

# NPN

New Product News



## DRILLSFEED

INDEXABLE 3 FLUTE

### Head Changeable 3-Flute Drill for Higher Productivity



## KEY POINT

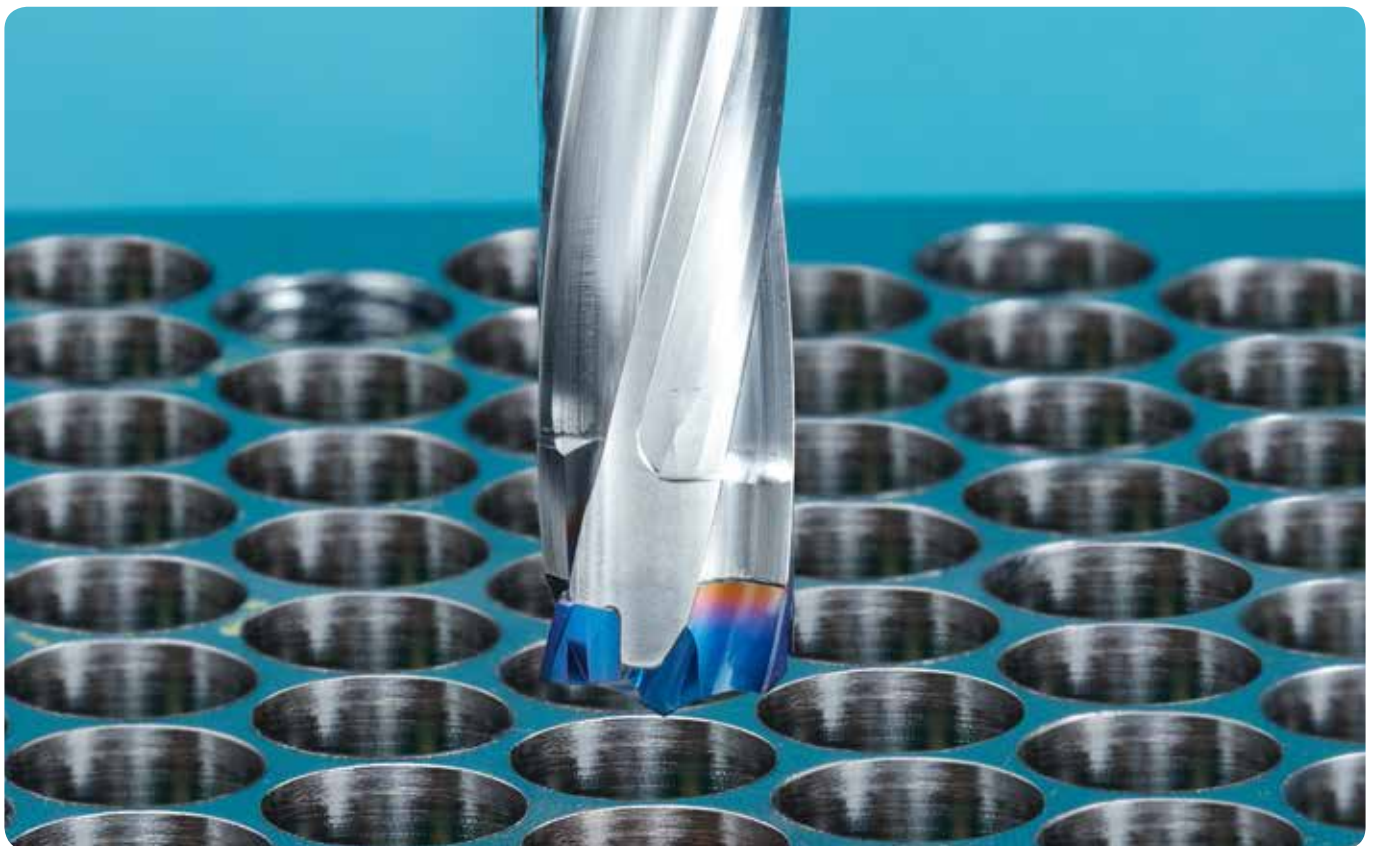
TaeguTec has introduced the **DRILL-SFEED**, a new head changeable 3-flute drill.

TaeguTec's DRILLRUSH line, which has been meeting customer's needs with outstanding machining and convenience, has released a 3-flute drill with upgraded clamping structure designed to maximize productivity.

The **DRILL-SFEED** uses unique, self-centering features, unlike conventional 3-flute carbide drills, to ensure superior performance and machining stability in high-speed machining. It also provides optimal solutions for customers to reduce costs by improving tool life as well as achieving high productivity due to its strong cutting edges and the latest coating technology.

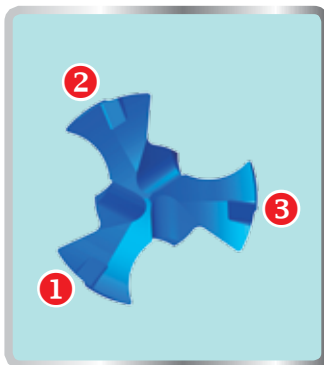
The original clamping structure allows for the simple replacement of drill heads, as well as varying sizes of heads onto a single tool body, thus facilitating economical end user drill stock management.

For further technical questions, please contact TaeguTec's product manager.



## Features

- 3-flute geometry improves productivity by more than 50%
- Highest machining stability due to its unique edge geometry
  - Excellent hole precision due to its superior self-centering capability
  - Reduced cutting load
  - Internal coolant through type means smooth chip evacuation
- The latest coating grade for excellent tool life
- Simplified drill head exchanging for reduced downtime
- Suitable for steel and cast iron machining
- Drill diameter range: 16.0 - 20.5 mm (0.5 mm units)



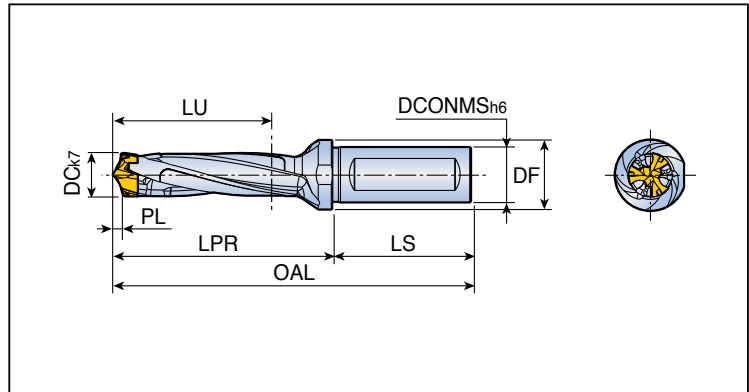
## 3ED...T...-3D



### Head changeable 3-flute drill holders - Weldon type shank



- Drilling depth: 3xdiameter



| Designation                | Dimension (mm) |        |    |    |      |    |      |     | Clamping key  |
|----------------------------|----------------|--------|----|----|------|----|------|-----|---------------|
|                            | DC             | DCONMS | DF | LU | LPR  | LS | PL   | SSC |               |
| <b>3ED 160-169-20T3-3D</b> | 16.0-16.9      | 20     | 25 | 52 | 79.0 | 50 | 3.70 | 16  | K 3ED D16-D17 |
| <b>170-179-20T3-3D</b>     | 17.0-17.9      | 20     | 25 | 55 | 84.0 | 50 | 3.88 | 17  | K 3ED D16-D17 |
| <b>180-189-25T2-3D</b>     | 18.0-18.9      | 25     | 32 | 58 | 90.1 | 56 | 4.07 | 18  | K 3ED D18-D19 |
| <b>190-199-25T2-3D</b>     | 19.0-19.9      | 25     | 32 | 61 | 94.7 | 56 | 4.26 | 19  | K 3ED D18-D19 |
| <b>200-209-25T2-3D</b>     | 20.0-20.9      | 25     | 32 | 64 | 99.3 | 56 | 4.44 | 20  | K 3ED D20-D21 |

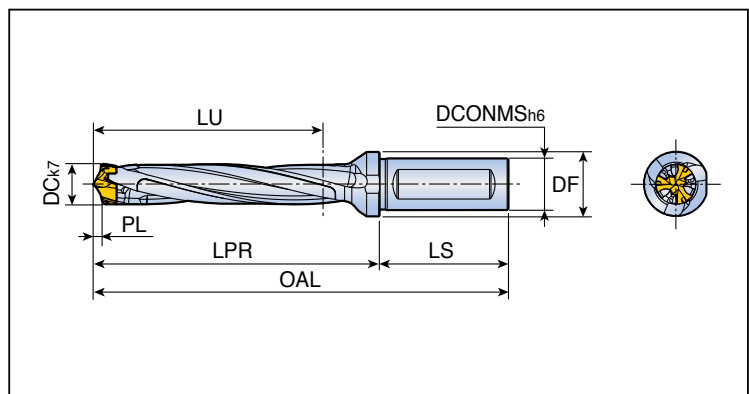
## 3ED...T...-5D



### Head changeable 3-flute drill holders - Weldon type shank



- Drilling depth: 5xdiameter



| Designation                | Dimension (mm) |        |    |     |       |    |      |     | Clamping key  |
|----------------------------|----------------|--------|----|-----|-------|----|------|-----|---------------|
|                            | DC             | DCONMS | DF | LU  | LPR   | LS | PL   | SSC |               |
| <b>3ED 160-169-20T3-5D</b> | 16.0-16.9      | 20     | 25 | 84  | 111.0 | 50 | 3.70 | 16  | K 3ED D16-D17 |
| <b>170-179-20T3-5D</b>     | 17.0-17.9      | 20     | 25 | 89  | 118.0 | 50 | 3.88 | 17  | K 3ED D16-D17 |
| <b>180-189-25T2-5D</b>     | 18.0-18.9      | 25     | 32 | 94  | 126.1 | 56 | 4.07 | 18  | K 3ED D18-D19 |
| <b>190-199-25T2-5D</b>     | 19.0-19.9      | 25     | 32 | 99  | 132.7 | 56 | 4.26 | 19  | K 3ED D18-D19 |
| <b>200-209-25T2-5D</b>     | 20.0-20.9      | 25     | 32 | 104 | 139.3 | 56 | 4.44 | 20  | K 3ED D20-D21 |

- OAL= LPR+LS
- SSC: Seat size code

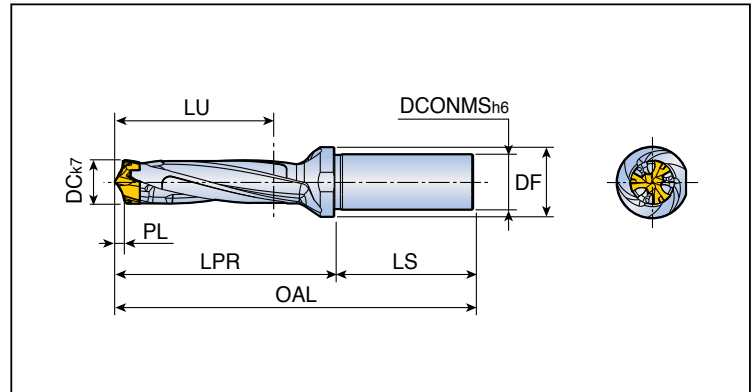
## 3ED...T0...-3D



### Head changeable 3-flute drill holders - Cylindrical type shank



- Drilling depth: 3xdiameter



| Designation                | Dimension (mm) |        |    |    |      |    |      |     | Clamping key  |
|----------------------------|----------------|--------|----|----|------|----|------|-----|---------------|
|                            | DC             | DCONMS | DF | LU | LPR  | LS | PL   | SSC |               |
| <b>3ED 160-169-20T0-3D</b> | 16.0-16.9      | 20     | 25 | 52 | 79.0 | 50 | 3.70 | 16  | K 3ED D16-D17 |
| <b>170-179-20T0-3D</b>     | 17.0-17.9      | 20     | 25 | 55 | 84.0 | 50 | 3.88 | 17  | K 3ED D16-D17 |
| <b>180-189-25T0-3D</b>     | 18.0-18.9      | 25     | 32 | 58 | 90.1 | 56 | 4.07 | 18  | K 3ED D18-D19 |
| <b>190-199-25T0-3D</b>     | 19.0-19.9      | 25     | 32 | 61 | 94.7 | 56 | 4.26 | 19  | K 3ED D18-D19 |
| <b>200-209-25T0-3D</b>     | 20.0-20.9      | 25     | 32 | 64 | 99.3 | 56 | 4.44 | 20  | K 3ED D20-D21 |

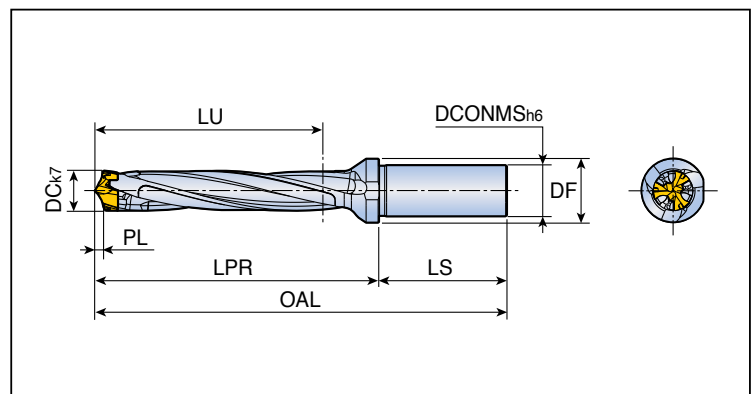
## 3ED...T0...-5D



### Head changeable 3-flute drill holders - Cylindrical type shank



- Drilling depth: 5xdiameter

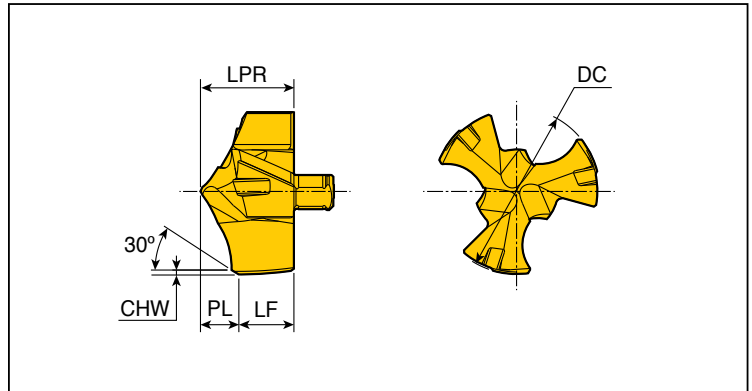


| Designation                | Dimension (mm) |        |    |     |       |    |      |     | Clamping key  |
|----------------------------|----------------|--------|----|-----|-------|----|------|-----|---------------|
|                            | DC             | DCONMS | DF | LU  | LPR   | LS | PL   | SSC |               |
| <b>3ED 160-169-20T0-5D</b> | 16.0-16.9      | 20     | 25 | 84  | 111.0 | 50 | 3.70 | 16  | K 3ED D16-D17 |
| <b>170-179-20T0-5D</b>     | 17.0-17.9      | 20     | 25 | 89  | 118.0 | 50 | 3.88 | 17  | K 3ED D16-D17 |
| <b>180-189-25T0-5D</b>     | 18.0-18.9      | 25     | 32 | 94  | 126.1 | 56 | 4.07 | 18  | K 3ED D18-D19 |
| <b>190-199-25T0-5D</b>     | 19.0-19.9      | 25     | 32 | 99  | 132.7 | 56 | 4.26 | 19  | K 3ED D18-D19 |
| <b>200-209-25T0-5D</b>     | 20.0-20.9      | 25     | 32 | 104 | 139.3 | 56 | 4.44 | 20  | K 3ED D20-D21 |

- OAL= LPR+LS
- SSC: Seat size code

## 3ED...-P+

### 3-flute drill heads



| Designation        | Dimension (mm) |       |      |      |      |     | Grade  |
|--------------------|----------------|-------|------|------|------|-----|--------|
|                    | DC             | LPR   | PL   | LF   | CHW  | SSC | TT5130 |
| <b>3ED- 160-P+</b> | 16.0           | 9.00  | 3.70 | 5.30 | 0.40 | 16  | ●      |
| <b>165-P+</b>      | 16.5           | 9.00  | 3.71 | 5.29 | 0.40 | 16  | ●      |
| <b>170-P+</b>      | 17.0           | 9.50  | 3.88 | 5.62 | 0.40 | 17  | ●      |
| <b>175-P+</b>      | 17.5           | 9.50  | 3.89 | 5.61 | 0.40 | 17  | ●      |
| <b>180-P+</b>      | 18.0           | 10.10 | 4.07 | 6.03 | 0.40 | 18  | ●      |
| <b>185-P+</b>      | 18.5           | 10.10 | 4.08 | 6.02 | 0.40 | 18  | ●      |
| <b>190-P+</b>      | 19.0           | 10.70 | 4.26 | 6.44 | 0.40 | 19  | ●      |
| <b>195-P+</b>      | 19.5           | 10.70 | 4.27 | 6.43 | 0.40 | 19  | ●      |
| <b>200-P+</b>      | 20.0           | 11.30 | 4.44 | 6.86 | 0.40 | 20  | ●      |
| <b>205-P+</b>      | 20.5           | 11.30 | 4.45 | 6.85 | 0.40 | 20  | ●      |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
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|                    |                |       |      |      |      |     |        |
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|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |
|                    |                |       |      |      |      |     |        |

● SSC: Seat size code

● Standard items

## Recommended Cutting Conditions

| ISO | Material   | Condition             | Material Example (JIS) | Tensile Strength (N/mm <sup>2</sup> ) | Hardness HB | Material Group No | Cutting Speed Vc (m/min) | Feed vs. Drill Diameter (mm/rev) |           |
|-----|--|-----------------------|------------------------|---------------------------------------|-------------|-------------------|--------------------------|----------------------------------|-----------|
|     |  |                       |                        |                                       |             |                   |                          | Ø16 - Ø20.9                      |           |
| P   | Non-alloy steel and cast steel, free cutting steel                 | <0.25%C               | Annealed               | SS41/S10C                             | 420         | 125               | 1                        | 80-140                           | 0.35-0.55 |
|     |  | >=0.25%C              | Annealed               | S25C                                  | 650         | 190               | 2                        | 80-130                           | 0.35-0.55 |
|     |  | <0.55%C               | Quenched and tempered  | S45C                                  | 850         | 250               | 3                        | 80-120                           | 0.35-0.55 |
|     |  | >=0.55%C              | Annealed               | S55C                                  | 750         | 220               | 4                        | 70-110                           | 0.35-0.55 |
|     |  |                       | Quenched and tempered  | SK3                                   | 1000        | 300               | 5                        | 50-90                            | 0.35-0.55 |
|     | Low alloy steel and cast steel (less than 5% of alloying elements) | Annealed              |                        | SCM4                                  | 600         | 200               | 6                        | 80-120                           | 0.30-0.50 |
|     |  |                       |                        | SKS3                                  | 930         | 275               | 7                        | 70-110                           | 0.30-0.50 |
|     |  | Quenched and tempered |                        |                                       | 1000        | 300               | 8                        | 50-90                            | 0.30-0.50 |
|     |  |                       |                        |                                       |             | 1200              | 350                      | 9                                | 40-70     |
|     | High alloy steel, cast steel and tool steel                        | Annealed              |                        | SKD61                                 | 680         | 200               | 10                       | 50-90                            | 0.30-0.45 |
|     |  | Quenched and tempered |                        | SKH/HSS                               | 1100        | 325               | 11                       | 40-80                            | 0.30-0.45 |
| K   | Grey cast iron (GG)  | Ferritic / pearlitic  |                        | FC                                    |             | 180               | 15                       | 90-160                           | 0.45-0.65 |
|     |  | Pearlitic             |                        |                                       |             | 260               | 16                       | 80-140                           | 0.45-0.65 |
|     | Cast iron nodular (GGG)  | Ferritic              |                        | FCD                                   |             | 160               | 17                       | 90-180                           | 0.40-0.60 |
|     |  | Pearlitic             |                        |                                       |             | 250               | 18                       | 80-140                           | 0.40-0.60 |
|     | Malleable cast iron  | Ferritic              |                        | FCMP/AC4A                             |             | 130               | 19                       | 90-160                           | 0.40-0.60 |
|     |  | Pearlitic             |                        |                                       |             | 230               | 20                       | 80-140                           | 0.40-0.60 |

■ Steel ■ Cast iron

## KIT COLLECTIONS

These kit products are available in the format listed below.



| Cat. No. | Designation                      | Bill of materials   | Qty. |
|----------|----------------------------------|---------------------|------|
| 6334407  | <b>KISFT-3ED 160-P+5D TT5130</b> | 3ED 160-169-20T3-5D | 1    |
|          |                                  | 3ED-160-P+ TT5130   | 3    |
| 6334408  | <b>KISFT-3ED 170-P+5D TT5130</b> | 3ED 170-179-20T3-5D | 1    |
|          |                                  | 3ED-170-P+ TT5130   | 3    |
| 6334409  | <b>KISFT-3ED 180-P+5D TT5130</b> | 3ED 180-189-25T2-5D | 1    |
|          |                                  | 3ED-180-P+ TT5130   | 3    |
| 6334410  | <b>KISFT-3ED 190-P+5D TT5130</b> | 3ED 190-199-25T2-5D | 1    |
|          |                                  | 3ED-190-P+ TT5130   | 3    |
| 6334411  | <b>KISFT-3ED 200-P+5D TT5130</b> | 3ED 200-209-25T2-5D | 1    |
|          |                                  | 3ED-200-P+ TT5130   | 3    |



| Cat. No. | Designation                      | Bill of materials   | Qty. |
|----------|----------------------------------|---------------------|------|
| 6334422  | <b>KISFS-3ED 160-P+5D TT5130</b> | 3ED 160-169-20T3-5D | 1    |
|          |                                  | 3ED-160-P+ TT5130   | 10   |
| 6334423  | <b>KISFS-3ED 170-P+5D TT5130</b> | 3ED 170-179-20T3-5D | 1    |
|          |                                  | 3ED-170-P+ TT5130   | 10   |
| 6334424  | <b>KISFS-3ED 180-P+5D TT5130</b> | 3ED 180-189-25T2-5D | 1    |
|          |                                  | 3ED-180-P+ TT5130   | 10   |
| 6334425  | <b>KISFS-3ED 190-P+5D TT5130</b> | 3ED 190-199-25T2-5D | 1    |
|          |                                  | 3ED-190-P+ TT5130   | 10   |
| 6334428  | <b>KISFS-3ED 200-P+5D TT5130</b> | 3ED 200-209-25T2-5D | 1    |
|          |                                  | 3ED-200-P+ TT5130   | 10   |



| Cat. No. | Designation                    | Bill of materials | Qty. |
|----------|--------------------------------|-------------------|------|
| 6334442  | <b>KISFF-3ED 160-P+ TT5130</b> | 3ED-160-P+ TT5130 | 30   |
| 6334443  | <b>KISFF-3ED 170-P+ TT5130</b> | 3ED-170-P+ TT5130 | 30   |
| 6334444  | <b>KISFF-3ED 180-P+ TT5130</b> | 3ED-180-P+ TT5130 | 30   |
| 6334445  | <b>KISFF-3ED 190-P+ TT5130</b> | 3ED-190-P+ TT5130 | 30   |
| 6334446  | <b>KISFF-3ED 200-P+ TT5130</b> | 3ED-200-P+ TT5130 | 30   |