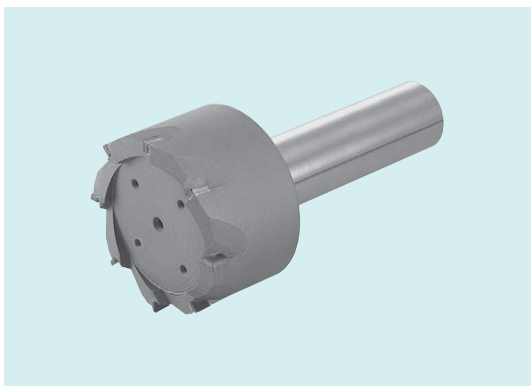


# DFE Type



### Characteristics

- A brazed type multi flute cutter that is best suited for high feed rate machining
- Best suited for front face cutting of aluminum alloys and non-ferrous metals due to the excellent fracture resistance and cutting performance of DA2200
- Perfect for small machines. Endmill type small hole cutters
- Has internal oil delivery type oil hole that handles high speed machining

### Body

Fig 1



Fig 2

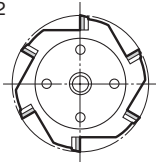
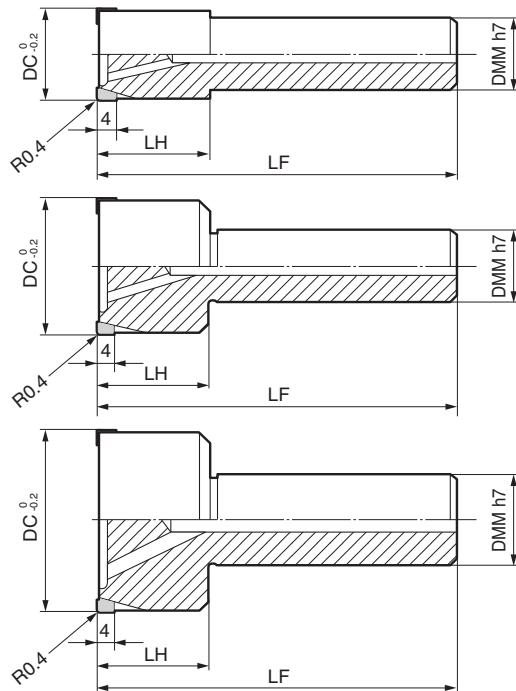
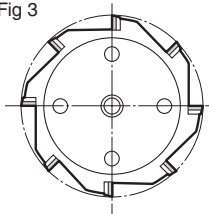


Fig 3



Dimensions (mm)

| Cat. No.          | Grade  | Cutting diameter | Length | Head | Shank diameter | No. of flutes | Fig |
|-------------------|--------|------------------|--------|------|----------------|---------------|-----|
|                   | DA2200 | DC               | LF     | LH   | DMM            |               |     |
| <b>DFE 4200GS</b> | ●      | 20               | 80     | 25   | 16             | 4             | 1   |
| <b>DFE 6250GS</b> | ●      | 25               | 80     | 25   | 16             | 6             | 2   |
| <b>6300GS</b>     | ●      | 30               | 80     | 25   | 16             | 6             | 2   |
| <b>DFE 8400GS</b> | ●      | 40               | 80     | 25   | 16             | 8             | 3   |
| <b>8500GS</b>     | ●      | 50               | 80     | 25   | 20             | 8             | 3   |

### Recommended Cutting Conditions

| Tooling | ISO | Work material  | Cutting Speed $v_c$ (m/min) | Feed Rate $f_z$ (mm/t) | Grade  |
|---------|-----|----------------|-----------------------------|------------------------|--------|
|         | N   | Aluminum alloy | Min.- Optimum -Max.         | Min.- Optimum -Max.    |        |
|         | N   | Aluminum alloy | 200 to 800 to 2000          | 0.02 to 0.05 to 0.10   | DA2200 |

### Application Example

|  | Work material           | Cutting conditions  | Results   |
|--|-------------------------|---|---|
|  | ADC12<br>Aluminum alloy | Tools:<br>DFE8400GS<br><br>Machining conditions:<br>$v_c = 1,500$ m/min<br>$n = 11,940$ min <sup>-1</sup><br>$f_z = 0.03$ mm/t<br>$v_f = 2,865$ mm/min<br>$a_p = 0.5$ mm<br>Wet | <ul style="list-style-type: none"> <li>Obtained a good machined surface without burrs.</li> <li>Cycle time was greatly reduced to an increased number of flutes compared to insert type cutters.</li> </ul> |