



# X-TREME performance -



### Your grinding task



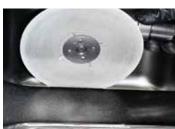
**Grinding of cast parts** 



**Deburring** 

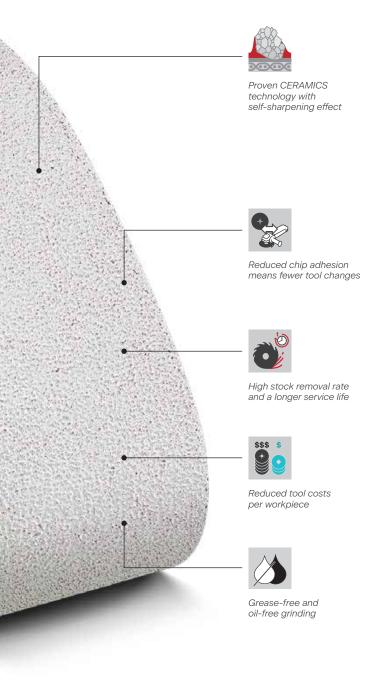


Removing welded seams



**Preparing welded seams** 

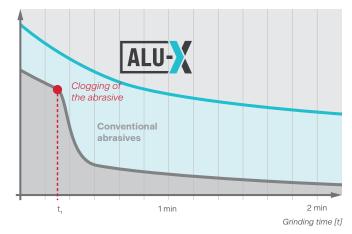
# - reduced chip adhesion



#### Your advantages at a glance

- > Specially developed for grinding aluminum and non-ferrous metals
- VSM ALU-X significantly reduces chip adhesion and clogging of the abrasive; which reduces the number of tool changes
- > Increased performance enables faster workpiece grinding and lowers the process costs
- > Grease-free and oil-free grinding keeps the workplace clean.
- VSM always delivers premium made-in-Germany quality

#### Performance



Grinding aluminum alloy bars (Ø 30 mm, AlSi12Cu) using fiber discs with grit



Cleaning





Removing imperfections

**Technical surface quality** 

# Six X-PERTS for aluminum grinding

Whether preparing or removing weld seams, deburring, grinding sprues, grinding out flaws as part of repair grinding, or achieving the desired technical surface quality: virtually all grinding work with non-ferrous workpieces can be carried out with the ALU-X series from VSM. Series with

VSM ceramic grain, such as **ACTIROX** and **CERAMICS**, are ideal for coarse grinding applications. **VSM ALUMINUM OXIDE** abrasive belts are a versatile all-purpose solution. The abrasive grain produces a matte scratch pattern and is particularly recommended for working on contours.

#### **Product overview**



Last updated: 01/2025. Other dimensions and grit sizes on request.

#### Features

Backing flexibility (last letter of series name):

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E (paper) stiff F very flexible X sturdy

- for medium to high contact pressure  $\delta$  also suitable for wet grinding
- + The plus in grinding performance

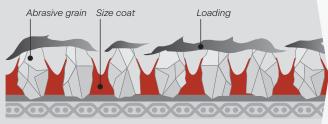
Practice has shown that **ACTIROX** abrasives have a **higher abrasive performance** than comparable conventional abrasives – with a consistent surface finish.



## **Ideal grinding** of non-ferrous metals

Non-ferrous metals such as aluminum, bronze and copper are demanding materials that can easily clog the abrasive. This means, instead of being removed, the chips stick to the tips of the abrasives grain which causes loading. This prevents the abrasive grain from functioning and it

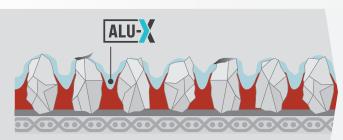
becomes unusable. The new VSM ALU-X additional layer reduces chip adhesion and minimizing clogging of the abrasive. The extended service life offers excellent stock removal even after long periods of use.



Conventional abrasives: Chips stick to the grain tips and the abrasive becomes clogged.



Fiber disc clogged with aluminum chips



The VSM ALU-X additional layer significantly reduces adhesion; the abrasive can be used for longer.



VSM ALU-X: It is clear to see that significantly fewer chips stick.

#### The right grain for every application









VSM ACTIROX stands for maximum stock removal and increased productivity due to its geometrically shaped ceramic grain.











Grinding time

VSM CERAMICS abrasives are prized for their aggressive cut and very long service life. Continuous self-sharpening of the grain guarantees long-lasting high performance.

## **Case studies**

#### **Cleaning structural parts**



Workpiece	Automotive bodywork
Material	Aluminum alloy
Cutting speed	8,600 RPM
Feed rate	Manual
Series	XF733
Disc dimensions	7" x 7/8"
Grit size	36

<sup>&</sup>gt; **Result:** Twice the stock removal compared to the previous leading abrasive

#### Welded seam levelling



Workpiece	Window frames
Material	Aluminum alloy
<b>Cutting speed</b>	9,630 RPM
Feed rate	Manual
Series	XF733
Disc dimensions	5" x 7/8"
Grit size	36, 60, 80

<sup>&</sup>gt; **Result:** 90% longer service life compared to conventional abrasives

#### **Removing sprues**



Workpiece	Cast parts
Material	Aluminum alloy
Cutting speed	5,500 RPM
Feed rate	Manual
Series	XK733X
Contact element	3", 90° Shore A
Grit size	36

<sup>&</sup>gt; **Result:** 35% longer service life compared to the competing product

## From X-PERTS for X-PERTS





## **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).







## Closer to you



#### **Europe**

Germany (Headquarters)

VSM · Vereinigte Schmirgelund Maschinen-Fabriken AG

Siegmundstraße 17 30165 Hanover, Germany T +49 511 3526 478 www.ysmabrasiyes.de

Hungary

VSM Abrasives Hungary Ltd.

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

Switzerland

PFERD-VSM (Schweiz) AG

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

VSM Abrasives s.r.o.

River Garden, 5th Floor Rohanské nábřeží 678/23 18600 Praha T +420 277 015 300 www.ysmabrasiyes.cz

Polano

PFERD-VSM Sp. z o.o.

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

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 France

VSM Impavide S.A.S.

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

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 **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

Sweden

VSM Abrasives Sverige AB

Stockholm Sweden M +46 73 077 70 32 www.vsmabrasives.se

#### **Americas**

Canada

VSM Abrasives Canada Inc.

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

USA

VSM Abrasives Corp.

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

#### Asia

ina

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:

us.vsmabrasives.com