# UFO

RADIUS

DUAL CORNER ROUNDING

CONCAVE RADIUS

DUAL CHAMFER

DOVETAIL

CIRCLIP

PATENTED

Video

## Features

- Available in materials: P K M N S H
- Cost **200~300%** SAVING
- Applicable Machines: CNC Milling machine
- Efficiency **400%** UP
- Durability **300%** UP

UFO R-groove Chamfer Series

# UFO

## UFO Radius Inserts

R0.5 to R3.0 cutters are readily available in stock. Performs impressive cutting speed in 6 flutes.

Fig.1

## UFO Dovetail Inserts

Available with 45˚, 60˚ angles and designed with 6 flutes.

## UFO Dual Chamfer

Up and down chamfering are available in the same insert.
Support different angles and radii:

- 45° chamfer: Ø9.8-Ø11.8-Ø14.8 with 4 teeth.
- Radius: R0.5~R2.0, Ø9.8-Ø11.8-Ø19.8 with 4 teeth.

Fig.2/3/4

## UFO Circlip Inserts

For circlip range: 1.1~4.15 mm
Same shank fits all differenf inserts. All items are available from stock.

Fig.1

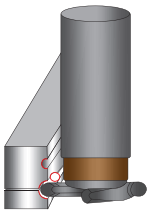


Fig.3

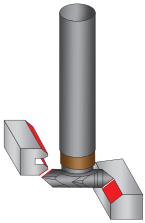


Fig.2

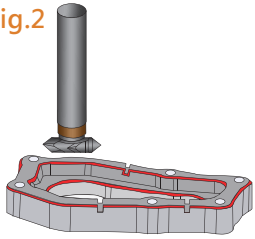
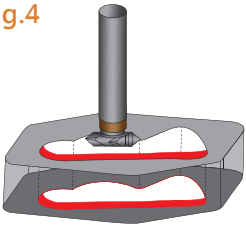


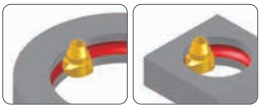
Fig.4

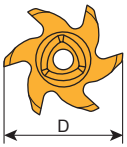


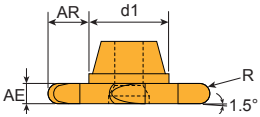
# UFO Radius Inserts


- Toolholders P. 26
- Cutting Data P. 147 - 148

O-Ring






Tolerances (mm)

D : ± 0.02 AE : ± 0.015

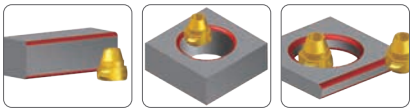
| Dimensions (mm) | | | | |
|---|---|---|---|---|
| D | d1 | AE | R | Max. AR |
| 20 | 10 | 1.0 | 0.5 | 4.5 |
| | | 1.5 | 0.75 | |
| | | 2.0 | 1.0 | |
| | | 2.5 | 1.25 | |
| | | 3.0 | 1.5 | |
| | | 4.0 | 2.0 | |
| | | 5.0 | 2.5 | |
| | | 6.0 | 3.0 | |

| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | E / ME |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 6 flutes | 3T1020-R0.5-E | | | | | | | | | | Inserts 2 PCS / Box |
| | 3T1020-R0.75-E | | | | | | | | | | |
| | 3T1020-R1.0-E | | | | | | | | | | |
| | 3T1020-R1.25-E | | | | | | | | | | |
| | 3T1020-R1.5-E | | | | | | | | | | |
| | 3T1020-R2.0-E | | | | | | | | | | |
| | 3T1020-R2.5-E | | | | | | | | | | |
| | 3T1020-R3.0-E | | | | | | | | | | |
| | 3T1020-R0.5-ME | ◎ | | | | | | | | | |
| | 3T1020-R0.75-ME | ◎ | | | | | | | | | |
| | 3T1020-R1.0-ME | ◎ | | | | | | | | | |
| | 3T1020-R1.25-ME | ◎ | | | | | | | | | |
| | 3T1020-R1.5-ME | ◎ | | | | | | | | | |
| | 3T1020-R2.0-ME | ◎ | | | | | | | | | |
| | 3T1020-R2.5-ME | ◎ | | | | | | | | | |
| | 3T1020-R3.0-ME | ◎ | | | | | | | | | |

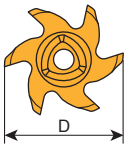
- Steel Stainless Steel ◎ Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1020-R0.5-E, F20

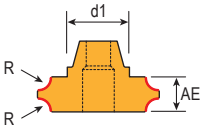
# UFO Dual Corner Rounding Inserts

- Toolholders P. 24 、P. 26
- Cutting Data P. 147 - 148



| Dimensions (mm) | | | | |
|---|---|---|---|---|
| D | d1 | AE | R | Max. AR |
| 9.8 | 6.5 | 3.0 | 0.5 | 0.5 |
| 11.8 | | 3.0 | 0.5 | 0.5 |
| | | 4.0 | 1.0 | 1.0 |
| | | 5.0 | 1.5 | 1.5 |
| 19.8 | 10 | 3.0 | 0.5 | 0.5 |
| | | 3.5 | 0.75 | 0.75 |
| | | 4.0 | 1.0 | 1.0 |
| | | 4.5 | 1.25 | 1.25 |
| | | 5.0 | 1.5 | 1.5 |
| | | 6.0 | 2.0 | 2.0 |




Tolerances (mm)
D : ±0.02 AE : ±0.05

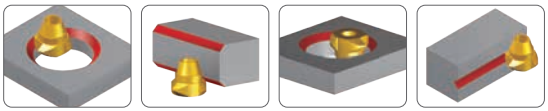
| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 4 flutes dia 10-12 | 3T0610-DCR0.5-E | | | | ■ | | | | | | |
| | 3T0612-DCR0.5-E | | | | ■ | | | | | | |
| | 3T0612-DCR1.0-E | | | | ■ | | | | | | |
| | 3T0612-DCR1.5-E | | | | ■ | | | | | | |
| | 3T1020-DCR0.5-E | | | | ■ | | | | | | |
| | 3T1020-DCR0.75-E | | | | ■ | | | | | | |
| | 3T1020-DCR1.0-E | | | | ■ | | | | | | |
| | 3T1020-DCR1.25-E | | | | ■ | | | | | | |
| | 3T1020-DCR1.5-E | | | | ■ | | | | | | |
| | 3T1020-DCR2.0-E | | | | ■ | | | | | | |
| 6 flutes dia 20 | 3T0610-DCR0.5-ME | ◎ | | | ■ | | | | | | |
| | 3T0612-DCR0.5-ME | ◎ | | | ■ | | | | | | |
| | 3T0612-DCR1.0-ME | ◎ | | | ■ | | | | | | |
| | 3T0612-DCR1.5-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR0.5-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR0.75-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR1.0-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR1.25-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR1.5-ME | ◎ | | | ■ | | | | | | |
| | 3T1020-DCR2.0-ME | ◎ | | | ■ | | | | | | |

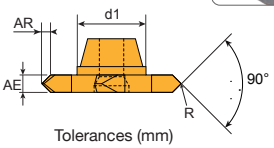
Inserts 2 PCS / Box

- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel/Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0610-DCR0.5-E,F20

# UFO Dual Chamfer Inserts

- Toolholders P. 24 - 25
- Cutting Data P. 147 - 148






Tolerances (mm)

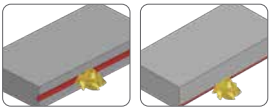
D : ±0.02 AE : ±0.05

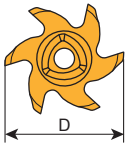
| Dimensions (mm) | | | | |
|---|---|---|---|---|
| D | d1 | AE | Max. AR | R |
| 9.8 | 6.5 | 3 | 0.5 | 0.2 |
| 11.8 | | | 1.0 | |
| 14.8 | 8 | | | |

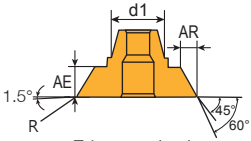
| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 4 flutes | 3T0610-3-45-E | | | | ● | | | | | | Inserts 2 PCS / Box |
| | 3T0612-3-45-E | | | | ● | | | | | | |
| | 3T0815-3-45-E | | | | ● | | | | | | |
| | 3T0610-3-45-ME | ◎ | | | ● | | | | | | |
| | 3T0612-3-45-ME | ◎ | | | ● | | | | | | |
| | 3T0815-3-45-ME | ◎ | | | ● | | | | | | |

# UFO Dovetail Inserts

- Toolholders P. 26
- Cutting Data P. 147 - 148






Tolerances (mm)

D : ±0.02 AE : ±0.05

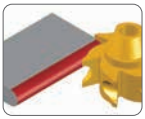
| Dimensions (mm) | | | | | |
|---|---|---|---|---|---|
| D | d1 | AE | Angle | Max. AR | R |
| 20 | 10 | 5.0 | 45° | 3.0 | 0.4 |
| | | | 60° | 2.5 | |

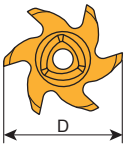
| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 6 flutes | 3T1020-45-E | | | | ● | | | | | | Inserts 2 PCS / Box |
| | 3T1020-60-E | | | | ● | | | | | | |
| | 3T1020-45-ME | ◎ | | | ● | | | | | | |
| | 3T1020-60-ME | ◎ | | | ● | | | | | | |

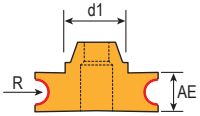
- Steel Stainless Steel Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1020-45-E,F20

# UFO Concave Radius Inserts

- Toolholders P. 26
- Cutting Data P. 147 - 148



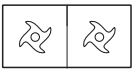



Tolerances (mm)

D : ±0.02 AE : ±0.05

| Dimensions (mm) | | | |
|---|---|---|---|
| D | d1 | AE | R |
| 20 | 10 | 4.5 | 1.0 |
| | | 5.0 | 1.25 |
| | | 5.5 | 1.5 |
| | | 6.5 | 2.0 |

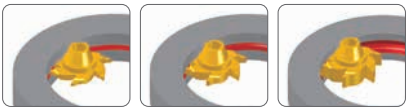
| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 6 flutes | 3T1020-CR1.0-E | | | | | | | | | | |
| | 3T1020-CR1.25-E | | | | | | | | | | |
| | 3T1020-CR1.5-E | | | | | | | | | | |
| | 3T1020-CR2.0-E | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | 3T1020-CR1.0-ME | ◎ | | | | | | | | |  Inserts 2 PCS / Box |
| | 3T1020-CR1.25-ME | ◎ | | | | | | | | | |
| | 3T1020-CR1.5-ME | ◎ | | | | | | | | | |
| | 3T1020-CR2.0-ME | ◎ | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

- Steel Stainless Steel ◎ Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1020-CR1.0-E, F20

# UFO Circlip Inserts

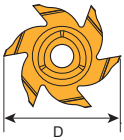
- Toolholders P. 26
- Cutting Data P. 147 - 148

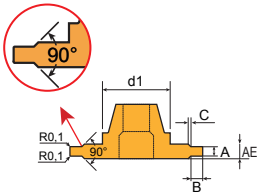
DIN471 DIN472



Offer customized items at standard prices by MOQ 12 pcs






Tolerances (mm)

D : ±0.02 AE : ±0.05

| Dimensions (mm) | | | | | | |
|---|---|---|---|---|---|---|
| D | d1 | A | Circlip | B | C | AE |
| 20 | 10 | 1.21 | 1.1 | 0.5 | 0.1 | 2.2 |
| | | 1.41 | 1.3 | 0.85 | | |
| | | 1.71 | 1.6 | 1.0 | | |
| | | 1.96 | 1.85 | 1.25 | 0.2 | 3 |
| | | 2.26 | 2.15 | 1.5 | | |
| | | 2.76 | 2.65 | 1.75 | | 3.5 |
| | | 3.26 | 3.15 | 1.75 | | 4 |
| | | 4.26 | 4.15 | 2.0 | | 5 |

| Inserts | Order Code | Grades | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbide | | | | | Metal cermet | | Uncoated | | |
| | | B100 | C200 | C250 | F20 | F30 | CE25 | CE60 | K10 | CE | |
| 6 flutes | C3T1020-1.1-E | | | | | | | | ● | | Inserts 2 PCS / Box |
| | C3T1020-1.3-E | | | | | | | | ● | | |
| | C3T1020-1.6-E | | | | | | | | ● | | |
| | C3T1020-1.85-E | | | | | | | | ● | | |
| | C3T1020-2.15-E | | | | | | | | ● | | |
| | C3T1020-2.65-E | | | | | | | | ● | | |
| | C3T1020-3.15-E | | | | | | | | ● | | |
| | C3T1020-4.15-E | | | | | | | | ● | | |
| | C3T1020-1.1-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-1.3-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-1.6-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-1.85-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-2.15-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-2.65-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-3.15-ME | ◎ | | | ■ | | | | | | |
| | C3T1020-4.15-ME | ◎ | | | ■ | | | | | | |

- ■ Steel ■ Stainless Steel ◎ Steel/Stainless Steel/Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron ◎ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: C3T1020-1.1-E,K10