

CATALOGUE / v2

TOOLS FOR THE  
**ALUMINIUM  
INDUSTRY**

NZ

 0800 488 647 [freephone]  
 [tungstenandtool.co.nz](http://tungstenandtool.co.nz)

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**Creating  
sharper  
results**



## CUTTING-EDGE SERVICE. SPOT-ON SOLUTIONS. SHARPER RESULTS.

Tungsten & Tool supplies high-performance cutting tools and personalised support so you achieve superior results with maximum efficiency.

Backed by 30 years' industry experience, we work closely with clients across New Zealand and Australia – from joiners, kitchen manufacturers and sawmills to plastic, aluminium, composites and concrete cutters.

Our state-of-the-art products are truly superior with a comprehensive range of renowned global brands as well as our own specially developed premium brand – KONIG.

We offer precision cutting tools for almost any material and application and enjoy close associations with specialist international cutting labs. It's all part of our commitment to delivering premium, cost-effective options from home and across the world.

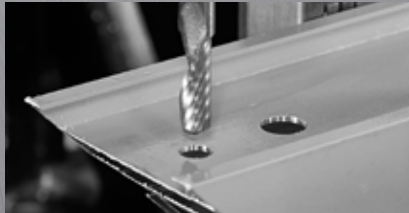
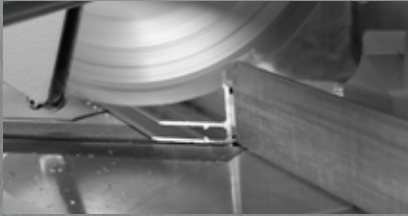
But our reputation extends well beyond product quality and reliability. We're here to ensure you get the right products as well as the best products.

Our real hallmark is providing you with expert, individual advice based on true technical insight – so you get solutions that perfectly match your job, purpose and ongoing demands.

# CONTENTS

**05**

SAWBLADES



**26**

BORING &  
DRILLING TOOLS

**16**

ROUTING



**35**

TOOLHOLDING  
SYSTEMS FOR CNC'S



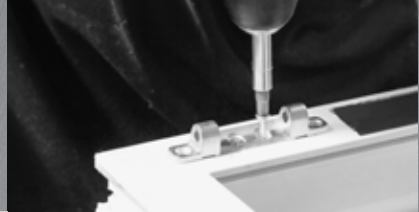
**50**

ACCESSORIES



**45**

CLEANING &  
LUBRICATING



**53**

CNC MACHINE  
SETUPS



**56**

TESTIMONIALS/  
CASE STUDIES

# OUR PRECISE PROCESSES

Like our products, we're all about precision. Every day, our team strives to boost your confidence, productivity and results through our exacting service, sharp insight and tailored support.

## Support + value



- **More than suppliers:** we are an active industry leader with a passion for ensuring your project is smooth and successful.
- We quickly grasp your needs and provide **smart advice** so you get exactly the right tools for your job – saving you time, money and worry.
- **Valuable post-sale hints and tips**, covering product use, maintenance and safety.

## Confidence + productivity



- Premium new cutters and wear products sourced from **global leaders** as well as those developed in-house and manufactured by premium manufacturers in USA and Europe.
- **Built to last and perform**, delivering amazing finishes time after time.
- **Many of our products come with specialty features** to bring a range of everyday working benefits and real efficiencies.
- Backed by our **client satisfaction guarantee\***.

## Ease + convenience



- **Comprehensive range**, whether you need a single saw blade or a full CNC router fit-out.
- **Choice of channels to suit you:** with a specialist team on hand plus a user-friendly website and online store for clear product information, advice, easy selection and purchase.
- **Reliable and professional:** ready product availability, real responsiveness and efficient delivery every time.

## Experience + insight



- **Respected family business** with over three decades' industry experience.
- **Proudly homegrown** with strong international presence and know-how, including weekly liaison with specialist cutting laboratories in Western Europe and the USA.
- Constant **access to the latest products and innovations** from across the world.

## Delivered AM Sharp!



Orders placed before 4pm Monday to Friday are delivered the next working day in New Zealand with all orders over \$100 + GST delivered for free.





# SAWBLADES

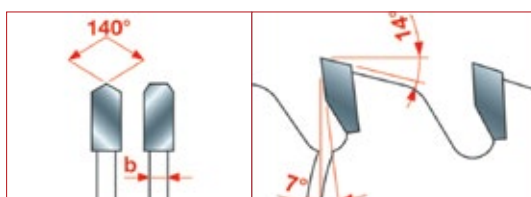
# Sawblades for Aluminium

## Long Life Fine Cut Sawblades for Aluminium

- Pyramid design tooth with positive cutting angle
- Used to cut drawn products and tubes whose thickness does not exceed 3mm
- For use on mitre saws with mechanical clamping of the pieces



Dia [mm]	Kerf [mm]	Teeth	Part #
400	3.5	96	16-10348
400	3.5	120	16-10352
420	3.5	100	16-10356
450	3.5	108	16-10360
500	4	120	16-10364
530	4	126	16-10368
550	4	132	16-10372
600	4.7	144	16-10376

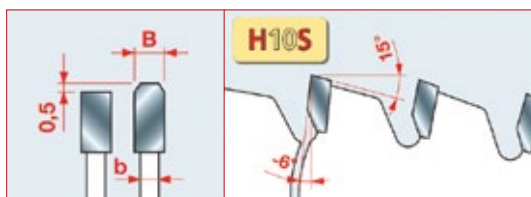


## Fine Cut Sawblades for Heavier Aluminium

- Flat - triple chip tooth with negative cutting angle
- Used to cut solid drawn products whose thickness exceeds 3mm
- For use on mitre saws with manual or mechanical clamping of the pieces



Dia [mm]	Kerf [mm]	Teeth	Part #
250	3.5	54	16-0984
300	3.5	72	16-0988
350	3.5	84	16-0996
400	3.5	96	16-1004
450	4	108	16-1012
500	4	120	16-1016

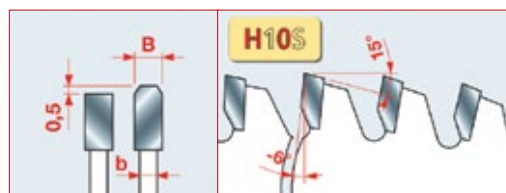


## Fine Cut Sawblades for Light Aluminium

- Flat - triple chip tooth with negative cutting angle
- Used to cut drawn products and tubes whose thickness does not exceed 3mm
- For use on mitre saws with manual or mechanical clamping of the pieces



Dia [mm]	Kerf [mm]	Teeth	Part #
200	2.8	60	16-1024
250	3.5	80	16-1044
300	3.5	96	16-1048
330	3.5	104	16-1052
350	3.5	108	16-1056
380	3.5	108	16-1256
400	3.5	120	16-1064
450	4	128	16-1072
500	4	140	16-1268



# HIGH PERFORMANCE INDUSTRIAL SAWBLADES

## Low Noise/Antivibration Technology

As we all know, noise is caused by vibration. A vibrating saw cannot give a perfect finish. Our manufacturer's have made a major advance by laser cutting 'reeds' into the precision ground (not stamped) steel body of the saw and filling the reeds with a thermoplastic resin.

## Shock Resistant Brazing

Our premium tungsten tips are then computer controlled brazed with a special silver/copper/silver sandwich foil specially formulated to absorb impact and cutting vibration.

## Long Lasting SUPERTOOTH

Micrograin Tungsten tips are specially formulated to match the material the blade has been designed to cut, whether it be soft wood, MDF, plastic, plywood, aluminium etc.

The SUPERTOOTH is also 50% thicker than competitors'. To you this means up to 50% more sharpens before you need to replace.

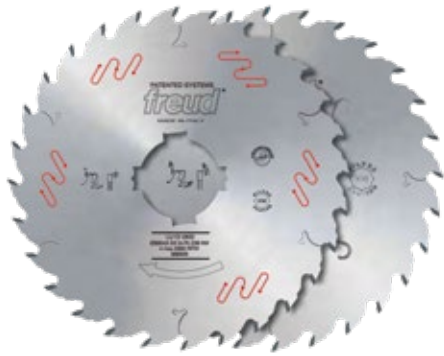
## Heat Reducing ICE Coating

The Silver ICE Coating reduces heat buildup in the saw body, enhancing performance and cutting accuracy even further. Antifriction coatings can increase blade life by up to 70%.

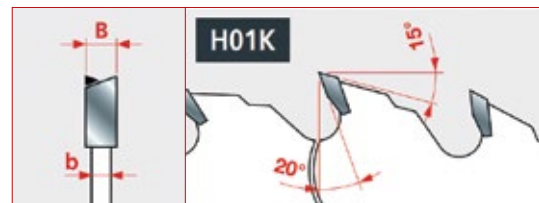
# Sawblades for Wood

## Sawblades for Ripping

- ATB 10° tooth with positive cutting angle for ripping
- For use on tablesaws and multi-ripping machines



Dia [mm]	Kerf [mm]	Teeth	Part #
250	3.2	24	16-0192
300	3.2	28	16-0200
350	3.5	32	16-0208
400	4	34	16-0176
450	4.4	38	16-0180
500	4.4	42	16-0184
550	4.4	42	16-0188

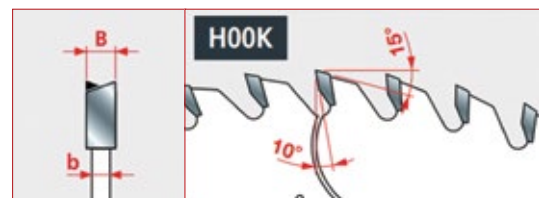


## Fine Cross Cut Sawblades for Wood

- ATB 15° tooth with positive cutting angle for fine cross cutting
- For use on large dropsaws and tablesaws
- Suitable for Soft & Hard Solid Wood, Unprocessed Chipboard, Plywood.



Dia [mm]	Kerf [mm]	Teeth	Part #
250	3.2	48	16-0492
250	3.2	60	16-0500
300	3.2	60	16-0504
300	3.2	72	16-0512
315	3.2	72	16-0516
350	3.5	84	16-0528
400	4	96	16-0540



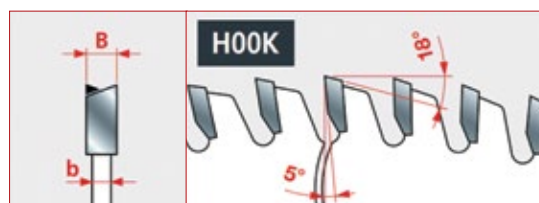


## Fine Sawblades for Wood

- ATB 15° tooth with positive cutting angle for fine cross cutting and finishing
- For use on large dropsaws and table saws
- Suitable for Hard & Soft Solid Wood, Chipboard, Single Sided Laminated Board.



Dia (mm)	Kerf (mm)	Teeth	Part #
250	3.2	80	16-0592
300	3.2	96	16-0604
330	3.2	96	16-0032
350	3.2	108	16-0616
400	3.8	120	16-0620
450	4.4	132	16-0624
500	4.4	144	16-0628
550	4.8	156	16-0632
600	5.4	168	16-0636



## SHARPENING EXPRESS

Sharpening Express is an easy, hassle free way of having your tooling expertly serviced.

[With over 30 years of sharpening experience you can be assured of a premium job!]

Here's how it works:

- 1 We provide you with a pre addressed polycarbonate storage box for you to put your dull cutting tools... **FREE**
- 2 Once you're ready, fasten the lid, phone us **TOLL FREE on 0800 488 647** and we'll organise pick up and look after it from there.
- 3 Our experts will service your cutting tools and send it back... **FREIGHT FREE\***

Freephone

 **0800 488 647**

### EASY WAY

- ✓ Sawblades
- ✓ Router bits
- ✓ Planer blades
- ✓ Bandsaw blades

## Hassle FREE!

Get your tools sharpened when you want... not when somebody else decides to turn up!!

# Milling and Grooving

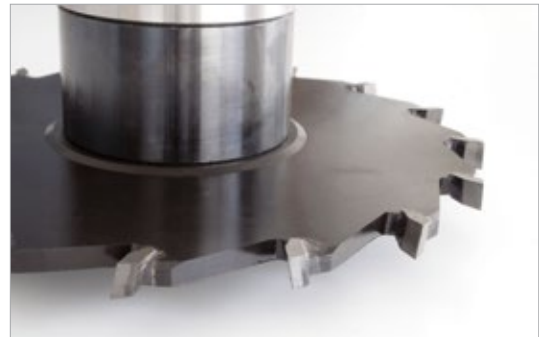
## Industrial Grooving Blades

- Brazed tip cutters for good quality grooving
- Suitable for soft and hard wood, chipboard, laminated wood, MDF, aluminium and non-ferrous metals.

Custom diameters and sizes available on request.



Dia (mm)	Kerf (mm)	Teeth	Part #
125	3	12	16-10320
125	4	12	16-10324
125	5	12	16-10328
125	6	12	16-10332
125	8	12	16-10336
150	2	12	16-2912
150	3	12	16-2876
150	4	12	16-2880
150	5	12	16-2884
150	6	12	16-2888
150	8	12	16-2892
150	10	12	16-2896



## Multi Cut Blades

### Features

- Can be used on angle grinders up to 125mm

### Material

- Metal, Aluminium, Plastics, Wood, Coolroom Panel, Wood With Nails



Dia (mm)	Teeth	Bore	Max RPM	Part #
100	20	22.2	15,200	16-6500
115	20	22.2	12,700	16-6504
125	20	22.2	11,700	16-6508
136	36	20	10,900	16-6512
160	40	20	9,550	16-6516
160	50	20	9,550	16-6520
180	42	20	8,490	16-6524
180	54	20	8,490	16-6528
180	70	20	8,490	16-6532
250	60	30	5,870	16-6536
305	60	25.4	4,770	16-6540
355	64	25.4	4,240	16-6544

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# Sawblades for Portable Machines

## Rip Sawblades for Wood

- Designed with a low number of teeth
- Particularly suited to long grain cutting in solid wood
- The Freud brand of sawblades will be supplied when in stock otherwise we will supply one of our other Industrial brands.



Dia [mm]	Kerf [mm]	Teeth	Part #
110	2.2	20	16-3388
125	2.2	20	16-3396
140	2.2	20	16-3404
150	2.2	20	16-3412
160	2.2	20	16-3424
170	2.2	20	16-3436
184	2.2	20	16-3448
190	2.2	20	16-3464
200	2.8	20	16-3480
210	2.8	20	16-3496
216	2.8	20	16-3512
220	2.8	20	16-3528
230	2.8	20	16-3544
235	2.8	24	16-1756
240	2.8	20	16-3576
260	2.8	20	16-3608

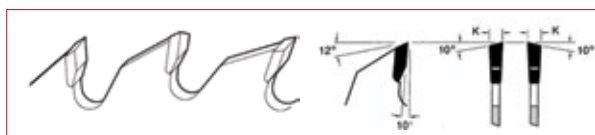


## General Purpose Sawblades for Wood

- Designed with an average number of teeth
- Particularly suited to a combination of long grain cutting and across grain cutting in solid wood
- The Freud brand of sawblades will be supplied when in stock otherwise we will supply one of our other Industrial brands



Dia [mm]	Kerf [mm]	Teeth	Part #
110	2.2	30	16-3392
125	2.2	30	16-3400
140	2.2	30	16-3408
150	2.2	30	16-3416
160	2.2	30	16-3428
170	2.2	30	16-3440
184	2.2	30	16-3452
190	2.2	30	16-3468
200	2.8	30	16-3484
210	2.4	30	16-1764
210	2.8	30	16-3500
216	2.8	30	16-3516
216	2.4	48	16-1768
220	2.8	30	16-3532
230	2.8	30	16-3548
235	2.8	30	16-3564
235	2.8	34	16-1772
240	2.8	30	16-3580
254	2.8	30	16-3596
260	2.8	30	16-3612



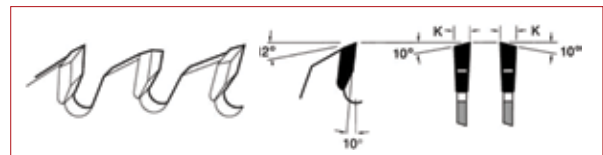
# Sawblades for Portable Machines

## Fine Cut Sawblades for Wood

- Designed with a high number of teeth
- Particularly suited to cross grain and finishing in solid wood
- The Freud brand of sawblades will be supplied when in stock otherwise we will supply one of our other Industrial brands



Dia [mm]	Kerf [mm]	Teeth	Part #
184	2.2	60	16-3460
190	2.2	60	16-3476
200	2.8	60	16-3492
210	2.8	60	16-3508
216	2.8	60	16-3524
216	2.4	64	16-1784
220	2.8	60	16-3540
230	2.8	60	16-3556
235	2.8	60	16-3572
240	2.8	60	16-3588
250	2.8	60	16-1792
260	2.8	60	16-3620

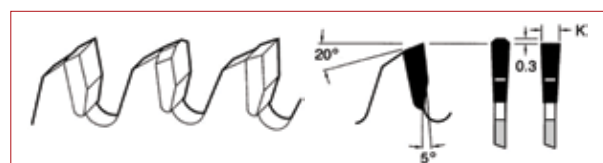


## Thin Kerf Fine Cut Sawblades for Aluminium

- Flat triple chip tooth with negative cutting angle
- Used to cut drawn products and tubes with thin walls
- For ultra fine finish
- For use on mitre saws with manual or mechanical clamping of the pieces



Dia [mm]	Kerf [mm]	Teeth	Part #
100	2.2	30	16-2980
150	2.2	36	16-2984
160	2.2	36	16-2988
160	2.2	60	16-2992
184	2.2	40	16-2996
184	2.2	60	16-3000
190	2.2	40	16-3004
190	2.2	60	16-3008
200	2.4	48	16-3012
200	2.4	60	16-3016
210	2.4	48	16-3020
210	2.4	60	16-3024
210	2.4	80	16-3028
216	2.4	48	16-3032
216	2.4	60	16-3036
220	2.4	48	16-3044
220	2.4	60	16-3048
235	2.4	60	16-3052
235	2.4	80	16-3056
254	2.4	60	16-3060
254	2.8	100	16-3092



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# Jigsaw Blades

## Jigsaw Blades 3116-5 (Pack of 5)

- Ideal for acrylic glass
- Clean cuts in non-ferrous metals, aluminium and acrylic glass
- HSS



Pitch (TPI)	Cuts (mm)	Overall Length (mm)	Part #
12	2 - 20	100	32-0543

## Jigsaw Blades 3101-5 (Pack of 5)

- Ideal for precise, clean cuts in hardwoods, softwoods, plywood, laminated wooden fibreboard and synthetic materials
- CV

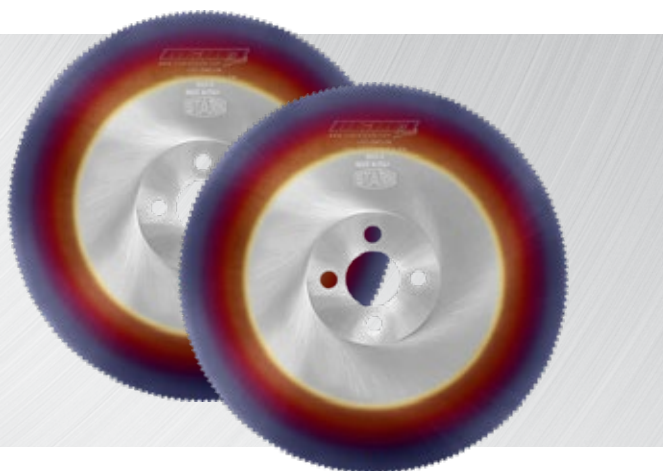


Pitch (TPI)	Cuts (mm)	Overall Length (mm)	Part #
10	4 - 30	100	32-0460

We also do  
**HSS Cold Cut Blades**

Phone with your specifications:

 **0800 488 647**



# Multi-Tool Blades

## Pack (5) Multi-Tool Blades 32mm Plunge & Flush Cut for Wood & Metal

### Features

- Bimetal with 8% Cobalt teeth

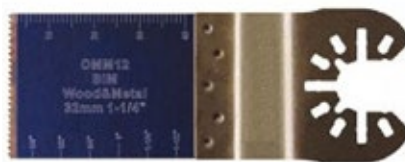
### Material

- Saw blade for wood, plasterboard, plastic, sheet metal, copper and aluminium pipes and profiles.

### Application

- Flush cutting a nail, cutting copper pipes and aluminium profiles, plunge cutting in plasterboard.

	Width (mm)	Length (mm)	No. of Cutting Edges	Part #
Universal Arbor	32	40	18TPI	32-0740



## Pack (5) Multi-Tool Blades 45mm Plunge & Flush Cut for Wood & Metal

### Features

- Bimetal with 8% Cobalt teeth

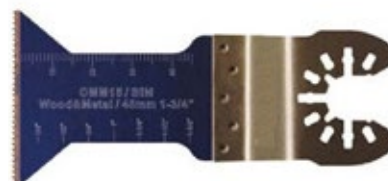
### Material

- Saw blade for wood, plasterboard, plastic, sheet metal, copper and aluminium pipes and profiles.

### Application

- Flush cutting a nail in wood, cutting copper pipes and aluminium profiles, plunge cutting in plasterboard.

	Width (mm)	Length (mm)	No. of Cutting Edges	Part #
Universal Arbor	45	48	18 TPI	32-0760



## Pack (5) Multi-Tool Blades 87mm Radius Cut for Wood & Nails

### Features

- Bimetal with 8% Cobalt teeth

### Material

- Saw blade for wood, veneered panels, plastic and laminated panels, sheet metal, copper and aluminium pipes and profiles.

### Application

- Flush cutting a nail, cutting a door frame, laminate/parquet, cutting aluminium profiles, plunge-cutting.

	Width (mm)	No. of Cutting Edges	Part #
Universal Arbor	87	20 TPI	32-0786



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- 🌐 tungstenandtool.com



# BANDSAW BLADES

**Even with the latest in high tech CNC cutting equipment there is still very much a place in the industry for the humble Bandsaw.**

In fact, with the constant development of new materials and the obvious necessity to cut contours and shapes in them, there are more blade choices than ever!

- **CV Hardened Tooth** – standard blades used traditionally for cutting wood and plastics
- **HSS Welded Edge** – for abrasive wood types, some composites and steel [with coolant].
- **Tungsten Tipped** – for composites, abrasive woods.
- **Tungsten Grit** – for composites, carbon fibre, ceramics.

## Blade Selection

**Blade width** is measured from the tips of the teeth to the back of the blade.

For straight and cut off work, the blade should be as wide as your machine will allow, as the wider the band, the straighter the cut will be.

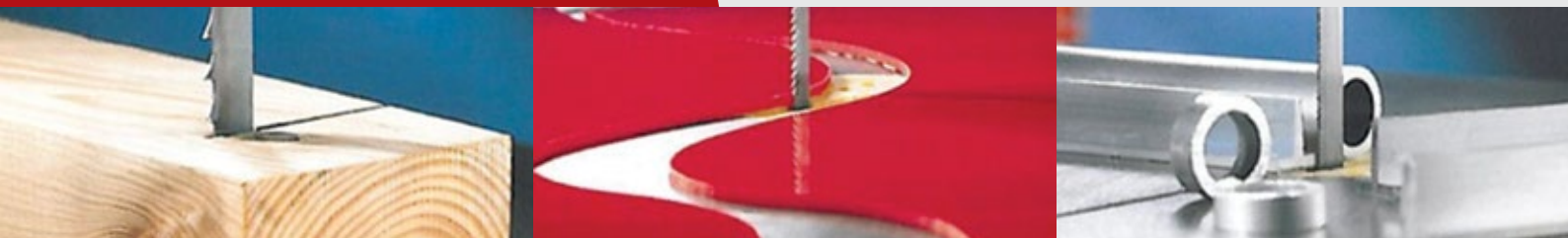
For contour sawing, while the blade should always be as wide as possible, it should be narrow enough to cut the desired shape or radius. Please see specs below:

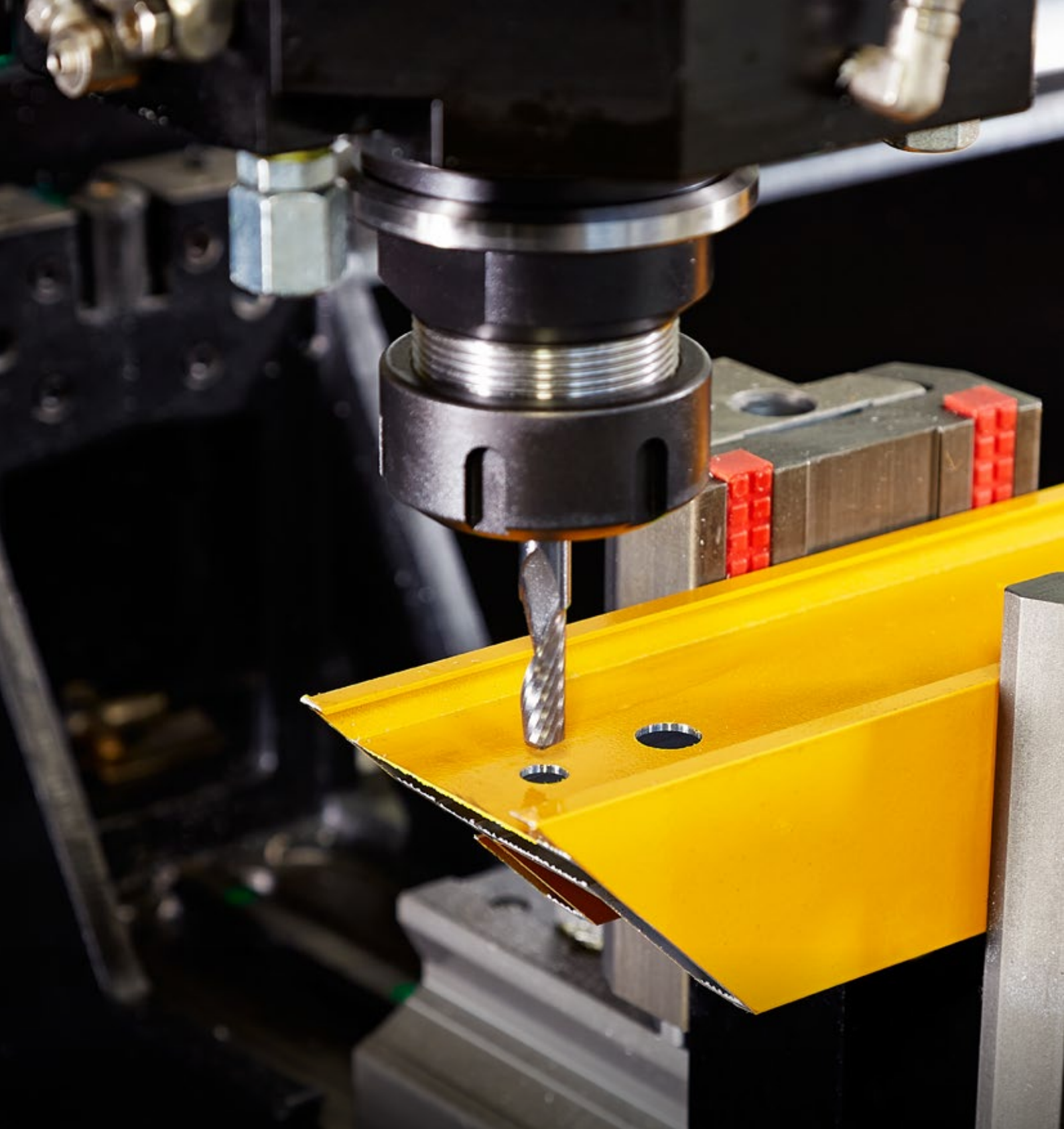
The number of teeth per inch [tpi] is important to obtain the desired finish and the proper feed rate.

- **Coarse** tooth blades [2,3 tpi] should be used for resawing wood and thick stock up to 8" [200mm]
- **Medium** toothed blades [4,6 tpi] are used as a general purpose blade for wood, some plastics and aluminium [6, 8tpi].
- **Fine** toothed blades [10-32 tpi] are used for cutting thin metals
- Consider that there needs to be a minimum of 3 teeth in the work at any one time
- More tpi give a smoother but slower cut
- Fewer tpi allow a faster cut with a slightly rougher finish
- Variable pitch blades are used when cutting a wide variety of thickness metals [please enquire]

Phone the team on **0800 488 647** with your requirements.

**100% Guaranteed Welds**





# ROUTING





# Tungsten Tipped Straight Router Bit - 2 Flute - 1/4" Shank

- For all general purpose routing, grooving and rebating.
- Longer life in routing abrasive materials



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
3.2	8	35	6.35	20-00486
4	8	35	6.35	20-00490
5	8	35	6.35	20-00494
5.5	16	41	6.35	20-00498
5.5	22	54	6.35	20-00502
5.5	28	60	6.35	20-00506
5.8	16	41	6.35	20-00510
5.8	22	54	6.35	20-00514
6	16	41	6.35	20-00518
6	22	54	6.35	20-00522
6.4	16	41	6.35	20-00526
6.4	22	54	6.35	20-00530
7	19	44	6.35	20-00534
7.1	19	44.4	6.35	20-00538
7.9	19	44.4	6.35	20-00542
8	19	44.4	6.35	20-00546
8	25.4	50.8	6.35	20-00550
9	19	44.4	6.35	20-00554
9.5	19	44.4	6.35	20-00558
9.5	25.4	50.8	6.35	20-00562
10	19	44.4	6.35	20-00566
10	25.4	50.8	6.35	20-00570
11	19	44.4	6.35	20-00574
11.1	19	44.4	6.35	20-00578
11.1	25.4	57.4	6.35	20-00582
12	19	44.4	6.35	20-00586
12.7	19	44.4	6.35	20-00590
12.7	25.4	50.8	6.35	20-00594
13	19	44.4	6.35	20-00598
13	25.4	50.8	6.35	20-00602
14	19	44.4	6.35	20-00606
14.3	19	44.4	6.35	20-00610
15	19	44.4	6.35	20-00614
15.9	19	44.4	6.35	20-00618
15.9	25	50.8	6.35	20-00622
16	19	44	6.35	20-00626
16	25	50	6.35	20-00630
16.5	19	44	6.35	20-00634
17	19	44	6.35	20-00638
17.5	19	44	6.35	20-00642
18	19	44	6.35	20-00646
18	25	50	6.35	20-00650
18.5	19	44	6.35	20-00654
19	19	44	6.35	20-00658
19	25.4	44	6.35	20-00666
19.5	19	44	6.35	20-00670
20	19	44	6.35	20-00674
20.5	19	44	6.35	20-00678
21	19	44	6.35	20-00682
22	19	44	6.35	20-00686
22.2	19	44	6.35	20-00690
25	19	44	6.35	20-00694
25.4	19	44	6.35	20-00698

# Tungsten Tipped Straight Router Bit - 2 Flute - 1/2" Shank

- For all general purpose routing, grooving and rebating.
- Longer life in routing abrasive materials

**Plunge Router bits also available**



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
2.4	12.7	50.8	12.7	20-00700
3	10	50.8	12.7	20-00702
3.2	12.7	50.8	12.7	20-00704
4	12.7	50.8	12.7	20-00708
4.8	16	54	12.7	20-00712
5	10	50.8	12.7	20-00716
6	16	70	12.7	20-00718
6.35	19	60	12.7	20-00720
6.6	19	60	12.7	20-00728
7	19	60	12.7	20-00732
7.9	19	73	12.7	20-00736
7.9	25.4	70	12.7	20-00724
8	19	73	12.7	20-00740
8	25.4	65	12.7	20-00744
9	25.4	70	12.7	20-00748
9.5	19	59	12.7	20-00752
9.5	25	70	12.7	20-00756
9.5	37	78	12.7	20-00760
10	19	60	12.7	20-00764
11.1	25.4	50	12.7	20-00768
11.1	25.4	70	12.7	20-00772
12	25.4	70	12.7	20-00776
12	32	72	12.7	20-00780
12.7	25.4	65	12.7	20-00784
12.7	32	70	12.7	20-00792
12.7	38	76	12.7	20-00804
12.7	50.8	90.5	12.7	20-00808
12.7	57	101	12.7	20-00812
12.7	63.5	111	12.7	20-00814
13	32	76	12.7	20-00816
13	50.8	95	12.7	20-00820
13	32	64	12.7	20-00824
14	32	76	12.7	20-00828
14.3	32	76	12.7	20-00832
15	38	82	12.7	20-00836
15.9	25.4	64	12.7	20-00840
15.9	38	82	12.7	20-00844
15.9	50.8	95	12.7	20-00848
16	32	64	12.7	20-00852
16	38	82	12.7	20-00860
16	50.8	95	12.7	20-00868
16.5	38	82	12.7	20-00872
17	38	82	12.7	20-00876
17.5	38	82	12.7	20-00880
18	38	82	12.7	20-00884
18	50.8	95	12.7	20-00888
18	57	97	12.7	20-00892
18.5	38	82	12.7	20-00896
19	32	70	12.7	20-00900
19	38	82	12.7	20-00904
19	50.8	95	12.7	20-00908
19	57	90	12.7	20-00920
19.5	38	82	12.7	20-00924
20	38	82	12.7	20-00928
20.6	38	82	12.7	20-00932
22	32	72	12.7	20-00936
22.2	38	82	12.7	20-00940

## Tungsten Tipped Straight Router Bit - 2 Flute - 1/2" Shank (cont.)



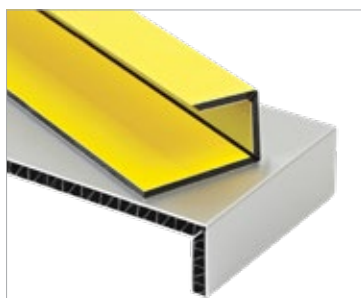
Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
25	38	82	12.7	20-00944
25.4	38	82	12.7	20-00948
28.6	32	76	12.7	20-00952
30	32	76	12.7	20-00956
31.8	31.8	70	12.7	20-00960
32	31.8	76	12.7	20-00964
34.9	31.8	70	12.7	20-00968
38.1	31.8	70	12.7	20-00972
41.3	31.8	76	12.7	20-00976
44.4	31.8	76	12.7	20-00980
47.6	31.8	76	12.7	20-00984
50.8	31.8	76	12.7	20-00988

## Tungsten Tipped ACM Folding Router Bit - 2 Flute

- For creating fold corners in aluminium composite laminate



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Degree Incl [°]	Shank Dia [mm]	Part #
18	7	42	90	6.35	20-04080
45	30.5	81.5	90	12.7	20-04081
16	16	56	110	12.7	20-04082
16	16	56	135	12.7	20-04083



## Tungsten Tipped Flush Trim Router Bit - 2 Flute - 1/4" Shank

- For fast, smooth and accurate trimming cuts for laminates and template work.



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
6.35	19	51	6.35	20-02200
6.35	25	60	6.35	20-02204
9.5	12.7	45	6.35	20-02208
9.5	25.4	57.4	6.35	20-02212
12.7	12.7	45	6.35	20-02220
12.7	15.9	57.1	6.35	20-02224
12.7	20	50	6.35	20-02228
12.7	25.4	67	6.35	20-02232
12.7	31.80	64	6.35	20-02236
15.9	25.4	67	6.35	20-02240

## Tungsten Tipped Flush Trim Router Bit - 2 Flute - 1/2" Shank

- For fast, smooth and accurate trimming cuts for laminates and template work.



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
12.7	12.7	50	12.7	20-02270
12.7	25.4	79	12.7	20-02274
12.7	32	72	12.7	20-02278
12.7	38.1	86	12.7	20-02282
12.7	50.8	98	12.7	20-02286
15.9	25.4	79	12.7	20-02290
18	50	90	12.7	20-02294
22	25.4	86	12.7	20-02298
22	38.1	95	12.7	20-02302

## Tungsten Tipped Inverted Flush Trim Router Bit - 2 Flute - 1/4" Shank

- A handy bit for copy work where the template is between the work and the router



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
9.5	19	55	6.35	20-02350
12.7	19	55	6.35	20-02354
12.7	25.4	63	6.35	20-02358
15.9	19	55	6.35	20-02366
15.9	25.4	63	6.35	20-02362
19	19	55	6.35	20-02370
19	25.4	63	6.35	20-02374

## Tungsten Tipped Inverted Flush Trim Router Bit - 2 Flute - 1/2" Shank

- A handy bit for copy work where the template is between the work and the router



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
19	25	63	12.7	20-02380
19	38.1	92	12.7	20-02382
19	50.8	105.6	12.7	20-02384
28.6	30	68	12.7	20-02388
28.6	32	57	12.7	20-02392
28.6	38	89	12.7	20-02396

# Solid Tungsten O Flute Upcut Spiral Cutter for Aluminium - Single Flute - Metric Range

- High speed cutters for aluminium sheet and block materials
- For use on High-Speed CNC mills, CNC routers and high speed machining centres.



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
2	6	64	6	20-59400
2.5	6	64	6	20-59404
3	8	64	6	20-59408
3	12	64	6	20-59412
4	8	64	4	20-59416
4	20	64	6	20-59420
5	16	64	6	20-59424
6	8	64	6	20-59428
6	14	50	6	20-59430
6	20	64	6	20-59432
8	25	64	8	20-59436
8	38	76	8	20-59440
10	30	76	10	20-59444
12	38	79	12	20-59446

# Solid Tungsten O Flute Upcut Spiral Cutter for Aluminium - Single Flute - Imperial Range

- High speed cutters for aluminium sheet materials
- For use on High-Speed CNC mills, CNC routers and high speed machining centres.



Cut Dia [mm]	Cut Length [mm]	Total Length [mm]	Shank Dia [mm]	Part #
1.6	6.35	38	3.2	20-59300
2.4	6.35	50	3.2	20-59304
3.2	6.35	38	3.2	20-59308
3.2	6.35	50	6.35	20-59312
3.2	12.7	50	6.35	20-59316
3.97	8	50.8	4.88	20-59320
4.8	9.5	38	4.8	20-59324
4.8	9.5	50	6.35	20-59328
4.8	16	50	6.35	20-59332
6.35	9.5	50	6.35	20-59336
6.35	19	63	6.35	20-59340
6.35	31.7	75	6.35	20-59344
7.9	14	63	7.9	20-59348
7.9	19	75	12.7	20-59352
8.3	19	75	12.7	20-59356
9.5	19	75	9.5	20-59360
9.5	28	75	9.5	20-59364
9.5	35	88	9.5	20-59368
12.7	28	88	12.7	20-59372
12.7	35	88	12.7	20-59376

## Solid Tungsten O Flute Upcut Spiral Cutter Pro Range for Aluminium - Single Flute - Metric Range

- High speed cutters for aluminium sheet and block materials
- For use on High-Speed CNC mills, CNC routers and high speed machining centres.



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
3	8	64	6	20-59450
4	12	50	6	20-59453
4	12	64	6	20-59454
4	20	80	6	20-59455
5	10	50	6	20-59456
5	25	80	8	20-59458
6	12	64	8	20-59462
6	16	64	8	20-59464
6	20	70	8	20-59465
8	20	60	8	20-59461
8	25	64	8	20-59466
8	20	80	8	20-59467
8	25	100	8	20-59468
10	25	75	10	20-59469
10	25	120	10	20-59470
10	35	80	10	20-59472
10	25	100	10	20-59473
12	50	100	12	20-59474

## Solid Tungsten Upcut High Helix Spiral Milling Cutter - 2 Flute - Metric Range - for Aluminium

- High speed cutters for aluminium sheet and block materials
- For use on high-Speed CNC mills, CNC routers and high speed machining centres.
- 45 degree helix.



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
5	25	100	5	20-59600
8	38	100	8	20-59604
10	38	100	10	20-59608

# Solid Tungsten Upcut Spiral Cutter - 2 Flute - Metric Range - for Aluminium

- High speed cutters for aluminium extrusion
- 2 flute for a fine finish and less vibration
- 30 degree helix



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
5	25	75	5	20-59630
8	25	100	8	20-59634
10	25	100	10	20-59636

# Solid Tungsten Engraving Cutter 60° - Single Flute

- The half round engraving tools are offered with a wide range of tip sizes and angles to accommodate many engraving styles
- 60° including
- D type
- Suitable for wood, plastic, aluminium and solid surface.



Cut Dia (mm)	Tip Flat (mm)	Total Length (mm)	Degree Inc [°]	Shank Dia (mm)	Part #
6.35	0.13	50	60	6.35	20-50600
6.35	0.25	50	60	6.35	20-50604
6.35	0.5	50	60	6.35	20-50608
6.35	0.76	50	60	6.35	20-50612
6.35	1	50	60	6.35	20-50616
6.35	1.5	50	60	6.35	20-50620
6.35	2.3	50	60	6.35	20-50624
6	0.5	50	60	6	20-50632
6	0.76	50	60	6	20-50636
6	1	50	60	6	20-50640



## Solid Tungsten Engraving Cutter 30° - Single Flute

- The half round engraving tools are offered with a wide range of tip sizes and angles to accommodate many engraving styles
- 30° including
- D type
- Suitable for wood, plastic, aluminium and solid surface.



Cut Dia (mm)	Tip Flat (mm)	Total Length (mm)	Degree Inc (°)	Shank Dia (mm)	Part #
6.35	0.13	50	30	6.35	20-50650
6.35	0.25	50	30	6.35	20-50654
6.35	0.5	50	30	6.35	20-50658
6.35	0.76	50	30	6.35	20-50662
6.35	1	50	30	6.35	20-50666
6.35	1.5	50	30	6.35	20-50670
6.35	2.3	50	30	6.35	20-50674
6	0.5	50	30	6	20-50682
6	0.76	50	30	6	20-50686
6	1	50	30	6	20-50690

## HSSE Cutter for Aluminium - for Copy Routers

- Made for use on copy routers
- Suitable for aluminium and aluminium extrusion



Cut Dia (mm)	Cut Length (mm)	Total Length (mm)	Shank Dia (mm)	No. of Flutes	Part #
3	12	60	8	1	20-43280
3	10	100	8	1	20-43284
4	12	60	8	1	20-43296
5	12	60	8	1	20-43788
5	15	67	8	1	20-43994
5	18	60	8	1	20-43992
5	40	100	8	1	20-44002
5	25	80	8	1	20-44000
5	25	100	8	1	20-44003
6	14	60	8	1	20-44004
6	14	60	6	1	20-44005
6	25	70	8	1	20-44012
6	14	80	8	1	20-44020
6	25	80	8	1	20-44021
6	14	100	8	1	20-44212
6	14/45	90	8	1	20-44398
7	14	80	8	1	20-44213
8	14	80	8	1	20-44352
8	25	100	8	1	20-44362
8	25	100	8	1	20-44360
8	25	120	8	1	20-44364
8	30/70	100	8	1	20-44402
10	14	80	8	1	20-44368
10	22	100	8	1	20-44380
10	14	120	10	1	20-44388
6	14	60	8	2	20-44420
8	30	100	8	2	20-44424
10	25	120	10	2	20-44428



# BORING & DRILLING TOOLS

**NZ**

**AUS**

## HSS Jobber Drills – Metric

- For clean drilling
- Suitable for solid wood, wood composites, steel and composites.



Cut Dia [mm]	Flute Length [mm]	Overall Length [mm]	Part #
1	12	34	25-0640
1.5	18	40	25-0643
2	24	49	25-0646
2.5	30	57	25-0649
3	36	61	25-0652
3.3	36	65	25-0655
3.5	39	70	25-0657
4	43	75	25-0660
4.2	43	75	25-0663
4.5	47	80	25-0666
5	52	86	25-0669
5.3	52	86	25-0672
5.5	57	93	25-0675
6	57	93	25-0678
6.3	63	101	25-0681
6.5	63	101	25-0684
6.8	69	109	25-0687
7	69	109	25-0690
7.5	69	109	25-0693
8	75	117	25-0696
8.5	75	117	25-0699
9	81	125	25-0702
9.5	81	125	25-0705
10	87	133	25-0708
10.2	87	133	25-0711
10.5	87	133	25-0714
11	94	142	25-0717
11.5	94	142	25-0720
12	101	151	25-0723
12.3	101	151	25-0726
12.5	101	151	25-0729
13	101	151	25-0732

## HSS Jobber Drills – Imperial

- For clean drilling
- Suitable for solid wood, wood composites, steel and composites.



Diameter [mm]	Diameter [Fraction]	Overall Length [mm]	Part #
2.78	7/68"	61	22-30350
3.17	1/8"	65	22-30354
3.57	9/64"	70	22-30358
3.97	5/32"	75	22-30362
4.76	3/16"	86	22-30366

# HSS Long Series Jobber Drills - Metric



Drill (mm)	OAL (mm)	Flute Length (mm)	Part #
2	95	62	9ELM020
2.5	95	62	9ELM025
3	130	76	9ELM030
3.3	106	69	9ELM033
3.5	137	76	9ELM035
3.8	120	78	9ELM038
4	146	86	9ELM040
4.5	146	86	9ELM045
5	152	92	9ELM050
5.5	152	92	9ELM055
6	156	95	9ELM060
6.5	159	98	9ELM065
7	159	98	9ELM070
7.5	162	102	9ELM075
8	165	105	9ELM080
8.5	165	105	9ELM085
9	171	108	9ELM090
9.5	171	108	9ELM095
10	178	111	9ELM100
10.5	184	117	9ELM105
11	184	117	9ELM110
11.5	184	117	9ELM115
12	197	121	9ELM120
12.5	197	121	9ELM125
13	203	121	9ELM130

## Jobber Drill Set - 25 Piece 1mm - 13mm

- High speed steel, ground and hardened for superb strength.
- 1 – 13mm in 0.5 increments
- 135° split point for spot drilling without pre-centering
- Manufactured to DIN338 Standards
- Suitable for drilling cast iron, sheet metal, steel, non-ferrous metal, wood and PVC.

	Part #
Jobber Drill Set - 25 Piece 1mm - 13mm	25-0760



## Solid Tungsten Jobber Drills

- For clean holes
- Long life Tungsten
- Suitable for wood composites, steel, aluminium and composites.
- Ideal for CNC



Cut Dia (mm)	Flute Length (mm)	Total Length (mm)	Part #
4.1	43	75	25-0600
4.2	43	75	25-0601
5	52	86	25-0602
5.1	52	86	25-0603
6	57	93	25-0604
6.5	63	101	25-0605
6.8	69	109	25-0606
8	75	117	25-0608
8.5	75	117	25-0612
10	87	133	25-0616
12	101	151	25-0620

## Three Flute HSSE Countersinks

- For drilling in aluminium and plastics
- 90 degrees



Cut Dia (mm)	CSK Length (mm)	Total Length (mm)	Shank Dia (mm)	Part #
12.4	4	55	8	22-26252
10	4	50	6	22-26260
15	5	60	8	22-26262
19	5	65	10	22-26268

## HSS Countersinks

- HSS Countersinks with through holes for use in aluminium and steel
- Also suitable for plastics



Degrees (incl)	Cut Dia (mm)	CSK Length (mm)	Total Length (mm)	Part #
82	8.7	3.7	55	22-26291
82	9.9	4	55	22-26289
82	13.5	4.8	55	22-26290
90	8.7	4	46	22-26401
90	21	8	64.5	22-26406
90	35	14	97	22-26412

## HSS Standard Stepdrills



Diameter (mm)	Cut Length (mm)	Shank Dia (mm)	Overall Length (mm)	Type
9.5	4.8 x 20	9.5	170	C/Sink
6	3.5 x 8		125	C/Sink



We also supply  
**HSS Custom  
Stepdrills**

Phone with your specifications:



 **0800 488 647**



**NZ**

 **0800 488 647** (freephone)  
 [tungstenandtool.co.nz](http://tungstenandtool.co.nz)

**AUS**

 **1800 488 647** (freephone)  
 [tungstenandtool.com](http://tungstenandtool.com)

## HSS Multi-Step Drills

- A wide range of sizes in a single drill
- Manufactured from Premium HSS raw material and TIN Coated for reduced heat and long life
- Ideal for drilling thin materials such as stainless steel, copper, brass, aluminium, plastic and laminates.
- Self-starting tip to prevent drill wandering
- Drill and deburring in the one process
- Laser marked diameters that will not wear off with use
- 3 flats on shank to prevent slipping in chuck

No. Of Steps	Drill (mm)	Part #
9 Steps	4 - 12	25-0994
9 Steps	4 - 20	25-0996
13 Steps	6 - 30	25-0998
14 Steps	6 - 32	25-1000



## HSS Machine Taps

- To drill cored hole, thread cutting and deburr in ONE operation.



Diameter	Cut Length (mm)	Diameter (mm)	Part #
M3	16	56	22-22700
M4	18	63	22-22701
M5	20	71	22-22702
M6	22	80	22-22703
M8	26	95	22-22704
M10	30	106	22-22705
M12	32	115	22-22706

## KONIG GREEN RECYCLING

Tungsten & Tool's new initiative that enhances NZ's clean, green image. Recycle your old tungsten and earn \$\$! Then just sit back and breathe easy knowing that you're doing your bit for NZ's ecosystems!



# Bi-Metal Holesaws

- Cobalt Bi-Metal Holesaws for clean, fast drilling in steel and wood.
- 35mm boring depth



Cut Dia (mm)	Part #
14	33-1560
16	33-1564
17	33-1568
19	33-1572
20	33-1576
21	33-1580
22	33-1584
24	33-1588
25	33-1592
27	33-1596
29	33-1600
30	33-1604
32	33-1608
33	33-1612
35	33-1616
37	33-1620
38	33-1624
40	33-1628
41	33-1632
43	33-1636
44	33-1640
45	33-1644
46	33-1648
48	33-1652
50	33-1656
51	33-1660
52	33-1664
54	33-1668
55	33-1672
57	33-1676
59	33-1680
60	33-1684
64	33-1688
65	33-1692
67	33-1696
68	33-1700
70	33-1704
73	33-1708
75	33-1712
76	33-1716
79	33-1720
83	33-1724
86	33-1728
89	33-1732
92	33-1736
95	33-1740
98	33-1744
100	33-1748
102	33-1752
105	33-1756
108	33-1760
111	33-1764
114	33-1768
121	33-1772
127	33-1776
140	33-1780
146	33-1784
152	33-1788



## Industrial Holesaw Set



Description	Sizes in set	Part #
Industrial Holesaw Set 8pc	16, 20, 25, 32, 44, 51mm + Arbours x 2	33-1800
Industrial Holesaw Set 9pc	19, 22, 29, 38, 44, 51, 57mm + Arbours x 2	33-1804
Industrial Holesaw Set 11pc	20, 25, 32, 44, 51, 64, 68, 76mm + Arbours x 2	33-1808

## Holesaw Arbors

Description	Shank	Hole saw size (mm)	Part #
Small Arbor - Quick release hex shank suits 10mm [3/8"] Chucks	11/32"	14-30	DPA1
Large Arbor - Hex shank suits 12mm [1/2"] chucks	7/16"	32-198	DPA2



## Pilot Drills for Arbor

Description	Shank	Part #
89mm Long [3-1/2"] Pilot Drill for Bi-Metal Holesaw	1/4"	25-0960
114mm Long [4 1/2"] Pilot Drill for Bi-Metal Holesaw	1/4"	25-0961



# Industrial Tungsten Tipped Holesaws

- Premium heavy duty tungsten tipped holesaws with integral shank for clean, fast and accurate boring.
- For use in all materials including fibreboard, carbon fibre, composites and stainless. Not for use on concrete and ceramics.



Cut Dia [mm]	Boring Depth [mm]	Shank Dia [mm]	Part #
16	42	10	33-3388
17	42	10	33-3390
18	42	10	33-3392
19	42	10	33-3396
20	42	10	33-3400
21	42	10	33-3404
22	42	10	33-3408
23	42	10	33-3412
24	42	10	33-3416
25	42	10	33-3420
26	42	10	33-3424
27	42	10	33-3426
28	42	10	33-3428
29	42	10	33-3432
30	42	10	33-3436
32	42	10	33-3440
35	42	10	33-3444
36	42	10	33-3346
38	42	10	33-3448
40	42	10	33-3452
42	42	10	33-3454
44	42	10	33-3456
45	42	10	33-3460
48	42	10	33-3464
50	42	10	33-3468
51	42	10	33-3472
55	42	10	33-3476
57	42	10	33-3478
60	42	10	33-3480
63.5	42	10	33-3484
64	42	10	33-3486
65	42	10	33-3488
68	42	10	33-3492
70	42	10	33-3496
75	42	10	33-3499
76	42	10	33-3500
80	42	10	33-3502
85	42	10	33-3504
86	42	10	33-3506
89	42	10	33-3508
90	42	10	33-3510
95	42	10	33-3512
100	42	10	33-3516
105	42	10	33-3520
110	42	10	33-3524
125	42	10	33-3528
127	42	10	33-3532
140	42	10	33-3536
146	42	10	33-3540
150	42	10	33-3544



# TOOLHOLDING SYSTEMS FOR CNC'S

## HSK 63F Taper

- For extreme precision and reliability
- Made from extremely high strength corrosion resistant steel
- Balanced to 24,000 RPM



Taper Type	Collet Type	Part #
HSK 63F	ER32	27-00040
HSK 63F	ER40	27-00045
HSK 63F	462E	27-00050

## ISO Taper

- For extreme precision and reliability
- Made from extremely high strength corrosion resistant steel
- Balanced to 24,000 RPM



Taper Type	Collet Type	Part #
ISO20	ER16	27-00055
ISO25	ER20	27-00060
ISO30	ER25	27-00065
ISO30	ER32	27-00070
ISO30	ER40	27-00075
ISO30	462E	27-00080

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## Precision Collets

### ER16

- For precision and reliability
- For chuck capacity up to 10mm



Inside Dia (mm)	Outside Dia (mm)	Clamping Tolerance (mm)	Part #
1	17	1 - 0.5	27-16010
2	17	2 - 1	27-16020
3	17	3 - 2	27-16030
4	17	4 - 3	27-16040
5	17	5 - 4	27-16050
6	17	6 - 5	27-16060
7	17	7 - 6	27-16070
8	17	8 - 7	27-16080
9	17	9 - 8	27-16090
10	17	10 - 9	27-16100

## Precision Collets

### ER20

- For precision and reliability
- For chuck capacity up to 12mm



Inside Dia (mm)	Outside Dia (mm)	Clamping Tolerance (mm)	Part #
2	21	2 - 1	27-20020
3	21	3 - 2	27-20030
4	21	4 - 3	27-20040
5	21	5 - 4	27-20050
6	21	6 - 5	27-20060
6.4	21	6.4 - 5.4	27-20064
7	21	7 - 6	27-20070
8	21	8 - 7	27-20080
9	21	9 - 8	27-20090
10	21	10 - 9	27-20100
11	21	11 - 10	27-20110
12	21	12 - 11	27-20120
12.7	21	12.7 - 11.7	27-20127
13	21	13 - 12	27-20130

## Precision Collets

### ER25

- For precision and reliability
- For chuck capacity up to 16mm



Inside Dia (mm)	Outside Dia (mm)	Clamping Tolerance (mm)	Part #
2	26	2 - 1	27-25020
3	26	3 - 2	27-25030
3.5	26	3.5	27-25035
4	26	4 - 3	27-25040
5	26	5 - 4	27-25050
6	26	6 - 5	27-25060
7	26	7 - 6	27-25070
8	26	8 - 7	27-25080
9	26	9 - 8	27-25090
10	26	10 - 9	27-25100
11	26	11 - 10	27-25110
12	26	12 - 11	27-25120
13	26	13 - 12	27-25130
14	26	14 - 13	27-25140
15	26	15 - 14	27-25150
16	26	16 - 15	27-25160

# Precision Collets

## ER32

- For precision and reliability
- For chuck capacity up to 20mm



Inside Dia [mm]	Outside Dia [mm]	Clamping Tolerance [mm]	Part #
2	32.8	2 - 1	27-32020
2.5	32.8	2.5 - 1.5	27-32025
3	32.8	3 - 2	27-32030
4	32.8	4 - 3	27-32040
5	32.8	5 - 4	27-32050
6	32.8	6 - 5	27-32060
7	32.8	7 - 6	27-32070
8	32.8	8 - 7	27-32080
10	32.8	10 - 9	27-32100
12	32.8	12 - 11	27-32120
13	32.8	13 - 12	27-32130
14	32.8	14 - 13	27-32140
16	32.8	16 - 15	27-32160
18	32.8	18 - 17	27-32180
19	32.8	19 - 18	27-32190
20	32.8	20 - 19	27-32200

# Precision Collets

## ER40

- For precision and reliability
- For chuck capacity up to 25mm



Inside Dia [mm]	Outside Dia [mm]	Clamping Tolerance [mm]	Part #
4	40.8	4 - 3	27-40040
5	40.8	5 - 4	27-40050
6	40.8	6 - 5	27-40060
7	40.8	7 - 6	27-40070
8	40.8	8 - 7	27-40080
10	40.8	10 - 9	27-40100
12	40.8	12 - 11	27-40120
13	40.8	13 - 12	27-40130
14	40.8	14 - 13	27-40140
16	40.8	16 - 15	27-40160
18	40.8	18 - 17	27-40180
19	40.8	19 - 18	27-40190
20	40.8	20 - 19	27-40200
25	40.8	25 - 24	27-40250

# Ultra Precision Collets

## 462E

- For extreme precision and reliability



Inside Dia [mm]	Outside Dia [mm]	Length [mm]	Clamping Tolerance [mm]	Part #
3	33.6	52	3 - 2.5	27-44000
4	33.6	52	4 - 3.5	27-44004
5	33.6	52	5 - 4.5	27-44008
6	33.6	52	6 - 5.5	27-44012
1/4"	33.6	52	6.35 - 5.85	27-44016
8	33.6	52	8 - 7.5	27-44020
3/8"	33.6	52	9.52 - 9.02	27-44024
10	33.6	52	10 - 9.5	27-44028
12	33.6	52	12 - 11.5	27-44032
1/2"	33.6	52	12.7 - 12.2	27-44036
16	33.6	52	16 - 15.5	27-44040
18	33.6	52	18 - 17.5	27-44044
20	33.6	52	20 - 19.5	27-44048
25	33.6	52	25 - 24.5	27-44052

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## Precision Sawblade Mounting Arbor

- For extreme precision and reliability
- Made from extremely high strength corrosion resistant steel



Shank Dia [mm]	Total Length [mm]	Part #
20	97.5	27-00220

## Precision Mounting Arbor

- For extreme precision and reliability
- Made from extremely high strength corrosion resistant steel



Taper Type	Shaft Dia [mm]	Shaft Length [mm]	Part #
HSK63F	30	100	27-00200
HSK63F	35	100	27-00205
HSK63F	40	100	27-00210
ISO30	30	100	27-00215
HSK	30	70	27-00217

## Precision Extension Arbors with External Nut

- For extreme precision and reliability
- For use on CNC routers



Shank Dia [mm]	Total Length [mm]	Collet Type	Part #
10	180	ER8M	27-00300
12	80	ER16M	27-00305
16	140	ER16M	27-00310
20	100	ER16M	27-00315
20	140	ER20M	27-00320
20	60	ER20M	27-00325
20	120	ER20M	27-00330
20	150	ER20M	27-00335
20	100	ER25M	27-00340
20	50	ER32	27-00345
20	100	ER32	27-00350
25	50	ER25	27-00355

## Precision Extension Arbors with Internal Collet

- For extreme precision and reliability
- Tapered nose for improved access in tight situations



Shank Dia [mm]	Small End Dia [mm]	Total Length [mm]	Collet Type	Shank Gripping Range [mm]	Part #
16	12	120	SBL6	3 - 6.5	27-00365
16	12	200	SBL6	3 - 6.5	27-00370
20	12	120	SBL6	3 - 6.5	27-00375
20	12	150	SBL6	3 - 6.5	27-00380
20	12	200	SBL6	3 - 6.5	27-00385
25	14	200	SBL6	3 - 6.5	27-00387
25	22	120	SBL12	6 - 12	27-00390
25	22	200	SBL12	6 - 12	27-00395

## CNC Arbor for 3mm cutter

- For extreme precision and reliability
- Made from extremely high strength corrosion resistant steel for high RPM.



Outside Dia [mm]	Inside Dia [mm]	Overall Length [mm]	Part #
10	3	82.5	25-45150



## Opti-Clamp Tool Changing Device

Stop wrestling to change tools and start doing it the fast and easy way with this Opti-Clamp Tool Changing System.

**NO MORE RISK OF DROPPING TOOLS.** Just drop in your tool holder, place your cutter in and do a one-handed tighten with your collet spanner.

- Extreme precision and reliability
- Perfect tool centering
- Sturdy design with reduced height to increase the work space between the machine and the piece
- Safe and fast tool setup

Description	Diameter (mm)	Part #
To fit ISO30, SK30 and HSK50	50	27-44400
To fit HSK63, ISO40 and SK40	63	27-44404



## Height Gauge and Tool Change Set Up

- Vernier digital height gauge
- Safe, fast and easy! All in one. Tighten and loosen your tools easily with one hand and measure tool length easily and simply. Save time, money and injuries!
- Match the tool length of your new cutter with your old cutter - simply!





# BENZ AGGREGATE HEADS

**Of all the manufacturers of CNC router aggregates in the world, one name stands above and ahead of the rest – Benz of Germany.**

Benz have forged an enviable reputation as producers of precise, rugged, reliable, dependable aggregates second to none. Benz spends hundreds of thousands every year on advanced R&D ensuring that their tools remain technologically ahead of the field with specifications that define leadership in productivity.

## Interfaces

All aggregates can be configured to interface with HSK, ISO, BT and all common machine tool tapers. All aggregates are configured to match machine manufacturers model specifications e.g. Homag, Biesse, SCM, Weeke etc

## Ranges

Most Benz aggregates can be specified in either Classic Line or Premium Line Classic line units are grease lubricated. These units are more than adequate for average industrial factory workloads. Premium line units are Oil Bath lubricated for all day, every day heavy duty continuous use.

## Benz Classic Mono

- This unit is Benz' most basic aggregate
- While it is used primarily for sawing, it can be used as a general purpose aggregate for routing, drilling and boring.
- While the Axis angle is fixed at 90°; it can rotate 360° in C axis.
- Max drive torque is 25Nm. This is so important when sawing.



## Benz Classic Mono R

- This is primarily a sawing aggregate
- R stands for reduced rpm – this means that it can run a larger diameter saw blade
- While the Axis angle is fixed at 90°; It can rotate 360° in C axis.
- Torque 25Nm



## Benz Classic Duo

- This is a two outlet aggregate. Both outlets can be individually configured for sawing, routing, boring and drilling.
- One outlet is right hand rotation, the other is left hand.
- While the Axis angle is fixed at 90°; It can rotate 360° in C axis.
- Torque 25Nm



## Benz Classic Quattro

- This is a four outlet aggregate – 2 RH rotation, 2 LH.
- Each outlet can be individually configured for sawing, routing, boring and drilling.
- While the Axis angle is fixed at 90°; It can rotate 360° in C axis.

### Torque

- Milling Spindle 25Nm
- Drilling Spindle 10Nm



## Benz Classic Flex D

- This is a variable Axis angle aggregate
- Axis angle from -5° to +100°
- 360° rotation in C axis
- The single outlet can be configured for sawing, routing, boring and drilling.
- Digital angle readout
- Torque 25Nm



# SHARPENING EXPRESS

Sharpening Express is an easy, hassle free way of having your tooling expertly serviced.

[With over 30 years of sharpening experience you can be assured of a premium job!]

Here's how it works:

- 1 We provide you with a pre addressed polycarbonate storage box for you to put your dull cutting tools... **FREE**
- 2 Once you're ready, fasten the lid, phone us **TOLL FREE on 0800 488 647** and we'll organise pick up and look after it from there.
- 3 Our experts will service your cutting tools and send it back... **FREIGHT FREE\***

Freephone

 **0800 488 647**

## EASY WAY

- ✓ Sawblades
- ✓ Router bits
- ✓ Planer blades
- ✓ Bandsaw blades

## Hassle FREE!

Get your tools sharpened when you want... not when somebody else decides to turn up!!



# CLEANING & LUBRICATING

## PreKote Cleaner

- Water soluble, non-volatile all in one surface pre-treatment for metals:
- Aluminium, anodised, composite, galvanised, magnesium, plastic, steel, titanium – even glass.
- PreKote is an easy-to-use, all-in-one surface pre-treatment product. This product provides superior paint adhesion, improved flexibility and advanced corrosion protection for all paintable surfaces, while being completely safe and hazard-free.
- Replaces acid etches, solvent washes and other toxic substances used on metal and composite substrates prior to priming and painting.
- Removes welding marks from aluminium.
- Non volatile
- Non toxic



	Part #
PreKote 1L	15-0264
PreKote 20L	15-0266

## Gleiten-Lube AL Aluminium Lubricant

- This German product is a non-toxic, non-allergenic and non-volatile oil based lubricant designed specially for machining aluminium.
- It is the original lubricant supplied with Elumatic, Emmegi & FOM aluminium processing machinery.



	Part #
Gleiten Lube AL 5L	15-0112
Gleiten Lube AL 20L	15-0100

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## Gleiten-Lube AL Aluminium Lubricant - Residue Free Version

- This German product is a non-toxic, non-allergenic and non-volatile oil based lubricant designed specially for machining aluminium.
- It is the original lubricant supplied with Elumatic, Emmegi & FOM aluminium processing machinery.
- New Low-Residue version

	Part #
Gleiten Lube AL 5L - Low Residue	15-0120
Gleiten Lube AL 20L - Low Residue	15-0124



## Aluminium Cutting Lube - Moderate Duty

Economical, moderate to heavy-duty minimum quantity.

### Characteristics

- Moderate to heavy-duty
- Vegetable-based, biodegradable lubricant.
- Non-staining, burns off cleanly in post heat treating.
- For ferrous and nonferrous metals, aluminum and titanium.
- Clean with soap and water

### Applications

- Aluminum machining, cutting and sawing.
- Moderate-duty milling, drilling, tapping and punching.
- Replacing "mist" type lubricant and coolant
- Aluminum applications with post-heat treating

Size (Litre)	Part #
3.78	15-0258



## Lubricant Stick 300gm

- Lengthens sawblade life by keeping blade cool at cutting points
- Ideal when sawing aluminium
- Should be used at regular intervals
- Apply straight on to the teeth of a stationary blade
- A solid lubricant with a low melting point designed to be directly applied to metal cutting tools, including drills and sawblades.
- Supplied in a convenient push-up tubular dispenser
- Does not splash or require extraction, unlike flood and spray coolant systems.
- Provides excellent lubrication when machining or sawing aluminium, including anodised extrusions, with minimum cleaning up required afterwards.



	Part #
Lubricant Stick 300gm	15-0235

## SHARPENING EXPRESS


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- 3 Our experts will service your cutting tools and send it back... **FREIGHT FREE\***

Freephone

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### EASY WAY

- ✓ Sawblades
- ✓ Router bits
- ✓ Planer blades
- ✓ Bandsaw blades



## Hassle FREE!

Get your tools sharpened when you want... not when somebody else decides to turn up!!

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## Water Soluble Cutting Fluid - Oil Based

Longlife heavy duty metal cutting fluid. Water-mix cutting fluid formulated to give a long predictable sump life. It provides exceptional performance in medium/severe cutting operations on a wide range of ferrous and non-ferrous metals. Provides a combination of extreme pressure performance and long sump life that permits increased machining rates and true cost efficiency.

Size (Litre)	Part #
4	15-0270



## Water Soluble Cutting Fluid - Mineral Based

Ultracut Longlife: A high quality, heavy duty, water dilutable mineral soluble cutting oil formulated to give exceptionally long fluid life, good cutting performance and excellent corrosion resistance. It is suitable for medium/severe duty machining on a wide range of ferrous and non-ferrous metals including copper alloys.

Size (Litre)	Part #
20	15-0272



## Lube Spray Aerosol Can

- High duty aerosol cutting oil with extreme pressure additives.
- Best possible cutting lubricating oil film
- No silicone or chlorine

Size (ml)	Part #
400	15-0278



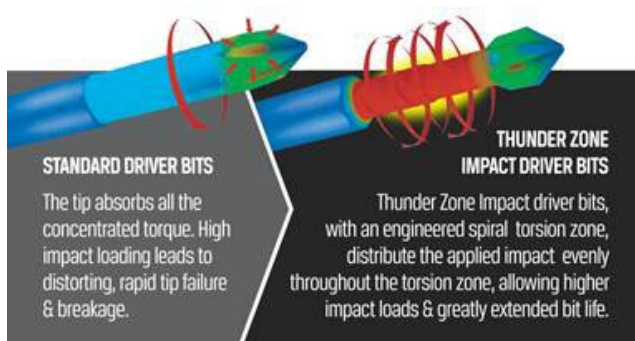


# ACCESSORIES



# Thunderzone Screwdriver Bits

- Smart head design
- Greater magnetism and optimum hardness showing less wear and have a longer service life
- Experience less cam-out
- Overall improved operational and economic benefits
- Round shanks that are designed to leave no marks if the shanks come into contact with the product



## Square Thunderzone Screwdriver Bits

- Sold in packs of 10



Type	Length [mm]	Part #
SQ1	50	13-6124
SQ1	90	13-6128
SQ2	50	13-6132
SQ2	75	13-6130
SQ2	90	13-6136
SQ2	100	13-6140
SQ2	150	13-6144

## Philips Thunderzone Screwdriver Bits Philips

- Sold in packs of 10



Type	Length [mm]	Part #
PH1	50	13-6100
PH2	50	13-6104
PH2	100	13-6108
PH2	150	13-6110

## Philips Thunderzone Screwdriver Bits Pozi

- Sold in packs of 10



Type	Length [mm]	Part #
PZ1	50	13-6112
PZ1	90	13-6114
PZ2	50	13-6120
PZ2	100	13-6122

## Torque Wrenches for 'Torx' screws

Overtightening your screws can cause a lot of issues including knife breakage, stripping and straining. These tools are preset to the best torque setting for your size screw to prevent overtightening.

Description	Nuton Metres	Torx	Part #
Torque Wrenches for 'Torx' screws	1.4	T9	9-3820
Torque Wrenches for 'Torx' screws	3	T15	9-3824



## Industrial V-Force 8M Tape

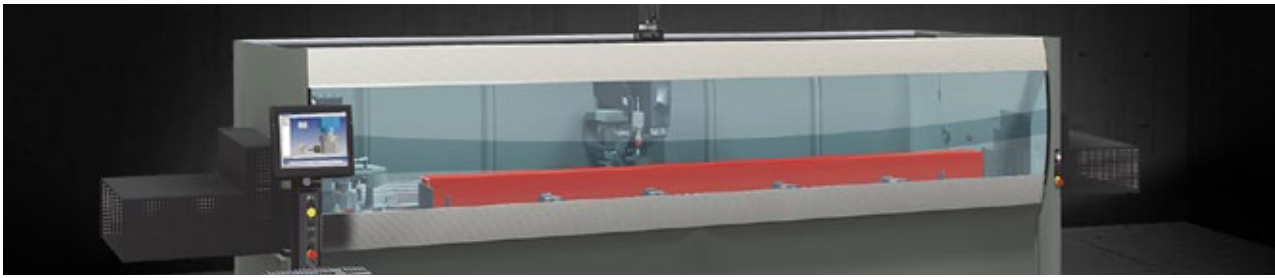
- 4 rivet end hook for extra strength on 8m and 10m tapes
- Double nylon coated matte finish blade for abrasion resistance
- Rubber sides and grip for comfortable use
- Extra thick bade material for superior life
- Fully graduated millimetre markings on 8m and 10m to limit 100mm syndrome
- Thickened true zero end hook to maintain accuracy

Description	Nuton Metres	Torx	Part #
Industrial 8m Tape	1.4	T9	9-500





# CNC MACHINE SETUPS



## Emmegi CNC Tools

### Cutters - Single Flute

Diameter [mm]	Cut Length [mm]	Shank Dia [mm]	Total Length [mm]	Part #
3	12	3	64	20-56724
3	10	8	100	20-43284
5	25	8	80	20-59458
8	25	8	64	20-59466
8	25	8	80	20-59467
10	25	10	120	20-59470

### Cutters - 2 Flute

Diameter [mm]	Cut Length [mm]	Shank Dia [mm]	Total Length [mm]	Part #
5	25	5	75	20-59630
8	25	8	100	20-59634
10	25	10	100	20-59636

### Step Drill

Diameter [mm]	Cut Length [mm]	Shank Dia [mm]	Total Length [mm]	Part #
9.5	4.8 x 20	9.5	170	C/Sink

### Cutting Fluid

Part #
20Ltr Gleiten-Lube AL
15-0100

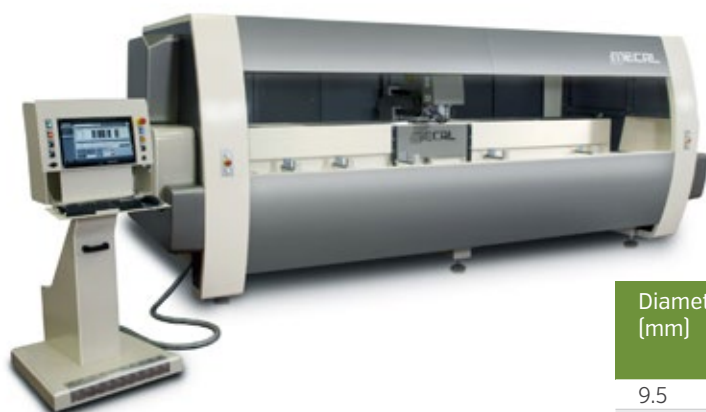
### Toolholding

	Outside Dia [mm]	Inside Dia [mm]	Total Length [mm]	Part #
HSK ER32 Toolholder				27-00040
ER32 Collets				27-320
Adaptor for 3mm cutter	10	3	82.5	25-45150

### Milling Blade

Diameter [mm]	Kerf [mm]	Teeth	Bore	Part #
180	3.2	28T	32mm Bore +FT	LMVA01CL41060
180	4.5	56T	20mm Bore + 6FSV	LMVA04CL41060
200	4	36T	22mm Bore + Keyway	PI-402-4mm
200	6	36T	22mm Bore + Keyway	PI-402-6mm

## Mecal CNC Tools



### Cutters - Single Flute

Diameter (mm)	Cut Length (mm)	Shank Dia (mm)	Total Length (mm)	Part #
9.5	35	9.5	88	20-59368
4	8	8	64	20-59416
6.35	31.7	6.35	75	20-59344

### Drills

Diameter (mm)	Overall Length (mm)	Type	Part #
3.5	64	Tungsten	22-29850
5	76	Tungsten	22-29851
2.78	61	HSS	22-30350
4	75	HSS	25-0660

### Step Drills

Diameter (mm)	Cut Length (mm)	Shank Dia (mm)	Total Length (mm)	Part #
6	3.5 x 8	6	125	C/Sink

### Cutting Fluid

Part #
LB3000 Lube

### Toolholding

Part #	Cut Length (mm)	Shank Dia (mm)	Total Length (mm)
ISO30 ER25 Toolholder			27-00065
ER25 Collet			27-250

### Groover/Milling Tools

Diameter (mm)	Kerf (mm)	Teeth	Bore	Part #
180	3.2	28T	32mm Bore +FT	LMVA01CL41060
180	4.5	56T	20mm Bore + 6FSV	LMVA04CL41060
200	4	36T	22mm Bore + Keyway	PI-402-4mm
200	6	36T	22mm Bore + Keyway	PI-402-6mm

### Spiral Drill & Tap

Size	Total Drill Depth (mm)	Shank Dia (mm)	Total Length (mm)	Part #
M6	44	6	80	22-22703

## Testimonials/Case Studies

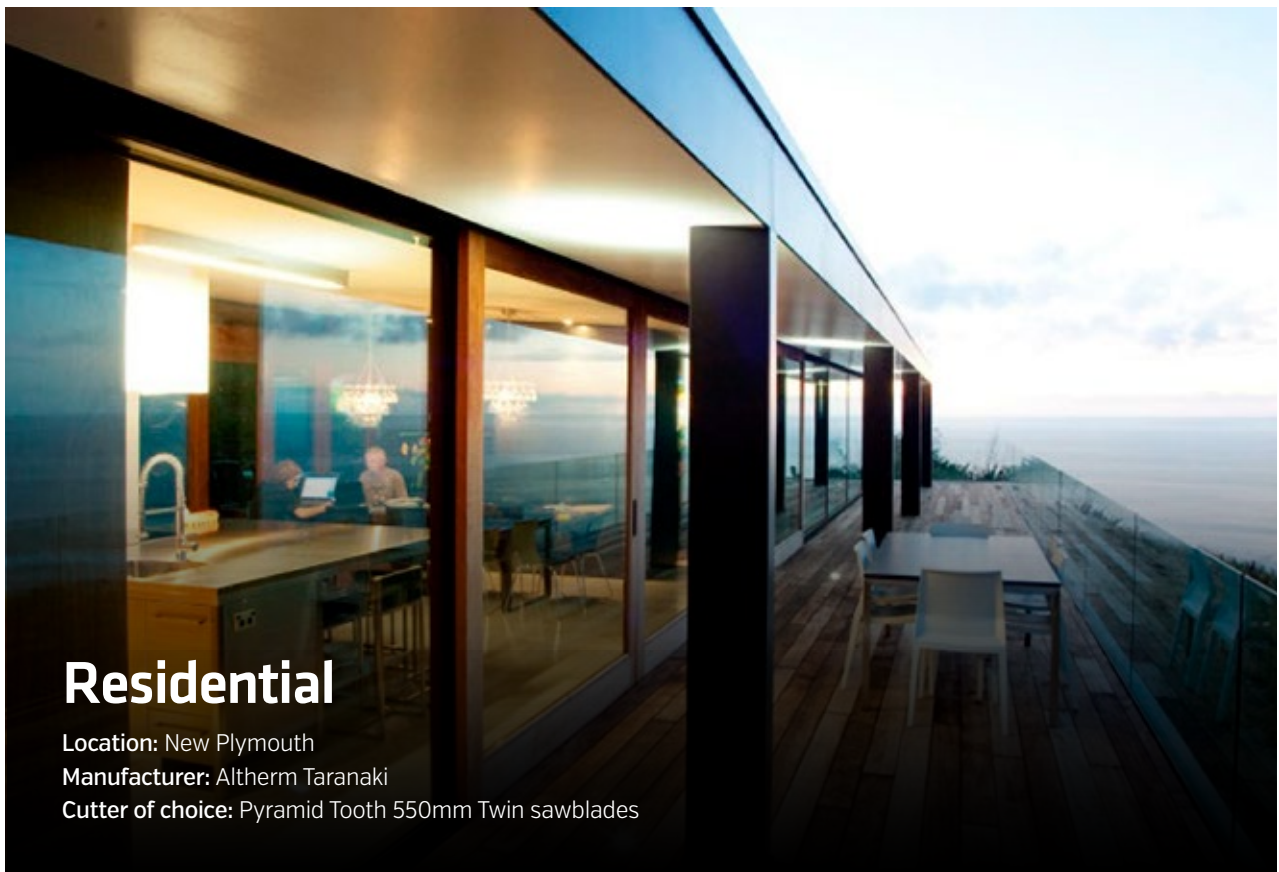


### Commercial

Location: Wanaka

Manufacturer: Vistalite Otago

Cutter of choice: 9.5mm Single Flute Upcut CNC Cutter



### Residential

Location: New Plymouth

Manufacturer: Altherm Taranaki

Cutter of choice: Pyramid Tooth 550mm Twin sawblades





## Boats

Location: Whangarei

Manufacturer: BlackDog Cat

Cutter of choice: 3.2mm Single Flute Upcut Cutter



## Commercial

Location: Auckland

Cutter of choice: 10mm 2Flute Upcut CNC Cutter

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