

Code	Category	Product Image		Size Rang	Page
CB3 CB3W	HSS Shank Carbide Shank			Dia. 6~32 mm Length 50~200 mm	24 29
3T	UFO T-SLOT Insert			Dia. 10-37 mm AE 0.5~8.0 mm	34 75
	UFO T-SLOT Cutter			Dia. 32/ 35/ 40/ 50/ 60/ 80 mm AE 1.4 / 1.5/ 1.6/ 1.8/ 2.0/ 2.2/ 2.5/ 2.7/ 3.0/ 3.2/ 3.5/ 4.0/ 4.2/ 4.5/ 5.0/ 5.2/ 5.5/ 6.0/ 8.0 mm	77 82
				Dia. 50/ 60/ 80 mm AE 4/ 5/ 6/ 7/ 8/ 10/ 12 mm	83 85
	UFO T-SLOT Cutter (Fit round insert)			Dia. 60/ 80 mm 4R/ 5R/ 6R	86
	UFO Radius Insert			Dia. 20 mm Radius 0.5/ 0.75/ 1.0/ 1.25/ 1.5/ 2.0/ 2.5/ 3.0	89
	UFO Dual Corner Rounding Insert			Dia. 9.8/ 11.8/ 19.8 mm Radius 0.5/ 0.75/ 1.0/ 1.25/ 1.5/ 2.0	90
	UFO Dual Chamfer Insert			Dia. 9.8/ 11.8/ 14.8 mm Chamfer Angle 45°	91
	UFO Dovetail Insert			Dia. 20 mm Angle 45° /60°	
C3T	UFO Concave Radius Insert			Dia. 20 mm Radius 1.0/ 1.25/ 1.5/ 2.0	92
	UFO Circlip Insert			Dia. 20 mm A: 1.21/ 1.41/ 1.71/ 1.96/ 2.26/ 2.76/ 3.26/ 4.26 mm	93
AT BT/BTL UT/UTL	Solid Carbide Thread Milling Cutter			Dia. 1.95~10mm Pitch 0.35~2.5mm TPI 72~10	99 101

3T1	UFO Thread Milling Insert (Partial Profile)		Dia. 12/ 15/ 20/ 25 mm Pitch 1.0~5.0 mm /16-5 TPI		102 105
3T	UFO Thread Milling Insert (Full Profile)		Pitch 1.0/ 1.25/ 1.5/ 2.0/ 2.5/ 3.0/ 3.5mm UNC 16~8 TPI BSW 16~8 TPI		106 115
B3T	UFO Back Boring Cutter		Entrance 10.4/ 12.4 16.4/ 25.4	Back Bore 18-22/ 23-30 31-40/ 41-60	131 133

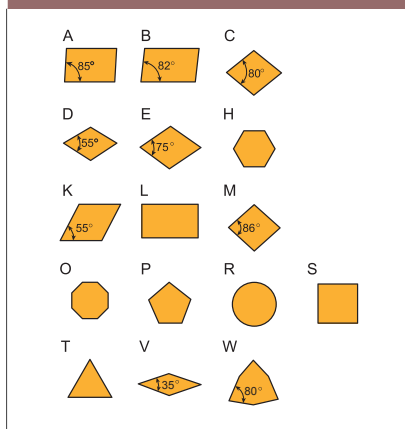
TECHNICAL GUIDE

Code Keys

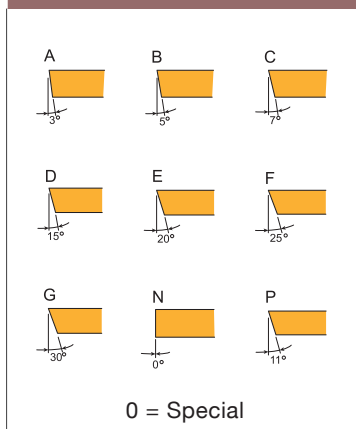
Insert-Metric series, extract from the international standard. Listed dimensions are the theory measurement for reference. The normal size and tolerance of type codes indicaced, on the following list are exactly different. To check the exact tolerance of each insert, please refer to the relative page of inserts.



1. Shape



2. Side Clearance Angle



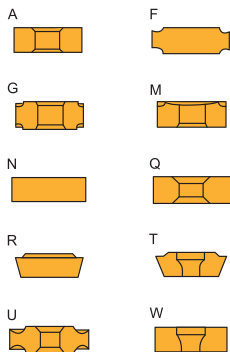
Code Keys

3.Tolerances													
Tol.- Class	Tolerance +/-mm			For d, dimension(mm)									
	 m	 AE	 d	3.175*	4.76	6.35	9.525	12.7	15.875	19.05	25.4	31.75	38.1
A	0.005	0.025	0.025	•	•	•	•	•	•	•	•	•	•
E	0.025	0.025	0.025	•	•	•	•	•	•	•	•	•	•
F	0.005	0.025	0.013	•	•	•	•	•	•	•	•	•	•
G	0.025	0.13	0.025	•	•	•	•	•	•	•	•	•	•
H	0.013	0.025	0.013	•	•	•	•	•	•	•	•	•	•
J	0.005	0.025	0.05	•	•	•	•						
	0.005	0.025	0.08					•					
	0.005	0.025	0.10						•	•			
	0.005	0.025	0.13								•		
	0.005	0.025	0.15									•	•
K	0.013	0.025	0.05	•	•	•	•						
	0.013	0.025	0.08					•					
	0.013	0.025	0.10						•	•			
	0.013	0.025	0.13								•		
	0.013	0.025	0.15									•	•
M	0.08	0.13	0.05	•	•	•	•						
	0.13	0.13	0.08					•					
	0.15	0.13	0.10						•	•			
	0.18	0.13	0.13								•		
	0.20	0.13	0.15									•	•
U	0.13	0.13	0.08	•	•	•	•						
	0.20	0.13	0.13					•					
	0.27	0.13	0.18						•	•			
	0.38	0.13	0.25								•	•	•



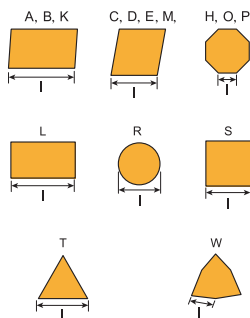
Inserts Code Keys

4. Type

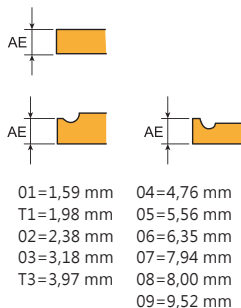


X=Special

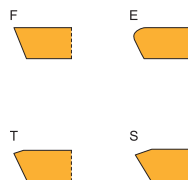
5. Cutting edge length



6. Thickness

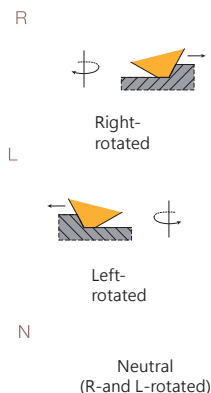


8. Cutting edge designation

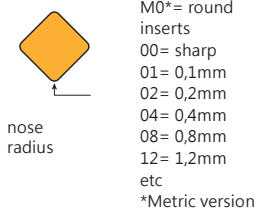
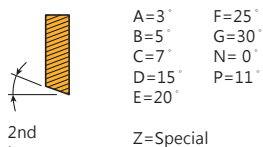
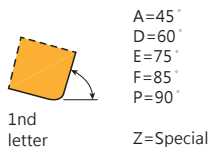


Not mandatory information

9. Direction of cutting



7. Insert with corner chamfers / nose radius



10. Internal designation

Machining conditions
E = Easy
M = Medium
D = Difficult

11. For TAP only

Tolerance : 6H ~ 8H

Insert Grades

Grades

Cemented carbide is an alloy of tungsten carbide (WC) and cobalt (Co). Cubic carbides like tantalum carbide (TaC), titanium carbide (TiC) and niobium carbide (NbC) can also be added. Tungsten carbide is the main component and gives the hardness. Cobalt is the binder phase and gives the toughness. Cubic carbides are added in order to affect properties like hot hardness, deformation resistance and chemical wear resistance.

Most modern grades are coated with either CVD (Chemical Vapour Deposition) or PVD (physical Vapour Deposition) technique.

The coating improves the wear resistance of the grade.

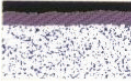
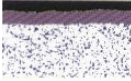
With CVD-technique layers of titanium carbide (TiC), titanium nitride (TiN), titanium carbonitride (Ti(C,N)) and alumina (Al₂O₃) can be made. CVD-coated grades are suitable for wear resistance in demanding applications with high feed rates and intermediate to high cutting speed.

The common coating materials made by PVD-technique are titanium nitride (TiN), titanium carbonitride (Ti(C,N)) and titanium aluminide nitride ((Ti,Al)N). PVD-coated grades are recommended for applications with low feed rate where high edge toughness is required. PVD-coated grades are suitable for applications with low to intermediate cutting speed.

	Grades	P Steel					M Stainless Steel				K Cast iron				N Non Ferrous Metal				S Heat resistant super alloys				H Hardened steel						
		P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
PVD	K10																												
	B100																												
	B350																												
	C250																												
	C350																												
	F20																												
	F30																												
	CE100																												

Insert Grades

PVD coated grades

	B100	B100 is a unique rare metal grade with great heat and cracking resistance. Tialn
	B350	B350 has enhanced the toughness of the tungsten carbide to increase the durability. Specially used in the application of 390 design such as spot drill, center drill, 4-1 counterbore. Tialn
	C250	C250 has a tough substrate in steel machining. Helica
	C350	C350 is the best recommend grade for steel machining. Especially in 390 system. (Spot Drill, 4-1 Counterbore, Corner Rounding) Helica
	F20	This substrate is in accordance to the ISO K, N classification. For application in Cast iron and non-ferrous metal such as Aluminum, copper or plastic ... etc. Tin
	F30	F30 is the substrate with new and heat-resistance coating suitable for cast iron. Helica
	CE100	CE100 is an innovative cermet substrate with great heat and abrasion resistance to improve durability in stable machining conditions. Tialn

Uncoated grades

	K10	Hard, wear resistant grade for milling in Aluminum and Non-ferrous metal.
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Insert Geometries

Designation system

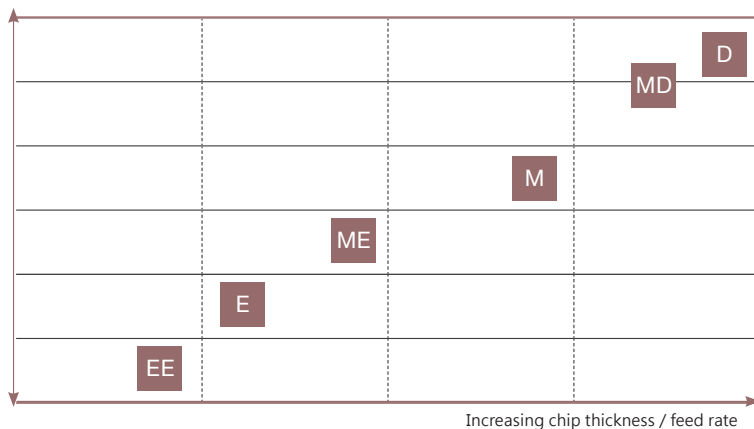
The Y.T. designation system for milling inserts has been developed to provide users with better guidance concerning the fields of application for various insert geometries.



Difficult machining conditions, strong insert cutting edge.



Easy machining conditions, sharp insert cutting edge.



Examples of different insert geometries for a specific insert type.



..AFTN-D Negative and very protected cutting edge



..AFTN-MD Negative and protected cutting edge



..AFTN-M Positive and protected cutting edge



..AFTN-ME Very positive and protected cutting edge



..AFN-E Very positive and very sharp cutting edge



..AFN-EE Very positive and very extremely cutting edge



UFO FAMILY SERIES

One Shank for Max. Over 400 types insert

"UFO" design is the Y.T.'s innovative-patented insert positioning with tapered polygonal design to achieve higher centering accuracy. It is named after UFO space ship because of its insert design. The holders of the entire series can fit in different types of inserts: T-slot, Thread Milling, Radius, Dual Corner Rounding, Concave Radius, Dual Chamfer, Dovetail, Circlip, Back Boring, Gear Machining. The holders are available in different diameters and lengths. Totally 6 shanks fit more than 1400 inserts.



Video



Patent No.
M530197



Patent No.
ZL 201620538204.5

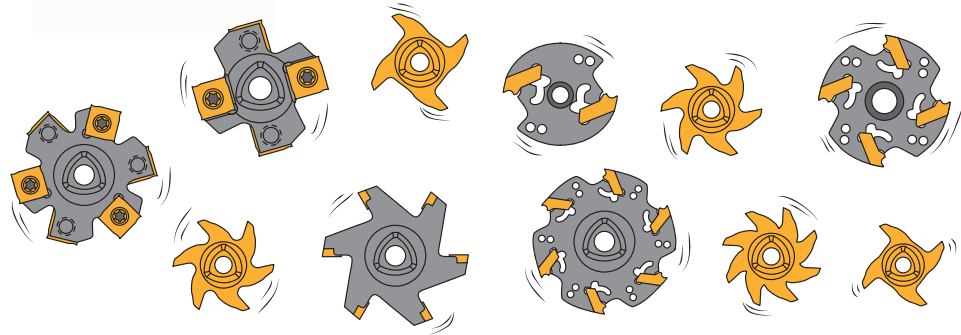


PCT Priority





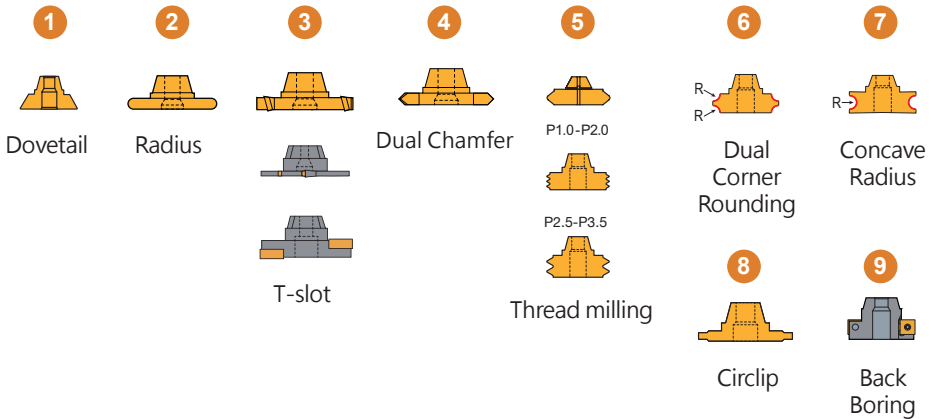
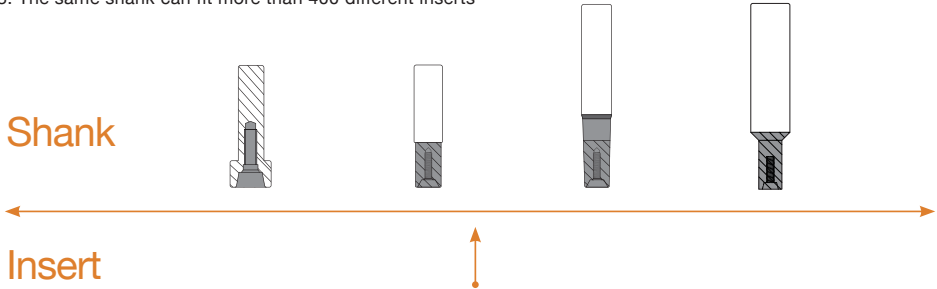
One holder fits differen inserts up to 400 types



Design Of UFO Family

Shank

1. High precision HSS shank (HRC60) with good stability and excellent strength.
2. Comprehensive toolholders with 4 different types of shank, available with overhangs from 40~240mm.
3. The same shank can fit more than 400 different inserts



Tapered Polygon (Grinded)

Capacity

Polygon positioning design has a greater torque capacity than any other positioning designs, the load is generated over a generous area which assure the strength of the shaft.

Multi Application

Tapered polygon design offers a simple connection with different inserts and applications.

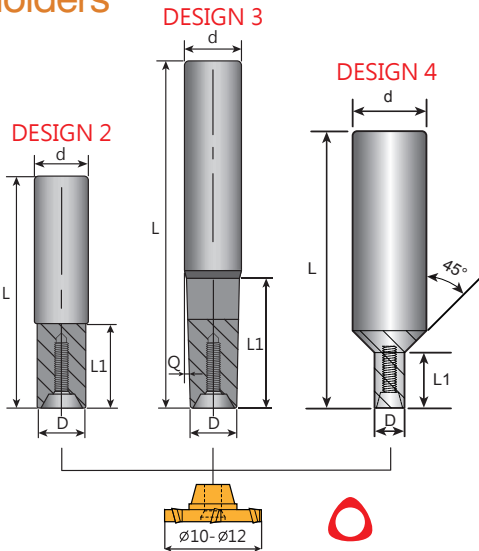
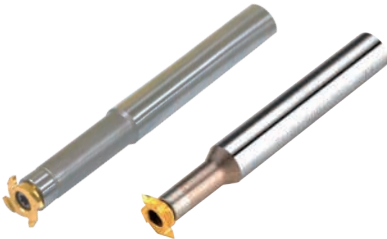
Center Positioning

The interface is tapered design for keeping eccentricity $\leq 0.01\text{mm}$, which enhance the cutting speed and insert tool life.



PRODUCT SPECIFICATIONS

UFO Family Common Toolholders



CB3

• HSS Shanks

Order code	Dimensions (mm)					Design		Inserts	Screw	Key
	D	d	L	L1	Q					
CB3-0606-55-12	6.5	6	55	10	-	2	0.07	Ø10 Ø11 Ø12	C03012	T09P
CB3-0808-80-12	7.9	8	80				0.09			
CB3-1006-100-12	6.5	10	100	20	1°	3	0.11			
CB3-1008-100-12	7.9			30			0.11			
CB3-1606-60-12	6.5	16	60	12	-	4	0.24			
CB3-1608-65-12	7.9		65	16			0.26			

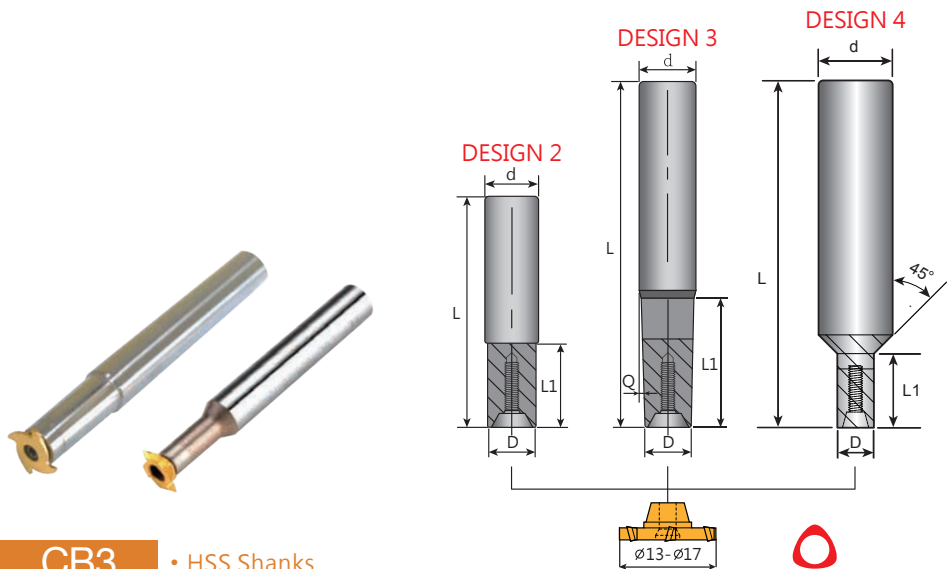
CB3W

• Carbide Shanks

Order code	Dimensions (mm)					Design		Inserts	Screw	Key
	D	d	L	L1	Q					
CB3W-0808-80-12	7.9	8	80	10	-	2	0.11	Ø10 Ø11 Ø12	C03012	T09P
CB3W-1008-100-12	7.9	10	100	30	1°	3	0.16			

• To check the max. AR, please refer to the page of relative inserts or cutters.

UFO Family Common Toolholders



CB3

• HSS Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3-0808-55-15	7.9	8	55	10	-	2	0.08	Ø13 Ø14 Ø15 Ø16 Ø17	C03012	T09P
CB3-1010-90-15	9.9	10	90				0.11			
CB3-1208-110-15	7.9	12	110	30	1°	3	0.14			
CB3-1210-120-15	9.9		120				0.15			
CB3-1608-75-15	7.9	16	75	16	-	4	0.24			
CB3-1610-80-15	9.9		80	20			0.26			

CB3W

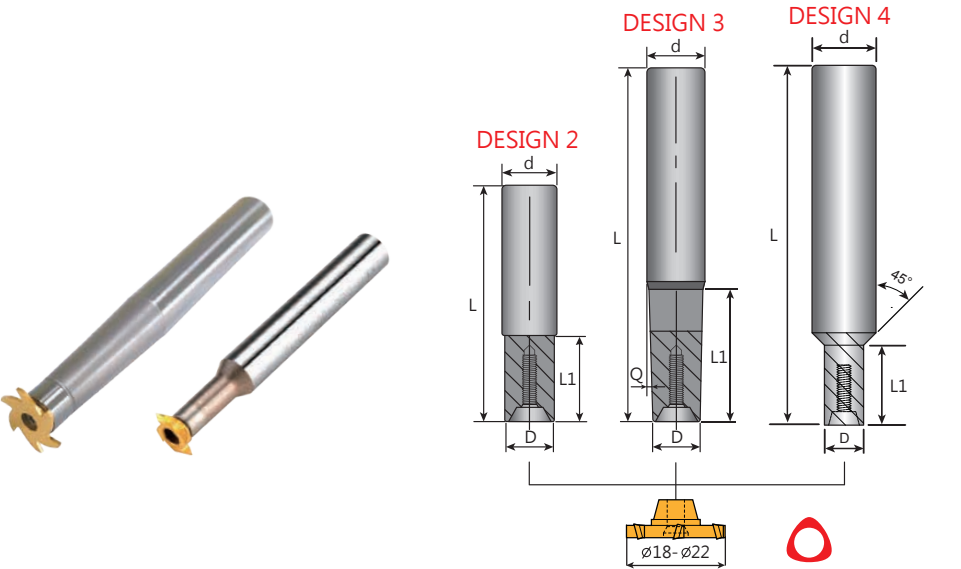
• Carbide Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3W-1010-90-15	9.9	10	90	10	-	2	0.15	Ø13 Ø14 Ø15 Ø16 Ø17	C03012	T09P
CB3W-1208-110-15	7.9	12	110	30	1°	3	0.21			
CB3W-1210-120-15	9.9		120				0.24			

• To check the max. AR, please refer to the page of relative inserts or cutters.



UFO Family Common Toolholders



CB3

• HSS Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3-1010-80-20	9.8	10	80	12	-	2	0.12	Ø 18 Ø 19 Ø 20 Ø 21 Ø 22	C03513	T10P
CB3-1010-100-20			100				0.13			
CB3-1210-90-20		12	90	25	3.2°	3	0.14			
CB3-1210-130-20			130	40	1.7°		0.18			
CB3-1610-90-20	11.8	16	90	20	-	4	0.20			
CB3-1612-95-20			95	25	-	4	0.23			
CB3-1612-150-20			150	55	2.4°	3	0.29			
CB3-1616-150-20	15.8			20	-	2	0.31			

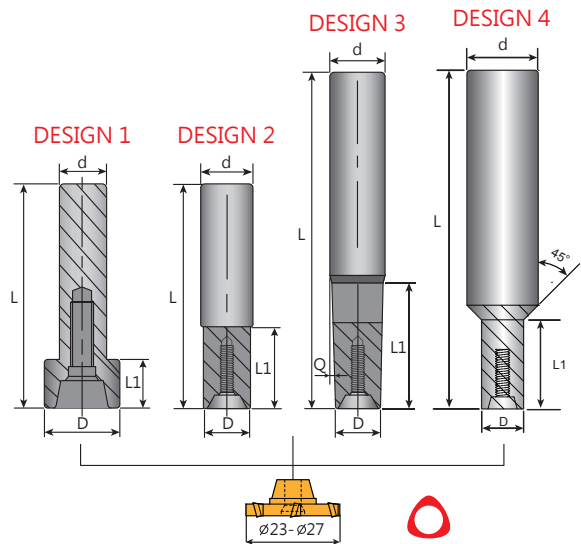
CB3W

• Carbide Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3W-1010-100-20	9.8	10	100	12	-	2	0.18	Ø18 Ø19 Ø20 Ø21 Ø22	C03513	T10P
CB3W-1212-150-20	11.8	12	150	20	-	2	0.32			

• To check the max. AR, please refer to the page of relative inserts or cutters.

UFO Family Common Toolholders



CB3

• HSS Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3-1012-50-25	11.8	10	50	10	-	1	0.11	ø 23 ø 24 ø 25 ø 26 ø 27	C04017	T15P
CB3-1212-90-25		12	90	12	-	2	0.16			
CB3-1212-110-25			110	35	4.2°		0.18			
CB3-1612-110-25		16	110	35	4.2°	3	0.24			
CB3-1612-150-25			150	55	2.4°		0.31			
CB3-2012-95-25		20	95	25	-	4	0.50			
CB3-2016-95-25	15.8		95	30	-		0.55			
CB3-2020-150-25	19.8		150	20	-	2	0.46			

CB3W

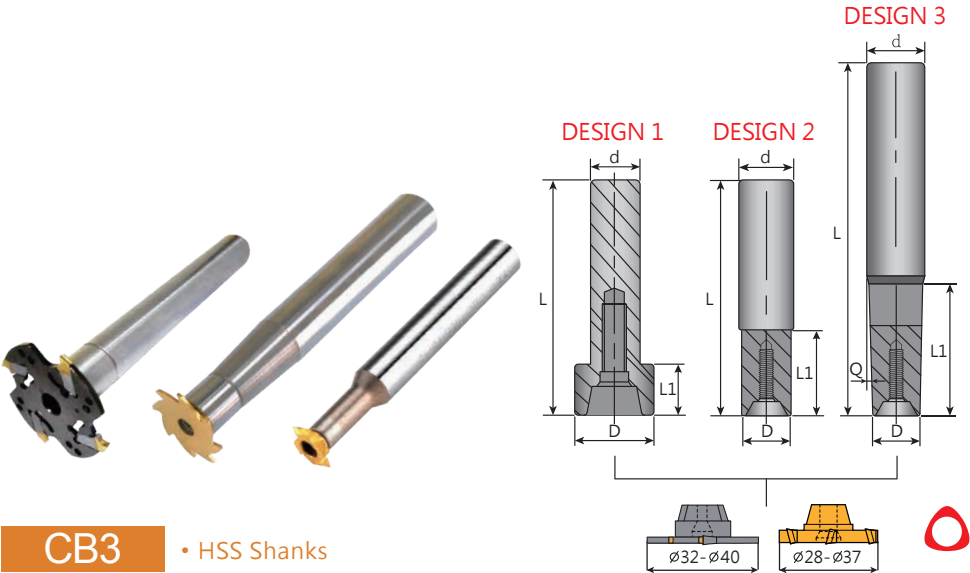
• Carbide Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3W-1212-110-25	11.8	12	110	12	-	2	0.26	ø23 ø24 ø25 ø26 ø27	C04017	T15P
CB3W-1616-150-25	15.8	16	150	20			0.54			

• To check the max. AR, please refer to the page of relative inserts or cutters.



UFO Family Common Toolholders



CB3

• HSS Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key		
	D	d	L	L1	Q							
CB3-1016-50-30	15.8	10	50	10	-	1	0.13	ø 28 ø 29 ø 30 ø 32 ø 35 ø 37 ø 40	C05016	T20P		
CB3-1616-120-30		16	120	15		2	0.28					
CB3-1616-150-30			150	45	3.8°		0.34					
CB3-2016-150-30		20	180	70	2.0°	3	0.45					
CB3-2016-180-30			180	70	2.0°	2	0.51					
CB3-2020-90-30	19.8		90	20	-		0.54					
CB3-2020-150-30			150				0.56					
CB3-2020-180-30			180				0.58					

CB3W

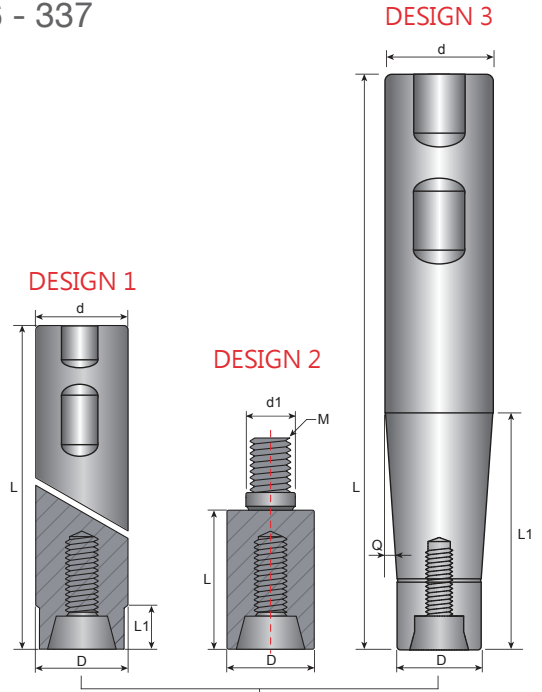
• Carbide Shanks

Order code	Dimensions (mm)					Design	 KG	Inserts	Screw	Key
	D	d	L	L1	Q					
CB3W-1616-150-30	15.8	16	150	15	-	2	0.55	ø 28 ø 29 ø 30 ø 32 ø 35 ø 37 ø 40	C05016	T20P
CB3W-2016-180-30		20	180	70	2.0°	3	0.87			

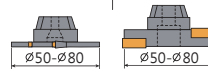
• To check the max. AR, please refer to the page of relative inserts or cutters.

UFO Family Common Toolholders

- Combi Toolholders P. 336 - 337



CB3



Order code	Dimensions (mm)							Design		Inserts	Screw	Key
	D	d	d1	L	L1	M	Q					
CB3-2525-110	24.8	25	-	110	15	-	-	1	0.42	Ø 50 Ø 80	M0825	-
CB3-2525-170				170		-	-		0.66			
CB3-25A	25.0	-	12.5	40	-	12	-	2	0.17			
CB3-25			14									
CB3-3225-110	24.8	32	-	110	40	-	10°	3	0.62			
CB3-3225-170				170	70	-	4°		0.96			

- To check the max. AR, please refer to the page of relative inserts or cutters.



UFO T-SLOT CUTTER



Video

Features

Available in
materials



Cost
200~300%
SAVING

Applicable
Machines
CNC Milling machine

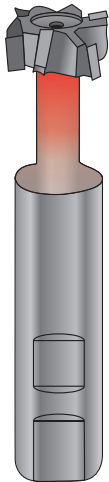
Efficiency
400%
UP

Durability
300%
UP

Insert Design

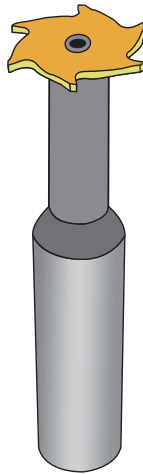
1. Minimum thickness starts from 0.5mm, and the insert thickness under 2mm is available in slight variation with every 0.1mm difference.
2. 9 different types of inserts are available for selection, the minimum diameter is 10mm.
3. The front-mounted insert is positioned into a tapered seat for center-positioning, giving secure and continuous performance.
4. High productivity with more teeth.(4-8 teeth)

Product Introduction



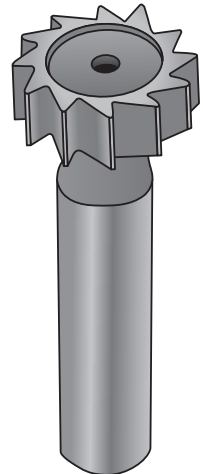
Carbide brazed

1. Welding carbides on the cutter under high temperature will degrade the tool-holder hardness.
2. Insufficient hardness.
3. Only available in thickness over 2mm.



**Toolholders grade: HSS
Hardness up to HRC 58**

1. One tool-holder can fit in 400 different types of inserts.
2. Insert has patented geometry design.
3. Most suitable for high speed cutting.



Toolholders grade: HSS

1. Insufficient hardness.
2. Hard to regrind.
3. Not suitable for high speed cutting.



UFO T-SLOT[®]

FULL RANGE

PATENTED



• P. 34-75



Thickness:

0.5/0.6/0.7/0.8/0.9/1.0/1.1/1.2/1.3/
1.4/1.5/1.6/1.7/1.8/1.9/2.0/2.2/2.5/
3.0/3.5/4.0/4.2/4.5/5.0/6.0/8.0 mm

Dia. 10/11/12/13/14/15/18/
19/20/22/23/24/25/27/
28/29/30/32/35/37 mm



• P. 77-82



Thickness:

1.4/1.5/1.6/1.8/2.0/2.2/2.5/2.7/3.0/3.2/
3.5/4.0/4.2/4.5/5.0/5.2/5.5/6.0/8.0 mm

Dia. 32/35/40/50/60/80 mm



• P. 83-85



Thickness:

4/5/6/7/8/10/12 mm

Dia. 50/60/80 mm



• P. 86



Radius:

R4/R5/R6 mm

Dia. 60/80 mm



3T Insert Design

Tapered Polygon Positioning + Coarse Pitch Design

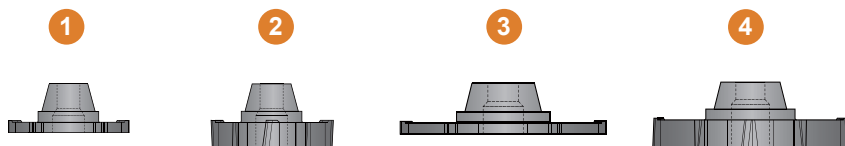
Applications

For the following machining scenarios, T-slot cutters with coarse-pitch insert will generate less machining resistance compared to the close-pitch insert design, it leads to a better machining efficiency :

1. Machining exceptionally wide slots.
2. Machining in long overhang.
3. Larger cutting depths.
4. Machining difficult materials.



← C Series → ← CN Series → ← N Series →

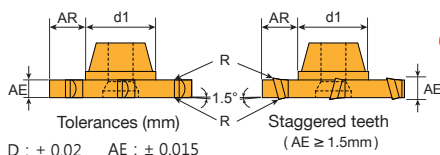


- $\varnothing 22 / \varnothing 27 / \varnothing 32 / \varnothing 35 / \varnothing 37$
- AE: 0.5 mm - 8.0 mm
- Max. AR10 mm



UFO T-slot Inserts

- Toolholders P. 24
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
10	6.5	0.5-0.6	1.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0		

★ Only "ME, B100 & ME, F20" insert are designed with corner radius.

Inserts	Order Code	Grades										 E  ME
		Carbide					Cermet		Uncoated			
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE		
 4 flutes	3T0610-0.5-E											
	3T0610-0.6-E											
	3T0610-0.7-E											
	3T0610-0.8-E											
	3T0610-0.9-E											
	3T0610-1.0-E											
	3T0610-1.1-E											
	3T0610-1.2-E											
	3T0610-1.3-E											
	3T0610-1.4-E											
	3T0610-1.5-E											
	3T0610-1.6-E											
	3T0610-1.7-E											
	3T0610-1.8-E											
	3T0610-1.9-E											
	3T0610-2.0-E											
	3T0610-2.2-E											
3T0610-2.5-E												
3T0610-3.0-E												
 4 flutes	3T0610-0.5-ME	⊙										
	3T0610-0.6-ME	⊙										
	3T0610-0.7-ME	⊙										
	3T0610-0.8-ME	⊙										
	3T0610-0.9-ME	⊙										
	3T0610-1.0-ME	⊙										
	3T0610-1.1-ME	⊙										
	3T0610-1.2-ME	⊙										
	3T0610-1.3-ME	⊙										
	3T0610-1.4-ME	⊙										
	3T0610-1.5-ME	⊙										
	3T0610-1.6-ME	⊙										
	3T0610-1.7-ME	⊙										
	3T0610-1.8-ME	⊙										
	3T0610-1.9-ME	⊙										
	3T0610-2.0-ME	⊙										
	3T0610-2.2-ME	⊙										
3T0610-2.5-ME	⊙											
3T0610-3.0-ME	⊙											

* M.O.Q: 12PCS

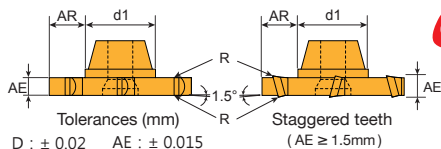
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T0610-0.5-E,K10

UFO T-slot Inserts

- Toolholders P. 24
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
11	6.5	0.5-0.6	2.0	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0		

* Only "ME, B100 & ME, F20" insert are designed with corner radius.

Inserts	Order Code	Grades								 E  ME
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T0611-0.5-E									
	3T0611-0.6-E									
	3T0611-0.7-E									
	3T0611-0.8-E									
	3T0611-0.9-E									
	3T0611-1.0-E									
	3T0611-1.1-E									
	3T0611-1.2-E									
	3T0611-1.3-E									
	3T0611-1.4-E									
	3T0611-1.5-E									
	3T0611-1.6-E									
	3T0611-1.7-E									
	3T0611-1.8-E									
	3T0611-1.9-E									
	3T0611-2.0-E									
	3T0611-2.2-E									
	3T0611-2.5-E									
	3T0611-3.0-E									
 4 flutes	3T0611-0.5-ME	⊗								
	3T0611-0.6-ME	⊗								
	3T0611-0.7-ME	⊗								
	3T0611-0.8-ME	⊗								
	3T0611-0.9-ME	⊗								
	3T0611-1.0-ME	⊗								
	3T0611-1.1-ME	⊗								
	3T0611-1.2-ME	⊗								
	3T0611-1.3-ME	⊗								
	3T0611-1.4-ME	⊗								
	3T0611-1.5-ME	⊗								
	3T0611-1.6-ME	⊗								
	3T0611-1.7-ME	⊗								
	3T0611-1.8-ME	⊗								
	3T0611-1.9-ME	⊗								
	3T0611-2.0-ME	⊗								
	3T0611-2.2-ME	⊗								
	3T0611-2.5-ME	⊗								
	3T0611-3.0-ME	⊗								

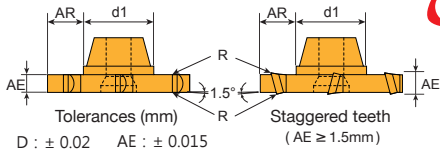
* M.O.Q: 12PCS
* Make-to-Order.

-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0611-0.5-E,K10



UFO T-slot Inserts

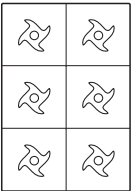
- Toolholders P. 24
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
12	6.5	0.5-0.6	2.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0		

* Only "ME, B100 & ME, F20"
insert are designed with corner radius.

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T0612-0.5-E									
	3T0612-0.6-E									
	3T0612-0.7-E									
	3T0612-0.8-E									
	3T0612-0.9-E									
	3T0612-1.0-E									
	3T0612-1.1-E									
	3T0612-1.2-E									
	3T0612-1.3-E									
	3T0612-1.4-E									
	3T0612-1.5-E									
	3T0612-1.6-E									
	3T0612-1.7-E									
	3T0612-1.8-E									
	3T0612-1.9-E									
	3T0612-2.0-E									
 4 flutes	3T0612-2.2-E									
	3T0612-2.5-E									
	3T0612-3.0-E									
	3T0612-0.5-ME	⊙								
	3T0612-0.6-ME	⊙								
	3T0612-0.7-ME	⊙								
	3T0612-0.8-ME	⊙								
	3T0612-0.9-ME	⊙								
	3T0612-1.0-ME	⊙								
	3T0612-1.1-ME	⊙								
	3T0612-1.2-ME	⊙								
	3T0612-1.3-ME	⊙								
	3T0612-1.4-ME	⊙								
	3T0612-1.5-ME	⊙								
	3T0612-1.6-ME	⊙								
	3T0612-1.7-ME	⊙								
	3T0612-1.8-ME	⊙								
	3T0612-1.9-ME	⊙								
	3T0612-2.0-ME	⊙								
	3T0612-2.2-ME	⊙								
	3T0612-2.5-ME	⊙								
	3T0612-3.0-ME	⊙								

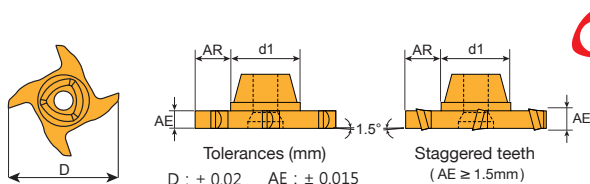


Inserts 6 PCS / Box

-  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.: 3T0612-0.5-E,K10

UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
13	7.9	0.5-0.6	2.0
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0	
		4.0	

Inserts	Order Code	Grades								
		Carbide					Cermet	Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 4 flutes	3T0813-0.5-E									
	3T0813-0.6-E									
	3T0813-0.7-E									
	3T0813-0.8-E									
	3T0813-0.9-E									
	3T0813-1.0-E									
	3T0813-1.1-E									
	3T0813-1.2-E									
	3T0813-1.3-E									
	3T0813-1.4-E									
	3T0813-1.5-E									
	3T0813-1.6-E									
	3T0813-1.7-E									
	3T0813-1.8-E									
	3T0813-1.9-E									
	3T0813-2.0-E									
	3T0813-2.2-E									
	3T0813-2.5-E									
	3T0813-3.0-E									
	3T0813-4.0-E									

* M.O.Q: 12PCS

* Make-to-Order.

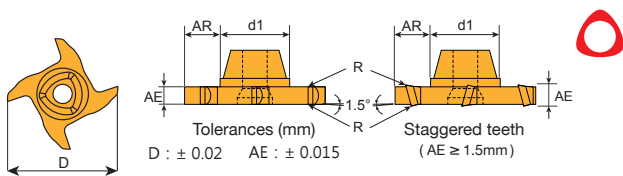
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T0813-0.5-E,K10



UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
13	7.9	0.5-0.6	2.0	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0		
		4.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T0813-0.5-ME	⊙								
	3T0813-0.6-ME	⊙								
	3T0813-0.7-ME	⊙								
	3T0813-0.8-ME	⊙								
	3T0813-0.9-ME	⊙								
	3T0813-1.0-ME	⊙								
	3T0813-1.1-ME	⊙								
	3T0813-1.2-ME	⊙								
	3T0813-1.3-ME	⊙								
	3T0813-1.4-ME	⊙								
	3T0813-1.5-ME	⊙								
	3T0813-1.6-ME	⊙								
	3T0813-1.7-ME	⊙								
	3T0813-1.8-ME	⊙								
	3T0813-1.9-ME	⊙								
	3T0813-2.0-ME	⊙								
	3T0813-2.2-ME	⊙								
	3T0813-2.5-ME	⊙								
	3T0813-3.0-ME	⊙								
	3T0813-4.0-ME	⊙								

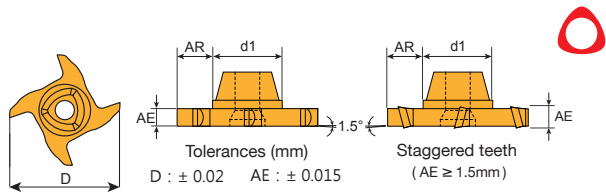
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T0813-0.5-ME,B100

UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136

UFO Family



Dimensions (mm)			
D	d1	AE	Max. AR
14	7.9	0.5-0.6	2.5
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0	
		4.0	

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 4 flutes	3T0814-0.5-E										
	3T0814-0.6-E										
	3T0814-0.7-E										
	3T0814-0.8-E										
	3T0814-0.9-E										
	3T0814-1.0-E										
	3T0814-1.1-E										
	3T0814-1.2-E										
	3T0814-1.3-E										
	3T0814-1.4-E										
	3T0814-1.5-E										
	3T0814-1.6-E										
	3T0814-1.7-E										
	3T0814-1.8-E										
	3T0814-1.9-E										
	3T0814-2.0-E										
	3T0814-2.2-E										
	3T0814-2.5-E										
	3T0814-3.0-E										
	3T0814-4.0-E										

* M.O.Q: 12PCS

* Make-to-Order.

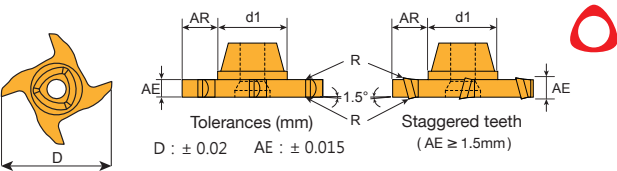
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T0814-0.5-E,K10



UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
14	7.9	0.5-0.6	2.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0		
		4.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 4 flutes	3T0814-0.5-ME	⊙								
	3T0814-0.6-ME	⊙								
	3T0814-0.7-ME	⊙								
	3T0814-0.8-ME	⊙								
	3T0814-0.9-ME	⊙								
	3T0814-1.0-ME	⊙								
	3T0814-1.1-ME	⊙								
	3T0814-1.2-ME	⊙								
	3T0814-1.3-ME	⊙								
	3T0814-1.4-ME	⊙								
	3T0814-1.5-ME	⊙								
	3T0814-1.6-ME	⊙								
	3T0814-1.7-ME	⊙								
	3T0814-1.8-ME	⊙								
	3T0814-1.9-ME	⊙								
	3T0814-2.0-ME	⊙								
	3T0814-2.2-ME	⊙								
	3T0814-2.5-ME	⊙								
	3T0814-3.0-ME	⊙								
	3T0814-4.0-ME	⊙								

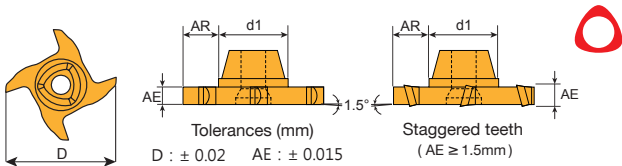
* M.O.Q: 12PCS
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

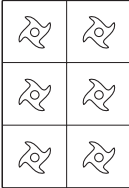
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0814-0.5-ME,B100

UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
15	7.9	0.5-0.6	3.0
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0	
		4.0	

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 4 flutes	3T0815-0.5-E										
	3T0815-0.6-E										
	3T0815-0.7-E										
	3T0815-0.8-E										
	3T0815-0.9-E										
	3T0815-1.0-E										
	3T0815-1.1-E										
	3T0815-1.2-E										
	3T0815-1.3-E										
	3T0815-1.4-E										
	3T0815-1.5-E										
	3T0815-1.6-E										
	3T0815-1.7-E										
	3T0815-1.8-E										
	3T0815-1.9-E										
	3T0815-2.0-E										
	3T0815-2.2-E										
	3T0815-2.5-E										
	3T0815-3.0-E										
	3T0815-4.0-E										
											

Inserts 6 PCS / Box

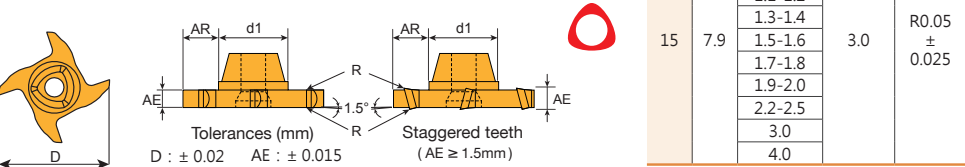
Inserts 6 PCS / Box

-  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.: 3T0815-0.5-E,K10

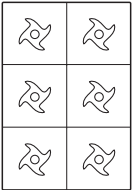


UFO T-slot Inserts

- Toolholders P. 25
- Cutting Data P. 135 - 136



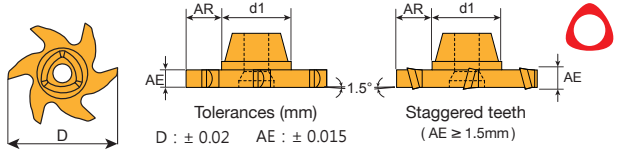
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T0815-0.5-ME	⊙								
	3T0815-0.6-ME	⊙								
	3T0815-0.7-ME	⊙								
	3T0815-0.8-ME	⊙								
	3T0815-0.9-ME	⊙								
	3T0815-1.0-ME	⊙								
	3T0815-1.1-ME	⊙								
	3T0815-1.2-ME	⊙								
	3T0815-1.3-ME	⊙								
	3T0815-1.4-ME	⊙								
	3T0815-1.5-ME	⊙								
	3T0815-1.6-ME	⊙								
	3T0815-1.7-ME	⊙								
	3T0815-1.8-ME	⊙								
	3T0815-1.9-ME	⊙								
	3T0815-2.0-ME	⊙								
	3T0815-2.2-ME	⊙								
	3T0815-2.5-ME	⊙								
	3T0815-3.0-ME	⊙								
	3T0815-4.0-ME	⊙								


Inserts 6 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.: 3T0815-0.5-ME,B100

UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
18	10	0.5-0.6	3.5
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

UFO Family

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1018-0.5-E									
	3T1018-0.6-E									
	3T1018-0.7-E									
	3T1018-0.8-E									
	3T1018-0.9-E									
	3T1018-1.0-E									
	3T1018-1.1-E									
	3T1018-1.2-E									
	3T1018-1.3-E									
	3T1018-1.4-E									
	3T1018-1.5-E									
	3T1018-1.6-E									
	3T1018-1.7-E									
	3T1018-1.8-E									
	3T1018-1.9-E									
	3T1018-2.0-E									
	3T1018-2.2-E									
	3T1018-2.5-E									
	3T1018-3.0-E									
	3T1018-3.5-E									
	3T1018-4.0-E									
	3T1018-4.2-E									
	3T1018-4.5-E									
	3T1018-5.0-E									
	3T1018-6.0-E									
	3T1018-8.0-E									

* M.O.Q: 12PCS

* Make-to-Order.

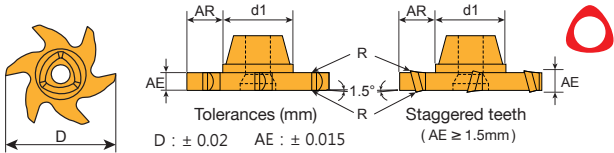
* M.O.Q: 12PCS
* Make-to-Order.

- 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.: 3T1018-0.5-E,K10



UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
18	10	0.5-0.6	3.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10		CE
 6 flutes	3T1018-0.5-ME	⊙									
	3T1018-0.6-ME	⊙									
	3T1018-0.7-ME	⊙									
	3T1018-0.8-ME	⊙									
	3T1018-0.9-ME	⊙									
	3T1018-1.0-ME	⊙									
	3T1018-1.1-ME	⊙									
	3T1018-1.2-ME	⊙									
	3T1018-1.3-ME	⊙									
	3T1018-1.4-ME	⊙									
	3T1018-1.5-ME	⊙									
	3T1018-1.6-ME	⊙									
	3T1018-1.7-ME	⊙									
	3T1018-1.8-ME	⊙									
	3T1018-1.9-ME	⊙									
	3T1018-2.0-ME	⊙									
	3T1018-2.2-ME	⊙									
	3T1018-2.5-ME	⊙									
	3T1018-3.0-ME	⊙									
	3T1018-3.5-ME	⊙									
	3T1018-4.0-ME	⊙									
	3T1018-4.2-ME	⊙									
	3T1018-4.5-ME	⊙									
	3T1018-5.0-ME	⊙									
	3T1018-6.0-ME	⊙									
	3T1018-8.0-ME	⊙									

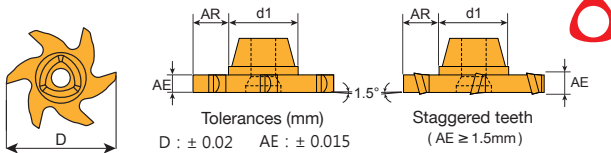
* M.O.Q: 12PCS
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1018-0.5-ME,B100

UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
19	10	0.5-0.6	4.0
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

UFO Family

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1019-0.5-E									
	3T1019-0.6-E									
	3T1019-0.7-E									
	3T1019-0.8-E									
	3T1019-0.9-E									
	3T1019-1.0-E									
	3T1019-1.1-E									
	3T1019-1.2-E									
	3T1019-1.3-E									
	3T1019-1.4-E									
	3T1019-1.5-E									
	3T1019-1.6-E									
	3T1019-1.7-E									
	3T1019-1.8-E									
	3T1019-1.9-E									
	3T1019-2.0-E									
	3T1019-2.2-E									
	3T1019-2.5-E									
	3T1019-3.0-E									
	3T1019-3.5-E									
	3T1019-4.0-E									
	3T1019-4.2-E									
	3T1019-4.5-E									
	3T1019-5.0-E									
	3T1019-6.0-E									
	3T1019-8.0-E									

* M.O.Q: 12PCS

* Make-to-Order.

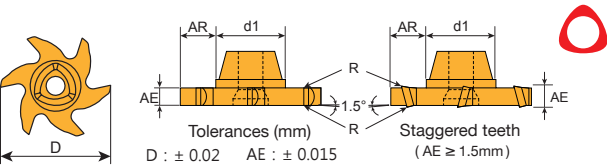
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1019-0.5-E,K10



UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
19	10	0.5-0.6	4.0	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10		CE
 6 flutes	3T1019-0.5-ME	⊙									
	3T1019-0.6-ME	⊙									
	3T1019-0.7-ME	⊙									
	3T1019-0.8-ME	⊙									
	3T1019-0.9-ME	⊙									
	3T1019-1.0-ME	⊙									
	3T1019-1.1-ME	⊙									
	3T1019-1.2-ME	⊙									
	3T1019-1.3-ME	⊙									
	3T1019-1.4-ME	⊙									
	3T1019-1.5-ME	⊙									
	3T1019-1.6-ME	⊙									
	3T1019-1.7-ME	⊙									
	3T1019-1.8-ME	⊙									
	3T1019-1.9-ME	⊙									
	3T1019-2.0-ME	⊙									
	3T1019-2.2-ME	⊙									
	3T1019-2.5-ME	⊙									
	3T1019-3.0-ME	⊙									
	3T1019-3.5-ME	⊙									
	3T1019-4.0-ME	⊙									
	3T1019-4.2-ME	⊙									
	3T1019-4.5-ME	⊙									
	3T1019-5.0-ME	⊙									
	3T1019-6.0-ME	⊙									
	3T1019-8.0-ME	⊙									

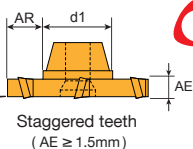
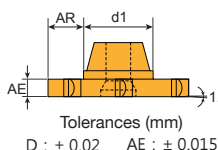
* M.O.Q: 12PCS
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1019-0.5-ME,B100

UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
20	10	0.5-0.6	4.5
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

UFO Family

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 6 flutes	3T1020-0.5-E									
	3T1020-0.6-E									
	3T1020-0.7-E									
	3T1020-0.8-E									
	3T1020-0.9-E									
	3T1020-1.0-E									
	3T1020-1.1-E									
	3T1020-1.2-E									
	3T1020-1.3-E									
	3T1020-1.4-E									
	3T1020-1.5-E									
	3T1020-1.6-E									
	3T1020-1.7-E									
	3T1020-1.8-E									
	3T1020-1.9-E									
	3T1020-2.0-E									
	3T1020-2.2-E									
	3T1020-2.5-E									
	3T1020-3.0-E									
	3T1020-3.5-E									
	3T1020-4.0-E									
	3T1020-4.2-E									
	3T1020-4.5-E									
	3T1020-5.0-E									
	3T1020-6.0-E									
	3T1020-8.0-E									



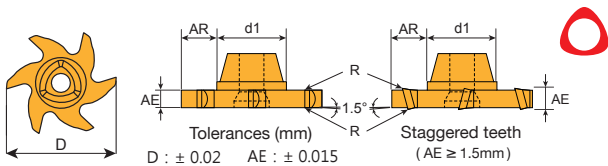
Inserts 6 PCS / Box

-  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.: 3T1020-0.5-E,K10



UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
20	10	0.5-0.6	4.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

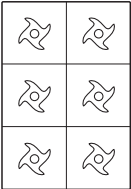
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1020-0.5-ME	⊙								
	3T1020-0.6-ME	⊙								
	3T1020-0.7-ME	⊙								
	3T1020-0.8-ME	⊙								
	3T1020-0.9-ME	⊙								
	3T1020-1.0-ME	⊙								
	3T1020-1.1-ME	⊙								
	3T1020-1.2-ME	⊙								
	3T1020-1.3-ME	⊙								
	3T1020-1.4-ME	⊙								
	3T1020-1.5-ME	⊙								
	3T1020-1.6-ME	⊙								
	3T1020-1.7-ME	⊙								
	3T1020-1.8-ME	⊙								
	3T1020-1.9-ME	⊙								
	3T1020-2.0-ME	⊙								
	3T1020-2.2-ME	⊙								
	3T1020-2.5-ME	⊙								
	3T1020-3.0-ME	⊙								
	3T1020-3.5-ME	⊙								
	3T1020-4.0-ME	⊙								
	3T1020-4.2-ME	⊙								
	3T1020-4.5-ME	⊙								
	3T1020-5.0-ME	⊙								
	3T1020-6.0-ME	⊙								
	3T1020-8.0-ME	⊙								


6 flutes





Inserts 6 PCS / Box

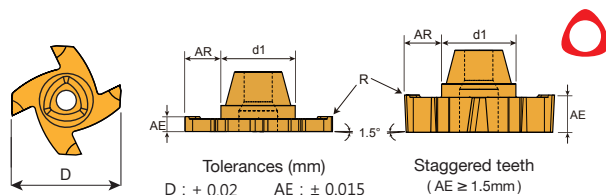


Inserts 6 PCS / Box

-  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.: 3T1020-0.5-ME,B100

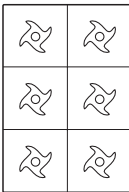
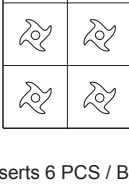
UFO T-slot Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
22	10	0.5-0.6	5.5	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

UFO Family

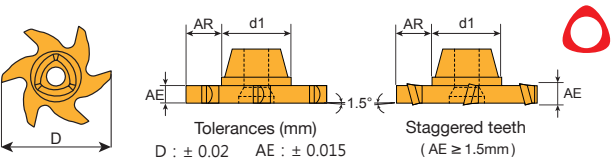
Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 4 flutes	3T1022C-0.5-ME	⊙									
	3T1022C-0.6-ME	⊙									
	3T1022C-0.7-ME	⊙									
	3T1022C-0.8-ME	⊙									
	3T1022C-0.9-ME	⊙									
	3T1022C-1.0-ME	⊙									
	3T1022C-1.1-ME	⊙									
	3T1022C-1.2-ME	⊙									
	3T1022C-1.3-ME	⊙									
	3T1022C-1.4-ME	⊙									
	3T1022C-1.5-ME	⊙									
	3T1022C-1.6-ME	⊙									
	3T1022C-1.7-ME	⊙									
	3T1022C-1.8-ME	⊙									
	3T1022C-1.9-ME	⊙									
	3T1022C-2.0-ME	⊙									
	3T1022C-2.2-ME	⊙									
	3T1022C-2.5-ME	⊙									
	3T1022C-3.0-ME	⊙									
	3T1022C-3.5-ME	⊙									
3T1022C-4.0-ME	⊙										
3T1022C-4.2-ME	⊙									Inserts 6 PCS / Box	
3T1022C-4.5-ME	⊙										
3T1022C-5.0-ME	⊙										
3T1022C-6.0-ME	⊙										
3T1022C-8.0-ME	⊙										

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1022C-0.5-ME, B100



UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
23	12	0.5-0.6	5.0
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

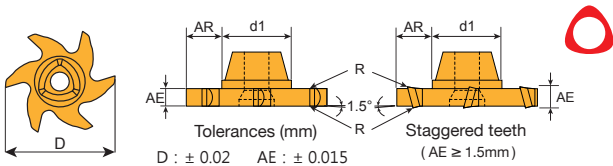
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 6 flutes	3T1223-0.5-E									
	3T1223-0.6-E									
	3T1223-0.7-E									
	3T1223-0.8-E									
	3T1223-0.9-E									
	3T1223-1.0-E									
	3T1223-1.1-E									
	3T1223-1.2-E									
	3T1223-1.3-E									
	3T1223-1.4-E									
	3T1223-1.5-E									
	3T1223-1.6-E									
	3T1223-1.7-E									
	3T1223-1.8-E									
	3T1223-1.9-E									
	3T1223-2.0-E									
	3T1223-2.2-E									
	3T1223-2.5-E									
	3T1223-3.0-E									
	3T1223-3.5-E									
	3T1223-4.0-E									
	3T1223-4.2-E									
	3T1223-4.5-E									
	3T1223-5.0-E									
	3T1223-6.0-E									
	3T1223-8.0-E									

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1223-0.5-E,K10

UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
23	12	0.5-0.6	5.0	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1223-0.5-ME	⊙								
	3T1223-0.6-ME	⊙								
	3T1223-0.7-ME	⊙								
	3T1223-0.8-ME	⊙								
	3T1223-0.9-ME	⊙								
	3T1223-1.0-ME	⊙								
	3T1223-1.1-ME	⊙								
	3T1223-1.2-ME	⊙								
	3T1223-1.3-ME	⊙								
	3T1223-1.4-ME	⊙								
	3T1223-1.5-ME	⊙								
	3T1223-1.6-ME	⊙								
	3T1223-1.7-ME	⊙								
	3T1223-1.8-ME	⊙								
	3T1223-1.9-ME	⊙								
	3T1223-2.0-ME	⊙								
	3T1223-2.2-ME	⊙								
	3T1223-2.5-ME	⊙								
	3T1223-3.0-ME	⊙								
	3T1223-3.5-ME	⊙								
	3T1223-4.0-ME	⊙								
	3T1223-4.2-ME	⊙								
	3T1223-4.5-ME	⊙								
	3T1223-5.0-ME	⊙								
	3T1223-6.0-ME	⊙								
	3T1223-8.0-ME	⊙								

* M.O.Q: 12PCS

* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

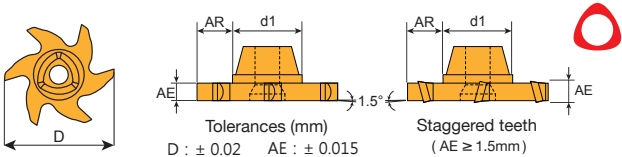
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, i.e.: 3T1223-0.5-ME,B100



UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136

Dimensions (mm)			
D	d1	AE	Max. AR
24	12	0.5-0.6	5.5
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	



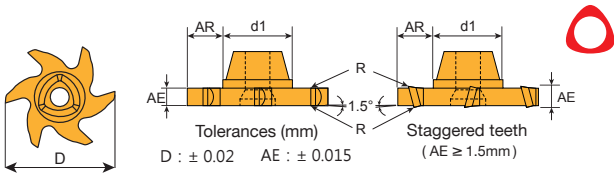
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 6 flutes	3T1224-0.5-E									
	3T1224-0.6-E									
	3T1224-0.7-E									
	3T1224-0.8-E									
	3T1224-0.9-E									
	3T1224-1.0-E									
	3T1224-1.1-E									
	3T1224-1.2-E									
	3T1224-1.3-E									
	3T1224-1.4-E									
	3T1224-1.5-E									
	3T1224-1.6-E									
	3T1224-1.7-E									
	3T1224-1.8-E									
	3T1224-1.9-E									
	3T1224-2.0-E									
	3T1224-2.2-E									
	3T1224-2.5-E									
	3T1224-3.0-E									
	3T1224-3.5-E									
	3T1224-4.0-E									
	3T1224-4.2-E									
	3T1224-4.5-E									
	3T1224-5.0-E									
	3T1224-6.0-E									
	3T1224-8.0-E									

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1224-0.5-E,K10

UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
24	12	0.5-0.6	5.5	$R0.05$ ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1224-0.5-ME	⊙								
	3T1224-0.6-ME	⊙								
	3T1224-0.7-ME	⊙								
	3T1224-0.8-ME	⊙								
	3T1224-0.9-ME	⊙								
	3T1224-1.0-ME	⊙								
	3T1224-1.1-ME	⊙								
	3T1224-1.2-ME	⊙								
	3T1224-1.3-ME	⊙								
	3T1224-1.4-ME	⊙								
	3T1224-1.5-ME	⊙								
	3T1224-1.6-ME	⊙								
	3T1224-1.7-ME	⊙								
	3T1224-1.8-ME	⊙								
	3T1224-1.9-ME	⊙								
	3T1224-2.0-ME	⊙								
	3T1224-2.2-ME	⊙								
	3T1224-2.5-ME	⊙								
	3T1224-3.0-ME	⊙								
	3T1224-3.5-ME	⊙								
	3T1224-4.0-ME	⊙								
	3T1224-4.2-ME	⊙								
	3T1224-4.5-ME	⊙								
	3T1224-5.0-ME	⊙								
	3T1224-6.0-ME	⊙								
	3T1224-8.0-ME	⊙								

* M.O.Q: 12PCS

* Make-to-Order.

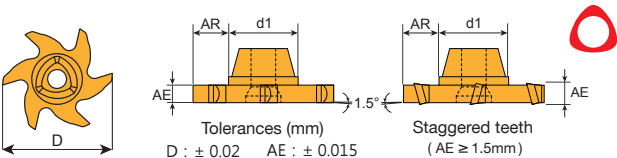
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1224-0.5-ME,B100



UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
25	12	0.5-0.6	6.0
		0.7-0.8	
		0.9-1.0	
		1.1-1.2	
		1.3-1.4	
		1.5-1.6	
		1.7-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

Inserts	Order Code	Grades								
		Carbide					Cermet	Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1225-0.5-E									
	3T1225-0.6-E									
	3T1225-0.7-E									
	3T1225-0.8-E									
	3T1225-0.9-E									
	3T1225-1.0-E									
	3T1225-1.1-E									
	3T1225-1.2-E									
	3T1225-1.3-E									
	3T1225-1.4-E									
	3T1225-1.5-E									
	3T1225-1.6-E									
	3T1225-1.7-E									
	3T1225-1.8-E									
	3T1225-1.9-E									
	3T1225-2.0-E									
	3T1225-2.2-E									
	3T1225-2.5-E									
	3T1225-3.0-E									
	3T1225-3.5-E									
	3T1225-4.0-E									
	3T1225-4.2-E									
	3T1225-4.5-E									
	3T1225-5.0-E									
	3T1225-6.0-E									
	3T1225-8.0-E									


6 flutes

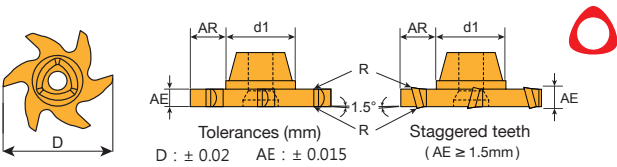
	
	
	

Inserts 6 PCS / Box

- 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.: 3T1225-0.5-E,K10

UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
25	12	0.5-0.6	6.0	R0.05 ± 0.025
		0.7-0.8		
		0.9-1.0		
		1.1-1.2		
		1.3-1.4		
		1.5-1.6		
		1.7-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

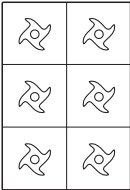
Inserts	Order Code	Grades									
		Carbide				Cermet		Uncoated			
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 6 flutes	3T1225-0.5-ME	⊙									
	3T1225-0.6-ME	⊙									
	3T1225-0.7-ME	⊙									
	3T1225-0.8-ME	⊙									
	3T1225-0.9-ME	⊙									
	3T1225-1.0-ME	⊙									
	3T1225-1.1-ME	⊙									
	3T1225-1.2-ME	⊙									
	3T1225-1.3-ME	⊙									
	3T1225-1.4-ME	⊙									
	3T1225-1.5-ME	⊙									
	3T1225-1.6-ME	⊙									
	3T1225-1.7-ME	⊙									
	3T1225-1.8-ME	⊙									
	3T1225-1.9-ME	⊙									
	3T1225-2.0-ME	⊙									
	3T1225-2.2-ME	⊙									
	3T1225-2.5-ME	⊙									
	3T1225-3.0-ME	⊙									
	3T1225-3.5-ME	⊙									
	3T1225-4.0-ME	⊙									
	3T1225-4.2-ME	⊙									
	3T1225-4.5-ME	⊙									
	3T1225-5.0-ME	⊙									
	3T1225-6.0-ME	⊙									
	3T1225-8.0-ME	⊙									



6 flutes

Inserts 6 PCS / Box



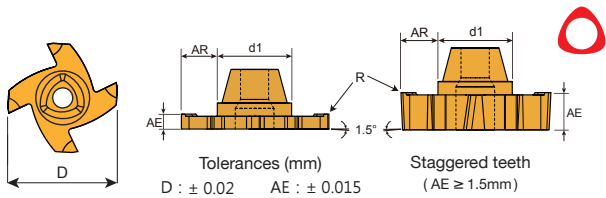
Inserts 6 PCS / Box

-  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.: 3T1225-0.5-ME,B100

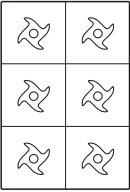


UFO T-slot Inserts

- Toolholders P. 27
- Cutting Data P. 135 - 136



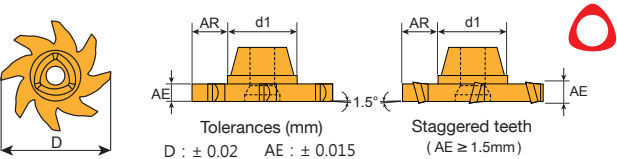
Dimensions (mm)				
D	d1	AE	Max. AR	R
27	12	0.8-0.9	7.0	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T1227C-0.8-ME	⊙								
	3T1227C-0.9-ME	⊙								
	3T1227C-1.0-ME	⊙								
	3T1227C-1.1-ME	⊙								
	3T1227C-1.2-ME	⊙								
	3T1227C-1.3-ME	⊙								
	3T1227C-1.4-ME	⊙								
	3T1227C-1.5-ME	⊙								
	3T1227C-1.6-ME	⊙								
	3T1227C-1.7-ME	⊙								
	3T1227C-1.8-ME	⊙								
	3T1227C-1.9-ME	⊙								
	3T1227C-2.0-ME	⊙								
	3T1227C-2.2-ME	⊙								
	3T1227C-2.5-ME	⊙								
	3T1227C-3.0-ME	⊙								
	3T1227C-3.5-ME	⊙								
	3T1227C-4.0-ME	⊙								
	3T1227C-4.2-ME	⊙								
	3T1227C-4.5-ME	⊙								
	3T1227C-5.0-ME	⊙								
	3T1227C-6.0-ME	⊙								
	3T1227C-8.0-ME	⊙								
										
										Inserts 6 PCS / Box

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1227C-0.8-ME, B100

UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
28	16	0.8-0.9	5.5
		1.0-1.1	
		1.2-1.3	
		1.4-1.5	
		1.6-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 8 flutes	3T1628-0.8-E									
	3T1628-0.9-E									
	3T1628-1.0-E									
	3T1628-1.1-E									
	3T1628-1.2-E									
	3T1628-1.3-E									
	3T1628-1.4-E									
	3T1628-1.5-E									
	3T1628-1.6-E									
	3T1628-1.7-E									
	3T1628-1.8-E									
	3T1628-1.9-E									
	3T1628-2.0-E									
	3T1628-2.2-E									
	3T1628-2.5-E									
	3T1628-3.0-E									
	3T1628-3.5-E									
	3T1628-4.0-E									
	3T1628-4.2-E									
	3T1628-4.5-E									
	3T1628-5.0-E									

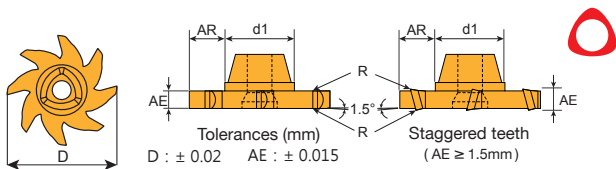
* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1628-0.8-E,K10



UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
28	16	0.8-0.9	5.5	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		

Inserts	Order Code	Grades								
		Carbide					Cermets		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 8 flutes	3T1628-0.8-ME	⊙								
	3T1628-0.9-ME	⊙								
	3T1628-1.0-ME	⊙								
	3T1628-1.1-ME	⊙								
	3T1628-1.2-ME	⊙								
	3T1628-1.3-ME	⊙								
	3T1628-1.4-ME	⊙								
	3T1628-1.5-ME	⊙								
	3T1628-1.6-ME	⊙								
	3T1628-1.7-ME	⊙								
	3T1628-1.8-ME	⊙								
	3T1628-1.9-ME	⊙								
	3T1628-2.0-ME	⊙								
	3T1628-2.2-ME	⊙								
	3T1628-2.5-ME	⊙								
	3T1628-3.0-ME	⊙								
	3T1628-3.5-ME	⊙								
	3T1628-4.0-ME	⊙								
	3T1628-4.2-ME	⊙								
	3T1628-4.5-ME	⊙								
3T1628-5.0-ME	⊙									

* M.O.Q: 12PCS

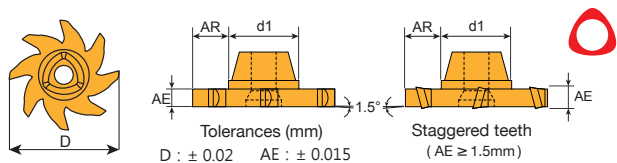
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1628-0.8-ME,B100

UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
29	16	0.8-0.9	6.0
		1.0-1.1	
		1.2-1.3	
		1.4-1.5	
		1.6-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 8 flutes	3T1629-0.8-E									
	3T1629-0.9-E									
	3T1629-1.0-E									
	3T1629-1.1-E									
	3T1629-1.2-E									
	3T1629-1.3-E									
	3T1629-1.4-E									
	3T1629-1.5-E									
	3T1629-1.6-E									
	3T1629-1.7-E									
	3T1629-1.8-E									
	3T1629-1.9-E									
	3T1629-2.0-E									
	3T1629-2.2-E									
	3T1629-2.5-E									
	3T1629-3.0-E									
	3T1629-3.5-E									
	3T1629-4.0-E									
	3T1629-4.2-E									
	3T1629-4.5-E									
	3T1629-5.0-E									

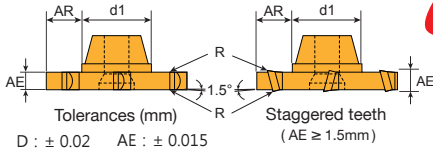
* M.O.Q: 12PCS
* Make-to-Order.

- 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.: 3T1629-0.8-E,K10



UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
29	16	0.8-0.9	6.0	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 8 flutes	3T1629-0.8-ME	⊙									
	3T1629-0.9-ME	⊙									
	3T1629-1.0-ME	⊙									
	3T1629-1.1-ME	⊙									
	3T1629-1.2-ME	⊙									
	3T1629-1.3-ME	⊙									
	3T1629-1.4-ME	⊙									
	3T1629-1.5-ME	⊙									
	3T1629-1.6-ME	⊙									
	3T1629-1.7-ME	⊙									
	3T1629-1.8-ME	⊙									
	3T1629-1.9-ME	⊙									
	3T1629-2.0-ME	⊙									
	3T1629-2.2-ME	⊙									
	3T1629-2.5-ME	⊙									
	3T1629-3.0-ME	⊙									
	3T1629-3.5-ME	⊙									
	3T1629-4.0-ME	⊙									
	3T1629-4.2-ME	⊙									
	3T1629-4.5-ME	⊙									
3T1629-5.0-ME	⊙										

* M.O.Q: 12PCS

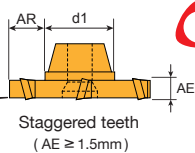
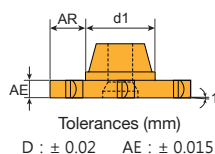
* Make-to-Order.

* M.O.Q: 12PCS
* Make-to-Order.

-  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.: 3T1629-0.8-ME,B100

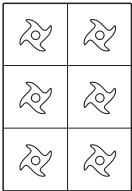
UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)			
D	d1	AE	Max. AR
30	16	0.8-0.9	6.5
		1.0-1.1	
		1.2-1.3	
		1.4-1.5	
		1.6-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 8 flutes	3T1630-0.8-E									
	3T1630-0.9-E									
	3T1630-1.0-E									
	3T1630-1.1-E									
	3T1630-1.2-E									
	3T1630-1.3-E									
	3T1630-1.4-E									
	3T1630-1.5-E									
	3T1630-1.6-E									
	3T1630-1.7-E									
	3T1630-1.8-E									
	3T1630-1.9-E									
	3T1630-2.0-E									
	3T1630-2.2-E									
	3T1630-2.5-E									
	3T1630-3.0-E									
	3T1630-3.5-E									
3T1630-4.0-E										
3T1630-4.2-E										
3T1630-4.5-E										
3T1630-5.0-E										



Inserts 6 PCS / Box



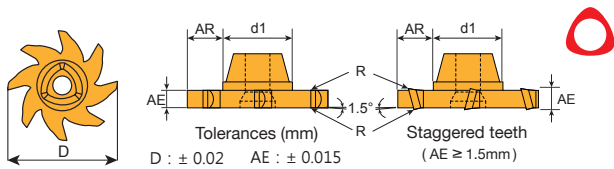
Inserts 6 PCS / Box

-  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.: 3T1630-0.8-E,K10

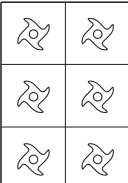


UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
30	16	0.8-0.9	6.5	$R0.05$ ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10		CE
 8 flutes	3T1630-0.8-ME	⊙									
	3T1630-0.9-ME	⊙									
	3T1630-1.0-ME	⊙									
	3T1630-1.1-ME	⊙									
	3T1630-1.2-ME	⊙									
	3T1630-1.3-ME	⊙									
	3T1630-1.4-ME	⊙									
	3T1630-1.5-ME	⊙									
	3T1630-1.6-ME	⊙									
	3T1630-1.7-ME	⊙									
	3T1630-1.8-ME	⊙									
	3T1630-1.9-ME	⊙									
	3T1630-2.0-ME	⊙									
	3T1630-2.2-ME	⊙									
	3T1630-2.5-ME	⊙									
	3T1630-3.0-ME	⊙									
	3T1630-3.5-ME	⊙									
	3T1630-4.0-ME	⊙									
3T1630-4.2-ME	⊙										
3T1630-4.5-ME	⊙										
3T1630-5.0-ME	⊙										
											

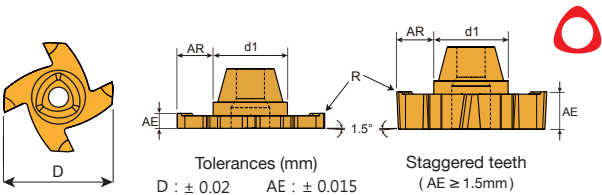
Inserts 6 PCS / Box

Inserts 6 PCS / Box

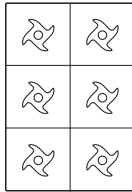
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1630-0.8-ME,B100

UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
32	16	0.8-0.9	7.5	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

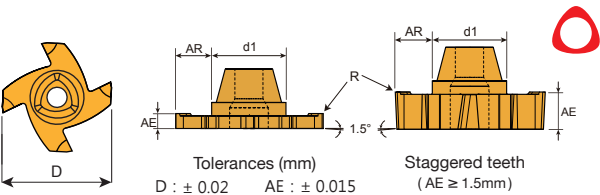
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 4 flutes	3T1632C-0.8-ME	⊙								
	3T1632C-0.9-ME	⊙								
	3T1632C-1.0-ME	⊙								
	3T1632C-1.1-ME	⊙								
	3T1632C-1.2-ME	⊙								
	3T1632C-1.3-ME	⊙								
	3T1632C-1.4-ME	⊙								
	3T1632C-1.5-ME	⊙								
	3T1632C-1.6-ME	⊙								
	3T1632C-1.7-ME	⊙								
	3T1632C-1.8-ME	⊙								
	3T1632C-1.9-ME	⊙								
	3T1632C-2.0-ME	⊙								
	3T1632C-2.2-ME	⊙								
	3T1632C-2.5-ME	⊙								
	3T1632C-3.0-ME	⊙								
	3T1632C-3.5-ME	⊙								
	3T1632C-4.0-ME	⊙								
	3T1632C-4.2-ME	⊙								
	3T1632C-4.5-ME	⊙								
	3T1632C-5.0-ME	⊙								
	3T1632C-6.0-ME	⊙								
	3T1632C-8.0-ME	⊙								
										
Inserts 6 PCS / Box										
* M.O.Q: 12PCS * Make-to-Order.										

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1632C-0.8-ME, B100

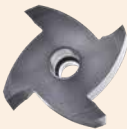


UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



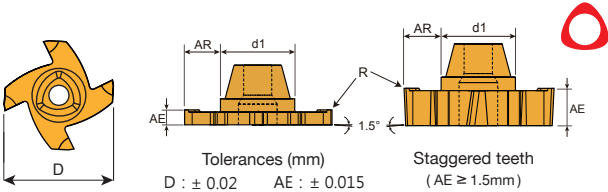
Dimensions (mm)				
D	d1	AE	Max. AR	R
35	16	0.8-0.9	9	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 4 flutes	3T1635C-0.8-ME	⊙								
	3T1635C-0.9-ME	⊙								
	3T1635C-1.0-ME	⊙								
	3T1635C-1.1-ME	⊙								
	3T1635C-1.2-ME	⊙								
	3T1635C-1.3-ME	⊙								
	3T1635C-1.4-ME	⊙								
	3T1635C-1.5-ME	⊙								
	3T1635C-1.6-ME	⊙								
	3T1635C-1.7-ME	⊙								
	3T1635C-1.8-ME	⊙								
	3T1635C-1.9-ME	⊙								
	3T1635C-2.0-ME	⊙								
	3T1635C-2.2-ME	⊙								
	3T1635C-2.5-ME	⊙								
	3T1635C-3.0-ME	⊙								
	3T1635C-3.5-ME	⊙								
	3T1635C-4.0-ME	⊙								
	3T1635C-4.2-ME	⊙								
	3T1635C-4.5-ME	⊙								
3T1635C-5.0-ME	⊙									
3T1635C-6.0-ME	⊙									
3T1635C-8.0-ME	⊙									
										    Inserts 4 PCS / Box

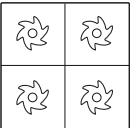
-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1635C-0.8-ME, B100

UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
37	16	0.8-0.9	10	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

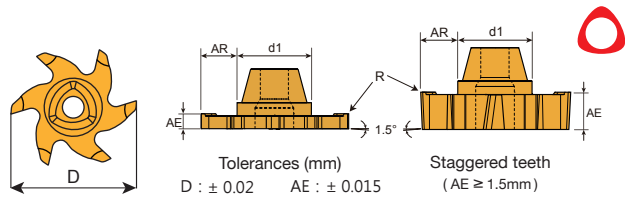
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 4 flutes	3T1637C-0.8-ME	⊙								
	3T1637C-0.9-ME	⊙								
	3T1637C-1.0-ME	⊙								
	3T1637C-1.1-ME	⊙								
	3T1637C-1.2-ME	⊙								
	3T1637C-1.3-ME	⊙								
	3T1637C-1.4-ME	⊙								
	3T1637C-1.5-ME	⊙								
	3T1637C-1.6-ME	⊙								
	3T1637C-1.7-ME	⊙								
	3T1637C-1.8-ME	⊙								
	3T1637C-1.9-ME	⊙								
	3T1637C-2.0-ME	⊙								
	3T1637C-2.2-ME	⊙								
	3T1637C-2.5-ME	⊙								
	3T1637C-3.0-ME	⊙								
	3T1637C-3.5-ME	⊙								
	3T1637C-4.0-ME	⊙								
	3T1637C-4.2-ME	⊙								
	3T1637C-4.5-ME	⊙								
	3T1637C-5.0-ME	⊙								
	3T1637C-6.0-ME	⊙								
	3T1637C-8.0-ME	⊙								
 Inserts 4 PCS / Box										
* M.O.Q: 8PCS * Make-to-Order.										

- ⊙ Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1637C-0.8-ME, B100



UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



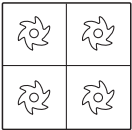
Dimensions (mm)			
D	d1	AE	Max. AR
35	16	0.8-0.9	9
		1.0-1.1	
		1.2-1.3	
		1.4-1.5	
		1.6-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

Inserts	Order Code	Grades									
		Carbide					Cermets		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10		CE
 6 flutes	3T1635-0.8-E										
	3T1635-0.9-E										
	3T1635-1.0-E										
	3T1635-1.1-E										
	3T1635-1.2-E										
	3T1635-1.3-E										
	3T1635-1.4-E										
	3T1635-1.5-E										
	3T1635-1.6-E										
	3T1635-1.7-E										
	3T1635-1.8-E										
	3T1635-1.9-E										
	3T1635-2.0-E										
	3T1635-2.2-E										
	3T1635-2.5-E										
	3T1635-3.0-E										
	3T1635-3.5-E										
	3T1635-4.0-E										
	3T1635-4.2-E										
	3T1635-4.5-E										
3T1635-5.0-E											
3T1635-6.0-E											
3T1635-8.0-E											


6 flutes

Inserts 4 PCS / Box

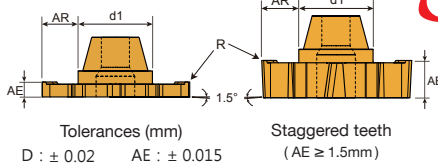
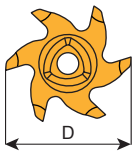


Inserts 4 PCS / Box

-  Aluminum
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1635-0.8-E, K10

UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
35	16	0.8-0.9	9	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

UFO Family

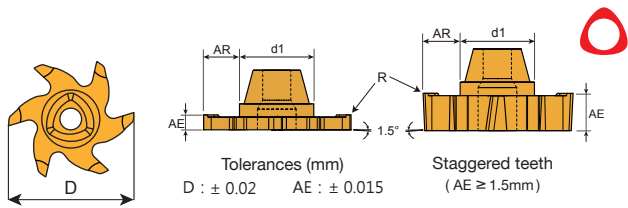
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1635-0.8-ME	⊙								
	3T1635-0.9-ME	⊙								
	3T1635-1.0-ME	⊙								
	3T1635-1.1-ME	⊙								
	3T1635-1.2-ME	⊙								
	3T1635-1.3-ME	⊙								
	3T1635-1.4-ME	⊙								
	3T1635-1.5-ME	⊙								
	3T1635-1.6-ME	⊙								
	3T1635-1.7-ME	⊙								
	3T1635-1.8-ME	⊙								
	3T1635-1.9-ME	⊙								
	3T1635-2.0-ME	⊙								
	3T1635-2.2-ME	⊙								
	3T1635-2.5-ME	⊙								
	3T1635-3.0-ME	⊙								
	3T1635-3.5-ME	⊙								
	3T1635-4.0-ME	⊙								
	3T1635-4.2-ME	⊙								
	3T1635-4.5-ME	⊙								
3T1635-5.0-ME	⊙									
3T1635-6.0-ME	⊙									
3T1635-8.0-ME	⊙									
    Inserts 4 PCS / Box										
* M.O.Q: 8PCS * Make-to-Order.										

- ⊙ Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1635-0.8-ME, B100



UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136

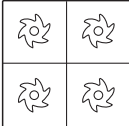


Tolerances (mm)
 $D : \pm 0.02$ $AE : \pm 0.015$

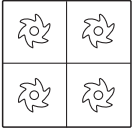
Staggered teeth
($AE \geq 1.5\text{mm}$)

Dimensions (mm)			
D	d1	AE	Max. AR
37	16	0.8-0.9	10
		1.0-1.1	
		1.2-1.3	
		1.4-1.5	
		1.6-1.8	
		1.9-2.0	
		2.2-2.5	
		3.0-4.0	
		4.2-5.0	
		6.0	
		8.0	

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1637-0.8-E									
	3T1637-0.9-E									
	3T1637-1.0-E									
	3T1637-1.1-E									
	3T1637-1.2-E									
	3T1637-1.3-E									
	3T1637-1.4-E									
	3T1637-1.5-E									
	3T1637-1.6-E									
	3T1637-1.7-E									
	3T1637-1.8-E									
	3T1637-1.9-E									
	3T1637-2.0-E									
	3T1637-2.2-E									
	3T1637-2.5-E									
	3T1637-3.0-E									
	3T1637-3.5-E									
	3T1637-4.0-E									
	3T1637-4.2-E									
	3T1637-4.5-E									
3T1637-5.0-E										
3T1637-6.0-E										
3T1637-8.0-E										



Inserts 4 PCS / Box

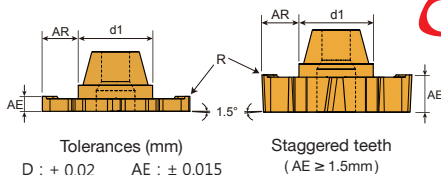
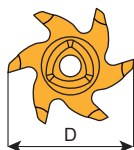


Inserts 4 PCS / Box

- Aluminum
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1637-0.8-E, K10

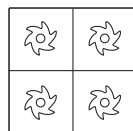
UFO T-slot Inserts

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
37	16	0.8-0.9	10	R0.05 ± 0.025
		1.0-1.1		
		1.2-1.3		
		1.4-1.5		
		1.6-1.8		
		1.9-2.0		
		2.2-2.5		
		3.0-4.0		
		4.2-5.0		
		6.0		
		8.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 6 flutes	3T1637-0.8-ME	⊙								
	3T1637-0.9-ME	⊙								
	3T1637-1.0-ME	⊙								
	3T1637-1.1-ME	⊙								
	3T1637-1.2-ME	⊙								
	3T1637-1.3-ME	⊙								
	3T1637-1.4-ME	⊙								
	3T1637-1.5-ME	⊙								
	3T1637-1.6-ME	⊙								
	3T1637-1.7-ME	⊙								
	3T1637-1.8-ME	⊙								
	3T1637-1.9-ME	⊙								
	3T1637-2.0-ME	⊙								
	3T1637-2.2-ME	⊙								
	3T1637-2.5-ME	⊙								
	3T1637-3.0-ME	⊙								
	3T1637-3.5-ME	⊙								
	3T1637-4.0-ME	⊙								
	3T1637-4.2-ME	⊙								
	3T1637-4.5-ME	⊙								
	3T1637-5.0-ME	⊙								
	3T1637-6.0-ME	⊙								
	3T1637-8.0-ME	⊙								



Inserts 4 PCS / Box

* M.O.Q: 8PCS
* Make-to-Order.

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1637-0.8-ME, B100



UFO T-SLOT - CN / N SERIES

Exclusively for Collet Machining



Exclusively for Collet Machining - CN / N

Y.T.'s groundbreaking collet machining advantages

New UFO-T-slot cutter
CN / N series
(4 flutes · 6 flutes)

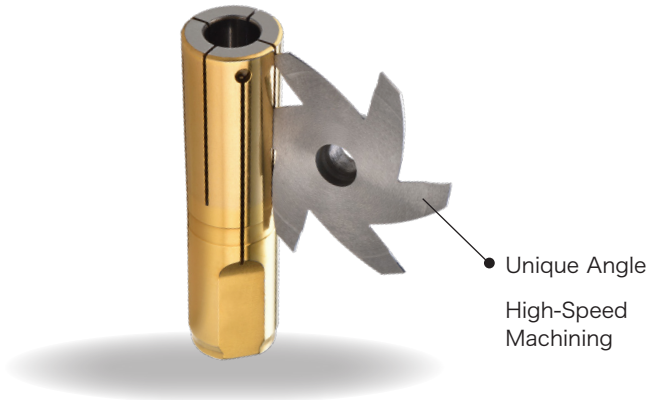
Traditional / slitting saw



UFO Family

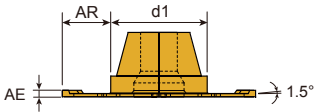
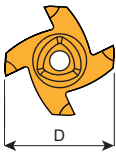
The latest collet-exclusive UFO T-slot cutter features an unique cutting edge design, effectively reducing machining resistance and achieving cutting speeds up to 10 times faster than traditional slitting saw.

The UFO taper polygon positioning design ensures more precise locking mechanism, with no interference at the bottom of the tool.

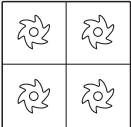


UFO T-slot Inserts- CN

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
35	16	0.6	9	R0.05 ± 0.025
		0.8		
		1.0		
		1.2		
		1.4		
		1.6		
		1.8		
		2.0		

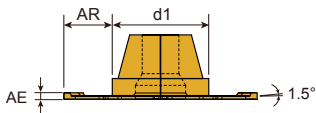
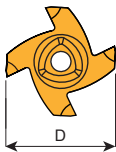
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 4 flutes	3T1635CN-0.6-ME									
	3T1635CN-0.8-ME									
	3T1635CN-1.0-ME									
	3T1635CN-1.2-ME									
	3T1635CN-1.4-ME									
	3T1635CN-1.6-ME									
	3T1635CN-1.8-ME									
	3T1635CN-2.0-ME									
 Inserts 4 PCS / Box										

- ⊙ Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1635CN-0.6-ME, B100

UFO T-slot Inserts- CN

- Toolholders P. 28
- Cutting Data P. 135 - 136

UFO Family



Dimensions (mm)				
D	d1	AE	Max. AR	R
37	16	0.6	10	R0.05 ± 0.025
		0.8		
		1.0		
		1.2		
		1.4		
		1.6		
		1.8		
		2.0		

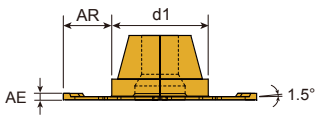
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
	3T1637CN-0.6-ME	⊙								
	3T1637CN-0.8-ME	⊙								
	3T1637CN-1.0-ME	⊙								
	3T1637CN-1.2-ME	⊙								
	3T1637CN-1.4-ME	⊙								
	3T1637CN-1.6-ME	⊙								
	3T1637CN-1.8-ME	⊙								
	3T1637CN-2.0-ME	⊙								
										    Inserts 4 PCS / Box

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1637CN-0.6-ME, B100



UFO T-slot Inserts - N

- Toolholders P. 28
- Cutting Data P. 135 - 136



Dimensions (mm)				
D	d1	AE	Max. AR	R
35	16	0.6	9	R0.05 ± 0.025
		0.8		
		1.0		
		1.2		
		1.4		
		1.6		
		1.8		
		2.0		

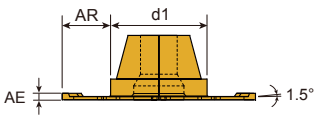
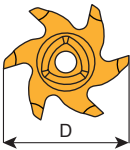
Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1635N-0.6-ME	⊙								
	3T1635N-0.8-ME	⊙								
	3T1635N-1.0-ME	⊙								
	3T1635N-1.2-ME	⊙								
	3T1635N-1.4-ME	⊙								
	3T1635N-1.6-ME	⊙								
	3T1635N-1.8-ME	⊙								
	3T1635N-2.0-ME	⊙								
  Inserts 4 PCS / Box										

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1635N-0.6-ME, B100

UFO T-slot Inserts - N

- Toolholders P. 28
- Cutting Data P. 135 - 136

UFO Family



Dimensions (mm)				
D	d1	AE	Max. AR	R
37	16	0.6	10	R0.05 ± 0.025
		0.8		
		1.0		
		1.2		
		1.4		
		1.6		
		1.8		
		2.0		

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	
 6 flutes	3T1637N-0.6-ME	⊙								
	3T1637N-0.8-ME	⊙								
	3T1637N-1.0-ME	⊙								
	3T1637N-1.2-ME	⊙								
	3T1637N-1.4-ME	⊙								
	3T1637N-1.6-ME	⊙								
	3T1637N-1.8-ME	⊙								
	3T1637N-2.0-ME	⊙								
										    Inserts 4 PCS / Box

-  Steel / Stainless Steel / Super alloy / Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1637N-0.6-ME, B100



UFO T-SLOT CUTTER

PATENTED



Patent No. : M538848



Patent No. : ZL 2016 2 1300067.8



PCT Priority

Features

Available in
materials



Cost
200~300%
SAVING

Applicable
Machines
CNC Milling machine

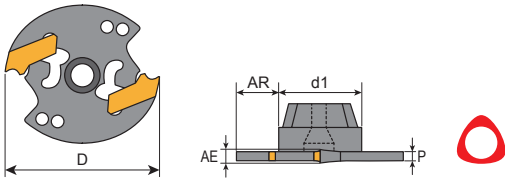
Efficiency
400%
UP

Durability
300%
UP

UFO T-slot Cutters

- Toolholders P. 28
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



Order Code	Dimensions (mm)					Z	 KG	MAX RPM	Inserts LN _{GT}	Wrench	
	D	d1	AR	AE	P						
3T1632-1.4	32	16	7.5	1.4 1.5	1.2	2	0.03	8000	1414 1415	150.10-30	
3T1632-1.6				1.6	1.4				1616		
3T1632-1.8				1.8	1.6				1818		
3T1632-2.0				2.0 2.2 2.5	1.7				2020 2022 2025		
3T1632-2.5				2.5 2.7 3.0	2.25		0.04		2525 2527 2530		
3T1632-3.0				3.0 3.2 3.5	2.7				3030 3032 3035		
3T1632-4.0				4.0 4.2 4.5	3.7		0.05		4040 4042 4045		
3T1632-5.0				5.0 5.2 5.5	4.5				5050 5052 5055		

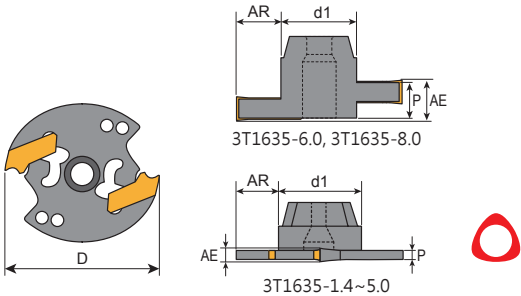
* Wrench 150.10-30 for above cutter order seperately.



UFO T-slot Cutters

- Toolholders P. 28
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



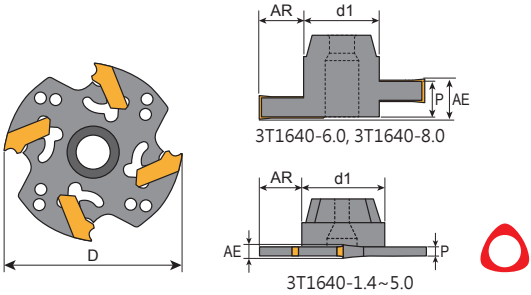
Order Code	Dimensions (mm)					Z	ZC	 KG	MAX RPM	Inserts LNGT	Wrench					
	D	d1	AR	AE	P											
3T1635-1.4	35	16	9.0	1.4 1.5	1.2	2	2	0.03	8000	1414 1415	150.10-30					
3T1635-1.6				1.6	1.4					1616						
3T1635-1.8				1.8	1.6					1818						
3T1635-2.0				2.0 2.2 2.5	1.7					2020 2022 2025						
3T1635-2.5				2.5 2.7 3.0	2.25					2525 2527 2530						
3T1635-3.0				3.0 3.2 3.5	2.7					3030 3032 3035						
3T1635-4.0				4.0 4.2 4.5	3.7		4040 4042 4045									
3T1635-5.0				5.0 5.2 5.5	4.5		5050 5052 5055									
3T1635-6.0				6.0	5.5		5050NS									
3T1635-8.0				8.0	7.5											
													1	0.05		

* Wrench 150.10-30 for above cutter order seperately.

UFO T-slot Cutters

- Toolholders P. 28
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



UFO Family

Order Code	Dimensions (mm)					Z	ZC		MAX RPM	Inserts LNGT	Wrench	
	D	d1	AR	AE	P							
3T1640-1.4	40	16	11.5	1.4 1.5	1.2	4	-	0.03	7500	1414 1415	150.10-30	
3T1640-1.6				1.6	1.4					1616		
3T1640-1.8				1.8	1.6					1818		
3T1640-2.0				2.0 2.2 2.5	1.7					2020 2022 2025		
3T1640-2.5				2.5 2.7 3.0	2.25			0.05		2525 2527 2530		
3T1640-3.0				3.0 3.2 3.5	2.7					3030 3032 3035		
3T1640-4.0				4.0 4.2 4.5	3.7			0.06		4040 4042 4045		
3T1640-5.0				5.0 5.2 5.5	4.5					5050 5052 5055		
3T1640-6.0				6.0	5.5					2		5050NS
3T1640-8.0				8.0	7.5							

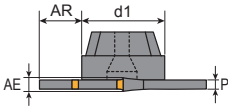
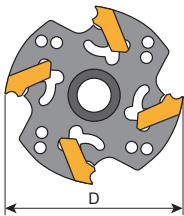
* Wrench 150.10-30 for above cutter order seperately.



UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



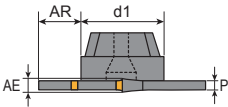
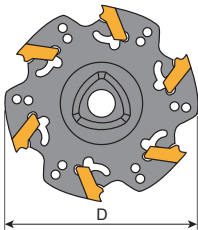
Order Code	Dimensions (mm)					Z	 KG	MAX RPM	Inserts LNGT	Wrench
	D	d1	AR	AE	P					
3T2550-1.4	50	25	12	1.4	1.2	4	0.07	7000	1414 1415	150.10-30
3T2550-1.6				1.6	1.4		0.08		1616	
3T2550-1.8				1.8	1.6		0.08		1818	
3T2550-2.0				2.0 2.2 2.5	1.7		0.08		2020 2022 2025	
3T2550-2.5				2.5 2.7 3.0	2.25		0.09		2525 2527 2530	
3T2550-3.0				3.0 3.2 3.5	2.7		0.09		3030 3032 3035	
3T2550-4.0				4.0 4.2 4.5	3.7		0.10		4040 4042 4045	
3T2550-5.0				5.0 5.2 5.5	4.5		0.10		5050 5052 5055	

* Wrench 150.10-30 for above cutter order seperately.

UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



Order Code	Dimensions (mm)					Z	 KG	MAX RPM	Inserts LNGT	Wrench
	D	d1	AR	AE	P					
3T2560-1.4	60	25	17	1.4 1.5	1.2	6	0.09	6500	1414 1415	150.10-30
3T2560-1.6				1.6	1.4				1616	
3T2560-1.8				1.8	1.6				1818	
3T2560-2.0				2.0 2.2 2.5	1.7				2020 2022 2025	
3T2560-2.5				2.5 2.7 3.0	2.25		2525 2527 2530			
3T2560-3.0				3.0 3.2 3.5	2.7		3030 3032 3035			
3T2560-4.0				4.0 4.2 4.5	3.7		4040 4042 4045			
3T2560-5.0				5.0 5.2 5.5	4.5		5050 5052 5055			

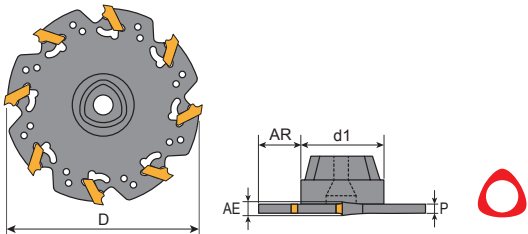
* Wrench 150.10-30 for above cutter order seperately.



UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 235 - 242
- Cutting Data P. 137 - 138

3T



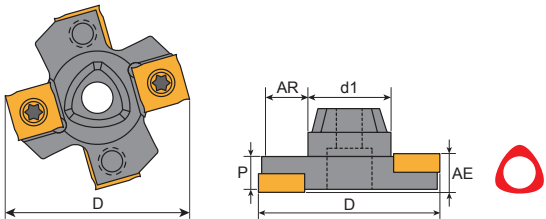
Order Code	Dimensions (mm)					Z		MAX RPM	Inserts LNGT	Wrench
	D	d1	AR	AE	P					
3T2580-1.4	80	25	27	1.4 1.5	1.2	8	0.11	6500	1414 1415	150.10-30
3T2580-1.6				1.6	1.4				1616	
3T2580-1.8				1.8	1.6				1818	
3T2580-2.0				2.0 2.2 2.5	1.7				2020 2022 2025	
3T2580-2.5				2.5 2.7 3.0	2.25				2525 2527 2530	
3T2580-3.0				3.0 3.2 3.5	2.7		0.15		3030 3032 3035	
3T2580-4.0				4.0 4.2 4.5	3.7		0.17		4040 4042 4045	
3T2580-5.0				5.0 5.2 5.5	4.5				5050 5052 5055	

* Wrench 150.10-30 for above cutter order seperately.

UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 242 - 244
- Cutting Data P. 139 - 140

3TS



Order Code	Dimensions (mm)					Z	Zc	 KG	MAX RPM	Inserts SNGX SNGW	Screw	Key
	D	d1	AR	AE	P							
3TS2550-4.0	50	25	12	4	3.4	4	2	0.09	17000	1102	T9354	908-T9
3TS2550-5.0				5	4.2					1103	T9355	908-T8
3TS2550-6.0				6	5					1203	T945	908-T15
3TS2550-7.0				7	6			0.10		1204	T946	
3TS2550-8.0				8	7					12045	T947	
3TS2550-10				10	9			0.12		1205	T948	
3TS2550-12				12	11					1207	T9411	

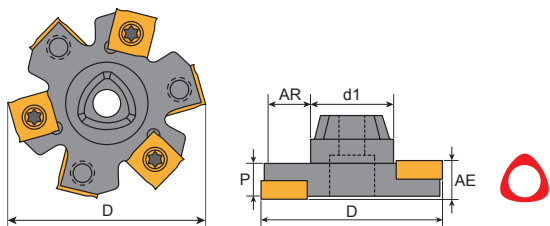
* Fit Insert SNGW...R2.5 and R3.0, cutter have to modified (ask salesman).



UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 242 - 244
- Cutting Data P. 139 - 140

3TS



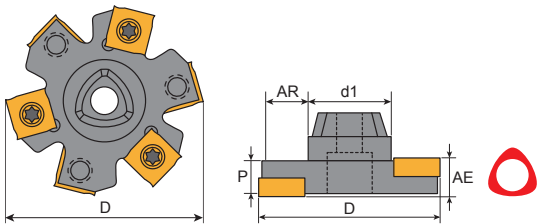
Order Code	Dimensions (mm)					Z	Zc		MAX RPM	Inserts SNGX SNGW	Screw	Key
	D	d1	AR	AE	P							
3TS2560-4.0	60	25	17	4	3.4	6	3	0.10	15000	1102	T9354	908-T9
3TS2560-5.0				5	4.2					1103	T9355	908-T8
3TS2560-6.0				6	5			0.12		1203	T945	908-T15
3TS2560-7.0				7	6					1204	T946	
3TS2560-8.0				8	7					12045	T947	
3TS2560-10				10	9					1205	T948	
3TS2560-12				12	11			0.18		1207	T9411	

* Fit Insert SNGW...R2.5 and R3.0, cutter have to modified (ask salesman).

UFO T-slot Cutters

- Toolholders P. 29
- Inserts P. 242 - 244
- Cutting Data P. 139 - 140

3TS



Order Code	Dimensions (mm)					Z	Zc		MAX RPM	Inserts SNGX SNGW	Screw	Key
	D	d1	AR	AE	P							
3TS2580-4.0	80	25	27	4	3.4	8	4	0.13	14000	1102	T9354	908-T9
3TS2580-5.0				5	4.2					1103	T9355	908-T8
3TS2580-6.0				6	5					1203	T945	908-T15
3TS2580-7.0			7	6	0.21	1204	T946					
3TS2580-8.0			8	7		12045	T947					
3TS2580-10			10	9	6	3	0.31	1205		T948		
3TS2580-12			12	11				1207		T9411		

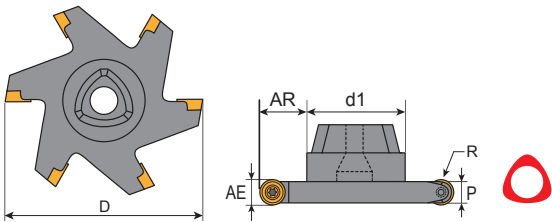
* Fit Insert SNGW...R2.5 and R3.0,cutter have to modified (ask salesman).



UFO T-slot Cutters

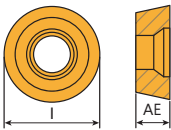
• Toolholders P. 29

3T

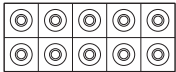


Order Code	Dimensions (mm)						Z	 KG	MAX RPM	Inserts RDKW RDKT RPKT	Screw	Key	
	D	d1	AR	AE	P	R							
3T2560-R4	60	25	17	8	6.2	4R	6	0.20	13000	0803	C02506	T08P	
3T2580-R4	80		27					0.20	12000				
3T2560-R5	60		17	10	8.0	5R	4	0.30	13000	10T3	C03007	T09P	
3T2580-R5	80		27					0.30	12000				
3T2560-R6	60		17	12	10	6R		0.40	9500	1204	C03508 -T15	T15P	
3T2580-R6	80		27					0.40	9000				

RDKT / RDKW / RPKT Inserts



Tolerances (mm)
D=±0.04 AE=±0.05



Inserts 10 PCS / Box

Dimensions (mm)			
Code	AE	I	R
0803	3.05	8	4
10T3	3.97	10	5
1204	4.7	12	6

Inserts	Order Code	Grades							
		Carbide					Metal cermet	Uncoated	
		B100	C200	C250	F20	F30	CE25	CE60	
	RDKW 0803MOT-MD								
	RDKT 10T3MOT-M								
	RPKT 1204MOT-M								

-  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.: RDKW 0803MOT-MD, B100

UFO
RADIUS
DUAL CORNER ROUNDING
CONCAVE RADIUS
DUAL CHAMFER
DOVETAIL
CIRCLIP



Video

PATENTED



Features

Available in
materials



Cost
200~300%
SAVING

Applicable
Machines
CNC Milling machine

Efficiency
400%
UP

Durability
300%
UP



YIH TROUN ENTERPRISE CO., LTD



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 different inserts. All items are available from stock.

Fig.1

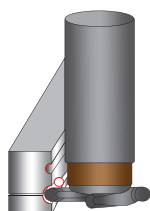


Fig.3

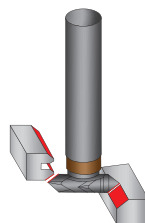


Fig.2

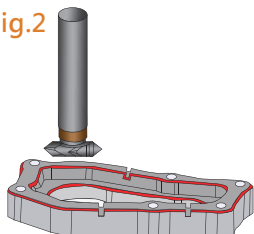
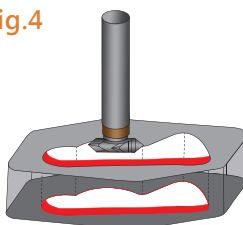


Fig.4

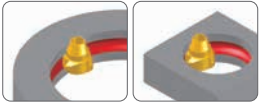


UFO Radius Inserts

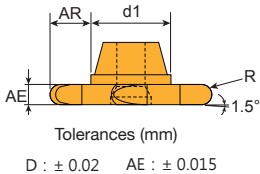
- Toolholders P. 26
- Cutting Data P. 135 - 136



O-Ring

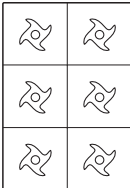


UFO Family



Dimensions (mm)				
D	d1	AE	R	Max. AR
20	9.9	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				
		B100	C200	C250	F20	F30	CE25	CE60	K10	CE		
 6 flutes	3T1020-R0.5-E											
	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	☉											

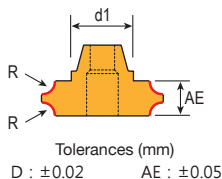
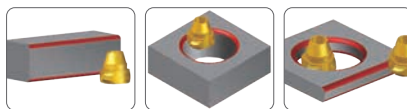
	
	Inserts 6 PCS / Box

- 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.: 3T1020-R0.5-E, F20



UFO Dual Corner Rounding Inserts

- Toolholders P. 24 、 P. 26
- Cutting Data P. 135 - 136



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	9.9	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

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	⊙										

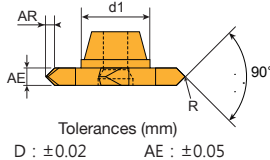
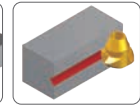
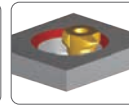
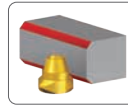
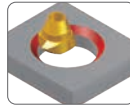


Inserts 6 PCS / Box

-  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. 135 - 136

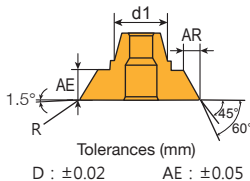
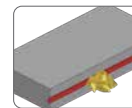


Dimensions (mm)				
D	d1	AE	Max. AR	R
9.8	6.5	3	0.5	0.2
11.8			1.0	
14.8	7.9			

Inserts	Order Code	Grades										
		Carbide					Metal cermet		Uncoated			
		B100	C200	C250	F20	F30	CE25	CE60	K10	CE		
 4 flutes	3T0610-3-45-E										 Inserts 6 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. 135 - 136



Dimensions (mm)					
D	d1	AE	Angle	Max. AR	R
20	9.9	5.0	45°	3.0	0.4
			60°	2.5	

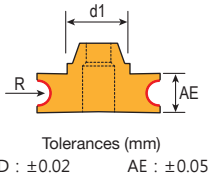
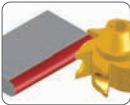
Inserts	Order Code	Grades									 	
		Carbide					Metal cermet		Uncoated			
		B100	C200	C250	F20	F30	CE25	CE60	K10	CE		
 6 flutes	3T1020-45-E											    Inserts 6 PCS / Box
	3T1020-60-E											
	3T1020-45-ME											
	3T1020-60-ME											

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

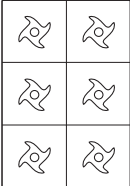


UFO Concave Radius Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



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	⊙								
	3T1020-CR1.25-ME	⊙								
	3T1020-CR1.5-ME	⊙								
	3T1020-CR2.0-ME	⊙								
										

Inserts 6 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.: 3T1020-CR1.0-E, F20

UFO Circlip Inserts

- Toolholders P. 26
- Cutting Data P. 135 - 136



DIN471

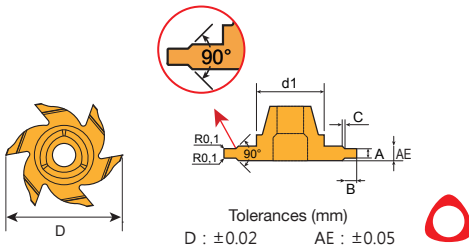


DIN472



Offer customized items at standard prices by MOQ 12 pcs

UFO Family



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		3.5
		2.76	2.65	1.75		4
		3.26	3.15	1.75		5
		4.26	4.15	2.0		

Inserts	Order Code	Grades									 E  ME	
		Carbide					Metal cermet	Uncoated				
		B100	C200	C250	F20	F30	CE25	CE60	K10	CE		
 6 flutes	C3T1020-1.1-E											
	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	⊙										


6 flutes

Inserts 6 PCS / Box

Inserts 6 PCS / Box

-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  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



UFO THREAD MILLING



Features

Available in
materials



Cost
200~300%
SAVING

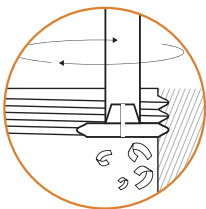
Applicable
Machines
CNC Milling machine

Efficiency
400%
UP

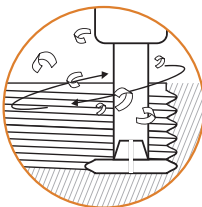
Durability
300%
UP



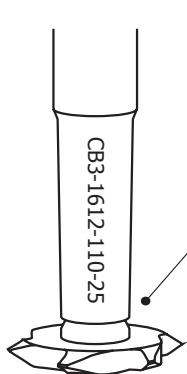
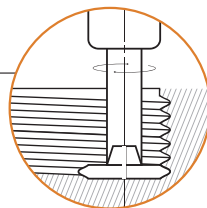
1 / Excellent chip evacuation



2 / High stability & Low cutting forces



3 / Same insert can make different pitches of thread.



Product Advantages

Indexable UFO thread mill - Excellent in chip evacuation and small cutting force.

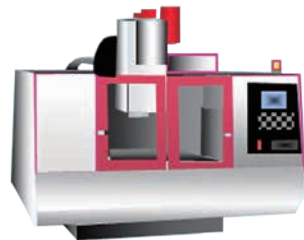
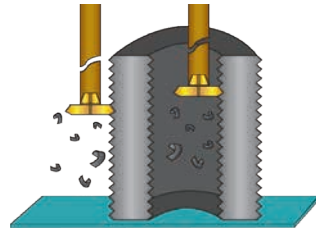
Insert Design

1. Yih Troun provides UFO thread milling inserts applicable to metric, UN and withworth both in full profile and partial profile. Full profile inserts are available from $\varnothing 10$ /pitch1.0; partial profile inserts are available from $\varnothing 12$ /pitch1.0.
2. Unique tapered polygon design to get the excellent stability in high speed machining.
3. The front-mounted insert are positioned in a taper seat for center-positioning, giving secure and continuous performance.
4. High productivity with many teeth (4-6 teeth).

New

UFO thread mill is the best choice for expensive components, it's excellent in chip evacuation, averts chip twining and tap breakage at the last stage of machining, exempts machines from unscheduled down time.

The UFO thread mill insert generates machining cutting force least from its single-point design. It's the first choice for medium to large threads milling in BT30 CNC machining centers, thin-walled components and unstable conditions such as milling thread with a long overhang.



Old

Machining with conventional HSS/ carbide solid tap gets problems easily in chip evacuation, tap breakage on the parts and machining stoppage, It takes time and cost to remove the breakage tap.



Advantages Of Partial Profile Ufo Thread Milling

FIG.1

Same UFO thread milling insert is applicable to a wide range of hole sizes and thread pitches.

If use taps, it needs different taps for different hole sizes and different pitches.

FIG.2

UFO thread milling achieves full-bottom threading in a blind hole with a least drill depth.

It's easy to fix thread tolerance by programme.

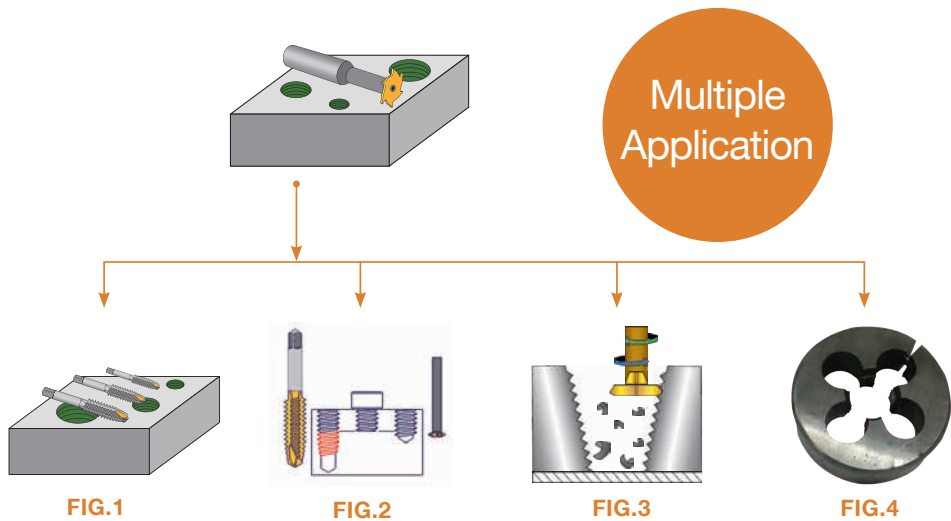
FIG.3

Same UFO thread milling inserts can be used in PT(NPT) thread.

It provides better tool life and less cutting force than PT tap.

FIG.4

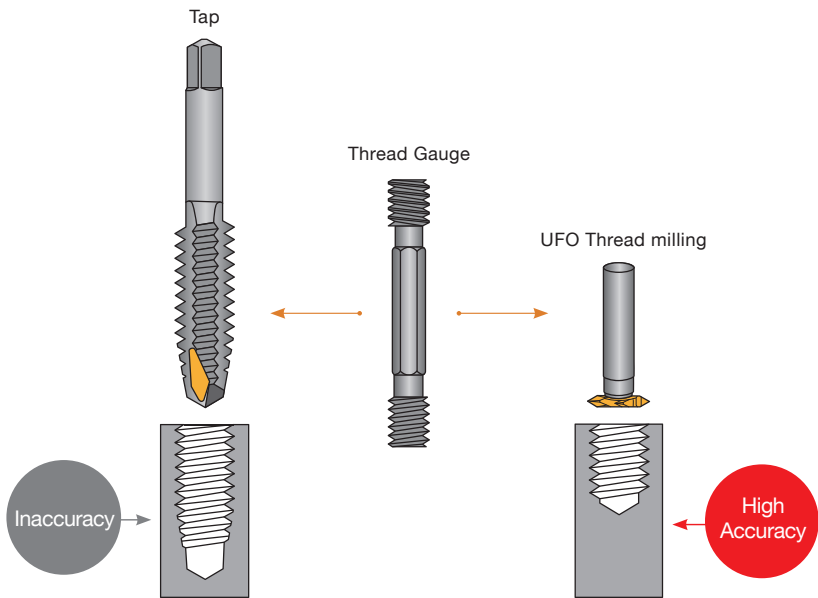
Same UFO thread milling insert is available for both external and internal threads.



Tools Comparison

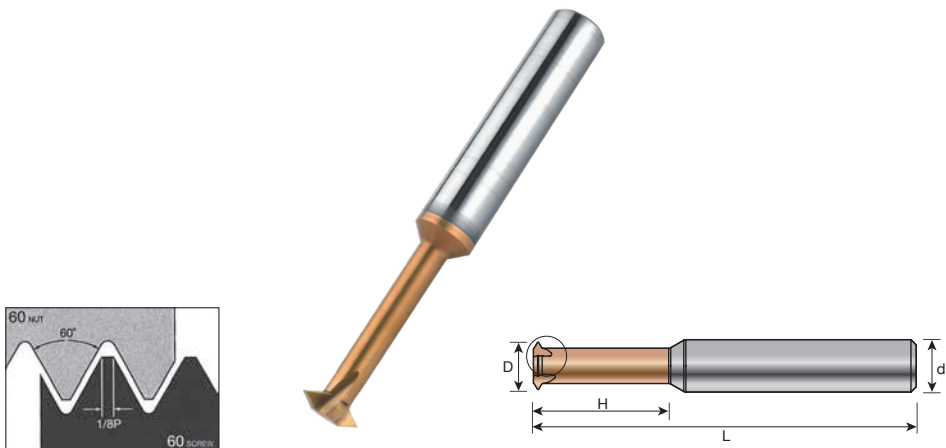
UFO partial profile insert	Tap	Solid carbide thread milling	Thread milling insert
			
One insert applicable to a wide pitch range	Single pitch	Single pitch	Single pitch
		Expensive	
Min dia. 12mm , 4~6 teeth			Large size and less no. of tooth
	Deeper pre-drilling hole is required		
Single cutting edge with multiple teeth results in less cutting force, available even in small horse power M/C	Bigger horse power M/C is required in big hole machining	Multiple pitches design results in higher cutting force and lower feed in machining difficult material	Multiple pitches design results in higher cutting force and lower feed in machining difficult material
Less cutting force in machining taper thread	Additional taper tap is required	Not available in taper thread	Not available in taper thread

Precise Thread By UFO Thread Milling



Solid Carbide Thread Milling - Partial Profile 60°

• Cutting Data P. 141

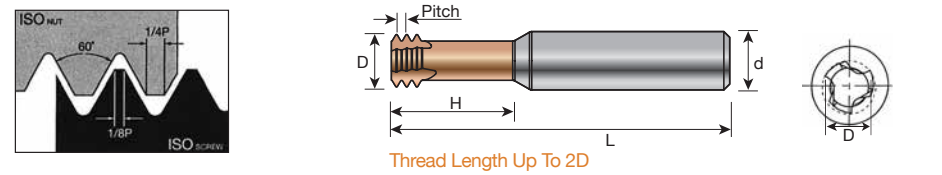


Order code	Pitch Range		D	H	T	d	L
	MM	TPI					
AT0195-50	0.35-0.6	72-40	1.95	6.0	3	3	50
AT0245-50	0.5-0.8	48-32	2.45	7.7	3	3	50
AT0315-50	0.5-0.8	48-32	3.15	10	3	4	50
AT0400-50	0.5-1.0	48-24	4.0	12	3	4	50
AT0470-60	0.5-1.25	48-20	4.7	15	3	6	60
AT0600-60	0.5-1.25	48-20	6.0	18	3	6	60
AT0800-60	0.75-1.5	32-16	8.0	24	3	8	60
AT1000-80	1.0-2.5	24-10	10	30	4	10	80



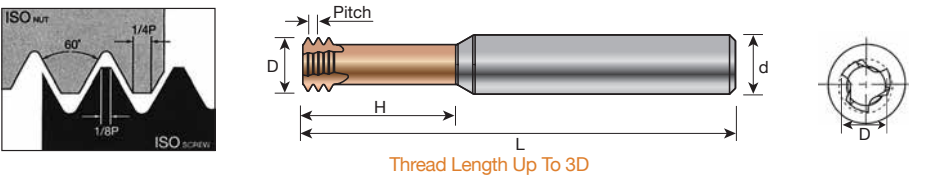
Solid Carbide Thread Milling 2D (Full-Profile) 60°

• Cutting Data P. 141



Order code	Thread Size	Pitch	D	H	T	d	L
BT0240-50	M3.0 X 0.5	0.5	2.4	6.4	3	4	50
BT0275-50	M3.5 X 0.6	0.6	2.75	7.4	3	4	50
BT0315-60	M4 X 0.7	0.7	3.15	8.6	3	6	60
BT0400-60	M5 X 0.8	0.8	4.0	12.0	3	6	60
BT0475-60	M6 X 1.0	1.0	4.75	13.0	3	6	60
BT0600-60	M8 X 1.25	1.25	6.5	17.3	3	8	60
BT0790-60	M10 X 1.5	1.5	7.9	22.0	3	8	60
BT0950-80	M12 X 1.75	1.75	9.5	25.5	3	10	80

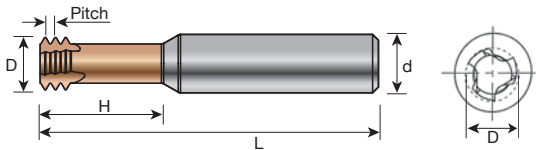
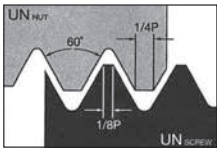
Solid Carbide Thread Milling 3D (Full-Profile) 60°



Order code	Thread Size	Pitch	D	H	T	d	L
BTL0240-50	M3.0 X 0.5	0.5	2.4	9.3	3	4	50
BTL0315-60	M4.0 X 0.7	0.7	3.15	12.4	3	6	60
BTL0400-60	M5 X 0.8	0.8	4.0	15.6	3	6	60
BTL0475-60	M6 X 1.0	1.0	4.75	19.0	3	6	60
BTL0650-60	M8 X 1.25	1.25	6.5	24.3	3	8	60
BTL0790-60	M10 X 1.5	1.5	7.9	31.0	3	8	60
BTL0950-80	M12 X 1.75	1.75	9.5	36.5	3	10	80

Solid Carbide Thread Milling 2D (Full-Profile) UN 60°

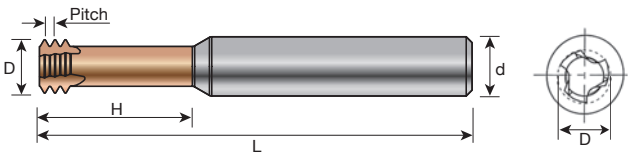
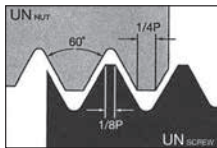
• Cutting Data P. 141



Thread Length Up To 2D

Order code	UNC	UNF	T.P.I	D	H	T	d	L
UT404-50	No.5 - 40 UNC	No.6 - 40 UNF	40	2.46	7.1	3	4	50
UT364-50	-	No.8 - 36 UNF	36	3.31	8.8	3	4	50
UT324-50	No.6 - 32 UNC	-	32	2.57	7.3	3	4	50
UT326-60	No.8 - 32 UNC	No.10 - 32 UNF	32	3.22	10.1	3	6	60
UT286-60	-	1/4 - 28 UNF	28	5.2	14	3	6	60
UT246-60	No.10 - 24 UNC	-	24	3.55	10.4	3	6	60
UT248-60	-	5/16 - 24 UNF	24	6.65	16.7	3	8	60
UT206-60	1/4 - 20 UNC	7/16 - 20 UNF	20	4.85	13.7	3	6	60
UT208-60	-	7/16 - 20 UNF	20	7.95	24	3	8	60
UT186-60	5/16 - 18 UNC	-	18	5.95	16.5	3	6	60
UT168-60	3/8 - 16 UNC	-	16	6.9	21	3	8	60
UT148-60	7/16 - 14 UNC	-	14	7.95	23.5	3	8	60
UT1310-80	1/2 - 13 UNC	-	13	9.3	27	3	10	80

Solid Carbide Thread Milling 3D (Full-Profile) UN 60°



Thread Length Up To 3D

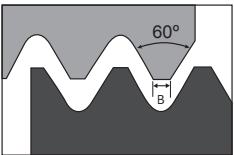
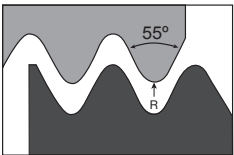
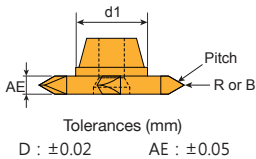
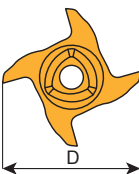
Order code	UNC	UNF	T.P.I	D	H	T	d	L
UTL404-50	No.5 - 40 UNC	No.6 - 40 UNF	40	2.46	9.8	3	4	50
UTL324-60	No.6 - 32 UNC	-	32	2.57	10.7	3	4	50
UTL326-60	No.8 - 32 UNC	No.10 - 32 UNF	32	3.22	12.7	3	6	60
UTL286-60	-	1/4 - 28 UNF	28	5.2	19.3	3	6	60
UTL248-60	-	5/16 - 24 UNF	24	6.65	24.2	3	8	60
UTL206-60	1/4 - 20 UNC	7/16 - 20 UNF	20	4.85	19.4	3	6	60



UFO Thread Milling Inserts (Partial Profile)

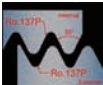
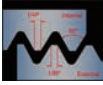
- Toolholders P. 24
- Cutting Data P. 141 - 143

External / Internal



Inserts 6 PCS / Box

Dimensions (mm)								
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	R	B	Minimum hole diameter
								MM INCH
12	6.5	3.2	-	16~10	55°	0.22	-	16.51 0.65"
		2.0	1.0~1.5	-	60°	-	0.10	-
		3.2	1.75~2.5	-		-	0.22	14.00 -

Inserts	Order Code	Grades											
		Carbide					Cermet		Uncoated				
		B100	C200	C250	F20	F30	CE25	CE100	CE60	K10	CE		
 55° BSW/BSF	3T1-0612-55-16~10TPI-E											 BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 BSF Defined by: B.S.2779:1956 Tolerance class: BSW- Medium class A, BSF-Medium class	
	3T1-0612-55-16~10TPI-ME												
 60° ISO Metric(M,MF)	3T1-0612-60-1.0~1.5-E										 Defined by: R262 (DIN 13) Tolerance class: 6g/6H		
	3T1-0612-60-1.75~2.5-E												
	3T1-0612-60-1.0~1.5-ME												
	3T1-0612-60-1.75~2.5-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.: 3T1-0612-55-16~10TPI-E,F20

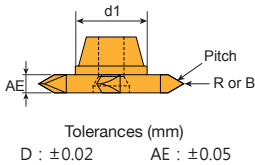
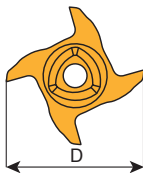
UFO Thread Milling Inserts (Partial Profile)

- Toolholders P. 25
- Cutting Data P. 142 - 143

External / Internal

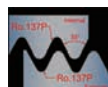
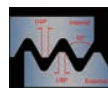


UFO Family



Inserts 6 PCS / Box

Dimensions (mm)								
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	R	B	Minimum hole diameter
								MM INCH
15	7.9	4.0	-	11~8	55°	0.32	-	17.78 0.7"
		2.0	1.0~1.5	-	60°	-	0.10	17.00 -
		4.0	1.75~3.0			-	0.22	

Inserts	Order Code	Grades										 E  ME	
		Carbide					Cermet			Uncoated			
		B100	C200	C250	F20	F30	CE25	CE100	CE60	K10	CE		
 55° BSW/BSF	3T1-0815-55-11~8TPI-E											 BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 BSF Defined by: B.S.2779:1956 Tolerance class: BSW- Medium class A, BSF-Medium class	
	3T1-0815-55-11~8TPI-ME												
 60° ISO Metric(M,MF)	3T1-0815-60-1.0~1.5-E											 Defined by: R262 (DIN 13) Tolerance class: 6g/6H	
	3T1-0815-60-1.75~3.0-E												
	3T1-0815-60-1.0~1.5-ME												
	3T1-0815-60-1.75~3.0-ME												

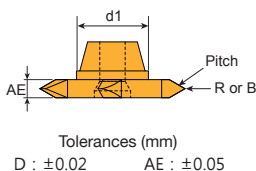
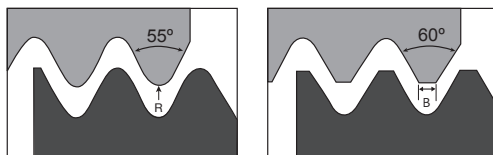
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1-0815-55-11~8TPI-E,F20



UFO Thread Milling Inserts (Partial Profile)

- Toolholders P. 26
- Cutting Data P. 142 - 143

External / Internal



Tolerances (mm)
D : ± 0.02 AE : ± 0.05



Inserts 6 PCS / Box

Dimensions (mm)									
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	R	B	Minimum hole diameter	
								MM	INCH
20	9.9	4.6	-	11~6	55°	0.32	-	22.86	0.9"
		2.0	1.0~1.5	-	60°	-	0.10	22.00	-
		4.6	1.75~3.5	-	-	-	0.22	-	-

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE25	CE100	CE60	
 55° BSW/BSF	3T1-1020-55-11~6TPI-E									
	3T1-1020-55-11~6TPI-ME									
 60° ISO Metric(M,MF)	3T1-1020-60-1.0~1.5-E									
	3T1-1020-60-1.75~3.5-E									
	3T1-1020-60-1.0~1.5-ME									
	3T1-1020-60-1.75~3.5-ME									

BSW Defined by:
B.S.84:1956,
DIN 259, ISO228/1:1982
BSF Defined by:
B.S.2779:1956
Tolerance class: BSW-
Medium
class A, BSF-Medium class

Defined by: R262 (DIN 13)
Tolerance class: 6g/6H

- 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.: 3T1-1020-55-11~6TPI-E,F20

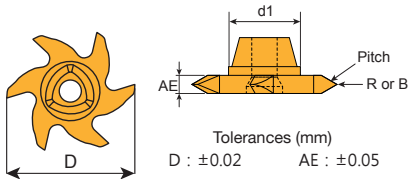
UFO Thread Milling Inserts (Partial Profile)

- Toolholders P. 27
- Cutting Data P. 142 - 143

External / Internal



UFO Family

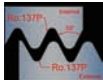


Inserts 6 PCS / Box

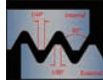
Dimensions (mm)									
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	R	B	Minimum hole diameter	
								MM	INCH
25	12	4.6	-	11~5	55°	0.32	-	28.58	1.125"
		2.0	1.0~1.5	-	60°	-	0.10	27.00	-
		4.6	1.75~5.0	-	-	-	0.22	-	-

Inserts	Order Code	Grades										 	
		Carbide					Cermet		Uncoated				
		B100	C200	C250	F20	F30	CE25	CE100	CE60	K10	CE		
 55° BSW/BSF	3T1-1225-55-11~5TPI-E												
	3T1-1225-55-11~5TPI-ME												
 60° ISO Metric(M,MF)	3T1-1225-60-1.0~1.5-E												
	3T1-1225-60-1.75~5.0-E												
	3T1-1225-60-1.0~1.5-ME												
	3T1-1225-60-1.75~5.0-ME												

BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982
BSF Defined by: B.S.2779:1956
Tolerance class: BSW-Medium class A, BSF-Medium class



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



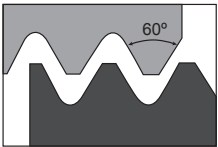
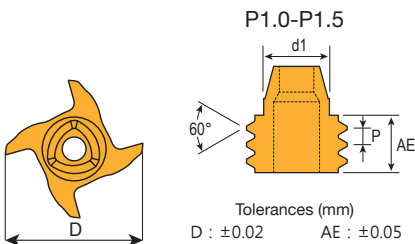
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1-1225-55-11~5TPI-E, F20



UFO Thread Milling Inserts (Full Profile) - Internal threads

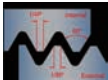
- Toolholders P. 24
- Cutting Data P. 142 - 143

ISO



Dimensions (mm)						
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter
						MM INCH
10	6.5	3.5	1.0	-	60°	13 -
		4.5	1.25	-		
		5.0	1.5	-		

Inserts	Order Code	Grades										
		Carbide					Cermet		Uncoated			
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE		
 ISO Metric(M,MF)	3T0610-ISO1.0-E											
	3T0610-ISO1.25-E											
	3T0610-ISO1.5-E											
	3T0610-ISO1.0-ME											
	3T0610-ISO1.25-ME											
	3T0610-ISO1.5-ME											



Defined by: R262 (DIN 13)
Tolerance class:6g/6H



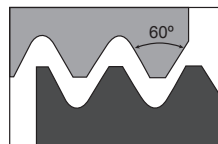
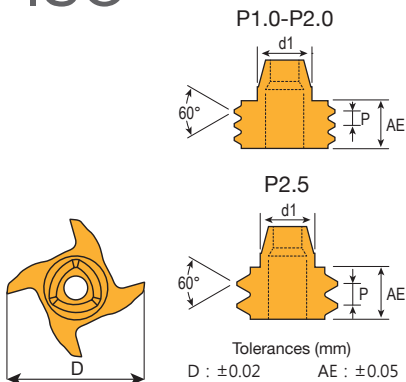
Inserts 6 PCS / Box

-  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-ISO1.0-E, F20

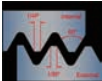
UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 24
- Cutting Data P. 142 - 143

ISO



Dimensions (mm)							
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter	
						MM	INCH
12	6.5	3.5	1.0	-	60°	14	-
		4.5	1.25	-			
		5.0	1.5	-			
		6.5	2.0	-		16	
		5.5	2.5	-			

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 ISO Metric(M,MF)	3T0612-ISO1.0-E										 Defined by: R262 (DIN 13) Tolerance class: 6g/6H
	3T0612-ISO1.25-E										
	3T0612-ISO1.5-E										
	3T0612-ISO2.0-E										
	3T0612-ISO2.5-E										
											 Inserts 6 PCS / Box
	3T0612-ISO1.0-ME	◎									
	3T0612-ISO1.25-ME	◎									
	3T0612-ISO1.5-ME	◎									
	3T0612-ISO2.0-ME	◎									
	3T0612-ISO2.5-ME	◎									

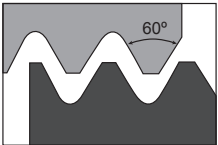
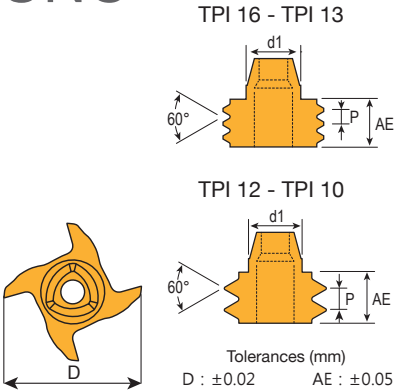
- Steel Stainless Steel Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0612-ISO1.0-E, F20



UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 24
- Cutting Data P. 142 - 143

UNC



Dimensions (mm)						
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter
						MM INCH
12	6.5	5.0	-	16	60°	14 0.55"
		6.0	-	14		
		6.5	-	13		
		4.5	-	12		
		5.0	-	11		
		5.5	-	10		



Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
	3T0612-UNC16-E									
	3T0612-UNC14-E									
	3T0612-UNC13-E									
	3T0612-UNC12-E									
	3T0612-UNC11-E									
	3T0612-UNC10-E									
	3T0612-UNC16-ME	⊙								
	3T0612-UNC14-ME	⊙								
	3T0612-UNC13-ME	⊙								
	3T0612-UNC12-ME	⊙								
	3T0612-UNC11-ME	⊙								
	3T0612-UNC10-ME	⊙								

UNC/UNF

Defined by: R262 (DIN 13)
Tolerance class: 6g/6H

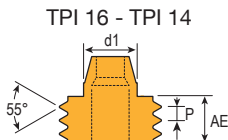
* M.O.Q: 12PCS
* Make-to-Order.

- 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.: 3T0612-UNC16-E,F20

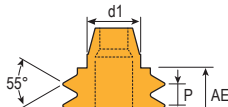
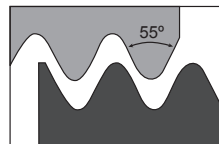
UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 24
- Cutting Data P. 142 - 143

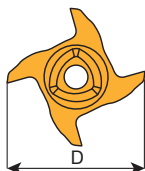
BSW



TPI 16 - TPI 14



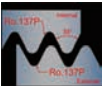
TPI 12 - TPI 10



Tolerances (mm)
D : ± 0.02 AE : ± 0.05



Dimensions (mm)						
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter
						MM INCH
12	6.5	5.0	-	16	55°	16.51 0.65"
		5.5	-	14		
		4.5	-	12		
		5.0	-	11		
		5.5	-	10		

Inserts	Order Code	Grades										
		Carbide					Cermet		Uncoated			
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE		
 BSW/BSF	3T0612-BSW16-E											 BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 BSF Defined by: B.S.2779:1956 Tolerance class: BSW- Medium class A, BSF-Medium class
	3T0612-BSW14-E											
	3T0612-BSW12-E											
	3T0612-BSW11-E											
	3T0612-BSW10-E											
	3T0612-BSW16-ME	⊙										
	3T0612-BSW14-ME	⊙										
	3T0612-BSW12-ME	⊙										
	3T0612-BSW11-ME	⊙										
	3T0612-BSW10-ME	⊙										

* M.O.Q: 12PCS

* Make-to-Order

* M.O.Q: 12PCS
* Make-to-Order.

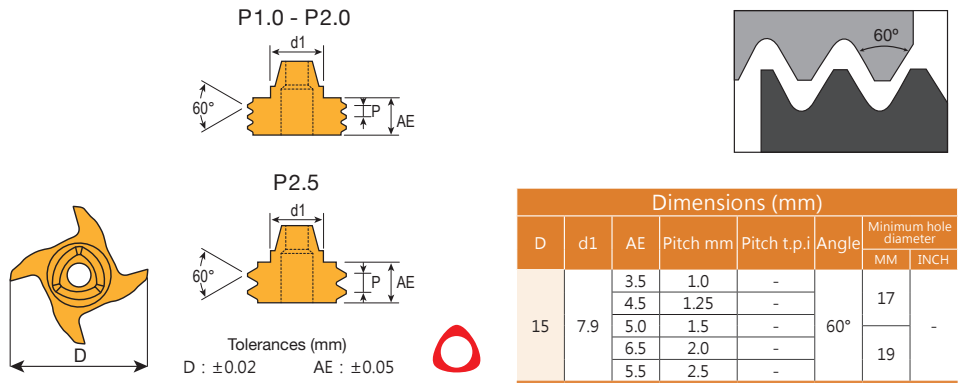
- Steel Stainless Steel Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0612-BSW16-E,F20



UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 25
- Cutting Data P. 142 - 143

ISO



Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
ISO Metric (M,MF)	3T0815-ISO1.0-E									
	3T0815-ISO1.25-E									
	3T0815-ISO1.5-E									
	3T0815-ISO2.0-E									
	3T0815-ISO2.5-E									
	3T0815-ISO1.0-ME									
	3T0815-ISO1.25-ME									
	3T0815-ISO1.5-ME									
	3T0815-ISO2.0-ME									
	3T0815-ISO2.5-ME									

Defined by: R262 (DIN 13)
Tolerance class: 6g/6H

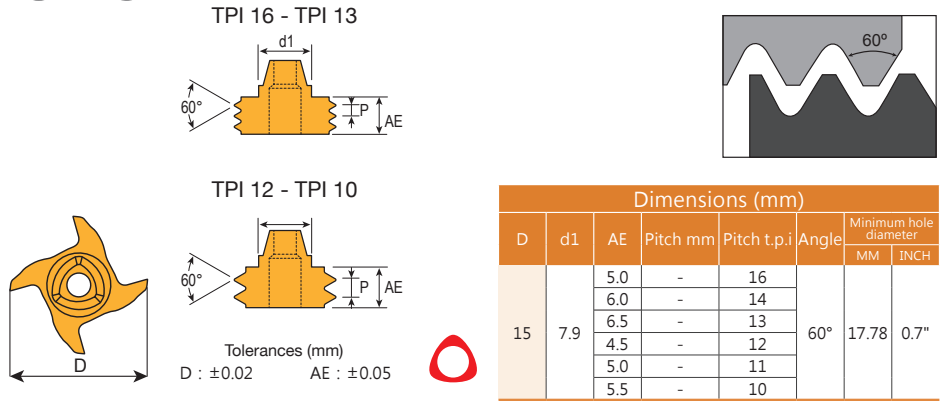
Inserts 6 PCS / Box

- 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.: 3T0815-ISO1.0-E,F20

UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 25
- Cutting Data P. 142 - 143

UNC



Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 UNC/UNF	3T0815-UNC16-E									
	3T0815-UNC14-E									
	3T0815-UNC13-E									
	3T0815-UNC12-E									
	3T0815-UNC11-E									
	3T0815-UNC10-E									
	3T0815-UNC16-ME	⊙								
	3T0815-UNC14-ME	⊙								
	3T0815-UNC13-ME	⊙								
	3T0815-UNC12-ME	⊙								
	3T0815-UNC11-ME	⊙								
	3T0815-UNC10-ME	⊙								



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H

* M.O.Q: 12PCS
* Make-to-Order.

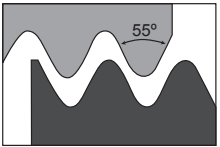
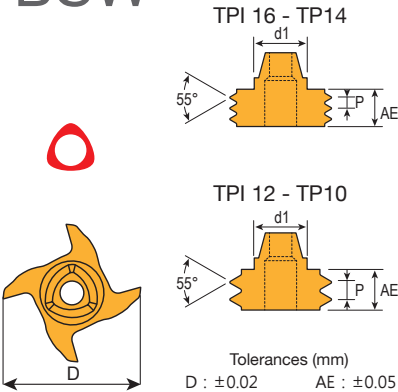
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T0815-UNC16-E,F20



UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 25
- Cutting Data P. 142 - 143

BSW



Dimensions (mm)							
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter	
						MM	INCH
15	7.9	5.0	-	16	55°	18.03	0.71"
		5.5	-	14			
		4.5	-	12			
		5.0	-	11			
		5.5	-	10			

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 BSW/BSF	3T0815-BSW16-E										
	3T0815-BSW14-E										
	3T0815-BSW12-E										
	3T0815-BSW11-E										
	3T0815-BSW10-E										
	3T0815-BSW16-ME	⊙									
	3T0815-BSW14-ME	⊙									
	3T0815-BSW12-ME	⊙									
	3T0815-BSW11-ME	⊙									
	3T0815-BSW10-ME	⊙									



* M.O.Q: 12PCS

* Make-to-Order.

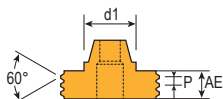
-  Steel  Stainless Steel  Steel/Stainless Steel/Super alloy  Cast Iron  Aluminum  Steel/Cast Iron
-  Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1020-BSW16-E,F20

UFO Thread Milling Inserts (Full Profile) - Internal threads

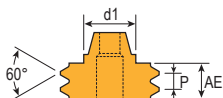
- Toolholders P. 26
- Cutting Data P. 142 - 143

ISO

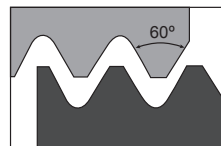
P1.0 - P2.0



P2.5 - P3.5



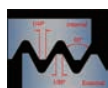
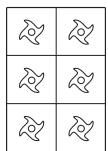
Tolerances (mm)
D : ± 0.02 AE : ± 0.05



Dimensions (mm)

D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter	
						MM	INCH
20	9.9	3.5	1.0	-	60°	22	-
		4.5	1.25	-		24	
		5.0	1.5	-		26	
		6.5	2.0	-			
		5.5	2.5	-			
		6.5	3.0	-			
		7.5	3.5	-			

UFO Family

Inserts	Order Code	Grades								
		Carbide					Cermet		Uncoated	
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE
 ISO Metric (M,MF)	3T1020-ISO1.0-E									
	3T1020-ISO1.25-E									
	3T1020-ISO1.5-E									
	3T1020-ISO2.0-E									
	3T1020-ISO2.5-E									
	3T1020-ISO3.0-E									
	3T1020-ISO3.5-E									
	3T1020-ISO1.0-ME	⊙								
	3T1020-ISO1.25-ME	⊙								
	3T1020-ISO1.5-ME	⊙								
	3T1020-ISO2.0-ME	⊙								
	3T1020-ISO2.5-ME	⊙								
	3T1020-ISO3.0-ME	⊙								
	3T1020-ISO3.5-ME	⊙								
 Defined by: R262 (DIN 13) Tolerance class: 6g/6H										
 Inserts 6 PCS / Box										

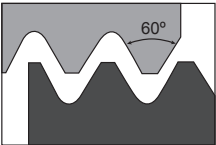
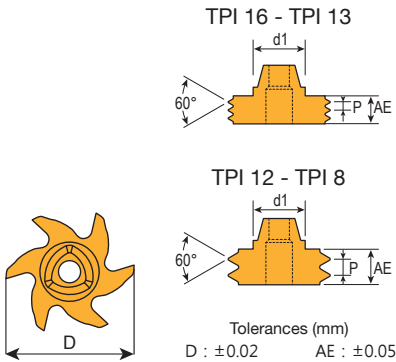
- ■ Steel ■ Stainless Steel ⊙ Steel/Stainless Steel/Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron
- ⊙ Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: 3T1020-ISO1.0-E,F20



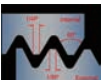
UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 26
- Cutting Data P. 142 - 143

UNC



Dimensions (mm)							
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter	
						MM	INCH
20	9.9	5.0	-	16	60°	22.86	0.9"
		6.0	-	14			
		6.5	-	13			
		4.5	-	12			
		5.0	-	11			
		5.5	-	10			
		6.0	-	9			
		7.0	-	8			

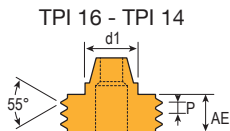
Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 UNC/UNF	3T1020-UNC16-E										 Defined by: R262 (DIN 13) Tolerance class: 6g/6H
	3T1020-UNC14-E										
	3T1020-UNC13-E										
	3T1020-UNC12-E										
	3T1020-UNC11-E										
	3T1020-UNC10-E										
	3T1020-UNC9-E										
	3T1020-UNC8-E										
	3T1020-UNC16-ME	⊙									
	3T1020-UNC14-ME	⊙									
	3T1020-UNC13-ME	⊙									
	3T1020-UNC12-ME	⊙									
	3T1020-UNC11-ME	⊙									
	3T1020-UNC10-ME	⊙									
	3T1020-UNC9-ME	⊙									
	3T1020-UNC8-ME	⊙									
											* M.O.Q: 12PCS * Make-to-Order.

-  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-UNC16-E,F20

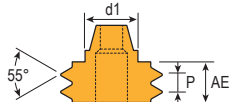
UFO Thread Milling Inserts (Full Profile) - Internal threads

- Toolholders P. 26
- Cutting Data P. 142 - 143

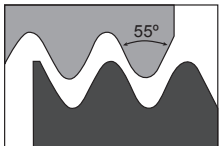
BSW



TPI 12 - TPI 8

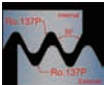


Tolerances (mm)
D : ± 0.02 AE : ± 0.05



UFO Family

Dimensions (mm)							
D	d1	AE	Pitch mm	Pitch t.p.i	Angle	Minimum hole diameter	
						MM	INCH
20	9.9	5.0	-	16	55°	22.86	0.9"
		5.5	-	14			
		4.5	-	12			
		5.0	-	11			
		5.5	-	10			
		6.0	-	9			
		7.0	-	8			

Inserts	Order Code	Grades									
		Carbide					Cermet		Uncoated		
		B100	C200	C250	F20	F30	CE100	CE60	K10	CE	
 BSW/BSF	3T1020-BSW16-E										
	3T1020-BSW14-E										
	3T1020-BSW12-E										
	3T1020-BSW11-E										
	3T1020-BSW10-E										
	3T1020-BSW9-E										
	3T1020-BSW8-E										
	3T1020-BSW16-ME	⊙									
	3T1020-BSW14-ME	⊙									
	3T1020-BSW12-ME	⊙									
	3T1020-BSW11-ME	⊙									
	3T1020-BSW10-ME	⊙									
	3T1020-BSW9-ME	⊙									
	3T1020-BSW8-ME	⊙									
BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 BSF Defined by: B.S.2779:1956 Tolerance class: BSW- Medium class A, BSF-Medium class											
											
* M.O.Q: 12PCS * Make-to-Order.											

-  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-BSW16-E,F20



TECHNICAL GUIDE

Thread Infeed Depth and Number of Passes Recommendation

Below recommended data are applicable to steel

• External ISO - metric threads

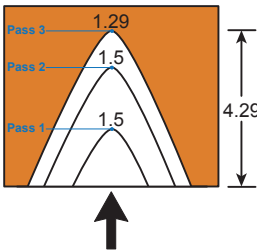
Pitch(mm)	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
Tot.inf.depth (mm)	3,82	3,52	3,19	2,87	2,53	2,23	1,92	1,60	1,25	1,13	0,93	0,81	0,65	0,52	0,48	0,48
Pass 1 (mm)	1,50	1,50	1,30	1,60	1,53	1,23	1,0	1,60	1,25	1,13	0,93	0,81	0,65	0,52	0,48	0,48
Pass 2 (mm)	1,30	1,20	1,10	1,37	1,0	1,0	0,92	-	-	-	-	-	-	-	-	-
Pass 3 (mm)	1,02	0,82	0,79	-	-	-	-	-	-	-	-	-	-	-	-	-

• Internal ISO-metric threads

Pitch(mm)	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
Tot.inf.depth (mm)	3,54	3,25	2,96	2,65	2,33	2,05	1,78	1,48	1,17	1,05	0,85	0,75	0,60	0,49	0,46	0,31
Pass 1 (mm)	1,50	1,30	1,60	1,50	1,33	1,10	1,0	1,48	1,17	1,05	0,85	0,75	0,60	0,49	0,46	0,31
Pass 2 (mm)	1,20	1,10	1,39	1,15	1,0	0,95	0,78	-	-	-	-	-	-	-	-	-
Pass 3 (mm)	0,84	0,85	-	-	-	-	-	-	-	-	-	-	-	-	-	-

• Internal-Inch threads

Pitch TPI	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10	11	12	14	16	18	19	20	26	28
Tot.inf.depth (mm)	4,29	3,82	3,44	2,96	2,50	2,17	1,93	1,76	1,58	1,45	1,20	1,13	1,01	0,96	0,92	0,72	0,69
Pass 1 (mm)	1,50	1,50	1,50	1,60	1,40	1,20	1,10	1,76	1,58	1,45	1,20	1,13	1,01	0,96	0,92	0,72	0,69
Pass 2 (mm)	1,50	1,30	1,20	1,36	1,10	0,97	0,83	-	-	-	-	-	-	-	-	-	-
Pass 3 (mm)	1,29	1,02	0,74	-	-	-	-	-	-	-	-	-	-	-	-	-	-



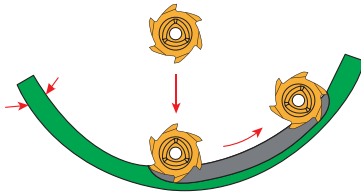
Example of thread infeed method

- To stainless steel, the infeed depth per pass should be decreased.
- The threading insert nose radius is relatively small and can be easily damaged if it is overloaded.

Technical Guide

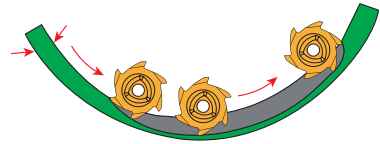
Internal Thread

1



Plunging is not recommended

2



Ramping is the best choice

Highly
Recommended

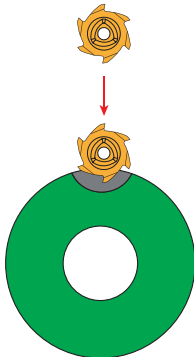
UFO Family

① Plunging to mill : Fz reduce to 50%

② Ramping to mill : Fz remain 100%

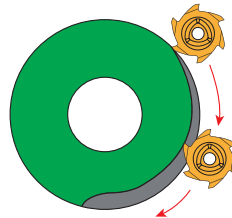
External Thread

1



Plunging is not recommended

2



Ramping is the best choice

Highly
Recommended



About Thread Milling

In order to perform a thread milling operation, a milling machine with three-axis control capable of helical interpolation is required. Helical interpolation is a CNC function, producing movement along helical paths. This helical motion combines circular movements in the X and Y planes and perpendicular linear motions in the Z plane simultaneously. For example, the path from point A to point B (Fig.A) on the surface of the cylinder making a circular movement in the xy plane with a linear displacement in the Z direction.

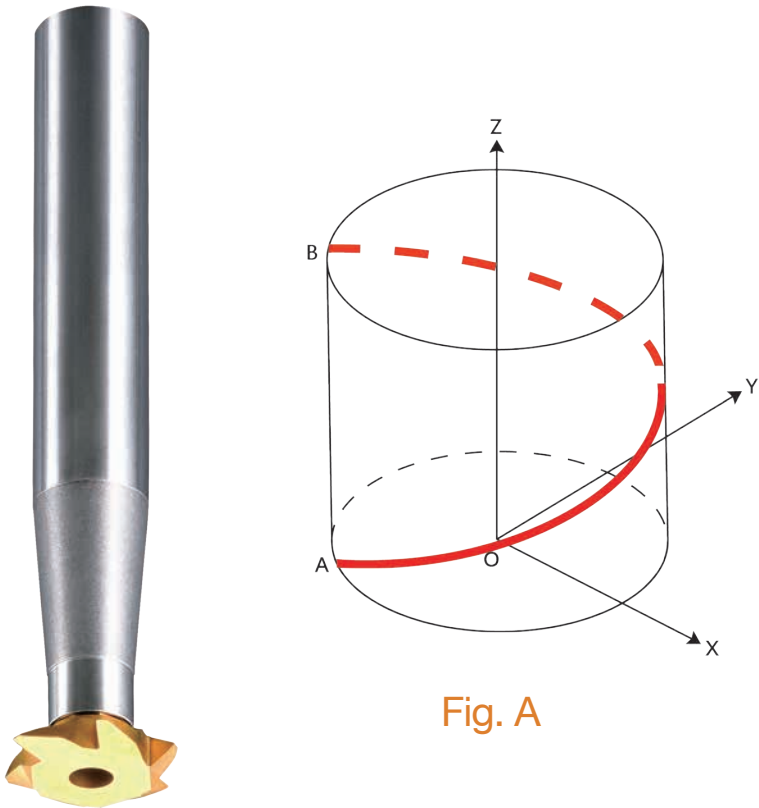
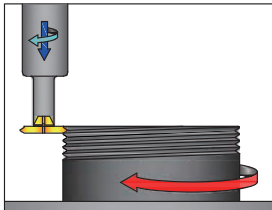


Fig. A

Thread Milling Methods

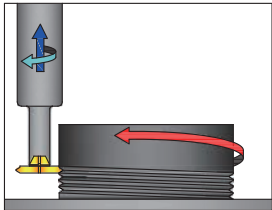
External

FIG.1



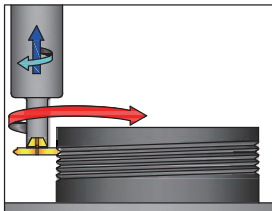
Right Hand Thread-Climb Milling

FIG.2



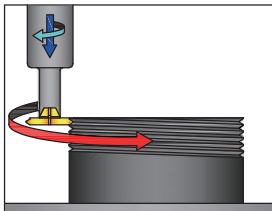
Left Hand Thread- Climb Milling

FIG.3



Right Hand Thread-
Conventional Milling

FIG.4

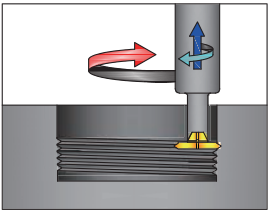


Left Hand Thread-
Conventional Milling

Highly
Recommended

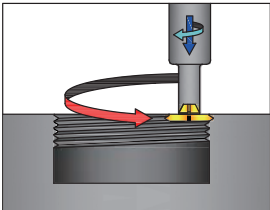
Internal

FIG.1



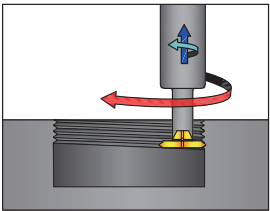
Right Hand Thread-Climb Milling

FIG.2



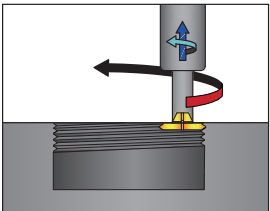
Left Hand Thread-Climb Milling

FIG.3



Right Hand Thread-
Conventional Milling

FIG.4



Left Hand Thread-
Conventional Milling

Highly
Recommended

Highly
Recommended

UFO Family



Internal Thread Milling Example CNC Code - Partial Profile Programm

Method 1/Tool offset-cutter compensation

- Insert code / 3T1-0612-60-1.0~2.5
- Milling / Climb milling / Internal thread
- Thread / M16x2.0P
- CNC programme / Fanuc / Mitsubishi

FIG. 1

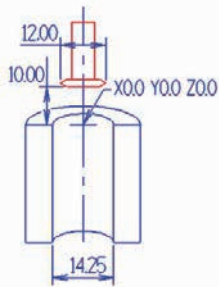
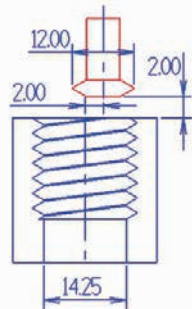


FIG. 2



Fanuc

```
G90 G0 G54 X0.0 Y0.0
G43 Z10.0 H1 S3978 M3 (On centerline of workpiece Fig1)
M7
G00 Z1.0 (Move to the starting point Fig 2)
G01 Z-6.0 F200
G41 D? (cutter compensation)
G91 G03 X2.0 Y0.0 R2.0 F150
G03I-2.0 Z2.0 F630 (Thread milling)
G03I-2.0 Z2.0
G03I-2.0 Z2.0
G03I-2.0 Z2.0
G90 G01 X0.0 Y0.0 (Move out from workpiece,ready to retract)
G90 G00 Z50.0 M9 (Retract the tool)
G40 (Offset finish)
M30 (Programme finish, check the quality of thread, modify G41 D? figure)
```

Exact cutting data
see page 141-143

Internal Thread Milling Example CNC Code - Partial Profile Programm

Method 2: Reset the starting point(X) and (I)figure

- Insert code / 3T1-0612-60-1.0~2.5
- Milling / Climb milling / Internal thread
- Thread / M16x2.0P
- CNC programme / Fanuc / Mitsubishi

FIG. 1

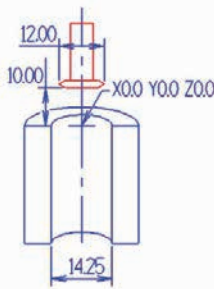
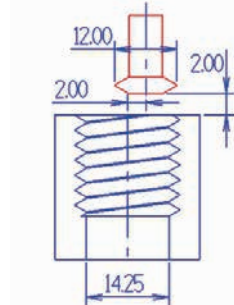


FIG. 2



Fanuc

```
G90 G0 G54 X0.0 Y0.0
G43 Z10.0 H1 S3978 M3 (On centerline of workpiece Fig1)
M7
G00 Z1.0 (Move to the starting point Fig 2)
G01 Z-6.0 F200
G91 G03 X2.0 Y0.0 R2.0 F150
G03 I-2.0 Z2.0 F630 (Thread milling)
G03 I-2.0 Z2.0
G03 I-2.0 Z2.0
G03 I-2.0 Z2.0
G90 G01 X0.0 Y0.0 (Move out from workpiece,ready to retract)
G90 G00 Z50.0 M9 (Retract the tool)
M30 (Programme finish, check the quality of thread, modify X.I figure)
```

Exact cutting data
see page 141-143



External Thread Milling Example CNC Code - Partial Profile Programm

Method 1/Tool offset-cutter compensation

- Insert code / 3T1-0612-60-1.0-2.5
- Milling / Climb milling / External thread
- Thread / M16×2.0P
- CNC programme / Fanuc/Mitsubishi

FIG. 1

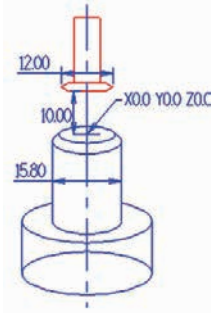
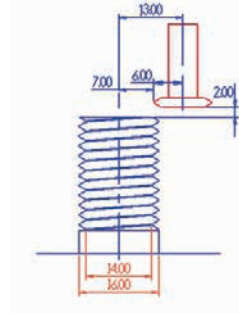


FIG. 2



Fanuc

```
G90 G0 G54 X0.0 Y0.0
G43 Z10.0 H1 S3978 M3 (On centerline of workpiece Fig1)
M7
G00 X13.0 Y0.0 (Move to the starting point Fig 2)
G41 D ? (Cutter compensation)
G01 Z2.0 F200
G91 G02I-13.0 Z-2.0 F630 (Thread milling)
G02I-13.0 Z-2.0
G02I-13.0 Z-2.0
G02I-13.0 Z-2.0
G90 G01 X16.0 (Move out from workpiece,ready to retract)
G90 G00 Z50.0 M9 (Retract the tool)
G40 (Offset finish)
M30 (Programme finish, check the quality of thread, modify G41 D figure)
```

Exact cutting data
see page 141-143

External Thread Milling Example CNC Code - Partial Profile Programm

Method 2: Reset the starting point(X) and (I)figure

- Insert code / 3T1-0612-60-1.0~2.5
- Milling / Climb milling / External thread
- Thread / M16x2.0P
- CNC programme / Fanuc / Mitsubishi

FIG. 1

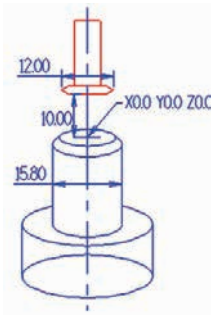
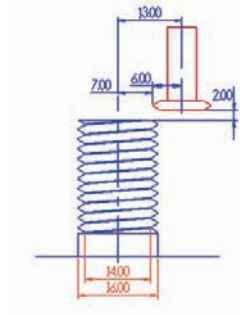


FIG. 2



Fanuc

```
G90 G0 G54 X0.0 Y0.0
G43 Z10.0 H1 S3978 M3 (On centerline of workpiece Fig1)
M7
G00 X13.0 Y0.0 (Move to the contour starting point Fig 2)
G01 Z2.0 F200
G91 G02 I-13.0 Z-2.0 F630 (Thread milling)
G02 I-13.0 Z-2.0
G02 I-13.0 Z-2.0
G02 I-13.0 Z-2.0
G90 G01 X16.0 (Move out from workpiece, ready to retract)
G90 G00 Z50.0 M9 (Retract the tool)
M30 (Programme finish, check the quality of thread, modify X.I figure)
```

Exact cutting data
see page 141-143



Recommended Preparatory Drill Diameter And Available Inserts

Insert diameter : ● Ø12 ● Ø15 ● Ø20 ● Ø25

Size		Maximum drill diameter		
		4H	5H	6H
M1 x 0.25		0.77	0.78	0.80
M1 x 0.20		0.82	0.83	0.84
M1.1 x 0.25		0.87	0.88	0.90
M1.1 x 0.20		0.92	0.93	0.94
M1.2 x 0.25		0.97	0.98	1.00
M1.2 x 0.20		1.02	1.03	1.04
M1.4 x 0.30		1.12	1.14	1.16
M1.4 x 0.20		1.22	1.23	1.24
M1.6 x 0.35		1.28	1.30	1.32
M1.6 x 0.20		1.42	1.43	1.44
M1.7 x 0.35		1.38	1.40	1.42
M1.7 x 0.30		1.42	1.44	1.46
M1.7 x 0.25		1.47	1.48	1.50
M1.7 x 0.20		1.52	1.53	1.54
M1.8 x 0.35		1.48	1.50	1.52
M1.8 x 0.20		1.62	1.63	1.64
M2 x 0.40		1.63	1.65	1.67
M2 x 0.25		1.77	1.78	1.80
M2.2 x 0.45		1.79	1.81	1.83
M2.2 x 0.25		1.97	1.98	2.00
M2.3 x 0.40		1.93	1.95	1.97
M2.3 x 0.35		1.98	2.00	2.02
M2.3 x 0.25		2.07	2.08	2.10
M2.5 x 0.45		2.09	2.11	2.13
M2.5 x 0.35		2.18	2.20	2.22
M2.6 x 0.45		2.19	2.22	2.23
M2.6 x 0.35		2.28	2.30	2.32
M3 x 0.50		2.54	2.57	2.59
M3 x 0.35		2.68	2.70	2.72
M3.5 x 0.60		2.95	2.97	3.01
M3.5 x 0.35		3.18	3.20	3.22
M4 x 0.70		3.35	3.38	3.42
M4 x 0.50		3.54	3.57	3.59
M4.5 x 0.75		3.80	3.83	3.87
M4.5 x 0.50		4.04	4.07	4.09
M5 x 0.90		4.15	4.19	4.23
M5 x 0.80		4.25	4.29	4.33
M5 x 0.50		4.54	4.57	4.59
M5.5 x 0.90		4.65	4.69	4.73
M5.5 x 0.75		4.80	4.83	4.87
M5.5 x 0.50		5.04	5.07	5.09
M6 x 1.00		5.06	5.10	5.15
M6 x 0.75		5.30	5.33	5.37
M6 x 0.50		5.54	5.57	5.59
M7 x 1.00		6.06	6.10	6.15
M7 x 0.75		6.30	6.33	6.37
M7 x 0.50		6.54	6.57	6.59
M8 x 1.25		6.81	6.85	6.91

Size		Maximum drill diameter		
		4H	5H	6H
M8 x 1.00		7.06	7.10	7.15
M8 x 0.75		7.30	7.33	7.37
M8 x 0.50		7.54	7.57	7.59
M9 x 1.25		7.81	7.85	7.91
M9 x 1.00		8.06	8.10	8.15
M9 x 0.75		8.30	8.33	8.37
M9 x 0.50		8.54	8.57	8.59
M10 x 1.50		8.52	8.61	8.67
M10 x 1.25		8.81	8.85	8.91
M10 x 1.00		9.06	9.10	9.15
M10 x 0.75		9.30	9.33	9.37
M10 x 0.50		9.54	9.57	9.59
M11 x 1.50		9.52	9.61	9.67
M11 x 1.00		10.06	10.10	10.15
M11 x 0.75		10.30	10.33	10.37
M11 x 0.50		10.54	10.57	10.59
M12 x 1.75		10.31	10.37	10.44
M12 x 1.50		10.56	10.61	10.67
M12 x 1.25		10.81	10.85	10.91
M12 x 1.00		11.06	11.10	11.15
M12 x 0.75		11.30	11.33	11.37
M12 x 0.50		11.54	11.57	11.59
M13 x 1.75		11.31	11.37	11.44
M13 x 1.50		11.56	11.61	11.67
M13 x 1.25		11.81	11.85	11.91
M13 x 1.00		12.06	12.10	12.15
M13 x 0.75		12.03	12.33	12.37
M13 x 0.50		12.54	12.57	12.59
M14 x 2.00		12.07	12.13	12.21
M14 x 1.50		12.56	12.61	12.67
M14 x 1.25		-	-	12.91
M14 x 1.00		13.06	13.10	13.15
M14 x 0.75		13.30	13.33	13.37
M14 x 0.50		13.54	13.57	13.59
M15 x 2.00		13.07	13.13	13.21
M15 x 1.50		13.56	13.61	13.67
M15 x 1.25		13.81	13.85	13.91
M15 x 1.00 ●		14.06	14.10	14.15
M15 x 0.75		14.30	14.33	14.37
M15 x 0.50		14.54	14.57	14.59
M16 x 2.00 ●		14.07	14.13	14.21
M16 x 1.50 ●		14.56	14.61	14.67
M16 x 1.00 ●		15.06	15.10	15.15
M17 x 2.00 ●		15.07	15.13	15.21
M17 x 1.50 ●		15.56	15.61	15.67
M17 x 1.25 ●		15.81	15.85	15.91
M17 x 1.00 ●		16.06	16.10	16.15

Recommended Preparatory Drill Diameter And Available Inserts

Insert diameter : ● Ø12 ● Ø15 ● Ø20 ● Ø25

Size		Maximum drill diameter		
		4H	5H	6H
M17 x 0.75		16.30	16.33	16.37
M17 x 0.50		16.54	16.57	16.59
M18 x 2.50	●	15.57	15.64	15.74
M18 x 2.00	●	16.07	16.13	16.21
M18 x 1.50	●	16.56	16.61	16.67
M18 x 1.00	● ●	17.06	17.10	17.15
M19 x 2.50	●	16.57	16.64	16.74
M19 x 2.00	● ●	17.07	17.13	17.21
M19 x 1.50	● ●	17.56	17.61	17.67
M19 x 1.25	● ●	17.81	17.85	17.91
M19 x 1.00	● ●	18.06	18.10	18.15
M19 x 0.75		18.30	18.33	18.37
M19 x 0.50		18.54	18.57	18.59
M20 x 2.50	● ●	17.57	17.64	17.74
M20 x 2.00	● ●	18.07	18.13	18.21
M20 x 1.50	● ●	18.56	18.61	18.67
M20 x 1.00	● ●	19.06	19.10	19.15
M21 x 2.50	● ●	18.57	18.64	18.74
M21 x 1.50	● ●	19.56	19.61	19.67
M21 x 1.00	● ●	20.06	20.10	20.15
M22 x 2.50	● ●	19.57	19.64	19.74
M22 x 2.00	● ●	20.07	20.13	20.21
M22 x 1.50	● ●	20.56	20.61	20.67
M22 x 1.00	● ●	21.06	21.10	21.15
M23 x 2.50	● ●	20.57	20.64	20.74
M23 x 2.00	● ●	21.07	21.13	21.21
M23 x 1.50	● ●	21.56	21.61	21.67
M23 x 1.00	● ● ●	22.06	22.10	22.15
M24 x 3.00	●	21.06	21.15	21.25
M24 x 2.00	● ● ●	22.07	22.13	22.21
M24 x 1.50	● ● ●	22.56	22.61	22.67
M24 x 1.00	● ● ●	23.06	23.10	23.15
M25 x 3.00	● ●	22.06	22.15	22.25
M25 x 2.00	● ● ●	23.07	23.13	23.21
M25 x 1.50	● ● ●	23.56	23.61	23.67
M25 x 1.00	● ● ●	24.06	24.10	24.15
M26 x 3.00	● ●	23.06	23.15	23.25
M26 x 2.00	● ● ●	24.07	24.13	24.21
M26 x 1.50	● ● ●	24.56	24.61	24.67
M27 x 3.00	● ●	24.06	24.15	24.25
M27 x 2.50	● ● ●	24.57	24.64	24.74
M27 x 2.00	● ● ●	25.07	25.13	25.21
M27 x 1.50	● ● ●	25.56	25.61	25.67
M27 x 1.00	● ● ●	26.06	26.10	26.15
M28 x 3.00	● ●	25.06	25.15	25.25
M28 x 2.00	● ● ●	26.07	26.13	26.21
M28 x 1.50	● ● ●	26.56	26.61	26.67
M28 x 1.00	● ● ●	27.06	27.10	27.15
M30 x 3.50	●	26.56	26.66	26.77
M30 x 3.00	● ● ●	27.06	27.15	27.25
M30 x 2.00	● ● ●	28.07	28.13	28.21
M30 x 1.50	● ● ●	28.56	28.61	28.67
M30 x 1.00	● ● ●	29.06	29.10	29.15
M32 x 3.00	● ● ●	29.06	29.15	29.25
M32 x 2.00	● ● ●	30.07	30.13	30.21
M32 x 1.50	● ● ●	30.56	30.61	30.67
M33 x 3.00	● ●	29.56	29.66	29.77
M33 x 3.00	● ● ●	30.06	30.15	30.25
M33 x 2.00	● ● ●	31.07	31.13	31.21
M33 x 1.50	● ● ●	31.56	31.61	31.67
M33 x 1.00	● ● ●	32.06	32.10	32.15
M34 x 3.00	● ● ●	31.06	31.15	31.25
M34 x 2.00	● ● ●	32.07	32.13	32.21
M34 x 1.50	● ● ●	32.56	32.61	32.67
M34 x 1.00	● ● ●	33.06	33.10	33.15
M35 x 3.00	● ● ●	32.06	32.15	32.25
M35 x 1.50	● ● ●	33.56	33.61	33.67
M35 x 1.00	● ● ●	34.06	34.10	34.15
M36 x 4.00	●	32.04	32.14	32.27
M36 x 3.00	● ● ●	33.06	33.15	33.25
M36 x 2.00	● ● ●	34.07	34.13	34.21
M36 x 1.50	● ● ●	34.56	34.61	34.67
M36 x 1.00	● ● ●	35.06	35.10	35.15
M37 x 1.50	● ● ●	35.56	35.61	35.67
M37 x 1.00	● ● ●	36.06	36.10	36.15
M38 x 4.00	●	34.04	34.14	34.27
M38 x 3.00	● ● ●	35.06	35.15	35.25
M38 x 2.00	● ● ●	36.07	36.13	36.21
M38 x 1.50	● ● ●	36.56	36.61	36.67
M39 x 4.00	●	35.04	35.14	35.27
M39 x 3.00	● ● ●	36.06	36.15	36.25
M39 x 2.00	● ● ●	37.07	37.13	37.21
M39 x 1.50	● ● ●	37.56	37.61	37.67
M39 x 1.00	● ● ●	38.06	38.10	38.15
M40 x 4.00	●	36.04	36.14	36.27
M40 x 3.00	● ● ●	37.06	37.15	37.25
M40 x 2.00	● ● ●	38.07	38.13	38.21
M40 x 1.50	● ● ●	38.56	38.61	38.67
M40 x 1.00	● ● ●	39.06	39.10	39.15
M42 x 4.50	●	37.55	37.65	37.79
M42 x 4.00	●	38.04	38.14	38.27
M42 x 3.00	● ● ●	39.06	39.15	39.25
M42 x 2.00	● ● ●	40.70	40.13	40.21
M42 x 1.50	● ● ●	40.56	40.61	40.67



Recommended Preparatory Drill Diameter And Available Inserts

Insert diameter :  Ø12  Ø15  Ø20  Ø25

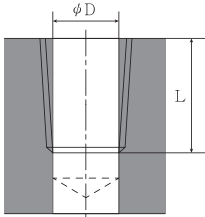
Size		Maximum drill diameter		
		4H	5H	6H
M45 x 4.50		40.55	40.65	40.79
M45 x 4.00		41.04	41.14	41.27
M45 x 3.00	  	42.06	42.15	42.25
M45 x 2.00	   	43.07	43.13	43.21
M45 x 1.50	   	43.56	43.61	43.67
M45 x 1.00	   	44.06	44.10	44.15
M46 x 1.50	   	44.56	44.61	44.67
M48 x 5.00		43.03	43.14	43.29
M48 x 4.00		44.04	44.14	44.27
M48 x 3.00	  	45.06	45.15	45.25
M48 x 2.00	   	46.07	46.13	46.21
M48 x 1.50	   	46.56	46.61	46.67
M48 x 1.00	   	47.06	47.10	47.15
M50 x 5.00		45.03	45.14	45.29
M50 x 3.00	  	47.06	47.15	47.25
M50 x 2.00	   	48.07	48.13	48.21
M50 x 1.50	   	48.56	48.61	48.67
M50 x 1.00	   	49.10	49.10	49.15
M52 x 5.00		47.00	47.10	47.20
M52 x 4.00		48.00	48.10	48.20
M52 x 3.00	  	49.00	49.10	49.20
M52 x 2.00	   	50.00	50.10	50.20
M52 x 1.50	   	50.50	50.60	50.60
M55 x 4.00		51.00	51.10	51.20
M55 x 3.00	  	52.00	52.10	52.20
M55 x 2.00	   	53.00	53.10	53.20
M55 x 1.50	   	53.50	53.60	53.60
M56 x 5.50		50.50	50.60	50.70
M56 x 4.00		52.00	52.10	52.20
M56 x 3.00	  	53.00	53.10	53.20
M56 x 2.00	   	54.00	54.10	54.20
M56 x 1.50	   	54.50	54.60	54.60
M58 x 4.00		54.00	54.10	54.20
M58 x 3.00	  	55.00	55.10	55.20
M58 x 2.00	   	56.00	56.10	56.20
M58 x 1.50	   	56.50	56.60	56.60
M60 x 5.50		54.50	54.60	54.70
M60 x 4.00		56.00	56.10	56.20
M60 x 3.00	  	57.00	57.10	57.20
M60 x 2.00	   	58.00	58.10	58.20
M60 x 1.50	   	58.50	58.60	58.60
M62 x 4.00		58.00	58.10	58.20
M62 x 3.00	  	59.00	59.10	59.20
M62 x 2.00	   	60.00	60.10	60.2

Size		Maximum drill diameter		
		4H	5H	6H
M62 x 1.50	   	60.5	60.6	60.6
M64 x 6.00		58	58.1	58.2
M64 x 4.00		60	60.1	60.2
M64 x 3.00	  	61	61.1	61.2
M64 x 2.00	   	62	62.1	62.2
M64 x 1.50	   	62.5	62.6	62.6
M65 x 4.00		61	61.1	61.2
M65 x 3.00	  	62	62.1	62.2
M65 x 2.00	   	63	63.1	63.2
M65 x 1.50	   	63.5	63.6	63.6
M68 x 3.00		62	62.1	62.2
M68 x 4.00		64	64.1	64.2
M68 x 3.00	  	65	65.1	65.2
M68 x 2.00	   	66	66.1	66.2
M68 x 1.50	   	66.5	66.6	66.6
M70 x 6.00		64	64.1	64.3
M70 x 4.00		66	66.1	66.2
M70 x 3.00	  	67	67.1	67.2
M70 x 2.00	   	68	68.1	68.2
M72 x 6.00		66	66.1	66.3
M72 x 4.00		68	68.1	68.2
M72 x 3.00	  	69	69.1	69.2
M72 x 2.00	   	70	70.1	70.2
M75 x 4.00		71	71.1	71.2
M75 x 3.00	  	72	72.1	72.2
M75 x 2.00	   	73	73.1	73.2
M76 x 2.00	   	74	74.1	74.2
M80 x 6.00	   	74	74.1	74.3
M80 x 4.00		76	76.1	76.2
M80 x 3.00	  	77	77.1	77.2
M80 x 2.00	   	78	78.1	78.2
M85 x 6.00		79	79.1	79.3
M85 x 4.00		81	81.1	81.2
M85 x 3.00	  	82	82.1	82.2
M85 x 2.00	   	83	83.1	83.2
M90 x 6.00		84	84.1	84.3
M90 x 4.00		86	86.1	86.2
M90 x 2.00	   	88	88.1	88.2
M95 x 6.00		89	89.1	89.3
M95 x 4.00		91	91.1	91.2
M95 x 2.00	   	93	93.1	93.2
M100x 6.00		94	94.1	94.3
M100x 4.00		96	96.1	96.2
M100x 2.00	   	98	98.1	98.2

RC (BSPT)

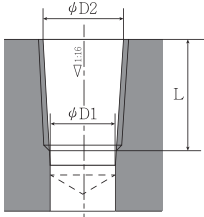
Recommended Thread Dia / T.P.I / Minimum Bore Dia

1. Cylindrical drilling without reamer



Nom. size D	P Gg/1" (tpi)	φ D	L
Rc 1/16"	28	6,15	7,85
1/8"	28	8,15	7,85
1/4"	19	10,85	11,65
3/8"	19	14,3	12,05
1/2"	14	17,8	15,9
3/4"	14	23,2	16,75
1"	11	29,2	19,65
1 1/4"	11	37,8	21,95
1 1/2"	11	43,7	21,95
2"	11	55,2	26,25

2. Cylindrical drilling with reamer to form taper thread

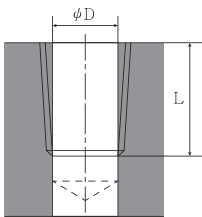


Nom. size D	P Gg/1" (tpi)	φ D1	φ D2	L
Rc 1/16"	28	6,1	6,56	7,85
1/8"	28	8,1	8,57	7,85
1/4"	19	10,75	11,45	11,65
3/8"	19	14,25	14,95	12,05
1/2"	14	17,7	18,63	15,9
3/4"	14	23,1	24,12	16,75
1"	11	29,1	30,29	19,65
1 1/4"	11	37,6	38,95	21,95
1 1/2"	11	43,5	44,85	21,95
2"	11	55	56,66	26,25

NPT

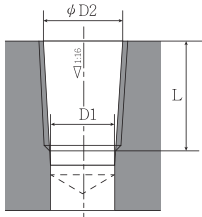
Recommended Thread Dia / T.P.I / Minimum Bore Dia

1. Cylindrical drilling without reamer



Nom. size D	P Gg/1" (tpi)	φ D	L
NPT 1/16"	27	6,15	8,3
1/8"	27	8,5	8,3
1/4"	18	11	12,15
3/8"	18	14,4	12,45
1/2"	14	17,8	16,3
3/4"	14	23,15	16,3
1"	11 1/2"	29,05	19,55
1 1/4"	11 1/2"	37,8	20,05
1 1/2"	11 1/2"	43,85	20,05
2"	11 1/2"	55,85	20,45

2. Cylindrical drilling with reamer to form taper thread



Nom. size D	P Gg/1" (tpi)	φ D1	φ D2	L
NPT 1/16"	27	5,95	6,39	8,3
1/8"	27	8,3	8,74	8,3
1/4"	18	10,75	11,36	12,15
3/8"	18	14,15	14,80	12,45
1/2"	14	17,45	18,32	16,3
3/4"	14	22,8	23,67	16,3
1"	11 1/2"	28,65	29,69	19,55
1 1/4"	11 1/2"	37,35	38,45	20,05
1 1/2"	11 1/2"	43,45	44,52	20,05
2"	11 1/2"	55,45	56,56	20,45



UFO BACK BORING



PATENTED

Features

Available in
materials



Cost
200~300%
SAVING

Applicable
Machines
CNC Milling machine
Drilling M/C

Efficiency
400%
UP

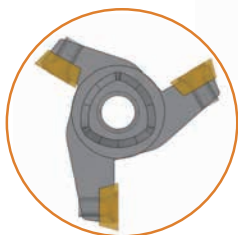
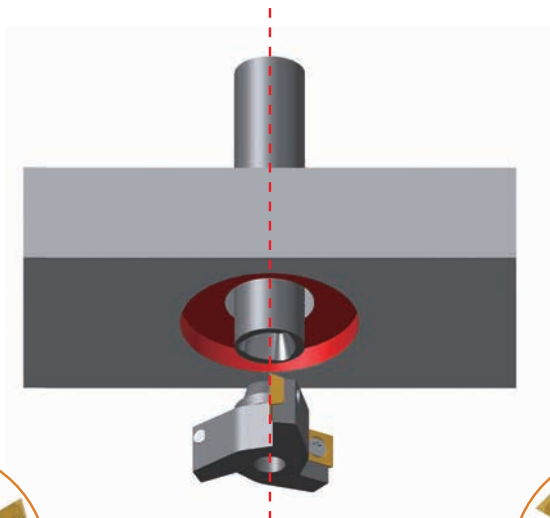
Durability
300%
UP

UFO
A Type
Back Boring
Cutter

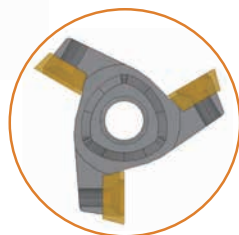
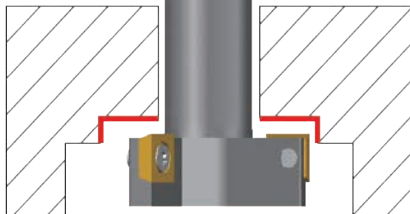
UFO



UFO Family



Inserts set at unequal distance from the center. Applicable with cutter $\varnothing 23$ - $\varnothing 60$ mm.



Inserts set at equal distance from the center. Applicable with cutter $\varnothing 18$ - $\varnothing 22$ mm

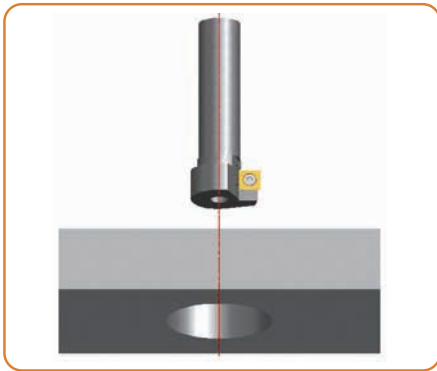




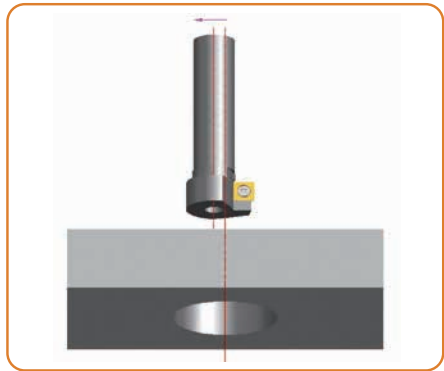
UFO



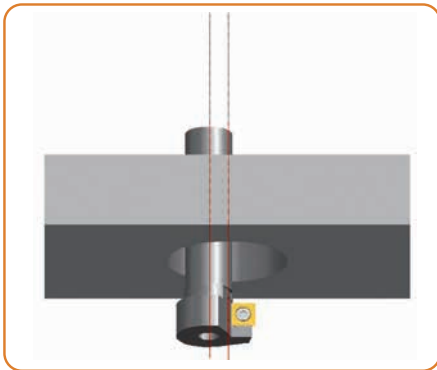
1. Centerline



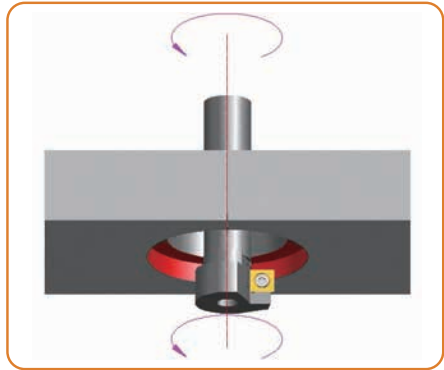
2. Tool displacement



3. Machining



4. Back to center line

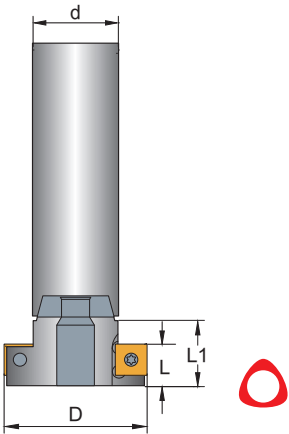


* The price and lead time are based on present conditions.

PRODUCT SPECIFICATIONS

UFO Back Boring Cutter - A Type

- Toolholders P. 26
- Insert P. 134
- Cutting Data P. 134



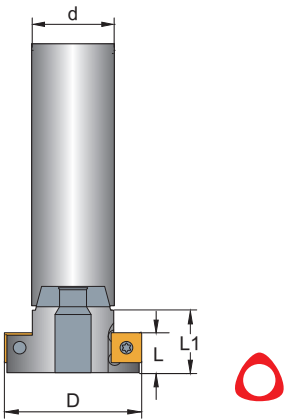
B3T

Order Code						Z	ZC	 KG	MAX RPM	Inserts SDET	Screw	Key
Shank	Cutter	D	d	L	L1							
CB3-1010-80-20 CB3-1010-100-20	B3T-1018	18	10.4	9	14	2	1	0.04	14000	0602	C025045	T08P
	B3T-1018.5	18.5										
	B3T-1019	19										
	B3T-1019.5	19.5				3						
	B3T-1020	20										
	B3T-1020.5	20.5										
	B3T-1021	21										
	B3T-1021.5	21.5										
	B3T-1022	22										



UFO Back Boring Cutter - A Type

- Toolholders P. 27 - 28
- Insert P. 134
- Cutting Data P. 134

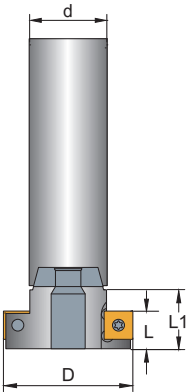


B3T

Order Code						Z	ZC		MAX RPM	Inserts SDET	Screw	Key			
Shank	Cutter	D	d	L	L1										
CB3-1212-90-25 CB3-1212-110-25	B3T-1223	23	12.4	9	14	3	1	0.04	13000	0602	C025045	T08P			
	B3T-1224	24													
	B3T-1225	25													
	B3T-1226	26													
	B3T-1227	27						0.05							
	B3T-1228	28													
	B3T-1229	29													
	B3T-1230	30													
CB3-1616-120-30 CB3-1616-150-30	B3T-1631	31	16.4	12	17	3	1	0.06	12500	09T3	C04008	T15P			
	B3T-1632	32													
	B3T-1633	33													
	B3T-1634	34													
	B3T-1635	35						0.07							
	B3T-1636	36													
	B3T-1637	37						0.10							
	B3T-1638	38													
	B3T-1639	39						0.11	12000						
	B3T-1640	40													

UFO Back Boring Cutter - A Type

- Toolholders P. 29
- Insert P. 134
- Cutting Data P. 134



UFO Family

B3T

Order Code						Z	ZC		MAX RPM	Inserts SDET	Screw	Key
Shank	Cutter	D	d	L	L1							
CB3-2525-110 CB3-2525-170	B3T-2541	41	25.4	12	17	3	1	0.14	10000	09T3	C04008	T15P
	B3T-2542	42										
	B3T-2543	43										
	B3T-2544	44										
	B3T-2545	45										
	B3T-2546	46										
	B3T-2547	47										
	B3T-2548	48										
	B3T-2549	49										
	B3T-2550	50						0.17				
	B3T-2551	51										
	B3T-2552	52										
	B3T-2553	53										
	B3T-2554	54										
	B3T-2555	55										
	B3T-2556	56										
	B3T-2557	57										
	B3T-2558	58										
	B3T-2559	59										
	B3T-2560	60										



Recommended Insert Grades

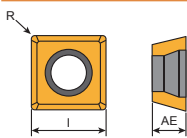
• UFO Back Boring Cutter Insert Grade Selection

Material group	Recom. fz (mm/tooth)	Inserts			
		SDET.....ME	SDET.....E		
1	0.04-0.08	B100	-	-	-
2		B100	-	-	-
3		B100	-	-	-
4		B100	-	-	-
5	0.04-0.06	B100	-	-	-
6		B100	-	-	-
7		B100	-	-	-
8		B100	-	-	-
9	0.04-0.08	B100	-	-	-
10		B100	-	-	-
11		B100	-	-	-
12		B100	-	-	-
13	0.07-0.1	F30	-	-	-
14		F30	-	-	-
15		F30	-	-	-
16		-	-	-	-
17	0.1-0.2	-	-	-	-
18		-	-	-	-
19		-	-	-	-
20		-	-	-	-
21	0.04-0.06	B100	-	-	-
22		B100	-	-	-

Recommended Cutting Data - UFO Back Boring Cutter

• Recommended Cutting Speed, Vc(m/min)

Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
	0.04 0.06 0.08					0.08 0.10 0.12	0.08 0.10 0.12
Cutting speed, v _c (m/min)							
1	16 18 20	-	-	-	-	-	-
2	16 18 20	-	-	-	-	-	-
3	14 12 10	-	-	-	-	-	-
4	14 12 10	-	-	-	-	-	-
5	12 10 8	-	-	-	-	-	-
6	12 10 8	-	-	-	-	-	-
7	8	-	-	-	-	-	-
8	14 12 10	-	-	-	-	-	-
9	14 12 10	-	-	-	-	-	-
10	12 10 8	-	-	-	-	-	-
11	12 10 8	-	-	-	-	-	-
12	-	-	-	-	-	-	40 35 30
13	-	-	-	-	-	-	40 35 30
14	-	-	s-	-	-	-	30 25 20
15	-	-	-	-	-	-	30 25 20
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
20	8 10 -	-	-	-	-	-	-
21	8 10 -	-	-	-	-	-	-
22	8 10 -	-	-	-	-	-	-



SDET Insert

Tolerances (mm)
I AE
±0.03 ±0.025



Inserts 10 PCS / Box

Code	Dimensions (mm)		
	I	AE	R
060208	6.0	2.3	0.3
09T308	9.0	3.97	0.5

Inserts	Order Code	Grades						
		Carbide				Metal cermet		Uncoated
		B100	C200	C250	F20	F30	CE25	CE
	SDET060208N-ME	⊙						
	SDET09T308TN-M	⊙						
	SDET09T308TN-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.: SDET060208N-ME, B100

Recommended Insert Grades - UFO T-slot Cutter / Radius / Dual Chamfer / Dovetail / Circlip / Dual Corner Rounding



• Insert Grade Selection

Material group	Recom. fz (mm/tooth) AR/Dc = 10%	Grades			
		ME	E		
1	-	B100	-	-	-
2	-	B100	-	-	-
3	-	B100	-	-	-
4	-	B100	-	-	-
5	-	B100	-	-	-
6	-	B100	-	-	-
7	-	B100	-	-	-
8	-	B100	-	-	-
9	-	B100	-	-	-
10	-	B100	-	-	-
11	-	B100	-	-	-
12	-	F20	-	-	-
13	-	F20	-	-	-
14	-	F20	-	-	-
15	-	F20	-	-	-
16	-	-	K10,F20	-	-
17	-	-	K10,F20	-	-
18	-	-	-	-	-
19	-	-	-	-	-
20	-	B100	-	-	-
21	-	B100	-	-	-
22	-	B100	-	-	-

• Cutting Data

Operations	AR / Dc	Recom. fz (mm/tooth)		
Full engagement	-	0.04	0.08	0.11
Side Milling	2%	0.17	0.44	0.65
	5%	0.11	0.28	0.41
	10%	0.08	0.20	0.30
	20%	0.07	0.14	0.21
	30%	0.05	0.12	0.18
Average Chip Thickness (hm)	-	0.03	0.06	0.09



Recommended Insert Grades - UFO T-slot Cutter / Radius / Dual Chamfer / Dovetail / Circlip / Dual Corner Rounding



• Recommended Cutting Speed, Vc (m/min)

Material group	Grades						
	B100	C350	F20	CE60	CE	K10	F30
	Cutting speed, v _c (m/min)						
1	179 161 140	-	-	-	-	-	-
2	140 126 113	-	-	-	-	-	-
3	126 113 102	-	-	-	-	-	-
4	112 102 91	-	-	-	-	-	-
5	101 91 81	-	-	-	-	-	-
6	91 - -	-	-	-	-	-	-
7	40 - -	-	-	-	-	-	-
8	160 - 70	-	-	-	-	-	-
9	160 - 70	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	130 120 110	-	-	-	-
13	-	-	120 110 100	-	-	-	-
14	-	-	90 80 70	-	-	-	-
15	-	-	60 50 -	-	-	-	-
16	-	-	1150 950 850	-	-	1150 950 850	-
17	-	-	950 780 700	-	-	950 780 700	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	50 45 -	-	-	-	-	-	-
21	35 40 -	-	-	-	-	-	-
22	50 45 -	-	-	-	-	-	-

* Coolant is always required

• Fz (mm/tooth)

	fz (mm/tooth)					
	Material group					
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17	20 21 22
0.5-0.7 mm	0.02-0.03	0.02-0.03	0.02-0.03	0.02-0.04	0.02-0.05	0.01-0.015
0.8-1.0 mm	0.02-0.03	0.02-0.03	0.02-0.03	0.02-0.04	0.02-0.05	0.01-0.02
1.1-1.3 mm	0.025-0.04	0.015-0.04	0.015-0.04	0.02-0.05	0.02-0.06	0.015-0.025
1.4-1.6 mm	0.025-0.04	0.02-0.03	0.02-0.04	0.025-0.06	0.03-0.07	0.02-0.03
1.7-2.2 mm	0.03-0.05	0.02-0.04	0.02-0.05	0.03-0.07	0.03-0.08	0.02-0.035
2.5-3.0 mm	0.03-0.05	0.03-0.045	0.03-0.05	0.03-0.08	0.04-0.10	0.025-0.04
3.5-4.0 mm	0.03-0.05	0.03-0.045	0.03-0.05	0.03-0.08	0.04-0.10	0.025-0.04
4.2-8.0 mm	0.04-0.07	0.03-0.06	0.04-0.07	0.05-0.10	0.05-0.10	0.025-0.05
6.0-8.0 mm	0.04-0.07	0.03-0.06	0.04-0.07	0.05-0.10	0.05-0.10	0.025-0.05

Recommended Insert Grades - UFO T-slot Cutter



UFO Family

• UFO T-slot Cutter Insert Grade Selection

Material group	Recom. fz (mm/tooth) AR/Dc = 10%	Grades			
		LNGT EE	LNGT M	LNGT ME	
1	0.04-0.12	-	B100	B100	-
2	0.04-0.10	-	B100	B100	-
3	0.04-0.10	-	B100	B100	-
4	0.04-0.10	-	B100	B100	-
5	0.04-0.08	-	B100	B100	-
6	0.04-0.07	-	B100	B100	-
7	0.03-0.06	-	-	B100	-
8	0.04-0.12	-	-	B100	-
9	0.04-0.10	-	-	B100	-
10	0.04-0.09	-	-	B100	-
11	0.04-0.08	-	-	B100	-
12	0.04-0.12	-	-	F20	-
13	0.04-0.12	-	-	F20	-
14	0.04-0.11	-	-	F20	-
15	0.04-0.10	-	-	F20	-
16	0.06-0.13	F20	-	-	-
17	0.06-0.12	F20	-	-	-
20	0.06-0.08	-	-	B100	-
21	0.04-0.06	-	-	B100	-
22	0.04-0.07	-	-	B100	-

• Cutting Data

Operations	AR / Dc	Recom. fz (mm/tooth)		
Full engagement	-	0.04	0.08	0.11
Side Milling	2%	0.17	0.44	0.65
	5%	0.11	0.28	0.41
	10%	0.08	0.20	0.30
	20%	0.07	0.14	0.21
	30%	0.05	0.12	0.18
Average Chip Thickness (hm)	-	0.03	0.06	0.09



Recommended Cutting Data - UFO T-slot Cutter



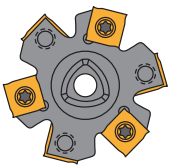
• Recommended Cutting Speed, Vc (m/min)

Material group	Grades						
	B100	C350	F20	CE60	CE	K10	F30
	Cutting speed, v _c (m/min)						
1	255 230 200	-	-	-	-	-	-
2	200 180 162	-	-	-	-	-	-
3	180 162 145	-	-	-	-	-	-
4	160 145 130	-	-	-	-	-	-
5	144 130 116	-	-	-	-	-	-
6	130 117 105	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	160 - 80	-	-	-	-	-	-
9	160 - 80	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	140 119 105	-	-	-	-
13	-	-	126 105 98	-	-	-	-
14	-	-	112 98 91	-	-	-	-
15	-	-	88 81 -	-	-	-	-
16	-	-	1150 950 850	-	-	-	-
17	-	-	950 780 700	-	-	-	-
20	50 45 -	-	-	-	-	-	-
21	35 40 -	-	-	-	-	-	-
22	50 45 -	-	-	-	-	-	-

• Fz (mm/tooth)

	fz (mm/tooth)						
	Material group						
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17	20 21 22	
1.4-1.7 mm	0.02-0.03	0.015-0.025	0.02-0.03	0.02-0.04	0.02-0.04	0.015-0.025	
1.8-2.2 mm	0.03-0.05	0.03-0.04	0.02-0.03	0.03-0.06	0.03-0.08	0.02-0.03	
2.5-3.0 mm	0.03-0.06	0.03-0.05	0.03-0.05	0.03-0.08	0.03-0.10	0.03-0.04	
3.0-3.5 mm	0.04-0.08	0.03-0.06	0.03-0.06	0.04-0.10	0.04-0.10	0.03-0.05	
4.0-4.5 mm	0.04-0.08	0.03-0.06	0.03-0.06	0.04-0.10	0.04-0.10	0.03-0.05	
5.0-5.5 mm	0.05-0.10	0.04-0.08	0.04-0.07	0.05-0.12	0.05-0.17	0.04-0.06	

Recommended Insert Grades - UFO T-slot Cutter



UFO Family

• UFO T-slot Cutter Insert Grade Selection

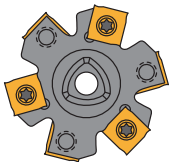
Material group	Recom. fz (mm/tooth) AR/DC=10%	Inserts			
		SNGX ... M	SNGX...ME	SNGX...EE	
1	0.14-0.30	-	B100	-	-
2	0.14-0.25	-	B100	-	-
3	0.14-0.22	-	B100	-	-
4	0.14-0.22	-	B100	-	-
5	0.14-0.20	-	B100	-	-
6	0.10-0.15	-	B100	-	-
7	0.10-0.13	-	B100	-	-
8	0.14-0.25	-	B100	-	-
9	0.14-0.22	-	B100	-	-
10	0.14-0.20	-	B100	-	-
11	0.10-0.15	-	B100	-	-
12	0.14-0.30	-	F30	-	-
13	0.14-0.22	-	F30	-	-
14	0.14-0.20	-	F30	-	-
15	0.10-0.15	-	F30	-	-
16	0.16-0.30	-	-	F20	-
17	0.16-0.25	-	-	F20	-
18	0.16-0.20	-	-	F20	-
19	0.14-0.20	-	B100	-	-
20	0.14-0.18	-	B100	-	-
21	0.10-0.13	-	B100	-	-
22	0.14-0.20	-	B100	-	-

• Cutting Data

Operations	AR / Dc	Recom. fz (mm/tooth)		
Full engagement	-	0.05	0.10	0.14
Side Milling	2%	0.21	0.44	0.65
	5%	0.14	0.28	0.41
	10%	0.10	0.20	0.30
	20%	0.07	0.14	0.21
	30%	0.06	0.12	0.18
Average Chip Thickness (hm)	-	0.03	0.06	0.09



Recommended Cutting Data - UFO T-slot Cutter



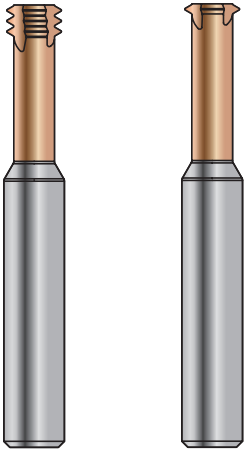
• Recommended Cutting Speed, Vc (m/min)

Material group	Grades														
	B100			C250			F20			CE60	CE	K10	F30		
	fz (mm/tooth)														
	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3				0.1	0.2	0.3
	Cutting Speed, Vc (m/min)														
1	186	166	150	-			-			-	-	-	-		
2	168	150	135	-			-			-	-	-	-		
3	151	136	122	-			-			-	-	-	-		
4	136	122	110	-			-			-	-	-	-		
5	120	110	99	-			-			-	-	-	-		
6	92	78	-	-			-			-	-	-	-		
7	-			-			-			-	-	-	-		
8	160	-	80	-			-			-	-	-	-		
9	160	-	80	-			-			-	-	-	-		
10	80	-	50	-			-			-	-	-	-		
11	80	-	50	-			-			-	-	-	-		
12	-			-			-			-	-	-	140 119 105		
13	-			-			-			-	-	-	126 105 98		
14	-			-			-			-	-	-	119 98 91		
15	-			-			-			-	-	-	91 88 -		
16	-			-			1150 950 850			-	-	-	-		
17	-			-			950 780 700			-	-	-	-		
18	-			-			950 780 700			-	-	-	-		
19	55	45	-	-			-			-	-	-	-		
20	55	45	-	-			-			-	-	-	-		
21	46	38	-	-			-			-	-	-	-		
22	55	45	-	-			-			-	-	-	-		

Recommended Cutting Data - Solid Carbide Thread Milling

• Recommended Cutting Speed, Vc (m/min)

Material group	Cutting Speed, Vc (m/min)		
1	255	230	200
2	200	180	162
3	180	162	145
4	160	145	130
5	144	130	116
6	130	117	105
7	40	-	-
8	160	-	80
9	160	-	80
10	80	-	50
11	80	-	50
12	136	116	102
13	122	102	95
14	109	95	88
15	85	78	-
16	1150	950	850
17	950	780	700
18	950	780	700
19	-	-	-
20	50	45	-
21	35	40	-
22	50	45	-



• Fz (mm/tooth)

 Pitch (mm)	fz (mm/tooth)																	
	Material group																	
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17	20 21 22												
1.0-1.5	0.04-0.06	0.03-0.05	0.04-0.06	0.04-0.07	0.05-0.08	0.03-0.04												
1.75-2.5	0.05-0.07	0.04-0.06	0.05-0.07	0.05-0.08	0.06-0.09	0.04-0.05												
3.0-4.0	0.06-0.08	0.05-0.07	0.06-0.08	0.06-0.09	0.07-0.1	0.05-0.06												
5.0-6.0	0.06-0.08	0.05-0.07	0.06-0.08	0.06-0.09	0.07-0.1	0.05-0.06												



Recommended Insert Grades - UFO Thread Milling Inserts



• UFO Thread Milling Cutter Insert Grade Selection

Material group	Recom. fz (mm/tooth) AR/Dc = 10%	Grades			
		ME	E		
1	-	B100	-	-	-
2	-	B100	-	-	-
3	-	B100	-	-	-
4	-	B100	-	-	-
5	-	B100	-	-	-
6	-	B100	-	-	-
7	-	B100	-	-	-
8	-	B100	-	-	-
9	-	B100	-	-	-
10	-	B100	-	-	-
11	-	B100	-	-	-
12	-	F20	-	-	-
13	-	F20	-	-	-
14	-	F20	-	-	-
15	-	F20	-	-	-
16	-	-	F20	-	-
17	-	-	F20	-	-
18	-	-	F20	-	-
19	-	B100	-	-	-
20	-	B100	-	-	-
21	-	B100	-	-	-
22	-	B100	-	-	-

• Fz (mm/tooth)

 Pitch (mm)	fz (mm/tooth)					
	Material group					
	1 2 3 4	5 6	8 9 10 11	12 13 14 15	16 17	20 21 22
1.0-1.5	0.04-0.06	0.03-0.05	0.04-0.06	0.04-0.07	0.05-0.08	0.03-0.04
1.75-2.5	0.05-0.07	0.04-0.06	0.05-0.07	0.05-0.08	0.06-0.09	0.04-0.05
3.0-4.0	0.06-0.08	0.05-0.07	0.06-0.08	0.06-0.09	0.07-0.1	0.05-0.06
5.0-6.0	0.06-0.08	0.05-0.07	0.06-0.08	0.06-0.09	0.07-0.1	0.05-0.06

Recommended Cutting Data - UFO Thread Milling Inserts



• Recommended Cutting Speed, Vc (m/min)

Material group	Grades						
	B100	C350	F20	CE60	CE	K10	F30
	Cutting speed, v _c (m/min)						
1	179 161 140	-	-	-	-	-	-
2	140 126 113	-	-	-	-	-	-
3	126 113 102	-	-	-	-	-	-
4	112 102 91	-	-	-	-	-	-
5	101 91 81	-	-	-	-	-	-
6	91 - -	-	-	-	-	-	-
7	40 - -	-	-	-	-	-	-
8	160 - 80	-	-	-	-	-	-
9	160 - 80	-	-	-	-	-	-
10	80 - 50	-	-	-	-	-	-
11	80 - 50	-	-	-	-	-	-
12	-	-	130 120 110	-	-	-	-
13	-	-	120 110 100	-	-	-	-
14	-	-	90 80 70	-	-	-	-
15	-	-	60 50 -	-	-	-	-
16	-	-	1150 950 850	-	-	-	-
17	-	-	950 780 700	-	-	-	-
18	-	-	950 780 700	-	-	-	-
19	-	-	-	-	-	-	-
20	50 45 -	-	-	-	-	-	-
21	35 40 -	-	-	-	-	-	-
22	50 45 -	-	- - -	-	-	-	-

UFO Gear Milling Insert - Make - to - Order

