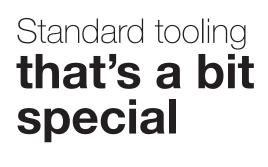
### The go-to range











# Fifty years in the making

Quickgrind has been at the forefront of solid carbide tool design and manufacture for more than fifty years. Always at the cutting edge of innovation, we are constantly setting new standards to deliver the optimum tooling for your project.

This brochure introduces you to our standard range, a selection of go-to tooling designed to meet the need for a wide range of day-to-day applications, and always available on next day delivery.

For non-standard tooling there is our Infinite Possibilities® programme. Turn to the back cover to discover the future of tool purchasing today.

Operating in 37 countries we have an international reputation for solid carbide cutting tools for the aerospace, aircraft, automotive, defence, extrusion die, F1, medical, motorsport, mould and die, oil and gas, power generation, renewables, sub-contract and general engineering industries.

But we don't just sell cutters. Our objective is to become your tooling partner by helping you to increase your productivity. We do this by optimising metal removal rates and tool life, which in turn is achieved by applying the correct technology and the right tool for the job. And not just any job, your job.

This approach has become so successful that it has become known as 'total solution engineering' and has been expanded to include a range of compatible services including CAM strategies, remanufacture and tool vending. Our state-of-the-art Technical Centre is a purpose-built space for you to discover all of these services and more – see pages 12 to 15 to find out more.

Welcome to Quickgrind... we'd love you to join us on the next fifty years of our journey.

Call +44 (0) 1684 294090 or visit quickgrind.com

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### High Performance End Mills

# **High MRR** with longer tool life

The Qcut 4 flute variable end mill is designed for machining a wide range of steel materials including H13, P20 and D2 tool steels. It performs very well in high strength as well as low carbon and leaded steels, cast irons and in some cases free machining stainless steel.

Combine this with trochoidal milling where 10% plus width of cut (ap) and full length of flute (ae) are possible. This cutter provides high MRR and excellent swarf evacuation resulting in considerably longer tool life. Variable helix maintains stability and eliminates resonation even when full depth of cut is engaged.



Steels P Hardened materials H								
Low alloy	Medium alloy 200/252/300	Tool steels	High strength	Hardened steels				
1000/1100/1300		H13/P20/D2	420/5120	45-55 Hrc				

























Can't find what you're looking for? Ask for our full range

#### **Qcut** 4 flute variable end mill for steels

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	Chamfer mm	Stock code	List price £
3.00	58.00	11.00	16.00	2.80	6.00	0.15	803000	28.00
4.00	58.00	11.00	18.00	3.80	6.00	0.15	804000	28.00
5.00	58.00	13.00	18.00	4.80	6.00	0.25	805000	28.00
6.00	58.00	13.00	-	-	6.00	0.25	806000	28.00
8.00	64.00	19.00	-	-	8.00	0.25	808000	36.00
10.00	73.00	22.00	-	-	10.00	0.25	801000	49.00
12.00	84.00	26.00	-	-	12.00	0.25	801200	65.00
16.00	93.00	32.00	-	-	16.00	0.35	801600	106.00
20.00	105.00	38.00	-	-	20.00	0.35	802000	170.00

### MIRAGE

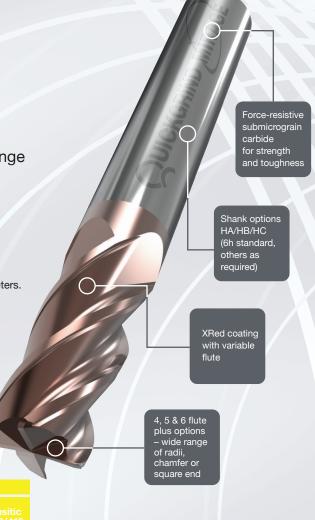
High Performance End Mills

# A cut above

### the rest

Designed for multiple applications in a wide range of materials especially stainless steel, titanium and super alloys, our Mirage 4 flute end mill provides unrivalled high performance.

Suitable for trochoidal milling which allows for full flute engagement with step overs (ae) of anything from ≤ 5% to ≥15% in super alloys/ stainless steel. Depending on the CAM software and machine parameters. Call our Technical team for assistance. We will produce tools with longer than standard flute length if required and also chip breakers which will provide a more secure cutting action - especially helpful when you want to reduce your cycle time by machining to full depth in one pass rather than two or three.



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### Mirage 4 flute variable end mill for super alloys, titanium & stainless steel

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	R mm	Stock code	List price £
3.00	58.00	10.00	20.00	2.80	6.00	0.25	195606	39.30
4.00	58.00	11.00	20.00	3.80	6.00	0.25	195609	39.30
5.00	58.00	14.00	22.00	4.80	6.00	0.25	195612	39.30
6.00	58.00	13.00	-	-	6.00	0.25	195615	39.30
8.00	64.00	18.00	-	-	8.00	0.50	195622	45.50
10.00	73.00	22.00	-	-	10.00	0.50	195629	53.80
12.00	84.00	26.00	-	-	12.00	0.50	195636	66.50
16.00	93.00	32.00	-	-	16.00	0.50	195645	133.40
20.00	105.00	38.00	-	-	20.00	1.00	195655	225.00

High Performance End Mills

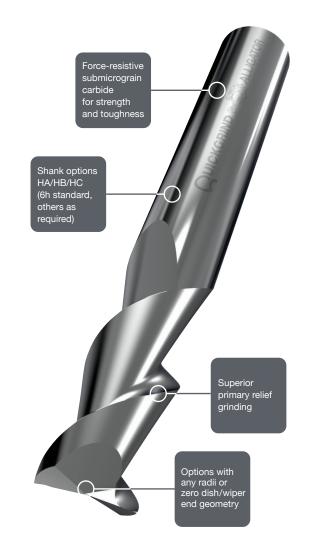
# **High feed**

### with excellent finish

The Alligator Duo 2 flute end mill is designed for machining a wide range of non-ferrous materials such as aluminium alloys.

A well-proven, tried and tested design it has been used for many years on a huge range of components from aerospace and motorsport to mould and die parts. The flute design and end geometry allow for high speed and feed rates with excellent chip clearance and high material removal rates.

The Alligator Duo is especially suitable for roughing strategies and is available with a zero dish option for fine surface finishes.











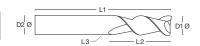














#### **Alligator Duo** 2 flute end mill for aluminium

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	Square corner	Stock code	List price £
3.00	58.00	12.00	20.00	2.80	6.00	✓	198405	16.00
4.00	58.00	12.00	20.00	3.80	6.00	✓	198408	18.00
5.00	58.00	18.00	24.00	4.80	6.00	✓	198411	19.60
6.00	58.00	18.00	30.00	5.80	6.00	✓	198414	21.00
8.00	64.00	18.00	30.00	7.80	8.00	✓	198474	31.20
10.00	73.00	22.00	35.00	9.80	10.00	✓	198480	47.00
12.00	84.00	26.00	45.00	11.80	12.00	✓	198477	55.80
16.00	93.00	32.00	50.00	15.80	16.00	✓	198486	92.00
20.00	105.00	38.00	55.00	19.80	20.00	✓	198484	150.00

#### **ALLIGATOR**

High Performance Ballnose End Mills

### The ballnose with bite

The Alligator Duo 2 flute ballnose is part of our successful Alligator end mill range and provides exceptional performance in most non-ferrous materials including aluminium and aluminium alloys.

Copy milling, contour milling and profile milling are all strategies this tool copes well with, providing a high degree of swarf removal and tool wear resistance.

Our standard uncoated Duo ballnose is from 6.00-16.00mm diameter up to 93.00mm overall length (see table) and is ideal for most applications.



Non-ferrous N







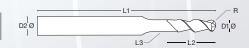












### Alligator Duo 2 flute ballnose for aluminium

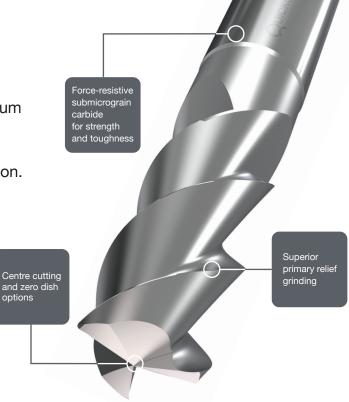
D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	R mm	Stock code	List price £
6.00	58.00	18.00	30.00	5.80	6.00	3.00	298415	24.15
8.00	64.00	18.00	30.00	7.80	8.00	4.00	298475	35.88
10.00	73.00	22.00	35.00	9.80	10.00	5.00	298481	54.05
12.00	84.00	26.00	45.00	11.80	12.00	6.00	298479	67.65
16.00	93.00	32.00	50.00	15.80	16.00	8.00	298480	105.80

Performance enhanced

with high material removal rates

The Alligator Trio 3 flute end mill is ideal for high productivity machining of aluminium and other non-ferrous materials. Superior grinding techniques provide high material removal rates and excellent chip evacuation.

It is suitable for HSM, slotting, roughing, finishing, trochoidal milling, profiling in mould and die, aerospace and other applications.



Non-ferrous N







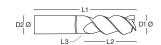














#### Alligator Trio 3 flute end mill for aluminium

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	Chamfer x 45° mm	Stock code	List price £
3.00	58.00	8.00	16.00	2.80	6.00	0.05	398405	24.00
4.00	58.00	11.00	18.00	3.80	6.00	0.06	398408	24.00
5.00	58.00	13.00	20.00	4.70	6.00	0.06	398411	24.00
6.00	58.00	13.00	20.00	5.60	6.00	0.08	398414	24.00
8.00	64.00	19.00	25.00	7.50	8.00	0.10	398421	33.50
10.00	73.00	22.00	30.00	9.50	10.00	0.15	398429	49.50
12.00	84.00	26.00	36.00	11.50	12.00	0.15	398435	60.00
16.00	93.00	32.00	42.00	15.50	16.00	0.20	398444	98.00
20.00	105.00	38.00	50.00	19.50	20.00	0.25	398452	167.00

High Performance End Mills

## The choice

for 6000/7000 series aluminium

The Caiman is fast becoming the preferred tool when machining 6000 and 7000 series aluminium such as 6082 and 7075. Roughing and finishing at high speeds and feed rates are where this tool excels.

Combine this with trochoidal milling where 25% + width of cut (ae) and depth of cuts (ap) of 2-3 xD are possible, this tool provides high MRR and excellent swarf evacuation resulting in very long tool life.



Non-ferrous N

Aluminium alloys 2024, 5052, 5086, 6061, 6063, 6082, 6073, 7075













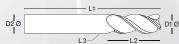












#### Caiman 3 flute end mill for 6000/7000 series aluminium

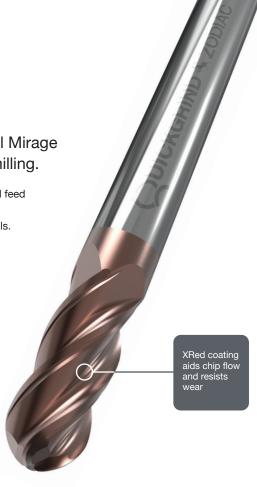
D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	Square corner	Stock code	List price £
3.00	58.00	8.00	13.00	2.80	6.00	✓	698405	27.00
4.00	58.00	12.00	18.00	3.80	6.00	✓	698406	27.00
5.00	58.00	14.00	20.00	4.70	6.00	✓	698407	27.00
6.00	58.00	14.00	-	-	6.00	✓	698408	27.00
8.00	64.00	19.00	-	-	8.00	✓	698409	36.50
10.00	73.00	22.00	-	-	10.00	✓	698410	51.00
12.00	84.00	26.00	-	-	12.00	✓	698411	63.00
16.00	93.00	32.00	-	-	16.00	1	698412	103.00
20.00	105.00	38.00	\-	-	20.00	✓	698413	172.00

High Performance Ballnose End Mills

## A stellar performer

The Zodiac 4 flute ballnose is based on our exceptional Mirage end mill and brings a new dimension to ballnose end milling.

Four flutes provide for highly efficient swarf evacuation and enable high speed and feed machining with great stability. Whether contour milling or profiling this tool excels at roughing, semi-finishing, finishing and super-finishing in a wide range of materials.



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Can't find what you're looking for? Ask for our full range brochure

#### Zodiac 4 flute ballnose for super alloys, titanium & stainless steel

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	R mm	Stock code	List price £
3.00	58.00	10.00	15.00	2.80	6.00	1.50	495906	49.15
4.00	58.00	11.00	16.00	3.80	6.00	2.00	495908	49.15
5.00	58.00	13.00	18.00	4.70	6.00	2.50	495914	49.15
6.00	58.00	13.00	20.00	5.60	6.00	3.00	495915	49.15
8.00	64.00	18.00	27.00	7.50	8.00	4.00	495916	56.90
10.00	73.00	22.00	32.00	9.50	10.00	5.00	495917	67.25
12.00	84.00	26.00	38.00	11.50	12.00	6.00	495918	82.75
16.00	93.00	32.00	44.00	15.50	16.00	8.00	495944	166.75



High Performance Ballnose End Mills

### A real

## warrior

This world beating 2 flute ballnose cutter is used to great effect in mould and die, general engineering and on components such as turbine blades.

Whether used with a 90° or 10-15° tilt approach Gladiator is a stable and accurate tool allowing for high speed cutting and machining. It is suitable for roughing, semi-finishing, finishing and super-finishing with profile, copy or contour milling.



Laurallau
Low alloy 1000/1100/1300

Medium alloy 200/252/300

Tool steels H13/P20/D2

Steels P

High strength 420/5120

Hardened materials H Hardened steels 45-55 Hrc





















#### **Gladiator** 2 flute ballnose for steels

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	R mm	Stock code	List price £
3.00	58.00	5.00	14.00	2.80	6.00	1.50	195912	32.20
4.00	58.00	8.00	14.00	3.80	6.00	2.00	195913	32.20
5.00	58.00	10.00	17.00	4.80	6.00	2.50	195914	36.60
6.00	58.00	12.00	-	-	6.00	3.00	195915	36.60
8.00	64.00	16.00	-	-	8.00	4.00	195916	47.00
10.00	73.00	20.00	-	-	10.00	5.00	195917	60.50
12.00	73.00	25.00	-	-	12.00	6.00	195918	65.50

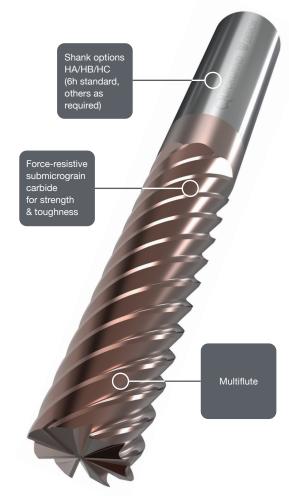


### The strong finisher

### The Demon 8 flute end mill will provide you with unrivalled high performance.

Designed for super-fine finishing applications in a wide range of components and materials, our unique geometry is the precise recipe to ensure highly accurate machining of any surface requiring a superb finish.

Ideal for profile milling in steels and hardened steels up to 55 Hrc, the Demon's higher speeds and feeds rates deliver increased productivity and high material removal rates.



	Stee	Hardened materials H		
Low alloy	Medium alloy	Tool steels	High strength	Hardened steels
1000/1100/1300	200/252/300	H13/P20/D2	420/5120	45-55 Hrc









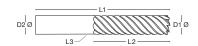












#### **Demon** 8 flute end mill for finishing operations

D1 Ø mm	L1 mm	L2 mm	L3 mm	Neck Ø mm	D2 Ø mm	Square corner	Stock code	List price £
8.00	64.00	20.00	-	-	8.00	✓	9286D8	68.40
10.00	73.00	25.00	-	-	10.00	✓	9286D10	78.40
12.00	84.00	30.00	-	-	12.00	✓	9286D12	98.00
16.00	93.00	40.00	-	-	16.00	/	9286D16	178.00

Can't find what you're looking for? Ask for our full range brochure



### The latest

# machining strategies

Do you have a component that is taking too long to manufacture? Are you struggling to find the time and resources to investigate advanced machining and cutting tool strategies that could easily double your output? If so, you need QuickCam.

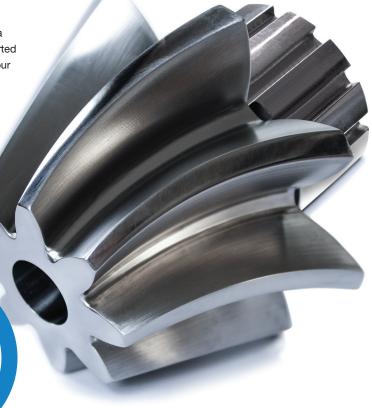
QuickCam is Quickgrind's advanced service designed specifically to support you with the machining of complex parts in difficult materials, like the bevel gear shown here.

Using Open Mind Hypermill MAXX machining as our in-house CAM software we provide accurate cycle time studies to show instant time savings on your parts. We also work with a number of CAM partners such as SolidCam, NCG Cam and Tebis as well as the verification software from CGVericut.

You may only require an optimised toolpath for a certain area of a part. We can provide an NC program which can be inserted into your existing program, enhancing the performance of your machining process and ultimately allowing more parts to pass through your machine shop.

of up to

And if you already have an optimised strategy for your machine, we can of course re-tool your component with our extensive range of high-performance solid carbide tooling.



### Benefits

- Reduced cycle times
- · Reduced tooling costs
- Increased output
- Better due date performance
- Improved capacity
- More throughput
- More happy customers
- More profit



# Adding value to your tooling investment

Many of our cutters are suitable for remanufacture. Our unique QuickEdge process can give you up to seven times extra usage out of your tooling, and with material costs continuing to increase you can't afford to ignore the benefits of remanufacture.

- Tools controlled by size, number of reissues and remanufactures
- Reduced logistics costs
- Extremely attractive price and performance over the life of the tool

Remanufacture doesn't mean compromising on quality. It has always been our policy to produce tools of such high quality that they can be used more than once. Which means that even after seven remanufactures you will continue to enjoy new tool performance.





To produce a precision made product is the norm but to produce it consistently is precise



# 24/7 control of your tooling inventory



### **Special Offer**

Compact table top vending machine with 24 locations equipped with a range of our solid carbide tools

Call today +44 01684 294090

Is your tooling inventory reduced to a minimum? Is it secure? Are your re-stocking orders generated automatically and on time? Do you want to reduce your tool purchase administration costs?

Quickgrind's robust, proven tool vending solutions are the answer to all these issues and more. Once we have audited your tooling requirements and consumption levels, we will supply you with a fully stocked machine (our machines can hold from 300 to 1,680+ individual tools). Usage and stock levels are then automatically monitored and replacement tools sent before your stock runs out.

And because your tooling inventory and usage levels are pre-determined, you regain complete control of your purchase administration time, and costs – to as little as one purchase order and one invoice per month.

Save time, save money... take control of your tooling with a vending solution from Quickgrind.









#### **Benefits**

- 24/7 secure access
- Allows minimum stock holding
- Automatic re-ordering
- User-friendly operation
- Tailor access to specific users
- Easy access to stock information and statistics

- Audit your tooling stock at the push of a button
- Suitable for new and remanufactured tools
- Stocks a wide range of tools types and sizes, and for high or low stock turnover
- Reduces purchase administration costs



## **Improving** your machining performance

Quickgrind's state-of-the-art Technical Centre offers a comfortable and technologically advanced environment to discuss all of your cutting tool requirements, challenges and ambitions.

Our experts will work with you to conduct trials whilst generating and running tool paths and machining strategies. Our investment in the centre enables us to demonstrate what is possible with our ground-breaking tooling and tool management solutions.

The centre is fully equipped with a seminar theatre and training room, meeting rooms and machining centres. Visitors can take a guided tour of our production facility, undergo technical training and discuss their specific requirements.













### **INFINITE POSSIBILITIES.**

What if you could have the optimum tool, with the marginal cost increase more than covered by improved production throughput and efficiency? With Quickgrind, you can. Welcome to a world of Infinite Possibilities.®

At Quickgrind we do not limit ourselves to standard ranges, and we do not limit you to tools we have in stock. Instead, our mission is to provide you with solution-based tooling, to give you the right tool, for the right job, at the right price.

Most of our cutters can be designed specifically for your application – size, diameter, neck relief, coating, reach and number of flutes can all be tailored to your needs. Through-coolant and other options are also available.

End the compromise of standard tooling. Contact our team today to discuss your applications, aims and requirements – there are no limits, only Infinite Possibilities.®

Call +44 (0) 1684 294090 or visit quickgrind.com



