

VSM® CERAMICS Products

Particularly suitable for grinding highly alloyed steels, titanium and nickel alloys.
Also for grinding all extremely hard surfaces.

Products							
Flexibility	Rolls (max. width)	Wide belts	Belts	Fibre discs	Grit size	Grain type	VSM series
extremely robust	1380	●	●		24, 36, 40, 50, 60	CER ▼ TOP SIZE	VSM XK877Z
robust	1480	●	●		24, 36, 40, 50, 60, 80, 100, 120	CER ▼ TOP SIZE	VSM XK870X
	1480 (●)	● (●)	● (●)		60	CER STEARATE	VSM XK733X
	1480 (●)	● (●)	● (●)		24, 36, 40, 50, 60, 80, 100, 120	CER	VSM XK760X
flexible	1480		⊙		50, 60, 80, 100, 120	CER ▼ TOP SIZE	VSM XK870J
very flexible	1480		○		60, 80, 100, 120, 150, 180	CER ▼ TOP SIZE	VSM XK870F
Fibre	1470			●	24, 36, 40, 50, 60, 80, 100, 120	CER ▼ TOP SIZE	VSM XF870
	1470			●	24, 36, 40, 50, 60, 80, 120	CER	VSM XF760

Key:	○ for low to medium contact pressure	F very flexible	CER	Ceramic Additional grinding layer for cooler grinding and higher cutting rate Anti-adhesive effect on the surface of the abrasive
	⊙ for medium contact pressure	J flexible	TOP SIZE	
	● for medium to high contact pressure	X robust	STEARATE	
	(●) suitable for wet applications	Z extremely robust		

Our locations can be found at www.vsmag.de



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VSM® CERAMICS self-sharpening High-Tech Products

SPECIALS

PRODUCTS

APPLICATIONS

Your Application



Turbines

Tools

Sheets/Coils

Pipes & Tubes

Containers

Sanitary Fittings

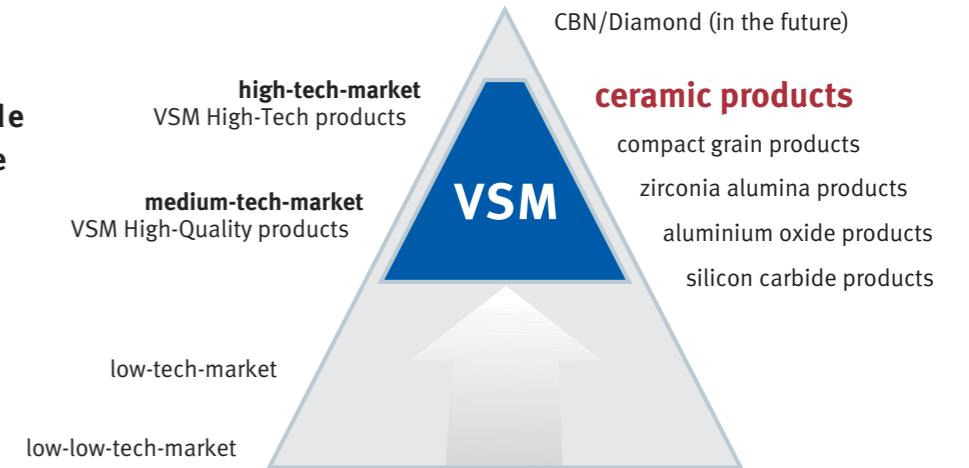
Castings

Medical Products



Our solution

VSM offers High-Tech and High-Quality products which provide excellent performance and excellent results for your Grinding Process.

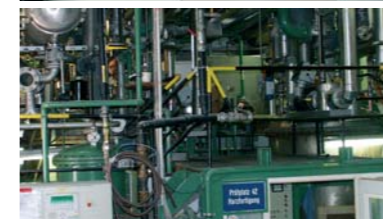


High performance across the entire value-added chain

Treatment of cloth backing



Production of resin bonds



Production of abrasive grain



Treatment of abrasive grain



FIBRE DISCS



VSM® CERAMICS GRAIN



ABRASIVE BELTS

VSM® CERAMICS: High-Tech CERAMIC Products with self-sharpening features



The **VSM® CERAMICS** grain series are special products for aggressive and cool grinding. These abrasives ensure faster grinding and at the same time better surface quality and excellent stock removal rates. The cool grinding ensures an extension of the service life and prevents surface discoloration. VSM quality at the highest level.

VSM® CERAMICS abrasives are especially applicable for grinding high-alloyed steels, titanium and nickel alloys. Because of their high level of hardness they will be also used for grinding all extremely hard materials.

For dry grinding of stainless and heat resistant steels we recommend using TOP SIZE products. Their additional layer with self-lubricating effect provides for:

- extremely increased stock removal rate
- reduced temperatures at the grinding point

Your benefit:

Faster grinding

- aggressive cutting action of ceramic grains
- optimal coating technique and abrasive additives

Consistent surface roughness

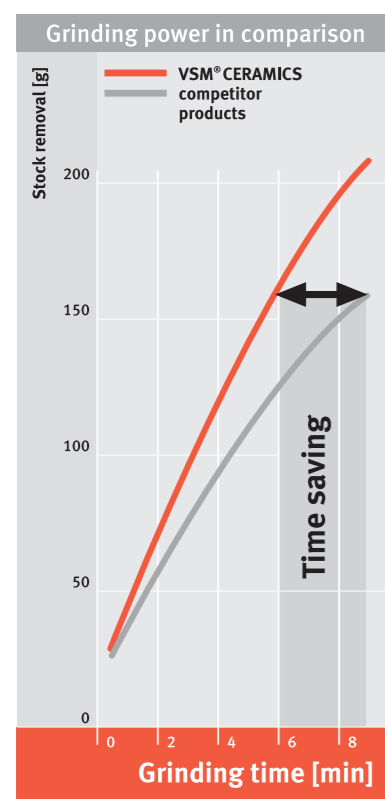
- continuous regeneration of new grain cutting edges over the entire service time

Extra-long life time

- self-sharpening ceramic grain
- excellent adhesion of the specially treated grain to the backing material
- additional layer (TOP SIZE products)

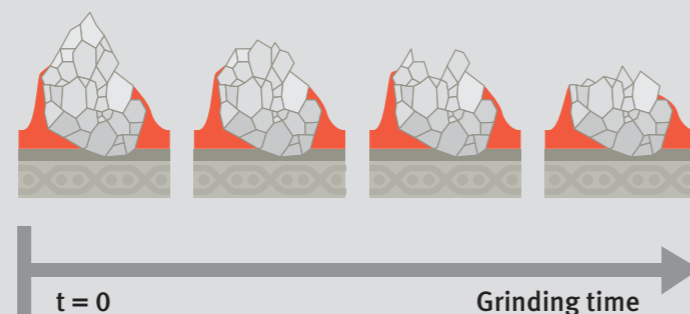
Cool grinding

- more aggressive cut and higher stock removal rate
- additional “self-lubricating” layer (TOP SIZE products)



The idea of the VSM® CERAMICS: Self-sharpening

The ceramic grains consist of fine aluminium oxide (Al_2O_3) crystals produced in a sintering process. These micro-crystals break continuously during grinding so that new grain-cutting edges will be created.



Application example 1: Centreless Grinding



Workpiece: Pipes, 104 mm diameter
Material: Chromium nickel steel (1.4301)

Grinding conditions

Grinding machine: Centreless
Contact wheel: — diameter: 450 mm
 — hardness: 60° Shore A
 — tothing: 2:1
Cutting speed: 25 m/sec
Feed rate: 2.5 m/min
Belt dimension: 150 x 3500 mm
Grit: #40
Lubricants: Water with additives

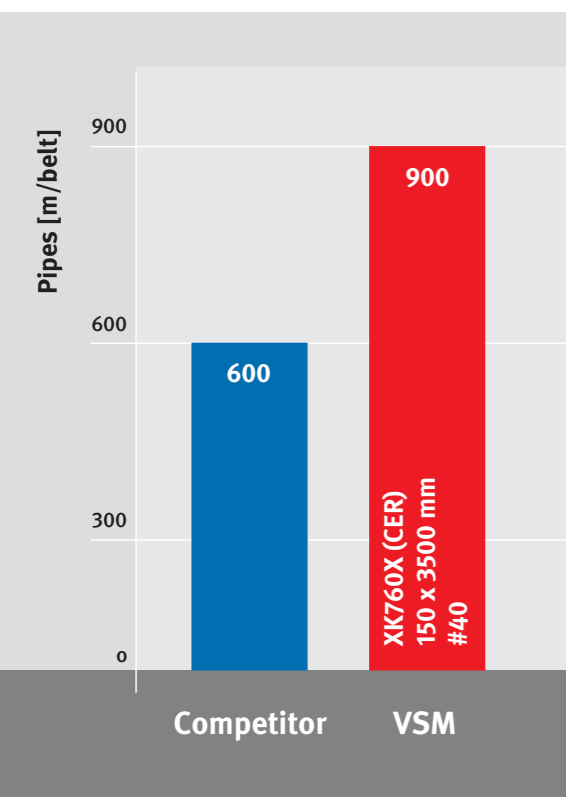
Application example 2: Grinding of Tools



Workpiece: Ring spanners
Material: Chrome vanadium steel

Grinding conditions

Grinding machine: Backstand
Contact wheel: — diameter: 200 mm
 — hardness: 80° Shore A
Cutting speed: 25 m/sec
Belt dimension: 60 x 3500 mm
Grit: #60
Lubricants: None
Grinding operation: Rough grinding, deburring



Grinding result

Centreless grinding of stainless steel pipes

50% increased number of ground tubes and reduction of set-up time with VSM XK760X



Grinding result

Grinding of ring spanners

150% more ground parts with VSM XK870X

