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ISO - Система обозначения инструмента для токарной обработки

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

| | | | | | | | | |
|-----------------------|---|--|---|----------------------|--|--|--|----------------------------|
| <p>Верхний прижим</p> | <p>Верхний прижим и прижим рычагом через отверстие сверху</p> | <p>Верхний прижим и прижим рычагом через отверстие снизу</p> | <p>Прижим рычагом через отверстие снизу</p> | <p>Прижим винтом</p> | <p>80° C</p> <p>55° D</p> <p>75° E</p> <p>86° M</p> <p>35° V</p> <p>85° A</p> <p>82° B</p> <p>55° K</p> <p>Hexagon H</p> <p>Rectangle L</p> <p>Octagon O</p> <p>Pentagon P</p> <p>Circle R</p> <p>Square S</p> <p>Triangle T</p> <p>Pentagon W</p> | <p>90° A</p> <p>75° B</p> <p>90° C</p> <p>45° D</p> <p>60° E</p> <p>90° F</p> <p>90° G</p> <p>107.5° H</p> <p>93° J</p> <p>75° K</p> <p>95° L</p> <p>50° M</p> <p>63° N</p> <p>75° R</p> <p>45° S</p> <p>60° T</p> <p>93° U</p> <p>72.5° V</p> <p>60° W</p> <p>85° Y</p> | <p>3° A</p> <p>5° B</p> <p>7° C</p> <p>15° D</p> <p>20° E</p> <p>25° F</p> <p>30° G</p> <p>0° N</p> <p>11° P</p> <p>Прочий O</p> | <p>R</p> <p>L</p> <p>N</p> |
|-----------------------|---|--|---|----------------------|--|--|--|----------------------------|

| | | | | |
|---|---|---|---|---|
| S | C | L | C | R |
|---|---|---|---|---|

| | | | | |
|---------------------------|----------------|--------------|-------------|---------------------|
| Способ крепления пластины | Форма пластины | Тип державки | Задний угол | Применение державки |
|---------------------------|----------------|--------------|-------------|---------------------|

ISO - Система обозначения инструмента для токарной обработки

Токарная обработка

Высота державки, мм

25

Высота державки

Ширина державки, мм

25

Ширина державки

| L1 (мм) | | L1 (мм) |
|---------|----------|--------------|
| 32 | A | 150 M |
| 40 | B | 160 N |
| 50 | C | 170 P |
| 60 | D | 180 Q |
| 70 | E | 200 R |
| 80 | F | 250 S |
| 90 | G | 300 T |
| 100 | H | 350 U |
| 110 | J | 400 V |
| 125 | K | 450 W |
| 140 | L | 500 Y |

Специальная X

M

Длина державки

| d (мм) | |
|--------|--|
| 06 | |
| 08 | |
| 10 | |
| 12 | |
| 16 | |
| 20 | |
| 25 | |
| 32 | |

| (мм) | d (дюйм) | (мм) | (мм) |
|------|----------|------|------|
| 06 | 5/32 | 3.96 | 03 |
| 09 | 7/32 | 5.55 | 05 |
| 11 | 1/4 | 6.35 | 06 |
| 16 | 3/8 | 9.52 | 09 |
| 22 | 1/2 | 12.7 | 12 |
| 27 | 5/8 | 15.8 | 15 |
| 33 | 3/4 | 19.0 | 19 |
| 44 | 1 | 25.4 | 25 |

12

Размер режущей кромки

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

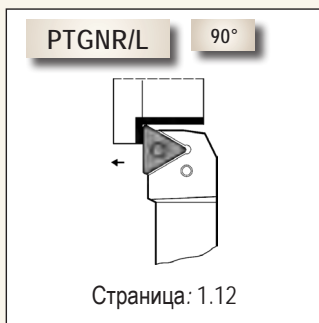
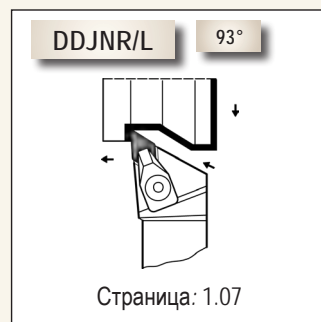
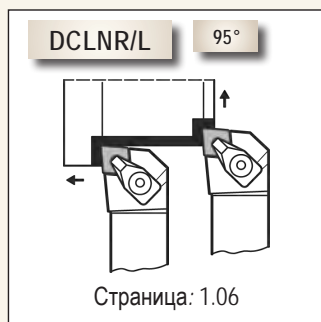
Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация



Обзор - Наружное точение II

SDACR/L 90°

Страница: 1.14

SDHCR/L 107,5°

Страница: 1.14

SDJCR/L 93°

Страница: 1.15

SDNCN 62,5°

Страница: 1.15

SKJCR/L 93°

Страница: 1.16

SRDCN 45°

Страница: 1.16

SSSCR/L 45°

Страница: 1.17

STGCR/L 90°

Страница: 1.17

SVHCR/L 107,5°

Страница: 1.18

SVJBR/L 93°

Страница: 1.18

SVJCR/L 93°

Страница: 1.19

SVVCN 72,5°

Страница: 1.19

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

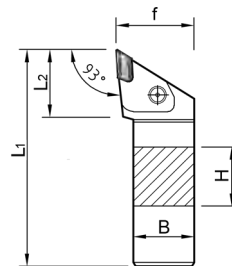
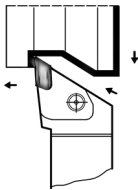
Микро-инструмент

Инструмент для нарезания резьбы

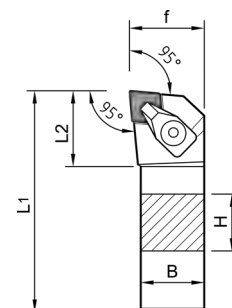
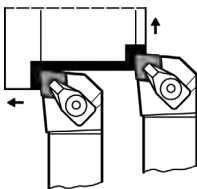
Сборные сверла

Твердосплавные сверла

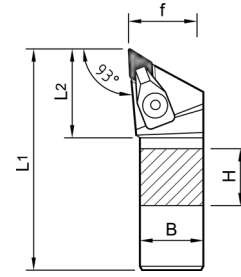
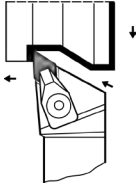
Общая информация

CKJNR/L
93°


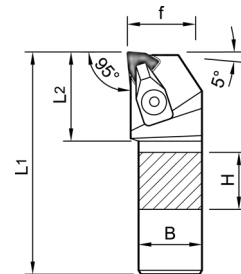
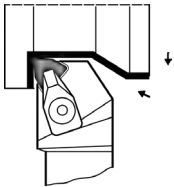
| Шифр | Размеры (мм) | | | | | Страница: 1.38 | Запасные части | | | | | | | |
|-----------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | 4 mm | | | | | 2 mm |
| CKJNR 2020 K16 | 20 | 20 | 125 | 32 | 25 | KNUX 1604••R | 48.11.705 | 48.11.105 | 48.12.606 | 48.11.503 | 48.11.504 | 48.11.208 | 48.11.301 | 48.12.605 |
| 2525 M16 | 25 | 25 | 150 | 32 | 32 | | | | | | | 48.11.208 | | |
| 3232 P16 | 32 | 32 | 170 | 32 | 40 | | | | | | | 48.11.208 | | |
| CKJNL 2020 K16 | 20 | 20 | 125 | 32 | 25 | KNUX 1604••L | 48.11.706 | 48.11.105 | 48.12.606 | 48.11.503 | 48.11.504 | 48.11.209 | 48.11.301 | 48.12.605 |
| 2525 M16 | 25 | 25 | 150 | 32 | 32 | | | | | | | 48.11.209 | | |
| 3232 P16 | 32 | 32 | 170 | 32 | 40 | | | | | | | 48.11.209 | | |

DCLNR/L
95°


| Шифр | Размеры (мм) | | | | | Страница: 1.35 | Запасные части | | | | | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | 4 mm | | | | 2,5 mm | |
| DCLNR/L 2020 K12 | 20 | 20 | 125 | 30 | 25 | CN •• 1204 •• | 48.34.701 | 48.34.101 | 48.12.606 | 48.33.501 | 48.33.502 | 48.33.201 | 48.34.102 | 48.12.604 |
| 2525 M12 | 25 | 25 | 150 | 30 | 32 | | | | | | | 48.33.201 | | |
| 3232 P12 | 32 | 32 | 170 | 30 | 40 | | | | | | | 48.33.201 | | |

DDJNR/L
93°


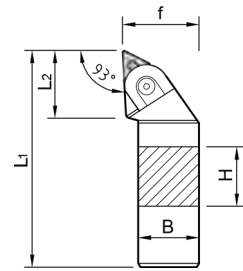
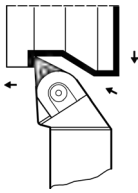
| Шифр | Размеры (мм) | | | | | Страница: 1.37 | Запасные части | | | | | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | H | B | L ₁ | L ₂ | f | | | | 4 mm | | | | | 2,5 mm |
| DDJNR/L 2020 K15 | 20 | 20 | 125 | 38 | 25 | DN • 1506 • | 48.34.701 | 48.34.101 | 48.12.606 | 48.33.501 | 48.33.502 | 48.33.202 | 48.34.102 | 48.12.604 |
| 2525 M15 | 25 | 25 | 150 | 38 | 32 | | | | | | | | | |
| 3232 P15 | 32 | 32 | 170 | 38 | 40 | | | | | | | | | |

DWLNR/L
95°


| Шифр | Размеры (мм) | | | | | Страница: 1.46 | Запасные части | | | | | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | 4 mm | | | | | |
| DWLNR/L 2020 K08 | 20 | 20 | 125 | 35 | 25 | WN • 0804 • | 48.34.701 | 48.34.101 | 48.12.606 | 48.33.501 | 48.33.502 | 48.34.201 | 56.44.102 | 56.33.614 |
| 2525 M08 | 25 | 25 | 150 | 35 | 32 | | | | | | | | | |
| 3232 P08 | 32 | 32 | 170 | 35 | 40 | | | | | | | | | |

MTJNR/L

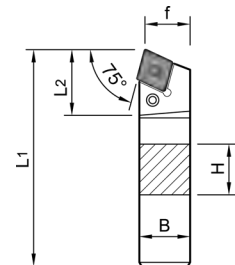
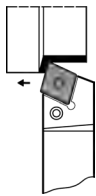
93°



| Шифр | Размеры (мм) | | | | | Страница: 1.42 | Запасные части | | | | | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | | | | |
| MTJNR/L 2020 K16 | 20 | 20 | 125 | 33 | 25 | TN •• 1604 •• | 48.10.702 | 48.10.505 | 48.10.201 | 48.10.104 | 48.10.501 | 48.10.902 | 48.10.503 | 48.12.604 |
| 2525 M16 | 25 | 25 | 150 | 33 | 32 | | | | | | | | | |
| 3232 P16 | 32 | 32 | 170 | 33 | 40 | | | | | | | | | |
| 2525 M22 | 25 | 25 | 150 | 35 | 32 | TN •• 2204 •• | 48.10.703 | 48.10.506 | 48.10.202 | 48.10.502 | 48.10.903 | 48.10.504 | 48.12.603 | |
| 3232 P22 | 32 | 32 | 170 | 35 | 40 | | | | | | | | | |

PCBNR/L

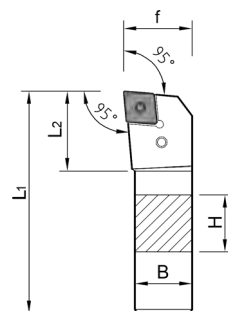
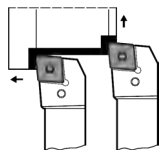
75°



| Шифр | Размеры (мм) | | | | | Страница: 1.35 | Запасные части | | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PCBNR/L 2020 K12 | 20 | 20 | 125 | 27 | 17 | CN •• 1204 •• | 48.12.414 | 48.12.113 | 48.33.201 | 48.12.901 | 48.12.603 |
| 2525 M12 | 25 | 25 | 150 | 27 | 22 | | | | | | |
| 3225 P12 | 32 | 25 | 170 | 27 | 22 | | | | | | |
| 2525 M16 | 25 | 25 | 150 | 33 | 22 | CN •• 1606 •• | 48.12.415 | 48.12.114 | 48.12.202 | 48.12.902 | 48.12.606 |
| 3232 P16 | 32 | 32 | 170 | 33 | 27 | | | | | | |
| 3232 P19 | 32 | 32 | 170 | 38 | 27 | CN •• 1906 •• | 48.12.416 | 48.12.115 | 48.12.203 | 48.12.903 | 48.12.606 |
| 4040 S19 | 40 | 40 | 250 | 38 | 35 | | | | | | |

PCLNR/L

95°



| Шифр | Размеры (мм) | | | | | Страница: 1.35 | Запасные части | | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PCLNR/L 1616 H09 | 16 | 16 | 100 | 20 | 20 | CN •• 0903 •• | 48.12.417 | 48.12.116 | 48.12.201 | 48.12.904 | 48.12.604 |
| 2020 K09 | 20 | 20 | 125 | 22 | 25 | | | | | | |
| 2525 M09 | 25 | 25 | 150 | 22 | 32 | | | | | | |
| 1616 H12 | 16 | 16 | 100 | 28 | 20 | CN •• 1204 •• | 48.12.414 | 48.12.113 | 48.33.201 | 48.12.901 | 48.12.603 |
| 2020 K12 | 20 | 20 | 125 | 28 | 25 | | | | | | |
| 2525 M12 | 25 | 25 | 150 | 28 | 32 | | | | | | |
| 3225 P12 | 32 | 25 | 170 | 28 | 32 | | | | | | |
| 2525 M16 | 25 | 25 | 150 | 33 | 32 | CN •• 1606 •• | 48.12.415 | 48.12.114 | 48.12.202 | 48.12.902 | |
| 3232 P16 | 32 | 32 | 170 | 33 | 40 | | | | | | |
| 3232 P19 | 32 | 32 | 170 | 38 | 40 | CN •• 1906 •• | 48.12.416 | 48.12.115 | 48.12.203 | 48.12.903 | 48.12.606 |
| 4040 S19 | 40 | 40 | 250 | 38 | 50 | | | | | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

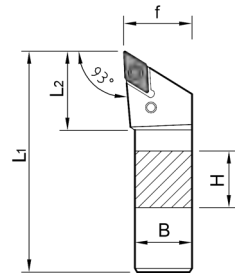
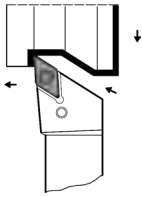
Микро-инструмент

Инструмент для нарезания резьбы

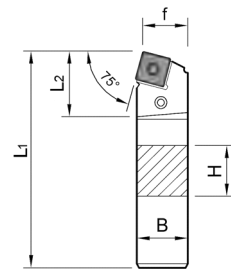
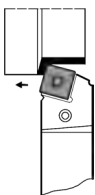
Сборные сверла

Твердосплавные сверла

Общая информация

PDJNR/L
93°


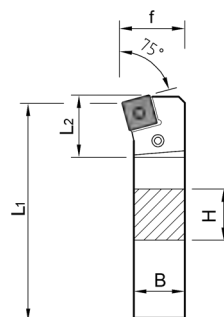
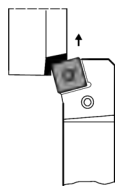
| Шифр | Размеры (мм) | | | | | Страница: 1.37 | Запасные части | | | | |
|--------------------------|--------------|----|----------------|----------------|----|----------------|----------------|--|--|--|--|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PDJNR /L 1616 H11 | 16 | 16 | 100 | 25 | 20 | DN ** 1104 ** | | | | | |
| 2020 K11 | 20 | 20 | 125 | 25 | 25 | | | | | | |
| 2525 M11 | 25 | 25 | 150 | 30 | 32 | | | | | | |
| 2020 K15 | 20 | 20 | 125 | 35 | 25 | DN ** 1506 ** | | | | | |
| 2525 M15 | 25 | 25 | 150 | 35 | 32 | | | | | | |
| 3225 P15 | 32 | 25 | 170 | 35 | 32 | | | | | | |
| 3232 P15 | 32 | 32 | 170 | 35 | 40 | | | | | | |

PSBNR/L
75°


| Шифр | Размеры (мм) | | | | | Страница: 1.40 | Запасные части | | | | |
|-------------------------|--------------|----|----------------|----------------|----|----------------|----------------|--|--|--|--|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PSBNR/L 2020 K12 | 20 | 20 | 125 | 28 | 17 | SN ** 1204 ** | | | | | |
| 2525 M12 | 25 | 25 | 150 | 28 | 22 | | | | | | |
| 3225 P12 | 32 | 25 | 170 | 28 | 22 | | | | | | |
| 3232 P12 | 32 | 32 | 170 | 28 | 27 | | | | | | |
| 2525 M15 | 25 | 25 | 150 | 35 | 22 | SN ** 1506 ** | | | | | |
| 3232 P15 | 32 | 32 | 170 | 37 | 27 | | | | | | |
| 3232 P19 | 32 | 32 | 170 | 40 | 27 | | | | | | |
| 4040 S19 | 40 | 40 | 250 | 40 | 35 | SN ** 1906 ** | | | | | |

PSKNR/L

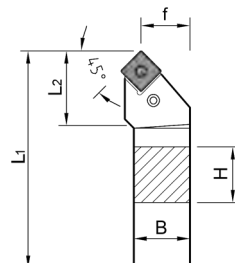
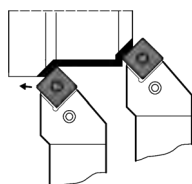
75°



| Шифр | Размеры (мм) | | | | | Страница: 1.40 | Запасные части | | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PSKNR/L 2020 K12 | 20 | 20 | 125 | 26 | 25 | SN •• 1204 •• | 48.12.414 | 48.12.113 | 48.12.205 | 48.12.901 | 48.12.603 |
| 2525 M12 | 25 | 25 | 150 | 26 | 32 | | | | | | |
| 2525 M15 | 25 | 25 | 150 | 32 | 32 | SN •• 1506 •• | 48.12.415 | 48.12.114 | 48.12.206 | 48.12.902 | |
| 3232 P15 | 32 | 32 | 170 | 32 | 40 | | | | | | |
| 3232 P19 | 32 | 32 | 170 | 40 | 40 | SN •• 1906 •• | 48.12.416 | 48.12.115 | 48.12.234 | 48.12.903 | |
| 4040 S19 | 40 | 40 | 250 | 50 | 50 | | | | | | |

PSSNR/L

45°



| Шифр | Размеры (мм) | | | | | Страница: 1.40 | Запасные части | | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PSSNR/L 2020 K12 | 20 | 20 | 125 | 30 | 25 | SN •• 1204 •• | 48.12.414 | 48.12.113 | 48.12.205 | 48.12.901 | 48.12.603 |
| 2525 M12 | 25 | 25 | 150 | 30 | 32 | | | | | | |
| 2525 M15 | 25 | 25 | 150 | 30 | 32 | SN •• 1506 •• | 48.12.415 | 48.12.114 | 48.12.206 | 48.12.902 | |
| 3232 P15 | 32 | 32 | 170 | 40 | 40 | | | | | | |
| 3232 P19 | 32 | 32 | 170 | 40 | 40 | SN •• 1906 •• | 48.12.416 | 48.12.115 | 48.12.234 | 48.12.903 | |
| 4040 S19 | 40 | 40 | 250 | 40 | 50 | | | | | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

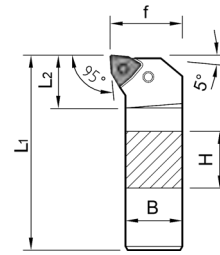
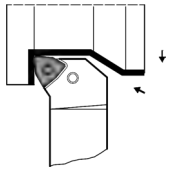
Общая информация



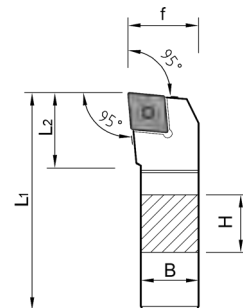
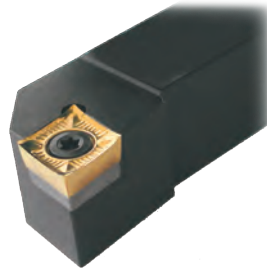
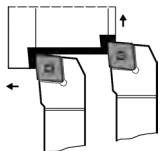
| Шифр | Размеры (мм) | | | | | Страница: 1.42 | Запасные части | | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PTFNR/L 1616 H16 | 16 | 16 | 100 | 20 | 20 | TN ** 1604 ** | 48.12.417 | 48.12.116 | 48.12.229 | 48.12.905 | 48.12.604 |
| 2020 K16 | 20 | 20 | 125 | 20 | 25 | | | | | | |
| 2525 M16 | 25 | 25 | 150 | 20 | 32 | | | | | | |
| 2525 M22 | 25 | 25 | 150 | 25 | 32 | TN ** 2204 ** | 48.12.414 | 48.12.113 | 48.12.230 | 48.12.901 | 48.12.603 |
| 3232 P22 | 32 | 32 | 170 | 25 | 40 | | | | | | |
| 3232 P27 | 32 | 32 | 170 | 33 | 40 | TN ** 2706 ** | 48.12.415 | 48.12.114 | 48.12.231 | 48.12.902 | |
| 4040 S27 | 40 | 40 | 250 | 33 | 50 | | | | | | |



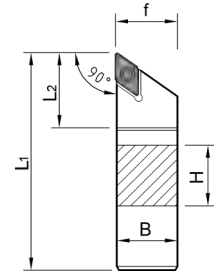
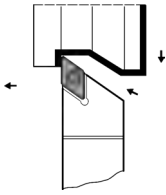
| Шифр | Размеры (мм) | | | | | Страница: 1.42 | Запасные части | | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| PTGNR/L 1616 H16 | 16 | 16 | 100 | 20 | 20 | TN ** 1604 ** | 48.12.417 | 48.12.116 | 48.12.229 | 48.12.905 | 48.12.604 |
| 2020 K16 | 20 | 20 | 125 | 20 | 25 | | | | | | |
| 2525 M16 | 25 | 25 | 150 | 20 | 32 | | | | | | |
| 3232 P16 | 32 | 32 | 170 | 20 | 40 | TN ** 2204 ** | 48.12.414 | 48.12.113 | 48.12.230 | 48.12.901 | 48.12.603 |
| 2525 M22 | 25 | 25 | 150 | 28 | 32 | | | | | | |
| 3232 P22 | 32 | 32 | 170 | 28 | 40 | TN ** 2706 ** | 48.12.415 | 48.12.114 | 48.12.231 | 48.12.902 | |
| 3232 P27 | 32 | 32 | 170 | 33 | 40 | | | | | | |
| 4040 S27 | 40 | 40 | 250 | 33 | 50 | | | | | | |

PWLNRL/L
95°


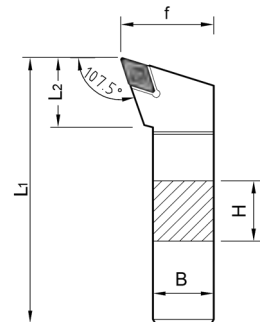
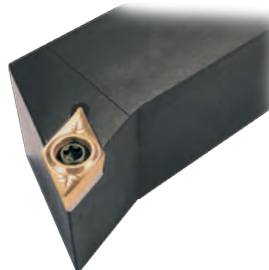
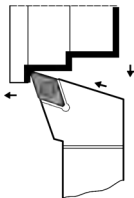
| Шифр | Размеры (мм) | | | | | | Страница: 1.46 | Запасные части | | | | |
|------------------------|--------------|----|----------------|----------------|----|---------------|--------------------|----------------|-----------|-----------|-----------|--|
| | H | B | L ₁ | L ₂ | f | | | | | | | |
| PWLNRL 1616 H06 | 16 | 16 | 100 | 20 | 20 | WN •• 0604 •• | 48.12.417 | 48.12.116 | 48.12.232 | 48.12.905 | 48.12.604 | |
| 2020 K06 | 20 | 20 | 125 | 20 | 25 | | | | | | | |
| 2525 M06 | 25 | 25 | 150 | 20 | 32 | | | | | | | |
| 2020 K08 | 20 | 20 | 125 | 26 | 25 | WN •• 0804 •• | 48.12.414 | 48.12.113 | 48.12.233 | 48.12.901 | 48.12.603 | |
| 2525 M08 | 25 | 25 | 150 | 26 | 32 | | | | | | | |

SCLCR/L
95°


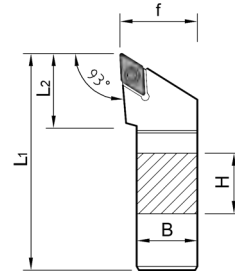
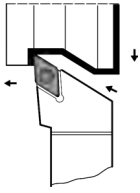
| Шифр | Размеры (мм) | | | | | | Страница: 1.34 | Запасные части | | | |
|-------------------------|--------------|----|----------------|----------------|----|---------------|--------------------|----------------|-----------|-----------|--|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| SCLCR/L 0808 D06 | 08 | 08 | 60 | 08 | 10 | CC •• 0602 •• | 48.13.101 | - | - | 56.33.612 | |
| 1010 E06 | 10 | 10 | 70 | 10 | 12 | | | | | | |
| 1212 F09 | 12 | 12 | 80 | 16 | 16 | | | | | | |
| 1616 H09 | 16 | 16 | 100 | 16 | 20 | CC •• 09T3 •• | 48.13.102 | 48.13.201 | 48.13.301 | 56.33.613 | |
| 2020 K09 | 20 | 20 | 125 | 25 | 25 | | | | | | |
| 1616 H12 | 16 | 16 | 100 | 25 | 20 | CC •• 1204 •• | 48.13.103 | 48.13.202 | 48.13.302 | | |
| 2020 K12 | 20 | 20 | 125 | 25 | 25 | | | | | | |
| 2525 M12 | 25 | 25 | 150 | 25 | 32 | | | | | | |

SDACR/L
90°


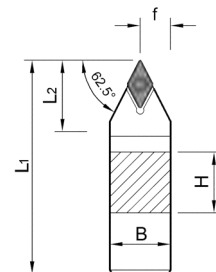
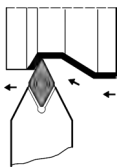
| Шифр | Размеры (мм) | | | | | Страница: 1.36 | Запасные части | | | |
|-------------------------|--------------|----|----------------|----------------|------|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SDACR/L 0808 K07 | 08 | 08 | 125 | 14 | 8.5 | DC •• 0702 •• | 48.13.101 | - | - | 56.33.612 |
| 1010 M07 | 10 | 10 | 150 | 14 | 10.5 | | - | - | - | - |
| 1212 M07 | 12 | 12 | 150 | 14 | 12.5 | | - | - | - | - |
| 1212 M11 | 12 | 12 | 150 | 21 | 12.5 | DC •• 11T3 •• | 48.24.109 | - | - | 56.33.613 |
| 1414 M11 | 14 | 14 | 150 | 21 | 14.5 | | - | - | - | |
| 2525 M11 | 25 | 25 | 150 | 21 | 25.5 | | 48.13.102 | 48.13.203 | 48.13.301 | |

SDHCR/L
107,5°


| Шифр | Размеры (мм) | | | | | Страница: 1.36 | Запасные части | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SDHCR/L 1010 E07 | 10 | 10 | 70 | 15 | 12 | DC •• 0702 •• | 48.13.101 | - | - | 56.33.612 |
| 1212 F07 | 12 | 12 | 80 | 15 | 16 | | - | - | - | - |
| 1616 H11 | 16 | 16 | 100 | 24 | 20 | DC •• 11T3 •• | 48.13.102 | 48.13.203 | 48.13.301 | 56.33.613 |
| 2020 K11 | 20 | 20 | 125 | 24 | 25 | | - | - | - | |
| 2525 M11 | 25 | 25 | 150 | 29 | 32 | | - | - | - | |

SDJCR/L
93°


| Шифр | Размеры (мм) | | | | | Страница: 1.36 | Запасные части | | | |
|-------------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SDJCR/L 1010 E07 | 10 | 10 | 70 | 15 | 12 | DC •• 0702 •• | 48.13.101 | - | - | 56.33.612 |
| 1212 F07 | 12 | 12 | 80 | 15 | 16 | | | | | |
| 1616 H11 | 16 | 16 | 100 | 24 | 20 | DC •• 11T3 •• | 48.13.102 | 48.13.203 | 48.13.301 | 56.33.613 |
| 2020 K11 | 20 | 20 | 125 | 24 | 25 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 29 | 32 | | | | | |

SDNCN
62,5°


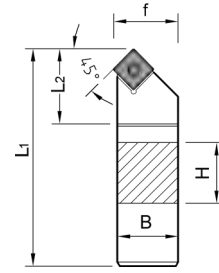
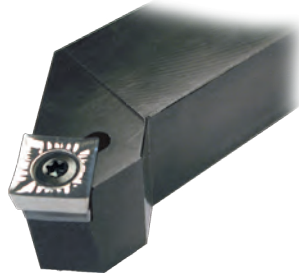
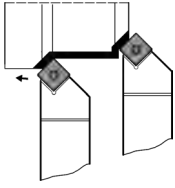
| Шифр | Размеры (мм) | | | | | Страница: 1.36 | Запасные части | | | |
|-----------------------|--------------|----|----------------|----------------|------|--------------------|----------------|---|---|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SDNCN 1010 E07 | 10 | 10 | 70 | 20 | 5 | DC •• 0702 •• | 48.13.101 | - | - | 56.33.612 |
| 1212 F07 | 12 | 12 | 80 | 20 | 6 | | | | | |
| 1212 M07 | 12 | 12 | 150 | 20 | 6 | | | | | |
| 1212 M11 | 12 | 12 | 150 | 30 | 6 | DC •• 11T3 •• | 48.24.109 | - | - | 56.33.613 |
| 1616 H11 | 16 | 16 | 100 | 30 | 8 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 30 | 10 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 30 | 12.5 | | | | | |



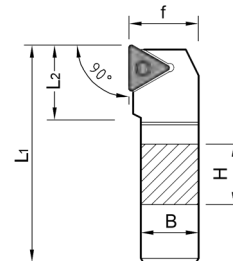
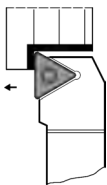
| Шифр | Размеры (мм) | | | | | Страница: 1.38 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|-----------------------|----------------|---|---|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SKJCR/L 1212 F11 | 12 | 12 | 80 | 15 | 16 | KC • X 1103 •• R/L | 48.13.104 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 24 | 20 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 24 | 25 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 29 | 32 | | | | | |



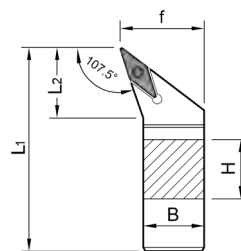
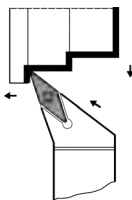
| Шифр | Размеры (мм) | | | | | | Страница: 1.39 | Запасные части | | | |
|----------------|--------------|----|----------------|----------------|------|----------------|--------------------|----------------|-----------|-----------|--|
| | H | B | L ₁ | L ₂ | f | | | | | | |
| SRDCN 1212 F06 | 12 | 12 | 80 | 12.4 | 6 | RC • T 0602 •• | 48.13.101 | - | - | 56.33.612 | |
| 1616 H06 | 16 | 16 | 100 | 12.4 | 8 | | | | | | |
| 2020 K06 | 20 | 20 | 125 | 12.4 | 10 | | | | | | |
| 2525 M06 | 25 | 25 | 150 | 12.4 | 12.5 | | | | | | |
| 1616 H08 | 16 | 16 | 100 | 16.4 | 8 | RC • T 0803 •• | 48.13.105 | - | - | 56.33.613 | |
| 2020 K08 | 20 | 20 | 125 | 16.4 | 10 | | | | | | |
| 2525 M08 | 25 | 25 | 150 | 16.4 | 12.5 | | | | | | |
| 1616 H10 | 16 | 16 | 100 | 20.4 | 8 | RC • T 1003 •• | 48.13.102 | 48.13.204 | 48.13.301 | 56.33.613 | |
| 2020 K10 | 20 | 20 | 125 | 20.4 | 10 | | | | | | |
| 2525 M10 | 25 | 25 | 150 | 20.4 | 12.5 | | | | | | |






SSSCR/L
45°


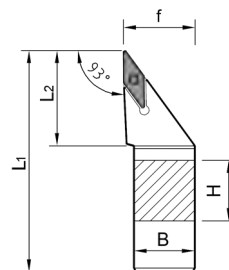
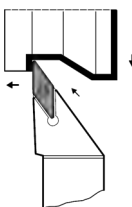
| Шифр | Размеры (мм) | | | | | Страница: 1.39 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SSSCR/L 1212 F09 | 12 | 12 | 80 | 18 | 13 | SC .. 09T3 .. | 48.13.102 | - | - | 56.33.612 |
| 1616 H09 | 16 | 16 | 100 | 20 | 17 | | | | | |
| 2020 K09 | 20 | 20 | 125 | 20 | 21 | | | | | |
| 1616 H12 | 16 | 16 | 100 | 25 | 17 | SC .. 1204 .. | 48.13.103 | 48.13.206 | 48.13.302 | 56.33.613 |
| 2020 K12 | 20 | 20 | 125 | 25 | 21 | | | | | |
| 2525 M12 | 25 | 25 | 150 | 25 | 26 | | | | | |
| 3225 P12 | 32 | 25 | 170 | 25 | 26 | | | | | |






STGCR/L
90°


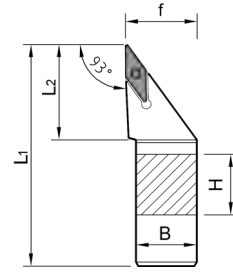
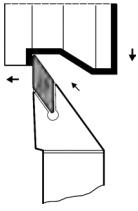
| Шифр | Размеры (мм) | | | | | Страница: 1.41 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| STGCR/L 1212 F11 | 12 | 12 | 80 | 15 | 16 | TC .. 1102 .. | 48.13.101 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 15 | 20 | | | | | |
| 1616 H16 | 16 | 16 | 100 | 22 | 20 | | | | | |
| 2020 K16 | 20 | 20 | 125 | 22 | 25 | TC .. 16T3 .. | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |
| 2525 M16 | 25 | 25 | 150 | 22 | 32 | | | | | |

SVHCR/L
107,5°


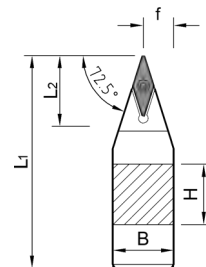
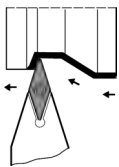
| Шифр | Размеры (мм) | | | | |  Страница: 1.45 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|---|---|---|---|---|
| | H | B | L ₁ | L ₂ | f | |  |  |  |  |
| SVHCR/L 1212 F11 | 12 | 12 | 80 | 11.5 | 16 | VC • 1103 •• | 48.13.101 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 11.5 | 20 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 14.5 | 25 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 20.0 | 32 | | | | | |
| 1616 H16 | 16 | 16 | 100 | 13.5 | 20 | VC • 1604 •• | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| 2020 K16 | 20 | 20 | 125 | 13.5 | 25 | | | | | |
| 2525 M16 | 25 | 25 | 150 | 20.0 | 32 | | | | | |

SVJBR/L
93°


| Шифр | Размеры (мм) | | | | |  Страница: 1.44 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|---|---|---|---|---|
| | H | B | L ₁ | L ₂ | f | |  |  |  |  |
| SVJBR/L 1212 F11 | 12 | 12 | 80 | 21.5 | 16 | VB • 1103 •• | 48.13.101 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 21.5 | 20 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 23.0 | 25 | | | | | |
| 1616 H16 | 16 | 16 | 100 | 29.5 | 20 | VB • 1604 •• | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| 2020 K16 | 20 | 20 | 125 | 29.5 | 25 | | | | | |
| 2525 M16 | 25 | 25 | 150 | 32.5 | 32 | | | | | |

SVJCR/L
93°


| Шифр | Размеры (мм) | | | | | Страница: 1.45 | Запасные части | | | |
|------------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SVJCR/L 1212 F11 | 12 | 12 | 80 | 21.5 | 16 | VC •• 1103 •• | 48.13.101 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 21.5 | 20 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 23.0 | 25 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 25.5 | 32 | | | | | |
| 1616 H16 | 16 | 16 | 100 | 29.5 | 20 | VC •• 1604 •• | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| 2020 K16 | 20 | 20 | 125 | 29.5 | 25 | | | | | |
| 2525 M16 | 25 | 25 | 150 | 32.5 | 32 | | | | | |

SVVCN
72,5°


| Шифр | Размеры (мм) | | | | | Страница: 1.45 | Запасные части | | | |
|----------------|--------------|----|----------------|----------------|----|--------------------|----------------|-----------|-----------|-----------|
| | H | B | L ₁ | L ₂ | f | | | | | |
| SVVCN 1212 F11 | 12 | 12 | 80 | 27 | 6 | VC •• 1103 •• | 48.13.101 | - | - | 56.33.612 |
| 1616 H11 | 16 | 16 | 100 | 27 | 8 | | | | | |
| 2020 K11 | 20 | 20 | 125 | 27 | 10 | | | | | |
| 2525 M11 | 25 | 25 | 150 | 41 | 12 | | | | | |
| 1616 H16 | 16 | 16 | 100 | 36 | 8 | VC •• 1604 •• | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| 2020 K16 | 20 | 20 | 125 | 41 | 10 | | | | | |
| 2525 M16 | 25 | 25 | 150 | 41 | 12 | | | | | |

ISO - Система обозначения инструмента для растачивания

| <p style="text-align: center; font-weight: bold; font-size: 24px;">A</p> <p>Стальной хвостовик с отверстием для подвода СОЖ</p> | | | <p>Верхний прижим</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------------------|--|----|----|----|----|----|----|----|----|----|---|------------------------|------------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|--------------------------|---|---|
| <p style="text-align: center; font-weight: bold; font-size: 24px;">B</p> <p>Стальной антивибрационный хвостовик</p> | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="text-align: center;">D₁ (мм)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">08</td></tr> <tr><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">12</td></tr> <tr><td style="text-align: center;">16</td></tr> <tr><td style="text-align: center;">20</td></tr> <tr><td style="text-align: center;">25</td></tr> <tr><td style="text-align: center;">32</td></tr> <tr><td style="text-align: center;">40</td></tr> <tr><td style="text-align: center;">50</td></tr> <tr><td style="text-align: center;">60</td></tr> </tbody> </table> | D ₁ (мм) | 08 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 60 | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="text-align: center;">L₁ (мм)</th> <th style="text-align: center;">L₁ (мм)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">32</td><td style="text-align: center;">A 150 M</td></tr> <tr><td style="text-align: center;">40</td><td style="text-align: center;">B 160 N</td></tr> <tr><td style="text-align: center;">50</td><td style="text-align: center;">C 170 P</td></tr> <tr><td style="text-align: center;">60</td><td style="text-align: center;">D 180 Q</td></tr> <tr><td style="text-align: center;">70</td><td style="text-align: center;">E 200 R</td></tr> <tr><td style="text-align: center;">80</td><td style="text-align: center;">F 250 S</td></tr> <tr><td style="text-align: center;">90</td><td style="text-align: center;">G 300 T</td></tr> <tr><td style="text-align: center;">100</td><td style="text-align: center;">H 350 U</td></tr> <tr><td style="text-align: center;">110</td><td style="text-align: center;">J 400 V</td></tr> <tr><td style="text-align: center;">125</td><td style="text-align: center;">K 450 W</td></tr> <tr><td style="text-align: center;">140</td><td style="text-align: center;">L 500 Y</td></tr> <tr><td style="text-align: center;"><i>Специальная длина</i></td><td style="text-align: center;">X</td></tr> </tbody> </table> | L ₁ (мм) | L ₁ (мм) | 32 | A 150 M | 40 | B 160 N | 50 | C 170 P | 60 | D 180 Q | 70 | E 200 R | 80 | F 250 S | 90 | G 300 T | 100 | H 350 U | 110 | J 400 V | 125 | K 450 W | 140 | L 500 Y | <i>Специальная длина</i> | X | <p>Верхний прижим и прижим рычагом через отверстие сверху</p> |
| D ₁ (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L ₁ (мм) | L ₁ (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | A 150 M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | B 160 N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | C 170 P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | D 180 Q | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | E 200 R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | F 250 S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 | G 300 T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | H 350 U | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 | J 400 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125 | K 450 W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | L 500 Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Специальная длина</i> | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center; font-weight: bold; font-size: 24px;">C</p> <p>Твердосплавный хвостовик со стальной головкой</p> | | | <p>Верхний прижим и прижим рычагом через отверстие снизу</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center; font-weight: bold; font-size: 24px;">E</p> <p>Твердосплавный хвостовик со стальной головкой с отверстием для подвода СОЖ</p> | | | <p>Прижим рычагом через отверстие снизу</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: center; font-weight: bold; font-size: 24px;">S</p> <p>Стальной хвостовик</p> | | | <p>Прижим винтом</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 32 | S | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Тип хвостовика | Диаметр хвостовика | Длина | Способ крепления пластины | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ISO - Система обозначения инструмента для растачивания

| | <p>80° C</p> <p>55° D</p> <p>75° E</p> <p>86° M</p> <p>35° V</p> <p>85° A</p> <p>82° B</p> <p>55° K</p> <p> H</p> <p> L</p> <p> O</p> <p> P</p> <p> R</p> <p> S</p> <p> T</p> <p> W</p> | F K L Q S U W Y <p>Спец.тип X</p> | <p>3° A</p> <p>5° B</p> <p>7° C</p> <p>15° D</p> <p>20° E</p> <p>25° F</p> <p>30° G</p> <p>0° N</p> <p>11° P</p> <p>Прочий O</p> | <p style="text-align: center;">L</p> <p style="text-align: center;">R</p> | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th colspan="2">d (мм)</th></tr> <tr><td>06</td><td></td></tr> <tr><td>08</td><td></td></tr> <tr><td>10</td><td></td></tr> <tr><td>12</td><td></td></tr> <tr><td>16</td><td></td></tr> <tr><td>20</td><td></td></tr> <tr><td>25</td><td></td></tr> <tr><td>32</td><td></td></tr> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><th colspan="4">d</th></tr> <tr><th>(мм)</th><th>(дюйм)</th><th>(мм)</th><th>(мм)</th></tr> <tr><td>06</td><td>5/32</td><td>3.96</td><td>03</td></tr> <tr><td>09</td><td>7/32</td><td>5.55</td><td>05</td></tr> <tr><td>11</td><td>1/4</td><td>6.35</td><td>06</td></tr> <tr><td>16</td><td>3/8</td><td>9.52</td><td>09</td></tr> <tr><td>22</td><td>1/2</td><td>12.7</td><td>12</td></tr> <tr><td>27</td><td>5/8</td><td>15.8</td><td>15</td></tr> <tr><td>33</td><td>3/4</td><td>19.0</td><td>19</td></tr> <tr><td>44</td><td>1</td><td>25.4</td><td>25</td></tr> </table> | d (мм) | | 06 | | 08 | | 10 | | 12 | | 16 | | 20 | | 25 | | 32 | | d | | | | (мм) | (дюйм) | (мм) | (мм) | 06 | 5/32 | 3.96 | 03 | 09 | 7/32 | 5.55 | 05 | 11 | 1/4 | 6.35 | 06 | 16 | 3/8 | 9.52 | 09 | 22 | 1/2 | 12.7 | 12 | 27 | 5/8 | 15.8 | 15 | 33 | 3/4 | 19.0 | 19 | 44 | 1 | 25.4 | 25 |
|-----------|---|--|--|---|---|--------|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|----|--|---|--|--|--|------|--------|------|------|-----------|------|------|-----------|-----------|------|------|-----------|-----------|-----|------|-----------|-----------|-----|------|-----------|-----------|-----|------|-----------|-----------|-----|------|-----------|-----------|-----|------|-----------|-----------|---|------|-----------|
| d (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (мм) | (дюйм) | (мм) | (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | 5/32 | 3.96 | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 | 7/32 | 5.55 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 1/4 | 6.35 | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 3/8 | 9.52 | 09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | 1/2 | 12.7 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 5/8 | 15.8 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | 3/4 | 19.0 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | 1 | 25.4 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|---|---|---|---|----|
| C | L | N | L | 12 |
|---|---|---|---|----|

| | | | | |
|----------------|--------------|-------------|---------------------|----------------------|
| Форма пластины | Тип державки | Задний угол | Применение державки | Длина режущей кромки |
|----------------|--------------|-------------|---------------------|----------------------|

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

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Твердосплавные сверла

Общая информация

Обзор - Внутренняя обработка

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Сборные сверла

Твердосплавные сверла

Общая информация

DCLNR/L 95°

Страница: 1.23

DDUNR/L 93°

Страница: 1.23

PCLNR/L 95°

Страница: 1.24

PDUNR/L 93°

Страница: 1.24

PSKNR/L 75°

Страница: 1.25

PTFNR/L 90°

Страница: 1.25

SCLCR/L 95°

Страница: 1.26

SDQCR/L 107,5°

Страница: 1.27

SDUCR/L 93°

Страница: 1.27

SDXCR/L 93°

Страница: 1.28

SKUCR/L 93°

Страница: 1.29

SSSCR/L 45°

Страница: 1.29

STFCR/L 91°

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SVQCR/L 107,5°

Страница: 1.30

SVUCR/L 93°

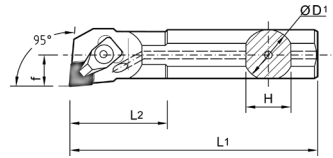
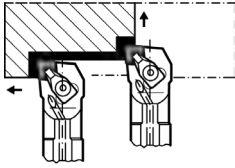
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SVXCR/L 113°

Страница: 1.31

DCLNR/L

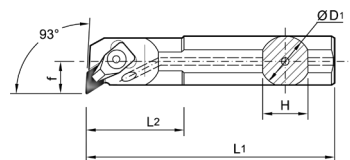
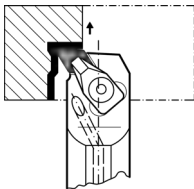
95°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.35 | Запасные части | | | | | | | |
|-----------------|--------------|-------|----|-------|-------|----|-------------|--------------------|----------------|------|--|--|--|--|--------|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | | | | |
| A25R DCLNR/L 12 | 32 | 25 | 23 | 200 | 50 | 17 | CN • 1204 • | | | 4 mm | | | | | 2,5 mm | |
| A32S DCLNR/L 12 | 40 | 32 | 30 | 250 | 60 | 22 | | | | | | | | | | |
| A40T DCLNR/L 12 | 50 | 40 | 37 | 300 | 60 | 27 | | | | | | | | | | |
| A50U DCLNR/L 12 | 63 | 50 | 47 | 350 | 65 | 35 | | | | | | | | | | |

DDUNR/L

93°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.37 | Запасные части | | | | | | | |
|-----------------|--------------|-------|----|-------|-------|----|-------------|--------------------|----------------|------|--|--|--|--|--------|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | | | | |
| A32S DDUNR/L 15 | 40 | 32 | 30 | 250 | 55 | 22 | DN • 1506 • | | | 4 mm | | | | | 2,5 mm | |
| A40T DDUNR/L 15 | 50 | 40 | 37 | 300 | 55 | 27 | | | | | | | | | | |

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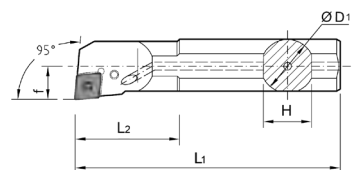
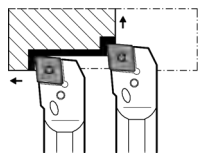
Сборные сверла

Твердосплавные сверла

Общая информация

PCLNR/L

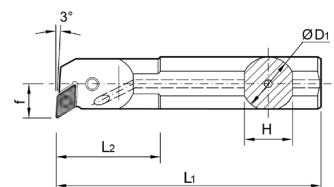
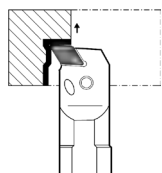
95°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.35 | Запасные части | | | | | |
|-----------------|--------------|-------|------|-------|-------|----|---------------|--------------------|----------------|--|--|--|--|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | | |
| S16R PCLNR/L 09 | 21 | 16 | 15 | 150 | - | 11 | CN •• 0903 •• | | | | | | | |
| S20S PCLNR/L 09 | 25 | 20 | 19 | 180 | - | 13 | | | | | | | | |
| S25T PCLNR/L 09 | 32 | 25 | 24 | 200 | - | 17 | | | | | | | | |
| A25R PCLNR/L 12 | 32 | 25 | 24 | 200 | 40 | 17 | CN •• 1204 •• | | | | | | | |
| A32S PCLNR/L 12 | 44 | 32 | 31 | 250 | 50 | 22 | | | | | | | | |
| A40T PCLNR/L 12 | 54 | 40 | 38.5 | 300 | 55 | 27 | | | | | | | | |
| A50U PCLNR/L 12 | 63 | 50 | 48.5 | 350 | 56 | 35 | | | | | | | | |

PDUNR/L

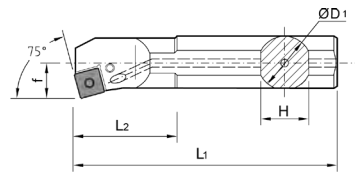
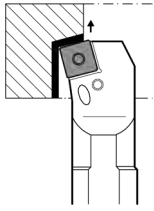
93°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.37 | Запасные части | | | | | |
|-----------------|--------------|-------|------|-------|-------|------|---------------|--------------------|----------------|--|--|--|--|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | | |
| A20Q PDUNR/L 11 | 25 | 20 | 19 | 180 | - | 16 | DN •• 1104 •• | | | | | | | |
| A25R PDUNR/L 11 | 31.5 | 25 | 24 | 200 | - | 18.5 | | | | | | | | |
| A32S PDUNR/L 11 | 40 | 32 | 31 | 250 | - | 22 | | | | | | | | |
| A32S PDUNR/L 15 | 40 | 32 | 31 | 250 | 50 | 22 | DN •• 1506 •• | | | | | | | |
| A40T PDUNR/L 15 | 50 | 40 | 38.5 | 300 | 50 | 27 | | | | | | | | |

PSKNR/L

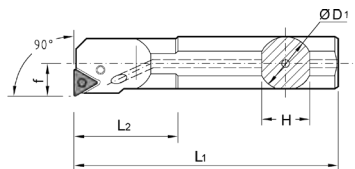
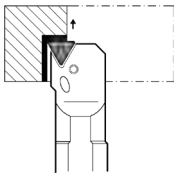
75°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.40 | Запасные части | | | | |
|-----------------|--------------|-------|------|-------|-------|----|-------------|--------------------|----------------|-----------|-----------|-----------|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | |
| A25R PSKNR/L 12 | 32 | 25 | 24 | 200 | 42 | 17 | SN • 1204 • | 48.23.103 | 48.23.402 | - | - | 48.12.604 | |
| A32S PSKNR/L 12 | 44 | 32 | 31 | 250 | 50 | 22 | | 48.12.113 | 48.12.414 | 48.23.203 | 48.12.901 | 48.12.603 | |
| A40T PSKNR/L 12 | 54 | 40 | 38.5 | 300 | 55 | 27 | | | | | | | |

PTFNR/L

90°



| Шифр | Размеры (мм) | | | | | | | Страница: 1.42 | Запасные части | | | | |
|-----------------|--------------|-------|------|-------|-------|----|-------------|--------------------|----------------|-----------|-----------|-----------|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | |
| A25R PTFNR/L 16 | 32 | 25 | 24 | 200 | 40 | 17 | TN • 1604 • | 48.23.102 | 48.23.404 | - | - | 48.12.605 | |
| A32S PTFNR/L 16 | 44 | 32 | 31 | 250 | 50 | 22 | | 48.12.116 | 48.12.417 | 48.23.202 | 48.12.905 | 48.12.604 | |
| A40T PTFNR/L 16 | 54 | 40 | 38.5 | 300 | 55 | 27 | | | | | | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

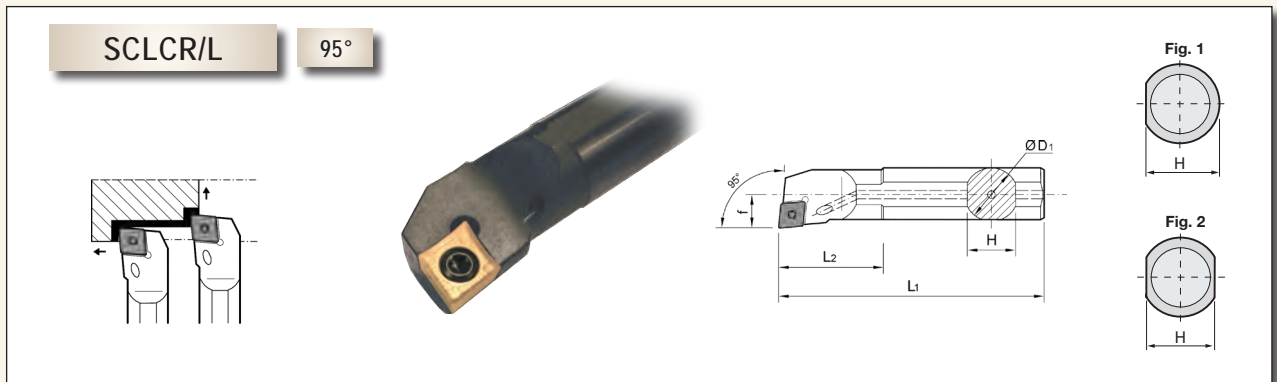
Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

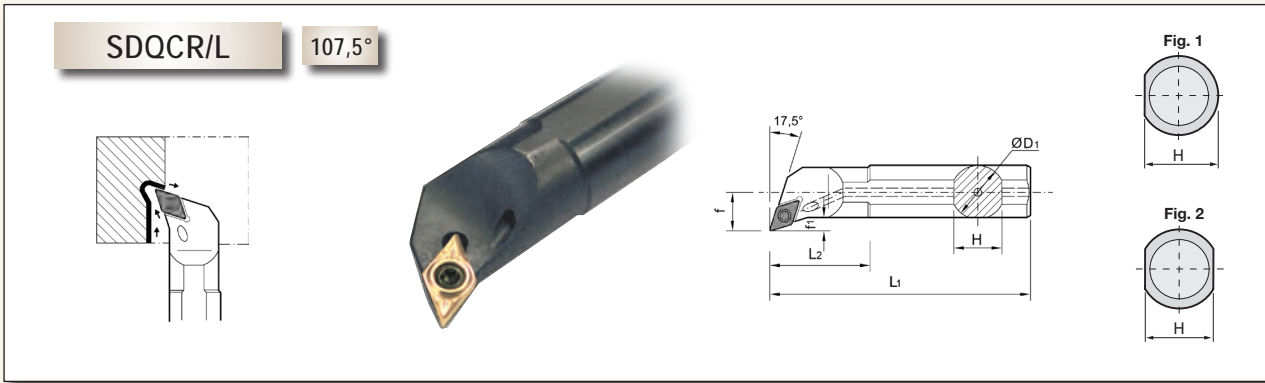


| Шифр | Размеры (мм) | | | | | | Тип | Страница: 1.34 | Запасные части | | | |
|-----------------|------------------|----------------|------|----------------|----------------|-----|-----|--------------------|----------------|-------|-------|---------------|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | |
| A10H SCLCR 0305 | 5 | 10 | 9 | 100 | 25 | 2.5 | 2 | Страница: 1.34 | 48.24.142 | - | - | 75.20.621 |
| A10H SCLCR 0306 | 6 | 10 | 9 | 100 | 25 | 3.0 | | | | | | |
| A10J SCLCR 0407 | 7 | 10 | 9 | 110 | 30 | 3.5 | | | | | | |
| A10J SCLCR 0408 | 8 | 10 | 9 | 110 | 30 | 4.0 | | | | | | |
| E04G SCLCR 0305 | 5 | 4 | 3.8 | 90 | - | 2.5 | 1 | Страница: 1.34 | 48.24.142 | - | - | 75.20.621 |
| E05H SCLCR 0306 | 6 | 5 | 4.4 | 100 | - | 3.0 | | | | | | |
| E06J SCLCR 0407 | 7 | 6 | 5.4 | 110 | - | 3.5 | | | | | | |
| E07K SCLCR 0408 | 8 | 7 | 6.4 | 120 | - | 4.0 | | | | | | |
| S08H SCLCR/L 06 | 11 | 8 | 7 | 100 | 17 | 5 | 2 | Страница: 1.34 | 48.24.107 | - | - | 56.33.612 |
| S10K SCLCR/L 06 | 14 | 10 | 9 | 125 | - | 6 | | | | | | |
| S12Q SCLCR/L 06 | 17 | 12 | 11 | 180 | 24 | 9 | | | | | | |
| S16R SCLCR/L 09 | 21 | 16 | 15 | 200 | 31.5 | 11 | 2 | Страница: 1.34 | 48.24.108 | - | - | 56.33.613 |
| S20S SCLCR/L 09 | 25 | 20 | 18 | 250 | 38 | 13 | | | | | | |
| S25T SCLCR/L 09 | 32 | 25 | 23 | 300 | 45 | 17 | | | | | | |
| A08F SCLCR/L 06 | 11 | 8 | 7.5 | 80 | 17 | 5 | | | | | | |
| A10H SCLCR/L 06 | 14 | 10 | 9.5 | 100 | 20 | 6 | 2 | Страница: 1.34 | 48.24.107 | - | - | 56.33.612 |
| A12K SCLCR/L 06 | 17 | 12 | 11 | 125 | 22 | 9 | | | | | | |
| A16M SCLCR/L 09 | 21 | 16 | 15 | 150 | 30 | 11 | | | | | | |
| A20Q SCLCR/L 09 | 25 | 20 | 19 | 180 | 38 | 13 | | | | | | |
| A25R SCLCR/L 09 | 32 | 25 | 24 | 200 | 40 | 17 | | | | | | |
| A32S SCLCR/L 12 | 40 | 32 | 31 | 250 | 50 | 22 | | | | | | |
| A40T SCLCR/L 12 | 50 | 40 | 38.5 | 300 | 60 | 27 | | | | | | |
| E08K SCLCR/L 06 | 11 | 8 | 7.5 | 125 | - | 5 | 1 | Страница: 1.34 | 48.24.107 | - | - | 56.33.612 |
| E10M SCLCR/L 06 | 14 | 10 | 9.5 | 150 | - | 6 | | | | | | |
| E12Q SCLCR/L 06 | 17 | 12 | 11 | 180 | - | 9 | | | | | | |
| E16R SCLCR/L 09 | 21 | 16 | 15 | 200 | 32.5 | 11 | | | | | | |
| E20S SCLCR/L 09 | 25 | 20 | 19 | 250 | 38 | 13 | | | | | | |
| E25T SCLCR/L 09 | 32 | 25 | 23 | 300 | 45 | 17 | | | | | | |

S : Хвостовик из стали

A : Хвостовик из стали с отверстиями для подвода СОЖ

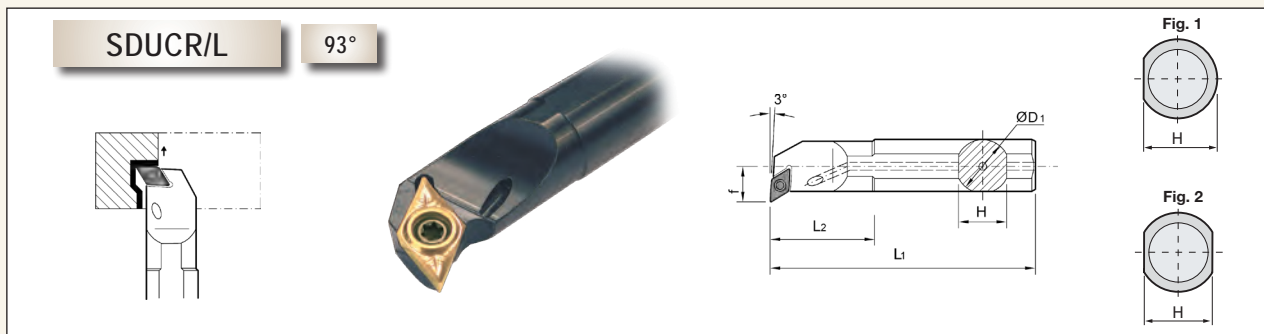
E : Хвостовик из твердого сплава с отверстиями для подвода СОЖ



| Шифр | Размеры (мм) | | | | | | Тип | Страница: 1.36 | Запасные части | | | | |
|-----------------|------------------|----------------|-----|----------------|----------------|----|-----------|--------------------|-------------------|-----------|-----------|-----------|-----------|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | | |
| A10H SDQCR/L 07 | 14 | 10 | 9.5 | 100 | 18 | 7 | 2 | DC .. 0702 .. | 48.13.101 | - | - | 56.33.612 | |
| A12K SDQCR/L 07 | 17 | 12 | 11 | 125 | 22 | 9 | | | 48.13.101 | - | - | 56.33.612 | |
| A16M SDQCR/L 07 | 21 | 16 | 15 | 150 | 30 | 11 | | | 48.13.101 | - | - | 56.33.612 | |
| A20Q SDQCR/L 07 | 25 | 20 | 19 | 180 | 32 | 13 | | | 48.13.101 | - | - | 56.33.612 | |
| A16M SDQCR/L 11 | 21 | 16 | 15 | 150 | 30 | 11 | | | DC .. 11T3 .. | 48.24.109 | - | - | 56.33.613 |
| A20Q SDQCR/L 11 | 25 | 20 | 19 | 180 | 32 | 13 | | | | 48.24.109 | - | - | 56.33.613 |
| A25R SDQCR/L 11 | 32 | 25 | 24 | 200 | 44 | 17 | 48.24.109 | - | | - | 56.33.613 | | |
| E10M SDQCR/L 07 | 14 | 10 | 9.5 | 150 | - | 7 | 1 | DC .. 0702 .. | 48.13.101 | - | - | 56.33.612 | |
| E12Q SDQCR/L 07 | 17 | 12 | 11 | 180 | - | 9 | | | 48.13.101 | - | - | 56.33.612 | |
| E16R SDQCR/L 07 | 21 | 16 | 15 | 200 | - | 11 | | | 48.13.101 | - | - | 56.33.612 | |
| E20S SDQCR/L 07 | 25 | 20 | 19 | 250 | - | 13 | | | 48.13.101 | - | - | 56.33.612 | |
| E25T SDQCR/L 11 | 32 | 25 | 24 | 300 | - | 17 | | | 48.24.109 | - | - | 56.33.613 | |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ



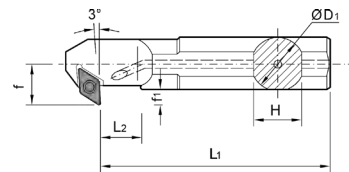
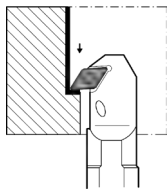
| Шифр | Размеры (мм) | | | | | | Тип | Страница: 1.36 | Запасные части | | | | |
|-----------------|------------------|----------------|-----|----------------|----------------|----|-----|--------------------|-------------------|-----------|-----------|-----------|-----------|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | | |
| A10H SDUCR/L 07 | 14 | 10 | 9.5 | 100 | 18 | 7 | 2 | DC .. 0702 .. | 48.13.101 | - | - | 56.33.612 | |
| A12K SDUCR/L 07 | 17 | 12 | 11 | 125 | 22 | 9 | | | 48.13.101 | - | - | 56.33.612 | |
| A16M SDUCR/L 07 | 21 | 16 | 15 | 150 | 32 | 11 | | | 48.13.101 | - | - | 56.33.612 | |
| A20Q SDUCR/L 11 | 25 | 20 | 19 | 180 | 32 | 13 | | | DC .. 11T3 .. | 48.24.109 | - | - | 56.33.613 |
| A25R SDUCR/L 11 | 32 | 25 | 24 | 200 | 46 | 17 | | | | 48.13.102 | 48.13.203 | 48.13.301 | 56.33.613 |
| A32S SDUCR/L 11 | 40 | 32 | 31 | 250 | 50 | 22 | | | | 48.13.102 | 48.13.203 | 48.13.301 | 56.33.613 |
| E10M SDUCR/L 07 | 14 | 10 | 9.5 | 150 | - | 7 | 1 | DC .. 0702 .. | 48.13.101 | - | - | 56.33.612 | |
| E12Q SDUCR/L 07 | 17 | 12 | 11 | 180 | - | 9 | | | 48.13.101 | - | - | 56.33.612 | |
| E16R SDUCR/L 07 | 21 | 16 | 15 | 200 | - | 11 | | | 48.13.101 | - | - | 56.33.612 | |
| E20S SDUCR/L 11 | 25 | 20 | 19 | 250 | - | 13 | | | 48.13.101 | - | - | 56.33.612 | |
| E25T SDUCR/L 11 | 32 | 25 | 24 | 300 | - | 17 | | | 48.24.109 | - | - | 56.33.613 | |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ

SDXCR/L

93°

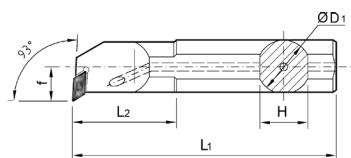
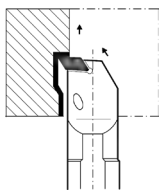


| Шифр | Размеры (мм) | Страница: 1.36 | Запасные части | | | |
|-----------------|---|--------------------|----------------|---|---|-----------|
| | | | | | | |
| A12K SDXCR/L 07 | D _{min} 17 D ₁ 12 H 11.5 L ₁ 125 L ₂ 24 f 9 | Страница: 1.36 | 48.13.101 | - | - | 56.33.612 |
| A16M SDXCR/L 07 | 21 16 15 150 36 11 | | - | - | - | |
| A20Q SDXCR/L 11 | 25 20 19 180 40 13 | | - | - | - | |
| A25R SDXCR/L 11 | 32 25 24 200 50 17 | | - | - | - | |



SKUCR/L

93°



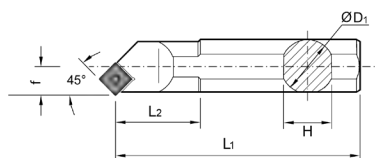
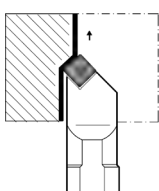
| Шифр | Размеры (мм) | | | | | | | Страница: 1.38 | Запасные части | | | |
|-----------------|------------------|----------------|------|----------------|----------------|------|----------------------|--------------------|----------------|---|-----------|--|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | |
| A12K SKUCR/L 11 | 17 | 12 | 11.5 | 125 | - | 9.3 | KC • X 1103 • R/L | 48.13.104 | - | - | 56.33.612 | |
| A16M SKUCR/L 11 | 21 | 16 | 15 | 150 | - | 11.3 | | | | | | |
| A20Q SKUCR/L 11 | 25 | 20 | 19 | 180 | - | 13.5 | | | | | | |
| A25R SKUCR/L 11 | 32 | 25 | 24 | 200 | - | 17.0 | | | | | | |
| A32S SKUCR/L 11 | 40 | 32 | 31 | 250 | - | 22.0 | | | | | | |
| A40T SKUCR/L 11 | 49 | 40 | 39 | 300 | - | 27.0 | | | | | | |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ

SSSCR/L

45°



| Шифр | Размеры (мм) | | | | | | | Страница 1.39 | Запасные части | | | |
|-----------------|------------------|----------------|----|----------------|----------------|----|---------------|-------------------|----------------|-----------|-----------|--|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | |
| A16M SSSCR/L 09 | 21 | 16 | 15 | 150 | 29 | 11 | SC •• 09T3 •• | 48.24.108 | - | - | 56.33.613 | |
| A20Q SSSCR/L 09 | 25 | 20 | 19 | 180 | 32 | 13 | | | | | | |
| A25R SSSCR/L 09 | 32 | 25 | 24 | 200 | 36 | 17 | SC •• 1204 •• | 48.13.103 | 48.13.206 | 48.13.302 | | |
| A32S SSSCR/L 12 | 40 | 32 | 31 | 250 | 50 | 22 | | | | | | |
| A40T SSSCR/L 12 | 49 | 40 | 39 | 300 | 60 | 27 | | | | | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

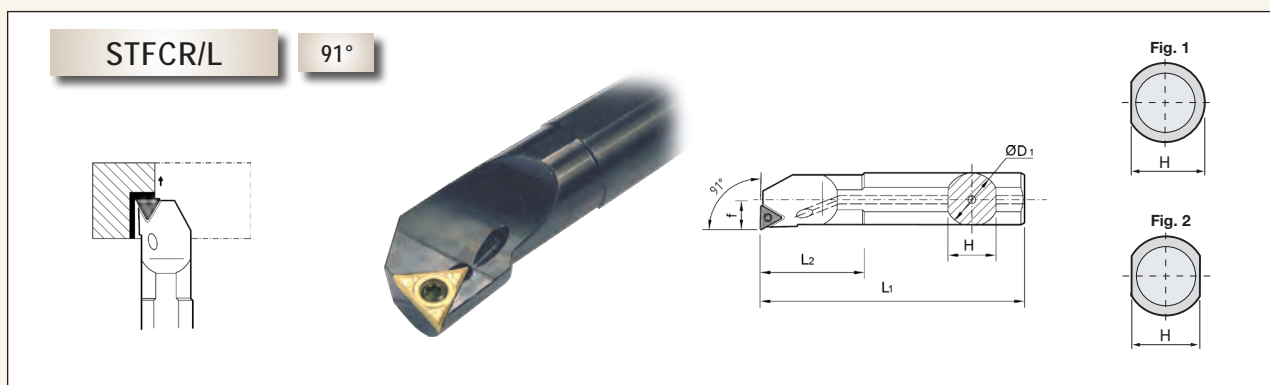
Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация



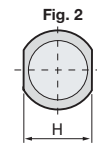
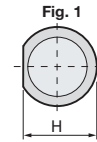
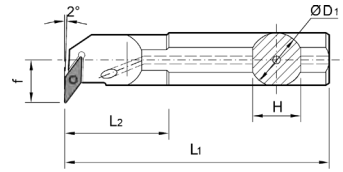
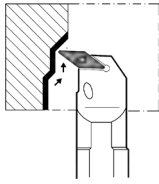
| Шифр | Размеры (мм) | | | | | | Тип | Страница: 1.41 | Запасные части | | | |
|-----------------|------------------|----------------|-----|----------------|----------------|----|-----|--------------------|----------------|---------------|---------------|---------------|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | |
| A10H STFCR/L 09 | 14 | 10 | 9.5 | 100 | 23 | 7 | 2 | Страница: 1.41 | 48.13.106 | - | - | 56.33.611 |
| A12K STFCR/L 11 | 17 | 12 | 11 | 125 | 30 | 9 | | | 48.13.101 | - | - | 56.33.612 |
| A16M STFCR/L 11 | 21 | 16 | 15 | 150 | 35 | 11 | | | 48.13.101 | - | - | 56.33.612 |
| A20Q STFCR/L 11 | 25 | 20 | 19 | 180 | 36 | 13 | | | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |
| A25R STFCR/L 16 | 32 | 25 | 24 | 200 | 49 | 17 | | | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |
| A32S STFCR/L 16 | 40 | 32 | 31 | 250 | 50 | 22 | | | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |
| E10M STFCR/L 09 | 14 | 10 | 9 | 150 | 23 | 7 | 1 | Страница: 1.41 | 48.13.106 | - | - | 56.33.611 |
| E12Q STFCR/L 11 | 17 | 12 | 11 | 180 | 30 | 9 | | | 48.13.101 | - | - | 56.33.612 |
| E16R STFCR/L 11 | 21 | 16 | 15 | 200 | 35 | 11 | | | 48.13.101 | - | - | 56.33.612 |
| E20S STFCR/L 11 | 25 | 20 | 18 | 250 | 36 | 13 | | | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |
| E25T STFCR/L 16 | 32 | 25 | 23 | 300 | 49 | 17 | | | 48.13.102 | 48.13.207 | 48.13.301 | 56.33.613 |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ



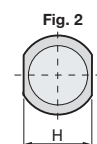
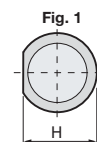
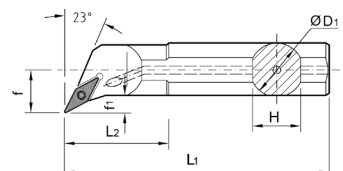
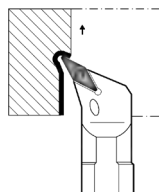
| Шифр | Размеры (мм) | | | | | | Тип | Страница: 1.45 | Запасные части | | | |
|-----------------|------------------|----------------|----|----------------|----------------|----|---------------|--------------------|----------------|---------------|---------------|---------------|
| | D _{min} | D ₁ | H | L ₁ | L ₂ | f | | | | | | |
| A16M SVQCR/L 11 | 21 | 16 | 15 | 150 | 29 | 11 | VC .. 1103 .. | Страница: 1.45 | 48.13.101 | - | - | 56.33.612 |
| A20Q SVQCR/L 11 | 25 | 20 | 18 | 180 | 32 | 13 | | | 48.13.101 | - | - | 56.33.612 |
| A25R SVQCR/L 11 | 32 | 25 | 23 | 200 | 36 | 17 | | | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| A32S SVQCR/L 16 | 40 | 32 | 30 | 250 | 50 | 22 | | | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |

SVUCR/L
93°


| Шифр | Размеры (мм) | | | | | | | Тип | Страница: 1.45 | Запасные части | | | |
|-----------------|--------------|-------|----|-------|-------|----|---|---------------|--------------------|----------------|-----------|-----------|-----------|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | |
| A16M SVUCR/L 11 | 21 | 16 | 15 | 150 | 29 | 11 | 2 | VC •• 1103 •• | 48.13.101 | - | - | 56.33.612 | |
| A20Q SVUCR/L 11 | 25 | 20 | 18 | 180 | 32 | 13 | | | VC •• 1604 •• | 48.13.102 | 48.13.208 | 48.13.301 | 56.33.613 |
| A25R SVUCR/L 11 | 32 | 25 | 23 | 200 | 36 | 17 | | | | | | | |
| A32S SVUCR/L 16 | 40 | 32 | 30 | 250 | 50 | 22 | | | | | | | |
| E16R SVUCR/L 11 | 21 | 16 | 15 | 200 | 16 | 11 | 1 | VC •• 1103 •• | 48.13.101 | - | - | 56.33.612 | |
| E20S SVUCR/L 11 | 25 | 20 | 18 | 250 | 20 | 13 | | | | | | | |
| E25T SVUCR/L 11 | 32 | 25 | 23 | 300 | 25 | 17 | | | | | | | |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ

SVXCR/L
113°


| Шифр | Размеры (мм) | | | | | | | Тип | Страница: 1.45 | Запасные части | | | |
|-----------------|--------------|-------|----|-------|-------|----|---|------------------------|--------------------|----------------|---|-----------|--|
| | D_{min} | D_1 | H | L_1 | L_2 | f | | | | | | | |
| A10H SVXCR/L 07 | 12.5 | 10 | 9 | 100 | 22 | 7 | 2 | VCG • 0702 •• FL/FR | 48.24.110 | - | - | 75.20.621 | |
| A12K SVXCR/L 07 | 15.5 | 12 | 11 | 125 | 28 | 9 | | | | | | | |
| A16M SVXCR/L 07 | 17.5 | 16 | 15 | 150 | 36 | 11 | | | | | | | |
| E10H SVXCR/L 07 | 12.5 | 10 | 9 | 100 | 32 | 7 | 1 | VCG • 0702 •• FL/FR | 48.24.110 | - | - | 75.20.621 | |
| E12K SVXCR/L 07 | 15.5 | 12 | 11 | 125 | 40 | 9 | | | | | | | |
| E16R SVXCR/L 07 | 17.5 | 16 | 15 | 150 | 55 | 11 | | | | | | | |

А : Стальной хвостовик

Е : Твердосплавный хвостовик с отверстиями для подвода СОЖ

ISO - Система обозначения режущих пластин для токарной обработки

| | | | |
|--|--|--|--|
| Токарная обработка | | | |
| Фрезерная обработка | | | |
| Монолитные твердосплавные концевые фрезы | | | |
| Обработка канавок и пазов | | | |
| Мини-инструмент | | | |
| Микро-инструмент | | | |
| Инструмент для нарезания резьбы | | | |
| Сборные сверла | | | |
| Твердосплавные сверла | | | |
| Общая информация | | | |

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|--|-------------|-----------|--------------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|--|----------|--|----------|--|----------|--|----------|--|----------|--|----------|--|----------|--|----------|---|----|----------|----|----------|----|----------|-----|----------|-----|----------|-----|----------|-----|----------|----|----------|-----|----------|--------|----------|---|--------------------|--|--|-------|----------|----------|----------|-------|-------|-------|----------|-------|-------|-------|----------|-------|-------|-------|----------|-------|-------|-------|----------|-------|-------|-----------|----------|-------|-------|-------|----------|-----------|-------|-------|----------|-----------|-------|-------|----------|-----------|-------|-------|----------|-----------|----------|-----------|----------|-----------|----------|-------|----------|-----------|-----------|------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------|----------|
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| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 5px;">80°</td><td style="padding-left: 5px;">C</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">55°</td><td style="padding-left: 5px;">D</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">75°</td><td style="padding-left: 5px;">E</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">86°</td><td style="padding-left: 5px;">M</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">35°</td><td style="padding-left: 5px;">V</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">85°</td><td style="padding-left: 5px;">A</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">82°</td><td style="padding-left: 5px;">B</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">55°</td><td style="padding-left: 5px;">K</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">H</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">L</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">O</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">P</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">R</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">S</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">T</td></tr> <tr> <td style="text-align: right; padding-right: 5px;"></td><td style="padding-left: 5px;">W</td></tr> </table> | 80° | C | 55° | D | 75° | E | 86° | M | 35° | V | 85° | A | 82° | B | 55° | K | | H | | L | | O | | P | | R | | S | | T | | W | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 5px;">3°</td><td style="padding-left: 5px;">A</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">5°</td><td style="padding-left: 5px;">B</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">7°</td><td style="padding-left: 5px;">C</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">15°</td><td style="padding-left: 5px;">D</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">20°</td><td style="padding-left: 5px;">E</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">25°</td><td style="padding-left: 5px;">F</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">30°</td><td style="padding-left: 5px;">G</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">0°</td><td style="padding-left: 5px;">N</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">11°</td><td style="padding-left: 5px;">P</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">Другое</td><td style="padding-left: 5px;">O</td></tr> </table> | 3° | A | 5° | B | 7° | C | 15° | D | 20° | E | 25° | F | 30° | G | 0° | N | 11° | P | Другое | O | <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="text-align: center;">Класс точности(мм)</td> <td rowspan="2" style="text-align: center; vertical-align: middle;">Класс</td> </tr> <tr> <td style="text-align: center;">d +/-</td> <td style="text-align: center;">m +/-</td> <td style="text-align: center;">s +/-</td> </tr> <tr> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.005</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.013</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">0.013</td> <td style="text-align: center;">0.005</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">F</td> </tr> <tr> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.05-0.13</td> <td style="text-align: center;">G</td> </tr> <tr> <td style="text-align: center;">0.013</td> <td style="text-align: center;">0.013</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">H</td> </tr> <tr> <td style="text-align: center;">0.05-0.15</td> <td style="text-align: center;">0.005</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">J</td> </tr> <tr> <td style="text-align: center;">0.05-0.15</td> <td style="text-align: center;">0.013</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">K</td> </tr> <tr> <td style="text-align: center;">0.05-0.15</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">L</td> </tr> <tr> <td style="text-align: center;">0.05-0.15</td> <td style="text-align: center;">0.08-0.2</td> <td style="text-align: center;">0.05-0.13</td> <td style="text-align: center;">M</td> </tr> <tr> <td style="text-align: center;">0.05-0.15</td> <td style="text-align: center;">0.08-0.2</td> <td style="text-align: center;">0.025</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">0.08-0.25</td> <td style="text-align: center;">0.13-0.38</td> <td style="text-align: center;">0.13</td> <td style="text-align: center;">U</td> </tr> </table> | Класс точности(мм) | | | Класс | d +/- | m +/- | s +/- | 0.025 | 0.005 | 0.025 | A | 0.025 | 0.013 | 0.025 | C | 0.025 | 0.025 | 0.025 | E | 0.013 | 0.005 | 0.025 | F | 0.025 | 0.025 | 0.05-0.13 | G | 0.013 | 0.013 | 0.025 | H | 0.05-0.15 | 0.005 | 0.025 | J | 0.05-0.15 | 0.013 | 0.025 | K | 0.05-0.15 | 0.025 | 0.025 | L | 0.05-0.15 | 0.08-0.2 | 0.05-0.13 | M | 0.05-0.15 | 0.08-0.2 | 0.025 | N | 0.08-0.25 | 0.13-0.38 | 0.13 | U | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 5px;">A</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">C</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">F</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">G</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">H</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">J</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">M</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">N</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">Q</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">R</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">T</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">U</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">W</td></tr> <tr> <td style="text-align: right; padding-right: 5px;">Специальный</td> </tr> <tr> <td style="text-align: right; padding-right: 5px;">X</td> </tr> </table> | A | C | F | G | H | J | M | N | Q | R | T | U | W | Специальный | X |
| 80° | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55° | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75° | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 86° | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35° | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 85° | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 82° | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3° | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5° | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7° | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15° | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20° | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25° | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30° | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0° | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11° | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Другое | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Класс точности(мм) | | | Класс | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d +/- | m +/- | s +/- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.025 | 0.005 | 0.025 | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.025 | 0.013 | 0.025 | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.025 | 0.025 | 0.025 | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.013 | 0.005 | 0.025 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.025 | 0.025 | 0.05-0.13 | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.013 | 0.013 | 0.025 | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05-0.15 | 0.005 | 0.025 | J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05-0.15 | 0.013 | 0.025 | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05-0.15 | 0.025 | 0.025 | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05-0.15 | 0.08-0.2 | 0.05-0.13 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05-0.15 | 0.08-0.2 | 0.025 | N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.08-0.25 | 0.13-0.38 | 0.13 | U | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Специальный | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | N | M | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Форма пластины | Задний угол | Точность | Тип пластины | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ISO - Система обозначения режущих пластин для токарной обработки

| | | | | | | | | <p>F Острая</p> <p>E Закругленная</p> <p>T Скошенная</p> <p>S Закругленная и скошенная</p> | | <p>R</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------|------|------|--------|--|--|--|--|--------|-----------------|------|----|------|------|----|----|------|------|----|----|-----|------|----|----|-----|------|----|----|-----|------|----|----|-----|------|----|----|-----|------|----|----|---|------|----|--|--|---|--------|-----------------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|-------|----|-------|----|---|--|---|--------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|---|----|---|--|-----------------|--|
| <table border="1"> <tr><th colspan="4">d</th></tr> <tr><th colspan="4">(мм)</th></tr> <tr><td>06</td><td></td><td></td><td></td></tr> <tr><td>08</td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td></tr> <tr><td>25</td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td></td><td></td></tr> </table> | | | | d | | | | (мм) | | | | 06 | | | | 08 | | | | 10 | | | | 12 | | | | 16 | | | | 20 | | | | 25 | | | | 32 | | | | <table border="1"> <tr><th>s</th><th>Индекс</th></tr> <tr><td>1.59</td><td>01</td></tr> <tr><td>1.98</td><td>T1</td></tr> <tr><td>2.38</td><td>02</td></tr> <tr><td>3.18</td><td>03</td></tr> <tr><td>3.97</td><td>T3</td></tr> <tr><td>4.76</td><td>04</td></tr> <tr><td>5.56</td><td>05</td></tr> <tr><td>6.35</td><td>06</td></tr> <tr><td>7.94</td><td>07</td></tr> <tr><td>9.52</td><td>09</td></tr> <tr><td>11.11</td><td>11</td></tr> <tr><td>12.70</td><td>12</td></tr> </table> | | s | Индекс | 1.59 | 01 | 1.98 | T1 | 2.38 | 02 | 3.18 | 03 | 3.97 | T3 | 4.76 | 04 | 5.56 | 05 | 6.35 | 06 | 7.94 | 07 | 9.52 | 09 | 11.11 | 11 | 12.70 | 12 | <table border="1"> <tr><th>r</th><th>Индекс</th></tr> <tr><td>0.2</td><td>02</td></tr> <tr><td>0.4</td><td>04</td></tr> <tr><td>0.8</td><td>08</td></tr> <tr><td>1.2</td><td>12</td></tr> <tr><td>1.6</td><td>16</td></tr> <tr><td>2.4</td><td>24</td></tr> <tr><td>0</td><td>00</td></tr> </table> | | r | Индекс | 0.2 | 02 | 0.4 | 04 | 0.8 | 08 | 1.2 | 12 | 1.6 | 16 | 2.4 | 24 | 0 | 00 | <p>00: Круглая пластина (дюйм.)</p> <p>MO: Круглая пластина (метр.)</p> | | <p>L</p> | |
| d | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| s | Индекс | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.59 | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.98 | T1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.38 | 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.18 | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.97 | T3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.76 | 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.56 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.35 | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.94 | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.52 | 09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.11 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.70 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| r | Индекс | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.2 | 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.4 | 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.8 | 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.6 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.4 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><th colspan="4">d = IC</th></tr> <tr><th>(мм)</th><th>(дюйм)</th><th>(мм)</th><th>(мм)</th></tr> <tr><td>06</td><td>5/32</td><td>3.96</td><td>03</td></tr> <tr><td>09</td><td>7/32</td><td>5.55</td><td>05</td></tr> <tr><td>11</td><td>1/4</td><td>6.35</td><td>06</td></tr> <tr><td>16</td><td>3/8</td><td>9.52</td><td>09</td></tr> <tr><td>22</td><td>1/2</td><td>12.7</td><td>12</td></tr> <tr><td>27</td><td>5/8</td><td>15.8</td><td>15</td></tr> <tr><td>33</td><td>3/4</td><td>19.0</td><td>19</td></tr> <tr><td>44</td><td>1</td><td>25.4</td><td>25</td></tr> </table> | | | | d = IC | | | | (мм) | (дюйм) | (мм) | (мм) | 06 | 5/32 | 3.96 | 03 | 09 | 7/32 | 5.55 | 05 | 11 | 1/4 | 6.35 | 06 | 16 | 3/8 | 9.52 | 09 | 22 | 1/2 | 12.7 | 12 | 27 | 5/8 | 15.8 | 15 | 33 | 3/4 | 19.0 | 19 | 44 | 1 | 25.4 | 25 | | | | | <p>N</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d = IC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (мм) | (дюйм) | (мм) | (мм) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | 5/32 | 3.96 | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 | 7/32 | 5.55 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 1/4 | 6.35 | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 3/8 | 9.52 | 09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | 1/2 | 12.7 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 5/8 | 15.8 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | 3/4 | 19.0 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | 1 | 25.4 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|-----------|-----------|-----------|----------|----------|
| 16 | 04 | 04 | E | R |
|-----------|-----------|-----------|----------|----------|

| | | | | |
|----------------------|------------------|----------------|----------------|-----------------------|
| Длина режущей кромки | Толщина пластины | Угловой радиус | Режущая кромка | Направление обработки |
|----------------------|------------------|----------------|----------------|-----------------------|

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

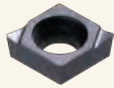
Твердосплавные сверла

Общая информация

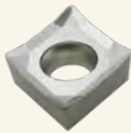
CCET

CCGT

CCMT



CCET-L



CCGT-AL



CCGT-ALX

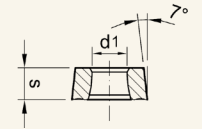
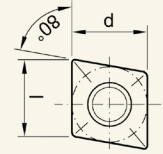


CCGT-F12



CCMT-M12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| CCET 03 01 02 L | 39 | 3.6 | 3.50 | 1.39 | 1.9 |
| 04 01 02 L | 39 | 4.4 | 4.30 | 1.79 | 2.3 |
| CCGT 06 02 02 - AL | 34 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 04 - AL | 34 | 6.4 | 6.35 | 2.38 | 2.8 |
| 09 T3 02 - AL | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 04 - AL | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 08 - AL | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 12 04 02 - AL | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 12 04 04 - AL | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 12 04 08 - AL | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 06 02 02 - ALX | 34 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 04 - ALX | 34 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 08 - ALX | 34 | 6.4 | 6.35 | 2.38 | 2.8 |
| 09 T3 02 - ALX | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 04 - ALX | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 08 - ALX | 34 | 9.7 | 9.52 | 3.97 | 4.4 |
| 12 04 02 - ALX | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 12 04 04 - ALX | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 12 04 08 - ALX | 34 | 12.9 | 12.70 | 4.76 | 5.5 |
| 06 02 02 - F12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 04 - F12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 09 T3 02 - F12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 04 - F12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 08 - F12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 12 04 04 - F12 | 39 | 12.9 | 12.70 | 4.76 | 5.5 |
| CCMT 06 02 02 - F12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 04 - F12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 09 T3 02 - F12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 04 - F12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 12 04 04 - F12 | 39 | 12.9 | 12.70 | 4.76 | 5.5 |
| 06 02 02 - M12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 04 - M12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 06 02 08 - M12 | 39 | 6.4 | 6.35 | 2.38 | 2.8 |
| 09 T3 02 - M12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 04 - M12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 09 T3 08 - M12 | 39 | 9.7 | 9.52 | 3.97 | 4.4 |
| 12 04 04 - M12 | 39 | 12.9 | 12.70 | 4.76 | 5.5 |
| 12 04 08 - M12 | 39 | 12.9 | 12.70 | 4.76 | 5.5 |



CC .. 03 01 ..
 CC .. 04 01 ..
 CC .. 06 02 ..
 CC .. 09 T3 ..
 CC .. 12 04 ..

Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|------------|----------|--------------------|----------|
| CC .. 03 01 .. | SCLC R/L** | 1.13 | ** SCLC R/L ** | 1.26 |
| CC .. 04 01 .. | | | | |
| CC .. 06 02 .. | | | | |
| CC .. 09 T3 .. | | | | |
| CC .. 12 04 .. | | | | |

CNMA

CNMG

CNMM



CNMA



CNMG- A12



- C12



- F13



- M12



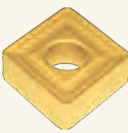
- R12



- S12

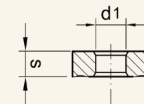
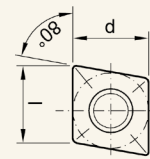


CNMM- H11



- H12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| CNMA 12 04 08 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 16 06 12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| CNMG 09 03 04 - M12 | 39 | 9.7 | 9.52 | 3.18 | 3.81 |
| 09 03 04 - F13 | 39 | 9.7 | 9.52 | 3.18 | 3.81 |
| 12 04 04 - A12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 04 - C12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 04 - M12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 04 - S12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 04 - F13 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - A12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - C12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - M12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - R12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - S12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - F13 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - A12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - M12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - R12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - S12 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 16 06 08 - M12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| 16 06 08 - R12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| 16 06 12 - M12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| 16 06 12 - R12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| 19 06 08 - M12 | 39 | 19.3 | 19.05 | 6.35 | 7.94 |
| 19 06 08 - R12 | 39 | 19.3 | 19.05 | 6.35 | 7.94 |
| 19 06 12 - R12 | 39 | 19.3 | 19.05 | 6.35 | 7.94 |
| 19 06 16 - R12 | 39 | 19.3 | 19.05 | 6.35 | 7.94 |
| CNMM 12 04 08 - H11 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - H11 | 39 | 12.9 | 12.70 | 4.76 | 5.16 |
| 16 06 12 - H12 | 39 | 16.1 | 15.87 | 6.35 | 6.35 |
| 19 06 16 - H12 | 39 | 19.3 | 19.05 | 6.35 | 7.94 |



CN •• 09 03 ••

CN •• 12 04 ••

CN •• 16 06 ••

CN •• 19 06 ••

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| CN •• 09 03 •• | PCBN R/L •• | 1.08 | | |
| | PCLN R/L •• | 1.09 | •• PCLN R/L •• | 1.24 |
| CN •• 12 04 •• | DCLN R/L •• | 1.06 | •• DCLN R/L •• | 1.23 |
| | PCBN R/L •• | 1.08 | | |
| CN •• 16 06 •• | PCLN R/L •• | 1.09 | •• PCLN R/L •• | 1.24 |
| | PCBN R/L •• | 1.08 | | |
| CN •• 19 06 •• | PCBN R/L •• | 1.08 | | |
| | PCLN R/L •• | 1.09 | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

DCGT

DCGW

DCMT



DCGT - AL



DCGT - ALX



DCGT - F12

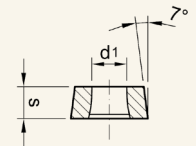
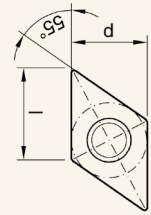


DCGW



DCMT - M12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| DCGT 07 02 02 - AL | 34 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 04 - AL | 34 | 7.75 | 6.35 | 2.38 | 2.8 |
| 11 T3 02 - AL | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - AL | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 08 - AL | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 07 02 02 - ALX | 34 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 04 - ALX | 34 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 08 - ALX | 34 | 7.75 | 6.35 | 2.38 | 2.8 |
| 11 T3 02 - ALX | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - ALX | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 08 - ALX | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 12 - ALX | 34 | 11.60 | 9.52 | 3.97 | 4.4 |
| 07 02 02 - F12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 04 - F12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 11 T3 02 - F12 | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - F12 | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| DCGW 11 T3 02 - FN | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - FN | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| DCMT 07 02 02 - F12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 04 - F12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 11 T3 02 - F12 | 39 | 11.6 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - F12 | 39 | 11.6 | 9.52 | 3.97 | 4.4 |
| 07 02 02 - M12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 04 - M12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 07 02 08 - M12 | 39 | 7.75 | 6.35 | 2.38 | 2.8 |
| 11 T3 02 - M12 | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 04 - M12 | 39 | 11.60 | 9.52 | 3.97 | 4.4 |
| 11 T3 08 - M12 | 39 | 11.60 | 9.52 | 3.97 | 4.4 |


 DC .. 07 02 ..
DC .. 11 T3 ..

Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|----------------|-------------|----------------------------------|----------|
| DC .. 07 02 .. | SDAC R/L .. | 1.14 | .. SDQC R/L SDUC R/L .. | 1.27 |
| | SDHC R/L .. | | | |
| | SDJC R/L .. | 1.15 | | |
| | SDNCN .. | | | |
| | DC .. 11 T3 .. | SDAC R/L .. | | |
| SDHC R/L .. | | | | |
| SDJC R/L .. | | 1.15 | | |
| SDNCN .. | | | | |

DNGG

DNMA

DNMG



DNGG L



DNGG R



DNMA



DNMG - A12



DNMG - C12



DNMG - F13

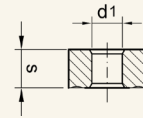
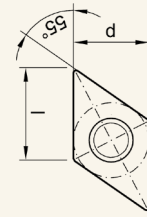


DNMG - M12



DNMG - S12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| DNGG 15 06 04 L | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 04 R | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 L | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 R | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| DNMA 15 06 08 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| DNMA 15 06 12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| DNMG 11 04 04 - M12 | 39 | 11.6 | 9.52 | 4.76 | 3.81 |
| 11 04 04 - F13 | 39 | 11.6 | 9.52 | 4.76 | 3.81 |
| 11 04 08 - M12 | 39 | 11.6 | 9.52 | 4.76 | 3.81 |
| 15 06 04 - A12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 04 - C12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 04 - M12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 04 - S12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 04 - F13 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 - C12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 - M12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 - S12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 08 - F13 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 12 - C12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 12 - M12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 12 - S12 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |
| 15 06 12 - F13 | 39 | 15.5 | 12.70 | 6.35 | 5.16 |



DN •• 11 04 ••
DN •• 15 06 ••

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины s | Державка | Страница | Расточная державка | Страница |
| DN •• 11 04 •• | PDJN R/L •• | 1.10 | | |
| | | | •• PDUN R/L •• | 1.24 |
| DN •• 15 06 •• | DDJN R/L •• | 1.07 | | |
| | PDJN R/L •• | 1.10 | | |
| | | | •• DDUN R/L •• | 1.23 |
| | | | •• PDUN R/L •• | 1.24 |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

KCGX
KNUX

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация



KCGX - FL



KCGX - FR

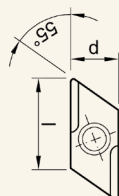


KNUX •• 05 - R11

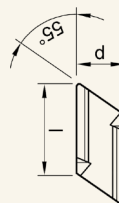


KNUX •• 10 - R12

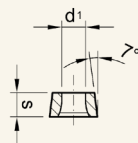
| Шифр | | Размеры (мм) | | | |
|--------------------|----|--------------|------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| KCGX 11 03 01 FL | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 01 FR | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 02 FL | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 02 FR | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 04 FL | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 04 FR | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 08 FL | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| 11 03 08 FR | 18 | 11.60 | 6.35 | 3.18 | 2.8 |
| KNUX 16 04 05 L 11 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 05 R 11 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 05 L 12 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 05 R 12 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 10 L 11 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 10 R 11 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 10 L 12 | 39 | 16.15 | 9.52 | 4.76 | - |
| 16 04 10 R 12 | 39 | 16.15 | 9.52 | 4.76 | - |



KC •• 11 03 ••



KN •• 16 04 ••


Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|-------------|----------|--------------------|----------|
| KC •• 11 03 •• | SKJC R/L •• | 1.16 | | |
| | | | •• SKUC R/L •• | 1.29 |
| KN •• 16 04 •• | CKJN R/L •• | 1.06 | | |

RCGT
RCMX
SCGT
SCMT



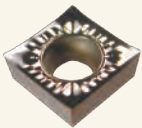
RCGT-AL



RCGT-ALX



RCMX

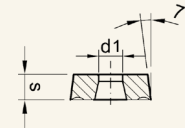
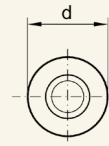


SCGT - ALX

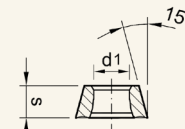
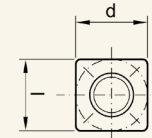


SCMT - M12

| шифр | | Размеры (мм) | | |
|---------------------|----|--------------|------------------|------|
| | | Ø d | Ø d ₁ | s |
| RCGT 06 02 MO - AL | 34 | 6.00 | 2.8 | 2.38 |
| 08 03 MO - AL | 34 | 8.00 | 3.4 | 3.18 |
| 10 03 MO - AL | 34 | 10.00 | 4.0 | 3.18 |
| 06 02 MO - ALX | 34 | 6.00 | 2.2 | 2.38 |
| 08 03 MO - ALX | 34 | 8.00 | 3.35 | 3.18 |
| 10 03 MO - ALX | 34 | 10.00 | 4.0 | 3.18 |
| 12 04 MO - ALX | 34 | 12.00 | 4.4 | 4.76 |
| RCMX 10 03 MOSN | 39 | 10.00 | 3.6 | 3.18 |
| 12 04 MOSN | 39 | 12.00 | 4.2 | 4.76 |
| 16 06 MOSN | 39 | 16.00 | 5.2 | 6.35 |
| 20 06 MOSN | 39 | 20.00 | 6.5 | 6.35 |
| 25 07 MOSN | 39 | 25.00 | 7.2 | 7.94 |
| 32 09 MOSN | 39 | 32.00 | 9.5 | 9.52 |
| SCGT 09 T3 04 - AL | 34 | 9.52 | 4.4 | 3.97 |
| 09 T3 08 - AL | 34 | 9.52 | 4.4 | 3.97 |
| 12 04 08 - AL | 34 | 12.70 | 5.5 | 4.76 |
| 09 T3 04 - ALX | 34 | 9.52 | 4.4 | 3.97 |
| 09 T3 08 - ALX | 34 | 9.52 | 4.4 | 3.97 |
| 12 04 04 - ALX | 34 | 12.70 | 5.5 | 4.76 |
| 12 04 08 - ALX | 34 | 12.70 | 5.5 | 4.76 |
| SCMT 09 T3 04 - M12 | 39 | 9.52 | 4.4 | 3.97 |
| 09 T3 08 - M12 | 39 | 9.52 | 4.4 | 3.97 |
| 12 04 04 - M12 | 39 | 12.70 | 5.5 | 4.76 |
| 12 04 08 - M12 | 39 | 12.70 | 5.5 | 4.76 |



- RC •• 06 02 MO
- RC •• 08 03 MO
- RC •• 10 03 MO
- RC •• 12 04 MO
- RC •• 16 06 MO
- RC •• 20 06 MO
- RC •• 25 07 MO
- RC •• 32 09 MO



- SC •T 09 T3 ••
- SC •T 12 04 ••

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| RCGT 06 02 •• | SRDCN •• | 1.16 | | |
| RCGT 08 03 •• | | | | |
| RCGT 10 03 •• | | | | |
| RC •• 12 04 •• | | | | |
| RC •• 16 06 •• | | | | |
| RC •• 20 06 •• | | | | |
| RC •• 25 07 •• | | | | |
| RC •• 32 09 •• | | | | |
| SC •• 09 T3 •• | SSSC R/L •• | 1.17 | •• SSSC R/L •• | 1.29 |
| SC •• 12 04 •• | | | | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

SNMA
SNMG
SNMM

 Токарная
обработка

 Фрезерная
обработка

 Монолитные
твердосплавные
концевые фрезы

 Обработка канавок
и пазов

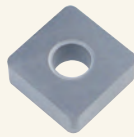
Мини-инструмент

Микро-инструмент

 Инструмент для
нарезания резьбы

Сборные сверла

 Твердосплавные
сверла

 Общая
информация


SNMA



SNMG - A12



- C12



- M12



- R12

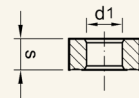
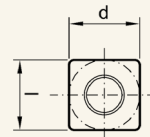


SNMM - H11



- H12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| SNMA 12 04 08 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 16 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 15 06 12 | 39 | 15.87 | 15.87 | 6.35 | 6.35 |
| 15 06 16 | 39 | 15.87 | 15.87 | 6.35 | 6.35 |
| 19 06 12 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| 19 06 16 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| SNMG 12 04 04 - A12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 04 - M12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - A12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - C12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - M12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 08 - S12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - M12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - R12 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 15 06 08 - R12 | 39 | 15.87 | 15.87 | 6.35 | 6.35 |
| 15 06 12 - R12 | 39 | 15.87 | 15.87 | 6.35 | 6.35 |
| 19 06 12 - R12 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| 19 06 16 - R12 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| 25 07 24 - R12 | 39 | 25.40 | 25.40 | 7.94 | 9.12 |
| SNMM 12 04 08 - H11 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 12 04 12 - H11 | 39 | 12.70 | 12.70 | 4.76 | 5.16 |
| 19 06 12 - H12 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| 19 06 16 - H12 | 39 | 19.05 | 19.05 | 6.35 | 7.94 |
| 25 07 24 - H12 | 39 | 25.40 | 25.40 | 7.94 | 9.12 |



SN •• 12 04 ••
 SN •• 15 06 ••
 SN •• 19 06 ••
 SN •• 25 07 ••

Применяемые державки

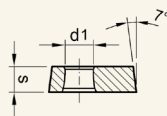
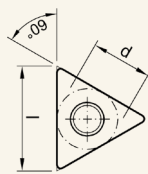
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|-------------|----------|--------------------|----------|
| SN •• 12 04 •• | PSBN R/L •• | 1.10 | | |
| | PSKN R/L •• | 1.11 | •• PSKN R/L •• | 1.25 |
| | PSSN R/L •• | 1.11 | | |
| SN •• 15 06 •• | PSBN R/L •• | 1.10 | | |
| | PSKN R/L •• | 1.11 | | |
| | PSSN R/L •• | 1.11 | | |
| SN •• 19 06 •• | PSBN R/L •• | 1.10 | | |
| | PSKN R/L •• | 1.11 | | |
| | PSSN R/L •• | 1.11 | | |
| SN •• 25 07 •• | | | | |

TCGT

TCMT



| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| TCGT 16 T3 04 - AL | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 08 - AL | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 09 02 02 - ALX | 34 | 9.6 | 5.56 | 2.38 | 2.5 |
| 09 02 04 - ALX | 34 | 9.6 | 5.56 | 2.38 | 2.5 |
| 11 02 02 - ALX | 34 | 11.0 | 6.35 | 2.38 | 2.8 |
| 11 02 04 - ALX | 34 | 11.0 | 6.35 | 2.38 | 2.8 |
| 11 02 08 - ALX | 34 | 11.0 | 6.35 | 2.38 | 2.8 |
| 16 T3 02 - ALX | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 04 - ALX | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 08 - ALX | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 12 - ALX | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 16 - ALX | 34 | 16.5 | 9.52 | 3.97 | 4.4 |
| TCMT 16 T3 04 - F12 | 39 | 16.5 | 9.52 | 3.97 | 4.4 |
| 11 02 02 - M12 | 39 | 11.0 | 6.35 | 2.38 | 2.8 |
| 11 02 04 - M12 | 39 | 11.0 | 6.35 | 2.38 | 2.8 |
| 11 02 08 - M12 | 39 | 11.0 | 6.35 | 2.38 | 2.8 |
| 16 T3 04 - M12 | 39 | 16.5 | 9.52 | 3.97 | 4.4 |
| 16 T3 08 - M12 | 39 | 16.5 | 9.52 | 3.97 | 4.4 |



TC .. 09 02 ..
 TC .. 11 02 ..
 TC .. 16 T3 ..

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| TC .. 09 02 .. | | | .. STFC R/L .. | 1.30 |
| TC .. 11 02 .. | STGC R/L .. | 1.17 | | |
| | | | .. STFC R/L .. | 1.30 |
| TC .. 16 T3 .. | STGC R/L .. | 1.17 | | |
| | | | .. STFC R/L .. | 1.30 |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

TNMG

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация



- EL



- ER



- A12



- C12



- F13



- M12

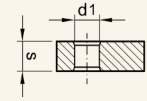
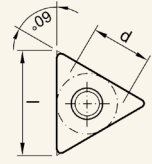


- R12



- S12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| TNMG 11 03 04 - F13 | 39 | 11.0 | 6.35 | 3.18 | 3.81 |
| 11 03 08 - M12 | 39 | 11.0 | 6.35 | 3.18 | 3.81 |
| 16 04 04 - EL | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 04 - ER | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 04 - A12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 04 - M12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 04 - F13 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - EL | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - ER | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - A12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - C12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - M12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - S12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 08 - F13 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 16 04 12 - M12 | 39 | 16.5 | 9.52 | 4.76 | 3.81 |
| 22 04 04 - M12 | 39 | 22.0 | 12.70 | 4.76 | 5.16 |
| 22 04 08 - A12 | 39 | 22.0 | 12.70 | 4.76 | 5.16 |
| 22 04 08 - M12 | 39 | 22.0 | 12.70 | 4.76 | 5.16 |
| 22 04 12 - M12 | 39 | 22.0 | 12.70 | 4.76 | 5.16 |
| 27 06 08 - R12 | 39 | 27.5 | 15.87 | 6.35 | 6.35 |
| 27 06 12 - R12 | 39 | 27.5 | 15.87 | 6.35 | 6.35 |



TN •• 11 03 ••
 TN •• 16 04 ••
 TN •• 22 04 ••
 TN •• 27 06 ••

Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|-------------|----------|--------------------|----------|
| TN •• 11 03 •• | | | | |
| TN •• 16 04 •• | MTJN R/L •• | 1.08 | | |
| | PTFN R/L •• | 1.12 | •• PTFN R/L •• | 1.25 |
| TN •• 22 04 •• | PTGN R/L •• | 1.12 | | |
| | MTJN R/L •• | 1.08 | | |
| | PTFN R/L •• | 1.12 | | |
| TN •• 27 06 •• | PTGN R/L •• | 1.12 | | |
| | PTGN R/L •• | 1.12 | | |

TPGN
TPGR
TPMR
TPUN



TPGN / TPUN



TPGR - FN
TPMR - EN

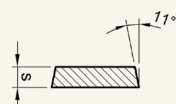
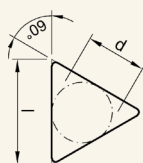


TPMR - EL



TPMR - ER

| Шифр | | Размеры (мм) | | | |
|--------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| TPGN 11 03 04 - FN | 39 | 11.0 | 6.35 | 3.18 | - |
| 11 03 08 - FN | 39 | 11.0 | 6.35 | 3.18 | - |
| TPGR 11 03 02 - FN | 39 | 11.0 | 6.35 | 3.18 | - |
| TPMR 11 03 04 - EN | 39 | 11.0 | 6.35 | 3.18 | - |
| 11 03 08 - EN | 39 | 11.0 | 6.35 | 3.18 | - |
| 16 03 04 - EL | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 04 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 04 - ER | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 08 - EL | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 08 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 08 - ER | 39 | 16.5 | 9.52 | 3.18 | - |
| 22 04 08 - EN | 39 | 22.0 | 12.70 | 4.76 | - |
| TPUN 16 03 02 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 04 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 08 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 16 03 12 - EN | 39 | 16.5 | 9.52 | 3.18 | - |
| 22 04 04 - EN | 39 | 22.0 | 12.70 | 4.76 | - |
| 22 04 08 - EN | 39 | 22.0 | 12.70 | 4.76 | - |
| 22 04 12 - EN | 39 | 22.0 | 12.70 | 4.76 | - |



TP .. 11 03 ..
TP .. 16 03 ..
TP .. 22 04 ..

| Применяемые державки | | | | |
|----------------------|----------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| TP .. 11 03 .. | | | | |
| TP .. 16 03 .. | | | | |
| TP .. 22 04 .. | | | | |

VBGT
VBMT


VBGT-ALX

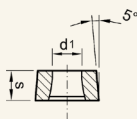
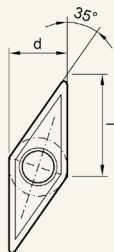


VBMT



VBMT-M12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| VBGT 11 03 02 - ALX | 34 | 11.1 | 6.35 | 3.18 | 2.8 |
| 11 03 04 - ALX | 34 | 11.1 | 6.35 | 3.18 | 2.8 |
| 11 03 08 - ALX | 34 | 11.1 | 6.35 | 3.18 | 2.8 |
| 16 04 02 - ALX | 34 | 16.6 | 9.52 | 4.76 | 4.4 |
| 16 04 04 - ALX | 34 | 16.6 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - ALX | 34 | 16.6 | 9.52 | 4.76 | 4.4 |
| 16 04 12 - ALX | 34 | 16.6 | 9.52 | 4.76 | 4.4 |
| VBMT 16 04 04 | 39 | 16.6 | 9.52 | 4.76 | 4.4 |
| 16 04 08 | 39 | 16.6 | 9.52 | 4.76 | 4.4 |
| 11 03 04 - M12 | 39 | 11.1 | 6.35 | 3.18 | 2.8 |
| 11 03 08 - M12 | 39 | 11.1 | 6.35 | 3.18 | 2.8 |
| 16 04 04 - M12 | 39 | 16.6 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - M12 | 39 | 16.6 | 9.52 | 4.76 | 4.4 |



VB •• 11 03 ••

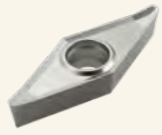
VB •• 16 04 ••

Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|-------------|----------|--------------------|----------|
| VB •• 11 03 •• | SVJB R/L •• | 1.18 | | |
| VB •• 16 04 •• | | | | |

VCGT

VCMT



VCGT-AL



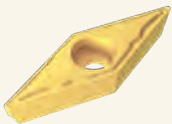
-ALX



-FR

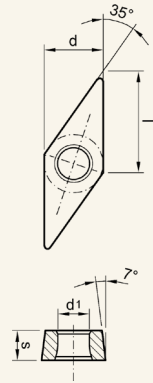


-F12



VCMT - M12

| Шифр | ↓ SUBTYPE PREFIX | Размеры (мм) | | | |
|---------------------|---------------------|--------------|------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| VCGT 11 03 02 - AL | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 04 - AL | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 08 - AL | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 13 03 02 - AL | 34 | 13.80 | 7.94 | 3.18 | 3.4 |
| 13 03 04 - AL | 34 | 13.80 | 7.94 | 3.18 | 3.4 |
| 16 04 04 - AL | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - AL | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 12 - AL | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 11 03 01 - ALX | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 02 - ALX | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 04 - ALX | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 08 - ALX | 34 | 11.10 | 6.35 | 3.18 | 2.8 |
| 13 03 02 - ALX | 34 | 13.80 | 7.94 | 3.18 | 3.4 |
| 13 03 04 - ALX | 34 | 13.80 | 7.94 | 3.18 | 3.4 |
| 16 04 02 - ALX | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 04 - ALX | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - ALX | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 12 - ALX | 34 | 16.60 | 9.52 | 4.76 | 4.4 |
| 22 05 16 - ALX | 34 | 22.10 | 12.7 | 5.56 | 5.6 |
| 22 05 25 - ALX | 34 | 22.10 | 12.7 | 5.56 | 5.6 |
| 22 05 30 - ALX | 34 | 22.10 | 12.7 | 5.56 | 5.6 |
| 07 02 02 - FL | 39 | 6.92 | 3.97 | 2.38 | 2.2 |
| 07 02 02 - FR | 39 | 6.92 | 3.97 | 2.38 | 2.2 |
| 07 02 04 - FL | 39 | 6.92 | 3.97 | 2.38 | 2.2 |
| 07 02 04 - FR | 39 | 6.92 | 3.97 | 2.38 | 2.2 |
| 11 03 02 - F12 | 39 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 04 - F12 | 39 | 11.10 | 6.35 | 3.18 | 2.8 |
| 11 03 08 - F12 | 39 | 11.10 | 6.35 | 3.18 | 2.8 |
| 16 04 04 - F12 | 39 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - F12 | 39 | 16.60 | 9.52 | 4.76 | 4.4 |
| VCMT 16 04 04 - F12 | 39 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 04 - M12 | 39 | 16.60 | 9.52 | 4.76 | 4.4 |
| 16 04 08 - M12 | 39 | 16.60 | 9.52 | 4.76 | 4.4 |



- VC •• 07 02 ••
- VC •• 11 03 ••
- VC •• 13 03 ••
- VC •• 16 04 ••
- VC •• 22 05 ••

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| VC •• 07 02 •• | | | •• SVXC R/L •• | 1.31 |
| VC •• 11 03 •• | SVHC R/L •• | 1.18 | | |
| | SVJC R/L •• | 1.19 | | |
| | SVVCN •• | 1.19 | | |
| VC •• 13 03 •• | | | •• SVQC R/L •• | 1.30 |
| | | | •• SVUC R/L •• | 1.31 |
| VC •• 16 04 •• | SVHC R/L •• | 1.18 | | |
| | SVJC R/L •• | 1.19 | | |
| | SVVCN •• | 1.19 | | |
| VC •• 22 05 •• | | | •• SVQC R/L •• | 1.30 |
| | | | •• SVUC R/L •• | 1.31 |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла

Общая информация

VNMG
WBGT
WNMG


- F13



- S12



WBGT - L



- R



WNMG- A12



- C12



- F13

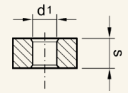
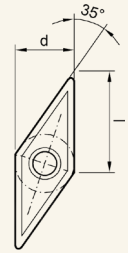
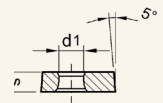
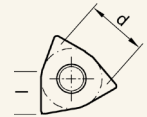


- M12

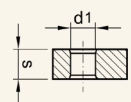
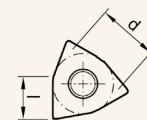


- S12

| Шифр | | Размеры (мм) | | | |
|---------------------|----|--------------|-------|------|------------------|
| | | l | Ø d | s | Ø d ₁ |
| VNMG 16 04 02 - F13 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 04 - A12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 04 - M12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 04 - S12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 04 - F13 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 08 - A12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 08 - M12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 08 - S12 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 16 04 08 - F13 | 39 | 16.6 | 9.52 | 4.76 | 3.8 |
| 22 04 04 - M12 | 39 | 22.1 | 12.70 | 4.76 | 5.2 |
| 22 04 08 - M12 | 39 | 22.1 | 12.70 | 4.76 | 5.2 |
| WBGT 02 01 02 - L | 39 | 3.6 | 3.97 | 1.59 | 2.2 |
| 02 01 02 - R | 39 | 3.6 | 3.97 | 1.59 | 2.2 |
| WNMG 06 04 04 - A12 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 04 - M12 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 04 - F13 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 08 - A12 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 08 - M12 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 08 - S12 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 06 04 08 - F13 | 39 | 6.5 | 9.52 | 4.76 | 3.8 |
| 08 04 04 - A12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 04 - C12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 04 - M12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 04 - F13 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 08 - A12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 08 - C12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 08 - M12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 08 - S12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 08 - F13 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |
| 08 04 12 - M12 | 39 | 8.5 | 12.7 | 4.76 | 5.2 |

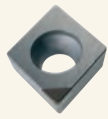

 VN •• 16 04 ••
VN •• 22 04 ••


WB•• 02 01 ••

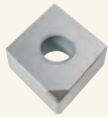

Применяемые державки

| Шифр пластины | Державка | Страница | Расточная державка | Страница |
|----------------|-------------|----------|--------------------|----------|
| VN •• 16 04 •• | | | | |
| VN •• 22 04 •• | | | | |
| WB •• 02 01 •• | | | | |
| WN •• 06 04 •• | PWLN R/L •• | 1.13 | | |
| WN •• 08 04 •• | DWLN R/L •• | 1.07 | | |
| | PWLN R/L •• | 1.13 | | |

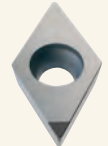
CBN



CCMW



CNMA



DCMW



DNMA



TNMA



VCMW

| Шифр | | | |
|------|----------|-----|----|
| CCMW | 06 02 02 | F/T | 37 |
| | 06 02 04 | F/T | 37 |
| | 06 02 08 | F/T | 37 |
| | 09 T3 02 | F/T | 37 |
| | 09 T3 04 | F/T | 37 |
| | 09 T3 08 | F/T | 37 |
| | 12 04 04 | F/T | 37 |
| | 12 04 08 | F/T | 37 |
| CNMA | 12 04 04 | F/T | 37 |
| | 12 04 08 | F/T | 37 |
| | 12 04 12 | F/T | 37 |
| DCMW | 07 02 02 | F/T | 37 |
| | 07 02 04 | F/T | 37 |
| | 11 T3 02 | F/T | 37 |
| | 11 T3 04 | F/T | 37 |
| | 11 T3 08 | F/T | 37 |
| DNMA | 11 04 04 | F/T | 37 |
| | 11 04 08 | F/T | 37 |
| | 15 06 04 | F/T | 37 |
| | 15 06 08 | F/T | 37 |
| | 15 06 12 | F/T | 37 |
| RCMW | 06 02 MO | F/T | 37 |
| | 08 03 MO | F/T | 37 |
| | 10 03 MO | F/T | 37 |
| SNMA | 12 04 04 | F/T | 37 |
| | 12 04 08 | F/T | 37 |
| | 12 04 12 | F/T | 37 |
| TCMW | 11 02 04 | F/T | 37 |
| | 11 02 08 | F/T | 37 |
| | 16 T3 04 | F/T | 37 |
| | 16 T3 08 | F/T | 37 |
| TNMA | 16 04 04 | F/T | 37 |
| | 16 04 08 | F/T | 37 |
| | 16 04 12 | F/T | 37 |
| VCMW | 11 03 02 | F/T | 37 |
| | 11 03 04 | F/T | 37 |
| | 16 04 02 | F/T | 37 |
| | 16 04 04 | F/T | 37 |
| | 16 04 08 | F/T | 37 |
| WNMA | 08 04 04 | F/T | 37 |
| | 08 04 08 | F/T | 37 |

| Применяемые державки | | | | |
|----------------------|--------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| CC ** 06 02 ** | SCLC R/L ** | 1.13 | ** SCLC R/L ** | 1.26 |
| CC ** 09 T3 ** | | | | |
| CC ** 12 04 ** | | | | |
| CN ** 12 04 ** | DCLN R/L ** | 1.06 | ** DCLN R/L ** | 1.23 |
| | PCBN R/L ** | 1.08 | | |
| | PCLN R/L ** | 1.09 | ** PCLN R/L ** | 1.24 |
| DC ** 07 02 ** | SDAC R/L ** | 1.14 | | |
| | SDHC R/L ** | | | |
| | SDJCR R/L ** | 1.15 | | |
| | SDNCN ** | | | |
| DC ** 11 T3 ** | | | ** SDQC R/L ** | 1.27 |
| | | | ** SDUC R/L ** | 1.27 |
| | | | ** SDXC R/L ** | 1.28 |
| DN ** 11 04 ** | PDJN R/L ** | 1.10 | | |
| | | | ** PDUN R/L ** | 1.24 |
| DN ** 15 06 ** | DDJN R/L ** | 1.07 | | |
| | PDJN R/L ** | 1.10 | | |
| | | | | |
| RC * W ** | | | ** PDUN R/L ** | 1.24 |
| | SRDCN ** | 1.16 | | |
| SN ** 12 04 ** | PSBN R/L ** | 1.10 | | |
| | PSKN R/L ** | 1.11 | ** PSKN R/L ** | 1.25 |
| | PSSN R/L ** | 1.11 | | |
| TC ** 11 02 ** | STGC R/L ** | 1.17 | | |
| | | | ** STFC R/L ** | 1.30 |
| TC ** 16 04 ** | STGC R/L ** | 1.17 | ** STFC R/L ** | 1.30 |
| | | | | |
| TN ** 16 04 ** | MTJN R/L ** | 1.08 | | |
| | PTFN R/L ** | 1.12 | ** PTFN R/L ** | 1.25 |
| | PTGN R/L ** | 1.12 | | |
| VC ** 11 03 ** | SVHC R/L ** | 1.18 | | |
| | SVJC R/L ** | 1.19 | | |
| | SVVCN ** | 1.19 | | |
| | | | | |
| VN ** 08 04 ** | | | ** SVUC R/L ** | 1.31 |
| | DWLN R/L ** | 1.07 | | |
| | PWLN R/L ** | 1.13 | | |

К сведению: F: заостренная режущая кромка T: скошенная режущая кромка

PKD

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

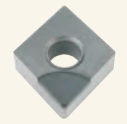
Сборные сверла

Твердосплавные сверла

Общая информация



CCMW



CNMA



DCMW



DNMA



TCMW



TNMA



VCMW

| Шифр | | | |
|-----------------|--|--|----|
| CCMW 06 02 01 F | | | 37 |
| 06 02 02 F | | | 37 |
| 06 02 04 F | | | 37 |
| 09 T3 02 F | | | 37 |
| 09 T3 04 F | | | 37 |
| 09 T3 08 F | | | 37 |
| 12 04 04 F | | | 37 |
| 12 04 08 F | | | 37 |
| CNMA 12 04 04 F | | | 37 |
| 12 04 08 F | | | 37 |
| DCMW 07 02 01 F | | | 37 |
| 07 02 02 F | | | 37 |
| 07 02 04 F | | | 37 |
| 11 T3 02 F | | | 37 |
| 11 T3 04 F | | | 37 |
| 11 T3 08 F | | | 37 |
| DNMA 11 04 04 F | | | 37 |
| 11 04 08 F | | | 37 |
| 15 06 04 F | | | 37 |
| 15 06 08 F | | | 37 |
| RCMW 06 02 00 F | | | 37 |
| 08 03 00 F | | | 37 |
| 10 03 00 F | | | 37 |
| 12 T3 00 F | | | 37 |
| TCMW 09 02 01 F | | | 37 |
| 09 02 02 F | | | 37 |
| 09 02 04 F | | | 37 |
| 11 02 02 F | | | 37 |
| 11 02 04 F | | | 37 |
| 11 02 08 F | | | 37 |
| 16 T3 04 F | | | 37 |
| 16 T3 08 F | | | 37 |
| TNMA 16 04 02 F | | | 37 |
| 16 04 04 F | | | 37 |
| 16 04 08 F | | | 37 |
| VCMW 11 03 02 F | | | 37 |
| 11 03 04 F | | | 37 |
| 11 03 08 F | | | 37 |
| 16 04 02 F | | | 37 |
| 16 04 04 F | | | 37 |
| 16 04 08 F | | | 37 |

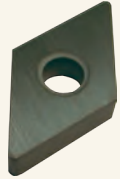
| Применяемые державки | | | | |
|----------------------|--------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| CC ** 06 02 ** | SCLC R/L ** | 1.13 | ** SCLC R/L ** | 1.26 |
| CC ** 09 T3 ** | | | | |
| CC ** 12 04 ** | | | | |
| CN ** 12 04 ** | DCLN R/L ** | 1.06 | ** DCLN R/L ** | 1.23 |
| | PCBN R/L ** | 1.08 | | |
| | PCLN R/L ** | 1.09 | ** PCLN R/L ** | 1.24 |
| DC ** 07 02 ** | SDAC R/L ** | 1.14 | | |
| | SDHC R/L ** | | | |
| | SDJCR R/L ** | 1.15 | | |
| | SDNCN ** | | | |
| DC ** 11 T3 ** | | | ** SDQC R/L ** | 1.27 |
| | | | ** SDUC R/L ** | 1.27 |
| | | | ** SDXC R/L ** | 1.28 |
| DN ** 11 04 ** | PDJN R/L ** | 1.10 | | |
| | | | ** PDUN R/L ** | 1.24 |
| DN ** 15 06 ** | DDJN R/L ** | 1.07 | | |
| | PDJN R/L ** | 1.10 | | |
| | | | ** DDUN R/L ** | 1.23 |
| | | | ** PDUN R/L ** | 1.24 |
| RC • W 06 ** | SRDCN ** | 1.16 | | |
| RC • W 08 ** | | | | |
| RC • W 10 ** | | | | |
| RC • W 12 ** | | | | |
| TC ** 09 02 ** | | | ** STFC R/L ** | 1.30 |
| TC ** 11 02 ** | STGC R/L ** | 1.17 | | |
| | | | ** STFC R/L ** | 1.30 |
| TC ** 16 04 ** | STGC R/L ** | 1.17 | | |
| TN ** 16 04 ** | MTJN R/L ** | 1.08 | | |
| | PTFN R/L ** | 1.08 | ** PTFN R/L ** | 1.25 |
| | PTGN R/L ** | 1.08 | | |
| VC ** 11 03 ** | SVHC R/L ** | 1.18 | | |
| | SVJB R/L ** | 1.18 | | |
| | SVJC R/L ** | 1.19 | | |
| | SVVCN ** | 1.19 | | |
| | | | | |
| VC ** 16 04 ** | | | ** SVQC R/L ** | 1.30 |
| | | | ** SVUC R/L ** | 1.31 |

F: заостренная режущая кромка

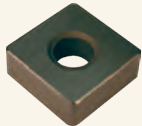
Пластины из керамики



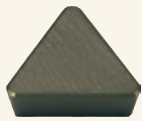
CNGA



DNGA



SNGA



TPGN

| Шифр | | |
|-----------------|----|--|
| CNGA 12 04 08 T | 62 | |
| 12 04 12 T | 62 | |
| DNGA 15 06 04 T | 62 | |
| 15 06 08 T | 62 | |
| 15 06 12 T | 62 | |
| SNGA 12 04 04 T | 62 | |
| 12 04 08 T | 62 | |
| 12 04 12 T | 62 | |
| 12 04 16 T | 62 | |
| SPGN 09 03 04 T | 62 | |
| 09 03 08 T | 62 | |
| 09 03 12 T | 62 | |
| 12 03 04 T | 62 | |
| 12 03 08 T | 62 | |
| 12 03 12 T | 62 | |
| 12 04 08 T | 62 | |
| 12 04 12 T | 62 | |
| 12 04 16 T | 62 | |
| TNGA 16 04 04 T | 62 | |
| 16 04 08 T | 62 | |
| 16 04 12 T | 62 | |
| TPGN 11 03 02 T | 62 | |
| 11 03 04 T | 62 | |
| 11 03 08 T | 62 | |
| 16 03 02 T | 62 | |
| 16 03 04 T | 62 | |
| 16 03 08 T | 62 | |
| 16 03 12 T | 62 | |

| Применяемые державки | | | | |
|----------------------|-------------|----------|--------------------|----------|
| Шифр пластины | Державка | Страница | Расточная державка | Страница |
| CN ** 12 04 ** | DCLN R/L ** | 1.06 | ** DCLN R/L ** | 1.23 |
| | PCBN R/L ** | 1.08 | | |
| | PCLN R/L ** | 1.09 | ** PCLN R/L ** | 1.24 |
| DN ** 15 06 ** | DDJN R/L ** | 1.07 | | |
| | PDJN R/L ** | 1.10 | | |
| | | | ** DDUN R/L ** | 1.23 |
| | | | ** PDUN R/L ** | 1.24 |
| SN ** 12 04 ** | PSBN R/L ** | 1.10 | | |
| | PSBN R/L ** | 1.11 | | |
| | PSSN R/L ** | 1.11 | | |
| | | | ** PSKN R/L ** | 1.25 |
| SP ** 09 03 ** | | | | |
| TN ** 16 04 ** | MTJN R/L ** | 1.08 | | |
| | PTFN R/L ** | 1.12 | ** PTFN R/L ** | 1.25 |
| | PTGN R/L ** | 1.12 | | |
| TP ** 11 03 ** | | | | |

T: скошенная режущая кромка

| ISO | P | | | | | | M | | | | K | | | | Закаленные | | | | |
|--------------------------|---------------------|-----|---------|-----|---------|-----------------------|---------|---------|---------|---------|---------|---------|---------|-----|------------|--|---------|--|--|
| Скорости обработки | | | | | | | | | | | | | | | | | | | |
| Материал | высокая | | средняя | | низкая | прерывистая обработка | | высокая | | средняя | | низкая | высокая | | средняя | | низкая | | |
| | P01 | P10 | P20 | P30 | P40 | P50 | M10 | M20 | M30 | M40 | K01 | K10 | K20 | K30 | K40 | | | | |
| Покрытый твердый сплав | TS 5110/ TS 5210 | | TP 2110 | | | | TM 2120 | | | | TK 5210 | | | | | | | | |
| | | | TP 2120 | | | | | | | | TK 5110 | | | | | | | | |
| | | | TP 2220 | | | | | | | | TK 2310 | | | | | | | | |
| | | | TK 5220 | | | | | | | | TK 5220 | | | | | | | | |
| | | | | | TP 2135 | | | | | | | | | | | | | | |
| | | | | | TP 5145 | | | | TM 5130 | | | | | | | | | | |
| | | | | | TP 2150 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Кермет | TZ 1210 | | | | | | | | | | | | | | | | | | |
| | | | TZ 1315 | | | | | | | | | | | | | | | | |
| CBN | | | | | | | | | | | | | | | | | TX 1210 | | |
| | | | | | | | | | | | | | | | | | TX 1410 | | |
| | | | | | | | | | | | | | | | | | TX 1610 | | |
| Непокрытый твердый сплав | | | | | TP 1140 | | | | | | | | | | | | | | |
| | | | | | | | | | | | TK 1110 | | | | | | | | |
| | | | | | | | | | | | | TK 1220 | | | | | | | |

C N M G 120404 - A12



| | | |
|--------------|---|-----------------------------------|
| Применение 1 | T | Токарная обработка |
| | M | Фрезерная обработка |
| | G | Обработка канавок, пазов, отрезка |
| | T | Нарезание резьбы |
| | D | Сверление |

| | | |
|--------------|---|---------------------------------|
| Применение 2 | P | Обработка стали |
| | M | Обработка нержавеющей стали |
| | K | Обработка алюминия и неметаллов |
| | S | Обработка жаропрочных сплавов |
| | H | Обработка закалённых сталей |
| | U | Для универсальной обработки |
| | W | DIA |
| | X | CBN |
| | Y | PKD |
| | Z | Кермет |
| | D | DLC |
| | C | Керамика |

| | | |
|---------|-------|------------|
| № серии | 11-20 | Непокрытые |
| | 21-50 | CVD |
| | 51-99 | PVD |

| | | |
|-----|-----|--|
| ISO | 10 | |
| | 20 | |
| | 30 | |
| | 40 | |
| | 50 | |
| | ... | |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент


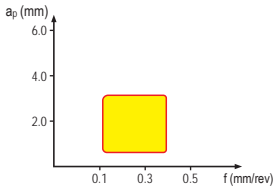
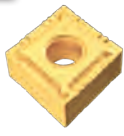
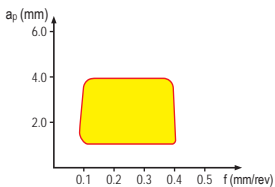

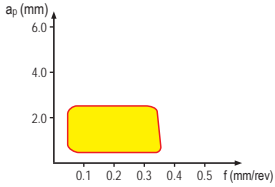

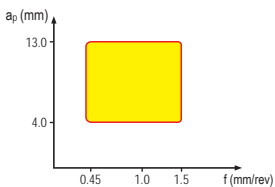

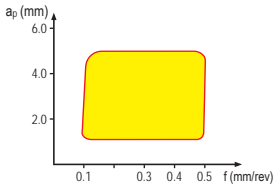

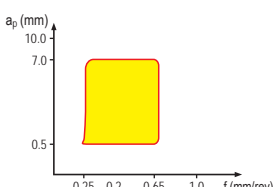

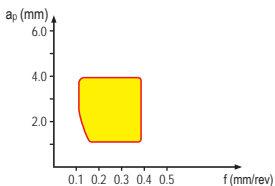
Инструмент для нарезания резьбы

Сборные сверла

Твердосплавные сверла


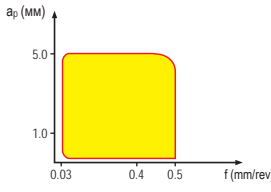

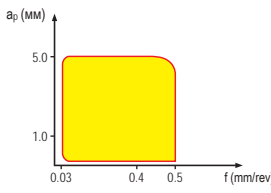

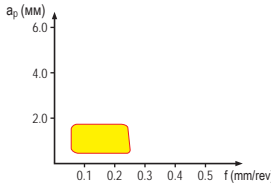

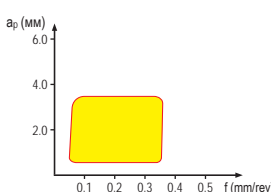
Общая информация

Стружколомы для токарной обработки

| Стружколом | Применение | Основные рекомендации |
|---|---|--|
| A12  |  | <p>Обработка легко обрабатываемых материалов и нержавеющей стали</p> <p>Острая, прочная режущая кромка, положительная геометрия передней поверхности - позволяют снизить силу резания. Рекомендуется для обработки легированных сталей и цветных металлов.</p> <p>Рекомендации по режимам резания $a_p = 0.8 \sim 3.5 \text{ мм}$ $f = 0.1 \sim 0.4 \text{ мм/об}$ (мм/об)</p> |
| C12  |  | <p>Получистовая обработка</p> <p>Гарантирует качественное стружкодробление при небольших глубинах резания и обеспечивает высокую стойкость пластины.</p> <p>Рекомендации по режимам резания $a_p = 0.8 \sim 4.0 \text{ мм}$ $f = 0.08 \sim 0.4 \text{ мм/об}$ (мм/об)</p> |
| F13  |  | <p>Чистовая обработка</p> <p>Обеспечивает высокую точность при чистовом точении благодаря специальной режущей кромке</p> <p>Рекомендации по режимам резания $a_p = 0.3 \sim 2.5 \text{ мм}$ $f = 0.05 \sim 0.35 \text{ мм/об}$ (мм/об)</p> |
| H12  |  | <p>Тяжелая черновая обработка</p> <p>Гарантирует качественное устойчивое стружкодробление при тяжелой черновой обработке, специальная режущая кромка позволяет снизить силы резания</p> <p>Рекомендации по режимам резания $a_p = 4.0 \sim 13.0 \text{ мм}$ $f = 0.45 \sim 1.5 \text{ мм/об}$ (мм/об)</p> |
| M12  |  | <p>Универсальное применение</p> <p>Гарантирует качественное стружкодробление при различных операциях, подходит для обработки нержавеющей стали и для обработки материалов на станках с ЧПУ</p> <p>Рекомендации по режимам резания $a_p = 1.0 \sim 5.0 \text{ мм}$ $f = 0.1 \sim 0.5 \text{ мм/об}$ (мм/об)</p> |
| R12  |  | <p>Черновая обработка</p> <p>Рекомендуется для чернового точения при большой глубине резания, прерывистом резании и резании при высоких подачах. Характерна высокая стойкость пластины при больших нагрузках.</p> <p>Рекомендации по режимам резания $a_p = 2.5 \sim 7.0 \text{ мм}$ $f = 0.25 \sim 0.65 \text{ мм/об}$ (мм/об)</p> |
| S12  |  | <p>Получистовая обработка нержавеющей стали</p> <p>Характерный передний угол обеспечивает высокую стойкость пластины и позволяет снизить силы резания при обработке нержавеющей стали</p> <p>Рекомендации по режимам резания $a_p = 1.0 \sim 4.0 \text{ мм}$ $f = 0.1 \sim 0.4 \text{ мм/об}$ (мм/об)</p> |

Негативные пластины

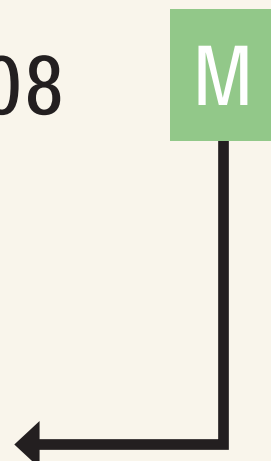
Стружколомы для токарной обработки

| Стружколом | | Применение | Основные рекомендации |
|---------------------|---|---|---|
| Позитивные пластины | AL  |  | <p>Обработка алюминия</p> <p><i>Большой передний угол позволяет значительно снизить силы резания, режущая кромка имеет оптимальную геометрию, препятствующую налипанию обрабатываемого материала.</i></p> <p>Рекомендации по режимам резания: $a_p = 0.1 \sim 5.0\text{мм}$ $f = 0.03 \sim 0.5\text{мм/об}$</p> |
| | ALX  |  | <p>Обработка алюминия</p> <p><i>Малый угол заострения переднего угла позволяет значительно снизить силы резания, шлифованная режущая кромка позволяет исключить налипание обрабатываемого материала. Подходит для сверхчистой обработки цветных металлов и нержавеющей стали.</i></p> <p>Рекомендации по режимам резания: $a_p = 0.1 \sim 5.0\text{мм}$ $f = 0.03 \sim 0.5\text{мм/об}$</p> |
| | F12  |  | <p>Чистовая обработка</p> <p>Обеспечивает качественное стружкодробление при чистовом точении. Гарантирует высокую точность обработки при операциях растачивания.</p> <p>Рекомендации по режимам резания: $a_p = 0.1 \sim 1.5\text{мм}$ $f = 0.05 \sim 0.25\text{мм/об}$</p> |
| | M12  |  | <p>Универсальное применение</p> <p><i>Обеспечивает качественное стружкодробление в различных операциях при обработке различных материалов, в том числе нержавеющей стали.</i></p> <p>Рекомендации по режимам резания: $a_p = 0.5 \sim 3.5\text{мм}$ $f = 0.05 \sim 0.4\text{мм/об}$</p> |

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Применение

| | |
|---|-----------------------------|
| A | Обработка алюминия |
| C | Копировальные операции |
| F | Финишная обработка |
| H | Тяжелая черновая обработка |
| M | Универсальное применение |
| R | Черновая обработка |
| S | Обработка нержавеющей стали |



- Токарная обработка
- Фрезерная обработка
- Монолитные твердосплавные концевые фрезы
- Обработка канавок и пазов
- Мини-инструмент
- Микро-инструмент
- Инструмент для нарезания резьбы
- Сборные сверла
- Твердосплавные сверла
- Общая информация

Рекомендации по режимам токарной обработки

| Материал | Сплав | Твердость НВ | Твердость | | | |
|-----------------------------------|---------------------------------------|---|--------------------|------------|-----------|------------|
| | | | TK 5110 TK 5210 | TP 5145 | TK 5220 | |
| A | Нелегированная сталь | отожжённый $\leq 0,15\% \text{ C}$ | 125 | - | 180 - 240 | - |
| | | отожжённый $0,15\% - 0,45\% \text{ C}$ | 150-250 | - | 150 - 200 | - |
| | | высокоочищенный $\geq 0,45\% \text{ C}$ | 300 | - | 150 - 200 | - |
| | Низколегированная сталь | отожжённый | 180 | - | 170 - 200 | - |
| | | высокоочищенный | 250-300 | - | 100 - 160 | - |
| | Высоколегированная сталь | отожжённый | 200 | - | 130 - 170 | - |
| высокоочищенный | | 350 | - | 80 - 130 | - | |
| R | Нержавеющая сталь | мартенситная | 200 | - | 140 - 200 | 160 - 240 |
| | | аустенитная | 180 | - | 110 - 190 | 150 - 200 |
| | | дуплексная | 230-260 | - | 80 - 150 | 120 - 180 |
| | | ферритная | 330 | - | 55 - 75 | - |
| F | Серый чугун | ферритный | 180 | 100 - 200 | - | 150 - 240 |
| | | мартенситный | 260 | 100 - 220 | - | 180 - 260 |
| | Чугун с шаровидным графитом | ферритный | 160 | 120 - 200 | - | 200 - 400 |
| | | перлитный | 250 | 120 - 250 | - | 250 - 350 |
| | Ковкий чугун | ферритный | 130 | 120 - 200 | - | 200 - 400 |
| | | перлитный | 230 | 100 - 200 | - | 180 - 300 |
| N | Ковочные сплавы | неотверждаемый | 60 | 250 - 3000 | 100 - 500 | 300 - 2000 |
| | | отверждаемый | 100 | 250 - 2500 | 100 - 400 | 300 - 1000 |
| | Литейные сплавы | неотверждаемый $< 12\% \text{ Si}$ | 80 | 400 - 2000 | 100 - 350 | 400 - 1000 |
| | | отверждаемый $< 12\% \text{ Si}$ | 90 | 300 - 1200 | 100 - 800 | 300 - 600 |
| | | неотверждаемый $> 12\% \text{ Si}$ | 130 | 200 - 700 | 80 - 250 | 200 - 400 |
| | Медь и медные сплавы (бронза, латунь) | Легкообрабатываемые сплавы (1% Pb) | | - | - | - |
| | | Латунь, красная бронза | 90 | - | - | - |
| | | Бронза | 100 | - | - | - |
| | Неметаллические материалы | Медь | 100 | - | - | - |
| | | Дуропласты, термореактивные пластмассы | | - | - | 80 - 180 |
| S | Высокопрочные сплавы | армированная пластмасса | | - | - | - |
| | | Fe-основа | 200 | - | - | - |
| | | Fe-основа (инколой) | 280 | - | - | - |
| | | Ni-основа (инконель) | 250 | - | - | - |
| | | Ni-основа (хостелой) | 350 | - | - | - |
| | Co-основа (стеллит) | 320 | - | - | - | |
| | Титановые сплавы | Чистый титан | $R_m 400$ | - | - | - |
| Alpha- + Beta-легированные сплавы | $R_m 1050$ | - | - | - | | |

Рекомендации по режимам токарной обработки

| Скорость обработки v_c [м/мин] | | | | | | | | | | | | |
|----------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|------------|------------|------------|--------------------|
| TS 5210 TS 5110 | TM 5130 | TP 2110 | TP 2220 | TP 2135 | TP 2150 | TK 2310 | TM 2120 | TZ 1210 TZ 1315 | TK 1110 | TK 1220 | TY 1110 | TX 1410 TX 1610 |
| - | 70 - 230 | 220 - 320 | 220 - 350 | 180 - 240 | 120 - 200 | - | 140 - 250 | 280 - 400 | - | - | - | - |
| - | - | 200 - 270 | 200 - 300 | 150 - 200 | 100 - 160 | - | 120 - 220 | 200 - 280 | - | - | - | - |
| - | - | 180 - 220 | 160 - 250 | 150 - 200 | 100 - 160 | - | - | 180 - 250 | - | - | - | - |
| - | - | 200 - 300 | 200 - 310 | 170 - 200 | 100 - 160 | - | - | 250 - 350 | - | - | - | - |
| - | - | 160 - 200 | 150 - 250 | 100 - 160 | 80 - 150 | - | - | 180 - 250 | - | - | - | - |
| - | - | 120 - 180 | 120 - 200 | 80 - 140 | 70 - 110 | - | - | 140 - 230 | - | - | - | - |
| - | - | 150 - 240 | 140 - 250 | 130 - 170 | 100 - 140 | - | - | 150 - 200 | - | - | - | - |
| - | - | 120 - 200 | 100 - 200 | 80 - 130 | 70 - 110 | - | - | 150 - 200 | - | - | - | - |
| - | 50 - 240 | - | 150 - 220 | 140 - 180 | 110 - 150 | - | 140 - 250 | 170 - 250 | - | - | - | - |
| - | 50 - 210 | - | 180 - 220 | 100 - 170 | 80 - 140 | - | 120 - 230 | 200 - 250 | - | - | - | - |
| - | 60 - 150 | - | - | 80 - 160 | 70 - 130 | - | 80 - 160 | - | - | - | - | - |
| - | 50 - 180 | - | - | 60 - 80 | 50 - 70 | - | 120 - 200 | 130 - 160 | - | - | - | 80 - 150 |
| - | - | 140 - 200 | 120 - 180 | - | - | 150 - 290 | - | 90 - 550 | 90 - 160 | 80 - 150 | - | 300 - 1000 |
| - | - | 140 - 200 | 120 - 180 | - | - | 180 - 310 | - | 90 - 400 | 80 - 130 | 80 - 120 | - | 300 - 800 |
| - | - | 140 - 240 | 120 - 200 | - | - | 200 - 450 | - | 220 - 320 | 100 - 160 | 80 - 150 | - | 300 - 450 |
| - | - | 140 - 200 | 120 - 180 | - | - | 250 - 400 | - | 160 - 240 | 90 - 150 | 80 - 140 | - | 250 - 350 |
| - | - | 150 - 250 | 150 - 230 | - | - | 200 - 450 | - | 250 - 350 | 100 - 160 | 80 - 150 | - | - |
| - | - | 120 - 200 | 120 - 170 | - | - | 180 - 350 | - | 150 - 250 | 70 - 150 | 60 - 130 | - | - |
| - | - | - | - | - | - | - | - | - | 200 - 3000 | 200 - 1000 | 100 - 2000 | - |
| - | - | - | - | - | - | - | - | - | 200 - 2000 | 200 - 800 | 100 - 1800 | - |
| - | - | - | - | - | - | - | - | - | 400 - 1500 | 300 - 800 | 100 - 1500 | - |
| - | - | - | - | - | - | - | - | - | 300 - 1000 | 200 - 600 | 100 - 1500 | - |
| - | - | - | - | - | - | - | - | - | 200 - 500 | 150 - 350 | 80 - 1000 | - |
| - | - | - | - | - | - | - | - | - | 250 - 600 | 80 - 500 | 100 - 1200 | - |
| - | - | - | - | - | - | - | - | - | 250 - 1000 | 80 - 300 | 100 - 1500 | - |
| - | - | - | - | - | - | - | - | - | 150 - 400 | 80 - 200 | 100 - 800 | - |
| - | - | - | - | - | - | - | - | - | 300 - 800 | 200 - 600 | 100 - 1200 | - |
| - | - | - | - | - | - | - | - | - | 60 - 180 | - | 80 - 350 | - |
| - | - | - | - | - | - | - | - | - | 30 - 150 | - | 60 - 300 | - |
| 30 - 70 | - | - | - | - | - | - | - | - | - | - | - | - |
| 30 - 70 | - | - | - | - | - | - | - | - | - | - | - | - |
| 30 - 60 | - | - | - | - | - | - | - | - | - | 15 - 35 | - | - |
| 30 - 60 | - | - | - | - | - | - | - | - | - | 15 - 35 | - | - |
| 20 - 70 | - | - | - | - | - | - | - | - | - | 15 - 30 | - | - |
| 50 - 150 | - | - | - | - | - | - | - | - | 60 - 150 | 60 - 100 | - | - |
| 30 - 80 | - | - | - | - | - | - | - | - | 40 - 120 | 25 - 40 | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | 80 - 200 |
| - | - | - | - | - | - | - | - | - | - | - | - | 40 - 180 |
| - | - | - | - | - | - | - | - | - | - | - | - | 40 - 180 |

Токарная обработка

Фрезерная обработка

Монолитные твердосплавные концевые фрезы

Обработка канавок и пазов

Мини-инструмент

Микро-инструмент

Инструмент для нарезания резьбы

Сборные сверла

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