

VSM COMPACTGRAIN Plus VSM COMPACTGRAIN

Self-sharpening long-term abrasive for consistent and reproducible surfaces

Our products





Piston rods and cylinders





Tank and plant construction Medical instruments









Tubes

Large-scale catering facilities



VSM COMPACTGRAIN: Long-term abrasive for perfectly finished surfaces

Impressive from start to finish

- > Optimum self-sharpening effect and consistent, reproducible surface values
- Extremely long service life for a uniform scratch pattern with constant roughness and stable gloss values
- VSM can be relied on to always deliver premium quality made in Germany

The new VSM COMPACTGRAIN Plus

- > A substantial increase in service life compared to conventional abrasives translates into fewer tool changes
- > A more uniform surface finish and a more consistent scratch pattern
- > Constant stock removal, thanks to a more even wear pattern, guarantees a higher process stability

VSM – The expert for long-term abrasives

- > VSM offers the largest range in the marketplace with more than 30 compact grain series, in order to meet almost any customer requirement.
- > You may rely on a consistently high quality of our long-term abrasives:

VSM COMPACTGRAIN – known to be **the original** – for more than forty years. Roughness







Grinding time [min]

Case studies

Grinding of stainless steel coils



Grinding of tubes



| VSM COMPACTGRAIN Plus | KK790Y | VS |
|-----------------------|---|----|
| Workpiece | Coil 1,200 m in length | W |
| Material | Stainless steel | Ma |
| Contact element | > Rubberised roll> Hardness: 80° Shore A | Co |
| Cutting speed | 25 m/sec | Cu |
| Feed rate | 37 m/min | Fe |
| Grit size | 180 | Gr |
| Lubricant | Oil | Lu |
| Outcome | > Two-fold increase in service life: Grinding of two coils with one belt (2,400 m) > Reduction of set-up costs / downtimes > Reduction of the costs of belts disposals | Οι |

| SM COMPACTGRAIN | CK748X |
|-----------------|---|
| Vorkpiece | Tube with weld |
| Naterial | Stainless steel |
| iontact element | - |
| utting speed | 35 m/sec |
| eed rate | 6–8 m/min |
| irit size | 180, 240, 400, 600 |
| ubricant | Oil |
| Outcome | > It was possible to produce a custom-ized finish > Increase in service life from 130 minutes (competition) to 400 minutes |

Uniform stock removal producing consistent surface values

312

NEW VSM COMPACTGRAIN Plus









t=0

Grinding time

VSM COMPACTGRAIN



t=0

Grinding time

VSM additional grinding-active layers



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VSM TOP SIZE
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Thanks to an optimized grain reserve in conjunction with improved bonding properties, **VSM COMPACTGRAIN Plus** series feature a more uniform wear pattern. This means that all of the granulate is used down to the substrate. This added benefit translates into an a prolonged service life and a uniform surface finish.

All established **VSM COMPACTGRAIN** series benefit from the self-sharpening effect of the VSM abrasive grain. The long-term abrasive are completely made of granules with scores of abrasive grains. Once used, grains are broken out of the granulate by the grinding forces exposing new and sharp grain tips.



VSM TOP SIZE is recommended for dry machining of stainless

and heat-resistant steels and non-ferrous metals. The additional layer with grinding additives improves the cutting performance while the temperature in the grinding area is reduced. The service life of the abrasive is enhanced considerably.



VSM COMPACTGRAIN Products

| | | | ٢ | | | | | St | ock | rer | nov | al | | | | S | urfac | e |
|-----|-----------------------|---------------|-----------------|-------|---------|----------------------------|-----------|----|----------------|-----|----------|-----|-----|-----|-----|----|-------|------------|
| | Rolls (max. width) | Wide Belts | Narrow Belts | Discs | Backing | Grain type | Features | Ş | 6 (| 09 | 08 06 | 2 8 | 240 | 320 | 400 | 88 | 1000 | VSM Series |
| NEW | 1090 | ۲ | ۲ | | Cloth | VSM COMPACTGRAIN Plus (AO) | 0 | | | | | | | | | D | | KK791Y |
| | 1090 | • | • | | Cloth | VSM COMPACTGRAIN Plus (AO) | 0 | | | | | | | | | | | KK790Y |
| | 1480 | • | • | | Cloth | VSM COMPACTGRAIN (CER) | ٥ | | | | | | | | | | | ХК789Х |
| | 1480 | • | • | | Cloth | VSM COMPACTGRAIN (CER) | 0 | | I | | | | | | | | | XK786X |
| | 1480 | • | • | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | | I | | | | | | | | LK719X |
| | 1090 | • | • | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | I | | | | | | | | | KK718X |
| | 1090 | ۲ | ۲ | | Cloth | VSM COMPACTGRAIN (AO) | TOP SIZE, | 0 | | I | | | | | | | | KK834X |
| | 1480/1090 | ۲ | ۲ | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | | I | | | | | | | | KK712X |
| | 1090 | | ۲ | | Cloth | VSM COMPACTGRAIN (AO) | | | | 1 | | | | | | | | KK712J |
| | 1090 | 0 | 0 | | Cloth | VSM COMPACTGRAIN (AO) | | | | | | | 1 | | | | | KK731X |
| | 1090 | | | 0 | Cloth | VSM COMPACTGRAIN (AO) | | | | | | | I | | | | | KK731K |
| | 1090 | ۲ | ۲ | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | | I | | | | | | | | KK772X |
| | 1090 | | | 0 | Cloth | VSM COMPACTGRAIN (AO) | | | | I | | | | | | | - | KK772K |
| | 1090 | 0 | 0 | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | | I | | | | | | | | KK772J |
| | 1050 | | 0 | | Cloth | VSM COMPACTGRAIN (AO) | | | | | | | | | | | | KK712F |
| | 1090 | | 0 | | Cloth | VSM COMPACTGRAIN (AO) | 0 | | | | | | | | | | | KK770J |
| | 1090 | ۲ | ۲ | | Cloth | VSM COMPACTGRAIN (SIC) | 0 | | | | | | | | | | | CK748X |
| | 1090 | ۲ | \odot | | Cloth | VSM COMPACTGRAIN (SIC) | 0 | | | | | | | | | | | CK918X |
| | 1090 | 0 | 0 | | Cloth | VSM COMPACTGRAIN (SIC) | ٥ | | | | | | | | | | | CK772T |
| | 1090 | | ۲ | | Cloth | VSM COMPACTGRAIN (SIC) | | | | I | | | I | | | | | CK742J |
| | 1470 | | | ۲ | Fibre | VSM COMPACTGRAIN (AO) | | | | | | | | | | | | KF736 |
| | 1450 | ۲ | ۲ | | Paper | VSM COMPACTGRAIN (AO) | | | | | | | | | | | | KP712 |

Other dimensions and grit sizes upon request.

Legend:

| CER = CERAMICS | for low to medium contact pressure |
|-----------------------|---|
| AO = ALUMINIUM OXIDE | for medium contact pressure |
| SIC = SILICON CARBIDE | for medium to high contact pressure also suitable for wet applications |
| | |

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

| E extremely flexible | J flexible | X sturdy |
|------------------------|----------------------|-----------------|
| F very flexible | T semi-sturdy | Y very sturdy |

TOP SIZE

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

Z extremely sturdy

Last revised: 07/2020

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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