



**NUTEX tools**  
**Circular saw blades**  
**Side milling cutters**  
slotting, cutting-off, sawing, milling

**09/23**

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# Grüezi and welcome!

## An innovative family company since 1934

Within the manufacturing unit in Switzerland, ALES A employs highly motivated, well trained staff, sharing a wealth of experience and knowledge gained within the cutting tool industry. We are proud that we are one of the few remaining family owned businesses within our sector.

At all times we supply market leading products, offer the highest possible technical support, deliver on time at competitive prices. This is achieved via a network of some 60 global distributors ensuring continuity of supply of both products and services.

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## Precision tool factory

### Precision

We specialise in the manufacture of highly positive, sharply ground, precision cutting tools produced from HSS and carbide.

These offer the highest possible performance figures particularly on difficult materials and extraordinary applications.

We can offer engineering solutions to the most demanding machining problems reducing cycle times, vibration and tooling costs whilst improving surface finishes and chip formation. Call us now and realise the potential of ALES A!

### Metal cutting with creativity

**Milling:** The ALES A indexable inserts which are developed and patented by us are distinguished by a high-tech cutting geometry and are being used to great success all over the world. The extensive range of ISO standard

indexable inserts is of course also equipped with our highly positive, extremely sharp ground cutting edge. ALES A indexable inserts are available in HSS-E and finest grain metal carbide. Various hard material coatings ensure a long tool life. It goes without saying that almost all our toolholders are prepared for internal coolant supply.

**Turning/parting:** In this area, too, we have an extensive range of toolholders for external and internal turning with the matching indexable inserts in HSS-E to ISO standard.

Our ALES A GOLD high-precision ISO toolbits and cutting tools are also world-renowned. Similarly, the Minicut and Duocut parting inserts and cutting-off tools in HSS-E are a byword in the trade.

**Sawing:** The ALES A metal-cutting circular saws in HSS and carbide give

top performance all around. Our circular saws with steam-tempered surface or hard-material coating achieve even better life expectancy.

**Nutex:** The extraordinary combination of circular saw blade and holder in one tool indicates the system Nutex, Nutex Mini, Nutex Mono and Nutex Plus. With this tool it is possible to machine on CNC centres without fixings protruding out of the tool face.

**Custom-made products:** If you have any processing problems, we consider it our duty to be able to offer a solution. Our development department welcomes the challenge of producing special tools to individual requirements or customer drawings.

With you as partner we aim to develop visions and pursue new methods.

**Our general delivery and sales conditions apply, see [www.alesa.ch](http://www.alesa.ch)**

# ALESA NUTEX STAR

## Self-centering and powerful

ALESA Nutex Star - The uncompromising further development of the popular Nutex Mini system. The powerful interface and small shank diameter impress with their extended application possibilities. The central screw allows easy mounting on the long solid carbide holders.



Saw and holder have the identical, ground 7-cam interface. This makes the mount self-centering and the system is backlash-free. The saws can be hollow-ground or in the known "Plus" design with side relief angle.

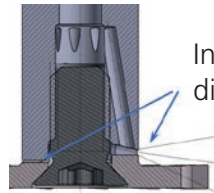
Another advantage of the 7 cams is that the forces are transmitted very evenly and tangentially. This means that much higher forces can be transmitted than with 2, 3 or 4 driving cams. This allows reliable cuts in difficult alloys as Titanium etc.

With the 2 sizes GS07 and GS10 available for a start, the new Nutex Star system enables already a much larger cutting depth and saw width range than all previous saw systems.



The internal coolant supply (IKZ) brings the medium directly into the saw gap. This creates efficient lubrication and cooling. The fastening screw plays a central role and must be tightened with enclosed torque wrench.

The holders of the Nutex Star system are available in different diameters and lengths. All are equipped with internal coolant supply, are cylindrically



Internal coolant supply directly into the saw gap

ground to h6 quality and without Weldon-design. The longer holders are made entirely of solid carbide and reliably expand the possible uses.



### Features

- Even torque transmission thanks to 7 cam design
- Higher power transmission than with 2, 3 or 4 cams
- Internal coolant supply directly into the saw gap
- Self-centering, easy assembly
- Long holders completely made of solid carbide

### Advantages

- Very large cutting depth and sawing width range
- High radial and axial assembly repeat accuracy
- All holders have an internal cooling supply
- Extended solid carbide holders for expanded application options and improved process reliability



## Nutex circular saw blade system

The extraordinary combination of circular saw blade and holder in one tool indicates the system Nutex, Nutex Mini and Nutex Plus. With this tool it is possible to machine on CNC centres without fixings protruding out of the tool face.

### Nutex Star / Nutex Mini / Nutex:

If no standard widths or standard toothings can be applied, the number of teeth and the width can be adapted to your requirements by means of the "Data sheet."

The saws are available in HSS and carbide starting from a width of 0.2 mm.

The following holders are available: cylindrical shaft, threaded shaft or standard tool holder.

All the Nutex holders can be mounted on standard holders. The holders are equipped with holes for internal lubrication.

On customer request the tool is available with a hard material coating (PVD) which allows to achieve longer tool life.

### Nutex Plus:

Nutex Plus, with its 3 cutting edges, combines the advantages of a side milling cutter and the features of the Nutex saw blade-system.

Thanks to its 3 cutting edges, Nutex Plus is the ideal tool for making deep slots.

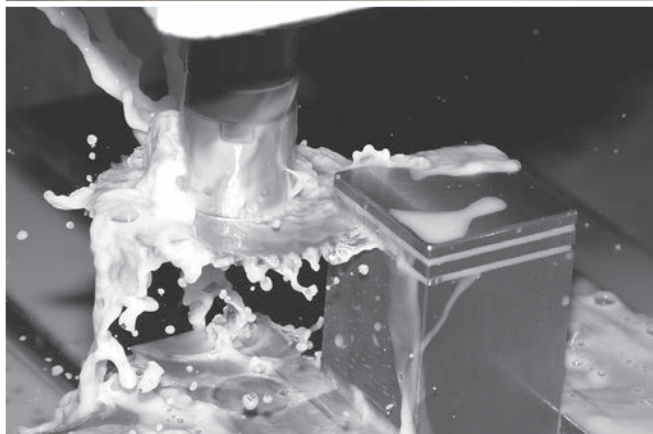
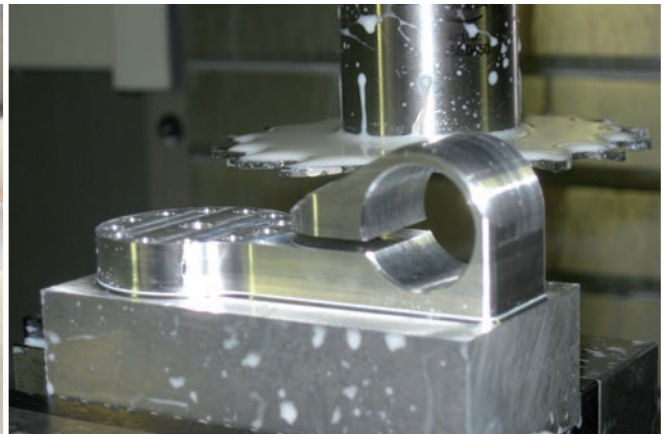
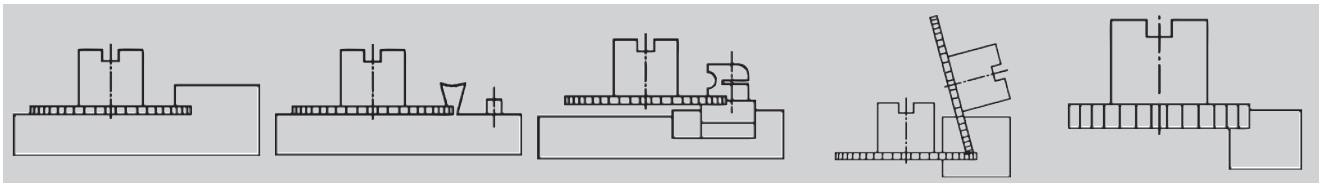
The proven curved tooth form guarantees a good chip flow.

The driving pin ensures a perfect torque transfer.

All the holders allow internal cooling.

If necessary the saw can be admitted from both sides with lubricant by means of the coolant spreading ring.

### Application examples



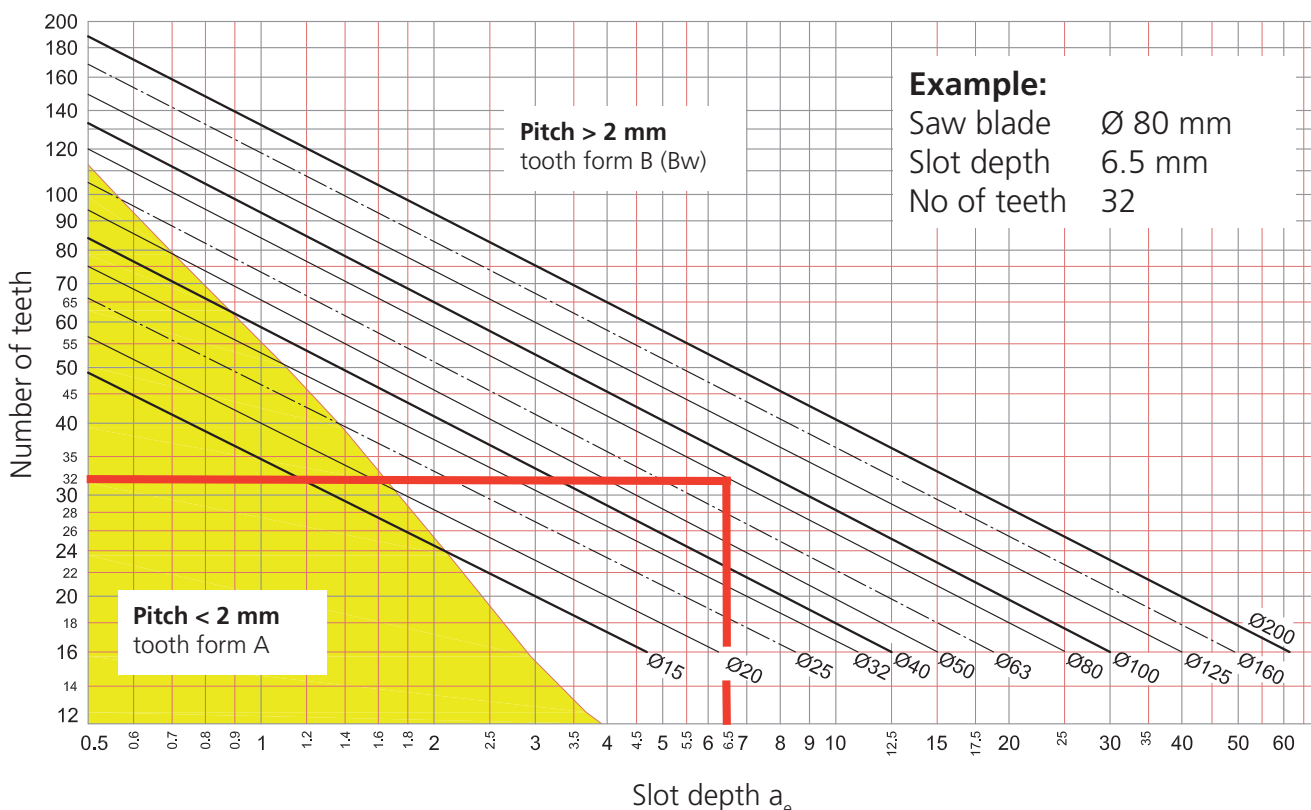
# Instruction for an ideal operation of the Nutex saw system

The diagram shows our recommendation of three ( $3 \pm 0.5$ ) teeth engaged into the sawing process. In addition follow the additional remarks please.

- The concentricity of the tool holder should be  $< 0.01$  mm, especially at extension of  $> 3 \times D$
- Use tool holder with internal coolant supply
- Emulsion  $> 8\%$  especially for stainless alloys (material classification 2 & 5)
- Feed rate based on  $hm$  - table and calculated with  $fz$  – formula (feet per tooth)
- For tooth form A, A+, B & BS use every tooth for the feed rate calculation
- For tooth form Aw, Aw+, Bw & C apply the half amount of teeth for the feed rate calculation
- For saws  $< 1$  mm width; Bw – type of teeth can not be ground
- If the pitch must be smaller than  $< 2$  mm; A – type of tooth form must be used
- By vibration, as first reaction we recommend to reduce the cutting speed  $V_c$  to the  $V_c$  min.
- For application in stainless steel (material classification 2 & 5); saws must be coated (HSS with TiAlN, carbide with AlCrN)
- The cutting edge geometry on the standard tools is perfect for material tensile strength up to  $800 - 1000$  N/mm<sup>2</sup>, by tensile strength  $> 1200$  N/mm<sup>2</sup> the cutting edge geometry must be adjusted
- Carbide Nutex & DIN saws must be polished for application in soft or not aged Aluminum alloys. The surface of those alloys easy sticks on unpolished saws and results in bad surface quality
- For ALU - cast ( $> 6\%$  Si) we recommend the coating "DLC-H"

## Diagram to determine the number of teeth for slot sawing

3 teeth in contact



## Nutex tools and circular saws

### Nutex Star



GS07 carbide

Ø 15 - 32

No 6316

p. 10



GS07 carbide indiv

Ø 15 - 32

No 6315

p. 11



GS10 carbide

Ø 15 - 32

No 6316

p. 12



GS10 carbide indiv

Ø 15 - 32

No 6315

p. 13



GS16 carbide

Ø 32 - 50

No 6316

p. 14



GS16 carbide indiv

Ø 32 - 50

No 6315

p. 15



Type Evo carbide

Ø 15 - 32

No 6317

p. 16



Holders

Type A5, A6

No 6018

p. 17

### Nutex Mini



HSS

Ø 15 - 32

No 6042

p. 18



carbide

Ø 15 - 32

No 6342

p. 19



HSS indiv

Ø 15 - 32

No 6041

p. 20



carbide indiv

Ø 15 - 32

No 6341

p. 21



Holders

Type A1, B1

No 6044

p. 22

### Nutex Mono



carbide

Ø 20 - 50

No 6326

p. 24



carbide indiv

Ø 20 - 50

No 6325

p. 25

## Nutex



HSS

Ø 40 - 125

No 6046

p. 26



carbide

Ø 25 - 125

No 6346

p. 27



HSS indiv

Ø 25 - 200

No 6045

p. 28



carbide indiv

Ø 25 - 125

No 6345

p. 30



carbide, type Evo

Ø 63 - 125

No 6347

p. 32



Holders

Type A2,A3,B2,C1

No 6048

p. 33

## Nutex Plus Mono



carbide

Ø 25 - 50

No 6336

p. 36

## Nutex Plus



HSS

Ø 50 - 200

No 6055

p. 37



HSS TiAlN

Ø 50 - 125

No 6155

p. 39



carbide

Ø 50 - 125

No 6355

p. 40



carb AlCrN

Ø 50 - 125

No 6356

p. 41



carbide, type Eco

Ø 63 - 125

No 6353 / 6354

p. 42



Holders

Type A4,B3,C2,C3

No 6058

p. 43

## Nutex Plan and Faset



Nutex Plan HM

Ø 50 - 63

No 6365

p. 46

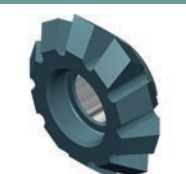


Holders

Type A4, B3, C2

No 6058

p. 47



Nutex Faset HM

Ø 16

No 6343

p. 48



Holders




Type A1, B1

No 6044



p. 49



### Circular saw blades DIN HSS

		
<b>HSS fine tooth</b>	<b>HSS coarse tooth</b>	<b>HSS coarse tooth TiN coated</b>
Ø 20 - 250	Ø 32 - 250	Ø 50 - 125
No 6010	No 6040	No 6140
p. 50	p. 53	p. 55





### Circular saw blades DIN carbide

	
<b>Carbide fine tooth</b>	<b>Carbide coarse tooth</b>
Ø 25 - 100	Ø 50 - 160
No 6310	No 6340
p. 56	p. 57

### Side milling cutters

		
<b>DIN 1834A - N</b>	<b>DIN 1834A-N TiN</b>	<b>DIN 885A - N</b>
Ø 50 - 200	Ø 63 - 160	Ø 50 - 250
No 3260	No 3555	No 3275
p. 58	p. 60	p. 61

### HSS circular saw blades (32)2/8/45 + 2/9/50 + 2/11/63

			
<b>untoothed</b>	<b>untoothed</b>	<b>untoothed</b>	<b>toothed Bw/C</b>
bright	steam tempered	TiAlN	steam tempered
No 6520	No 6522	No 6525	No 6530
p. 62	p. 63	p. 64	p. 65

### HSS circular saw blades (40)2/8/55 + 4/12/64



untoothed

bright

No 6620

p. 67



untoothed

steam tempered

No 6622

p. 68



untoothed

TiAlN

No 6625

p. 69



toothed Bw/C

steam tempered

No 6630

p. 70

### HSS circular saw blades (50)4/15/80 + 4/14/85



untoothed

bright

No 6720

p. 71



untoothed

steam tempered

No 6722

p. 72



untoothed

TiAlN

No 6725

p. 73



toothed C

steam tempered

No 6730

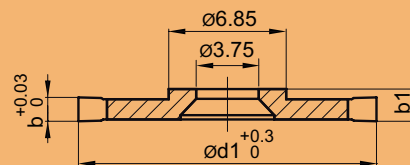
p. 74



# Nutex Star GS07 carbide, standard version TiNox-coated

6316 GS07

Nutex Star



Part No	d1 mm	b mm	Slot depth mm	Type		b1 mm	Holder 6018. _ _ _ _
6316.0185	15	0.5	3.5	GS07	18 A+	2	.0262, .0290, .0322, .0326, .0330
6316.0190	15	1	3.5	GS07	18 A+	2	.0262, .0290, .0322, .0326*, .0330*
6316.0195	15	1.5	3.5	GS07	18 A+	2.1	.0262, .0290, .0322*, .0326*, .0330*
6316.0200	15	2	3.5	GS07	12 A+	2.6	.0262, .0290, .0322*, .0326*, .0330*
6316.0245	20	0.5	6	GS07	16 A+	2	.0262, .0290, .0322, .0326, .0330
6316.0250	20	1	6	GS07	16 A+	2	.0262, .0290, .0322, .0326*, .0330*
6316.0255	20	1.5	6	GS07	10 A+	2.1	.0262, .0290, .0322, .0326*, .0330*
6316.0260	20	2	6	GS07	12 Aw+	2.6	.0262, .0290, .0322, .0326*, .0330*
6316.0262	20	2.5	6	GS07	10 Aw+	3.1	.0262, .0290, .0322, .0326*, .0330*
6316.0305	25	0.5	8.5	GS07	14 A+	2	.0262, .0290, .0322, .0326, .0330
6316.0310	25	1	8.5	GS07	12 A+	2	.0262, .0290, .0322, .0326, .0330*
6316.0315	25	1.5	8.5	GS07	12 Aw+	2.1	.0262, .0290, .0322, .0326, .0330*
6316.0320	25	2	8.5	GS07	10 Aw+	2.6	.0262, .0290, .0322, .0326*, .0330*
6316.0365	32	0.5	12	GS07	14 A+	2	.0262, .0290, .0322, .0326, .0330
6316.0370	32	1	12	GS07	14 Aw+	2	.0262, .0290, .0322, .0326, .0330
6316.0375	32	1.5	12	GS07	10 Aw+	2.1	.0262, .0290, .0322, .0326, .0330*

\* These holders can only be used in high-strength materials with measures to reduce cutting forces. Ask us.



Nutex Star with standard toothing available from stock. Designed for all materials and suitable for full groove depth. For application-optimized saws, contact us please.



Arbors and saws are available in three Star interface types.



The corners are not sharp-edged in favor of durability. For sharp-edged tools please contact us.



The indicated groove depths apply for new tools. Each resharping will reduce it by an average of about 0.5 mm. All Nutex Star tools from  $\varnothing 20$  mm can be resharping.



# Nutex Star GS07 carbide, individually manufactured uncoated

6315 GS07



Nutex Star

Part No	d1 mm	b mm	Slot depth mm	Type	b1 mm	Holder 6018. _ _ _ _
6315.0190	15	≤ 1	3.5	GS07	2	.0262, .0290, .0322, .0326, .0330
6315.0195	15	1.01 - 1.50	3.5	GS07	2.1	.0262, .0290, .0322, .0326, .0330
6315.0200	15	1.51 - 2.00	3.5	GS07	2.6	.0262, .0290, .0322, .0326, .0330
6315.0250	20	≤ 1	6	GS07	2	.0262, .0290, .0322, .0326, .0330
6315.0255	20	1.01 - 1.50	6	GS07	2.1	.0262, .0290, .0322, .0326, .0330
6315.0260	20	1.51 - 2.00	6	GS07	2.6	.0262, .0290, .0322, .0326, .0330
6315.0262	20	2.01 - 2.50	6	GS07	2.7 - 3.1	.0262, .0290, .0322, .0326, .0330
6315.0265	20	2.51 - 4.20	6	GS07	3.11 - 4.8	.0262, .0290, .0322, .0326, .0330
6315.0310	25	≤ 1	8.5	GS07	2	.0262, .0290, .0322, .0326, .0330
6315.0315	25	1.01 - 1.50	8.5	GS07	2.1	.0262, .0290, .0322, .0326, .0330
6315.0320	25	1.51 - 2.00	8.5	GS07	2.6	.0262, .0290, .0322, .0326, .0330
6315.0370	32	≤ 1	12	GS07	2	.0262, .0290, .0322, .0326, .0330
6315.0375	32	1.01 - 1.50	12	GS07	2.1	.0262, .0290, .0322, .0326, .0330

Not all solid carbide holders can be used with every saw without measures to reduce the cutting forces.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



Number, form, type and geometry of teeth have to be chosen by you.



Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



Nutex Star can be designed as a hollow-ground or 3-sided cutting circular saws.

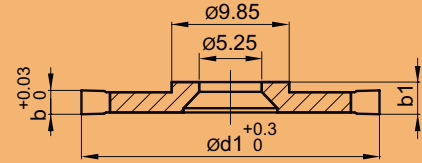




# Nutex Star GS10 carbide, standard version TiNox-coated

6316 GS10

Nutex Star



Part No	d1 mm	b mm	Slot depth mm	Type		b1 mm	Holder 6018. _ _ _ _
6316.0215	15	0.5	2	GS10	24 A+	2.7	.0432, .0472, .0476, .0480
6316.0220	15	1	2	GS10	24 A+	2.7	.0432, .0472, .0476, .0480
6316.0225	15	1.5	2	GS10	24 A+	2.7	.0432, .0472, .0476, .0480*
6316.0230	15	2	2	GS10	24 A+	2.7	.0432, .0472, .0476*, .0480*
6316.0275	20	0.5	4.5	GS10	18 A+	2.7	.0432, .0472, .0476, .0480
6316.0280	20	1	4.5	GS10	18 A+	2.7	.0432, .0472, .0476, .0480
6316.0285	20	1.5	4.5	GS10	18 A+	2.7	.0432, .0472, .0476, .0480*
6316.0290	20	2	4.5	GS10	18 A+	2.7	.0432, .0472, .0476*, .0480*
6316.0292	20	2.5	4.5	GS10	16 A+	3.2	.0432, .0472, .0476*, .0480*
6316.0335	25	0.5	7	GS10	16 A+	2.7	.0432, .0472, .0476, .0480
6316.0340	25	1	7	GS10	16 A+	2.7	.0432, .0472, .0476, .0480
6316.0345	25	1.5	7	GS10	16 A+	2.7	.0432, .0472, .0476, .0480*
6316.0350	25	2	7	GS10	14 A+	2.7	.0432, .0472, .0476*, .0480*
6316.0352	25	2.5	7	GS10	12 A+	3.2	.0432, .0472, .0476*, .0480*
6316.0395	32	0.5	10.5	GS10	14 A+	2.7	.0432, .0472, .0476, .0480
6316.0400	32	1	10.5	GS10	14 A+	2.7	.0432, .0472, .0476, .0480
6316.0405	32	1.5	10.5	GS10	14 A+	2.7	.0432, .0472, .0476, .0480*
6316.0410	32	2	10.5	GS10	10 A+	2.7	.0432, .0472, .0476, .0480*
6316.0412	32	2.5	10.5	GS10	12 Aw+	3.2	.0432, .0472, .0476, .0480*
6316.0414	32	3	10.5	GS10	10 Aw+	3.7	.0432, .0472, .0476, .0480*

\* These holders can only be used in high-strength materials with measures to reduce cutting forces. Ask us.



Nutex Star with standard toothing available from stock. Designed for all materials and suitable for full groove depth. For application-optimized saws, contact us please.



Arbors and saws are available in three Star interface types.



The corners are not sharp-edged in favor of durability. For sharp-edged tools please contact us.



The indicated groove depths apply for new tools. Each resharpening will reduce it by an average of about 0.5 mm. All Nutex Star tools from  $\varnothing 20$  mm can be resharpened.



# Nutex Star GS10 carbide, individually manufactured uncoated

6315 GS10



Nutex Star

Part No	d1 mm	b mm	Slot depth mm	Type	b1 mm	Holder 6018. _ _ _ _
6315.0220	15	≤ 1	2	GS10	2.7	.0432, .0472, .0476, .0480
6315.0225	15	1.01 - 1.50	2	GS10	2.7	.0432, .0472, .0476, .0480
6315.0230	15	1.51 - 2.00	2	GS10	2.7	.0432, .0472, .0476, .0480
6315.0280	20	≤ 1	4.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0285	20	1.01 - 1.50	4.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0290	20	1.51 - 2.00	4.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0292	20	2.01 - 2.50	4.5	GS10	3.2	.0432, .0472, .0476, .0480
6315.0340	25	≤ 1	7	GS10	2.7	.0432, .0472, .0476, .0480
6315.0345	25	1.01 - 1.50	7	GS10	2.7	.0432, .0472, .0476, .0480
6315.0350	25	1.51 - 2.00	7	GS10	2.7	.0432, .0472, .0476, .0480
6315.0352	25	2.01 - 2.50	7	GS10	3.2	.0432, .0472, .0476, .0480
6315.0355	25	2.51 - 4.00	7	GS10	3.7 - 4.7	.0432, .0472, .0476, .0480
6315.0356	25	4.01 - 5.50	7	GS10	4.71 - 6.2	.0432, .0472, .0476, .0480
6315.0358	25	5.51 - 7.20	7	GS10	6.21 - 7.9	.0432, .0472, .0476, .0480
6315.0400	32	≤ 1	10.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0405	32	1.01 - 1.50	10.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0410	32	1.51 - 2.00	10.5	GS10	2.7	.0432, .0472, .0476, .0480
6315.0412	32	2.01 - 2.50	10.5	GS10	3.2	.0432, .0472, .0476, .0480
6315.0414	32	2.51 - 3.00	10.5	GS10	3.7	.0432, .0472, .0476, .0480
6315.0416	32	3.01 - 5.20	10.5	GS10	3.71 - 5.9	.0432, .0472, .0476, .0480

Not all solid carbide holders can be used with every saw without measures to reduce the cutting forces.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



Number, form, type and geometry of teeth have to be chosen by you.



Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



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# Nutex Star GS16 carbide, standard version TiNox-coated

6316 GS16

Nutex Star



Part No	d1 mm	b mm	Slot depth mm	Type		b1 mm	Holder 6018. _ _ _ _
6316.0483	32	1	7.5	GS16	18 A+	4.4	.0582, .0594
6316.0486	32	2	7.5	GS16	18 A+	4.6	.0582, .0594
6316.0489	32	3	7.5	GS16	18 A+	4.6	.0582, .0594
6316.0493	32	5	7.5	GS16	18 Ak+	5.9	.0582, .0594
6316.0503	40	1	11.5	GS16	16 A+	4.4	.0582, .0594
6316.0506	40	2	11.5	GS16	16 A+	4.6	.0582, .0594
6316.0509	40	3	11.5	GS16	16 A+	4.6	.0582, .0594
6316.0513	40	5	11.5	GS16	15 Ak+	5.9	.0582, .0594
6316.0573	50	1	16.5	GS16	14 A+	4.4	.0582, .0594
6316.0576	50	2	16.5	GS16	14 A+	4.4	.0582, .0594
6316.0579	50	3	16.5	GS16	14 A+	4.6	.0582, .0594
6316.0583	50	5	16.5	GS16	14 Awk+	5.9	.0582, .0594

\* These holders can only be used in high-strength materials with measures to reduce cutting forces. Ask us.  
Ak+, Awk+ = Cross-toothed



Nutex Star with standard tothing available from stock. Designed for all materials and suitable for full groove depth. For application-optimized saws, contact us please.



Arbors and saws are available in three Star interface types.



The corners are not sharp-edged in favor of durability. For sharp-edged tools please contact us.



The indicated groove depths apply for new tools. Each resharpening will reduce it by an average of about 0.5 mm. All Nutex Star tools from Ø 20 mm can be resharpened.



# Nutex Star GS16 carbide, individually manufactured uncoated

6315 GS16



Nutex Star

Part No	d1 mm	b mm	Slot depth mm	Type	b1 mm	Holder 6018. _ _ _ _
6315.0483	32	≤ 1	7.5	GS16		.0582, .0594
6315.0486	32	1.01 - 2.00	7.5	GS16	4.4	.0582, .0594
6315.0489	32	2.01 - 3.00	7.5	GS16	4.4	.0582, .0594
6315.0491	32	3.01 - 4.00	7.5	GS16	4.9	.0582, .0594
6315.0493	32	4.01 - 5.00	7.5	GS16	5.9	.0582, .0594
6315.0503	40	≤ 1	11.5	GS16	4.4	.0582, .0594
6315.0506	40	1.01 - 2.00	11.5	GS16	4.4	.0582, .0594
6315.0509	40	2.01 - 3.00	11.5	GS16	4.4	.0582, .0594
6315.0511	40	3.01 - 4.00	11.5	GS16	4.9	.0582, .0594
6315.0513	40	4.01 - 5.00	11.5	GS16	5.9	.0582, .0594
6315.0573	50	≤ 1	16.5	GS16	4.4	.0582, .0594
6315.0576	50	1.01 - 2.00	16.5	GS16	4.4	.0582, .0594
6315.0579	50	2.01 - 3.00	16.5	GS16	4.4	.0582, .0594
6315.0581	50	3.01 - 4.00	16.5	GS16	4.9	.0582, .0594
6315.0583	50	4.01 - 5.00	16.5	GS16	5.9	.0582, .0594

Not all solid carbide holders can be used with every saw without measures to reduce the cutting forces.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



Number, form, type and geometry of teeth have to be chosen by you.



Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hencycle saw or form saw. Naturally also with application adapted PVD coating.



Nutex Star can be designed as a hollow-ground or 3-sided cutting circular saws.

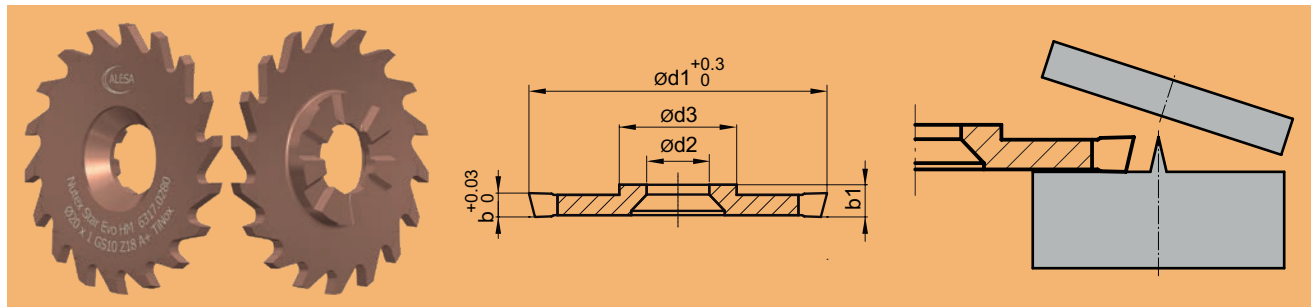




# Nutex Star Evo carbide, standard version TiNox-coated

6317

Nutex Star



Part No	d1 mm	b mm	Slot depth	Type		b1 mm	d2 mm	d3 mm	Holder 6018. _ _ _ _ _
<b>6317.0190</b>	15	1	3.5	GS07	18 A+	2	3.75	6.85	.0262, .0290, .0322, .0326*, .0330*
<b>6317.0280</b>	20	1	4.5	GS10	18 A+	2.7	5.25	9.85	.0432, .0472, .0476, .0480
<b>6317.0345</b>	25	1.5	7	GS10	16 A+	2.7	5.25	9.85	.0432, .0472, .0476, .0480*
<b>6317.0405</b>	32	1.5	10.5	GS10	14 A+	2.7	5.25	9.85	.0432, .0472, .0476, .0480*

\* These holders can only be used in high-strength materials with measures to reduce cutting forces. Ask us.



Nutex Star with standard toothing available from stock. Designed for all materials and suitable for full groove depth. For application-optimized saws, contact us please.



Arbors and saws are available in three Star interface types.



In order to cut without burrs, the corner formation is sharp-edged.



The indicated groove depths apply for new tools. Each reshaping will reduce it by an average of about 0.5 mm. All Nutex Star tools from Ø 20 mm can be reshaped.



# Holder for Nutex Star and accessories / spare parts

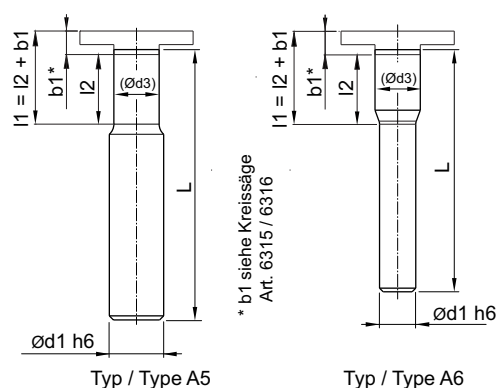
6018



Nutex Star

Part No	Type	d1 mm	d3 mm	l1 (min.) mm	l2 mm	L mm		Material
6018.0262	GS07 / A6	6	6.85	14	12	50.3	✓	steel
6018.0290	GS07 / A5	7	6.85	14	12	50.3	✓	carbide
6018.0322	GS07 / A5	8	6.85	24	22	61.3	✓	carbide
6018.0326	GS07 / A5	8	6.85	34	32	71.3	✓	carbide
6018.0330	GS07 / A5	8	6.85	44	42	81.3	✓	carbide
6018.0432	GS10 / A5	10	9.85	20	17.3	59.7	✓	steel
6018.0472	GS10 / A5	12	9.85	35	32.3	81.6	✓	carbide
6018.0476	GS10 / A5	12	9.85	50	47.3	96.6	✓	carbide
6018.0480	GS10 / A5	12	9.85	65	62.3	111.6	✓	carbide
6018.0582	GS16 / A5	16	15.85	32	27.6	78.2	✓	steel
6018.0594	GS16 / A5	16	15.85	57	52.6	103.2	✓	carbide

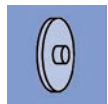
Scope of delivery: Nutex holder with an assembly- and a spare screw, compiled in protection box.



Part No	Type	Assembly screw	Type	Torque	TorxScrew-driver	Type	Spareholder
6018.0262	GS07 / A6	1490.0530	M3.5 x 7	2.2 Nm	1492.0460	T9	6018.0263
6018.0290	GS07 / A5	1490.0530	M3.5 x 7	2.2 Nm	1492.0460	T9	6018.0291
6018.0322	GS07 / A5	1490.0530	M3.5 x 7	2.2 Nm	1492.0460	T9	6018.0323
6018.0326	GS07 / A5	1490.0530	M3.5 x 7	2.2 Nm	1492.0460	T9	6018.0327
6018.0330	GS07 / A5	1490.0530	M3.5 x 7	2.2 Nm	1492.0460	T9	6018.0331
6018.0432	GS10 / A5	1490.0630	M5 x 10	5 Nm	1492.0560	T15	6018.0433
6018.0472	GS10 / A5	1490.0630	M5 x 10	5 Nm	1492.0560	T15	6018.0473
6018.0476	GS10 / A5	1490.0630	M5 x 10	5 Nm	1492.0560	T15	6018.0477
6018.0480	GS10 / A5	1490.0630	M5 x 10	5 Nm	1492.0560	T15	6018.0481
6018.0582	GS16 / A5	1490.0640	M8 x 16	20 Nm	1492.0760	T30	6018.0583
6018.0594	GS16 / A5	1490.0640	M8 x 16	20 Nm	1492.0760	T30	6018.0595

**Info** Arbors and saws are available in three Star interface types.

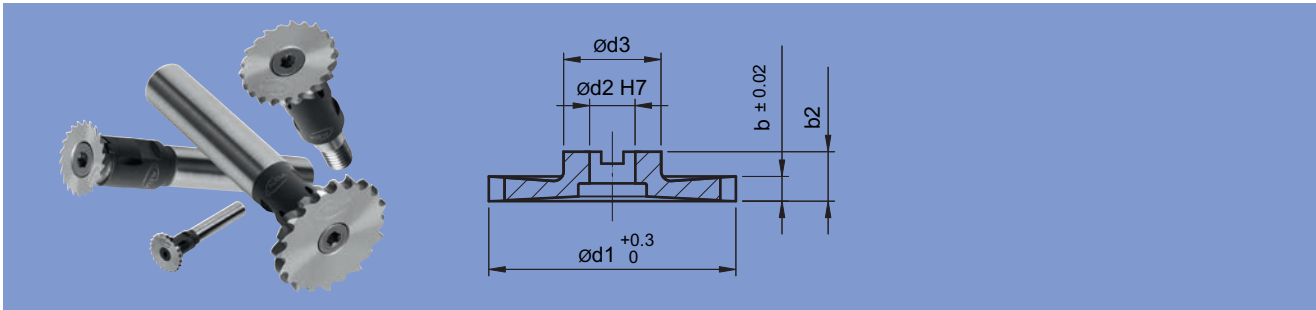
**Info** Not all solid carbide holders can be used with every saw without measures to reduce the cutting forces.




# Nutex Mini HSS, standard version TiAlN-coated

6042

Nutex Mini



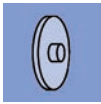
Part No	d1 mm	b mm	b2 mm		Slot depth mm	d2 mm	d3 mm	Holder 6044. _ _ _ _
6042.0136	15	0.50	5	20 B	2.0	5	9.85	.0400, .0410, .0420, .0500
6042.0141	15	1.00	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6042.0146	15	1.50	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6042.0149	15	2.00	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6042.0196	20	0.50	5	18 B	4.5	5	9.85	.0400, .0410, .0420, .0500
6042.0201	20	1.00	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6042.0206	20	1.50	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6042.0209	20	2.00	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6042.0211	20	2.50	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6042.0316	25	0.50	5	16 B	7.0	5	9.85	.0400, .0410, .0420, .0500
6042.0321	25	1.00	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6042.0326	25	1.50	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6042.0329	25	2.00	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6042.0331	25	2.50	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6042.0376	32	0.50	5	14 B	10.5	5	9.85	.0400, .0410, .0420, .0500
6042.0381	32	1.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6042.0386	32	1.50	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6042.0389	32	2.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6042.0391	32	2.50	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6042.0393	32	3.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500



All the Nutex Mini saws with standard toothing are available from stock!

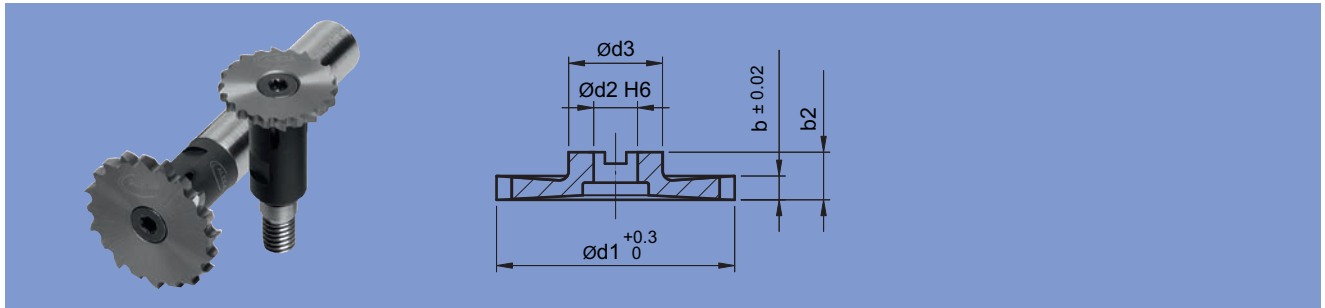


The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.




# Nutex Mini carbide, standard version AlCrN-coated

6342



Nutex Mini

Part No	d1 mm	b mm	b2 mm		Slot depth mm	d2 mm	d3 mm	Holder 6044. _ _ _ _
6342.0136	15	0.50	5	20 B	2.0	5	9.85	.0400, .0410, .0420, .0500
6342.0141	15	1.00	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6342.0146	15	1.50	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6342.0149	15	2.00	5	20 Bw	2.0	5	9.85	.0400, .0410, .0420, .0500
6342.0196	20	0.50	5	18 B	4.5	5	9.85	.0400, .0410, .0420, .0500
6342.0201	20	1.00	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6342.0206	20	1.50	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6342.0209	20	2.00	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6342.0211	20	2.50	5	18 Bw	4.5	5	9.85	.0400, .0410, .0420, .0500
6342.0316	25	0.50	5	16 B	7.0	5	9.85	.0400, .0410, .0420, .0500
6342.0321	25	1.00	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6342.0326	25	1.50	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6342.0329 *)	25	2.00	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6342.0331 *)	25	2.50	5	16 Bw	7.0	5	9.85	.0400, .0410, .0420, .0500
6342.0376	32	0.50	5	14 B	10.5	5	9.85	.0400, .0410, .0420, .0500
6342.0381	32	1.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6342.0386	32	1.50	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6342.0389 *)	32	2.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6342.0391 *)	32	2.50	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500
6342.0393 *)	32	3.00	5	14 Bw	10.5	5	9.85	.0400, .0410, .0420, .0500

\*) This Nutex Mini saw is only suitable for material up to 700 N/mm<sup>2</sup>. For material above 700 N/mm<sup>2</sup> please use our Nutex product.

**Info** All the Nutex Mini saws with standard toothing are available from stock!



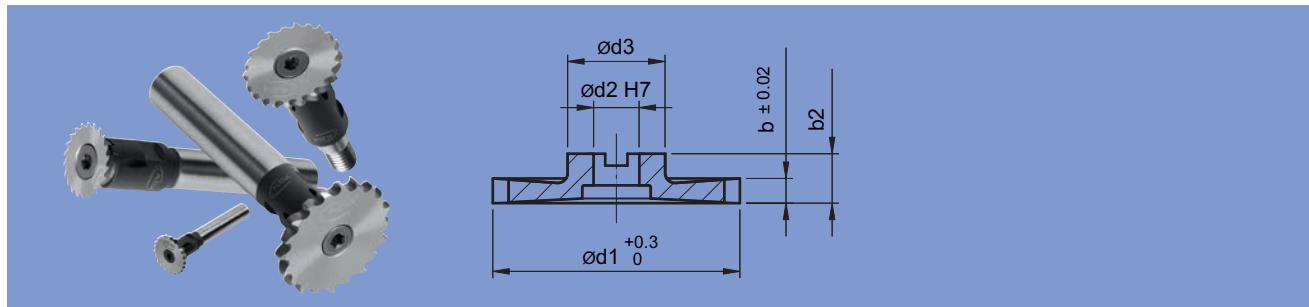
The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutex Mini HSS, individually manufactured uncoated

6041

Nutex Mini



Part No	d1 mm	b mm	b2 mm	Slot depth mm	d2 mm	d3 mm	Holder 6044. ---
6041.0132	15	0.25	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0136	15	0.50	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0140 °)	15	0.20 - 0.99	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0141	15	1.00	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0146	15	1.50	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0148 °)	15	1.01 - 1.99	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0149	15	2.00	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6041.0192	20	0.25	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0196	20	0.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0200 °)	20	0.20 - 0.99	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0201	20	1.00	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0206	20	1.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0209	20	2.00	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0210 °)	20	1.01 - 2.49	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0211	20	2.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6041.0312	25	0.25	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0316	25	0.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0320 °)	25	0.25 - 0.99	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0321	25	1.00	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0326	25	1.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0329	25	2.00	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0330 °)	25	1.01 - 2.49	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0331	25	2.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6041.0376	32	0.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0380 °)	32	0.30 - 0.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0381	32	1.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0386	32	1.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0388 °)	32	1.01 - 1.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0389	32	2.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0391	32	2.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0392 °)	32	2.01 - 2.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6041.0393	32	3.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



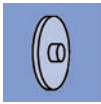
Number, form, type and geometry of teeth have to be chosen by you.



Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.

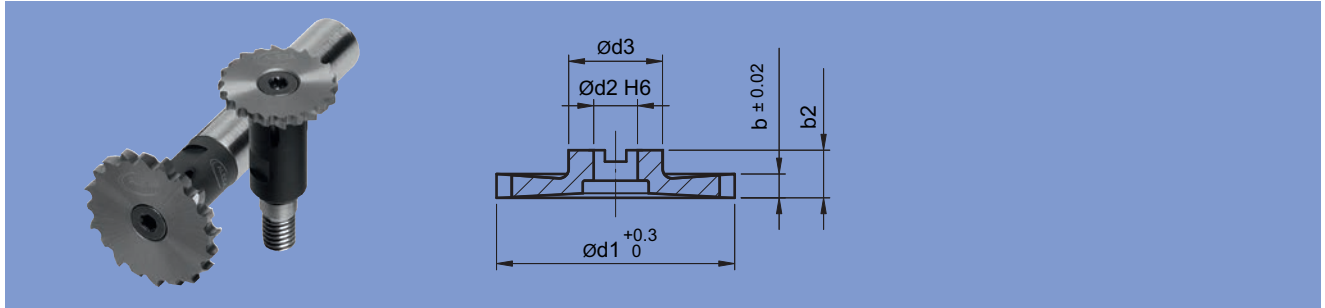


The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutex Mini carbide, individually manufactured uncoated

6341



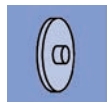
Nutex Mini

Part No	d1 mm	b mm	b2 mm	Slot depth mm	d2 mm	d3 mm	Holder 6044. _ _ _ _
6341.0135 °)	15	0.20 - 0.49	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0136	15	0.50	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0140 °)	15	0.51 - 0.99	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0141	15	1.00	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0145 °)	15	1.01 - 1.49	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0146	15	1.50	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0148 °)	15	1.51 - 1.99	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0149	15	2.00	5	2.0	5	9.85	.0400, .0410, .0420, .0500
6341.0195 °)	20	0.20 - 0.49	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0196	20	0.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0200 °)	20	0.51 - 0.99	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0201	20	1.00	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0205 °)	20	1.01 - 1.49	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0206	20	1.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0208 °)	20	1.51 - 1.99	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0209	20	2.00	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0210 °)	20	2.01 - 2.49	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0211	20	2.50	5	4.5	5	9.85	.0400, .0410, .0420, .0500
6341.0315 °)	25	0.25 - 0.49	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0316	25	0.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0320 °)	25	0.51 - 0.99	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0321	25	1.00	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0325 °)	25	1.01 - 1.49	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0326	25	1.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0328 °) *)	25	1.51 - 1.99	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0329 *)	25	2.00	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0330 °) *)	25	2.01 - 2.49	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0331 *)	25	2.50	5	7.0	5	9.85	.0400, .0410, .0420, .0500
6341.0375 °)	32	0.30 - 0.49	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0376	32	0.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0380 °)	32	0.51 - 0.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0381	32	1.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0385 °)	32	1.01 - 1.49	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0386	32	1.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0388 °) *)	32	1.51 - 1.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0389 *)	32	2.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0390 °) *)	32	2.01 - 2.49	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0391 *)	32	2.50	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0392 °) *)	32	2.51 - 2.99	5	10.5	5	9.85	.0400, .0410, .0420, .0500
6341.0393 *)	32	3.00	5	10.5	5	9.85	.0400, .0410, .0420, .0500

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation. \*) This Nutex Mini saw is only suitable for material up to 700 N/mm<sup>2</sup>. For material above 700 N/mm<sup>2</sup> please use our Nutex product.

	<b>Minimum order quantity saw blades: 2 pcs of the same dimension.</b>		Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.
	Number, form, type and geometry of teeth have to be chosen by you.		For individual saws always fill in enclosed datasheet. Thank you.






# Holder for Nutex Mini and accessories / spare parts

6044

Nutex Mini



Part No	Type	d1 mm	d2 mm	d3 mm	G	l1 mm	L mm		Assembly screw
6044.0400	A1	7	5	9.85		15.2	54	✓	6044.0800
6044.0410	A1	8	5	9.85		15.2	54	✓	6044.0800
6044.0420	A1	10	5	9.85		15.2	58	✓	6044.0800
6044.0500	B1		5	9.85	M6	18	32	✓	6044.0800

Tool will be delivered in a protection box containing holder with assembly screws and screw-driver.

Torx screw 6044.0800



Part No	Type	Assembly screw	Type	TorxScrew-driver	Type	Spareholder
6044.0400	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0405
6044.0410	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0415
6044.0420	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0425
6044.0500	B1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0505

# Nutex Mini order form

For a quick technical solution, please fill in this form and mail it to info@alesa.ch or fax it to +41 62 767 62 82

Inquiry

Order

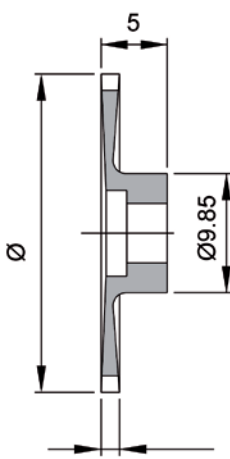
Customer _____	Name _____
_____	First name _____
Address _____	Tel/Fax _____
ZIP / Place _____	Email _____

Nutex Mini

**Workpiece**  
 Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ N/mm<sup>2</sup>  
 slot length \_\_\_\_\_ slot depth \_\_\_\_\_

**Sketch**

**Circular saw Nutex Mini**



N° of teeth \_\_\_\_\_  
 Tooth type \_\_\_\_\_

Cutting material  HSS  Carbide

Coating \_\_\_\_\_

Sense of rotation  clockwise  counter-cw

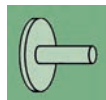
Standard tolerances  
 Diameter 0 / +0.3 Width ± 0.02  
 For special form tools the tolerances need to be specified.

**Amount** \_\_\_\_ pcs (minimum 2 pcs)

**Date** \_\_\_\_\_ **Signature** \_\_\_\_\_

**Holder**

with shank			threaded type		
part no	Ø d1	pcs	part no	G	pcs
6044.0400	Ø 7 mm	____ pcs	6044.0500	M6	____ pcs
6044.0410	Ø 8 mm	____ pcs			
6044.0420	Ø 10 mm	____ pcs			



# Nutex Mono carbide, standard version AlCrN-coated

6326

Nutex Mono



Part No	d1 mm	b mm	d2 mm	d3 mm	l1 mm	l2 mm			Slot depth (d2) mm	Slot depth (d3) mm
6326.0359	20	0.5	8	7.8	50	12	✓	16 B	5.5	5.5
6326.0369	20	1	8	7.8	50	12	✓	16 Bw	5.5	5.5
6326.0373	20	1.5	8	7.8	50	12	✓	16 Bw	5.5	5.5
6326.0377	20	2	8	7.8	50	12	✓	16 Bw	5.5	5.5
6326.0459	25	0.5	10	8.8	60	17	✓	16 B	7.0	7.5
6326.0469	25	1	10	8.8	60	17	✓	16 Bw	7.0	7.5
6326.0473	25	1.5	10	8.8	60	17	✓	16 Bw	7.0	7.5
6326.0477	25	2	10	8.8	60	17	✓	16 Bw	7.0	7.5
6326.0559	32	0.5	10	9.8	60	18	✓	14 B	10.5	10.5
6326.0569	32	1	10	9.8	60	18	✓	14 Bw	10.5	10.5
6326.0573	32	1.5	10	9.8	60	18	✓	14 Bw	10.5	10.5
6326.0577	32	2	10	9.8	60	18	✓	14 Bw	10.5	10.5
6326.0659	40	0.5	12	10.3	72	23.5	✓	14 B	13.5	14.0
6326.0669	40	1	12	10.3	72	23.5	✓	14 Bw	13.5	14.0
6326.0673	40	1.5	12	10.3	72	23.5	✓	14 Bw	13.5	14.0
6326.0677	40	2	12	10.3	72	23.5	✓	14 Bw	13.5	14.0
6326.0759	50	0.5	12	11.8	80	33	✓	14 B	18.5	18.5
6326.0769	50	1	12	11.8	80	33	✓	14 Bw	18.5	18.5
6326.0773	50	1.5	12	11.8	80	33	✓	14 Bw	18.5	18.5
6326.0777	50	2	12	11.8	80	33	✓	14 Bw	18.5	18.5

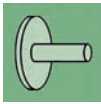
Delivered in a suitable protection box.



All the Nutex Mono saws with standard tooting are available from stock!



The indicated slot depths apply for new tools. Each resharping will reduce them, in average about 0.5 mm.




# Nutex Mono carbide, individually manufactured uncoated

6325



Nutex Mono

Part No	d1 mm	b mm	d2 mm	d3 mm	l1 mm	l2 mm		Slot depth (d2) mm	Slot depth (d3) mm
6325.0358	20	0.25 - 0.49	8	7.8	50	12	✓	5.5	5.5
6325.0359	20	0.50	8	7.8	50	12	✓	5.5	5.5
6325.0368	20	0.51 - 0.99	8	7.8	50	12	✓	5.5	5.5
6325.0369	20	1.00	8	7.8	50	12	✓	5.5	5.5
6325.0372	20	1.01 - 1.49	8	7.8	50	12	✓	5.5	5.5
6325.0373	20	1.50	8	7.8	50	12	✓	5.5	5.5
6325.0376	20	1.51 - 1.99	8	7.8	50	12	✓	5.5	5.5
6325.0377	20	2.00	8	7.8	50	12	✓	5.5	5.5
6325.0458	25	0.30 - 0.49	10	8.8	60	17	✓	7.0	7.5
6325.0459	25	0.50	10	8.8	60	17	✓	7.0	7.5
6325.0468	25	0.51 - 0.99	10	8.8	60	17	✓	7.0	7.5
6325.0469	25	1.00	10	8.8	60	17	✓	7.0	7.5
6325.0472	25	1.01 - 1.49	10	8.8	60	17	✓	7.0	7.5
6325.0473	25	1.50	10	8.8	60	17	✓	7.0	7.5
6325.0476	25	1.51 - 1.99	10	8.8	60	17	✓	7.0	7.5
6325.0477	25	2.00	10	8.8	60	17	✓	7.0	7.5
6325.0558	32	0.30 - 0.49	10	9.8	60	18	✓	10.5	10.5
6325.0559	32	0.50	10	9.8	60	18	✓	10.5	10.5
6325.0568	32	0.51 - 0.99	10	9.8	60	18	✓	10.5	10.5
6325.0569	32	1.00	10	9.8	60	18	✓	10.5	10.5
6325.0572	32	1.01 - 1.49	10	9.8	60	18	✓	10.5	10.5
6325.0573	32	1.50	10	9.8	60	18	✓	10.5	10.5
6325.0576	32	1.51 - 1.99	10	9.8	60	18	✓	10.5	10.5
6325.0577	32	2.00	10	9.8	60	18	✓	10.5	10.5
6325.0658	40	0.35 - 0.49	12	10.3	72	23.5	✓	13.5	14.0
6325.0659	40	0.50	12	10.3	72	23.5	✓	13.5	14.0
6325.0668	40	0.51 - 0.99	12	10.3	72	23.5	✓	13.5	14.0
6325.0669	40	1.00	12	10.3	72	23.5	✓	13.5	14.0
6325.0672	40	1.01 - 1.49	12	10.3	72	23.5	✓	13.5	14.0
6325.0673	40	1.50	12	10.3	72	23.5	✓	13.5	14.0
6325.0676	40	1.51 - 1.99	12	10.3	72	23.5	✓	13.5	14.0
6325.0677	40	2.00	12	10.3	72	23.5	✓	13.5	14.0
6325.0758	50	0.40 - 0.49	12	11.8	80	33	✓	18.5	18.5
6325.0759	50	0.50	12	11.8	80	33	✓	18.5	18.5
6325.0768	50	0.51 - 0.99	12	11.8	80	33	✓	18.5	18.5
6325.0769	50	1.00	12	11.8	80	33	✓	18.5	18.5
6325.0772	50	1.01 - 1.49	12	11.8	80	33	✓	18.5	18.5
6325.0773	50	1.50	12	11.8	80	33	✓	18.5	18.5
6325.0776	50	1.51 - 1.99	12	11.8	80	33	✓	18.5	18.5
6325.0777	50	2.00	12	11.8	80	33	✓	18.5	18.5

Delivered in a suitable protection box.



Minimum order quantity saw blades: 2 pcs of the same dimension.



Number, form, type and geometry of teeth have to be chosen by you.



The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.

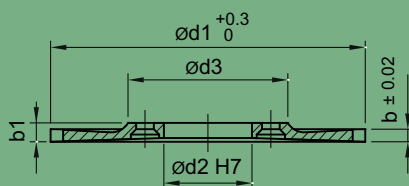


Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.




# Nutex HSS, standard version TiAlN-coated

6046



type S

Nutex

Part No	d1 mm	Type	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6046.0355	40	S	1	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6046.0356	40	S	1	2.55	24 Bw	7.0	8	24	.0430, .0530
6046.0361	40	S	1.5	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6046.0362	40	S	1.5	2.55	24 Bw	7.0	8	24	.0430, .0530
6046.0367	40	S	2	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6046.0368	40	S	2	2.55	24 Bw	7.0	8	24	.0430, .0530
6046.0415	50	S	1	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6046.0416	50	S	1	2.55	22 Bw	12.0	8	24	.0430, .0530
6046.0421	50	S	1.5	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6046.0422	50	S	1.5	2.55	22 Bw	12.0	8	24	.0430, .0530
6046.0427	50	S	2	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6046.0428	50	S	2	2.55	22 Bw	12.0	8	24	.0430, .0530
6046.0535	63	S	1	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6046.0536	63	S	1	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6046.0541	63	S	1.5	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6046.0542	63	S	1.5	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6046.0547	63	S	2	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6046.0548	63	S	2	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6046.0595	80	S	1	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6046.0596	80	S	1	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6046.0601	80	S	1.5	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6046.0602	80	S	1.5	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6046.0607	80	S	2	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6046.0608	80	S	2	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6046.0613	80	S	2.5	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6046.0614	80	S	2.5	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6046.0619	80	S	3	3.05	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6046.0620	80	S	3	3.05	20 Bw	23.0	16	32	.0440, .0540, .0640
6046.0715	100	S	1	2.55	28 Bw	29.0 (13.0*)	22	40	.0650
6046.0716	100	S	1	2.55	18 Bw	29.0	22	40	.0650
6046.0721	100	S	1.5	2.55	28 Bw	29.0 (13.0*)	22	40	.0650
6046.0722	100	S	1.5	2.55	18 Bw	29.0	22	40	.0650
6046.0727	100	S	2	2.55	28 Bw	29.0 (13.0*)	22	40	.0650
6046.0728	100	S	2	2.55	18 Bw	29.0	22	40	.0650
6046.0733	100	S	2.5	2.55	28 Bw	29.0 (13.0*)	22	40	.0650
6046.0734	100	S	2.5	2.55	18 Bw	29.0	22	40	.0650
6046.0739	100	S	3	3.05	28 Bw	29.0 (13.0*)	22	40	.0650
6046.0740	100	S	3	3.05	18 Bw	29.0	22	40	.0650
6046.0775	125	S	1	2.55	28 Bw	41.5 (17.0*)	22	40	.0650
6046.0776	125	S	1	2.55	18 Bw	41.5	22	40	.0650
6046.0781	125	S	1.5	2.55	28 Bw	41.5 (17.0*)	22	40	.0650
6046.0782	125	S	1.5	2.55	18 Bw	41.5	22	40	.0650
6046.0787	125	S	2	2.55	28 Bw	41.5 (17.0*)	22	40	.0650
6046.0788	125	S	2	2.55	18 Bw	41.5	22	40	.0650
6046.0793	125	S	2.5	2.55	28 Bw	41.5 (17.0*)	22	40	.0650
6046.0794	125	S	2.5	2.55	18 Bw	41.5	22	40	.0650
6046.0799	125	S	3	3.05	28 Bw	41.5 (17.0*)	22	40	.0650
6046.0800	125	S	3	3.05	18 Bw	41.5	22	40	.0650

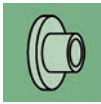
\* Maximal recommended depth of cut with saw blades with a large amount of teeth.



All the Nutex saws with standard toothing are available from stock!

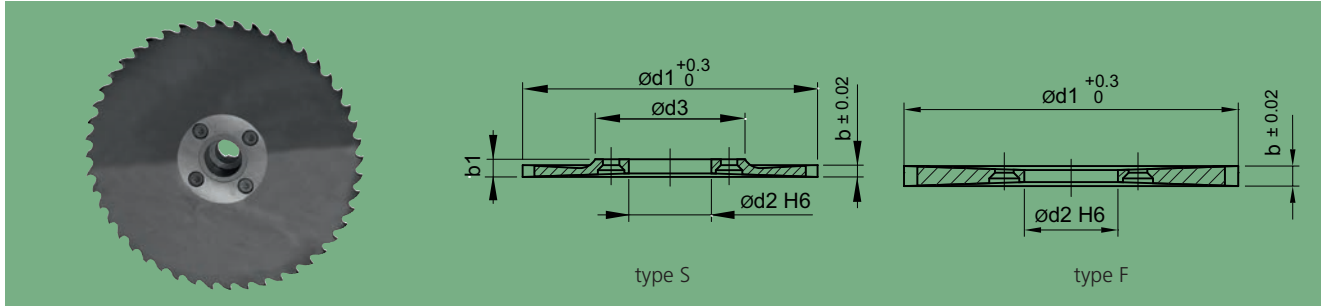



The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutrex carbide, standard version AlCrN-coated

6346



Part No	d1 mm	Type	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6346.0175	25	S	1	1.55	38 Bw	3.5 (2.0*)	5	16	.0400, .0410, .0420, .0520
6346.0176	25	S	1	1.55	28 Bw	3.5	5	16	.0400, .0410, .0420, .0520
6346.0181	25	F	1.5		38 Bw	4.0 (2.0*)	5		.0400, .0410, .0420, .0520
6346.0182	25	F	1.5		28 Bw	4.0	5		.0400, .0410, .0420, .0520
6346.0235	32	S	1	1.55	32 Bw	7.0 (3.5*)	5	16	.0400, .0410, .0420, .0520
6346.0236	32	S	1	1.55	22 Bw	7.0	5	16	.0400, .0410, .0420, .0520
6346.0241	32	F	1.5		32 Bw	7.5 (3.5*)	5		.0400, .0410, .0420, .0520
6346.0242	32	F	1.5		22 Bw	7.5	5		.0400, .0410, .0420, .0520
6346.0355	40	S	1	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6346.0356	40	S	1	2.55	24 Bw	7.0	8	24	.0430, .0530
6346.0361	40	S	1.5	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6346.0362	40	S	1.5	2.55	24 Bw	7.0	8	24	.0430, .0530
6346.0367	40	S	2	2.55	36 Bw	7.0 (3.5*)	8	24	.0430, .0530
6346.0368	40	S	2	2.55	24 Bw	7.0	8	24	.0430, .0530
6346.0373	40	F	2.5		36 Bw	7.5 (3.5*)	8		.0430, .0530
6346.0374	40	F	2.5		24 Bw	7.5	8		.0430, .0530
6346.0415	50	S	1	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6346.0416	50	S	1	2.55	22 Bw	12.0	8	24	.0430, .0530
6346.0421	50	S	1.5	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6346.0422	50	S	1.5	2.55	22 Bw	12.0	8	24	.0430, .0530
6346.0427	50	S	2	2.55	32 Bw	12.0 (5.5*)	8	24	.0430, .0530
6346.0428	50	S	2	2.55	22 Bw	12.0	8	24	.0430, .0530
6346.0433	50	F	2.5		32 Bw	12.5 (5.5*)	8		.0430, .0530
6346.0434	50	F	2.5		22 Bw	12.5	8		.0430, .0530
6346.0535	63	S	1	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6346.0536	63	S	1	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6346.0541	63	S	1.5	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6346.0542	63	S	1.5	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6346.0547	63	S	2	2.55	30 Bw	14.5 (7.0*)	16	32	.0440, .0540, .0640
6346.0548	63	S	2	2.55	20 Bw	14.5	16	32	.0440, .0540, .0640
6346.0553	63	F	2.5		30 Bw	15.0 (7.0*)	16		.0440, .0540, .0640
6346.0554	63	F	2.5		20 Bw	15.0	16		.0440, .0540, .0640
6346.0578	63	F	6		20 Bw	15.0	16		.0440, .0540, .0640
6346.0595	80	S	1	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6346.0596	80	S	1	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6346.0601	80	S	1.5	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6346.0602	80	S	1.5	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6346.0607	80	S	2	2.55	30 Bw	23.0 (10.0*)	16	32	.0440, .0540, .0640
6346.0608	80	S	2	2.55	20 Bw	23.0	16	32	.0440, .0540, .0640
6346.0613	80	F	2.5		30 Bw	23.5 (10.0*)	16		.0440, .0540, .0640
6346.0614	80	F	2.5		20 Bw	23.5	16		.0440, .0540, .0640
6346.0727	100	S	2	2.55	28 Bw	29.0 (13.0*)	22	40	.0650
6346.0728	100	S	2	2.55	18 Bw	29.0	22	40	.0650
6346.0733	100	F	2.5		28 Bw	29.5 (13.0*)	22		.0650
6346.0734	100	F	2.5		18 Bw	29.5	22		.0650
6346.0787	125	S	2	2.55	28 Bw	41.5 (17.0*)	22	40	.0650
6346.0788	125	S	2	2.55	18 Bw	41.5	22	40	.0650
6346.0793	125	F	2.5		28 Bw	42.0 (17.0*)	22		.0650
6346.0794	125	F	2.5		18 Bw	42.0	22		.0650

\* Maximal recommended depth of cut with saw blades with a large amount of teeth.

**Info** All the Nutrex saws with standard tothing are available from stock!  The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.

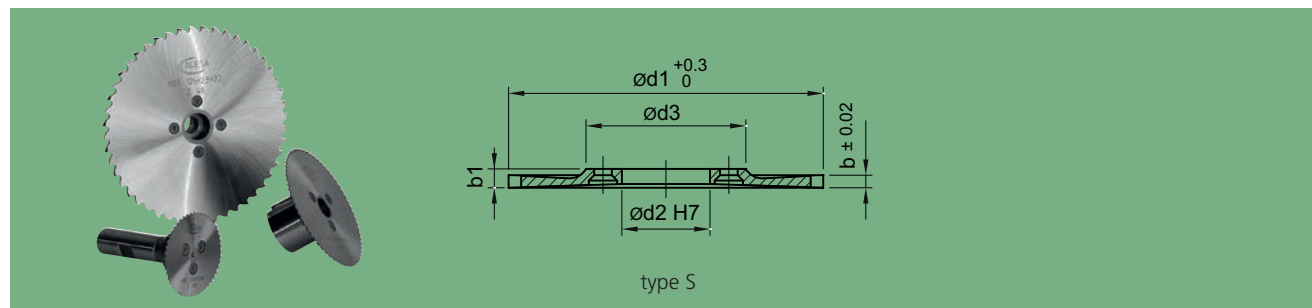




# Nutex HSS, individually manufactured uncoated

6045

Nutex



Part No	d1 mm	Type	b mm	b1 mm	Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6045.0312	25	S	0.25	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0316	25	S	0.50	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0321	25	S	1.00	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0326 °)	25	S	0.20 - 1.49	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0328	25	S	1.50	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0329 °)	25	S	1.51 - 1.99	2.05	3.5	5	16	.0400, .0410, .0420, .0520
6045.0330	25	S	2.00	2.05	3.5	5	16	.0400, .0410, .0420, .0520
6045.0331 °)	25	S	2.01 - 2.49	2.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0332	25	S	2.50	2.55	3.5	5	16	.0400, .0410, .0420, .0520
6045.0376	32	S	0.50	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0381	32	S	1.00	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0386 °)	32	S	0.25 - 1.49	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0388	32	S	1.50	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0389 °)	32	S	1.51 - 1.99	2.05	7.0	5	16	.0400, .0410, .0420, .0520
6045.0390	32	S	2.00	2.05	7.0	5	16	.0400, .0410, .0420, .0520
6045.0391 °)	32	S	2.01 - 2.49	2.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0392	32	S	2.50	2.55	7.0	5	16	.0400, .0410, .0420, .0520
6045.0393 °)	32	S	2.51 - 2.99	3.05	7.0	5	16	.0400, .0410, .0420, .0520
6045.0394	32	S	3.00	3.05	7.0	5	16	.0400, .0410, .0420, .0520
6045.0466	40	S	0.50	2.55	7.0	8	24	.0430, .0530
6045.0471	40	S	1.00	2.55	7.0	8	24	.0430, .0530
6045.0478	40	S	1.50	2.55	7.0	8	24	.0430, .0530
6045.0480	40	S	2.00	2.55	7.0	8	24	.0430, .0530
6045.0481 °)	40	S	0.30 - 2.49	2.55	7.0	8	24	.0430, .0530
6045.0482	40	S	2.50	2.55	7.0	8	24	.0430, .0530
6045.0483 °)	40	S	2.51 - 2.99	3.05	7.0	8	24	.0430, .0530
6045.0484	40	S	3.00	3.05	7.0	8	24	.0430, .0530
6045.0485 °)	40	S	3.01 - 3.99	4.05	7.0	8	24	.0430, .0530
6045.0486	40	S	4.00	4.05	7.0	8	24	.0430, .0530
6045.0487 °)	40	S	4.01 - 4.99	5.05	7.0	8	24	.0430, .0530
6045.0489	40	S	5.00	5.05	7.0	8	24	.0430, .0530
6045.0526	50	S	0.50	2.55	12.0	8	24	.0430, .0530
6045.0531	50	S	1.00	2.55	12.0	8	24	.0430, .0530
6045.0538	50	S	1.50	2.55	12.0	8	24	.0430, .0530
6045.0540	50	S	2.00	2.55	12.0	8	24	.0430, .0530
6045.0541 °)	50	S	0.40 - 2.49	2.55	12.0	8	24	.0430, .0530
6045.0542	50	S	2.50	2.55	12.0	8	24	.0430, .0530
6045.0543 °)	50	S	2.51 - 2.99	3.05	12.0	8	24	.0430, .0530
6045.0544	50	S	3.00	3.05	12.0	8	24	.0430, .0530
6045.0545 °)	50	S	3.01 - 3.99	4.05	12.0	8	24	.0430, .0530
6045.0546	50	S	4.00	4.05	12.0	8	24	.0430, .0530
6045.0547 °)	50	S	4.01 - 4.99	5.05	12.0	8	24	.0430, .0530
6045.0549	50	S	5.00	5.05	12.0	8	24	.0430, .0530
6045.0621	63	S	1.00	2.55	14.5	16	32	.0440, .0540, .0640
6045.0628	63	S	1.50	2.55	14.5	16	32	.0440, .0540, .0640
6045.0630	63	S	2.00	2.55	14.5	16	32	.0440, .0540, .0640
6045.0631 °)	63	S	0.50 - 2.49	2.55	14.5	16	32	.0440, .0540, .0640
6045.0632	63	S	2.50	2.55	14.5	16	32	.0440, .0540, .0640
6045.0633 °)	63	S	2.51 - 2.99	3.05	14.5	16	32	.0440, .0540, .0640
6045.0634	63	S	3.00	3.05	14.5	16	32	.0440, .0540, .0640
6045.0635 °)	63	S	3.01 - 3.99	4.05	14.5	16	32	.0440, .0540, .0640
6045.0636	63	S	4.00	4.05	14.5	16	32	.0440, .0540, .0640

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation.

**!** Minimum order quantity saw blades: 2 pcs of the same dimension.

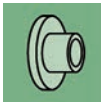
**Info** Number, form, type and geometry of teeth have to be chosen by you.

**Info**

Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.

**!**

The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



## Nutrex HSS, individually manufactured uncoated

Part No	d1 mm	Type	b mm	b1 mm	Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6045.0637 °)	63	S	4.01 - 4.99	5.05	14.5	16	32	.0440, .0540, .0640
6045.0639	63	S	5.00	5.05	14.5	16	32	.0440, .0540, .0640
6045.0651	80	S	1.00	2.55	23.0	16	32	.0440, .0540, .0640
6045.0658	80	S	1.50	2.55	23.0	16	32	.0440, .0540, .0640
6045.0660	80	S	2.00	2.55	23.0	16	32	.0440, .0540, .0640
6045.0661 °)	80	S	0.70 - 2.49	2.55	23.0	16	32	.0440, .0540, .0640
6045.0662	80	S	2.50	2.55	23.0	16	32	.0440, .0540, .0640
6045.0663 °)	80	S	2.51 - 2.99	3.05	23.0	16	32	.0440, .0540, .0640
6045.0664	80	S	3.00	3.05	23.0	16	32	.0440, .0540, .0640
6045.0665 °)	80	S	3.01 - 3.99	4.05	23.0	16	32	.0440, .0540, .0640
6045.0666	80	S	4.00	4.05	23.0	16	32	.0440, .0540, .0640
6045.0667 °)	80	S	4.01 - 4.99	5.05	23.0	16	32	.0440, .0540, .0640
6045.0669	80	S	5.00	5.05	23.0	16	32	.0440, .0540, .0640
6045.0711	100	S	1.00	2.55	29.0	22	40	.0650
6045.0718	100	S	1.50	2.55	29.0	22	40	.0650
6045.0720	100	S	2.00	2.55	29.0	22	40	.0650
6045.0721 °)	100	S	0.80 - 2.49	2.55	29.0	22	40	.0650
6045.0722	100	S	2.50	2.55	29.0	22	40	.0650
6045.0723 °)	100	S	2.51 - 2.99	3.05	29.0	22	40	.0650
6045.0724	100	S	3.00	3.05	29.0	22	40	.0650
6045.0725 °)	100	S	3.01 - 3.99	4.05	29.0	22	40	.0650
6045.0726	100	S	4.00	4.05	29.0	22	40	.0650
6045.0727 °)	100	S	4.01 - 4.99	5.05	29.0	22	40	.0650
6045.0729	100	S	5.00	5.05	29.0	22	40	.0650
6045.0741	125	S	1.00	2.55	41.5	22	40	.0650
6045.0748	125	S	1.50	2.55	41.5	22	40	.0650
6045.0750	125	S	2.00	2.55	41.5	22	40	.0650
6045.0751 °)	125	S	1.01 - 2.49	2.55	41.5	22	40	.0650
6045.0752	125	S	2.50	2.55	41.5	22	40	.0650
6045.0753 °)	125	S	2.51 - 2.99	3.05	41.5	22	40	.0650
6045.0754	125	S	3.00	3.05	41.5	22	40	.0650
6045.0755 °)	125	S	3.01 - 3.99	4.05	41.5	22	40	.0650
6045.0756	125	S	4.00	4.05	41.5	22	40	.0650
6045.0757 °)	125	S	4.01 - 4.99	5.05	41.5	22	40	.0650
6045.0759	125	S	5.00	5.05	41.5	22	40	.0650
6045.0781 °)	160	S	1.50 - 2.49	2.6	55.0	32	48	6058.0660
6045.0782	160	S	2.50	2.6	55.0	32	48	6058.0660
6045.0783 °)	160	S	2.51 - 2.99	3.1	55.0	32	48	6058.0660
6045.0784	160	S	3.00	3.1	55.0	32	48	6058.0660
6045.0843 °)	200	S	1.40 - 2.99	3.1	75.0	32	48	6058.0660
6045.0844	200	S	3.00	3.1	75.0	32	48	6058.0660
6045.0845 °)	200	S	3.01 - 3.99	4.1	75.0	32	48	6058.0660
6045.0846	200	S	4.00	4.1	75.0	32	48	6058.0660

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



Number, form, type and geometry of teeth have to be chosen by you.



Valid for all Nutrex, Nutrex Plus, Nutrex Mono, Nutrex Star and Nutrex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



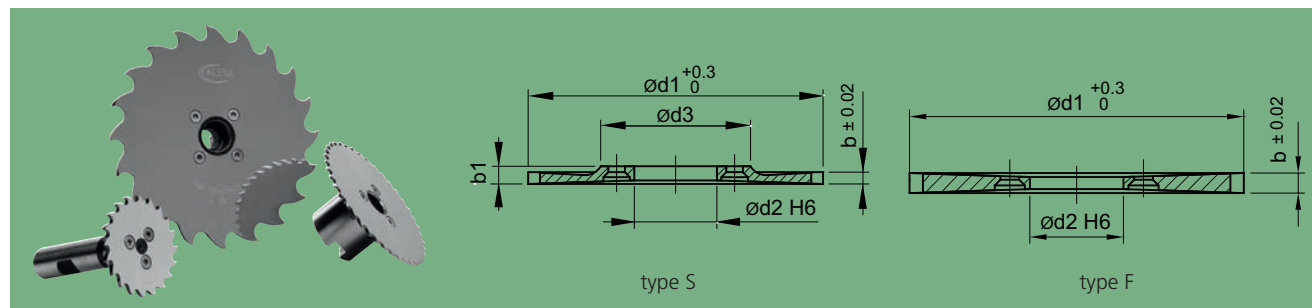
The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutex carbide, individually manufactured uncoated





6345

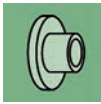
Nutex



Part No	d1 mm	Type	b mm	b1 mm	Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6345.0320 °)	25	S	0.20 - 0.99	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6345.0321	25	S	1.00	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6345.0325 °)	25	S	1.01 - 1.49	1.55	3.5	5	16	.0400, .0410, .0420, .0520
6345.0326	25	F	1.50		4.0	5		.0400, .0410, .0420, .0520
6345.0328 °)	25	F	1.51 - 1.99		4.0	5		.0400, .0410, .0420, .0520
6345.0329	25	F	2.00		4.0	5		.0400, .0410, .0420, .0520
6345.0330 °)	25	F	2.01 - 2.49		4.0	5		.0400, .0410, .0420, .0520
6345.0331	25	F	2.50		4.0	5		.0400, .0410, .0420, .0520
6345.0380 °)	32	S	0.20 - 0.99	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6345.0381	32	S	1.00	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6345.0385 °)	32	S	1.01 - 1.49	1.55	7.0	5	16	.0400, .0410, .0420, .0520
6345.0386	32	F	1.50		7.5	5		.0400, .0410, .0420, .0520
6345.0388 °)	32	F	1.51 - 1.99		7.5	5		.0400, .0410, .0420, .0520
6345.0389	32	F	2.00		7.5	5		.0400, .0410, .0420, .0520
6345.0390 °)	32	F	2.01 - 2.49		7.5	5		.0400, .0410, .0420, .0520
6345.0391	32	F	2.50		7.5	5		.0400, .0410, .0420, .0520
6345.0392 °)	32	F	2.51 - 2.99		7.5	5		.0400, .0410, .0420, .0520
6345.0393	32	F	3.00		7.5	5		.0400, .0410, .0420, .0520
6345.0470 °)	40	S	0.25 - 0.99	2.55	7.0	8	24	.0430, .0530
6345.0471	40	S	1.00	2.55	7.0	8	24	.0430, .0530
6345.0475 °)	40	S	1.01 - 1.49	2.55	7.0	8	24	.0430, .0530
6345.0476	40	S	1.50	2.55	7.0	8	24	.0430, .0530
6345.0478 °)	40	S	1.51 - 1.99	2.55	7.0	8	24	.0430, .0530
6345.0479	40	S	2.00	2.55	7.0	8	24	.0430, .0530
6345.0480 °)	40	S	2.01 - 2.49	2.55	7.0	8	24	.0430, .0530
6345.0481	40	F	2.50		7.5	8		.0430, .0530
6345.0482 °)	40	F	2.51 - 2.99		7.5	8		.0430, .0530
6345.0483	40	F	3.00		7.5	8		.0430, .0530
6345.0484 °)	40	F	3.01 - 3.99		7.5	8		.0430, .0530
6345.0485	40	F	4.00		7.5	8		.0430, .0530
6345.0486 °)	40	F	4.01 - 4.99		7.5	8		.0430, .0530
6345.0487	40	F	5.00		7.5	8		.0430, .0530
6345.0530 °)	50	S	0.30 - 0.99	2.55	12.0	8	24	.0430, .0530
6345.0531	50	S	1.00	2.55	12.0	8	24	.0430, .0530
6345.0535 °)	50	S	1.01 - 1.49	2.55	12.0	8	24	.0430, .0530
6345.0536	50	S	1.50	2.55	12.0	8	24	.0430, .0530
6345.0538 °)	50	S	1.51 - 1.99	2.55	12.0	8	24	.0430, .0530
6345.0539	50	S	2.00	2.55	12.0	8	24	.0430, .0530
6345.0540 °)	50	S	2.01 - 2.49	2.55	12.0	8	24	.0430, .0530
6345.0541	50	F	2.50		12.5	8		.0430, .0530
6345.0542 °)	50	F	2.51 - 2.99		12.5	8		.0430, .0530
6345.0543	50	F	3.00		12.5	8		.0430, .0530
6345.0544 °)	50	F	3.01 - 3.99		12.5	8		.0430, .0530
6345.0545	50	F	4.00		12.5	8		.0430, .0530
6345.0546 °)	50	F	4.01 - 4.99		12.5	8		.0430, .0530
6345.0547	50	F	5.00		12.5	8		.0430, .0530
6345.0620 °)	63	S	0.40 - 0.99	2.55	14.5	16	32	.0440, .0540, .0640
6345.0621	63	S	1.00	2.55	14.5	16	32	.0440, .0540, .0640
6345.0625 °)	63	S	1.01 - 1.49	2.55	14.5	16	32	.0440, .0540, .0640
6345.0626	63	S	1.50	2.55	14.5	16	32	.0440, .0540, .0640
6345.0628 °)	63	S	1.51 - 1.99	2.55	14.5	16	32	.0440, .0540, .0640
6345.0629	63	S	2.00	2.55	14.5	16	32	.0440, .0540, .0640

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation.

 <b>Minimum order quantity saw blades: 2 pcs of the same dimension.</b>	 The type „dimensioned for aluminium“ offers in addition to an adapted cutting geometry also a high-polished hollow grinding (with price surcharge).	 Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.
 The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.		



## Nutrex carbide, individually manufactured uncoated

Part No	d1 mm	Type	b mm	b1 mm	Slot depth mm	d2 mm	d3 mm	Holder 6048. _ _ _ _
6345.0630 °)	63	S	2.01 - 2.49	2.55	14.5	16	32	.0440, .0540, .0640
6345.0631	63	F	2.50		15.0	16		.0440, .0540, .0640
6345.0632 °)	63	F	2.51 - 2.99		15.0	16		.0440, .0540, .0640
6345.0633	63	F	3.00		15.0	16		.0440, .0540, .0640
6345.0634 °)	63	F	3.01 - 3.99		15.0	16		.0440, .0540, .0640
6345.0635	63	F	4.00		15.0	16		.0440, .0540, .0640
6345.0636 °)	63	F	4.01 - 4.99		15.0	16		.0440, .0540, .0640
6345.0637	63	F	5.00		15.0	16		.0440, .0540, .0640
6345.0650 °)	80	S	0.50 - 0.99	2.55	23.0	16	32	.0440, .0540, .0640
6345.0651	80	S	1.00	2.55	23.0	16	32	.0440, .0540, .0640
6345.0655 °)	80	S	1.01 - 1.49	2.55	23.0	16	32	.0440, .0540, .0640
6345.0656	80	S	1.50	2.55	23.0	16	32	.0440, .0540, .0640
6345.0658 °)	80	S	1.51 - 1.99	2.55	23.0	16	32	.0440, .0540, .0640
6345.0659	80	S	2.00	2.55	23.0	16	32	.0440, .0540, .0640
6345.0660 °)	80	S	2.01 - 2.49	2.55	23.0	16	32	.0440, .0540, .0640
6345.0661	80	F	2.50		23.5	16		.0440, .0540, .0640
6345.0662 °)	80	F	2.51 - 2.99		23.5	16		.0440, .0540, .0640
6345.0663	80	F	3.00		23.5	16		.0440, .0540, .0640
6345.0664 °)	80	F	3.01 - 3.99		23.5	16		.0440, .0540, .0640
6345.0665	80	F	4.00		23.5	16		.0440, .0540, .0640
6345.0666 °)	80	F	4.01 - 4.99		23.5	16		.0440, .0540, .0640
6345.0667	80	F	5.00		23.5	16		.0440, .0540, .0640
6345.0710 °)	100	S	0.60 - 0.99	2.55	29.0	22	40	.0650
6345.0711	100	S	1.00	2.55	29.0	22	40	.0650
6345.0715 °)	100	S	1.00 - 1.49	2.55	29.0	22	40	.0650
6345.0716	100	S	1.50	2.55	29.0	22	40	.0650
6345.0718 °)	100	S	1.51 - 1.99	2.55	29.0	22	40	.0650
6345.0719	100	S	2.00	2.55	29.0	22	40	.0650
6345.0720 °)	100	S	2.01 - 2.49	2.55	29.0	22	40	.0650
6345.0721	100	F	2.50		29.5	22		.0650
6345.0722 °)	100	F	2.51 - 2.99		29.5	22		.0650
6345.0723	100	F	3.00		29.5	22		.0650
6345.0724 °)	100	F	3.01 - 3.99		29.5	22		.0650
6345.0725	100	F	4.00		29.5	22		.0650
6345.0726 °)	100	F	4.01 - 4.99		29.5	22		.0650
6345.0727	100	F	5.00		29.5	22		.0650
6345.0745 °)	125	S	0.80 - 1.49	2.55	41.5	22	40	.0650
6345.0746	125	S	1.50	2.55	41.5	22	40	.0650
6345.0748 °)	125	S	1.51 - 1.99	2.55	41.5	22	40	.0650
6345.0749	125	S	2.00	2.55	41.5	22	40	.0650
6345.0750 °)	125	S	2.01 - 2.49	2.55	41.5	22	40	.0650
6345.0751	125	F	2.50		42.0	22		.0650
6345.0752 °)	125	F	2.51 - 2.99		42.0	22		.0650
6345.0753	125	F	3.00		42.0	22		.0650
6345.0754 °)	125	F	3.01 - 3.99		42.0	22		.0650
6345.0755	125	F	4.00		42.0	22		.0650
6345.0756 °)	125	F	4.01 - 4.99		42.0	22		.0650
6345.0757	125	F	5.00		42.0	22		.0650

°) Tools with widths beyond standard widths as well as special width tolerances can be produced. Please ask for a specific quotation.



**Minimum order quantity saw blades: 2 pcs of the same dimension.**



Valid for all Nutrex, Nutrex Plus, Nutrex Mono, Nutrex Star and Nutrex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



The type „dimensioned for aluminium“ offers in addition to an adapted cutting geometry also a high-polished hollow grinding (with price surcharge).



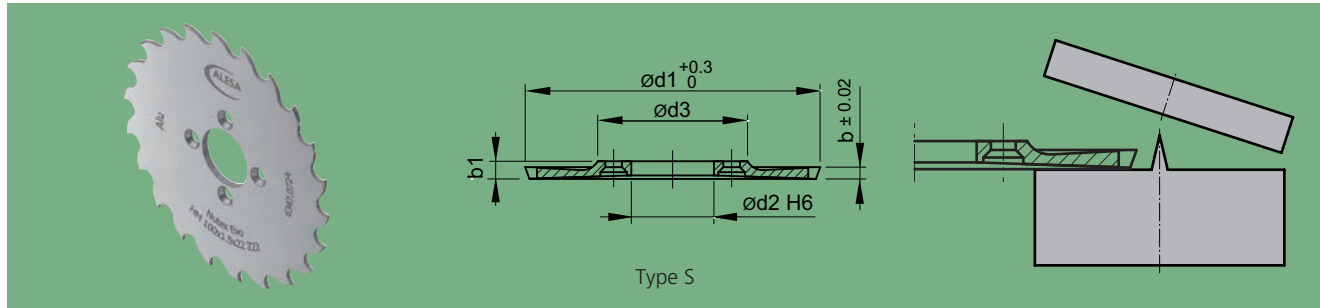
The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutrex Evo carbide, standard version uncoated / polished

6347

Nutrex



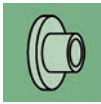
Part No	d1 mm	b mm	b1 mm		Slot depth	d2 mm	d3 mm	Coating	Material	Holder 6048. ....
<b>6347.0538</b>	63	1.00	2.55	18 Bw	14.5	16	32	uncoated, polished	Aluminium	.0440, .0540, .0640
<b>6347.0604</b>	80	1.50	2.55	16 Bw	23.0	16	32	uncoated, polished	Aluminium	.0440, .0540, .0640
<b>6347.0724</b>	100	1.50	2.55	16 Bw	29.0	22	40	uncoated, polished	Aluminium	.0650
<b>6347.0790</b>	125	2.00	2.55	14 Bw	41.5	22	40	uncoated, polished	Aluminium	.0650



All the Nutrex saws with standard toothing are available from stock!



The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



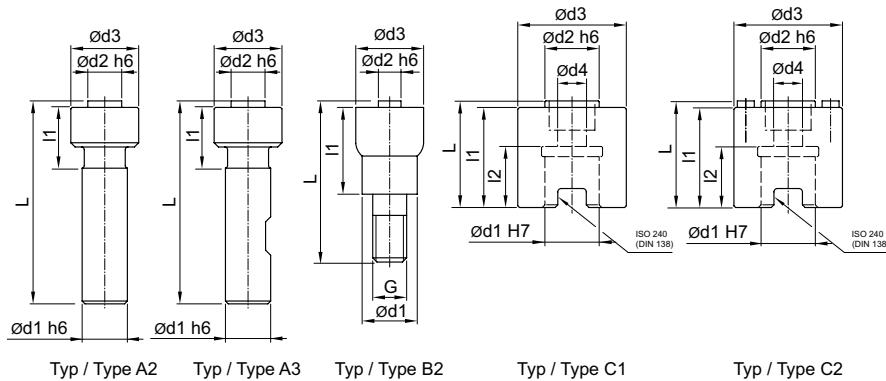
# Holder for Nutex and accessories / spare parts

6048



Part No	Type	for saws Ø	d1 mm	d2 mm	d3 mm	d4 mm	G	I1 mm	I2 mm	L mm	
6048.0400	A2	Ø 25 / 32 mm	7	5	16			12.6		51.9	✓
6048.0410	A2	Ø 25 / 32 mm	8	5	16			12.6		51.9	✓
6048.0420	A2	Ø 25 / 32 mm	10	5	16			12.6		55.9	✓
6048.0430	A3	Ø 40 / 50 mm	16	8	24			19.6		71.8	✓
6048.0440	A3	Ø 63 / 80 mm	16	16	32			23.6		75.8	✓
6048.0520	B2	Ø 25 / 32 mm	13	5	16		M8	20.7		38	✓
6048.0530	B2	Ø 40 / 50 mm	21	8	24		M12	25.8		48	✓
6048.0540	B2	Ø 63 / 80 mm	29	16	32		M16	30.8		55	✓
6048.0640	C1	Ø 63 / 80 mm	16	16	32	9		29.7	18	31.9	✓
6048.0650	C1	Ø 100 / 125 mm	22	22	40	11		37.7	20	39.9	✓
6058.0660	C2	Ø 160 / 200 mm	27	32	48	14		47.7	22	49.9	✓

Tool will be delivered in a protection box containing holder with screws and screw-driver.



Part No	Type	Assembly screw	Allen screw	Washer	Countersunk screw	Dowel pin	Spareholder
6048.0400	A2	1490.0530 (3x)					6048.0405
6048.0410	A2	1490.0530 (3x)					6048.0415
6048.0420	A2	1490.0530 (3x)					6048.0425
6048.0430	A3	1490.0600 (3x)					6048.0435
6048.0440	A3	1490.0600 (3x)					6048.0445
6048.0520	B2	1490.0530 (3x)					6048.0525
6048.0530	B2	1490.0600 (3x)					6048.0535
6048.0540	B2	1490.0600 (3x)					6048.0545
6048.0640	C1	1490.0600 (3x)	1490.0759	6058.0840	6058.0915		6048.0645
6048.0650	C1	1490.0600 (4x)	1490.0770	6058.0850	6058.0920		6048.0655
6058.0660	C2	1490.0600 (4x)	1490.0781	6058.0860	6058.0925	6058.0950 (2x)	6058.0665

Nutex holders are not suited for being used with a Nutex Plus saw.





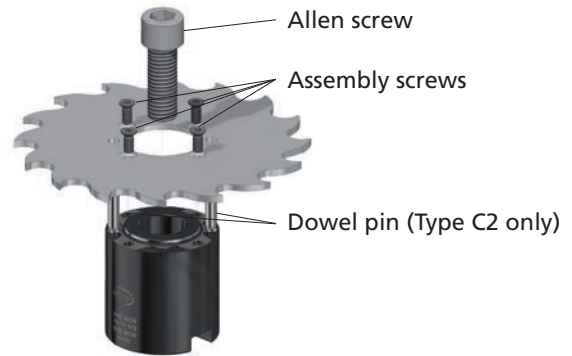
# Holder for Nutex

## Assembly variations and spare parts

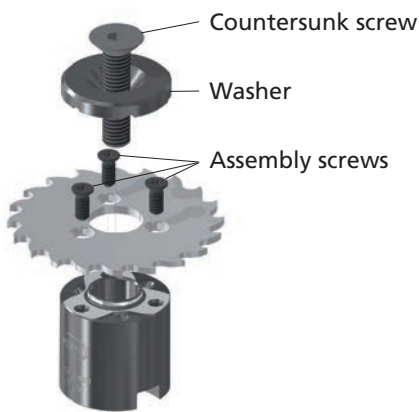
**Type A2, A3, B2**



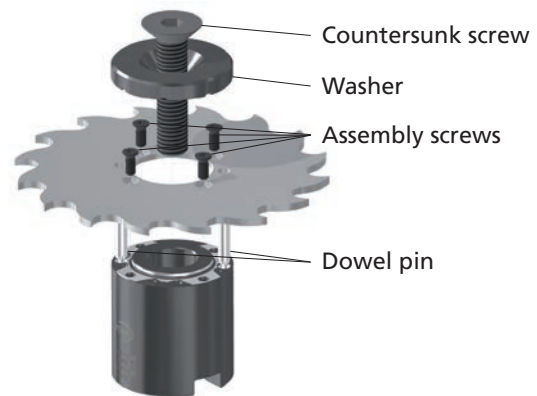
**Type C1, C2 without washer**



**Type C1 with washer**



**Type C2 with washer**



## Spare parts (relations see left page)

### Assembly screws (Torx)

Part No	Dimension	Torx	Torque
1490.0530	M3.5 x 7	T9	2.55 Nm
1490.0600	M4 x 10	T15	3.85 Nm

### Allen screws

Part No	Dimension	hex-socket	Torque
1490.0759	M8 x 20	sw 6	30 Nm
1490.0770	M10 x 25	sw 8	50 Nm
1490.0781	M12 x 35	sw 10	90 Nm

### Washers

Part No	Dimension	Countersunk screw
6058.0840	Ø32 x 10 x 9 mm	6058.0915
6058.0850	Ø40 x 11 x 11 mm	6058.0920
6058.0860	Ø48 x 12 x 13 mm	6058.0925

### Countersunk screws

Part No	Dimension	hex-socket	Torque
6058.0910	M8 x 20	sw 5	30 Nm
6058.0915	M8 x 35	sw 5	30 Nm
6058.0920	M10 x 45	sw 6	50 Nm
6058.0925	M12 x 55	sw 8	90 Nm

### Plug screws

Part No	Dimension	hex-socket	Torque

### Dowel pins

Part No	Dimension
6058.0950	Ø5 x 20 mm

### Screw drivers Torx

Part No	Torx
1492.0400	T9
1492.0500	T15

### Screw drivers hex-socket

Part No	hex-socket
6058.0980	sw 5
6058.0985	sw 6
n.a.	sw 8
n.a.	sw 10

# Nutex order form

For a quick technical solution, please fill in this form and mail it to info@alesa.ch or fax it to +41 62 767 62 82

Inquiry

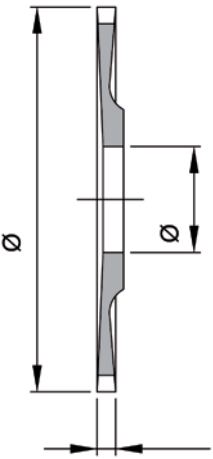
Order

Customer _____	Name _____
_____	First name _____
Address _____	Tel/Fax _____
ZIP / Place _____	Email _____

**Workpiece**  
 Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ N/mm<sup>2</sup>  
 slot length \_\_\_\_\_ slot depth \_\_\_\_\_

**Sketch**

**Circular saw Nutex**



N° of teeth \_\_\_\_\_  
 Tooth type \_\_\_\_\_

Cutting material  HSS  Carbide  
 Coating \_\_\_\_\_

Sense of rotation  clockwise  counter-cw


Standard tolerances  
 Diameter 0 / +0.3 Width ± 0.02  
 For special form tools the tolerances need to be specified.

**Amount** \_\_\_ pcs (minimum 2 pcs)

**Date** \_\_\_\_\_ **Signature** \_\_\_\_\_

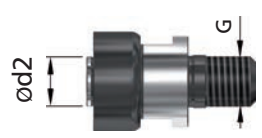
**Holder**

with shank



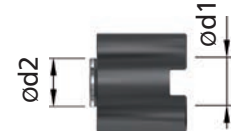
for saw	ød2 / ød1	Amt.
ø25 / ø32	ø5 / ø7	___ pcs
ø25 / ø32	ø5 / ø8	___ pcs
ø25 / ø32	ø5 / ø10	___ pcs
ø40 / ø50	ø8 / ø16	___ pcs
ø63 / ø80	ø16 / ø16	___ pcs

threaded type

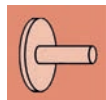


for saw	ød2 / G	Amt.
ø25 / ø32	ø5 / M8	___ pcs
ø40 / ø50	ø8 / M12	___ pcs
ø63 / ø80	ø16 / M16	___ pcs

shell type



for saw	ød2 / ød1	Amt.
ø63 / ø80	ø16 / ø16	___ pcs
ø100 / ø125	ø22 / ø22	___ pcs
ø160 / ø200	ø32 / ø27	___ pcs



# Nutex Plus Mono carbide, standard version AlCrN-coated

6336

Nutex Plus Mono



Part No	d1 mm	b mm	d2 mm	d3 mm	L mm	l2 mm			Slot depth (d2) mm	Slot depth (d3) mm
6336.0329	25	2	10	8.8	62	17	✓	16 BS	7.0	7.5
6336.0331	25	2.5	10	8.8	62	16.5	✓	16 BS	7.0	7.5
6336.0389	32	2	10	9.8	62	18	✓	14 BS	10.5	10.5
6336.0391	32	2.5	10	9.8	62	17.5	✓	14 BS	10.5	10.5
6336.0393	32	3	10	9.8	62	17	✓	14 BS	10.5	10.5
6336.0479	40	2	12	10.8	74	24	✓	14 BS	13.5	14.0
6336.0481	40	2.5	12	10.8	74	23.5	✓	14 BS	13.5	14.0
6336.0483	40	3	12	10.8	74	23	✓	14 BS	13.5	14.0
6336.0485	40	4	12	10.8	74	22	✓	14 BS	13.5	14.0
6336.0569	50	2	16	13.8	90	36.5	✓	14 BS	16.5	17.5
6336.0571	50	2.5	16	13.8	90	36	✓	14 BS	16.5	17.5
6336.0573	50	3	16	13.8	90	35.5	✓	14 BS	16.5	17.5
6336.0575	50	4	16	13.8	90	34.5	✓	14 BS	16.5	17.5

Delivered in a suitable protection box.

**Info**

Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



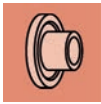
The indicated slot depths apply for new tools. Each resharping will reduce them, in average about 0.5 mm.

**Info**

All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.

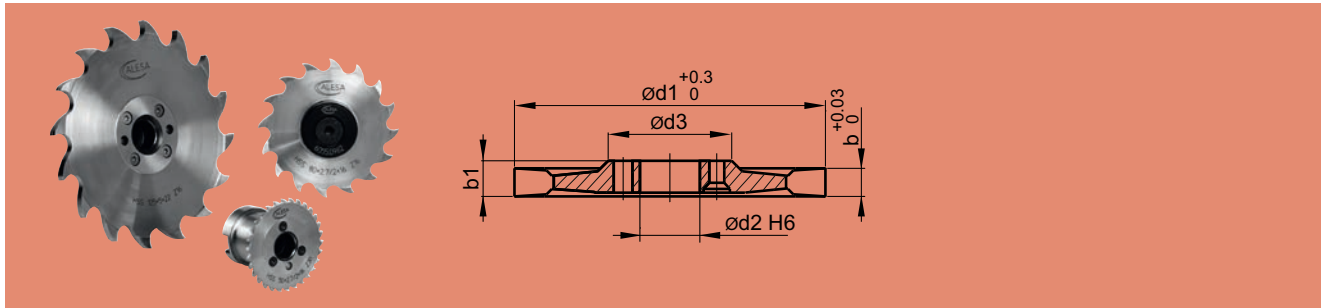
**Info**

**Tool- assembly/disassembly; Please check the available space condition in your assembly device.**



# Nutex Plus HSS, standard version uncoated

6055

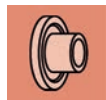


Nutex Plus

Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6058. _ _ _ _
6055.0568	50	2	2.73	30 BS	10.0 (5.0*)	16	28	.0430, .0530, .0630
6055.0569	50	2	2.73	20 BS	10.0	16	28	.0430, .0530, .0630
6055.0570	50	2.5	2.73	30 BS	10.5 (5.0*)	16	28	0.430, .0530, .0630
6055.0571	50	2.5	2.73	20 BS	10.5	16	28	0.430, .0530, .0630
6055.0572	50	3	3.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6055.0573	50	3	3.08	20 BS	10.5	16	28	.0430, .0530, .0630
6055.0574	50	4	4.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6055.0575	50	4	4.08	20 BS	10.5	16	28	.0430, .0530, .0630
6055.0576	50	5	5.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6055.0577	50	5	5.08	20 BS	10.5	16	28	.0430, .0530, .0630
6055.0579	50	6	6.08	20 BS	10.5	16	28	.0430, .0530, .0630
6055.0628	63	2	2.73	26 BS	14.5 (7.5*)	16	32	.0440, .0540, .0640
6055.0629	63	2	2.73	18 BS	14.5	16	32	.0440, .0540, .0640
6055.0630	63	2.5	2.73	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6055.0631	63	2.5	2.73	18 BS	15.0	16	32	.0440, .0540, .0640
6055.0632	63	3	3.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6055.0633	63	3	3.08	18 BS	15.0	16	32	.0440, .0540, .0640
6055.0634	63	4	4.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6055.0635	63	4	4.08	18 BS	15.0	16	32	.0440, .0540, .0640
6055.0636	63	5	5.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6055.0637	63	5	5.08	18 BS	15.0	16	32	.0440, .0540, .0640
6055.0639	63	6	6.08	18 BS	15.0	16	32	.0440, .0540, .0640
6055.0658	80	2	2.73	24 BS	23.0 (11.5*)	16	32	.0440, .0540, .0640
6055.0659	80	2	2.73	16 BS	23.0	16	32	.0440, .0540, .0640
6055.0660	80	2.5	2.73	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6055.0661	80	2.5	2.73	16 BS	23.5	16	32	.0440, .0540, .0640
6055.0662	80	3	3.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6055.0663	80	3	3.08	16 BS	23.5	16	32	.0440, .0540, .0640
6055.0664	80	4	4.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6055.0665	80	4	4.08	16 BS	23.5	16	32	.0440, .0540, .0640
6055.0666	80	5	5.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6055.0667	80	5	5.08	16 BS	23.5	16	32	.0440, .0540, .0640
6055.0669	80	6	6.08	16 BS	23.5	16	32	.0440, .0540, .0640
6055.0718	100	2	2.73	24 BS	29.0 (14.5*)	22	40	.0650
6055.0719	100	2	2.73	16 BS	29.0	22	40	.0650
6055.0720	100	2.5	2.73	24 BS	29.5 (14.5*)	22	40	.0650
6055.0721	100	2.5	2.73	16 BS	29.5	22	40	.0650
6055.0722	100	3	3.08	24 BS	29.5 (14.5*)	22	40	.0650
6055.0723	100	3	3.08	16 BS	29.5	22	40	.0650
6055.0724	100	4	4.08	24 BS	29.5 (14.5*)	22	40	.0650
6055.0725	100	4	4.08	16 BS	29.5	22	40	.0650
6055.0726	100	5	5.08	24 BS	29.5 (14.5*)	22	40	.0650
6055.0727	100	5	5.08	16 BS	29.5	22	40	.0650
6055.0729	100	6	6.08	16 BS	29.5	22	40	.0650
6055.0748	125	2	2.73	24 BS	41.5 (21.0*)	22	40	.0650
6055.0749	125	2	2.73	16 BS	41.5	22	40	.0650
6055.0750	125	2.5	2.73	24 BS	42.0 (21.0*)	22	40	.0650
6055.0751	125	2.5	2.73	16 BS	42.0	22	40	.0650
6055.0752	125	3	3.08	24 BS	42.0 (21.0*)	22	40	.0650
6055.0753	125	3	3.08	16 BS	42.0	22	40	.0650
6055.0754	125	4	4.08	24 BS	42.0 (21.0*)	22	40	.0650
6055.0755	125	4	4.08	16 BS	42.0	22	40	.0650


\* Maximal recommended depth of cut with saw blades with a large amount of teeth.

<p><b>Info</b> Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.</p>	<p><b>Info</b> All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.</p>
<p><b>Info</b> All the Nutex Plus saws are available from stock!</p>	<p> The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.</p>



## Nutex Plus HSS, standard version uncoated

Nutex Plus

Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6058. _ _ _ _ _
<b>6055.0756</b>	125	5	5.08	24 BS	42.0 (21.0*)	22	40	.0650
<b>6055.0757</b>	125	5	5.08	16 BS	42.0	22	40	.0650
<b>6055.0759</b>	125	6	6.08	16 BS	42.0	22	40	.0650
<b>6055.0783</b>	160	3	3.18	16 BS	55.5	32	48	.0660
<b>6055.0785</b>	160	4	4.18	16 BS	55.5	32	48	.0660
<b>6055.0845</b>	200	4	4.18	16 BS	75.5	32	48	.0660

\* Maximal recommended depth of cut with saw blades with a large amount of teeth.



Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



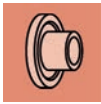
All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.



**All the Nutex Plus saws are available from stock!**

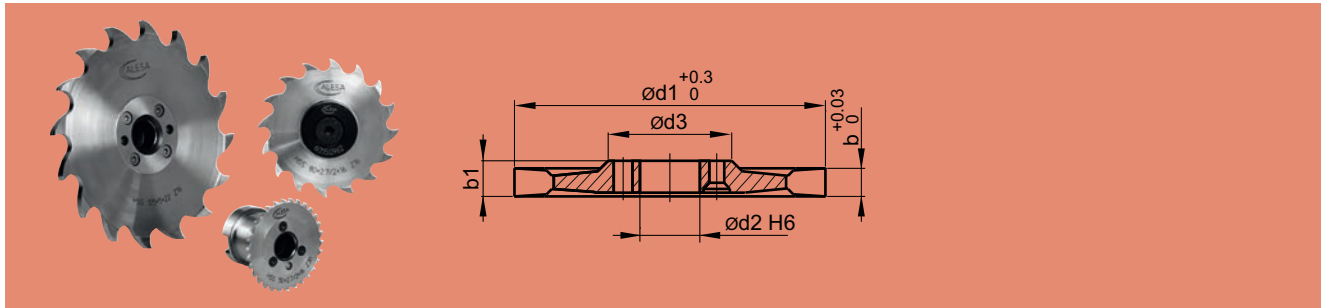


The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Nutex Plus HSS, standard version TiAlN-coated

6155



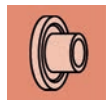
Nutex Plus

Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6058. _ _ _ _
6155.0568	50	2	2.73	30 BS	10.0 (5.0*)	16	28	.0430, .0530, .0630
6155.0569	50	2	2.73	20 BS	10.0	16	28	.0430, .0530, .0630
6155.0570	50	2.5	2.73	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6155.0571	50	2.5	2.73	20 BS	10.5	16	28	.0430, .0530, .0630
6155.0572	50	3	3.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6155.0573	50	3	3.08	20 BS	10.5	16	28	.0430, .0530, .0630
6155.0574	50	4	4.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6155.0575	50	4	4.08	20 BS	10.5	16	28	.0430, .0530, .0630
6155.0576	50	5	5.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6155.0577	50	5	5.08	20 BS	10.5	16	28	.0430, .0530, .0630
6155.0579	50	6	6.08	20 BS	10.5	16	28	.0430, .0530, .0630
6155.0628	63	2	2.73	26 BS	14.5 (7.5*)	16	32	.0440, .0540, .0640
6155.0629	63	2	2.73	18 BS	14.5	16	32	.0440, .0540, .0640
6155.0630	63	2.5	2.73	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6155.0631	63	2.5	2.73	18 BS	15.0	16	32	.0440, .0540, .0640
6155.0632	63	3	3.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6155.0633	63	3	3.08	18 BS	15.0	16	32	.0440, .0540, .0640
6155.0634	63	4	4.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6155.0635	63	4	4.08	18 BS	15.0	16	32	.0440, .0540, .0640
6155.0636	63	5	5.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6155.0637	63	5	5.08	18 BS	15.0	16	32	.0440, .0540, .0640
6155.0639	63	6	6.08	18 BS	15.0	16	32	.0440, .0540, .0640
6155.0658	80	2	2.73	24 BS	23.0 (11.5*)	16	32	.0440, .0540, .0640
6155.0659	80	2	2.73	16 BS	23.0	16	32	.0440, .0540, .0640
6155.0660	80	2.5	2.73	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6155.0661	80	2.5	2.73	16 BS	23.5	16	32	.0440, .0540, .0640
6155.0662	80	3	3.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6155.0663	80	3	3.08	16 BS	23.5	16	32	.0440, .0540, .0640
6155.0664	80	4	4.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6155.0665	80	4	4.08	16 BS	23.5	16	32	.0440, .0540, .0640
6155.0666	80	5	5.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6155.0667	80	5	5.08	16 BS	23.5	16	32	.0440, .0540, .0640
6155.0669	80	6	6.08	16 BS	23.5	16	32	.0440, .0540, .0640
6155.0718	100	2	2.73	24 BS	29.0 (14.5*)	22	40	.0650
6155.0719	100	2	2.73	16 BS	29.0	22	40	.0650
6155.0720	100	2.5	2.73	24 BS	29.5 (14.5*)	22	40	.0650
6155.0721	100	2.5	2.73	16 BS	29.5	22	40	.0650
6155.0722	100	3	3.08	24 BS	29.5 (14.5*)	22	40	.0650
6155.0723	100	3	3.08	16 BS	29.5	22	40	.0650
6155.0724	100	4	4.08	24 BS	29.5 (14.5*)	22	40	.0650
6155.0725	100	4	4.08	16 BS	29.5	22	40	.0650
6155.0726	100	5	5.08	24 BS	29.5 (14.5*)	22	40	.0650
6155.0727	100	5	5.08	16 BS	29.5	22	40	.0650
6155.0729	100	6	6.08	16 BS	29.5	22	40	.0650
6155.0748	125	2	2.73	24 BS	41.5 (21.0*)	22	40	.0650
6155.0749	125	2	2.73	16 BS	41.5	22	40	.0650
6155.0750	125	2.5	2.73	24 BS	42.0 (21.0*)	22	40	.0650
6155.0751	125	2.5	2.73	16 BS	42.0	22	40	.0650
6155.0752	125	3	3.08	24 BS	42.0 (21.0*)	22	40	.0650
6155.0753	125	3	3.08	16 BS	42.0	22	40	.0650
6155.0754	125	4	4.08	24 BS	42.0 (21.0*)	22	40	.0650
6155.0755	125	4	4.08	16 BS	42.0	22	40	.0650
6155.0756	125	5	5.08	24 BS	42.0 (21.0*)	22	40	.0650
6155.0757	125	5	5.08	16 BS	42.0	22	40	.0650
6155.0759	125	6	6.08	16 BS	42.0	22	40	.0650

\* Maximal recommended depth of cut with saw blades with a large amount of teeth.

**Info** All the Nutex Plus saws are available from stock! The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.

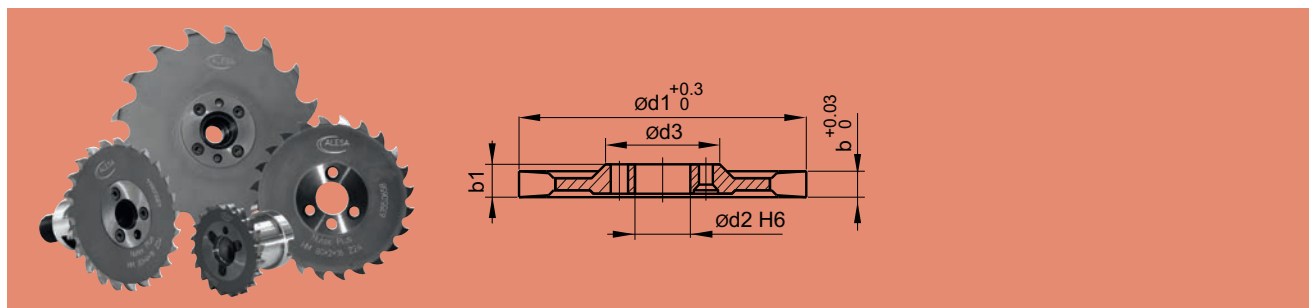





# Nutex Plus carbide, standard version uncoated

6355

Nutex Plus



Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6058. _ _ _ _
6355.0568	50	2	2.73	30 BS	10.0 (5.0*)	16	28	.0430, .0530, .0630
6355.0569	50	2	2.73	20 BS	10.0	16	28	.0430, .0530, .0630
6355.0570	50	2.5	2.73	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6355.0571	50	2.5	2.73	20 BS	10.5	16	28	.0430, .0530, .0630
6355.0572	50	3	3.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6355.0573	50	3	3.08	20 BS	10.5	16	28	.0430, .0530, .0630
6355.0574	50	4	4.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6355.0575	50	4	4.08	20 BS	10.5	16	28	.0430, .0530, .0630
6355.0628	63	2	2.73	26 BS	14.5 (7.5*)	16	32	.0440, .0540, .0640
6355.0629	63	2	2.73	18 BS	14.5	16	32	.0440, .0540, .0640
6355.0630	63	2.5	2.73	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6355.0631	63	2.5	2.73	18 BS	15.0	16	32	.0440, .0540, .0640
6355.0632	63	3	3.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6355.0633	63	3	3.08	18 BS	15.0	16	32	.0440, .0540, .0640
6355.0634	63	4	4.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6355.0635	63	4	4.08	18 BS	15.0	16	32	.0440, .0540, .0640
6355.0658	80	2	2.73	24 BS	23.0 (11.5*)	16	32	.0440, .0540, .0640
6355.0659	80	2	2.73	16 BS	23.0	16	32	.0440, .0540, .0640
6355.0660	80	2.5	2.73	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6355.0661	80	2.5	2.73	16 BS	23.5	16	32	.0440, .0540, .0640
6355.0662	80	3	3.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6355.0663	80	3	3.08	16 BS	23.5	16	32	.0440, .0540, .0640
6355.0664	80	4	4.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6355.0665	80	4	4.08	16 BS	23.5	16	32	.0440, .0540, .0640
6355.0718	100	2	2.73	24 BS	29.0 (14.5*)	22	40	.0650
6355.0719	100	2	2.73	16 BS	29.0	22	40	.0650
6355.0720	100	2.5	2.73	24 BS	29.5 (14.5*)	22	40	.0650
6355.0721	100	2.5	2.73	16 BS	29.5	22	40	.0650
6355.0722	100	3	3.08	24 BS	29.5 (14.5*)	22	40	.0650
6355.0723	100	3	3.08	16 BS	29.5	22	40	.0650
6355.0724	100	4	4.08	24 BS	29.5 (14.5*)	22	40	.0650
6355.0725	100	4	4.08	16 BS	29.5	22	40	.0650
6355.0726	100	5	5.08	24 BS	29.5 (14.5*)	22	40	.0650
6355.0727	100	5	5.08	16 BS	29.5	22	40	.0650
6355.0750	125	2.5	2.73	24 BS	42.0 (21.0*)	22	40	.0650
6355.0751	125	2.5	2.73	16 BS	42.0	22	40	.0650
6355.0752	125	3	3.08	24 BS	42.0 (21.0*)	22	40	.0650
6355.0753	125	3	3.08	16 BS	42.0	22	40	.0650
6355.0754	125	4	4.08	24 BS	42.0 (21.0*)	22	40	.0650
6355.0755	125	4	4.08	16 BS	42.0	22	40	.0650
6355.0756	125	5	5.08	24 BS	42.0 (21.0*)	22	40	.0650
6355.0757	125	5	5.08	16 BS	42.0	22	40	.0650

\* Maximal recommended depth of cut with saw blades with a large amount of teeth.



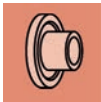
Valid for all Nutex, Nutex Plus, Nutex Mono, Nutex Star and Nutex Mini saws. They are producible with corner radius, chamfer, as hemicycle saw or form saw. Naturally also with application adapted PVD coating.



All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.

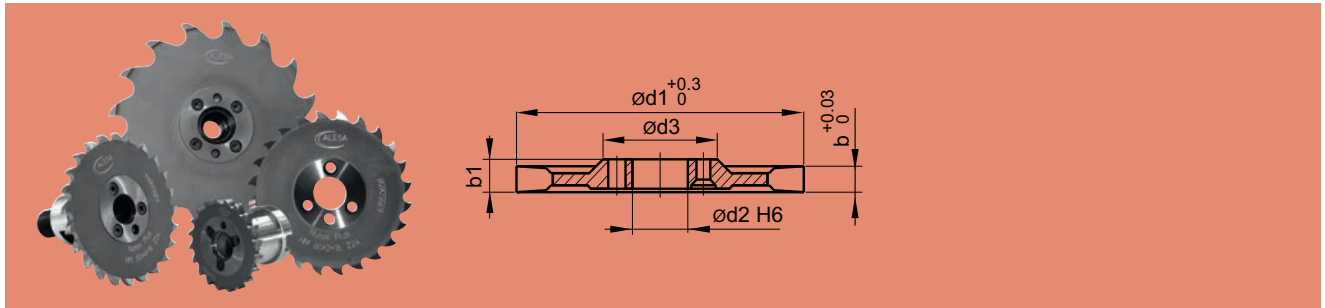


The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.




# Nutex Plus carbide, standard version AlCrN-coated

6356

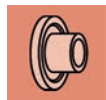


Nutex Plus

Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Holder 6058. _ _ _ _
6356.0568	50	2	2.73	30 BS	10.0 (5.0*)	16	28	.0430, .0530, .0630
6356.0569	50	2	2.73	20 BS	10.0	16	28	.0430, .0530, .0630
6356.0570	50	2.5	2.73	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6356.0571	50	2.5	2.73	20 BS	10.5	16	28	.0430, .0530, .0630
6356.0572	50	3	3.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6356.0573	50	3	3.08	20 BS	10.5	16	28	.0430, .0530, .0630
6356.0574	50	4	4.08	30 BS	10.5 (5.0*)	16	28	.0430, .0530, .0630
6356.0575	50	4	4.08	20 BS	10.5	16	28	.0430, .0530, .0630
6356.0628	63	2	2.73	26 BS	14.5 (7.5*)	16	32	.0440, .0540, .0640
6356.0629	63	2	2.73	18 BS	14.5	16	32	.0440, .0540, .0640
6356.0630	63	2.5	2.73	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6356.0631	63	2.5	2.73	18 BS	15.0	16	32	.0440, .0540, .0640
6356.0632	63	3	3.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6356.0633	63	3	3.08	18 BS	15.0	16	32	.0440, .0540, .0640
6356.0634	63	4	4.08	26 BS	15.0 (7.5*)	16	32	.0440, .0540, .0640
6356.0635	63	4	4.08	18 BS	15.0	16	32	.0440, .0540, .0640
6356.0658	80	2	2.73	24 BS	23.0 (11.5*)	16	32	.0440, .0540, .0640
6356.0659	80	2	2.73	16 BS	23.0	16	32	.0440, .0540, .0640
6356.0660	80	2.5	2.73	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6356.0661	80	2.5	2.73	16 BS	23.5	16	32	.0440, .0540, .0640
6356.0662	80	3	3.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6356.0663	80	3	3.08	16 BS	23.5	16	32	.0440, .0540, .0640
6356.0664	80	4	4.08	24 BS	23.5 (11.5*)	16	32	.0440, .0540, .0640
6356.0665	80	4	4.08	16 BS	23.5	16	32	.0440, .0540, .0640
6356.0718	100	2	2.73	24 BS	29.0 (14.5*)	22	40	.0650
6356.0719	100	2	2.73	16 BS	29.0	22	40	.0650
6356.0720	100	2.5	2.73	24 BS	29.5 (14.5*)	22	40	.0650
6356.0721	100	2.5	2.73	16 BS	29.5	22	40	.0650
6356.0722	100	3	3.08	24 BS	29.5 (14.5*)	22	40	.0650
6356.0723	100	3	3.08	16 BS	29.5	22	40	.0650
6356.0724	100	4	4.08	24 BS	29.5 (14.5*)	22	40	.0650
6356.0725	100	4	4.08	16 BS	29.5	22	40	.0650
6356.0726	100	5	5.08	24 BS	29.5 (14.5*)	22	40	.0650
6356.0727	100	5	5.08	16 BS	29.5	22	40	.0650
6356.0750	125	2.5	2.73	24 BS	42.0 (21.0*)	22	40	.0650
6356.0751	125	2.5	2.73	16 BS	42.0	22	40	.0650
6356.0752	125	3	3.08	24 BS	42.0 (21.0*)	22	40	.0650
6356.0753	125	3	3.08	16 BS	42.0	22	40	.0650
6356.0754	125	4	4.08	24 BS	42.0 (21.0*)	22	40	.0650
6356.0755	125	4	4.08	16 BS	42.0	22	40	.0650
6356.0756	125	5	5.08	24 BS	42.0 (21.0*)	22	40	.0650
6356.0757	125	5	5.08	16 BS	42.0	22	40	.0650

\* Maximal recommended depth of cut with saw blades with a large amount of teeth.

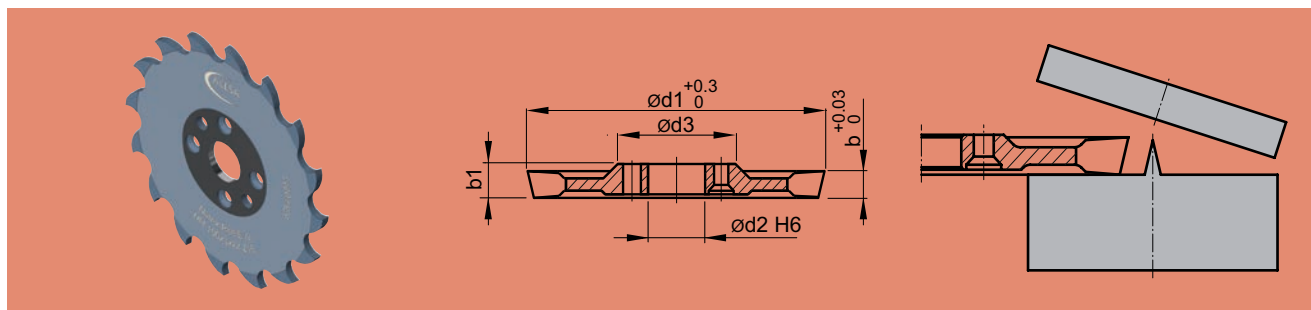
<p><b>Info</b> All the Nutex Plus saws are available from stock!</p> <p><b>Info</b> The cutting geometry is suited for the machining of steel and stainless materials.</p>	<p><b>Info</b> All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.</p> <p> The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.</p>
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## Nutex Plus Evo carbide, standard version uncoated / coated

6353 / 6354

Nutex Plus



Part No	d1 mm	b mm	b1 mm		Slot depth mm	d2 mm	d3 mm	Coating	Material	Holder 6058. _ _ _ _
<b>6353.0629</b>	63	2	2.73	18 BS	14.5	16	32	-		.0440, .0540, .0640
<b>6354.0629</b>	63	2	2.73	18 BS	14.5	16	32	AlCrN	universal	.0440, .0540, .0640
<b>6354.0644</b>	63	2	2.73	18 BS	14.5	16	32	DLC-H	Aluminium	.0440, .0540, .0640
<b>6353.0661</b>	80	2.5	2.73	16 BS	23.5	16	32	-		.0440, .0540, .0640
<b>6354.0661</b>	80	2.5	2.73	16 BS	23.5	16	32	AlCrN	universal	.0440, .0540, .0640
<b>6354.0676</b>	80	2.5	2.73	16 BS	23.5	16	32	DLC-H	Aluminium	.0440, .0540, .0640
<b>6353.0723</b>	100	3	3.08	16 BS	29.5	22	40	-		.0650
<b>6354.0723</b>	100	3	3.08	16 BS	29.5	22	40	AlCrN	universal	.0650
<b>6354.0738</b>	100	3	3.08	16 BS	29.5	22	40	DLC-H	Aluminium	.0650
<b>6353.0753</b>	125	3	3.08	16 BS	42.0	22	40	-		.0650
<b>6354.0753</b>	125	3	3.08	16 BS	42.0	22	40	AlCrN	universal	.0650
<b>6354.0768</b>	125	3	3.08	16 BS	42.0	22	40	DLC-H	Aluminium	.0650



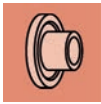
All the Nutex Plus saws are available from stock!



All the Nutex Plus saws are provided with curved teeth and chip splitting (type BS). This way all the teeth can be counted for the calculation of the cutting data.



The indicated slot depths apply for new tools. Each resharpening will reduce them, in average about 0.5 mm.



# Holder for Nutex Plus and accessories / spare parts

6058



Type B3 / Type A4

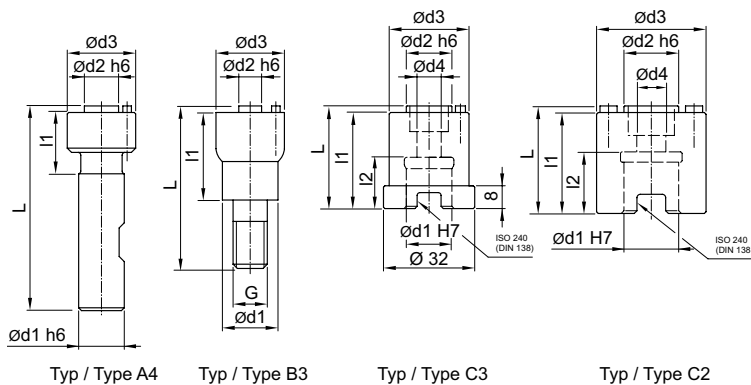
Type C2 / Type C3

Washer

Nutex Plus

Part No	Type	for saws Ø	d1 mm	d2 mm	d3 mm	d4 mm	G	I1 mm	I2 mm	L mm	
6058.0430	A4	Ø 50 mm	16	16	28			23.6		75.8	✓
6058.0440	A4	Ø 63 / 80 mm	16	16	32			23.6		75.8	✓
6058.0530	B3	Ø 50 mm	21	16	28		M12	32.8		55	✓
6058.0540	B3	Ø 63 / 80 mm	29	16	32		M16	39.8		64	✓
6058.0630	C3	Ø 50 mm	16	16	28	9		33.7	18	35.9	✓
6058.0640	C2	Ø 63 / 80 mm	16	16	32	9		29.7	18	31.9	✓
6058.0650	C2	Ø 100 / 125 mm	22	22	40	11		37.7	20	39.9	✓
6058.0660	C2	Ø 160 / 200 mm	27	32	48	14		47.7	22	49.9	✓

Tool will be delivered in a protection box containing holder with assembly screws and screw-driver (Torx), allen screw, washer with countersunk screw and fitting screw-driver.

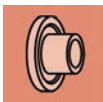


## Accessories / spare parts

Part No	Type	Assembly screw	Allen screw	Washer	Countersunk screw	Plug screw	Dowel pin	Spareholder
6058.0430	A4	1490.0530 (3x)		6058.0830	6058.0910	6058.0930	6058.0940 (1x)	6058.0435
6058.0440	A4	1490.0600 (3x)		6058.0840	6058.0910	6058.0930	6058.0950 (1x)	6058.0445
6058.0530	B3	1490.0530 (3x)		6058.0830	6058.0910	6058.0930	6058.0940 (1x)	6058.0535
6058.0540	B3	1490.0600 (3x)		6058.0840	6058.0910	6058.0930	6058.0950 (1x)	6058.0545
6058.0630	C3	1490.0530 (3x)	1490.0759	6058.0830	6058.0915		6058.0940 (1x)	6058.0635
6058.0640	C2	1490.0600 (3x)	1490.0759	6058.0840	6058.0915		6058.0950 (1x)	6058.0645
6058.0650	C2	1490.0600 (4x)	1490.0770	6058.0850	6058.0920		6058.0950 (2x)	6058.0655
6058.0660	C2	1490.0600 (4x)	1490.0781	6058.0860	6058.0925		6058.0950 (2x)	6058.0665



The Nutex Plus holder will be delivered in a very practical protection box.

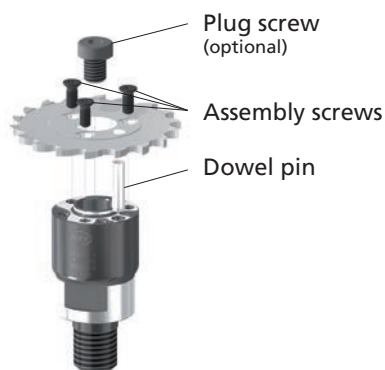


# Holder for Nutex Plus

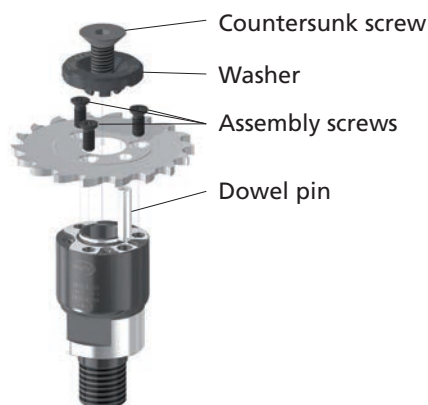
## Assembly variations and spare parts

Nutex Plus

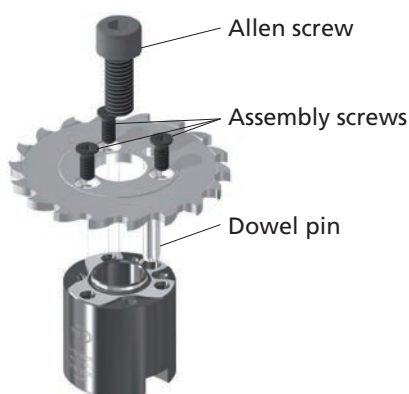
**Type A4, B3 without washer**



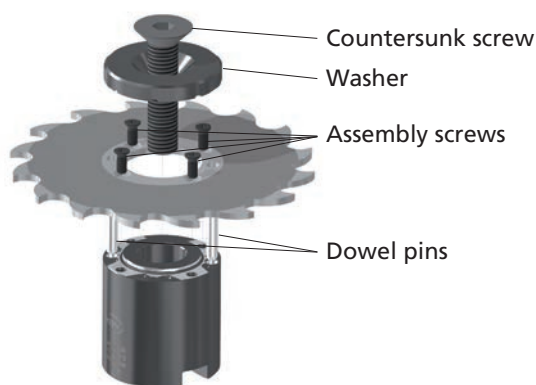
**Type A4, B3 with washer**



**Type C2, C3 without washer**



**Type C2, C3 with washer**



### Spare parts (relations see left page)

#### Assembly screws (Torx)

Part No	Dimension	Torx	Torque
1490.0530	M3.5 x 7	T9	2.55 Nm
1490.0600	M4 x 10	T15	3.85 Nm

#### Allen screws

Part No	Dimension	hex-socket	Torque
1490.0759	M8 x 20	sw 6	30 Nm
1490.0770	M10 x 25	sw 8	50 Nm
1490.0781	M12 x 35	sw 10	90 Nm

#### Washers

Part No	Dimension	Countersunk screw
6058.0830	Ø28 x 9.5 x 9 mm	6058.0910
6058.0840	Ø32 x 10 x 9 mm	6058.0915
6058.0850	Ø40 x 11 x 11 mm	6058.0920
6058.0860	Ø48 x 12 x 13 mm	6058.0925

#### Countersunk screw

Part No	Dimension	hex-socket	Torque
6058.0910	M8 x 20	sw 5	30 Nm
6058.0915	M8 x 35	sw 5	30 Nm
6058.0920	M10 x 45	sw 6	50 Nm
6058.0925	M12 x 55	sw 8	90 Nm

#### Plug screws

Part No	Dimension	hex-socket	Torque
6058.0930	M8 x 10	sw 5	15 Nm

#### Dowel pins

Part No	Dimension
6058.0940	Ø4 x 16 mm
6058.0950	Ø5 x 20 mm

#### Screw drivers Torx

Part No	Torx
1492.0400	T9
1492.0500	T15

#### Screw drivers hex-socket

Part No	hex-socket
6058.0980	sw 5
6058.0985	sw 6
n.a.	sw 8
n.a.	sw 10

# Nutex Plus order form

For a quick technical solution, please fill in this form and mail it to info@alesa.ch or fax it to +41 62 767 62 82

Inquiry

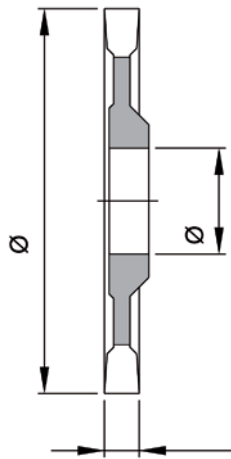
Order

Customer _____	Name _____
_____	First name _____
Address _____	Tel/Fax _____
ZIP / Place _____	Email _____

**Workpiece**  
 Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ N/mm<sup>2</sup>  
 slot length \_\_\_\_\_ slot depth \_\_\_\_\_

**Sketch**

**Circular saw Nutex Plus**



N° of teeth \_\_\_\_\_  
 Tooth type \_\_\_\_\_

Cutting material  HSS  Carbide

Coating \_\_\_\_\_

Sense of rotation  clockwise  counter-cw


Standard tolerances  
 Diameter 0 / +0.3 Width 0 / +0.03  
 For special form tools the tolerances need to be specified.

**Amount** \_\_\_\_ **pcs** (minimum 2 pcs)

**Date** \_\_\_\_\_ **Signature** \_\_\_\_\_


**Holder**

with shank




for saw	ød2 / ød1	Amt.
ø50	ø16 / ø16	____ pcs
ø63 / ø80	ø16 / ø16	____ pcs

threaded type



for saw	ød2 / G	Amt.
ø50	ø16 / M12	____ pcs
ø63 / ø80	ø16 / M16	____ pcs

shell type

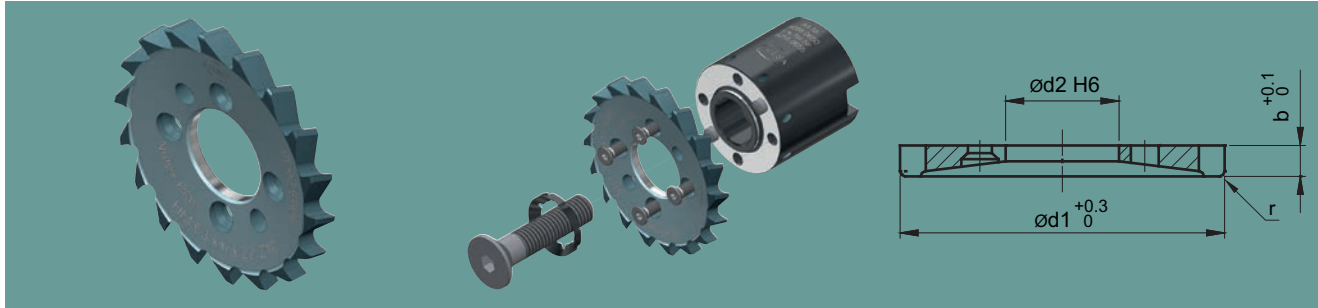



for saw	ød2 / ød1	Amt.
ø50	ø16 / ø16	____ pcs
ø63 / ø80	ø16 / ø16	____ pcs
ø100 / ø125	ø22 / ø22	____ pcs
ø160 / ø200	ø32 / ø27	____ pcs

# Nutex Plan carbide AlCrN-coated

6365

Nutex Plan and Faset



Part No	d1 mm	b mm		r mm	d2 mm	Holder 6058. _ _ _ _
6365.0548	50	6	16	0.4	16	.0440, .0540, .0640
6365.0638	63	6	18	0.8	22	.0650

Tool will be delivered with: Nutex Plan and coolant spreading ring




# Holder for Nutex Plan and accessories / spare parts

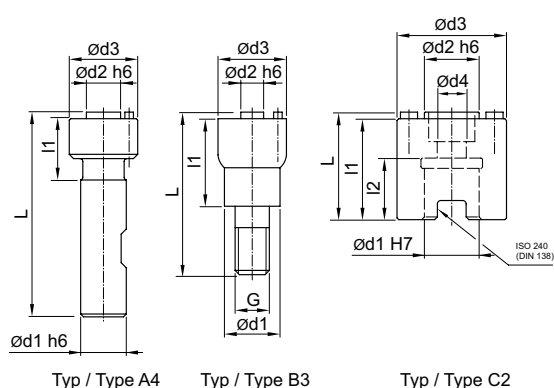
6058



Nutex Plan and Faset

Part No	Type	for Nutex Plan	d1 mm	d2 mm	d3 mm	d4 mm	G	I1 mm	I2 mm	L mm	
6058.0440	A4	Ø 50 mm	16	16	32			23.6		75.8	✓
6058.0540	B3	Ø 50 mm	29	16	32		M16	39.8		64	✓
6058.0640	C2	Ø 50 mm	16	16	32	9		29.7	18	31.9	✓
6058.0650	C2	Ø 63 mm	22	22	40	11		37.7	20	39.9	✓

Tool will be delivered in a protection box containing holder with assembly screws and screw-driver (Torx), washer with countersunk screw and fitting screw-driver.

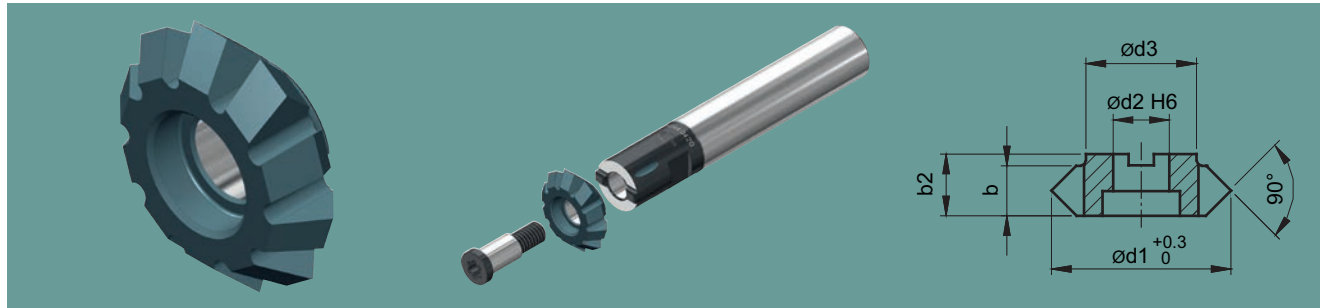


Part No	Type	Assembly screw	Coolant spreading ring	Countersunk screw	Dowel pin	Spareholder
6058.0440	A4	1490.0600 (3x)	6058.0845 - Ø15.8x2.6x10.3 mm	6058.0910	6058.0950 (1x)	6058.0445
6058.0540	B3	1490.0600 (3x)	6058.0845 - Ø15.8x2.6x10.3 mm	6058.0910	6058.0950 (1x)	6058.0545
6058.0640	C2	1490.0600 (3x)	6058.0845 - Ø15.8x2.6x10.3 mm	6058.0915	6058.0950 (1x)	6058.0645
6058.0650	C2	1490.0600 (4x)	6058.0855 - Ø21.8x3x15.5 mm	6058.0920	6058.0950 (2x)	6058.0655

# Nutex Faset carbide AlCrN-coated

6343

Nutex Plan and Faset




Part No	d1 mm	b2 mm	b mm	d2 mm	d3 mm		chamfer max.	Holder 6044. _____
6343.0156	16	5.5	4.5	5	9.85	10	2 x 45°	.0410, .0420, .0500

# Holder for Nutex Faset and accessories / spare parts

6044



Nutex Plan and Faset

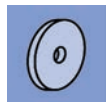
Part No	Type	d1 mm	d2 mm	d3 mm	G	l1 mm	L mm		Assembly screw
6044.0400	A1	7	5	9.85		15.2	54	✓	6044.0800
6044.0410	A1	8	5	9.85		15.2	54	✓	6044.0800
6044.0420	A1	10	5	9.85		15.2	58	✓	6044.0800
6044.0500	B1		5	9.85	M6	18	32	✓	6044.0800

Tool will be delivered in a protection box containing holder with assembly screws and screw-driver.

Torx screw 6044.0800



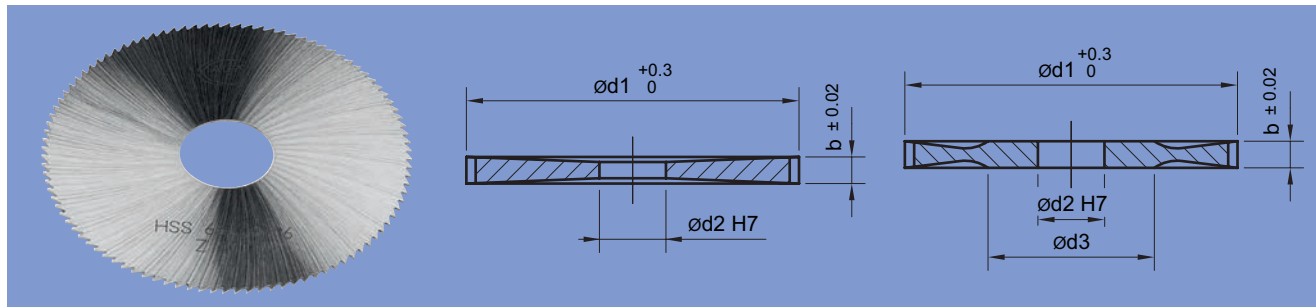
Part No	Type	Assembly screw	Type	TorxScrew-driver	Type	Spareholder
6044.0400	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0405
6044.0410	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0415
6044.0420	A1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0425
6044.0500	B1	6044.0800	M4 / Ø6.5x16 / 4.5Nm	1492.0500	T 15	6044.0505



# Circular saws HSS, fine tooth, DIN 1837 angular tooth type A, hollow ground

6010

Circular saw blades DIN HSS



Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6010.0191	20	0.2	5		80	0.8	A
6010.0192	20	0.25	5		64	1	A
6010.0193	20	0.3	5		64	1	A
6010.0195	20	0.4	5		64	1	A
6010.0196	20	0.5	5		48	1.3	A
6010.0197	20	0.6	5		48	1.3	A
6010.0199	20	0.8	5		48	1.3	A
6010.0201	20	1	5		40	1.6	A
6010.0203	20	1.2	5		40	1.6	A
6010.0206	20	1.5	5		40	1.6	A
6010.0207	20	1.6	5		40	1.6	A
6010.0209	20	2	5		32	2	A
6010.0211	20	2.5	5		32	2	A
6010.0213	20	3	5		32	2	A
6010.0215	20	4	5		24	2.6	A
6010.0217 *	20	5	5		24	2.6	A
6010.0218 *	20	6	5		24	2.6	A
6010.0311	25	0.2	8		80	1	A
6010.0312	25	0.25	8		80	1	A
6010.0313	25	0.3	8		80	1	A
6010.0315	25	0.4	8		64	1.2	A
6010.0316	25	0.5	8		64	1.2	A
6010.0317	25	0.6	8		64	1.2	A
6010.0319	25	0.8	8		48	1.6	A
6010.0321	25	1	8		48	1.6	A
6010.0323	25	1.2	8		48	1.6	A
6010.0326	25	1.5	8		40	2	A
6010.0327	25	1.6	8		40	2	A
6010.0329	25	2	8		40	2	A
6010.0331	25	2.5	8		40	2	A
6010.0333	25	3	8		32	2.5	A
6010.0335	25	4	8		32	2.5	A
6010.0337 *	25	5	8		32	2.5	A
6010.0338 *	25	6	8		24	3.3	A
6010.0371	32	0.2	8		100	1	A
6010.0372	32	0.25	8		100	1	A
6010.0373	32	0.3	8		80	1.3	A
6010.0375	32	0.4	8		80	1.3	A
6010.0376	32	0.5	8		80	1.3	A
6010.0377	32	0.6	8		64	1.6	A
6010.0379	32	0.8	8		64	1.6	A
6010.0381	32	1	8		64	1.6	A
6010.0383	32	1.2	8		48	2.1	A
6010.0386	32	1.5	8		48	2.1	A
6010.0387	32	1.6	8		48	2.1	A
6010.0389	32	2	8		48	2.1	A
6010.0391	32	2.5	8		40	2.5	A
6010.0393	32	3	8		40	2.5	A
6010.0395	32	4	8		40	2.5	A
6010.0461	40	0.2	10		128	1	A
6010.0462	40	0.25	10		100	1.3	A
6010.0463	40	0.3	10		100	1.3	A
6010.0465	40	0.4	10		100	1.3	A
6010.0466	40	0.5	10		80	1.6	A
6010.0467	40	0.6	10		80	1.6	A

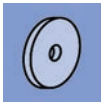
\*while stocks last




When selecting the appropriate circular saw blade, the correct circular tooth pitch is an important factor for achieving good cutting results.



The angular tooth type A is ideal for short-chipping material and small cutting depths.



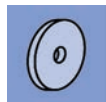
## Circular saws HSS, fine tooth, DIN 1837 angular tooth type A, hollow ground

Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6010.0469	40	0.8	10		80	1.6	A
6010.0471	40	1	10		64	2	A
6010.0473	40	1.2	10		64	2	A
6010.0476	40	1.5	10		64	2	A
6010.0477	40	1.6	10		64	2	A
6010.0479	40	2	10		48	2.6	A
6010.0481	40	2.5	10		48	2.6	A
6010.0483	40	3	10		48	2.6	A
6010.0485	40	4	10		40	3.1	A
6010.0487 *	40	5	10		40	3.1	A
6010.0488 *	40	6	10		40	3.1	A
6010.0521	50	0.2	10		128	1.2	A
6010.0522	50	0.25	10		128	1.2	A
6010.0523	50	0.3	10		128	1.2	A
6010.0525	50	0.4	10		100	1.6	A
6010.0526	50	0.5	10		100	1.6	A
6010.0527	50	0.6	10		100	1.6	A
6010.0529	50	0.8	10		80	2	A
6010.0531	50	1	10		80	2	A
6010.0533	50	1.2	10		80	2	A
6010.0536	50	1.5	10		64	2.5	A
6010.0537	50	1.6	10		64	2.5	A
6010.0539	50	2	10		64	2.5	A
6010.0541	50	2.5	10		64	2.5	A
6010.0543	50	3	10		48	3.3	A
6010.0545	50	4	10		48	3.3	A
6010.0547 *	50	5	10		48	3.3	A
6010.0548 *	50	6	10		40	3.9	A
6010.0551	50	0.2	13		128	1.2	A
6010.0552	50	0.25	13		128	1.2	A
6010.0553	50	0.3	13		128	1.2	A
6010.0555	50	0.4	13		100	1.6	A
6010.0556	50	0.5	13		100	1.6	A
6010.0557	50	0.6	13		100	1.6	A
6010.0559	50	0.8	13		80	2	A
6010.0561	50	1	13		80	2	A
6010.0563	50	1.2	13		80	2	A
6010.0566	50	1.5	13		64	2.5	A
6010.0567	50	1.6	13		64	2.5	A
6010.0569	50	2	13		64	2.5	A
6010.0571	50	2.5	13		64	2.5	A
6010.0573	50	3	13		48	3.3	A
6010.0575	50	4	13		48	3.3	A
6010.0577 *	50	5	13		48	3.3	A
6010.0578 *	50	6	13		40	3.9	A
6010.0612	63	0.25	16		160	1.2	A
6010.0613	63	0.3	16		128	1.5	A
6010.0615	63	0.4	16		128	1.5	A
6010.0616	63	0.5	16		128	1.5	A
6010.0617	63	0.6	16		100	2	A
6010.0619	63	0.8	16		100	2	A
6010.0621	63	1	16		100	2	A
6010.0623	63	1.2	16		80	2.5	A
6010.0626	63	1.5	16		80	2.5	A
6010.0627	63	1.6	16		80	2.5	A
6010.0629	63	2	16		80	2.5	A
6010.0631	63	2.5	16		64	3.1	A
6010.0633	63	3	16		64	3.1	A
6010.0635	63	4	16		64	3.1	A
6010.0638 *	63	6	16		48	4.1	A
6010.0643	80	0.3	16		160	1.6	A
6010.0645	80	0.4	16		160	1.6	A
6010.0646	80	0.5	16		128	2	A
6010.0647	80	0.6	16		128	2	A
6010.0649	80	0.8	16		128	2	A
6010.0651	80	1	16		100	2.5	A
6010.0653	80	1.2	16		100	2.5	A
6010.0656	80	1.5	16		100	2.5	A
6010.0657	80	1.6	16		100	2.5	A


\*while stocks last

**Info** When selecting the appropriate circular saw blade, the correct circular tooth pitch is an important factor for achieving good cutting results.

**Info** The angular tooth type A is ideal for short-chipping material and small cutting depths.



## Circular saws HSS, fine tooth, DIN 1837 angular tooth type A, hollow ground

Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6010.0659	80	2	16		80	3.1	A
6010.0661	80	2.5	16		80	3.1	A
6010.0663	80	3	16		80	3.1	A
6010.0665	80	4	16		64	3.9	A
6010.0667 *	80	5	16		64	3.9	A
6010.0673	80	0.3	22		160	1.6	A
6010.0675	80	0.4	22		160	1.6	A
6010.0676	80	0.5	22		128	2	A
6010.0677	80	0.6	22		128	2	A
6010.0679	80	0.8	22		128	2	A
6010.0681	80	1	22		100	2.5	A
6010.0683	80	1.2	22		100	2.5	A
6010.0686	80	1.5	22		100	2.5	A
6010.0687	80	1.6	22		100	2.5	A
6010.0689	80	2	22		80	3.1	A
6010.0691	80	2.5	22		80	3.1	A
6010.0693	80	3	22		80	3.1	A
6010.0695	80	4	22		64	3.9	A
6010.0698 *	80	6	22		64	3.9	A
6010.0706	100	0.5	22		160	2	A
6010.0707	100	0.6	22		160	2	A
6010.0709	100	0.8	22		128	2.5	A
6010.0711	100	1	22		128	2.5	A
6010.0713	100	1.2	22		128	2.5	A
6010.0716	100	1.5	22		100	3.1	A
6010.0717	100	1.6	22		100	3.1	A
6010.0719	100	2	22		100	3.1	A
6010.0721	100	2.5	22		100	3.1	A
6010.0723	100	3	22		80	3.9	A
6010.0725	100	4	22		80	3.9	A
6010.0727 *	100	5	22		80	3.9	A
6010.0728 *	100	6	22		64	4.9	A
6010.0737	125	0.6	22		160	2.5	A
6010.0739	125	0.8	22		160	2.5	A
6010.0741	125	1	22		160	2.5	A
6010.0743	125	1.2	22		128	3.1	A
6010.0746	125	1.5	22		128	3.1	A
6010.0747	125	1.6	22		128	3.1	A
6010.0749	125	2	22		128	3.1	A
6010.0751	125	2.5	22		100	3.9	A
6010.0753	125	3	22		100	3.9	A
6010.0755	125	4	22		100	3.9	A
6010.0757 *	125	5	22		80	4.9	A
6010.0771	160	1	32	63	160	3.1	A
6010.0773	160	1.2	32	63	160	3.1	A
6010.0776	160	1.5	32	63	160	3.1	A
6010.0777	160	1.6	32	63	160	3.1	A
6010.0779	160	2	32	63	128	3.9	A
6010.0781	160	2.5	32	63	128	3.9	A
6010.0783	160	3	32	63	128	3.9	A
6010.0785	160	4	32	63	100	5	A
6010.0787 *	160	5	32	63	100	5	A
6010.0788 *	160	6	32	63	100	5	A
6010.0831	200	1	32	63	200	3.1	A
6010.0833	200	1.2	32	63	200	3.1	A
6010.0836	200	1.5	32	63	160	3.9	A
6010.0837	200	1.6	32	63	160	3.9	A
6010.0839	200	2	32	63	160	3.9	A
6010.0841	200	2.5	32	63	160	3.9	A
6010.0843	200	3	32	63	128	4.9	A
6010.0845	200	4	32	63	128	4.9	A
6010.0897 *	250	1.6	32	63	200	3.9	A
6010.0899 *	250	2	32	63	200	3.9	A
6010.0901 *	250	2.5	32	63	160	4.9	A
6010.0903 *	250	3	32	63	160	4.9	A
6010.0905 *	250	4	32	63	160	4.9	A

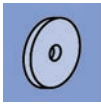
\*while stocks last



When selecting the appropriate circular saw blade, the correct circular tooth pitch is an important factor for achieving good cutting results.

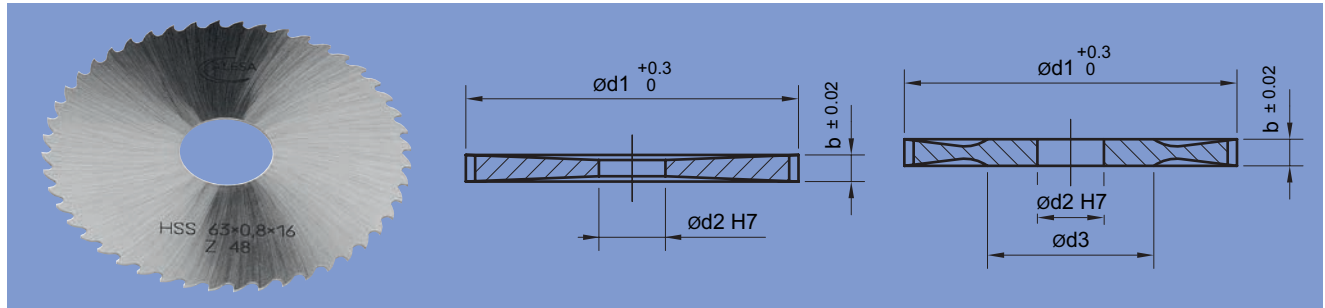


The angular tooth type A is ideal for short-chipping material and small cutting depths.



# Circular saws HSS, coarse tooth, DIN 1838 curved tooth type B/Bw, hollow ground

6040



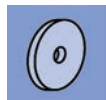
Circular saw blades DIN HSS

Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6040.0373	32	0.3	8		40	2.5	B
6040.0375	32	0.4	8		40	2.5	B
6040.0376	32	0.5	8		40	2.5	B
6040.0377	32	0.6	8		32	3.1	B
6040.0379	32	0.8	8		32	3.1	B
6040.0381	32	1	8		32	3.1	B
6040.0383	32	1.2	8		24	4.2	B
6040.0386	32	1.5	8		24	4.2	B
6040.0387	32	1.6	8		24	4.2	B
6040.0389	32	2	8		24	4.2	B
6040.0391	32	2.5	8		20	5	B
6040.0393	32	3	8		20	5	B
6040.0395	32	4	8		20	5	B
6040.0397 *	32	5	8		20	5	B
6040.0398 *	32	6	8		20	5	B
6040.0463	40	0.3	10		48	2.6	B
6040.0465	40	0.4	10		48	2.6	B
6040.0466	40	0.5	10		40	3.1	B
6040.0467	40	0.6	10		40	3.1	B
6040.0469	40	0.8	10		40	3.1	B
6040.0471	40	1	10		32	3.9	B
6040.0473	40	1.2	10		32	3.9	B
6040.0476	40	1.5	10		32	3.9	B
6040.0477	40	1.6	10		32	3.9	B
6040.0479	40	2	10		24	5.2	B
6040.0481	40	2.5	10		24	5.2	B
6040.0483	40	3	10		24	5.2	B
6040.0485	40	4	10		20	6.3	B
6040.0487 *	40	5	10		20	6.3	B
6040.0488 *	40	6	10		20	6.3	B
6040.0553	50	0.3	13		64	2.5	B
6040.0555	50	0.4	13		48	3.3	B
6040.0556	50	0.5	13		48	3.3	B
6040.0557	50	0.6	13		48	3.3	B
6040.0559	50	0.8	13		40	3.9	B
6040.0561	50	1	13		40	3.9	Bw
6040.0563	50	1.2	13		40	3.9	Bw
6040.0566	50	1.5	13		40	3.9	Bw
6040.0567	50	1.6	13		32	4.9	Bw
6040.0569	50	2	13		32	4.9	Bw
6040.0571	50	2.5	13		32	4.9	Bw
6040.0573	50	3	13		24	6.5	Bw
6040.0575	50	4	13		24	6.5	Bw
6040.0577 *	50	5	13		24	6.5	Bw
6040.0578 *	50	6	13		24	6.5	Bw
6040.0613	63	0.3	16		64	3.1	B
6040.0615	63	0.4	16		64	3.1	B
6040.0616	63	0.5	16		64	3.1	B
6040.0617	63	0.6	16		48	4.1	B
6040.0619	63	0.8	16		48	4.1	B
6040.0621	63	1	16		48	4.1	Bw
6040.0623	63	1.2	16		40	4.9	Bw


\*while stocks last

<p><b>Info</b> Due to its big volume of chips the curved tooth type B is one of the most commonly used product for cutting ferrous materials.</p>	<p><b>Info</b> The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.</p>
<p><b>Info</b> Due to the large number of cutting edges, circular saw blades are very efficient tools also for slotting.</p>	<p><b>Info</b> Selecting the right feed rate per tooth is very important for a long tool life and ideal chip forming.</p>





## Circular saws HSS, coarse tooth, DIN 1838 curved tooth type B/Bw, hollow ground

Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6040.0626	63	1.5	16		40	4.9	Bw
6040.0627	63	1.6	16		40	4.9	Bw
6040.0629	63	2	16		40	4.9	Bw
6040.0631	63	2.5	16		32	6.2	Bw
6040.0633	63	3	16		32	6.2	Bw
6040.0635	63	4	16		32	6.2	Bw
6040.0637 *	63	5	16		24	8.2	Bw
6040.0638 *	63	6	16		24	8.2	Bw
6040.0677	80	0.6	22		64	3.9	B
6040.0679	80	0.8	22		64	3.9	B
6040.0681	80	1	22		48	5.2	Bw
6040.0683	80	1.2	22		48	5.2	Bw
6040.0686	80	1.5	22		48	5.2	Bw
6040.0687	80	1.6	22		48	5.2	Bw
6040.0689	80	2	22		40	6.3	Bw
6040.0691	80	2.5	22		40	6.3	Bw
6040.0693	80	3	22		40	6.3	Bw
6040.0695	80	4	22		32	7.9	Bw
6040.0697 *	80	5	22		32	7.9	Bw
6040.0698 *	80	6	22		32	7.9	Bw
6040.0707	100	0.6	22		80	3.9	B
6040.0709	100	0.8	22		64	4.9	B
6040.0711	100	1	22		64	4.9	Bw
6040.0713	100	1.2	22		64	4.9	Bw
6040.0716	100	1.5	22		64	4.9	Bw
6040.0717	100	1.6	22		48	6.5	Bw
6040.0719	100	2	22		48	6.5	Bw
6040.0721	100	2.5	22		48	6.5	Bw
6040.0723	100	3	22		40	7.9	Bw
6040.0725	100	4	22		40	7.9	Bw
6040.0727 *	100	5	22		40	7.9	Bw
6040.0728 *	100	6	22		32	9.8	Bw
6040.0739	125	0.8	22		80	4.9	B
6040.0741	125	1	22		80	4.9	Bw
6040.0743	125	1.2	22		64	6.1	Bw
6040.0746	125	1.5	22		64	6.1	Bw
6040.0747	125	1.6	22		64	6.1	Bw
6040.0749	125	2	22		64	6.1	Bw
6040.0751	125	2.5	22		48	8.2	Bw
6040.0753	125	3	22		48	8.2	Bw
6040.0755	125	4	22		48	8.2	Bw
6040.0757 *	125	5	22		40	9.8	Bw
6040.0758 *	125	6	22		40	9.8	Bw
6040.0771	160	1	32	63	80	6.3	Bw
6040.0773	160	1.2	32	63	80	6.3	Bw
6040.0776	160	1.5	32	63	80	6.3	Bw
6040.0777	160	1.6	32	63	80	6.3	Bw
6040.0779	160	2	32	63	64	7.9	Bw
6040.0781	160	2.5	32	63	64	7.9	Bw
6040.0783	160	3	32	63	64	7.9	Bw
6040.0785	160	4	32	63	48	10.5	Bw
6040.0787 *	160	5	32	63	48	10.5	Bw
6040.0788 *	160	6	32	63	48	10.5	Bw
6040.0833	200	1.2	32	63	100	6.3	Bw
6040.0836	200	1.5	32	63	100	6.3	Bw
6040.0837	200	1.6	32	63	80	7.9	Bw
6040.0839	200	2	32	63	80	7.9	Bw
6040.0841	200	2.5	32	63	80	7.9	Bw
6040.0843	200	3	32	63	64	9.8	Bw
6040.0845	200	4	32	63	64	9.8	Bw
6040.0897 *	250	1.6	32	63	100	7.9	Bw
6040.0899 *	250	2	32	63	100	7.9	Bw
6040.0901 *	250	2.5	32	63	80	9.8	Bw
6040.0903 *	250	3	32	63	80	9.8	Bw

\*while stocks last



Due to its big volume of chips the curved tooth type B is one of the most commonly used product for cutting ferrous materials.



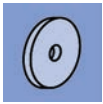
The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.



Due to the large number of cutting edges, circular saw blades are very efficient tools also for slotting.

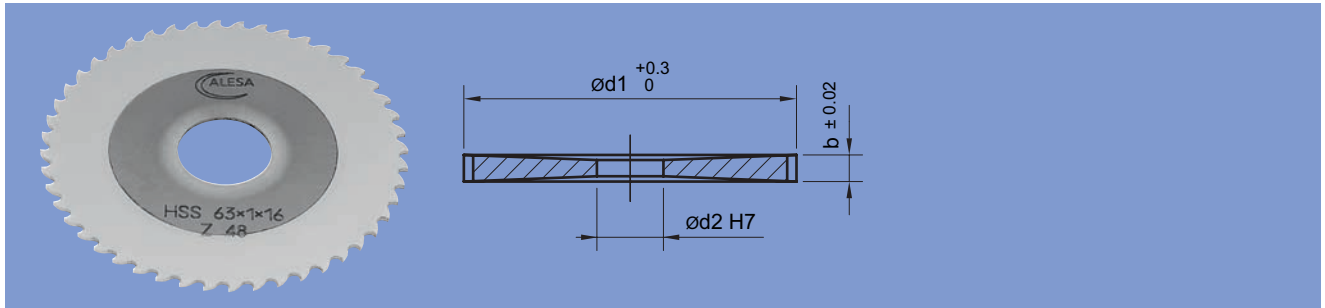


Selecting the right feed rate per tooth is very important for a long tool life and ideal chip forming.



## Circular saws HSS TiN, coarse tooth, DIN 1838 curved tooth type B/Bw, hollow ground

6140



Circular saw blades DIN HSS

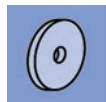
Part No	d1 mm	b mm	d2 mm		Pitch	Toothform
6140.0556	50	0.5	13	48	3.3	B
6140.0561	50	1	13	40	3.9	Bw
6140.0566	50	1.5	13	40	3.9	Bw
6140.0569	50	2	13	32	4.9	Bw
6140.0616	63	0.5	16	64	3.1	B
6140.0619	63	0.8	16	48	4.1	B
6140.0621	63	1	16	48	4.1	Bw
6140.0627	63	1.6	16	40	4.9	Bw
6140.0629	63	2	16	40	4.9	Bw
6140.0679	80	0.8	22	64	3.9	B
6140.0681	80	1	22	48	5.2	Bw
6140.0686	80	1.5	22	48	5.2	Bw
6140.0689	80	2	22	40	6.3	Bw
6140.0711	100	1	22	64	4.9	Bw
6140.0716	100	1.5	22	64	4.9	Bw
6140.0719	100	2	22	48	6.5	Bw
6140.0741	125	1	22	80	4.9	Bw
6140.0746	125	1.5	22	64	6.1	Bw
6140.0749	125	2	22	64	6.1	Bw



The use of coated circular saw blades offers considerably increased tool life and higher metal removal rates.



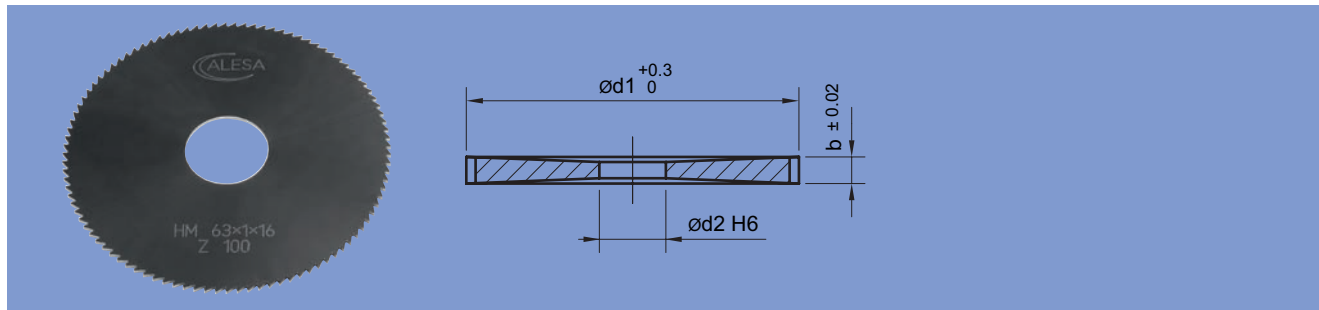
Circular saw blades are very economical tools for cutting-off and for slotting a wide range of various materials.



# Carbide circular saws, fine tooth, DIN 1837 angular tooth type A, hollow ground

6310

Circular saw blades DIN  
carbide



Part No	d1 mm	b mm	d2 mm		Pitch	Toothform
6310.0311	25	0.2	8	80	1	A
6310.0315	25	0.4	8	64	1.2	A
6310.0317	25	0.6	8	64	1.2	A
6310.0319	25	0.8	8	48	1.6	A
6310.0321	25	1	8	48	1.6	A
6310.0326	25	1.5	8	40	2	A
6310.0329	25	2	8	40	2	A
6310.0371	32	0.2	8	100	1	A
6310.0375	32	0.4	8	80	1.3	A
6310.0377	32	0.6	8	64	1.6	A
6310.0379	32	0.8	8	64	1.6	A
6310.0381	32	1	8	64	1.6	A
6310.0386	32	1.5	8	48	2.1	A
6310.0389	32	2	8	48	2.1	A
6310.0461	40	0.2	10	128	1	A
6310.0465	40	0.4	10	100	1.3	A
6310.0467	40	0.6	10	80	1.6	A
6310.0469	40	0.8	10	80	1.6	A
6310.0471	40	1	10	64	2	A
6310.0476	40	1.5	10	64	2	A
6310.0479	40	2	10	48	2.6	A
6310.0551	50	0.2	13	128	1.2	A
6310.0555	50	0.4	13	100	1.6	A
6310.0557	50	0.6	13	100	1.6	A
6310.0559	50	0.8	13	80	2	A
6310.0561	50	1	13	80	2	A
6310.0566	50	1.5	13	64	2.5	A
6310.0569	50	2	13	64	2.5	A
6310.0615	63	0.4	16	128	1.5	A
6310.0617	63	0.6	16	100	2	A
6310.0619	63	0.8	16	100	2	A
6310.0621	63	1	16	100	2	A
6310.0626	63	1.5	16	80	2.5	A
6310.0629	63	2	16	80	2.5	A
6310.0679	80	0.8	22	128	2	A
6310.0681	80	1	22	100	2.5	A
6310.0686	80	1.5	22	100	2.5	A
6310.0689	80	2	22	80	3.1	A
6310.0691	80	2.5	22	80	3.1	A
6310.0693	80	3	22	80	3.1	A
6310.0711	100	1	22	128	2.5	A
6310.0716	100	1.5	22	100	3.1	A
6310.0719	100	2	22	100	3.1	A
6310.0721	100	2.5	22	100	3.1	A
6310.0723	100	3	22	80	3.9	A



The angular tooth type A is ideal for short-chipping material and small cutting depths.



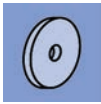
When using carbide circular saw blades you can achieve much higher cutting speeds.



The use of coated circular saw blades offers considerably increased tool life and higher metal removal rates.

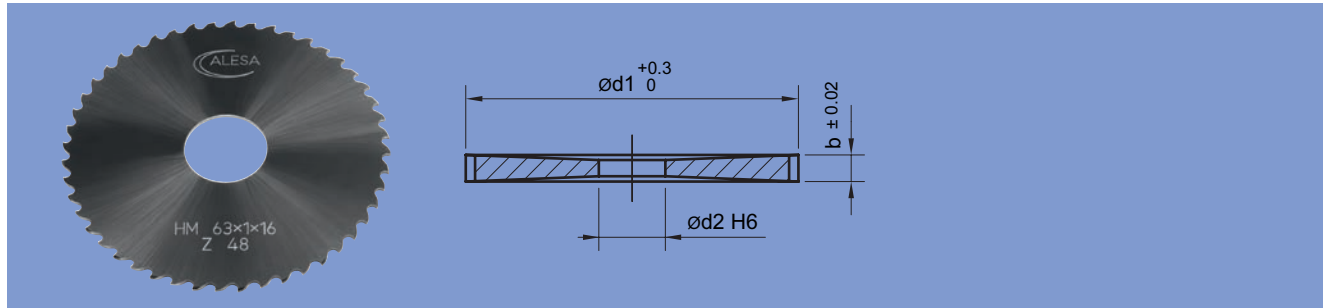


These precision tools produced from solid carbide are designed for use on modern vibration-free machines. The workpiece must be clamped tightly and free from vibration.



# Carbide circular saws, coarse tooth, DIN 1838 curved tooth type B/Bw, hollow ground

6340



Circular saw blades DIN  
carbide

Part No	d1 mm	b mm	d2 mm		Pitch	Toothform
6340.0555	50	0.4	13	48	3.3	B
6340.0557	50	0.6	13	48	3.3	B
6340.0559	50	0.8	13	40	3.9	B
6340.0561	50	1	13	40	3.9	Bw
6340.0566	50	1.5	13	32	4.9	Bw
6340.0569	50	2	13	32	4.9	Bw
6340.0615	63	0.4	16	64	3.1	B
6340.0617	63	0.6	16	48	4.1	B
6340.0619	63	0.8	16	48	4.1	B
6340.0621	63	1	16	48	4.1	Bw
6340.0626	63	1.5	16	40	4.9	Bw
6340.0629	63	2	16	40	4.9	Bw
6340.0679	80	0.8	22	64	3.9	B
6340.0681	80	1	22	48	5.2	Bw
6340.0686	80	1.5	22	48	5.2	Bw
6340.0689	80	2	22	48	5.2	Bw
6340.0691	80	2.5	22	40	6.3	Bw
6340.0693	80	3	22	40	6.3	Bw
6340.0711	100	1	22	64	4.9	Bw
6340.0716	100	1.5	22	48	6.5	Bw
6340.0719	100	2	22	48	6.5	Bw
6340.0721	100	2.5	22	48	6.5	Bw
6340.0723	100	3	22	40	7.9	Bw
6340.0741	125	1	22	80	4.9	Bw
6340.0746	125	1.5	22	64	6.1	Bw
6340.0749	125	2	22	64	6.1	Bw
6340.0751	125	2.5	22	48	8.2	Bw
6340.0753	125	3	22	48	8.2	Bw
6340.0771	160	1	32	80	6.3	Bw
6340.0776	160	1.5	32	80	6.3	Bw
6340.0779	160	2	32	64	7.9	Bw
6340.0781	160	2.5	32	64	7.9	Bw
6340.0783	160	3	32	64	7.9	Bw

<p><b>Info</b> These precision tools produced from solid carbide are designed for use on modern vibration-free machines. The workpiece must be clamped tightly and free from vibration.</p> <p><b>Info</b> Selecting the right feed rate per tooth is very important for a long tool life and ideal chip forming.</p>	<p><b>Info</b> When using carbide circular saw blades you can achieve much higher cutting speeds.</p> <p><b>Info</b> Carbide circular saw blades are available on request with diameters of 20 mm to 200 mm. You can choose a width from 0.2 mm to 3 mm, depending on the diameter.</p>
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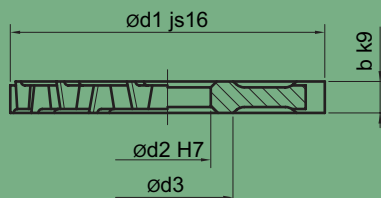



# Side milling cutters HSS, narrow

## DIN 1834 A - type N

3260

Side milling cutters




Part No	d1 mm	b mm	d2 mm	d3 mm	
3260.0101	50	1.5	16	26	18
3260.0102	50	1.6	16	26	18
3260.0103	50	2	16	26	18
3260.0104	50	2.5	16	26	18
3260.0105	50	3	16	26	18
3260.0107	50	4	16	26	18
3260.0108	50	5	16	26	18
3260.0109	50	6	16	26	18
3260.0151	63	1.5	22	34	22
3260.0152	63	1.6	22	34	22
3260.0153	63	2	22	34	22
3260.0154	63	2.5	22	34	22
3260.0155	63	3	22	34	22
3260.0157	63	4	22	34	22
3260.0158	63	5	22	34	22
3260.0159	63	6	22	34	22
3260.0201	80	1.5	22	41	24
3260.0202	80	1.6	22	41	24
3260.0203	80	2	22	41	24
3260.0204	80	2.5	22	34	24
3260.0205	80	3	22	34	24
3260.0207	80	4	22	34	24
3260.0208	80	5	22	34	24
3260.0209	80	6	22	34	24
3260.0251	80	1.5	27	41	24
3260.0252	80	1.6	27	41	24
3260.0253	80	2	27	41	24
3260.0254	80	2.5	27	41	24
3260.0255	80	3	27	41	24
3260.0257	80	4	27	41	24
3260.0258	80	5	27	41	24
3260.0259	80	6	27	41	24
3260.0301	100	1.5	27	48	28
3260.0302	100	1.6	27	48	28
3260.0303	100	2	27	48	28
3260.0304	100	2.5	27	48	28
3260.0305	100	3	27	42	28
3260.0307	100	4	27	42	28
3260.0308	100	5	27	42	28
3260.0309	100	6	27	42	28
3260.0310 *	100	7	27	42	28
3260.0351	100	1.5	32	48	28
3260.0352	100	1.6	32	48	28
3260.0353	100	2	32	48	28
3260.0354	100	2.5	32	48	28
3260.0355	100	3	32	48	28
3260.0356 *	100	3.5	32	48	28
3260.0357	100	4	32	48	28
3260.0358	100	5	32	48	28
3260.0359	100	6	32	48	28
3260.0360 *	100	7	32	48	28
3260.0402	125	1.6	27	48	32
3260.0403	125	2	27	48	32
3260.0404	125	2.5	27	48	32
3260.0405	125	3	27	48	32
3260.0407	125	4	27	42	32
3260.0408	125	5	27	42	32

\*while stocks last



## Side milling cutters HSS, narrow DIN 1834 A - type N

Part No	d1 mm	b mm	d2 mm	d3 mm	
3260.0409	125	6	27	42	32
3260.0452	125	1.6	32	48	32
3260.0453	125	2	32	48	32
3260.0454	125	2.5	32	48	32
3260.0455	125	3	32	48	32
3260.0457	125	4	32	48	32
3260.0458	125	5	32	48	32
3260.0459	125	6	32	48	32
3260.0503	160	2	32	60	36
3260.0504	160	2.5	32	60	36
3260.0505	160	3	32	60	36
3260.0507	160	4	32	60	36
3260.0508	160	5	32	48	36
3260.0509	160	6	32	48	36
3260.0553	160	2	40	65	36
3260.0554	160	2.5	40	65	36
3260.0555	160	3	40	65	36
3260.0557	160	4	40	65	36
3260.0558	160	5	40	60	36
3260.0559	160	6	40	60	36

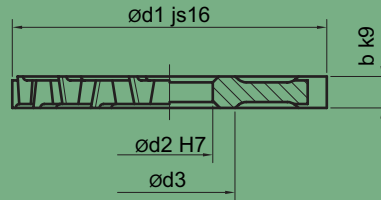
\*while stocks last




# Side milling cutters HSS, narrow, TiN DIN 1834 A - type N

3555

Side milling cutters



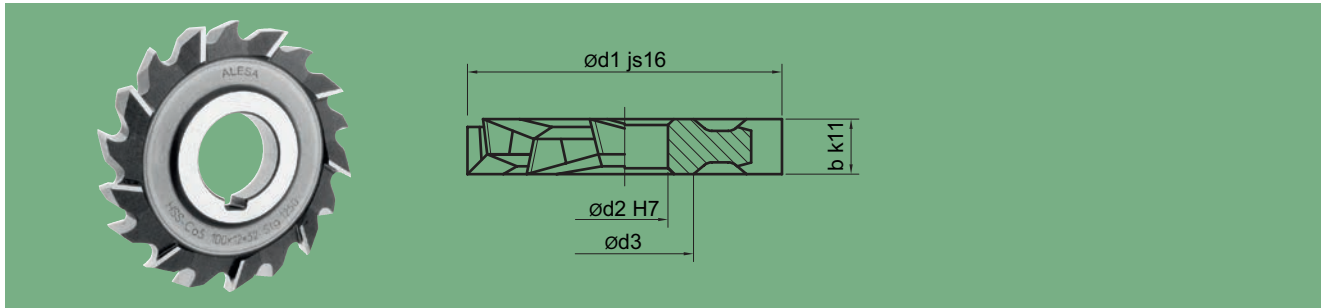
Part No	d1 mm	b mm	d2 mm	d3 mm	
3555.0153	63	2	22	34	22
3555.0155	63	3	22	34	22
3555.0157	63	4	22	34	22
3555.0203	80	2	22	41	24
3555.0205	80	3	22	34	24
3555.0207	80	4	22	34	24
3555.0253	80	2	27	41	24
3555.0255	80	3	27	41	24
3555.0257	80	4	27	41	24
3555.0303	100	2	27	48	28
3555.0305	100	3	27	42	28
3555.0307	100	4	27	42	28
3555.0353	100	2	32	48	28
3555.0355	100	3	32	48	28
3555.0357	100	4	32	48	28
3555.0403	125	2	27	48	32
3555.0405	125	3	27	48	32
3555.0407	125	4	27	42	32
3555.0408	125	5	27	42	32
3555.0453	125	2	32	48	32
3555.0455	125	3	32	48	32
3555.0457	125	4	32	48	32
3555.0458	125	5	32	48	32
3555.0505	160	3	32	60	36
3555.0507	160	4	32	60	36
3555.0508	160	5	32	48	36
3555.0509	160	6	32	48	36
3555.0555	160	3	40	65	36
3555.0557	160	4	40	65	36
3555.0558	160	5	40	60	36
3555.0559	160	6	40	60	36





# Side milling cutters HSS-E DIN 885 A - type N

3275



Side milling cutters

Part No	d1 mm	b mm	d2 mm	d3 mm	
3275.0110	50	7	16	26	12 / 14
3275.0111	50	8	16	26	12 / 14
3275.0113	50	10	16	26	12 / 14
3275.0159	63	6	22	34	14 / 16
3275.0160	63	7	22	34	14 / 16
3275.0161	63	8	22	34	14 / 16
3275.0162 *	63	9	22	34	14 / 16
3275.0163	63	10	22	34	14 / 16
3275.0164	63	12	22	34	12 / 16
3275.0165	63	14	22	34	12 / 14
3275.0209	80	6	22	35	16 / 18
3275.0210	80	7	22	35	16 / 18
3275.0211	80	8	22	35	16 / 18
3275.0213	80	10	22	35	16 / 18
3275.0214	80	12	22	35	16 / 18
3275.0215	80	14	22	35	14 / 18
3275.0217 *	80	18	22	35	14
3275.0218 *	80	20	22	35	14
3275.0259	80	6	27	40	16 / 18
3275.0260	80	7	27	40	16 / 18
3275.0261	80	8	27	40	16 / 18
3275.0263	80	10	27	40	16 / 18
3275.0264	80	12	27	40	16 / 18
3275.0265	80	14	27	40	14 / 18
3275.0309	100	6	27	42	18 / 20
3275.0310	100	7	27	42	18 / 20
3275.0311	100	8	27	42	18 / 20
3275.0313	100	10	27	42	18 / 20
3275.0314	100	12	27	42	18 / 20
3275.0315	100	14	27	42	18 / 20
3275.0359	100	6	32	48	18 / 20
3275.0360	100	7	32	48	18 / 20
3275.0361	100	8	32	48	18 / 20
3275.0362 *	100	9	32	48	18 / 20
3275.0363	100	10	32	48	18 / 20
3275.0364	100	12	32	48	18 / 20
3275.0365	100	14	32	48	18 / 20
3275.0369 *	100	22	32	48	16
3275.0416 *	125	16	27	42	20
3275.0463	125	10	32	48	20 / 22
3275.0464	125	12	32	48	20 / 22
3275.0465	125	14	32	48	20 / 22
3275.0466 *	125	16	32	48	20
3275.0469 *	125	22	32	48	18
3275.0513	160	10	32	48	22 / 26
3275.0514	160	12	32	48	22 / 24
3275.0515 *	160	14	32	48	22 / 24
3275.0517	160	18	32	48	22
3275.0518 *	160	20	32	48	20
3275.0562 *	160	9	40	58	22
3275.0563	160	10	40	58	22 / 26
3275.0564	160	12	40	58	22 / 24
3275.0565	160	14	40	58	22 / 24
3275.0566 *	160	16	40	58	22
3275.0567 *	160	18	40	58	22
3275.0568 *	160	20	40	58	20
3275.0569 *	160	22	40	58	20

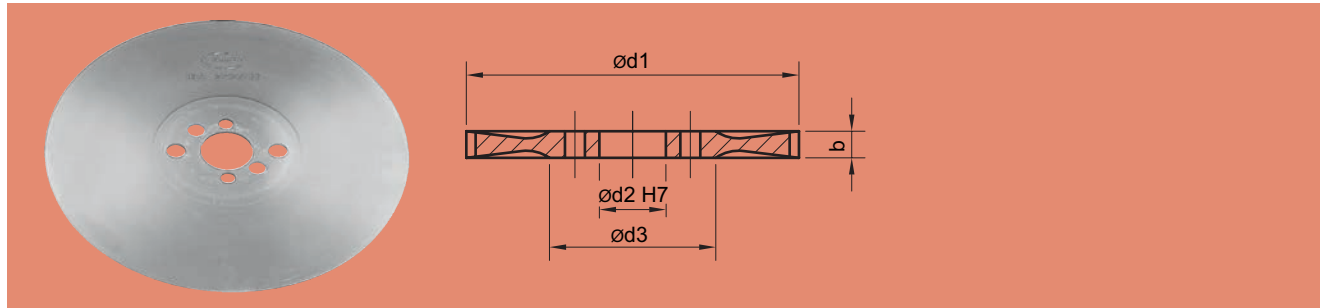
\*while stocks last



## HSS circular saw blades - 2/8/45 + 2/9/50 + 2/11/63 untoothed, bright surface

6520

HSS circular saw blades (32)  
2/8/45 + 2/9/50 + 2/11/63



Part No	d1 mm	b mm	d2 mm	d3 mm	
6520.0168	175	1.2	32	80	
6520.0174	175	1.5	32	80	
6520.0180	200	1.2	32	100	
6520.0186	200	1.5	32	90	
6520.0193	200	1.8	32	90	
6520.0196	200	2	32	90	
6520.0208	225	1.2	32	100	
6520.0211	225	1.6	32	90	
6520.0217	225	2	32	90	
6520.0222	225	2.5	32	90	
6520.0228	250	1.6	32	100	
6520.0234	250	2	32	100	
6520.0241	250	2.5	32	100	
6520.0251	275	2	32	100	
6520.0255	275	2.5	32	100	
6520.0259	300	2	32	100	
6520.0262	300	2.5	32	100	
6520.0267	315	2.5	32	100	
6520.0272	350	2.5	32	120	
6520.0275	350	3	32	120	

**Info**

When machining aluminium a circular saw blade with bright surface should be selected.

**Info**

Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).

**Info**

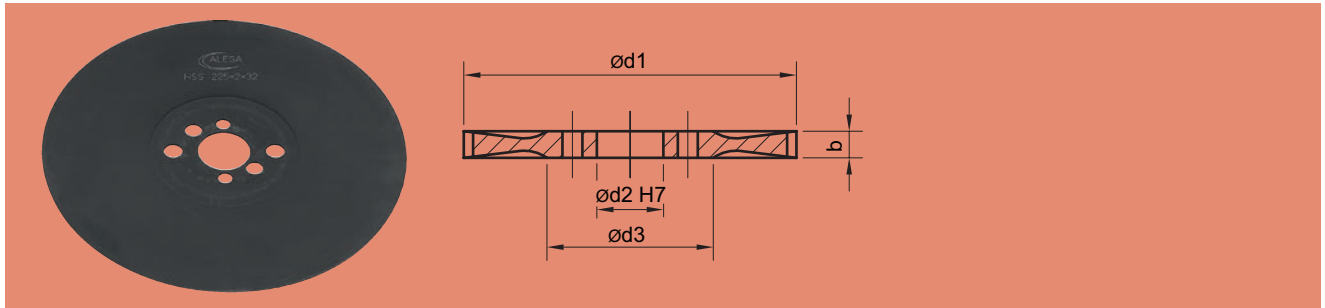
The use of coated circular saw blades offers considerably increased tool life and higher metal removal rates.



# HSS circular saw blades - 2/8/45 + 2/9/50 + 2/11/63

untoothed, steam tempered

6522



HSS circular saw blades (32)  
2/8/45 + 2/9/50 + 2/11/63

Part No	d1 mm	b mm	d2 mm	d3 mm
6522.0168	175	1.2	32	80
6522.0174	175	1.5	32	80
6522.0180	200	1.2	32	100
6522.0186	200	1.5	32	90
6522.0193	200	1.8	32	90
6522.0196	200	2	32	90
6522.0208	225	1.2	32	100
6522.0211	225	1.6	32	90
6522.0217	225	2	32	90
6522.0222	225	2.5	32	90
6522.0228	250	1.6	32	100
6522.0234	250	2	32	100
6522.0241	250	2.5	32	100
6522.0251	275	2	32	100
6522.0255	275	2.5	32	100
6522.0259	300	2	32	100
6522.0262	300	2.5	32	100
6522.0267	315	2.5	32	100
6522.0272	350	2.5	32	100
6522.0275	350	3	32	100



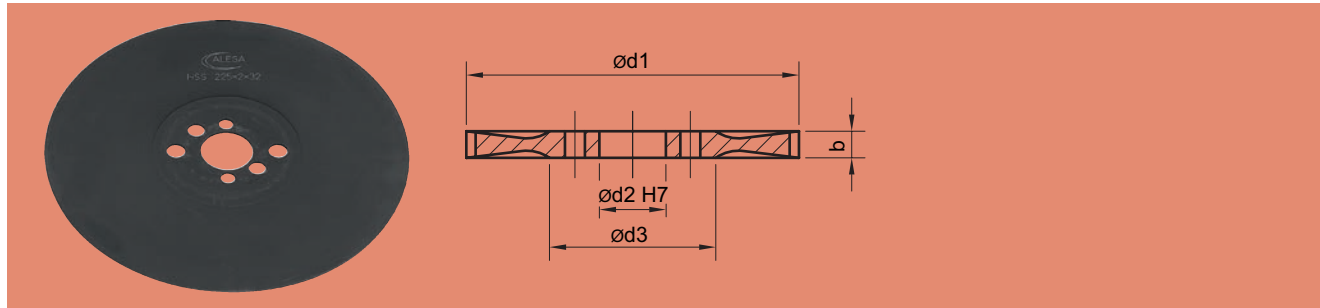
Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



## HSS circular saw blades - 2/8/45 + 2/9/50 + 2/11/63 untoothed, TiAlN-coated

6525

HSS circular saw blades (32)  
2/8/45 + 2/9/50 + 2/11/63



Part No	d1 mm	b mm	d2 mm	d3 mm	
6525.0196	200	2	32	90	
6525.0217	225	2	32	90	
6525.0234	250	2	32	100	
6525.0255	275	2.5	32	100	
6525.0262	300	2.5	32	100	
6525.0267	315	2.5	32	100	
6525.0272	350	2.5	32	120	



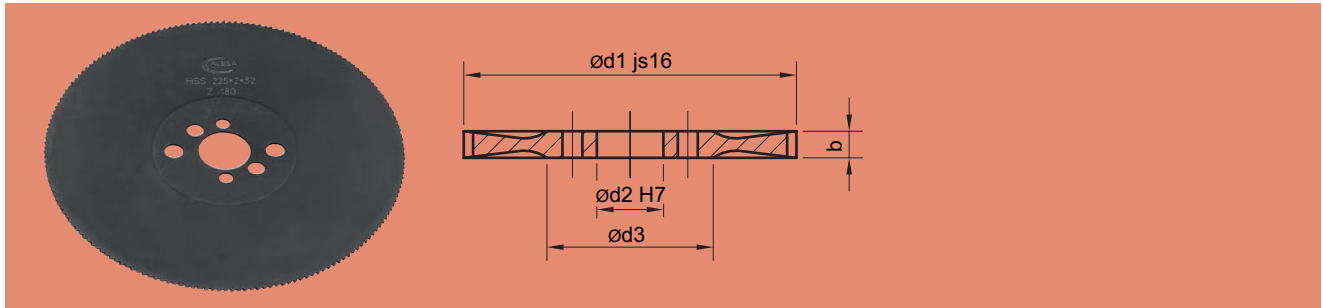
Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



# HSS circular saw blades - 2/8/45 + 2/9/50 + 2/11/63

## curved tooth, type Bw/C, steam tempered

6530



HSS circular saw blades (32)  
2/8/45 + 2/9/50 + 2/11/63

Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6530.0348	175	1.2	32	80	180	3.1	Bw
6530.0349	175	1.2	32	80	130	4.2	Bw
6530.0350	175	1.2	32	80	100	5.5	C
6530.0351	175	1.2	32	80	80	6.9	C
6530.0354	175	1.5	32	80	180	3.1	Bw
6530.0355	175	1.5	32	80	140	3.9	Bw
6530.0356	175	1.5	32	80	100	5.5	C
6530.0357	175	1.5	32	80	80	6.9	C
6530.0360	200	1.2	32	100	200	3.1	Bw
6530.0361	200	1.2	32	100	160	3.9	Bw
6530.0362	200	1.2	32	100	130	4.8	C
6530.0364	200	1.2	32	100	100	6.3	C
6530.0366	200	1.5	32	90	200	3.1	Bw
6530.0367	200	1.5	32	90	160	3.9	Bw
6530.0368	200	1.5	32	90	130	4.8	C
6530.0369	200	1.5	32	90	100	6.3	C
6530.0372	200	1.8	32	90	200	3.1	Bw
6530.0373	200	1.8	32	90	160	3.9	Bw
6530.0374	200	1.8	32	90	130	4.8	C
6530.0375	200	1.8	32	90	100	6.3	C
6530.0376	200	2	32	90	200	3.1	Bw
6530.0377	200	2	32	90	160	3.9	Bw
6530.0378	200	2	32	90	130	4.8	C
6530.0379	200	2	32	90	100	6.3	C
6530.0380	200	2	32	90	80	7.9	C
6530.0386	225	1.2	32	100	220	3.2	Bw
6530.0387	225	1.2	32	100	180	3.9	Bw
6530.0388	225	1.2	32	100	140	5	C
6530.0389	225	1.2	32	100	120	5.9	C
6530.0390	225	1.6	32	90	220	3.2	Bw
6530.0391	225	1.6	32	90	180	3.9	Bw
6530.0392	225	1.6	32	90	140	5	C
6530.0393	225	1.6	32	90	120	5.9	C
6530.0397	225	2	32	90	220	3.2	Bw
6530.0398	225	2	32	90	180	3.9	Bw
6530.0400	225	2	32	90	120	5.9	C
6530.0401	225	2	32	90	90	7.9	C
6530.0402	225	2.5	32	90	220	3.2	Bw
6530.0403	225	2.5	32	90	180	3.9	Bw
6530.0404	225	2.5	32	90	120	5.9	C
6530.0405	225	2.5	32	90	90	7.9	C
6530.0407	250	1.6	32	100	240	3.3	Bw
6530.0408	250	1.6	32	100	200	3.9	Bw
6530.0409	250	1.6	32	100	160	4.9	C
6530.0410	250	1.6	32	100	128	6.1	C
6530.0414	250	2	32	100	240	3.3	Bw
6530.0415	250	2	32	100	200	3.9	Bw
6530.0417	250	2	32	100	160	4.9	C
6530.0418	250	2	32	100	128	6.1	C
6530.0419	250	2	32	100	100	7.9	C
6530.0420	250	2	32	100	80	9.8	C
6530.0421	250	2.5	32	100	240	3.3	Bw
6530.0422	250	2.5	32	100	200	3.9	Bw
6530.0424	250	2.5	32	100	160	4.9	C
6530.0425	250	2.5	32	100	128	6.1	C
6530.0426	250	2.5	32	100	100	7.9	C


**Info** The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.

**Info** The curved tooth type C (roughing tooth) is ideal for big sections and deep slots. The roughing tooth is about 0.1 to 0.3 mm higher than the finishing tooth and splits the chips into 3 sections.



## HSS circular saw blades - 2/8/45 + 2/9/50 + 2/11/63 curved tooth, type Bw/C, steam tempered

HSS circular saw blades (32)  
2/8/45 + 2/9/50 + 2/11/63

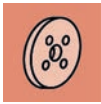
Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6530.0427	250	2.5	32	100	80	9.8	C
6530.0431	275	2	32	100	220	3.9	Bw
6530.0432	275	2	32	100	180	4.8	C
6530.0433	275	2	32	100	120	7.2	C
6530.0435	275	2.5	32	100	220	3.9	Bw
6530.0436	275	2.5	32	100	180	4.8	C
6530.0437	275	2.5	32	100	120	7.2	C
6530.0439	300	2	32	100	220	4.3	Bw
6530.0440	300	2	32	100	180	5.2	C
6530.0441	300	2	32	100	120	7.9	C
6530.0442	300	2.5	32	100	220	4.3	Bw
6530.0443	300	2.5	32	100	180	5.2	C
6530.0444	300	2.5	32	100	160	5.9	C
6530.0445	300	2.5	32	100	120	7.9	C
6530.0447	315	2.5	32	100	240	4.1	Bw
6530.0448	315	2.5	32	100	200	4.9	C
6530.0449	315	2.5	32	100	160	6.2	C
6530.0450	315	2.5	32	100	120	8.2	C
6530.0452	350	2.5	32	120	220	5	C
6530.0453	350	2.5	32	120	160	6.9	C
6530.0454	350	2.5	32	120	120	9.2	C
6530.0455	350	3	32	120	160	6.9	C
6530.0456	350	3	32	120	120	9.2	C



The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.

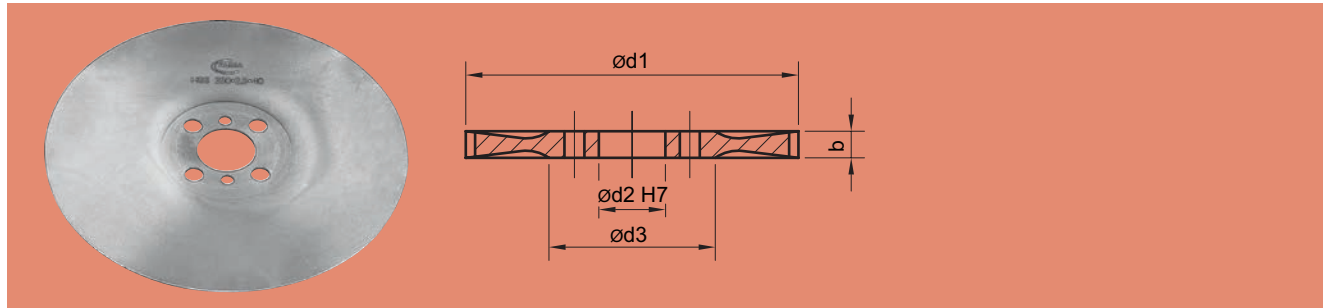


The curved tooth type C (roughing tooth) is ideal for big sections and deep slots. The roughing tooth is about 0.1 to 0.3 mm higher than the finishing tooth and splits the chips into 3 sections.



## HSS circular saw blades - 2/8/55 + 4/12/64 untoothed, bright surface

6620



HSS circular saw blades (40)  
2/8/55 + 4/12/64

Part No	d1 mm	b mm	d2 mm	d3 mm
6620.0214	250	2	40	100
6620.0220	250	2.5	40	100
6620.0244	275	2	40	100
6620.0250	275	2.5	40	100
6620.0256	275	3	40	100
6620.0262	300	2.5	40	100
6620.0268	300	3	40	100
6620.0274	315	2.5	40	100
6620.0282	315	3	40	100
6620.0290	350	2.5	40	120
6620.0296	350	3	40	120
6620.0302	370	3.5	40	120
6620.0308	400	3	40	120
6620.0314	400	3.5	40	120
6620.0320	425	3.5	40	120

**Info**

When machining aluminium a circular saw blade with bright surface should be selected.

**Info**

Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).

**Info**

The use of coated circular saw blades offers considerably increased tool life and higher metal removal rates.

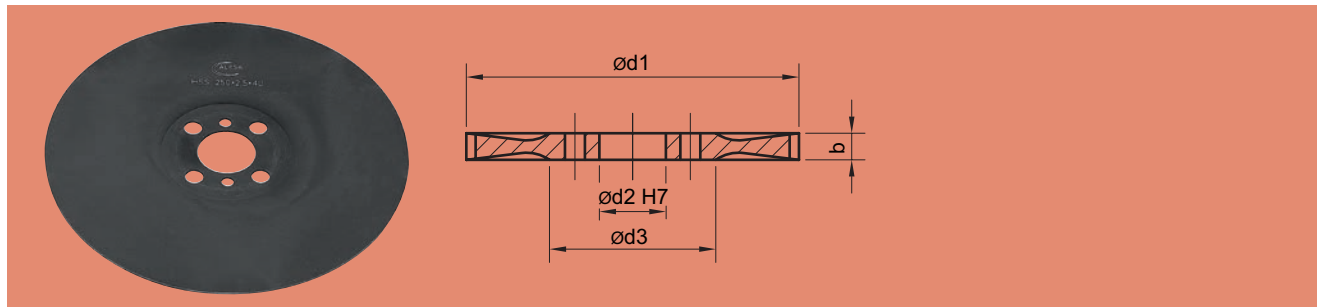




## HSS circular saw blades - 2/8/55 + 4/12/64 untoothed, steam tempered

6622

HSS circular saw blades (40)  
2/8/55 + 4/12/64



Part No	d1 mm	b mm	d2 mm	d3 mm	
6622.0214	250	2	40	100	
6622.0220	250	2.5	40	100	
6622.0244	275	2	40	100	
6622.0250	275	2.5	40	100	
6622.0256	275	3	40	100	
6622.0262	300	2.5	40	100	
6622.0268	300	3	40	100	
6622.0274	315	2.5	40	100	
6622.0282	315	3	40	100	
6622.0290	350	2.5	40	120	
6622.0296	350	3	40	120	
6622.0302	370	3.5	40	120	
6622.0308	400	3	40	120	
6622.0314	400	3.5	40	120	
6622.0320	425	3.5	40	120	

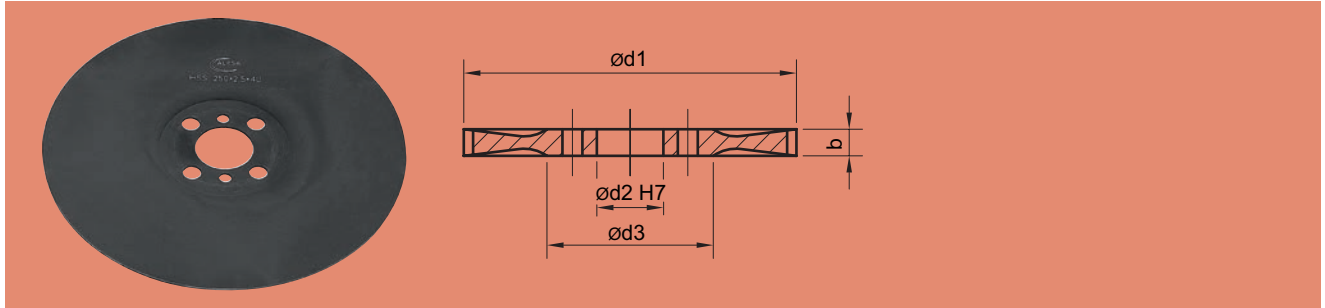


Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



## HSS circular saw blades - 2/8/55 + 4/12/64 untoothed, TiAlN-coated

6625



HSS circular saw blades (40)  
2/8/55 + 4/12/64

Part No	d1 mm	b mm	d2 mm	d3 mm	
6625.0214	250	2	40	100	
6625.0250	275	2.5	40	100	
6625.0262	300	2.5	40	100	
6625.0296	350	3	40	120	
6625.0314	400	3.5	40	120	



Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).

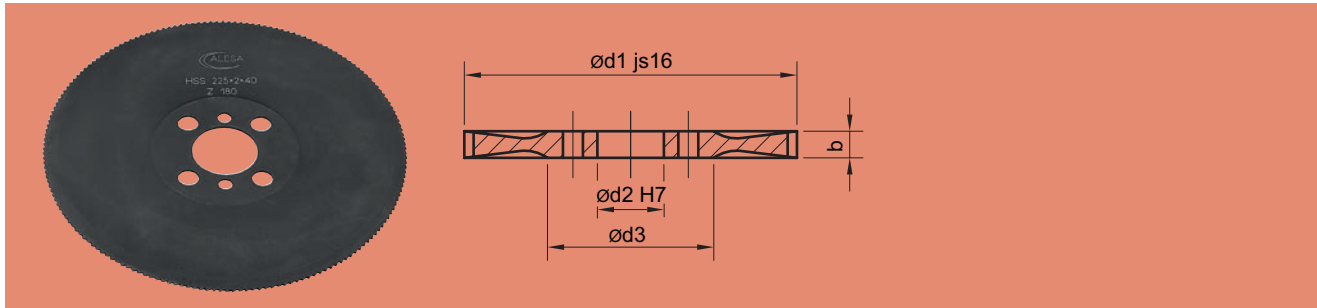


# HSS circular saw blades - 2/8/55 + 4/12/64

## curved tooth, type Bw/C, steam tempered

6630

HSS circular saw blades (40)  
2/8/55 + 4/12/64



Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6630.0395	250	2	40	100	200	3.5	Bw
6630.0397	250	2	40	100	128	5.5	C
6630.0398	250	2	40	100	100	7.1	C
6630.0401	250	2.5	40	100	200	3.5	Bw
6630.0403	250	2.5	40	100	128	5.5	C
6630.0404	250	2.5	40	100	100	7.1	C
6630.0424	275	2	40	100	280	3.1	Bw
6630.0425	275	2	40	100	220	3.9	Bw
6630.0426	275	2	40	100	180	4.8	C
6630.0427	275	2	40	100	140	6.2	C
6630.0428	275	2	40	100	110	7.9	C
6630.0430	275	2.5	40	100	280	3.1	Bw
6630.0431	275	2.5	40	100	220	3.9	Bw
6630.0432	275	2.5	40	100	180	4.8	C
6630.0433	275	2.5	40	100	140	6.2	C
6630.0434	275	2.5	40	100	110	7.9	C
6630.0437	275	3	40	100	120	7.2	C
6630.0438	275	3	40	100	110	7.9	C
6630.0439	275	3	40	100	90	9.6	C
6630.0442	300	2.5	40	100	220	4.3	Bw
6630.0443	300	2.5	40	100	160	5.9	C
6630.0444	300	2.5	40	100	120	7.9	C
6630.0448	300	3	40	100	220	4.3	Bw
6630.0449	300	3	40	100	180	5.2	C
6630.0450	300	3	40	100	120	7.9	C
6630.0454	315	2.5	40	100	240	4.1	Bw
6630.0455	315	2.5	40	100	160	6.2	C
6630.0456	315	2.5	40	100	120	8.2	C
6630.0457	315	2.5	40	100	100	9.9	C
6630.0458	315	2.5	40	100	80	12.4	C
6630.0462	315	3	40	100	240	4.1	Bw
6630.0463	315	3	40	100	160	6.2	C
6630.0464	315	3	40	100	120	8.2	C
6630.0465	315	3	40	100	100	9.9	C
6630.0466	315	3	40	100	80	12.4	C
6630.0470	350	2.5	40	120	220	5	C
6630.0471	350	2.5	40	120	180	6.1	C
6630.0472	350	2.5	40	120	140	7.9	C
6630.0476	350	3	40	120	220	5	C
6630.0477	350	3	40	120	180	6.1	C
6630.0478	350	3	40	120	140	7.9	C
6630.0482	370	3.5	40	120	220	5.3	C
6630.0483	370	3.5	40	120	190	6.1	C
6630.0484	370	3.5	40	120	140	8.3	C
6630.0488	400	3	40	120	200	6.3	C
6630.0489	400	3	40	120	160	7.9	C
6630.0490	400	3	40	120	120	10.5	C
6630.0494	400	3.5	40	120	200	6.3	C
6630.0495	400	3.5	40	120	160	7.9	C
6630.0496	400	3.5	40	120	120	10.5	C
6630.0500 **	425	3.5	40	120	130	10.3	C
6630.0501 **	425	3.5	40	120	96	13.9	C

**Info**

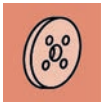
The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.

**Info**

The curved tooth type C (roughing tooth) is ideal for big sections and deep slots. The roughing tooth is about 0.1 to 0.3 mm higher than the finishing tooth and splits the chips into 3 sections.

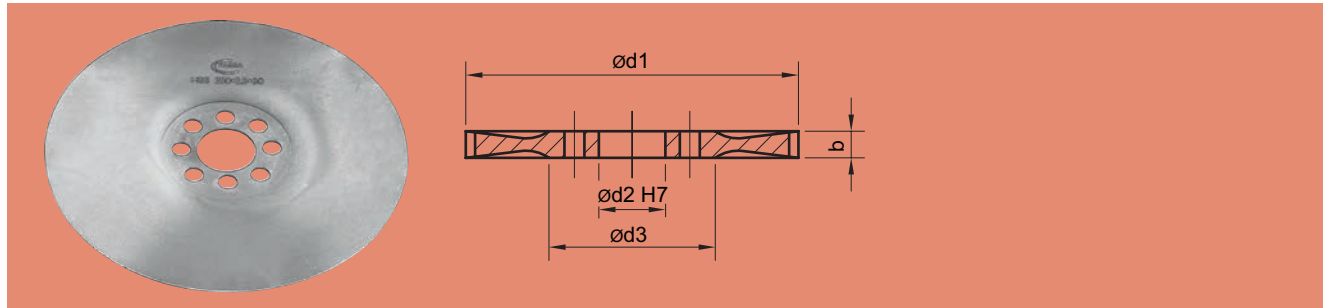


\*\* Driving holes: 4/12/64, 2/15/80 and 2/15/100



## HSS circular saw blades - 4/15/80 + 4/14/85 untoothed, bright surface

6720



HSS circular saw blades (50)  
4/15/80 + 4/14/85

Part No	d1 mm	b mm	d2 mm	d3 mm
6720.0196	350	2.5	50	120
6720.0202	350	3	50	120
6720.0214	370	3	50	120
6720.0232	400	3	50	120
6720.0238	400	3.5	50	120
6720.0244	400	4	50	120
6720.0256	425	3.5	50	120
6720.0262	450	3	50	130
6720.0268	450	4	50	130



When machining aluminium a circular saw blade with bright surface should be selected.



Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



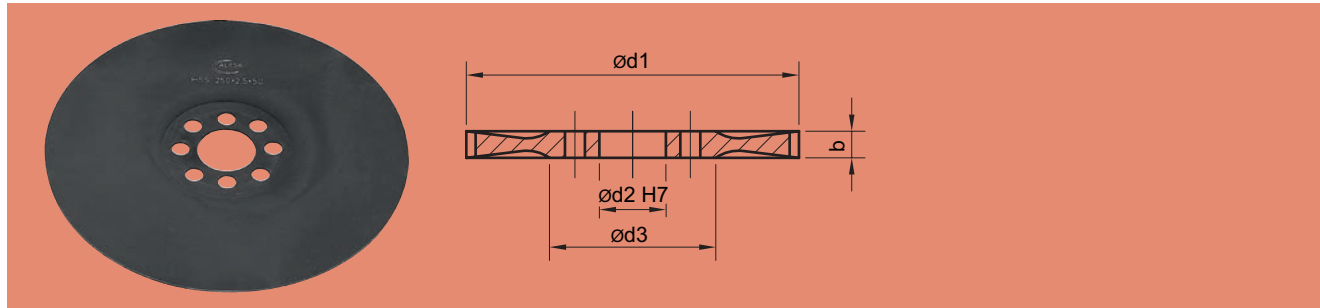
The use of coated circular saw blades offers considerably increased tool life and higher metal removal rates.



## HSS circular saw blades - 4/15/80 + 4/14/85 untoothed, steam tempered

6722

HSS circular saw blades (50)  
4/15/80 + 4/14/85



Part No	d1 mm	b mm	d2 mm	d3 mm	
6722.0196	350	2.5	50	120	
6722.0202	350	3	50	120	
6722.0214	370	3	50	120	
6722.0232	400	3	50	120	
6722.0238	400	3.5	50	120	
6722.0244	400	4	50	120	
6722.0256	425	3.5	50	120	
6722.0262	450	3	50	130	
6722.0268	450	4	50	130	

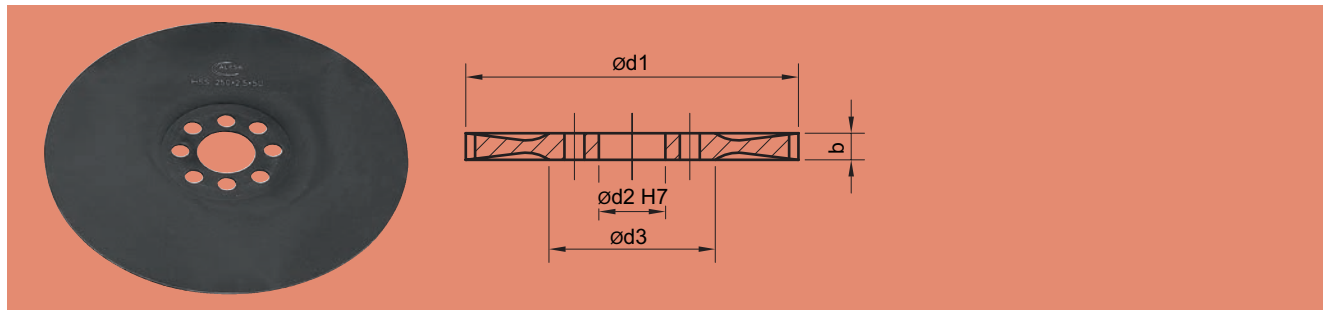


Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



## HSS circular saw blades - 4/15/80 + 4/14/85 untoothed, TiAlN-coated

6725



HSS circular saw blades (50)  
4/15/80 + 4/14/85

Part No	d1 mm	b mm	d2 mm	d3 mm	
6725.0214	370	3	50	120	
6725.0238	400	3.5	50	120	
6725.0256	425	3.5	50	120	



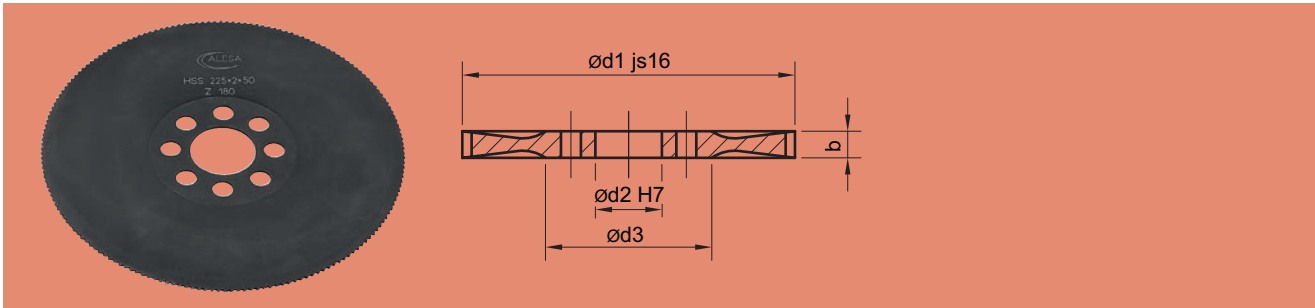
Blanks for circular saw blades can be toothed to your requirements. Possible tooth forms: B, Bw, C (minimal pitch T=3 mm).



## HSS circular saw blades - 4/15/80 + 4/14/85 curved tooth, type C, steam tempered

6730

HSS circular saw blades (50)  
4/15/80 + 4/14/85



Part No	d1 mm	b mm	d2 mm	d3 mm		Pitch	Toothform
6730.0380	350	2.5	50	120	90	12.2	C
6730.0376	350	2.5	50	120	220	5	C
6730.0378	350	2.5	50	120	160	6.9	C
6730.0379	350	2.5	50	120	120	9.2	C
6730.0382	350	3	50	120	220	5	C
6730.0384	350	3	50	120	160	6.9	C
6730.0385	350	3	50	120	120	9.2	C
6730.0386	350	3	50	120	90	12.2	C
6730.0394	370	3	50	120	220	5.3	C
6730.0396	370	3	50	120	160	7.3	C
6730.0397	370	3	50	120	120	9.7	C
6730.0398	370	3	50	120	100	11.6	C
6730.0412	400	3	50	120	160	7.9	C
6730.0413	400	3	50	120	120	10.5	C
6730.0414	400	3	50	120	100	13.1	C
6730.0420	400	3.5	50	120	120	10.5	C
6730.0421	400	3.5	50	120	96	13.1	C
6730.0424	400	4	50	120	160	7.9	C
6730.0425	400	4	50	120	120	10.5	C
6730.0426	400	4	50	120	96	13.1	C
6730.0438	425	3.5	50	120	220	6.1	C
6730.0439	425	3.5	50	120	160	8.3	C
6730.0440	425	3.5	50	120	130	10.3	C
6730.0441	425	3.5	50	120	96	13.9	C
6730.0442	450	3	50	130	230	6.1	C
6730.0443	450	3	50	130	180	7.9	C
6730.0444	450	3	50	130	140	10.1	C
6730.0445	450	3	50	130	120	11.8	C

**Info**

The tooth Bw with alternate chamfering splits the chips in one part 2/3 of the blade thickness, which is ideal for cutting tubes and profiles.

**Info**

The curved tooth type C (roughing tooth) is ideal for big sections and deep slots. The roughing tooth is about 0.1 to 0.3 mm higher than the finishing tooth and splits the chips into 3 sections.

**Info**

Due to the large number of cutting edges, circular saw blades are very efficient tools also for slotting.

# Notes

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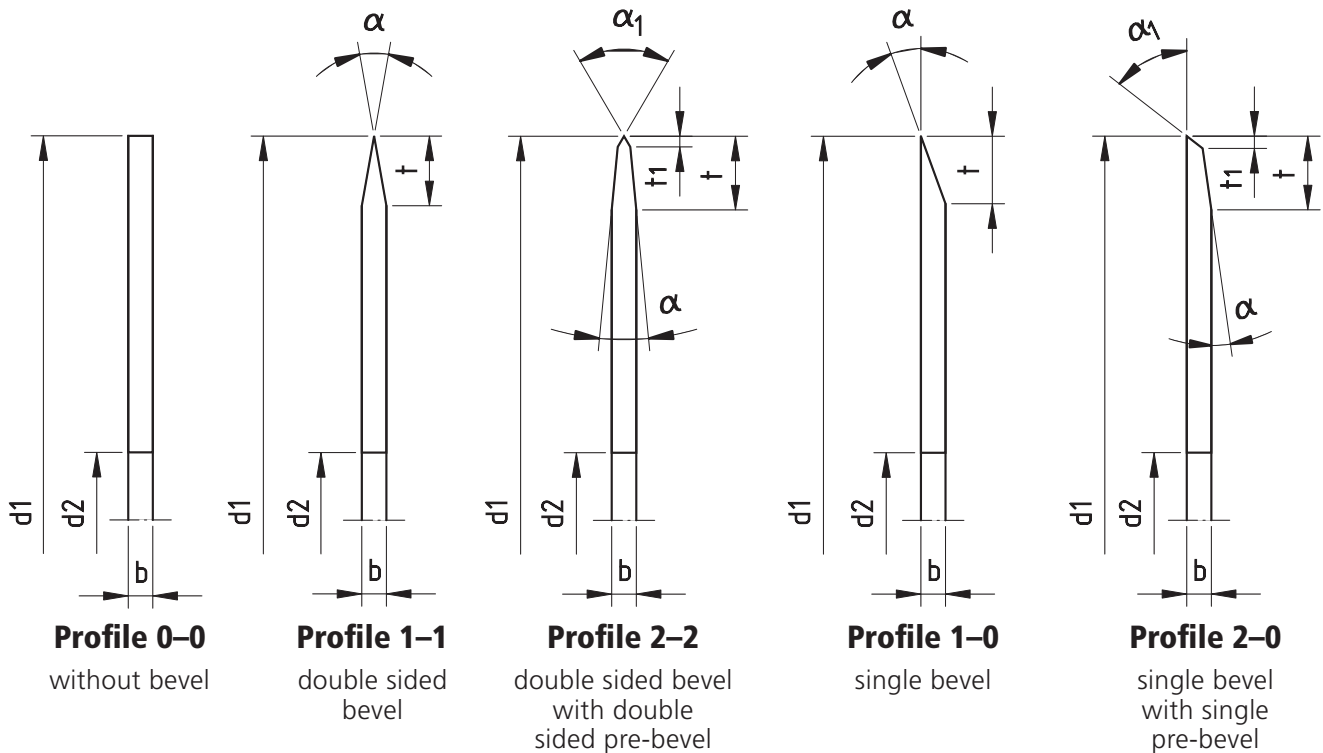


# Circular knives

There are almost innumerable possible profiles of circular knives. We configure every circular knife according to your individual requirements. We therefore kindly ask you to copy the opposite page, fill it in and fax it to +41 62 767 62 82.

Circular knives

## Bevel profiles for circular knives



### Legend

- d1 = Knife diameter [mm] /  $\pm 0.5$  mm
- d2 = Bore diameter [mm] / H7
- b = Knife width [mm] /  $\pm 0.05$  mm
- $\alpha$  = Bevel angle [°]
- $\alpha_1$  = Pre-bevel angle [°]
- t = Bevel length [mm]
- $t_1$  = Pre-bevel length [mm]

### Materials

ALESA circular knives are available in various HSS qualities, high-grade steel or carbide.

### Coatings

ALESA offers various coatings for a wide range of applications. We look forward to advice you with the appropriate coating for maximum performance.

### Tooth shapes

Almost all tooth profiles are available. Just ask us.

## Samples



# Circular knives Fax order

Please fill in a copy of this page and fax it to +41 62 7676 282.

Enquiry

Order

Date \_\_\_\_\_

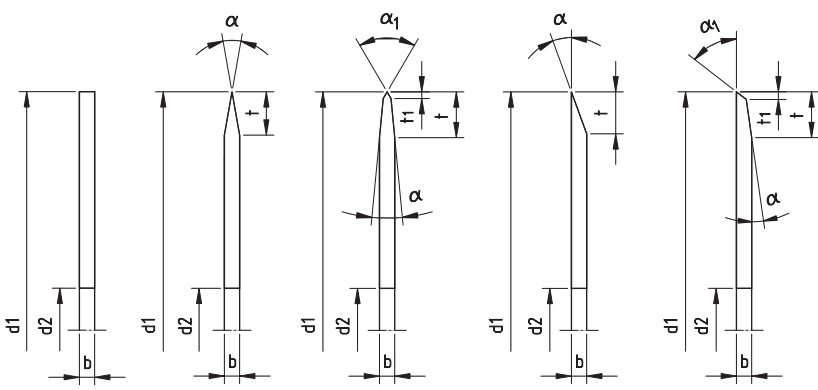
Customer _____	Last name _____
_____	First name _____
Address _____	Phone/fax _____
Place _____	Email _____

**Required bevel profile**

Profile 0-0  
  Profile 1-1  
  Profile 2-2  
  Profile 1-0  
  Profile 2-0  
  Profile X\*

**Dimensions**

d1 = \_\_\_\_\_ mm  
 d2 = \_\_\_\_\_ mm  
 b = \_\_\_\_\_ mm  
 α = \_\_\_\_\_ °  
 α<sub>1</sub> = \_\_\_\_\_ °  
 t = \_\_\_\_\_ mm  
 t<sub>1</sub> = \_\_\_\_\_ mm



<b>Profile 0-0</b> without bevel	<b>Profile 1-1</b> double sided bevel	<b>Profile 2-2</b> double sided bevel with double sided pre-bevel	<b>Profile 1-0</b> single bevel	<b>Profile 2-0</b> single bevel with single pre-bevel
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Material \_\_\_\_\_

Coating \_\_\_\_\_

Quantity (min 2) \_\_\_\_\_

Delivery date \_\_\_\_\_

**\* Sketch of your bevel profile**

**Notes**

## Special tools

### Your partner for complete engineering solutions!

ALESA Ltd. specialise in the production of circular saw blades from High Speed Steel and Micrograin Carbide. These are precision ground to produce highly positive geometries with extremely sharp cutting edges that are specifically designed to offer engineering solutions when machining difficult materials or when operating in unfavourable conditions.



### Special dimensions

Standard tools can be modified to suit customers specific requirements. **Carbide-circular saw blades** DIN1837/38 are available with diameters of 20 mm to 200 mm and with widths from 0.2 mm to 3 mm.



### Special application

#### Perforating knives or circular knives:

Circular knives can be used for a variety of different applications: e.g. synthetic ribbons, paper, textiles, and so forth. If you have any processing problems, we consider it our duty to be able to offer a solution. Our development department welcomes the challenge of producing special tools to individual requirements or customer drawings.



## Special toothform tools

Do you require a special form on the tool?

Regardless of whether it is a radius, an angle or a combination of these. Send us your free form or your design as drawing or as dxf file. We look forward to manufacturing the special tool you need.



Special tools



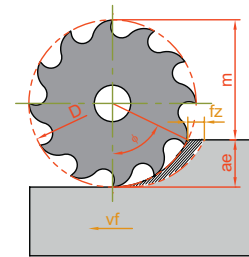
# Average chip thickness $h_m$ for saw blades

## The average chip thickness $h_m$

The average chip thickness  $h_m$  must be calculated (see formula to the right) and stays in direct relation of tool diameter (D), radial engagement (ae) and feed per tooth (fz).

$$h_m \approx f_z \cdot \sqrt{\frac{a_e}{D}}$$

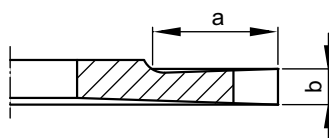
$$f_z \approx h_m \cdot \sqrt{\frac{D}{a_e}}$$



## ALESA $h_m$ sheet for saw blades and side milling cutters

The  $h_m$  values are only valid while using ALESA tools and the ALESA «cutting calculation» programme.

Material	Alu. (< 6%Si) & Copper	400–650 N/mm <sup>2</sup>	650–800 N/mm <sup>2</sup>	800–1200 N/mm <sup>2</sup>	over 1200 N/mm <sup>2</sup>	Nickel based & Titanium alloys
<b>Tool</b>						
<b>HSS tools</b>						
Side milling cutter	0.020 – 0.040	0.015 – 0.035	0.015 – 0.030	0.010 – 0.020	–	0.010 – 0.020
DIN saw blade	0.020 – 0.035	0.015 – 0.030	0.015 – 0.025	0.010 – 0.020	–	0.010 – 0.020
Nutex Mini	0.020 – 0.030	0.015 – 0.020	0.010 – 0.018	0.010 – 0.015	–	0.010 – 0.015
Nutex	0.020 – 0.035	0.015 – 0.030	0.015 – 0.025	0.010 – 0.020	–	0.010 – 0.020
Nutex Plus	0.020 – 0.030	0.015 – 0.020	0.010 – 0.018	0.010 – 0.015	–	0.010 – 0.015
<b>Carbide tools</b>						
DIN saw blade	0.015 – 0.035	0.010 – 0.025	0.010 – 0.020	0.010 – 0.016	0.010 – 0.014	0.010 – 0.018
Nutex Mini	0.015 – 0.030	0.010 – 0.020	0.010 – 0.015	0.010 – 0.012	0.008 – 0.012	0.008 – 0.012
Nutex Star / Nutex / Nutex Mono	0.015 – 0.035	0.010 – 0.025	0.010 – 0.020	0.010 – 0.016	0.010 – 0.014	0.010 – 0.018
Nutex Plus / Nutex Plus Mono	0.015 – 0.030	0.010 – 0.020	0.010 – 0.015	0.010 – 0.012	0.008 – 0.012	0.008 – 0.012
<b>if ap / Ø &lt; 0.012 apply:</b>						
$h_m = h_{m(max)} \cdot ba \cdot x$	x = 0.40	x = 0.45	x = 0.55	x = 0.65	x = 0.70	x = 0.60



## ba - coefficient

- a = max. cutting depth (catalogue values) for standard Nutex Mini, Nutex and Nutex Mono
- = ground, radial dimension for stepped saws and special saws
- b = cutting width

a	ba - coefficient for $h_m$ calculation											
75	0.90											
55	0.95	0.90										
41.5	1	0.95	0.90	0.80								
29	1	1	0.90	0.80	0.70	0.60						
23	1	1	0.95	0.85	0.70	0.60	0.50					
18.5	1	1	1	0.90	0.75	0.65	0.50	0.40				
14.5	1	1	1	0.95	0.80	0.70	0.55	0.40				
13.5	1	1	1	1	0.80	0.70	0.55	0.45	0.35			
12	1	1	1	1	0.85	0.75	0.60	0.45	0.35	0.30		
10.5	1	1	1	1	0.90	0.80	0.65	0.50	0.40	0.30		
7	1	1	1	1	0.95	0.85	0.70	0.55	0.45	0.35	0.25	
5.5	1	1	1	1	1	0.90	0.75	0.60	0.50	0.40	0.25	
4.5	1	1	1	1	1	0.95	0.75	0.60	0.50	0.40	0.30	0.20
3.5	1	1	1	1	1	1	0.80	0.65	0.55	0.45	0.30	0.25
2	1	1	1	1	1	1	0.90	0.65	0.55	0.45	0.35	0.30
	1.25Bw	1.0 Bw	0.9 B	0.8 B	0.7 B	0.6 B	0.5 B	0.4 B	0.35 B	0.3 B	0.25 B	0.2 B
	<b>cutting width b and tooth form</b>											

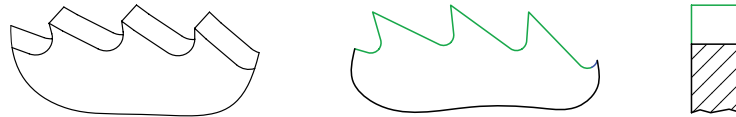
# Type of teeth and characteristics

## Elementary forms of teeth

Enclosed description of teeth for saws are our most used teeth forms. Please contact us if you need other tooth forms based on company specifications. Our production has skills to fulfill most of your requirements.

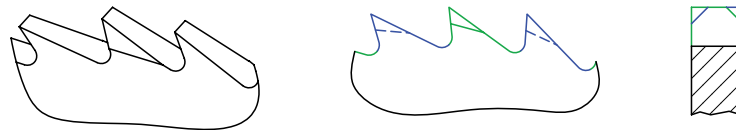
### Type A

Angular tooth form



### Type Aw

Angular tooth form alternatively beveled

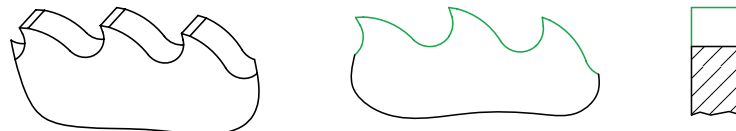


Saw blades according to DIN 1837 A used in **fine mechanics, watch and jewellery application**. This tooth form is normally used on thin blades with **pitch range 0.8 - 3.0 mm**. The cutting edges are very sharp. The chip clearance is reduced with unfavourable swarf removal ability.

The tooth form type A is excellent for **short-chipping material** as brass, grey cast iron, etc.

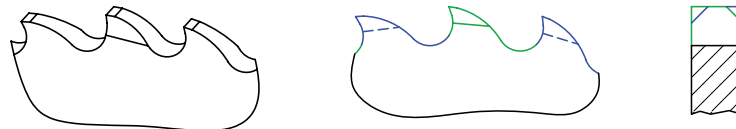
### Type B

Arc shaped tooth form



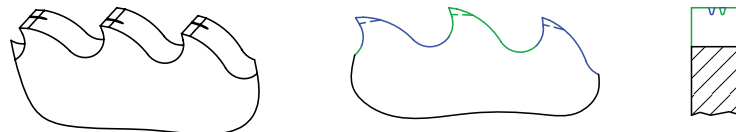
### Type Bw

Arc shaped tooth form alternatively beveled



### Type BS

Arc shaped tooth form with chip breaker groove



Saw blades according to DIN 1838 B, Bw are the most common used to saw **long-chipping materials**. In comparison to the A type the B type of tooth form has a significant **larger chip clearance** and allows to cut thicker cross-sections.

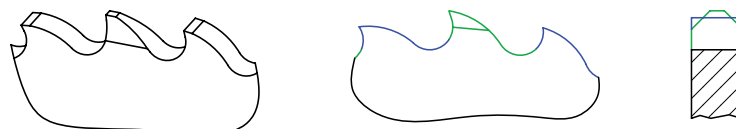
The alternatively beveled tooth form (Bw) reduces the width of the chip to 2/3 of the saw blade thickness. We suggest using this tooth form to cut **stainless steel alloys, high-alloyed ferrous and non-ferrous alloys**.

The tooth form BS describes the **arc shaped tooth form with chip breaker groove**. The grooves are **staggered** and generate one wider and one smaller chip. The positive effect is that **the chips will not get jammed** because they are smaller than the slot.

The BS type of tooth is standard for ALESA Nutex Plus saws and can be applied **for saws with > 2 mm width**. This tooth form has the efficiency advantage that **all teeth can be applied** for the calculation of the feed rate. For alternatively beveled tooth forms as Aw, Bw and C, only 50% of the teeth are permitted for the calculation.

### Type C

Arc shaped tooth form with pre- and re-cutting edges.



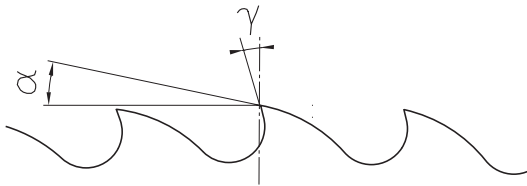
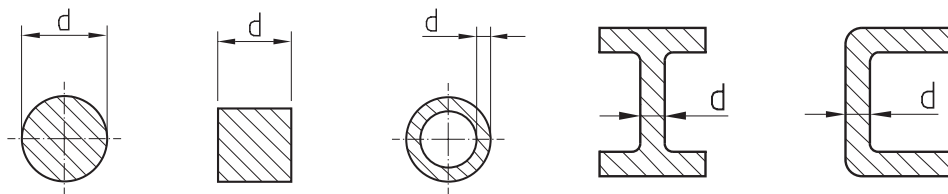
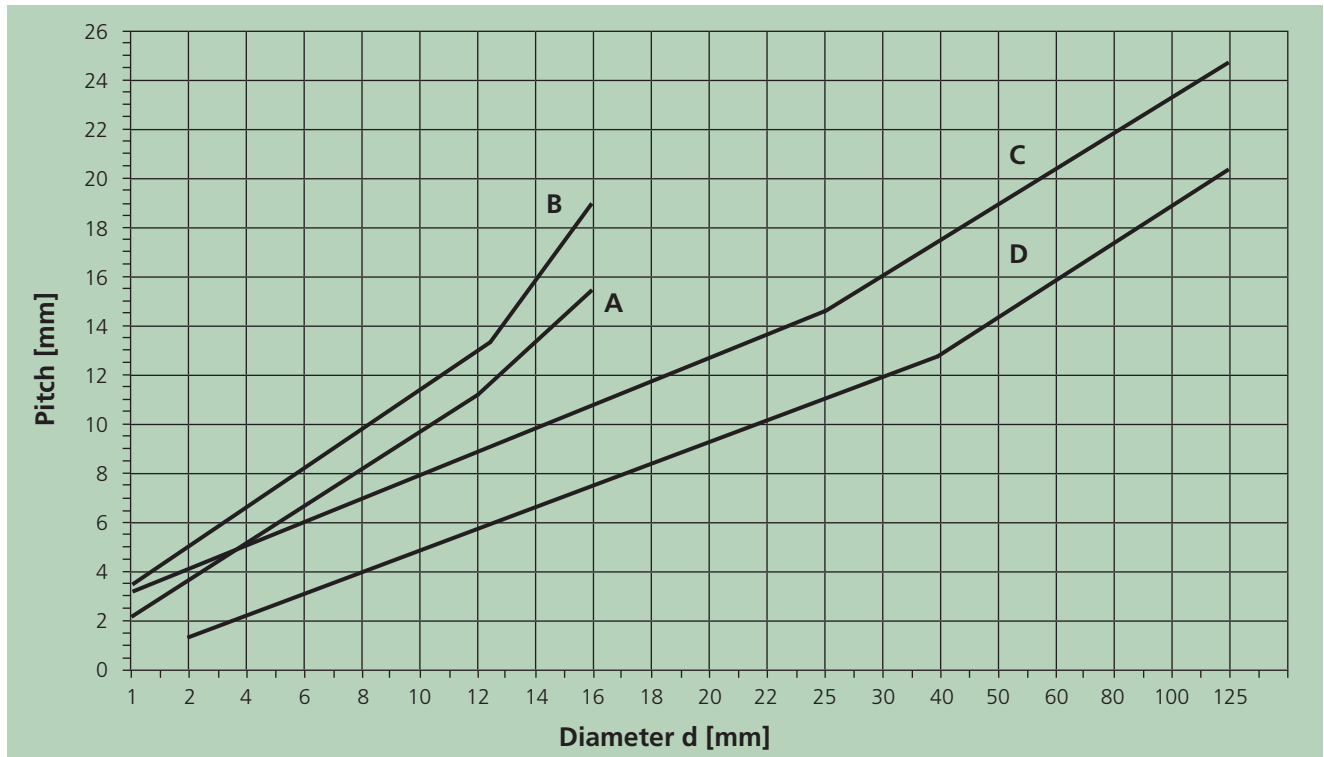
This special tooth form based on the arc shaped tooth form divides the chip **into 3 smaller fragments**. Each fragment is about 1/3 of the blade thickness. The pre-cutting edge is **0.1 – 0.3 mm higher** than the others.

We recommend this tooth form to cut **thick cross sections** on cut-off machines. One positive function of the trapezoidal tooth is the leading groove to achieve more straight and parallel cuts with very large saws. The smaller chip fragments have an additional effect on the easy chip removal and they are clogging the teeth less. Teeth form C preferably on HSS machine saws to cut off tubes, profiles and rod bundles.

# Tooth pitch selector and cutting geometries

## Cutting-off with HSS-circular saw blades

Technical information



### Slotting (cutting-off)

To remain above an average chip thickness of **hm = 0.01 mm**, the feed rate should remain above the following values:

$a_e/D:$	0.01	0.02	0.04	0.06	0.10	0.30
Min.- $f_z:$	0.10	0.07	0.05	0.04	0.03	0.02

Material classification			Cutting geometries		Pitch see diagram	
			Rake angle $\gamma$	Clearance angle $\alpha$	Profiles/tubes	Full material
1, 2	Steel	< 800 N/mm <sup>2</sup>	16°–20°	8°–10°	B	D
3	Steel	800 N/mm <sup>2</sup> –1200 N/mm <sup>2</sup>	12°–16°	6°–8°	C	D
3, 4	Grey cast iron		10°–14°	6°–8°		D
7	Copper		20°–25°	10°–12°	B	C
8	Bronze		6°–10°	5°–7°	B	C
7	Brass, zinc alloy		12°–16°	6°–8°	A	D
9÷11	Aluminium alloy		22°–28°	10°–12°	B	C



When selecting the appropriate circular saw blade, the correct tooth pitch is an important factor for achieving good results. (General rule: 2–3 teeth in contact)

# Driving holes of various sawing machines

Machines	d <sub>1</sub>	d <sub>2</sub>	driving holes
<b>ADIGE SALA</b>	200–250	32	4/9/50
	275–315	32	2/11/63
	350	40	4/12/64
	400–425	50	4/15/80
<b>BAIER</b>	175–250	32	4 slots
<b>BEWO</b>	250–300	32	2/8/45 man.
	315	40	2/8/55 man.
	350	40	4/11/63 man.
	315	40	4/11/63 autom.
<b>BIMAX</b>	175–300	32	2/8/45+2/11/63
<b>BONAK</b>	250–350	40	2/8/55+4/12/64
<b>BROBO WALDOWN</b>	250	32	2/11/63
	300–400	40	2/8/55+4/12/64
	500	40	2/12/64+2/12/80
<b>CONNI</b>	250–425	40	4/11/63
	400–425	50	4/15/80
<b>DEMURGER</b>	200–250	32	2/8/45+2/11/63
	225–300	40	2/8/55+4/11/63
<b>DORINGER</b>	315–350	40	2/12/64
<b>EISELE</b>	110	22	
	210–225	40	2/8/55
	250–350	40	2/8/55+4/12/64
	370–450	40	2/12/64+2/15/80
	500	40	2/15/80+2/15/100
<b>FABRIS</b>	225–350	32	2/8/45+2/11/63
<b>FEMI</b>	225–315	32	2/8/45+2/11/63
<b>FONG-HO</b>	250–275	32	2/8/45+2/9/50+2/11/63
	300–400	32	4/11/63
	360	40	2/11/63+3/11/65
<b>GERNETTI</b>	250–350	40	4/11/63
	350	50	4/15/80
	500	50	4/18/100
<b>HAEBERLE</b>	225–315	40	2/8/55
	350–450	40	2/8/55+4/12/64
<b>IBP PEDRAZZOLI</b>	200–350	32	2/11/63
	425–500	50	4/15/80
<b>IMET</b>	250–350	32	2/8/45+2/11/63
	315–350	40	2/8/55+4/12/64
<b>KALTENBACH</b>	225–250	32	–
	350–370	50	4/15/80
<b>KASTO</b>	315–350	40	4/11/63
	400–450	50	4/15/80
<b>MACO</b>	425	50	4/15/80
<b>MAIR</b>	300–350	32	2/8/45+2/11/63
	300–350	40	2/8/55+4/12+64
<b>MEP</b>	225–350	32	2/8/45+2/11/63
<b>METORA</b>	250–350	32	2+2 Universall.
<b>OMES</b>	250–300	32	2/8/45+2/11/63
<b>O.M.P.</b>	250–370	32	2/8/45+2/11/63
	400–525	50	4/15/80
<b>R.G.A.</b>	275–370	40	2/8/55+2/11/63

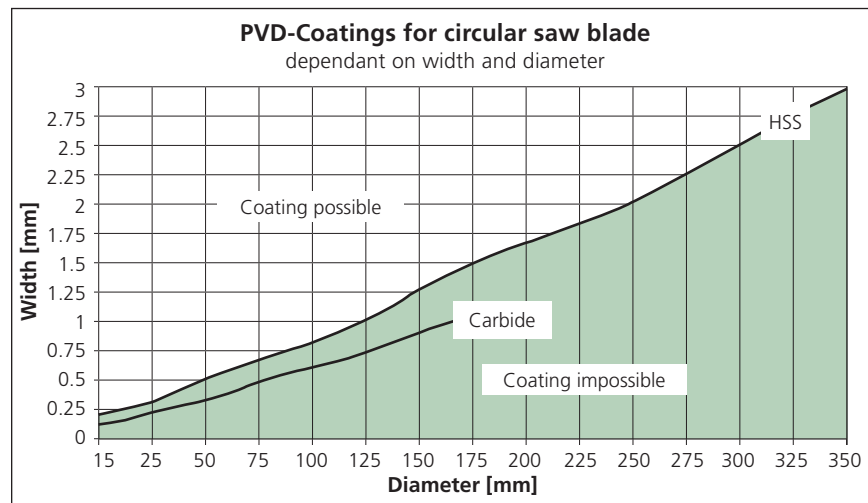
Machines	d <sub>1</sub>	d <sub>2</sub>	driving holes
<b>ROBEJO</b>	250–350	32	2/8/45+2/11/63
<b>ROHBI</b>	175–250	32	2/8/45
<b>SCOTCHMAN IND.</b>	250–300	32	2/8/45+2/11/63
	275–350	40	2/8/55+4/12/64
<b>SIMEC</b>	250–350	32	4/11/63
<b>SINICO</b>	350	32	2/8/45+2/11/63
<b>SOCO</b>	250–350	32	2/11/63
<b>STARTRITE</b>	250	32	2/9/56
	300–315	32	2/11/80
<b>STAYER</b>	225	32	–
<b>THOMAS</b>	225–350	32	2/8/45+2/11/63
<b>TOMET</b>	250–315	32	2/8/45+2/11/63
<b>TRENNJAEGER</b>	250–275	40	4/11/63
	315–400	50	4/14/85
<b>ULMIA</b>	160–250	32	
	250–400	40	4/11/63
<b>VIEMME</b>	250–350	32	2/8/45+2/11/63
<b>WAGNER</b>	200–315	32	4/9/50
	350	50	4/14/80
<b>WAHLEN</b>	250–400	40	2/8/55+2/11/63
<b>WEIDMANN</b>	210–275	32	2/8/45
<b>WINTER</b>	250–315	40	2/8/55+4/11/63
<b>WUNSCH</b>	210–250	32	2/8/45
	210–400	40	2/8/55+4/12/64



# Hard coatings: range and information

ALESA coatings are designed to offer maximum protection against thermal and mechanical stresses. The PVD hard coatings offer longer tool life and reduced cycle times leading to increased profitability.

Selecting the correct coating increases tool life and metal removal rates considerably.



## Possible coatings and surface treatments

**Steam tempering** is the most common method of surface treatment for circular saws. This is not a PVD-coating, but a controlled surface oxidation, by vaporizing the tool in a chamber with a temperature of more than 500°C. The result of this method is an iron oxide coating (Fe<sub>3</sub>O<sub>4</sub>) on the surface of the saw blade, which improves the sliding characteristics.

With the **TiN coating** saws achieve a surface hardness of more than 2300 HV. Increased cutting speeds with constant feed rate per tooth give an important reduction of the machining time. As a result of this a cost reduction can be achieved.

The PVD-coating **TiAlN** on HSS with a surface hardness of 3000 HV is the ideal coating for cutting tough materials such as stainless steels, brass and copper. This coating is suitable for cutting-off even when cooling is insufficient.

For carbide tools: PVD-coatings based on **AlCrN** showed best results. Besides the surface hardness of approx. 3200 HV AlCrN-coatings have an improved application temperature and a good ply adhesion. AlCrN is perfect for material classification 1, 2 & 3. We recommend **AlCrN-VAT** for Duplex-materials, Material classification 5 and Cobalt-based alloys.

The multilayer PVC coating **TiNox** combines a strong bonding on carbide with an excellent wear and oxidation resistancy. ALESA recommends the combination of suitable carbide substrate qualities, cutting edge geometry and TiNox for stainless steel, Duplex-, Nickel based- and Titanium-alloys.

The **DLC-H** coating is very hard with more than 5000 HV. It is a very smooth coating with a low sticking effect of the chips. It has a very low friction coefficient. As a thin layer coating it maintains the sharp ground cutting edges.

IMPORTANT: This coating is for NON – FERRITIC alloys ONLY as

- Copper, Tin, Lead, Silver, Gold, Platinum
  - Alum-alloys and -cast with up to 12% Silicon
  - GFK and CFK and organic materials as wood and paper
- Recommended for application with characteristic abrasion und adhesion behaviour.

# Range of coatings for circular saw blades

Material classification		HSS		Carbide					special coating
		TiN	TiAlN	TiAlN	AlCrN	AlCrN-VAT	DLC-H	TiN <sub>ox</sub>	
1a	<b>Steels &lt; 650 N/mm<sup>2</sup></b> - Construction steels - Fine grain steels - Case hardening steels - Steel castings	●	●	●	●			○	
1b	<b>Steels &lt; 800 N/mm<sup>2</sup></b> - Construction steels - Fine grain steels - Case hardening steels - Free-cutting steels - Heat-treatable steels - High-temperature constructional steels - Tough at subzero steels - Nitriding steels - Tool steels	●	●	●	●			○	
1c	<b>Steels 800 - 1200 Nmm<sup>2</sup></b> - Heat-treatable steels - High-temperature constructional steels - Tough at subzero steels - Nitriding steels - Tool steels - High speed steels - Heat-resisting steels		○	●	●			●	
1d	<b>Steels &gt; 1200 N/mm<sup>2</sup></b> - Heat-treatable steels - Nitriding steels - Tool steels - High speed steels			○	●			●	
2a	<b>Stainless steels &lt; 800 N/mm<sup>2</sup></b>	●	●	●	●	●		●	
2b	<b>Stainless steels &gt; 800 N/mm<sup>2</sup></b>		●	○	●	●		●	
2c	<b>DUPLEX &amp; Super DUPLEX &gt;1200 N/mm<sup>2</sup></b>		●			○		●	
3a	<b>Castings 1</b> - Grey cast iron < 150 HB - Cast iron with spheroidal graphite < 200 HB - Malleable cast iron < 200 HB - Magnesium cast alloy		○	●	●			●	
3b	<b>Castings 2</b> - Grey cast iron tempered > 150 HB - Cast iron with spheroidal graphite temp. > 200 HB - Malleable cast iron tempered > 200 HB			●	●			●	
3c	<b>Castings 3:</b> Steel castings < 800 N/mm <sup>2</sup>		○	●	●			●	
3d	<b>Castings 4:</b> Steel castings 800 - 1200 N/mm <sup>2</sup>		○	○	●	●		●	
3e	<b>Aluminium cast material &gt; 6% Si</b>			●	●		●	○	
4a	<b>Non-ferrous metal:</b> Copper and copper-tin alloys	●	○	●	○		●	○	
4b	<b>Non-ferrous metal</b> - Copper-forging alloys - Copper-tin alloys (bronze)	●	●	●	●		●		
4c	<b>Non-ferrous metal</b> - Pure aluminium - Non hardened aluminium	●	●	●	●		●		
4d	<b>Non-ferrous metal:</b> Hardened aluminium	●	●	●	●		●		
4e	<b>Aluminium cast material &lt; 6% Si</b>	●	●		●			○	
5a	<b>Non-alloyed Ni / Ti &lt; 650 N/mm<sup>2</sup></b>		●	○	●	●		●	●
5b	<b>Ni-/Ti-based alloys &lt; 900 N/mm<sup>2</sup>, Duplex</b>		●	○	●	●		●	●
5c	<b>Ni-/Ti-based alloys 900 - 1200 N/mm<sup>2</sup></b>			○	●	●		●	●
6a	<b>Synthetic material - Thermoplast</b>	●	●	●	●		●		
6b	<b>Synthetic material - Duroplast</b> - Duroplast non laminated - Duroplast laminated	●	●	●	●		●		

Technical information

# Cutting speed $v_c$ [m/min] - HSS and Carbide

## Circular saws DIN / Side milling cutters / Nutex-tools

Material classification		HSS uncoated	HSS coated	Carbide uncoated	Carbide coated
		$v_c$ [m/min]	$v_c$ [m/min]	$v_c$ [mm]	$v_c$ [mm]
1a	<b>Steels &lt; 650 N/mm<sup>2</sup></b> - Construction steels - Fine grain steels - Case hardening steels - Steel castings	40 - 60	60 - 95	120 - 200	160 - 250
1b	<b>Steels &lt; 800 N/mm<sup>2</sup></b> - Construction steels - Fine grain steels - Case hardening steels - Free-cutting steels - Heat-treatable steels - High-temperature constructional steels - Tough at subzero steels - Nitriding steels - Tool steels	30 - 45	50 - 75	100 - 160	120 - 200
1c	<b>Steels 800 - 1200 Nmm<sup>2</sup></b> - Heat-treatable steels - High-temperature constructional steels - Tough at subzero steels - Nitriding steels - Tool steels - High speed steels - Heat-resisting steels	20 - 35	30 - 55	80 - 130	95 - 160
1d	<b>Steels &gt; 1200 N/mm<sup>2</sup></b> - Heat-treatable steels - Nitriding steels - Tool steels - High speed steels	15 - 25	20 - 40	60 - 100	70 - 120
2a	<b>Stainless steels &lt; 800 N/mm<sup>2</sup></b>	20 - 35	30 - 55	80 - 130	95 - 160
2b	<b>Stainless steels &gt; 800 N/mm<sup>2</sup></b>	15 - 25	20 - 40	60 - 100	70 - 120
2c	<b>Stainless DUPLEX &amp; Super DUPLEX &gt;1200 N/mm<sup>2</sup></b>	10 - 20	15 - 30	40 - 70	60 - 100
3a	<b>Castings 1</b> - Grey cast iron < 150 HB - Cast iron with spheroidal graphite < 200 HB - Malleable cast iron < 200 HB - Magnesium cast alloy	30 - 45	50 - 75	100 - 160	120 - 200
3b	<b>Castings 2</b> - Grey cast iron tempered > 150 HB - Cast iron with spheroidal graphite temp. > 200 HB - Malleable cast iron tempered > 200 HB	20 - 35	30 - 55	80 - 130	95 - 160
3c	<b>Castings 3:</b> Steel castings < 800 N/mm <sup>2</sup>	20 - 35	30 - 55	100 - 160	120 - 200
3d	<b>Castings 4:</b> Steel castings 800 - 1200 N/mm <sup>2</sup>	15 - 25	30 - 55	80 - 130	95 - 160
3e	<b>Aluminium cast material &gt; 6% Si</b>	120 - 200	200 - 320	150 - 300	200 - 500
4a	<b>Non-ferrous metal:</b> Copper and copper-tin alloys	120 - 250	190 - 400	200 - 400	1000-1800
4b	<b>Non-ferrous metal</b> - Copper-forging alloys - Copper-tin alloys (bronze)	40 - 120	65 - 195	150 - 400	180 - 480
4c	<b>Non-ferrous metal</b> - Pure aluminium - Non hardened aluminium	800 - 1400	1200 - 2000	800 - 1600	1000 - 2000
4d	<b>Non-ferrous metal:</b> Hardened aluminium	400 - 600	600 - 950	600 - 1000	1000 - 1500
4e	<b>Aluminium cast material &lt; 6% Si</b>	400 - 600	600 - 950	400 - 600	600 - 1000
5a	<b>Non-alloyed Ni / Ti &lt; 650 N/mm<sup>2</sup></b>	30 - 45	50 - 75	60 - 100	70 - 120
5b	<b>Ni-/Ti-based alloys &lt; 900 N/mm<sup>2</sup>, Duplex</b>	15 - 25	20 - 40	25 - 60	30 - 75
5c	<b>Ni-/Ti-based alloys 900 - 1200 N/mm<sup>2</sup></b>	10 - 15	15 - 25	20 - 40	25 - 50
6a	<b>Synthetic material - Thermoplast</b>	100 - 150	160 - 250	150 - 300	200 - 500
6b	<b>Synthetic material - Duroplast</b> - Duroplast non laminated - Duroplast laminated	60 - 100	95 - 160	80 - 250	100 - 500

# Allocation of the materials

Material	Tensile strength	DIN-No.	DIN-Code	Euronorm EN	AFNOR	B.S.	AISI SAE	Material classification
Construction steels	< 650 N/mm <sup>2</sup>	1.0032 1.0035 1.0037 1.0044 1.0570	St34-2 St33 St37-2 St44-2 St52-3	S25GT S185 S 235 JR S 275 JR S 355 J2 G3	A 33 E 24-2 E 28-2	Fe 310-0 Fe 360 B Fe 430 B FN	A283 Gr.A A283 Gr.C, 1015 A570 Gr.40, 1020	1a
	< 800 N/mm <sup>2</sup>	1.0050 1.0060	St50-2 St60-2	E 295 E 335	A 50-2 A 60-2	Fe 490-2, 50C Fe 590-2 FN	A570 Gr.50 A572 Gr.65	1b
Fine grain steels	< 650 N/mm <sup>2</sup>	1.0970 1.0974 1.0978 1.0980	QStE 260 N QStE 340 TM QStE 380 TM QStE 420 TM	S 260 MC S 340 MC S 380 MC S 420 MC				1a
	< 800 N/mm <sup>2</sup>	1.0982 1.0984 1.0986	QStE 460 TM QStE 500 TM QStE 550 TM	S 460 MC S 500 MC S 550 MC				1b
Free-cutting steels	< 800 N/mm <sup>2</sup>	1.0711 1.0715 1.0718 1.0722 1.0726 1.0737	9S20 9SMn28 9SMnPb28 10SPb20 35S20 9SMnPb36	10S20 9SMn28 11SMnPb30 10SPb20 35S20 11SMnPb37	S 250 S 250 Pb 10 PbF 2 35 MF 6 S 300 Pb	220M07 230M07  212M36	1112 1213 12L13 11L08 1140 12L14	1b
	< 650 N/mm <sup>2</sup>	1.0301 1.0302 1.0401 1.1121 1.1141 1.7131	C10 C10Pb C15 Ck10 Ck15 16MnCr5	C10 C10 S15R 2C10 E C15E , 32C EN 10084:2008-06	C 10; XC 10 AF34C10 XC18, AF37C12 XC10 XC12 16MC4; 16MnCr5	045M10 045M10 080M15 040A10 080M15 527M20	1010 1010 1015 1010 1015 5115	1a
Case hardening steels	< 650 N/mm <sup>2</sup>	1.5752 1.5919 1.5920 1.6587	14NiCr14 15CrNi6 18CrNi8 17CrNiMo6	ECN 35, 36A 15CrNi6 18CrNi8 18CrNiMo7-6	12NC15; 14NC12 16NC6 20NC6 18NCD6	655M13,655A12	3415; 3310 3115	1b
	< 800 N/mm <sup>2</sup>	1.0301 1.0302 1.0401 1.1121 1.1141 1.7131	C10 C10Pb C15 Ck10 Ck15 16MnCr5	C10 C10 S15R 2C10 E C15E , 32C EN 10084:2008-06	C 10; XC 10 AF34C10 XC18, AF37C12 XC10 XC12 16MC4; 16MnCr5	045M10 045M10 080M15 040A10 080M15 527M20	1010 1010 1015 1010 1015 5115	1a
Heat-treatable steels	< 800 N/mm <sup>2</sup>	1.1151 1.1181 1.1191 1.1221 1.7218 1.7220 1.7225 1.7228	Ck22 Ck35 Ck45 Ck60 25CrMo4 34CrMo4 42CrMo4 50CrMo4	C22E C35E C45E C60E, 43D 25CrMo4 19B, 34CrMo4 19A, 42CrMo4 50CrMo4	XC25 XC38H2 XC42H1, XC45 C60; XC60 25CD4 35CD4 42CD4 50CrMo4	055M15 080A35 080M46 060A62 708A25 708A37 709M40 708A47	1023 C1034 1045 1060 4130 4137; 4135 4140, 4142 4150	1b
	800-1200 N/mm <sup>2</sup>	1.0601 1.0966 1.7218 1.7220 1.7225 1.7228 1.5864 1.6580 1.6582 1.7361 1.7707 1.8161	C 60 QStE 690 TM 25CrMo4 34CrMo4 42CrMo4 50CrMo4 35NiCr8 30CrNiMo8 34CrNiMo6 32CrMo12 30CrMoV9 58CrV4	C60 S 700 MC 25CrMo4 19B, 34CrMo4 19A, 42CrMo4 50CrMo4 35NiCr18 30CrNiMo8 EN24T, 34CrNiMo6 40B 30CrMoV9 58CrV4	CC55 25CD4 35CD4 42CD4 50CrMo4 40NC17 30CND8 35NCD6 30CD12	080A62 708A25 708A37 709M40 708A47 526M60	1060 4130 4137; 4135 4140, 4142 4150	1c
Heat-treatable steels	> 1200 N/mm <sup>2</sup>	1.7218 1.7220 1.7225 1.7228 1.5864 1.6580 1.6582 1.7361 1.7707 1.8161	25CrMo4 34CrMo4 42CrMo4 50CrMo4 35NiCr8 30CrNiMo8 34CrNiMo6 32CrMo12 30CrMoV9 58CrV4	25CrMo4 19B, 34CrMo4 19A, 42CrMo4 50CrMo4 35NiCr18 30CrNiMo8 EN24T, 34CrNiMo6 40B 30CrMoV9 58CrV4	25CD4 35CD4 42CD4 50 CrMo 4 40NC17 30CND8 35NCD6 30CD12	708A25 708A37 709M40 708A47	4130 4135; 4137 4140; 4142 4150	1d
	< 800 N/mm <sup>2</sup>	1.0482 1.4922 1.5406 1.6513 1.8070	19Mn5 X20CrMoV12-1 17MoV8 4 28NiCrMo4 21CrMoV5 11	P 310 GH SEW310 17MoV8-4 110 21CrMoV5-11		762 816M40	416C 9840	1b
High-temperature constructional steels	> 800 N/mm <sup>2</sup>	1.0482 1.4922 1.5406 1.6513 1.8070	19Mn5 X20CrMoV12-1 17MoV8 4 28NiCrMo4 21CrMoV5 11	P 310 GH SEW310 17MoV8-4 110 21CrMoV5-11		762 816M40	416C 9840	1c
	< 800 N/mm <sup>2</sup>	1.6900 1.7219	X12CrNi189 26CrMo4	26CrMo4			4130, 4130H	1b
Tough at subzero steels	> 800 N/mm <sup>2</sup>	1.6900 1.7219	X12CrNi189 26CrMo4	26CrMo4			4130, 4130H	1c
	< 800 N/mm <sup>2</sup>	1.8504 1.8506	34CrAl6 31CrAl55					1b
Nitriding steels	800-1200 N/mm <sup>2</sup>	1.8507 1.8515 1.8519 1.8523 1.8550	34CrAlMo5 31CrMo12 31CrMoV9 39CrMoV13-9 34CrAlNi7	34CrAlMo5-10 31CrMo12 31CrMoV9 39CrMoV13-9 34CrAlNi7	30CAD6-12 30CD12 40CDV12	722M24 897M39, 3S132	A355CI-D	1c
	> 1200 N/mm <sup>2</sup>	1.8523 1.8550	39CrMoV139 34CrAlNi7	39CrMoV13-9 34CrAlNi7	40CDV12	897M39, 3S132		1d
Tool steels	< 800 N/mm <sup>2</sup>	1.2056 1.2162 1.2363 1.2519 1.2823	90Cr3 21MnCr5 X100CrMoV5-1 110WCrV5 70Si7	90Cr3 21MnCr5 X100CrMoV5-1 110WCrV5 70Si7	Z100CDV5	BA2	A2	1b

Technical information

# Allocation of the materials

Material	Tensile strength	DIN-No.	DIN-Code	Euronorm EN	AFNOR	B.S.	AISI SAE	Material classification	
Tool steels	800-1200 N/mm <sup>2</sup>	1.2080	X210Cr12	X210Cr12	Z200C12	BD3	D3	1c	
		1.2311	40CrMnMo7	40CrMnNiMo8-6	40CMD8				
		1.2312	40CrMnMoS86	40CrMnNiMoS8-6-4	40CMD8S				
		1.2344	X40CrMoV5-1	X40CrMoV5-1	Z40CDV5	BH13	H13		
		1.2379	X155CrVMo12-1	X155CrVMo12-1	32CDV12-28	BD2	D2		
		1.2436	X210CrW12	X210CrW12	X210CW12-01		D6		
		1.2567	X30WCrV5 3	X30WCrV5-3	X32WCRV5				
		1.2678	X45CoCrWV555	X45CoCrWV5-5-5					
		1.2713	55NiCrMoV6	55NiCrMoV6	55NCD7	BH224/5	L6		
		1.2714	56NiCrMoV7	55NiCrMoV7			6F3		
	1.2743	60NiCrMo124	60NiCrMoV12-4						
	1.2766	35NiCrMo16	35NiCrMo16	35NCD16	BP30				
	> 1200 N/mm <sup>2</sup>	1.2080	X210Cr12	X210Cr12	Z200C12	BD3	D3	1d	
		1.2311	40CrMnMo7	40CrMnNiMo8-6	40CMD8				
		1.2312	40CrMnMoS86	40CrMnNiMoS8-6-4	40CMD8S				
		1.2344	X40CrMoV5-1	X40CrMoV5-1	Z40CDV5	BH13	H13		
		1.2379	X155CrVMo12-1	X155CrVMo12-1	32CDV12-28	BD2	D2		
		1.2436	X210CrW12	X210CrW12	Z210CW12-01		D6		
		1.2567	X30WCrV5 3	X30WCrV5-3	X32WCRV5				
		1.2678	X45CoCrWV555	X45CoCrWV5-5-5					
1.2713		55NiCrMoV6	55NiCrMoV6	55NCDV7;	BH224/5	L6			
1.2714		56NiCrMoV7	55NiCrMoV7			6F3			
1.2743	60NiCrMo124	60NiCrMoV12-4							
1.2766	35NiCrMo16	35NiCrMo16	35NCD16	BP30					
High speed steels	800-1200 N/mm <sup>2</sup>	1.3207	S10-4-3-10	HS 10-4-3-10	Z130WKCDV	BT42		1c	
		1.3243	S6-5-2-5	HS 6-5-2-5	Z85WDKCV	BM35			
		1.3247	S2-10-1-8	HS 2-10-1-8	Z110DKCWW	BM42	M42		
	> 1200 N/mm <sup>2</sup>	1.3243	S6-5-2	HS 6-5-2	Z85WDCV	BM2	M2 CLASS 1	1d	
		1.3207	S10-4-3-10	HS 10-4-3-10	Z130WKCDV	BT42			
		1.3243	S6-5-2-5	HS 6-5-2-5	Z85WDKCV	BM35			
Steel castings	< 700 N/mm <sup>2</sup>	1.0416	GS-38	EN 10016-2:1995-04	230-400 M	A1		1a	
		1.0446	GS-45	GE 240	E23-45 M	A2			
		1.0552	GS-52	S355 JRC					
	< 800 N/mm <sup>2</sup>	1.5919	GS-15CrNi6	15CrNi6	16NC6			3115	3c
		1.7218	GS-25CrMo4	25CrMo4	25CD4		708A25	4130	
		1.7220	GC-34CrMo4	19B, 34CrMo4	35CD4		708A37	4137; 4135	
		1.7379	GS-18CrMo910	G17CrMo9-10			622		
	800-1200 N/mm <sup>2</sup>	1.0416	GS-38	EN 10016-2:1995-04	230-400 M				3d
		1.0446	GS-45	GE 240	E23-45M	A1			
		1.0552	GS-52	S355 JRC		A2			
		1.5919	GS-15CrNi6	15CrNi6	16NC6			3115	
		1.7218	GS-25CrMo4	25CrMo4	25CD4		708A25	4130	
1.7220	GS-34CrMo4	19B, 34CrMo4	35CD4		708A37	4137; 4135			
1.7379	GS-18CrMo910	G17CrMo9-10			622				
Grey cast iron	< 150 HB	0.6015	GG-15	EN-GJL-150	Ft 15 D	Grade 150	No 25B	3a	
		0.6020	GG-20	EN-GJL-200	Ft 20 D	Grade 220	No 30B		
		0.6025	GG-25	EN-GJL-250	Ft 25 D	Grade 260	No 35B		
		0.6030	GG-30	EN-GJL-300	Ft 30 D	Grade 300	No 45B		
Grey cast iron tempered	> 150 HB	0.6015	GG-15	EN-GJL-150	Ft 15 D	Grade 150	No 25B	3b	
		0.6020	GG-20	EN-GJL-200	Ft 20 D	Grade 220	No 30B		
		0.6025	GG-25	EN-GJL-250	Ft 25 D	Grade 260	No 35B		
		0.6030	GG-30	EN-GJL-300	Ft 30 D	Grade 300	No 45B		
Cast iron with spheroidal graphite	< 200 HB	0.7040	GGG-40	EN-GJS-400-15	FCS 400-12	SNG 420/12	60-40-18	3a	
		0.7050	GGG-50	EN-GJS-500-7	FGS 500-7	SNG 500/7	65-54-12		
		0.7060	GGG-60	EN-GJS-600-3	FGS 600-3	SNG 600/3	80-55-06		
Malleable cast iron	< 200 HB	0.8035	GTW-35-04	EN-GJS-800-2				3a	
		0.8040	GTW-40-05	EN-GJS-800-2					
		0.8045	GTW-45-07	EN-GJS-800-2					
		0.8135	GTS-35-10	EN-JM1010	MN 35-10	B 340/12	32510		
		0.8145	GTS-45-06	EN-JM1040	MN 450	P 440/7	40010		
		0.8155	GTS-55-04	EN-JM1050	MP 50-5	P 510/4	50005		
		0.8165	GTS-65-02	GJMB 650-2	MP 60-3	P 570/3	70003		
Cast iron with spheroidal graphite tempered	> 200 HB	0.7040	GGG-40	EN-GJS-400-15	FCS 400-12	SNG 420/12	60-40-18	3b	
		0.7050	GGG-50	EN-GJS-500-7	FGS 500-7	SNG 500/7	65-54-12		
		0.7060	GGG-60	EN-GJS-600-3	FGS 600-3	SNG 600/3	80-55-06		
		0.7070	GGG-70	EN-GJS-700-2	FGS 700-2	SNG 700/2	100-70-03		
		0.7080	GGG-80	EN-GJS-800-2					
Malleable cast iron tempered	> 200 HB	0.8035	GTW-35-04	EN-GJS-800-2				3b	
		0.8040	GTW-40-05	EN-GJS-800-2					
		0.8045	GTW-45-07	EN-GJS-800-2					
		0.8135	GTS-35-10	EN-JM1010	MN 35-10	B 340/12	32510		
		0.8145	GTS-45-06	EN-JM1040	MN 450	P 440/7	40010		
		0.8155	GTS-55-04	EN-JM1050	MP 50-5	P 510/4	50005		
		0.8165	GTS-65-02	GJMB 650-2	MP 60-3	P 570/3	70003		

# Allocation of the materials

Material	Tensile strength	DIN-No.	DIN-Code	Euronorm EN	AFNOR	B.S.	AISI SAE	Material classification	
Stainless steels	< 850 N/mm <sup>2</sup>	1.4104	14CrMoS17	X14CrMoS17-2	Z 3CF17	441S29	430F	2a	
		1.4113	X 6 CrMo 17	X6CrMo17-1	Z8CD17.01	434S17	434		
		1.4301	X5CrNi1810	58E, X5CrNi18-10	Z4CN18-10FF	304S15	304		
		1.4305	X8CrNiS18-9	58M; X10CrNiS18-9	Z8CNF18-09	303S21	303		
		1.4306	X2CrNi19-11	X2CrNi19-11	Z2CN18-10	304S12	304L		
		1.4401	X5CrNiMo17 12 2	G-X6CrNiMo17-12-2	Z6CND17-17-11	316S16	316		
		1.4404	X2CrNiMo17-12-2	X3CrNiMo17122	Z3CND18-12-02	316S12	316L		
		1.4435	X2CrNiMo18-14-3	X2CrNiMo18-14-3	Z2CND18-14-03	316S11	316L		
		1.4436	X3CrNiMo17-13-3	X3CrNiMo17-13-3	Z7CND18-12-03;	316S33	316		
		1.4539	X1NiCrMoCuN25-20-5	X1NiCrMoCu25-20-5	Z2NCDU25-20-5	904S13	904L, N08904		
		1.4541	X6CrNiTi18-10	58B; X6CrNiTi18-10	Z6CNT18-10	321S31	321		
		1.4573	X10CrNiMoTi18-12	X6CrNiMoTi18-12		320S33	316Ti		
		< 1000 N/mm <sup>2</sup>	1.4002	X6CrAl13	X6CrAl13	Z6CA13	405S17		405
	1.4006		X10Cr13	56A; X12Cr13	Z10C14	410S21	410, AMS 5613		
	1.4016		X6Cr17	60; X6Cr17	Z8C17	430S17	430/1		
	1.4021		X20Cr13	X20Cr13	Z20C13	420S37	420		
	1.4028		X30Cr13	X30Cr13	Z30C13	420S45	420F		
	1.4034		X46Cr13	56D; X46Cr13	Z38C13M	420S45	420C/4		
	1.4057		X17CrNi16-2	57; X17CrNi16-2	Z15CN16-02	431S29	431		
	1.4112		X90CrMoV18	X90CrMoV18			440B		
	1.4116		X45CrMoV15	X50CrMoV15	A35-572		UNE 36016-1		
	1.4125		X105CrMo17	X105CrMo17	Z100CD17	X105CrMo17	440C		
	1.4460		X3CrNiMoN27-5-2	X3CrNiMoN27-5-2	Z3CND27-07 AZ	X3CrNiMoN27-5-2	329		
	1.4510		X3CrTi17	X6CrTi17	Z4CT17, X3CrTi17	X3CrTi17	430Ti		
	1.4512		X6CrTi12	X5CrTi12	Z3CT12, Z6CT12	409S19	409		
	1.4512	X6CrTi12	X5CrTi12	Z3CT12, Z6CT12	409S19	409			
1.4406	X2CrNiMoN17-11-2	X2CrNiMoN17-12-2	Z2CND17-12-Az	316S16	316LN				
Stainless steel castings	< 850 N/mm <sup>2</sup>	1.4308	GX6CrNi18 9	G-X6CrNi18-9	Z6CN18-10M	304C15	304H, CF-8	2a	
		1.4340	G-X40CrNi274	GX40CrNi27-4			J92615, A781-05		
	< 1000 N/mm <sup>2</sup>	1.4086	G-X120Cr29	57; X17CrNi16-2	15CN16-02	431S29	431	2b	
		1.4106	G-X10CrMo13	X2CrMoSiS18-2-1	X2CrMoSiS18-2-1				
Stainless DUPLEX & Super DUPLEX	>1200 N/mm <sup>2</sup>	1.3964	X 2 CrNiMnMoNb 21 16 5 3		NF 05-159		XM-19	2c	
		1.4362	X 2 CrNiN 23 4	X2CrNiN23-4	Z2CN23-04AZ	Z2CN23-04AZ	202S16		UNS S32304
		1.4371	X 2 Cr MnNiN 17 7 5	X2CrMnNiN17-7-5	10088-3, 10272, 10263-2	Z3CND2507Az			201LN, UNS S20153
		1.4410	X 2 CrNiMoN 25 7 4						ASTM A240, S32750
		1.4429	X 2 CrNiMoN 17 13 3	X2CrNiMoN17-13-3	Z2CND17-13-Az		316S63		316LN
		1.4460	X 3 CrNiMoN 27 5 2	X3CrNiMoN27-5-2	Z3CND27-07-AZ		X3CrNiMoN27-5-2		329, UNS S32900
		1.4462	X 2 CrNiMoN 22 5 3	X2CrNiMoN22-5-3	Z3CND22-05-Az		318S13		329A, UNS S31803
		1.4469	X 2 CrNiMoN 26 7 4	GX2CrNiMoN26-7-4					UNS S32615 / A890(SA) / A995(SA)
		1.4501	X 2 CrNiMoCuWN 25 7 4	10088-3, 10272, 10263-2	Z3CNDU25-06-Az				329S, UNS S32760, Alloy100
		1.4529	X 1 NiCrMoCuN 25 20 7	10088-3		X1CrNiMoCuN25-20-7	X1CrNiMoCuN25-20-7		B649, N08926
		1.4539	X 1 NiCrMoCu 25 20 5	X1NiCrMoCu25-20-5	Z2NCDU25-20-5		904S13		904L, UNS N08904
		1.4545	X 5 CrNiCuNb 15 5 4	X8CrNiNb14-5	Z7 CNU15.05		15-5PH		AMS 5659, UNS S15500
		1.4547	X 1 CrNiMoCuN 20 18 7	10088-3 / 10272 / 254 SMO®	X1CrNiMoCuN20-18-7		X1CrNiMo-CuN20-18-7		S31254, 254 SMO®
1.4662	LDX2404®	X2CrNiMnMo-CuN24-4-3-2				UNS S82441			
Heat-resisting steels	< 1000 N/mm <sup>2</sup>	1.4722	X10CrSi13		Z13C13	403S17	405	1c	
		1.4724	X10CrAl13; X10CrAlSi13	X10CrAl11-3					
		1.4741	X10CrSi18						
		1.4742	X10CrAl18	60; X10CrAl(Si)18	Z10CAS18	430S15	430		
		1.4762	X10CrAl24	X10CrAlSi25	Z210CAS24	X10CrAlSi25	446		
		1.4821	X20CrNiSi254		Z20CNS25-4				
Non-alloyed titanium	< 650 N/mm <sup>2</sup>	3.7024	Ti 99.5					5a	
		3.7034	Ti 99.7						
		3.7055	Ti 99.4						
		3.7064	Ti 99.2						
Titanium alloys soft-annealed	< 900 N/mm <sup>2</sup>	3.7164	TiAl6V4					5b	
		3.7114	TiAl5Sn2						
		3.7124	TiCu2						
		3.7174	TiAl6V6Sn2						
Titanium alloys hardened	900-1250 N/mm <sup>2</sup>	3.7164	TiAl6V4					5c	
		3.7124	TiCu2						
		3.7144	TiAl6Sn2Zr4Mo2						
		3.7154	TiAl6Zr5						
		3.7174	TiAl6V6Sn2						
		3.7184	TiAl4Mo4Sn2						
Pure nickel	< 500 N/mm <sup>2</sup>	2.4060	Nickel 200					5a	
	< 900 N/mm <sup>2</sup>	2.4360	Monel 400					5b	
2.4375	Monel K 500	Alloy K500			3072 3076 (NA18)	N05500			
2.4812	Hastelloy C			Ni-Mo28	ANC15				
2.4816	Inconel 600				HR208	N10665			
2.4617	Hastelloy B-2								
2.4665	Hastelloy X				HR204				
2.4983	Udimet 500								
1.4876	Incoloy 800			Z8NC32-21	3076NA15H	B163, N08800			
High temperature nickel-based alloys	900-1200 N/mm <sup>2</sup>	2.4631	Nimonic 80A			ZHR201	NC20TA, HEV5		5c
		2.4632	Nimonic 90			ZHR2	HEV6		
		2.4634	Nimonic 105						
		2.4662	Nimonic 901			Z8NCDT42	HR 53		
	2.4668	Inconel 718			NC19FeNb	HR 8	5660, 5661, N07718, 5662, 5663		
	2.4670	Nimocast 713							
	2.4674	Nimocast PK24							
	2.4856	Inconel 625	499			NA21	B564/446, 5599, 5666		
2.6554	Waspaloy								

Technical information

# Allocation of the materials

Material	Tensile strength	DIN-No.	DIN-Code	Euronorm EN	AFNOR	B.S.	AISI SAE	Material classification
Pure copper	< 350 N/mm <sup>2</sup>	2.0060 2.0070 2.0090 2.1356	E-Cu57 SE-Cu SF-Cu CuMn3	CW107C			C19400	4a
Copper-zinc alloys (brass)	< 700 N/mm <sup>2</sup>	2.0250 2.0265 2.0321 2.0360 2.0380 2.0410 2.0561 2.0580 2.0771	CuZn20 CuZn30 CuZn37 CuZn40 CuZn39Pb2 CuZn44Pb2 CuZn40Al1 CuZn40Mn1Pb CuNi7Zn39Mn5Pb3	CW713R CW713R		CZ135, CZ114 CZ135, CZ114	C67400 C67400	4a
Copper-forging alloys hardenable	< 800 N/mm <sup>2</sup>	2.1245 2.1247 2.1293 2.1525	CuBe1.7 CuBe2 CuCrZr CuSi3Mn	CW107C			C19400	4b
Copper-forging alloys non hardenable	< 600 N/mm <sup>2</sup>	2.1201 2.1366 2.1522 2.1525	CuAgo.03 CuMn5 CuSi2Mn CuSi3Mn	CC491K CW107C CW107C CW107C	CuSn5Pb5Zn5	LG2	C83600 C19400 C19400 C19400	4b
Copper-tin alloys (bronze)	< 700 N/mm <sup>2</sup>	2.1016 2.1020 2.1030 2.1050 2.1052 2.1060 2.1061 2.1076 2.1080 2.1086 2.1090 2.1093 2.1096	CuSn4 CuSn6 CuSn8 G-CuSn10-C G-CuSn12-C G-CuSn12Ni2-C G-CuSn11Pb2-C CuSn4Pb4Zn4 CuSn6Zn6 G-CuSn10Zn G-CuSn7Zn4Pb7-C G-CuSn6ZnNi G-CuSn5ZnPb	CW450K CW452K CW453K CC480K CC483K CC484K CC482K CW456K CW456K CW456K CC493K CC492K CC491K	CuSn4P CuSn6P CuSn8P, CuSn9 CuSn10P CuSn12P / UE12P CuSn12Ni2 CuSn12Pb CuSn4Pb4Zn4 CuSn4Pb4Zn4 CuSn4Pb4Zn4 CuSn7Pb6Zn4 CuSn7Zn2Pb3 CuSn5Pb5Zn5	PB101 PB103 PB104 CT1/PB4 PB2 CT2 PB4 LG4 LG2	C51100 C51900 C52100 C90700 C90800 C91700 C92500 C54400 C54400 C54400 C93200 C91410 C83600	4b
Pure aluminium	< 150 N/mm <sup>2</sup>	3.0255	Al99.5	EN AW-1050A	A-5		1050A	4c
Non hardened aluminium	< 400 N/mm <sup>2</sup>	3.0515 3.2315 3.3315 3.3535 3.3547 3.4365	AlMn1 AlMgSi1 AlMg1 AlMg3 AlMg4.5Mn AlZnMgCu1.5	EN AW-3003/3103 EN AW-6082 EN AW-5005A EN AW-5754 EN AW-5083 EN AW-7075	A-M1/- A-SGM0.7 A-G0,6 A-G3M A-G4,5MC A-Z5GU	N3 H30 N41 N8 2L95/96	6082 5005A 5754 5083 7075	4c
Hardened aluminium	< 650 N/mm <sup>2</sup>	3.0615 3.1325 3.1355 3.1655 3.4335 3.4345 3.4365	AlMgSiPb AlCuMg1 AlCuMg2 AlCuBiPb AlZn4.5Mg1 AlZnMgCu5.0 AlZnMgCu1.5	EN AW-6012 EN AW-2017A EN AW-2024 EN AW-2011 EN AW-7020 EN AW-7022 EN AW-7075	A-SGPb A-U4G A-U4G1 A-U5PbBi A-Z5G A-Z4GU A-Z5GU	H14 2L97/98 FC1 H17 7021 7020 7022 7075	6012 2017A 2024 2011 7020 7022 7075	4d
Aluminium cast material < 6% Si	< 400 N/mm <sup>2</sup>	3.1841 3.2134 3.3241 3.3292	G-AlCu4Ti G-AlSi5Cu1Mg G-AlMg3Si GD-AlMg9	EN AC-AlCu4Ti EN AC-AlCu4Ti EN AW-6061	A-GSUC	H20	6061	4e
Aluminium cast material > 6% Si	< 400 N/mm <sup>2</sup>	3.2152 3.2162 3.2373 3.2381 3.2383 3.2581 3.2583 3.2982	GD-AlSi6Cu4 GD-AlSi8Cu3 G-AlSi9Mg G-AlSi10Mg G-AlSi10Mg (Cu) G-AlSi12 G-AlSi12 (12) GD-AlSi12 (Cu)	EN AC-AlSi6Cu4 EN AC-AlSi6Cu4 EN AC-AlSi9Mg EN AC-AlSi10Mg EN AC-AlSi12(a) EN AC-AlSi12(Cu) EN AC-AlSi12Cu1(Fe)				3e
Magnesium cast alloy	< 400 N/mm <sup>2</sup>	3.5106 3.5662 3.5812 3.5912	G-MgAg3SE2Zr1 G-MgAl6 G-MgAl8Zn1 G-MgAl9Zn1					3e
Thermoplast		PTFE PVDF PA POM PETP PVC-hart PETP PP PC	Teflon, Hostafilon, Lubriflon Kynar, Solef Ertalon, Ultramid, Nylon Delrin, Hostaform Arnite, Ertalyte Hostalit, Vinoflex, Trovidur Hostalen, Ertalene, Lupolen Hostalen, Ertalen Makralon, Lexan					6a
Duroplast non laminated		PF MF UF	Bakelit, Resalit, Luphen Albamin, Keramin, Resopal Resopal, Basapor					6b
Duroplast laminated		PF MF UF	Ferrozell, Resofil, Canevasit Resopal, Resamin, Textolit Resamin, Basapor					6b

Please contact us, if the DIN standard no. you're searching for, is not mentioned above.