



### 3~5 FLUTE, ROUGHING END MILL - FINE Pitch DIN6527L / DIN6535-HA, DIN6535-HB

- Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials.
- High velocity milling of hardened steels.
- For dry and wet milling.
- Fast chip ejection.

## ZF61 ....series



| EDP. No.    |            | Dia. | L <sub>1</sub> | L <sub>2</sub> | D <sub>2</sub> | STOCK |
|-------------|------------|------|----------------|----------------|----------------|-------|
| PLAIN SHANK | FLAT SHANK |      |                |                |                |       |
| ZF613040    | ZF613040F  | 4    | 10             | 50             | 6              | •     |
| ZF613050    | ZF613050F  | 5    | 13             | 50             | 6              | •     |
| ZF613060    | ZF613060F  | 6    | 16             | 57             | 6              | •     |
| ZF613070    | ZF613070F  | 7    | 16             | 63             | 8              | •     |
| ZF613080    | ZF613080F  | 8    | 16             | 63             | 8              | •     |
| ZF614090    | ZF614090F  | 9    | 19             | 72             | 10             | •     |
| ZF614100    | ZF614100F  | 10   | 22             | 72             | 10             | •     |
| ZF614120    | ZF614120F  | 12   | 26             | 83             | 12             | •     |
| ZF614140    | ZF614140F  | 14   | 32             | 83             | 14             | •     |
| ZF614160    | ZF614160F  | 16   | 35             | 92             | 16             | •     |
| ZF614180    | ZF614180F  | 18   | 40             | 100            | 18             | •     |
| ZF614200    | ZF614200F  | 20   | 44             | 104            | 20             | •     |
| ZF615250    | ZF615250F  | 25   | 50             | 120            | 25             | •     |

■ Tolerance

| Tolerance         | Dia. | μm = 1/1000mm |             |              |               |               |
|-------------------|------|---------------|-------------|--------------|---------------|---------------|
|                   |      | from 1 to 3   | over 3 to 6 | over 6 to 10 | over 10 to 18 | over 18 to 30 |
| Cutting Edge(h10) | 0    | 0             | 0           | 0            | 0             |               |
|                   | -40  | -48           | -58         | -70          | -84           |               |
| Shank(h6)         | 0    | 0             | 0           | 0            | 0             |               |
|                   | -6   | -8            | -9          | -11          | -13           |               |