



**DATRON**  
Smart Manufacturing Solutions

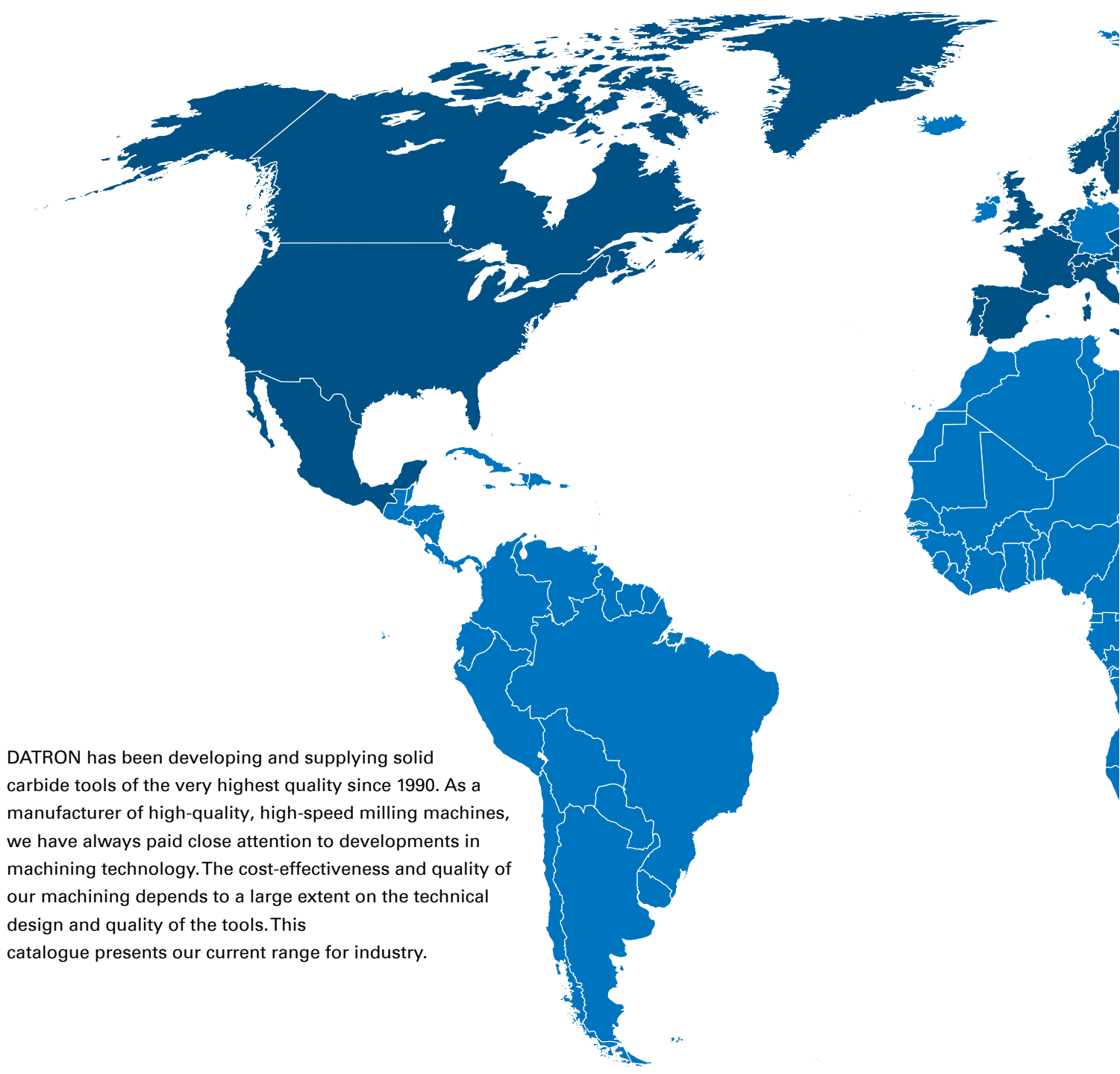
# DATRON HIGH-SPEED MILLING TOOLS

Precision. Performance. For aluminium and other materials...



DATRON

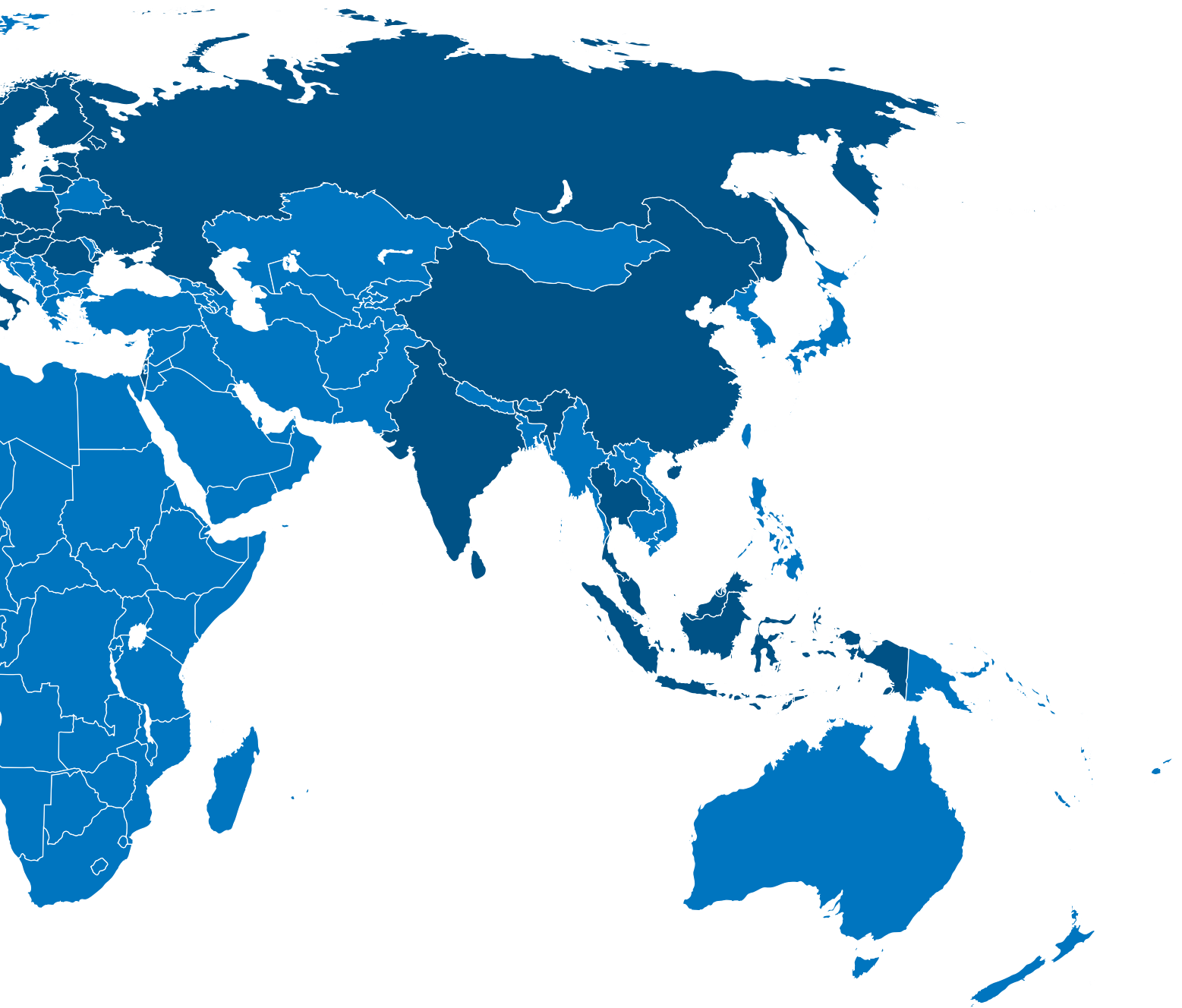
## CNC milling tools



DATRON has been developing and supplying solid carbide tools of the very highest quality since 1990. As a manufacturer of high-quality, high-speed milling machines, we have always paid close attention to developments in machining technology. The cost-effectiveness and quality of our machining depends to a large extent on the technical design and quality of the tools. This catalogue presents our current range for industry.

### **DATRON is present around the world!**

We work with representatives around the world to market our milling tools to guarantee fast delivery for you.



## Contents

| TOOLS                                                                             | MATERIAL                                                                             |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                   | Aluminium                                                                            | Copper                                                                            | Bronze                                                                              | Brass                                                                               | Steel                                                                               | Plastic                                                                             | Wood                                                                                | Foams                                                                               |
|                                                                                   |     |  |  |  |  |  |  |  |
| <b>SHANK MILL</b>                                                                 |                                                                                      |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|    | Single flute end mill 4-IN-1                                                         | ++                                                                                | +                                                                                   | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Single flute end mill balanced                                                       | ++                                                                                | +                                                                                   | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Single flute end mill                                                                | ++                                                                                | +                                                                                   | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Single flute end mill with toric cut                                                 | ++                                                                                | +                                                                                   | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Single flute end mill with coating (ALCRONA)                                         | +                                                                                 |                                                                                     | ++                                                                                  | +                                                                                   |                                                                                     |                                                                                     | +                                                                                   |
|                                                                                   | Single flute end mill with polished flute for acrylic glass                          |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |
|                                                                                   | Single flute end mill left spiral, right cutting                                     | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |
|    | CrossCutter                                                                          | ++                                                                                | +                                                                                   | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Double flute end mill                                                                | ++                                                                                | ++                                                                                  | +                                                                                   | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill with toric cut                                                 | ++                                                                                | ++                                                                                  | +                                                                                   | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill, contour cutter                                                | ++                                                                                |                                                                                     |                                                                                     | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill HSC+                                                           | +                                                                                 | +                                                                                   |                                                                                     | +                                                                                   | ++                                                                                  | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill HSC Fire                                                       | ++                                                                                |                                                                                     |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill with internal cooling                                          | ++                                                                                | ++                                                                                  | +                                                                                   | ++                                                                                  | ++                                                                                  | ++                                                                                  |                                                                                     |
|    | Double flute end mill for machining steel                                            |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Triple flute end mill, roughing cutter for copper                                    |                                                                                   | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Triple flute end mill, finishing cutter for copper                                   |                                                                                   | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Triple flute end mill with toric cut                                                 | +                                                                                 | +                                                                                   |                                                                                     | +                                                                                   |                                                                                     | ++                                                                                  |                                                                                     |
|                                                                                   | Triple flute end mill for foam                                                       |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |
|                                                                                   | Triple flute end mill with coating (X.CEED)                                          |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Four flute end mill with coating (ALCRONA)                                           |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
|  | Micro-toothed end mill                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Micro-toothed end mill with coating (X.CEED/diamond)                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Diamond milling tool for CRP/GRP                                                     |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>FACE MILLING TOOL</b>                                                          |                                                                                      |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|  | Single flute end mill, stepped                                                       | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill, stepped                                                       | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill, stepped and edge radius                                       | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill, stepped with edge radius and polished flute for acrylic glass |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |
|  | Face milling tool/monoblock                                                          | ++                                                                                | ++                                                                                  | +                                                                                   | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |
| <b>BALL NOSE END MILL</b>                                                         |                                                                                      |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|  | Ball nose end mill, one flute                                                        | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Ball nose end mill, one flute and polished for acrylic glass                         |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |
|  | Ball nose end mill, two flutes                                                       | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Ball nose end mill, two flutes with toric cut                                        | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  |                                                                                     |
|                                                                                   | Ball nose end mill, two flutes with coating (ALCRONA)                                |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Ball nose end mill, four flutes with coating (ALCRONA)                               |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
| <b>TORIC END MILL</b>                                                             |                                                                                      |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|  | Double flute end mill with edge radius                                               | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|                                                                                   | Double flute end mill with edge radius and coating (Triple-Cut)                      | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |
|  | Four flute end mill with edge radius and coating (X.CEED)                            |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |
|                                                                                   | Four flute end mill with double radius and coating (X.CEED)                          |                                                                                   |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |                                                                                     |

| GRP/CRP | Acrylic glass | GEOMETRY         |             |             |             |              |             |             |            | Thread size | W (°) | BS | Page |
|---------|---------------|------------------|-------------|-------------|-------------|--------------|-------------|-------------|------------|-------------|-------|----|------|
|         |               | Number of flutes | D1 (mm)     | D2 (mm)     | D3 (mm)     | L1 (mm)      | L2 (mm)     | L3 (mm)     | R (mm)     |             |       |    |      |
|         |               | 1                | 3.0 - 12.0  | 6.0 - 12.0  | 2.8 - 11.0  | 40.0 - 95.0  | 5.0 - 36.0  | 13.0 - 61.0 | -          | -           | -     | -  | 12   |
|         |               | 1                | 5.0 - 12.0  | 6.0 - 12.0  | 4.8 - 11.0  | 50.0 - 85.0  | 8.5 - 32.5  | 13.5 - 52.0 | -          | -           | -     | -  | 14   |
|         |               | 1                | 0.3 - 10.0  | 3.0 - 10.0  | -           | 38.0 - 100.0 | 1.0 - 40.0  | -           | -          | -           | -     | -  | 16   |
|         |               | 1                | 1.0 - 6.0   | 6.0         | 0.9 - 5.3   | 50.0 - 60.0  | 4.0 - 14.0  | 7.0 - 30.0  | -          | -           | -     | -  | 18   |
| +       |               | 1                | 2.0 - 6.0   | 6.0         | -           | 50.0 - 58.0  | 5.0 - 22.0  | -           | -          | -           | -     | x  | 19   |
|         | ++            | 1                | 1.0 - 10.0  | 6.0 - 10.0  | -           | 50.0 - 75.0  | 4.0 - 32.0  | -           | -          | -           | -     | -  | 20   |
|         |               | 1                | 1.5 - 6.0   | 6.0         | -           | 50.0 - 60.0  | 7.0 - 20.0  | -           | -          | -           | -     | -  | 21   |
|         |               | 1                | 6.0 - 12.0  | 6.0 - 12.0  |             | 58.0 - 90.0  | 21.0 - 51.0 |             | -          | -           | -     | -  | 22   |
|         |               | 2                | 0.1 - 12.0  | 3.0 - 12.0  | 5.7 - 11.7  | 38.0 - 100.0 | 0.2 - 40.0  | 22.0 - 35.0 | -          | -           | -     | -  | 24   |
|         |               | 2                | 0.5 - 6.0   | 3.0 - 6.0   | 0.45 - 5.7  | 38.0 - 60.0  | 0.75 - 20.0 | 4.0 - 33.0  | -          | -           | -     | -  | 26   |
|         |               | 2                | 3.0 - 12.0  | 6.0 - 12.0  | -           | 57.0 - 70.0  | 8.0 - 25.0  | -           | -          | -           | -     | -  | 27   |
|         |               | 2                | 1.5 - 6.0   | 3.0 - 6.0   | -           | 40.0 - 58.0  | 4.0 - 12.0  | -           | -          | -           | -     | -  | 28   |
|         |               | 2                | 6.0 - 10.0  | 6.0 - 10.0  | -           | 50.0 - 70.0  | 12.0 - 32.0 | -           | -          | -           | -     | -  | 29   |
|         |               | 2                | 6.0 - 12.0  | 6.0 - 12.0  | 5.6 - 11.2  | 60.0 - 80.0  | 14.0 - 32.0 | 32.0 - 48.0 | -          | -           | -     | -  | 30   |
|         |               | 2                | 0.9 - 3.0   | 3.0         | -           | 38.0         | 1.1 - 7.0   | -           | -          | -           | -     | -  | 31   |
|         |               | 3                | 3.0 - 10.0  | 6.0 - 10.0  | -           | 50.0 - 60.0  | 6.0 - 22.0  | -           | -          | -           | -     | -  | 32   |
|         |               | 3                | 1.0 - 8.0   | 6.0 - 8.0   | -           | 50.0         | 2.2 - 16.0  | -           | -          | -           | -     | -  | 33   |
|         |               | 3                | 3.0 - 12.0  | 6.0 - 12.0  | 2.8 - 11.8  | 58.0 - 83.0  | 8.0 - 26.0  | 12.0 - 38.0 | -          | -           | -     | -  | 34   |
|         |               | 3                | 3.0 - 10.0  | 6.0 - 10.0  | 2.7 - 9.5   | 50.0 - 115.0 | 6.0 - 52.0  | 22.0 - 82.0 | -          | -           | -     | -  | 35   |
|         |               | 3                | 1.75 - 6.0  | 3.0 - 6.0   | -           | 40.0 - 50.0  | 3.0 - 10.0  | -           | -          | -           | -     | x  | 36   |
|         |               | 4                | 2.0 - 12.0  | 6.0 - 12.0  | -           | 50.0 - 100.0 | 7.0 - 45.0  | -           | -          | -           | -     | x  | 37   |
| ++      |               | 8                | 0.6 - 3.0   | 3.0 - 3,175 | -           | 38.0         | 3.0 - 12.0  | -           | -          | -           | -     | -  | 38   |
| ++      |               | 8                | 0.6 - 6.0   | 3.0 - 6.0   | -           | 38.0 - 50.0  | 3.0 - 22.0  | -           | -          | -           | -     | x  | 39   |
| ++      |               | 1-2              | 3.0 - 10.0  | 6.0 - 10.0  | 2.8 - 9.2   | 50.0 - 60.0  | 5.0 - 12.0  | 6.0 - 17.0  | -          | -           | -     | x  | 40   |
|         |               | 1                | 14.0 - 24.0 | 8.0 - 12.0  | -           | 45.0 - 60.0  | 5.0 - 8.5   | -           | -          | -           | -     | -  | 42   |
|         |               | 2                | 8.0 - 20.0  | 6.0 - 12.0  | -           | 50.0 - 82.0  | 6.0 - 10.0  | -           | -          | -           | -     | -  | 43   |
|         |               | 2                | 12.0 - 20.0 | 6.0 - 8.0   | -           | 50.0         | 6.0 - 8.0   | -           | 0.5        | -           | -     | -  | 44   |
|         | ++            | 2                | 10.0 - 16.0 | 6.0 - 8.0   | -           | 50.0         | 6.0         | -           | 1.0        | -           | -     | -  | 45   |
|         |               | 2                | 20.0 - 24.0 | -           | 18.5 - 22.5 | -            | 10.0        | 38.0 - 63.0 | 0.8        | -           | -     | -  | 46   |
|         |               | 1                | 1.0 - 10.0  | 3.0 - 10.0  | -           | 40.0 - 60.0  | 4.0 - 20.0  | -           | 0.5 - 5.0  | -           | -     | -  | 48   |
|         | ++            | 1                | 1.0 - 6.0   | 6.0         | 0.9 - 5.8   | 50.0         | 4.0 - 14.0  | 12.0 - 22.0 | 0.5 - 2.5  | -           | -     | -  | 49   |
|         |               | 2                | 0.3 - 8.0   | 3.0 - 8.0   | -           | 39.0 - 50.0  | 0.5 - 12.0  | -           | 0.15 - 4.0 | -           | -     | -  | 50   |
|         |               | 2                | 0.4 - 12.0  | 3.0 - 12.0  | 0.35 - 11.7 | 39.0 - 100.0 | 0.6 - 20.0  | 2.0 - 40.0  | 0.2 - 6.0  | -           | -     | -  | 51   |
|         |               | 2                | 0.4 - 3.0   | 3.0         | -           | 38.0 - 39.0  | 1.2 - 6.0   | -           | 0.2 - 1.25 | -           | -     | -  | 52   |
|         |               | 4                | 2.0 - 12.0  | 6.0 - 12.0  | -           | 57.0 - 100.0 | 6.0 - 45.0  | -           | 1.0 - 6.0  | -           | -     | -  | 53   |
|         |               | 2                | 6.0 - 8.0   | 6.0 - 8.0   | 5.8 - 7.8   | 50.0 - 60.0  | 6.0 - 12.0  | 21.0 - 23.0 | 0.2 - 1.0  | -           | -     | -  | 56   |
|         |               | 2                | 3.0 - 10.0  | 3.0 - 10.0  | 2.7 - 9.2   | 50.0 - 72.0  | 4.0 - 11.0  | 14.0 - 32.0 | 0.3 - 1.0  | -           | -     | x  | 57   |
|         |               | 4                | 2.0 - 10.0  | 6.0 - 10.0  | 1.8 - 9.2   | 50.0 - 72.0  | 4.0 - 11.0  | 12.0 - 32.0 | 0.2 - 1.0  | -           | -     | x  | 58   |
|         |               | 4                | 3.0 - 6.0   | 6.0         | -           | 50.0         | 1.0         | -           | 0.8        | -           | -     | x  | 59   |

| TOOLS                                                                             | MATERIAL                                                                          |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
|                                                                                   | Aluminium                                                                         | Copper                                                                            | Bronze                                                                              | Brass                                                                               | Steel                                                                               | Plastic                                                                             | Wood                                                                                | Foams                                                                               |  |
|                                                                                   |  |  |  |  |  |  |  |  |  |
| CHAMFER MILL                                                                      |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|    | Chamfer mill                                                                      | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |
|                                                                                   | Chamfer mill for acrylic glass                                                    |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |  |
|                                                                                   | Chamfer mill for foam                                                             |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |  |
|    | Milling countersink tool                                                          | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |
|    | V-slot milling tool                                                               | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |
| DRILL                                                                             |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|    | Drill, 3mm shank                                                                  | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   | ++                                                                                  | +                                                                                   |  |
|                                                                                   | Drill, 1/8" shank                                                                 | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   | ++                                                                                  | +                                                                                   |  |
|                                                                                   | Drill, 6mm shank                                                                  | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  |                                                                                     | ++                                                                                  | +                                                                                   |  |
| REAMER                                                                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|    | Reamer                                                                            | ++                                                                                | +                                                                                   | +                                                                                   | +                                                                                   |                                                                                     |                                                                                     |                                                                                     |  |
| THREAD MILLING CUTTER                                                             |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|   | Thread whirler                                                                    | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |  |
|                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|                                                                                   | Multi-thread whirler                                                              | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   | ++                                                                                  | +                                                                                   |  |
|                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|                                                                                   | Milling thread mill                                                               | ++                                                                                | +                                                                                   |                                                                                     | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |  |
|                                                                                   | Thread milling cutter                                                             | ++                                                                                |                                                                                     |                                                                                     | ++                                                                                  | ++                                                                                  |                                                                                     |                                                                                     |  |
| EXTERNAL RADIUS END MILL                                                          |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|  | External radius end mill                                                          | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |
|                                                                                   | External radius end mill, polished for acrylic glass                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |  |
|                                                                                   | Deburring miller, two flutes                                                      |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |  |
| STANDARD ENGRAVING TOOL                                                           |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|  | Standard engraving tool                                                           | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |  |
|                                                                                   | Standard engraving tool, balanced                                                 | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   |                                                                                     |  |
|                                                                                   | Standard engraving tool for machining steel                                       |                                                                                   |                                                                                     |                                                                                     |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |  |
|                                                                                   | Standard engraving tool for hard machining with coating (ALCRONA)                 |                                                                                   |                                                                                     | +                                                                                   |                                                                                     | ++                                                                                  |                                                                                     |                                                                                     |  |
| T-SLOTTING MILL                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|  | T-slotting mill                                                                   | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |
| CUTTING DIAMOND                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|  | Cutting diamond                                                                   | ++                                                                                | ++                                                                                  | ++                                                                                  | ++                                                                                  | +                                                                                   | +                                                                                   |                                                                                     |  |
| SWALLOW-TAIL MILL                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|  | Swallow-tail mill                                                                 | ++                                                                                |                                                                                     | +                                                                                   | +                                                                                   | ++                                                                                  | ++                                                                                  |                                                                                     |  |

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#### Consumable material

VacuCard 108

| GRP/CRP | Acrylic glass | GEOMETRY         |            |            |             |              |             |             |           |                                               | Thread size | W (°) | BS  | Page |
|---------|---------------|------------------|------------|------------|-------------|--------------|-------------|-------------|-----------|-----------------------------------------------|-------------|-------|-----|------|
|         |               | Number of flutes | D1 (mm)    | D2 (mm)    | D3 (mm)     | L1 (mm)      | L2 (mm)     | L3 (mm)     | R (mm)    |                                               |             |       |     |      |
|         |               |                  |            |            |             |              |             |             |           |                                               |             |       |     |      |
|         |               | 2 - 4            | 3.0 - 14.0 | 3.0 - 10.0 | -           | 40.0 - 50.0  | 1.1 - 8.2   | -           | -         | -                                             | 40 - 140    | -     | 62  |      |
|         | +             | 3/6              | 0.1 - 4.0  | 6.0        | 6.0 - 16.0  | 50.0         | 3.0 - 6.0   | -           | -         | -                                             | 90          | -     | 63  |      |
|         |               | 3                | 4.0        | 6.0        | 10.0 - 16.0 | 50.0         | 3.0 - 6.0   | -           | -         | -                                             | 90          | -     | 64  |      |
|         |               | 1                | 2.0 - 5.0  | 6.0        | -           | 50.0         | 1.0 - 5.0   | -           | -         | -                                             | 90          | -     | 65  |      |
|         |               | 2                | 5.0 - 8.0  | 6.0 - 10.0 | -           | 50.0 - 70.0  | 10.0 - 16.0 | -           | -         | -                                             | 60 - 120    | -     | 66  |      |
|         |               | 2                | 0.15 - 6.5 | 3.0        | -           | 38.0         | 2.0 - 12.0  | -           | -         | -                                             | 130         | -     | 68  |      |
|         |               | 2                | 0.15 - 6.5 | 3175       | -           | 38.0         | 1.0 - 12.0  | -           | -         | -                                             | 130 - 165   | -     | 70  |      |
|         |               | 2                | 3.0 - 6.0  | 6.0        | -           | 50.0 - 60.0  | 21.0 - 31.0 | -           | -         | -                                             | 130         | -     | 72  |      |
|         |               | 3                | 3.0 - 12.0 | 6.0 - 12.0 | 2.5 - 10.0  | 50.0 - 105.0 | 6.0 - 36.0  | 10.0 - 71.0 | -         |                                               |             | -     | 76  |      |
|         | +             | 2/4              | 0.72 - 8.4 | 3.0 - 10.0 | 0.32 - 6.35 | 40.0 - 66.0  | 0.13 - 0.69 | 3.0 - 26.0  | -         | M1 - M12<br>PG7 - PG48<br>Whitworth<br>< 1/2" | 60          | -     | 80  |      |
|         | +             | 4                | 0.8 - 8.0  | 3.0 - 6.0  | 0.49 - 3.0  | 40.0 - 60.0  | 0.09 - 1.55 | 3.0 - 30.0  | -         | M1 - M10<br>PG7 - PG48<br>Whitworth<br>< 1/2" | 55 - 80     | -     | 81  |      |
|         |               | 3                | 2.0 - 5.6  | 3.0 - 6.0  | 1.5 - 5.4   | 40.0 - 50.0  | 1.0 - 2.0   | 8.5 - 12.0  | -         | M2.5 - M16<br>PG7 - PG48                      | 60 - 80     | -     | 82  |      |
|         |               | N.S.             | 2.3 - 6.0  | 6.0 - 10.0 | -           | 50.0         | 8.0 - 16.0  | -           | -         | M3 - M8                                       | 60          | -     | 83  |      |
|         |               | 2 / 4            | 2.0 - 5.0  | 6.0        | 6.0 - 16.0  | 50.0         | 0.5 - 6.0   | -           | 0.5 - 6.0 | -                                             | -           | -     | 86  |      |
|         | +             | 3                | 4.0 - 5.0  | 6.0        | 6.0 - 10.0  | 50.0         | 1.0 - 3.0   | -           | 1.0 - 3.0 | -                                             | -           | -     | 87  |      |
|         |               | 2                | 0.8 - 2.4  | 3.0        | -           | 40.0         | 0.3         | -           | 0.3       | -                                             | -           | -     | 88  |      |
|         | +             | 1                | 0.05 - 6.0 | 4.0 - 6.0  | -           | 40.0 - 50.0  | -           | -           | -         | -                                             | 20 - 180    | -     | 90  |      |
|         | +             | 1                | 0.1        | 6.0        | -           | 50.0         | -           | -           | -         | -                                             | 30 - 90     | -     | 92  |      |
|         |               | 1                | 0.1 - 0.2  | 6.0        | -           | 50.0         | -           | -           | -         | -                                             | 20 - 90     | -     | 93  |      |
|         | +             | 1                | 0.1 - 0.2  | 4.0        | -           | 40.0         | -           | -           | -         | -                                             | 30 - 45     | -     | 94  |      |
|         |               | 2 - 6            | 3.0 - 15.0 | 3.0 - 6.0  | 1.6 - 6.0   | 40.0 - 50.0  | 0.8 - 4.5   | 6.0 - 25.0  | -         | -                                             | -           | -     | 96  |      |
|         | +             | 1                | 0.1        | 6.0        | -           | 61.0         | -           | -           | -         | -                                             | 90 - 120    | -     | 98  |      |
|         |               | 2                | 3.0 - 6.0  | 3.0 - 6.0  | 2.0 - 5.0   | 39.0 - 50.0  | 0.29 - 6.0  | 6.0         | -         | -                                             | 5 - 60      | -     | 100 |      |

|                                 |     |
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| Cooling lubricants              | 110 |
| <b>General information</b>      |     |
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DATRON

## Single flute end mills

Milling tools with only one flute have a significant advantage when machining light alloys and plastics where high machining production and surface quality are important. Even so, users are often reluctant to use them. DATRON and the PTW (Institute for production management, technology and machine tools) have been able to eliminate all reservations in a joint scientific investigation. The advantages of single flute end mills, particularly those with the patented DATRON counterweight grinding, are clear.

### Superior single flute end mills

Customers have also frequently confirmed to us the superiority of the single flute end mill over the double flute end mill when faced with increased demands for machining quality and high chip volumes at the same time. In the PTW test aluminium test specimens were machined with single and double flute end mills using solid carbide flutes with ball nose and the resulting surface quality was tested.

### Significantly improved roughness

The results clearly demonstrated that the single flute end mills generated consistently recurring feed marks on the work piece, which are characteristics of stable machining. In contrast, the uneven tool tracks left the double flute end mills indicated a reduced quality of the surface finish. This was confirmed by the roughness values of the surfaces. After machining with the double flute end mill the Ra values were 60% and the Rz values 50% higher than the values achieved with the single flute end mill.

### Optimal chip removal increases speed and quality

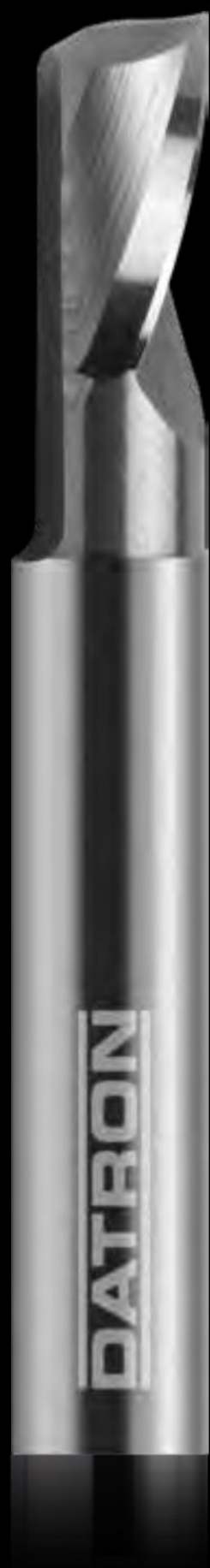
The explanation is relatively simple: to combine the objectives of chip volume as high as possible during roughing and high surface finish quality during finishing, chip accumulation and chip removal through the chip channel of the tool must be made as efficient as possible for the material and the process. Subject to this requirement, the geometry of the single flute end mill offers significant advantages over double or more flute mills with soft materials.

### Counterweight grinding enables high speeds

The patented DATRON counterweight grinding can be described as the 'dot on the i'. The vibration velocity at the machine resonance peak can be more than halved in comparison with unbalanced single flute end mills. At higher velocities the single flute end mill is around 50% better (according to testing). This means that the stable cutting speed range is significantly higher.

### Test it for yourself: one flute – many benefits!





DATRON

# List of abbreviations

## Legend

|                                                                                  |                      |                                                                                   |                        |                                                                                     |             |
|----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|-------------|
|  | Machinable materials |  | Flute with edge radius |  | Shank shape |
|  | Flute number         |  | Sharp-edged flute      |  | Tip angle   |
|  | Carbide              |  | Machining direction    |  | Ball nose   |

|          |                      |
|----------|----------------------|
| D1       | Flute diameter       |
| D2       | Shank diameter       |
| D3       | Shank toric diameter |
| L1       | Total length         |
| L2       | Flute length         |
| L3       | Usable length        |
| $\alpha$ | Angle                |
| R        | Radius               |
| BS       | Coating              |



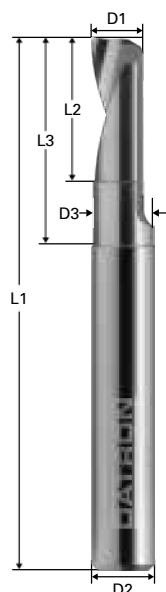
# Shank mill

|                                                             |    |                                                             |    |
|-------------------------------------------------------------|----|-------------------------------------------------------------|----|
| Single flute end mill 4-1N-1                                | 12 | Triple flute end mill, roughing cutter for copper           | 32 |
| Single flute end mill balanced                              | 14 | Triple flute end mill, finishing cutter for copper          | 33 |
| Single flute end mill                                       | 16 | Triple flute end mill with toric cut                        | 34 |
| Single flute end mill with toric cut                        | 18 | Single flute end mill with polished flute for acrylic glass | 35 |
| Single flute end mill with coating (ALCRONA)                | 19 | Triple flute end mill with coating (X.CEED)                 | 36 |
| Single flute end mill with polished flute for acrylic glass | 20 | Four flute end mill with coating (ALCRONA)                  | 37 |
| Single flute end mill left spiral, right cutting            | 21 | Micro-toothed end mill                                      | 38 |
| CrossCutter                                                 | 22 | Micro-toothed end mill with coating (X.CEED/diamond)        | 39 |
| Double flute end mill                                       | 24 | Diamond milling tool for CRP/GRP                            | 40 |
| Double flute end mill with toric cut                        | 26 |                                                             |    |
| Double flute end mill, contour cutter                       | 27 |                                                             |    |
| Double flute end mill HSC+                                  | 28 |                                                             |    |
| Double flute end mill HSC Fire                              | 29 |                                                             |    |
| Double flute end mill with internal cooling                 | 30 |                                                             |    |
| Double flute end mill for machining steel                   | 31 |                                                             |    |



DATRON

# Single flute end mill 4-IN-1, balanced, faced, double polished



Aluminium



Plastic



Wood



Copper



Bronze



Brass



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0068803A | 3.0     | 6.0     |         | 40.0    | 5.0     |         |
| 0068803K | 3.0     | 6.0     |         | 45.0    | 9.0     |         |
| 0068803E | 3.0     | 6.0     | 2.8     | 50.0    | 9.0     | 13.0    |
| 0068803L | 3.0     | 6.0     | 2.8     | 50.0    | 9.0     | 16.0    |
| 0068803X | 3.0     | 6.0     |         | 50.0    | 13.0    |         |
| 0068804A | 4.0     | 6.0     |         | 40.0    | 5.0     |         |
| 0068804K | 4.0     | 6.0     |         | 45.0    | 9.0     |         |
| 0068804E | 4.0     | 6.0     | 3.7     | 50.0    | 9.0     | 16.0    |
| 0068804L | 4.0     | 6.0     | 3.7     | 55.0    | 9.0     | 21.0    |
| 0068804X | 4.0     | 6.0     |         | 55.0    | 16.0    |         |
| 0068805A | 5.0     | 6.0     |         | 45.0    | 7.0     |         |
| 0068805K | 5.0     | 6.0     |         | 50.0    | 11.0    |         |
| 0068805E | 5.0     | 6.0     | 4.6     | 60.0    | 11.0    | 21.0    |
| 0068805L | 5.0     | 6.0     | 4.6     | 60.0    | 11.0    | 26.0    |
| 0068805X | 5.0     | 6.0     |         | 55.0    | 16.0    |         |
| 0068806A | 6.0     | 6.0     |         | 45.0    | 7.0     |         |
| 0068806K | 6.0     | 6.0     |         | 50.0    | 13.0    |         |
| 0068806E | 6.0     | 6.0     | 5.5     | 60.0    | 13.0    | 26.0    |
| 0068806L | 6.0     | 6.0     | 5.5     | 65.0    | 13.0    | 31.0    |
| 0068806X | 6.0     | 6.0     |         | 55.0    | 21.0    |         |

## 8 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0068808A | 8.0     | 8.0     |         | 45.0    | 9.0     |         |
| 0068808K | 8.0     | 8.0     |         | 55.0    | 17.0    |         |
| 0068808E | 8.0     | 8.0     | 7.4     | 65.0    | 17.0    | 31.0    |
| 0068808L | 8.0     | 8.0     | 7.4     | 75.0    | 17.0    | 41.0    |
| 0068808X | 8.0     | 8.0     |         | 65.0    | 26.0    |         |

**10 mm shank**

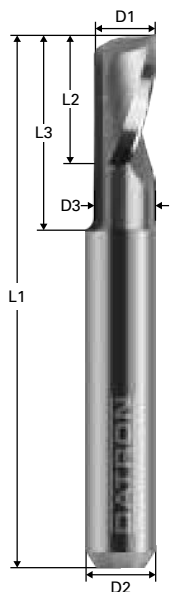
| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068810A | 10.0       | 10.0       |            | 50.0       | 11.0       |            |
| 0068810K | 10.0       | 10.0       |            | 60.0       | 21.0       |            |
| 0068810E | 10.0       | 10.0       | 9.2        | 75.0       | 21.0       | 41.0       |
| 0068810L | 10.0       | 10.0       | 9.2        | 85.0       | 21.0       | 51.0       |
| 0068810X | 10.0       | 10.0       |            | 70.0       | 32.0       |            |

**12 mm shank**

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068812A | 12.0       | 12.0       |            | 55.0       | 14.0       |            |
| 0068812K | 12.0       | 12.0       |            | 65.0       | 26.0       |            |
| 0068812E | 12.0       | 12.0       | 11.0       | 85.0       | 26.0       | 51.0       |
| 0068812L | 12.0       | 12.0       | 11.0       | 95.0       | 26.0       | 61.0       |
| 0068812X | 12.0       | 12.0       |            | 75.0       | 36.0       |            |

DATRON

# Single flute end mill balanced



Aluminium

Wood

Copper

Brass



Plastic

Bronze



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0068085E | 5.0     | 6.0     | 4.8     | 50.0    | 8.75    | 13.5    |
| 0068086C | 6.0     | 6.0     |         | 50.0    | 8.0     |         |
| 0068086E | 6.0     | 6.0     | 5.5     | 50.0    | 10.5    | 16.5    |
| 0068086H | 6.0     | 6.0     |         | 50.0    | 14.0    |         |
| 0068086L | 6.0     | 6.0     | 5.5     | 50.0    | 16.0    | 23.5    |
| 0068086P | 6.0     | 6.0     |         | 60.0    | 20.0    |         |
| 0068086X | 6.0     | 6.0     | 5.5     | 55.0    | 21.0    | 27.0    |
| 0068086Y | 6.0     | 6.0     |         | 58.0    | 25.0    |         |
| 0068086Z | 6.0     | 6.0     |         | 65.0    | 30.0    |         |

## 8 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0068085S | 5.0     | 8.0     | 4.8     | 50.0    | 8.75    | 13.5    |
| 0068086S | 6.0     | 8.0     | 5.5     | 50.0    | 10.5    | 16.5    |
| 0068087E | 7.0     | 8.0     |         | 60.0    | 14.0    |         |
| 0068088K | 8.0     | 8.0     | 7.4     | 50.0    | 8.0     | 12.5    |
| 0068088C | 8.0     | 8.0     |         | 60.0    | 14.0    |         |
| 0068088E | 8.0     | 8.0     | 7.4     | 60.0    | 14.0    | 26.0    |
| 0068080D | 8.0     | 8.0     | 7.4     | 70.0    | 14.0    | 43.0    |
| 0068088H | 8.0     | 8.0     |         | 60.0    | 20.0    |         |
| 0068088S | 8.0     | 8.0     | 7.4     | 60.0    | 21.0    | 31.0    |
| 0068088V | 8.0     | 8.0     |         | 60.0    | 25.0    |         |
| 0068088L | 8.0     | 8.0     | 7.4     | 60.0    | 26.0    | 34.0    |
| 0068088X | 8.0     | 8.0     | 7.4     | 70.0    | 31.0    | 42.0    |
| 0068088Z | 8.0     | 8.0     |         | 80.0    | 32.0    |         |

**10 mm shank**

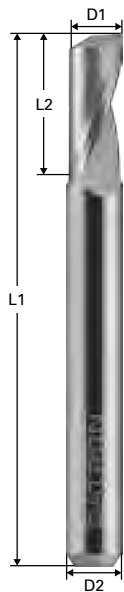
| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068090K | 10.0       | 10.0       | 9.2        | 50.0       | 10.0       | 15.6       |
| 0068090E | 10.0       | 10.0       | 9.2        | 60.0       | 17.5       | 27.5       |
| 0068090S | 10.0       | 10.0       | 9.2        | 80.0       | 17.5       | 52.0       |
| 0068090P | 10.0       | 10.0       |            | 60.0       | 20.0       |            |
| 0068090L | 10.0       | 10.0       | 9.2        | 60.0       | 26.0       | 34.0       |
| 0068090M | 10.0       | 10.0       | 9.2        | 85.0       | 26.0       | 34.0       |
| 0068090X | 10.0       | 10.0       | 9.2        | 70.0       | 32.5       | 42.5       |
| 0068090Y | 10.0       | 10.0       |            | 100.0      | 40.0       |            |

**12 mm shank**

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068092K | 12.0       | 12.0       | 11.0       | 60.0       | 12.0       | 19.0       |
| 0068092E | 12.0       | 12.0       | 11.0       | 70.0       | 21.0       | 33.0       |
| 0068092L | 12.0       | 12.0       | 11.0       | 70.0       | 31.5       | 42.0       |

DATRON

# Single flute end mill



Aluminium



Plastic



Wood



Copper



Bronze



Brass



## 3 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068003E | 0.3     | 3.0     | 38.0    | 1.0     |
| 0068004E | 0.4     | 3.0     | 38.0    | 1.0     |
| 0068005E | 0.5     | 3.0     | 38.0    | 1.5     |
| 0068006E | 0.6     | 3.0     | 38.0    | 2.5     |
| 0068008E | 0.8     | 3.0     | 38.0    | 3.0     |
| 0068010E | 1.0     | 3.0     | 38.0    | 4.0     |
| 0068015E | 1.5     | 3.0     | 38.0    | 5.0     |
| 0068016E | 1.6     | 3.0     | 38.0    | 5.0     |
| 0068020G | 2.0     | 3.0     | 40.0    | 6.0     |
| 0068020E | 2.0     | 3.0     | 40.0    | 8.0     |
| 0068020L | 2.0     | 3.0     | 40.0    | 10.0    |
| 0068020W | 2.0     | 3.0     | 65.0    | 15.0    |
| 0068024A | 2.4     | 3.0     | 40.0    | 5.5     |
| 0068024E | 2.4     | 3.0     | 40.0    | 8.0     |
| 0068024L | 2.4     | 3.0     | 40.0    | 10.0    |
| 0068030E | 3.0     | 3.0     | 40.0    | 10.0    |
| 0068030Y | 3.0     | 3.0     | 65.0    | 10.0    |
| 0068030Z | 3.0     | 3.0     | 40.0    | 10.5    |
| 0068030W | 3.0     | 3.0     | 65.0    | 15.0    |

## 1/8" shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068606E | 0.6     | 3175    | 38.0    | 3.0     |
| 0068608E | 0.8     | 3175    | 38.0    | 3.0     |
| 0068610E | 1.0     | 3175    | 38.0    | 3.0     |
| 0068612E | 1.2     | 3175    | 38.0    | 4.0     |
| 0068615E | 1.5     | 3175    | 38.0    | 4.0     |
| 0068620G | 2.0     | 3175    | 40.0    | 5.0     |
| 0068620E | 2.0     | 3175    | 38.0    | 8.0     |
| 0068620F | 2.0     | 3175    | 40.0    | 11.5    |
| 0068624E | 2.4     | 3175    | 38.0    | 8.0     |
| 0068630E | 3.0     | 3175    | 38.0    | 9.0     |
| 0068630F | 3.0     | 3175    | 40.0    | 11.5    |



#### 4 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068415Y | 1.5        | 4.0        | 40.0       | 5.0        |
| 0068432Y | 2.0        | 4.0        | 40.0       | 8.0        |
| 0068430Y | 3.0        | 4.0        | 40.0       | 10.0       |
| 0068434Y | 4.0        | 4.0        | 40.0       | 10.0       |

#### 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068410E | 1.0        | 6.0        | 50.0       | 4.0        |
| 0068415A | 1.5        | 6.0        | 50.0       | 3.0        |
| 0068415E | 1.5        | 6.0        | 50.0       | 7.0        |
| 0078415E | 1.5        | 6.0        | 58.0       | 7.0        |
| 0068432A | 2.0        | 6.0        | 50.0       | 5.0        |
| 0068432E | 2.0        | 6.0        | 50.0       | 7.0        |
| 0078420E | 2.0        | 6.0        | 58.0       | 7.0        |
| 0068432L | 2.0        | 6.0        | 50.0       | 11.0       |
| 0078424E | 2.4        | 6.0        | 50.0       | 8.0        |
| 0068425A | 2.5        | 6.0        | 50.0       | 5.0        |
| 0078425E | 2.5        | 6.0        | 58.0       | 8.0        |
| 0068430A | 3.0        | 6.0        | 50.0       | 5.0        |
| 0068430E | 3.0        | 6.0        | 50.0       | 8.0        |
| 0078430E | 3.0        | 6.0        | 58.0       | 8.0        |
| 0068430S | 3.0        | 6.0        | 50.0       | 10.0       |
| 0078430S | 3.0        | 6.0        | 58.0       | 10.0       |
| 0068430L | 3.0        | 6.0        | 50.0       | 12.0       |
| 0078435E | 3.5        | 6.0        | 58.0       | 10.0       |
| 0068434A | 4.0        | 6.0        | 50.0       | 5.0        |
| 0068434B | 4.0        | 6.0        | 50.0       | 7.0        |
| 0068434E | 4.0        | 6.0        | 50.0       | 10.0       |
| 0078440E | 4.0        | 6.0        | 58.0       | 10.0       |
| 0068434L | 4.0        | 6.0        | 50.0       | 12.0       |
| 0068434Z | 4.0        | 6.0        | 45.0       | 14.0       |
| 0068434S | 4.0        | 6.0        | 60.0       | 14.0       |
| 0078440L | 4.0        | 6.0        | 58.0       | 18.0       |
| 0068434F | 4.0        | 6.0        | 58.0       | 20.0       |
| 0068435B | 5.0        | 6.0        | 50.0       | 8.0        |
| 0068435E | 5.0        | 6.0        | 50.0       | 12.0       |
| 0068435L | 5.0        | 6.0        | 58.0       | 22.0       |
| 0068460C | 6.0        | 6.0        | 50.0       | 8.0        |
| 0068460E | 6.0        | 6.0        | 50.0       | 14.0       |
| 0068460L | 6.0        | 6.0        | 60.0       | 20.0       |
| 0068460A | 6.0        | 6.0        | 58.0       | 25.0       |
| 0068460B | 6.0        | 6.0        | 65.0       | 30.0       |

#### 8 mm shank

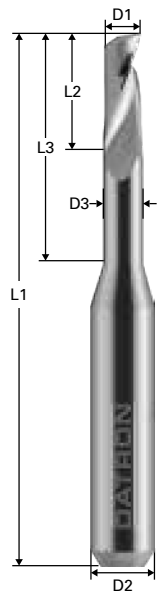
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068079E | 7.0        | 8.0        | 60.0       | 14.0       |
| 0068080E | 8.0        | 8.0        | 60.0       | 14.0       |
| 0068080L | 8.0        | 8.0        | 60.0       | 20.0       |
| 0068080A | 8.0        | 8.0        | 60.0       | 25.0       |
| 0068080B | 8.0        | 8.0        | 80.0       | 32.0       |

#### 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068470E | 10.0       | 10.0       | 60.0       | 20.0       |
| 0068470L | 10.0       | 10.0       | 100.0      | 40.0       |

DATRON

# Single flute end mill with toric cut



Aluminium

Wood

Copper

Brass



Plastic

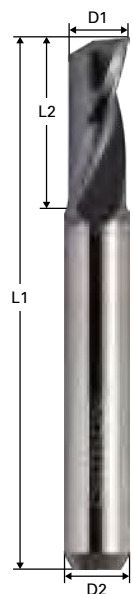
Bronze



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00684910 | 1.0     | 6.0     | 0.9     | 50.0    | 4.0     | 7.0     |
| 00684915 | 1.5     | 6.0     | 1.4     | 50.0    | 7.0     | 11.0    |
| 0068492K | 2.0     | 6.0     | 1.8     | 50.0    | 4.0     | 12.0    |
| 0068492E | 2.0     | 6.0     | 1.8     | 50.0    | 7.0     | 14.0    |
| 0068493K | 3.0     | 6.0     | 2.7     | 50.0    | 4.0     | 14.0    |
| 0068493E | 3.0     | 6.0     | 2.7     | 50.0    | 8.0     | 14.0    |
| 0068493D | 3.0     | 6.0     | 2.7     | 50.0    | 4.0     | 17.0    |
| 0068493S | 3.0     | 6.0     | 2.7     | 50.0    | 8.0     | 17.0    |
| 0068493F | 3.0     | 6.0     | 2.7     | 50.0    | 4.0     | 21.0    |
| 0068493L | 3.0     | 6.0     | 2.7     | 50.0    | 8.0     | 21.0    |
| 0068494K | 4.0     | 6.0     | 3.6     | 50.0    | 5.0     | 18.0    |
| 0068494E | 4.0     | 6.0     | 3.6     | 50.0    | 10.0    | 18.0    |
| 0068494D | 4.0     | 6.0     | 3.6     | 50.0    | 5.0     | 21.0    |
| 0068494S | 4.0     | 6.0     | 3.6     | 50.0    | 10.0    | 21.0    |
| 0068495K | 5.0     | 6.0     | 4.4     | 60.0    | 5.0     | 22.0    |
| 0068495E | 5.0     | 6.0     | 4.4     | 50.0    | 12.0    | 22.0    |
| 0068496K | 6.0     | 6.0     | 5.3     | 60.0    | 5.0     | 24.0    |
| 0068496E | 6.0     | 6.0     | 5.3     | 50.0    | 14.0    | 24.0    |
| 0068496F | 6.0     | 6.0     | 5.3     | 60.0    | 5.0     | 30.0    |
| 0068496L | 6.0     | 6.0     | 5.3     | 60.0    | 14.0    | 30.0    |

# Single flute end mill with coating (ALCRONA)



Bronze



Aluminium



Wood



Brass



GRP/CRP

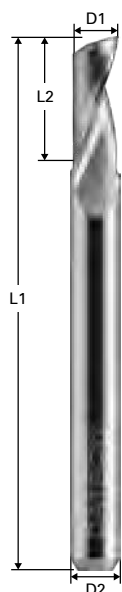


## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068932A | 2.0        | 6.0        | 50.0       | 5.0        |
| 0068932E | 2.0        | 6.0        | 50.0       | 7.0        |
| 0068930E | 3.0        | 6.0        | 50.0       | 8.0        |
| 0068930S | 3.0        | 6.0        | 50.0       | 10.0       |
| 0068930L | 3.0        | 6.0        | 50.0       | 12.0       |
| 0068934E | 4.0        | 6.0        | 50.0       | 10.0       |
| 0068934S | 4.0        | 6.0        | 50.0       | 14.0       |
| 0068934L | 4.0        | 6.0        | 58.0       | 20.0       |
| 0068935E | 5.0        | 6.0        | 50.0       | 12.0       |
| 0068935L | 5.0        | 6.0        | 58.0       | 22.0       |
| 0068960E | 6.0        | 6.0        | 50.0       | 14.0       |
| 0068960L | 6.0        | 6.0        | 58.0       | 20.0       |

DATRON

# Single flute end mill with polished flute for acrylic glass



Acrylic glass



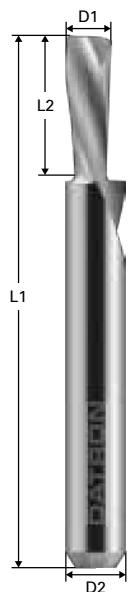
Plastic



| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0078310E | 1.0     | 6.0     | 50.0    | 4.0     |
| 0078320E | 2.0     | 6.0     | 50.0    | 7.0     |
| 0078320L | 2.0     | 6.0     | 50.0    | 11.0    |
| 0078330E | 3.0     | 6.0     | 50.0    | 8.0     |
| 0078330L | 3.0     | 6.0     | 50.0    | 12.0    |
| 0078334E | 4.0     | 6.0     | 50.0    | 10.0    |
| 0078334L | 4.0     | 6.0     | 60.0    | 22.0    |
| 0078335E | 5.0     | 6.0     | 50.0    | 12.0    |
| 0078335L | 5.0     | 6.0     | 60.0    | 22.0    |
| 0078360E | 6.0     | 6.0     | 50.0    | 14.0    |
| 0078360L | 6.0     | 6.0     | 60.0    | 22.0    |
| 0078338E | 8.0     | 8.0     | 60.0    | 22.0    |
| 0078338L | 8.0     | 8.0     | 70.0    | 32.0    |
| 0078339E | 10.0    | 10.0    | 75.0    | 32.0    |

DATRON

# Single flute end mill left spiral, right cutting



Aluminium



Wood



Plastic



Bronze



Brass

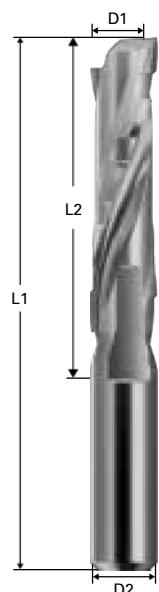


## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068471E | 1.5     | 6.0     | 50.0    | 7.0     |
| 0068472E | 2.0     | 6.0     | 50.0    | 7.0     |
| 0068473E | 3.0     | 6.0     | 50.0    | 8.0     |
| 0068474E | 4.0     | 6.0     | 50.0    | 10.0    |
| 0068475E | 5.0     | 6.0     | 50.0    | 12.0    |
| 0068476E | 6.0     | 6.0     | 50.0    | 14.0    |
| 0068476L | 6.0     | 6.0     | 60.0    | 20.0    |

DATRON

## CrossCutter



Aluminium

Wood



Plastic



Copper

Brass



Bronze



## 6 mm shank

| Item no.  | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|------------|------------|------------|------------|
| 00688006E | 6          | 6          | 58         | 21         |
| 00688006L | 6          | 6          | 68         | 26         |

## 8 mm shank

| Item no.  | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|------------|------------|------------|------------|
| 00688008E | 8          | 8          | 68         | 26         |
| 00688008L | 8          | 8          | 70         | 31         |

## 10 mm shank

| Item no.  | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|------------|------------|------------|------------|
| 00688010E | 10         | 10         | 72         | 31         |
| 00688010L | 10         | 10         | 80         | 41         |

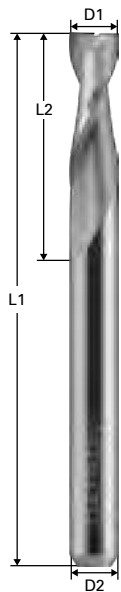
## 12 mm shank

| Item no.  | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|------------|------------|------------|------------|
| 00688012E | 12         | 12         | 80         | 41         |
| 00688012L | 12         | 12         | 90         | 51         |



DATRON

# Double flute end mill



Aluminium



Copper



Brass



Plastic



Bronze



Wood



## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 00680010 | 0.1        | 3.0        | 38.0       | 0.2        |
| 00680020 | 0.2        | 3.0        | 39.0       | 0.4        |
| 00680025 | 0.25       | 3.0        | 39.0       | 0.4        |
| 0068003  | 0.3        | 3.0        | 39.0       | 0.9        |
| 0068004K | 0.4        | 3.0        | 38.0       | 0.6        |
| 0068004  | 0.4        | 3.0        | 38.0       | 2.5        |
| 0068005K | 0.5        | 3.0        | 38.0       | 1.0        |
| 0068005  | 0.5        | 3.0        | 38.0       | 2.5        |
| 0068006K | 0.6        | 3.0        | 38.0       | 1.0        |
| 0068006  | 0.6        | 3.0        | 38.0       | 3.0        |
| 0068008  | 0.8        | 3.0        | 38.0       | 4.0        |
| 0068009  | 0.9        | 3.0        | 38.0       | 5.0        |
| 0068010S | 1.0        | 3.0        | 38.0       | 2.3        |
| 0068010K | 1.0        | 3.0        | 38.0       | 3.0        |
| 0068010  | 1.0        | 3.0        | 38.0       | 5.0        |
| 0068010L | 1.0        | 3.0        | 40.0       | 8.0        |
| 0068012S | 1.2        | 3.0        | 38.0       | 2.3        |
| 0068012K | 1.2        | 3.0        | 38.0       | 3.0        |
| 0068012  | 1.2        | 3.0        | 38.0       | 5.0        |
| 0068015  | 1.5        | 3.0        | 38.0       | 5.0        |
| 0068015S | 1.5        | 3.0        | 38.0       | 10.0       |
| 0068016  | 1.6        | 3.0        | 38.0       | 6.0        |
| 0068020K | 2.0        | 3.0        | 38.0       | 4.0        |
| 0068020  | 2.0        | 3.0        | 38.0       | 9.0        |
| 0068024K | 2.4        | 3.0        | 38.0       | 5.0        |
| 0068024  | 2.4        | 3.0        | 40.0       | 8.0        |
| 0068030K | 3.0        | 3.0        | 40.0       | 6.0        |
| 0068030A | 3.0        | 3.0        | 40.0       | 10.0       |
| 0068030L | 3.0        | 3.0        | 40.0       | 12.0       |
| 0068030X | 3.0        | 3.0        | 60.0       | 25.0       |



#### 1/8" shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068604  | 0.4        | 3175       | 38.0       | 2.5        |
| 0068605  | 0.5        | 3175       | 38.0       | 3.0        |
| 0068606  | 0.6        | 3175       | 38.0       | 3.0        |
| 0068608  | 0.8        | 3175       | 38.0       | 5.0        |
| 0068609  | 0.9        | 3175       | 38.0       | 5.0        |
| 0068610K | 1.0        | 3175       | 38.0       | 3.0        |
| 0068610  | 1.0        | 3175       | 38.0       | 4.0        |
| 0068612  | 1.2        | 3175       | 38.0       | 5.0        |
| 0068613  | 1.3        | 3175       | 38.0       | 5.0        |
| 0068615  | 1.5        | 3175       | 38.0       | 6.0        |
| 0068616  | 1.6        | 3175       | 38.0       | 6.0        |
| 0068617  | 1.7        | 3175       | 38.0       | 6.0        |
| 0068618  | 1.8        | 3175       | 38.0       | 6.0        |
| 0068620K | 2.0        | 3175       | 38.0       | 4.0        |
| 0068620  | 2.0        | 3175       | 38.0       | 8.0        |
| 0068624K | 2.4        | 3175       | 38.0       | 5.0        |
| 0068624  | 2.4        | 3175       | 38.0       | 8.0        |
| 0068625  | 2.5        | 3175       | 38.0       | 8.0        |
| 0068630K | 3.0        | 3175       | 38.0       | 6.0        |
| 0068630  | 3.0        | 3175       | 38.0       | 10.0       |

#### 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068430K | 3.0        | 6.0        | 40.0       | 6.0        |
| 0068430  | 3.0        | 6.0        | 50.0       | 7.0        |
| 0068430G | 3.0        | 6.0        | 50.0       | 11.0       |
| 0068434K | 4.0        | 6.0        | 40.0       | 6.0        |
| 0068434  | 4.0        | 6.0        | 50.0       | 8.0        |
| 0068435K | 5.0        | 6.0        | 40.0       | 6.0        |
| 0068435A | 5.0        | 6.0        | 50.0       | 8.0        |
| 0068435  | 5.0        | 6.0        | 50.0       | 10.0       |
| 0068460Y | 6.0        | 6.0        | 40.0       | 6.0        |
| 0068460K | 6.0        | 6.0        | 50.0       | 10.0       |
| 0068460  | 6.0        | 6.0        | 50.0       | 18.0       |
| 0068460G | 6.0        | 6.0        | 58.0       | 20.0       |
| 0068460X | 6.0        | 6.0        | 75.0       | 30.0       |
| 0068460W | 6.0        | 6.0        | 75.0       | 40.0       |
| 0068460Z | 6.0        | 6.0        | 100.0      | 40.0       |

#### 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068081  | 8.0        | 8.0        | 63.0       | 16.0       |
| 0068081L | 8.0        | 8.0        | 60.0       | 32.0       |
| 0068082  | 8.0        | 8.0        | 100.0      | 40.0       |

#### 10 mm shank

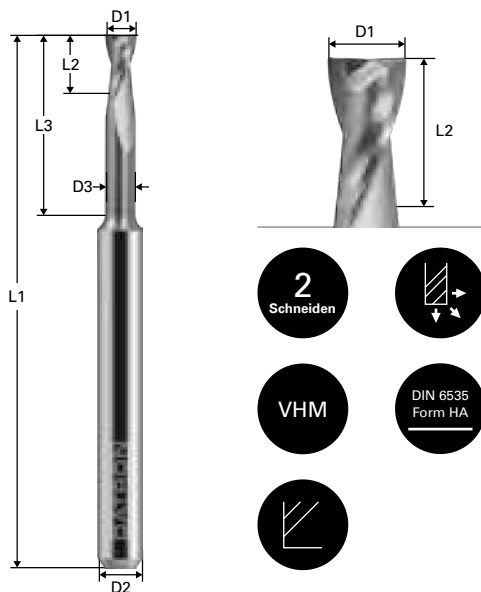
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068100  | 10.0       | 10.0       | 40.0       | 10.0       |
| 0068100A | 10.0       | 10.0       | 72.0       | 25.0       |
| 0068100L | 10.0       | 10.0       | 72.0       | 32.0       |
| 0068083  | 10.0       | 10.0       | 100.0      | 40.0       |

#### 12 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0078812L | 12.0       | 12.0       | 60.0       | 20.0       |
| 0078812B | 12.0       | 12.0       | 60.0       | 30.0       |

DATRON

# Double flute end mill with toric cut



Aluminium



Copper



Brass



Plastic



Bronze



Wood



## 3 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00781005 | 0.5     | 3.0     | 0.45    | 40.0    | 0.75    | 4.0     |
| 00781006 | 0.6     | 3.0     | 0.55    | 40.0    | 0.9     | 4.0     |
| 00781007 | 0.7     | 3.0     | 0.65    | 38.0    | 1.05    | 4.0     |
| 00781008 | 0.8     | 3.0     | 0.75    | 38.0    | 1.2     | 6.0     |
| 00781009 | 0.9     | 3.0     | 0.85    | 38.0    | 1.3     | 6.0     |
| 00781010 | 1.0     | 3.0     | 0.95    | 38.0    | 1.5     | 6.0     |
| 00781011 | 1.0     | 3.0     | 0.95    | 38.0    | 1.5     | 9.0     |
| 00781012 | 1.2     | 3.0     | 1.15    | 38.0    | 1.8     | 9.0     |
| 00781015 | 1.5     | 3.0     | 1.45    | 38.0    | 2.2     | 9.0     |
| 00781020 | 2.0     | 3.0     | 1.95    | 38.0    | 3.0     | 12.0    |
| 00781025 | 2.5     | 3.0     | 2.4     | 40.0    | 3.5     | 15.0    |

## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00781034 | 4.0     | 6.0     | 3.8     | 50.0    | 8.0     | 16.0    |
| 0078806  | 6.0     | 6.0     | 5.7     | 60.0    | 10.0    | 22.0    |
| 00781036 | 6.0     | 6.0     | 5.7     | 60.0    | 20.0    | 33.0    |

## 8 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0078808  | 8.0     | 8.0     | 7.7     | 60.0    | 10.0    | 24.0    |

## 10 mm shank

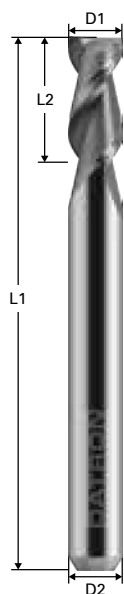
| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0078810  | 10.0    | 10.0    | 9.7     | 50.0    | 10.0    | 20.0    |
| 0078810L | 10.0    | 10.0    | 9.8     | 70.0    | 17.0    | 35.0    |

## 12 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 0078812  | 12.0    | 12.0    | 11.7    | 50.0    | 10.0    | 20.0    |

DATRON

# Double flute end mill contour cutter



Aluminium

Plastic

Wood



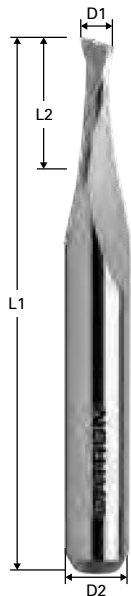
Brass



| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068033  | 3.0     | 6.0     | 57.0    | 8.0     |
| 0068034  | 4.0     | 6.0     | 57.0    | 11.0    |
| 0068035  | 5.0     | 6.0     | 57.0    | 13.0    |
| 0068036  | 6.0     | 6.0     | 57.0    | 13.0    |
| 0068040  | 8.0     | 8.0     | 60.0    | 20.0    |
| 0068041  | 8.0     | 8.0     | 60.0    | 25.0    |
| 0068042  | 10.0    | 10.0    | 70.0    | 25.0    |
| 0068043  | 12.0    | 12.0    | 70.0    | 25.0    |

DATRON

# Double flute end mill HSC+



Plastic



Aluminium



Brass



Copper



Wood



## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068815A | 1.5        | 3.0        | 40.0       | 6.0        |
| 0068820A | 2.0        | 3.0        | 40.0       | 6.0        |
| 0068830A | 3.0        | 3.0        | 40.0       | 10.0       |

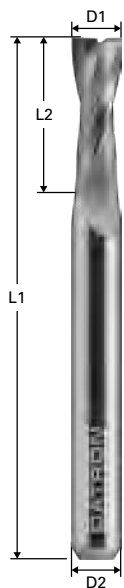
## 1/8" shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068815  | 1.5        | 3175       | 40.0       | 6.0        |
| 0068820  | 2.0        | 3175       | 40.0       | 6.0        |
| 0068824  | 2.4        | 3175       | 40.0       | 6.0        |
| 0068830K | 3.0        | 3175       | 40.0       | 6.0        |
| 0068830  | 3.0        | 3175       | 40.0       | 10.0       |

## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068866  | 1.9        | 6.0        | 50.0       | 6.0        |
| 0068862K | 2.0        | 6.0        | 50.0       | 4.0        |
| 0068862  | 2.0        | 6.0        | 50.0       | 6.0        |
| 0068867  | 2.4        | 6.0        | 50.0       | 5.0        |
| 0068863K | 3.0        | 6.0        | 50.0       | 6.0        |
| 0068863  | 3.0        | 6.0        | 50.0       | 10.0       |
| 0068864  | 4.0        | 6.0        | 50.0       | 8.0        |
| 0068865  | 5.0        | 6.0        | 50.0       | 10.0       |
| 0068860K | 6.0        | 6.0        | 50.0       | 7.0        |
| 0068860  | 6.0        | 6.0        | 58.0       | 12.0       |

# Double flute end mill HSC Fire



Aluminium



Brass



Plastic



Wood



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068876S | 6.0        | 6.0        | 50.0       | 12.0       |
| 0068876K | 6.0        | 6.0        | 50.0       | 17.0       |
| 0068876  | 6.0        | 6.0        | 60.0       | 22.0       |
| 0068876L | 6.0        | 6.0        | 70.0       | 32.0       |

## 8 mm shank

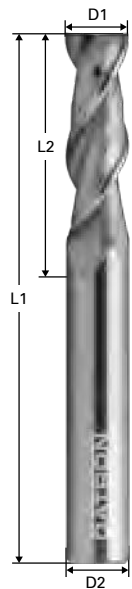
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068878S | 8.0        | 8.0        | 50.0       | 12.0       |
| 0068878K | 8.0        | 8.0        | 50.0       | 17.0       |
| 0068878  | 8.0        | 8.0        | 60.0       | 22.0       |
| 0068878L | 8.0        | 8.0        | 70.0       | 32.0       |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068870S | 10.0       | 10.0       | 50.0       | 12.0       |
| 0068870K | 10.0       | 10.0       | 50.0       | 17.0       |
| 0068870  | 10.0       | 10.0       | 60.0       | 22.0       |
| 0068870L | 10.0       | 10.0       | 70.0       | 32.0       |

DATRON

# Double flute end mill with internal cooling



Aluminium

Brass

Wood

Bronze



Copper

Plastic



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068906K | 6.0        | 6.0        |            | 60.0       | 14.0       |            |
| 0068906  | 6.0        | 6.0        |            | 60.0       | 22.0       |            |
| 0068906L | 6.0        | 6.0        | 5.6        | 60.0       | 22.0       | 32.0       |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068908K | 8.0        | 8.0        |            | 60.0       | 16.0       |            |
| 0068908  | 8.0        | 8.0        |            | 60.0       | 22.0       |            |
| 0068908L | 8.0        | 8.0        | 7.4        | 60.0       | 22.0       | 32.0       |

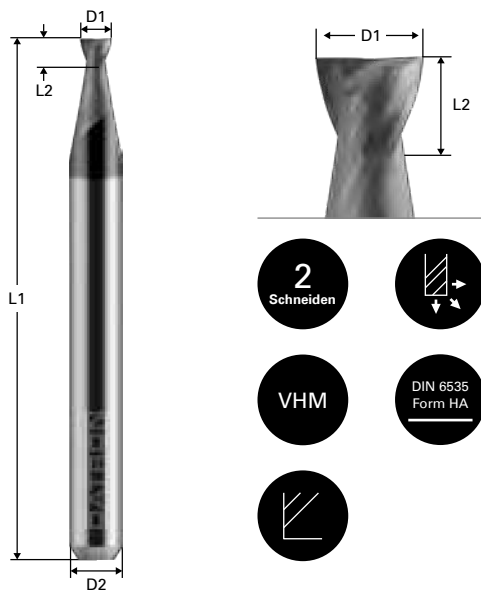
## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068910K | 10.0       | 10.0       |            | 70.0       | 26.0       |            |
| 0068910  | 10.0       | 10.0       |            | 70.0       | 32.0       |            |
| 0068910L | 10.0       | 10.0       | 9.2        | 70.0       | 32.0       | 38.0       |

## 12 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068912K | 12.0       | 12.0       |            | 80.0       | 26.0       |            |
| 0068912  | 12.0       | 12.0       |            | 80.0       | 32.0       |            |
| 0068912L | 12.0       | 12.0       | 11.2       | 80.0       | 32.0       | 48.0       |

# Double flute end mill for machining steel (X.CEED)



Steel

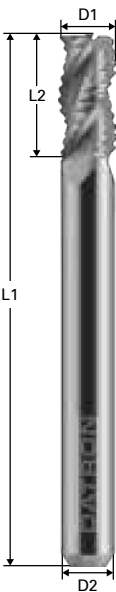


## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0078009S | 0.9        | 3.0        | 38.0       | 1.1        |
| 0078009K | 0.9        | 3.0        | 38.0       | 1.8        |
| 0078010S | 1.0        | 3.0        | 38.0       | 1.2        |
| 0078010K | 1.0        | 3.0        | 38.0       | 2.0        |
| 0078011S | 1.1        | 3.0        | 38.0       | 1.2        |
| 0078011K | 1.1        | 3.0        | 38.0       | 2.2        |
| 0078012S | 1.2        | 3.0        | 38.0       | 1.2        |
| 0078012K | 1.2        | 3.0        | 38.0       | 2.4        |
| 0078013S | 1.3        | 3.0        | 38.0       | 1.2        |
| 0078013K | 1.3        | 3.0        | 38.0       | 2.6        |
| 0078014S | 1.4        | 3.0        | 38.0       | 1.4        |
| 0078014K | 1.4        | 3.0        | 38.0       | 2.8        |
| 0078015S | 1.5        | 3.0        | 38.0       | 1.4        |
| 0078015K | 1.5        | 3.0        | 38.0       | 3.0        |
| 0078016S | 1.6        | 3.0        | 38.0       | 1.4        |
| 0078016K | 1.6        | 3.0        | 38.0       | 3.2        |
| 0078017S | 1.7        | 3.0        | 38.0       | 1.4        |
| 0078017K | 1.7        | 3.0        | 38.0       | 3.4        |
| 0078018S | 1.8        | 3.0        | 38.0       | 1.5        |
| 0078018K | 1.8        | 3.0        | 38.0       | 3.6        |
| 0078019S | 1.9        | 3.0        | 38.0       | 1.5        |
| 0078019K | 1.9        | 3.0        | 38.0       | 4.0        |
| 0078020S | 2.0        | 3.0        | 38.0       | 1.8        |
| 0078020K | 2.0        | 3.0        | 38.0       | 6.0        |
| 0078021K | 2.1        | 3.0        | 38.0       | 5.0        |
| 0078022K | 2.2        | 3.0        | 38.0       | 5.0        |
| 0078023K | 2.3        | 3.0        | 38.0       | 5.0        |
| 0078024K | 2.4        | 3.0        | 38.0       | 5.0        |
| 0078025S | 2.5        | 3.0        | 38.0       | 2.0        |
| 0078025K | 2.5        | 3.0        | 38.0       | 7.0        |
| 0078030K | 3.0        | 3.0        | 38.0       | 7.0        |

DATRON

Triple flute end mill roughing cutter for copper



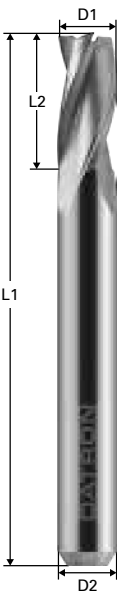
Copper



| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 00685903 | 3.0     | 6.0     | 50.0    | 6.0     |
| 00685906 | 6.0     | 6.0     | 50.0    | 12.0    |
| 00685908 | 8.0     | 8.0     | 50.0    | 16.0    |
| 00685910 | 10.0    | 10.0    | 60.0    | 22.0    |



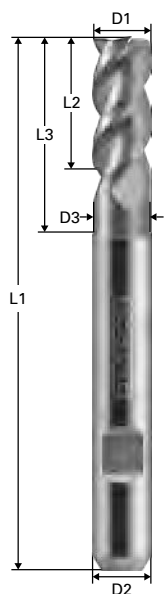
Triple flute end mill finishing cutter for copper



| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 00685610 | 1.0     | 6.0     | 50.0    | 2.2     |
| 00685615 | 1.5     | 6.0     | 50.0    | 3.2     |
| 00685620 | 2.0     | 6.0     | 50.0    | 4.2     |
| 00685630 | 3.0     | 6.0     | 50.0    | 6.0     |
| 00685640 | 4.0     | 6.0     | 50.0    | 8.0     |
| 00685660 | 6.0     | 6.0     | 50.0    | 11.0    |
| 00685680 | 8.0     | 8.0     | 50.0    | 16.0    |

DATRON

# Triple flute end mill with toric cut



3  
Schneiden



VHM

DIN 6535  
Form HB



Aluminium



Copper



Brass

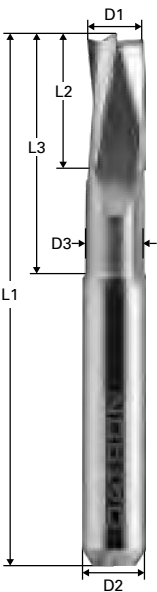


Wood



| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|
| 0068033A | 3.0        | 6.0        | 2.8        | 58.0       | 8.0        | 12.0       |
| 0068034A | 4.0        | 6.0        | 3.8        | 58.0       | 11.0       | 16.0       |
| 0068035A | 5.0        | 6.0        | 4.8        | 58.0       | 13.0       | 19.0       |
| 0068036A | 6.0        | 6.0        | 5.7        | 58.0       | 13.0       | 19.0       |
| 0068040A | 8.0        | 8.0        | 7.8        | 63.0       | 19.0       | 27.0       |
| 0068042A | 10.0       | 10.0       | 9.8        | 72.0       | 22.0       | 32.0       |
| 0068043A | 12.0       | 12.0       | 11.8       | 83.0       | 26.0       | 38.0       |

Triple flute end mill with toric cut for foam



Foams



6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00680530 | 3.0     | 6.0     | 2.7     | 75.0    | 12.0    | 41.0    |
| 0068053K | 3.0     | 6.0     | 2.7     | 50.0    | 6.0     | 22.0    |
| 00680540 | 4.0     | 6.0     | 3.6     | 75.0    | 15.0    | 41.0    |
| 0068054K | 4.0     | 6.0     | 3.6     | 50.0    | 8.0     | 22.0    |
| 00680550 | 5.0     | 6.0     | 4.5     | 75.0    | 20.0    | 41.0    |
| 0068055K | 5.0     | 6.0     | 4.5     | 50.0    | 12.0    | 22.0    |
| 00680560 | 6.0     | 6.0     | 5.5     | 75.0    | 27.0    | 42.0    |
| 0068056A | 6.0     | 6.0     | 5.5     | 100.0   | 27.0    | 71.0    |
| 0068056K | 6.0     | 6.0     | 5.5     | 50.0    | 12.0    | 22.0    |

8 mm shank

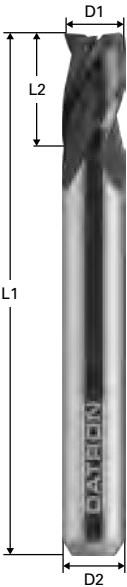
| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00680580 | 8.0     | 8.0     | 7.5     | 75.0    | 28.0    | 42.0    |
| 0068058A | 8.0     | 8.0     | 7.5     | 100.0   | 42.0    | 71.0    |
| 0068058K | 8.0     | 8.0     | 7.5     | 50.0    | 16.0    | 25.0    |

10 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|---------|---------|---------|---------|---------|---------|
| 00680510 | 10.0    | 10.0    | 9.5     | 115.0   | 52.0    | 82.0    |
| 0068051K | 10.0    | 10.0    | 9.5     | 60.0    | 20.0    | 30.0    |

DATRON

Triple flute end mill with coating (X.CEED)

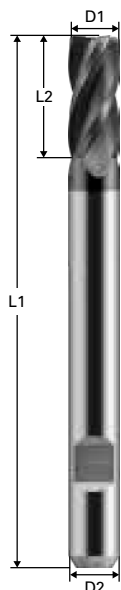


Steel



| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068551  | 1.75    | 3.0     | 40.0    | 3.0     |
| 0068552  | 2.0     | 6.0     | 50.0    | 6.0     |
| 0068553  | 3.0     | 6.0     | 50.0    | 6.0     |
| 0068554  | 4.0     | 6.0     | 50.0    | 8.0     |
| 0068555  | 5.0     | 6.0     | 50.0    | 10.0    |
| 0068556  | 6.0     | 6.0     | 50.0    | 10.0    |

# Four flute end mill with coating (ALCRONA)



Steel



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0078402  | 2.0     | 6.0     | 50.0    | 7.0     |
| 00784025 | 2.5     | 6.0     | 50.0    | 8.0     |
| 0078403  | 3.0     | 6.0     | 57.0    | 8.0     |
| 0078403A | 3.0     | 6.0     | 57.0    | 19.0    |
| 00784035 | 3.5     | 6.0     | 57.0    | 10.0    |
| 0078404  | 4.0     | 6.0     | 57.0    | 11.0    |
| 0078404A | 4.0     | 6.0     | 57.0    | 19.0    |
| 0078404B | 4.0     | 6.0     | 75.0    | 25.0    |
| 00784045 | 4.5     | 6.0     | 57.0    | 11.0    |
| 0078405  | 5.0     | 6.0     | 57.0    | 13.0    |
| 0078405A | 5.0     | 6.0     | 75.0    | 30.0    |
| 00784055 | 5.5     | 6.0     | 57.0    | 13.0    |
| 0078406  | 6.0     | 6.0     | 57.0    | 13.0    |
| 0078406A | 6.0     | 6.0     | 75.0    | 30.0    |
| 0078406B | 6.0     | 6.0     | 100.0   | 40.0    |

## 8 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 00784065 | 6.5     | 8.0     | 63.0    | 16.0    |
| 0078407  | 7.0     | 8.0     | 63.0    | 16.0    |
| 0078408  | 8.0     | 8.0     | 63.0    | 19.0    |
| 0078408A | 8.0     | 8.0     | 75.0    | 30.0    |

## 10 mm shank

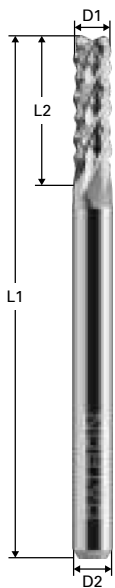
| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0078409  | 9.0     | 10.0    | 72.0    | 19.0    |
| 0078410  | 10.0    | 10.0    | 72.0    | 22.0    |
| 0078410A | 10.0    | 10.0    | 75.0    | 30.0    |
| 0078410B | 10.0    | 10.0    | 100.0   | 40.0    |

## 12 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0078412  | 12.0    | 12.0    | 83.0    | 26.0    |
| 0078412A | 12.0    | 12.0    | 100.0   | 45.0    |

DATRON

# Micro-toothed end mill



GRP/CRP



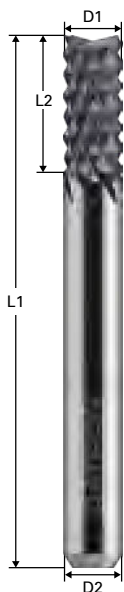
## 3 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 0068106  | 0.6     | 3.0     | 38.0    | 3.0     |
| 0068107  | 0.7     | 3.0     | 38.0    | 3.5     |
| 0068108  | 0.8     | 3.0     | 38.0    | 5.0     |
| 0068110  | 1.0     | 3.0     | 38.0    | 5.0     |
| 0068111  | 1.1     | 3.0     | 38.0    | 5.0     |
| 0068112  | 1.2     | 3.0     | 38.0    | 5.0     |
| 0068115  | 1.5     | 3.0     | 38.0    | 8.0     |
| 0068120  | 2.0     | 3.0     | 38.0    | 8.0     |
| 0068124  | 2.4     | 3.0     | 38.0    | 8.0     |
| 0068130  | 3.0     | 3.0     | 38.0    | 12.0    |

## 1/8" shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) |
|----------|---------|---------|---------|---------|
| 00686506 | 0.6     | 3175    | 38.0    | 3.0     |
| 00686508 | 0.8     | 3175    | 38.0    | 5.0     |
| 00686510 | 1.0     | 3175    | 38.0    | 5.0     |
| 00686511 | 1.1     | 3175    | 38.0    | 7.0     |
| 00686512 | 1.2     | 3175    | 38.0    | 7.0     |
| 00686513 | 1.3     | 3175    | 38.0    | 7.0     |
| 00686514 | 1.4     | 3175    | 38.0    | 7.0     |
| 00686515 | 1.5     | 3175    | 38.0    | 7.0     |
| 00686516 | 1.6     | 3175    | 38.0    | 8.5     |
| 00686517 | 1.7     | 3175    | 38.0    | 8.5     |
| 00686518 | 1.8     | 3175    | 38.0    | 8.5     |
| 00686519 | 1.9     | 3175    | 38.0    | 8.5     |
| 00686520 | 2.0     | 3175    | 38.0    | 8.0     |
| 00686521 | 2.1     | 3175    | 38.0    | 9.0     |
| 00686522 | 2.2     | 3175    | 38.0    | 9.0     |
| 00686523 | 2.3     | 3175    | 38.0    | 9.0     |
| 00686524 | 2.4     | 3175    | 38.0    | 9.0     |
| 00686530 | 3.0     | 3175    | 38.0    | 10.0    |

# Micro-toothed end mill with coating (X.CEED/diamond)



GRP/CRP



## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | BS     |
|----------|------------|------------|------------|------------|--------|
| 006T106  | 0.6        | 3.0        | 40.0       | 3.0        | X.CEED |
| 006T107  | 0.7        | 3.0        | 40.0       | 3.5        | X.CEED |
| 006T110  | 1.0        | 3.0        | 40.0       | 5.0        | X.CEED |
| 006T115  | 1.5        | 3.0        | 40.0       | 8.0        | X.CEED |
| 006T120  | 2.0        | 3.0        | 40.0       | 8.0        | X.CEED |
| 006T124  | 2.4        | 3.0        | 40.0       | 8.0        | X.CEED |
| 006T130  | 3.0        | 3.0        | 40.0       | 12.0       | X.CEED |

## 1/8" shank

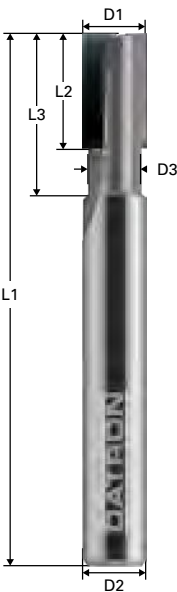
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | BS      |
|----------|------------|------------|------------|------------|---------|
| 0073126B | 2.0        | 3175       | 38.0       | 9.0        | Diamond |
| 0073126C | 2.4        | 3175       | 38.0       | 9.0        | Diamond |
| 0073126D | 3.0        | 3175       | 38.0       | 9.0        | Diamond |

## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | BS     |
|----------|------------|------------|------------|------------|--------|
| 0068164  | 4.0        | 6.0        | 50.0       | 16.0       | X.CEED |
| 0068165  | 5.0        | 6.0        | 50.0       | 22.0       | X.CEED |
| 0068166S | 6.0        | 6.0        | 50.0       | 12.0       | X.CEED |

DATRON

Diamond milling tool for CRP/GRP



1-2  
Schneiden

CVD

DIN 6535  
Form HA



CRP/GRP



| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Number of flutes |
|----------|---------|---------|---------|---------|---------|---------|------------------|
| 00781203 | 3.0     | 6.0     | 2.8     | 50.0    | 5.0     | 10.0    | 1                |
| 00781204 | 4.0     | 6.0     | 3.8     | 50.0    | 6.0     | 6.0     | 2                |
| 00781206 | 6.0     | 6.0     | 5.6     | 50.0    | 10.0    | 14.0    | 2                |
| 00781208 | 8.0     | 8.0     | 7.2     | 50.0    | 12.0    | 16.0    | 2                |
| 00781210 | 10.0    | 10.0    | 9.2     | 60.0    | 8.0     | 17.0    | 2                |



DATRON

## Face milling tool

|                                                                                         |    |
|-----------------------------------------------------------------------------------------|----|
| Single flute end mill, stepped                                                          | 42 |
| Double flute end mill, stepped                                                          | 43 |
| Double flute end mill, stepped and edge radius                                          | 44 |
| Double flute end mill, stepped with edge radius<br>and polished flute for acrylic glass | 45 |
| Face milling tool/monoblock                                                             | 46 |



DATRON

# Single flute end mill stepped and balanced



Aluminium



Brass



Copper



Plastic



Wood

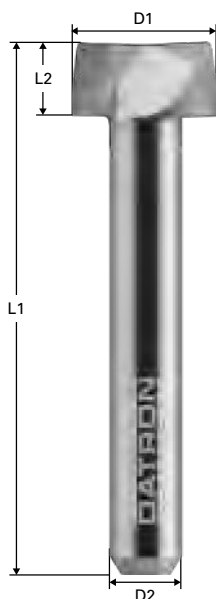


| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068812G | 12.0       | 6.0        | 45.0       | 5.0        |
| 0068814E | 14.0       | 8.0        | 45.0       | 5.0        |
| 0068820E | 20.0       | 10.0       | 50.0       | 7.0        |
| 0068824E | 24.0       | 12.0       | 60.0       | 8.5        |

DATRON 

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068814E | 14         | 8          | 45         | 5          |

# Double flute end mill stepped



Aluminium



Brass



Copper



Plastic



Wood



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068441  | 8.0        | 6.0        | 50.0       | 10.0       |
| 0068440  | 10.0       | 6.0        | 50.0       | 10.0       |
| 0068442G | 12.0       | 6.0        | 50.0       | 6.0        |
| 0068442A | 14.0       | 6.0        | 50.0       | 6.0        |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068443G | 14.0       | 8.0        | 50.0       | 6.0        |
| 0068444G | 20.0       | 8.0        | 50.0       | 8.0        |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0078812A | 12.0       | 10.0       | 50.0       | 10.0       |
| 0078814A | 14.0       | 10.0       | 50.0       | 10.0       |
| 0078816A | 16.0       | 10.0       | 50.0       | 10.0       |
| 0078816B | 16.0       | 10.0       | 82.0       | 12.0       |
| 0078818A | 18.0       | 10.0       | 50.0       | 10.0       |
| 0078820A | 20.0       | 10.0       | 50.0       | 10.0       |

## 12 mm shank

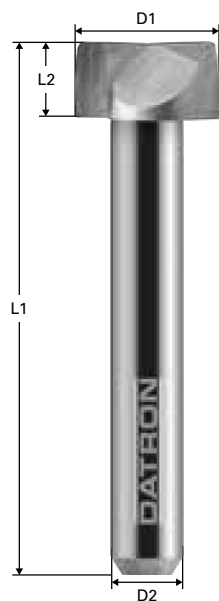
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0078814  | 14.0       | 12.0       | 50.0       | 10.0       |
| 0078816  | 16.0       | 12.0       | 50.0       | 10.0       |
| 0078818  | 18.0       | 12.0       | 50.0       | 10.0       |
| 0078820  | 20.0       | 12.0       | 50.0       | 10.0       |

**DATRON** NEO

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0078808  | 8          | 8          | 60         | 10         |
| 0078808R | 8          | 8          | 60         | 12         |
| 0068443G | 14         | 8          | 50         | 6          |

DATRON

# Double flute end mill stepped and edge radius



2  
Schneiden



VHM

DIN 6535  
Form HA



Aluminium



Brass



Copper



Plastic



Wood



| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0068442  | 12.0       | 6.0        | 50.0       | 6.0        | 0.5       |
| 0068442N | 12.0       | 8.0        | 50.0       | 6.0        | 0.5       |
| 0068443  | 14.0       | 8.0        | 50.0       | 6.0        | 0.5       |
| 0068444  | 20.0       | 8.0        | 50.0       | 8.0        | 0.5       |

**DATRON** NEO®

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0068080K | 8          | 8          | 50         | 12         | 1         |
| 0068442N | 12         | 8          | 50         | 6          | 0.5       |
| 0068443  | 14         | 8          | 50         | 6          | 0.5       |

Double flute end mill stepped with edge radius and polished flute for acrylic glass



Acrylic glass

Plastic

6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078440  | 10.0       | 6.0        | 50.0       | 6.0        | 1.0       |
| 0078442  | 12.0       | 6.0        | 50.0       | 6.0        | 1.0       |

8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078444  | 14.0       | 8.0        | 50.0       | 6.0        | 1.0       |
| 0078446  | 16.0       | 8.0        | 50.0       | 6.0        | 1.0       |

DATRON neo

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078444  | 14         | 8          | 50         | 6          | 1         |

DATRON

# Face milling tool/monoblock



Aluminium



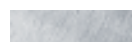
Copper



Brass



Steel



Plastic



Bronze



Wood



| Item no.  | Type     | D1<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|----------|------------|------------|------------|------------|
| 0078920*  | HSK-E-25 | 20.0       | 18.5       | 40.0       | 10.0       |
| 0078920L* | HSK-E-25 | 20.0       | 18.5       | 60.0       | 10.0       |
| 0078924*  | HSK-E-32 | 24.0       | 22.5       | 45.0       | 10.0       |
| 0078924L* | HSK-E-32 | 24.0       | 22.5       | 65.0       | 10.0       |

| Item no. | Item name                  | For MLCube               | Material  | R<br>(mm) |
|----------|----------------------------|--------------------------|-----------|-----------|
| 0078920A | Indexable insert, polished | 0078920 / 20L / 24 / 24L | Aluminium | 0.8       |
| 0078920B | Indexable insert           | 0078920 / 20L / 24 / 24L | Steel     | 0.8       |

| Item no. | Item name                                |
|----------|------------------------------------------|
| 0078920C | Screw set with 10 screws and screwdriver |

Note: only in combination with a measurable DATRON tool length sensor

\* Monoblock basic tool without indexable inserts. Please specify which indexable inserts are required when ordering!

---

DATRON

## Ball nose end mill

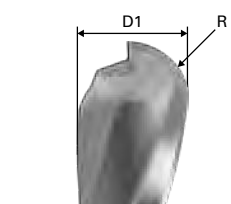
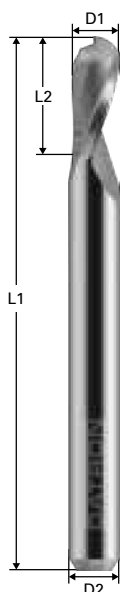
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|                                                              |    |
|--------------------------------------------------------------|----|
| Ball nose end mill, one flute                                | 48 |
| Ball nose end mill, one flute and polished for acrylic glass | 49 |
| Ball nose end mill, two flutes                               | 50 |
| Ball nose end mill, two flutes with toric cut                | 51 |
| Ball nose end mill, two flutes with coating (ALCRONA)        | 52 |
| Ball nose end mill, four flutes with coating (ALCRONA)       | 53 |



DATRON

# Ball nose end mill one flute



Aluminium

Wood



Plastic



Bronze

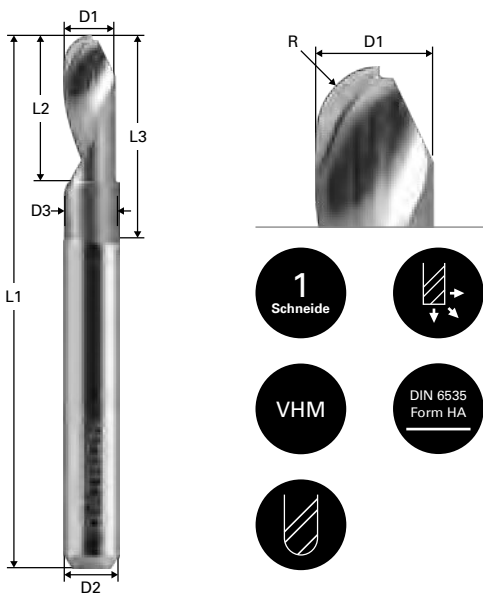
Brass



| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0068171E | 1.0        | 3.0        | 40.0       | 4.0        | 0.5       |
| 0068172E | 2.0        | 6.0        | 50.0       | 7.0        | 1.0       |
| 0068173E | 3.0        | 6.0        | 50.0       | 8.0        | 1.5       |
| 0068174E | 4.0        | 6.0        | 50.0       | 10.0       | 2.0       |
| 0068175E | 5.0        | 6.0        | 50.0       | 12.0       | 2.5       |
| 0068176E | 6.0        | 6.0        | 50.0       | 14.0       | 3.0       |
| 0068178E | 8.0        | 8.0        | 60.0       | 14.0       | 4.0       |
| 0068179E | 10.0       | 10.0       | 60.0       | 20.0       | 5.0       |



# Ball nose end mill one flute, polished for acrylic glass



1  
Schneide

VHM

DIN 6535  
Form HA



Acrylic glass



Plastic

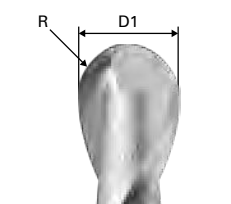
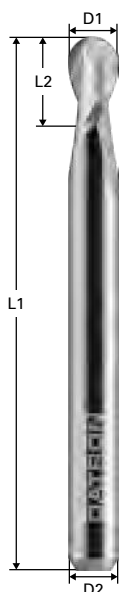


6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0068191E | 1.0        | 6.0        | 0.9        | 50.0       | 4.0        | 12.0       | 0.5       |
| 0068191S | 1.5        | 6.0        | 1.4        | 50.0       | 5.0        | 12.0       | 0.75      |
| 0068192E | 2.0        | 6.0        | 1.8        | 50.0       | 6.0        | 20.0       | 1.0       |
| 0068192S | 2.5        | 6.0        | 2.3        | 50.0       | 7.0        | 20.0       | 1.25      |
| 0068193E | 3.0        | 6.0        | 2.8        | 50.0       | 8.0        | 21.0       | 1.5       |
| 0068194E | 4.0        | 6.0        | 3.8        | 50.0       | 10.0       | 21.0       | 2.0       |
| 0068195E | 5.0        | 6.0        | 4.8        | 50.0       | 12.0       | 22.0       | 2.5       |
| 0068196E | 6.0        | 6.0        | 5.8        | 50.0       | 14.0       | 22.0       | 3.0       |

DATRON

# Ball nose end mill two flutes



Aluminium



Copper



Bronze



Brass



Plastic

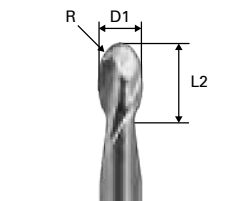
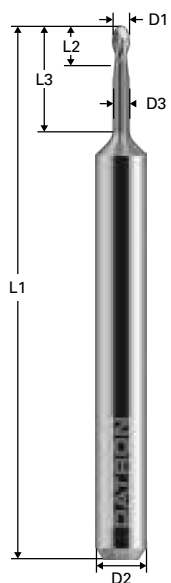


Wood



| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 00684003 | 0.3        | 3.0        | 40.0       | 0.5        | 0.15      |
| 00684005 | 0.5        | 3.0        | 39.0       | 0.8        | 0.25      |
| 00684007 | 0.7        | 3.0        | 39.0       | 2.1        | 0.35      |
| 0068400  | 1.0        | 3.0        | 38.0       | 3.0        | 0.5       |
| 0068403  | 3.0        | 6.0        | 50.0       | 4.0        | 1.5       |
| 0068404  | 4.0        | 6.0        | 50.0       | 5.0        | 2.0       |
| 0068405  | 5.0        | 6.0        | 50.0       | 5.0        | 2.5       |
| 0068406  | 6.0        | 6.0        | 50.0       | 10.0       | 3.0       |
| 0068408  | 8.0        | 8.0        | 50.0       | 12.0       | 4.0       |

# Ball nose end mill two flutes with toric cut



Aluminium



Copper



Bronze



Brass



Plastic



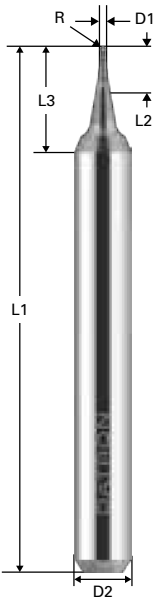
Wood



| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00782004 | 0.4        | 3.0        | 0.35       | 39.0       | 0.6        | 2.0        | 0.2       |
| 00782005 | 0.5        | 3.0        | 0.45       | 39.0       | 0.75       | 4.0        | 0.25      |
| 00782006 | 0.6        | 3.0        | 0.55       | 39.0       | 0.9        | 4.0        | 0.3       |
| 00782008 | 0.8        | 3.0        | 0.75       | 39.0       | 1.2        | 6.0        | 0.4       |
| 00782010 | 1.0        | 3.0        | 0.95       | 39.0       | 1.5        | 6.0        | 0.5       |
| 00782011 | 1.0        | 3.0        | 0.95       | 39.0       | 1.5        | 9.0        | 0.5       |
| 00782012 | 1.2        | 3.0        | 1.15       | 39.0       | 1.8        | 9.0        | 0.6       |
| 00782015 | 1.5        | 3.0        | 1.45       | 39.0       | 2.2        | 9.0        | 0.75      |
| 00782020 | 2.0        | 3.0        | 1.95       | 39.0       | 3.0        | 12.0       | 1.0       |
| 0078502  | 2.0        | 6.0        | 1.8        | 75.0       | 5.0        | 20.0       | 1.0       |
| 0078503  | 3.0        | 6.0        | 2.8        | 75.0       | 6.0        | 20.0       | 1.5       |
| 0078504  | 4.0        | 6.0        | 3.8        | 75.0       | 8.0        | 20.0       | 2.0       |
| 0078505  | 5.0        | 6.0        | 4.8        | 100.0      | 20.0       | 40.0       | 2.5       |
| 0078506  | 6.0        | 6.0        | 5.8        | 100.0      | 20.0       | 40.0       | 3.0       |
| 0078508  | 8.0        | 8.0        | 7.8        | 100.0      | 20.0       | 40.0       | 4.0       |
| 0078510  | 10.0       | 10.0       | 9.8        | 100.0      | 20.0       | 40.0       | 5.0       |
| 0078512  | 12.0       | 12.0       | 11.7       | 100.0      | 20.0       | 40.0       | 6.0       |

DATRON

Ball nose end mill two flutes with coating (ALCRONA)



2  
Schneiden

VHM

DIN 6535  
Form HA



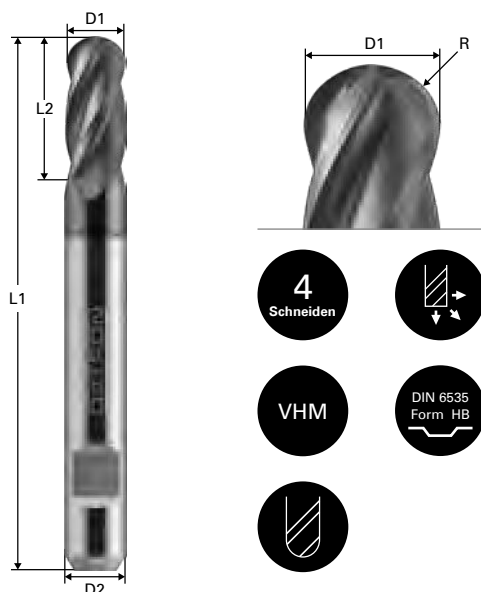
Steel



3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 00684004 | 0.4        | 3.0        | 39.0       | 1.2        | 0.2       |
| 00684010 | 0.5        | 3.0        | 39.0       | 1.5        | 0.25      |
| 00684006 | 0.6        | 3.0        | 39.0       | 1.8        | 0.3       |
| 00684008 | 0.8        | 3.0        | 38.0       | 2.4        | 0.4       |
| 00684015 | 1.5        | 3.0        | 38.0       | 3.0        | 0.75      |
| 0068402  | 2.0        | 3.0        | 38.0       | 4.0        | 1.0       |
| 00684025 | 2.5        | 3.0        | 38.0       | 5.0        | 1.25      |
| 0068401  | 3.0        | 3.0        | 38.0       | 6.0        | 1.5       |

# Ball nose end mill four flutes with coating (ALCRONA)



Steel



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078542  | 2.0        | 6.0        | 57.0       | 6.0        | 1.0       |
| 0078543  | 3.0        | 6.0        | 57.0       | 8.0        | 1.5       |
| 0078543A | 3.0        | 6.0        | 57.0       | 20.0       | 1.5       |
| 0078544  | 4.0        | 6.0        | 57.0       | 11.0       | 2.0       |
| 0078544A | 4.0        | 6.0        | 57.0       | 20.0       | 2.0       |
| 0078545  | 5.0        | 6.0        | 57.0       | 13.0       | 2.5       |
| 0078545A | 5.0        | 6.0        | 75.0       | 30.0       | 2.5       |
| 0078546  | 6.0        | 6.0        | 57.0       | 13.0       | 3.0       |
| 0078546A | 6.0        | 6.0        | 75.0       | 30.0       | 3.0       |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078548  | 8.0        | 8.0        | 63.0       | 19.0       | 4.0       |
| 0078548A | 8.0        | 8.0        | 75.0       | 30.0       | 4.0       |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078550  | 10.0       | 10.0       | 72.0       | 22.0       | 5.0       |
| 0078550A | 10.0       | 10.0       | 75.0       | 30.0       | 5.0       |

## 12 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 0078552  | 12.0       | 12.0       | 83.0       | 26.0       | 6.0       |
| 0078552A | 12.0       | 12.0       | 100.0      | 45.0       | 6.0       |



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DATRON

## Toric end mill

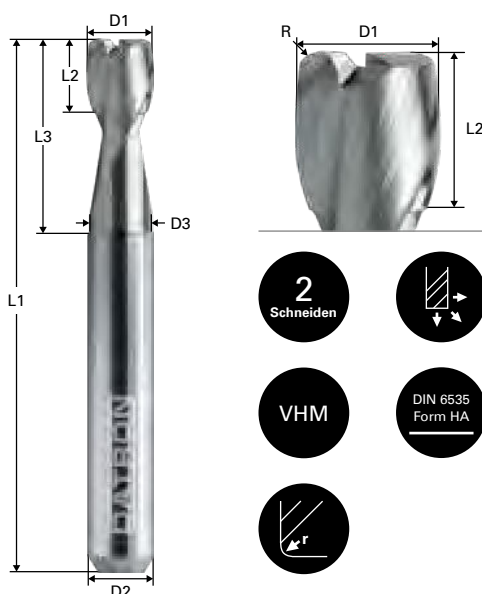
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|                                                                 |    |
|-----------------------------------------------------------------|----|
| Double flute end mill with edge radius                          | 56 |
| Double flute end mill with edge radius and coating (Triple-Cut) | 57 |
| Four flute end mill with edge radius and coating (X.CEED)       | 58 |
| Four flute end mill with double radius and coating (X.CEED)     | 59 |



DATRON

# Double flute end mill with edge radius



Aluminium



Brass



Copper



Plastic



Wood



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0068460S | 6.0        | 6.0        |            | 50.0       | 6.0        |            | 0.5       |
| 0068460F | 6.0        | 6.0        | 5.8        | 58.0       | 7.0        | 21.0       | 1.0       |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0068080K | 8.0        | 8.0        |            | 50.0       | 12.0       |            | 1.0       |
| 0078808R | 8.0        | 8.0        | 7.7        | 60.0       | 10.0       | 22.0       | 0.2       |
| 0068080  | 8.0        | 8.0        | 7.8        | 60.0       | 9.0        | 23.0       | 1.0       |



# Double flute end mill with edge radius and coating (Triple-Cut)



Aluminium



Brass



Copper



Plastic



Wood



## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781043 | 3.0        | 3.0        | 2.7        | 50.0       | 4.0        | 14.0       | 0.3       |
| 00781063 | 3.0        | 3.0        | 2.7        | 50.0       | 4.0        | 14.0       | 1.0       |

## 4 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781044 | 4.0        | 4.0        | 3.7        | 50.0       | 5.0        | 16.0       | 0.4       |
| 00781064 | 4.0        | 4.0        | 3.7        | 50.0       | 5.0        | 16.0       | 1.0       |

## 5 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781045 | 5.0        | 5.0        | 4.6        | 54.0       | 6.0        | 18.0       | 0.5       |
| 00781065 | 5.0        | 5.0        | 4.6        | 54.0       | 6.0        | 18.0       | 1.0       |

## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781046 | 6.0        | 6.0        | 5.5        | 58.0       | 7.0        | 21.0       | 0.5       |
| 00781066 | 6.0        | 6.0        | 5.5        | 58.0       | 7.0        | 21.0       | 1.0       |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781048 | 8.0        | 8.0        | 7.4        | 63.0       | 9.0        | 27.0       | 0.5       |
| 00781068 | 8.0        | 8.0        | 7.4        | 63.0       | 9.0        | 27.0       | 1.0       |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 00781050 | 10.0       | 10.0       | 9.2        | 72.0       | 11.0       | 32.0       | 0.5       |
| 00781070 | 10.0       | 10.0       | 9.2        | 72.0       | 11.0       | 32.0       | 1.0       |

DATRON

# Four flute end mill with edge radius and coating (X.CEED)



4  
Schneiden



VHM

DIN 6535  
Form HA



Steel



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0078620  | 2.0        | 6.0        | 1.8        | 50.0       | 4.0        | 12.0       | 0.2       |
| 0078620A | 2.0        | 6.0        | 1.8        | 50.0       | 4.0        | 16.0       | 0.2       |
| 0078623  | 3.0        | 6.0        | 2.7        | 50.0       | 4.0        | 14.0       | 0.3       |
| 0078623A | 3.0        | 6.0        | 2.7        | 50.0       | 4.0        | 18.0       | 0.3       |
| 0078624  | 4.0        | 6.0        | 3.7        | 50.0       | 5.0        | 16.0       | 0.4       |
| 0078625  | 5.0        | 6.0        | 4.6        | 54.0       | 6.0        | 18.0       | 0.5       |
| 0078625A | 5.0        | 6.0        | 4.6        | 54.0       | 6.0        | 18.0       | 1.0       |
| 0078626  | 6.0        | 6.0        | 5.5        | 57.0       | 7.0        | 21.0       | 0.5       |
| 0078626A | 6.0        | 6.0        | 5.5        | 57.0       | 7.0        | 21.0       | 1.0       |

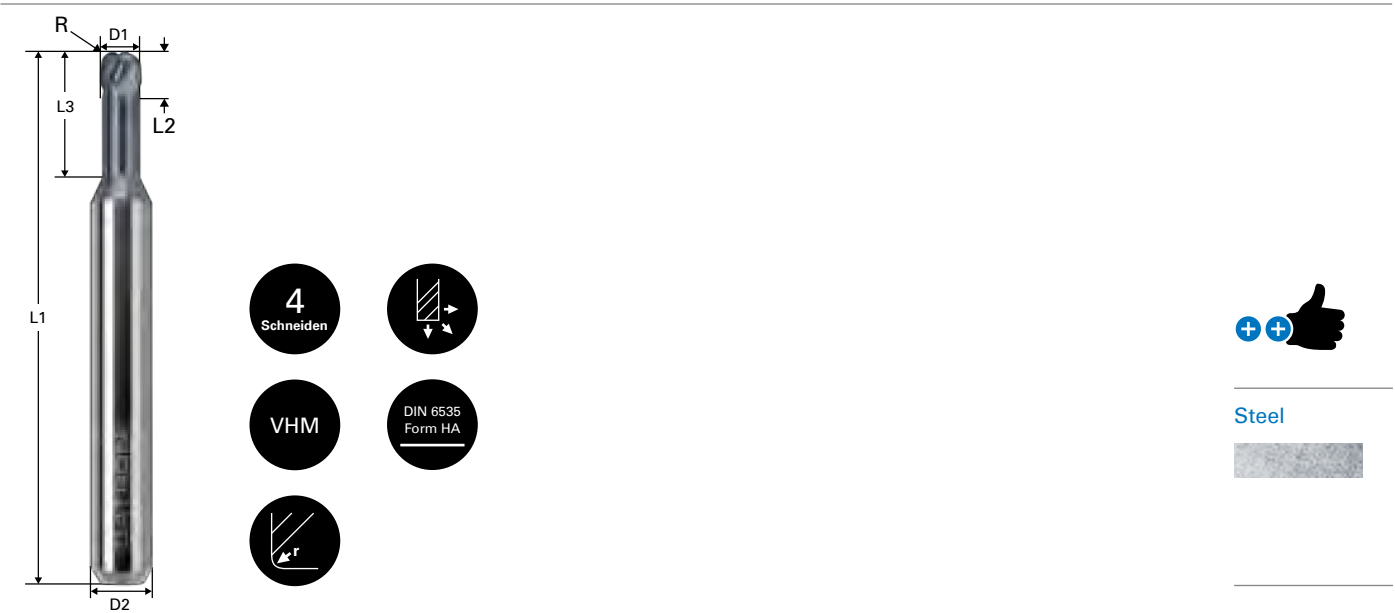
## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0078628  | 8.0        | 8.0        | 7.4        | 63.0       | 9.0        | 27.0       | 0.5       |
| 0078628A | 8.0        | 8.0        | 7.4        | 63.0       | 9.0        | 27.0       | 1.0       |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|------------|-----------|
| 0078630  | 10.0       | 10.0       | 9.2        | 72.0       | 11.0       | 32.0       | 0.5       |
| 0078630A | 10.0       | 10.0       | 9.2        | 72.0       | 11.0       | 32.0       | 1.0       |

Four flute end mill with double radius and coating (X.CEED)



6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|-----------|
| 00686903 | 3.0        | 6.0        | 50.0       | 1.0        | 0.8       |
| 00686904 | 4.0        | 6.0        | 50.0       | 1.0        | 0.8       |
| 00686906 | 6.0        | 6.0        | 50.0       | 1.0        | 0.8       |



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DATRON

## Chamfer mill

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|              |    |
|--------------|----|
| Chamfer mill | 62 |
|--------------|----|

|                                |    |
|--------------------------------|----|
| Chamfer mill for acrylic glass | 63 |
|--------------------------------|----|

|                       |    |
|-----------------------|----|
| Chamfer mill for foam | 64 |
|-----------------------|----|

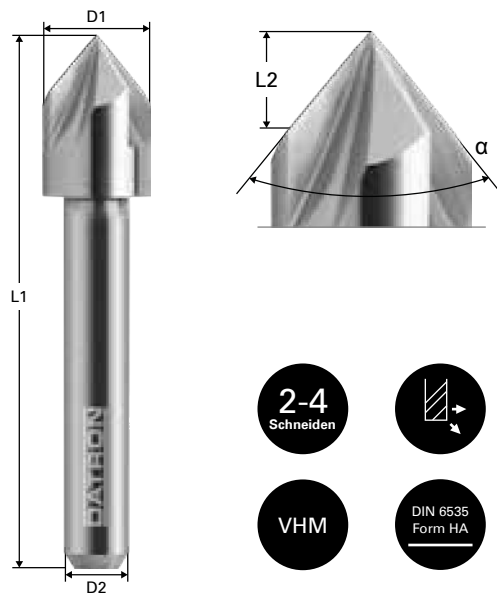
|                          |    |
|--------------------------|----|
| Milling countersink tool | 65 |
|--------------------------|----|

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|---------------------|----|
| V-slot milling tool | 66 |
|---------------------|----|



DATRON

## Chamfer mill

2-4  
Schneiden

VHM

DIN 6535  
Form HA

Aluminium



Plastic



Wood



Bronze



Brass

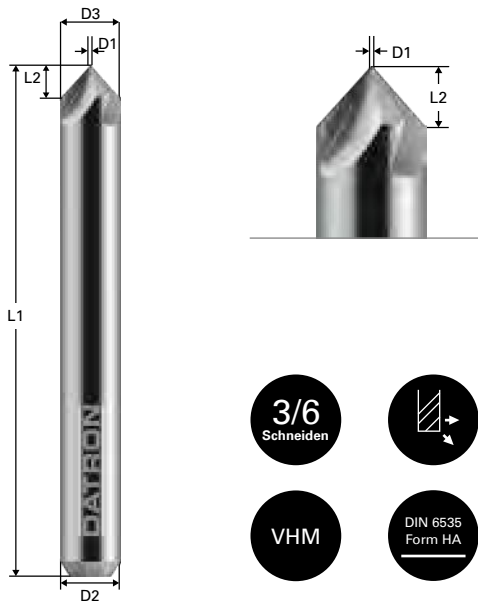


| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) | Number of<br>flutes |
|----------|------------|------------|------------|------------|----------|---------------------|
| 0068478A | 3.0        | 3.0        | 40.0       | 2.5        | 60       | 2                   |
| 0068478  | 3.0        | 3.0        | 40.0       | 1.5        | 90       | 2                   |
| 0068479B | 6.0        | 6.0        | 50.0       | 8.2        | 40       | 3                   |
| 0068480B | 6.0        | 6.0        | 50.0       | 5.1        | 60       | 4                   |
| 0068479C | 6.0        | 6.0        | 50.0       | 4.2        | 70       | 3                   |
| 0068479  | 6.0        | 6.0        | 50.0       | 3.0        | 90       | 3                   |
| 0068479A | 6.0        | 6.0        | 50.0       | 1.7        | 120      | 4                   |
| 0068479D | 6.0        | 6.0        | 50.0       | 1.1        | 140      | 3                   |
| 0068479E | 6.0        | 6.0        | 50.0       | 1.2        | 160      | 3                   |
| 0068480  | 8.0        | 6.0        | 50.0       | 4.0        | 90       | 3                   |
| 0068480C | 8.0        | 6.0        | 50.0       | 3.3        | 100      | 4                   |
| 0068480A | 8.0        | 6.0        | 50.0       | 2.3        | 120      | 3                   |
| 0068483  | 10.0       | 6.0        | 50.0       | 5.0        | 90       | 3                   |
| 0068483A | 10.0       | 6.0        | 50.0       | 2.8        | 120      | 4                   |
| 0068483E | 12.0       | 6.0        | 50.0       | 3.4        | 120      | 4                   |
| 0068483D | 12.0       | 8.0        | 50.0       | 6.0        | 90       | 4                   |
| 0068483H | 14.0       | 8.0        | 50.0       | 7.0        | 90       | 4                   |
| 0068483B | 10.0       | 10.0       | 50.0       | 5.0        | 90       | 3                   |

DATRON 

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) | Number of<br>flutes |
|----------|------------|------------|------------|------------|----------|---------------------|
| 0068480N | 8          | 8          | 50         | 4          | 90       | 3                   |
| 0068483N | 10         | 8          | 50         | 5          | 90       | 3                   |
| 0068483D | 12         | 8          | 50         | 4          | 90       | 4                   |
| 0068483H | 14         | 8          | 50         | 7          | 90       | 4                   |

# Chamfer mill for acrylic glass



Acrylic glass



Plastic

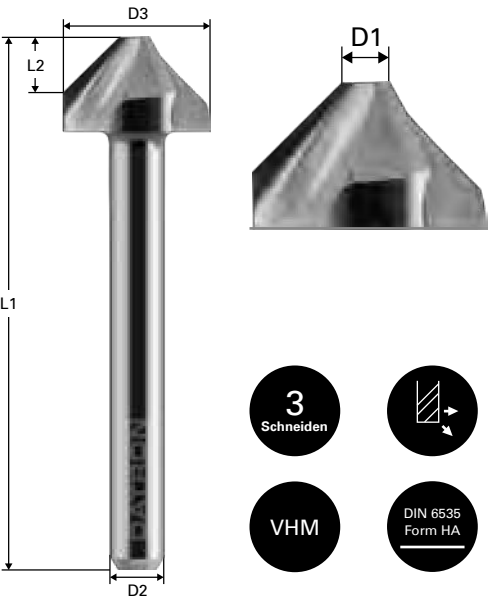


## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) | Number of<br>flutes |
|----------|------------|------------|------------|------------|------------|----------|---------------------|
| 00685806 | 0.1        | 6.0        | 6.0        | 50.0       | 3.0        | 90       | 6                   |
| 00685808 | 0.1        | 6.0        | 8.0        | 50.0       | 4.0        | 90       | 6                   |
| 00685810 | 4.0        | 6.0        | 10.0       | 50.0       | 3.0        | 90       | 3                   |
| 00685812 | 4.0        | 6.0        | 12.0       | 50.0       | 4.0        | 90       | 3                   |
| 00685814 | 4.0        | 6.0        | 14.0       | 50.0       | 5.0        | 90       | 3                   |
| 00685816 | 4.0        | 6.0        | 16.0       | 50.0       | 6.0        | 90       | 3                   |

DATRON

Chamfer mill for foam



Foams



6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | $\alpha$ (°) |
|----------|---------|---------|---------|---------|---------|--------------|
| 0068485C | 4.0     | 6.0     | 10.0    | 50.0    | 3.0     | 90           |
| 0068485D | 4.0     | 6.0     | 12.0    | 50.0    | 4.0     | 90           |
| 0068485E | 4.0     | 6.0     | 14.0    | 50.0    | 5.0     | 90           |
| 0068485F | 4.0     | 6.0     | 16.0    | 50.0    | 6.0     | 90           |

DATRON neo

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | $\alpha$ (°) |
|----------|---------|---------|---------|---------|---------|--------------|
| 0068485N | 4       | 8       | 14      | 50      | 5       | 90           |



# Milling countersink tool



Aluminium



Plastic



Wood



Bronze



Brass



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|------------|----------|
| 0068772D | 2.0        | 6.0        | 50.0       | 1.0        | 90       |
| 0068772E | 2.0        | 6.0        | 50.0       | 1.5        | 90       |
| 0068772  | 2.0        | 6.0        | 50.0       | 1.9        | 90       |
| 0068772F | 2.0        | 6.0        | 50.0       | 2.5        | 90       |
| 0068772A | 2.0        | 6.0        | 50.0       | 2.9        | 90       |
| 0068772G | 2.0        | 6.0        | 50.0       | 4.0        | 90       |
| 0068772B | 2.0        | 6.0        | 50.0       | 4.9        | 90       |
| 0068773D | 3.0        | 6.0        | 50.0       | 1.0        | 90       |
| 0068773E | 3.0        | 6.0        | 50.0       | 1.5        | 90       |
| 0068773G | 3.0        | 6.0        | 50.0       | 2.0        | 90       |
| 0068773F | 3.0        | 6.0        | 50.0       | 2.5        | 90       |
| 0068773  | 3.0        | 6.0        | 50.0       | 2.9        | 90       |
| 0068773A | 3.0        | 6.0        | 50.0       | 3.9        | 90       |
| 0068773B | 3.0        | 6.0        | 50.0       | 4.9        | 90       |
| 0068774D | 4.0        | 6.0        | 50.0       | 1.0        | 90       |
| 0068774E | 4.0        | 6.0        | 50.0       | 1.5        | 90       |
| 0068774G | 4.0        | 6.0        | 50.0       | 2.0        | 90       |
| 0068774F | 4.0        | 6.0        | 50.0       | 2.5        | 90       |
| 0068774  | 4.0        | 6.0        | 50.0       | 2.9        | 90       |
| 0068774A | 4.0        | 6.0        | 50.0       | 3.9        | 90       |
| 0068774B | 4.0        | 6.0        | 50.0       | 5.0        | 90       |
| 0068775D | 5.0        | 6.0        | 50.0       | 1.0        | 90       |
| 0068775E | 5.0        | 6.0        | 50.0       | 1.5        | 90       |
| 0068775G | 5.0        | 6.0        | 50.0       | 2.0        | 90       |
| 0068775F | 5.0        | 6.0        | 50.0       | 2.5        | 90       |
| 0068775  | 5.0        | 6.0        | 50.0       | 3.0        | 90       |
| 0068775A | 5.0        | 6.0        | 50.0       | 4.0        | 90       |
| 0068775B | 5.0        | 6.0        | 50.0       | 5.0        | 90       |

DATRON

## V-slot mill

2  
Schneiden

VHM

DIN 6535  
Form HA

Aluminium

Wood



Plastic



Bronze

Brass



## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|------------|----------|
| 0068795A | 5          | 6          | 50         | 10         | 60       |
| 68795    | 5          | 6          | 50         | 10         | 90       |
| 0068795B | 5          | 6          | 50         | 10         | 120      |
| 0068796A | 6          | 6          | 58         | 12         | 60       |
| 68796    | 6          | 6          | 58         | 12         | 90       |
| 0068796B | 6          | 6          | 58         | 12         | 120      |

## 8 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|------------|----------|
| 0068798A | 8          | 8          | 70         | 16         | 60       |
| 68798    | 8          | 8          | 70         | 16         | 90       |
| 0068798B | 8          | 8          | 70         | 16         | 120      |

## 10 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|------------|----------|
| 0068799A | 10         | 10         | 70         | 16         | 60       |
| 68799    | 10         | 10         | 70         | 16         | 90       |
| 0068799B | 10         | 10         | 70         | 16         | 120      |

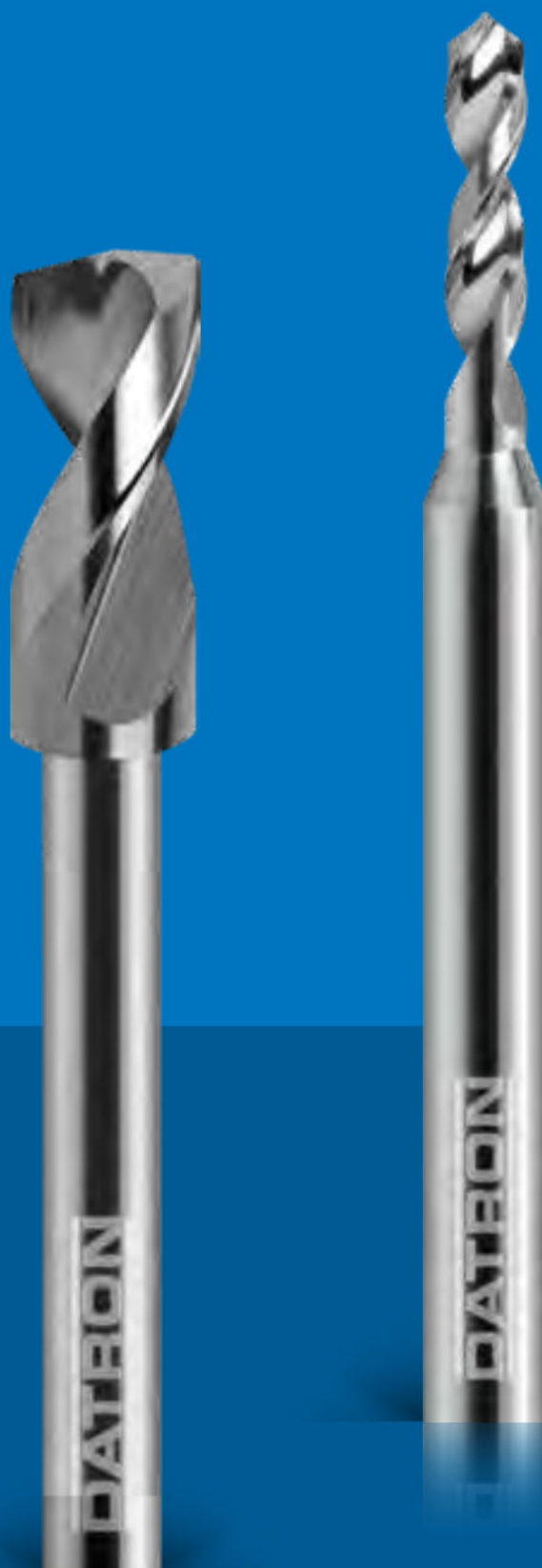
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DATRON

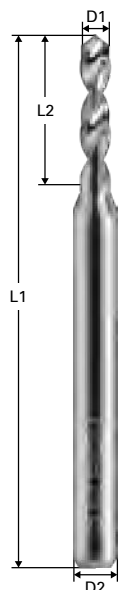
## Drill

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|                   |    |
|-------------------|----|
| Drill, 3mm shank  | 68 |
| Drill, 1/8" shank | 70 |
| Drill, 6mm shank  | 72 |



DATRON

**Drill** 3 mm shank

Aluminium

Bronze

Plastic

Steel



Copper

Brass

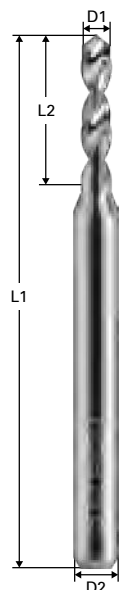
Wood

**3 mm shank**

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 00682015 | 0.15       | 3.0        | 38.0       | 2.0        |
| 0068202  | 0.2        | 3.0        | 38.0       | 3.5        |
| 00682025 | 0.25       | 3.0        | 38.0       | 3.5        |
| 0068203  | 0.3        | 3.0        | 38.0       | 3.5        |
| 00682035 | 0.35       | 3.0        | 38.0       | 3.5        |
| 0068204  | 0.4        | 3.0        | 38.0       | 6.0        |
| 00682045 | 0.45       | 3.0        | 38.0       | 6.0        |
| 0068205  | 0.5        | 3.0        | 38.0       | 6.0        |
| 00682055 | 0.55       | 3.0        | 38.0       | 6.0        |
| 0068206  | 0.6        | 3.0        | 38.0       | 6.5        |
| 00682065 | 0.65       | 3.0        | 38.0       | 6.5        |
| 0068207  | 0.7        | 3.0        | 38.0       | 10.5       |
| 00682075 | 0.75       | 3.0        | 38.0       | 10.5       |
| 0068208  | 0.8        | 3.0        | 38.0       | 10.5       |
| 00682085 | 0.85       | 3.0        | 38.0       | 10.5       |
| 0068209  | 0.9        | 3.0        | 38.0       | 10.5       |
| 00682095 | 0.95       | 3.0        | 38.0       | 10.5       |
| 0068210  | 1.0        | 3.0        | 38.0       | 10.5       |
| 00682105 | 1.05       | 3.0        | 38.0       | 10.5       |
| 0068211  | 1.1        | 3.0        | 38.0       | 10.5       |
| 00682115 | 1.15       | 3.0        | 38.0       | 10.5       |
| 0068212  | 1.2        | 3.0        | 38.0       | 10.5       |
| 00682125 | 1.25       | 3.0        | 38.0       | 10.5       |
| 0068213  | 1.3        | 3.0        | 38.0       | 10.5       |
| 00682135 | 1.35       | 3.0        | 38.0       | 10.5       |
| 0068214  | 1.4        | 3.0        | 38.0       | 10.5       |
| 00682145 | 1.45       | 3.0        | 38.0       | 10.5       |
| 0068215  | 1.5        | 3.0        | 38.0       | 10.5       |
| 00682155 | 1.55       | 3.0        | 38.0       | 10.5       |
| 0068216  | 1.6        | 3.0        | 38.0       | 10.5       |
| 00682165 | 1.65       | 3.0        | 38.0       | 10.5       |
| 0068217  | 1.7        | 3.0        | 38.0       | 10.5       |
| 00682175 | 1.75       | 3.0        | 38.0       | 10.5       |
| 0068218  | 1.8        | 3.0        | 38.0       | 10.5       |

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 00682185 | 1.85       | 3.0        | 38.0       | 10.5       |
| 0068219  | 1.9        | 3.0        | 38.0       | 10.5       |
| 00682195 | 1.95       | 3.0        | 38.0       | 10.5       |
| 0068220  | 2.0        | 3.0        | 38.0       | 10.5       |
| 00682205 | 2.05       | 3.0        | 38.0       | 10.5       |
| 0068221  | 2.1        | 3.0        | 38.0       | 10.5       |
| 00682215 | 2.15       | 3.0        | 38.0       | 10.5       |
| 0068222  | 2.2        | 3.0        | 38.0       | 10.5       |
| 00682225 | 2.25       | 3.0        | 38.0       | 10.5       |
| 0068223  | 2.3        | 3.0        | 38.0       | 10.5       |
| 00682235 | 2.35       | 3.0        | 38.0       | 10.5       |
| 0068224  | 2.4        | 3.0        | 38.0       | 10.5       |
| 00682245 | 2.45       | 3.0        | 38.0       | 10.5       |
| 0068225  | 2.5        | 3.0        | 38.0       | 10.5       |
| 00682255 | 2.55       | 3.0        | 38.0       | 10.5       |
| 0068226  | 2.6        | 3.0        | 38.0       | 10.5       |
| 00682265 | 2.65       | 3.0        | 38.0       | 10.5       |
| 0068227  | 2.7        | 3.0        | 38.0       | 10.5       |
| 00682275 | 2.75       | 3.0        | 38.0       | 10.5       |
| 0068228  | 2.8        | 3.0        | 38.0       | 10.5       |
| 00682285 | 2.85       | 3.0        | 38.0       | 10.5       |
| 0068229  | 2.9        | 3.0        | 38.0       | 10.5       |
| 00682295 | 2.95       | 3.0        | 38.0       | 10.5       |
| 0068230  | 3.0        | 3.0        | 38.0       | 10.5       |
| 0068231  | 3.1        | 3.0        | 38.0       | 12.0       |
| 0068232  | 3.2        | 3.0        | 38.0       | 12.0       |
| 0068233  | 3.3        | 3.0        | 38.0       | 12.0       |
| 0068234  | 3.4        | 3.0        | 38.0       | 12.0       |
| 0068235  | 3.5        | 3.0        | 38.0       | 12.0       |
| 0068236  | 3.6        | 3.0        | 38.0       | 12.0       |
| 0068237  | 3.7        | 3.0        | 38.0       | 12.0       |
| 0068238  | 3.8        | 3.0        | 38.0       | 12.0       |
| 0068239  | 3.9        | 3.0        | 38.0       | 12.0       |
| 0068240  | 4.0        | 3.0        | 38.0       | 12.0       |
| 0068241  | 4.1        | 3.0        | 38.0       | 12.0       |
| 0068242  | 4.2        | 3.0        | 38.0       | 12.0       |
| 0068243  | 4.3        | 3.0        | 38.0       | 12.0       |
| 0068244  | 4.4        | 3.0        | 38.0       | 12.0       |
| 0068245  | 4.5        | 3.0        | 38.0       | 12.0       |
| 0068246  | 4.6        | 3.0        | 38.0       | 12.0       |
| 0068247  | 4.7        | 3.0        | 38.0       | 12.0       |
| 0068248  | 4.8        | 3.0        | 38.0       | 12.0       |
| 0068249  | 4.9        | 3.0        | 38.0       | 12.0       |
| 0068250  | 5.0        | 3.0        | 38.0       | 12.0       |
| 0068251  | 5.1        | 3.0        | 38.0       | 12.0       |
| 0068252  | 5.2        | 3.0        | 38.0       | 12.0       |
| 0068253  | 5.3        | 3.0        | 38.0       | 12.0       |
| 0068254  | 5.4        | 3.0        | 38.0       | 12.0       |
| 0068255  | 5.5        | 3.0        | 38.0       | 12.0       |
| 0068256  | 5.6        | 3.0        | 38.0       | 12.0       |
| 0068257  | 5.7        | 3.0        | 38.0       | 12.0       |
| 0068258  | 5.8        | 3.0        | 38.0       | 12.0       |
| 0068259  | 5.9        | 3.0        | 38.0       | 12.0       |
| 0068260  | 6.0        | 3.0        | 38.0       | 12.0       |
| 0068261  | 6.1        | 3.0        | 38.0       | 12.0       |
| 0068262  | 6.2        | 3.0        | 38.0       | 12.0       |
| 0068263  | 6.3        | 3.0        | 38.0       | 12.0       |
| 0068264  | 6.4        | 3.0        | 38.0       | 12.0       |
| 0068265  | 6.5        | 3.0        | 38.0       | 12.0       |

DATRON

**Drill** 1/8" shank

Aluminium

Bronze

Plastic

Steel



Copper

Brass

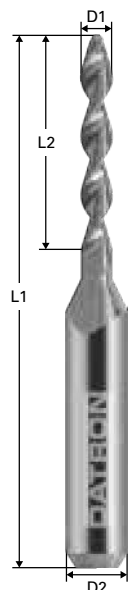
Wood

**1/8" shank**

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068701  | 0.1        | 3175       | 38.0       | 1.0        |
| 00687015 | 0.15       | 3175       | 38.0       | 2.5        |
| 0068702  | 0.2        | 3175       | 38.0       | 3.2        |
| 00687025 | 0.25       | 3175       | 38.0       | 3.5        |
| 0068703  | 0.3        | 3175       | 38.0       | 5.5        |
| 00687035 | 0.35       | 3175       | 38.0       | 5.5        |
| 0068704  | 0.4        | 3175       | 38.0       | 5.5        |
| 00687045 | 0.45       | 3175       | 38.0       | 5.5        |
| 0068705  | 0.5        | 3175       | 38.0       | 5.5        |
| 00687055 | 0.55       | 3175       | 38.0       | 5.5        |
| 0068706  | 0.6        | 3175       | 38.0       | 7.0        |
| 00687065 | 0.65       | 3175       | 38.0       | 8.5        |
| 0068707  | 0.7        | 3175       | 38.0       | 10.5       |
| 00687075 | 0.75       | 3175       | 38.0       | 10.5       |
| 0068708  | 0.8        | 3175       | 38.0       | 10.5       |
| 00687085 | 0.85       | 3175       | 38.0       | 10.5       |
| 0068709  | 0.9        | 3175       | 38.0       | 10.5       |
| 00687095 | 0.95       | 3175       | 38.0       | 10.5       |
| 0068710  | 1.0        | 3175       | 38.0       | 10.5       |
| 00687105 | 1.05       | 3175       | 38.0       | 10.5       |
| 0068711  | 1.1        | 3175       | 38.0       | 10.5       |
| 00687115 | 1.15       | 3175       | 38.0       | 10.5       |
| 0068712  | 1.2        | 3175       | 38.0       | 10.5       |
| 00687125 | 1.25       | 3175       | 38.0       | 10.5       |
| 0068713  | 1.3        | 3175       | 38.0       | 10.5       |
| 00687135 | 1.35       | 3175       | 38.0       | 10.5       |
| 0068714  | 1.4        | 3175       | 38.0       | 10.5       |
| 00687145 | 1.45       | 3175       | 38.0       | 10.5       |
| 0068715  | 1.5        | 3175       | 38.0       | 10.5       |
| 00687155 | 1.55       | 3175       | 38.0       | 10.5       |
| 0068716  | 1.6        | 3175       | 38.0       | 10.5       |
| 00687165 | 1.65       | 3175       | 38.0       | 10.5       |
| 0068717  | 1.7        | 3175       | 38.0       | 10.5       |
| 00687175 | 1.75       | 3175       | 38.0       | 10.5       |
| 0068718  | 1.8        | 3175       | 38.0       | 10.5       |

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 00687185 | 1.85       | 3175       | 38.0       | 10.5       |
| 0068719  | 1.9        | 3175       | 38.0       | 10.5       |
| 00687195 | 1.95       | 3175       | 38.0       | 10.5       |
| 0068720  | 2.0        | 3175       | 38.0       | 10.5       |
| 00687205 | 2.05       | 3175       | 38.0       | 10.5       |
| 0068721  | 2.1        | 3175       | 38.0       | 10.5       |
| 00687215 | 2.15       | 3175       | 38.0       | 10.5       |
| 0068722  | 2.2        | 3175       | 38.0       | 10.5       |
| 00687225 | 2.25       | 3175       | 38.0       | 10.5       |
| 0068723  | 2.3        | 3175       | 38.0       | 10.5       |
| 00687235 | 2.35       | 3175       | 38.0       | 10.5       |
| 0068724  | 2.4        | 3175       | 38.0       | 10.5       |
| 00687245 | 2.45       | 3175       | 38.0       | 10.5       |
| 0068725  | 2.5        | 3175       | 38.0       | 10.5       |
| 0068725X | 2.5        | 3175       | 38.0       | 12.0       |
| 00687255 | 2.55       | 3175       | 38.0       | 10.5       |
| 0068726  | 2.6        | 3175       | 38.0       | 10.5       |
| 00687265 | 2.65       | 3175       | 38.0       | 10.5       |
| 0068727  | 2.7        | 3175       | 38.0       | 10.5       |
| 00687275 | 2.75       | 3175       | 38.0       | 10.5       |
| 0068728  | 2.8        | 3175       | 38.0       | 10.5       |
| 00687285 | 2.85       | 3175       | 38.0       | 10.5       |
| 0068729  | 2.9        | 3175       | 38.0       | 10.5       |
| 0068729X | 2.9        | 3175       | 38.0       | 16.0       |
| 00687295 | 2.95       | 3175       | 38.0       | 10.5       |
| 0068730  | 3.0        | 3175       | 38.0       | 10.5       |
| 00687305 | 3.05       | 3175       | 38.0       | 10.5       |
| 0068731  | 3.1        | 3175       | 38.0       | 10.5       |
| 0068732  | 3.2        | 3175       | 38.0       | 12.0       |
| 0068733  | 3.3        | 3175       | 38.0       | 12.0       |
| 0068734  | 3.4        | 3175       | 38.0       | 12.0       |
| 0068735  | 3.5        | 3175       | 38.0       | 12.0       |
| 0068736  | 3.6        | 3175       | 38.0       | 12.0       |
| 0068737  | 3.7        | 3175       | 38.0       | 12.0       |
| 0068738  | 3.8        | 3175       | 38.0       | 12.0       |
| 0068739  | 3.9        | 3175       | 38.0       | 12.0       |
| 0068740  | 4.0        | 3175       | 38.0       | 12.0       |
| 0068741  | 4.1        | 3175       | 38.0       | 12.0       |
| 0068742  | 4.2        | 3175       | 38.0       | 12.0       |
| 0068743  | 4.3        | 3175       | 38.0       | 12.0       |
| 0068744  | 4.4        | 3175       | 38.0       | 12.0       |
| 0068745  | 4.5        | 3175       | 38.0       | 12.0       |
| 0068746  | 4.6        | 3175       | 38.0       | 12.0       |
| 0068747  | 4.7        | 3175       | 38.0       | 12.0       |
| 0068748  | 4.8        | 3175       | 38.0       | 12.0       |
| 0068749  | 4.9        | 3175       | 38.0       | 12.0       |
| 0068750  | 5.0        | 3175       | 38.0       | 12.0       |
| 0068751  | 5.1        | 3175       | 38.0       | 12.0       |
| 0068752  | 5.2        | 3175       | 38.0       | 12.0       |
| 0068753  | 5.3        | 3175       | 38.0       | 12.0       |
| 0068754  | 5.4        | 3175       | 38.0       | 12.0       |
| 0068755  | 5.5        | 3175       | 38.0       | 12.0       |
| 0068756  | 5.6        | 3175       | 38.0       | 12.0       |
| 0068757  | 5.7        | 3175       | 38.0       | 12.0       |
| 0068758  | 5.8        | 3175       | 38.0       | 12.0       |
| 0068759  | 5.9        | 3175       | 38.0       | 12.0       |
| 0068760  | 6.0        | 3175       | 38.0       | 12.0       |
| 0068761  | 6.1        | 3175       | 38.0       | 12.0       |
| 0068762  | 6.2        | 3175       | 38.0       | 12.0       |
| 0068763  | 6.3        | 3175       | 38.0       | 12.0       |
| 0068764  | 6.4        | 3175       | 38.0       | 12.0       |
| 0068765  | 6.5        | 3175       | 38.0       | 12.0       |

DATRON

**Drill** 6mm shank

Aluminium

Bronze

Plastic

Wood



Copper

Brass

**6 mm shank**

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068229X | 2.9        | 6.0        | 50.0       | 21.0       |
| 0068230L | 3.0        | 6.0        | 50.0       | 21.0       |
| 0068231L | 3.1        | 6.0        | 50.0       | 21.0       |
| 0068232L | 3.2        | 6.0        | 50.0       | 21.0       |
| 0068233L | 3.3        | 6.0        | 50.0       | 21.0       |
| 0068234L | 3.4        | 6.0        | 50.0       | 21.0       |
| 0068235L | 3.5        | 6.0        | 50.0       | 21.0       |
| 0068236L | 3.6        | 6.0        | 50.0       | 21.0       |
| 0068237L | 3.7        | 6.0        | 50.0       | 21.0       |
| 0068238L | 3.8        | 6.0        | 50.0       | 21.0       |
| 0068239L | 3.9        | 6.0        | 50.0       | 21.0       |
| 0068239X | 3.9        | 6.0        | 56.0       | 26.0       |
| 0068240L | 4.0        | 6.0        | 50.0       | 21.0       |
| 0068240X | 4.0        | 6.0        | 60.0       | 31.0       |
| 0068241L | 4.1        | 6.0        | 50.0       | 21.0       |
| 0068242L | 4.2        | 6.0        | 50.0       | 21.0       |
| 0068243L | 4.3        | 6.0        | 50.0       | 21.0       |
| 0068244L | 4.4        | 6.0        | 50.0       | 21.0       |
| 0068245L | 4.5        | 6.0        | 50.0       | 21.0       |
| 0068245X | 4.5        | 6.0        | 60.0       | 31.0       |
| 0068246L | 4.6        | 6.0        | 50.0       | 21.0       |
| 0068247L | 4.7        | 6.0        | 50.0       | 21.0       |
| 0068248L | 4.8        | 6.0        | 50.0       | 21.0       |
| 0068249L | 4.9        | 6.0        | 50.0       | 21.0       |
| 0068249X | 4.9        | 6.0        | 60.0       | 31.0       |
| 0068250L | 5.0        | 6.0        | 50.0       | 21.0       |
| 0068250X | 5.0        | 6.0        | 60.0       | 31.0       |
| 0068251L | 5.1        | 6.0        | 50.0       | 21.0       |
| 0068252L | 5.2        | 6.0        | 50.0       | 21.0       |
| 0068253L | 5.3        | 6.0        | 50.0       | 21.0       |
| 0068254L | 5.4        | 6.0        | 50.0       | 21.0       |
| 0068255L | 5.5        | 6.0        | 50.0       | 21.0       |
| 0068255X | 5.5        | 6.0        | 60.0       | 31.0       |



| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|
| 0068256L | 5.6        | 6.0        | 50.0       | 21.0       |
| 0068257L | 5.7        | 6.0        | 50.0       | 21.0       |
| 0068258L | 5.8        | 6.0        | 50.0       | 21.0       |
| 0068259L | 5.9        | 6.0        | 50.0       | 21.0       |
| 0068259X | 5.9        | 6.0        | 70.0       | 36.0       |
| 0068260L | 6.0        | 6.0        | 50.0       | 21.0       |
| 0068260X | 6.0        | 6.0        | 60.0       | 31.0       |



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DATRON

# Reamer

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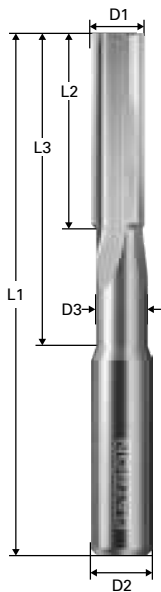
Reamer

76



DATRON

## Reamer



Aluminium



Copper



Brass



Bronze



## DATRON Reamers Standard Version

| Item no. | D1-Nom (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|-------------|---------|---------|---------|---------|---------|
| 0068103E | 3H7         | 6       | 2.5     | 50      | 6       | 10      |
| 0068104E | 4H7         | 6       | 3.3     | 50      | 8       | 12      |
| 0068105E | 5H7         | 6       | 4.2     | 50      | 10      | 16      |
| 0068106E | 6H7         | 6       | 5       | 55      | 12      | 21      |
| 0068108E | 8H7         | 8       | 6.7     | 60      | 16      | 26      |
| 0068110E | 10H7        | 10      | 8.3     | 65      | 20      | 31      |
| 0068112E | 12H7        | 12      | 10      | 70      | 24      | 36      |

## DATRON Reamers Long Version

| Item no. | D1-Nom (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|-------------|---------|---------|---------|---------|---------|
| 0068103L | 3H7         | 6       | 2.5     | 50      | 9       | 16      |
| 0068104L | 4H7         | 6       | 3.3     | 55      | 12      | 21      |
| 0068105L | 5H7         | 6       | 4.2     | 60      | 16      | 26      |
| 0068106L | 6H7         | 6       | 5       | 65      | 21      | 31      |
| 0068108L | 8H7         | 8       | 6.7     | 75      | 26      | 41      |
| 0068110L | 10H7        | 10      | 8.3     | 85      | 31      | 51      |
| 0068112L | 12H7        | 12      | 10      | 105     | 36      | 71      |

DATRON neo

| Item no. | D1-Nom (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) |
|----------|-------------|---------|---------|---------|---------|---------|
| 0068103N | 3H7         | 8       | 2.5     | 50      | 6       | 10      |
| 0068104N | 4H7         | 8       | 3.3     | 50      | 8       | 12      |
| 0068105N | 5H7         | 8       | 4.2     | 50      | 10      | 16      |
| 0068106N | 6H7         | 8       | 5       | 55      | 12      | 21      |
| 0068108E | 8H7         | 8       | 6.7     | 60      | 16      | 26      |

A chamfer is required on the pilot hole to prevent swinging of the tool.

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DATRON

# Thread milling cutter

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|                                                |    |
|------------------------------------------------|----|
| Parameters for thread milling cutter tool data | 78 |
|------------------------------------------------|----|

|                |    |
|----------------|----|
| Thread whirler | 80 |
|----------------|----|

|                      |    |
|----------------------|----|
| Multi-thread whirler | 81 |
|----------------------|----|

|                     |    |
|---------------------|----|
| Milling thread mill | 82 |
|---------------------|----|

|                       |    |
|-----------------------|----|
| Thread milling cutter | 83 |
|-----------------------|----|



DATRON

## Parameters for thread whirler tool data

| Item no.  | Speed | Feed | H/8   | D1-Nom | D1-actual | D3    | K  | W/R | L2   | Usable length | Pilot hole |
|-----------|-------|------|-------|--------|-----------|-------|----|-----|------|---------------|------------|
| 00680010E | 40000 | 150  | 0.027 | 0.720  | 0.750     | 0.320 | 40 | 60° | 0.13 | 3.00          | 0.75       |
| 00680011E | 40000 | 150  | 0.027 | 0.825  | 0.850     | 0.425 | 40 | 60° | 0.13 | 3.00          | 0.85       |
| 00680012E | 40000 | 150  | 0.027 | 0.840  | 0.880     | 0.440 | 40 | 60° | 0.13 | 3.00          | 0.95       |
| 00680014E | 40000 | 200  | 0.032 | 0.980  | 0.990     | 0.530 | 40 | 60° | 0.15 | 4.00          | 1.10       |
| 00680016E | 40000 | 200  | 0.038 | 1.120  | 1.150     | 0.610 | 40 | 60° | 0.17 | 4.00          | 1.30       |
| 00680018E | 40000 | 250  | 0.038 | 1.260  | 1.300     | 0.750 | 40 | 60° | 0.17 | 4.00          | 1.50       |
| 00680020E | 39000 | 250  | 0.043 | 1.400  | 1.440     | 0.830 | 40 | 60° | 0.19 | 6.00          | 1.60       |
| 00680022E | 39000 | 300  | 0.049 | 1.540  | 1.600     | 0.910 | 40 | 60° | 0.21 | 6.00          | 1.80       |
| 00680025E | 39000 | 300  | 0.049 | 1.750  | 1.800     | 1.120 | 40 | 60° | 0.20 | 6.00          | 2.10       |
| 00680030E | 38000 | 350  | 0.054 | 2.100  | 2.180     | 1.310 | 40 | 60° | 0.26 | 8.00          | 2.50       |
| 00680035E | 38000 | 350  | 0.065 | 2.450  | 2.500     | 1.550 | 40 | 60° | 0.29 | 8.00          | 2.90       |
| 00680040E | 37000 | 400  | 0.076 | 2.800  | 2.900     | 1.800 | 40 | 60° | 0.33 | 11.00         | 3.30       |
| 00680045E | 37000 | 400  | 0.081 | 3.150  | 3.200     | 2.100 | 40 | 60° | 0.34 | 10.00         | 3.70       |
| 00680050E | 36000 | 500  | 0.087 | 3.500  | 3.630     | 2.400 | 40 | 60° | 0.36 | 10.00         | 4.20       |
| 00680060E | 35000 | 600  | 0.108 | 4.200  | 4.380     | 2.900 | 40 | 60° | 0.43 | 12.00         | 5.00       |
| 00680070E | 35000 | 650  | 0.108 | 4.900  | 5.050     | 3.600 | 40 | 60° | 0.43 | 14.00         | 6.00       |
| 00680080E | 34000 | 700  | 0.135 | 5.600  | 5.810     | 4.050 | 40 | 60° | 0.51 | 16.00         | 6.80       |
| 00680100E | 32000 | 800  | 0.162 | 7.000  | 7.260     | 5.200 | 40 | 60° | 0.57 | 21.00         | 8.50       |
| 00680120E | 32000 | 850  | 0.189 | 8.400  | 8.700     | 6.350 | 40 | 60° | 0.69 | 26.00         | 10.20      |

The specified actual values are intended for orientation and may vary under different conditions.

DATRON

## Parameters for multi-thread whirler tool data

| Item no.  | Nom Dm (mm) | Act Dm (mm) | Speed (rpm) | K  | D3 (mm) | W/R (°) | L2 (mm) |
|-----------|-------------|-------------|-------------|----|---------|---------|---------|
| 0068418/L | 0.8         | 0.8         | 35000       | 40 | 0.49    | 60      | 0.09    |
| 0068418S  | 0.95        | 0.95        | 35000       | 40 | 0.49    | 60      | 0.09    |
| 0068419   | 1.4         | 1.4         | 35000       | 40 | 0.9     | 60      | 0.1     |
| 0068419L  | 1.4         | 1.4         | 30000       | 40 | 0.9     | 60      | 0.1     |
| 0068419X  | 1.4         | 1.4         | 32000       | 40 | 0.9     | 60      | 0.1     |
| 0068420   | 2           | 2           | 35000       | 40 | 1       | 60      | 0.2     |
| 0068420L  | 2           | 2           | 30000       | 40 | 1       | 60      | 0.2     |
| 0068420X  | 2           | 2           | 32000       | 40 | 1       | 60      | 0.2     |
| 0068451   | 4           | 4.08        | 25000       | 40 | 1       | 60      | 0.5     |
| 0068451L  | 4           | 4.08        | 22000       | 40 | 2       | 60      | 0.5     |
| 0068451X  | 4           | 4.08        | 24000       | 40 | 2       | 60      | 0.5     |
| 0068450   | 6           | 6           | 25000       | 40 | 3       | 55      | 0.7     |
| 0068452   | 6           | 5.95        | 25000       | 40 | 3       | 80      | 1.3     |
| 0068451A  | 8           | 8           | 25000       | 40 | 3       | 60      | 1.6     |
| 0068450A  | 8           | 8           | 25000       | 40 | 3       | 55      | 1.55    |

\* Parameters for the multi-thread whirler are only applicable for HSC Pro and CNC VX.X. Parameters are not required for NEXT control system.

## Parameters for milling thread mill tool data

| Item no. | Nom Dm (mm) | Act Dm (mm) | Speed (rpm) | K  | D3 (mm) | W/R (°) | L2 (mm) |
|----------|-------------|-------------|-------------|----|---------|---------|---------|
| 0068419A | 2.0         | 2.0         | 45000       | 40 | 1.34    | 60      | 0.2     |
| 0068420A | 3.0         | 3.0         | 40000       | 40 | 1.97    | 60      | 0.3     |
| 0046454  | 6.0         | 5.95        | 33000       | 40 | 4.14    | 80      | 1.2     |
| 0068454A | 6.0         | 5.95        | 33000       | 40 | 2.75    | 60      | 1.2     |
| 0068456  | 4.8         | 4.6         | 25000       | 40 | 3.35    | 60      | 0.5     |
| 0068457  | 6.0         | 5.95        | 25000       | 40 | 4.0     | 60      | 0.5     |
| 0068458  | 8.0         | 7.95        | 25000       | 40 | 5.4     | 60      | 0.5     |

\* Parameters for the milling thread mill are only applicable for HSC Pro and CNC VX.X. Parameters are not required for NEXT control system.

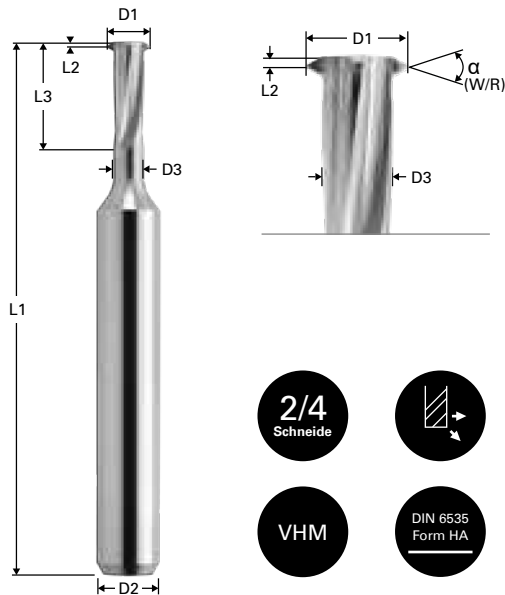
## Parameters for thread milling cutter tool data

| Item no. | Nom Dm (mm) | Act Dm (mm) | Speed (rpm) | K  | D3 (mm) | W/R (°) | L2 (mm) |
|----------|-------------|-------------|-------------|----|---------|---------|---------|
| 00684503 | 2.3         | 2.3         | 21200       | M3 | 0       | 60      | 0       |
| 00684544 | 3.0         | 2.98        | 14300       | M4 | 0       | 60      | 0       |
| 00684555 | 3.8         | 3.72        | 12800       | M5 | 0       | 60      | 0       |
| 00684566 | 4.5         | 4.48        | 10850       | M6 | 0       | 60      | 0       |
| 00684568 | 6.1         | 6.0         | 8000        | M8 | 0       | 60      | 0       |

\* Parameters for the thread milling cutter are only applicable for HSC Pro and CNC VX.X. Parameters are not required for NEXT control system.

DATRON

# Thread whirler



2/4  
Schneide



VHM

DIN 6535  
Form HA



Aluminium



Copper



Bronze



Brass



Plastic



Wood



Acrylic glass



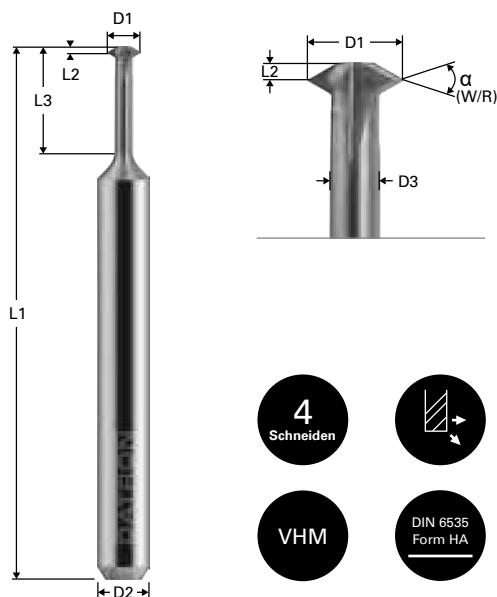
## Thread whirler,

| Item no.  | Thread (M) | D1 (mm) | D2 (mm) | D3* (mm) | L1 (mm) | L2 (mm) | L3 (mm) | α (°) | Number of flutes | Pitch S | Pilot hole Ø |
|-----------|------------|---------|---------|----------|---------|---------|---------|-------|------------------|---------|--------------|
| 00680010E | M 1        | 0.720   | 3       | 0.320    | 40      | 0.13    | 3       | 60    | 2                | 0.25    | 0.75         |
| 00680011E | M 1.1      | 0.825   | 3       | 0.425    | 40      | 0.13    | 3       | 60    | 2                | 0.25    | 0.85         |
| 00680012E | M 1.2      | 0.840   | 3       | 0.440    | 40      | 0.13    | 3       | 60    | 2                | 0.25    | 0.95         |
| 00680014E | M 1.4      | 0.980   | 3       | 0.530    | 40      | 0.15    | 4       | 60    | 2                | 0.3     | 1.1          |
| 00680016E | M 1.6      | 1.120   | 3       | 0.610    | 40      | 0.17    | 4       | 60    | 2                | 0.35    | 1.3          |
| 00680018E | M 1.8      | 1.260   | 3       | 0.750    | 40      | 0.17    | 4       | 60    | 2                | 0.35    | 1.5          |
| 00680020E | M 2        | 1.400   | 3       | 0.830    | 40      | 0.19    | 6       | 60    | 2                | 0.4     | 1.6          |
| 00680022E | M 2.2      | 1.540   | 3       | 0.910    | 40      | 0.21    | 6       | 60    | 2                | 0.45    | 1.8          |
| 00680025E | M 2.5      | 1.750   | 3       | 1.120    | 40      | 0.2     | 6       | 60    | 4                | 0.45    | 2.1          |
| 00680030E | M 3        | 2.100   | 6       | 1.310    | 50      | 0.26    | 8       | 60    | 4                | 0.5     | 2.5          |
| 00680035E | M 3.5      | 2.450   | 6       | 1.550    | 50      | 0.29    | 8       | 60    | 4                | 0.6     | 2.9          |
| 00680040E | M 4        | 2.800   | 6       | 1.800    | 50      | 0.33    | 11      | 60    | 4                | 0.7     | 3.3          |
| 00680045E | M 4.5      | 3.150   | 6       | 2.100    | 50      | 0.34    | 10      | 60    | 4                | 0.75    | 3.7          |
| 00680050E | M 5        | 3.500   | 6       | 2.400    | 50      | 0.36    | 10      | 60    | 4                | 0.8     | 4.2          |
| 00680060E | M 6        | 4.200   | 6       | 2.900    | 50      | 0.43    | 12      | 60    | 4                | 1       | 5            |
| 00680070E | M 7        | 4.900   | 6       | 3.600    | 54      | 0.43    | 14      | 60    | 4                | 1       | 6            |
| 00680080E | M 8        | 5.600   | 6       | 4.050    | 58      | 0.51    | 16      | 60    | 4                | 1.25    | 6.8          |
| 00680100E | M 10       | 7.000   | 8       | 5.200    | 60      | 0.57    | 21      | 60    | 4                | 1.5     | 8.5          |
| 00680120E | M 12       | 8.400   | 10      | 6.350    | 66      | 0.69    | 26      | 60    | 4                | 1.75    | 10.2         |

\* For both HSC pro and CNC VX.X the D3 information must be input at D2.



# Multi-thread whirler



4  
Schneiden



VHM

DIN 6535  
Form HA



Aluminium



Copper



Bronze



Brass



Plastic



Steel



Wood



Acrylic glass



## 3 mm shank

| Item no. | Thread       | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | α<br>(°) |
|----------|--------------|------------|------------|------------|------------|------------|------------|----------|
| 0068418  | M1.0 - M 1.2 | 0.8        | 3.0        | 0.49       | 40.0       | 0.09       | 3.0        | 60       |
| 0068418L | M1.0 - M 1.2 | 0.8        | 3.0        | 0.49       | 40.0       | 0.09       | 6.0        | 60       |
| 0068418S | M1.4         | 0.95       | 3.0        | 0.49       | 40.0       | 0.09       | 3.0        | 60       |
| 0068419  | M1.6 - M2.5  | 1.4        | 3.0        | 0.9        | 40.0       | 0.1        | 6.0        | 60       |
| 0068419L | M1.6 - M2.5  | 1.4        | 3.0        | 0.9        | 40.0       | 0.1        | 10.0       | 60       |
| 0068419X | M1.6 - M2.5  | 1.4        | 3.0        | 0.9        | 60.0       | 0.1        | 6.0        | 60       |
| 0068420  | M2.5 - M4    | 2.0        | 3.0        | 1.0        | 40.0       | 0.2        | 8.0        | 60       |
| 0068420L | M2.5 - M4    | 2.0        | 3.0        | 1.0        | 40.0       | 0.2        | 12.0       | 60       |
| 0068420X | M2.5 - M4    | 2.0        | 3.0        | 1.0        | 50.0       | 0.2        | 8.0        | 60       |

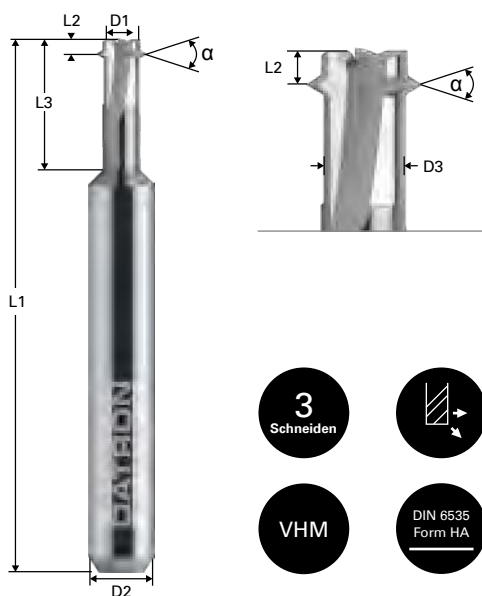
## 6 mm shank

| Item no. | Thread              | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | α<br>(°) |
|----------|---------------------|------------|------------|------------|------------|------------|------------|----------|
| 0068451  | M5 - M10            | 4.0        | 6.0        | 1.0        | 50.0       | 0.5        | 12.0       | 60       |
| 0068451L | M5 - M10            | 4.0        | 6.0        | 2.0        | 50.0       | 0.5        | 16.0       | 60       |
| 0068451X | M5 - M10            | 4.0        | 6.0        | 2.0        | 58.0       | 0.5        | 30.0       | 60       |
| 0068450  | Whitworth ≤<br>1/2" | 6.0        | 6.0        | 3.0        | 50.0       | 0.7        | 12.0       | 55       |
| 0068452  | PG7 - PG48          | 6.0        | 6.0        | 3.0        | 50.0       | 1.3        | 12.0       | 80       |
| 0068451A | M10 - M36           | 8.0        | 6.0        | 3.0        | 50.0       | 1.6        | 12.0       | 60       |
| 0068450A | Whitworth ≤<br>1/2" | 8.0        | 6.0        | 3.0        | 50.0       | 1.55       | 12.0       | 55       |

\* For both HSC pro and CNC VX.X the D3 information must be input at D2.

DATRON

## Milling thread mill



Aluminium

Plastic



Brass



Copper



Wood



## 3 mm shank

| Item no. | Thread    | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) | $\alpha$ (°) | Usable length (mm) |
|----------|-----------|---------|---------|---------|---------|---------|---------|--------------|--------------------|
| 0068419A | M2.5 - M3 | 2.0     | 3.0     | 1.5     | 40.0    | 1.0     | 8.5     | 60           | 3                  |
| 0068420A | M4 - M5   | 3.0     | 3.0     | 2.2     | 40.0    | 1.0     | 10.0    | 60           | 5                  |

## 6 mm shank

| Item no. | Thread                   | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) | $\alpha$ (°) | Usable length (mm) |
|----------|--------------------------|---------|---------|---------|---------|---------|---------|--------------|--------------------|
| 0068456  | M6                       | 3.6     | 6.0     | 3.4     | 50.0    | 1.0     | 12.0    | 60           | 6                  |
| 0068457  | M8 - M10                 | 4.2     | 6.0     | 4.0     | 50.0    | 1.5     | 12.0    | 60           | 8                  |
| 0068454A | met. screwed cable gland | 4.2     | 6.0     | 4.0     | 50.0    | 2.0     | 12.0    | 60           | 10                 |
| 0068454  | PG7 - PG48               | 4.4     | 6.0     | 4.2     | 50.0    | 2.0     | 12.0    | 80           | 10                 |
| 0068458  | M12 - M16                | 5.6     | 6.0     | 5.4     | 50.0    | 1.5     | 12.0    | 60           | 10                 |

# Thread milling cutter



Aluminium

Plastic



Brass



## 6 mm shank

| Item no. | Thread | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | $\alpha$<br>(°) |
|----------|--------|------------|------------|------------|------------|-----------------|
| 00684503 | M3     | 2.3        | 6.0        | 50.0       | 8.0        | 60              |
| 00684504 | M4     | 3.0        | 6.0        | 50.0       | 8.0        | 60              |
| 00684544 | M4     | 3.0        | 6.0        | 50.0       | 12.0       | 60              |
| 00684505 | M5     | 3.8        | 6.0        | 50.0       | 12.0       | 60              |
| 00684555 | M5     | 3.8        | 6.0        | 50.0       | 16.0       | 60              |

## 8 mm shank

| Item no. | Thread | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | $\alpha$<br>(°) |
|----------|--------|------------|------------|------------|------------|-----------------|
| 00684506 | M6     | 4.5        | 8.0        | 50.0       | 12.0       | 60              |
| 00684566 | M6     | 4.5        | 8.0        | 50.0       | 16.0       | 60              |

## 10 mm shank

| Item no. | Thread | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | L2<br>(mm) | $\alpha$<br>(°) |
|----------|--------|------------|------------|------------|------------|-----------------|
| 00684508 | M8     | 6.0        | 10.0       | 50.0       | 12.0       | 60              |
| 00684588 | M8     | 6.0        | 10.0       | 50.0       | 16.0       | 60              |



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DATRON

## External radius end mill

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|                          |    |
|--------------------------|----|
| External radius end mill | 86 |
|--------------------------|----|

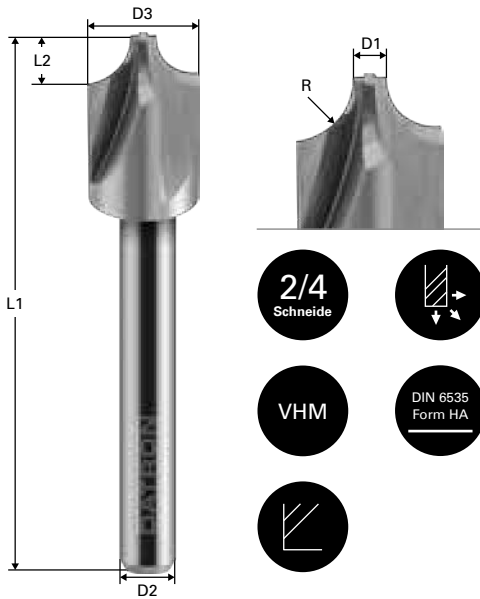
|                                                         |    |
|---------------------------------------------------------|----|
| External radius end mill, polished<br>for acrylic glass | 87 |
|---------------------------------------------------------|----|

|                              |    |
|------------------------------|----|
| Deburring miller, two flutes | 88 |
|------------------------------|----|

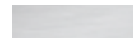


DATRON

# External radius end mill



Aluminium



Plastic



Wood



Bronze



Brass



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | R (mm) | Number of flutes |
|----------|---------|---------|---------|---------|---------|--------|------------------|
| 0068412  | 2.0     | 6.0     | 6.0     | 50.0    | 2.0     | 2.0    | 2                |
| 00684115 | 3.0     | 6.0     | 6.0     | 50.0    | 1.5     | 1.5    | 2                |
| 00684125 | 3.0     | 6.0     | 8.0     | 50.0    | 2.5     | 2.5    | 4                |
| 00684145 | 3.0     | 6.0     | 12.0    | 50.0    | 4.5     | 4.5    | 4                |
| 0068415  | 3.0     | 6.0     | 13.0    | 50.0    | 5.0     | 5.0    | 4                |
| 0068411  | 4.0     | 6.0     | 6.0     | 50.0    | 1.0     | 1.0    | 2                |
| 0068413  | 4.0     | 6.0     | 10.0    | 50.0    | 3.0     | 3.0    | 4                |
| 00684135 | 4.0     | 6.0     | 11.0    | 50.0    | 3.5     | 3.5    | 4                |
| 0068414  | 4.0     | 6.0     | 12.0    | 50.0    | 4.0     | 4.0    | 4                |
| 0068416  | 4.0     | 6.0     | 16.0    | 50.0    | 6.0     | 6.0    | 4                |
| 0068410  | 5.0     | 6.0     | 6.0     | 50.0    | 0.5     | 0.5    | 2                |

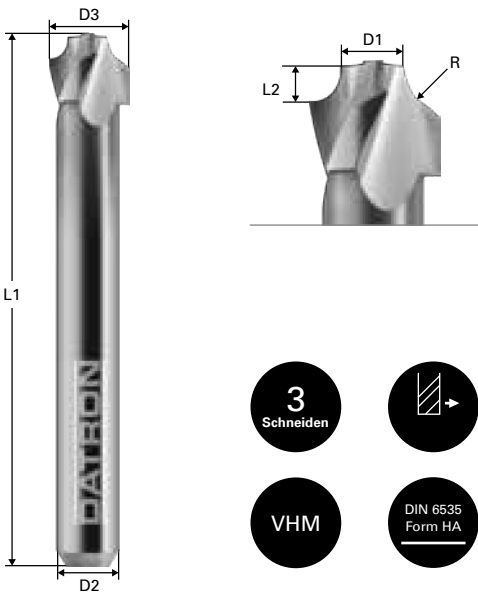
## 8 mm shank

| Item no.  | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | R (mm) | Number of flutes |
|-----------|---------|---------|---------|---------|---------|--------|------------------|
| 00684125N | 3.0     | 8.0     | 8.0     | 50.0    | 2.5     | 2.5    | 4                |
| 00684135N | 4.0     | 8.0     | 11.0    | 50.0    | 3.5     | 3.5    | 4                |
| 0068413N  | 4.0     | 8.0     | 10.0    | 50.0    | 3.0     | 3.0    | 4                |
| 0068414N  | 4.0     | 8.0     | 12.0    | 50.0    | 4.0     | 4.0    | 4                |

DATRON NEO

| Item no.  | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | R (mm) | Number of flutes |
|-----------|---------|---------|---------|---------|---------|--------|------------------|
| 00684125N | 3       | 8       | 8       | 50      | 2.5     | 2.5    | 4                |
| 0068413N  | 4       | 8       | 10      | 50      | 3       | 3      | 4                |
| 00684135N | 4       | 8       | 11      | 50      | 3.5     | 3.5    | 4                |
| 0068414N  | 4       | 8       | 12      | 50      | 4       | 4      | 4                |

External radius end mill polished for acrylic glass



Acrylic glass



Plastic



6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | R<br>(mm) |
|----------|------------|------------|------------|------------|------------|-----------|
| 00685710 | 4.0        | 6.0        | 6.0        | 50.0       | 1.0        | 1.0       |
| 00685720 | 4.0        | 6.0        | 8.0        | 50.0       | 2.0        | 2.0       |
| 00685730 | 4.0        | 6.0        | 10.0       | 50.0       | 3.0        | 3.0       |
| 00685715 | 5.0        | 6.0        | 8.0        | 50.0       | 1.5        | 1.5       |
| 00685725 | 5.0        | 6.0        | 10.0       | 50.0       | 2.5        | 2.5       |

DATRON

# Deburring miller two flutes



Steel

3 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | L2 (mm) | R (mm) |
|----------|---------|---------|---------|---------|--------|
| 00784908 | 0.8     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784909 | 0.9     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784910 | 1.0     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784911 | 1.1     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784912 | 1.2     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784913 | 1.3     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784914 | 1.4     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784915 | 1.5     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784916 | 1.6     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784917 | 1.7     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784918 | 1.8     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784919 | 1.9     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784920 | 2.0     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784921 | 2.1     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784922 | 2.2     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784923 | 2.3     | 3.0     | 40.0    | 0.3     | 0.3    |
| 00784924 | 2.4     | 3.0     | 40.0    | 0.3     | 0.3    |



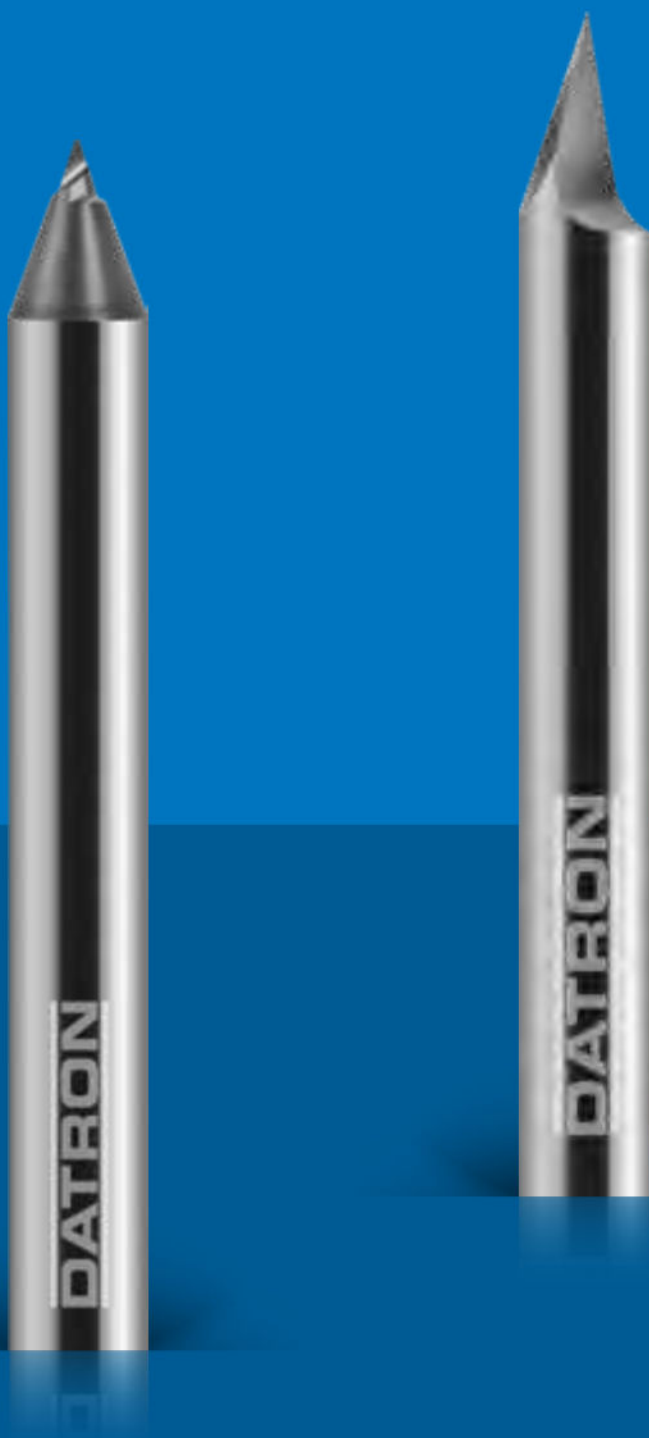
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DATRON

## Standard engraving tool

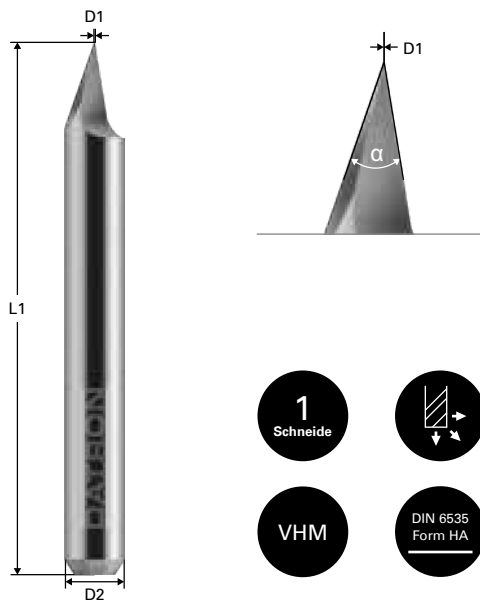
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|                                                                      |    |
|----------------------------------------------------------------------|----|
| Standard engraving tool                                              | 90 |
| Standard engraving tool, balanced                                    | 92 |
| Standard engraving tool for machining steel                          | 93 |
| Standard engraving tool for hard machining<br>with coating (ALCRONA) | 94 |



DATRON

# Standard engraving tool



Aluminium



Copper



Bronze



Brass



Plastic



Wood



Acrylic glass



## 3 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|----------|
| 0068278  | 0.05       | 3.0        | 40.0       | 20       |
| 0068279  | 0.1        | 3.0        | 40.0       | 20       |
| 0068279A | 0.1        | 3.0        | 40.0       | 30       |
| 0068280  | 0.1        | 3.0        | 40.0       | 40       |
| 0068280A | 0.1        | 3.0        | 40.0       | 45       |
| 0068281  | 0.1        | 3.0        | 40.0       | 60       |
| 0068282  | 0.1        | 3.0        | 40.0       | 90       |
| 0068278A | 0.2        | 3.0        | 40.0       | 20       |
| 0068279B | 0.2        | 3.0        | 40.0       | 30       |
| 0068280B | 0.2        | 3.0        | 40.0       | 40       |
| 0068281A | 0.2        | 3.0        | 40.0       | 60       |
| 0068280D | 0.5        | 3.0        | 40.0       | 40       |
| 0068284  | 3.0        | 3.0        | 40.0       | 180      |

## 1/8" shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|----------|
| 0068679  | 0.1        | 3175       | 40.0       | 20       |
| 0068679A | 0.1        | 3175       | 40.0       | 30       |
| 0068680  | 0.1        | 3175       | 40.0       | 40       |
| 0068681  | 0.1        | 3175       | 40.0       | 60       |
| 0068682  | 0.1        | 3175       | 40.0       | 90       |

## 4 mm shank

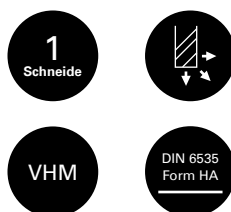
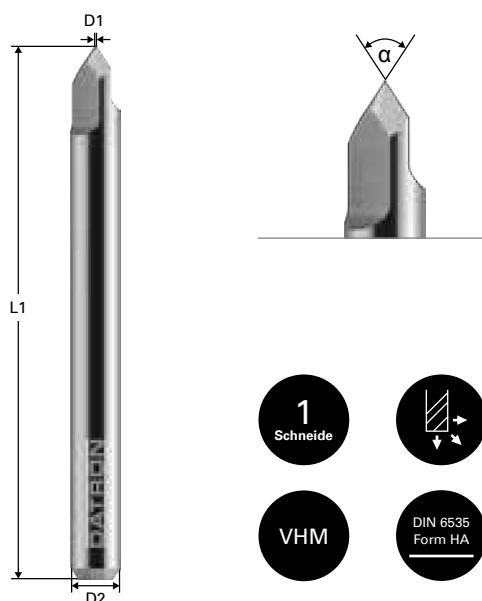
| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|----------|
| 0068270  | 0.1        | 4.0        | 40.0       | 20       |
| 0068273  | 0.1        | 4.0        | 40.0       | 30       |
| 0068274  | 0.1        | 4.0        | 40.0       | 40       |
| 0068276  | 0.1        | 4.0        | 40.0       | 60       |
| 0068277  | 0.1        | 4.0        | 40.0       | 90       |

## 6 mm shank

| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | $\alpha$<br>(°) |
|----------|------------|------------|------------|-----------------|
| 0068284B | 0.05       | 6.0        | 50.0       | 20              |
| 0068284C | 0.1        | 6.0        | 50.0       | 20              |
| 0068283  | 0.1        | 6.0        | 50.0       | 30              |
| 0068283L | 0.1        | 6.0        | 50.0       | 40              |
| 0068285  | 0.1        | 6.0        | 50.0       | 50              |
| 0068285A | 0.1        | 6.0        | 50.0       | 60              |
| 0068286  | 0.1        | 6.0        | 50.0       | 90              |
| 0068287  | 0.1        | 6.0        | 50.0       | 120             |
| 0068284D | 0.2        | 6.0        | 50.0       | 20              |
| 0068283D | 0.2        | 6.0        | 50.0       | 30              |
| 0068285D | 0.2        | 6.0        | 50.0       | 60              |
| 0068283E | 0.3        | 6.0        | 50.0       | 30              |
| 0068285E | 0.3        | 6.0        | 50.0       | 60              |
| 0068284F | 0.4        | 6.0        | 50.0       | 20              |
| 0068283F | 0.4        | 6.0        | 50.0       | 30              |
| 0068285F | 0.4        | 6.0        | 50.0       | 60              |
| 0068283G | 0.6        | 6.0        | 50.0       | 30              |
| 0068288  | 6.0        | 6.0        | 50.0       | 180             |

DATRON

# Standard engraving tool balanced



Aluminium

Bronze

Plastic

Wood



Copper

Brass

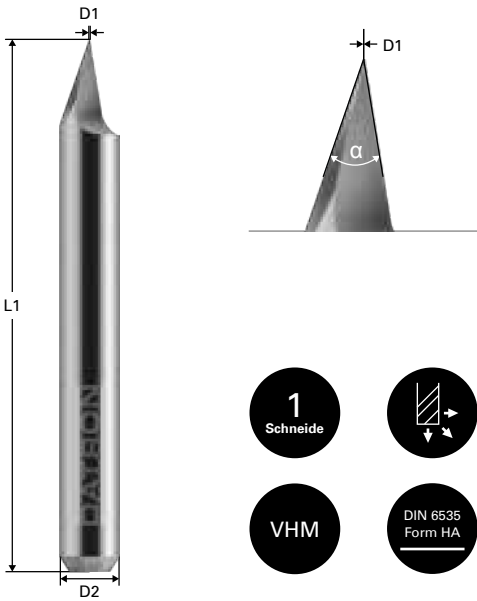
Acrylic glass



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | $\alpha$ (°) |
|----------|---------|---------|---------|--------------|
| 0068282G | 0.1     | 6.0     | 50.0    | 30           |
| 0068284G | 0.1     | 6.0     | 50.0    | 40           |
| 0068285G | 0.1     | 6.0     | 50.0    | 60           |
| 0068286G | 0.1     | 6.0     | 50.0    | 90           |

# Standard engraving tool for machining steel



Steel



## 6 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | α (°) |
|----------|---------|---------|---------|-------|
| 0068510  | 0.1     | 6.0     | 50.0    | 20    |
| 0068511  | 0.1     | 6.0     | 50.0    | 30    |
| 0068512  | 0.1     | 6.0     | 50.0    | 40    |
| 0068513  | 0.1     | 6.0     | 50.0    | 60    |
| 0068514  | 0.1     | 6.0     | 50.0    | 90    |
| 0068510A | 0.2     | 6.0     | 50.0    | 20    |
| 0068511A | 0.2     | 6.0     | 50.0    | 30    |
| 0068512A | 0.2     | 6.0     | 50.0    | 40    |
| 0068513A | 0.2     | 6.0     | 50.0    | 60    |
| 0068514A | 0.2     | 6.0     | 50.0    | 90    |

DATRON

Standard engraving tool for hard machining with coating (ALCRONA)



4 mm shank

| Item no. | D1 (mm) | D2 (mm) | L1 (mm) | α (°) |
|----------|---------|---------|---------|-------|
| 0068520  | 0.1     | 4.0     | 40.0    | 30    |
| 0068521  | 0.1     | 4.0     | 40.0    | 45    |
| 0068520A | 0.2     | 4.0     | 40.0    | 30    |
| 0068521A | 0.2     | 4.0     | 40.0    | 45    |

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DATRON

## T-slotting mill

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T-slotting mill

96



DATRON

## T-slotting mill



Aluminium



Plastic



Wood



Bronze



Brass



| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Number of flutes |
|----------|---------|---------|---------|---------|---------|---------|------------------|
| 0068425  | 3.0     | 3.0     | 1.6     | 40.0    | 0.8     | 6.0     | 2                |
| 0068424D | 6.0     | 6.0     | 3.0     | 50.0    | 2.8     | 8.0     | 4                |
| 0068424L | 8.0     | 6.0     | 3.5     | 50.0    | 0.7     | 6.0     | 4                |
| 0068424K | 8.0     | 6.0     | 3.5     | 50.0    | 1.0     | 6.0     | 4                |
| 0068424  | 8.0     | 6.0     | 3.5     | 50.0    | 1.3     | 6.0     | 4                |
| 0068424S | 8.0     | 6.0     | 3.5     | 50.0    | 4.5     | 9.0     | 4                |
| 0068423  | 10.0    | 6.0     | 4.0     | 50.0    | 2.0     | 12.0    | 4                |
| 0068423A | 10.0    | 6.0     | 4.0     | 50.0    | 2.0     | 12.0    | 6                |
| 0068426  | 15.0    | 6.0     | 6.0     | 50.0    | 3.0     | 25.0    | 4                |
| 0068424A | 8.0     | 8.0     | 3.5     | 50.0    | 1.3     | 6.0     | 4                |

DATRON 

| Item no. | D1 (mm) | D2 (mm) | D3 (mm) | L1 (mm) | L2 (mm) | L3 (mm) | Number of flutes |
|----------|---------|---------|---------|---------|---------|---------|------------------|
| 0068424A | 8       | 8       | 3.5     | 50      | 1.3     | 60      | 4                |
| 0068423N | 10      | 8       | 4       | 50      | 2       | 12      | 4                |



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DATRON

# Cutting diamond

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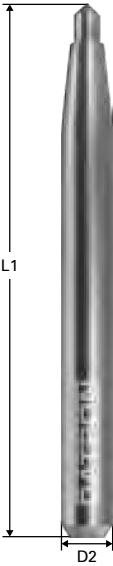
Cutting diamond

98



DATRON

# Cutting diamond





DIN 6535  
Form HA



Aluminium



Bronze



Copper



Brass





Wood



Plastic



Acrylic glass



| Item no. | D1<br>(mm) | D2<br>(mm) | L1<br>(mm) | α<br>(°) |
|----------|------------|------------|------------|----------|
| 0068501  | 0.1        | 6          | 61         | 90       |
| 0068502  | 0.1        | 6          | 61         | 120      |

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DATRON

## Swallow-tail mill

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Swallow-tail mill

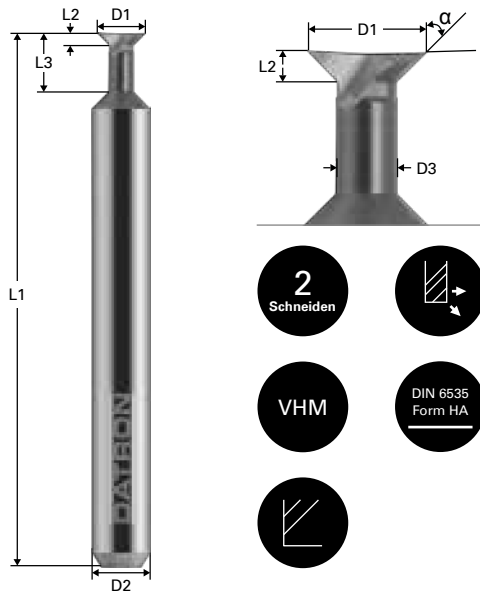
100

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DATRON

# Swallow-tail mill



Aluminium



Plastic



Wood



Bronze



Brass



| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) | L3<br>(mm) | $\alpha$<br>(°) |
|----------|------------|------------|------------|------------|------------|------------|-----------------|
| 0068290  | 3.0        | 3.0        | 2.0        | 40.0       | 3.0        | 6.0        | 5               |
| 0068783  | 3.0        | 3.0        | 2.0        | 40.0       | 0.87       | 6.0        | 30              |
| 0068783A | 3.0        | 3.0        | 2.0        | 40.0       | 0.5        | 6.0        | 45              |
| 0068783B | 3.0        | 3.0        | 2.0        | 40.0       | 0.29       | 6.0        | 60              |
| 0068690  | 3175       | 3175       | 2.0        | 39.0       | 3.0        | 6.0        | 5               |
| 0068784  | 4.0        | 6.0        | 2.0        | 50.0       | 1.73       | 6.0        | 30              |
| 0068784A | 4.0        | 6.0        | 2.0        | 50.0       | 1.0        | 6.0        | 45              |
| 0068784B | 4.0        | 6.0        | 2.0        | 50.0       | 0.58       | 6.0        | 60              |
| 0068785  | 5.0        | 6.0        | 2.5        | 50.0       | 2.17       | 6.0        | 30              |
| 0068785A | 5.0        | 6.0        | 2.5        | 50.0       | 1.25       | 6.0        | 45              |
| 0068785B | 5.0        | 6.0        | 2.5        | 50.0       | 0.72       | 6.0        | 60              |
| 0068291  | 6.0        | 6.0        | 5.0        | 50.0       | 6.0        | 6.0        | 5               |
| 0068786  | 6.0        | 6.0        | 3.0        | 50.0       | 2.6        | 6.0        | 30              |
| 0068786A | 6.0        | 6.0        | 3.0        | 50.0       | 1.5        | 6.0        | 45              |
| 0068786B | 6.0        | 6.0        | 3.0        | 50.0       | 0.87       | 6.0        | 60              |

# Tool clamping technique

## HSK clamping system

|                                                              |     |
|--------------------------------------------------------------|-----|
| Polygon clamping technique                                   | 102 |
| HSK-E 25 & HSK-E 32 polygon clamping chuck                   | 103 |
| DATRON clamping system<br>for polygon clamping chuck         | 104 |
| DATRON reducing inserts for polygon clamping chuck           | 104 |
| DATRON DR 16 collet chuck holder for HSK-E 32                | 105 |
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## Direct clamping system

|                                                   |     |
|---------------------------------------------------|-----|
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| DATRON insertion tools and limit stop rings       | 106 |

DATRON

# Polygon clamping chuck

The HSK-E polygon chucks have been designed for precise and secure machining, including at high speeds.

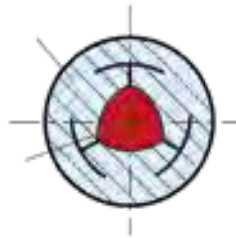
The stable, rotationally symmetrical design has an outstanding concentricity of  $<3\text{ }\mu\text{m}$ . This enables high-quality milling results at up to 48,000 rpm.

Passive vibration damping significantly improves the service life of high-frequency spindles and machining tools.



## Functional principle of polygon clamping chucks

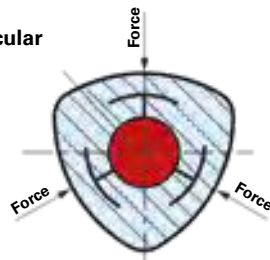
Clamping diameter similar to polygon shape



### 1. Before clamping

The polygon geometry of the shank seat is clear in the unreleased state.

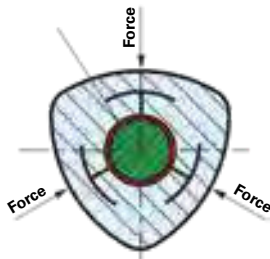
Clamping diameter becomes circular



### 2. In the clamping fixture

Force is applied at three points by the hydraulic clamping fixture. The shank seat becomes circular.

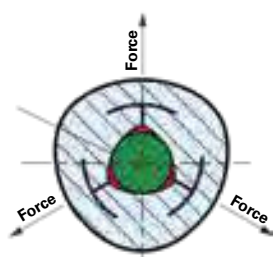
Inserting shank



### 3. Insertion of the tool shank

The tool shank can now be quickly and easily inserted into the seat.

Clamping diameter shrinks



### 4. The tool is clamped.

The pressure of the clamping fixture is reduced and the force application released. The elastically shaped chuck returns to its polygon shape. The tool is now securely and centrally clamped.

## HSK-E 25 & HSK-E 32 polygon clamping chuck



The DATRON polygon clamping chuck are noted for their solid design and a concentricity of  $<3\mu\text{m}$ . These characteristics ensure highly accurate results for machining.



### HSK-E-25

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|------------|
| 0068300G | 3          | 20         | HSK-E-25   | 40         | 30         |
| 0068300S | 3          | 14         | HSK-E-25   | 40         | 30         |
| 0068311D | 3.175      | 20         | HSK-E-25   | 40         | 30         |
| 0068301G | 4          | 20         | HSK-E-25   | 40         | 30         |
| 0068302G | 5          | 20         | HSK-E-25   | 40         | 30         |
| 0068303G | 6          | 20         | HSK-E-25   | 40         | 30         |
| 0068303S | 6          | 14         | HSK-E-25   | 40         | 30         |
| 0068304G | 8          | 20         | HSK-E-25   | 40         | 30         |
| 0068305G | 10         | 20         | HSK-E-25   | 40         | 30         |

### HSK-E-32

| Item no. | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|----------|------------|------------|------------|------------|------------|
| 00580030 | 3          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580317 | 3.175      | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580040 | 4          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580050 | 5          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580060 | 6          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580080 | 8          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580100 | 10         | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580120 | 12         | 25         | HSK-E-32   | 55.0       | 35.0       |

### HSK-E-32 with internal cooling

| Item no.  | D1<br>(mm) | D2<br>(mm) | D3<br>(mm) | L1<br>(mm) | L2<br>(mm) |
|-----------|------------|------------|------------|------------|------------|
| 00580030I | 3          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580317I | 3.175      | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580040I | 4          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580050I | 5          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580060I | 6          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580080I | 8          | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580100I | 10         | 25         | HSK-E-32   | 55.0       | 35.0       |
| 00580120I | 12         | 25         | HSK-E-32   | 55.0       | 35.0       |

### Accessories

| Item no. | Item description              |
|----------|-------------------------------|
| 0068353  | HSK-32 coolant dispenser pipe |
| 0068353A | HSK-32 key for coolant pipe   |

DATRON

## Clamping fixture for polygon clamping chuck

The hydraulic clamping fixture for polygon clamping chuck, fitted with hand pump and pressure gauge, does not require a power source, making it a very flexible unit. The clamping process requires only a few movements and is completed in less than 20 seconds.

In contrast to shrink technology, this wear-free process does not require heating or cooling phases.



| Item no. | Item description              |
|----------|-------------------------------|
| 0068340  | For HSK-E 25 & HSK-E 32 seats |

DATRON

## Reducing inserts for polygon clamping chuck

The reducing inserts enable the use of different polygon chucks on the clamping fixture.

| Item no. | Item description | for D2 | Adapter type |
|----------|------------------|--------|--------------|
| 0068341S | Reducing insert  | 14     | HSK-E 25     |
| 0068341D | Reducing insert  | 20     | HSK-E 25     |
| 0068341E | Reducing insert  | 25     | HSK-E 32     |





## DR 16 collet chuck holder for HSK-E 32

The DATRON DR 16 collet chuck holders have a wide range of applications and are noted for their solid construction. A wide range of precision collet chucks allows the collet chuck holders to be used for very different clamping diameters. The high concentricity of the metal sealing precision collet chucks guarantees a concentricity of <3 µm in the entire system, which is many times better than the concentricities of conventional ER 16 clamping systems.



| Item no. | D1 (mm) | D2 (mm) | D3 (mm)  | L1 (mm) | L2 (mm) | Note                                                         |
|----------|---------|---------|----------|---------|---------|--------------------------------------------------------------|
| 0068321  | DR 16   | 24.0    | HSK-E 32 | 55.0    | 35.0    | DR 16 collet chuck holder with clamping nut and coolant pipe |
| 0068321B | 3.0     | -       | DR 16    | -       | -       | DR 16 precision collet chuck, metal sealing                  |
| 0068321C | 4.0     | -       | DR 16    | -       | -       | DR 16 precision collet chuck, metal sealing                  |
| 0068321E | 6.0     | -       | DR 16    | -       | -       | DR 16 precision collet chuck, metal sealing                  |
| 0068321G | 8.0     | -       | DR 16    | -       | -       | DR 16 precision collet chuck, metal sealing                  |
| 0068321I | 10.0    | -       | DR 16    | -       | -       | DR 16 precision collet chuck, metal sealing                  |

## Mounting accessories for DR 16 collet chuck holder

DATRON mounting accessories ensure flexible usage of the collet chuck holders from the DATRON range.

| Item no. | Item description                                    | Note                                                            |
|----------|-----------------------------------------------------|-----------------------------------------------------------------|
| 0068322  | Tool mounting set for DATRON collet chuck holders   | Mounting block, adapter for HSK-E 32, roller wrench, handle bar |
| 0068322A | Tool mounting block for DATRON collet chuck holders | including torque gauge                                          |
| 0068322D | Mounting adapter for DATRON collet chuck holders    | Fits HSK-E 32 collet chuck holders                              |
| 0068322C | Roller wrench for DATRON collet chuck holders       | Fits DR 16 clamping nuts, D=24 mm                               |
| 0068322B | Handle bar for roller wrench                        | L=280 mm                                                        |



DATRON

## Adapter collets for direct shank clamping systems

The DATRON adapter collets enable the use of different tool shanks in only one spindle collet chuck. The adapters are reusable due to their pre-tension. For the defined opening you will need the adapter insertion tool item no. 0068337D for 6 mm and 8 mm adapters.



| Item no. | D1 (mm) | D2 (mm) | D3 (mm) |
|----------|---------|---------|---------|
| 0068336G | 1.0     | 6.0     | 7.55    |
| 0068336H | 1.1     | 6.0     | 7.55    |
| 0068336J | 1.2     | 6.0     | 7.55    |
| 0068336K | 1.3     | 6.0     | 7.55    |
| 0068336L | 1.4     | 6.0     | 7.55    |
| 0068336M | 1.5     | 6.0     | 7.55    |
| 0068336N | 1.6     | 6.0     | 7.55    |
| 0068336P | 1.7     | 6.0     | 7.55    |
| 0068336Q | 1.8     | 6.0     | 7.55    |
| 0068350  | 1/8"    | 6.0     | 7.55    |
| 0068350A | 1/8"    | 6.35    | 7.55    |

| Item no. | D1 (mm)                                                | D2 (mm) | D3 (mm) |
|----------|--------------------------------------------------------|---------|---------|
| 0068350C | 1/8"                                                   | 8.0     | 10.5    |
| 0068336B | 2.0                                                    | 6.0     | 7.55    |
| 0068336A | 2.0                                                    | 8.0     | 10.5    |
| 0068336  | 3.0                                                    | 6.0     | 7.55    |
| 0068336C | 3.0                                                    | 8.0     | 10.5    |
| 0068350D | 4.0                                                    | 6.0     | 7.55    |
| 0068336D | 4.0                                                    | 8.0     | 10.5    |
| 0068336R | 5.0                                                    | 8.0     | 10.5    |
| 0068336F | 6.0                                                    | 8.0     | 10.5    |
| 0068337D | Adapter insertion tool for 6 mm and 8 mm collet chucks |         |         |

DATRON

## Limit stop rings and insertion tools

The limit stop rings are used for fixation of the tool shank in the changing station. We recommend our limit stop ring insertion tool for compressing the rings for the 6 mm and 8 mm shanks.

| Item no. | D1 (mm) | D2 (mm) | Material | Stop ring insertion tool                            |
|----------|---------|---------|----------|-----------------------------------------------------|
| 0068000  | 3.0     | 7.55    | Plastic  | Fits changing station 0069220                       |
| 0068000Y | 4.0     | 10.50   | Brass    | Fits changing station 0069221                       |
| 0068001  | 3.175   | 7.55    | Plastic  | Fits changing station 0069220                       |
| 0068002  | 6.0     | 10.50   | Brass    | Fits changing station 0069221                       |
| 0068002A | 6.0     | 12.50   | Brass    | Fits changing station 0069227                       |
| 0068002H | 6.0     | 15.00   | Brass    | Fits changing station 0069223                       |
| 0068002J | 6.0     | 18.00   | Brass    | Fits changing station 0069227                       |
| 0068002Z | 6.35    | 10.50   | Brass    | Fits changing station 0069221                       |
| 0068001D | 8.0     | 12.50   | Brass    | Fits changing station 0069222                       |
| 0068002K | 8.0     | 18.00   | Brass    | Fits changing station 0069227                       |
| 0068180  |         |         |          | Limit stop ring insertion tool for 6 mm shank tools |
| 0068180A |         |         |          | Limit stop ring insertion tool for 8 mm shank tools |



# Consumable material

|                    |     |
|--------------------|-----|
| VacuCard           | 108 |
| Cooling lubricants | 110 |

DATRON

## VacuCard

This cardboard is used as a sacrificial layer with the vacuum clamping technique. The special fabric structure is homogeneously distributed and thus guarantees consistent suction force over the entire clamping area.

- generates homogenous vacuum distribution
- evenly distributed suction force
- Formats match to DATRON vacuum plates

| Item no.   | Item name | Number of units per VPE | Size (mm)        |
|------------|-----------|-------------------------|------------------|
| 0A01616*   | VacuCard  | 50                      | 450 x 650 x 0.7  |
| 0A01616L** | VacuCard  | 500                     | 450 x 650 x 0.7  |
| 0A01617*   | VacuCard  | 50                      | 500 x 1000 x 0.7 |
| 0A01617L** | VacuCard  | 500                     | 500 x 1000 x 0.7 |
| 0A01617A*  | VacuCard  | 50                      | 700 x 1000 x 0.7 |
| 0A01617X** | VacuCard  | 500                     | 700 x 1000 x 0.7 |

**DATRON** *neo*

| Item no.  | Item name      | Number of units per VPE | Size (mm)       |
|-----------|----------------|-------------------------|-----------------|
| 0A01617I* | VacuCard (neo) | 50                      | 500 x 200 x 0.7 |
| 0A01617K* | VacuCard (neo) | 50                      | 500 x 400 x 0.7 |

\* from 4 VPE transport will be charged

\*\* plus transport charges



DATRON

## VacuCard++ overcomes the physics

Clamp small parts with vacuum

### What is the VacuCard++?

VacuCard++ is a special type of cardboard, which DATRON has submitted for patent, which is used as a sacrificial layer between the work piece and the vacuum plate. In contrast to the DATRON VacuCard, it has an additional grid-shaped sealing glue layer that significantly improves the retention properties with vacuum clamping and greatly reduces loss of vacuum.

#### For what is VacuCard++ suitable?

- Milling machining of small parts from sheet material
- Pattern machining without separating bars
- Milling machining of thin and soft sheet material
- Milling machining of sheet material with rough surface finish

#### How does the VacuCard++ work?

- The sealing glue layer holds parts that are too small to be retained by the vacuum alone.

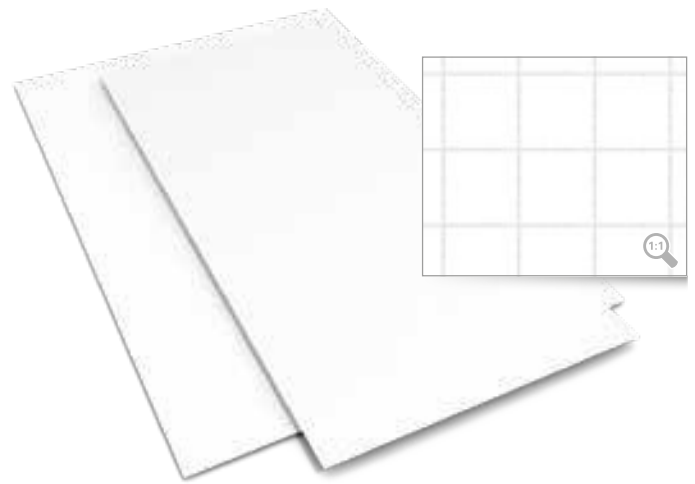
- Increases the retention forces in vacuum clamping by a suction cup effect
- Prevents slippage of work pieces under high milling forces
- Reduces vacuum consumption and prevents premature collapse
- The vacuum is evenly distributed over the work piece.
- Prevents edges of soft and flexible work pieces from lifting
- Machined work pieces can be removed without residues

#### Technical data

- Cardboard with redundant suction cup effect due to grid-shaped sealing glue layer
- Combination of adhesion and vacuum clamping
- Reduced vacuum consumption due to restricted air permeability and coverage with protective foil
- Disposal with paper waste
- Shelf life depends on storage

The patented VacuCard++ is based on the standard VacuCard and has a grid-shaped glue structure. The special glue layer gives the VacuCard++ a significantly higher clamping force and fixed even small light components securely throughout the process.

- grid-shaped glue layer (10 mm x 10 mm)
- secure clamping of delicate components
- homogenous vacuum distribution
- Formats match DATRON vacuum plates



| Item no.  | Item name | Number of units per VPE | Size (mm)        |
|-----------|-----------|-------------------------|------------------|
| 0A01618G* | VacuCard  | 10                      | 450 x 650 x 0.7  |
| 0A01618D* | VacuCard  | 50                      | 450 x 650 x 0.7  |
| 0A01618H* | VacuCard  | 10                      | 500 x 1000 x 0.7 |
| 0A01618E* | VacuCard  | 50                      | 500 x 1000 x 0.7 |
| 0A01618I* | VacuCard  | 10                      | 700 x 1000 x 0.7 |
| 0A01618F* | VacuCard  | 50                      | 700 x 1000 x 0.7 |

\* from 4 VPE transport will be charged

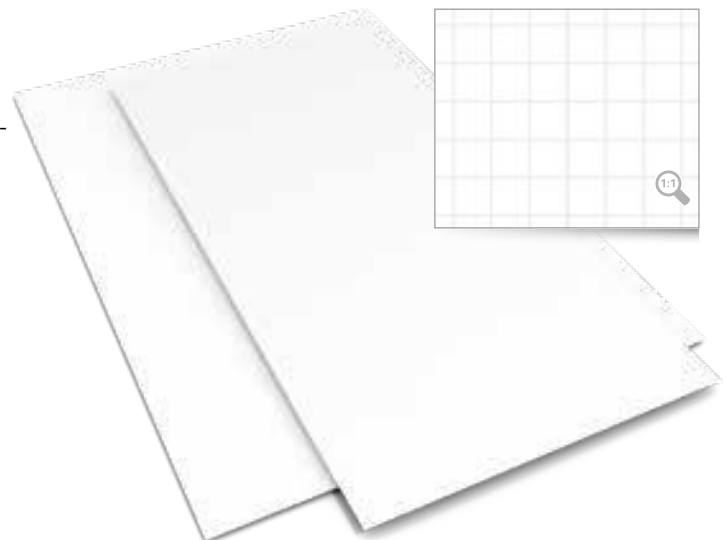
DATRON

## VacuCard+++

### DATRON VacuCard+++

The patented VacuCard+++ is based on the standard VacuCard and has a 5 mm by 5 mm grid-shaped glue structure. The special glue layer gives the VacuCard+++ a significantly higher clamping force and fixed even small light components up to a diameter of 10 mm securely throughout the process.

- grid-shaped glue layer (5 mm x 5 mm)
- secure clamping of very small components
- homogenous vacuum distribution
- Formats match DATRON vacuum plates



| Item no.   | Item name   | Number of units per VPE | Size (mm)        |
|------------|-------------|-------------------------|------------------|
| 0A01618M*  | VacuCard+++ | 10                      | 500 x 1000 x 0.7 |
| 0A01618K** | VacuCard+++ | 100                     | 500 x 1000 x 0.7 |
| 0A01618N*  | VacuCard+++ | 10                      | 700 x 1000 x 0.7 |
| 0A01618L*  | VacuCard+++ | 50                      | 700 x 1000 x 0.7 |

**DATRON** **neo**

| Item no.  | Item name         | Number of units per VPE | Size (mm)       |
|-----------|-------------------|-------------------------|-----------------|
| 0A01618W* | VacuCard+++ (neo) | 20                      | 500 x 400 x 0.7 |

\* from 4 VPE transport will be charged

\*\* plus transport charges

DATRON

## Cooling lubricants for minimum-quantity lubrication

In addition to CNC machines and tools DATRON now offers matching cooling lubricants. The new cooling lubricants, sold under the name ProCut, are suitable exclusively for minimum-quantity lubrication. The price per litre reflects the very low consumption. There are also significant savings in operating and personnel expenses for cleaning machines and parts and also in changing lubricants. In addition to ProCut cooling lubricants, DATRON offers the Microjet MMS systems, which ensure optimal coverage of the work pieces with their easily aligned spray nozzles.



### DATRON ProCut 56

ProCut 56 is a pure hydrocarbon intended as a substitute for ethanol and is ideal for machining aluminium and plastic work pieces – particularly in combination with the DATRON CleanCut chip suction system. The lubricant allows burr-free machining of work pieces. It also prevents material deposition (accumulation on flutes) on the tool. ProCut 56 can be suctioned, is completely volatile and leaves no residues on the work piece. This MM lubricant is ideal for companies or company divisions in which the use of ethanol is prohibited and for machining materials which would react aggressively in contact with ethanol. Cleaning after machining is not required with this lubricant.

consumption without CleanCut: **80 ml/hour**

(approx. 30% of ethanol consumption)

consumption with CleanCut: **270 ml/hour**

Item no.

Litres  
(per container size)

0069266

10



### DATRON ProCut 56-2

ProCut 56-2 is a hydrocarbon with minor lubricating constituents and is also an ethanol substitute. It is specially designed for machining Plexiglas or materials with a high surface finish. This MM lubricant is ideal for companies or company divisions in which the use of ethanol is prohibited and for machining materials for a high surface finish is required. Cleaning after machining is required with this lubricant.

consumption without CleanCut: **95 ml/hour**

consumption with CleanCut: **200 ml/hour**

Item no.

Litres  
(per container size)

0069266A

10



## DATRON ProCut 200

The ProCut 200 lubricant can be specially developed for machining steel. This very durable MM lubricant will significantly increase the service life of tools for machining hard materials. Cleaning after machining is required with this lubricant.

consumption: **20 ml/hour**

| Item no. | Litres<br>(per container size) |
|----------|--------------------------------|
| 0069266D | 5                              |
| 0069266B | 10                             |





# General information

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DATRON

## Tool technology



### Quality and Precision "Made in Germany":

The manufacture of tools in state-of-the-art fully automatic grinding machines in our ultramodern DATRON Tool Technology grinding plant results in consistently high quality and a very good price-performance ratio. Continuous quality control and testing on our in-house milling machines, including under extreme conditions, guarantee that you will benefit from the outstanding quality and performance of DATRON tools.

- Development
- Testing
- Production
- Drilling from 0.1 mm
- Milling from 0.1 mm
- Thread milling from M1



### DATRON technology:

The flute geometry of all DATRON milling tools incorporates DATRON expertise derived from more than 25 years of experience in the field of HSC milling. Continuing development and optimisation guarantee you tools that are state of the art in technology.

- intelligent geometries
- the latest grinding machines
- best carbide



### Regrinding service:

It does not always need to be new. Consider sustainability with resources and maintain the original quality of your milling tools with our regrinding service!

Save on storage and capital expenses and maintain high availability of the tools for your production. With direct access to our in-house grinding service DATRON Tool Technology GmbH in Lindenfels you will receive the best reprocessed tools with the convenient DATRON shipping and return process.

[nachschleifservice@datron.de](mailto:nachschleifservice@datron.de)



### Economy:

Your DATRON tools have a particularly long service life resulting from the application of high-quality carbides in ultra-fine-grain quality. Innovative coatings also improve the performance of our tools.

- maximum machining performance
- maximum service life
- maximum reliability

## Coatings

### BALINIT® X.CEED coating

hardness and high coating adhesion

| Coating properties           |                         |
|------------------------------|-------------------------|
| Material                     | AlTiN                   |
| Micro hardness               | 3300 HV                 |
| Frictional value             | 0.4 (dry against steel) |
| Max. application temperature | 900 °C                  |
| Colour                       | blue-grey               |



The hardness, oxidation resistance and thermal stability of X.CEED have been optimised for applications in high-speed machining of hard materials. The coating provides protection from abrasion and adhesion throughout the entire cutting speed range even with very solid materials that are difficult to machine. The good frictional properties reduce the cutting forces.

### BALINIT® ALCRONA coating

low frictional value and heat hardness

| Coating properties           |                          |
|------------------------------|--------------------------|
| Material                     | AlCrN                    |
| Micro hardness               | 3200 HV                  |
| Frictional value             | 0.35 (dry against steel) |
| Max. application temperature | 1100°C                   |
| Colour                       | light grey               |



Excellent wear resistance, thermal shock stability and heat hardness – these are the properties that have been extensively modified to improve the proven ALCRONA coating even more. The performance profile of the new coating has been significantly improved by optimisation of the process parameters and modification of the coating structure. ALCRONA is the new top all-rounder in machining.

### BALINIT® ALNOVA coating

high thermal shock stability, good chip removal

| Coating properties           |                         |
|------------------------------|-------------------------|
| Material                     | AlCrN-based             |
| Micro hardness               | 3200 HV                 |
| Frictional value             | 0.3 (dry against steel) |
| Max. application temperature | >1100 °C                |
| Colour                       | light grey              |



BALINIT® ALNOVA is characterised particularly by optimal coating adhesion, high thermal shock stability, good chip removal and extremely high tool stability at the cutting edges. The extremely durable and smooth surface finish of the coating makes it ideal for tools exposed to very high temperatures during machining.

### Diamond coating

high hardness and chemical resistance

| Coating properties           |                         |
|------------------------------|-------------------------|
| Material                     | Diamond                 |
| Micro hardness               | 10000 HV                |
| Frictional value             | 0.4 (dry against steel) |
| Max. application temperature | 700°C                   |
| Colour                       | dark grey               |



The unique material properties of multi-layer diamond coatings offer significant performance potential, particularly for machining graphite and hard metal and ceramic blanks. These types of highly abrasive materials can be machined very economically today with precisely designed CVD diamond coatings on carbide.

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# Guide values for speed and feed

## Formulas for calculating the milling parameters

| Formula          |                                  | Parameters                                                                                                                                                       |
|------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cutting speed    | $V_c = \frac{\pi * d * n}{1000}$ | $V_c$ = cutting speed (mm/min)<br>$d$ = tool diameter (mm)<br>$n$ = speed (rpm)                                                                                  |
| Cutting speed    | $V_f = f_z * n * z$              | $v_f$ = cutting speed (mm/min)<br>$f_z$ = tooth feed (mm/min)<br>$n$ = speed (rpm)<br>$z$ = tooth number (-)                                                     |
| cutting capacity | $P_c = \frac{Q}{V_{sp}}$         | $P_c$ = cutting capacity (kW)<br>$Q$ = chip volume per unit time (cm <sup>3</sup> /min)<br>$V_{sp}$ = spec. chip volume per unit time (cm <sup>3</sup> /min/kW)  |
| Chip volume      | $Q = a_e * a_p * v_f$            | $Q$ = chip volume per unit time (cm <sup>3</sup> /min)<br>$a_e$ = radial working engagement (mm)<br>$a_p$ = cutting depth (mm)<br>$v_f$ = cutting speed (mm/min) |

### Machining of plastics

When machining plastics, such as duroplasts and thermoplasts, generally select lower speeds and higher feeds as compared to aluminium.

### Engraving with engraving tools

Select the following values for engraving aluminium or brass with a graver:

Speed approx. 30,000 rpm

Feed approx. 0.7 m/min

## Competence Center Tools

We have set up the DATRON Competence Center Tools (CCT) to provide customised consulting for your tool needs. This team of specialists is your first port of call and the central contact for all technical tool questions.

## Customised tools

### Do you need a special tool? Not a problem for DATRON!

DATRON manufactures customised tools to your specifications for your applications. The tools are made from your drawings and specifications to the highest DATRON quality on our state of the art automatic grinding machines. Some examples of what we can supply are step mills, step drills, special shapes and micro-tools.

Simply input the required characteristics into the table below and send it to us by fax or email.

**Fax to:** +49 (0)6151-14 19-29

**Email to:** [cct@datron.de](mailto:cct@datron.de)

| Designation                              | Your individual data |
|------------------------------------------|----------------------|
| Milling tool comparable with item number | Item no.:            |
| D1 flute diameter                        |                      |
| D2 shank diameter                        |                      |
| D3 toric cut diameter                    |                      |
| L1 total length*                         |                      |
| L2 flute length                          |                      |
| L3 toric cut usable length               |                      |
| R radius                                 |                      |
| BS coating                               |                      |

\*The total length L1 may vary

#### Remarks

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