

## 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 Technical Center (TC) 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).









Company founded in 1864 in Hanover-Hainholz

More than 155 years' experience in the production of coated abrasives.

# More **850**

More than 850 employees are working on behalf of our customers worldwide each day.



VSM is operating in more than 70 countries with international subsidiaries and numerous partners.



### **Certified and** recognized worldwide OSA FEPA VDS Verband Deutscher









#### **Extremely high level of safety**

All VSM abrasives have been certified by internationally recognized testing bodies for many years and therefore conform to the highest safety standards.



### **Internal research** and development

#### **High vertical integration**

VSM has its own internal grain and cloth production and develops almost all of its preliminary products itself. This enables us to achieve a consistently high quality of abrasives.



### Made in Germany

#### **Headquarters in Hanover**

VSM stands for competence, quality and customer orientation.

Our global sales network with numerous subsidiaries and expert sales partners ensures proximity to our customers. Further addresses and details can be found on our website at www.vsmabrasives.com

## Our products

### For almost every application

From welding seams to sheet metal working, vehicle bodywork and cast materials: VSM produces more than 200 different product ranges that can be worked into rolls, discs, belts and sheets on a range of different backing materials and in various shapes. Furthermore, we supply high-quality preliminary products to specialist customizers. This means that virtually any requirement can be met by VSM abrasives.

You can always rely on the high level of advisory expertise of our applications engineers and VSM consultants and the extensive product range for a wide variety of technical challenges.



### You can rely on the following:

- > High-performance products made in Germany
- > On-site application-based advice
- > Reliable delivery performance
- > Analyses of problems and preliminary tests in the VSM Technical Center
- > Expertise based on co-operating with more than 60 machine manufacturers worldwide
- > A global distribution network with subsidiaries and partners in more than 70 countries



Wide belts

Rolls



Narrow belts



Discs

## VSM – Your specialist for metalworking

#### Benefit from efficient VSM abrasives

Whether you want a high stock removal rate or the perfect surface, VSM can offer the appropriate abrasive for every requirement in metalworking. Be it flat surface grinding, cylindrical grinding, off-hand grinding or hand-held machines, our products will always meet the highest standards for service life, stock removal capacity and surface quality.

A **high stock removal** rate requires aggressive grinding with low physical strain for the user.

The aim is a high stock removal rate per time unit.

### VSM offers a complete product range

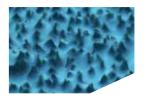
For all grinding tasks – in particular for metal working – we will provide you with the appropriate grinding tools on a cloth, paper or vulcanised fibre backing. From **VSM DIAMOND** to **VSM CERAMICS**, **VSM COMPACTGRAIN** and **VSM NON-WOVEN**, in a wide range of different shapes and dimensions, our product range has everything.



## The right grain for every application



VSM DIAMOND/CBN



**VSM ACTIROX** 



**VSM CERAMICS Plus** 



**VSM CERAMICS** 



**VSM ILUMERON** 



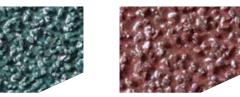
VSM COMPACTGRAIN Plus



VSM COMPACTGRAIN



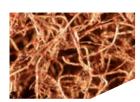
VSM ZIRCONIA ALUMINIA



VSM ALUMINIUM OXIDE



**VSM SILICON CARBIDE** 



**VSM NON-WOVEN** 

### **Efficient grinding**

VSM produces abrasives for a wide range of applications. From a high stock removal rate to a reproducible surface, our range of abrasives, with more than 25,000 items, will have the appropriate solution for your grinding process.

Due to their exceptional properties, VSM DIAMOND and **VSM CBN** abrasives produce outstanding results when machining hard and brittle materials and wear-resistant HVOF coatings (thermal spray coatings).

**VSM ACTIROX** stands for maximum stock removal and increased productivity due to its geometrically shaped ceramic grain. Our specialist products with a self-sharpening effect, **VSM CERAMICS Plus** and **VSM CERAMICS**, achieve an extremely high stock removal rate and an extraordinarily long service life.

The newest long-term abrasive VSM ILUMERON achieves the highest gloss levels and perfect surface finishes. It also allows grinding and polishing to take place in a single processing step. VSM COMPACT-**GRAIN Plus** and **VSM COMPACTGRAIN** are characterised by their extremely long service life and an even surface. These product series are made of granulate that contains numerous abrasive grains. This technology continuously exposes unused, sharp grain tips.

**VSM ZIRCONIA ALUMINIA, VSM ALUMINUM OXIDE** and **VSM SILICON CARBIDE** are general all-rounders for a large number of applications. They can be used for processing metals, wood, plastics, glass, ceramics and stone. VSM NON-WOVEN products ensure a flawless surface finish, irrespective of whether they are used for decorative satin finishes, cleaning or light deburring work.

## VSM grain technologies in the spotlight

#### Top grain technologies for high stock removal rates

#### **VSM ACTIROX**



- > Geometrically formed ceramic grain
- Maximum stock removal and a faster cut for superalloys and stainless steels
- Cool grinding extends the service life thanks to VSM TOP SIZE

#### **VSM CERAMICS Plus** · (CER Plus)



- Optimised self-sharpening effect when processing highalloyed steels ensures very high stock removal rates
- > Reduced temperature in the contact area
- > Significantly extended service life

#### **VSM CERAMICS** · (CER)



- Top product with self-sharpening effect for processing non-alloyed steels and stainless steels
- > High removal rate
- Cool grinding allows longer contact times

#### Top grain technologies for perfect surface finishes

#### **VSM ILUMERON**



- > Full faced coated long-term abrasive with special bonding
- > For fine and consistent surfaces with high gloss levels
- Developed primarily for processing stainless steels, superalloys and non-alloyed steels

#### **VSM COMPACTGRAIN Plus** · (COM Plus)



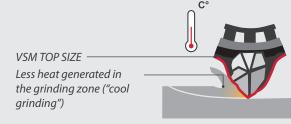
- Long-term abrasive that wears uniformly down to the backing material and achieves a consistent surface finish
- > Optimised reserve grain capacity
- > Improved bonding properties
- > Continuous self-sharpening thanks to the granulate structure

#### **VSM COMPACTGRAIN** · (COM)



- Long-term abrasive achieves reproducible surface finishes and consistent roughness
- > Uniform stock removal
- > Continuous self-sharpening thanks to the granulate structure

#### **VSM grinding-active additional layers**







VSM ALU-X

**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.

The new **VSM ALU-X** additional layer reduces chip adhesion and thus reduces clogging of the abrasive. The service life is assured and extended so that excellent stock removal is achieved even after longer periods of use.

## Your application

VSM abrasives are suitable for a wide range of metal applications.





## **Product overview**

Last revised: 09/2022

	Stainless steel	Unalloyed steel	Non-ferrous metals	Backstand	Wide belt grinding	Flat grinding	Centerless	Robotic grinding	Slack of belt	Angle ginding	Disc sanding	Dynafile sanding	Hand sanding	Backing
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							•							Cloth
				Backstand	Wide belt grinding	Flat grinding	Centerless	Robotic grinding	Slack of belt	Angle ginding	Disc sanding	Dynafile sanding	Hand sanding	Backing
NEW	П	П	П	0	0	0	0	0	0					Cloth
NEW		_								•				Fibre
NEW										•				Fibre
NEW				•		•	•	•					•	Cloth
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#### Legend:

**Flexibility of the backing material** (last letter of the series name):

CER = CERAMICSZA = ZIRCONIA ALUMINIA AO = ALUMINIUM OXIDE

**F** very flexible **J** flexible

SIC = SILICON CARBIDE

**E** extremely flexible

**X** sturdy Y very sturdy
Z extremely sturdy

T semi-sturdy

		Stock rem	oval		9	Surface					
Grain type	Feature		357 µm	251 µm	126 µm	91 µm	64 µm	46 μm 30 μm		VSM Series	
VSM DIAMOND	coated with point-shaped abrasives									DA930X	B
VSM DIAMOND	velour-backed, coated with point-shaped abrasives									DA930K	À
VSM DIAMOND	fully coated									DA920Y	AMO
VSM CBN	point-shaped coated									BA970X	VSM DIAMOND/CBN
Grain type	Feature	16 24 24 24	8 9 9 5	208	925	180 220	240 320	200000	1000		
VSM ACTIROX	▼ TOP SIZE, ◊		+	++						AK890Y	×
VSM ACTIROX	<b>▼</b> TOP SIZE		+	++						AF890	옽
VSM ACTIROX			+	++						AF799	PA
											VSM ACTIROX
VSM CERAMICS	ALU-X, A									XK733X	SIN
VSM CERAMICS	ALU-X									XF733	VSM STEARATE Plus
VSM CERAMICS Plus	▼ TOP SIZE, ◊			177						XK885Y	
VSM CERAMICS Plus	▼TOP SIZE, ◊			П						XK880Y	
VSM CERAMICS Plus	0			ΤП						XK785Y	
VSM CERAMICS	▼TOP SIZE, ◊									XK888Z	
VSM CERAMICS	<b>▼</b> TOP SIZE, ◊									XK877Z	
VSM CERAMICS	<b>▼</b> TOP SIZE, ◊									XK870Y	S
VSM CERAMICS	▼ TOP SIZE, ♢			ш						XK875X	Plus
VSM CERAMICS	▼ TOP SIZE, velour-backed									XK870K	S
VSM CERAMICS	▼ TOP SIZE, ◊		ш	Ш						XK850X	CERAMICS
VSM CERAMICS	▼ TOP SIZE									XK870T	١Œ
VSM CERAMICS	▼ TOP SIZE, ◊			Ш						XK870J	S / VSM
VSM CERAMICS	▼ TOP SIZE									XK870F	CS/
VSM CERAMICS	▼ TOP SIZE, velour-backed									XL870F	W
VSM CERAMICS	8									XK760Y	CERAMIC
VSM CERAMICS	٥									XIX/OUX	VSM (
VSM CERAMICS	velour-backed									XK760K	>
VSM CERAMICS Plus	▼ TOP SIZE			Ш						XF885	
VSM CERAMICS	▼ TOP SIZE			ш						XF870	
VSM CERAMICS	▼ TOP SIZE			ш						XF850	
VSM CERAMICS										XF760	
VSM CERAMICS Plus										XP780	

#### Features:

- $\bigcirc$  for low to medium contact pressure
- ⊙ for medium contact pressure
- for medium to high contact pressure \( \triangle \text{ also suitable for wet applications} \)

**▼** TOP SIZE

ALU-X

∮antistatic velour-backed  $\label{lem:continuous} Grinding-active \ additional \ layer \ reduces \ the \ temperature \ in \ the \ grinding \ zone$ 

The combination of VSM CERAMICS and ALU-X significantly reduces chip adhesion

prevents adhesion of grinding dust products with a velour backing

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NEW					•	•	⊚	•	•				•	Cloth
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					•	•								Paper
						0	0							Cloth

#### Legend:

**Flexibility of the backing material** (last letter of the series name):

CER = CERAMICS ZA = ZIRCONIA ALUMINIA AO = ALUMINIUM OXIDE SIC = SILICON CARBIDE

**F** very flexible **J** flexible

T semi-sturdy

**E** extremely flexible **X** sturdy Y very sturdy
Z extremely sturdy

Surface Stock removal **Grain type Feature** VSM ILUMERON RK700X ٥ **VSM ILUMERON** ٥ VSM COMPACTGRAIN (CER) XK789X ٥ VSM COMPACTGRAIN (CER) XK786X VSM COMPACTGRAIN Plus (AO) ٥ KK790Y VSM COMPACTGRAIN Plus (AO) KK791Y Ó VSM COMPACTGRAIN (AO) LK719X Ó VSM COMPACTGRAIN (AO) KK718X **COMPACTGRAIN Plus/VSM COMPACTGRAIN ▼** TOP SIZE, ◊ KK834X VSM COMPACTGRAIN (AO) VSM COMPACTGRAIN (AO) Ó KK712X KK712J VSM COMPACTGRAIN (AO) VSM COMPACTGRAIN (AO) KK731X VSM COMPACTGRAIN (AO) velour-backed KK731K VSM COMPACTGRAIN (AO) ٥ KK772X VSM COMPACTGRAIN (AO) velour-backed KK772K VSM COMPACTGRAIN (AO) ٥ KK772J VSM COMPACTGRAIN (AO) KK712F KK770J VSM COMPACTGRAIN (AO) ٥ VSM COMPACTGRAIN (SIC) ٥ CK748X CK918X Ó VSM COMPACTGRAIN (SIC) VSM COMPACTGRAIN (SIC) ٥ CK772T VSM COMPACTGRAIN (SIC) CK742J VSM COMPACTGRAIN (AO) KF736 KP712 VSM COMPACTGRAIN (AO) ПП ٥ VSM CORK (SIC) ■ CK917C

#### Features:

- O for low to medium contact pressure
- ⊙ for medium contact pressure
- for medium to high contact pressure
- ♦ also suitable for wet applications

**▼ TOP SIZE** 

Grinding-active additional layer reduces the temperature in the grinding zone

ALU-X

The combination of VSM CERAMICS and ALU-X significantly reduces chip adhesion

**∮** antistatic velour-backed

prevents adhesion of grinding dust products with a velour backing

## **Product overview**

Last revised: 09/2022

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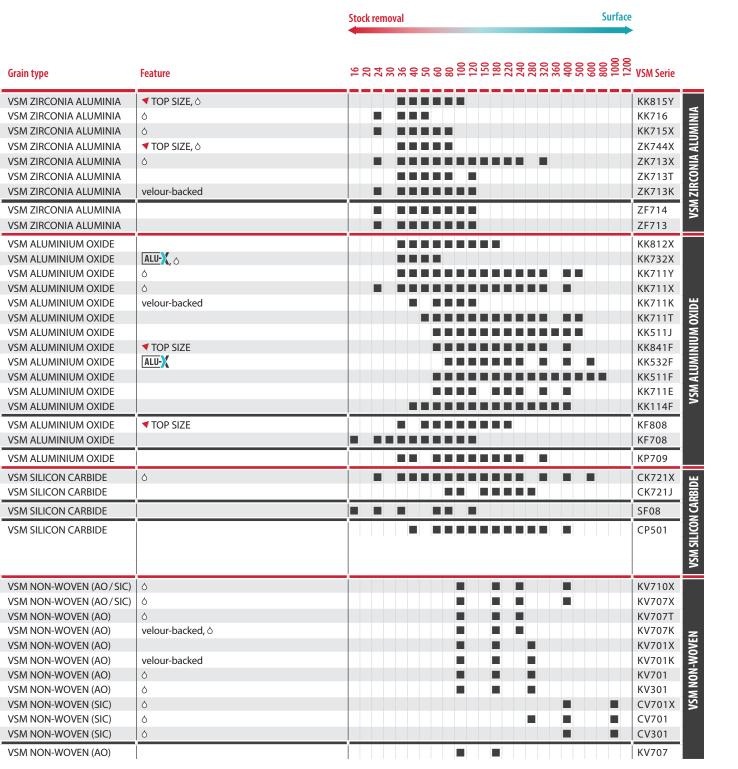
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Grinding-active additional layer reduces the temperature in the grinding zone

∮antistatic velour-backed The combination of VSM CERAMICS and ALU-X significantly reduces chip adhesion

prevents adhesion of grinding dust products with a velour backing

## A worldwide leader in abrasives.



Germany (Headquarters)

VSM · Vereinigte Schmirgelund Maschinen-Fabriken AG

Siegmundstraße 17 30165 Hannover T +49 511 3526 478 www.vsmabrasives.de

Hungary

VSM Abrasives Hungary Ltd.

Leshegy út 31 2310 Szigetszentmiklós T + 36 24 519223 www.vsmabrasives.hu

Sweden

PFERD-VSM AB

**Americas** 

Canada

L6L 6R5

Stockholmsvägen 18, 7 tr 18150 Lidingö T +46 8 5647 2300 www.pferd-vsm.se

**VSM Abrasives Canada Inc.** 

2425 Wyecroft Road Unit #1

Oakville, Ontario

T+1 905 827 0005

www.vsmabrasives.ca

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

Poland

PFERD-VSM Sp. z o.o.

Ul. Polna 1A 62-025 Kostrzyn Wielkopolski T +48 61 8970 480 www.pferdvsm.pl

Switzerland

PFERD-VSM (Schweiz) AG

Zürichstr. 38 B 8306 Brüttisellen T +41 44 805 2828 www.pferd-vsm.ch

Latin America

VSM Latinoamérica S.A.S.

Edificio Tierra Firme Piso 17

Carrera 9 No. 115 - 06

Bogota, Colombia

T +57 1 639 8489

M +57 316 8311705

www.vsmabrasives-

latinamerica.com

France

VSM Impavide S.A.S.

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

Russia

VSM AG · Russian Representative Office

141006, Moscow region c. Mytishchi Volkovskoe roadway vl. 5a, str. 1, of. 208 T +7 499 346 35 27 www.vsmabrasives.ru

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 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

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

China

**Asia** 

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, 13<sup>th</sup> FL

Ratchadaphisek Rd., Samsennok Huay Kwang, Bangkok 10310 T +66 2 513 7441

www.vsmabrasives-apac.com

USA

VSM Abrasives Corp.

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

Visit our website at www.vsmabrasives.com

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