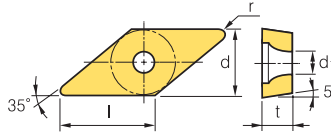


B Turning Insert (Positive)

VB

Rhombic **35° Positive**
Relief Angle: 5°



| Dimensions (mm) | | | |
|-----------------|-------|------|----------------|
| Size | d | t | d ₁ |
| 11 | 6.35 | 3.18 | 2.8 |
| 16 | 9.525 | 4.76 | 4.4 |

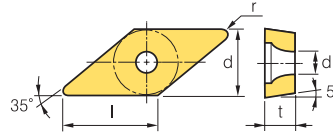
| Workpiece | Machining types | | | | | | | | | | | | | | | | | |
|--------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P | M | K | N | S | H | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Stainless steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Cast iron | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Non-ferrous metal | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Heat resistant alloy, Titanium alloy | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Hardened steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

| Inserts | Designation | Cermet | | Coated | | Coated | | | | | | | | | | | | | Uncoated | | Cutting Condition | | | | | | | |
|-------------------------|-------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------------------|--------|-----|-----|----------------------------|------------------------|-----------|-----------|
| | | CN1500 | CN2500 | CC1500 | CC2500 | NC3215 | NC3225 | NC3120 | NC3030 | NC3235 | NC5330 | NC6310 | NC6315 | NC9115 | NC9125 | NC9135 | PC5300 | PC5400 | PC8105 | PC8110 | PC8115 | PC9030 | H01 | H05 | f _n (mm/rev) | a _p (mm) | | |
| Finishing | VBMT | 110302-FP | | | | | | | | | | | | | | | | | | | | | | | | 0.01-0.10 | 0.05-0.08 | |
| | | 110304-FP | | ● | | | | | | | | | | | | | | | | | | | | | | | 0.01-0.10 | 0.10-0.90 |
| | | 110308-FP | | ● | | | | | | | | | | | | | | | | | | | | | | | 0.01-0.10 | 0.10-1.00 |
| | | 160404-FP | ● | ● | ● | ● | ● | ● | | | | | | | ● | | | | | | | ● | | | | | 0.01-0.10 | 0.10-1.00 |
| | | 160408-FP | ● | ● | ● | ● | ● | ● | | | | | | | ● | | | | | | | ● | | | | | 0.04-0.12 | 0.10-1.00 |
| Finishing | VBMT | 110302-VB | | | | | | | | | | | | | | | | | | | | | | | | 0.05-0.15 | 0.20-1.20 | |
| | | 110304-VB | | | | | | | | | | | | | | | | | | | | | | | | | 0.06-0.18 | 0.20-1.20 |
| | | 110308-VB | | | | | | | | | | | | | | | | | | | | | | | | | 0.08-0.20 | 0.60-1.20 |
| | | 160402-VB | | | | | | | | | | | | | | | | | | | | | | | | | 0.06-0.20 | 0.05-1.00 |
| | | 160404-VB | ● | ● | | | | | ● | | | | | | | | | | | | | | | | | | 0.08-0.20 | 0.20-1.50 |
| | | 160408-VB | ● | ● | | | | | ● | | | | | | | | | | | | | | | | | | 0.10-0.23 | 0.50-1.50 |
| Finishing | VBMT | 160404-VF | ● | ● | | | | ● | | | | | | | | ● | | | | ● | | | | | | 0.05-0.20 | 0.30-1.00 | |
| | | 160408-VF | ● | ● | | | | | | | | | | | | | ● | | | | | | | | | 0.10-0.25 | 0.30-1.00 | |
| Finishing | VBMT | 110302-VL | | | | | | | | | | | | | | | | | | | | | | | | 0.03-0.20 | 0.20-1.20 | |
| | | 110304-VL | | | | | | | | | | | | | | | | | | | | | | | | | 0.04-0.20 | 0.20-1.20 |
| | | 110308-VL | | | | | | | | | | | | | | | | | | | | | | | | | 0.08-0.20 | 0.20-1.20 |
| | | 160402-VL | | | | | | | | | | | | | | | | | | | | | | | | | 0.03-0.20 | 0.30-1.50 |
| | | 160404-VL | ● | ● | ● | ● | ● | ● | | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | 0.05-0.20 | 0.30-1.50 |
| | | 160408-VL | ● | ● | ● | ● | ● | ● | | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | 0.10-0.20 | 0.30-1.50 |
| Medium to finishing | VBMT | 110304-HMP | | | | | | | | | ● | | | | | | | | | | | ● | | | | 0.03-0.20 | 0.15-2.70 | |
| | | 110308-HMP | | | | | | | | | ● | | | | | | | | | | | | | | | | 0.05-0.25 | 0.40-2.70 |
| | | 160404-HMP | | | | | | | | | ● | ● | | | | | ● | | | | ● | | ● | | | | 0.07-0.20 | 0.20-2.70 |
| | | 160408-HMP | | | | | | | | | ● | ● | ● | | | | ● | | | | ● | | ● | | | | 0.09-0.27 | 0.50-2.70 |
| Medium to finishing | VBMT | 110302-MP | | | | | | | | | | | | | | | | | | | | | | | | 0.04-0.14 | 0.20-1.50 | |
| | | 110304-MP | | | | | | | ● | ● | | | | | | ● | ● | | | | | | | | | | 0.05-0.15 | 0.20-1.50 |
| | | 110308-MP | | | | | | | ● | ● | | | | | | | | | | | | | | | | | 0.10-0.28 | 0.30-2.00 |
| | | 160402-MP | | | | | | | | | | | | | | | | | | | | | | | | | 0.06-0.16 | 0.25-2.00 |
| | | 160404-MP | ● | ● | ● | ● | ● | ● | | | | | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | 0.08-0.20 | 0.30-2.00 |
| | | 160408-MP | ● | ● | ● | ● | ● | ● | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | 0.10-0.25 | 0.50-2.30 |
| 160412-MP | ● | ● | | | | | ● | ● | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | 0.10-0.35 | 0.50-2.30 | | |

Cutting edge geometry A52~A61
 Recommended chip breaker B04~B14
 Code system B34~B35
 ● : Stock item

| Available tool holders | | | |
|------------------------|-----------|-------------|------|
| Designation | Page | Designation | Page |
| SVABR/L | B195 | SVVBN | B196 |
| SVHBR/L | B195 | SVQBR/L | B222 |
| SVJBR/L | B125, 195 | SVUBR/L | B223 |





| Dimensions (mm) | | | |
|-----------------|-------|-----------|----------------|
| Size | d | t | d ₁ |
| 11 | 6.35 | 2.38~3.18 | 2.8~3.4 |
| 16 | 9.525 | 4.76 | 4.4 |

Rhombic **35° Positive** Relief Angle: 5°

| Workpiece | Material | | | | | | | | | | | | Machining types | | | |
|--------------------------------------|----------|-----------------|-----------|-------------------|--------------------------------------|----------------|---|---|---|---|---|---|--------------------|-----------------|---------------------|---|
| | Steel | Stainless steel | Cast iron | Non-ferrous metal | Heat resistant alloy, Titanium alloy | Hardened steel | P | M | K | N | S | H | Continuous cutting | General cutting | Interrupted cutting | |
| Steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Stainless steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Cast iron | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Non-ferrous metal | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Heat resistant alloy, Titanium alloy | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Hardened steel | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

| Inserts | Designation | Cermets | | Coated | | Coated | | | | | | | | | | Uncoated | | Cutting Condition | | | | | | | | | | |
|---------------------|-------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------------------|--------|--------|--------|--------|-----|-----|----------------------------|------------------------|-----------|-----------|
| | | CN1500 | CN2500 | CC1500 | CC2500 | NC3215 | NC3225 | NC3120 | NC3030 | NC3235 | NC5330 | NC6310 | NC6315 | NC9115 | NC9125 | NC9135 | PC5300 | PC5400 | PC8105 | PC8110 | PC8115 | PC9030 | H01 | H05 | f _n (mm/rev) | a _p (mm) | | |
| Medium to finishing | | VBMT 160404 | | | | | | ● | ● | | ● | | | | | | | | | | | | | | | 0.07~0.20 | 0.50~1.50 | |
| | | 160408 | | | | | | ● | ● | | | ● | | | | | | | | | | | | | | | 0.15~0.25 | 0.70~2.00 |
| Medium to finishing | | VBGT 160404 | | | | | | | | | | | | | | | | | | | | | | | | 0.07~0.20 | 0.50~1.50 | |
| | | 160408 | | | | | | | | | | | | | | | | | | | | | | | | | 0.15~0.25 | 0.70~2.00 |
| Finishing | | VBMT 160402-VP1 | | | | | | | | | | | | | | | | | | | | | | | | 0.04~0.20 | 0.16~1.50 | |
| | | 160404-VP1 | | | | | | | | | | | | | | | | | | | | | | | | | 0.05~0.20 | 0.18~1.80 |
| | | 160408-VP1 | | | | | | | | | | | | | | | | | | | | | | | | | 0.06~0.20 | 0.20~1.80 |
| Finishing | | VBGT 110301-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.01~0.16 | 0.03~1.40 | |
| | | 110302-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.02~0.18 | 0.04~1.50 | |
| | | 110304-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.04~0.19 | 0.06~1.60 | |
| | | 160401-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.01~0.16 | 0.04~1.80 | |
| | | 160402-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.02~0.18 | 0.05~2.00 | |
| | | 160404-FS | | | | | | | | | | | | | | | ● | | | ● | | | | | | 0.04~0.19 | 0.08~2.00 | |
| Finishing | | VBGT 110301MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | 0.01~0.16 | 0.03~1.40 | |
| | | 110302MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | | 0.02~0.18 | 0.04~1.50 |
| | | 110304MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | | 0.04~0.19 | 0.06~1.60 |
| | | 160401MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | | 0.01~0.16 | 0.04~1.80 |
| | | 160402MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | | 0.02~0.18 | 0.05~2.00 |
| | | 160404MFN-FS | | | | | | | | | | | | | | | | | | | | | | | | | 0.04~0.19 | 0.08~2.00 |
| Finishing | | VBGT 110302-VP1 | | | | | | | | | | | | | | | | | | | | | | | | 0.03~0.10 | 0.08~1.50 | |
| | | 160402-VP1 | | | | | | | | | | | | | | | | | | | | | | | | 0.04~0.20 | 0.16~1.50 | |
| | | 160404-VP1 | | | | | | | | | | | | | | | | | | | | | | | | 0.05~0.20 | 0.18~1.80 | |

↻ Cutting edge geometry **A52~A61**
 ↻ Recommended chip breaker **B04~B14**
 ↻ Code system **B34~B35**
 ● : Stock item

| Available tool holders | | | |
|------------------------|-----------|-------------|------|
| Designation | Page | Designation | Page |
| SVABR/L | B195 | SVVBN | B196 |
| SVHBR/L | B195 | SVQBR/L | B222 |
| SVJBR/L | B125, 195 | SVUBR/L | B223 |



