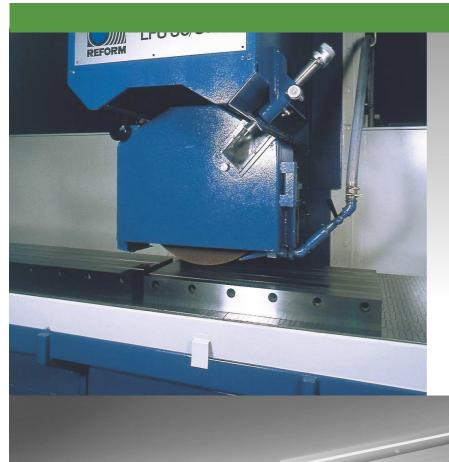


# Butzbacher grinding wheels







## Flat surface grinding

Whether grinding takes place with

grinding wheels, cup wheels, cylinder wheels or grinding segments (with or without holders) – from regular aluminium oxide to sintered aluminium oxide with vitrified

or resinoid bond:

The main emphasis is on optimal grinding performance. Our grinding tools offer exceptional properties with excellent cutting action, self-sharpening effect, low cutting temperature and maximum dimensional stability. Our wide range of products provide for a broad spectrum of

applications for precision grinding machines with transverse

rotary table – using pendulum or full-width grinding. Our low cost standard range of products covers the materials described opposite – through to highly porous sintered aluminium oxide grinding tools for hard tool steels

We produce grinding segments in virtually all standard forms. We carry holders for disc grinding machines in stock.



## Cylindrical grinding

BSW offers an extensive range of products for cylindrical grin

Our products are designed to ensure excellent cooling in the grinding contact zone and offer for this application all conceivable solutions also for pendulum grinding, plunge-grinding and centreless grinding.

Our grinding tools provide a number of special advantages such as high stock removal rates, high selfsharpening effect and extended dressing intervals. Profile stability, performance and time are the factors that contribute to an optimal grinding process.

ble solutions also for pendulum We can help you to actively grinding, plunge-grinding and reduce your piece costs!



#### Internal grinding

We manufacture internal grin- is key.

wheels from 5 mm to 300 mm diameter to suit individual customer requirements.

Our standard range of products, constantly carried in stock, covers

a wide range of grinding applications.

Despite their partly small size, be fully developed solutions that are tailored to specific grinding applications.

Particularly with very small dimensions, grinding precision

High stock removal rates, cool grinding and easy cutting action

these are the outstanding features

of our products.

With or without shaft, with or without recess - we manufactuinternal grinding wheels must re to your specifications in small





#### Gear and thread grinding

sides (e.g. for Höfler, Niles, Pfauter, etc.) or for MAAG and Klingelnberg:

We manufacture all of these grinding wheels. We are fully aware of

the difficult and high require-

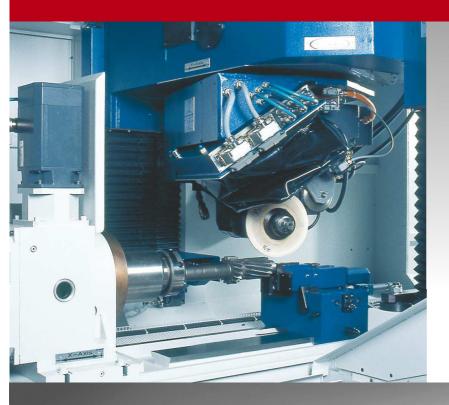
of gear manufacturers and have the means to comply with these requirements.With our diverse selection of abrasive materials, we can provide the right grin-

wheel to suit your particular application. Whether for full profile grinding, generating grinding or spiral bevel gear grinding, we offer the highest precision.

Our finegrained wheels minimise the risk of overheating when grinding due to special bond concepts and optimal cooling as well as surface damage.

For the ground thread, this means less wear and greater performance. Our sintered aluminium oxide grinding wheels are provided with just the right amount of sintered aluminium oxide necessary for the particular grinding operation. This reduces purchasing costs and protects





#### **Tool grinding**

Optimal performance in normal duction process. tool grinding practice is important for any company. The precision and lifespan of ground cutting tools is largely influenced by the quality of initial grinding as well as subsequent grinding. Because the tools to be ground are exposed to considerable mechanical, thermal and chemical loads, it is important that these are minimised by using suitable abrasives.

This has a significant effect on tool operation with regard to cutting quality in the production process, tool service life and the overall efficiency of the pro-

BSW offers an ideal range of abrasive products for hard, high-alloyed tools (milling cutter, turning tools, hob cutters and drills) with high performance sintered aluminium oxide qualities. The grinding performance is high, the grind cool and the lifespan long.





#### Rough grinding

We have been suppliers to the their safety reserves. metalworking industry as well as For foundries, we produce highmanufacturers of castings and foundries at home and abroad

Our production programme includes resinoid bonded grinding mounted points and grinding wheels with diameters from 20-750 mm.

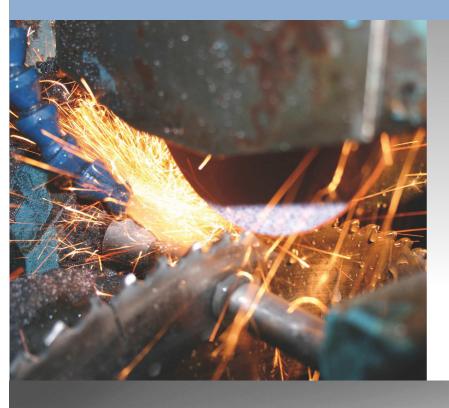
We also supply grinding wheels with diameters above 900 mm for grinding steel and cast-iron

Our products are highly regarded and used due to their exceptional grinding properties, durability and, not least, due to

speed grinding wheels up to 80 m/s with sufficient safety reser-

For over 90 years we have developed for all of these applications a fully developed range of grinding and polishing wheels in diverse materials, sizes, geometrical shapes and qualities. Whether for rough grinding, form grinding or to achieve surfaces suitable for galvanising, deburring, descaling or tough structuring and burnishing.





#### Saw sharpening

We stock the right grinding In addition, saws perform better wheels for band, circular and chain saws, production and reworking, wet and dry grin-

Stellite tipped saw blades and CV or HSS meal saws can be ground with maximum precisi-

with sintered aluminium oxide have shown to be highly relia-

These wheels are characterised by a long lifespan, excellent dimensional stability and cool

and have a longer life.

Our grinding wheels have been designed for a cutting speed of up to 63 m/s and are therefore ideal for variablespeed spindle drives. Grinding wheel perfor-Our saw sharpening wheels mance can be noticeably increased as a result.

> Our range of accessories include suitable dressing tools as well as further grinding tools for other grinding applications, e.g. profile knives.





#### Rail grinding

For modern rail vehicles, a good rail profile is more important today than ever before: Minimum rolling resistance, smoothness of running, high wear resistance and large safety reserves are the ne demands placed on the rail

BSW has taken this into ce account with the development of optimal grinding tools specifically for this purpose.

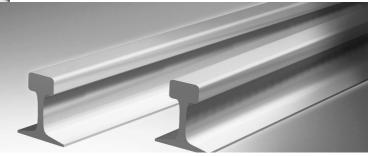
We produce for virtually all grinding machines, grinding tools ...

· unique resinoid bonds -

- up to 80 m/s peripheral speed with glass fabric rein-
- · for almost all standard machi-

types with special thread

- · excellent grinding performan-
- also on hot and cold rails with only one wheel
- · sufficient safety reserves for maximum loads
- exceptional surfaces without edge damage
- extremely long lifespans -



### Productrange



Outside-Ø	Width	Hole
225	20, 25	32, 50.8, 76.(2)
250	13, 16, 20, 25	50.8, 76.(2)
300	13, 16, 20, 25, 32, 40, 50	76.(2), 127
350	16, 20, 25, 32, 40, 50	76.(2), 127
400	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
450	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
500	25	203.2
500	32, 40, 50, 63, 80, 100	203.2, 304.8
600	32, 40, 50, 63, 80, 100, 125	203.2, 304.8
750	30 – 125	304.8
800	31 – 125	304.8
900	32 – 125	304.8
1060	32 - 160	304.8



Outside Ø	Winds	Liele
Outside-Ø	Width	Hole
10	10	4
13	13 (6x6)	4
16	16 (10x4)	6
20	20 (13x8)	6
25	16 (16x6)	10
25	25 (16X10)	10
32	20 (16x8)	10
32	32 (16x12)	10
40	25 (20x10)	13
40	32	13
40	40 (20x15)	13
50	32	20
50	40 (32x15)	20
	All recesses optional!	



Outside-Ø		Hole
225	20, 25	32, 50.8, 76.2
250	13, 16, 20, 25	50.8, 76.2
300	13, 16, 20, 25, 32, 40, 50	76.2, 127
350	16, 20, 25, 32, 40, 50	76.2, 127
400	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
450	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
500	25	203.2
500	32, 40, 50, 63, 80, 100	203.2, 304.8
600	32, 40, 50, 63, 80, 100, 125	203.2, 304.8
750	30 – 125	304.8
800	31 – 125	304.8
900	32 – 125	304.8
1060	32 - 160	304.8



Reishauer		
Outside-Ø	Width	Hole
350	62, 84, 104	160
400	84, 104	160
	with div. modules, 1 or 2-thread	

A.	17-11-17	Y J J	
1	Pfauter Kapp, Hoefler, Niles, Reform, Samputensili		
H	Outside-Ø	Width	Hole
	350	25 – 63	127
	400	25 – 63	127, 203.2
	450	25 – 63	127, 203.2

Thread grinding		
Outside-Ø	Width	Hole
350	8 – 16	160

Cylindrical grinding	Flat surface grinding	Internal grinding	Gear and thread grinding
Rough grinding	Tool arindina	Saw sharnening	Rail grinding

	Type 1 - straight		
١	Outside-Ø	Width	Hole
	125	20	32
1	150	20, 25	32
1	175	20, 25, 32	32, 51
4	200	20, 25, 32	32, 51
4	250	32	32, 51
Į	300	40	32, 51, 76

	Type 6 - DIN D - cup wheels		
Ź	Outside-Ø	Width	Hole
1	80	40	20
/	100	50	20
į	125	63	20, 32
1	150	80	20, 32

Туре 11 - Г	Type 11 - DIN E - taper cup wheels		
Outside-Ø	Width	Hole	
100	35, 40	20	
125	40, 45	20, 32	
150	50	20, 32	

1	Type 12 - DIN B - dish wheels		
-	Outside-Ø	Width	Hole
	80	8	20
H	100	12	20, 32
-	125	14	20, 32
	150	15	20, 32

Chain saw	grinding		
Outside-Ø	Width		Hole
140 – 150	3 – 4.8		16, 20, 25, 32

	Circular saw	Circular saws, band saws	
1	Outside-Ø	Width	
1	200, 225, 250	1 – 16	20, 25, 32, 60

			30 E3 10		
	Resinoid				
5	Outside-Ø	Width		Hole	
į	150, 200, 250	1 – 14		20, 25, 32	
Ì	300	10 – 14		32,40	

	Outside-Ø	Width	Hole
	225	20, 25	32, 50.8, 76.(2)
1	250	13, 16, 20, 25	50.8, 76.(2)
\	300	13, 16, 20, 25, 32, 40, 50	76.(2), 127
	350	16, 20, 25, 32, 40, 50	76.(2), 127
	400	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
	450	20, 25, 32, 40, 50, 63, 80, 100	127, 203.2
Ş	500	25	203.2
	500	32, 40, 50, 63, 80, 100	203.2, 304.8
X	600	32, 40, 50, 63, 80, 100, 125	203.2, 304.8
Š	750	30 – 125	304.8
3	800	31 – 125	304.8
1	900	32 – 125	304.8
	1060	32 - 160	304.8
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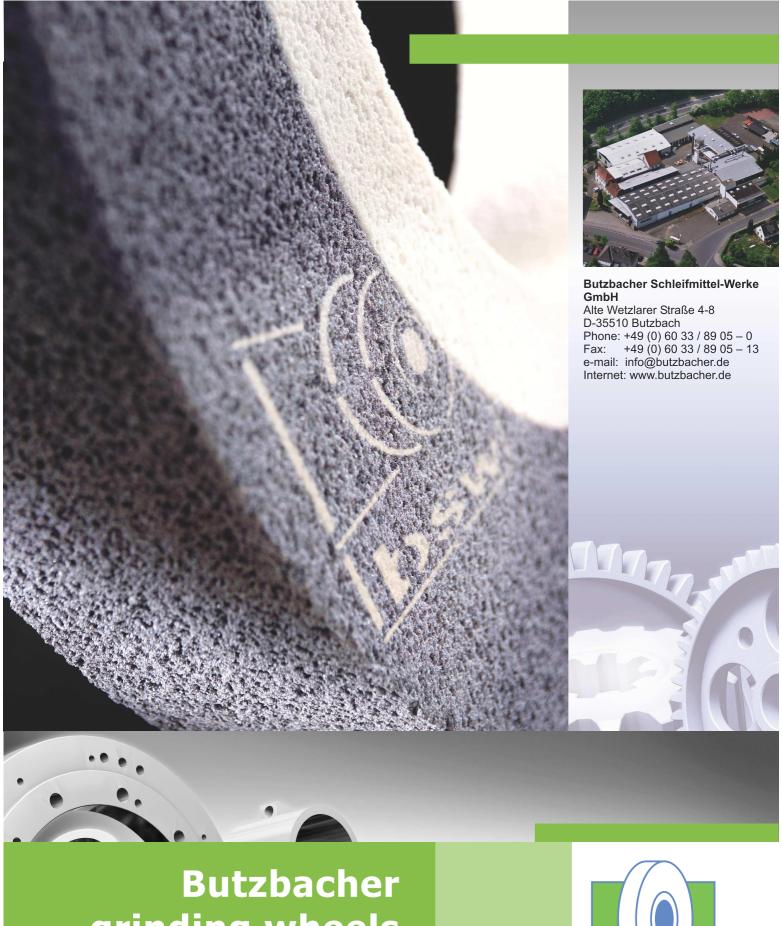
Outside-Ø	Width	Hole
110/90	55 (HT110)	22,2
125	60 (with 4 threads M8)	55
125	65 (with centre thread M20)	M20 R/L
135	90 (recess 55x30)	25,5
150	60 (with centre thread M20)	M20 R/L
150	65 (with 4 threads M8)	80
150	70 (with centre thread M20)	M20 R/L
200	80 (with 4 threads M8)	130
230	20, 23, 25, 30	25
250	20	25,4
254	32 (with recess)	25,4
260	25	120
300	40	120











grinding wheels

.... grinding is our passion

