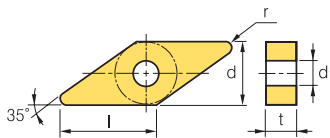


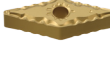
## Turning Insert (Negative)

VN ○○



| Dimensions (mm) |       |      |                |
|-----------------|-------|------|----------------|
| Size            | d     | t    | d <sub>1</sub> |
| 16              | 9.525 | 4.76 | 3.81           |

[illegible]

| Inserts             |                                                                                     | Designation |           | Cermet |        | Coated |        | Coated  |         |        |        |        |        |        |        |        |        |        |        |        |        | Uncoated |        | Cutting Condition |           |           |                |            |
|---------------------|-------------------------------------------------------------------------------------|-------------|-----------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------------------|-----------|-----------|----------------|------------|
|                     |                                                                                     |             |           | CN1500 | CN2500 | CC1500 | CC2500 | NC3215P | NC3225P | NC3215 | NC3225 | NC3120 | NC3030 | NC3235 | NC5330 | NC6310 | NC6315 | NC9115 | NC9125 | NC9135 | PC8105 | PC8110   | PC8115 | PC9030            | H01       | H05       | fn<br>(mm/rev) | ap<br>(mm) |
| Finishing           |    | VNMG        | 160404-VB | ●      | ●      | ●      | ●      |         |         | ●      | ●      |        |        |        | ●      |        |        |        |        |        |        |          |        |                   |           | 0.10~0.35 | 0.30~1.50      |            |
|                     |                                                                                     |             | 160408-VB | ●      | ●      | ●      | ●      |         |         | ●      | ●      |        |        |        | ●      |        |        |        |        |        |        |          |        |                   |           | 0.15~0.45 | 0.50~2.00      |            |
|                     |                                                                                     |             | 160412-VB |        |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           | 0.20~0.45      | 0.80~2.50  |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Finishing           |    | VNMG        | 160402-VF |        |        |        |        |         |         |        |        | ●      |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.06~0.20 | 0.30~1.00      |            |
|                     |                                                                                     |             | 160404-VF | ●      |        |        |        |         |         |        | ●      |        |        | ●      |        |        |        |        |        |        |        | ●        |        |                   |           | 0.08~0.30 | 0.50~1.50      |            |
|                     |                                                                                     |             | 160408-VF | ●      |        |        |        |         |         |        | ●      | ●      |        |        | ●      |        |        |        |        |        |        |          |        |                   |           |           | 0.10~0.40      | 0.50~1.50  |
|                     |                                                                                     |             | 160412-VF |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           | 0.15~0.50      | 0.50~1.50  |
| Finishing           |   | VNMG        | 160404-VL | ●      | ●      |        |        |         |         | ●      | ●      |        |        |        | ●      |        |        |        |        |        |        |          |        |                   |           | 0.05~0.20 | 0.10~1.00      |            |
|                     |                                                                                     |             | 160408-VL | ●      | ●      |        |        |         |         | ●      | ●      |        |        |        | ●      |        |        |        |        |        |        |          |        |                   |           |           | 0.10~0.25      | 0.20~1.50  |
|                     |                                                                                     |             | 160412-VL |        |        |        |        |         |         | ●      |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           | 0.15~0.30      | 0.50~2.00  |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Medium to finishing |  | VNMG        | 160404-LP |        |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.10~0.35 | 0.30~1.50      |            |
|                     |                                                                                     |             | 160408-LP |        |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.10~0.40 | 0.50~2.00      |            |
|                     |                                                                                     |             | 160412-LP |        |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.10~0.45 | 0.80~2.50      |            |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Medium to finishing |  | VNMG        | 160404-CP |        |        |        |        | ●       | ●       |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.10~0.35 | 0.5~3.0        |            |
|                     |                                                                                     |             | 160408-CP |        |        |        |        | ●       | ●       |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.12~0.30 | 0.5~3.0        |            |
|                     |                                                                                     |             | 160412-CP |        |        |        |        | ●       | ●       |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.13~0.30 | 0.8~3.0        |            |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Medium to finishing |  | VNMG        | 160404-VC | ●      |        | ●      |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.10~0.35 | 0.30~2.00      |            |
|                     |                                                                                     |             | 160408-VC | ●      |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.15~4.00 | 0.50~3.00      |            |
|                     |                                                                                     |             | 160412-VC |        |        |        |        |         |         | ●      | ●      |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.15~0.40 | 0.80~3.00      |            |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Medium cutting      |  | VNMG        | 160404-HM |        |        |        |        |         |         |        |        | ●      | ●      |        |        |        |        |        |        |        |        | ●        |        |                   | 0.13~0.40 | 0.80~3.80 |                |            |
|                     |                                                                                     |             | 160408-HM |        |        |        |        |         |         | ●      | ●      | ●      |        |        |        |        |        |        |        |        |        |          | ●      |                   | 0.20~0.45 | 0.80~4.50 |                |            |
|                     |                                                                                     |             | 160412-HM |        |        |        |        |         |         | ●      |        |        |        |        |        |        |        |        |        |        |        |          |        |                   | 0.10~0.60 | 1.00~4.00 |                |            |
|                     |                                                                                     |             |           |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           |           |                |            |
| Medium cutting      |  | VNMG        | 160404-MP |        |        |        |        |         |         | ●      | ●      |        |        | ●      |        |        | ●      | ●      | ●      | ●      | ●      |          |        |                   | 0.10~0.40 | 0.40~3.50 |                |            |
|                     |                                                                                     |             | 160408-MP |        |        |        |        |         |         | ●      | ●      |        |        |        | ●      | ●      |        | ●      | ●      | ●      | ●      | ●        |        |                   | 0.15~0.45 | 0.50~4.00 |                |            |
|                     |                                                                                     |             | 160412-MP |        |        |        |        |         |         | ●      | ●      |        |        |        | ●      |        |        |        |        |        |        |          |        |                   |           | 0.15~0.50 | 0.80~4.50      |            |
|                     |                                                                                     |             | 160416-MP |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |        |          |        |                   |           | 0.18~0.50 | 1.00~4.50      |            |

➡ Cutting edge geometry A52~A61

➡ Recommended chip breaker B04~B14

➡ Code system B34~B35

● : Stock item

| Available tool holders |      |             |      |
|------------------------|------|-------------|------|
| Designation            | Page | Designation | Page |
| MVJNR/L                | B188 | MVVNN       | B189 |
| MVQNR/L                | B189 | MVUNR/L     | B214 |