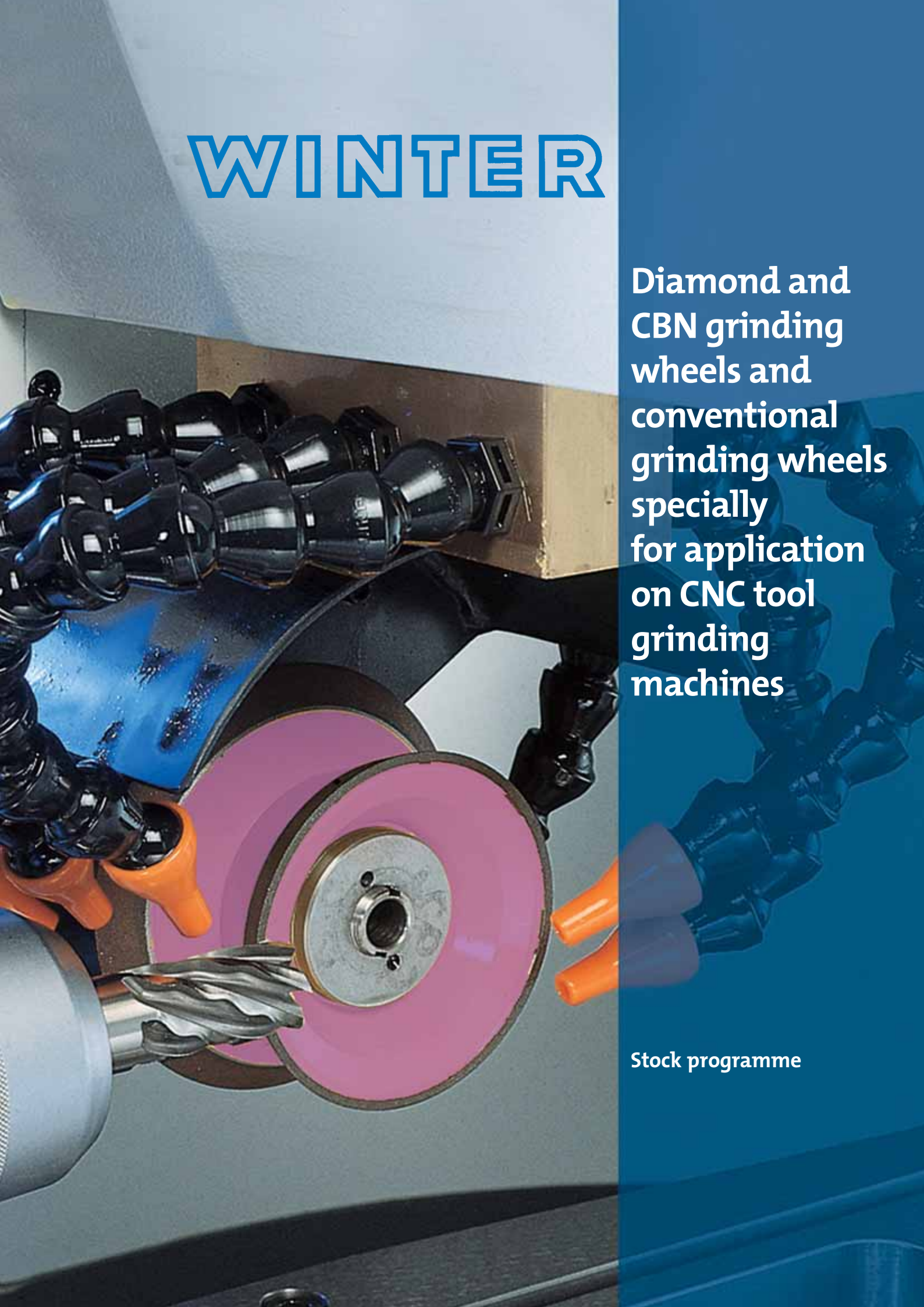


# WINTER

Diamond and  
CBN grinding  
wheels and  
conventional  
grinding wheels  
specially  
for application  
on CNC tool  
grinding  
machines

Stock programme



## Notes

This stock programme catalogue contains all standard SAINT-GOBAIN Abrasives diamond and CBN grinding wheels for use on CNC tool grinding machines.

The selection of grinding wheels and their application is dependent on application and software of the machine manufacturer.

Some examples of grinding wheel combinations, mounted as spindle sets, are illustrated on page 3.

Indications on application of each shape are given at the foot of the table in the respective section.

SAINT-GOBAIN Abrasives CNC diamond and CBN grinding wheels are suitable both for grinding with oil and with synthetic cutting fluids.

SAINT-GOBAIN Abrasives diamond and CBN grinding wheels are available ex stock, i.e. with a short delivery lead time.

In addition to this specific CNC grinding wheel range, SAINT-GOBAIN Abrasives has further catalogues of stock programmes:

- Grinding tool programme for the wood and plastics working industry (wood-working catalogues)
- Superstandard programme for tool making
- ID grinding catalogue.

If you have further questions on our grinding wheel programme, please contact our field service or the parent company.

Please pay attention,

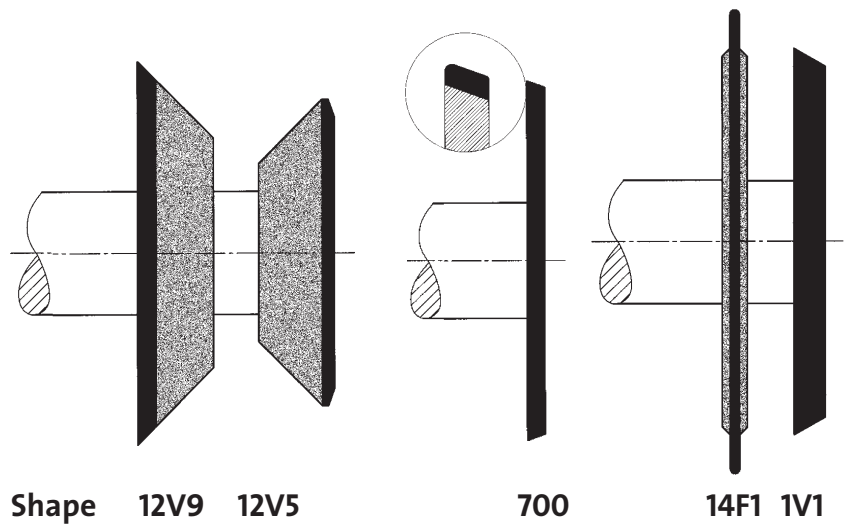
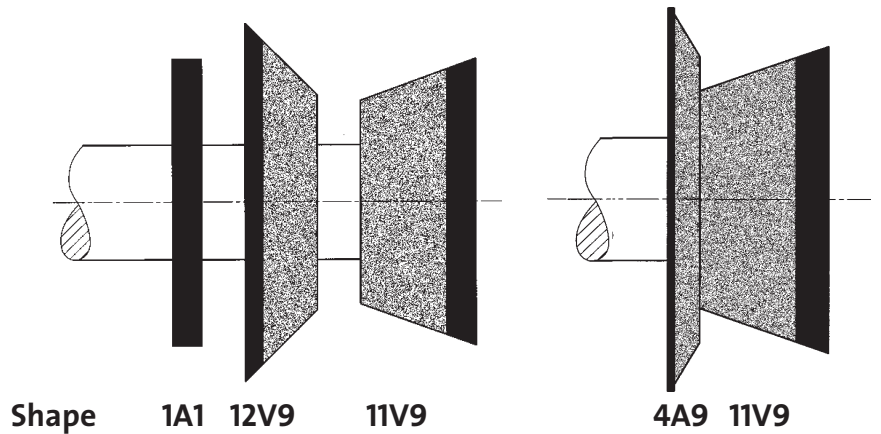
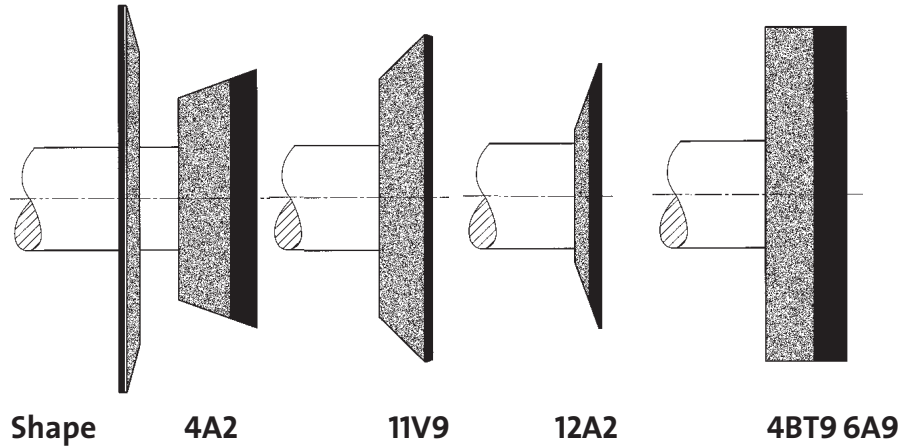
that this catalogue contains our new 11 digit order numbers.

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<b>Diamond grinding wheels for carbide tools</b>	
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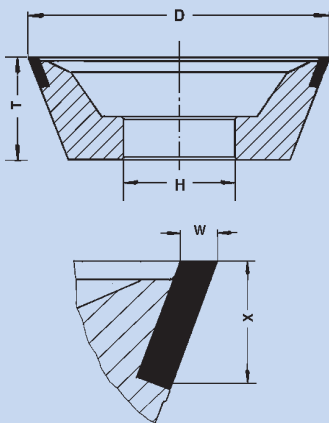
Examples of possible grinding wheel combinations, mounted as spindle sets for CNC tool grinding machines, including the following makes:

- Anca
- Cincinnati
- M. Deckel
- EWAG
- Griffo
- Haas
- Haro
- Hawema
- Huffmann
- Jungner
- Kirner
- PeTeWe
- Rollomatic
- Saacke, Gebr.
- Safag
- Schneeberger
- Schütte
- Sorencor
- Strausak
- Stream
- Tacchella
- Viking
- Walter
- Wadkin
- etc.

Dressing machines:  
Geiger  
Cleveland



## Grinding wheel shape according to FEPA 11V9



## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
7K 11V9	- 75 - 2 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260338587	T = 30
		D91	K-PLUS 1410	C125H	66260352076	T = 30 <sup>1)</sup>
2K 11V9	- 75 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260347304	T = 30
8K 11V9	- 100 - 2 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260338586	T = 35
		D91	K-PLUS 921	C125H	66260383968	T = 35
		D91	K-PLUS 1410	C125H	66260336262	T = 35 <sup>2)</sup>
		D126	K-PLUS 888 R	C100H	66260344473	T = 35
10K 11V9	- 100 - 3 - 10 - 20	D46	K-PLUS 1421 R	C100H	66260346530	T = 35
		D64	K-PLUS 1421 R	C100H	66260334264	T = 35
11K 11V9	- 125 - 3 - 10 - 20	D46	K-PLUS 1421 R	C100H	66260352680	T = 40 <sup>1)</sup>
		D64	K-PLUS 1421 R	C100H	66260338584	T = 40

Application depending on software of machine manufacturer:

For grinding 1<sup>st</sup> and 2<sup>nd</sup> relief, periphery, minor cutting edge, full radii and chamfered corners of drills and milling cutters.

<sup>1)</sup> Delivery within four weeks.

<sup>2)</sup> W = 0.8 mm by after-work possibly.

## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
2 SP 11V9	- 75 - 2 - 10 - 20	D46	W-PLUS 3060	C125H	66260118286	T = 30
2 SP 11V9	- 100 - 2 - 10 - 20	D46	W-PLUS 3060	C125H	66260346785	T = 35
3SP 11V9	- 100 - 3 - 10 - 20	D64	QFLUTE+ RUN		66260375627	T = 35 <sup>1)</sup>

Application depending on software of machine manufacturer:

For flute grinding, periphery grinding, relief grinding, radius sharpening.

<sup>1)</sup> Delivery within four weeks.

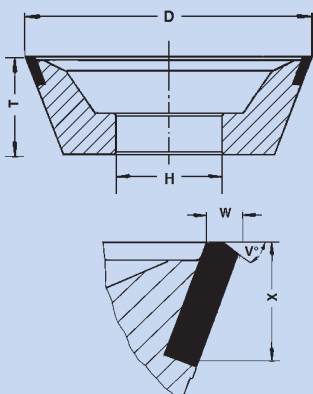
## WINTER

### For HSS tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
7K 11V9	- 75 - 2 - 10 - 20	B107	KSS 12 N	V240H	66260352681	T = 30
2K 11V9	- 75 - 3 - 10 - 20	B107	KSS 12 N	V240H	66260352679	T = 30
8K 11V9	- 100 - 2 - 10 - 20	B107	KSS 12 N	V240H	66260352678	T = 35
		B151	KSS JY-63	V240H	66260128341	T = 35
10K 11V9	- 100 - 3 - 10 - 20	B107	KSS 12 N	V240H	66260352675	T = 30
11K 11V9	- 125 - 3 - 10 - 20	B107	KSS 12 N	V240H	66260352674	T = 40

Application depending on software of machine manufacturer:

For grinding 1<sup>st</sup> and 2<sup>nd</sup> relief, periphery, minor cutting edge, full radii and chamfered corners of drills and milling cutters.



## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
8K11V9	- 100 - 2 - 10 - 20	D91	K-PLUS 1410	C125H	66260336262	T = 35 <sup>1)</sup>

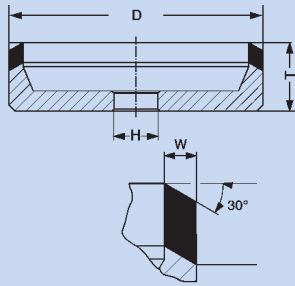
Application depending on software of machine manufacturer:

For grinding full radius milling cutters.

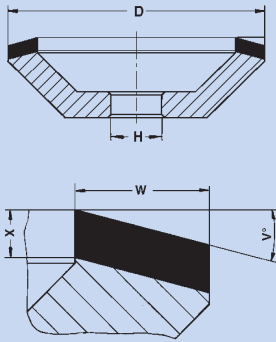
<sup>1)</sup> W = 0.8 mm by after-work possibly.



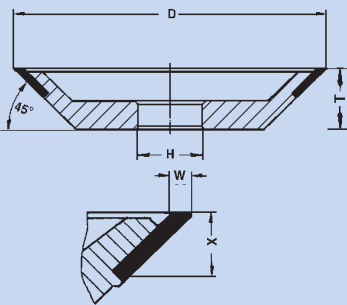
## Grinding wheel shape according to FEPA 6V5



## Grinding wheel shape according to FEPA 12V5



## Grinding wheel shape according to FEPA 12V9



## WINTER

### For carbide tools

Shape	- D - W - X - V° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 6V5	- 100 - 4,5 - 10 - 30 - 20	D64	K-PLUS 1421 R	C100H	66260370517	T = 34

### For HSS tools

Shape	- D - W - X - V° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 6V5	- 100 - 4,5 - 10 - 30 - 20	B107	KSS12 N	V240H	66260370513	T = 34

Application depending on software of machine manufacturer:  
For grinding end mills with corner radius.

## WINTER

### For carbide tools

Shape	- D - W - X - V° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K12V5	- 75 - 3 - 5 - 30 - 20	D64	K-PLUS 1421 R	C100H	66260135934	T = 23
K 12V5	- 100 - 10 - 5 - 20 - 20	D46	K-PLUS 1421 R	C100H	66260352645	T = 28

Application depending on software of machine manufacturer:  
For grinding radial relief, periphery, 1<sup>st</sup> relief and radius.

### For HSS tools

Shape	- D - W - X - V° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K12V5	- 75 - 3 - 5 - 30 - 20	B107	KSS 12 N	V240H	66260134335	T = 23 <sup>1)</sup>
K 12V5	- 100 - 10 - 5 - 20 - 20	B91	KSS 12 N	V240H	66260127380	T = 28

Application depending on software of machine manufacturer: <sup>1)</sup> Delivery within four weeks.  
For grinding radial relief, periphery, 1<sup>st</sup> relief and radius.

## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
3K 12V9	- 75 - 2 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260338583	T = 20
2K 12V9	- 75 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260352673	T = 20
6K 12V9	- 100 - 2 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260344811	T = 20
3K 12V9	- 100 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260339437	T = 20
		D126	K-PLUS 888 R	C100H	66260128545	T = 20
9K 12V9	- 125 - 2 - 10 - 20	D91	K-PLUS 921	C125H	66260383462	T = 25
		D91	K-PLUS 1410	C125H	66260340845	T = 20
5K 12V9	- 125 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260334260	T = 25 <sup>1)</sup>
5K 12V9	- 150 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260117874	T = 25

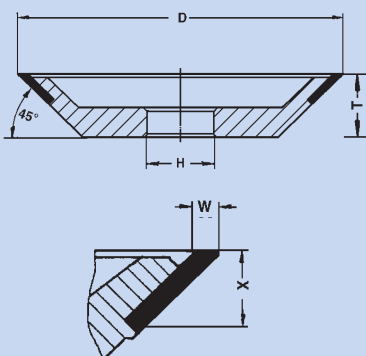
<sup>2)</sup> W = 0.8 mm by after-work possibly.

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1 SP 12V9	- 100 - 2 - 10 - 20	D46	W-PLUS 3060	C125H	66260348949	T = 20
2 SP 12V9	- 125 - 2 - 6 - 20	D46	W-PLUS 3060	C125H	66260350500	T = 20

Application depending on software of machine manufacturer:  
For flute grinding, periphery grinding, relief grinding, radius sharpening.

## Grinding wheel shape according to FEPA 12V9



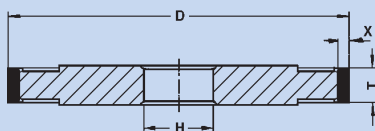
## WINTER

### For HSS tools

Shape	D	W	X	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
3K 12V9	75	2	10	20	B107	KSS 12 N	V240H	66260352670	T = 20
6K 12V9	100	2	10	20	B107	KSS 12 N	V240H	66260352669	T = 20
1K 12V9	100	3	15	20	B107	KSS 12 N	V240H	66260352668	T = 20
					B151	KSS JY-77	V240H	60157642984	T = 20
6K 12V9	125	3	15	20	B107	KSS 12 N	V240H	66260352667	T = 25
					B151	KSS JY-77	V240H	66260128064	T = 25
5K 12V9	125	3	10	20	B107	KSS 12 N	V240H	66260354629	T = 25
5K 12V9	150	3	10	20	B107	KSS 12 N	V240H	66260128353	T = 25

Application depending on software of machine manufacturer:  
For grinding relief, ball shapes of end mills, relief grinding of minor cutting edge, grinding 1<sup>st</sup> and 2<sup>nd</sup> relief.

## Grinding wheel shape according to FEPA 1A1



## WINTER

### For carbide tools

Shape	D	T	X	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 1A1	75	10	5	20	D64	K-PLUS 1421 R	C100H	66260339426	
K 1A1	100	10	5	20	D64	K-PLUS 1421 R	C100H	66260339422	
K 1A1	100	10	5	20	D91	K-PLUS 1421 J	C75A	66260356902	
K 1A1	100	12	5	20	D64	K-PLUS 1421 R	C100H	66260347629	
K 1A1	100	15	5	20	D64	K-PLUS 1421 R	C100H	66260339419	
K 1A1	100	15	5	20	D91	K-PLUS 1421 J	C75A	66260355621	
K 1A1	125	5	10	20	D64	K-PLUS 1421 R	C100A	66260350079	
K 1A1	125	10	10	20	D64	K-PLUS 1421 R	C100A	66260341750	
K 1A1	125	12	10	20	D64	K-PLUS 1421 R	C100A	66260352659	
K 1A1	125	16	10	20	D64	K-PLUS 1421 J	C100A	66260351497	
K 1A1	150	12	10	20	D64	K-PLUS 1421 R	C100A	66260352657	

Application depending on software of machine manufacturer:  
For flute grinding, periphery grinding, relief grinding, radius sharpening.

### For carbide tools

Shape	D	T	X	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1 SP 1A1	100	6	5	20	D46	W-PLUS 3060	C125A	66260134471	
1 SP 1A1	100	8	10	20	D46	W-PLUS 3060	C125A	66260134472	
1 SP 1A1	100	10	15	20	D46	W-PLUS 3060	C125A	60157643656	
1 SP 1A1	125	10	10	20	D46	W-PLUS 3060	C125A	66260112833	

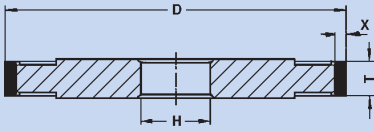
Application depending on software of machine manufacturer:  
For flute grinding, periphery grinding, relief grinding, radius sharpening.

### For HSS tools

Shape	D	T	X	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 1A1	75	10	5	20	B107	KSS 12 N	V240H	66260352656	1)
K 1A1	100	10	5	20	B107	KSS 12 N	V240H	66260352654	
K 1A1	100	15	5	20	B107	KSS 12 N	V240H	66260347909	
K 1A1	125	10	5	20	B107	KSS 12 N	V240A	66260352653	
K 1A1	150	12	5	20	B107	KSS 12 N	V240A	66260352652	

Application depending on software of machine manufacturer: 1) Delivery within four weeks.  
For flute grinding, periphery grinding, relief grinding, radius sharpening.

# Grinding wheel shape according to FEPA 1A1



## WINTER

### QFlute+ RUN

Shape	- D	- T	- X	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
SP 1A1	100	8	10	20	D64	QFLUTE+ RUN	-	66260385402	
SP 1A1	100	10	10	20	D64	QFLUTE+ RUN	-	66260383152	
SP 1A1	100	12	10	20	D64	QFLUTE+ RUN	-	66260383561	
SP 1A1	100	15	10	20	D64	QFLUTE+ RUN	-	66260383162	)
SP 1A1	125	8	10	20	D64	QFLUTE+ RUN	-	66260379837	
SP 1A1	125	10	10	20	D64	QFLUTE+ RUN	-	66260382864	
SP 1A1	125	12	10	20	D64	QFLUTE+ RUN	-	66260383365	
SP 1A1	125	15	10	20	D64	QFLUTE+ RUN	-	66260382766	

EFESIS dressing wheels see page 13.

) Delivery within four weeks.

## WINTER

### QFlute+ RUN special for ANCA-Machine, H=31,75

Shape	- D	- T	- X	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
SP 1A1	100	10	10	31.75	D64	QFLUTE+ RUN	-	66260388207	)
SP 1A1	100	12	10	31.75	D64	QFLUTE+ RUN	-	66260385108	)
SP 1A1	100	15	10	31.75	D64	QFLUTE+ RUN	-	66260387111	)
SP 1A1	125	10	10	31.75	D64	QFLUTE+ RUN	-	66260380512	)
SP 1A1	125	12	10	31.75	D64	QFLUTE+ RUN	-	66260383913	)
SP 1A1	125	15	10	31.75	D64	QFLUTE+ RUN	-	66260385014	)

EFESIS dressing wheels see page 13.

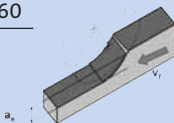
) Delivery within four weeks.

Use of



High Performance Grinding Wheels for Flute-Grinding.

$$v_f = \frac{Q'_w \cdot 60}{a_e}$$



Example: D64 ( $Q'_w = 5$ ),  $a_e = 4$  mm

$$v_f = \frac{5 \cdot 60}{4} = 75 \text{ mm/min}$$

Test start with following parameter:

D46 and D54  $Q'_w = 4 \text{ mm}^3/\text{mm} \cdot \text{s}$   
 D64 and D76  $Q'_w = 5 \text{ mm}^3/\text{mm} \cdot \text{s}$   
 D91  $Q'_w = 6 \text{ mm}^3/\text{mm} \cdot \text{s}$

(If infeed  $< a_e = 3$  mm,  
 Start with approx.  $v_f = 80$  mm/min)  
 $v_c$  15...18 m/s

Important:  
 Condition before first grinding.

## Q'w Calculation chart

Infeed $a_e$ [mm]	Feed rate $v_f$ [mm/min]																		
	30	40	50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	
3	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	9	10	11	12	13	14	15	
3,2	1,6	2,1	2,7	3,2	3,7	4,3	4,8	5,3	6,4	7,5	8,5	9,6	11	12	13	14	15	16	
3,4	1,7	2,3	2,8	3,4	4	4,5	5,1	5,7	6,8	7,9	9,1	10	11	12	14	15	16	17	
3,6	1,8	2,4	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	11	12	13	14	16	17	18	
3,8	1,9	2,5	3,2	3,8	4,4	5,1	5,7	6,3	7,6	8,9	10	11	13	14	15	16	18	19	
4	2	2,7	3,3	4	4,7	5,3	6	6,7	8	9,3	11	12	13	15	16	17	19	20	
4,2	2,1	2,8	3,5	4,2	4,9	5,6	6,3	7	8,4	9,8	11	13	14	15	17	18	20	21	
4,4	2,2	2,9	3,7	4,4	5,1	5,9	6,6	7,3	8,8	10	12	13	15	16	18	19	21	22	
4,6	2,3	3,1	3,8	4,6	5,4	6,1	6,9	7,7	9,2	11	12	14	15	17	18	20	21	23	
4,8	2,4	3,2	4	4,8	5,6	6,4	7,2	8	9,6	11	13	14	16	18	19	21	22	24	
5	2,5	3,3	4,2	5	5,8	6,7	7,5	8,3	10	12	13	15	17	18	20	22	23	25	
5,2	2,6	3,5	4,3	5,2	6,1	6,9	7,8	8,7	10	12	14	16	17	19	21	23	24	26	
5,4	2,7	3,6	4,5	5,4	6,3	7,2	8,1	9	11	13	14	16	18	20	22	23	25	27	
5,6	2,8	3,7	4,7	5,6	6,5	7,5	8,4	9,3	11	13	15	17	19	21	22	24	26	28	
5,8	2,9	3,9	4,8	5,8	6,8	7,7	8,7	9,7	12	14	15	17	19	21	23	25	27	29	
6	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24	26	28	30	

For  $a_e < 3$  mm: Start with approx.  $v_f = 80$  mm/min

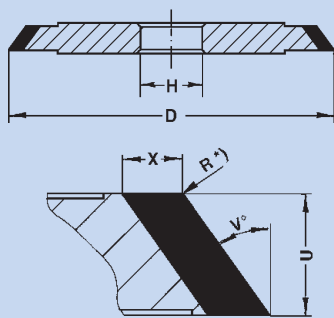
Starting parameters for D46 and D54

Increase Potential

Starting parameters for D64 and D76

Starting parameters for D91

# Grinding wheel shape according to FEPA 1V1 / 14V1



\*) Radius nur bei extra gekennzeichneten Ausführungen, siehe Bemerkung

## WINTER

### For carbide tools

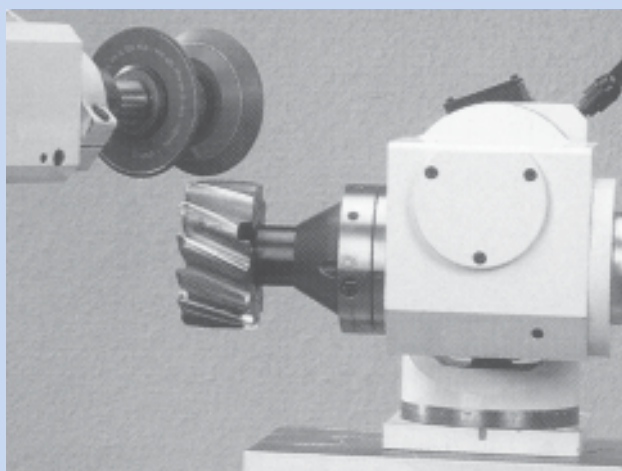
Shape	D	U	X	V°	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 1V1	75	10	5	10	20	D64	K-PLUS1421 R	C100H	66260339433	
1K 1V1	100	10	5	10	20	D64	K-PLUS1421 R	C100H	66260339432	
1K 1V1	100	15	5	10	20	D64	K-PLUS1421 R	C100H	66260339431	1)
K 1V1	100	15	5	20	20	D64	K-PLUS1421 R	C100H	66260347907	
K 1V1	100	15	5	30	20	D64	K-PLUS1421 R	C100H	66260342813	
K 1V1	100	15	5	45	20	D64	K-PLUS1421 R	C100H	66260352665	
1K 14V1	125	4	6	45	20	D64	K-PLUS921	C100A	66260352637	
1K 1V1	125	6	5	20	20	D64	K-PLUS1421 R	C100A	66260117593	Hertel SE-Drill R = 0,2
1K 1V1	125	10	5	10	20	D64	K-PLUS1421 R	C100A	66260352633	
3K 1V1	125	10	5	20	20	D64	K-PLUS1421 R	C100A	66260346267	Hertel SE-Drill R = 0,5
1K 1V1	125	10	5	30	20	D64	K-PLUS1421 R	C100A	66260115545	
1K 1V1	125	10	5	45	20	D64	K-PLUS1421 R	C100A	66260352664	
1K 1V1	125	15	5	10	20	D64	K-PLUS1421 R	C100A	66260352641	
1K 1V1	125	15	5	20	20	D64	K-PLUS1421 R	C100A	66260345983	Hertel SE-Drill R = 0,9
K 1V1	125	15	5	30	20	D64	K-PLUS1421 R	C100A	66260352640	1)
K 1V1	125	15	5	45	20	D64	K-PLUS1421 R	C100A	66260352639	
1K 14V1	150	4	5	45	20	D91	K-PLUS921	C100A	66260131709	1)
K 1V1	150	12	5	15	20	D64	K-PLUS1421 R	C100A	66260119886	1)

Application depending on software of machine manufacturer: 1) Delivery within four weeks.  
For flute grinding, end and end relief thinning, drill sharpening (in some cases Hertel SE drill).

### For HSS tools

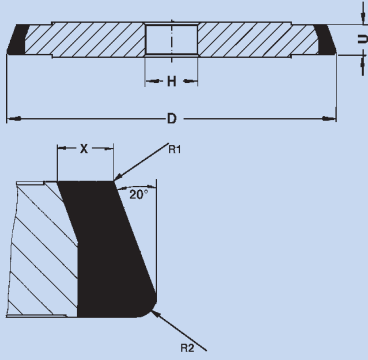
Shape	D	U	X	V°	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 1V1	75	10	5	10	20	B107	KSS 12 N	V240H	66260119689	
1K 1V1	100	10	5	10	20	B107	KSS 12 N	V240H	66260127891	1)
1K 1V1	100	15	5	10	20	B107	KSS 12 N	V240H	66260116353	
K 1V1	100	15	5	20	20	B107	KSS 12 N	V240H	66260115554	
K 1V1	100	15	5	30	20	B107	KSS 12 N	V240H	66260115756	
K 1V1	100	15	5	45	20	B107	KSS 12 N	V240H	66260352663	
1K 1V1	125	12	5	10	20	B107	KSS 12 N	V240A	66260119462	
1K 1V1	125	12	5	45	20	B107	KSS 12 N	V240A	66260352661	
1K 14V1	150	4	5	45	20	B107	KSS 12 N	V240A	66260131441	1)
K 1V1	150	12	5	15	20	B107	KSS 12 N	V240A	66260127964	1)

Application depending on software of machine manufacturer: 1) Delivery within four weeks.  
For flute grinding, end and end relief thinning, drill sharpening.





## Grinding wheel shape 700 (not FEPA Standard)



## WINTER

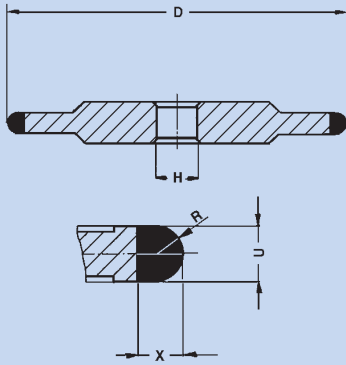
### For carbide tools

Shape	- D	- U	- X	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
2K 700	- 125	- 6	- 3	- 20	D46	K-PLUS 1421 R	C100H	66260119545	Drill $\emptyset$ 3...6 mm <sup>1)</sup>
2K 700	- 125	- 10	- 5	- 20	D46	K-PLUS 1421 R	C100H	66260384095	Drill $\emptyset$ 6...8 mm <sup>1)</sup>
1K 700	- 125	- 12	- 5	- 20	D46	K-PLUS 1421 R	C100A	66260352647	Drill $\emptyset$ 8...11 mm <sup>1)</sup>
1K 700	- 125	- 16	- 5	- 20	D46	K-PLUS 1421 R	C100H	66260384094	Drill $\emptyset$ 11...15 mm <sup>1)</sup>
1K 700	- 125	- 22	- 5	- 20	D46	K-PLUS 1421 R	C100A	66260127878	Drill $\emptyset$ 15...20mm <sup>1)</sup>

Application depending on software of machine manufacturer:  
Preferably Hertel SE drill

<sup>1)</sup> Delivery within four weeks.

## Grinding wheel shape according to FEPA 14F1



## WINTER

### For carbide tools

Shape	- D	- U	- X	- R	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 14F1	- 100	- 4	- 6	- 2	- 20	D64	K-PLUS 1421 R	C100H	66260339416	
1K 14F1	- 125	- 8	- 10	- 4	- 20	D64	K-PLUS 1414 J	C75A	66260130802	<sup>1)</sup>
K 14F1	- 150	- 1.2	- 5	- 0.6	- 20	D46	K-PLUS 888 R	C100A	66260351382	Hertel SE-Drill
K 14F1	- 150	- 2	- 5	- 1	- 20	D64	K-PLUS 888 R	C100A	66260348744	Hertel SE-Drill
K 14F1	- 150	- 4	- 5	- 2	- 20	D64	K-PLUS 1421 R	C100A	66260351943	Hertel SE-Drill
K 14F1	- 150	- 5	- 7	- 2.5	- 20	D64	K-PLUS 1421 R	C100A	66260129473	<sup>1)</sup>

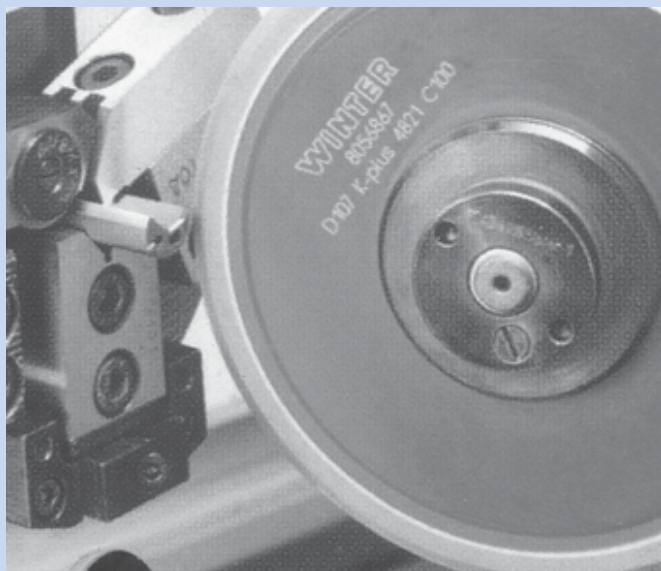
<sup>1)</sup> Delivery within four weeks.

### For HSS tools

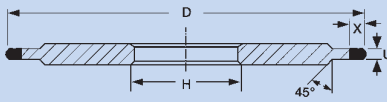
Shape	- D	- U	- X	- R	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 14F1	- 100	- 3	- 5	- 1,5	- 20	B107	KSS 12 N	V240A	66260340210	
K 14F1	- 100	- 4	- 5	- 2	- 20	B107	KSS 12 N	V240A	66260116260	
3K 14F1	- 125	- 4	- 5	- 2	- 20	B107	KSS 12 N	V240A	66260352649	
K 14F1	- 150	- 4	- 5	- 2	- 20	B107	KSS 12 N	V240A	66260352648	

Application depending on software of machine manufacturer:

For point thinning of major cutting edges, for grinding end cutting edges and corner radii, Hertel SE drill, profile grinding.



Grinding wheel  
shape **700**  
(not FEPA Standard)



**WINTER**

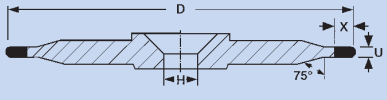
For HSS tools

Shape	D	U	X	R	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K700	200	1.3	6.5	-0.65*	32	-	PROFILE S	-	66260395757	
2K700	200	1.6	7	-0.8*	32	-	PROFILE S	-	66260391758	
3K700	200	2	8	1	32	-	PROFILE S	-	66260395659	
2K700	200	2.5	8	-1.25*	32	-	PROFILE S	-	69014169272	
5K700	200	3	10	-1.5*	32	-	PROFILE S	-	66260399460	
3K700	200	3.5	10	-1.75*	32	-	PROFILE S	-	66260394362	
1K700	200	4	-12.5	-2*	32	-	PROFILE S	-	66260399763	
1K700	200	5	15	-2.5*	32	-	PROFILE S	-	66260398364	
2K700	200	6	15	3*	32	-	PROFILE S	-	66260394265	

Application depending on software of machine manufacturer:  
For grinding tooth shape of HSS sawblades Loroch, Rekord and Schmidt.

\*) other radii possible

Grinding wheel  
shape **700**  
(not FEPA Standard)



**WINTER**

For HSS tools

Shape	D	U	X	R	H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K700	150	1.3	8	-0.65*	20	-	PROFILE S	-	66260349334	
3K700	150	2	8	1*	20	-	PROFILE S	-	66260354690	
1K700	150	2.5	8	-1.25*	20	-	PROFILE S	-	66260354889	1)
3K700	150	3	8	-1.5*	20	-	PROFILE S	-	66260351109	

Application depending on software of machine manufacturer:  
For CNC grinding tooth shape of HSS sawblades on Schmidt ECE.

\*) other radii possible

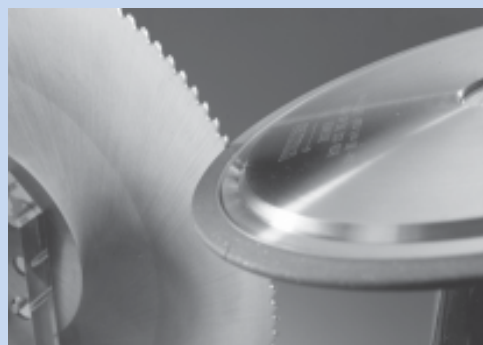
1) Delivery within four weeks.

**profile S-tools offer:**

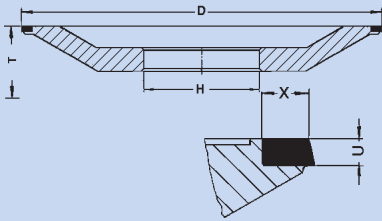
- 20...50 % shorter grinding time
- economical grinding
- no „shoulder“
- no overheating when grinding
- a very good surface
- only a few different types of grinding wheels necessary

**Important for application:**

- profile S-tools are suitable for oil as well as synthetic cutting fluids as coolant, that means only one tool is necessary for each geometry
- As the grinding time is most important, the price is less important  
The parameters given by the machine manufacturers couldn't only be kept but increased without any problems! An increase of the grinding time by 30% at minimum is usual.
- You have a better machine performance respectively an effective capacity of the stock engines
- In spite of high chip removal no blue-coloring, i.e. no damage at the workpiece
- In spite of high chip removal no respectively only very small shoulders
- TI-ALN-coated saw blades (gold-colored coating):  
In spite of extremely high wear demand, you can grind with the parameters given by the machine manufacturers



Grinding wheel  
shape **700**  
(not FEPA Standard)



**WINTER**

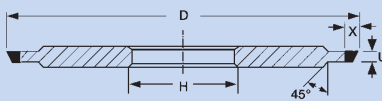
For HSS tools

Shape	- D - U - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1BZ700	- 200 - 1.5 - 5 - 32	B126	MSS560	V240	6626011706	*)

Application depending on software of machine manufacturer:  
For grinding tooth shape of HSS sawblades Loroach AK.

\*) Delivery within four weeks.

Grinding wheel  
shape according to  
FEPA **1K14B1**



**WINTER**

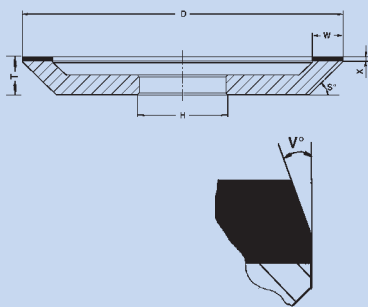
For HSS tools

Shape	- D - U - X - R - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K14B1	- 200 - 1.5 - 5 - 45 - 32	B126	KSS RY	V240A	66260113015	*)

Application depending on software of machine manufacturer:  
For grinding tooth shape of HSS sawblades Schmidt.

\*) Delivery within four weeks.

Grinding wheel  
shape according to  
FEPA **12A2**



**WINTER**

For carbide tools

Shape	- D - W - X - S° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
2K 12A2	- 125 - 15 - 3 - 45 - 20	D46	K-PLUS 1421 R	C100H	66260352597	V=20°, T=26

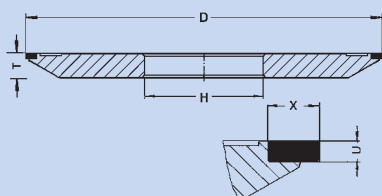
For HSS tools

Shape	- D - W - X - S° - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
2K 12A2	- 125 - 15 - 3 - 45 - 20	B91	KSS JY-63	V240H	66260352594	V=20°, T=26
		B91	KSS 12 N	V240H	66260352593	V=20°, T=26

Application depending on software of machine manufacturer:

For grinding drills (e.g. Hertel SE drill), cone envelope grinding, major cutting edge sharpening.

Grinding wheel  
shape according to  
FEPA **4A9**



**WINTER**

For carbide tools

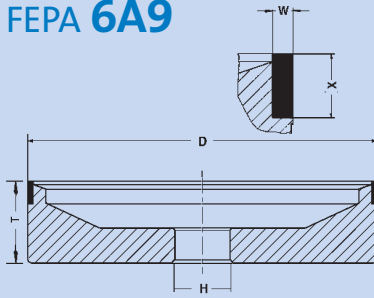
Shape	- D - U - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 4A9	- 100 - 2 - 6 - 20	D64	K-PLUS 4821	C100A	66260118549	T=7 *)
1K 4A9	- 125 - 2 - 6 - 20	D64	K-PLUS 4821	C100A	66260128552	T=8 *)

Application depending on software of machine manufacturer:

For grinding drill flutes and small milling cutters.

\*) Delivery within four weeks.

## Grinding wheel shape according to FEPA 6A9



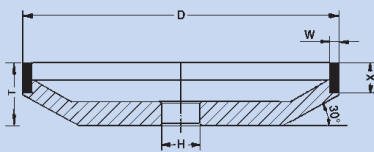
### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
11K 6A9	- 100 - 3 - 10 - 20	D64	K-PLUS 1421 R	C100H	66260339412	T=30
1K 6A9	- 125 - 3 - 10 - 20	D126	K-PLUS 920	C100A	60157643461	T=30

Application depending on software of machine manufacturer:

For grinding 1<sup>st</sup> and 2<sup>nd</sup> relief, periphery, minor cutting edge, full radii corner chamfers of drills and milling cutters.

## Grinding wheel shape according to FEPA 12A9



## WINTER

### For carbide tools

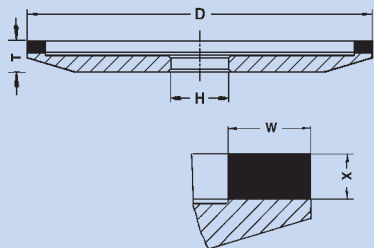
Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1K 12A9	- 150 - 4 - 14 - 20	D46	K-PLUS 1421 R	C100A	66260128460	T=30 <sup>1)</sup>

Application depending on software of machine manufacturer:

For grinding drills and step drills, Sandvik-Delta grinding.

<sup>1)</sup> Delivery within four weeks.

## Grinding wheel shape according to FEPA 4A2



## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 4A2	- 150 - 4 - 3 - 20	D64	K-PLUS 1421 R	C100A	66260346957	T=12 <sup>1)</sup>

<sup>1)</sup> Delivery within four weeks.

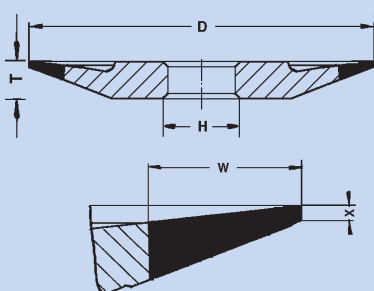
### For HSS tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 4A2	- 150 - 4 - 3 - 20	B91	KSS 12 N	V240A	66260127081	T=12

Application depending on software of machine manufacturer:

For relief grinding on woodworking cutters.

## Grinding wheel shape according to FEPA 4BT9



## WINTER

### For carbide tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 4BT9	- 100 - 10 - 1 - 20	D126	K-PLUS 1421 R	C75A	66260348380	T=10

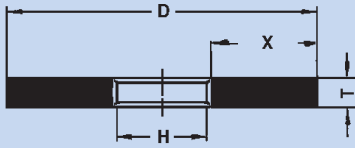
### For HSS tools

Shape	- D - W - X - H	Grit size	Bond	Concentration	ORDER NO.	Remarks
K 4BT9	- 100 - 10 - 1 - 20	B126	KSS 12 N	V180A	66260132772	T=10

Application depending on software of machine manufacturer:

For point thinning of drills and milling cutters, relief grinding.

## Grinding wheel shape according to FEPA 1A8



## WINTER

### For carbide tools

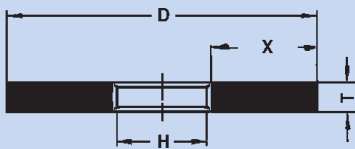
Shape	- D	- T	- X	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1A8	- 25	- 0.3	- 8.5	- 8	D76	MR875	C125	66260377628	
1A8	- 25	- 0.35	- 8.5	- 8	D76	MR875	C125	66260377630	
1A8	- 25	- 0.4	- 8.5	- 8	D91	MR875	C125	66260377331	
1A8	- 25	- 0.5	- 8.5	- 8	D91	MR875	C125	66260379132	
1A8	- 25	- 0.55	- 8.5	- 8	D91	MR875	C125	66260376246	
1A8	- 30	- 0.3	- 11	- 8	D76	MR875	C125	66260337005	
1A8	- 30	- 0.4	- 11	- 8	D91	MR875	C125	66260340908	
1A8	- 30	- 0.5	- 11	- 8	D91	MR875	C125	66260338009	
1A8	- 50	- 0.3	- 15	- 20	D107	MR875	C125	66260354594	1)

Application depending on software of machine manufacturer:  
For grinding chip breaking flutes in HSS.

1) Delivery within four weeks.

## WINTER

### For HSS tools

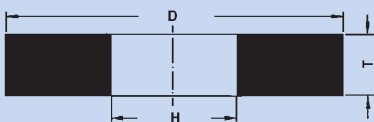


Shape	- D	- T	- X	- H	Grit size	Bond	Concentration	ORDER NO.	Remarks
1A8	- 25	- 0,3	- 8,5	- 8	B76	MR875	V30	66260337112	
1A8	- 25	- 0,35	- 8,5	- 8	B76	MR875	V30	66260343873	1)
1A8	- 25	- 0,4	- 8,5	- 8	B91	MR875	V30	66260344126	
1A8	- 25	- 0,5	- 8,5	- 8	B91	MR875	V30	66260339318	
1A8	- 25	- 0,55	- 8,5	- 8	B91	MR875	V30	66260378342	
1A8	- 30	- 0,3	- 11	- 8	B91	MR875	V30	66260339619	
1A8	- 30	- 0,4	- 11	- 8	B91	MR875	V30	66260341530	
1A8	- 30	- 0,5	- 11	- 8	B91	MR875	V30	66260342021	
1A8	- 50	- 0,3	- 15	- 20	B107	MR875	V30	66260344243	1)

Application depending on software of machine manufacturer:  
For grinding chip breaking flutes in HSS.

1) Delivery within four weeks.

## Grinding wheel 1 (following DIN 69100)



### Dressing grinding wheels

Shape	- D	- T	- X	Abrasive compound	Grit /Hardness / Bond	Bond	ORDER NO.	Remarks
1	- 250	- 10	- 51	31C	120 JOT 8	V500	SK177428A	for Geiger
1	- 200	- 10	- 32	31C	120 JOT 8	V500	SK172801A	for Cleveland

Application depending on software of machine manufacturer:  
Dressing grinding wheels for QFlute+ and all others CNC grinding wheels.



For Your enquiries please contact:

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Notes

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**Capitalise (Brit., alternativ  
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**sales representative gives you comprehensive advise and is a competent partner for the solutions of your grinding tasks.**





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