



SC Pentagon SRL

Tel/fax:0236/412.088

Depozite:Galati,Constanta,  
Tulcea si Braila[www.PentagonRomania.ro](http://www.PentagonRomania.ro);[office@pentagonromania.ro](mailto:office@pentagonromania.ro)

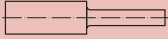
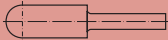






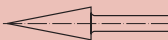





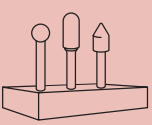

Page

39

Technical Information

41

Type and application

	Shape	Type	Shape (LUKAS)
42		Cylindrical	<b>A</b>
43		Cylindrical round nose	<b>C</b>
43		Spherical	<b>D</b>
44		Oval	<b>E</b>
44		Arch pointed nose	<b>G</b>
45		Flame	<b>H</b>
45		Club	<b>K</b>
46		Conical round nose	<b>L</b>
46		Conical pointed nose	<b>M</b>
47		Inverted cone	<b>N</b>
48		Edge trimming burr	<b>W</b>
49		Miniature Burrs, Shank 3 mm	-
52		Miniature Burrs, Shank 6 mm	-
53		Burrs with internal thread	-
54		Tools sets	-
225		Power Tools	

## **Technical Information**

### **Quality**

LUKAS HSS burrs are manufactured from high quality and well-proven HSS. Our automatic flute grinding machines and our own heat treatment plant guarantee a top quality product.

### **Application**

Providing the correct type and speed are used, LUKAS HSS burrs will economically machine a wide variety of materials.

Regarding cutting speeds, please refer to the table on page 40 or according to the table illustrating the various cuts on page 41. A rule of thumb: Coarse cuts for soft materials – fine cuts for hard materials.

The file cuts H1, H2 and H3 are "rotary files" and run more smoothly than toothed burrs. For higher stock removal rates, toothed burrs should be used.

### **Power tools**

LUKAS HSS burrs can be used on any air or electric powered machines. To achieve the optimal performance, the machines must be run at the correct speed, the collets must run true, and the bearings to be in good condition.

### **Shanks**

Standard shank length is 40 mm. To reach inaccessible working areas, extra long shanks are available on request.

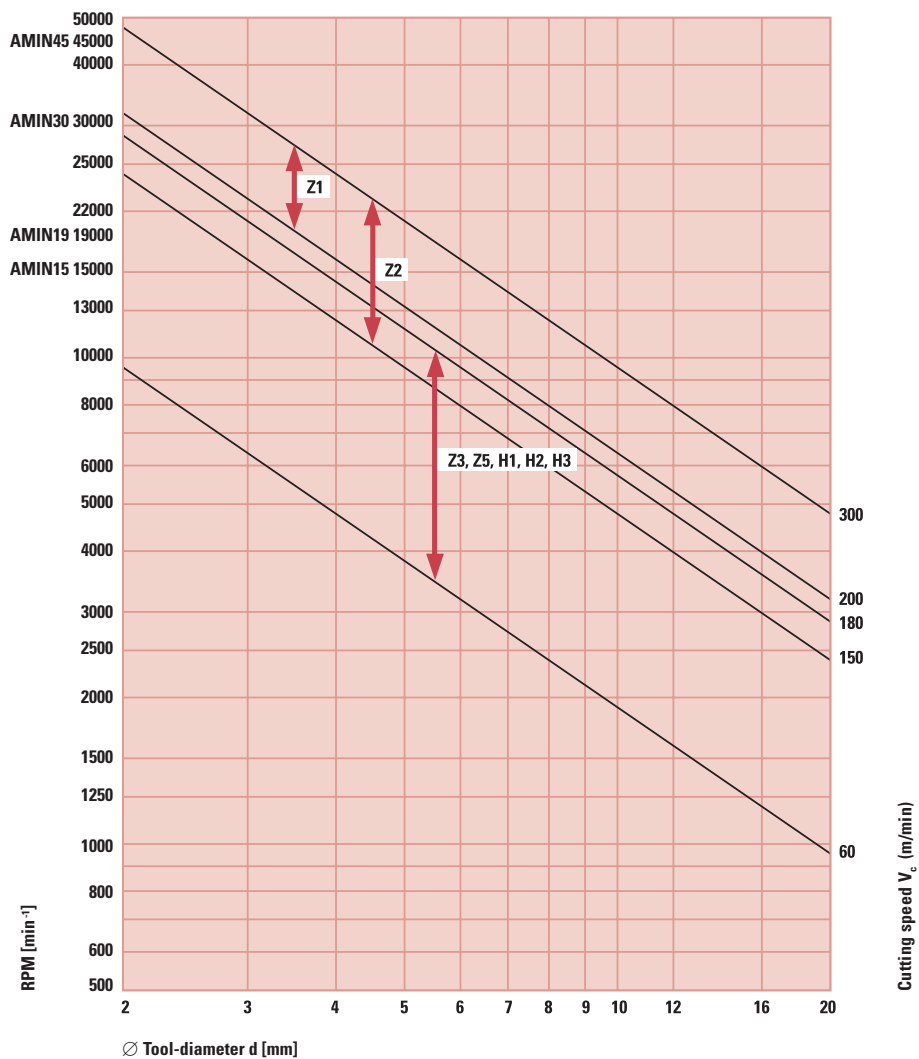
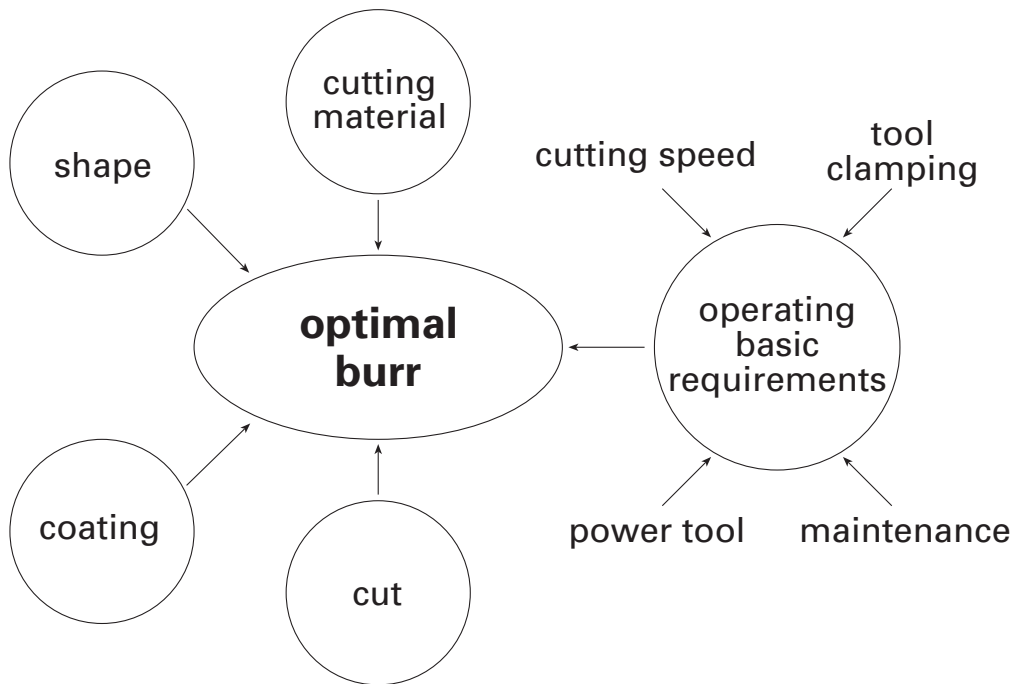
### **Packaging**

Depending on burr dimension and quantity ordered, we choose the most appropriate packing method from our environmentally-friendly unit packs (5 or 10 pieces).





### **Special tools**

We can manufacture HSS burrs to your design and drawing and guarantee the usual high quality LUKAS standard.




## Choosing the appropriate Burr



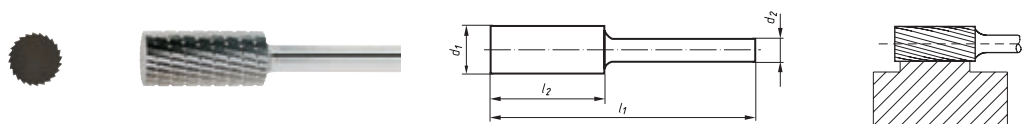
## Types of cut and their application

The following types are available for specific applications	LUKAS specification	Recommended application	Recommended cutting speed low      high
	<b>Z 1</b>	Light metals (long chip), light metal alloys, lead, tin, thermo- and thermo-setting plastics, fibre, rubber, wood	v = 200 - 300 m/min
	<b>Z 2</b>	Light metals (short chip), brass, copper, electrolytic copper, gunmetal, bronze, zinc, magnesium base alloys (Electron)	v = 150 - 300 m/min
	<b>Z 3</b>	Steel and cast steel, alloyed and non-alloyed	v = 60 - 180 m/min
	<b>Z 5</b>	Fine machining of steel and cast steel, alloyed and non-alloyed; non smearing non-ferrous metals	v = 60 - 180 m/min

Burrs of cut 2 and 3 are always supplied with chip-breaker.

We manufacture the following types of rotary files for special applications	LUKAS-specification	Recommended application	Recommended cutting speed low      high
	<b>H 1</b>	Steel, cast iron, malleable iron	v = 60 - 180 m/min
	<b>H 2</b>	Steel and cast steel, alloyed and non-alloyed	v = 60 - 180 m/min
	<b>H 3</b>	Steel and cast steel, alloyed and non-alloyed	v = 60 - 180 m/min

## 42 Burrs of HSS



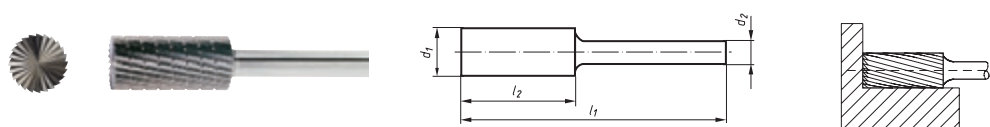
**Shape A, Cylindrical**

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>2</sub> mm	New burrs cut							
					1	2	3	5				
MFA 0304.06	3	4,5	60	6	○	○	○	■				
MFA 0607.06	6	7	60	6	○	○	○	■				
MFA 0616.06	6	16	56	6	■	■	■	■				
MFA 0820.06	8	20	60	6	○	○	■	○				
MFA 1013.06	10	13	53	6	○	■	■	○				
MFA 1020.06	10	20	60	6	○	○	■	○				
MFA 1225.06	12	25	65	6	■	■	■	■				
MFA 1625.06	16	25	65	6	■	■	■	○				

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFA 1225.06 Z3

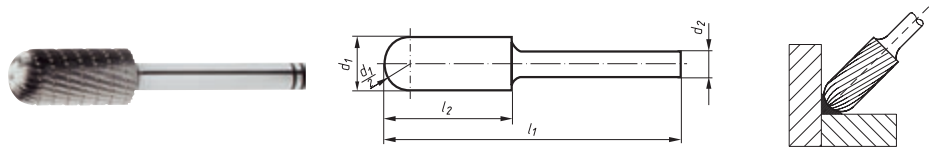
**Shape A, Cylinder with end-cut**



Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>2</sub> mm	New burrs cut								
					1	2	3	5	H1	H2	H3		
MFAS 0616.06	6	16	56	6	■	■	■	■	■	■	■		
MFAS 0820.06	8	20	60	6	○	○	■	○	○	○	○		
MFAS 1013.06	10	13	53	6	○	■	■	○	○	○	○		
MFAS 1225.06	12	25	65	6	■	■	■	○	■	■	○		
MFAS 1625.06	16	25	65	6	■	■	■	○	■	○	○		

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

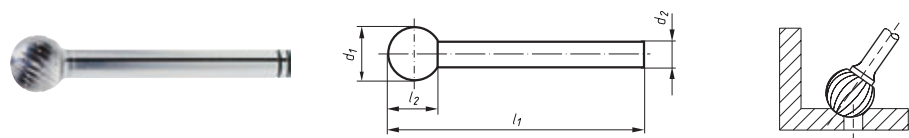
Ordering example: MFAS 0616.06 Z3


**Shape C, Round nose**

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	d <sub>2</sub> mm	New burrs cut							
					1	2	3	5	H1	H2	H3	
MFC 0304.06	3	4,5	60	6	○	○	○	■	○	○	○	
MFC 0620.06	6	20	60	6	■	■	■	■	○	○	■	
MFC 0820.06	8	20	60	6	○	○	■	○	○	○	○	
MFC 0850.06	8	50	90	6	■	■	○	○	○	○	○	
MFC 1020.06	10	20	60	6	○	○	■	○	○	○	○	
MFC 1225.06	12	25	65	6	■	■	■	■	■	■	○	

 Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFC 0620.06 Z3


**Shape D, Spherical**

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut							
					1	2	3	5	H1	H2	H3	
MFD 0302.06	3	2	6	60	○	○	■	○	○	○	○	
MFD 0303.06	3,5	3	6	60	○	○	■	○	○	○	○	
MFD 0403.06	4	3	6	60	○	○	■	○	○	○	○	
MFD 0404.06	4,5	4	6	60	○	■	■	○	○	○	○	
MFD 0504.06	5	4	6	60	○	○	■	○	○	○	○	
MFD 0605.06	6	5	6	60	○	■	■	○	○	○	○	
MFD 0807.06	8	7	6	60	■	■	■	■	○	■	■	
MFD 1009.06	10	9	6	60	○	■	■	■	○	○	○	
MFD 1210.06	12	10	6	60	■	■	■	○	○	○	○	
MFD 1614.06	16	14	6	60	■	■	■	○	○	○	○	

 Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFD 0807.06 Z3



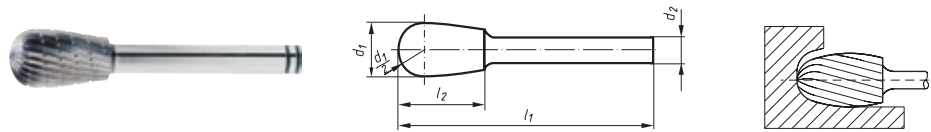
■ delivery ex-stock

▲ quick delivery

○ available as special service



regrind service, please enquire



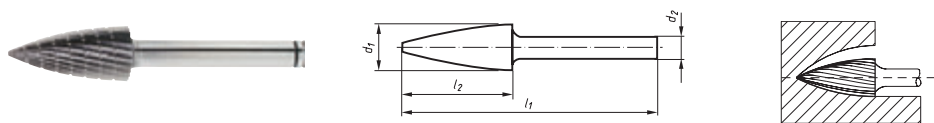
## Shape E, Oval

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut							
					1	2	3	5	H1	H2	H3	
MFE 0607.06	6	7	6	60	○	○	○	■	○	○	○	
MFE 1220.06	12	20	6	60	■	○	■	○	○	○	○	
MFE 1625.06	16	25	6	60	■	■	■	○	○	○	○	

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFE 1220.06 Z3

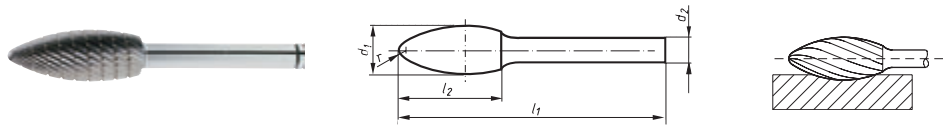
## Shape G, Arch pointed nose



Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut							
					1	2	3	5	H1	H2	H3	
MFG 0618.06	6	18	6	58	■	■	■	○	■	■	■	
MFG 1220.06	12	20	6	60	■	■	■	○	○	○	○	
MFG 1225.06	12	25	6	65	○	○	■	○	○	○	○	
MFG 1230.06	12	30	6	70	■	■	■	■	■	■	■	
MFG 1630.06	16	30	6	70	■	■	■	■	○	○	○	

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

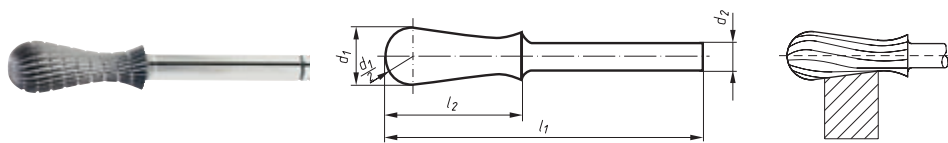
Ordering example: MFG 1225.06 Z3


**Shape H, Flame**

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm		New burrs cut						
						1	2	3	5	H1	H2	H3
MFH 0305.06	3	5	6	60	--	○	○	○	■	○	○	○
MFH 0820.06	8	20	6	60	1,3	○	○	■	○	○	○	○
MFH 1230.06	12	30	6	70	1,9	○	○	■	○	○	○	○
MFH 1635.06	16	35	6	75	2,4	○	○	■	○	○	○	○
MFH 1750.08	17	50	8	80	--	■	○	○	○	○	○	○

 Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFH 1635.06 Z3


**Shape K, Club**

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm		New burrs cut						
						1	2	3	5	H1	H2	H3
MFK 0620.06	6	20	6	60		○	■	■	○	○	○	○
MFK 1230.06	12	30	6	70		○	■	■	○	○	○	○

 Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

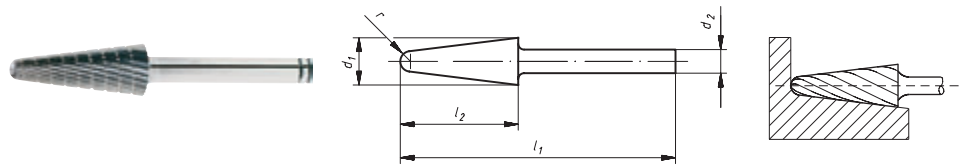
Ordering example: MFK 1230.06 Z3

 You would like to mill,  
grind or polish ...

[www.lukas-erzett.com](http://www.lukas-erzett.com)

# 46 Burrs of HSS

## Shape L, Round nose

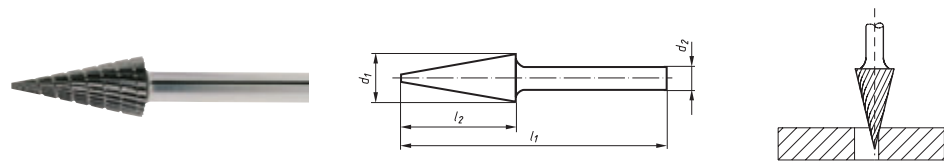


Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	r≈	New burrs cut						
						1	2	3	5	H1	H2	H3
MFL 1020.06	10	20	6	60	2,9	○	■	■	○	○	○	○
MFL 1230.06	12	30	6	70	2,6	○	○	■	○	○	○	○
MFL 1630.06	16	30	6	70	4,8	■	■	■	■	○	○	○

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFL 1630.06 Z3

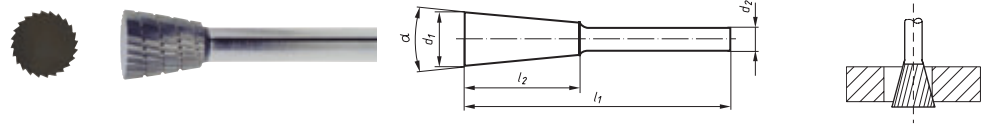
## Shape M, Pointed nose



Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut						
					1	2	3	5	H1	H2	H3
MFM 0304.06	3	4,5	6	60	○	○	○	■	○	○	○
MFM 0607.06	6	7	6	60	○	○	○	■	○	○	○
MFM 0618.06	6	18	6	58	■	■	■	○	○	■	○
MFM 0820.06	8	20	6	60	○	○	■	○	○	○	○
MFM 1020.06	10	20	6	60	○	■	■	○	○	○	○
MFM 1225.06	12	25	6	65	■	○	■	○	○	○	○
MFM 1230.06	12	30	6	70	■	■	■	■	○	■	○

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFM 1225.06 Z3

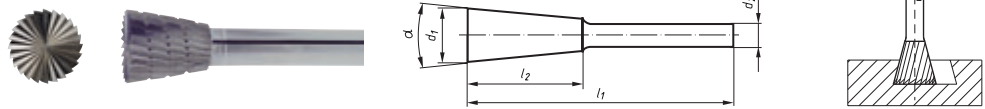


## Shape N, Inverted cone

Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	α	New burrs cut						
						1	2	3	5	H1	H2	H3
MFN 0303.06	3	3	6	60	20°	○	○	○	■	○	○	○
MFN 0606.06	6	6	6	60	20°	○	○	○	■	○	○	○
MFN 1213.06	12	13	6	53	17°	■	○	■	○	○	○	○
MFN 1230.06	12	30	6	70	8°	○	○	■	○	○	○	○

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MFN 1213.06 Z3



## Shape N, Inverted with end-cut

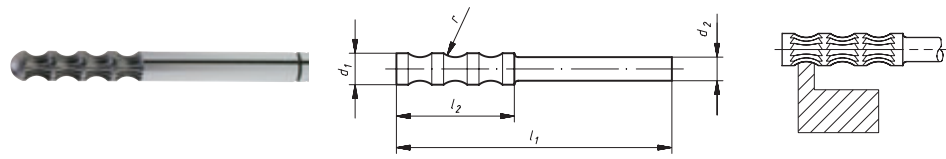
Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	α	New burrs cut						
						1	2	3	5	H1	H2	H3
MFNS 1213.06	12	13	6	53	17°	■	○	■	○	○	○	○
MFNS 1230.06	12	30	6	70	8°	○	○	■	○	○	○	○

Packing units: 5 pc. per type

Ordering example: MFNS 1213.06 Z3

# 48 Burrs of HSS

## Shape W, Cylindrical multiple concave burrs

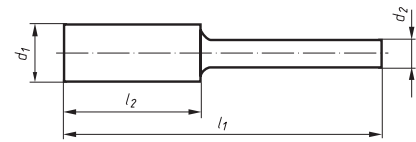


Description	d <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	l <sub>1</sub> mm	Cuts	r≈	
MFW 0620.06	6	20	6	60	16	3	■
MFW 0830.06	8	30	6	70	18	5	■

Packing units: 10 pc. per type

Ordering example: MFW 0620.06

## Miniature Burrs, shank 3 mm

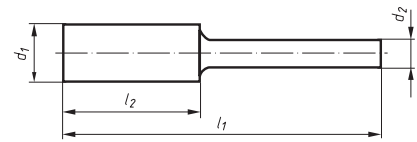















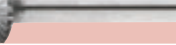



Shape	Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut									
					1	2	3	4	5	6	7			
	MF 827	4	2,8	40	---	---	---	---	■	---	---			
	MF 828	5	3,5	41	---	---	---	---	■	---	---			
	MF 829	6	4,2	41	---	---	---	---	■	---	---			
	MF 831	8	5,5	43	---	---	---	---	■	---	---			
	MF 837	6	6	43	---	---	---	---	■	---	---			
	MF 839	8	8	45	---	---	---	---	■	---	---			
	MF 840	1,6	2,8	40	---	---	---	---	■	---	---			
	MF 841	2,3	4	41	---	---	---	---	■	---	---			
	MF 842	3,2	5,6	43	---	---	---	---	■	---	---			
	MF 843	4	7	44	---	---	---	---	■	---	---			
	MF 844	5	8,7	46	---	---	---	---	■	---	---			
	MF 845	6	10,5	46	---	---	---	---	■	---	---			
	MF 846	7	12,5	46	---	---	---	---	■	---	---			
	MF 847	8	14	46	---	---	---	---	■	---	---			
	MF 848	1,6	1,5	38	---	---	---	---	■	---	---			
	MF 849	2,3	2,1	39	---	---	---	---	■	---	---			
	MF 850	3,2	3	40	---	---	---	---	■	---	---			

Packing units: 10 pc. per type

Ordering example: MF 840

## Miniature Burrs, shank 3 mm

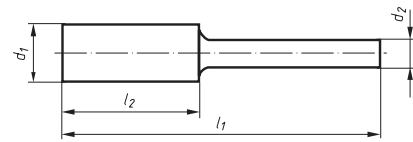


Shape	Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut									
					1	2	3	4	5	6	7			
	MF 851	4	3,8	41	---	---	---	---	■	---	---			
	MF 852	5	4,8	42	---	---	---	---	■	---	---			
	MF 853	6	5,6	43	---	---	---	---	■	---	---			
	MF 854	7	6,7	44	---	---	---	---	■	---	---			
	MF 855	8	7,7	45	---	---	---	---	■	---	---			
	MF 802	7	8	40	---	---	---	---	■	---	---			
	MF 806	7	7,5	40	---	---	---	---	■	---	---			
	MF 807	7	10	42	---	---	---	---	■	---	---			
	MF 808	8	11	43	---	---	---	---	■	---	---			
	MF 813	7	10	42	---	---	---	---	■	---	---			
	MF 814	6	10	42	---	---	---	---	■	---	---			
	MF 815	7	12	44	---	---	---	---	■	---	---			
	MF 864	8	2	39	---	---	---	---	■	---	---			
	MF 865	10	2,5	40	---	---	---	---	■	---	---			
	MF 866	12	3	40	---	---	---	---	■	---	---			
	MF 867	14	3,5	41	---	---	---	---	■	---	---			
	MF 868	8	2	39	---	---	---	---	■	---	---			

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MF 855

## Miniature Burrs, shank 3 mm

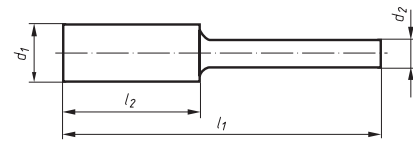








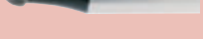




Shape	Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	New burrs cut										
					1	2	3	4	5	6	7				
	MF 869	10	2,3	39	---	---	---	---	---	■	---	---			
	MF 870	12	2,6	40	---	---	---	---	---	■	---	---			
	MF 871	14	3	40	---	---	---	---	---	■	---	---			
	MF 872	6	1	38	---	---	---	---	---	■	---	---			
	MF 873	8	1	38	---	---	---	---	---	■	---	---			
	MF 874	10	1	38	---	---	---	---	---	■	---	---			

Packing units: up to d<sub>1</sub> 10 mm = 10 pc. per type, from d<sub>1</sub> 12 mm = 5 pc. per type

Ordering example: MF 872

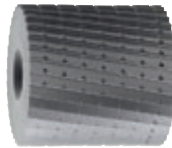
## Miniature Burrs, shank 6 mm



Shape	Description	d <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>1</sub> mm	Cut	New burrs	
	MFA 0304.06	3	4,5	60	Z5	■	
	MFA 0607.06	6	7	60	Z5	■	
	MFC 0304.06	3	4,5	60	Z5	■	
	MFD 0302.06	3	2	60	Z3	■	
	MFD 0303.06	3,5	3	60	Z3	■	
	MFE 0607.06	6	7	60	Z5	■	
	MFH 0305.06	3	5	60	Z5	■	
	MFM 0304.06	3	4,5	60	Z5	■	
	MFM 0607.06	6	7	60	Z5	■	
	MFN 0303.06	3	3	60 (20°)	Z5	■	
	MFN 0606.06	6	6	60 (20°)	Z5	■	

Packing units: 10 pc. per type

Ordering example: MFE 0607.06 Z5



## Burrs with internal thread

Shape	Description	d <sub>1</sub> mm	l <sub>2</sub> mm	Thread B mm	New burrs cut						
					1	2	3	4	5	6	7
	MFA 2215.08	22	15	M 8	○	○	■	○	○	○	○
	MFA 3030.10	30	30	M 10	○	■	○	○	○	○	○
	MFAS 2215.08	22	15	M 8	○	○	■	○	○	○	○
	MFAS 3030.10	30	30	M 10	○	■	○	○	○	○	○
	MFD 2018.08	20	18	M 8	■	○	■	○	○	○	○
	MFD 2522.10	25	22	M 10	■	■	○	○	○	○	○
	MFD 3027.12	30	27	M 12	○	○	■	○	○	○	○
	MFD 3532.12	35	32	M 12	○	○	■	○	○	○	○
	MFE 2535.12	25	35	M 12	○	○	■	○	○	○	○
	MFG 2045.10	20	45/55	M 10	○	■	○	○	○	○	○
	MFG 3555.12	35	55	M 12	■	○	○	○	○	○	○
	MFH 2055.10	20	55/65	M 10	■	■	○	○	○	○	○
	MFL 2055.10	20	55	M 10	■	○	○	○	○	○	○
	MFM 2540.10	25	40	M 10	○	○	■	○	○	○	○

Packing units: 2 pc. per type

Ordering example: MFD 2522.10 Z1

MFAS = with end-cut




■ delivery ex-stock

▲ quick delivery

○ available as special service

Ⓢ regrind service, please enquire

## Tool-sets

	Description	Contents 1 pc. each	Shank Ø/mm	Cut	
	F1 10-pieces	MF 807, MF 813, MF 841, MF 845, MF 850, MF 853, MF 864, MF 866, MF 872, MF 874	3	Z5	■
	F3 10-pieces	MFA 0616, MFA 1225, MFC 1225, MFD 0403, MFD 1210, MFE 1220, MFG 1230, MFH 1230, MFK 0620, MFM 0618	6	Z3	■
	F4 20-pieces	Z3 MFA 0616, MFA 1013, MFA 1225, MFC 1225, MFD 0807, MFD 1210, MFE 1220, MFE 1625, MFG 1220, MFG 1230, MFK 1230, MFL 1630, MFM 0618, MFM 1230, MFN 1213, MFN 1230, Z5 MFA 0304, MFA 0607, MFN 0303, MFN 0606	6	Z3/Z5	■

Packing unit: 1 pc.

Ordering example: F1