

VSM CERAMICS Plus VSM CERAMICS

Self-sharpening ceramic grain abrasives
for high stock removal

VSM CERAMICS – for m



Your application



Turbine blades



Tools



Tubes



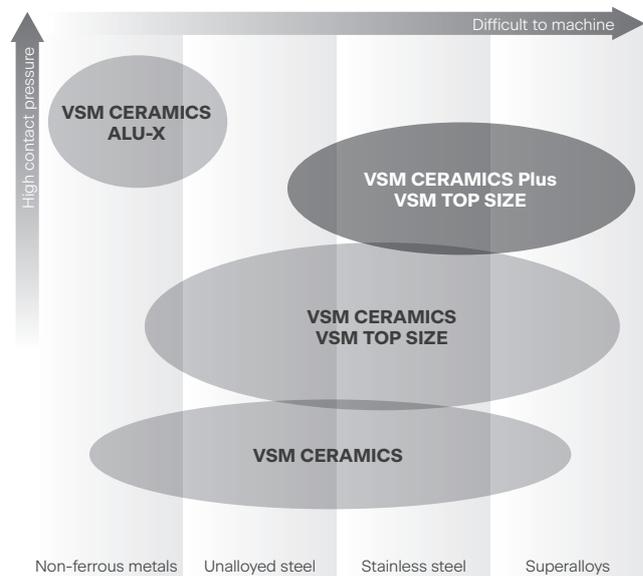
Plants and containers

Maximum productivity



Your advantages at a glance

- > With **VSM CERAMICS** and **VSM CERAMICS Plus** VSM provides two innovative grain technologies suitable 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
- > Reduced temperature in the grinding zone due to the grinding-active additional layer: **VSM TOP SIZE**
- > Significantly reduced chip adhesion is achieved with the new **VSM ALU-X** technology
- > VSM can be relied on to always deliver premium quality **Made in Germany**



Coils, sheet metal



Sanitary fittings



Castings and forged parts



Medical instruments

VSM CERAMICS – Case studies

Centreless grinding



Workpiece	Tubes Outer diameter 104 mm
Material	Chromium nickel steel (1.4301)
Contact wheel	<ul style="list-style-type: none"> > 450 mm diameter > Hardness: 60° Shore A > Serration: 2:1
Cutting speed	25 m/sec
Axial feed rate	2.5 m/min
Belt dimensions	150 × 3,500 mm
Series	VSM CERAMICS XK760X
Grit size	40
Lubricant	Emulsion
Result	<ul style="list-style-type: none"> > Increase in cutting performance per abrasive belt from 600 to 900 parts. > Reduction in set-up costs.

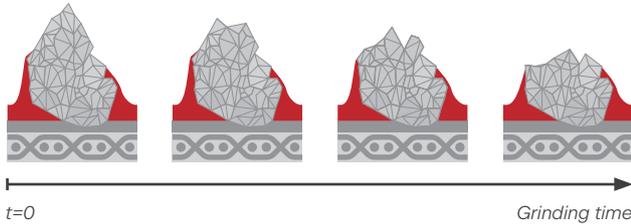
Grinding of dished ends



Workpiece	Tank bottoms
Material	Chromium nickel steel (1.4301)
Contact wheel	<ul style="list-style-type: none"> > 390 mm diameter > Hardness: 80° Shore A > Serration: 10:8
Cutting speed	29.5 m/sec
Rotation speed	Manual
Belt dimensions	60 × 2,175 mm
Series	VSM CERAMICS Plus XK885Y
Grit size	20
Lubricant	None
Result	> 100 % increase in the number of machined workpieces.

VSM CERAMICS abrasives for demanding grinding tasks

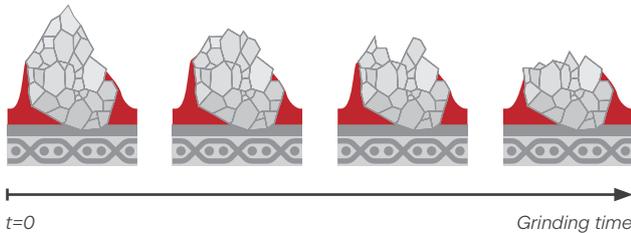
VSM CERAMICS Plus (CER Plus)



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 breaking down of the grain and produces much sharper edges. This in turn leads to lower temperatures in the contact area and an extended service life.

VSM CERAMICS (CER)



VSM CERAMICS grains achieve optimum stock removal. They are the top products for a large number of stationary and mobile grinding applications. **VSM CERAMICS** also have an excellent price-performance ratio.

A special feature of VSM's abrasives production: Producing our own preliminary products in-house

Our high vertical integration enables us to achieve a consistently high quality of our abrasives. VSM develops and produces all the main preliminary products such as

backing fabrics, resinoid bonds and abrasive grains itself at the Hanover site. This is how we can make a grain which is perfectly tailored to your requirements.



Finishing of the backing materials

Resin production

Production of abrasive grain

Coating and spreading

Basic goods

VSM CERAMICS – Products



VSM Series	Rolls (max. width mm)	Wide belts	Narrow belts	Discs	Backing	Grain technology	Features	20	24	36	40	50	60	80	100	120	150	180	240	320	400
XK885Y	1.480	●	●		Cloth	VSM CERAMICS Plus	▼ TOP SIZE, ◊														
XK880Y	1.480	○	○		Cloth	VSM CERAMICS Plus	▼ TOP SIZE, ◊														
NEW XK785Y	1.480	●	●		Cloth	VSM CERAMICS Plus	◊														
XK888Z	1.480	●	●		Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK877Z	1.480	●	●		Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK870Y	1.480	○			Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK875X	1.480				Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK870X	1.480	○	○		Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK870K	1.480/1.050			○	Cloth	VSM CERAMICS	▼ TOP SIZE, velour-b.														
XK850X	1.480	○	○		Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK870T	1.480		○		Cloth	VSM CERAMICS	▼ TOP SIZE														
XK870J	1.480	○	○		Cloth	VSM CERAMICS	▼ TOP SIZE, ◊														
XK870F	1.480/1.050		○		Cloth	VSM CERAMICS	▼ TOP SIZE														
XL870F	1.480			○	Cloth	VSM CERAMICS	▼ TOP SIZE, velour-b.														
NEW XK733X	1.480		○		Cloth	VSM CERAMICS	ALU-X ◊														
XK760Y	1.480	○	○		Cloth	VSM CERAMICS	◊														
XK760X	1.480	○	○		Cloth	VSM CERAMICS	◊														
XK760K	1.480			○	Cloth	VSM CERAMICS	velour-backed														
XF885	1.470			●	Fibre	VSM CERAMICS Plus	▼ TOP SIZE														
XF870	1.470			○	Fibre	VSM CERAMICS	▼ TOP SIZE														
XF850	1.470			○	Fibre	VSM CERAMICS	▼ TOP SIZE														
NEW XF733	1.470			○	Fibre	VSM CERAMICS	ALU-X														
XF760	1.470			○	Fibre	VSM CERAMICS															
XP780	1.450	●	●		Paper	VSM CERAMICS Plus															

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Other dimensions and grit sizes upon request.

Features

- for low to medium contact pressure
- for medium contact pressure
- for medium to high contact pressure
- ◊ also suitable for wet applications

Flexibility of the backing material

(last letter of the series name):

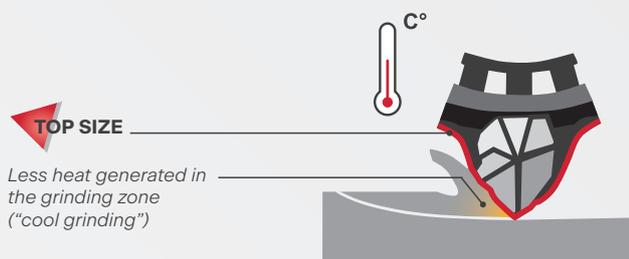
- F very flexible
- J flexible
- T semi-sturdy
- X sturdy
- Y very sturdy
- Z extremely sturdy

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

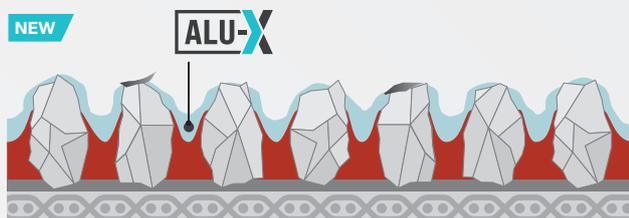
ALU-X Grinding-active additional layer, significantly reduces chip adhesion

velour-backed Products with a velour backing

VSM grinding-active additional layers



VSM TOP SIZE is recommended for dry machining heat-resistant stainless steels and non-ferrous metals. The grinding-active additional layer improves the cutting performance whilst reducing the temperature in the contact zone. This significantly extends the service life of the abrasive.



VSM ALU-X significantly reduces chip adhesion when processing non-ferrous metals and thus also reduces clogging of the abrasive. The service life is assured and extended so dramatically that excellent stock removal is achieved even after longer periods of use.



VSM – More than just three letters

VSM stands for competence, quality and customer orientation.

Very few others understand grinding processes like we do. Not only do we grind every surface to precision, we also analyse 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

Because we understand them. VSM develops and produces all the main preliminary products such as backing fabrics, resinoid bonds and abrasive grains at its Hanover site. By doing so, we fulfil our high, self-imposed requirements in industry, the commercial and trade sector. 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 the entire 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 as soon as possible.

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).



Closer to you



Europe

Germany (Headquarters)

VSM - Vereinigte Schmirgel- und Maschinen-Fabriken AG
Siegmundstraße 17
30165 Hanover, Germany
T +49 511 3526 478
www.vsmabrasives.de

Czech Republic

VSM Abrasives s.r.o.
River Garden, 5th Floor
Rohanské nábřeží 678/23
18600 Praha
T +420 277 015 300
www.vsmabrasives.cz

France

VSM Impavide S.A.S.
52 Avenue Marcel Paul
93297 Tremblay en France
T +33 1 4151 0300
www.vsmabrasives.fr

Great Britain

VSM Abrasives Ltd.
Unit 5, Joplin Court Sovereign
Business Park, Crownhill
Milton Keynes, MK8 0JP
T +44 19 0831 0207
www.vsmabrasives.co.uk

Hungary

VSM Abrasives Hungary Ltd.
Leshegy út 31
2310 Szigetszentmiklós
T +36 24 519223
www.vsmabrasives.hu

Poland

PFERD-VSM Sp. z o.o.
Ul. Polna 1A
62-025 Kostrzyn Wielkopolski
T +48 61 8970 480
www.pferdvsm.pl

Spain

VSM · VITEX ABRASIVOS IBERICA, S.A.U.
Ctra. de Molins de Rei,
79A, Nave 8
08191 Rubí (Barcelona)
T +34 93 697 3411
www.vsmabrasives.es

Sweden

VSM Abrasives Sverige AB
Stockholm
Sweden
M +46 73 077 70 32
www.vsmabrasives.se

Switzerland

PFERD-VSM (Schweiz) AG
Zürichstr. 38 B
8306 Brüttisellen
T +41 44 805 2828
www.pferd-vsm.ch

Turkey

STARCKE VSM VITEX Zimpara Teknolojisi Sanayi ve Dis Ticaret Ltd. Sti.
AYOSB Gazi Bulvari 8.
Sokak No: 5, Tuzla Istanbul
T +90 216 591 06 17
T +90 216 591 07 01
www.starckevsm.com

Americas

Canada

VSM Abrasives Canada Inc.
2425 Wyecroft Road Unit #1
Oakville, Ontario, L6L 6R5
T +1 905 827 0005
www.vsmabrasives.ca

Latin America

VSM Abrasivos Latinoamérica S.A.S.
Carrera 9 No. 115-06
Edificio Tierra Firme Piso 17
Bogota, Colombia
T +57 601 639 8489
M +57 316 8311705
www.vsmabrasives-latinamerica.com

USA

VSM Abrasives Corp.
1012 East Wabash St.
O'Fallon, Mo. 63366
T +1 636 272 7432
us.vsmabrasives.com

Asia-Pacific

Singapore

VSM Abrasives Asia Pacific Pte. Ltd.
4 Battery Road #25,
Bank of China Building
Singapore 049908
T +66 2 513 7441
www.vsmabrasives-apac.com

China

VSM Abrasives (China) Co. Ltd.
Rooms 203/205, Building C,
No. 38, Xuxiang Road, Qingpu
District, Shanghai, P.R. China
Postal Code: 201702
T +86 21 5976 2011
www.vsmabrasives.com.cn

Thailand

VSM Abrasives Asia Pacific Pte. Ltd. Thailand Representative Office
444 Olympia Thai Tower, 13th FL
Ratchadaphisek Rd., Samsennok
Huay Kwang, Bangkok 10310
T +66 2 513 7441
www.vsmabrasives-apac.com

Visit our website:

www.vsmabrasives.com