

ZOMW06

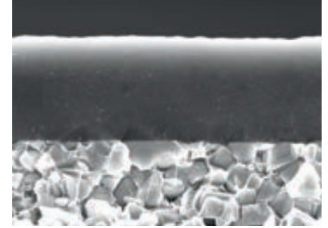
Mini High Feed



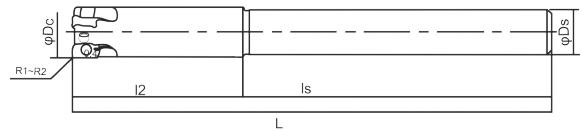
Product Features:

- 2 Corner insert with Corner Radius 1
- XT930-1 grade for all materials, including Stainless Steels and superalloys
- Can easily replace solid carbide on semi-finishing areas on account of
 - Higher productivity on account of higher feed speeds!
 - Economy on account of indexable solution v/s Solid Carbide!

XT930 ▼

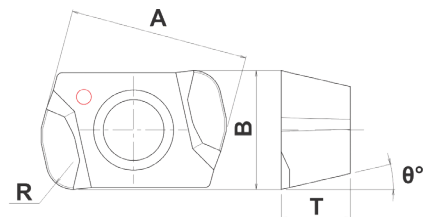


3D geometry allows for lower cutting force and multi blade possibility;
For such a small size, the **Mini Mill ZOMW06** can achieve extremely high efficiency!
Also Possible to use on low power machines such as BT30 taper



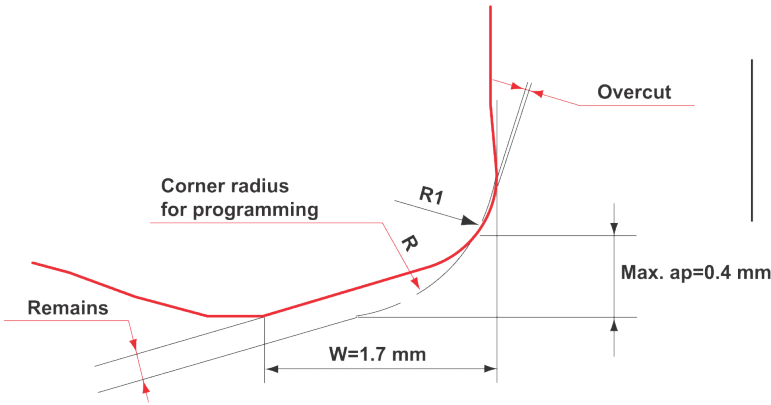
| Type | Item | No. of Inserts | Dimensions (mm) | | | | | Applicable Inserts | Clamp Screw | Wrench | Stock |
|-------------|--------------------------------|----------------|-----------------|----|----|-----|----|--------------------|-------------|--------|-------|
| | | | Dc | l2 | ls | L | D | | | | |
| Regular | XTFFC-0808-25FL-T1-75L-ZOMW06 | 1 | 8 | 25 | 50 | 75 | 8 | ZOMW06 | M1.8x4-A | T-06 | ● |
| | XTFFC-0908-25FL-T1-75L-ZOMW06 | 1 | 9 | 25 | 50 | 75 | 8 | | | | |
| | XTFFC-1010-25FL-T2-80L-ZOMW06 | 2 | 10 | 25 | 55 | 80 | 10 | | | | ● |
| | XTFFC-1110-25FL-T2-80L-ZOMW06 | 2 | 11 | 25 | 55 | 80 | 10 | | | | |
| | XTFFC-1212-30FL-T2-100L-ZOMW06 | 2 | 12 | 30 | 70 | 100 | 12 | | | | ● |
| | XTFFC-1312-30FL-T2-100L-ZOMW06 | 2 | 13 | 30 | 70 | 100 | 12 | | | | |
| Long Length | XTFFC-1414-30FL-T3-110L-ZOMW06 | 3 | 14 | 30 | 80 | 110 | 14 | | ● | | |
| | XTFFC-1010-75FL-T2-135L-ZOMW06 | 2 | 10 | 75 | 60 | 135 | 10 | | | | |
| | XTFFC-1212-80FL-T2-140L-ZOMW06 | 2 | 12 | 80 | 60 | 140 | 12 | | | | |
| | XTFFC-1414-85FL-T3-150L-ZOMW06 | 3 | 14 | 85 | 65 | 150 | 14 | | | | |

High Feed Insert



| Type | Item | Tolerance | Grade | Dimension (mm) | | | | | Stock |
|------------------|------------|-----------|-------|----------------|-----|-----|-----|----|-------|
| | | | | A | T | B | R | E | |
| High Feed insert | ZOMW060210 | M | XT930 | 6.5 | 2.5 | 4.3 | 1.0 | 13 | ● |

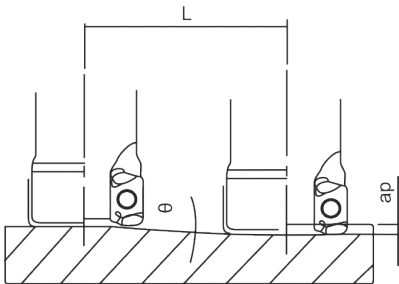
● **Definition of Corner Radius for Programming**



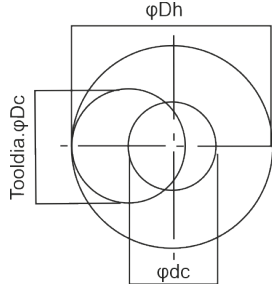
| Corner Radius for Programming | Over Cut | Remains (mm) |
|-------------------------------|----------|--------------|
| R1.0 (Recommended) | 0 | 0.17 |
| R1.5 | 0.09 | 0.08 |
| R2.0 | 0.30 | 0 |

● **Instructions for Profile Milling with “ZOMW06” Type Insert**

● **Helical Interpolation**



● **Helical Interpolation**



● **Calculation of Tool Pass Dia.**

$$\varphi_{dc} = \varphi_{Dh} - \varphi_{Dc}$$

Tool Pass dia. Bore dia. Tool dia.

- Depth of cut per one circle should not exceed max. depth of cut ap.
- Down cutting is recommended, so tool pass rotation should be counterclockwise

| Tool Dia. Dc (mm) | Effective cutting dia. (mm) | Max. Depth of Cut ap (mm) | Ramping | | Helical interpolation | |
|-------------------|-----------------------------|---------------------------|--------------|--|----------------------------|----------------------------|
| | | | Max. Ramping | Total Cutting Length L (mm) at max. ap | Min. bore dia. Dh min (mm) | Max. bore dia. Dh max (mm) |
| 8 | 4.7 | 0.25 | 2 54' | 5.5 | 11 | 14 |
| 9 | 5.7 | 0.25 | 2 36' | 6.5 | 13 | 16 |
| 10 | 6.6 | 0.3 | 2 18' | 7.5 | 15 | 18 |
| 11 | 7.6 | 0.3 | 1 54 | 9 | 17 | 20 |
| 12 | 8.5 | 0.3 | 1 36 | 10.7 | 19 | 22 |
| 13 | 9.5 | 0.3 | 1 24 | 12.3 | 21 | 24 |
| 14 | 10.5 | 0.3 | 1 18 | 13.2 | 23 | 26 |

In case of ramping and helical interpolation, apply 70% or less feed speed s tandard cutting condition table.

In case of drilling, apply 50% or less Z axis feed speed from standard cutting condition table.

Cutting Parameter

| Work Materials | Insert Grades | l (mm) | a_p (mm) | a_e (mm) | n (mm) | v_f (mm/min) |
|------------------------------------|---------------|-------------|---------------|---------------|--------------|-------------------|
| Carbon steel below HRC 25 | (XT930) | 30 | 0.3 | 6 | 3,820 | 4,580 |
| | | 30 50 | 0.25 | 6 | 3,440 | 3,720 |
| | | 50 70 | 0.15 | 5 | 3,060 | 2,940 |
| Die steel below HRC 30 | | 30 | 0.3 | 6 | 3,500 | 4,200 |
| | | 30 50 | 0.25 | 6 | 3,150 | 3,400 |
| | | 50 70 | 0.15 | 5 | 2,800 | 2,690 |
| Cast Iron (GCI/SG Iron) | | 30 | 0.3 | 6 | 4,780 | 5,740 |
| | | 30 50 | 0.25 | 6 | 4,300 | 4,640 |
| | | 50 70 | 0.15 | 5 | 3,820 | 3,670 |
| Stainless Steel, Inconel (INCO718) | | 30 | 0.3 | 6 | 950 | 760 |
| | 30 50 | 0.25 | 6 | 850 | 620 | |
| | 50 70 | 0.15 | 5 | 760 | 610 | |

l :over hung length, a_p :axial depth of cut, a_e :radial depth of cut, n :spindle speed, v_f :feed speed

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