

**P H M S K**

# CARBIDE RIPPERS

## Why use Rippers over HPC mills for roughing operations?

When roughing with ripper cutters, only 50% of the tool is engaged with the workpiece at any one time. This lowers the cutting load and is more friendly on the machine tool spindle.

HPC variable helix end mills can offer higher metal removal rates compared to rippers, but this can come at the expense of spindle wear. Rippers can also offer better chip control.

### **WIG X-SPEED** ROUGHER

Heavy roughing is faster, quieter and more controlled with the cutting power of the X-Speed Rougher.

**P H K**



### **WIG K-2**

General machining stays consistent and predictable with the reliability of K2 Coated Carbide.

**P H M K**



### **WIG TitaNox**

Titanox speeds up production in titanium and sticky stainless by maintaining controlled chip flow, preventing premature tool failure.

**P M S**



### **WIG X-POWER** PRO

Reliable, durable & tough, X-Power Pro is the perfect choice for hardened steels in medium or high speed machining.

**P H**



### **WIG JET-POWER**

Stainless & heat resistant alloys machine cleanly and predictably with the superior performance of Jet Power.

**P M S**



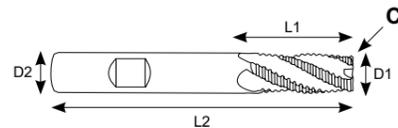


General Purpose

### GENERAL PURPOSE CARBIDE COARSE PITCH RIPPER

For General Purpose Milling of Steel <HRC45, Cast Iron & Stainless Steel

- Designed for general purpose roughing applications
- K2 coated micrograin carbide, 1st choice for general machining
- Suitable for dry milling applications at high temperatures (steel only)
- Chamfer corner prep prevents tool chipping



|                                 |                              |                             |                 |           |
|---------------------------------|------------------------------|-----------------------------|-----------------|-----------|
| Carbon & Alloy Steels<br><HB325 | Pre Hard. Steels<br>HRC30-40 | Hardened Steels<br>HRC40-45 | Stainless Steel | Cast Iron |
| ●                               | ●                            | ●                           | ○               | ●         |



| D1 | D2 | L1 | L2  | Chamfer Prep | No. of Flutes | Order Code | List Price | Offer Price |
|----|----|----|-----|--------------|---------------|------------|------------|-------------|
| 6  | 6  | 16 | 57  | 0.6          | 3             | G9A42060   | £28.19     | £22.55      |
| 8  | 8  | 16 | 63  | 0.6          |               | G9A42080   | £31.23     | £24.98      |
| 10 | 10 | 22 | 72  | 0.6          |               | G9A42100   | £50.35     | £40.28      |
| 12 | 12 | 26 | 83  | 0.74         | 4             | G9A42120   | £68.38     | £54.70      |
| 14 | 14 | 26 | 83  | 0.94         |               | G9A42140   | £83.56     | £66.84      |
| 16 | 16 | 32 | 92  | 0.94         |               | G9A42160   | £106.55    | £85.24      |
| 18 | 18 | 32 | 92  | 0.94         |               | G9A42180   | £142.00    | £113.60     |
| 20 | 20 | 38 | 104 | 0.94         |               | G9A42200   | £161.80    | £129.44     |
| 25 | 25 | 45 | 121 | 0.94         | 5             | G9A42250   | £345.06    | £276.05     |

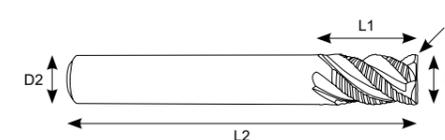


High Performance

### 4 & 5 FLUTE VARIABLE HELIX CARBIDE RIPPER

Nothing Removes Steel Faster, Quieter or For Longer!

- Special variable pitch profile reduces cutting force and stress on your machine spindle at high feed rates & large depth of cut. Nothing rips out steel faster than X-Speed!
- Micrograin carbide with special X1100 coating
- HPC = High performance cutting
- Strong end tooth design for ramping and pocket milling
- Recommended for use with a high performance holder for best tool life & rigidity



|                                 |                              |                             |           |
|---------------------------------|------------------------------|-----------------------------|-----------|
| Carbon & Alloy Steels<br><HB325 | Pre Hard. Steels<br>HRC30-40 | Hardened Steels<br>HRC40-45 | Cast Iron |
| ●                               | ●                            | ●                           | ●         |



| D1 | R   | D2 | L1 | L2  | No. of Flutes | Order Code  |              | List Price | Offer Price |
|----|-----|----|----|-----|---------------|-------------|--------------|------------|-------------|
|    |     |    |    |     |               | Plain Shank | Weldon Shank |            |             |
| 6  | 0.5 | 6  | 9  | 57  | 4             | G9D75060    | G9D67060     | £47.99     | £38.39      |
|    |     |    | 12 |     |               | G9D68060    | G9D68060     | £51.83     | £41.46      |
| 8  | 0.5 | 8  | 12 | 63  | 4             | G9D75080    | G9D67080     | £54.67     | £43.74      |
|    |     |    | 16 |     |               | G9D76080    | G9D68080     | £59.11     | £47.29      |
| 10 | 0.5 | 10 | 15 | 72  | 4             | G9D75100    | G9D67100     | £80.84     | £64.67      |
|    |     |    | 20 |     |               | G9D76100    | G9D68100     | £87.48     | £69.98      |
| 12 | 0.5 | 12 | 18 | 83  | 4             | G9D75120    | G9D67120     | £113.65    | £90.92      |
|    |     |    | 24 |     |               | G9D76120    | G9D68120     | £127.18    | £101.74     |
| 16 | 1   | 16 | 24 | 92  | 5             | G9D75160    | G9D67160     | £162.35    | £129.88     |
|    |     |    | 30 |     |               | G9D76160    | G9D68160     | £179.21    | £143.37     |
| 20 | 1   | 20 | 30 | 104 | 5             | G9D75200    | G9D67200     | £262.12    | £209.69     |
|    |     |    | 40 |     |               | G9D76200    | G9D68200     | £289.93    | £231.95     |

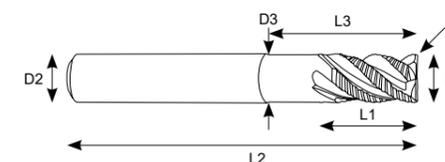
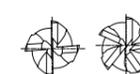


High Performance

### 4 & 5 FLUTE VARIABLE HELIX CARBIDE RIPPER NECKED

Nothing Removes Steel Faster, Quieter or For Longer!

- Special variable pitch profile reduces cutting force and stress on your machine spindle at high feed rates & large depth of cut. Nothing rips out steel faster than X-Speed!
- Micrograin carbide with special X1100 coating
- HPC = High performance cutting
- Strong end tooth design for ramping and pocket milling
- Recommended for use with high performance holder for best tool life & rigidity



|                                 |                              |                             |           |
|---------------------------------|------------------------------|-----------------------------|-----------|
| Carbon & Alloy Steels<br><HB325 | Pre Hard. Steels<br>HRC30-40 | Hardened Steels<br>HRC40-45 | Cast Iron |
| ●                               | ●                            | ●                           | ●         |



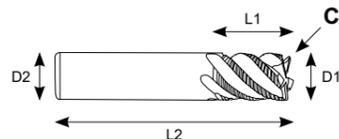
| D1 | R   | D2 | D3   | L1 | L2  | L3 | No. of Flutes | Order Code  |              | List Price | Offer Price |
|----|-----|----|------|----|-----|----|---------------|-------------|--------------|------------|-------------|
|    |     |    |      |    |     |    |               | Plain Shank | Weldon Shank |            |             |
| 6  | 0.5 | 6  | 5.7  | 9  | 57  | 18 | 4             | G9D77060    | G9D69060     | £50.97     | £40.77      |
|    |     |    | 7.7  |    |     |    |               | G9D77080    | G9D69080     | £57.67     | £46.14      |
| 10 | 0.5 | 10 | 9.7  | 15 | 72  | 30 | 4             | G9D77100    | G9D69100     | £85.05     | £68.04      |
|    |     |    | 11.7 |    |     |    |               | G9D77120    | G9D69120     | £118.87    | £95.09      |
| 16 | 1   | 16 | 15.7 | 24 | 100 | 48 | 5             | G9D77160    | G9D69160     | £168.87    | £135.10     |
|    |     |    | 19.7 |    |     |    |               | G9D77200    | G9D69200     | £329.05    | £263.24     |

### MG JET-POWER

#### 3-6 FLUTE FINE PITCH RIPPER, 45° HELIX

High Performance Machining of Stainless Steel, Titanium, Hastelloy & Inconel

- Ideal for high performance roughing of stainless steels, titanium, inconel & also suitable for soft to medium hardness steels
- The 45° geometry and deep flute pockets give excellent chip control in sticky materials
- TiAlN coated ultrafine micrograin carbide
- HSC = Suitable for high speed machining
- High chip removal and minimising breakages of cutting edges



|                           |                              |                 |          |
|---------------------------|------------------------------|-----------------|----------|
| Alloy Steels<br>HB225-325 | Pre Hard. Steels<br>HRC30-40 | Stainless Steel | Titanium |
| ○                         | ○                            | ●               | ●        |

MG SC 3-6 45° FINE PLAIN WELDON C x 45° TiAlN 850 HSC

High Performance

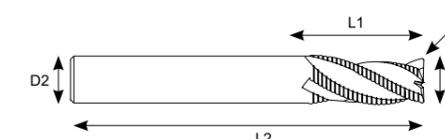
| D1 | D2 | L1 | L2  | No. of Flutes | C    | Order Code  |              | List Price | Offer Price |
|----|----|----|-----|---------------|------|-------------|--------------|------------|-------------|
|    |    |    |     |               |      | Plain Shank | Weldon Shank |            |             |
| 4  | 6  | 11 | 57  | 3             | 0.10 | EH919040    | EH920040     | £42.74     | £36.33      |
| 5  | 6  | 13 | 57  |               |      | EH919050    | EH920050     | £42.74     | £36.33      |
| 6  | 6  | 7  | 54  | 4             | 0.15 | EH917060    | EH918060     | £39.77     | £33.80      |
|    |    | 16 | 57  |               |      | EH919060    | EH920060     | £42.74     | £36.33      |
| 7  | 8  | 16 | 63  | 5             | 0.18 | EH919070    | EH920070     | £49.94     | £42.45      |
|    |    | 9  | 58  |               |      | EH917080    | EH918080     | £46.51     | £39.54      |
| 8  | 8  | 16 | 63  | 6             | 0.20 | EH919080    | EH920080     | £49.94     | £42.45      |
|    |    | 19 | 72  |               |      | EH919090    | EH920090     | £74.69     | £63.49      |
| 10 | 10 | 14 | 66  | 7             | 0.20 | EH917100    | EH918100     | £69.45     | £59.03      |
|    |    | 22 | 72  |               |      | EH919100    | EH920100     | £74.69     | £63.49      |
| 12 | 12 | 16 | 73  | 8             | 0.20 | EH917120    | EH918120     | £89.10     | £75.74      |
|    |    | 26 | 83  |               |      | EH919120    | EH920120     | £95.95     | £81.56      |
| 14 | 14 | 26 | 83  | 9             | 0.20 | EH919140    | EH920140     | £116.35    | £98.90      |
|    |    | 22 | 82  |               |      | EH917160    | EH918160     | £145.30    | £123.51     |
| 16 | 16 | 32 | 92  | 10            | 0.20 | EH919160    | EH920160     | £156.28    | £132.84     |
|    |    | 26 | 92  |               |      | EH917200    | EH918200     | £233.92    | £198.83     |
| 20 | 20 | 38 | 104 | 11            | 0.20 | EH919200    | EH920200     | £251.51    | £213.78     |
|    |    | 45 | 121 |               |      | EH919250    | EH920250     | £440.94    | £374.80     |

### MG TitaNox

#### 5 FLUTE FINE PITCH RIPPER, 40° HELIX

Exceptional Metal Removal Rates on Titanium, Hastelloy, Stainless Steel & Inconel

- TiAlN coated micrograin carbide
- HPC = High performance cutting
- Optimised flute design for chip evacuation and rigidity when machining difficult-to-cut materials
- Special roughing profile for stainless steel and titanium
- Corner protection from chipping



|                        |                              |                 |          |                        |
|------------------------|------------------------------|-----------------|----------|------------------------|
| Alloy Steels<br><HB325 | Pre Hard. Steels<br>HRC30-40 | Stainless Steel | Titanium | HRSA's<br>e.g. Inconel |
| ○                      | ○                            | ●               | ●        | ●                      |

MG SC 5 40° FINE PLAIN WELDON TiAlN COATED HPC

High Performance

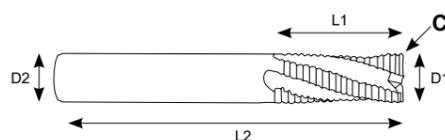
| D1 | R   | D2 | L1 | L2  | Order Code  |              | List Price | Offer Price |
|----|-----|----|----|-----|-------------|--------------|------------|-------------|
|    |     |    |    |     | Plain Shank | Weldon Shank |            |             |
| 6  | 0.2 | 6  | 16 | 57  | EHE54060    | EHE55060     | £57.49     | £48.86      |
| 8  |     | 8  | 16 | 63  | EHE54080    | EHE55080     | £69.36     | £58.96      |
| 10 |     | 10 | 22 | 72  | EHE54100    | EHE55100     | £98.34     | £83.59      |
| 12 | 0.3 | 12 | 26 | 83  | EHE54120    | EHE55120     | £123.49    | £104.97     |
| 14 |     | 14 | 26 | 83  | EHE54140    | EHE55140     | £149.85    | £127.37     |
| 16 |     | 16 | 32 | 92  | EHE54160    | EHE55160     | £200.67    | £170.57     |
| 20 |     | 20 | 38 | 104 | EHE54200    | EHE55200     | £323.35    | £274.85     |
| 25 |     | 25 | 45 | 121 | EHE54250    | EHE55250     | £566.91    | £481.88     |

### MG X-POWER PRO

#### 3 & 4 FLUTE FINE PITCH RIPPER, 20° HELIX

Dedicated Design for Hardened Steel Roughing <HRC60

- Y coated ultrafine micrograin carbide
- Dry or wet cutting
- 20° helix gives highest strength in hard steel roughing



|                           |                              |                             |
|---------------------------|------------------------------|-----------------------------|
| Alloy Steels<br>HB225-325 | Pre Hard. Steels<br>HRC30-40 | Hardened Steels<br>HRC40-60 |
| ●                         | ●                            | ●                           |

MG SC 3&4 20° FINE PLAIN C x 45° Y COATED HSC

High Performance

| D1 | D2 | L1 | L2  | C    | No. of Flutes | Order Code | List Price | Offer Price |
|----|----|----|-----|------|---------------|------------|------------|-------------|
| 6  | 6  | 16 | 57  | 0.38 | 3             | GM814060   | £45.37     | £36.29      |
| 8  | 8  | 16 | 63  |      |               | GM814080   | £53.01     | £42.41      |
| 10 | 10 | 22 | 72  | 0.6  | 4             | GM814100   | £79.28     | £63.42      |
| 12 | 12 | 26 | 83  |      |               | GM814120   | £101.86    | £81.49      |
| 16 | 16 | 32 | 92  |      |               | GM814160   | £165.86    | £132.69     |
| 20 | 20 | 38 | 104 |      |               | GM814200   | £266.91    | £213.53     |

CARBIDE RIPPER

CARBIDE RIPPER