

# RAILWAY CONSTRUCTION SPECIAL

PRODUCT  
RANGE



**RHODIUS**  
SIMPLIFY YOUR WORK



## HEAVY-DUTY GEAR

# ON TRACK FOR OPTIMAL RESULTS.

In rail track construction, steel really gets put through its paces. And as a specialist for machine-based metal cutting and grinding, we know that you don't just need a good tool for rail track: what really makes the difference when it comes to optimum working results is the perfect interplay of machine, tool and workpiece – plus the right kind of geometry for processing. All of this we have learnt from working side-by-side with professional users from the industry. We developed a special range of track cutting and grinding discs, for example, so as to maximise product lifetime and cutting speeds.

There's no place for mistakes in rail track construction, since these cost time and waste money. This is why our pro-quality products offer ultra-reliable performance, and why our Applications Engineering team is happy to provide advice and assistance to ensure you get the best out of your application.

### Our checklist before starting to use the machine:

Follow these steps if you want to make sure you achieve optimum cutting results!

- Have you selected the right disc for your machine?
- Is the machine's power output adequate for your use case?
- Is the toothed belt tensioned? (re-tighten if not)
- Have you chosen the recommended type of fuel and the correct mixing ratio?
- Is the air filter and/or filter in the fuel tank in good working order?
- Before use, check the machine's safety data sheet for the maximum permitted spindle rpm.
- Before use, check that the clamping mechanism is properly fitted and locked in place.

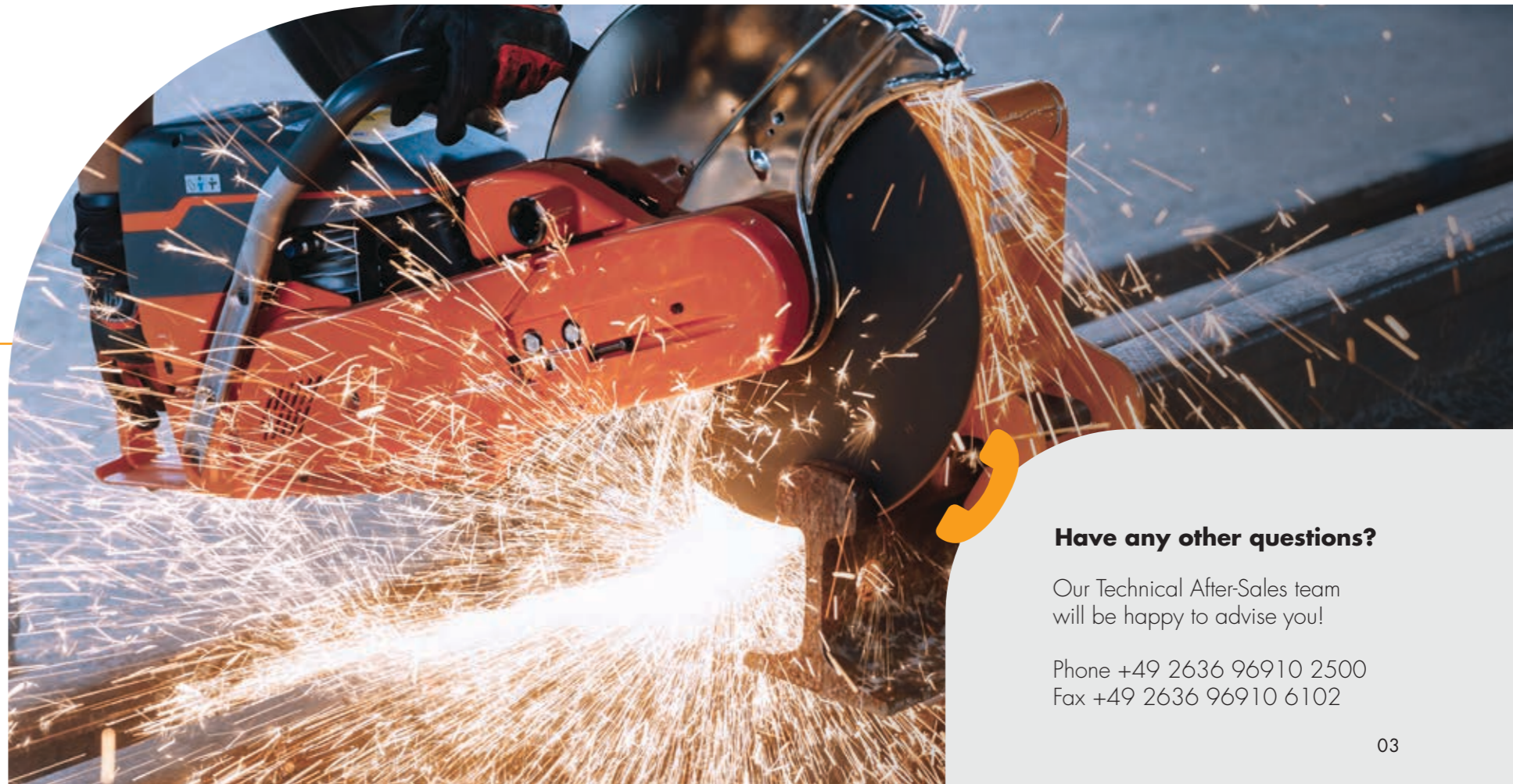
## OUR SPECIAL RANGE.

# MADE FOR YOU.

Every RHODIUS tool incorporates the expertise of our experienced employees in consulting, development and production. However, with a large number of innovative developments, we do not have to reinvent the wheel for every requirement: Our diverse range of tools is immediately available for you.

### Our recommendation for first-class working results:

- To get maximum performance, let the machine warm up first (at least 60 seconds).
- Always make the cut using an oscillating (pendulum) motion. This minimises the creation of heat as well as limiting the heat build-up in the cutting gap (see fig. on p. 10).
- Always select the smallest track cross-section possible (see fig. p. 10).
- When using cutting discs, never exceed the motor's rated speed. Overstressing the motor will cause an audible drop in the motor rpm.
- Hardly any contact pressure is required to achieve maximum performance from the machine. Pressure can also damage the rail material due to heating and increased hardening. Accordingly, always apply the tool to the workpiece with moderate force.



### Have any other questions?

Our Technical After-Sales team will be happy to advise you!

Phone +49 2636 96910 2500  
Fax +49 2636 96910 6102

# HIGH-END SOLUTIONS

FROM PROS, FOR PROS



## TECHNICAL SUPPORT

Advice, user support, process optimisation and assistance provided by our technical field sales team.



## KNOW-HOW-TRANSFER

with training for your employees.



## CONTINUOUS INNOVATION

and improvement of product characteristics in our in-house R&D department.

## RELIABLE LOGISTICS

and immediate availability give you first-class planning reliability.



## PRO-QUALITY TOOLS

are available as standard from RHODIUS. We know what we're talking about – we've been helping to maximise productivity in your industry for over 70 years.



### WE LOOK FORWARD TO HELPING YOU!

We have years of experience in providing advice and assistance to rail track construction businesses. Get in touch with us and get to grips with your grinding issues. We know the unique problems that you face in your industry – and we'll work on finding a solution for your specific needs.

**Schedule a consultation:**  
Tel: +49 2636 96910-2500

# CUTTING THE LABEL

## Material symbols

for the material to be worked on:



Steel



Quality reference

TOP LINE ●●●

PRO LINE ●●○

## Dimensions

in mm and inches

350 x 4,0 x 22,23  
 Ø in mm    Disc width    Hole

### 1 Safety pictograms

See overview at end of catalogue

### 2 Material pictograms

See overview at end of catalogue

### 3 Traceability code

### 4 Info ring with expiry date

### 5 Name of manufacturer

### 6 GTIN (EAN barcode)

### 7 oSa mark

### 8 European standard for bonded abrasive products

### 9 Maximal permissible working speed

### 10 Part number

### 11 Product reference



Dr. Gunnar Bühler,  
Senior Director Research,  
Development & Quality Management

# ENSURING THE SAFETY OF OUR TOOLS IN DAY-TO-DAY USE IS OUR HIGHEST PRIORITY.

RHODIUS production techniques are unique. Virtually all of our cutting and grinding tools are manufactured by our own high-performance machines. This creates high-end products from a single source able to meet stringent quality and safety requirements.

As one of the leading manufacturers of grinding tools, RHODIUS is fully compliant with all national and international legislation, standards and directives. Our quality management system is certified to EN ISO 9001 and therefore guarantees

full compliance with applicable regulations. A promise that we make to all of our customers.

There are also good reasons for RHODIUS being a member of the German Abrasives Association (VDS) and the Federation of European Producers of Abrasives (FEPA). Since grinding tools can be extremely dangerous when used incorrectly or improperly, we have drawn up these safety instructions for you as our user, to protect your health and safety and reduce the risk of accidents.



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**GRINDING CYLINDERS**

# CONTENTS CUTTING

MACHINES HIGHER  
4.8 KW

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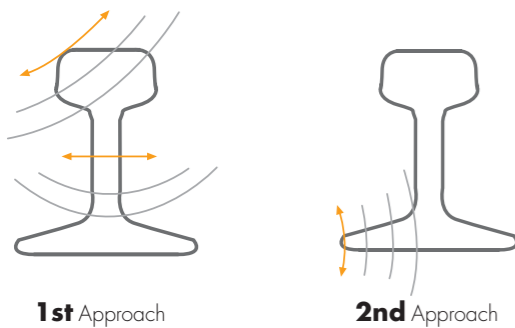
MACHINES HIGHER  
5.8 KW

p. 13

## THE RIGHT CUT

### ON RAIL TRACKS NOT YET LAID

#### Cutting approaches 1-2

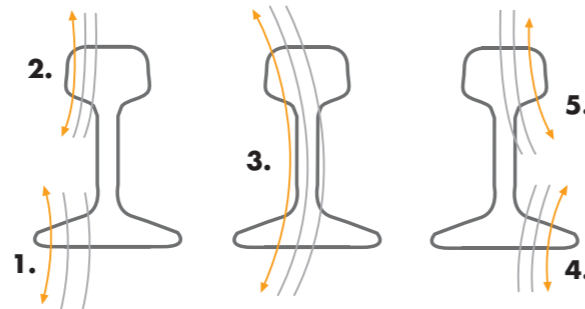


Technically, an oscillating (pendulum) motion with no additional force applied is the cleanest way to make a cut:

- Enables a cool abrasive cut
- Boosts stock removal performance
- Extends the cutting disc's lifetime/service life
- Makes damage to the track material structure less likely
- Avoids overheating and increased hardening
- Reduces cutting times

### ON RAIL TRACKS ALREADY LAID

#### Cutting approaches 1-5



In this case, compressive stress in the railhead is especially high. Steps can be taken to avoid the cutting disc jamming in the cut being made.

To do so, always work on the track from bottom to top. This turns compressive stress into tensile stress.

# CUTTING MACHINES HIGHER 4.8 KW



In developing the cutting disc, the structure is only one aspect. Even more important is getting the synergy right between:

- Users
- Machinery
- Tools
- Workpieces
- Processing geometry

This is why Rhodius offers you rail cutting discs perfectly matched to machine performance thereby ensuring rapid, cost-effective cutting of track in the very highest strength classes.

#### CUTTING e.g. with GEISMAR/CEMAFER

TOP LINE ●●●	PRO LINE ●●●
STS 410 (P. 11)	FT49 CUT RAIL (P. 12)
FT41 SUPER CUT (P. 11)	FT63 CUT ORANGE (P. 12)
FT28 QUICK CUT (P. 12)	

#### CUTTING e.g. with ROBEL

PRO LINE ●●●
FT49 CUT RAIL (P. 12)

**i** All rail cutting discs for machines from higher 4.8 kW also achieve outstanding results on more powerful machines.



## STS 410

TOP LINE ●●●



Efficient rail cutting disc with ceramic abrasive grit ensures long lifetime an aggressive cut thanks to the high bond strength. Maximum productivity and cost efficiency. This cutting disc matches to the performance of machines from 4,8KW.



Lifetime ●●●●●  
Cutting ability ●●●●●

- High lifetime for higher cutting performance
- Rapid and cool cut

#### STS 410

⊕	v <sub>min</sub>	📦	🖨️	GTIN/Sik. EAN/Sik.
350 x 4.0 x 22.23	5500	10	211910	4011890128688
350 x 4.0 x 25.40	5500	10	211911	4011890128701

Abrasive identification according to ISO 525: 31A30011BF14970

Shape 41



## FT41 SUPER CUT

TOP LINE ●●●



Rail cutting disc matched to the performance of machines from 4.8 kW, offering maximum quality and performance.



Lifetime ●●●●○  
Cutting ability ●●●●●

- Perfect for insulated joints
- Perfect choice for Geismar/Cemafer MTZ 350/400

#### FT41 SUPER CUT

⊕	v <sub>min</sub>	📦	🖨️	GTIN/Sik. EAN/Sik.
300 x 4.0 x 22.23	5100	10	205380	4011890063507
350 x 4.0 x 22.23	5500	10	205383	4011890060001
350 x 4.0 x 25.40	5500	10	205384	4011890063491

Abrasive identification according to ISO 525: 95A24N12BF341

Shape 41



≥ 4,8 kW  
mm:  
3,3-4,0

## FT28 QUICK CUT

≥350mm ≤300mm

TOPLINE ●●●

●●●●● Lifetime  
●●●●● Cutting ability



Shape 41

Rail cutting disc matched to the performance of machines from 4.8 kW, offering maximum quality and performance.

- Quick, high-precision cut
- Good lifetime
- Perfect choice for Geismar/Cemafer MTZ 350/400



### FT28 QUICK CUT

				GTIN/Sik. EAN/Sik.
300 x 3.3 x 22.23	5100	10	205906	4011890063477
350 x 3.5 x 22.23	5500	10	205903	4011890060025
350 x 3.5 x 25.40	5500	10	205904	4011890060032
350 x 4.0 x 25.40	5500	10	210929	4011890069578

Abrasive identification according to ISO 525: 93A24NBF1428

≥ 4,8 kW  
mm:  
4,0

## FT49 CUT RAIL

PROLINE ●●●○

●●●○○○ Lifetime  
●●●●● Cutting ability



Shape 41

Rail cutting disc matched to the performance of machines from 4.8 kW, for very demanding quality requirements in rail track construction.

- Good price/performance ratio
- Perfect choice for Geismar/Cemafer MTZ 350/400



### FT49 CUT RAIL

				GTIN/Sik. EAN/Sik.
350 x 4.0 x 22.23	5500	10	203487	4011890018279
350 x 4.0 x 25.40	5500	10	203489	4011890018293

Abrasive identification according to ISO 525: 31A24L12BF349

≥ 4,8 kW  
mm:  
4,0

## FT63 CUT ORANGE

PROLINE ●●●○

●●●○○○ Lifetime  
●●●●● Cutting ability



Shape 41

Rail cutting disc matched to the performance of machines from 4.8 kW, for very demanding quality requirements in rail track construction.

- Alternative to FT28 QUICK CUT and FT41 SUPER CUT with a 300 mm diameter
- Perfect choice for Geismar/Cemafer MTZ 350/400



### FT63 CUT ORANGE

				GTIN/Sik. EAN/Sik.
300 x 4.0 x 22.23	5100	10	203459	4011890018057

Abrasive identification according to ISO 525: 31A24P10BF363

# CUTTING MACHINES HIGHER 5.8 KW



In developing the cutting disc, the structure is only one aspect. Even more important is getting the synergy right between:

- Users
- Machinery
- Tools
- Workpieces
- Processing geometry

All rail cutting discs for machines higher 5.8 kW also achieve outstanding results on more powerful machines.

This is why Rhodius offers you rail cutting discs perfectly matched to machine performance thereby ensuring rapid, cost-effective cutting of track in the very highest strength classes.

CUTTING e.g. with **GEISMAR/CEMAFER**

TOPLINE ●●●

FT60 POWER CUT (P. 13)  
FT48 POWER CUT (P. 14)  
STS 480 (P. 13)

CUTTING e.g. with **ROBEL**

TOPLINE ●●●

FT60 POWER CUT (P. 13)

## FT60 POWER CUT

TOPLINE ●●●○

≥ 5,8 kW  
mm:  
4,0

Lifetime ●●●●●  
Cutting ability ●●●●●

Rail cutting disc matched to the performance of machines from 5.8 kW, offering maximum quality and performance.

- High cutting speed aided by high output power
- Ideally suited to insulated joints
- Perfect choice for Partner/Husqvarna



### FT60 POWER CUT

				GTIN/Sik. EAN/Sik.
350 x 4.0 x 22.23	5500	10	206716	4011890058732
350 x 4.0 x 25.40	5500	10	206066	4011890057285

Abrasive identification according to ISO 525: 89A24P12BF9760

Shape 41



≥350mm

## STS 480

TOPLINE ●●●○

≥ 5,8 kW  
mm:  
4,5

Lifetime ●●●●●  
Cutting ability ●●●●●

Efficient rail cutting disc with ceramic abrasive grit ensures long lifetime an aggressive cut thanks to the high bond strength. Maximum productivity and cost efficiency. This cutting disc matches to the performance of machines from 5,8KW.

- High lifetime for higher cutting performance
- Rapid and cool cut



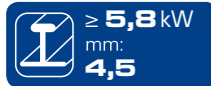
### STS480

				GTIN/Sik. EAN/Sik.
400 x 4,5 x 25,40	4800	10	212185	4011890129593

Abrasive identification according to ISO 525: 89A24P10BF10248

Shape 41





## FT48 POWER CUT

TOPLINE ●●●



- Lifetime
- Cutting ability



Shape 41

Rail cutting disc matched to the performance of machines from 5.8 kW, offering maximum quality and performance.

- Alternative to FT60 POWER CUT with a 400 mm diameter
- Perfect choice for Partner/Husqvarna



### FT48 POWER CUT

				GTIN/Sik. EAN/Sik.
400 x 4.5 x 25.40	4800	10	206894	4011890063422

Abrasive identification according to ISO 525: 89A24P10BF10248

# CONTENTS GRINDING

GRINDING DISCS p. 16

GRINDING WHEELS p. 17

CUP WHEELS p. 19

GRINDING CYLINDERS p. 20



# GRINDING GRINDING DISCS

# GRINDING GRINDING WHEELS

RHODIUS grinding discs are especially suitable for cleaning up fishplate seatings and railhead grinding. The formulation used was specially developed for these applications in rail track construction.

**GRINDING** e.g. with any popular make of **ANGLE GRINDER**

**TOP LINE** ●●●

SF49 (P. 16)

RHODIUS grinding wheels, available in various shapes, sizes, dimensions and hole formats, enable the quick and easy removal of burrs present on railheads, points and running edges. These products are also perfect for applications such as hardfacing grinding and re-profiling work.

**GRINDING** e.g. with **GEISMAR/CEMAFER**

**TOP LINE** ●●●

SF07 (P. 17)

SF14 (P. 17)

**GRINDING** e.g. with **ROBEL**

**TOP LINE** ●●●

SF14 (P. 17)

SF79 (P. 18)



**SF49 TOP**

**TOP LINE** ●●●



- Lifetime
- Stock removal

Grinding disc for all popular makes of angle grinders, offering first-class performance and quality.

- High stock removal
- Cool grinding
- Suitable for all popular makes of angle grinder



**SF49 TOP**

				GTIN/Sik. EAN/Sik.
230 x 8.0 x 22.23	6650	10	203344	4011890017173

Abrasive identification according to ISO 525: A24Q8BF1349



**SF07 TOP**

**TOP LINE** ●●●



Grinding wheel offering first-class performance and quality.

- Hard disc thanks to high bond content
- Perfect choice for Geismar/Cemafer MC3



**SF07 TOP**

				GTIN/Sik. EAN/Sik.
255 x 32.0 x 25.40	3850	1	394905	4011890063545

Abrasive identification according to ISO 525: A16P6BF1307



**SF14 TOP**

**TOP LINE** ●●●



Grinding wheel offering first-class performance and quality.

- Very hard disc thanks to high zirconia content
- Perfect choice for Robel 13.61 and Geismar/Cemafer PHG2



**SF14 TOP**

				GTIN/Sik. EAN/Sik.
230 x 23.0 x 22.23	5250	1	394900	4011890063576

Abrasive identification according to ISO 525: 89A16U8BF1414





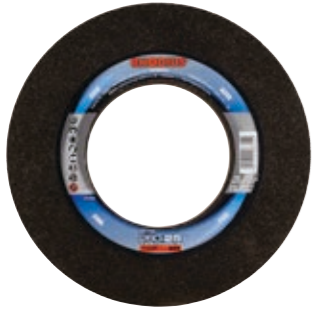
## SF79 TOP

TOP LINE ●●●



Abrasive disc offering first-class performance and quality.

- Hard disc thanks to high bond content
- Perfect choice for Robel 13.61



### SF79 TOP

				GTIN/Sik. EAN/Sik.
260 x 25.0 x 120.00	3670	1	394904	4011890063552

Abrasive identification according to ISO 525: A20N-BF179

# GRINDING CUP WHEELS



RHODIUS cup wheels for railhead profile grinding machines are perfect for grinding railheads into the required shape. Other applications include: grinding of cold/hot thermite welds, hardfaced running surfaces and removal of corrugation damage to on worn rails.

GRINDING with any popular make of ANGLE GRINDER

TOP LINE ●●●

TS87 (P. 19)



## TS87 TOP

TOP LINE ●●●



Cup wheel offering first-class performance and quality.

- High hardness and stock removal
- Suitable for all popular makes of angle grinders with special guards for cup wheels

### TS87 TOP

				GTIN/Sik. EAN/Sik.
110/90 x 55.0 x 22.23	8680	6	394920	4011890063514

Abrasive identification according to ISO 525: A20S5B1357



# GRINDING GRINDING CYLINDERS

RHODIUS grinding cylinders are perfect for the professional grinding of railheads, butt welds using cold/hot thermite welding techniques and hardfaced running surfaces, and removing corrugations in worn rails.

GRINDING e.g. with **GEISMAR/CEMAFER**

**TOP LINE** ●●●

SZ53 (P. 20)  
SZ40 (P. 20)  
SZ25 (P. 21)



## SZ53 TOP

**TOP LINE** ●●●



Grinding cylinder offering first-class performance and quality.

- Especially suited for **COLD GRINDING** thanks to special bond
- Perfect choice for Geismar/Cemafer MP6/MP12



Shape 6

### SZ53 TOP

				GTIN/Sik. EAN/Sik.
125 x 65.0 x M20	7650	4	394933	4011890064016

Abrasive identification according to ISO 525: A14Q05B1353



## SZ40 TOP

**TOP LINE** ●●●



Grinding cylinder offering first-class performance and quality.

- Especially suited for **HOT GRINDING** thanks to special, heat-resistant bond
- Perfect choice for Geismar/Cemafer MP6/MP12



Shape 6

### SZ40 TOP

				GTIN/Sik. EAN/Sik.
125 x 65.0 x M20	7650	4	394934	4011890064023

Abrasive identification according to ISO 525: A14Q05B1340



## SZ25 TOP

**TOP LINE** ●●●



Grinding cylinder offering first-class performance and quality.

- Universally suitable for hot and cold grinding**
- High zirconia content for aggressive grinding
- Perfect choice for Geismar/Cemafer MP6/MP12



### SZ25 TOP

				GTIN/Sik. EAN/Sik.
125 x 65.0 x M20	7650	4	395011	4011890101681

Abrasive identification according to ISO 525: K3A16/9Q5B39

Shape 6





### Recommended machine

GEISMAR/ CEMAFER MC3	GEISMAR/ CEMAFER PHG2	ROBEL 13.61	GEISMAR/ CEMAFER MP6/MP12
GEISMAR/ CEMAFER MTZ 350/400	GEISMAR/ CEMAFER MTZ GTi	PARTNER/ HUSQVARNA	ROBEL / ROCUT

### Technologies



High-performance ceramic grain tools.  
For industrial high-throughput grinding applications.

### Quality system



Best products in their category for maximum performance and quality.



For particularly high quality requirements in manufacturing and the skilled trades.

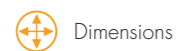
## EXPLANATION OF SYMBOLS

### Material



Steel

### Product table



Dimensions



Article/order number



Quantity per pack

### Machines



Freehand angle grinder



Freehand angle grinder with special hood

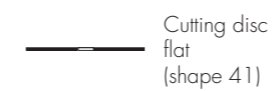


Petrol cut-off saw with clamping mechanism



Track grinding machine

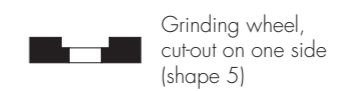
### Shapes



Cutting disc flat (shape 41)



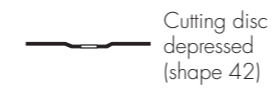
Grinding disc (shape 27)



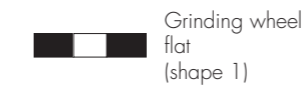
Grinding wheel, cutout on one side (shape 5)



Grinding disc, conical (shape 11)



Cutting disc depressed (shape 42)



Grinding wheel flat (shape 1)



Cylindrical cup wheel (shape 6)

### Dimensions and models



Width in mm for cutting, roughing and grinding discs



Width in mm plus machine output in kW for cutting, roughing and grinding discs

# GET CONNECTED

Discover RHODIUS Online  
today or contact us in person:



[www.rhodi.us/railway](http://www.rhodi.us/railway)  
+49 2636 96910 2500

## General information:

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Burgbrohl, May 2025

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