GSP®
HIGH TECH SAWS

SAW BLADES
KNIVES
CUTTERS

CONTENT

GSP-High Tech Saws, s.r.o.

GSP-High Tech Saws, s.r.o., based in Zborovice, is a traditional cutting tools producer. The beginnings of the manufacture date back to the year 1948 when the Pilana company established its branch there and started producing metal cutting circular saw blades.

All produced tools were delivered under the name PILANA until 1992 and now are known as GSP-High Tech Saws. The change reflects our position of customer service strategy. We have evolved from a mass supplier of standard tools to the supply of specialized tools in accordance with market needs.

We believe that you as our client will benefit from our company mission to provide excellent, successful and focus attitude on all our standard or non-standard tools.

SOME FIGURES

- 85 % of the production is for export
- 85 employees
- Turnover 6 mil EUR

Annual production:
- 300 000 pcs saw blades
- 50 000 pcs circular knives
- 600 000 other small cutting tools

15 pcs CNC machines for grinding teeth of saw:
- 3 pcs Junker NAJ
- 4 pcs Anca TX7
- 6 pcs Loroch Solution
- 2 pcs Loroch KBN

30 grinding machines for bevel of circular knives
(Göckel RB5, Heald 361, Heald 261, Göckel RH60 with CNC loader and automatic measuring system)
7 CNC grinding machines with automatical loader
50 other grinding machines (grinding body of saw blades, hole grinding, teeth chamfering, chip breaker grinding, convex and concave radius grinding, dilatation slots grinding)
Laser 2,5 kW with silo for oxygen
Computer controlled gas heat treatment with 8 pcs electric tempering ovens
Oven for steam treatment
Computer controlled optical measuring system

CIRCULAR SAW BLADES

KINDS OF STEEL USED FOR CIRCULAR SAW BLADES

Our main suppliers are companies:
Voestalpine, Lohmann, Bestar, Oberste-Beulmann

HSS/DMo5 - DIN: 1.3343 - AISI: M2 - JIS: SKH 51

The high speed steel contains an efficient alloy, which includes wolfram, vanadium and molybdenum. Circular saw blades have both very good mechanical characteristics and excellent strength due to these alloy elements. The formation of the fine structure of marten site is completed by 5% molybdenum content, which makes the blades resistent to disruption and metal fatigue. The wolfram content not only forms an extremely hard carbide and improves blade strength, but above all prevents material grain growth. Moreover, the resistence to attritions, especially during high cutting temperatures, is increased. Furthermore, the above mentioned elements of vanadium contribute to the improvement of mechanical characteristics. It produces fine grains, participates in the rise of hard carbides and increases the wear resistance of the tool.

Typical chemical composition in %						
C	Si	Mn	Cr	Mo	V	W
0,90	0,25	0,3	4,1	5,0	1,8	5,4

hardness 64 +/-1 HRC

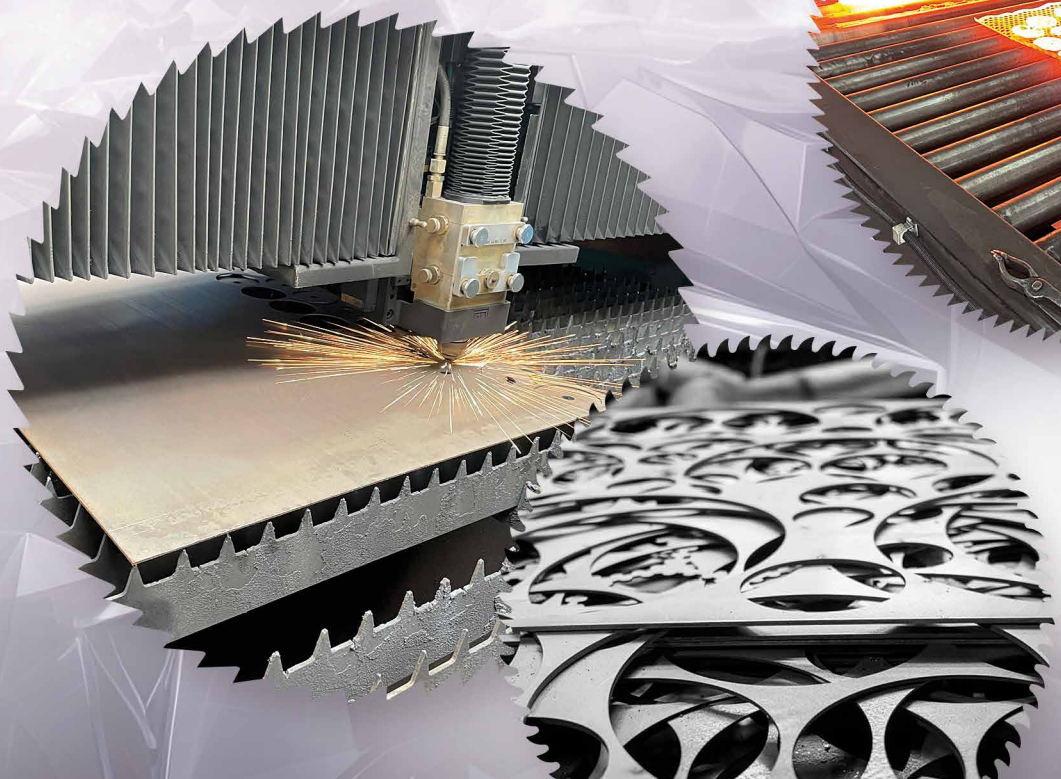
HSS/EMo5 - DIN: 1.3243 - AISI: M35 - JIS: SKH 55

This strongly alloyed high speed steel with content of wolfram, molybdenum and cobalt compared to the above mentioned HSS/DMo5 the HSS/EMo5 includes 5% cobalt, which prevets material grain growth during high cutting temperatures and improves cutting operation. These characteristics are a prerequisite for the efficient cutting of hard materials as stainless steels or steel of high strength.

Typical chemical composition in %							
C	Si	Mn	Cr	Mo	V	W	Co
0,90	0,4	0,3	4,1	5,0	1,9	6,4	4,8

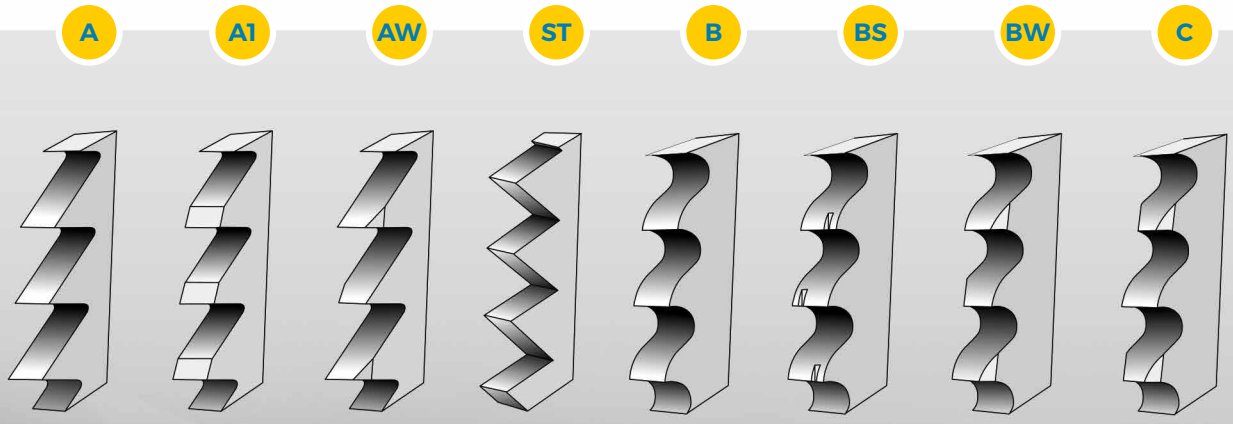
hardness 65 +/-1 HRC

Solid carbide - VHM saw blades are also produced up to 300 mm.



TOOTH SHAPES AND CUTTING GEOMETRY

Circular saw blades are supplied with the following kinds of tooth shape:



Cutting conditions for cutting of Metal Slitting Saw Blades					
Material	Cutting speed m/min	Feed per Tooth mm/Z	Cutting angle	Clearance angle	Kind of material
Standard steel - solid material up to 520 N/mm2	30-45	0,05-0,08	18°	10°	DMo5
Standard steel - solid material up to 820 N/mm2	20-40	0,03-0,06	18°	10°	DMo5
Standard steel - material up to 1220 N/mm2	15-25	0,03-0,05	18°	10°	EMo5
Standard steel - profiles, pipes up to 520 N/mm2	max. 235	0,08-0,12	18°	10°	DMo5
Standard steel - profiles, pipes up to 820 N/mm2	max. 120	0,05-0,08	18°	10°	DMo5
Stainless steel - solid material	10 to 25	0,04-0,07	14°	10°	EMo5
Stainless steel - profiles, pipes	max. 50	0,06-0,10	14°	10°	EMo5
Cast irons	15-25	0,07-0,12	16°	10°	DMo5
Aluminium and Al-alloys (solid material)	400-900	0,05-0,10	22°	10°	DMo5
Aluminium and Al-alloys (profile, pipes)	800-1200	0,07-0,12	22°	10°	DMo5
Copper	90-400	0,04-0,06	20°	10°	DMo5
Brass	160-400	0,04-0,06	16°	16°	DMo5
Bronze	50-120	0,04-0,06	16°	8°	DMo5

Recommended RPM [1/min]							
	Steel - strength N/mm²						
Saw blade diameter	Standard steel 450-500	Standard steel 450-800	Stainless steel	High strength steel + cast iron	Copper	Brass	Aluminium
20	955	796	318	637	2387	3182	6366
25	764	637	255	509	1910	2546	5096
32	597	497	199	398	1492	1989	3979
40	477	398	159	318	1194	1592	3183
50	382	318	127	255	955	1273	2546
63	303	253	101	202	758	1011	2021
80	239	199	80	159	597	796	1592
100	191	159	64	127	477	637	1273
125	153	127	51	102	382	509	1019
160	119	99	40	80	298	398	796
200	95	80	32	64	239	318	637
250	76	64	25	51	191	255	509
315	61	51	20	40	152	202	404
350	45	36	18	27	150	181	364
370	43	34	17	26	142	172	344
400	40	32	16	24	131	159	318
425	37	30	15	22	123	150	300
450	35	28	14	21	117	142	283
500	32	25	13	19	105	127	254
550	29	23	12	17	96	116	232
600	26	21	11	16	88	106	212

NUMBER AND SHAPE OF TEETH

Recommended number and shape of teeth for cutting of profiles and solid material.

Recommended number of teeth for cutting off profiles

Thickness (s / mm)	Tooth pitch	Tooth shape	Ø 175	Ø 200	Ø 250	Ø 275	Ø 300	Ø 315	Ø 350	Ø 370	Ø 400	Ø 425	Ø 450	Ø 500	Ø 560
0,5 mm	3	B,BW	180	200	250	280	300	320	350	380					
1,0 mm	4	BW, BS	140	160	200	220	220	240	280	290	310	320	350	390	
2,0 mm	4,5	BW, BS	120	140	180	200	210	230	250	260	280	290	310	350	390
3,0 mm	5	BW, BS	110	130	160	180	180	200	220	230	250	260	280	310	350
4,0 mm	6	C, BS	90	100	130	140	160	170	180	200	200	220	230	260	290
5,0 mm	8	C, BS		80	100	110	120	130	140	150	160	170	180	200	220
6,0 mm	9	C, BS			90	100	110	120	130	130	140	150	160	180	200
7,0 mm	10	C, BS						100	110	120	120	130	140	160	180
8,0 mm	11	C, BS											130	140	160
9,0 mm	12	C, BS												130	150
10,0 mm	13	C												120	130

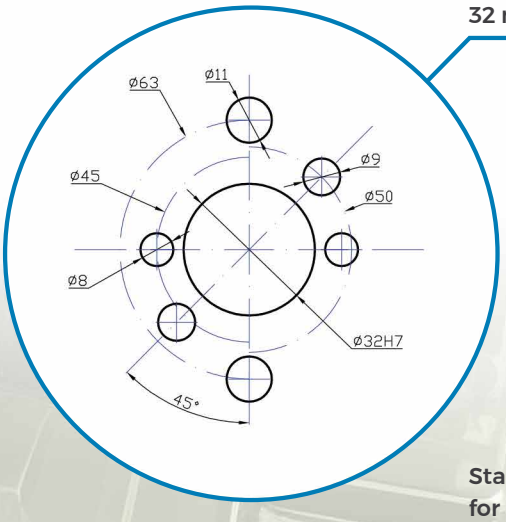
Recommended number of teeth for cutting off solid material

Crosscut (d / mm)	Tooth pitch	Tooth shape	Ø 175	Ø 200	Ø 250	Ø 275	Ø 300	Ø 315	Ø 350	Ø 370	Ø 400	Ø 425	Ø 450	Ø 500	Ø 560
10 mm	5	C, BS	110	130	160	180	180	200	220	220	250	260	280	310	350
20 mm	6	C, BS	90	100	128	140	160	160	180	190	200	220	230	260	300
30 mm	8	C, BS	70	80	100	110	120	120	140	140	160	160	180	200	220
50 mm	8	C			100	90	120	120	140	140	160	160	180	200	220
70 mm	10	C					94	100	110	110	120	130	140	160	180
90 mm	12	C					80	80	90	90	110	110	120	130	150
110 mm	14	C								80	80	80	90	110	120
130 mm	14	C									80	80	90	100	120
150 mm	16	C											80	90	100
160 mm	16	C												90	100
180 mm	18	C												80	90

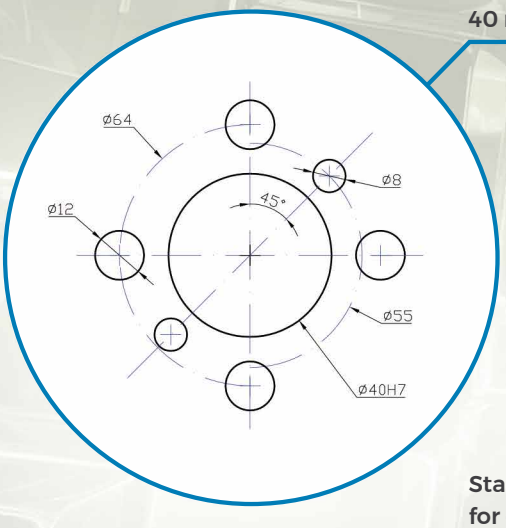
PIN HOLES

Standard driving pin holes of HSS circular saw blades	
Central bore	Driving pin holes
ø mm	Number/Diametr/Position
32	2/8/45 - 2/9/50 - 2/11/63
40	2/8/55 - 4/12/64
50	4/15/80 - 4/14/85
Non-standard pin holes on request	

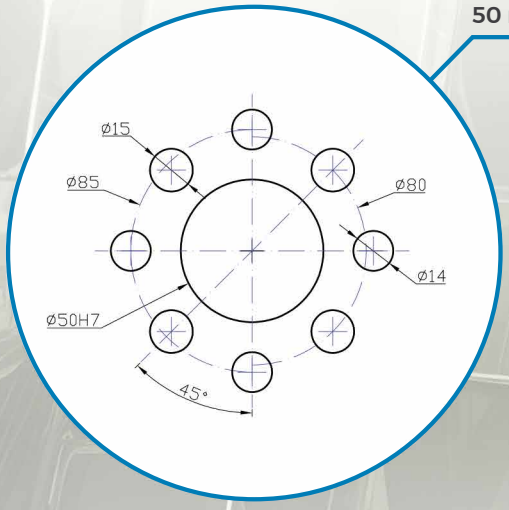
Standard pin holes
for central bore
32 mm



Standard pin holes
for central bore
40 mm



Standard pin holes
for central bore
50 mm



COATINGS FOR SAW BLADES

Technical features of coating					
Coating type	Surface microhardness HV	Friction coefficient Cx	Max. working temperature °C	Color	Application
VAPO	900	0,65	550°C	black	Standard steel Construction steel
TiN	2400	0,55	600°C	gold	Standard, construction, medium hard steel Sufficient lubrication required Unsuitable for non-ferrous metals (aluminium, copper, bronze, brass)
TiAlN	2800	0,6	700°C	purple / black	High alloyed steel Stainless steel Cast iron High temperature materials
TiCN	3200	0,2	400°C	bronze / brown	Stainless steel Hard steel Titanium, copper, brass Intensive lubrication required
CrN	1800	0,3	700°C	metalic-gray	Alloyed steel Stainless steel High temperature materials Can be cut with or without coolant

CIRCULAR SAW BLADES FROM HSS/DMo5 AND HSS/EMo5 FOR CUTTING-OFF MACHINES

Circular saw blades from HSS/DMo5 and HSS/EMo5 for cutting-off machines														
D	dH7	Flange	T3	T4	T5	T6	T7	T8	T9	T10	T12	T13	T14	T16
mm	mm	mm	BW	BW	C	C	C	C	C	C	C	C	C	C
200 x 1,0	32	100	200	160	130	100		80						
200 x 1,2	32	100	200	160	130	100		80		64				
200 x 1,5	32	90	200	160	130	100		80		64				
200 x 1,6	32	90	200	160	130	100		80		64				
200 x 1,8	32	90	200	160	130	100		80		64				
200 x 2,0	32	90	200	160	130	100		80		64				
200 x 2,5	32	90	200	160	130	100		80		64				
210 x 2,0	32	100	210	160	130	110		80						
225 x 1,2	32	100	220	180	140	120		90	80					
225 x 1,5	32	90	220	180	140	120		90	80					
225 x 1,6	32	90	220	180	140	120		90	80					
225 x 1,8	32/40	90	220	180	140	120		90	80					
225 x 2,0	32/40	90	220	180	140	120		90	80					
225 x 2,5	32	90	220	180	140	120		90	80					
250 x 1,0	32	100	250	200	160	128	110	100		80	64			
250 x 1,2	32	100	250	200	160	128	110	100		80	64			
250 x 1,5	32	100	250	200	160	128	110	100		80	64			
250 x 1,6	32	100	250	200	160	128	110	100		80	64			
250 x 2,0	32/40	100	250	200	160	128	110	100		80	64			
250 x 2,5	32/40	90	250	200	160	128	110	100		80	64			
250 x 3,0	32	90	250	200	160	128	110	100		80	64			
275 x 1,6	32	100	280	220	180	140	120	110		90				
275 x 2,0	32/40	90	280	220	180	140	120	110		90				
275 x 2,5	32/40	90	280	220	180	140	120	110		90				
275 x 3,0	32/40	90	280	220	180	140	120	110		90				
300 x 1,6	32/40	100	300	220	180	160	140	120		94	80			
300 x 2,0	32/40	100	300	220	180	160	140	120		94	80			
300 x 2,5	32/40	90	300	220	180	160	140	120		94	80			
300 x 3,0	32/40	90	300	220	180	160	140	120		94	80			
315 x 1,6	32/40	100	300	240	200	160	140	120		100	80	70		
315 x 2,0	32/40	100	300	240	200	160	140	120		100	80	70		
315 x 2,5	32/40	100	300	240	200	160	140	120		100	80	70		
315 x 3,0	32/40	100	300	240	200	160	140	120		100	80	70		
315 x 3,5	32/40	100	300	240	200	160	140	120		100	80	70		
325 x 2,0	32/40	100	320	250	200	170		128		100	80			
325 x 2,5	32/40	100	320	250	200	170		128		100	80			
325 x 3,0	40	100	320	250	200	170		128		100				
400 x 2,5	40/50	120		310	250	200		160		120	110	90		70
400 x 3,0	40/50	120		310	250	200		160		120	110	90		70
400 x 3,5	40/50	120		310	250	200		160		120	110	90		70
400 x 4,0	50	120		310	250	200		160		120	110	90		70
425 x 2,5	40/50	120		320	260	220		160		130	110		80	70
425 x 3,0	40/50	120		320	260	220		160		130	110		80	70
425 x 3,5	50	120		320	260	220		160		130	110		80	70
425 x 4,0	50	120		320	260	220		160		130	110		80	70
450 x 2,5	40/50	130		350	280	230		180		140	120		90	80
450 x 3,0	40/50	130		350	280	230		180		140	120		90	80
450 x 3,5	40/50	130		350	280	230		180		140	120		90	80
450 x 4,0	40/50	130		350	280	230		180		140	120		90	80
500 x 3,0	40/50	130			310	260		200		160	130	110	100	90
500 x 3,5	40/50	130			310	260		200		160	130	110	100	90
500 x 4,0	40/50	130			310	260		200		160	130	110	100	90
500 x 5,0	40/50	130			310	260		200		160	130	110	100	90
525 x 3,5	50	130		410	330	270		210		164	140	110	104	90
525 x 4,0	50	130		410	330	270		210		164	140	110	104	90
550 x 4,0	90	140		440	340	280		220		170	140	120	110	90
550 x 5,0	50	140		440	340	280		220		170	140	120	110	90
600 x 4,0	50	150		460	380	320		240		190	160	130	120	100
600 x 5,0	50	150		460	380	320		240		190	160	130	120	100

HSS SLITTING SAW BLADES DIN 1837 - FINE TEETH

Circular saw blades DIN 1837 with fine teeth and tooth shape A are recommended for slitting the fragile and hard materials. The tooth shape A is suitable especially on the thin saw blades with tooth pitch from 0,8 mm to 3,0 mm. The cutting edge is very sharp. The standard products are made with hollow ground. This can be ordered with driving pin holes or with grooves and tooth shape AW (the tooth shape A with alternate chamfering).

Circular saw blades DIN 1837 - fine teeth													
D (mm)	20	25	32	40	50	63	80	100	125	160	200	250	315
dH7 (mm)	5	8	8	10	13	16	22	22	22	32	32	32	40
B (mm)	Number of teeth												
0,20 mm	80	80	100	128	128								
0,25 mm	64	80	100	100	128	160							
0,30 mm	64	80	80	100	128	128	160						
0,40 mm	64	64	80	100	100	128	160						
0,50 mm	48	64	80	80	100	128	128	160					
0,60 mm	48	64	64	80	100	100	128	160	160				
0,80 mm	48	48	64	80	80	100	128	128	160				
1,00 mm	40	48	64	64	80	100	100	128	160	160	200		
1,20 mm	40	48	48	64	80	80	100	128	128	160	200		
1,60 mm	40	40	48	64	64	80	100	100	128	160	200	200	
2,00 mm	32	40	48	48	64	80	80	100	100	128	160	200	
2,50 mm	32	40	40	48	64	64	80	100	100	128	160	160	200
3,00 mm	32	32	40	48	48	64	80	80	100	128	128	160	200
4,00 mm	24	32	40	40	48	64	64	80	100	100	128	160	160
5,00 mm	24	32	32	40	48	48	64	80	80	100	128	128	160
6,00 mm	24	24	32	40	40	48	64	64	80	100	128	128	160

HSS SLITTING SAW BLADES DIN 1838 - LARGE TEETH

Circular saw blades for metal DIN 1838 with large teeth and tooth shape B are recommended especially for cutting off steel. These saw blades have much bigger chip clearance and enable a bigger cut comparing to tooth shape A. The standard products are made with hollow ground. This can be ordered with driving pin holes or with grooves and tooth shape BW / C possible only for blades thickness from 1 mm.

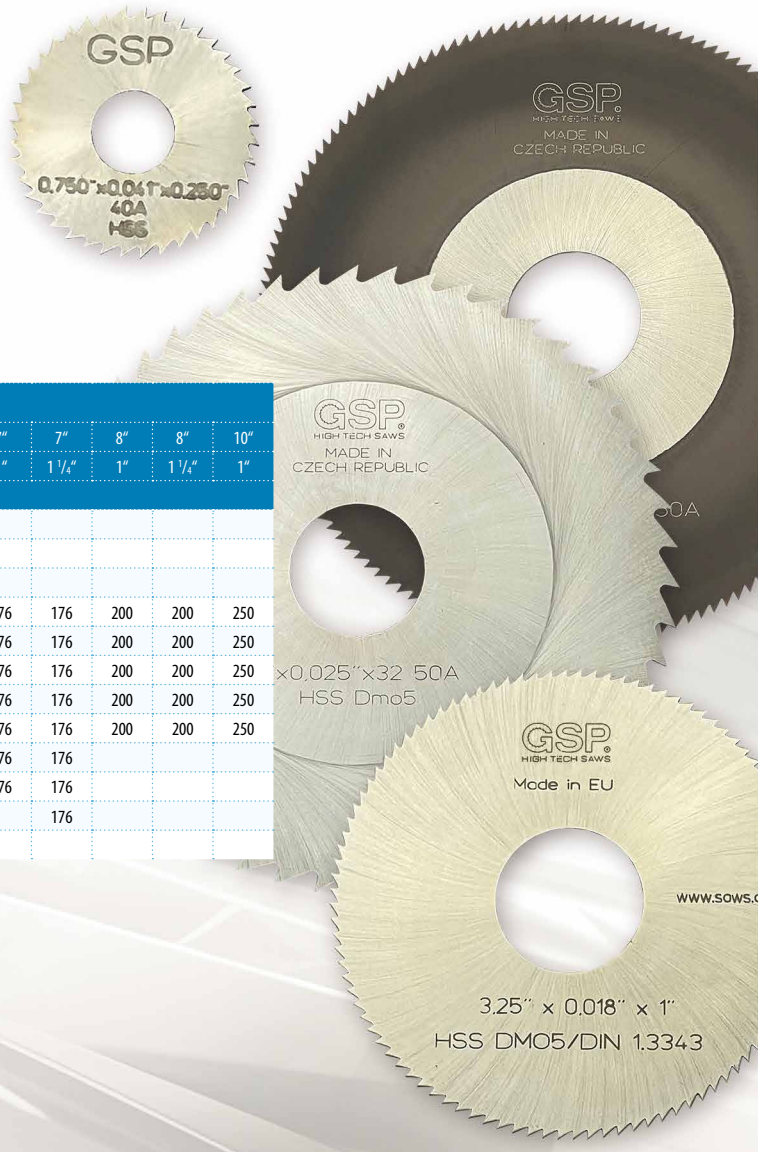
Circular saw blades DIN 1838 - large teeth									
D (mm)	50	63	80	100	125	160	200	250	315
dH7 (mm)	13	16	22	22	22	32	32	32	40
B (mm)									
0,50 mm	48	64	64	80					
0,60 mm	48	48	64	80	80				
0,80 mm	40	48	64	64	80				
1,00 mm	40	48	48	64	80	80			
1,20 mm	40	40	48	64	80	100			
1,60 mm	32	40	48	48	64	80	80	100	
2,00 mm	32	40	40	48	64	64	80	100	
2,50 mm	32	32	40	48	64	64	80	80	100
3,00 mm	24	32	40	40	48	64	64	80	100
4,00 mm	24	32	32	40	48	48	64	80	80
5,00 mm	24	24	32	40	40	48	64	64	80
6,00 mm	20	24	32	32	40	48	48	64	80

CIRCULAR SAW BLADES IN IMPERIAL SIZES

Slitting saw blades - fine pitch

These are used for narrow slitting and shallow cutting in thin materials.

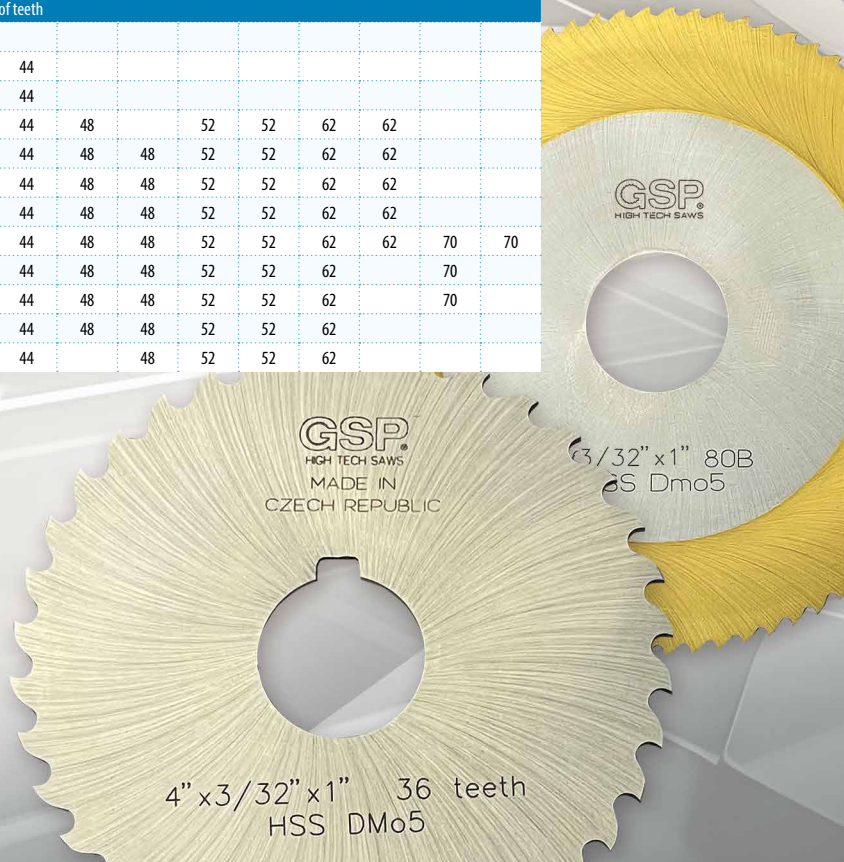
Circular saw blades - fine teeth - shape A															
D (")	2 1/2"	3"	3 1/2"	4"	4"	4 1/2"	4 1/2"	5"	6"	6"	7"	7"	8"	8"	10"
dH7 (")	1"	1"	1"	1"	1"	1 1/4"	1"	1"	1 1/4"	1 1/4"	1"	1 1/4"	1"	1 1/4"	1"
B (")	number of teeth														
1/64"	62	74	100	100	100										
1/32"	62	74	88	100	100			124	150						
3/64"	62	74	88	100	100			124	150						
1/16"	62	74	88	100	100			124	150		176	176	200	200	250
5/64"	62	74		100	100			124	150		176	176	200	200	250
3/32"	62	74		100	100	112	112	124	150		176	176	200	200	250
7/64"	62			100	100	112	112	124	150		176	176	200	200	250
1/8"	62	74		100	100	112	112	124	150	150	176	176	200	200	250
5/32"	62	74		100				124	150	150	176	176			
3/16"	62	74		100				124	150	150	176	176			
7/32"	62	74		100				124	150	150		176			
1/4"	62	74		100				124	150	150					



Slitting saws - large pitch

These are used for medium deep cutting and cut-off operations.

Circular saw blades - large teeth - shape A or B																		
D (")	2 1/2"	3"	3 1/2"	4"	4"	4 1/2"	5"	5"	6"	6"	7"	7"	8"	8"	10"	10"	12"	12"
dH7 (")	1"	1"	1"	1"	1 1/4"	1"	1"	1"	1 1/4"	1 1/4"	1"	1 1/4"	1"	1 1/4"	1"	1 1/4"	1"	1 1/4"
B (")	number of teeth																	
1/64"	26	30																
1/32"	26	30	32	36		38	40		44	44								
3/64"	26	30	32	36		38	40		44	44								
1/16"	26	30	32	36	36	38	40	40	44	44	48		52	52	62	62		
5/64"	26	30	32	36	36	38	40	40	44	44	48	48	52	52	62	62		
3/32"	26	30	32	36	36	38	40	40	44	44	48	48	52	52	62	62		
7/64"	26	30	32	36	36		40	40	44	44	48	48	52	52	62	62		
1/8"	26	30	32	36	36		40	40	44	44	48	48	52	52	62	62	70	70
5/32"	26	30	32	36	36		40		44	44	48	48	52	52	62		70	
3/16"	26	30	32	36	36		40		44	44	48	48	52	52	62		70	
7/32"	26	30	32	36	36		40		44	44	48	48	52	52	62			
1/4"	26	30	32	36			40		44	44		48	52	52	62			



CIRCULAR SAW BLADES FOR SCREW-SLOTTING

These saw blades from HSS/DMo5 material are used for slitting screw heads. Standard products are made without hollow ground and without the treatment but it can be customized with VAPO or TiAlN coating.

Circular saw blades for screw-slotting saws

Diameter	Central hole	Thickness/ Teeth No., Tooth shape A												
(mm)	(mm)	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	2,0
80	22	48	48	48	48	48	48	48	48	48	48	48	48	48
80	22	60	60	60	60	60	60	60	60	60	60	60	60	60
100	22	64	64	64	64	64	64	64	64	64	64	64	64	64
100	22	80	80	80	80	80	80	80	80	80	80	80	80	80

CIRCULAR SAW BLADES FOR JEWELLERY

These saw blades from HSS/DMo5 material are used for jewellery production. The saw blades are made with tooth shape A. The tooth pitch is less than 1 mm / Extra fine pitch, which enables very precise work.

Circular saw blades for jewellery

Diameter	Central hole		Flange	Thickness/ Teeth No., Tooth shape A												
(mm)	(mm)		(mm)	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5	0,6	0,7	0,8	0,9	1,0
40	8	10	18	140	140	140	140	140	140	140	140	140	140	140	140	140
50	8	10	25		180	180	180	180	180	180	180	180	180	180	180	180
63	8	10	32		200	200	200	200	200	200	200	200	200	200	200	200

CIRCULAR SAW BLADES FOR TUBE CUTTING

Circular orbital saw blades made from HSS/DMo5 and mainly HSS/EMo5 material are suitable for tube cutting machines GF and AXXAIR. They are used for cutting tubes from all types of material. These saw blades teeth geometry is for stainless tube orbital cutting. It is possible to make them with tooth geometry for aluminium, copper, brass and alloyed steels. The saw blades are made with hollow ground and flange and tooth shape BW. The number of teeth depends on the wall thickness of the tube. The standard products are made without the treatment but it can be customized with VAPO or PVD coating.

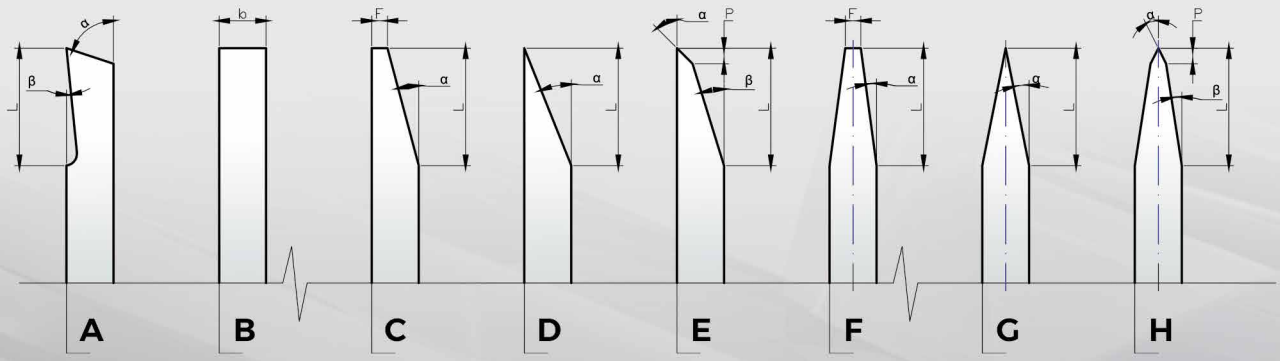
Circular saw blades for tube cutting - the most popular dimensions

Diameter	Central hole	Flange	Thickness (mm) / Teeth No., Tooth shape BW											
(mm)	(mm)	(mm)	1,6	1,6	1,6	1,6	1,6	1,8	1,8	1,8	2,0	2,0	2,0	2,0
63	16	36	44	64	72	80	84							
68	16	42	44	64	72	80	84							
75	16	42	44								32	48	64	80
80	16	42	44	64	72	80	84	64	80	80	34	44		80

CIRCULAR KNIVES

GSP-High Tech Saws pays attention on manufacturing high efficient circular knives, flat knives on request. Cutting profile of these knives can be made according to the cut material.

THE BEVEL PROFILE



The large variety of the circular knives that our production line can offer can be customized with specific various grooves, waves and tooth shape.

A	single bevel with undercut	E	single bevel with a tip
B	square edge	F	double bevel flat
C	single bevel flat	G	double bevel
D	single bevel	H	double bevel with a tip

KINDS OF STEEL USED FOR KNIVES

- DIN 1.3343 (HSS/DMo5)
- DIN 1.3243 (HSS/EMo5)
- DIN 1.2379 (K 110)
- DIN 1.2235 (80CrV2)
- DIN 1.4034 (X40Cr13)
- DIN 1.4112 (X90CrVMo18)
- DIN 1.4116 (X50CrMoV15)
- Solid carbide (VHM)

COATINGS FOR KNIVES

According to the range of use of the circular knives these can be heat treated to 44-64 HRC. Standard production of these is without the surface treatment. The circular knives can be treated with PVD coatings TiN, TiAlN, TiCN, CrN or Teflon, Xylan.

The diameters are from 13 mm to 750 mm. These tools are tailor made therefore below points need to be mentioned in the request or order. Best if drawing or sample accompanied.

- **diameter**
- **thickness**
- **central bore diameter**
- **driving pin holes diameter, number and pitch**
- **kind of material which should be used**
- **cutting edge variant**
- **cutting geometry**
- **cutting edge length**
- **kind of cut material**

USE OF CIRCULAR KNIVES

Paper industry
(cutting of paper, cardboard, paper tubes etc.)

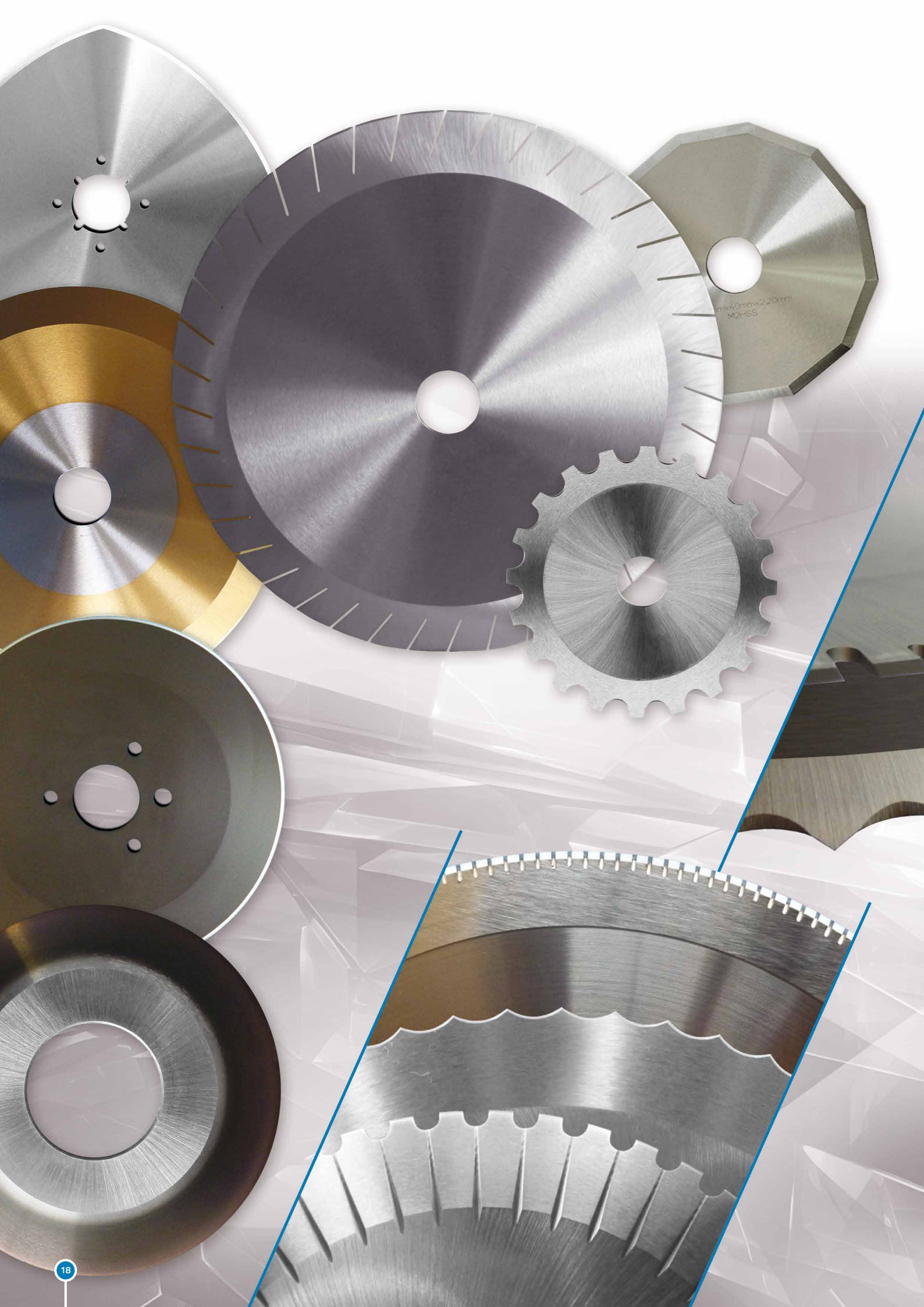
Rubber industry
(cutting of rubber and hydraulic hoses, tyres, seals etc.)

Plastics industry
(cutting of plastic tubes, PVC, foam, adhesive tapes and other plastic profiles)

Textile industry
(cutting of geotextiles, fabrics, cotton, old rags etc.)

Food industry
(cutting of vegetables, meat, deep frozen products like fish etc.)

Others
(cutting of steel, leather, carpets, sandpaper etc.)




35x6,3x19 K110
109x3,0x66 48z
HSS Dmo5
160x2,0x50 40A
HSS Dmo5
120x3,0x36
HSS Dmo5

FLAT KNIVES

The cut-off knives for cutting profiles and tubes from carbon, low-alloyed and stainless steels as well as plastic foil, cardboard, paper, rubber etc. The cutting effect is achieved by combination of high pressure and high speed. Burrfree cut of highest precision is achieved therefore the cut profile is free of deformation. Very short cutting times enable using these tools not only in stationary machines, but also in production lines during continuous cutting. The knives can be made with PVD coating to prolong their lifetime and decrease friction coefficient. These tools are tailor made as per the drawing or sample received.


GSP
127x12x48 40z
HSS Dmo5
MADE IN
CZECH REPUBLIC

OTHER TOOLS


62x2.4x16
HSS DMo5
64x1.0x32
50x0,5x13
HSS
37,56x10x17
HSS DMo5
118z

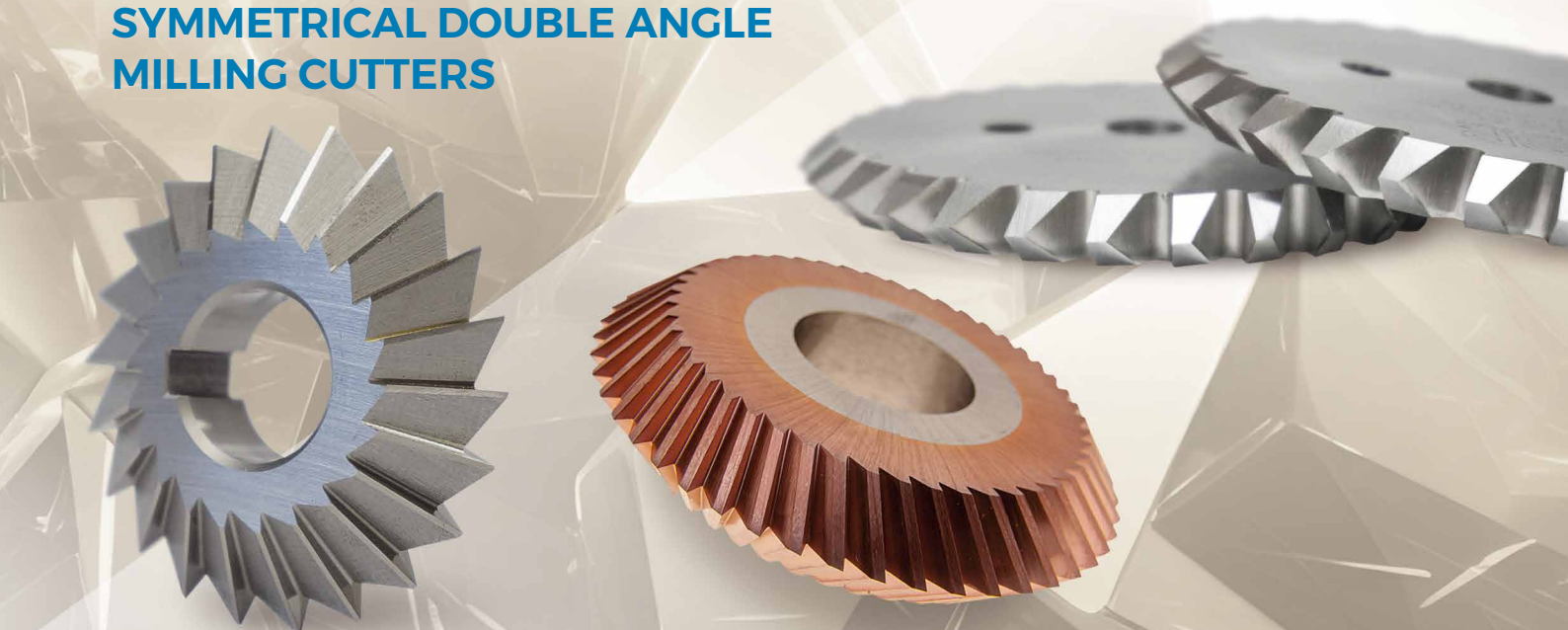

GSP
HIGH TECH SAWS
MADE IN
CZECH REPUBLIC

The company GSP-High Tech Saws, s.r.o. specializes in the production of non-standard disc cutters made of HSS steel and carbide. The pictures of the cutters below are only a part from our wide production range.

GLAZING BEAD SAWS

SINGLE ANGLE MILLING CUTTERS

SYMMETRICAL DOUBLE ANGLE MILLING CUTTERS



HALF CIRCULAR MILLING CUTTERS CONVEX

HALF CIRCULAR MILLING CUTTERS CONCAVE

CORNER ROUNDING MILLING CUTTERS CONCAVE

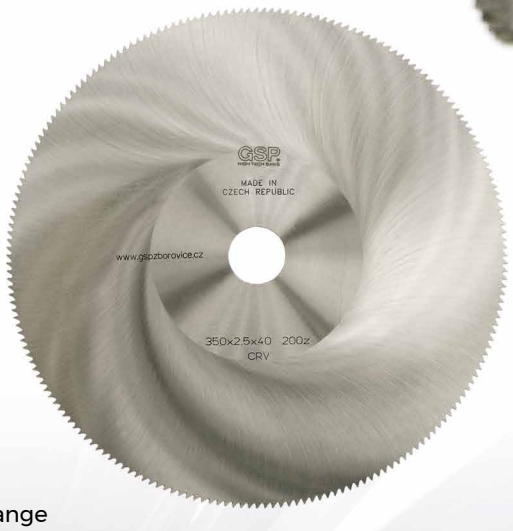
DOUBLE ANGLE CUTTERS FOR KEY CUTTING MACHINES

SIDE AND FACE MILLING CUTTERS

FRICTION SAW BLADES

Friction saw blades are suitable for cutting off steel tubes and profiles on low temperature such as 250˚C. Chrome–Vanadium steel (DIN 1.2235) is heat-treated to reach an optimal toughness and hardness to fit a suitable high peripheral speed for cut material.
The cutting process of these saws is the friction itself by melting of the cut place caused by the special tooth shape. They can be tailor made with hollow ground, central bore, driving pinholes etc.

Technical charakteristics of Friction saw blades			
Cutting angle	Hardness	Cutting speed	Feed rate of tooth
„ ° “	HRC	m/s	mm / toth
0°	46 - 48	70 - 150	0,003 - 0,005



OSCILATING TOOLS

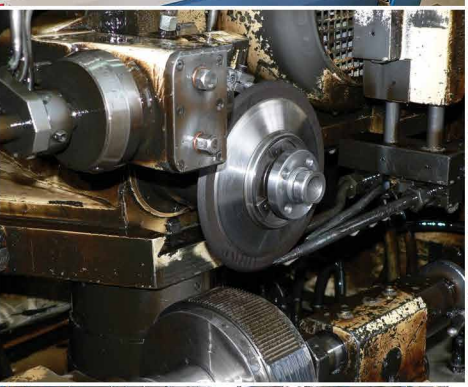
The multi-function vibrating cutting tools are applicable for wide range of various plastic and wood plates, chipand fibre boards, fibreglass, non-ferrous metals. The fine tooth design is excellent for undercutting wood door jambs, drywall and plastic up to max. 50 mm depth. The hardness 60-64 HRC allowes cutting steel sheets up to thickness 1 mm. The various fixing pin holes and tooth shape are tailor made. Our tools are produced in HSS steel with thickness 0,65 mm or customized.

KNURLING WHEELS

- **Corner forming wheel**
- **Cutting knurling wheels**
- **Forming knurling Wheel**

The use of cutting knurling wheels made from HSS steel, hardened to 64 HRCare recommended for short cutting materials such as brass, bronze, casting, aluminium alloys, plastics as well as high firm material. The cutting wheel has sharpened teeth. The wheel has to be at an angle to the axis of rotation.

A WALK THROUGH OUR COMPANY PRODUCTION



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