

TRACK SUPER STRUCTURE SPECIAL

PRODUCT RANGE FOR RAIL TRACK CONSTRUCTION

RIGHT FIRST TIME

Highly specialised rail cutting and grinding tools for maximum efficiency.

RHODIUS



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.

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.

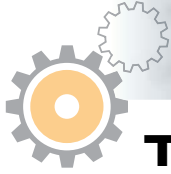
Have any other questions?

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

Phone: +49 2636 920 600

Fax: +49 2636 920 181





TECHNICAL SUPPORT

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



KNOW-HOW TRANSFER

with training for your employees

From pros, for pros

SOLUTION

PRO-QUALITY TOOLS

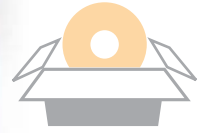
are available as standard from RHODIUS. We know what we're talking about – we've been helping to maximise productivity in your industry for over 60 years





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

high-end TIONS

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 920-600

CUTTING THE LABEL

Material symbols

for the material to be worked on:



Steel



Dimensions

in mm and inches

350 x **4,0** x **22,32**

Disc diameter 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)

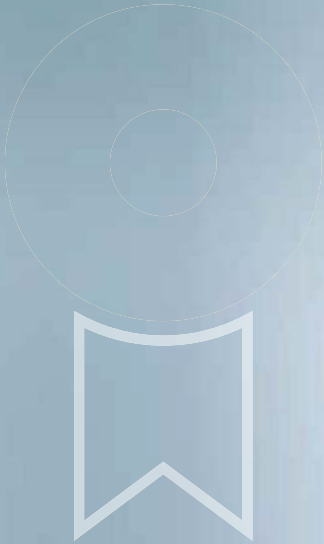
7 oSa mark

8 European standard for bonded abrasive products

9 Maximal permissible working speed

10 Part number

11 Product reference



Helmut Steinmetzler,
Head of Quality Assurance

“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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CUTTING

CONTENTS

MACHINES FROM
4.8 KW

11

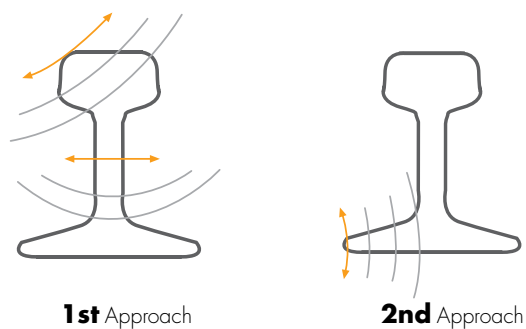
MACHINES FROM
5.8 KW

13

THE RIGHT CUT

ON RAIL TRACKS NOT YET LAID

Cutting approaches 1-2

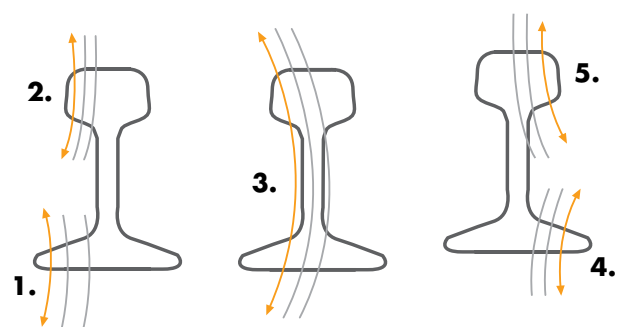


Technically, an oscillating (pendulum) motion with no additional force applied is the cleanest way to make a cut:

- 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 FROM 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

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

This is why Rhodius offers you track 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 CEMAFAER

TOP LINE ●●●

PRO LINE ●●○

FT28 QUICK CUT (P. 11)

FT49 CUT RAIL (P. 12)

FT41 SUPER CUT (P. 11)



FT63 CUT ORANGE (P. 12)

CUTTING e.g. with ROBEL

TOP LINE ●●●

PRO LINE ●●○

FT49 CUT RAIL (P. 12)

≥350 mm  ≤300 mm   

FT28 QUICK CUT

TOP LINE ●●●

 ≥ 4,8 kW
mm: 3,3-4,0





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



Track 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 Cemafer MTZ 350





FT28 QUICK CUT

				GTIN/pc. EAN/pc.
300 × 3.3 × 22.23	5100	10	205906	4011890063477
350 × 3.5 × 22.23	5500	10	205903	4011890060025
350 × 3.5 × 25.40	5500	10	205904	4011890060032

Abrasive identification according to EN12413: 93A24NBF1428

Shape 41



≥350 mm  ≤300 mm   

FT41 SUPER CUT

TOP LINE ●●●

 ≥ 4,8 kW
mm: 4,0





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



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

- Perfect for insulated joints
- Perfect choice for Cemafer MTZ 350

FT41 SUPER CUT

				GTIN/pc. EAN/pc.
300 × 4.0 × 22.23	5100	10	205380	4011890063507
350 × 4.0 × 22.23	5500	10	205383	4011890060001
350 × 4.0 × 25.40	5500	10	205384	4011890063491

Abrasive identification according to EN12413: 95A24N12BF341

Shape 41





FT49 CUT RAIL



PRO LINE ●●○

●●●●○ Lifetime
●●●●○ Cutting ability

Track 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 Cemafer MTZ 350



Shape 41

FT49 CUT RAIL

⊕	⊖/mm	📦	🖨️	GTIN/pc. EAN/pc.
350 × 4.0 × 22.23	5500	10	203487	4011890018279
350 × 4.0 × 25.40	5500	10	203489	4011890018293

Abrasive identification according to EN12413: 31A24L12BF349



FT63 CUT ORANGE



PRO LINE ●●○

●●●●○ Lifetime
●●●●○ Cutting ability

Track 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 Cemafer MTZ 350



Shape 41

FT63 CUT ORANGE

⊕	⊖/mm	📦	🖨️	GTIN/pc. EAN/pc.
300 × 4.0 × 22.23	5100	10	203459	4011890018057

Abrasive identification according to EN12413: 31A24P10BF363

CUTTING / MACHINES FROM 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

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

This is why Rhodius offers you track 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 **PARTNER/HUSQVARNA**

TOP LINE ●●●

PRO LINE ●●○

FT60 POWER CUT (P. 13)

FT48 POWER CUT (P. 13)

CUTTING e.g. with **ROBEL**

TOP LINE ●●●

PRO LINE ●●○

FT27 QUICK CUT (P. 14)

FT60 POWER CUT (P. 13)



FT60 POWER CUT

TOP LINE ●●●



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



Track 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

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
350 × 4.0 × 22.23	5500	10	206716	4011890058732
350 × 4.0 × 25.40	5500	10	206066	4011890057285

Abrasive identification according to EN12413: 89A24P12BF9760

Shape 41



FT48 POWER CUT

TOP LINE ●●●



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



Track 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

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
400 × 4.5 × 25.40	4800	10	206894	4011890063422

Abrasive identification according to EN12413: 89A24P10BF10248

Shape 41





FT27 QUICK CUT



TOP LINE ●●●

●●●●○ Lifetime
●●●●○ Cutting ability

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

- Very thin cutting disc with a 300 mm diameter
- Perfect choice for Robel Rocut



Shape 41

FT27 QUICK CUT

				GTIN/pc. EAN/pc.
300 x 3.3 x 22.23	5100	10	205905	4011890063484

Abrasive identification according to EN12413: 93A24N5BF1427

GRINDING

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GRINDING CYLINDERS	20
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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 ●●●

PRO LINE ●●○

SF49 (P. 16)



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/pc. EAN/pc.
230 × 8.0 × 22.23	6650	10	203344	4011890017173

Abrasive identification according to EN12413: A24Q8BF1349

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 CEMAFAER

TOP LINE ●●●

PRO LINE ●●○

SF07 (P. 17)

GRINDING e.g. with ROBEL

TOP LINE ●●●

PRO LINE ●●○

SF14 (P. 17)

SF79 (P. 18)

SF55 (P. 18)



Grinding wheel offering first-class performance and quality.

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

SF07 TOP

TOP LINE ●●●



SF07 TOP

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
255 × 32.0 × 25.40	3850	1	394905	4011890063545

Abrasive identification according to EN12413: A16P6BF1307

Shape 5



Grinding wheel offering first-class performance and quality.

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

SF14 TOP

TOP LINE ●●●



SF14 TOP

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
230 × 23.0 × 22.23	5250	1	394900	4011890063576
250 × 20.0 × 25.40	4850	1	206114	4011890063453
250 × 23.0 × 22.23	4850	1	394901	4011890063569
250 × 25.0 × 25.40	4850	1	206115	4011890064429

Abrasive identification according to EN12413: 89A16U8BF1414

Shape 1





SF55 TOP



TOP LINE ●●●

Grinding wheel offering first-class performance and quality.

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



Shape 1

SF55 TOP

				GTIN/pc. EAN/pc.
260 x 15.0 x 120.00	3670	1	394907	4011890063521

Abrasive identification according to EN12413: A20N-BF555



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



Shape 1

SF79 TOP

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

Abrasive identification according to EN12413: 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 e.g. with **MÖSER**

TOP LINE ●●●

PRO LINE ●●○

TS48 (P. 19)

GRINDING with any popular make of **ANGLE GRINDER**

TOP LINE ●●●

PRO LINE ●●○

TS87 (P. 19)



TS48 TOP

TOP LINE ●●●



Cup wheel offering first-class performance and quality.

- High zirconia content enables strong stock removal performance
- Perfect choice for Möser Ro-V135A

TS48 TOP

				GTIN/pc. EAN/pc.
100 x 110.0 x 22.23	9550	1	391740	4011890063408

Abrasive identification according to EN12413: A20P4B

Shape 6



TS87 TOP

TOP LINE ●●●



Cup wheel offering first-class performance and quality.

- High hardness and stock removal
- Suitable for all popular makes of angle grinder

TS87 TOP

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

Abrasive identification according to EN12413: A20S5B1357

Shape 11



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 CEMAFAER

TOP LINE ●●●

PRO LINE ●●○

SZ53 (P. 20)

SZ40 (P. 20)

SZ39 (P. 21)

SZ25 (P. 21)

GRINDING e.g. with MÖSER

TOP LINE ●●●

PRO LINE ●●○

SZ04 (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 Cemafer MP6/MP12



SZ53 TOP

				GTIN/pc. EAN/pc.
125 x 65.0 x M20	7650	8	394933	4011890064016

Abrasive identification according to EN12413: A14Q5B1353



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 Cemafer MP6/MP12



SZ40 TOP

				GTIN/pc. EAN/pc.
125 x 65.0 x M20	7650	8	394934	4011890064023

Abrasive identification according to EN12413: A14Q5B1340



SZ39 TOP



TOPLINE ●●●



Grinding cylinder offering first-class performance and quality.

- Suitable for hot and cold grinding
- Perfect choice for Cemafer MP23

SZ39 TOP

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
150 × 65.0 × M20	6400	8	394986	4011890074596

Abrasive identification according to EN12413: 3A1403B39



Shape 6



SZ25 TOP



TOPLINE ●●●



Grinding cylinder offering first-class performance and quality.

- High zirconia content for aggressive grinding
- Perfect choice for Cemafer MP6/MP12

SZ25 TOP

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
125 × 65.0 × M20	7650	8	395011	4011890101681

Abrasive identification according to EN12413: K3A16/9Q5B39



Shape 6



SZ04 TOP



TOPLINE ●●●



Grinding cylinder offering first-class performance and quality.

- Especially suited for hot grinding thanks to special, heat-resistant bond
- Alternative product for SZ40 with 4x M8 sockets
- Perfect choice for Möser Ro-V185

SZ04 TOP

⊕	⊖/min	📦	🖨️	GTIN/pc. EAN/pc.
125 × 60.0 × 55/4 × M8	7650	8	390464	4011890063415
150 × 75.0 × 55/4 × M8	6400	10	353141	4011890082546

Abrasive identification according to EN12413: A14Q5B1304



Shape 6



WHETSTONES FOR OPTIMUM RESULTS ON RAIL TRACK.



RHODIUS whetstones can be used for re-profiling work on railheads as well as for the removal of corrugations in worn rail tracks.

General information:

Statements about the scope of delivery and tool appearance, performance or dimensions are given to the best of our knowledge at the time of going to press.

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Burgbrohl, August 2019

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EXPLANATION OF SYMBOLS

Material



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

Recommended machine

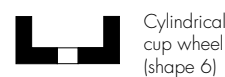
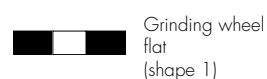
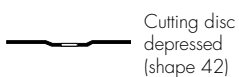
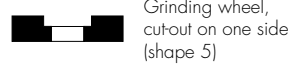
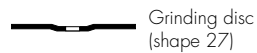
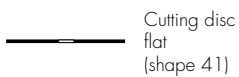


Quality system

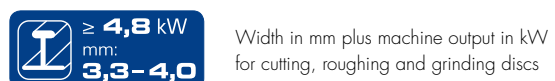
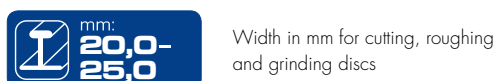
TOPLINE ●●● Best products in their category for maximum performance and quality.

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

Shapes



Dimensions and models



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