z	58 in	●	●			●		Z-Polyester	∅		
XK850X	58 in	●	●			●		X-Polyester	▼ TOP SIZE ∅		
XK870F	58 in		○			○		F-Cotton	▼ TOP SIZE		
XK870J	58 in	⊙	⊙			⊙		J-Polyester	▼ TOP SIZE ∅		
XK870T	58 in		○			○		T-Cotton	▼ TOP SIZE		
XK870X	58 in	⊙	⊙		⊙	⊙	⊙	X-Polyester	▼ TOP SIZE ∅		
XK875X	58 in	●	●			●		X-Polyester	▼ TOP SIZE ∅		
XK877Z	58 in	●	●			●		Z-Polyester	▼ TOP SIZE ∅		
XK888Z	58 in	●	●			●		Z-Polyester	▼ TOP SIZE ∅		

Key

- for low to medium contact pressure
- ⊙ for medium contact pressure
- for medium to high contact pressure
- ∅ also suitable for wet grinding

▼ **TOP SIZE**
Grinding-active additional layer reduces the temperature in the grinding zone.

ALU-X
Prevents chip adhesion to avoid clogging up the abrasive, also results in longer service life.

Cotton and Polyester
Flexibility of the backing material:
E extremely flexible
F very flexible
J flexible
T moderate
X sturdy
Y very sturdy
Z extremely sturdy

Paper
Flexibility of the backing material:
A approx. 70 g/m²
B approx. 100 g/m²
C approx. 120 g/m²
D approx. 160 g/m²
E approx. 250 g/m²
F approx. 300 g/m²



Case Studies

Centerless grinding



Workpiece	Tubes Outer diameter 4"
Material	Chromium nickel steel (1.4301)
Contact wheel	> 18" diameter > Hardness: 60 Durometer > Serration: 2:1
Cutting speed	5000 SFPM
Axial feed rate	8 ft/min
Belt dimensions	6" x 138"
Series	VSM CERAMICS XK760X
Grit size	40
Lubricant	Emulsion
Result	> 50% increase in cutting performance per abrasive belt. > Reduction in set-up costs.

Grinding of dished ends



Workpiece	Tank bottoms
Material	Chromium nickel steel (1.4301)
Contact wheel	> 15" diameter > Hardness: 80 Durometer > Serration: 5:4
Cutting speed	5800 SFPM
Rotation speed	Manual
Belt dimensions	3" x 90"
Series	VSM CERAMICS Plus XK885Y
Grit size	20
Lubricant	None
Result	> 100% increase in the number of machined workpieces.

VSM – More than just three letters

VSM stands for competence, quality and customer service.

Few others understand grinding processes like we do. Not only do we grind every surface to precision, we also analyze the specific grinding applications of our customers so that we can always find the best, long-term solution. Process-related expertise is one of the distinguishing features of VSM.

We know abrasives

VSM develops and produces all the main components such as backing fabrics, resin bonds and abrasive grains at its Hanover site. By doing so, we fulfill our high, self-imposed requirements in industrial, commercial and trade sectors. The continuous development of further grain compositions, their refinement and processing ensures that VSM remains one of the most experienced manufacturers of ceramic grain worldwide.

Application-based expertise

We see all grinding processes of our customers as a challenge. A global network of VSM specialists provides expert advice wherever it is needed irrespective of

whether your company is large or small. Thanks to our close collaboration with machine manufacturers, cutting fluid experts and research institutes, we ensure that our customers can benefit from technological trends.

We make our expertise available for you

The VSM Competence Center (CC) in Hanover provides an opportunity for product training, seminars and extensive application tests. Customer applications can be adjusted and results reviewed. This service from VSM reduces downtimes and productivity losses for our customers.

Certified and recognized worldwide

VSM has been certified to ISO standard 9001:2008 as its basis for quality assurance for many years. In addition, it is a member of FEPA, oSa and the German Abrasives Association (VDS).



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