



FLAT SURFACE GRINDING

Surface grinding in metalworking

VSM – Your specialist for flat surface grinding

Benefit from VSM's high-performing abrasives:

- > High stock removal per time unit
- > Extended service life and low set-up costs as a result
- > Consistent and reproducible surface finishes
- > Defined scratch patterns, roughness and gloss value
- > **VSM TOP SIZE** products achieve
 - Enhanced machining capacity
 - A reduced temperature in the grinding area and because of this structural changes are avoided

With VSM you can rely on receiving:

- > High-performance products made in Germany
- > On-site application-based advice
- > Reliable delivery performance
- > Analyses of problems and preliminary tests in the VSM Competence 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

Your application



Buildings and facades



Shipbuilding



Lifts and elevators



Food containers



Table legs



Large-scale catering facilities



VSM grain technologies in the spotlight

For high stock removal rates



VSM ACTIROX

- > **Geometrically shaped** 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

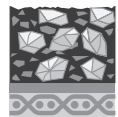
- > **Optimised self-sharpening effect** when processing high-alloyed steels ensures very high stock removal rates
- > Reduced temperature in the contact area
- > Significantly extended service life



VSM CERAMICS

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

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

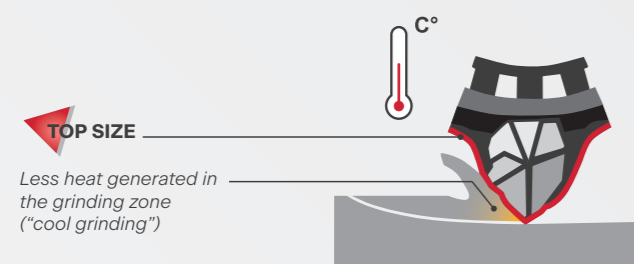
- > **Long-term abrasive** that wears down uniformly to the backing material, achieving a consistent surface finish
- > Optimised reserve grain capacity
- > Improved bonding properties
- > Continuous self-sharpening thanks to the granulate structure



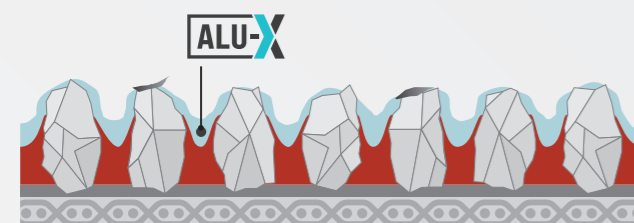
VSM COMPACTGRAIN

- > **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 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.



VSM ALU-X significantly reduces chip adhesion when processing non-ferrous metals and thus also reduces clogging of the abrasive. The service life is assured and extended so dramatically that excellent stock removal is achieved even after longer periods of use.

VSM – for flawless surfaces

VSM abrasives are characterised by consistent and reproducible surface finishes. Gloss is one important parameter to describe the visual appearance of an object. It is an optical property which indicates how well a surface reflects light in a mirror-like direction. The intensity of the reflection can be technically measured.

VSM's comprehensive range of abrasives produce a large variety of different gloss units and scratch patterns.

Please feel free to contact us to find out more!



Scratch patterns in 1G, 2G or with a fine hairline finish can be achieved using VSM abrasives.

High-gloss (e.g. stainless steel)

Reflection of light	Scratch pattern	VSM Series	Gloss Unit (GU)*
		CK772T VSM COMPACTGRAIN (SIC) Grit size 1000	80

Mid-gloss (e.g. stainless steel)

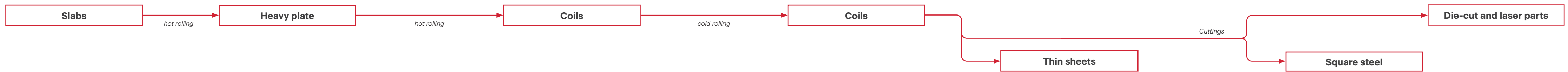
Reflection of light	Scratch pattern	VSM Series	Gloss Unit (GU)*
		CK772T VSM COMPACTGRAIN (SIC) Grit size 400	40

Matt (e.g. stainless steel)

Reflection of light	Scratch pattern	VSM Series	Gloss Unit (GU)*
		XP780 VSM CERAMICS Grit size 80	5

*1) The **measurement scale Gloss Unit (GU)** is measured using a Gloss Meter also known as a Glossmeter. The defined standard for a perfectly satin finish is equal to 0 gloss units. High-gloss surfaces with a mirror finish achieve readings of more than 70 GU.

Grinding throughout the whole production process



Repair grinding of slabs t ≥ 100 mm

Wide belt grinding with conveyor table



Product recommendations

VSM Series	Grain type	Grit range
AK890Y	ACX	36+
XK885Y	CER Plus	20-120
XK880Y	CER Plus	20-120
XK760X	CER	40, 60
ZK713X	ZA	24-60
XP780	CER Plus	60, 80, 100, 120
KP709	AO	60-80

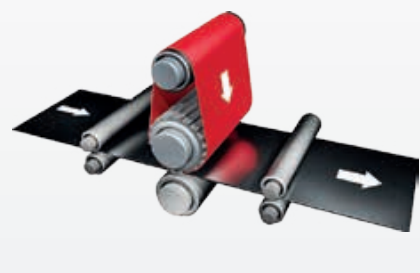
Stroke sanding machine with upper belt



VSM Series	Grain type	Grit range
XK880Y	CER Plus	20-120
XK760X	CER	40, 60
ZK713X	ZA	24-60
XP780	CER Plus	60, 80, 100, 120
KP709	AO	60-120
CP501	SIC	40-120

Repair grinding of coils and heavy plates t ≥ 3 mm

Wide belt grinding with support roller



Product recommendations

VSM Series	Grain type	Grit range
AK890Y	ACX	36+
XK880Y	CER Plus	20-120
XK785Y	CER Plus	36-120
XK870X	CER	24-60
ZK713X	ZA	24-60
XP780	CER Plus	60, 80, 100, 120
KK711Y	AO	36-60

Stroke sanding machine with upper belt

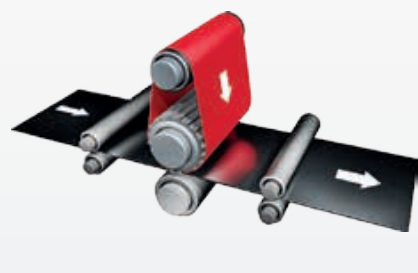


Product recommendations

VSM Series	Grain type	Grit range
XK880Y	CER Plus	20-120
XK870X	CER	24-60
XK760X	CER	24-120
ZK713X	ZA	24-60
XP780	CER Plus	60, 80, 100, 120
KP709	AO	60-80

Customer-specific grinding of coils and sheet metal t ≤ 2,99 mm

Wide belt grinding with support roller



Product recommendations

VSM Series	Grain type	Grit range
XK880Y	CER Plus	20-120
XK870X	CER	24-120
ZK713X	ZA/AO	24-320
KP712	COM (AO)	120-800
KK711Y	AO	36-500
CK721X	SIC	24-600

Belt grinding with belt conveyor



Product recommendations

VSM Series	Grain type	Grit range
XK870X	CER	24-120
XK760Y	CER	24-120
XK786X	COM (CER)	60, 80, 120
ZK713X	ZA/AO	24-320
KK772X	COM (AO)	80-800
CK772T	COM (AO)	120-1200
KP712	COM (AO)	120-800

Stroke sanding machine with upper belt



Product recommendations

VSM Series	Grain type	Grit range
XK870X	CER	24-120
XK760X	CER	60, 80, 120
ZK713X	ZA/AO	24-320
KK772X	COM (AO)	80-800
CK772T	COM (SIC)	120-1200
XP780	CER Plus	60, 80, 100, 120
KP712	COM (AO)	120-800
KP709	AO	60-320

Customer-specific grinding of square, die-cut and laser parts

Belt grinding with belt conveyor



Product recommendations

VSM Series	Grain type	Grit range
XK880Y	CER Plus	20-120
XK870X	CER	24-120
XK760X	CER	24-120
XK786X	COM (CER)	60, 80, 120
ZK713X	ZA/AO	24-320
KK790Y	COM Plus (AO)	60-800
KK791Y	COM Plus (AO)	60-800
KK712X	COM (AO)	80-600
CK772T	COM (SIC)	120-1200
RK700X	IL	80-1200
KV710X	NV (AO/SIC)	coarse - very fine

Grinding with drum sander



Product recommendations

VSM Series	Grain type	Grit range
XK885Y	CER Plus	20-120
XK870X	CER	24-120
XK760X	CER	60, 80, 120
ZK713X	ZA/AO	24-320
KK772X	COM (AO)	80-800
KK712X	COM (AO)	80-600
CK772T	COM (SIC)	120-1200
XP780	CER Plus	60, 80, 100, 120
KP712	COM (AO)	120-800
KP709	AO	240, 320

Legend

ACX = VSM ACTIROX	IL = VSM ILUMERON	AO = VSM ALUMINIUM OXIDE
CER Plus = VSM CERAMICS Plus	COM (CER) = VSM COMPACTGRAIN Ceramics	SIC = VSM SILICON CARBIDE
CER = VSM CERAMICS	COM (AO) = VSM COMPACTGRAIN Aluminium Oxide	NV = VSM NON-WOVEN
ZA = VSM ZIRCONIA ALUMINA	COM (SIC) = VSM COMPACTGRAIN Silicon Carbide	

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

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

Closer to you



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