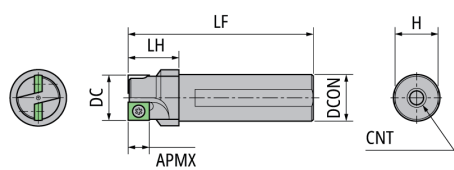


# RCL type rectangular tooth chamfering type

## RCL.. series/Toolholders

### RCL-066



● Diagram shows right-hand tool

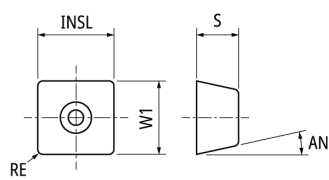
| EDP     | Item Number  | Stock | Hand | APMX<br>mm | CICT | CNT    | DC<br>mm | DCON<br>mm | H<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage |
|---------|--------------|-------|------|------------|------|--------|----------|------------|---------|-----------|----------|----------|-------------|
| 5051792 | RCL100D2R066 | ●     | R    | (5)        | 2    | M4*20L | 10       | 10         | 9.5     | 90        | 60       | 18       | CLH04..035  |
| 5051784 | RCL100D2L066 | ●     | L    | (5)        | 2    | M4*20L | 10       | 10         | 9.5     | 90        | 60       | 18       | CLH04..035  |

### Spare Parts

| Item Number  | Clamp screw   | Wrench<br>(for Clamp screw) |
|--------------|---------------|-----------------------------|
| RCL100D2R066 | FSI04-2.0*4.3 | T-06                        |
| RCL100D2L066 | FSI04-2.0*4.3 | T-06                        |

## RCL.. series/Insert Carbide

### CLH04-035

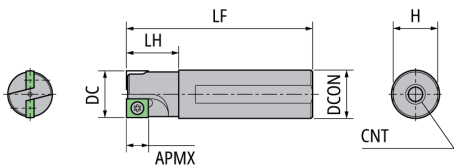


● No center cutting edge

| Item Number        | Chip-breaker | Wiper | AN<br>° | INSL<br>mm | KAPR<br>° | RE<br>mm | S<br>mm | W1<br>mm | Carbide PVD |     |
|--------------------|--------------|-------|---------|------------|-----------|----------|---------|----------|-------------|-----|
|                    |              |       |         |            |           |          |         |          | DM4         | ZM3 |
| CLH0402CFN-035     | No           | No    | 7       | 5.56       | 90        | 0.2      | 1.88    | 4.2      | ●           | ●   |
| CLH0402CT00525-035 | No           | No    | 7       | 5.56       | 90        | 0.2      | 1.88    | 4.2      | ●           | ●   |

RCL.. series/Toolholders

RCL-050



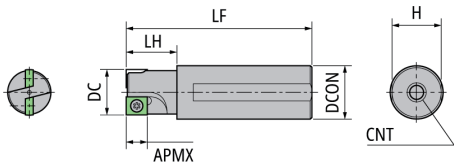
● Diagram shows right-hand tool

| EDP     | Item Number  | Stock | Hand | APMX<br>mm | CICT | CNT    | DC<br>mm | DCON<br>mm | H<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage |
|---------|--------------|-------|------|------------|------|--------|----------|------------|---------|-----------|----------|----------|-------------|
| 5025952 | RCL120D2R050 | ●     | R    | (5)        | 2    | M4*20L | 12       | 12         | 11      | 90        | 60       | 15       | CLH04..004  |
| 5025945 | RCL120D2L050 | ●     | L    | (5)        | 2    | M4*20L | 12       | 12         | 11      | 90        | 60       | 15       | CLH04..004  |

Spare Parts

| Item Number  | Clamp screw | Wrench<br>(for Clamp screw) |
|--------------|-------------|-----------------------------|
| RCL120D2R050 | FSI01-2.5*5 | CLR-15S                     |
| RCL120D2L050 | FSI01-2.5*5 | CLR-15S                     |

RCL-059



● Diagram shows right-hand tool

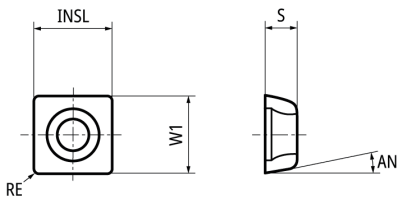
| EDP     | Item Number  | Stock | Hand | APMX<br>mm | CICT | CNT    | DC<br>mm | DCON<br>mm | H<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage |
|---------|--------------|-------|------|------------|------|--------|----------|------------|---------|-----------|----------|----------|-------------|
| 5034913 | RCL120D2R059 | ●     | R    | (5)        | 2    | M6*20L | 12       | 14         | 13      | 90        | 55       | 15       | CLH04..004  |
| 5034921 | RCL120D2L059 | ●     | L    | (5)        | 2    | M6*20L | 12       | 14         | 13      | 90        | 55       | 15       | CLH04..004  |

Spare Parts

| Item Number  | Clamp screw | Wrench<br>(for Clamp screw) |
|--------------|-------------|-----------------------------|
| RCL120D2R059 | FSI01-2.5*5 | CLR-15S                     |
| RCL120D2L059 | FSI01-2.5*5 | CLR-15S                     |

RCL.. series/Insert Carbide

CLH04-004

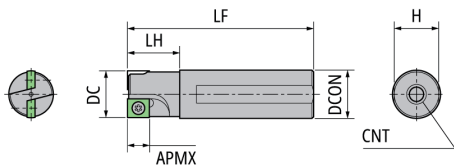


●No center cutting edge

| Item Number        | Chip-breaker | Wiper | AN<br>° | INSL<br>mm | KAPR<br>° | RE<br>mm | S<br>mm | W1<br>mm | Carbide PVD |   |
|--------------------|--------------|-------|---------|------------|-----------|----------|---------|----------|-------------|---|
| CLH0402CFN-004     | No           | No    | 7       | 5.56       | 90        | 0.2      | 1.88    | 4.76     | ●           | ● |
| CLH0402CT00525-004 | No           | No    | 7       | 5.56       | 90        | 0.2      | 1.88    | 4.76     | ●           | ● |

RCL.. series/Toolholders

RCL-021



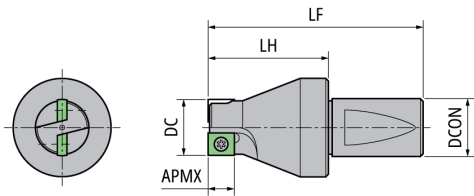
● Diagram shows right-hand tool

| EDP     | Item Number  | Stock | Hand | APMX<br>mm | CICT | CNT    | DC<br>mm | DCON<br>mm | H<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage |
|---------|--------------|-------|------|------------|------|--------|----------|------------|---------|-----------|----------|----------|-------------|
| 5005046 | RCL140D2R021 | ●     | R    | (6)        | 2    | M6*20L | 14       | 14         | 13      | 90        | 55       | 15       | CLH05..     |
| 5005053 | RCL140D2L021 | ●     | L    | (6)        | 2    | M6*20L | 14       | 14         | 13      | 90        | 55       | 15       | CLH05..     |

Spare Parts

| Item Number  | Clamp screw | Wrench<br>(for Clamp screw) |
|--------------|-------------|-----------------------------|
| RCL140D2R021 | FSI01-2.5*5 | CLR-15S                     |
| RCL140D2L021 | FSI01-2.5*5 | CLR-15S                     |

RCL-020



● Diagram shows right-hand tool

| EDP     | Item Number  | Stock | Hand | APMX<br>mm | CICT | CNT | DC<br>mm | DCON<br>mm | H<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage |
|---------|--------------|-------|------|------------|------|-----|----------|------------|---------|-----------|----------|----------|-------------|
| 5005236 | RCL140Z2R020 | ●     | R    | (6)        | 2    | -   | 14       | 14         | -       | 90        | 54       | 30       | CLH05..     |
| 5005228 | RCL140Z2L020 | ●     | L    | (6)        | 2    | -   | 14       | 14         | -       | 90        | 54       | 30       | CLH05..     |

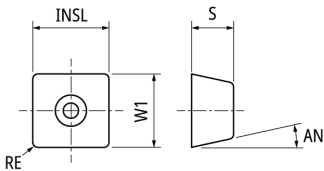
Spare Parts

| Item Number  | Clamp screw | Wrench<br>(for Clamp screw) |
|--------------|-------------|-----------------------------|
| RCL140Z2R020 | FSI01-2.5*5 | CLR-15S                     |
| RCL140Z2L020 | FSI01-2.5*5 | CLR-15S                     |

Endmill  
H

RCL.. series/Insert Carbide

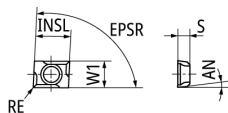
CLH05



| Item Number | Chip-breaker | Wiper | AN<br>° | INSL<br>mm | KAPR<br>° | RE<br>mm | S<br>mm | W1<br>mm | Carbide PVD |     |
|-------------|--------------|-------|---------|------------|-----------|----------|---------|----------|-------------|-----|
|             |              |       |         |            |           |          |         |          | DM4         | ZM3 |
| CLH0502CFN  | No           | No    | 11      | 6.35       | 90        | 0.2      | 2.18    | 5.56     | ●           | ●   |
| CLH0504CFN  | No           | No    | 11      | 6.35       | 90        | 0.4      | 2.18    | 5.56     | ●           | ●   |

## REZ.. series/Insert Carbide

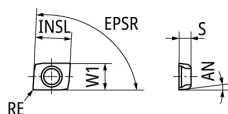
### CZH-BL Less tool pressure with chipbreaker



● Diagram shows right-hand tool

| Item Number    | Chip-breaker | Center cutting edge | Wiper | AN | EPSR | INSL | RE   | S    | W1  | Carbide PVD |     |
|----------------|--------------|---------------------|-------|----|------|------|------|------|-----|-------------|-----|
|                |              |                     |       | °  | °    | mm   | mm   | mm   | mm  | DM4         | TM4 |
| CZH04005CFR-BL | Yes          | No                  | No    | 7  | 87   | 5.56 | 0.05 | 1.88 | 4.2 | ●           | ●   |
| CZH0402CFR-BL  | Yes          | No                  | No    | 7  | 87   | 5.56 | 0.2  | 1.88 | 4.2 | ●           | ●   |

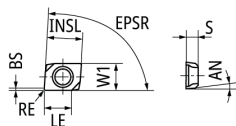
### CZH-070



● Diagram shows right-hand tool

| Item Number     | Chip-breaker | Center cutting edge | Wiper | AN | EPSR | INSL | RE   | S    | W1  | Carbide PVD |     |
|-----------------|--------------|---------------------|-------|----|------|------|------|------|-----|-------------|-----|
|                 |              |                     |       | °  | °    | mm   | mm   | mm   | mm  | DT4         | ZM3 |
| CZH04005CFR-070 | No           | Yes                 | No    | 7  | 87   | 5.56 | 0.05 | 1.88 | 4.2 | ●           | ●   |
| CZH0402CFR-070  | No           | Yes                 | No    | 7  | 87   | 5.56 | 0.2  | 1.88 | 4.2 | ●           | ●   |

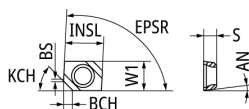
### CZH-140/141



● Diagram shows right-hand tool

| Item Number     | Chip-breaker | Center cutting edge | Wiper    | AN | BS  | EPSR | INSL | LE | RE   | S    | W1   | Carbide PVD |     |
|-----------------|--------------|---------------------|----------|----|-----|------|------|----|------|------|------|-------------|-----|
|                 |              |                     |          | °  | mm  | °    | mm   | mm | mm   | mm   | mm   | DT4         | ZM3 |
| CZH04005CFR-140 | No           | Yes                 | Straight | 7  | 0.4 | 87   | 5.56 | 4  | 0.05 | 1.88 | 4.2  | ●           | ●   |
| CZH0402CFR-140  | No           | Yes                 | Straight | 7  | 0.4 | 87   | 5.56 | 4  | 0.2  | 1.88 | 4.2  | ●           | ●   |
| CZH05005CFR-141 | No           | Yes                 | Straight | 10 | 0.4 | 87   | 5.28 | 4  | 0.05 | 2.18 | 5.56 | ●           |     |
| CZH0502CFR-141  | No           | Yes                 | Straight | 10 | 0.4 | 87   | 5.28 | 4  | 0.2  | 2.18 | 5.56 | ●           |     |

### CZH-C45 for Lead angle 45°



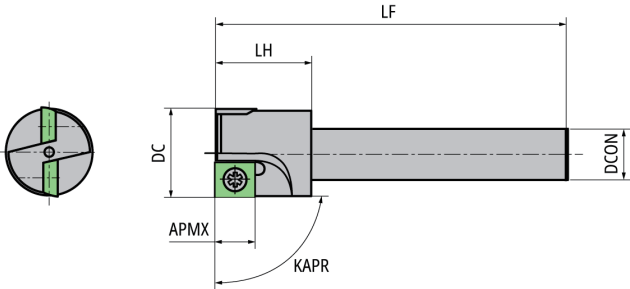
● Diagram shows right-hand tool

| Item Number    | Chip-breaker | Center cutting edge | Wiper    | AN | BCH  | BS  | EPSR | INSL | KCH | S    | W1  | Carbide PVD |     |
|----------------|--------------|---------------------|----------|----|------|-----|------|------|-----|------|-----|-------------|-----|
|                |              |                     |          | °  | mm   | mm  | °    | mm   | °   | mm   | mm  | DT4         | QM3 |
| CZH0400CFR-C45 | Yes          | No                  | Straight | 7  | 1.35 | 0.3 | 87   | 5.56 | 45  | 1.88 | 4.2 | ●           | ●   |

# Indexable Endmills

## REL.. series/Toolholders for Lead angle 89°

### REL-2R



● Diagram shows right-hand tool

| EDP     | Item Number  | Stock | Hand | APMX | CICT | DC<br>mm | DCON<br>mm | KAPR<br>° | LF<br>mm | LH<br>mm | Insert Gage  |
|---------|--------------|-------|------|------|------|----------|------------|-----------|----------|----------|--------------|
| 5092374 | REL100C2R106 | ●     | R    | ※    | 2    | 10       | 10         | 89        | 50       | 12       | CLH04...-045 |
| 5092358 | REL100C2R107 | ●     | R    | ※    | 2    | 10       | 7          | 89        | 50       | 12       | CLH04...-045 |

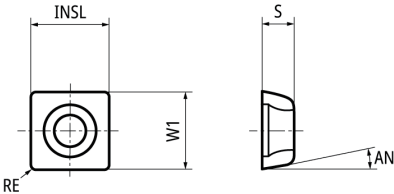
Note : The model number stamped on the actual holder is partly shortened for reasons of space.

### Spare Parts

| Item Number  | Clamp screw   | Wrench<br>(for Clamp screw) |
|--------------|---------------|-----------------------------|
| REL100C2R106 | FSI02-2.2*4.3 | T-07                        |
| REL100C2R107 | FSI02-2.2*4.3 | T-07                        |

## REL.. series/Insert Carbide

### CLH-045



● Diagram shows right-hand tool

| Item Number     | Chip-breaker | Center cutting edge | Wiper | AN<br>° | INSL<br>mm | RE<br>mm | S<br>mm | W1<br>mm | Carbide<br>PVD<br>ZM3 |
|-----------------|--------------|---------------------|-------|---------|------------|----------|---------|----------|-----------------------|
| CLH04005CFN-045 | No           | No                  | No    | 7       | 5.56       | 0.05     | 1.88    | 4.2      | ●                     |
| CLH0402CFN-045  | No           | No                  | No    | 7       | 5.56       | 0.2      | 1.88    | 4.2      | ●                     |