





# X-TREME performance -



### Your grinding task



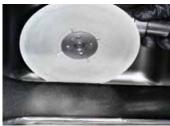
**Grinding of cast parts** 



**Deburring** 



Removing welded seams



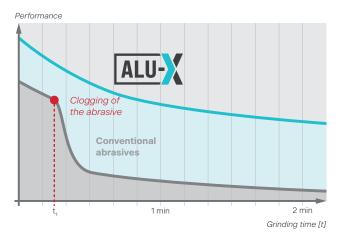
**Preparing welded seams** 

# - reduced chip adhesion

# Reduced chip adhesion means fewer tool changes High stock removal rate anda longer service life Reduced tool costs per workpiece oil-free grinding

#### Your advantages at a glance

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



Grinding aluminium alloy bars (Ø 30 mm, AlSi12Cu) using fibre discs with grit size 24.







Cleaning



**Removing imperfections** 



**Technical surface quality** 

# **Five X-PERTS for** aluminium grinding

Whether for 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 easily with the ALU-X series from VSM.

VSM CERAMICS with ALU-X is ideal for rough grinding applications. VSM ALUMINUM OXIDE abrasive belts are true all-rounders. The abrasive grain produces a matte scratch pattern and is particularly recommended for working on contours.

#### **Product overview**



Last updated: 09/2023. Other dimensions and grit sizes on request.

#### **Features**

for medium to high contact pressure
also suitable for wet grinding

Backing flexibility (last letter of series name):

E extremely flexible

F very flexible

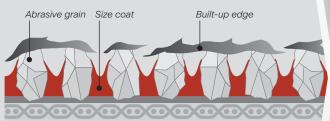
X sturdy



# Ideal machining of non-ferrous metals

Non-ferrous metals such as aluminium, bronze and copper are demanding materials that can easily clog the abrasive. This means that, instead of being removed, the chips stick to the tips of the abrasive grain: A built-up cutting edge is created. This prevents the abrasive grain from functioning and the abrasive becomes unusable.

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.



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



Fibre disc clogged with aluminium 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.

# VSM CERAMICS for maximum stock removal



t=0







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.

As top products for a large number of stationary and mobile grinding applications, **VSM CERAMICS** also have an excellent price-performance ratio.

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# **Case studies**

#### **Cleaning structural parts**



Workpiece	Automotive bodywork
Material	Aluminium alloy
<b>Cutting speed</b>	80 m/s
Feed rate	Manual
Series	XF733
Disc dimensions	Ø 180 mm
Grit size	36

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

#### Welded seam levelling



Workpiece	Window frames
Material	Aluminium alloy
Cutting speed	63 m/s
Feed rate	Manual
Series	XF733
Disc dimensions	Ø 125 mm
Grit size	36, 60, 80

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

#### **Removing sprues**



Workpiece	Cast parts
Material	Aluminium alloy
Cutting speed	28 m/s
Feed rate	Manual
Series	XK733X
Contact element	75 mm, 90° Shore A
Grit size	36

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







## 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 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 world-wide

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



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