**Size φ3～φ10**

# DCES4000

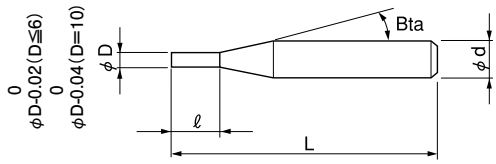
MG | DIA COAT | 30° Length of cut 2.5D～3D | Sharp Corner Length of cut ～2D | Shank Dia 0/-0.005

Material Applications（☆ Highly Recommended ◎ Recommended ○ Suggested）

| Work Material | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Steels S45C S55C | Alloy Steels SK / SCM SUS | Prehardened Steels NAK HPM | Hardened Steels ～55HRC | Hardened Steels ～60HRC | Hardened Steels ～70HRC | Cast Iron | Aluminum Alloys | Graphite | Copper | Plastics | Glass Filled Plastics | Titanium Alloys | Heat Resistant Alloys | Cemented Carbide | Hard Brittle (Non-Metallic) Materials |
| | | | | | | | ○ | ☆ | ○ | ○ | ◎ | | | | ○ |

**Features**

**DIA COAT 4 flute square for Graphite electrodes.**
**New diamond coating, with a highly adhesive base layer, offers excellent wear resistance and longer tool life.**
**Refer to page 82 for 2 flute DCES.**




The shank taper angle shown is not an exact value and to avoid contact with the work piece, we recommend the user controls the precise value of this angle. Shank taper angle should not make contact with the work piece.

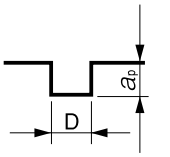
Total 7 models　　Unit（mm）

| Model Number | Outside Diameter φD | Length of Cut ℓ | Shank Taper Angle Bta | Overall Length L | Shank Diameter φd | Price（¥） |
|---|---|---|---|---|---|---|
| **DCES 4030-0900** | 3 | 9 | 16° | 50 | 6 | 20,000 |
| **DCES 4030-1200** | | 12 | | 50 | 6 | 26,000 |
| **DCES 4040-1200** | 4 | 12 | 16° | 50 | 6 | 21,000 |
| **DCES 4040-1600** | | 16 | | 60 | 6 | 27,000 |
| **DCES 4060-1800** | 6 | 18 | — | 60 | 6 | 22,000 |
| **DCES 4060-2400** | | 24 | | 60 | 6 | 28,000 |
| **DCES 4100-3000** | 10 | 30 | — | 90 | 10 | 48,000 |

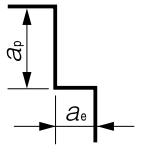
## Milling Conditions for DCES（4 Flutes）

| WORK MATERIAL | | | GRAPHITE | | | | |
|---|---|---|---|---|---|---|---|
| Model Number | Outside Diameter (mm) | Length of Cut (mm) | Spindle Speed ($min^{-1}$) | Feed Rate (mm/min) | Side Milling | | Slotting |
| | | | | | $a_p$ Axial Depth (mm) | $a_e$ Radial Depth (mm) | $a_p$ Axial Depth (mm) |
| **4030-0900** | **3** | **9** | 25,000 | 3,000 | 6 | 0.15 | 0.75 |
| **4030-1200** | **3** | **12** | 25,000 | 3,000 | 6 | 0.15 | 0.75 |
| **4040-1200** | **4** | **12** | 19,000 | 2,350 | 9 | 0.2 | 1 |
| **4040-1600** | **4** | **16** | 19,000 | 2,350 | 9 | 0.2 | 1 |
| **4060-1800** | **6** | **18** | 13,000 | 1,800 | 12 | 0.48 | 1.5 |
| **4060-2400** | **6** | **24** | 13,000 | 1,800 | 12 | 0.48 | 1.5 |
| **4100-3000** | **10** | **30** | 7,500 | 1,200 | 20 | 0.8 | 2.5 |

Slotting
$a_p$ : Axial Depth (mm)
D : Outside Diamater (mm)




Side Milling
$a_p$ : Axial Depth (mm)
$a_e$ : Radial Depth (mm)




Note:
・Use a milling machine dedicated for Graphite.
・Recommend air blow for Graphite.