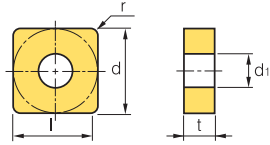


B Turning Insert (Negative)

SN



| Dimensions (mm) | | | |
|-----------------|--------|-----------|----------------|
| Size | d | t | d ₁ |
| 12 | 12.7 | 4.76 | 5.16 |
| 15 | 15.875 | 6.35 | 6.35 |
| 19 | 19.05 | 6.35 | 7.93 |
| 25 | 25.4 | 7.94~9.52 | 9.12 |

Square 90° Negative

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

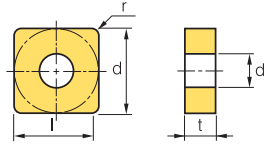
| Inserts | Designation | Cermets | | Coated | | Coated | | | | | | | | | | Uncoated | | Cutting Condition | | | | | | | | | |
|--------------|------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------------------|--------|--------|--------|--------|-----|-----|----------------------------|------------------------|------------|
| | | CN1500 | CN2000 | CN2500 | CC1500 | CC2500 | NC3215 | NC3120 | NC3225 | NC3030 | NC5330 | NC6310 | NC6315 | NC9115 | NC9125 | NC9135 | PC5300 | PC5400 | PC8105 | PC8110 | PC8115 | PC9030 | H01 | H05 | f _n (mm/rev) | a _p (mm) | |
| Roughing | SNMG 120404-RM | | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | | | | 0.10~0.50 | 2.00~6.00 | |
| | 120408-RM | | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | ● | ● | | | 0.15~0.55 | 2.00~6.00 |
| | 120412-RM | | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | | | | | 0.20~0.60 | 2.00~6.00 |
| | 120416-RM | | | | | | | | | | | | ● | ● | ● | ● | | | | | ● | | | | | 0.25~0.70 | 2.00~6.00 |
| | 150608-RM | | | | | | | | | | | | | | | | | | | | | | | | | 0.20~0.60 | 0.20~6.00 |
| | 150612-RM | | | | | | | | | | | | | ● | ● | ● | | | | | ● | | | | | 0.20~0.60 | 2.00~8.00 |
| | 150616-RM | | | | | | | | | | | | | | | | | | | | | | | | | 0.25~0.70 | 2.00~8.00 |
| | 190608-RM | | | | | | | | | | | | | | ● | ● | ● | | | | | ● | | | | 0.20~0.60 | 2.00~10.00 |
| | 190612-RM | | | | | | | | | | | | | | ● | ● | ● | | | | | ● | | | | 0.20~0.60 | 2.00~10.00 |
| | 190616-RM | | | | | | | | | | | | | | | | | | | | | | | | | 0.27~0.70 | 2.00~10.00 |
| | 190624-RM | | | | | | | | | | | | | | | | | | | | | | | | | 0.30~0.75 | 3.00~10.00 |
| 250924-RM | | | | | | | | | | | | | | | | | | | | | | | | | 0.40~1.20 | 4.00~14.00 | |
| Roughing | SNMG 120408-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.15~0.35 | 1.00~4.00 | |
| | 120412-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.20~0.40 | 1.00~4.00 | |
| | 150612-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.20~0.45 | 1.00~5.00 | |
| | 190608-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.20~0.50 | 1.00~9.00 | |
| | 190612-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.23~0.55 | 1.00~9.00 | |
| | 190616-VP4 | | | | | | | | | | | | | | | | | | | | ● | | | | 0.27~0.60 | 1.00~9.00 | |
| Roughing | SNMG 120408-VR | | | | | | | | | | | | | | | | | | | | | | | | 0.25~0.55 | 1.20~7.00 | |
| | 120412-VR | | | | | | | | | | | | | | | | | | | | | | | | 0.30~0.60 | 1.50~7.00 | |
| | 120416-VR | | | | | | | | | | | | | | | | | | | | | | | | 0.35~0.60 | 2.00~7.00 | |
| | 190612-VR | | | | | | ● | ● | | | | | | | | | | | | | | | | | 0.35~0.70 | 2.00~10.00 | |
| | 190616-VR | | | | | | ● | ● | | | | | | | | | | | | | | | | | 0.35~0.75 | 2.20~10.00 | |
| Roughing | SNMM 120408-GR | | | | | | | | | | | | | | | | | | | | | | | | 0.20~0.50 | 1.00~7.00 | |
| | 120412-GR | | | | | | | | | | | | ● | | | | | | | | | | | | 0.25~0.65 | 1.30~7.00 | |
| | 190612-GR | | | | | | | | | | | ● | | | | | | | | | | | | | 0.25~0.65 | 1.30~11.50 | |
| | 190616-GR | | | | | | | | | | | | | | | | | | | | | | | | 0.32~0.85 | 1.80~11.50 | |

Cutting edge geometry A52~A61
 Recommended chip breaker B04~B11
 Code system B26~B27
 ● : Stock item

| Available tool holders | | | | | |
|------------------------|------|-------------|------|-------------|-----------|
| Designation | Page | Designation | Page | Designation | Page |
| MSBNR/L | B173 | MSRNR/L | B174 | PSDNN | B163 |
| MSDNN | B173 | MSSNR/L | B175 | PSKNR/L | B164, 199 |
| MSKNR/L | B174 | PSBNR/L | B163 | PSSNR/L | B164 |



SN



| Dimensions (mm) | | | |
|-----------------|--------|-----------|----------------|
| Size | d | t | d ₁ |
| 12 | 12.7 | 4.76 | 5.16 |
| 15 | 15.875 | 6.35 | 6.35 |
| 19 | 19.05 | 6.35 | 7.93 |
| 25 | 25.4 | 7.94~9.52 | 9.12 |

○ Square **90° Negative**

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

| Inserts | Designation | Cermet | | Coated | | Coated | | | | | | | | | | Uncoated | | Cutting Condition | | | | | | | | | |
|--------------------------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|-------------------|--------|--------|--------|--------|-----|-----|----------------------------|------------------------|------------|
| | | CN1500 | CN2000 | CN2500 | CC1500 | CC2500 | NC3215 | NC3120 | NC3225 | NC3030 | NC5330 | NC6310 | NC6315 | NC9115 | NC9125 | NC9135 | PC5300 | PC5400 | PC8105 | PC8110 | PC8115 | PC9030 | H01 | H05 | f _n (mm/rev) | a _p (mm) | |
| Heavy | SNMM 120408-GH | | | | | | | | ● | ● | | | | | | | | | | | | | | | 0.30~0.60 | 2.50~8.00 | |
| | 120412-GH | | | | | | | ● | ● | | | | | | | | | | | | | | | | | 0.30~0.70 | 2.50~8.00 |
| | 150612-GH | | | | | | | | ● | | | | | | | | | | | | | | | | | 0.30~0.70 | 2.50~8.00 |
| | 190612-GH | | | | | | ● | ● | | ● | ● | | | | | | | | | | | | | | | 0.30~0.70 | 3.00~8.00 |
| | 190616-GH | | | | | | ● | ● | | ● | ● | | | | | | | | | | | | | | | 0.45~1.00 | 4.00~9.00 |
| | 190624-GH | | | | | | ● | ● | | ● | ● | | | | | | | | | | | | | | | 0.55~1.20 | 4.00~9.00 |
| | 250724-GH | | | | | | ● | ● | | ● | ● | | | | | | | | | | | | | | | 0.55~1.20 | 5.00~12.00 |
| | 250924-GH | | | | | | ● | ● | | ● | ● | | | | | | | | | | | | | | | 0.55~1.20 | 5.00~12.00 |
| 250932-GH | | | | | | | | | | | | | | | | | | | | | | | | | | 0.55~1.20 | 5.00~12.00 |
| Heavy [General] | SNMM 190612-VH | | | | | ● | | | | | | | | | | | | | | | | | | | 0.50~0.90 | 5.00~10.00 | |
| | 190616-VH | | | | | ● | | | | | | | | | | | | | | | | | | | | 0.50~1.10 | 5.00~10.00 |
| | 190624-VH | | | | | ● | | | | | | | | | | | | | | | | | | | | 0.60~1.20 | 6.00~12.00 |
| | 250716-VH | | | | | | | | | | | | | | | | | | | | | | | | | 0.70~1.40 | 6.00~15.00 |
| | 250724-VH | | | | | | ● | | | ● | | | | | | | | | | | | | | | | 0.70~1.40 | 6.00~15.00 |
| | 250920-VH | | | | | | | | | | | | | | | | | | | | | | | | | 0.70~1.40 | 6.00~15.00 |
| | 250924-VH | | | | | | ● | | | | | | | | | | | | | | | | | | | 0.70~1.50 | 6.00~14.00 |
| Heavy [High feed cutting] | SNMM 190612-VT | | | | | ● | | | | ● | | | | | | | | | | | | | | | 0.60~1.00 | 6.00~13.00 | |
| | 190616-VT | | | | | ● | | | | ● | | | | | | | | | | | | | | | | 0.60~1.10 | 6.00~13.00 |
| | 190624-VT | | | | | ● | | | | | | | | | | | | | | | | | | | | 0.60~1.60 | 7.00~13.00 |
| | 250716-VT | | | | | | | | | | | | | | | | | | | | | | | | | 0.75~1.60 | 7.00~15.00 |
| | 250724-VT | | | | | | ● | | | ● | | | | | | | | | | | | | | | | 0.75~1.60 | 7.00~15.00 |
| | 250920-VT | | | | | | | | | | | | | | | | | | | | | | | | | 0.75~1.60 | 7.00~15.00 |
| | 250924-VT | | | | | | ● | | | ● | | | | | | | | | | | | | | | | 0.75~1.60 | 7.00~17.00 |

➡ Cutting edge geometry A52~A61
➡ Recommended chip breaker B04~B11
➡ Code system B26~B27
● : Stock item

| Available tool holders | | | | | |
|------------------------|------|-------------|------|-------------|-----------|
| Designation | Page | Designation | Page | Designation | Page |
| MSBNR/L | B173 | MSRNR/L | B174 | PSDNN | B163 |
| MSDNN | B173 | MSSNR/L | B175 | PSKNR/L | B164, 199 |
| MSKNR/L | B174 | PSBNR/L | B163 | PSSNR/L | B164 |