



VSM STEARATE Plus

**Double the stock removal
and double the service life
when grinding NF metals**

For your applications



Your grinding operation

Removal of sprues



Deburring



Levelling of welding seams



Weld seam preparation



Bevelling



Cleaning



Removal of imperfections



Technical surface quality



NEW

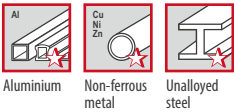
The new fibre disc XF733

Specifically developed for the requirements of grinding NF metals

The new fibre disc XF733 embraces two technologies. The well-proven **VSM CERAMICS** grinding technology for **high stock removal** and an **extended service life** with semi-open coating and the new additional grinding-active layer **VSM STEARATE Plus** for considerably **reduced chip adhesion** are **perfect together**.

VSM STEARATE Plus separates the chip from the abrasive and reduces chip adhesion to the material considerably. This translates into a **much enhanced service life** in conjunction with a **markedly higher stock removal rate**. This, in turn, optimizes the processing of NF metals and reduces tooling and disposal costs. **It makes the best possible use of the entire potential of the grinding process.**

Developed for:



Lower tooling costs for each workpiece

STEARATE⁺

The additional STEARATE Plus layer reduces chip adhesion markedly



Reduced chip adhesion, enhances the service life and leads to fewer tool changes



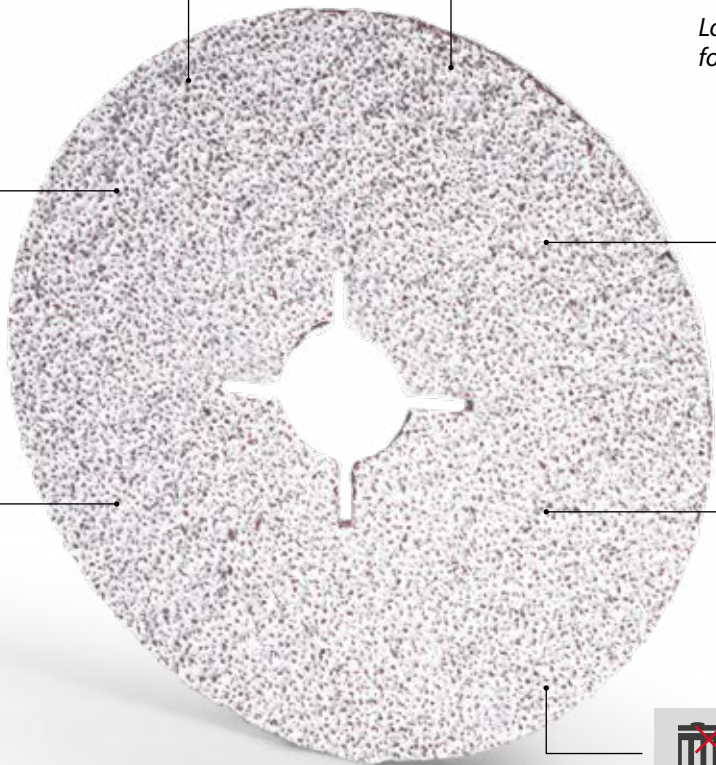
VSM CERAMICS Technology inside



Double the stock removal and the double service life



Fewer fibre discs are needed, which leads to cutting the costs for their disposal



Case studies

Cleaning of structural parts



Levelling of welds



NEW

VSM STEARATE Plus

XF733

| | |
|------------------------|---|
| Workpiece | Automotive structures |
| Material | Aluminium alloy |
| Cutting speed | 80 m/s |
| Feed rate | Manual |
| Disc dimensions | Ø 180 mm |
| Grit size | 36 |
| Result | Double the amount of stock removal compared to the presently leading abrasive |

NEW

VSM STEARATE Plus

XF733

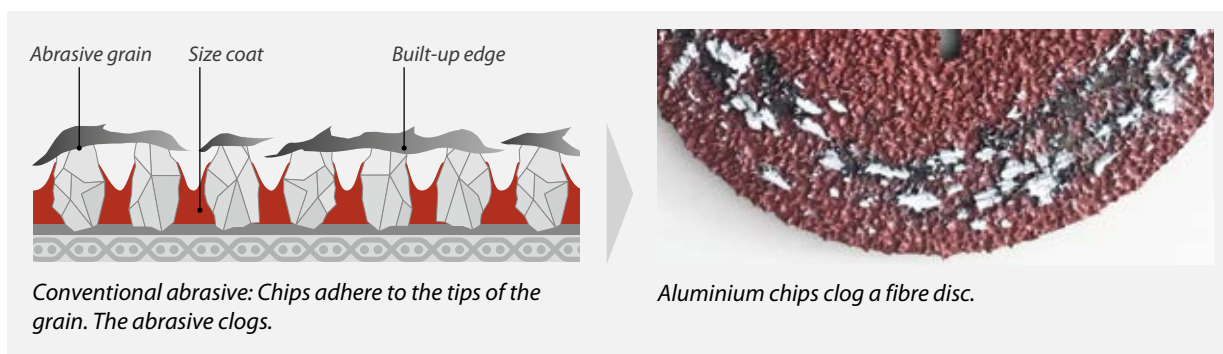
| | |
|------------------------|--|
| Workpiece | Window frames |
| Material | Aluminium alloy |
| Cutting speed | 63 m/s |
| Feed rate | Manual |
| Disc dimensions | Ø 125 mm |
| Grit size | 36, 60, 80 |
| Result | 90% longer service life compared to conventional abrasives |

The right technology for your application

The best application for NF metals

NF Metals such as aluminium, bronze and copper are demanding materials which tend to clog the abrasive, so that built-up edges are formed. This means that chips are no longer removed. They cake on to the grain tips. As a consequence, the grain is unable to cut and the abrasive becomes unusable.

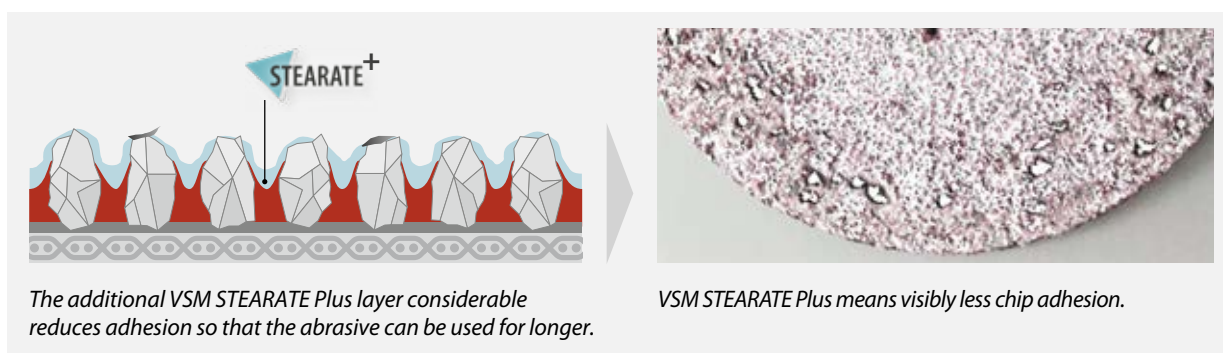
The additional **VSM STEARATE Plus** layer prevents chip adhesion and therefore clogging of the abrasive. The service life is increased decisively and even after a protracted period of use stock removal remains high.



The diagram on the left shows a cross-section of an abrasive grain with a 'Size coat' on top. Red 'Built-up edge' material is shown adhering to the grain tip. A photograph on the right shows a red fibre disc heavily clogged with white aluminium chips.

Conventional abrasive: Chips adhere to the tips of the grain. The abrasive clogs.

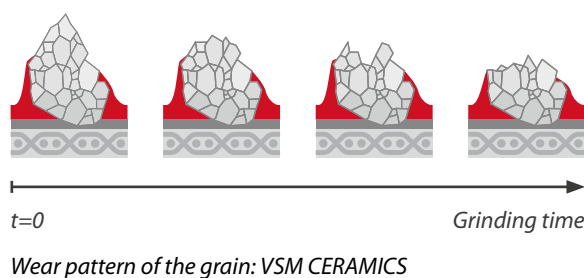
Aluminium chips clog a fibre disc.



The diagram on the left shows a cross-section of an abrasive grain with a 'STEARATE+' layer on top. The red 'Built-up edge' material is significantly reduced. A photograph on the right shows a fibre disc with a much cleaner surface, indicating less chip adhesion.

The additional VSM STEARATE Plus layer considerable reduces adhesion so that the abrasive can be used for longer.

VSM STEARATE Plus means visibly less chip adhesion.



The diagram shows four stages of an abrasive grain's wear over time, from $t=0$ to 'Grinding time'. The grain starts as a sharp, triangular shape and gradually wears down into a more rounded, flat-topped shape.

Wear pattern of the grain: VSM CERAMICS

For high stock removal

VSM CERAMICS stand out thanks to their aggressive cutting behaviour and an extremely long service life. The continuous self-sharpening of the abrasive grain provides long-lasting high performance.

A top product for a variety of applications both stationary and mobile, **VSM CERAMICS** impresses with an outstanding price-performance ratio.



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 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).



A worldwide leader in abrasives.



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