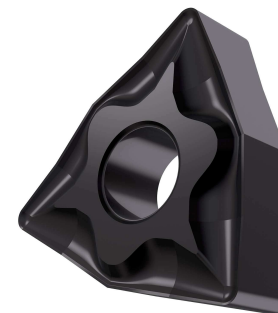




# WNMG.NF 431 ZSL12

## APPLICATION

- Suitable for fine to medium machining of steels and stainless-steels
- Continuous and interrupted cut



## GRADE ZSL12

This grade is a PVD coated extra fine grained WC-Co carbide within ISO ranges P01 - P15 and M01 - M15, for fine to medium machining of steels and stainless-steels

|             | STEEL       | STAINLESS   | CAST IRON   | NON FERROUS | S.ALLOYS    | HEAT TREATED |
|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| GROUP       | P01 - P15   | M01 - M15   | K01 - K15   | N01 - N15   | S01 - S15   |              |
| Sfm ft/min  | 394 - 673   | 279 - 476   | 312 - 541   | 591 - 2346  | 82 - 230    |              |
| Fn Inch/rev | .005 - .010 | .006 - .009 | .005 - .010 | .005 - .012 | .005 - .008 |              |
| ap Inch     | .016 - .118 | .016 - .118 | .016 - .118 | .016 - .118 | .016 - .094 |              |

### LEGEND

|          |                         |
|----------|-------------------------|
| Sfm (Vc) | Surface Feet per Minute |
| Fn (ipr) | Feed per revolution     |
| Fz (ipt) | Feed per tooth          |
| ap       | Depth of cut            |

### FORMULA

|                                                                                         |
|-----------------------------------------------------------------------------------------|
| $S \text{ (RPM)} = \text{Sfm} * 12 / \pi / D = \text{rev per minute}$                   |
| $F \text{ (IPR, inch per revolution)} = S * F_n = \text{feed per minute}$               |
| $F \text{ (IPM, inch per minute)} = S * F_z * n.\text{flutes} = \text{feed per minute}$ |
| $\text{Sfm} = S * D * \pi / 12$                                                         |

**TURNING CARBIDE INSERT**