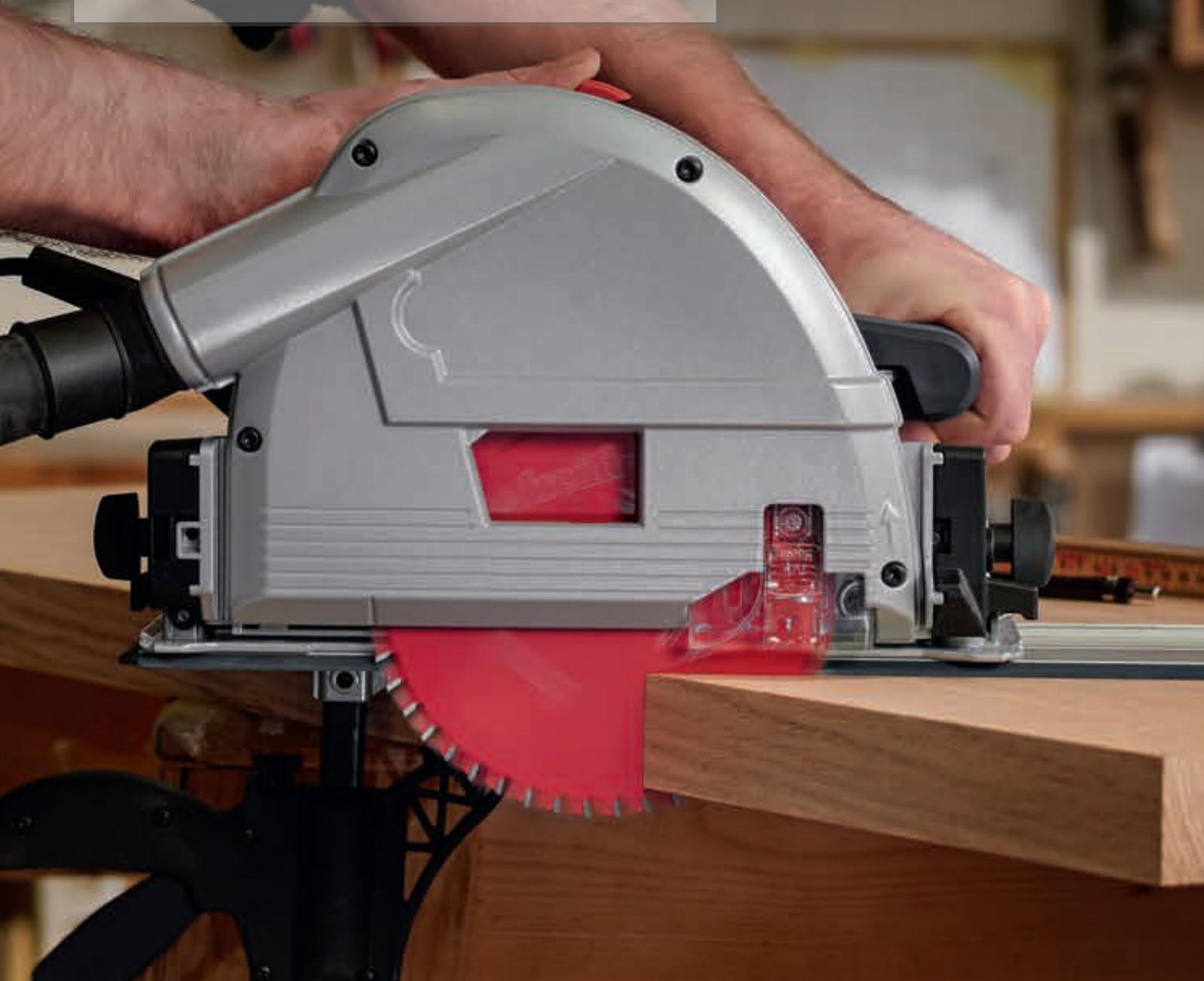


# Circular Saw Blades for Portable Machines

Freud's wide range of circular saw blades for portable machines offers dedicated solutions for all main power tool brands. Each blade is specifically engineered per application material and machine type. The portfolio includes dedicated blades designed for cordless power tools and featuring extra thin kerf teeth with optimised geometries that enable maximised cuts per battery charge, optimum ease of cut and excellent lifetime.

The range offers a wide variety of solutions dedicated to wood, laminated panel, construct wood, high pressure laminate, aluminium, fibre cement, sandwich panel and multi material. All circular saw blades feature Freud's unique and industry-first attributes.



## CIRCULAR SAW BLADES FOR PORTABLE MACHINES

Leading technology for circular saw blades.....	Page 112
The widest professional range for any application need.....	Page 114

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For small table saws.....	Page 119
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### HIGH PRESSURE LAMINATE

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### MULTI MATERIAL

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Explanation of symbols and abbreviations .....	Page 142
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# LEADING TECHNOLOGY

## TiCo CARBIDE TECHNOLOGY

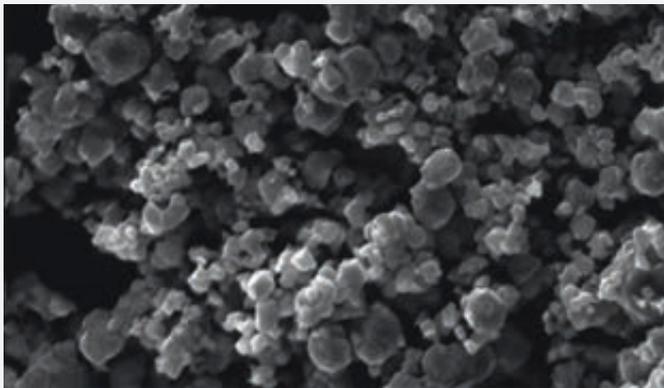
Freud's ownership and control of the entire Carbide production cycle ensures that the correct formula is used for the specific application needs, to constantly maximise the saw blade performance.



### TiCo Carbide

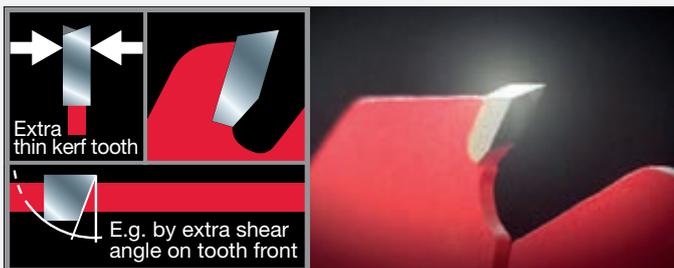
A specially formulated, highly compact Titanium Cobalt Carbide, engineered and manufactured by Freud.

It provides a sharper edge and flawless finish with a dramatically longer cutting life.



## DESIGN INNOVATION

Freud's special tooth designs and geometries are engineered to perform perfect cuts and deliver extraordinary durability. Freud's tooth designs are optimised for specific material applications and portable machine types, both corded and cordless.

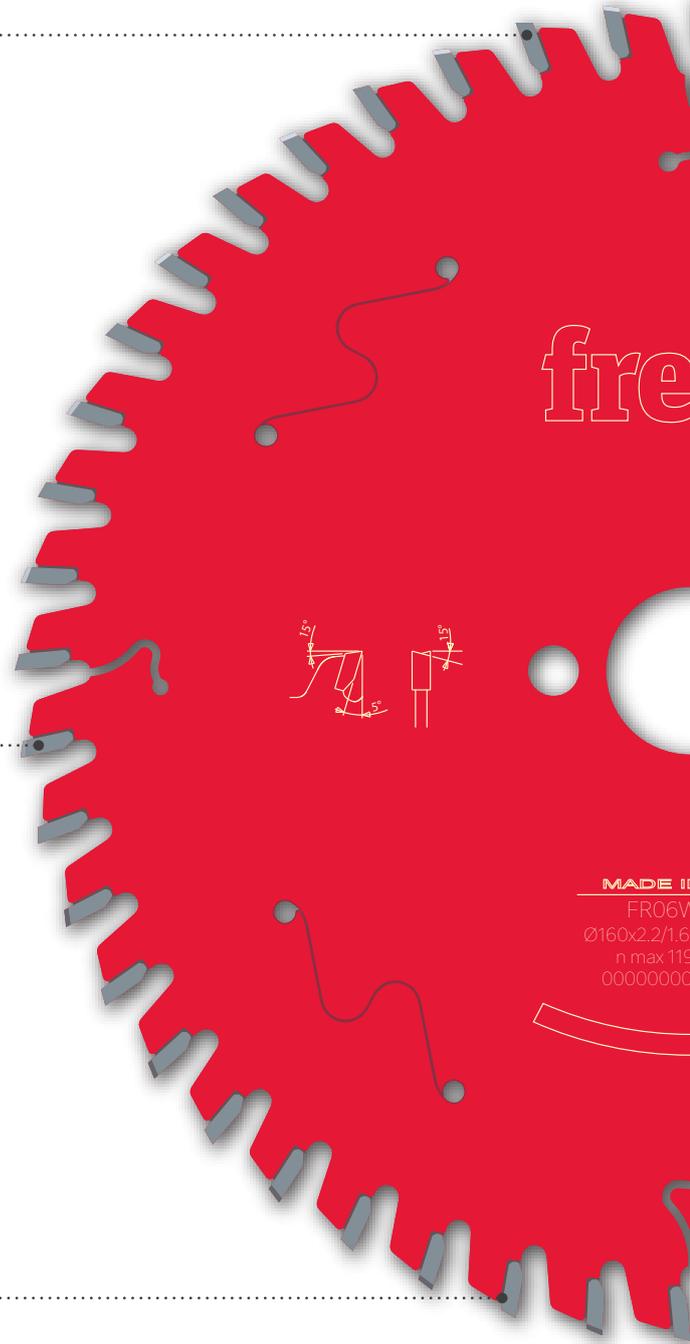
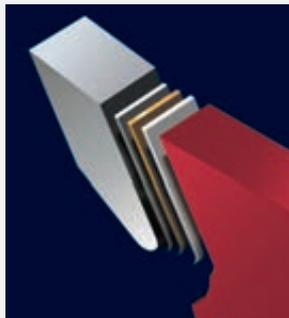


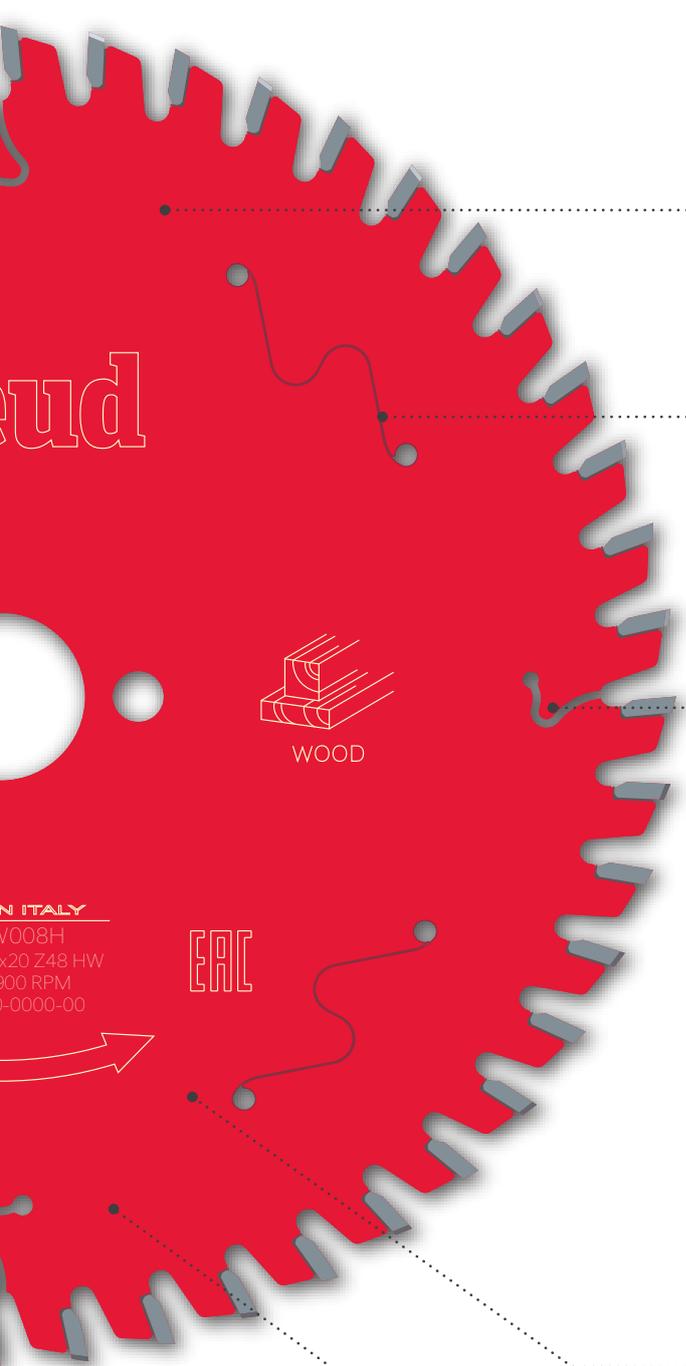
## EXTREME SHOCK RESISTANCE



All Freud's circular saw blades undergo an innovative **Tri-Metal Brazing**

process that bonds the Carbide tips to the steel blade body. This special method consists of copper alloy sandwiched between layers of silver alloy, for extra flexibility and maximum impact resistance.





## COATING TECHNOLOGY

All Freud's circular saw blades feature an industry-first premium coating for superior protection from heat, pitch build-up and corrosion.

Freud's circular saws for portable machines display Perma-SHIELD Coating for the highest performance on dedicated applications.



### Perma-SHIELD Coating

A non-stick coating formulation that withstands the toughest applications.

It provides thermal insulation, protects from corrosion and eliminates resin build-up, reducing downtime for cleaning.

## ANTI-VIBRATION SOLUTIONS

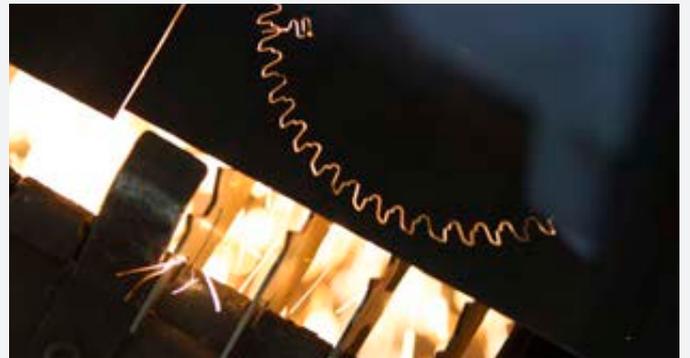


### Anti-vibration Slots

Freud's circular saw blades for portable machines display specially designed anti-vibration slots, laser cut on the blade body that enable a smooth running and minimise noise.

## LASER-CUT EXPANSION SLOTS

Special laser-cut expansion slots enable heat dispersion and prevent the blade deformation caused by overheating, granting the greatest blade stability.



## BALANCING



### Tensioning

Freud's circular saw blades ( $\geq 200$ mm) include a tensioning ring to maintain the blade flat, maximising cutting precision and performance.

## PREMIUM MATERIALS

### Premium Steel

Freud's circular blades for portable machines are made from pre-hardened and pre-flattened superior quality steel (up to HRC 46) that delivers the highest precision, performance and durability.

# THE WIDEST PROFESSIONAL RANGE FOR ANY APPLICATION NEED

				
<b>WOOD</b>				
<b>CONSTRUCT WOOD</b>				
<b>LAMINATED PANEL</b>				
<b>HIGH PRESSURE LAMINATE</b>				
<b>SANDWICH PANEL</b>				
<b>FIBRE CEMENT</b>				
<b>ALUMINIUM</b>				
<b>MULTI MATERIAL</b>				

## OPTIMISED FOR CORDLESS POWER TOOLS



<b>WOOD</b>			
<b>LAMINATED PANEL</b>			
<b>ALUMINIUM</b>			
<b>FIBRE CEMENT</b>			



## SPECIAL RANGE FOR CORDLESS POWER TOOLS

- Maximised battery runtime
- Optimised ease of cut

### BATTERY RUNTIME

Optimised range (cordless)

Regular range (corded)

### EASE OF CUT

Optimised range (cordless)

Regular range (corded)

### BLADE LIFETIME

Optimised range (cordless)

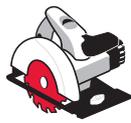
Regular range (corded)

# Wood



# CIRCULAR SAW BLADES FOR WOOD

## For hand-held and plunge circular saws



Hand-held Circular Saws



Plunge Saws



Corded



Softwood



Hardwood



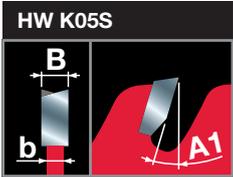
Chipboard



Plywood



MDF



### Machines:

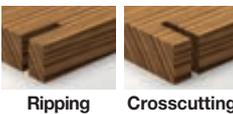
Hand-held circular saws and plunge circular saws.

### Materials:

Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

### Technical information:

ATB tooth with positive cutting angle.



- Good
- High
- Ultimate

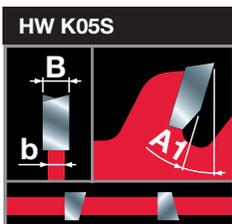
	D	B	b	d	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
	mm	mm	mm	mm		°	●●●	●	-		
	120	1,8	1,3	20	12	15°	●●●	●	-	FR02W001H	F03FS09663
	120	1,8	1,3	20	40	5°	●	●●●	-	FR02W002H	F03FS09664
	130	2,4	1,6	20	24	15°	●●	●●	2/6/32,5	FR03W001H	F03FS09665
	130	2,4	1,6	20	36	5°	●	●●●	2/6/32,5	FR03W002H	F03FS09666
	140	1,8	1,3	20	24	15°	●●●	●	2/6/32,5	FR04W001H	F03FS09667
	140	1,8	1,3	20	36	10°	●●	●●	2/6/32,5	FR04W002H	F03FS09668
	140	1,8	1,3	20	42	5°	●	●●●	2/6/32,5	FR04W003H	F03FS09669
	150	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	FR05W001H	F03FS09670
	150	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	FR05W002H	F03FS09671
	150	2,4	1,6	20	42	5°	●	●●●	2/6/32,5	FR05W003H	F03FS09672
	160	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	FR06W001H	F03FS09673
	160	2,4	1,6	16	48	5°	●	●●●	2/6/32,5	FR06W002H	F03FS09674
	160	1,8	1,3	20	24	15°	●●●	●	2/6/32,5	FR06W003H	F03FS09675
	160	1,8	1,3	20	36	10°	●●	●●	2/6/32,5	FR06W004H	F03FS09676
	160	1,8	1,3	20	48	5°	●	●●●	2/6/32,5	FR06W005H	F03FS09677
	160	2,2	1,6	20	24	15°	●●●	●	2/6/32,5	FR06W006H	F03FS09678
	160	2,2	1,6	20	36	10°	●●	●●	2/6/32,5	FR06W007H	F03FS09679
	160	2,2	1,6	20	48	5°	●	●●●	2/6/32,5	FR06W008H	F03FS09680
	160	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	FR06W009H	F03FS09681
	160	2,4	1,6	20	36	10°	●●	●●	2/6/32,5	FR06W010H	F03FS09682
	160	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	FR06W011H	F03FS09683
	160	2,4	1,6	30	24	15°	●●●	●	2/6/42	FR06W012H	F03FS09684
	160	2,4	1,6	30	48	5°	●	●●●	2/6/42	FR06W013H	F03FS09685
	165	1,7	1,3	20	12	20°	●●●	●	-	FR07W009H	F03FS10040
	165	1,7	1,3	20	24	15°	●●●	●	-	FR07W001H	F03FS09686
	165	1,7	1,3	20	40	18°	●	●●●	-	FR07W002H	F03FS09687
	165	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	FR07W003H	F03FS09688
	165	2,4	1,6	20	36	10°	●●	●●	2/6/32,5	FR07W004H	F03FS09689
	165	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	FR07W005H	F03FS09690
	165	2,4	1,6	20	56	5°	●	●●●	2/6/32,5	FR07W013H	F03FS11505
	165	2,4	1,6	30	24	15°	●●●	●	2/7/42	FR07W006H	F03FS09691
	165	2,4	1,6	30	36	10°	●●	●●	2/7/42	FR07W007H	F03FS09692
	165	2,4	1,6	30	48	5°	●	●●●	2/7/42	FR07W008H	F03FS09693
	170	2,4	1,6	30	40	10°	●●	●●	2/7/42	FR08W002H	F03FS09695
	180	2,4	1,6	20	24	15°	●●●	●	2/6/32,5	FR09W001H	F03FS09696
	180	2,4	1,6	20	48	5°	●	●●●	2/6/32,5	FR09W002H	F03FS09697
	180	2,4	1,6	30	24	15°	●●●	●	2/7/42	FR09W003H	F03FS09698
	180	2,4	1,6	30	48	5°	●	●●●	2/7/42	FR09W004H	F03FS09699
	182	1,7	1,3	19,05	30	15°	●●●	●	-	FR10W001H	F03FS09700
	182	1,7	1,3	19,05	40	15°	●●	●●	-	FR10W002H	F03FS09701
	182	1,7	1,3	19,05	60	15°	●	●●●	-	FR10W003H	F03FS09702
	182	1,7	1,3	25,4	30	15°	●●●	●	-	FR10W004H	F03FS11507
	182	1,7	1,3	25,4	40	15°	●●	●●	-	FR10W005H	F03FS11508
	182	1,7	1,3	25,4	60	15°	●	●●●	-	FR10W006H	F03FS11509
	184	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	FR11W001H	F03FS09703
	184	2,4	1,6	16	40	10°	●●	●●	2/6/32,5	FR11W002H	F03FS09704
	184	2,4	1,6	16	24	15°	●●●	●	-	FR11W012H	F03FS11511
	184	2,4	1,6	30	24	15°	●●●	●	2/7/42	FR11W007H	F03FS09709
	185	2,4	1,6	20	24	15	●●●	●	-	FR12W001H	F03FS11513
	185	2,4	1,6	20	48	10	●	●●●	-	FR12W002H	F03FS11514
	190	2,4	1,6	16	24	15°	●●●	●	2/6/32,5	FR13W001H	F03FS09712
	190	2,4	1,6	16	48	10°	●	●●●	2/6/32,5	FR13W002H	F03FS09713

# CIRCULAR SAW BLADES FOR WOOD

D	B	b	d	Z	Hook	Rip cut	Cross cut	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1	quality	quality			
190	2,4	1,6	20	24	15°	•••	•	2/6/32,5	FR13W003H	F03FS09714
190	2,4	1,6	20	48	10°	•	•••	2/6/32,5	FR13W004H	F03FS09715
190	2,4	1,6	20	56	5°	•	•••	2/6/32,5	FR13W005H	F03FS09716
190	2,4	1,6	30	24	15°	•••	•	2/7/42	FR13W006H	F03FS09717
190	2,4	1,6	30	40	10°	••	••	2/7/42	FR13W007H	F03FS09718
190	2,4	1,6	30	48	10°	•	•••	2/7/42	FR13W008H	F03FS09719
190	2,4	1,6	30	56	5°	•	•••	2/7/42	FR13W009H	F03FS09720
200	1,7	1,2	25,4	40	10°	••	••	-	FR14W003H	F03FS11515
200	2,4	1,6	30	24	15°	•••	•	2/7/42	FR14W001H	F03FS09721
200	2,4	1,6	30	48	10°	•	•••	2/7/42	FR14W002H	F03FS09722
210	2,4	1,8	30	24	15°	•••	•	2/7/42	FR15W003H	F03FS09725
210	2,4	1,8	30	40	15°	••	••	2/7/42	FR15W001H	F03FS09723
210	2,4	1,8	30	48	10°	•	•••	2/7/42	FR15W004H	F03FS09726
210	2,4	1,8	30	56	5°	•	•••	2/7/42	FR15W002H	F03FS09724
230	2,8	1,8	30	24	15°	•••	•	2/6/42	FR19W001H	F03FS09728
230	2,8	1,8	30	36	15°	••	••	2/7/42	FR19W002H	F03FS09729
230	2,8	1,8	30	48	15°	••	••	2/7/42	FR19W003H	F03FS09730
230	2,2	1,6	25,4	60	10°	•	•••	-	FR20W007H	F03FS11521
235	2,8	1,8	30	24	15°	•••	•	2/6/42	FR20W003H	F03FS09733
235	2,8	1,8	30	36	15°	••	••	2/7/42	FR20W004H	F03FS09734
235	2,8	1,8	30	48	15°	••	••	2/7/42	FR20W005H	F03FS09735
235	2,8	1,8	30	56	10°	•	•••	2/7/42	FR20W006H	F03FS09736
237	2,5	1,8	30	24	15°	•••	•	2/7/42	FR21W001H	F03FS09737
237	2,5	1,8	30	56	10°	•	•••	2/7/42	FR21W002H	F03FS09738
240	2,8	1,8	30	48	15°	••	••	2/7/42	FR22W001H	F03FS09739
270	2,8	1,8	30	60	10°	••	••	FT121	FR27W001H	F03FS09740
350	3,5	2,2	30	24	20°	•••	•	2/7/42	FR32W001H*	F03FS09742
355	3,0	2,2	30	60	15°	•••	•	FT121	FR33W001H*	F03FS09743

\*HW K10S

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60



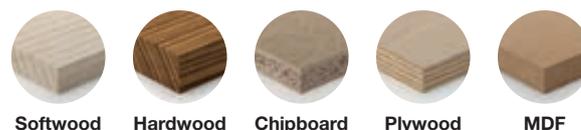
**Machines:**  
Cordless hand-held and plunge circular saws.

**Materials:**  
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws. Thin kerf teeth and axial shear angle on tooth front. ATB tooth with positive cutting angle.



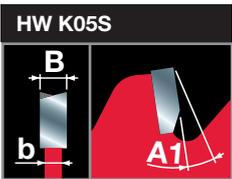
## For cordless hand-held and plunge circular saws



D	B	b	d	Z	Hook	Rip cut	Cross cut	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1	quality	quality			
120	1,7	1,2	20	24	20°	••	••	-	FR02W003HC	F03FS10043
136	1,5	1,0	20	24	20°	••	••	-	FR03W003HC	F03FS10044
140	1,8	1,3	20	24	15°	•••	•	-	FR04W004HC	F03FS10045
140	1,8	1,3	20	42	5°	•	•••	-	FR04W005HC	F03FS10046
160	1,5	1,0	20	24	25°	•••	•	-	FR05W015HC	F03FS10048
160	1,5	1,0	20	36	15°	••	••	-	FR05W016HC	F03FS10049
160	1,5	1,0	20	48	10°	•	•••	-	FR05W017HC	F03FS10050
160	1,8	1,3	20	24	15°	•••	•	2/6/32,5	FR06W003H	F03FS09675
160	1,8	1,3	20	36	10°	••	••	2/6/32,5	FR06W004H	F03FS09676
160	1,8	1,3	20	48	5°	•	•••	2/6/32,5	FR06W005H	F03FS09677
160	2,2	1,6	20	24	15°	•••	•	2/6/32,5	FR06W006H	F03FS09678
160	2,2	1,6	20	36	10°	••	••	2/6/32,5	FR06W007H	F03FS09679
160	2,2	1,6	20	48	5°	•	•••	2/6/32,5	FR06W008H	F03FS09680
165	1,5	1,0	20	12	25°	•••	•	-	FR07W009HC	F03FS10051
165	1,5	1,0	20	24	25°	•••	•	-	FR07W010HC	F03FS10052
165	1,5	1,0	20	36	15°	••	••	-	FR07W011HC	F03FS10053
165	1,5	1,0	20	48	10°	•	•••	-	FR07W012HC	F03FS10054
165	1,7	1,3	20	12	20°	•••	•	-	FR07W009H	F03FS10040
165	1,7	1,3	20	24	15°	•••	•	-	FR07W001H	F03FS09686
165	1,7	1,3	20	40	18°	•	•••	-	FR07W002H	F03FS09687

# CIRCULAR SAW BLADES FOR WOOD

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
182	1,7	1,3	19,05	30	15°	•••	•	-	FR10W001H	F03FS09700
182	1,7	1,3	19,05	40	15°	••	••	-	FR10W002H	F03FS09701
182	1,7	1,3	19,05	60	15°	•	•••	-	FR10W003H	F03FS09702
184	1,6	1,0	20	24	25°	•••	•	-	FR11W010HC	F03FS10055
184	1,6	1,0	20	48	10°	•	•••	-	FR11W011HC	F03FS10056
190	1,5	1,0	30	18	25°	•••	•	-	FR13W010HC	F03FS10057
190	1,5	1,0	30	24	25°	•••	•	-	FR13W011HC	F03FS10058
190	1,5	1,0	30	48	15°	••	••	-	FR13W012HC	F03FS10059
190	1,5	1,0	30	60	10°	•	•••	-	FR13W013HC	F03FS10060

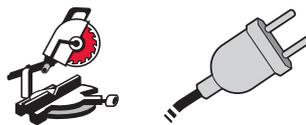


**Machines:**  
Mitre saws.

**Materials:**  
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

**Technical information:**  
ATB tooth with negative cutting angle.

## For mitre saws



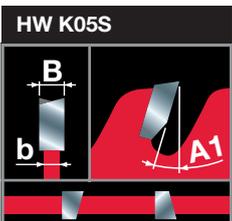
Mitre Saws Corded



Softwood Hardwood Chipboard Plywood MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,4	1,8	25,4	24	-5°	-	FR15W002M	F03FS11566
210	2,4	1,8	25,4	48	-5°	-	FR15W003M	F03FS11517
210	2,4	1,8	30	48	-5°	2/7/42	FR15W001M	F03FS09747
216	2,4	1,8	25,4	48	-5°	2/6/42	FR16W004M	F03FS09751
216	2,4	1,8	25,4	64	-5°	2/6/42	FR16W005M	F03FS09752
216	2,4	1,8	30	24	-5°	2/6/42	FR16W001M	F03FS09748
216	2,4	1,8	30	40	-5°	2/7/42	FR16W002M	F03FS09749
216	2,4	1,8	30	48	-5°	2/7/42	FR16W003M	F03FS09750
250	2,4	1,8	30	40	-5°	FT121	FR23W001M	F03FS09753
250	2,4	1,8	30	60	-5°	FT121	FR23W002M	F03FS09754
254	2,4	1,8	30	60	-5°	FT121	FR24W001M	F03FS09755
260	2,4	1,8	30	60	-5°	FT121	FR26W001M	F03FS09760
300	2,4	1,8	30	72	-5°	FT121	FR28W001M	F03FS09761
305	2,4	1,8	30	48	-5°	-	FR29W001M	F03FS09762
305	2,4	1,8	30	72	-5°	FT121	FR29W002M	F03FS09763
315	2,4	1,8	30	72	-5°	FT121	FR30W001M	F03FS09766

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

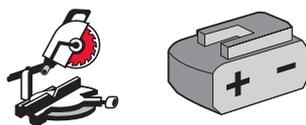


**Machines:**  
Cordless mitre saws.

**Materials:**  
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws. Thin kerf teeth and axial shear angle on tooth front. ATB tooth with positive cutting angle.

## For cordless mitre saws



Mitre Saws Cordless

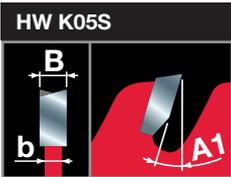


Softwood Hardwood Chipboard Plywood MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	1,7	1,2	30	24	5°	-	FR16W006MC	F03FS10061
216	1,7	1,2	30	48	5°	-	FR16W007MC	F03FS10062
250	2,1	1,6	30	24	5°	-	FR23W003MC	F03FS10063
250	2,1	1,6	30	48	5°	-	FR23W004MC	F03FS10064

# CIRCULAR SAW BLADES FOR WOOD

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
254	2,1	1,6	30	24	5°	-	FR24W002MC	F03FS11527
254	2,1	1,6	30	48	5°	-	FR24W003MC	F03FS11528
305	2,2	1,6	30	42	5°	-	FR29W004MC	F03FS10065
305	2,2	1,6	30	60	5°	-	FR29W005MC	F03FS10066
305	2,2	1,6	30	96	5°	-	FR29W006MC	F03FS10067



**Machines:**  
Small table saws.

**Materials:**  
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

**Technical information:**  
ATB tooth with positive cutting angle.



## For small table saws

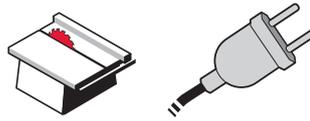


Table saws      Corded

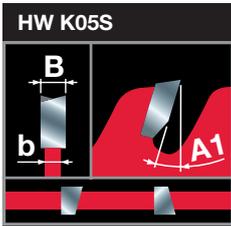


Softwood    Hardwood    Chipboard    Plywood    MDF

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
190	2,0	1,3	30	24	15°	•••	•	2/7/42	FR13W001T	F03FS09767
190	2,0	1,3	30	48	5°	•	•••	2/7/42	FR13W002T	F03FS09768
190	2,4	1,6	Star	24	15°	•••	•	-	FR13W003T	F03FS09769
190	2,4	1,6	Star	48	5°	•	•••	-	FR13W004T	F03FS09770
216	2,4	1,8	30	24	15°	•••	•	2/6/42	FR16W003T	F03FS11519
216	2,4	1,8	30	48	10°	•	•••	2/6/42	FR16W004T	F03FS11520
220	2,6	1,6	30	48	10°	••	••	2/7/42	FR17W001T	F03FS09771
225	2,6	1,6	30	32	15°	•••	•	2/7/42	FR18W001T	F03FS09772
225	2,6	1,6	30	48	10°	••	••	2/7/42	FR18W002T	F03FS09773
250	2,4	1,8	25,4	48	15	•••	•	-	FR23W005T	F03FS11641
250	2,4	1,8	25,4	60	15	••	••	-	FR23W006T	F03FS11642
250	2,4	1,8	25,4	80	15	•	•••	-	FR23W007T	F03FS11643
250	2,4	1,8	25,4	100	15	•	•••	-	FR23W008T	F03FS11644
250	2,8	1,8	30	24	20°	•••	•	2/6/42	FR23W001T	F03FS09774
250	2,8	1,8	30	40	15°	•••	•	2/6/42	FR23W002T	F03FS09775
250	2,8	1,8	30	60	10°	••	••	2/6/42	FR23W003T	F03FS09776
250	2,8	1,8	30	80	5°	•	•••	FT121	FR23W004T	F03FS09777
254	2,6	1,8	30	24	20°	•••	•	2/6/42	FR24W001T	F03FS09778
254	2,6	1,8	30	40	15°	•••	•	2/6/42	FR24W002T	F03FS09779
254	2,6	1,8	30	60	10°	••	••	FT121	FR24W003T	F03FS09780
254	2,6	1,8	30	80	5°	•	•••	FT121	FR24W004T	F03FS09781
255	2,8	1,8	25,4	40	15°	•••	•	-	FR25W002T	F03FS10134
255	2,8	1,8	25,4	60	15°	••	••	-	FR25W003T	F03FS10135
255	2,8	1,8	25,4	80	15°	•	•••	-	FR25W004T	F03FS10136
260	2,6	1,8	30	60	10°	••	••	-	FR26W001T	F03FS09782
260	2,6	1,8	30	80	5°	•	•••	FT121	FR26W002T	F03FS09783
280	2,5	1,8	30	64	10°	••	••	2/10/60	FR27W001T	F03FS11530
300	2,5	1,8	30	48	15°	•••	•	2/10/60	FR28W001T	F03FS09784
300	2,5	1,8	30	72	10°	••	••	2/10/60	FR28W002T	F03FS09785
300	2,5	1,8	30	100	5°	•	•••	FT121	FR28W003T	F03FS09786
305	2,8	1,8	25,4	96	15°	•	•••	-	FR29W002T	F03FS10138
305	2,8	1,8	30	100	5°	•	•••	2/10/60	FR29W001T	F03FS09787
355	3,0	2,2	25,4	108	15°	•	•••	-	FR33W001T	F03FS10137

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

# CIRCULAR SAW BLADES FOR WOOD



**Machines:**  
Cordless small table saws.

**Materials:**  
Soft and hard solid wood, chipboard, plywood, MDF and other wood based materials.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws. Thin kerf teeth and axial shear angle on tooth front. ATB tooth with positive cutting angle.



## For cordless small table saws

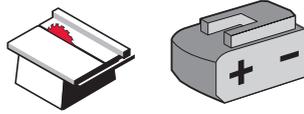


Table saws

Cordless



Softwood

Hardwood

Chipboard

Plywood

MDF

D mm	B mm	b mm	d mm	Z	Hook A1	Rip cut quality	Cross cut quality	NL	Freud Code	Art. No.
210	2,0	1,4	30	24	25°	•••	•	-	FR15W001TC	F03FS10068
210	2,0	1,4	30	48	15°	•	•••	-	FR15W002TC	F03FS10069
216	2,0	1,4	30	24	25°	•••	•	-	FR16W001TC	F03FS10070
216	2,0	1,4	30	48	15°	•	•••	-	FR16W002TC	F03FS10071
254	2,1	1,6	30	24	25°	•••	•	-	FR24W005TC	F03FS10072
254	2,1	1,6	30	40	20°	••	••	-	FR24W006TC	F03FS10073
254	2,1	1,6	30	60	15°	•	•••	-	FR24W007TC	F03FS10074

# Construct Wood



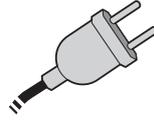


# CIRCULAR SAW BLADES FOR CONSTRUCT WOOD

## For hand-held circular saws



Hand-held Circular Saws



Corded



Construction Timber



Shuttering Board



Chipboard



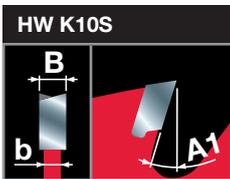
MADE BY freud



COATING



ROBUST



### Machines:

Hand-held circular saws.

### Materials:

Construction timber with nails and concrete residues, chipboard and formwork boards.

### Technical information:

Special Carbide recipe and innovative tooth design ensure high cutting resistance, also when hitting nails.

ATB tooth with positive cutting angle.

D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
160	2,0	1,3	20	14	18°	2/6/32,5	FR06C001H	F03FS09788
165	2,0	1,3	20	14	18°	2/6/32,5	FR07C001H	F03FS09789
180	2,0	1,3	30	14	18°	2/6/42	FR09C001H	F03FS09790
184	2,0	1,3	16	14	18°	2/6/32,5	FR11C001H	F03FS09791
190	2,0	1,3	30	14	18°	2/7/42	FR13C001H	F03FS09792
200	2,0	1,3	30	16	18°	2/7/42	FR14C001H	F03FS09793
210	2,0	1,3	30	16	18°	2/7/42	FR15C001H	F03FS09794
230	2,2	1,6	30	20	18°	2/7/42	FR19C001H	F03FS09795
235	2,2	1,6	30	20	18°	2/7/42	FR20C001H	F03FS09796

# Laminated Panel



# CIRCULAR SAW BLADES FOR LAMINATED PANEL

## For hand-held and plunge circular saws

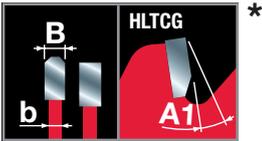
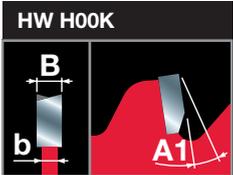


Hand-held Circular Saws    Plunge Saws    Corded



Laminated Chipboard    Laminated MDF    Chipboard    MDF

	D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
	140	1,8	1,3	20	42	-5°	2/6/32,5	FR04L001H	F03FS09797
	160	1,8	1,2	20	48	-5°	-	FR06L003HC	F03FS10075
	160	2,2	1,6	20	48	-5°	2/6/32,5	FR06L001H	F03FS09798
	160	2,2	1,6	20	48	-5°	-	FR06L002H*	F03FS09799
	165	2,6	1,6	20	48	-5°	2/6/32,5	FR07L001H	F03FS09800
	185	2,4	1,6	20	60	-5°	-	FR12L001H	F03FS09801
	190	2,6	1,6	30	60	-5°	2/7/42	FR13L001H	F03FS09802



**Machines:**  
Hand-held and plunge circular saws.

**Materials:**  
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

**Technical information:**  
ATB tooth with negative cutting angle.  
\*HLTCG with negative cutting angle.

## For cordless hand-held and plunge circular saws

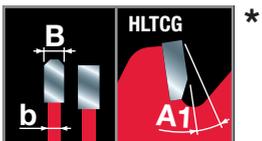
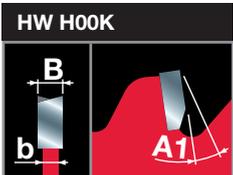


Hand-held Cordless Saws    Plunge Saws    Cordless



Laminated Chipboard    Laminated MDF    Chipboard    MDF

	D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
	140	1,8	1,3	20	42	-5°	2/6/32,5	FR04L001H	F03FS09797
	160	1,8	1,2	20	48	-5°	-	FR06L003HC	F03FS10075
	160	2,2	1,6	20	48	-5°	2/6/32,5	FR06L001H	F03FS09798
	160	2,2	1,6	20	48	-5°	-	FR06L002H*	F03FS09799
	165	1,8	1,2	20	48	-5°	-	FR07L002HC	F03FS10076
	190	2,1	1,4	30	60	-5°	-	FR13L002HC	F03FS10077



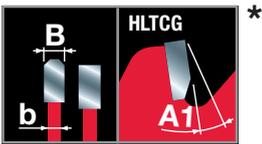
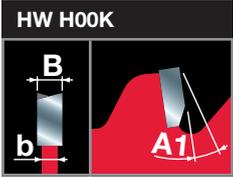
**Machines:**  
Cordless hand-held and plunge circular saws.

**Materials:**  
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.  
Thin kerf and ATB tooth with negative cutting angle.  
\*HLTCG with negative cutting angle.

# CIRCULAR SAW BLADES FOR LAMINATED PANEL

## For small table saws



**Machines:**  
Small table saws.

**Materials:**  
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

**Technical information:**  
ATB tooth with negative cutting angle.

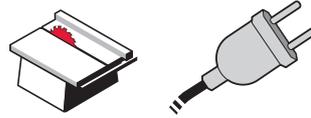
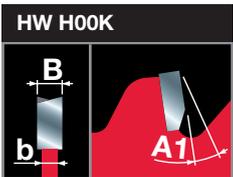


Table saws      Corded



Laminated Chipboard    Laminated MDF    Chipboard    MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
200	2,5	1,8	30	64	-2°	-	FR14L001T	F03FS09803
216	2,5	1,8	30	60	5°	2/6/42	FR16L002T*	F03FS11518
250	2,8	1,8	30	80	-2°	-	FR23L001T	F03FS09804
300	2,8	1,8	30	96	-2°	-	FR28L001T	F03FS09805
305	2,8	1,8	30	96	5°	2/10/60	FR29L001T*	F03FS11533



**Machines:**  
Cordless small table saws.

**Materials:**  
Laminated and bilaminated panels, chipboard, MDF and fine-coated or veneered panels.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws. Thin kerf and ATB tooth with negative cutting angle.

## For cordless small table saws

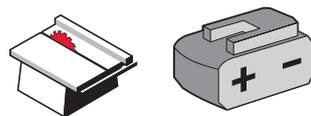


Table saws      Cordless



Laminated Chipboard    Laminated MDF    Chipboard    MDF

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,1	1,4	30	66	-5°	-	FR15L001TC	F03FS10078
216	2,1	1,4	30	66	-5°	-	FR16L001TC	F03FS10079

# High Pressure Laminate





# CIRCULAR SAW BLADES FOR HIGH PRESSURE LAMINATE

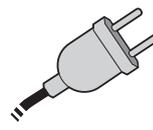
## For hand-held and plunge circular saws



Hand-held Circular Saws



Plunge Saws



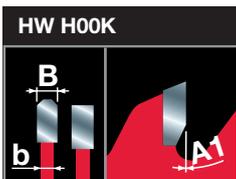
Corded



HPL



Solid surface



**Machines:**

Hand-held and plunge circular saws.

**Materials:**

High pressure laminate panels, suitable for Trespa® panels.

**Technical information:**

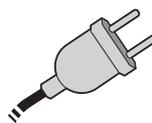
HLTCG with 0° cutting angle.

D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
140	1,8	1,3	20	42	0°	2/6/32,5	FR04H001H	F03FS09864
160	2,2	1,6	20	48	0°	2/6/32,5	FR06H001H	F03FS09865
165	2,6	1,6	20	48	0°	2/6/32,5	FR07H001H	F03FS09866
190	2,6	1,6	20	56	0°	2/6/32,5	FR13H001H	F03FS09867
190	2,6	1,6	30	56	0°	2/7/42	FR13H002H	F03FS09868
210	2,8	1,8	30	60	0°	2/7/42	FR15H001H	F03FS09869
235	2,8	1,8	30	64	0°	2/7/42	FR20H001H	F03FS09871

## For mitre saws



Mitre saws



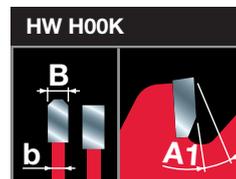
Corded



HPL



Solid surface



**Machines:**

Mitre saws.

**Materials:**

High pressure laminate panels, suitable for Trespa® panels.

**Technical information:**

HLTCG with negative cutting angle.

D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
216	2,8	1,8	30	64	-3°	2/7/42	FR16H001M	F03FS09872
250	2,8	1,8	30	80	-3°	FT121	FR23H001M	F03FS09873
254	2,8	1,8	30	80	-3°	FT121	FR24H001M	F03FS09874
305	3,2	2,2	30	96	-3°	FT121	FR29H001M	F03FS09876

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

## For small table saws



Table saws



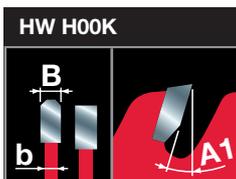
Corded



HPL



Solid surface



**Machines:**

Small table saws.

**Materials:**

High pressure laminate panels, suitable for Trespa® panels.

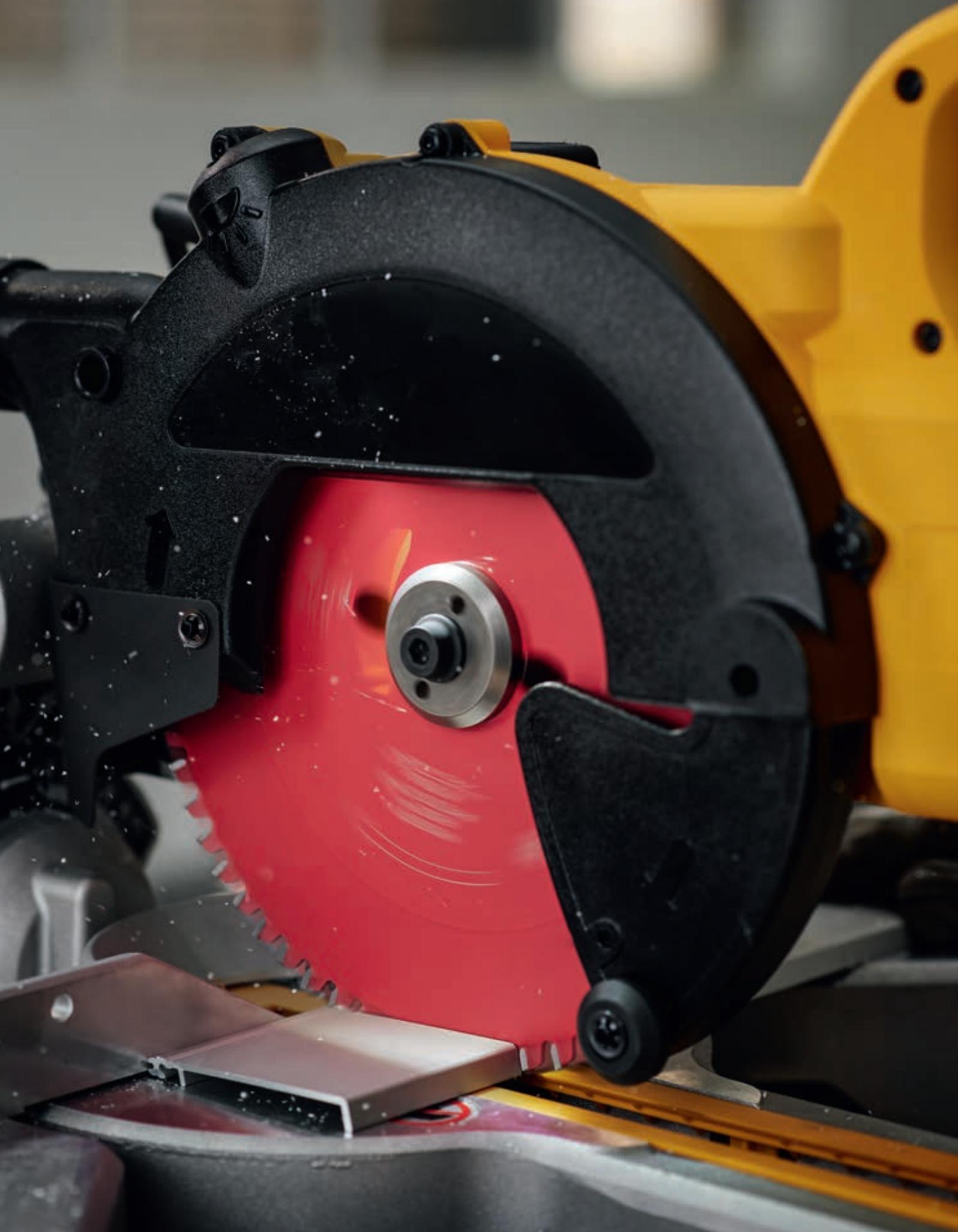
**Technical information:**

HLTCG with positive cutting angle.

D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
250	2,8	1,8	30	80	10°	FT121	FR23H001T	F03FS09877
300	3,2	2,2	30	96	10°	FT121	FR28H001T	F03FS09878

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

# Aluminium



# CIRCULAR SAW BLADES FOR ALUMINIUM

## For hand-held and plunge circular saws

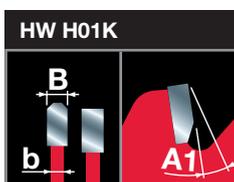


D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
140	1,8	1,3	20	42	-5°	2/6/32,5	FR04A001H	F03FS09806
150	2,5	1,6	20	42	-5°	2/6/32,5	FR05A001H	F03FS09807
160	2,2	1,6	20	52	-5°	2/6/32,5	FR06A001H	F03FS09808
165	2,5	1,6	20	52	-5°	2/6/32,5	FR07A001H	F03FS09809
165	2,5	1,6	30	52	-5°	2/7/42	FR07A002H	F03FS09810
180	2,5	1,6	30	56	-5°	2/7/42	FR09A001H	F03FS09811
190	2,5	1,6	20	56	-5°	2/6/32,5	FR13A001H	F03FS09814
190	2,5	1,6	30	56	-5°	2/7/42	FR13A002H	F03FS09815
200	2,8	1,8	30	60	-5°	2/7/42	FR14A001H	F03FS09816
210	2,3	1,8	30	72	-5°	2/7/42	FR15A001H	F03FS09817
230	2,8	1,8	30	64	-5°	2/7/42	FR19A001H	F03FS09818
235	2,5	1,8	30	80	-5°	2/7/42	FR20A001H	F03FS09819

## For cordless hand-held and plunge circular saws



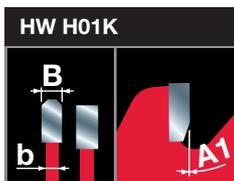
D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
136	1,6	1,0	20	48	0°	-	FR03A001HC	F03FS10082
140	1,8	1,3	20	48	-5°	-	FR04A002HC	F03FS10083
150	1,8	1,3	20	48	0°	-	FR05A002HC	F03FS10084
160	1,8	1,3	20	54	0°	-	FR06A002HC	F03FS10085
160	2,2	1,6	20	52	-5°	2/6/32,5	FR06A001H	F03FS09808
165	1,8	1,3	20	54	0°	-	FR07A002HC	F03FS10086
190	1,8	1,3	30	54	0°	-	FR13A003HC	F03FS10088



**Machines:**  
Hand-held and plunge circular saws.

**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
HLTCG tooth with negative cutting angle.

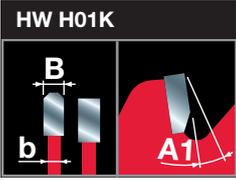


**Machines:**  
Cordless hand-held and plunge circular saws.

**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.  
Thin kerf and HLTCG tooth with 0° or negative cutting angle.

# CIRCULAR SAW BLADES FOR ALUMINIUM



**Machines:**  
Mitre saws.

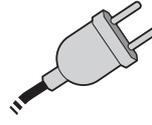
**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
HLTCG tooth with negative cutting angle.

## For mitre saws



Mitre saws



Corded



Aluminium



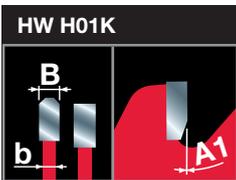
Copper and Brass



Plastics

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	2,5	1,8	30	54	-5°	FT121	FR15A001M	F03FS09820
216	2,5	1,8	30	64	-5°	FT121	FR16A001M	F03FS09821
250	2,8	2,0	30	80	-5°	FT121	FR23A001M	F03FS09822
254	2,8	2,0	30	80	-5°	FT121	FR24A001M	F03FS09823
260	2,3	1,8	30	80	-5°	FT121	FR26A001M	F03FS09827
300	2,8	2,0	30	96	-5°	FT121	FR28A001M	F03FS09828
305	2,8	2,0	30	96	-5°	FT121	FR29A001M	F03FS09829
315	2,8	2,2	30	96	-5°	FT121	FR30A001M	F03FS09832
350	3,0	2,2	30	108	5°	2/10/60	FR32A001M	F03FS11534

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60



**Machines:**  
Cordless mitre saws.

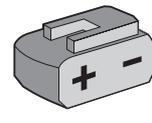
**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws.  
Thin kerf and HLTCG tooth with 0° cutting angle.

## For cordless mitre saws



Mitre saws



Cordless



Aluminium

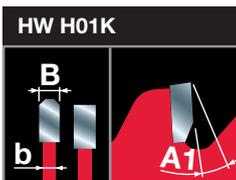


Copper and Brass



Plastics

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,0	1,4	30	66	0°	-	FR16A002MC	F03FS10089
250	2,4	1,8	30	78	0°	-	FR23A002MC	F03FS10090
254	2,4	1,8	30	78	0°	-	FR24A002MC	F03FS11526
305	2,4	1,8	30	96	0°	-	FR29A004MC	F03FS10091



**Machines:**  
Small table saws.

**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
HLTCG tooth with negative cutting angle.

## For small table saws



Table saws



Corded



Aluminium



Copper and Brass



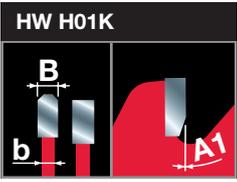
Plastics

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
190	2,6	1,8	Star	58	-5°	-	FR13A001T	F03FS09833
225	2,6	1,8	30	68	-5°	FT121	FR18A001T	F03FS09834
250	2,8	2,0	30	68	-5°	FT121	FR23A001T	F03FS09835
280	2,8	2,0	30	84	-5°	2/10/60	FR27A001T	F03FS11529

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60

# CIRCULAR SAW BLADES FOR ALUMINIUM

## For cordless small table saws



**Machines:**  
Cordless small table saws.

**Materials:**  
Aluminium, other non-ferrous metals and plastics.  
Also suitable for chipboard and MDF.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless table saws.  
Thin kerf and HLTG tooth with 0° cutting angle.

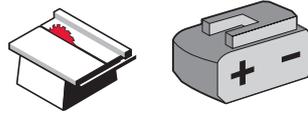


Table saws

Cordless



Aluminium

Copper and Brass

Plastics

D	B	b	d	Z	Hook	NL	Freud Code	Art. No.
mm	mm	mm	mm		A1			
210	2,0	1,4	30	66	0°	-	FR15A001TC	F03FS10092
216	2,0	1,4	30	66	0°	-	FR16A001TC	F03FS10093



## LP88M

## Saw blades to cut non-ferrous metals



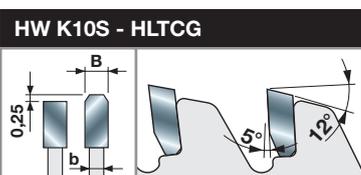
Mitre saws



Aluminium

Copper and Brass

D	B	b	d	Z	Hook	Freud Code	Art. No.
mm	mm	mm	mm		A1		
255	2,6	2,0	15,88	100	5°	LP88M 003P	F03FS09410
255	2,6	2,0	25,4	100	5°	LP88M 007P	F03FS09590
255	2,6	2,0	15,88	120	5°	LP88M 004P	F03FS09411
255	2,6	2,0	25,4	120	5°	LP88M 002P	F03FS09289
305	2,8	2,2	25,4	100	5°	LP88M 005P	F03FS09412
305	2,8	2,2	25,4	120	5°	LP88M 006P	F03FS09413



**Machines:**  
Mitre saws.

**Materials:**  
Aluminium and non-ferrous metals.

**Technical information:**  
HLTG with positive cutting angle.

# Fibre Cement



# CIRCULAR SAW BLADES FOR FIBRE CEMENT

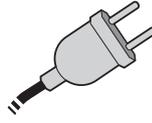
## For hand-held and plunge circular saws



Hand-held Circular Saws



Plunge Saws



Corded

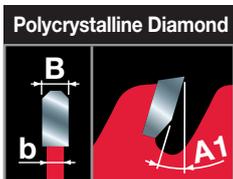


Fibre Cement



Plasterboard

	D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
	140	1,8	1,3	20	4	10°	2/6/32,5	FR04F001H	F03FS09836
	160	1,8	1,2	20	4	10°	-	FR06F002HC	F03FS10095
	160	2,2	1,6	20	4	10°	2/6/32,5	FR06F001H	F03FS09837
	165	2,2	1,6	20	4	10°	2/6/32,5	FR07F001H	F03FS09838
	182	2,2	1,6	19,05	4	10°	-	FR10F001H	F03FS11506
	184	2,2	1,6	30	4	10°	2/7/42	FR11F001H	F03FS09840
	190	2,2	1,6	20	4	10°	2/6/32,5	FR13F001H	F03FS09841
	190	2,2	1,6	30	4	10°	2/7/42	FR13F002H	F03FS09842
	210	2,2	1,6	30	6	10°	2/7/42	FR15F001H	F03FS09843
	230	2,2	1,6	30	6	10°	2/7/42	FR19F001H	F03FS09844
	235	2,2	1,6	30	6	10°	2/7/42	FR20F001H	F03FS09845



**Machines:**  
Hand-held and plunge circular saws.

**Materials:**  
Fibre cement and plasterboard.

**Technical information:**  
Polycrystalline Diamond teeth for long lifetime in abrasive materials.  
TCG tooth with positive cutting angle.

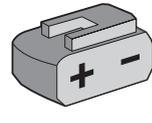
## For cordless hand-held and plunge circular saws



Hand-held Circular Saws



Plunge Saws



Cordless

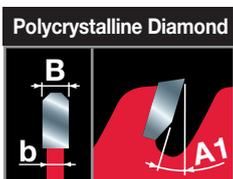


Fibre Cement



Plasterboard

	D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
	140	1,8	1,3	20	4	10°	2/6/32,5	FR04F001H	F03FS09836
	160	1,8	1,2	20	4	10°	-	FR06F002HC	F03FS10095
	160	2,2	1,6	20	4	10°	2/6/32,5	FR06F001H	F03FS09837
	165	1,8	1,2	20	4	10°	-	FR07F002HC	F03FS10096
	190	1,8	1,2	30	4	10°	-	FR13F003HC	F03FS10097



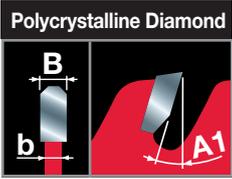
**Machines:**  
Cordless hand-held and plunge circular saws.

**Materials:**  
Fibre cement and plasterboard.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless saws.  
Thin kerf and TCG tooth with positive cutting angle.  
Polycrystalline Diamond teeth for long lifetime in abrasive materials.

# CIRCULAR SAW BLADES FOR FIBRE CEMENT

## For mitre saws



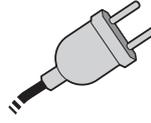
**Machines:**  
Mitre saws.

**Materials:**  
Fibre cement and plasterboard.

**Technical information:**  
Polycrystalline Diamond teeth for long lifetime in abrasive materials.  
TCG tooth with positive cutting angle.



Mitre saws



Corded



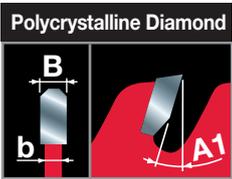
Fibre Cement



Plasterboard

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,2	1,6	30	6	10°	2/7/42	FR16F001M	F03FS09846
250	2,4	1,8	30	6	10°	FT121	FR23F001M	F03FS09847
254	2,4	1,8	30	6	10°	FT121	FR24F001M	F03FS09848
260	2,4	1,8	30	6	10°	FT121	FR26F001M	F03FS09849
300	2,4	1,8	30	8	10°	FT121	FR28F001M	F03FS09850
305	2,4	1,8	30	8	10°	FT121	FR29F001M	F03FS09851

FT121: 2/7/42 + 2/9/46 + 2/9,5/46,5 + 2/10/60



**Machines:**  
Cordless mitre saws.

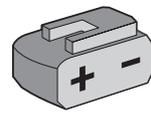
**Materials:**  
Fibre cement and plasterboard.

**Technical information:**  
Specifically designed to maximise battery runtime and optimise ease of cut on cordless mitre saws.  
Thin kerf and TCG tooth with positive cutting angle.  
Polycrystalline Diamond teeth for long lifetime in abrasive materials.

## For cordless mitre saws



Mitre saws



Cordless



Fibre Cement

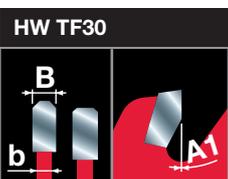
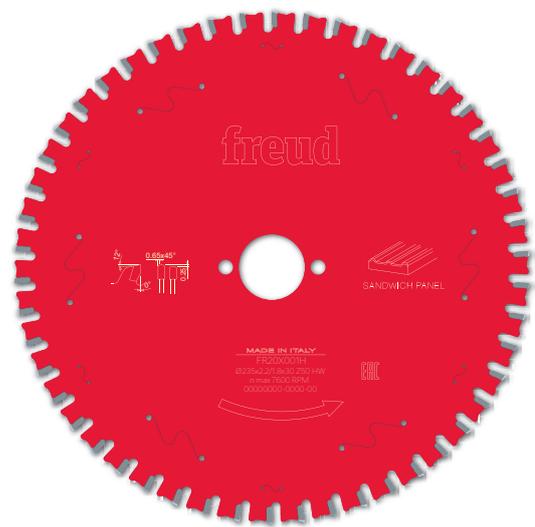


Plasterboard

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
216	2,0	1,4	30	6	10°	-	FR16F002MC	F03FS10098
250	2,2	1,6	30	6	10°	-	FR23F002MC	F03FS10099
305	2,2	1,6	30	8	10°	-	FR29F002MC	F03FS10100

# Sandwich Panel





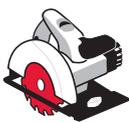
**Machines:**  
Hand-held circular saws.

**Materials:**  
Sandwich panels with sheet steel layers.

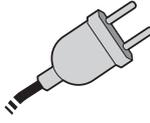
**Technical information:**  
HLTCG with chamfer also on second tooth.  
0° cutting angle.

# CIRCULAR SAW BLADES FOR SANDWICH PANEL

## For hand-held circular saws



Hand-held Circular Saws



Corded



Sandwich Panel

D	B	b	d	Z	Hook A1	NL	Freud Code	Art. No.
160	2,0	1,6	20	30	0°	2/6/32,5	FR06X001H	F03FS09852
165	2,0	1,6	20	30	0°	2/6/32,5	FR07X001H	F03FS09853
182	2,0	1,6	19,05	36	0°	-	FR10X001H	F03FS11510
190	2,0	1,6	30	36	0°	2/7/42	FR13X001H	F03FS09854
210	2,4	2,0	30	36	0°	2/7/42	FR15X001H	F03FS09855
230	2,2	1,8	30	48	0°	2/7/42	FR19X001H	F03FS09856
235	2,2	1,8	30	50	0°	2/7/42	FR20X001H	F03FS09857
240	2,6	1,6	30	48	0°	2/7/42	FR22X001H	F03FS09858
270	2,4	2,0	30	60	0°	2/7/42	FR27X001H	F03FS09859
350	2,9	2,5	30	60	0°	2/7/42	FR32X001H	F03FS09861
355	2,6	2,2	30	80	0°	2/7/42	FR33X001H	F03FS09862

# Multi Material





## CIRCULAR SAW BLADES FOR MULTI MATERIAL

### For hand-held and plunge circular saws



Hand-held Circular Saws



Plunge Saws



Corded



Plywood



Chipboard



MDF



Aluminium



Copper and Brass

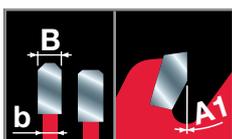
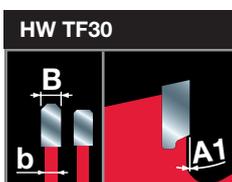


Plastics



Thin-walled Steel

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
160	2,0	1,6	20	30	0°	-	FR06M001H *	F03FS10114
184	2,0	1,6	30	36	0°	-	FR11M001H *	F03FS10113
185	2,0	1,6	20	36	0°	-	FR12M001H	F03FS11512
190	2,0	1,6	30	38	0°	-	FR13M001H *	F03FS10041
230	2,4	2,0	30	44	0°	-	FR19M001H	F03FS10042



#### Machines:

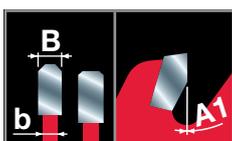
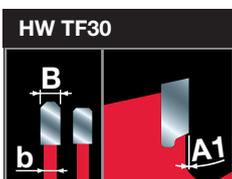
Hand-held and plunge circular saws.

#### Materials:

Wood based materials, aluminium and other non-ferrous materials, plastics and thin-walled steel profiles.

#### Technical information:

Suitable to cut a variety of different materials.  
HLTCG with chamfer also on second tooth.  
0° cutting angle.



#### Machines:

Mitre saws.

#### Materials:

Wood based materials, aluminium and other non-ferrous materials, plastics and thin-walled steel profiles.

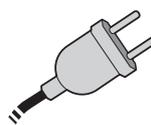
#### Technical information:

Suitable to cut a variety of different materials.  
HLTCG with chamfer also on second tooth.  
0° cutting angle.

### For mitre saws



Mitre Saws



Corded



Plywood



Chipboard



MDF



Aluminium



Copper and Brass



Plastics



Thin-walled Steel

D mm	B mm	b mm	d mm	Z	Hook A1	NL	Freud Code	Art. No.
210	25,4	2,0	1,6	40	0°	-	FR15M002M	F03FS11516
210	2,0	1,6	30	40	0°	-	FR15M001M *	F03FS09886
216	2,0	1,6	30	40	0°	-	FR16M001M *	F03FS09887
250	2,4	2,0	30	48	0°	-	FR23M001M	F03FS09888
254	2,4	2,0	30	48	0°	-	FR24M001M	F03FS09889
300	2,6	2,0	30	80	0°	-	FR28M001M	F03FS09890
305	2,6	2,0	30	80	0°	-	FR29M001M	F03FS09891

# TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

To obtain the best performance from a saw blade we suggest following these simple instructions:

- The machine must be in good condition, free from vibrations.
- The flanges used to secure the blade must be of the same diameter, at least 1/3 of the blade diameter (Fig. 1).
- The flanges must be parallel to each other. Also check tolerances on diameters, sides and concentricity, by using a clock gauge (Fig. 2).
- After continuous use, remove the blade and clean it with the appropriate solvents making sure to get rid of built up resin. For the synthetic coated (Perma-SHIELD Coating) blades, it is sufficient to use warm water. In any case, avoid using solvents containing caustic soda.
- The blades must be sharpened as soon as they become dull, maintaining the original tooth angles.
- For sharpening, always use the correct grinding wheels and plenty of cooling liquid.
- Always keep flanges clean.
- When sharpening, the shoulder of the teeth must not be lowered more than needed. This operation must be done with appropriate precision machinery and never by hand. There is the risk of breaking the tip or upsetting the blade balance (Fig. 3 - 4).
- Before starting the cut of the material, make sure the blade is correctly locked according to the machines specifications.

## Saw blade alignment on a table saw

- If the saw blade and the saw are not correctly aligned to the table and the fence, then there is the possibility that a serious accident may occur (for example, violent kickbacks) or that the workpiece may scorch or splinter. The first thing you must do is read the instruction sheet carefully. This is necessary to acquire the understanding and comprehension of the corrections suggested in this section.
- Before carrying out the following instructions, make sure that the starter switch is off and that the machine is not connected to the socket.
- Mounting the saw blade onto the table:

We advise using precise measuring instruments when mounting a saw blade. Clean the saw blade well, before mounting it onto the machine. Mount the saw blade onto the arbor. Adjust the arbor to its maximum height. With the aid of the most precise measuring instrument available, verify that the saw blade is parallel to the mitre gauge slots (Fig. 5). Adjust as needed. This step is necessary to obtain crosscuts with the maximum in quality finish and for setting up the fence for ripping.

- Positioning the fence for ripping:

After having positioned the saw blade so as it is parallel to the mitre gauge slots, you may proceed with setting the fence. The fence should ideally be parallel to the saw blade. However since it is impossible to position the guide "exactly" it is necessary to leave a slight margin of clearance on the exit side of the cut so as to avoid the wood becoming wedged in between the fence and the saw blade.

Adjust the fence so as when it is aligned to the mitre gauge slots, there is a space of 0,1 mm (Fig. 6; for the correct adjustment, consult the machine's instruction manual).

- The maximum RPM of a circular saw blade varies according to the diameter of the blade itself (table 1). If you exceed this limit, the saw blade will lose its characteristics, therefore influencing the cutting quality and the work life of the blade itself, not to mention the dangers implied to the user who may incur serious injury.
- The saw blade's projection (T) with respect to the workpiece must be at least equal to the height of the blade's tooth (Fig. 7). Increase or decrease the projection of the saw blade to improve the quality of the cutting finish.
- The number of teeth cutting the wood simultaneously (Fig. 8) must be between 3 or 4. With less than three teeth cutting, the saw blade begins to vibrate leading to an uneven cut. If you want to cut workpieces with increased thicknesses (S - Fig. 10), but wish to maintain the same diameter saw blade, then use a blade with less teeth. If instead you want to cut workpieces with a reduced thickness, but also maintain the same diameter saw blade, then use a blade with more teeth.
- To obtain the pitch (P) of a blade (the distance between teeth: Fig. 9 - see formula "A") multiply the thickness of the workpiece by 1,4142 and divide by 3 (if you want 3 teeth cutting) or by 4 (if you want 4 teeth cutting).
- Formula "B": to obtain the number of teeth (Z) of the saw blade, multiply the diameter (D) of the saw blade by 3,14 (π) and divide by the pitch of the saw blade - obtained from the previous formula. The shorter formula "C" allows you to obtain the number of the saw blade's teeth, knowing its diameter and the thickness of the workpiece.

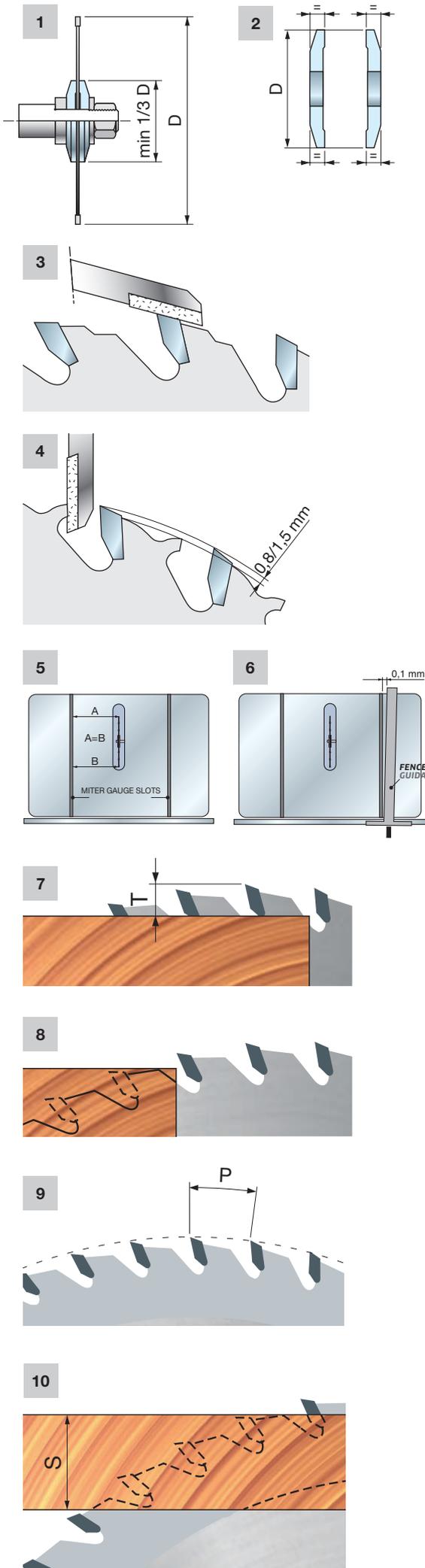
Formula A	Formula B	Formula C
$P = \frac{S \times 1,4142}{3}$	$Z = \frac{D \times 3,14}{P}$	$Z = \frac{D \times 8}{S}$

### KEY:

- P= Pitch
- S= Thickness of the workpiece
- Z= Number of teeth of the saw blade
- D= Diameter of the saw blade

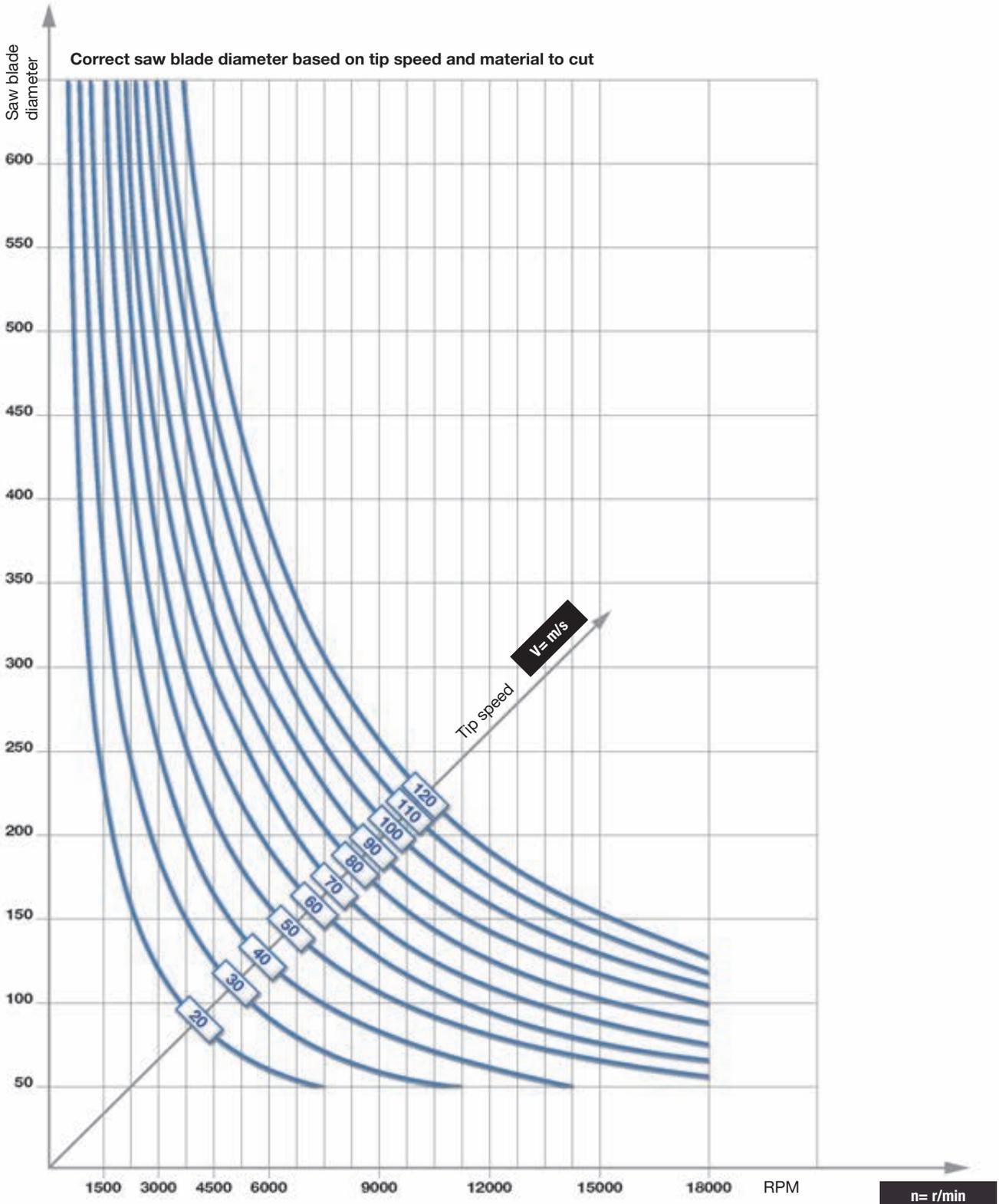
### Attention:

These formulas are valid for crosscutting and cutting other wood composites (MDF, plywood, chipboard and laminated panels) and cannot be applied for ripping.



# TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

Tip speed (m/s)	Recommended for
50 - 90	Softwood
50 - 80	Hardwood
50 - 85	Exotic wood
60 - 80	Chipboard
60 - 80	Joinery wood
30 - 60	MDF
40 - 60	Laminated and bilaminated

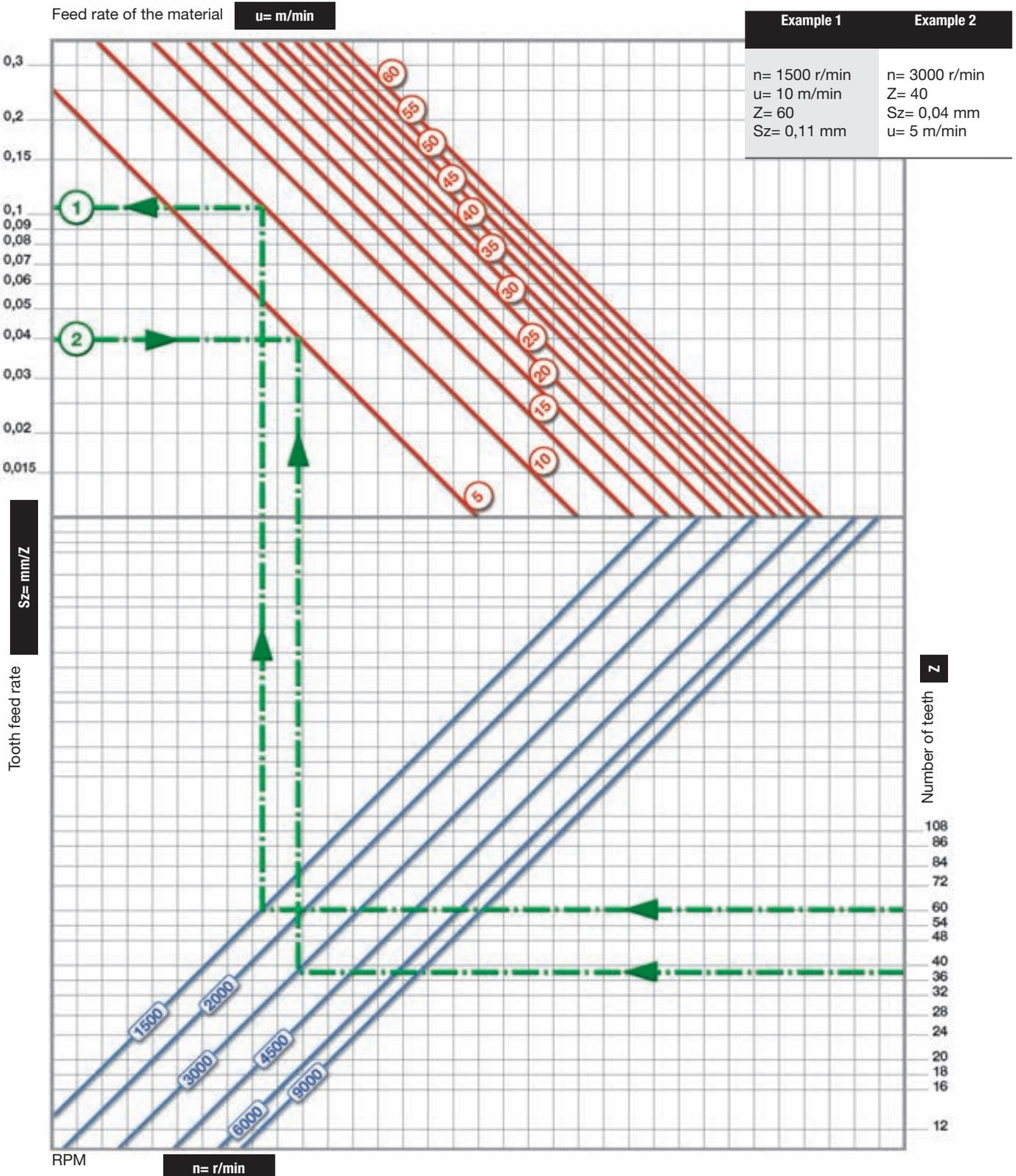


# TIPS FOR THE CORRECT USE OF A CIRCULAR SAW BLADE

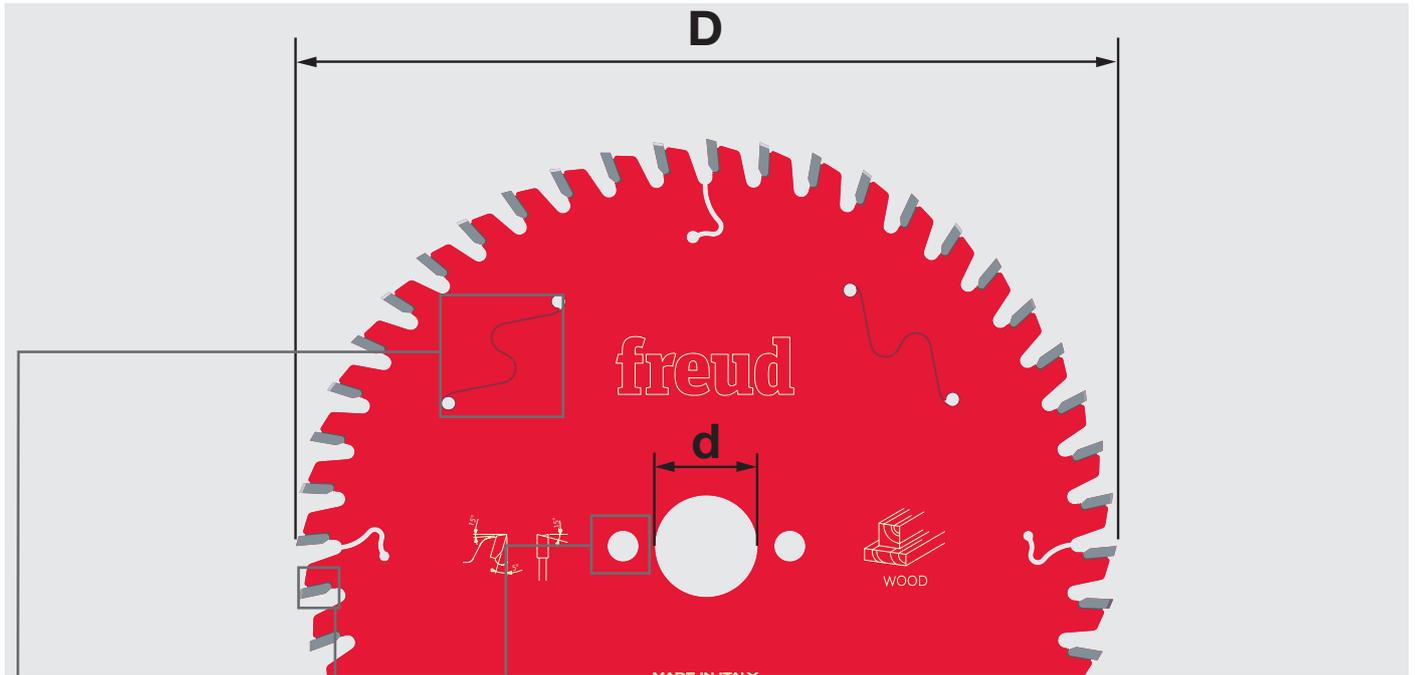
## Correct tooth feed rate, material feedrate, number of teeth and RPM

Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,20 - 0,30	Softwood with grain
0,10 - 0,20	Softwood cross grain
0,06 - 0,15	Hardwood
0,10 - 0,25	Chipboard

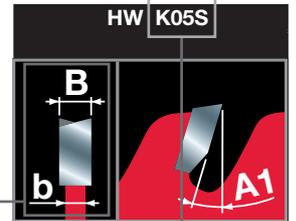
Recommended tooth feed rate (Sz= mm/tooth)	Recommended for
0,05 - 0,12	Plywood
0,05 - 0,10	Laminated board
0,02 - 0,05	Aluminium and plastic laminated chipboard



# EXPLANATION OF SYMBOLS AND ABBREVIATIONS



D mm	B mm	b mm	d mm	Z	NL	Code	SAP
250	3,2	2,2	30	22	FT01	ABCD 1234	A00BC01234
250	3,2	2,2	70	22	4CH 21x5	ABCD 1234	A00BC01234
300	3,2	2,2	30	26	FT01	ABCD 1234	A00BC01234



MICRO-GRAIN CARBIDE (HW) HARDNESS USED FOR MANUFACTURING TIPS

Tooth features

