



Nine⁹ **Quick Change**
High Speed Boring Tools

Ø5mm~Ø50mm boring bars are Interchangeable.

Change the boring bar in just one minute.

G6.3 10000 r.p.m. pre-balanced.

2012



Indexable tooling
since 1932



Indexable spot, engraving,
drilling, and boring tools

Everede Tool Company has been
the exclusive U.S.A. representative
since 2002.



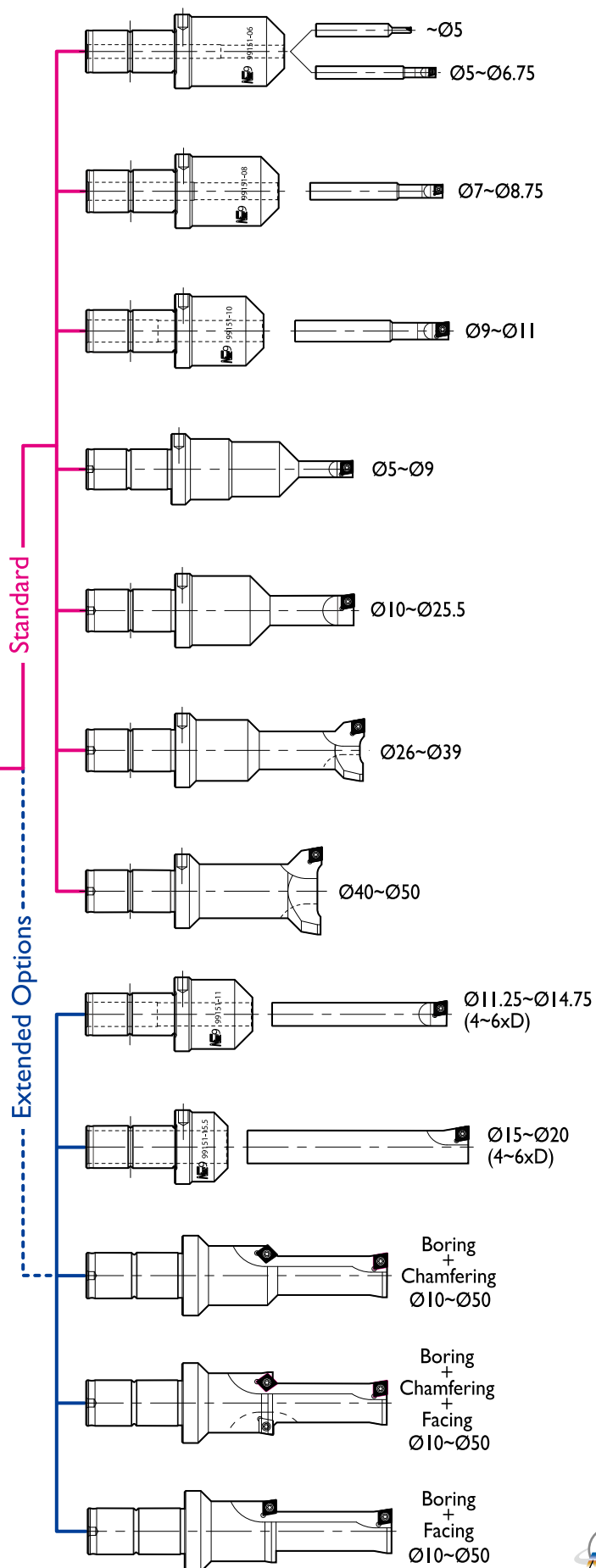
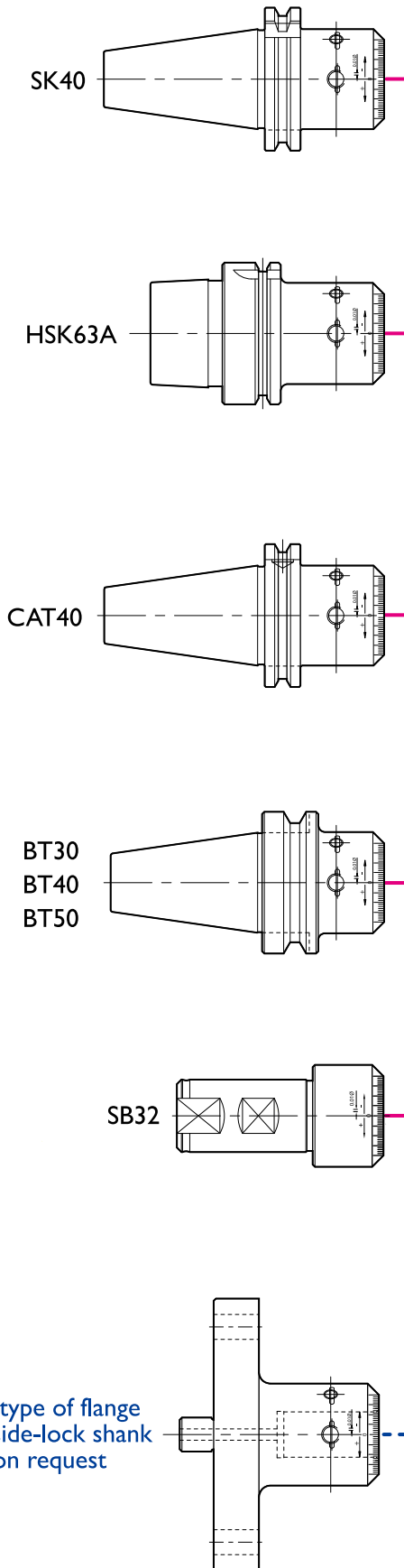
Solid carbide tooling

Serving the aerospace
industry since 1994.

THREE UNIQUE PRODUCT LINES AVAILABLE FROM EVEREDE TOOL COMPANY

Featuring Improved: • Cycle time • Position Accuracy • Roughness • True Roundness

All Interchangeable !!





99146 Quick Change High Speed Boring Tools

Easy Handling:

- Dimensions are easy to read. They are indicated on the tools and are easily adjustable on a tool presetter or in machining center.
- No backlash.
- Change the boring bar and set the boring dimension on the tool presetter in just one minute.



Interchangeable Boring Bars from Diameters of 5 mm to 50 mm

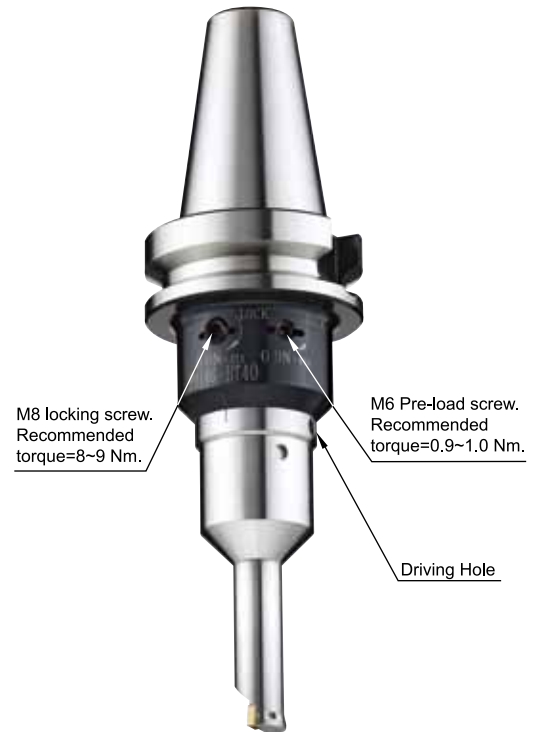
- This simple boring tool has minimal components.
- In minutes, the boring bar may be changed and the boring dimension set on the tool presetter.

Low Cost for Machining Small Holes

- The cost of this product is low compared to other micro adjustable boring heads.

High Speed

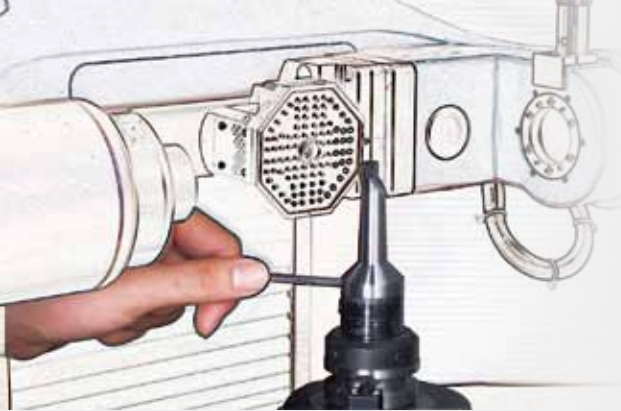
- Boring bar design ensures accurate high speed boring. Grade balance is G6.3 10000 r.p.m., all sizes are guaranteed.
- Surface speeds of carbide inserts up to 700 m/min.
- Combination bore / chamfer / facing tools can be ordered on request.



Procedures for assembly

1. Use 4 mm allen-key to **loosen locking screw M8**, take care not to remove the screw.
2. Use 3 mm allen-key to **loosen pre-load screw M6**, take care not to remove the screw.
3. Remove the original boring bar and insert the new boring bar.
4. **Tighten the M6 pre-load screw** using the torque screwdriver with hex head key. (**Recommended torque = 0.9~1.0 Nm**)
5. Ensure the boring head and boring bar fit together securely.
6. Measure the boring diameter of the boring bar using tool presetter and adjust it to the required diameter.
7. **Tighten the M8 locking screw** using the torque screwdriver with hex head key (**Recommended torque = 8~9Nm**)





99146 Quick Change High Speed Boring Tools Procedures For Adjustment

On Tool Presetter

1. Loosen M8 locking screw.
2. Set the boring bar at the neutral position. (Step 1)
3. Measure the boring diameter using the tool presetter and compare with the required diameter. (Step 2)
4. If boring diameter is too big or too small, please put an allen-key into the adjusting driving hole. Turn to “ + ” to increase and turn to “ - ” to reduce boring diameter. (Step 3 and 4)
5. Tighten M8 locking screw.

(Step 1)



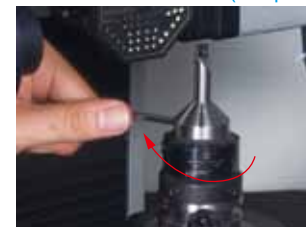
(Step 2)



(Step 3)



(Step 4)



To Increase Diameter

To Reduce Diameter

On Milling Machine And Machining Centers

1. Set the boring bar at the neutral position. (Step 1)
2. Tighten M8 locking screw.
3. Test cut on work piece, about 3-5mm deep on the machine.
4. Measuring boring diameter of workpiece and compare with required diameter.
5. If boring diameter is too big or too small, loosen M8 locking screw, please put an allen-key into the adjusting driving hole. Turn to “ + ” to increase and turn to “ - ” to reduce boring diameter. (Step 2 and 3)
6. Tighten M8 locking screw. (Step 4)

(Step 1)



(Step 2)



To Increase Diameter

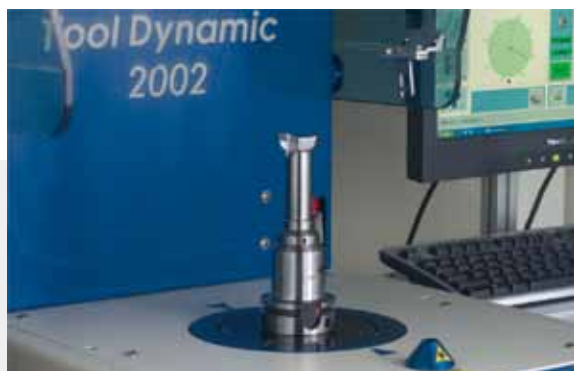
(Step 3)



(Step 4)



To Reduce Diameter



00-99146-xx
Interchangeable boring bar
Standard balanced grade
10000 r.p.m. G6.3
both of shank and bar.

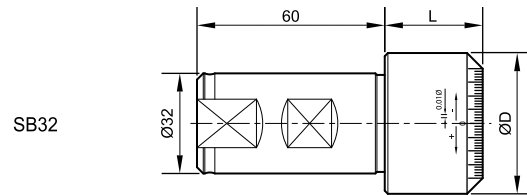
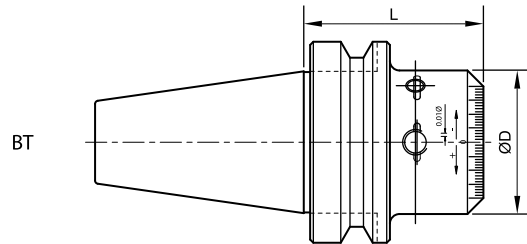
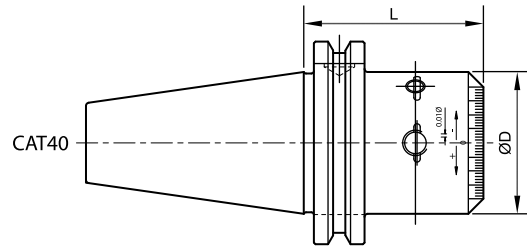
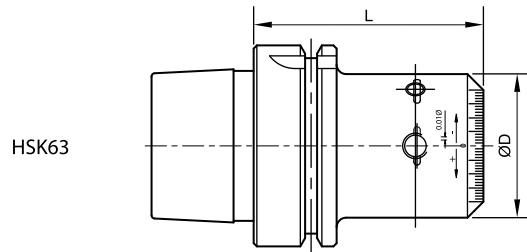
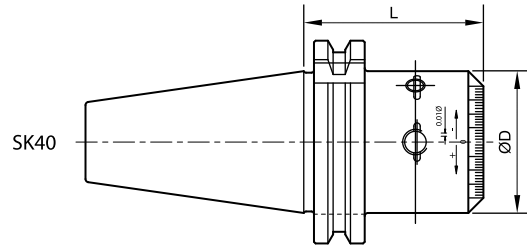


USA Patent ▶



Boring Head Shank

- Adjustable range: +0.12 /-0.13 mm.
- Each adjustment division is 0.01 mm.
- Balance grade : G6.3 10000 r.p.m.



Part No.	ØD	L
SB32-146-01	45	31.3
BT30-146-51	45	51.3
BT40-146-56	45	56.3
BT50-146-77	45	77.3
CAT40-146-56	45	56.3
HSK63A-146-72	45	72
SK40-146-56	45	56.3

Adapter

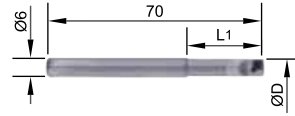
• Economical solution of small dia. boring bar.



Part No.	ØD	L
C20-ID06	6	52
C20-ID08	8	49
C20-ID10	10	21.5
C20-ID11	11	21.5
C20-ID15.5	15.5	21.5

Ø4.87~Ø6.87mm

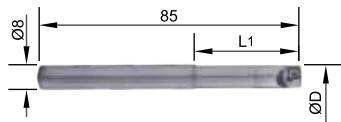
• Solid Carbide Shank • Boring Depth : L1, 4~6xD



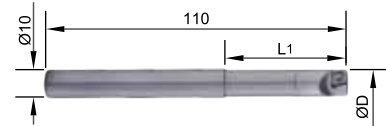
Part No.	ØD	L1	Insert
C06-0500-20L	4.87~5.12	20.00	CCGT030102-NC30 Screw: NS-16030 Key: NK-T6
C06-0525-20L	5.12~5.37	20.00	
C06-0550-22L	5.37~5.62	22.00	
C06-0575-22L	5.62~5.87	22.00	
C06-0600-24L	5.87~6.12	24.00	
C06-0625-24L	6.12~6.37	24.00	
C06-0650-26L	6.37~6.62	26.00	
C06-0675-26L	6.62~6.87	26.00	

Ø6.87~Ø11.12mm

• Solid Carbide Shank • Boring Depth : L1, 4~6xD



Part No.	ØD	L1	Insert
C08-0700-28L	6.87~7.12	28.00	CCGT040102-NC30 Screw: NS-20045 Key: NK-T6
C08-0725-28L	7.12~7.37	28.00	
C08-0750-30L	7.37~7.62	30.00	
C08-0775-30L	7.62~7.87	30.00	
C08-0800-32L	7.87~8.12	32.00	
C08-0825-32L	8.12~8.37	32.00	
C08-0850-34L	8.37~8.62	34.00	
C08-0875-34L	8.62~8.87	34.00	



Part No.	ØD	L1	Insert
C10-0900-36L	8.87~9.12	36.00	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-25045 Key: NK-T7
C10-0925-36L	9.12~9.37	36.00	
C10-0950-38L	9.37~9.62	38.00	
C10-0975-38L	9.62~9.87	38.00	
C10-1000-40L	9.87~10.12	40.00	
C10-1025-40L	10.12~10.37	40.00	
C10-1050-42L	10.37~10.62	42.00	
C10-1075-42L	10.62~10.87	42.00	
C10-1100-44L	10.87~11.12	44.00	

Ø11.87~Ø20.12mm

• Solid Carbide Shank • Boring Depth : L1, 4~6xD

Fig. 1

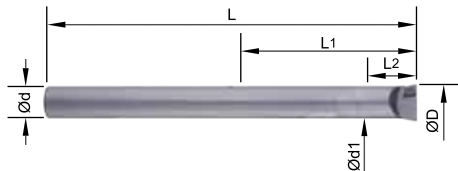
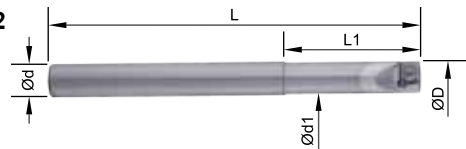


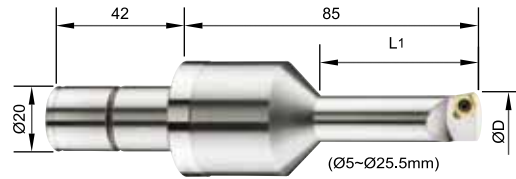
Fig. 2



Part No.	ØD	Ød	Ød1	L1	L2	L	Fig.	Insert
C11-1200-150L	11.87~12.12	11	11	70	20	150	1	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9)
C11-1300-150L	12.87~13.12	11	-	70	-	150		
C11-1400-150L	13.87~14.12	11	-	70	-	150		
C15.5-1500-90L	14.87~15.12	15.5	14	90	90	180	2	Screw: NS-25045 Key: NK-T7
C15.5-1600-180L	15.87~16.12	15.5	15	90	90	180		
C15.5-1700-180L	16.87~17.12	15.5	-	100	-	180	1	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-25060 Key: NK-T7
C15.5-1800-180L	17.87~18.12	15.5	-	100	-	180		
C15.5-1900-180L	18.87~19.12	15.5	-	100	-	180		
C15.5-2000-180L	19.87~20.12	15.5	-	100	-	180		

Ø5~Ø25mm

- Alloy Steel Shank
- Boring Depth : L1, 2~3xD



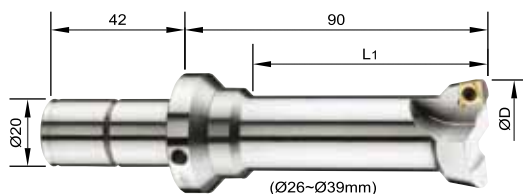
* H type with internal coolant can be ordered on request from Dia. 10mm.
Ordering example: C20-0800-16LH.

Part No.	ØD	L1	Insert
C20-0500-10L	4.87~5.12	10.00	CC030102-NC30 NS-16030, NK-T6
C20-0600-12L	5.87~6.12	12.00	
C20-0700-14L	6.87~7.12	14.00	CC040102-NC30 NS-20045, NK-T6
C20-0800-16L	7.87~8.12	16.00	
C20-0900-20L	8.87~9.12	18.00	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-20045 Key: NK-T7
C20-1000-25L	9.87~10.12	25.00	
C20-1025-25L	10.12~10.37	25.00	
C20-1050-26L	10.37~10.62	26.25	
C20-1075-26L	10.62~10.87	26.25	
C20-1100-27L	10.87~11.12	27.50	
C20-1125-27L	11.12~11.37	27.50	
C20-1150-28L	11.37~11.62	28.75	
C20-1175-28L	11.62~11.87	28.75	
C20-1200-30L	11.87~12.12	30.00	
C20-1225-30L	12.12~12.37	30.00	
C20-1250-31L	12.37~12.62	31.25	
C20-1275-31L	12.62~12.87	31.25	
C20-1300-32L	12.87~13.12	32.50	
C20-1325-32L	13.12~13.37	32.50	
C20-1350-33L	13.37~13.62	33.75	
C20-1375-33L	13.62~13.87	33.75	
C20-1400-35L	13.87~14.12	35.00	
C20-1425-35L	14.12~14.37	35.00	
C20-1450-36L	14.37~14.62	36.25	
C20-1475-36L	14.62~14.87	36.25	
C20-1500-37L	14.87~15.12	37.50	
C20-1525-37L	15.12~15.37	37.50	
C20-1550-38L	15.37~15.62	38.75	
C20-1575-38L	15.62~15.87	38.75	
C20-1600-40L	15.87~16.12	40.00	
C20-1625-40L	16.12~16.37	40.00	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-20060 Key: NK-T7
C20-1650-41L	16.37~16.62	41.25	
C20-1675-41L	16.62~16.87	41.25	
C20-1700-42L	16.87~17.12	42.50	

Part No.	ØD	L1	Insert
C20-1725-42L	17.12~17.37	42.50	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-20045 Key: NK-T7
C20-1750-43L	17.37~17.62	43.75	
C20-1775-43L	17.62~17.87	43.75	
C20-1800-45L	17.87~18.12	45.00	
C20-1825-45L	18.12~18.37	45.00	
C20-1850-46L	18.37~18.62	46.25	
C20-1875-46L	18.62~18.87	46.25	
C20-1900-47L	18.87~19.12	47.50	
C20-1925-47L	19.12~19.37	47.50	
C20-1950-48L	19.37~19.62	48.75	
C20-1975-48L	19.62~19.87	48.75	
C20-2000-50L	19.87~20.12	50.00	
C20-2025-50L	20.12~20.37	50.00	
C20-2050-50L	20.37~20.62	50.00	
C20-2075-50L	20.62~20.87	50.00	
C20-2100-50L	20.87~21.12	50.00	
C20-2125-50L	21.12~21.37	50.00	
C20-2150-50L	21.37~21.62	50.00	
C20-2175-50L	21.62~21.87	50.00	
C20-2200-50L	21.87~22.12	50.00	
C20-2225-50L	22.12~22.37	50.00	
C20-2250-50L	22.37~22.62	50.00	
C20-2275-50L	22.62~22.87	50.00	
C20-2300-50L	22.87~23.12	50.00	
C20-2325-50L	23.12~23.37	50.00	
C20-2350-50L	23.37~23.62	50.00	
C20-2375-50L	23.62~23.87	50.00	
C20-2400-50L	23.87~24.12	50.00	
C20-2425-50L	24.12~24.37	50.00	
C20-2450-50L	24.37~24.62	50.00	
C20-2475-50L	24.62~24.87	50.00	
C20-2500-50L	24.87~25.12	50.00	
C20-2525-50L	25.12~25.37	50.00	
C20-2550-50L	25.37~25.62	50.00	

Ø26~Ø39mm

- Alloy Steel Shank
- Boring Depth : L1, 2~3xD

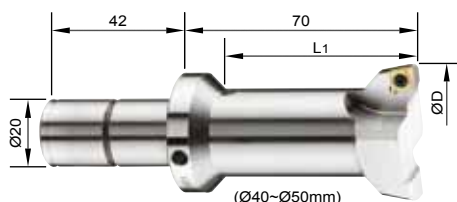


* H type with internal coolant can be ordered on request.
Ordering example: C20-3600-70LH.

Part No.	ØD	L1	Insert
C20-2600-50L	25.87~26.12	50.00	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-25060 Key: NK-T7
C20-2700-50L	26.87~27.12	50.00	
C20-2800-50L	27.87~28.12	50.00	
C20-2900-50L	28.87~29.12	50.00	
C20-3000-50L	29.87~30.12	50.00	
C20-3100-70L	30.87~31.12	70.00	
C20-3200-70L	31.87~32.12	70.00	
C20-3300-70L	32.87~33.12	70.00	
C20-3400-70L	33.87~34.12	70.00	
C20-3500-70L	34.87~35.12	70.00	
C20-3600-70L	35.87~36.12	70.00	
C20-3700-70L	36.87~37.12	70.00	
C20-3800-70L	37.87~38.12	70.00	
C20-3900-70L	38.87~39.12	70.00	

Ø40~Ø50mm

- Alloy Steel Shank
- Boring Depth : L1, 2~3xD



* H type with internal coolant can be ordered on request.
Ordering example: C20-4700-70LH.

Part No.	ØD	L1	Insert
C20-4000-70L	39.87~40.12	70.00	CCGT060204 CCFT060204 Select grade from cutting data chart (P.9) Screw: NS-25060 Key: NK-T7
C20-4100-70L	40.87~41.12	70.00	
C20-4200-70L	41.87~42.12	70.00	
C20-4300-70L	42.87~43.12	70.00	
C20-4400-70L	43.87~44.12	70.00	
C20-4500-70L	44.87~45.12	70.00	
C20-4600-70L	45.87~46.12	70.00	
C20-4700-70L	46.87~47.12	70.00	
C20-4800-70L	47.87~48.12	70.00	
C20-4900-70L	48.87~49.12	70.00	
C20-5000-70L	49.87~50.12	70.00	

High Speed boring bar kit

Part No.	Contents	
99146-32HB-05SET	SB32-146-01 Weldon Shank	Boring head shank: 1pc Boring bar: any 5 pcs Key: 3-5 pcs Plastic box: 1pc
99146-BT30-05SET	BT30H Boring head shank	
99146-BT40-05SET	BT40H Boring head shank	
99146-BT50-05SET	BT50H Boring head shank	
99146-CAT40-05SET	CAT40H Boring head shank	
99146-SK40-05SET	SK40H Boring head shank	
99146-HSK63A-05SET	HSK63A Boring head shank	



Each package include:

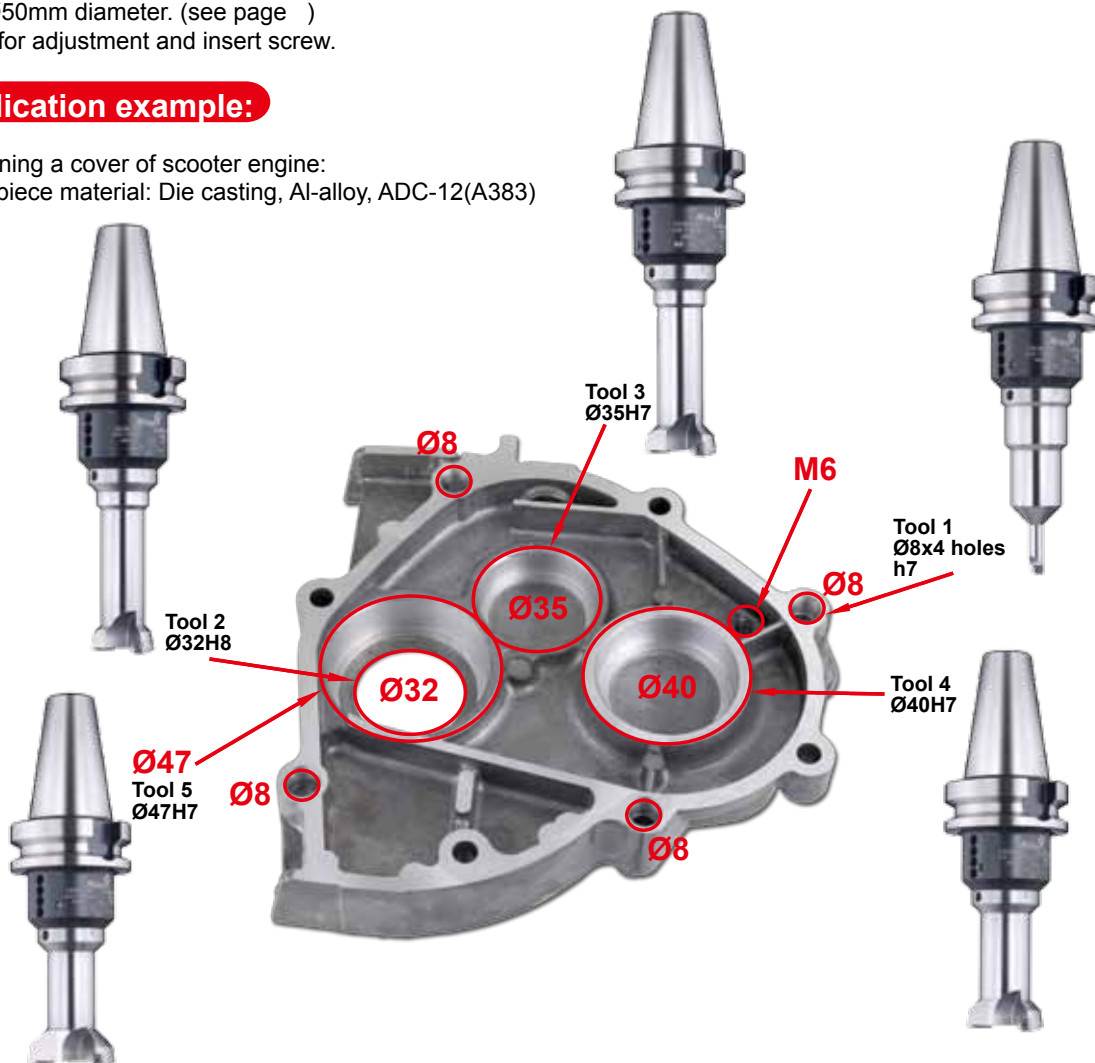
- One handsome carrying case.
- One of SB32 / BT30 / BT40 / BT50 / CAT40 / SK40 / HSK63A Micro adjustable boring head shank.
- Select any **Five boring bars** from standard S and A type, Ø5~Ø50mm diameter. (see page)
- **Keys** for adjustment and insert screw.

(Insert is not included, please order separately)

- Note: BT50 boring head shank is packed in a separate box.

Application example:

- Machining a cover of scooter engine:
Work piece material: Die casting, Al-alloy, ADC-12(A383)



TOOL LIST by Nine9 Boring Bar 99146-series, Spindle Size: BT40

No.	Part No.	Grade of insert	Dia. mm	Depth	r.p.m.	F = mm/min.	Machining time
1	99146-08A	CCGT040104 NC30	Ø8H7	8 mm	8000	400	1.2 sec.
2	99146-32A	CCGT060202HP NC9031	Ø32H8	8 mm	2985	209	2.3 sec.
3	99146-35A	CCGT060202HP NC9031	Ø35H7	12 mm	2730	191	3.8 sec.
4	99146-40A	CCGT060202HP NC9031	Ø40H7	15 mm	2400	168	5.4 sec.
5	99146-47A	CCGT060202HP NC9031	Ø47H7	15 mm	2030	142	6.4 sec.

Precisely ground Inserts

-CC030102, CC040102

- **NC30** : K20F carbide insert, TiAlN coated, universal grade for casting iron, carbon steel, alloy steel, stainless steel.

-CC040102, CC060204

- **NC2033** : K20F carbide insert, TiAlN coated, good for carbon steel, alloy steel, stainless steel.
- **HP-NC9031**: K20F carbide insert, TiN coated, good for Al, Al-alloy, Copper and non ferrous metal.
- **DM** : PCD brazed tipped insert with a polished and honed cutting edge for fine surface finished and longer tool life.



Inserts

Inserts	NC30	DM	NC2033	NC9031		Dimensions		
						lc	S	rE
CCGT030102	•					3.5	1.4	0.2
CCGT040102	•					4.3	1.8	0.2
CCFT060204			•			6.35	2.38	0.4
CCFT060204HP				•		6.35	2.38	0.4
CCMW060204		•				6.35	2.38	0.4

Cutting Data

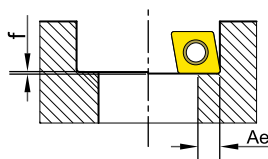
- Note: Super fine finishing insert **DM** with special specified cutting width **0.006inch**.(Radius) (see table below)

Spindle speed and feed rate formulas:

inch

$$\text{RPM} = \frac{\text{SFM} \times 3.82}{D}$$

$$\text{IPM} = \text{RPM} \times \text{IPR}$$



Material	Cutting conditions or surface finishes	Grade of insert	Ae Max. inch	SFM	IPR (inch/rev.)
Carbon Steel	Regular cutting	NC2033	.020	394 ~ 656	.002 ~ .004
	Interrupted cutting	NC30	.012	328 ~ 459	.002 ~ .003
Alloy Steel	Regular cutting	NC2033	.020	328 ~ 459	.002 ~ .004
	Interrupted cutting	NC30	.012	262 ~ 394	.002 ~ .003
Stainless Steel	Regular cutting	NC2033	.020	262 ~ 394	.002 ~ .004
	Interrupted cutting	NC30	.012	230 ~ 328	.002 ~ .004
Cast Iron	Regular cutting	NC30	.020	262 ~ 394	.002 ~ .004
Brass, Bronze and Al-alloy Si >6%	Regular cutting	NC9031	.020	492 ~ 984	.002 ~ .004
Al, Al-alloy, non-ferrous metal	Regular cutting	NC9031	.020	492 ~ 984	.002 ~ .004
	Super finished	DM	.012	1640 ~ 6560	.002 ~ .004
Hardened Steel <HRC 50	Regular cutting	NC30	.012	262 ~ 394	.002 ~ .004



EVEREDE TOOL CO.

5296 Northwest Highway
Chicago, Illinois 60630
Phone: (773) 467-4200
Toll Free: (800) 621-5486
www.everede.net

*Everede Tool Company is the exclusive Nine9
marketer and importer for the united states.*

Available through select distributors.

Distributor :