



### 2 Flutes Diamond Coated Ball End Mills for Graphite

Endmills for Graphite, reinforced plastic, carbon fiber, Non-ferrous and non-metallic materials.

- Wide range products prepared for various work shape and excellent performance.

### 2刃 黒鉛加工用 ダイヤモンド コーティング ボール エンドミル

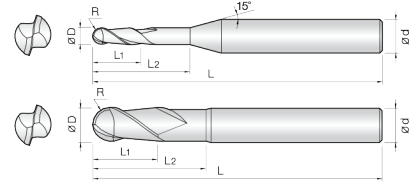
グラファイト(黒鉛), 強化プラスチック, 炭素繊維など 非鉄, 非金属 系列の 多様な 被削材 専用 エンドミル

- 多様な 被削材の形状に適用されるような規格を多様化して, 広い 加工領域で優れた寿命と性能を発揮します。

### 2刃 石墨加工用 金刚石涂层 球头铣刀

石墨, 强化塑料, 碳纤维等非铁, 非金属系列的多样被削材专用铣刀

- 规格多样化, 以便适应各种被削材形状, 在广泛的加工领域, 发挥出寿命和性能



| Size   | D Tolerance   |
|--------|---------------|
| D ≤ Ø6 | +0 ~ -0.01mm  |
| D > Ø6 | +0 ~ -0.015mm |

单位/Unit: mm

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全长<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     | R×D            | L1                     | L2                         | L                       | d                  |
| 2DBL 002 010 S04    | 0.1RX0.2       | 1                      | -                          | 45                      | 4                  |
| 2DBL 003 012 S04    | 0.15RX0.3      | 1.2                    | -                          | 45                      | 4                  |
| 2DBL 003 020 S04    | 0.15RX0.3      | 1.2                    | 2                          | 45                      | 4                  |
| 2DBL 004 015 S04    | 0.2RX0.4       | 1.5                    | -                          | 45                      | 4                  |
| 2DBL 004 020 S04    | 0.2RX0.4       | 1.5                    | 2                          | 45                      | 4                  |
| 2DBL 004 030 S04    | 0.2RX0.4       | 1.5                    | 3                          | 45                      | 4                  |
| 2DBL 004 040 S04    | 0.2RX0.4       | 1.5                    | 4                          | 45                      | 4                  |
| 2DBL 004 050 S04    | 0.2RX0.4       | 1.5                    | 5                          | 45                      | 4                  |
| 2DBL 005 020 S04    | 0.25RX0.5      | 2                      | -                          | 45                      | 4                  |
| 2DBL 005 030 S04    | 0.25RX0.5      | 2                      | 3                          | 45                      | 4                  |
| 2DBL 005 040 S04    | 0.25RX0.5      | 2                      | 4                          | 45                      | 4                  |
| 2DBL 005 050 S04    | 0.25RX0.5      | 2                      | 5                          | 45                      | 4                  |
| 2DBL 005 060 S04    | 0.25RX0.5      | 2                      | 6                          | 45                      | 4                  |
| 2DBL 005 080 S04    | 0.25RX0.5      | 2                      | 8                          | 45                      | 4                  |
| 2DBL 006 020 S04    | 0.3RX0.6       | 2                      | -                          | 45                      | 4                  |
| 2DBL 006 030 S04    | 0.3RX0.6       | 2                      | 3                          | 45                      | 4                  |
| 2DBL 006 040 S04    | 0.3RX0.6       | 2                      | 4                          | 45                      | 4                  |
| 2DBL 006 050 S04    | 0.3RX0.6       | 2                      | 5                          | 45                      | 4                  |
| 2DBL 006 060 S04    | 0.3RX0.6       | 2                      | 6                          | 45                      | 4                  |
| 2DBL 006 080 S04    | 0.3RX0.6       | 2                      | 8                          | 45                      | 4                  |
| 2DBL 006 100 S04    | 0.3RX0.6       | 2                      | 10                         | 45                      | 4                  |
| 2DBL 006 120 S04    | 0.3RX0.6       | 2                      | 12                         | 45                      | 4                  |
| 2DBL 008 030 S04    | 0.4RX0.8       | 3                      | -                          | 45                      | 4                  |
| 2DBL 008 040 S04    | 0.4RX0.8       | 3                      | 4                          | 45                      | 4                  |
| 2DBL 008 050 S04    | 0.4RX0.8       | 3                      | 5                          | 45                      | 4                  |
| 2DBL 008 060 S04    | 0.4RX0.8       | 3                      | 6                          | 45                      | 4                  |
| 2DBL 008 080 S04    | 0.4RX0.8       | 3                      | 8                          | 45                      | 4                  |

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全长<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     | R×D            | L1                     | L2                         | L                       | d                  |
| 2DBL 008 100 S04    | 0.4RX0.8       | 3                      | 10                         | 45                      | 4                  |
| 2DBL 008 150 S04    | 0.4RX0.8       | 3                      | 15                         | 45                      | 4                  |
| 2DBL 008 200 S04    | 0.4RX0.8       | 3                      | 20                         | 45                      | 4                  |
| 2DBL 010 030 S04    | 0.5RX1         | 3                      | -                          | 60                      | 4                  |
| 2DBL 010 040 S04    | 0.5RX1         | 3                      | 4                          | 60                      | 4                  |
| 2DBL 010 050 S04    | 0.5RX1         | 3                      | 5                          | 60                      | 4                  |
| 2DBL 010 060 S04    | 0.5RX1         | 3                      | 6                          | 60                      | 4                  |
| 2DBL 010 080 S04    | 0.5RX1         | 3                      | 8                          | 60                      | 4                  |
| 2DBL 010 100 S04    | 0.5RX1         | 3                      | 10                         | 60                      | 4                  |
| 2DBL 010 120 S04    | 0.5RX1         | 3                      | 12                         | 60                      | 4                  |
| 2DBL 010 150 S04    | 0.5RX1         | 3                      | 15                         | 60                      | 4                  |
| 2DBL 010 200 S04    | 0.5RX1         | 3                      | 20                         | 60                      | 4                  |
| 2DBL 010 250 S04    | 0.5RX1         | 3                      | 25                         | 80                      | 4                  |
| 2DBL 010 300 S04    | 0.5RX1         | 3                      | 30                         | 80                      | 4                  |
| 2DBL 010 350 S04    | 0.5RX1         | 3                      | 35                         | 80                      | 4                  |
| 2DBL 010 400 S04    | 0.5RX1         | 3                      | 40                         | 80                      | 4                  |
| 2DBL 015 050 S04    | 0.75RX1.5      | 5                      | -                          | 60                      | 4                  |
| 2DBL 015 080 S04    | 0.75RX1.5      | 5                      | 8                          | 80                      | 4                  |
| 2DBL 015 100 S04    | 0.75RX1.5      | 5                      | 10                         | 80                      | 4                  |
| 2DBL 015 120 S04    | 0.75RX1.5      | 5                      | 12                         | 80                      | 4                  |
| 2DBL 015 150 S04    | 0.75RX1.5      | 5                      | 15                         | 80                      | 4                  |
| 2DBL 015 180 S04    | 0.75RX1.5      | 5                      | 18                         | 80                      | 4                  |
| 2DBL 015 200 S04    | 0.75RX1.5      | 5                      | 20                         | 80                      | 4                  |
| 2DBL 015 250 S04    | 0.75RX1.5      | 5                      | 25                         | 80                      | 4                  |
| 2DBL 015 300 S04    | 0.75RX1.5      | 5                      | 30                         | 80                      | 4                  |
| 2DBL 015 350 S04    | 0.75RX1.5      | 5                      | 35                         | 80                      | 4                  |
| 2DBL 015 400 S04    | 0.75RX1.5      | 5                      | 40                         | 80                      | 4                  |





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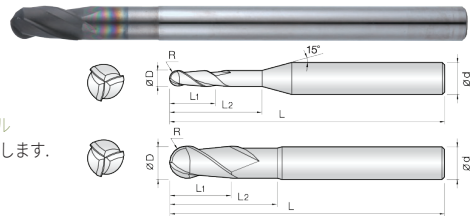
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| Size   | D Tolerance   |
|--------|---------------|
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| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length of cut | 有効長<br>Effective Length | 全长<br>Overall Length | 柄径<br>Shank Dia |
|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | R×D            | L1                  | L2                      | L                    | d               |
| 3DBL 010 030 S04    | 0.5RX1         | 3                   | -                       | 60                   | 4               |
| 3DBL 010 050 S04    | 0.5RX1         | 3                   | 5                       | 60                   | 4               |
| 3DBL 010 100 S04    | 0.5RX1         | 3                   | 10                      | 60                   | 4               |
| 3DBL 010 150 S04    | 0.5RX1         | 3                   | 15                      | 60                   | 4               |
| 3DBL 010 200 S04    | 0.5RX1         | 3                   | 20                      | 60                   | 4               |
| 3DBL 015 050 S04    | 0.75RX1.5      | 5                   | -                       | 60                   | 4               |
| 3DBL 015 100 S04    | 0.75RX1.5      | 5                   | 10                      | 80                   | 4               |
| 3DBL 015 150 S04    | 0.75RX1.5      | 5                   | 15                      | 80                   | 4               |
| 3DBL 015 200 S04    | 0.75RX1.5      | 5                   | 20                      | 80                   | 4               |
| 3DBL 020 060 S04    | 1RX2           | 6                   | -                       | 60                   | 4               |
| 3DBL 020 100 S04    | 1RX2           | 6                   | 10                      | 80                   | 4               |
| 3DBL 020 150 S04    | 1RX2           | 6                   | 15                      | 80                   | 4               |
| 3DBL 020 200 S04    | 1RX2           | 6                   | 20                      | 80                   | 4               |
| 3DBL 020 250 S04    | 1RX2           | 6                   | 25                      | 80                   | 4               |
| 3DBL 020 300 S04    | 1RX2           | 6                   | 30                      | 80                   | 4               |
| 3DBL 020 350 S04    | 1RX2           | 6                   | 35                      | 80                   | 4               |
| 3DBL 020 400 S04    | 1RX2           | 6                   | 40                      | 80                   | 4               |
| 3DBL 030 150 100    | 1.5RX3         | 8                   | 15                      | 100                  | 3               |
| 3DBL 030 080 S04    | 1.5RX3         | 8                   | -                       | 60                   | 4               |
| 3DBL 030 150 S04    | 1.5RX3         | 8                   | 15                      | 100                  | 4               |
| 3DBL 030 200 S04    | 1.5RX3         | 8                   | 20                      | 100                  | 4               |
| 3DBL 030 300 S04    | 1.5RX3         | 8                   | 30                      | 100                  | 4               |
| 3DBL 030 400 S04    | 1.5RX3         | 8                   | 40                      | 100                  | 4               |
| 3DBL 030 500 S04    | 1.5RX3         | 8                   | 50                      | 100                  | 4               |
| 3DBL 040 160 080    | 2RX4           | 16                  | -                       | 80                   | 4               |
| 3DBL 040 300 080    | 2RX4           | 16                  | 30                      | 80                   | 4               |
| 3DBL 040 160 100    | 2RX4           | 16                  | -                       | 100                  | 4               |
| 3DBL 040 400 100    | 2RX4           | 16                  | 40                      | 100                  | 4               |
| 3DBL 040 160 130    | 2RX4           | 16                  | -                       | 130                  | 4               |
| 3DBL 040 400 130    | 2RX4           | 16                  | 40                      | 130                  | 4               |
| 3DBL 060 250 110    | 3RX6           | 16                  | 25                      | 110                  | 6               |
| 3DBL 060 400 110    | 3RX6           | 16                  | 40                      | 110                  | 6               |
| 3DBL 060 300 150    | 3RX6           | 16                  | 30                      | 150                  | 6               |
| 3DBL 060 500 150    | 3RX6           | 16                  | 50                      | 150                  | 6               |
| 3DBL 060 500 180    | 3RX6           | 16                  | 50                      | 180                  | 6               |
| 3DBL 080 400 110    | 4RX8           | 20                  | 40                      | 110                  | 8               |
| 3DBL 080 500 150    | 4RX8           | 20                  | 50                      | 150                  | 8               |
| 3DBL 100 400 110    | 5RX10          | 22                  | 40                      | 110                  | 10              |
| 3DBL 100 600 160    | 5RX10          | 22                  | 60                      | 160                  | 10              |
| 3DBL 120 500 110    | 6RX12          | 25                  | 50                      | 110                  | 12              |
| 3DBL 120 500 160    | 6RX12          | 25                  | 50                      | 160                  | 12              |
| 3DBL 120 600 200    | 6RX12          | 25                  | 60                      | 200                  | 12              |



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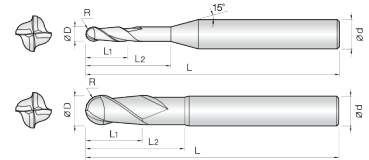
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- 规格多样化, 以便适应各种被削材形状, 在广泛的加工领域, 发挥出色寿命和性能



| Size  | D Tolerance   |
|-------|---------------|
| D ≤ 6 | +0 ~ -0.01mm  |
| D > 6 | +0 ~ -0.015mm |

単位/Unit: mm

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length of cut | 有効長<br>Effective Length | 全長<br>Overall Length | 柄径<br>Shank Dia |
|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | R×D            | L1                  | L2                      | L                    | d               |
| 4DBL 010 030 S04    | 0.5R X 1       | 3                   | -                       | 60                   | 4               |
| 4DBL 010 050 S04    | 0.5R X 1       | 3                   | 5                       | 60                   | 4               |
| 4DBL 010 100 S04    | 0.5R X 1       | 3                   | 10                      | 60                   | 4               |
| 4DBL 010 150 S04    | 0.5R X 1       | 3                   | 15                      | 60                   | 4               |
| 4DBL 010 200 S04    | 0.5R X 1       | 3                   | 20                      | 60                   | 4               |
| 4DBL 010 250 S04    | 0.5R X 1       | 3                   | 25                      | 60                   | 4               |
| 4DBL 015 045 S04    | 0.75R X 1.5    | 4.5                 | -                       | 60                   | 4               |
| 4DBL 015 100 S04    | 0.75R X 1.5    | 4.5                 | 10                      | 60                   | 4               |
| 4DBL 015 150 S04    | 0.75R X 1.5    | 4.5                 | 15                      | 60                   | 4               |
| 4DBL 015 200 S04    | 0.75R X 1.5    | 4.5                 | 20                      | 60                   | 4               |
| 4DBL 015 250 S04    | 0.75R X 1.5    | 4.5                 | 25                      | 60                   | 4               |
| 4DBL 020 060 S04    | 1R X 2         | 6                   | -                       | 60                   | 4               |
| 4DBL 020 100 S04    | 1R X 2         | 6                   | 10                      | 80                   | 4               |
| 4DBL 020 200 S04    | 1R X 2         | 6                   | 20                      | 80                   | 4               |
| 4DBL 020 300 S04    | 1R X 2         | 6                   | 30                      | 80                   | 4               |
| 4DBL 020 400 S04    | 1R X 2         | 6                   | 40                      | 80                   | 4               |
| 4DBL 030 080 S04    | 1.5R X 3       | 8                   | -                       | 60                   | 4               |
| 4DBL 030 150 S04    | 1.5R X 3       | 8                   | 15                      | 100                  | 4               |
| 4DBL 030 200 S04    | 1.5R X 3       | 8                   | 20                      | 100                  | 4               |
| 4DBL 030 300 S04    | 1.5R X 3       | 8                   | 30                      | 100                  | 4               |
| 4DBL 030 400 S04    | 1.5R X 3       | 8                   | 40                      | 100                  | 4               |
| 4DBL 030 500 S04    | 1.5R X 3       | 8                   | 50                      | 100                  | 4               |
| 4DBL 040 160 060    | 2R X 4         | 16                  | -                       | 60                   | 4               |
| 4DBL 040 160 080    | 2R X 4         | 16                  | -                       | 80                   | 4               |
| 4DBL 040 160 100    | 2R X 4         | 16                  | -                       | 100                  | 4               |
| 4DBL 040 160 130    | 2R X 4         | 16                  | -                       | 130                  | 4               |
| 4DBL 060 250 080    | 3R X 6         | 16                  | 25                      | 80                   | 6               |
| 4DBL 060 250 110    | 3R X 6         | 16                  | 25                      | 110                  | 6               |
| 4DBL 060 300 150    | 3R X 6         | 16                  | 30                      | 150                  | 6               |
| 4DBL 080 300 080    | 4R X 8         | 20                  | 30                      | 80                   | 8               |
| 4DBL 080 300 110    | 4R X 8         | 20                  | 30                      | 110                  | 8               |
| 4DBL 080 350 150    | 4R X 8         | 20                  | 35                      | 150                  | 8               |
| 4DBL 080 400 200    | 4R X 8         | 20                  | 40                      | 200                  | 8               |
| 4DBL 100 350 080    | 5R X 10        | 22                  | 35                      | 80                   | 10              |
| 4DBL 100 350 110    | 5R X 10        | 22                  | 35                      | 110                  | 10              |
| 4DBL 100 400 160    | 5R X 10        | 22                  | 40                      | 160                  | 10              |
| 4DBL 100 500 200    | 5R X 10        | 22                  | 50                      | 200                  | 10              |
| 4DBL 120 500 110    | 6R X 12        | 25                  | 50                      | 110                  | 12              |
| 4DBL 120 500 160    | 6R X 12        | 25                  | 50                      | 160                  | 12              |
| 4DBL 120 600 200    | 6R X 12        | 25                  | 60                      | 200                  | 12              |



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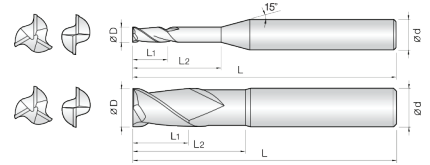
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|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | D              | L1                  | L2                      | L                    | d               |
| 2DLM 002 004 S04    | 0.2            | 0.4                 | -                       | 45                   | 4               |
| 2DLM 003 006 S04    | 0.3            | 0.6                 | -                       | 45                   | 4               |
| 2DLM 004 008 S04    | 0.4            | 0.8                 | -                       | 45                   | 4               |
| 2DLM 005 010 S04    | 0.5            | 1                   | -                       | 45                   | 4               |
| 2DLM 006 012 S04    | 0.6            | 1.2                 | -                       | 45                   | 4               |
| 2DLM 007 015 S04    | 0.7            | 1.5                 | -                       | 45                   | 4               |
| 2DLM 008 020 S04    | 0.8            | 2                   | -                       | 45                   | 4               |
| 2DLM 009 025 S04    | 0.9            | 2.5                 | -                       | 45                   | 4               |
| 2DLM 010 030 S04    | 1              | 3                   | -                       | 60                   | 4               |
| 2DLM 010 032 S04    | 1              | 3.2                 | -                       | 45                   | 4               |
| 2DLM 010 050 S04    | 1              | 3                   | 5                       | 60                   | 4               |
| 2DLM 010 100 S04    | 1              | 3                   | 10                      | 60                   | 4               |
| 2DLM 010 150 S04    | 1              | 3                   | 15                      | 60                   | 4               |
| 2DLM 010 200 S04    | 1              | 3                   | 20                      | 60                   | 4               |
| 2DLM 010 250 S04    | 1              | 3                   | 25                      | 60                   | 4               |
| 2DLM 015 060 S04    | 1.5            | 6                   | -                       | 60                   | 4               |
| 2DLM 015 100 S04    | 1.5            | 6                   | 10                      | 60                   | 4               |
| 2DLM 015 150 S04    | 1.5            | 6                   | 15                      | 60                   | 4               |
| 2DLM 015 200 S04    | 1.5            | 6                   | 20                      | 60                   | 4               |
| 2DLM 015 250 S04    | 1.5            | 6                   | 25                      | 60                   | 4               |
| 2DLM 020 060 S04    | 2              | 6                   | -                       | 45                   | 4               |
| 2DLM 020 080 S04    | 2              | 8                   | -                       | 80                   | 4               |
| 2DLM 020 120 S04    | 2              | 8                   | 12                      | 80                   | 4               |
| 2DLM 020 150 S04    | 2              | 8                   | 15                      | 80                   | 4               |
| 2DLM 020 200 S04    | 2              | 8                   | 20                      | 80                   | 4               |
| 2DLM 020 250 S04    | 2              | 8                   | 25                      | 80                   | 4               |
| 2DLM 020 300 S04    | 2              | 8                   | 30                      | 80                   | 4               |
| 2DLM 020 400 S04    | 2              | 8                   | 40                      | 80                   | 4               |
| 2DLM 030 090 S06    | 3              | 9                   | -                       | 50                   | 6               |
| 2DLM 030 120 S04    | 3              | 12                  | -                       | 80                   | 4               |
| 2DLM 030 200 S04    | 3              | 12                  | 20                      | 80                   | 4               |
| 2DLM 030 250 S04    | 3              | 12                  | 25                      | 80                   | 4               |
| 2DLM 030 300 S04    | 3              | 12                  | 30                      | 80                   | 4               |
| 2DLM 030 400 S04    | 3              | 12                  | 40                      | 80                   | 4               |
| 2DLM 040 120 S06    | 4              | 12                  | -                       | 50                   | 6               |
| 2DLM 040 160 080    | 4              | 16                  | -                       | 80                   | 4               |

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length of cut | 有効長<br>Effective Length | 全長<br>Overall Length | 柄径<br>Shank Dia |
|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | D              | L1                  | L2                      | L                    | d               |
| 2DLM 050 150 S06    | 5              | 15                  | -                       | 60                   | 6               |
| 2DLM 050 200 S06    | 5              | 20                  | -                       | 110                  | 6               |
| 2DLM 060 180 S06    | 6              | 18                  | -                       | 60                   | 6               |
| 2DLM 060 250 110    | 6              | 25                  | -                       | 110                  | 6               |
| 2DLM 060 250 150    | 6              | 25                  | -                       | 150                  | 6               |
| 2DLM 080 240 S08    | 8              | 24                  | -                       | 70                   | 8               |
| 2DLM 080 400 150    | 8              | 25                  | 40                      | 150                  | 8               |
| 2DLM 100 250 S10    | 10             | 25                  | -                       | 80                   | 10              |
| 2DLM 100 500 160    | 10             | 25                  | 50                      | 160                  | 10              |
| 2DLM 120 250 S12    | 12             | 25                  | -                       | 80                   | 12              |
| 2DLM 120 600 160    | 12             | 25                  | 60                      | 160                  | 12              |
| 3DLM 010 030 S04    | 1              | 3                   | -                       | 45                   | 4               |
| 3DLM 015 060 S04    | 1.5            | 6                   | -                       | 60                   | 4               |
| 3DLM 020 060 S04    | 2              | 6                   | -                       | 45                   | 4               |
| 3DLM 020 100 S04    | 2              | 10                  | -                       | 60                   | 4               |
| 3DLM 030 090 S06    | 3              | 9                   | -                       | 50                   | 6               |
| 3DLM 030 150 S03    | 3              | 15                  | -                       | 60                   | 3               |
| 3DLM 030 150 S04    | 3              | 15                  | -                       | 60                   | 4               |
| 3DLM 040 120 S06    | 4              | 12                  | -                       | 50                   | 6               |
| 3DLM 040 200 080    | 4              | 20                  | -                       | 80                   | 4               |
| 3DLM 060 180 060    | 6              | 18                  | -                       | 60                   | 6               |
| 3DLM 060 250 110    | 6              | 25                  | -                       | 110                  | 6               |
| 3DLM 060 250 150    | 6              | 25                  | -                       | 150                  | 6               |
| 3DLM 080 240 070    | 8              | 24                  | -                       | 70                   | 8               |
| 3DLM 080 350 110    | 8              | 35                  | -                       | 110                  | 8               |
| 3DLM 080 350 150    | 8              | 35                  | -                       | 150                  | 8               |
| 3DLM 100 250 080    | 10             | 25                  | -                       | 80                   | 10              |
| 3DLM 100 400 110    | 10             | 40                  | -                       | 110                  | 10              |
| 3DLM 100 500 160    | 10             | 50                  | -                       | 160                  | 10              |
| 3DLM 120 250 080    | 12             | 25                  | -                       | 80                   | 12              |
| 3DLM 120 450 110    | 12             | 45                  | -                       | 110                  | 12              |
| 3DLM 120 550 160    | 12             | 55                  | -                       | 160                  | 12              |

2&3DLM, Square





### 2 Flutes Diamond Coated Corner Radius End Mills for Graphite

Endmills for Graphite, reinforced plastic, carbon fiber, Non-ferrous and non-metallic materials.

- Wide range products prepared for various work shape and excellent performance.

### 2刃 黒鉛加工用 ダイヤモンド コーティング コーナー ラジウス エンドミル

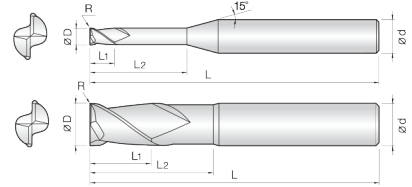
グラファイト(黒鉛), 強化プラスチック, 炭素繊維など 非鉄, 非金属材料の多様な 被削材 専用 エンドミル

- 多様な 被削材の形状に適用されるような規格を多様化して, 広い 加工領域で優れた寿命と性能を発揮します。

### 2刃 石墨加工用 金刚石涂层 锥形半径铣刀

石墨, 强化塑料, 碳素纤维等非铁, 非金属材料的多样被削材专用铣刀

- 规格多样化, 以便适应各种被削材形状, 在宽广的加工领域, 发挥出使用寿命和性能



| Size   | D Tolerance   |
|--------|---------------|
| D ≤ Ø6 | +0 ~ -0.01mm  |
| D > Ø6 | +0 ~ -0.015mm |

単位/Unit: mm

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全長<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     | D×R            | L1                     | L2                         | L                       | d                  |
| 2DLR 002 0002 015   | 0.2 X R0.02    | 0.5                    | 1.5                        | 60                      | 4                  |
| 2DLR 003 0002 015   | 0.3 X R0.02    | 0.6                    | 1.5                        | 60                      | 4                  |
| 2DLR 003 0002 030   | 0.3 X R0.02    | 0.6                    | 3                          | 60                      | 4                  |
| 2DLR 003 0002 045   | 0.3 X R0.02    | 0.6                    | 4.5                        | 60                      | 4                  |
| 2DLR 003 0002 060   | 0.3 X R0.02    | 0.6                    | 6                          | 60                      | 4                  |
| 2DLR 004 0002 020   | 0.4 X R0.02    | 0.8                    | 2                          | 60                      | 4                  |
| 2DLR 004 0002 040   | 0.4 X R0.02    | 0.8                    | 4                          | 60                      | 4                  |
| 2DLR 004 0002 060   | 0.4 X R0.02    | 0.8                    | 6                          | 60                      | 4                  |
| 2DLR 004 0002 080   | 0.4 X R0.02    | 0.8                    | 8                          | 60                      | 4                  |
| 2DLR 005 0005 010   | 0.5 X R0.05    | 1                      | -                          | 60                      | 4                  |
| 2DLR 005 0005 025   | 0.5 X R0.05    | 1                      | 2.5                        | 60                      | 4                  |
| 2DLR 005 0005 035   | 0.5 X R0.05    | 1                      | 3.5                        | 60                      | 4                  |
| 2DLR 005 0005 050   | 0.5 X R0.05    | 1                      | 5                          | 60                      | 4                  |
| 2DLR 005 0005 075   | 0.5 X R0.05    | 1                      | 7.5                        | 60                      | 4                  |
| 2DLR 005 0005 100   | 0.5 X R0.05    | 1                      | 10                         | 60                      | 4                  |
| 2DLR 006 0005 012   | 0.6 X R0.05    | 1.2                    | -                          | 60                      | 4                  |
| 2DLR 006 0005 030   | 0.6 X R0.05    | 1.2                    | 3                          | 60                      | 4                  |
| 2DLR 006 0005 060   | 0.6 X R0.05    | 1.2                    | 6                          | 60                      | 4                  |
| 2DLR 006 0005 090   | 0.6 X R0.05    | 1.2                    | 9                          | 60                      | 4                  |
| 2DLR 006 0005 120   | 0.6 X R0.05    | 1.2                    | 12                         | 60                      | 4                  |
| 2DLR 008 0005 016   | 0.8 X R0.05    | 1.6                    | -                          | 60                      | 4                  |
| 2DLR 008 0005 040   | 0.8 X R0.05    | 1.6                    | 4                          | 60                      | 4                  |
| 2DLR 008 0005 080   | 0.8 X R0.05    | 1.6                    | 8                          | 60                      | 4                  |
| 2DLR 008 0005 100   | 0.8 X R0.05    | 1.6                    | 10                         | 60                      | 4                  |
| 2DLR 008 0005 160   | 0.8 X R0.05    | 1.6                    | 16                         | 60                      | 4                  |
| 2DLR 010 0005 020   | 1 X R0.05      | 2                      | -                          | 60                      | 4                  |
| 2DLR 010 0005 050   | 1 X R0.05      | 2                      | 5                          | 60                      | 4                  |
| 2DLR 010 0005 100   | 1 X R0.05      | 2                      | 10                         | 60                      | 4                  |
| 2DLR 010 0005 150   | 1 X R0.05      | 2                      | 15                         | 60                      | 4                  |
| 2DLR 010 0005 200   | 1 X R0.05      | 2                      | 20                         | 60                      | 4                  |
| 2DLR 010 001 020    | 1 X R0.1       | 2                      | -                          | 60                      | 4                  |
| 2DLR 010 001 050    | 1 X R0.1       | 2                      | 5                          | 60                      | 4                  |
| 2DLR 010 001 100    | 1 X R0.1       | 2                      | 10                         | 60                      | 4                  |
| 2DLR 010 001 150    | 1 X R0.1       | 2                      | 15                         | 60                      | 4                  |
| 2DLR 010 001 200    | 1 X R0.1       | 2                      | 20                         | 60                      | 4                  |
| 2DLR 010 002 020    | 1 X R0.2       | 2                      | -                          | 60                      | 4                  |

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全長<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     | D×R            | L1                     | L2                         | L                       | d                  |
| 2DLR 010 002 050    | 1 X R0.2       | 2                      | 5                          | 60                      | 4                  |
| 2DLR 010 002 100    | 1 X R0.2       | 2                      | 10                         | 60                      | 4                  |
| 2DLR 010 002 150    | 1 X R0.2       | 2                      | 15                         | 60                      | 4                  |
| 2DLR 010 002 200    | 1 X R0.2       | 2                      | 20                         | 60                      | 4                  |
| 2DLR 015 0005 030   | 1.5 X R0.05    | 3                      | -                          | 60                      | 4                  |
| 2DLR 015 0005 050   | 1.5 X R0.05    | 3                      | 5                          | 60                      | 4                  |
| 2DLR 015 0005 100   | 1.5 X R0.05    | 3                      | 10                         | 60                      | 4                  |
| 2DLR 015 0005 150   | 1.5 X R0.05    | 3                      | 15                         | 60                      | 4                  |
| 2DLR 015 0005 200   | 1.5 X R0.05    | 3                      | 20                         | 60                      | 4                  |
| 2DLR 015 001 030    | 1.5 X R0.1     | 3                      | -                          | 60                      | 4                  |
| 2DLR 015 001 050    | 1.5 X R0.1     | 3                      | 5                          | 60                      | 4                  |
| 2DLR 015 001 100    | 1.5 X R0.1     | 3                      | 10                         | 60                      | 4                  |
| 2DLR 015 001 150    | 1.5 X R0.1     | 3                      | 15                         | 60                      | 4                  |
| 2DLR 015 001 200    | 1.5 X R0.1     | 3                      | 20                         | 60                      | 4                  |
| 2DLR 015 0015 030   | 1.5 X R0.15    | 3                      | -                          | 60                      | 4                  |
| 2DLR 015 0015 050   | 1.5 X R0.15    | 3                      | 5                          | 60                      | 4                  |
| 2DLR 015 0015 100   | 1.5 X R0.15    | 3                      | 10                         | 60                      | 4                  |
| 2DLR 015 0015 150   | 1.5 X R0.15    | 3                      | 15                         | 60                      | 4                  |
| 2DLR 015 0015 200   | 1.5 X R0.15    | 3                      | 20                         | 60                      | 4                  |
| 2DLR 015 002 030    | 1.5 X R0.2     | 3                      | -                          | 60                      | 4                  |
| 2DLR 015 002 050    | 1.5 X R0.2     | 3                      | 5                          | 60                      | 4                  |
| 2DLR 015 002 100    | 1.5 X R0.2     | 3                      | 10                         | 60                      | 4                  |
| 2DLR 015 002 150    | 1.5 X R0.2     | 3                      | 15                         | 60                      | 4                  |
| 2DLR 015 002 200    | 1.5 X R0.2     | 3                      | 20                         | 60                      | 4                  |
| 2DLR 015 003 030    | 1.5 X R0.3     | 3                      | -                          | 60                      | 4                  |
| 2DLR 015 003 050    | 1.5 X R0.3     | 3                      | 5                          | 60                      | 4                  |
| 2DLR 015 003 100    | 1.5 X R0.3     | 3                      | 10                         | 60                      | 4                  |
| 2DLR 015 003 150    | 1.5 X R0.3     | 3                      | 15                         | 60                      | 4                  |
| 2DLR 015 003 200    | 1.5 X R0.3     | 3                      | 20                         | 60                      | 4                  |
| 2DLR 020 0005 035   | 2 X R0.05      | 3.5                    | -                          | 60                      | 4                  |
| 2DLR 020 0005 060   | 2 X R0.05      | 3.5                    | 6                          | 60                      | 4                  |
| 2DLR 020 0005 120   | 2 X R0.05      | 3.5                    | 12                         | 60                      | 4                  |
| 2DLR 020 0005 180   | 2 X R0.05      | 3.5                    | 18                         | 60                      | 4                  |
| 2DLR 020 0005 250   | 2 X R0.05      | 3.5                    | 25                         | 60                      | 4                  |
| 2DLR 020 0005 300   | 2 X R0.05      | 3.5                    | 30                         | 60                      | 4                  |
| 2DLR 020 002 035    | 2 X R0.2       | 3.5                    | -                          | 60                      | 4                  |



002-02

03-06

单位/Unit : mm

2DLR\_Corner

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全长<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     |                |                        |                            |                         |                    |
| 2DLR 020 002 060    | 2 X R0.2       | 3.5                    | 6                          | 60                      | 4                  |
| 2DLR 020 002 120    | 2 X R0.2       | 3.5                    | 12                         | 60                      | 4                  |
| 2DLR 020 002 180    | 2 X R0.2       | 3.5                    | 18                         | 60                      | 4                  |
| 2DLR 020 002 250    | 2 X R0.2       | 3.5                    | 25                         | 60                      | 4                  |
| 2DLR 020 002 300    | 2 X R0.2       | 3.5                    | 30                         | 60                      | 4                  |
| 2DLR 020 003 035    | 2 X R0.3       | 3.5                    | -                          | 60                      | 4                  |
| 2DLR 020 003 060    | 2 X R0.3       | 3.5                    | 6                          | 60                      | 4                  |
| 2DLR 020 003 120    | 2 X R0.3       | 3.5                    | 12                         | 60                      | 4                  |
| 2DLR 020 003 180    | 2 X R0.3       | 3.5                    | 18                         | 60                      | 4                  |
| 2DLR 020 003 250    | 2 X R0.3       | 3.5                    | 25                         | 60                      | 4                  |
| 2DLR 020 003 300    | 2 X R0.3       | 3.5                    | 30                         | 60                      | 4                  |
| 2DLR 020 005 035    | 2 X R0.5       | 3.5                    | -                          | 60                      | 4                  |
| 2DLR 020 005 060    | 2 X R0.5       | 3.5                    | 6                          | 60                      | 4                  |
| 2DLR 020 005 120    | 2 X R0.5       | 3.5                    | 12                         | 60                      | 4                  |
| 2DLR 020 005 180    | 2 X R0.5       | 3.5                    | 18                         | 60                      | 4                  |
| 2DLR 020 005 250    | 2 X R0.5       | 3.5                    | 25                         | 60                      | 4                  |
| 2DLR 020 005 300    | 2 X R0.5       | 3.5                    | 30                         | 60                      | 4                  |
| 2DLR 030 0005 040   | 3 X R0.05      | 4                      | -                          | 80                      | 4                  |
| 2DLR 030 0005 100   | 3 X R0.05      | 4                      | 10                         | 80                      | 4                  |
| 2DLR 030 0005 200   | 3 X R0.05      | 4                      | 20                         | 80                      | 4                  |
| 2DLR 030 0005 300   | 3 X R0.05      | 4                      | 30                         | 80                      | 4                  |
| 2DLR 030 0005 400   | 3 X R0.05      | 4                      | 40                         | 80                      | 4                  |
| 2DLR 030 002 040    | 3 X R0.2       | 4                      | -                          | 80                      | 4                  |
| 2DLR 030 002 100    | 3 X R0.2       | 4                      | 10                         | 80                      | 4                  |
| 2DLR 030 002 200    | 3 X R0.2       | 4                      | 20                         | 80                      | 4                  |
| 2DLR 030 002 300    | 3 X R0.2       | 4                      | 30                         | 80                      | 4                  |
| 2DLR 030 002 400    | 3 X R0.2       | 4                      | 40                         | 80                      | 4                  |
| 2DLR 030 003 040    | 3 X R0.3       | 4                      | -                          | 80                      | 4                  |
| 2DLR 030 003 100    | 3 X R0.3       | 4                      | 10                         | 80                      | 4                  |
| 2DLR 030 003 200    | 3 X R0.3       | 4                      | 20                         | 80                      | 4                  |
| 2DLR 030 003 300    | 3 X R0.3       | 4                      | 30                         | 80                      | 4                  |
| 2DLR 030 003 400    | 3 X R0.3       | 4                      | 40                         | 80                      | 4                  |
| 2DLR 030 005 040    | 3 X R0.5       | 4                      | -                          | 80                      | 4                  |
| 2DLR 030 005 100    | 3 X R0.5       | 4                      | 10                         | 80                      | 4                  |
| 2DLR 030 005 200    | 3 X R0.5       | 4                      | 20                         | 80                      | 4                  |
| 2DLR 030 005 300    | 3 X R0.5       | 4                      | 30                         | 80                      | 4                  |
| 2DLR 030 005 400    | 3 X R0.5       | 4                      | 40                         | 80                      | 4                  |
| 2DLR 030 010 040    | 3 X R1         | 4                      | -                          | 80                      | 4                  |
| 2DLR 030 010 100    | 3 X R1         | 4                      | 10                         | 80                      | 4                  |
| 2DLR 030 010 200    | 3 X R1         | 4                      | 20                         | 80                      | 4                  |
| 2DLR 030 010 300    | 3 X R1         | 4                      | 30                         | 80                      | 4                  |
| 2DLR 030 010 400    | 3 X R1         | 4                      | 40                         | 80                      | 4                  |
| 2DLR 040 0005 050   | 4 X R0.05      | 5                      | -                          | 80                      | 4                  |
| 2DLR 040 0005 150   | 4 X R0.05      | 5                      | 15                         | 80                      | 4                  |
| 2DLR 040 0005 250   | 4 X R0.05      | 5                      | 25                         | 80                      | 4                  |
| 2DLR 040 0005 400   | 4 X R0.05      | 5                      | 40                         | 80                      | 4                  |

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length<br>of cut | 有効長<br>Effective<br>Length | 全长<br>Overall<br>Length | 柄径<br>Shank<br>Dia |
|---------------------|----------------|------------------------|----------------------------|-------------------------|--------------------|
|                     |                |                        |                            |                         |                    |
| 2DLR 040 002 050    | 4 X R0.2       | 5                      | -                          | 80                      | 4                  |
| 2DLR 040 002 150    | 4 X R0.2       | 5                      | 15                         | 80                      | 4                  |
| 2DLR 040 002 250    | 4 X R0.2       | 5                      | 25                         | 80                      | 4                  |
| 2DLR 040 002 400    | 4 X R0.2       | 5                      | 40                         | 80                      | 4                  |
| 2DLR 040 005 050    | 4 X R0.5       | 5                      | -                          | 80                      | 4                  |
| 2DLR 040 005 150    | 4 X R0.5       | 5                      | 15                         | 80                      | 4                  |
| 2DLR 040 005 250    | 4 X R0.5       | 5                      | 25                         | 80                      | 4                  |
| 2DLR 040 005 400    | 4 X R0.5       | 5                      | 40                         | 80                      | 4                  |
| 2DLR 040 010 050    | 4 X R1         | 5                      | -                          | 80                      | 4                  |
| 2DLR 040 010 150    | 4 X R1         | 5                      | 15                         | 80                      | 4                  |
| 2DLR 040 010 250    | 4 X R1         | 5                      | 25                         | 80                      | 4                  |
| 2DLR 040 010 400    | 4 X R1         | 5                      | 40                         | 80                      | 4                  |
| 2DLR 050 0005 060   | 5 X R0.05      | 6                      | -                          | 110                     | 6                  |
| 2DLR 050 0005 150   | 5 X R0.05      | 6                      | 15                         | 110                     | 6                  |
| 2DLR 050 0005 300   | 5 X R0.05      | 6                      | 30                         | 110                     | 6                  |
| 2DLR 050 0005 500   | 5 X R0.05      | 6                      | 50                         | 110                     | 6                  |
| 2DLR 050 002 060    | 5 X R0.2       | 6                      | -                          | 110                     | 6                  |
| 2DLR 050 002 150    | 5 X R0.2       | 6                      | 15                         | 110                     | 6                  |
| 2DLR 050 002 300    | 5 X R0.2       | 6                      | 30                         | 110                     | 6                  |
| 2DLR 050 002 500    | 5 X R0.2       | 6                      | 50                         | 110                     | 6                  |
| 2DLR 050 005 060    | 5 X R0.5       | 6                      | -                          | 110                     | 6                  |
| 2DLR 050 005 150    | 5 X R0.5       | 6                      | 15                         | 110                     | 6                  |
| 2DLR 050 005 300    | 5 X R0.5       | 6                      | 30                         | 110                     | 6                  |
| 2DLR 050 005 500    | 5 X R0.5       | 6                      | 50                         | 110                     | 6                  |
| 2DLR 060 0005 070   | 6 X R0.05      | 7                      | -                          | 110                     | 6                  |
| 2DLR 060 0005 200   | 6 X R0.05      | 7                      | 20                         | 110                     | 6                  |
| 2DLR 060 0005 300   | 6 X R0.05      | 7                      | 30                         | 110                     | 6                  |
| 2DLR 060 0005 500   | 6 X R0.05      | 7                      | 50                         | 110                     | 6                  |
| 2DLR 060 002 070    | 6 X R0.2       | 7                      | -                          | 110                     | 6                  |
| 2DLR 060 002 200    | 6 X R0.2       | 7                      | 20                         | 110                     | 6                  |
| 2DLR 060 002 300    | 6 X R0.2       | 7                      | 30                         | 110                     | 6                  |
| 2DLR 060 002 500    | 6 X R0.2       | 7                      | 50                         | 110                     | 6                  |
| 2DLR 060 005 070    | 6 X R0.5       | 7                      | -                          | 110                     | 6                  |
| 2DLR 060 005 200    | 6 X R0.5       | 7                      | 20                         | 110                     | 6                  |
| 2DLR 060 005 300    | 6 X R0.5       | 7                      | 30                         | 110                     | 6                  |
| 2DLR 060 005 500    | 6 X R0.5       | 7                      | 50                         | 110                     | 6                  |
| 2DLR 060 010 070    | 6 X R1         | 7                      | -                          | 110                     | 6                  |
| 2DLR 060 010 200    | 6 X R1         | 7                      | 20                         | 110                     | 6                  |
| 2DLR 060 010 300    | 6 X R1         | 7                      | 30                         | 110                     | 6                  |
| 2DLR 060 010 500    | 6 X R1         | 7                      | 50                         | 110                     | 6                  |





02-012

### 4 Flutes Diamond Coated Corner Radius End Mills for Graphite

Endmills for Graphite, reinforced plastic, carbon fiber, Non-ferrous and non-metallic materials.

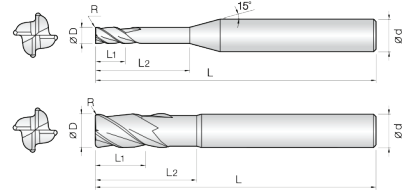
- Wide range products prepared for various work shape and excellent performance.



### 4刃 黒鉛加工用 ダイヤモンド コーティング コーナー ラジウス エンドミル

グラファイト(黒鉛), 強化プラスチック, 炭素繊維など 非鉄/非金属 系列の多様な 被削材 専用 エンドミル

- 多様な 被削材の形状に適用されるような規格を多様化して, 広い加工領域で優れた寿命と性能を発揮します。



### 4刃石墨加工用金刚石涂层锥形半径铣刀

石墨, 强化塑料, 碳素纤维等非铁, 非金属系列的多样被削材专用铣刀

- 规格多样化, 以便适应各种被削材形状, 在广泛的加工领域, 发挥出色寿命和性能

| Size   | D Tolerance   |
|--------|---------------|
| D ≤ Ø6 | +0 ~ -0.01mm  |
| D > Ø6 | +0 ~ -0.015mm |

单位/Unit : mm

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length of cut | 有効長<br>Effective Length | 全長<br>Overall Length | 柄径<br>Shank Dia |
|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | D×R            | L1                  | L2                      | L                    | d               |
| 4DLR 020 0005 035   | 2 X R0.05      | 3.5                 | -                       | 60                   | 4               |
| 4DLR 020 0005 060   | 2 X R0.05      | 3.5                 | 6                       | 60                   | 4               |
| 4DLR 020 0005 120   | 2 X R0.05      | 3.5                 | 12                      | 60                   | 4               |
| 4DLR 020 0005 180   | 2 X R0.05      | 3.5                 | 18                      | 60                   | 4               |
| 4DLR 020 0005 250   | 2 X R0.05      | 3.5                 | 25                      | 60                   | 4               |
| 4DLR 020 0005 300   | 2 X R0.05      | 3.5                 | 30                      | 60                   | 4               |
| 4DLR 020 002 035    | 2 X R0.2       | 3.5                 | -                       | 60                   | 4               |
| 4DLR 020 002 060    | 2 X R0.2       | 3.5                 | 6                       | 60                   | 4               |
| 4DLR 020 002 120    | 2 X R0.2       | 3.5                 | 12                      | 60                   | 4               |
| 4DLR 020 002 180    | 2 X R0.2       | 3.5                 | 18                      | 60                   | 4               |
| 4DLR 020 002 250    | 2 X R0.2       | 3.5                 | 25                      | 60                   | 4               |
| 4DLR 020 002 300    | 2 X R0.2       | 3.5                 | 30                      | 60                   | 4               |
| 4DLR 020 003 035    | 2 X R0.3       | 3.5                 | -                       | 60                   | 4               |
| 4DLR 020 003 060    | 2 X R0.3       | 3.5                 | 6                       | 60                   | 4               |
| 4DLR 020 003 120    | 2 X R0.3       | 3.5                 | 12                      | 60                   | 4               |
| 4DLR 020 003 180    | 2 X R0.3       | 3.5                 | 18                      | 60                   | 4               |
| 4DLR 020 003 250    | 2 X R0.3       | 3.5                 | 25                      | 60                   | 4               |
| 4DLR 020 003 300    | 2 X R0.3       | 3.5                 | 30                      | 60                   | 4               |
| 4DLR 020 005 035    | 2 X R0.5       | 3.5                 | -                       | 60                   | 4               |
| 4DLR 020 005 060    | 2 X R0.5       | 3.5                 | 6                       | 60                   | 4               |
| 4DLR 020 005 120    | 2 X R0.5       | 3.5                 | 12                      | 60                   | 4               |
| 4DLR 020 005 180    | 2 X R0.5       | 3.5                 | 18                      | 60                   | 4               |
| 4DLR 020 005 250    | 2 X R0.5       | 3.5                 | 25                      | 60                   | 4               |
| 4DLR 020 005 300    | 2 X R0.5       | 3.5                 | 30                      | 60                   | 4               |
| 4DLR 030 0005 040   | 3 X R0.05      | 4                   | -                       | 80                   | 4               |
| 4DLR 030 0005 100   | 3 X R0.05      | 4                   | 10                      | 80                   | 4               |
| 4DLR 030 0005 200   | 3 X R0.05      | 4                   | 20                      | 80                   | 4               |
| 4DLR 030 0005 300   | 3 X R0.05      | 4                   | 30                      | 80                   | 4               |
| 4DLR 030 0005 400   | 3 X R0.05      | 4                   | 40                      | 80                   | 4               |
| 4DLR 030 002 040    | 3 X R0.2       | 4                   | -                       | 80                   | 4               |
| 4DLR 030 002 100    | 3 X R0.2       | 4                   | 10                      | 80                   | 4               |
| 4DLR 030 002 200    | 3 X R0.2       | 4                   | 20                      | 80                   | 4               |
| 4DLR 030 002 300    | 3 X R0.2       | 4                   | 30                      | 80                   | 4               |
| 4DLR 030 002 400    | 3 X R0.2       | 4                   | 40                      | 80                   | 4               |
| 4DLR 030 003 040    | 3 X R0.3       | 4                   | -                       | 80                   | 4               |
| 4DLR 030 003 100    | 3 X R0.3       | 4                   | 10                      | 80                   | 4               |

| 订货号<br>Order Number | 刃径<br>Diameter | 刃長<br>Length of cut | 有効長<br>Effective Length | 全長<br>Overall Length | 柄径<br>Shank Dia |
|---------------------|----------------|---------------------|-------------------------|----------------------|-----------------|
|                     | D×R            | L1                  | L2                      | L                    | d               |
| 4DLR 030 003 200    | 3 X R0.3       | 4                   | 20                      | 80                   | 4               |
| 4DLR 030 003 300    | 3 X R0.3       | 4                   | 30                      | 80                   | 4               |
| 4DLR 030 003 400    | 3 X R0.3       | 4                   | 40                      | 80                   | 4               |
| 4DLR 030 005 040    | 3 X R0.5       | 4                   | -                       | 80                   | 4               |
| 4DLR 030 005 100    | 3 X R0.5       | 4                   | 10                      | 80                   | 4               |
| 4DLR 030 005 200    | 3 X R0.5       | 4                   | 20                      | 80                   | 4               |
| 4DLR 030 005 300    | 3 X R0.5       | 4                   | 30                      | 80                   | 4               |
| 4DLR 030 005 400    | 3 X R0.5       | 4                   | 40                      | 80                   | 4               |
| 4DLR 030 010 040    | 3 X R1         | 4                   | -                       | 80                   | 4               |
| 4DLR 030 010 100    | 3 X R1         | 4                   | 10                      | 80                   | 4               |
| 4DLR 030 010 200    | 3 X R1         | 4                   | 20                      | 80                   | 4               |
| 4DLR 030 010 300    | 3 X R1         | 4                   | 30                      | 80                   | 4               |
| 4DLR 030 010 400    | 3 X R1         | 4                   | 40                      | 80                   | 4               |
| 4DLR 040 003 100    | 4 X R0.3       | 6                   | 20                      | 100                  | 4               |
| 4DLR 040 005 100    | 4 X R0.5       | 6                   | 20                      | 100                  | 4               |
| 4DLR 040 010 100    | 4 X R1         | 6                   | 20                      | 100                  | 4               |
| 4DLR 060 003 110    | 6 X R0.3       | 9                   | 25                      | 110                  | 6               |
| 4DLR 060 005 110    | 6 X R0.5       | 9                   | 25                      | 110                  | 6               |
| 4DLR 060 005 150    | 6 X R0.5       | 9                   | 30                      | 150                  | 6               |
| 4DLR 060 010 110    | 6 X R1         | 9                   | 25                      | 110                  | 6               |
| 4DLR 060 010 150    | 6 X R1         | 9                   | 30                      | 150                  | 6               |
| 4DLR 080 003 110    | 8 X R0.3       | 12                  | 30                      | 110                  | 8               |
| 4DLR 080 005 110    | 8 X R0.5       | 12                  | 30                      | 110                  | 8               |
| 4DLR 080 005 150    | 8 X R0.5       | 12                  | 40                      | 150                  | 8               |
| 4DLR 080 010 110    | 8 X R1         | 12                  | 30                      | 110                  | 8               |
| 4DLR 080 010 150    | 8 X R1         | 12                  | 40                      | 150                  | 8               |
| 4DLR 100 005 110    | 10 X R0.5      | 15                  | 35                      | 110                  | 10              |
| 4DLR 100 005 160    | 10 X R0.5      | 15                  | 45                      | 160                  | 10              |
| 4DLR 100 010 110    | 10 X R1        | 15                  | 35                      | 110                  | 10              |
| 4DLR 100 010 160    | 10 X R1        | 15                  | 45                      | 160                  | 10              |
| 4DLR 120 005 110    | 12 X R0.5      | 18                  | 40                      | 110                  | 12              |
| 4DLR 120 005 160    | 12 X R0.5      | 18                  | 45                      | 160                  | 12              |
| 4DLR 120 010 110    | 12 X R1        | 18                  | 40                      | 110                  | 12              |
| 4DLR 120 010 160    | 12 X R1        | 18                  | 45                      | 160                  | 12              |

# 2DBL/3DBL/4DBL

• RPM : rev./min • Feed : mm/min

| Material | 2DBL/3DBL |       | 4DBL     |       |
|----------|-----------|-------|----------|-------|
|          | Graphite  |       | Graphite |       |
| Radius   | RPM       | FEED  | RPM      | FEED  |
| R0.2     | 40,000    | 1,200 | -        | -     |
| R0.3     | 40,000    | 1,600 | -        | -     |
| R0.4     | 40,000    | 1,800 | -        | -     |
| R0.5     | 40,000    | 2,000 | -        | -     |
| R1       | 40,000    | 2,200 | -        | -     |
| R1.5     | 30,000    | 2,400 | -        | -     |
| R2       | 24,000    | 2,600 | 24,000   | 3,600 |
| R2.5     | 19,000    | 2,600 | 19,000   | 3,600 |
| R3       | 16,000    | 2,600 | 16,000   | 3,600 |
| R4       | 12,000    | 2,800 | 12,000   | 3,800 |
| R5       | 10,000    | 3,000 | 10,000   | 4,000 |
| R6       | 8,000     | 3,000 | 8,000    | 4,000 |

|              |  |  |
|--------------|--|--|
| Depth of Cut |  |  |
|--------------|--|--|

4DLR, Corner

# 2DLM/3DLM/4DLM/6DLM/2DLR/4DLR

• RPM : rev./min • Feed : mm/min

| Material         | 2DLM/3DLM |      | 4DLM     |       | 6DLM     |       | 2DLR     |       | 4DLR     |       |
|------------------|-----------|------|----------|-------|----------|-------|----------|-------|----------|-------|
|                  | Graphite  |      | Graphite |       | Graphite |       | Graphite |       | Graphite |       |
| Outside Diameter | RPM       | FEED | RPM      | FEED  | RPM      | FEED  | RPM      | FEED  | RPM      | FEED  |
| 0.2mm            | 40,000    | 50   | -        | -     | -        | -     | 40,000   | 100   | -        | -     |
| 0.4mm            | 40,000    | 100  | -        | -     | -        | -     | 40,000   | 200   | -        | -     |
| 0.5mm            | 40,000    | 200  | -        | -     | -        | -     | 40,000   | 300   | -        | -     |
| 0.6mm            | 40,000    | 250  | -        | -     | -        | -     | 40,000   | 400   | -        | -     |
| 0.8mm            | 40,000    | 300  | -        | -     | -        | -     | 40,000   | 500   | -        | -     |
| 1mm              | 40,000    | 400  | -        | -     | -        | -     | 40,000   | 900   | -        | -     |
| 2mm              | 30,000    | 470  | 30,000   | 800   | -        | -     | 36,000   | 900   | -        | -     |
| 3mm              | 21,000    | 640  | 21,000   | 1,200 | -        | -     | 32,000   | 1,300 | -        | -     |
| 4mm              | 16,000    | 540  | 16,000   | 1,200 | -        | -     | 26,000   | 1,500 | 40,000   | 3,500 |
| 5mm              | 12,500    | 560  | -        | -     | -        | -     | 24,000   | 1,100 | -        | -     |
| 6mm              | 10,500    | 590  | 10,500   | 1,200 | -        | -     | 21,000   | 1,100 | 40,000   | 5,600 |
| 8mm              | 8,000     | 610  | 8,000    | 1,250 | -        | -     | -        | -     | 32,000   | 5,600 |
| 10mm             | 6,400     | 640  | -        | -     | 13,000   | 6,000 | -        | -     | 26,000   | 5,700 |
| 12mm             | 5,300     | 630  | -        | -     | 11,200   | 5,600 | -        | -     | 21,000   | 5,500 |
| 16mm             | -         | -    | -        | -     | 7,000    | 4,000 | -        | -     | 15,800   | 5,500 |

| Depth of Cut                | <table border="1"> <tr> <th>D</th> <th>Ap</th> <th>Ae</th> </tr> <tr> <td><math>D_c \leq \varnothing 0.2R</math></td> <td>1.5D</td> <td>0.05D</td> </tr> <tr> <td><math>\varnothing 2.5 &lt; D_c</math></td> <td>1.5D</td> <td>0.1D</td> </tr> </table> |       |    | D | Ap | Ae | $D_c \leq \varnothing 0.2R$ | 1.5D | 0.05D | $\varnothing 2.5 < D_c$ | 1.5D | 0.1D |  |  |
|-----------------------------|---|-------|----|---|----|----|-----------------------------|------|-------|-------------------------|------|------|--|--|
|                             | D   | Ap    | Ae |   |    |    |                             |      |       |                         |      |      |  |  |
| $D_c \leq \varnothing 0.2R$ | 1.5D  | 0.05D |    |   |    |    |                             |      |       |                         |      |      |  |  |
| $\varnothing 2.5 < D_c$     | 1.5D  | 0.1D  |    |   |    |    |                             |      |       |                         |      |      |  |  |