

CENTER SERIES

- CENTER/SPOT DRILL IN MILLING AND TURNING



PATENTED

Features Description

The precise eccentricity only $\pm 0.008\text{mm}$ enhances the tool life of taps and drills, Special carbide inserts with unique geometry improve the strength of insert tip.

Center Drill: $\varnothing 1.6 - \varnothing 8 \text{ mm}$

Spot Drill: $\varnothing 8 - \varnothing 16 \text{ mm}$



SPOT DRILL - 390 SYSTEM

PATENTED



Video

Features

Available in
materials



Cost
300~500%
SAVING

Applicable
Machines
Milling / Turning /
Drilling

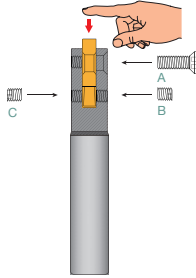
Efficiency
300%
UP

Durability
300%
UP

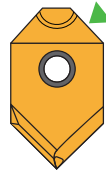
Design

Center point eccentricity $\pm 0.008\text{mm}$

1. Plug-and-clamp self-centering design



2. Back taper

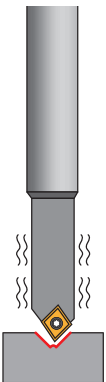


Gives awesome stabilities that conduces to excellent verticality precision.

Product Introduction




Spot Drill



Big eccentricity tolerance minimum $\pm 0.3\text{ mm}$

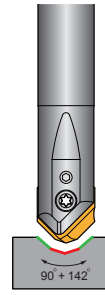
1. To use this kind of chamfer tool for centering processes is likely break drills and taps often.
2. This chamfer tool works with single flute only, it performs low speed.

23 Inserts



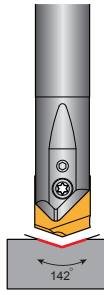
90°

A23 Inserts



90° + 142°

B23 Inserts



142°

Subtle eccentricity tolerance maximum is $\pm 0.008\text{ mm}$

1. Designed with chip breaking teeth both on the front and back side of indexable inserts.
2. The most popular spot drill which has 45° chamfer angle and suitable in various applications: such as spot positioning, V-shape grooving and engraving.
3. Can also be used in round-hole and side corner chamfering with 2 effective flutes.

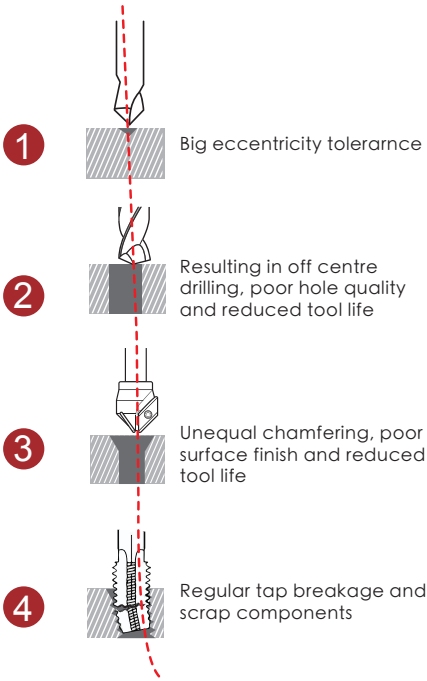
1. Designed with two point angles 90° + 142°.
2. It performs 45° chamfering and 142° spot positioning in one step.

142° point angle is perfect for all different size of drills.

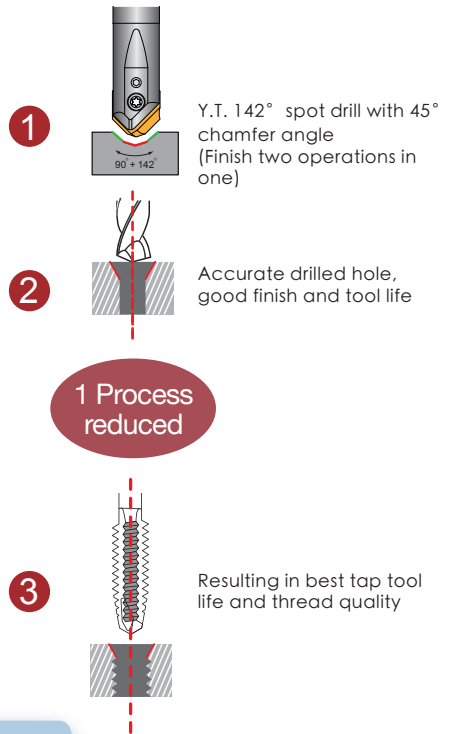


Operations prior to small / long depth drills and Tapping

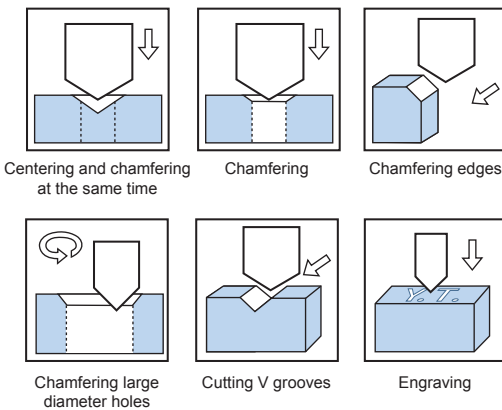
Imprecise spot drills



Y.T. accurate spot drills



Y.T. 90° Spot Drill With Multipurpose Function



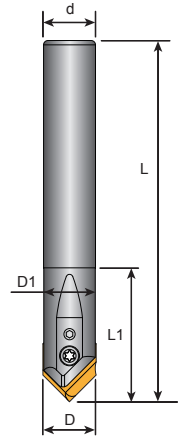
Can be used in M/C and drilling machine



PRODUCT SPECIFICATIONS

Spot Drill Toolholders

- Inserts P. 270 - 271
- Cutting Data P. 272 - 276



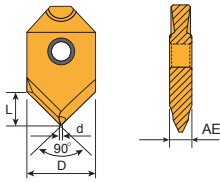
Spot Drill

13

Order Code	Dimensions (mm)						KG	Inserts 23 A23 B23	Screw	Key
	D	D1	d	L	L1	L2				
13-0808-60	8	7.9	8	60	20		0.06	0802	C02506 S025025	T08P L013
13-0808-85				85			0.07			
13-1008-60				60			0.09			
13-1010-65	10	9.9	10	65	20		0.09	1002	C03008 S02503	T09P L013
13-1010-100				100			0.12			
13-1010-150				150			0.12			
13-1210-65	12	11.9	12	65	30		0.12	1203	C03010 S0304	T09P L015
13-1212-80				80			0.15			
13-1212-110				110			0.18			
13-1212-160	12	11.9	12	160	30		0.21	1603	C03512 S0405	T10P L02
13-1612-80				80			0.21			
13-1616-100				100			0.26			
13-1616-130	16	15.8	16	130	35		0.26	1603	C03512 S0405	T10P L02
13-1616-180				180			0.36			

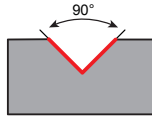


23 Inserts



Tolerances (mm)

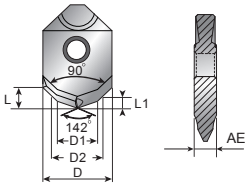
AE : + 0.01
- 0.02



Dimensions (mm)					
D	d	L	AE	angle	
8	0.7	4	2.0	90°	
10	0.8	5	2.5		
12	0.9	6	3.0		
16	1.0	8			

Inserts	Order Code	Grades											
		Carbide					Cermet			Uncoated			
		Cl25	B350	C350	F20	F30	CE25	CE100	CE60	K10		CE	
	23-0802-90-E												 Inserts 10 PCS / Box
	23-1002-90-E												
	23-1203-90-E												
	23-1603-90-E												
	23-0802-90-ME		⊙										
	23-1002-90-ME		⊙										
	23-1203-90-ME		⊙										
	23-1603-90-ME		⊙										

A23 Inserts

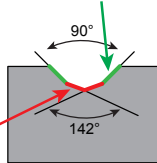


Tolerances (mm)

AE : + 0.01
- 0.02

Chamfering application

Spot application

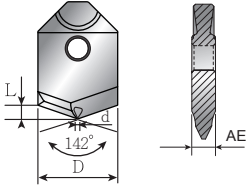


Dimensions (mm)								
D	L	D1	D2	L1	AE	M	angle	
8	2.8	3.3	4.2	1.02	2.0	M4 x 0.7	90° 142°	
10	3.5	4.2	5.25	1.25	2.5	M5 x 0.8		
12	4.2	5.0	6.3	1.55	3.0	M6 x 1.0		
16	5.6	6.8	8.4	1.97	3.0	M8 x 1.25		
16	5.1	8.5	10.5	2.46	3.0	M10 x 1.5		

Inserts	Order Code	Grades											
		Carbide					Cermet			Uncoated			
		Cl25	B350	C350	F20	F30	CE25	CE100	CE60	K10		CE	
	A23-0802-M4-ME		⊙										 Inserts 10 PCS / Box
	A23-1002-M5-ME		⊙										
	A23-1203-M6-ME		⊙										
	A23-1603-M8-ME		⊙										
	A23-1603-M10-ME		⊙										

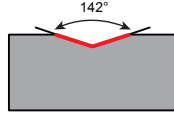
- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: A23-0802-M4-ME,B350

B23 Inserts






Tolerances (mm)

AE : + 0.01
- 0.02



Dimensions (mm)				
D	d	L	AE	angle
8	0.7	1.28	2.0	142°
10	0.8	1.55	2.5	
12	0.9	1.86	3.0	
16	1.0	2.56		


Inserts	Order Code	Grades											
		Carbide					Cermet			Uncoated			
		C125	B350	C350	F20	F30	CE25	CE100	CE60	K10	CE		
	B23-0802-142-ME		☉										 Inserts 10 PCS / Box
	B23-1002-142-ME		☉										
	B23-1203-142-ME		☉										
	B23-1603-142-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.: B23-0802-142-ME,B350

Spot Drill



Recommended Cutting Data And Insert Grades

- Recommended spot cutting speed in Vc (m/min), fn (mm/rev).
- For spotting  the effective no. of teeth is calculated with 1 flute.

Material group	 Cutting Speed Vc(m/min)	fn (mm/rev)		Grades	
		D: 8~10mm	D: 12~16mm	ME	E
1-2	50-70	0.10 0.13	0.11 0.14	B350/C350	-
3	50-70	0.10 0.13	0.11 0.14	B350/C350	-
4-5-6	45-60	0.08 0.10	0.10 0.12	B350/C350	-
7	25-30	0.06 0.08	0.06 0.08	B350	-
8-9	35-45	0.08 0.10	0.10 0.12	B350	-
10-11	35-40	0.07 0.09	0.09 0.12	B350	-
12-13	70-90	0.12 0.15	0.13 0.16	C350	-
14-15	60-80	0.10 0.14	0.10 0.15	C350	-
16-18	200-300	0.12 0.15	0.13 0.16	-	F20

How to Fit Inserts - Screw A.B.C.

Screwing the Insert

Step 1: • Put the insert into the slot of shank and press it with the finger

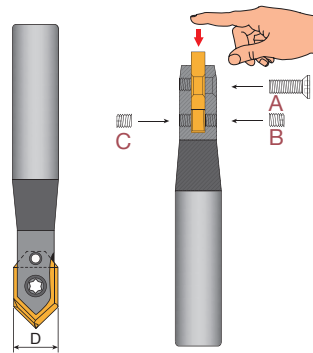
- Fully tighten the screw A first

Step 2: Half tighten the screw B on one side






Step 3: Half tighten the screw C on another side

Step 4: Fully tighten the screw B again (Important)

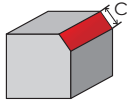
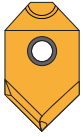
Step 5: Fully tighten the screw C again (Important)



Standard spare parts

Insert dimension D (mm)	Screw A	Screw B/C	Key	Key
				
8	C02506	S025025	T08P	L013
10	C03008	S02503	T09P	L013
12	C03010	S0304	T09P	L015
16	C03512	S0405	T10P	L02

Recommended Cutting Data



Side Chamfering

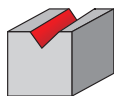
- For side chamfering the effective no. of teeth are 2 flutes.

Chamfering Application													
Materials		Steel		Heat Treatment		Stainless Steel		Inconel		Cast Iron		Aluminium	
Using Inserts		C350		C350		B350		B350		C350		F20	
Inserts	C	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)
ø8	1mm	4800	720	2000	240	2400	280	1600	190	3200	640	8000	2000
ø10	1mm	3800	570	1600	190	1900	220	1300	160	2550	510	6300	1500
	2mm	3800	450	1600	160	1900	190	1300	130	2550	400	6300	1260
ø12	1mm	3200	480	1300	150	1600	190	1050	125	2100	420	5300	1250
	2mm	3200	380	1300	130	1600	160	1050	105	2100	340	5300	1050
	3mm	3200	320	1300	100	1600	130	1050	85	2100	250	5300	850
ø16	1mm	2400	360	1000	120	1200	145	800	95	1600	320	4000	960
	2mm	2400	290	1000	100	1200	120	800	80	1600	255	4000	800
	3mm	2400	240	1000	80	1200	100	800	65	1600	190	4000	480
	4mm	2000	160	800	65	1000	80	600	50	1400	140	3500	420

Spot Drill



Recommended Cutting Data

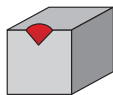


Grooving

V Groove Application

Materials		Steel		Heat Treatment		Stainless Steel		Inconel		Cast Iron		Aluminium	
Using Inserts		C350		C350		B350		B350		C350		F20	
Inserts	Cut Depth	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)
∅8	2mm	4800	380	1200	95	2400	140	1400	85	4000	640	8000	2400
∅10	2mm	3800	300	950	75	1900	115	1100	65	3200	500	6400	1920
	3mm	3800	230	950	55	1900	750	1100	45	3200	380	6400	1500
∅12	2mm	3200	260	800	65	1600	95	900	55	2650	420	5300	1600
	3mm	3200	190	800	50	1600	65	900	35	2650	320	5300	1300
∅16	2mm	2400	190	600	50	1200	70	700	40	2000	320	4000	1200
	3mm	2400	145	600	35	1200	50	700	30	2000	240	4000	960
	4mm	2400	100	600	25	1200	25	700	20	2000	200	4000	800

Recommended Cutting Data



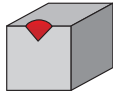
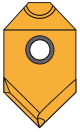
Spotting and Chamfering
in one step

Spot Application													
Materials		Steel		Heat Treatment		Stainless Steel		Inconel		Cast Iron		Aluminium	
Using Insert		C350		C350		B350		B350		C350		F20	
Inserts	Cut Depth	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)
ø8	1mm	2000	300	800	95	1600	160	1000	100	2800	560	6000	1200
	2mm	2000	250	800	80	1600	120	1000	75	2800	490	6000	1050
	3mm	2000	250	800	80	1600	120	1000	75	2800	490	6000	1050
	4mm	2000	200	800	65	1600	80	1000	50	2800	420	6000	900
ø10	1mm	1600	240	650	80	1300	130	800	80	2200	440	4800	960
	2mm	1600	200	650	65	1300	100	800	60	2200	385	4800	840
	3mm	1600	200	650	65	1300	100	800	60	2200	385	4800	840
	4mm	1600	160	650	50	1300	65	800	40	2200	330	4800	720
	5mm	1300	130	500	40	1000	50	650	30	1900	285	4200	630
ø12	1mm	1300	200	550	65	1050	105	650	65	1850	370	4000	800
	2mm	1300	160	550	55	1050	80	650	50	1850	315	4000	700
	3mm	1300	160	550	55	1050	80	650	50	1850	315	4000	700

Spot Drill



Recommended Cutting Data

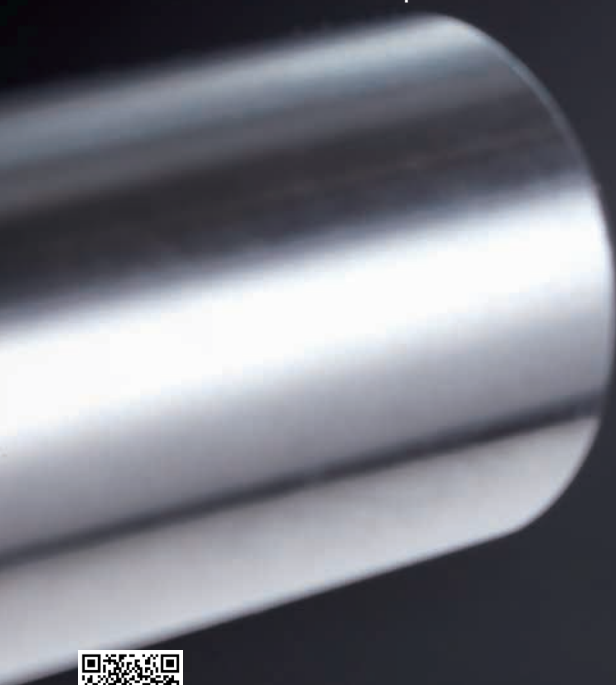


Spotting and Chamfering
in one step

Spot Application													
Materials		Steel		Heat Treatment		Stainless Steel		Inconel		Cast Iron		Aluminium	
Using Inserts		C350		C350		B350		B350		C350		F20	
Inserts	Cut Depth	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)	S (rev/min)	F (mm/min)
ø12	4mm	1300	130	550	45	1050	50	650	35	1850	280	4000	600
	5mm	1050	105	400	45	800	40	530	30	1600	240	3500	525
	6mm	1050	85	400	30	800	30	530	20	1600	200	3500	430
ø16	1mm	1000	150	400	45	800	80	500	50	1400	280	3000	600
	2mm	1000	125	400	40	800	60	500	40	1400	245	3000	525
	3mm	1000	125	400	40	800	60	500	40	1400	245	3000	525
	4mm	1000	100	400	30	800	40	500	25	1400	210	3000	450
	5mm	800	80	300	25	600	30	400	20	1200	180	2600	390
	6mm	800	65	300	20	600	25	400	16	1200	150	2600	325
	7mm	800	65	300	20	600	25	400	16	1200	150	2600	325
	8mm	800	50	300	15	600	18	400	12	1200	120	2600	260

CENTER DRILL - 390 SYSTEM

Surface Finish Ra < 0.5 μ m



PATENTED



Video

Features

Available in
materials



Cost
300~500%
SAVING

Applicable
Machines
Milling / Turning

Efficiency
300%
UP

Durability
300%
UP

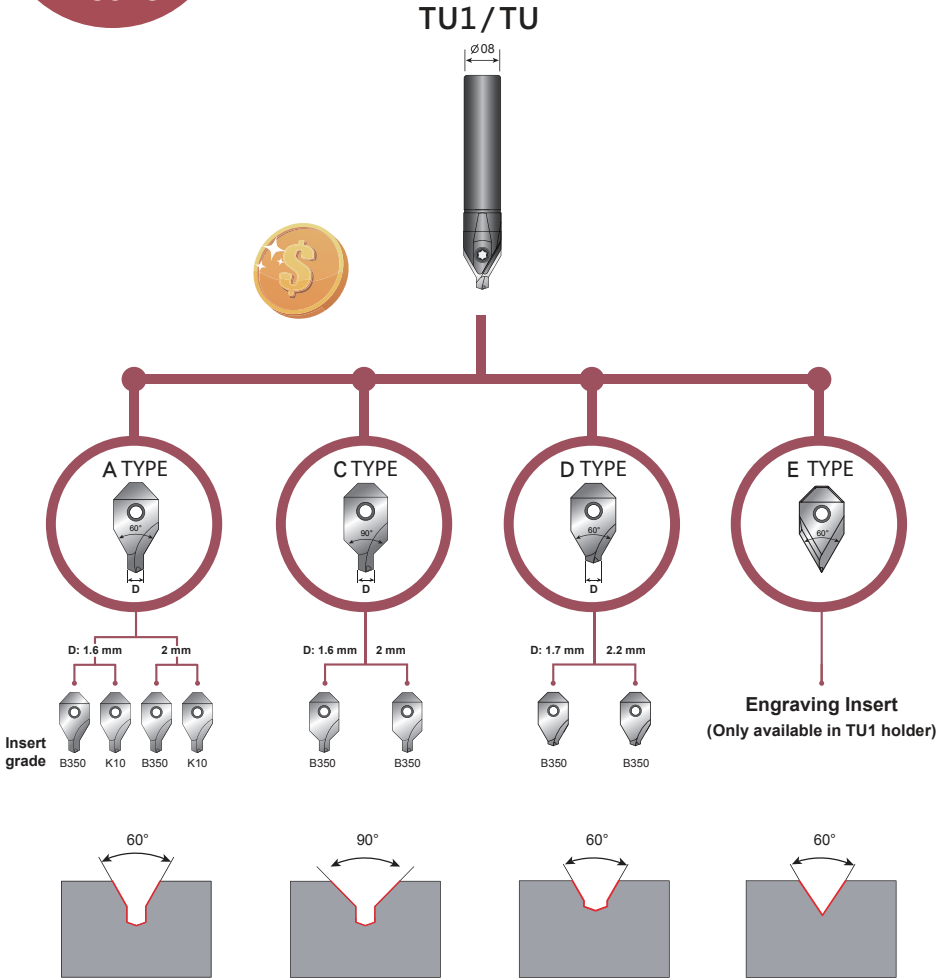


YIH TROUN ENTERPRISE CO., LTD

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Product Design

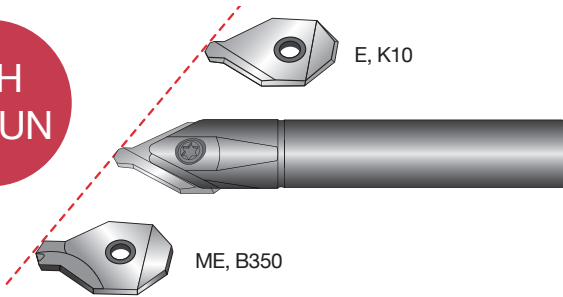
One Shank fits 9 different inserts



TECHNICAL GUIDE

Indexable center drill

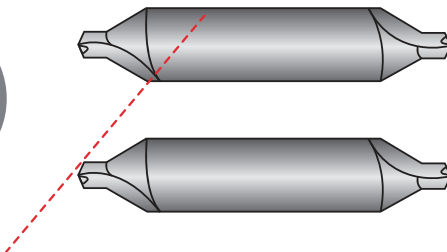
- Extremely accuracy in center positioning, minimized eccentricity $\pm 0.008\text{mm}$.
- Perfect surface finish with $Ra\ 0.36\ \mu\text{m}$, which leads to excellent accuracy.
- Re-centering and length calibrating are not required while changing the new insert.
- Y.T. indexable carbide inserts perform 5 times tool life longer than HSS center drills.
- The same shank fit max. 11 different inserts.



Center Drill

Solid center drill

- Imprecise center accuracy
- Poor tool life
- Require re-calibrating every time
- Poor surface finish

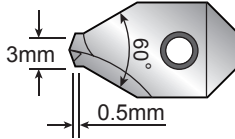


New Design vs. Traditional Type



D-type Center Drill:

Designed with a shorter drill bit, suitable for center spotting with 60° chamfer simultaneously prior to hole drilling. It performs a greater machining durability itself and conduce to improve the tool life of drills and taps from its high accuracy.



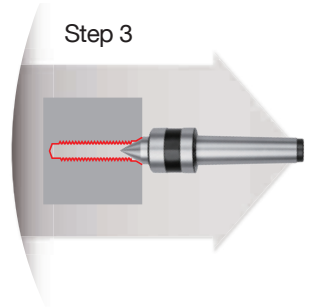
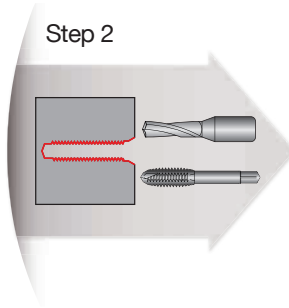
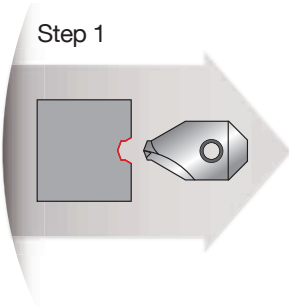
Efficiency
400~600% up



Durability
400~600% up



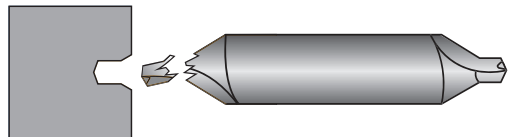
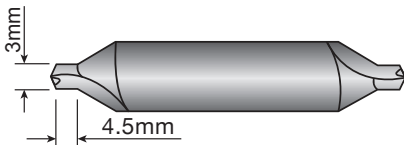
No broken



Traditional

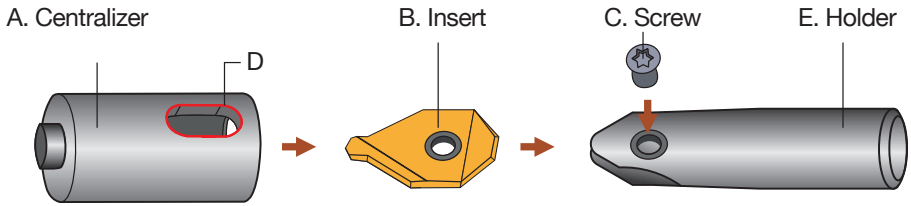
Standard center drill:

The long pilot length causes pilot broken often and poor tool life in high feed machining.



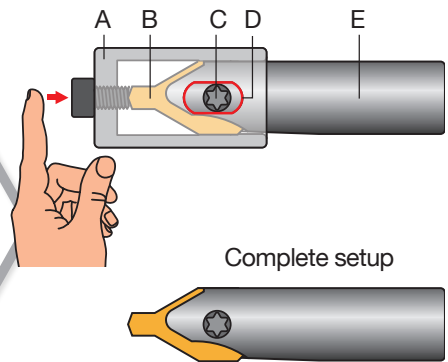
CENTRALIZER-Quick Operation Guide

Apply the centralizer while replacing inserts at the machine



Mounting Steps

- Step 1.** Dismount the worn inserts and put a new one instead into the cavity.
- Step 2.** Put on the centralizer.
- Step 3.** Turn the shank holder, align the screw hole with the opening.
- Step 4.** Slide up the centralizer to push the insert against on the bottom.
- Step 5.** Tighten up the screw.
- Step 6.** Remove the centralizer, carry tool changing and calibrating off in a minute.

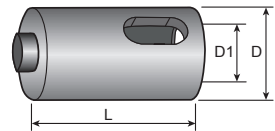


Center Drill

Devices to centralizer the inserts



Video

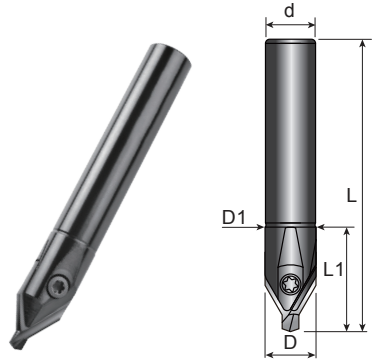


Order Code	D	D1	L
GA-0814	14	8.2	25
GA-1016	16	10.2	30
GA-1218	18	12.2	33
GA-1622	22	16.2	38



Center Drill Toolholders (Milling And Turning)

- Inserts P. 283 - 286
- Cutting Data P. 287
- Centralizer P. 281

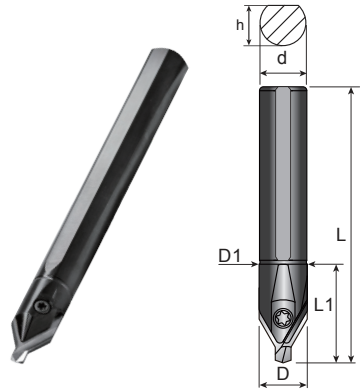


TU 1

Order Code	Dimensions (mm)					KG	Inserts A/C/D/ E24	Screw	Key
	D	D1	d	L	L1				
TU1-0808-60	8.2	8.2	8	60	20	0.08	0802	C02506	T08P
TU1-0808-80				80		0.09			
TU1-1010-65	10.2	10.2	10	65	25	0.09	1002	C03009	T09P
TU1-1212-65	12.2	12.2	12	65	30	0.11	1203	C03010	
TU1-1616-70	16.2	16.2	16	70	35	0.17	1603	C03512	T10P

Center Drill Toolholders (Turning)

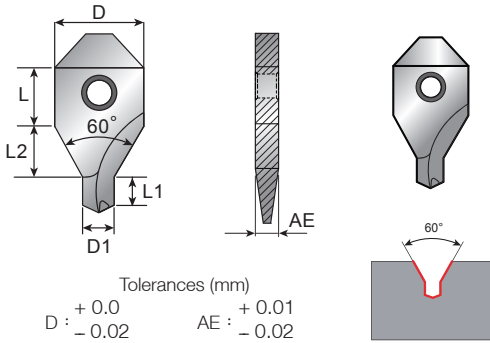
- Inserts P. 283 - 286
- Cutting Data P. 287
- Centralizer P. 281



TU

Order Code	Dimensions (mm)						KG	Inserts A/C/ D24	Screw	Key
	D	D1	d	L	L1	h				
TU-0808-85	8.2	8.2	8	85	20	7.5	0.08	0802	C02506	T08P
TU-1010-100	10.2	10.2	10	100	25	9.3	0.11	1002	C03009	T09P
TU-1212-110	12.2	12.2	12	110	30	11.5	0.15	1203	C03010	
TU-1616-130	16.2	16.2	16	130	35	15.5	0.26	1603	C03512	T10P

A24 Inserts



Dimensions (mm)						
D	L	AE	D1	L1	L2	Angle
8.2	6	2.0	1.6	1.6	5.0	60°
			2.0	2.0	5.0	
10.2	7	2.5	2.5	2.2	6.0	
			3.0	2.6	6.0	
			4.0	3.3	7.0	
12.2			5.0	4.0	6.0	
			5.0	4.0	9.0	
16.2	8	3.0	6.0	4.7	8.0	
			8.0	6.5	6.5	

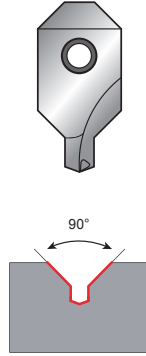
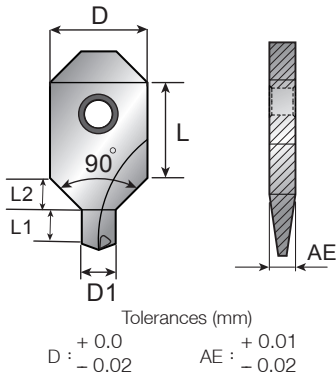
Inserts	Order Code	Grades											
		Carbide					Cermet			Uncoated			
		C125	B350	C350	F20	F30	CE25	CE100	CE60	K10	CE		
	A24-080216-60-E												<p>Inserts 6 PCS / Box Only for insert: A24-16***</p>
	A24-080220-60-E												
	A24-100225-60-E												
	A24-100230-60-E												
	A24-120340-60-E												
	A24-120350-60-E												
	A24-160350-60-E												
	A24-160360-60-E												
	A24-080216-60-ME		⊗										<p>Inserts 10 PCS / Box</p>
	A24-080220-60-ME		⊗										
	A24-100225-60-ME		⊗										
	A24-100230-60-ME		⊗										
	A24-120340-60-ME		⊗										
	A24-120350-60-ME		⊗										
	A24-160350-60-ME		⊗										
	A24-160360-60-ME		⊗										
	A24-160380-60-ME		⊗										

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: A24-080216-60-E,K10





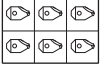
Center Drill

C24 Inserts




Dimensions (mm)						
D	L	AE	D1	L1	L2	Angle
8.2	8	2.0	1.6	1.6	3.0	90°
			2.0	2.0	3.0	
10.2	10	2.5	2.5	2.2	3.5	
			3.0	2.6	3.5	
12.2	10	3.0	4.0	3.3	4.0	
			-5.0	4.0	3.5	
16.2	12	3.0	5.0	4.0	5.5	
			6.0	4.7	5.0	

Inserts	Order Code	Grades										
		Carbide					Cermet			Uncoated		
		C125	B350	C350	F20	F30	CE25	CE100	CE60	K10		CE
	C24-080216-90-ME		⊗									
	C24-080220-90-ME		⊗									
	C24-100225-90-ME		⊗									
	C24-100230-90-ME		⊗									
	C24-120340-90-ME		⊗									
	C24-120350-90-ME		⊗									
	C24-160350-90-ME		⊗									
	C24-160360-90-ME		⊗									



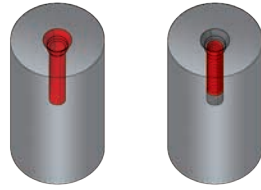
Inserts 6 PCS / Box
Only for insert: C24-16***



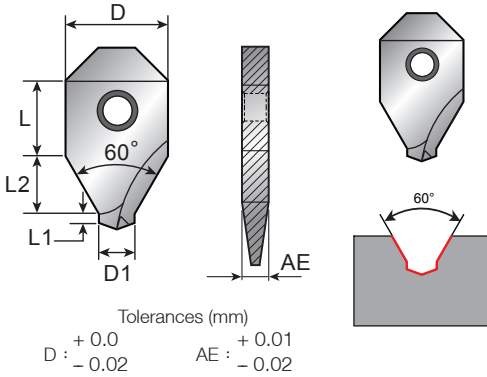
Inserts 10 PCS / Box

- 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.: C24-080216-90-ME,B350

D24 Inserts



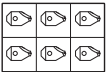
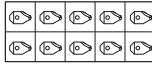


Center drill specially for pre-drilling and pre-tapping



Dimensions (mm)						
D	L	AE	D1	L1	L2	Angle
8.2	6	2.0	1.7	0.6	5.5	60°
			2.2	0.6	5.0	
10.2	7	2.5	2.7	0.6	6.0	
			3.2	0.7	6.0	
			3.7	0.7	5.5	
12.2	7	3.0	4.3	0.8	6.5	
			5.3	1.0	5.5	
			5.3	1.0	9.0	
16.2	8	3.0	5.3	1.0	9.0	
			6.3	1.1	8.0	

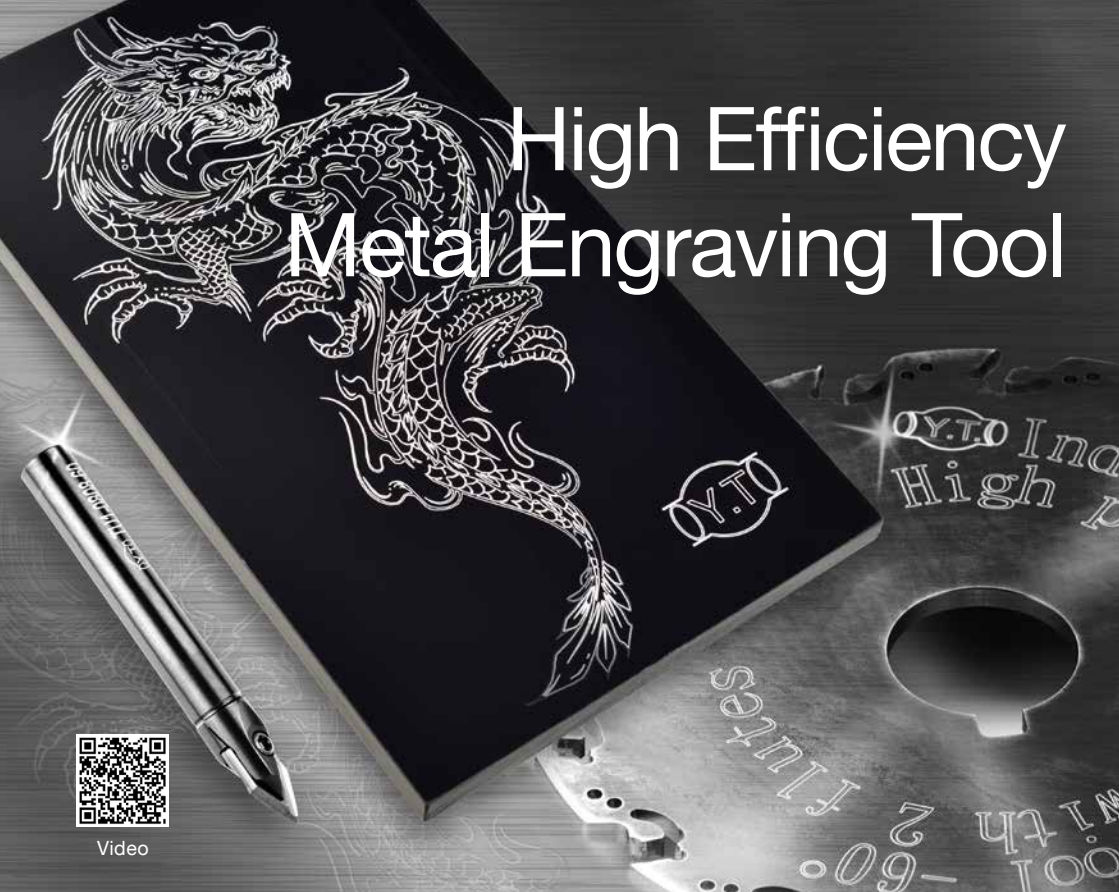
Center Drill

Inserts	Order Code	Grades											
		Carbide					Cermet			Uncoated			
		C125	B350	C350	F20	F30	CE25	CE100	CE60	K10	CE		
	D24-080217-60-ME		⊗										 <p>Inserts 6 PCS / Box Only for insert: D24-16***</p>
	D24-080222-60-ME		⊗									 <p>Inserts 10 PCS / Box</p>	
	D24-100227-60-ME		⊗										
	D24-100232-60-ME		⊗										
	D24-100237-60-ME		⊗										
	D24-120343-60-ME		⊗										
	D24-120353-60-ME		⊗										
	D24-160353-60-ME		⊗										
	D24-160363-60-ME		⊗										

- Steel Stainless Steel Steel/Stainless Steel /Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, ie.: D24-080217-60-ME,B350



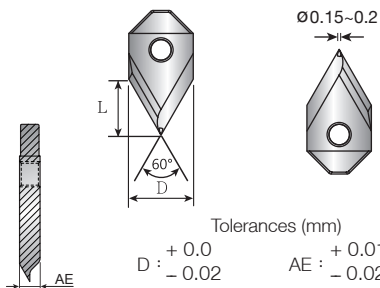
High Efficiency Metal Engraving Tool



Video

E24 Inserts

- Toolholder P. 282
- Centralizer P. 281
(Centralizer is necessary)



Dimensions (mm)			
D	L	AE	Angle
8.2	4	2.0	60°

Inserts	Order Code	Grades								Toolholder	Centralizer
		Carbide					Cermet		Uncoated		
		C125	B100	C350	F20	F30	CE100	CE60	K10		
	E24-0802-60-E		★							TU1-0808	GA-0814

★ All Materials

• Recommend cutting data : Vc:100m/min (Aluminum Vc:500m/min)
Fn(0.01-0.03mm/rev).

Recommended Cutting Data And Insert Grade

- Center Drill recommended cutting speed, Vc(m/min), fz(mm/ tooth).
The effective no. of teeth is calculated with 1 flute.

Material group	 Cutting Speed Vc(m/min)	CNC lathe M/C Vc(m/min)	fn(mm/rev)		Grades	
			D1:1.5~2.5mm	D1:3~10mm	ME	E
1-2	15-20	50-120	0.03 0.06	0.05 0.10	B350	-
3	12-18		0.03 0.06	0.05 0.10	B350	-
4-5-6	10-15		0.03 0.06	0.05 0.10	B350	-
7	5-10	22-30	0.03 0.06	0.05 0.08	B350	-
8-9	8-12		0.03 0.06	0.05 0.09	B350	-
10-11	5-10		0.03 0.06	0.03 0.08	B350	-
12-13	20-25	60-80	0.05 0.08	0.06 0.13	B350	-
14-15	15-20		0.05 0.08	0.06 0.13	B350	-
16-18	30-50	300-800	0.05 0.08	0.06 0.13	-	K10

Center Drill

Surface Finishing Test Result

Holder	TU-1010-100	Mitutoyo	SURFTEST SJ-410
Insert	24-100225-60-ME, B100	日期 時間	2017/07/05 09:20:32
S	1600 min ⁻¹	Ra Rmax	0.360 μm 2.056 μm
f	0.05 mm/rev	Mitutoyo	SURFTEST SJ-410
Material	ScM440	日期 時間	2017/07/05 09:20:32
		Ra Rmax	14.16 μin 80.94 μin



TRY ME BOX



**1 shank + 2 inserts +
1 Centralizer gauge**

Available sizes in A24 inserts :
1.6/2.0/2.5/3.0/4.0/5.0/6.0mm

Order Code	Description	Type	Quantity
CD081620B350	TU1-0808-60	Shank: 8mm-60L	1
	A24-080216-60-ME,B350	Insert: 1,6mm for P M K S H	1
	A24-080220-60-ME,B350	Insert: 2,0mm for P M K S H	1
	GA-0814	Centralizer	1
CD102530B350	TU1-1010-65	Shank: 10mm-65L	1
	A24-100225-60-ME,B350	Insert: 2,5mm for P M K S H	1
	A24-100230-60-ME,B350	Insert: 3,0mm for P M K S H	1
	GA-1016	Centralizer	1
CD124050B350	TU1-1212-65	Shank: 12mm-65L	1
	A24-120340-60-ME,B350	Insert: 4,0mm for P M K S H	1
	A24-120350-60-ME,B350	Insert: 5,0mm for P M K S H	1
	GA-1218	Centralizer	1
CD165060B350	TU1-1616-70	Shank: 16mm-70L	1
	A24-160350-60-ME,B350	Insert: 5,0mm for P M K S H	1
	A24-160360-60-ME,B350	Insert: 6,0mm for P M K S H	1
	GA-1622	Centralizer	1



Convenient Durable Efficiency

1 shank + 2 inserts

Available sizes in inserts 23 and A23 :

08/10/12/16mm

90° / 90° + 142°



Order Code	Description	Type	Quantity
SD0823A23B350	13-0808-60	Shank: 8mm-60L	1
	23-0802-90-ME,B350	Insert: 90° for P M S H	1
	A23-0802-M4-ME,B350	Insert: 90° + 142° for P M S H	1
SD1023A23B350	13-1010-65	Shank: 10mm-65L	1
	23-1002-90-ME,B350	Insert: 90° for P M S H	1
	A23-1002-M5-ME,B350	Insert: 90° + 142° for P M S H	1
SD1223A23B350	13-1212-80	Shank: 12mm-80L	1
	23-1203-90-ME,B350	Insert: 90° for P M S H	1
	A23-1203-M6-ME,B350	Insert: 90° + 142° for P M S H	1
SD1623A23B350	13-1616-100	Shank: 16mm-100L	1
	23-1603-90-ME,B350	Insert: 90° for P M S H	1
	A23-1603-M8-ME,B350	Insert: 90° + 142° for P M S H	1

