
BORING BARS FOR SMALL PARTS MACHINING

COMPATIBLE WITH SWISS-TYPE AUTOMATIC LATHES



BORING BARS FOR SMALL PARTS MACHINING

OVERALL LENGTH COMPATIBLE WITH SWISS-TYPE AUTOMATIC LATHES



SCREW-ON TYPE

CARBIDE SHANK:

80 mm, 90 mm, 140 mm, 180 mm

HARD STEEL SHANK*:

70 mm, 80 mm, 90 mm

* The shank material has excellent resistance to damage caused by chip evacuation.

STEEL SHANK:

90 mm, 150 mm

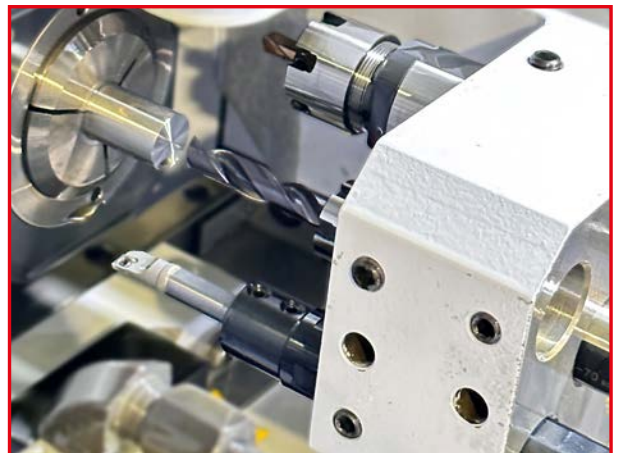
WITH COOLANT HOLE

Some items with small diameter carbide shanks do not have a coolant hole.

Please check the series list on page 3.

NO NEED TO SHORTEN THE SHANK

The length of the tools are compatible with Swiss-type automatic lathes, therefore no need to cut the shank to prevent interference.



THROUGH COOLANT CARBIDE SHANK WITH MINIMUM MACHINING DIAMETER OF 9 MM

The boring bar with a minimum machining diameter of 9 mm provides a large clearance and enables excellent chip evacuation.

CLEARANCE COMPARISON: HOLE DIAMETER 11 MM



Boring Bar for machining small parts
Minimum machining diameter of 9 mm



Dimple Bar
Minimum machining diameter of 10 mm

IDENTIFICATION

1. Shank material	4. Clamp structure	5. Insert shape	6. Cutting angle KAPR	7. Insert clearance
C Carbide shank	S Screw-on	C RHOMBIC 80°	U 93°	B 5° POSITIVE
H Hard steel shank		D RHOMBIC 55°	L 95°	C 7° POSITIVE
S Steel shank		T TRIANGULAR 60°	Q 107.5°	P 11° POSITIVE
		V RHOMBIC 35°	P 117.5°	
		W TRIGON	J 142°	

2. Min. machining Diameter
DMIN (mm)

3. Shank diameter
DCONMS (mm)

C		18	-	16		S		C		L		C		R		09	-	180	-	C
1		2		3		4		5		6		7		8		9		10		11

8. Hand of tool	9. Cutting edge length symbol and inscribed circle	10. Tool length (mm)	11. Coolant hole
R Right hand	Inscribed circle (mm) 3.97 4.76 5.56 6.35 7.94 9.525	070 70	C With coolant hole
L Left hand	RHOMBIC 80° 03 04 — 06 08 09	080 80	
	RHOMBIC 55° — — — 07 — 11	090 90	
	TRIANGULAR 60° 06 08 09 11 — 16	140 140	
	RHOMBIC 35° — 08 — 11 — 16	150 150	
	TRIGON 02 L3 — 04 — 06	180 180	
		200 200	
		250 250	

SELECTION STANDARD

Insert shape	Holder type	KAPR	Shank material	Tool length	DMIN	DCONMS	Economical	Cutting edge strength	Profile turning	Internal coolant	Deep boring (L/D>6)	Holder	Insert
RHOMBIC 80° Normal clearance 7°	SCLC	95°	Carbide	80, 90	5 – 8	4 – 7		⊙			⊙	5	39
			Carbide	90, 140, 180	9 – 34	8 – 32		⊙		⊙	⊙	6	
			Hard Steel	70,80,90	5 – 10	4 – 8		⊙				7	
			Hard Steel	90	12	10		⊙		⊙		8	
			Steel	90, 150	14 – 34	12 – 32		⊙		⊙		9	
RHOMBIC 80° Normal clearance 11°	SCLP	95°	Carbide	140, 180	12 – 30	10 – 25		⊙		⊙	⊙	10	47
			Hard Steel	90	12	10		⊙		⊙		11	
			Steel	90, 150	14 – 30	12 – 25		⊙		⊙		12	
TRIANGULAR 60° Normal clearance 7°	STUC	93°	Carbide	90	7 – 8	6 – 7	⊙				⊙	13	56
			Carbide	90, 140, 180	9 – 32	8 – 25	⊙			⊙	⊙	14	
			Hard Steel	80	7 – 10	6 – 8	⊙					15	
			Hard Steel	90	12	10	⊙			⊙		16	
			Steel	90, 150	14 – 40	12 – 32	⊙			⊙		17	
TRIANGULAR 60° Normal clearance 11°	STUP	93°	Carbide	90, 140, 180	10 – 34	8 – 25	⊙			⊙	⊙	18	59
			Hard Steel	80	10	8	⊙					19	
			Hard Steel	90	12	10	⊙			⊙		20	
			Steel	90, 150	14 – 34	12 – 25	⊙			⊙		21	
RHOMBIC 55° Normal clearance 7°	SDUC	93°	Carbide	140, 180	14 – 32	10 – 25			⊙	⊙	⊙	22	50
			Hard Steel	90	14	10			⊙	⊙		23	
			Steel	150	16 – 32	12 – 25			⊙	⊙		24	
RHOMBIC 55° Normal clearance 7°	SDQC	107.5°	Carbide	140, 180	13 – 30	10 – 25			⊙	⊙	⊙	25	50
			Steel	90	13	10			⊙	⊙		26	
			Steel	90, 150	16 – 30	12 – 25			⊙	⊙		27	
RHOMBIC 35° Normal clearance 7°	SVUC	93°	Carbide	140	16	12			⊙	⊙		28	65
			Steel	90	16	12			⊙	⊙		29	
	SVPC	117.5°	Carbide	140	16	10			⊙	⊙		30	
			Hard Steel	90	16	10			⊙	⊙		31	
	SVJC	142°	Steel	90, 150	16 – 20	12 – 16			⊙	⊙		33	
RHOMBIC 35° Normal clearance 5°	SVUB	93°	Carbide	180	20 – 34	16 – 25			⊙	⊙		28	62
			Steel	150, 200	20 – 40	16 – 32			⊙	⊙		29	
	SVPB	117.5°	Carbide	180	20 – 34	12 – 25			⊙	⊙		30	
			Steel	150, 200	20 – 40	12 – 32			⊙	⊙		32	
	SVJB	142°	Steel	150, 200, 250	25 – 50	20 – 40			⊙	⊙		33	
TRIGON Normal clearance 7°	SWUC	93°	Carbide	80, 90	6 – 8	5 – 7	⊙	⊙			⊙	34	67
			Carbide	90, 140, 180	10 – 22	8 – 20	⊙	⊙		⊙	⊙	35	
			Hard Steel	70,80	6 – 10	5 – 8	⊙	⊙				36	
			Hard Steel	80	12	10	⊙	⊙		⊙		37	
			Steel	90, 150	14 – 22	12 – 20	⊙	⊙		⊙		38	

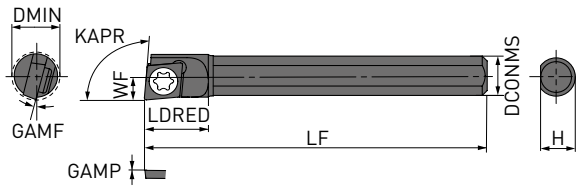
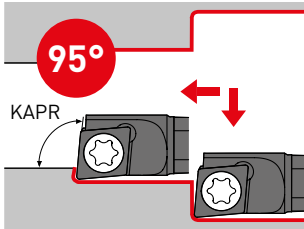
INSTRUCTIONS FOR THE USE OF CPGT, TPGX / TPMX TYPE INSERTS

Boring bars for machining small parts can use the inserts listed in the table below by changing the clamp screws.

Insert type	Clamp screw	Insert type	Clamp screw
CPGT0802 $\odot\odot$ (Ø7.94)	TS3	TPGX0802 $\odot\odot$ (Ø4.76)	CS200T
CPGT0903 $\odot\odot$ (Ø9.525)	TS4	TPGX/TPMX0902 $\odot\odot$ (Ø5.56)	CS250T
		TPGX/TPMX1103 $\odot\odot$ (Ø9.525)	CS300890T

C-SCLC

CARBIDE SHANK BORING BAR WITHOUT COOLANT HOLE



Right hand tool holder shown.

CC⁰⁰-Inserts



(03,04)

PCBN/PCD



(03,04)

Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C05-04SCLCR03-080	●	R	5	4	80	7	2.5	3.7	15°	0°	CC ⁰⁰
C05-04SCLCL03-080	●	L	5	4	80	7	2.5	3.7	15°	0°	
C06-05SCLCR03-080	●	R	6	5	80	9	3.0	4.7	13°	0°	
C06-05SCLCL03-080	●	L	6	5	80	9	3.0	4.7	13°	0°	
C07-06SCLCR04-090	●	R	7	6	90	9	3.5	5.7	13°	0°	
C07-06SCLCL04-090	●	L	7	6	90	9	3.5	5.7	13°	0°	
C08-07SCLCR04-090	●	R	8	7	90	10	4.0	6.7	11°	0°	
C08-07SCLCL04-090	●	L	8	7	90	10	4.0	6.7	11°	0°	

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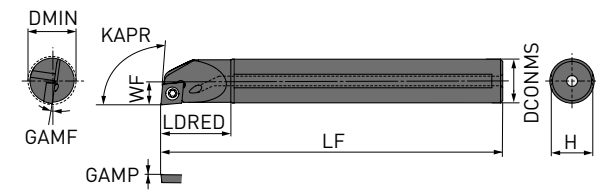
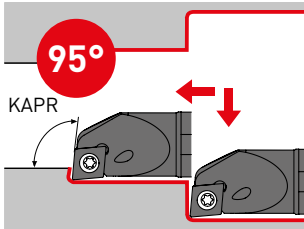
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C ⁰⁰ - ⁰⁰ SCLCR/L03	TS16	TKY06F
C ⁰⁰ - ⁰⁰ SCLCR/L04	TS21	TKY06F

* Clamp torque (Nm): TS16 = 0.6, TS21 = 0.6

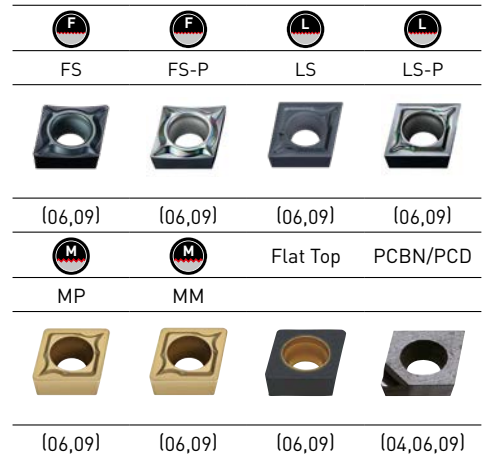
C-SCLC-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

CC $\circ\circ$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C09-08SCLCR04-090-C	●	R	9	8	90	14	4.5	7	10°	0°	04T0 $\circ\circ$
C10-08SCLCR04-090-C	●	R	10	8	90	14	5.0	7	9°	0°	04T0 $\circ\circ$
C10-08SCLCR06-140-C	●	R	10	8	140	14	5.0	7	9°	0°	0602 $\circ\circ$
C10-08SCLCL06-140-C	●	L	10	8	140	14	5.0	7	9°	0°	0602 $\circ\circ$
C12-10SCLCR06-140-C	●	R	12	10	140	18	6.0	9	12°	0°	0602 $\circ\circ$
C12-10SCLCL06-140-C	●	L	12	10	140	18	6.0	9	12°	0°	0602 $\circ\circ$
C14-12SCLCR06-140-C	●	R	14	12	140	23	7.0	11	10°	0°	CC $\circ\circ$ 0602 $\circ\circ$
C14-12SCLCL06-140-C	●	L	14	12	140	23	7.0	11	10°	0°	0602 $\circ\circ$
C18-16SCLCR09-180-C	●	R	18	16	180	28	9.0	15	10°	0°	09T3 $\circ\circ$
C18-16SCLCL09-180-C	●	L	18	16	180	28	9.0	15	10°	0°	09T3 $\circ\circ$
C22-20SCLCR09-180-C	●	R	22	20	180	32	11.0	19	8°	0°	09T3 $\circ\circ$
C27-25SCLCR09-180-C	★	R	27	25	180	38	13.5	24	6°	0°	09T3 $\circ\circ$
C34-32SCLCR09-180-C	★	R	34	32	180	48	17.0	31	4°	0°	09T3 $\circ\circ$

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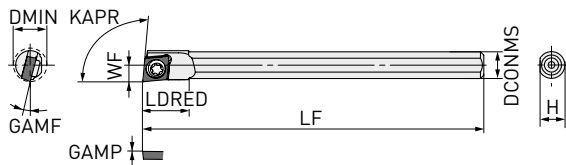
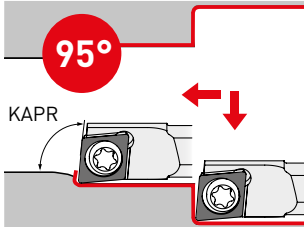
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C $\circ\circ\circ$ - $\circ\circ$ SCLCR04	TS21	TKY06F
C $\circ\circ\circ$ - $\circ\circ$ SCLCR/L06	TS25	TKY08F
C $\circ\circ\circ$ - $\circ\circ$ SCLCR/L09	TS4	TKY15F

* Clamp torque (Nm): TS21 = 0.6, TS25 = 1.0, TS4 = 3.5

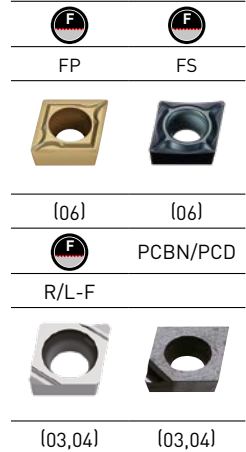
H-SCLC

HARD STEEL SHANK WITHOUT COOLANT HOLE



Right hand tool holder shown.

CC⁰⁰-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H05-04SCLCR03-070	●	R	5	4	70	7	2.5	3.7	15°	0°	03S1 ⁰⁰
H05-04SCLCL03-070	●	L	5	4	70	7	2.5	3.7	15°	0°	03S1 ⁰⁰
H055-04SCLCR03-070	●	R	5.5	4	70	7	2.95	3.7	15°	0°	03S1 ⁰⁰
H06-05SCLCR03-070	●	R	6	5	70	9	3.0	4.7	13°	0°	03S1 ⁰⁰
H06-05SCLCL03-070	●	L	6	5	70	9	3.0	4.7	13°	0°	03S1 ⁰⁰
H07-06SCLCR04-080	●	R	7	6	80	10	3.5	5.7	13°	0°	04T0 ⁰⁰
H07-06SCLCL04-080	●	L	7	6	80	10	3.5	5.7	13°	0°	CC ⁰⁰ 04T0 ⁰⁰
H08-07SCLCR04-080	●	R	8	7	80	11	4.0	6.7	11°	0°	04T0 ⁰⁰
H08-07SCLCL04-080	●	L	8	7	80	11	4.0	6.7	11°	0°	04T0 ⁰⁰
H09-08SCLCR04-080	●	R	9	8	80	16	4.5	7.7	10°	0°	04T0 ⁰⁰
H10-08SCLCR04-080	●	R	10	8	80	16	5.0	7.7	9°	0°	04T0 ⁰⁰
H10-08SCLCR06-090	●	R	10	8	90	16	5.0	7.7	14°	0°	0602 ⁰⁰
H10-08SCLCL06-090	●	L	10	8	90	16	5.0	7.7	14°	0°	0602 ⁰⁰

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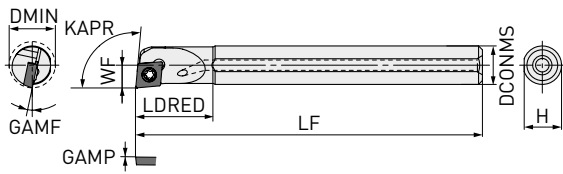
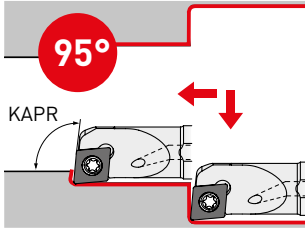
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
H ⁰⁰ - ⁰⁰ SCLCR/L03	TS16	TKY06F
H ⁰⁰ - ⁰⁰ SCLCR/L04	TS21	TKY06F
H ⁰⁰ - ⁰⁰ SCLCR/L06	TS25	TKY08F

* Clamp torque (Nm): TS16 = 0.6, TS21 = 0.6, TS25 = 1.0

H-SCLC-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

CC⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H12-10SCLCR06-090-C	●	R	12	10	90	20	6.0	9.7	12°	0°	CC ⁰⁰ 0602 ⁰⁰
H12-10SCLCL06-090-C	●	L	12	10	90	20	6.0	9.7	12°	0°	CC ⁰⁰ 0602 ⁰⁰

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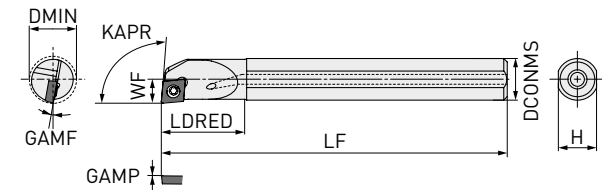
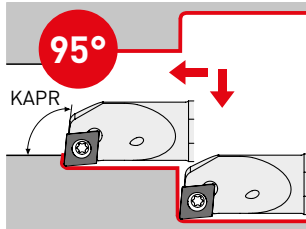
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H ⁰⁰ - ⁰⁰ SCLCR/L06	TS25	TKY08F

* Clamp torque (Nm): TS25 = 1.0

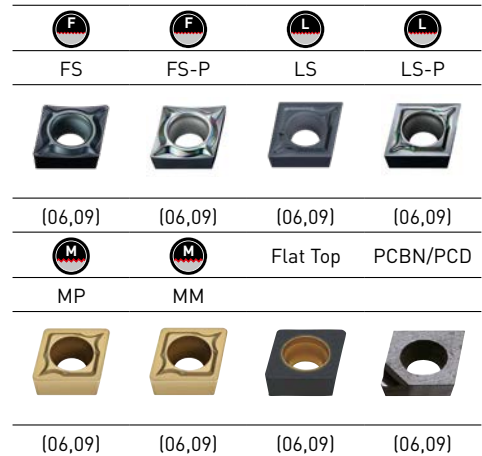
S-SCLC-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

CC^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
S14-12SCLCR06-090-C	●	R	14	12	90	24	7.0	11	10°	0°	0602 ^{○○}
S14-12SCLCL06-090-C	●	L	14	12	90	24	7.0	11	10°	0°	0602 ^{○○}
S18-16SCLCR09-150-C	●	R	18	16	150	30	9.0	15	10°	0°	09T3 ^{○○}
S18-16SCLCL09-150-C	●	L	18	16	150	30	9.0	15	10°	0°	09T3 ^{○○}
S22-20SCLCR09-150-C	●	R	22	20	150	36	11.0	19	8°	0°	09T3 ^{○○}
S22-20SCLCL09-150-C	●	L	22	20	150	36	11.0	19	8°	0°	CC ^{○○} 09T3 ^{○○}
S27-25SCLCR09-150-C	●	R	27	25	150	46	13.5	24	6°	0°	09T3 ^{○○}
S27-25SCLCL09-150-C	●	L	27	25	150	46	13.5	24	6°	0°	09T3 ^{○○}
S34-32SCLCR09-150-C	●	R	34	32	150	58	17.0	31	4°	0°	09T3 ^{○○}
S34-32SCLCL09-150-C	★	L	34	32	150	58	17.0	31	4°	0°	09T3 ^{○○}

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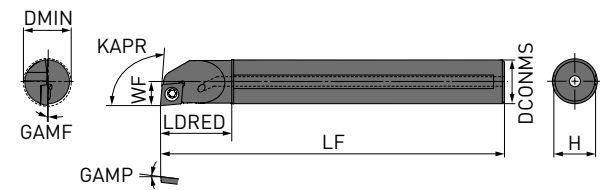
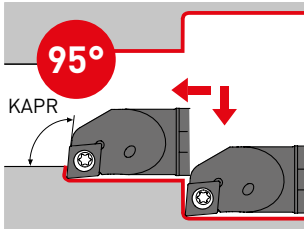
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S14-12SCLCR/L06	TS25	TKY08F
S ^{○○○○} SCLCR/L09	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

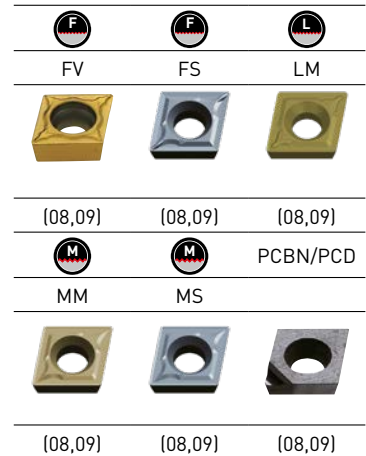
C-SCLP-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

CP^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C12-10SCLPR08-140-C	●	R	12	10	140	18	6.0	9	5°	5°	CP ^{○○}
C12-10SCLPL08-140-C	●	L	12	10	140	18	6.0	9	5°	5°	
C14-12SCLPR08-140-C	●	R	14	12	140	23	7.0	11	4°	5°	
C14-12SCLPL08-140-C	●	L	14	12	140	23	7.0	11	4°	5°	
C16-12SCLPR09-140-C	●	R	16	12	140	23	8.0	11	4°	5°	
C16-12SCLPL09-140-C	●	L	16	12	140	23	8.0	11	4°	5°	
C18-16SCLPR09-180-C	●	R	18	16	180	28	9.0	15	3.5°	5°	
C18-16SCLPL09-180-C	●	L	18	16	180	28	9.0	15	3.5°	5°	
C22-20SCLPR09-180-C	●	R	22	20	180	32	11.0	19	2°	5°	
C22-20SCLPL09-180-C	●	L	22	20	180	32	11.0	19	2°	5°	
C27-25SCLPR09-180-C	★	R	27	25	180	38	13.5	24	0°	5°	
C30-25SCLPR09-180-C	★	R	30	25	180	38	15.0	24	0°	5°	

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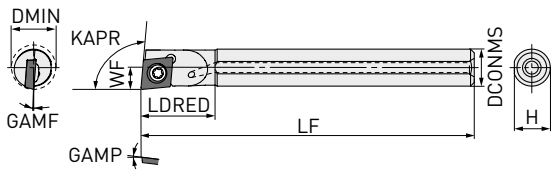
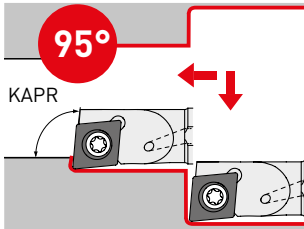
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C ^{○○} - ^{○○} SCLPR/L08	TS3D	TKY10F
C ^{○○} - ^{○○} SCLPR/L09	TS4D	TKY15F

* Clamp torque (Nm): TS3D = 2.5, TS4D = 3.5
By changing the clamp screw, it is possible to use the inserts listed page 3 for details.

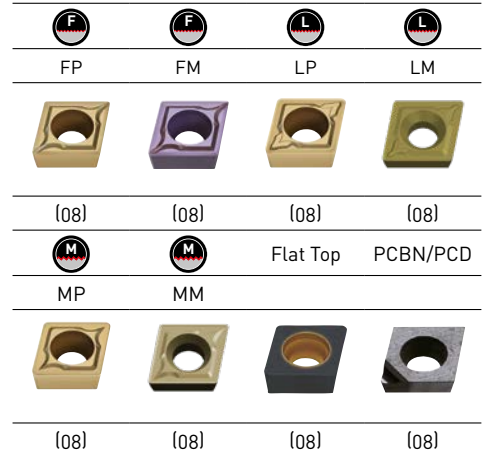
H-SCLP-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

CP^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H12-10SCLPR08-090-C	●	R	12	10	90	20	6.0	9.7	5°	5°	CP ^{○○} 0802 ^{○○}
H12-10SCLPL08-090-C	●	L	12	10	90	20	6.0	9.7	5°	5°	CP ^{○○} 0802 ^{○○}

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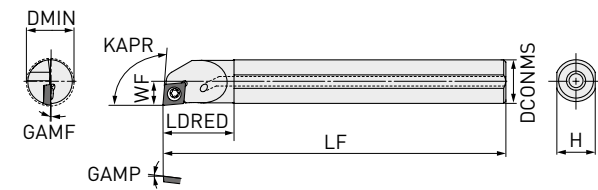
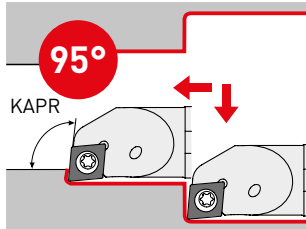
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
H12-10SCLPR/L08	TS3D	TKY10F

* Clamp torque (Nm): TS3D = 2.5

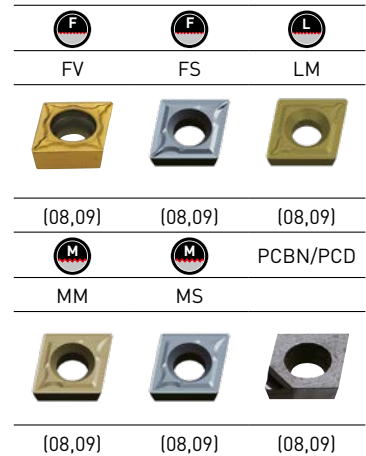
S-SCLP-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

CP^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
S14-12SCLPR08-090-C	●	R	14	12	90	24	7.0	11	4°	5°	CP ^{○○}
S14-12SCLPL08-090-C	●	L	14	12	90	24	7.0	11	4°	5°	
S16-12SCLPR09-090-C	★	R	16	12	90	24	8.0	11	4°	5°	
S16-12SCLPL09-090-C	★	L	16	12	90	24	8.0	11	4°	5°	
S18-16SCLPR09-150-C	★	R	18	16	150	30	9.0	15	3.5°	5°	
S18-16SCLPL09-150-C	★	L	18	16	150	30	9.0	15	3.5°	5°	
S22-20SCLPR09-150-C	★	R	22	20	150	36	11.0	19	2°	5°	
S22-20SCLPL09-150-C	★	L	22	20	150	36	11.0	19	2°	5°	
S27-25SCLPR09-150-C	★	R	27	25	150	46	13.5	24	0°	5°	
S27-25SCLPL09-150-C	★	L	27	25	150	46	13.5	24	0°	5°	
S30-25SCLPR09-150-C	●	R	30	25	150	46	15.0	24	0°	5°	
S30-25SCLPL09-150-C	★	L	30	25	150	46	15.0	24	0°	5°	

1/1



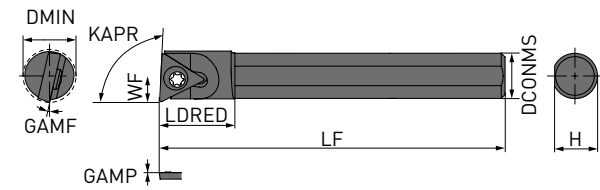
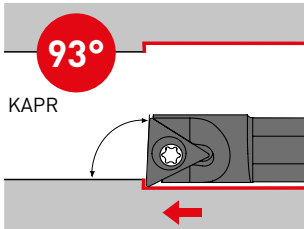
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S14-12SCLPR/L08	TS3D	TKY10F
S ^{○○○○} SCLPR/L09	TS4D	TKY15F

* Clamp torque (Nm): TS3D = 2.5, TS4D = 3.5
By changing the clamp screw, it is possible to use the inserts listed page 3 for details.

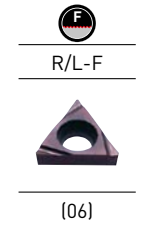
C-STUC

CARBIDE SHANK BORING BAR WITHOUT COOLANT HOLE



Right hand tool holder shown.

TC $\circ\circ$ -Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C07-06STUCR06-090	●	R	7	6	90	10	3.5	5.7	13°	0°	TC $\circ\circ$
C07-06STUCL06-090	●	L	7	6	90	10	3.5	5.7	13°	0°	
C08-07STUCR06-090	●	R	8	7	90	10	4.0	6.7	12°	0°	TC $\circ\circ$
C08-07STUCL06-090	●	L	8	7	90	10	4.0	6.7	12°	0°	

1/1



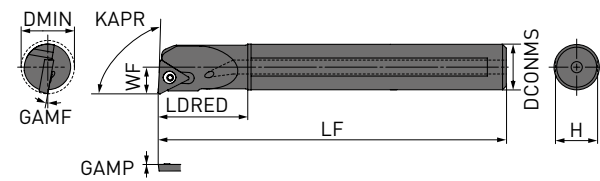
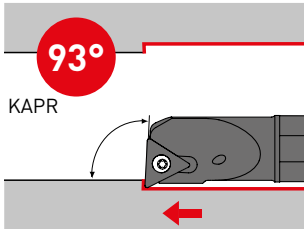
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
C $\circ\circ$ - $\circ\circ$ STUCR/L06	TS2C	TKY06F

* Clamp torque (Nm): TS2C = 0.6

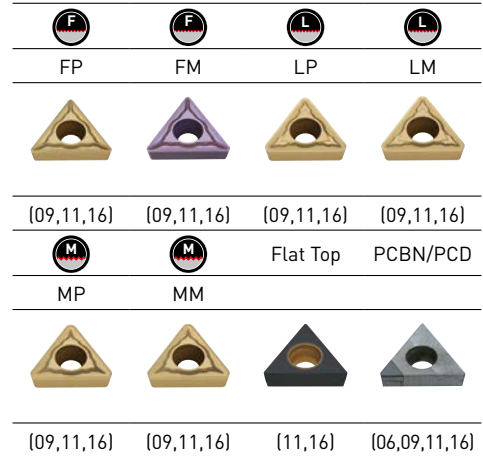
C-STUC-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

TC $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C09-08STUCR06-090-C	●	R	9	8	90	14	4.5	7	11°	0°	0601 $\odot\odot$
C10-08STUCR09-090-C	●	R	10	8	90	14	5.0	7	14°	0°	0902 $\odot\odot$
C10-08STUCL09-090-C	●	L	10	8	90	14	5.0	7	14°	0°	0902 $\odot\odot$
C12-10STUCR09-140-C	●	R	12	10	140	18	6.2	9	12°	0°	0902 $\odot\odot$
C12-10STUCL09-140-C	●	L	12	10	140	18	6.2	9	12°	0°	0902 $\odot\odot$
C14-12STUCR09-140-C	●	R	14	12	140	23	7.2	11	10°	0°	0902 $\odot\odot$
C14-12STUCL09-140-C	●	L	14	12	140	23	7.2	11	10°	0°	0902 $\odot\odot$
C18-16STUCR11-180-C	●	R	18	16	180	28	9.2	15	8°	0°	TC $\odot\odot$ 1102 $\odot\odot$
C18-16STUCL11-180-C	●	L	18	16	180	28	9.2	15	8°	0°	1102 $\odot\odot$
C22-20STUCR11-180-C	●	R	22	20	180	32	11.2	19	6°	0°	1102 $\odot\odot$
C22-20STUCL11-180-C	●	L	22	20	180	32	11.2	19	6°	0°	1102 $\odot\odot$
C27-20STUCR11-180-C	●	R	27	20	180	32	13.5	19	5°	0°	1102 $\odot\odot$
C27-20STUCL11-180-C	●	L	27	20	180	32	13.5	19	5°	0°	1102 $\odot\odot$
C32-25STUCR16-180-C	●	R	32	25	180	38	17.0	24	5°	0°	16T3 $\odot\odot$
C32-25STUCL16-180-C	★	L	32	25	180	38	17.0	24	5°	0°	16T3 $\odot\odot$

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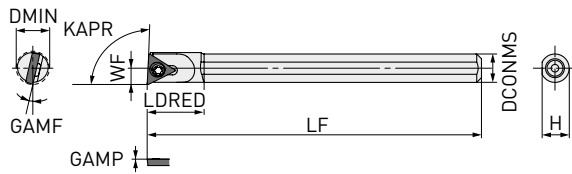
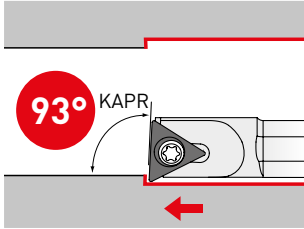
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C09-08STUCR06	TS2C	TKY06F
C $\odot\odot\odot$ STUCR/L09	TS22	TKY06F
C $\odot\odot\odot$ STUCR/L11	TS25	TKY08F
C32-25STUCR/L16	TS4	TKY15F

* Clamp torque (Nm): TS2C = 0.6, TS22 = 0.6, TS25 = 1.0, TS4 = 3.5

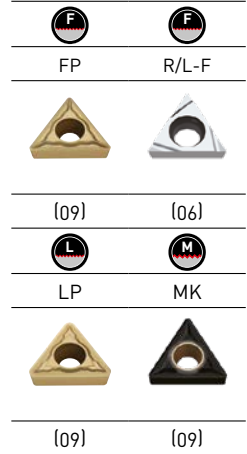
H-STUC

HARD STEEL SHANK WITHOUT COOLANT HOLE



Right hand tool holder shown.

TC^{○○}-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H07-06STUCR06-080	●	R	7	6	80	12	3.5	5.7	13°	0°	0601 ^{○○}
H07-06STUCL06-080	●	L	7	6	80	12	3.5	5.7	13°	0°	0601 ^{○○}
H08-07STUCR06-080	●	R	8	7	80	12	4.0	6.7	12°	0°	0601 ^{○○}
H08-07STUCL06-080	●	L	8	7	80	12	4.0	6.7	12°	0°	TC ^{○○} 0601 ^{○○}
H09-08STUCR06-080	●	R	9	8	80	16	4.5	7.7	11°	0°	0601 ^{○○}
H10-08STUCR09-080	●	R	10	8	80	16	5.0	7.7	14°	0°	0902 ^{○○}
H10-08STUCL09-080	●	L	10	8	80	16	5.0	7.7	14°	0°	0902 ^{○○}

1/1



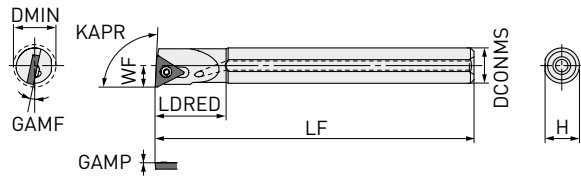
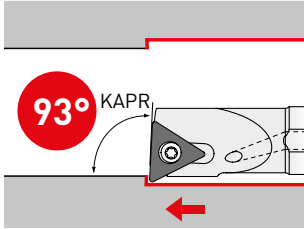
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H ^{○○} - ^{○○} STUCR/L06	TS2C	TKY06F
H ^{○○} - ^{○○} STUCR/L09	TS22	TKY06F

* Clamp torque (Nm): TS2C = 0.6, TS22 = 0.6

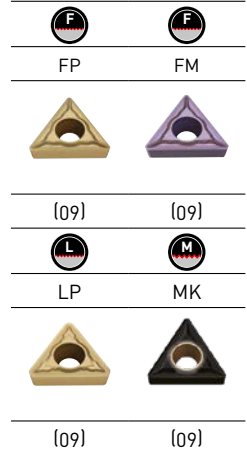
H-STUC-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

TC⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H12-10STUCR09-090-C	●	R	12	10	90	20	6.2	9.7	12°	0°	TC ⁰⁰ 0902 ⁰⁰
H12-10STUCL09-090-C	●	L	12	10	90	20	6.2	9.7	12°	0°	TC ⁰⁰ 0902 ⁰⁰

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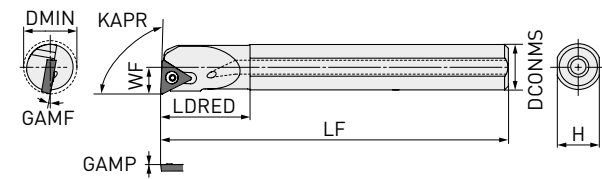
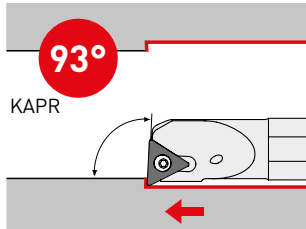
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H ⁰⁰ - ⁰⁰ STUCR/L09	TS22	TKY06F

* Clamp torque (Nm): TS22 = 0.6

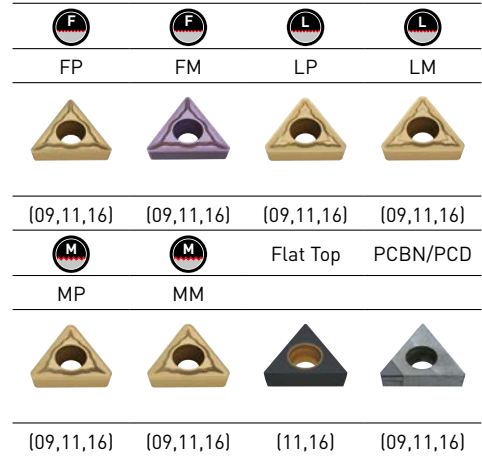
S-STUC-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

TC^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
S14-12STUCR09-090-C	●	R	14	12	90	24	7.2	11	10°	0°	0902 ^{○○}
S14-12STUCL09-090-C	●	L	14	12	90	24	7.2	11	10°	0°	0902 ^{○○}
S18-16STUCR11-150-C	●	R	18	16	150	30	9.2	15	8°	0°	1102 ^{○○}
S18-16STUCL11-150-C	●	L	18	16	150	30	9.2	15	8°	0°	1102 ^{○○}
S22-20STUCR11-150-C	●	R	22	20	150	36	11.2	19	6°	0°	1102 ^{○○}
S22-20STUCL11-150-C	●	L	22	20	150	36	11.2	19	6°	0°	1102 ^{○○}
S27-20STUCR11-150-C	●	R	27	20	150	36	13.5	19	5°	0°	TC ^{○○} 1102 ^{○○}
S27-20STUCL11-150-C	●	L	27	20	150	36	13.5	19	5°	0°	1102 ^{○○}
S32-25STUCR16-150-C	●	R	32	25	150	46	17.0	24	5°	0°	16T3 ^{○○}
S32-25STUCL16-150-C	●	L	32	25	150	46	17.0	24	5°	0°	16T3 ^{○○}
S40-32STUCR16-150-C	★	R	40	32	150	58	22.0	31	3°	0°	16T3 ^{○○}
S40-32STUCL16-150-C	★	L	40	32	150	58	22.0	31	3°	0°	16T3 ^{○○}

1/1



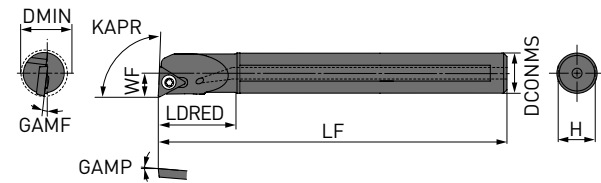
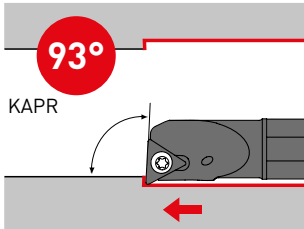
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S14-12STUCR/L09	TS22	TKY06F
S ^{○○} - ^{○○} STUCR/L11	TS25	TKY08F
S ^{○○} - ^{○○} STUCR/L16	TS4	TKY15F

* Clamp torque (Nm): TS22 = 0.6, TS25 = 1.0, TS4 = 3.5

C-STUP-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

TP^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C10-08STUPR08-090-C	●	R	10	8	90	14	5.0	7	10°	5°	TP ^{○○}
C10-08STUPL08-090-C	●	L	10	8	90	14	5.0	7	10°	5°	
C12-10STUPR09-140-C	●	R	12	10	140	18	6.2	9	8°	5°	
C12-10STUPL09-140-C	●	L	12	10	140	18	6.2	9	8°	5°	
C14-12STUPR09-140-C	●	R	14	12	140	23	7.2	11	7°	5°	
C14-12STUPL09-140-C	●	L	14	12	140	23	7.2	11	7°	5°	
C18-16STUPR11-180-C	●	R	18	16	180	28	9.2	15	3.5°	5°	
C18-16STUPL11-180-C	★	L	18	16	180	28	9.2	15	3.5°	5°	
C22-20STUPR11-180-C	●	R	22	20	180	32	11.2	19	2°	5°	
C22-20STUPL11-180-C	★	L	22	20	180	32	11.2	19	2°	5°	
C27-25STUPR11-180-C	★	R	27	25	180	38	13.7	24	0°	5°	
C27-25STUPL11-180-C	★	L	27	25	180	38	13.7	24	0°	5°	
C34-25STUPR11-180-C	★	R	34	25	180	38	17.2	24	0°	5°	
C34-25STUPL11-180-C	★	L	34	25	180	38	17.2	24	0°	5°	

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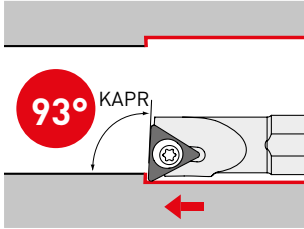
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C10-08STUPR/L08	TS2D	TKY06F
C ^{○○} - ^{○○} STUPR/L09	TS25D	TKY08F
C ^{○○} - ^{○○} STUPR/L11	TS31D	TKY10F

* Clamp torque (Nm): TS2D = 0.6, TS25D = 1.6, TS31D = 2.5
By changing the clamp screw, it is possible to use the inserts listed page 3 for details.

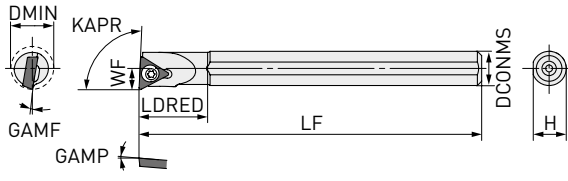
H-STUP

HARD STEEL SHANK WITHOUT COOLANT HOLE



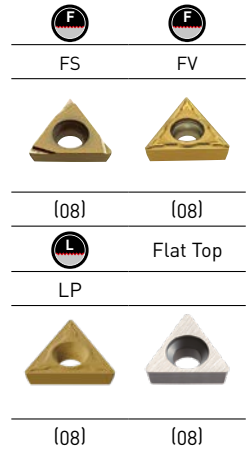
93°

KAPR



Right hand tool holder shown.

TP⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H10-08STUPR08-080	●	R	10	8	80	16	5.0	7.7	10°	5°	TP ⁰⁰ 0802 ⁰⁰
H10-08STUPL08-080	●	L	10	8	80	16	5.0	7.7	10°	5°	TP ⁰⁰ 0802 ⁰⁰

1/1



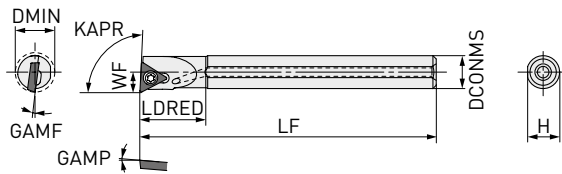
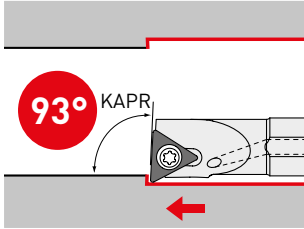
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H10-08STUPR/L08	TS2D	TKY06F

* Clamp torque (Nm): TS2D = 0.6

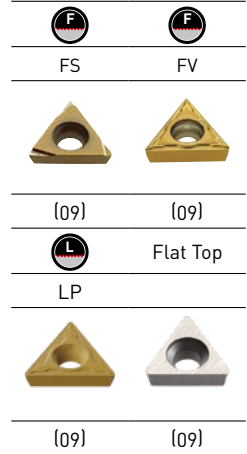
H-STUP-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

TP⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H12-10STUPR09-090-C	●	R	12	10	90	20	6.2	9.7	8°	5°	TP ⁰⁰ 0902 ⁰⁰
H12-10STUPL09-090-C	●	L	12	10	90	20	6.2	9.7	8°	5°	TP ⁰⁰ 0902 ⁰⁰

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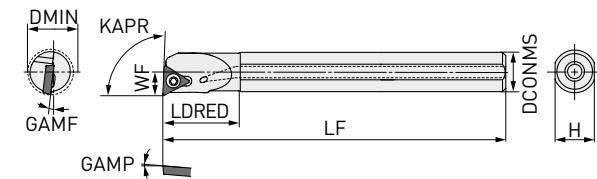
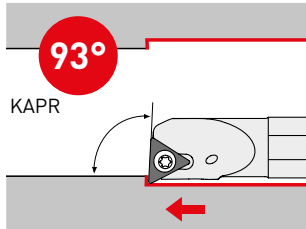
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H12-10STUPR/L09	TS25D	TKY08F

* Clamp torque (Nm): TS25D = 1.6

S-STUP-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

TP^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
S14-12STUPR09-090-C	●	R	14	12	90	24	7.2	11	7°	5°	0902 ^{○○}
S14-12STUPL09-090-C	●	L	14	12	90	24	7.2	11	7°	5°	0902 ^{○○}
S18-16STUPR11-150-C	●	R	18	16	150	30	9.2	15	3.5°	5°	1103 ^{○○}
S18-16STUPL11-150-C	●	L	18	16	150	30	9.2	15	3.5°	5°	1103 ^{○○}
S22-20STUPR11-150-C	★	R	22	20	150	36	11.2	19	2°	5°	TP ^{○○} 1103 ^{○○}
S22-20STUPL11-150-C	★	L	22	20	150	36	11.2	19	2°	5°	TP ^{○○} 1103 ^{○○}
S27-25STUPR11-150-C	★	R	27	25	150	46	13.7	24	0°	5°	1103 ^{○○}
S27-25STUPL11-150-C	★	L	27	25	150	46	13.7	24	0°	5°	1103 ^{○○}
S34-25STUPR11-150-C	★	R	34	25	150	46	17.2	24	0°	5°	1103 ^{○○}
S34-25STUPL11-150-C	★	L	34	25	150	46	17.2	24	0°	5°	1103 ^{○○}

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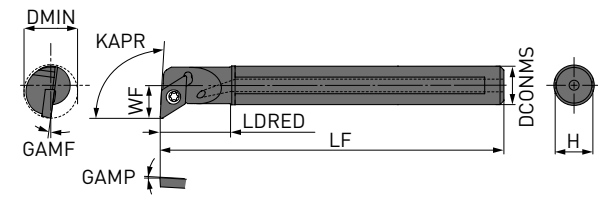
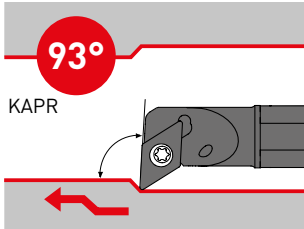
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S14-12STUPR/L09	TS25D	TKY08F
S ^{○○} - ^{○○} STUPR/L11	TS31D	TKY10F

* Clamp torque (Nm): TS25D = 1.6, TS31D = 2.5
By changing the clamp screw, it is possible to use the inserts listed page 3 for details.

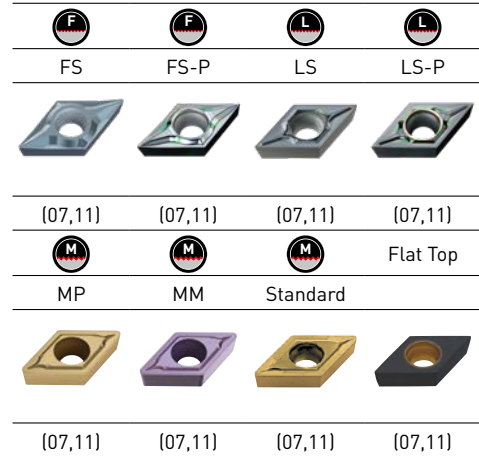
C-SDUC-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

DC $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C14-10SDUCR07-140-C	●	R	14	10	140	18	8.7	9	7.5°	3°	DC $\odot\odot$
C14-10SDUCL07-140-C	●	L	14	10	140	18	8.7	9	7.5°	3°	
C16-12SDUCR07-180-C	●	R	16	12	180	23	9.7	11	6.5°	3°	
C16-12SDUCL07-180-C	●	L	16	12	180	23	9.7	11	6.5°	3°	
C20-16SDUCR07-180-C	●	R	20	16	180	28	11.7	15	5°	3°	
C20-16SDUCL07-180-C	●	L	20	16	180	28	11.7	15	5°	3°	
C23-16SDUCR07-180-C	●	R	23	16	180	28	14.5	15	5°	3°	
C23-16SDUCL07-180-C	●	L	23	16	180	28	14.5	15	5°	3°	
C27-20SDUCR11-180-C	●	R	27	20	180	32	16.5	19	5°	3°	
C27-20SDUCL11-180-C	●	L	27	20	180	32	16.5	19	5°	3°	
C32-25SDUCR11-180-C	●	R	32	25	180	38	19.0	24	5°	3°	
C32-25SDUCL11-180-C	★	L	32	25	180	38	19.0	24	5°	3°	

1/1



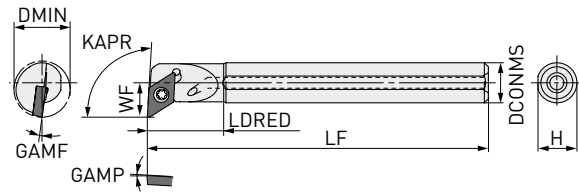
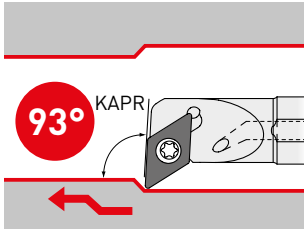
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C $\odot\odot\odot$ SDUCR/L07	TS25	TKY08F
C $\odot\odot\odot$ SDUCR/L11	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

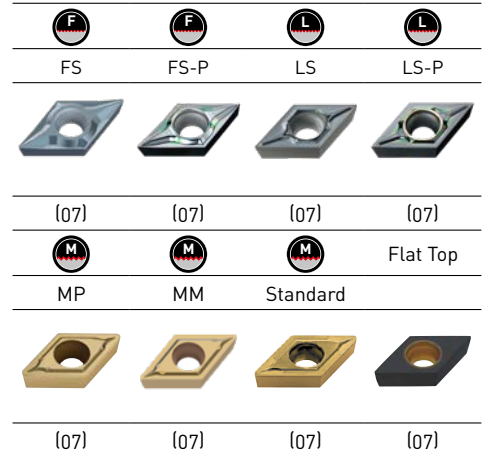
H-SDUC-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

DC^{○○}-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H14-10SDUCR07-090-C	●	R	14	10	90	19	8.7	9.7	7.5°	3°	DC ^{○○} 0702 ^{○○}
H14-10SDUCL07-090-C	●	L	14	10	90	19	8.7	9.7	7.5°	3°	DC ^{○○} 0702 ^{○○}

1/1



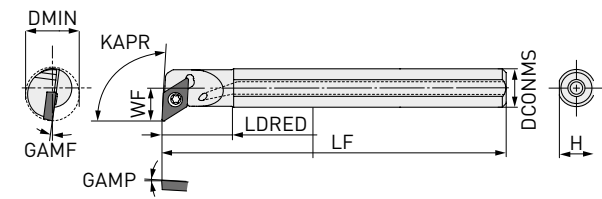
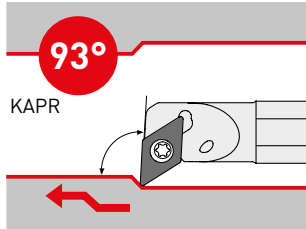
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H14-10SDUCR/L07	TS25	TKY08F

* Clamp torque (Nm): TS25 = 1.0

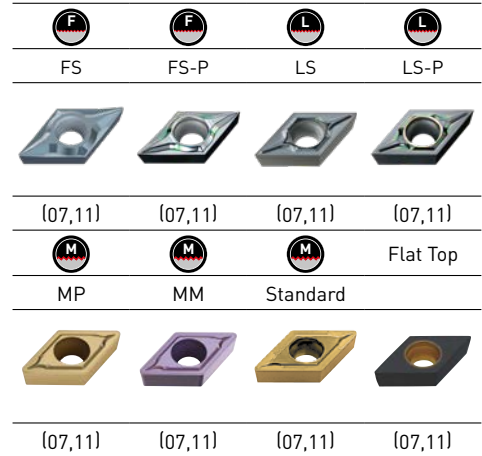
S-SDUC-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

DC $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number	
S16-12SDUCR07-150-C	●	R	16	12	150	21	9.7	11	6.5°	3°	DC $\odot\odot$	0702 $\odot\odot$
S16-12SDUCL07-150-C	●	L	16	12	150	21	9.7	11	6.5°	3°		0702 $\odot\odot$
S20-16SDUCR07-150-C	●	R	20	16	150	21	11.7	15	5°	3°		0702 $\odot\odot$
S20-16SDUCL07-150-C	●	L	20	16	150	21	11.7	15	5°	3°		0702 $\odot\odot$
S23-16SDUCR07-150-C	●	R	23	16	150	21	14.5	15	5°	3°		0702 $\odot\odot$
S23-16SDUCL07-150-C	●	L	23	16	150	21	14.5	15	5°	3°		0702 $\odot\odot$
S27-20SDUCR11-150-C	●	R	27	20	150	23	16.5	19	5°	3°		11T3 $\odot\odot$
S27-20SDUCL11-150-C	●	L	27	20	150	23	16.5	19	5°	3°		11T3 $\odot\odot$
S32-25SDUCR11-150-C	●	R	32	25	150	24	19.0	24	5°	3°		11T3 $\odot\odot$
S32-25SDUCL11-150-C	●	L	32	25	150	24	19.0	24	5°	3°		11T3 $\odot\odot$

1/1



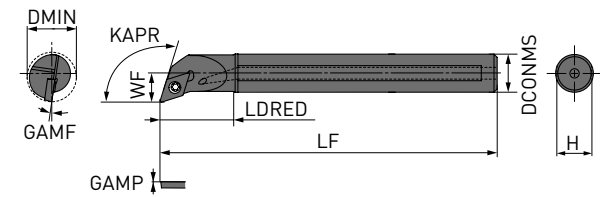
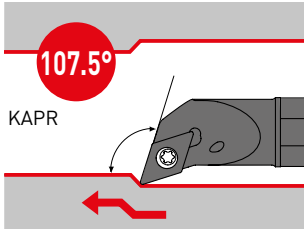
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S $\odot\odot\odot$ SDUCR/L07	TS25	TKY08F
S $\odot\odot\odot$ SDUCR/L11	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

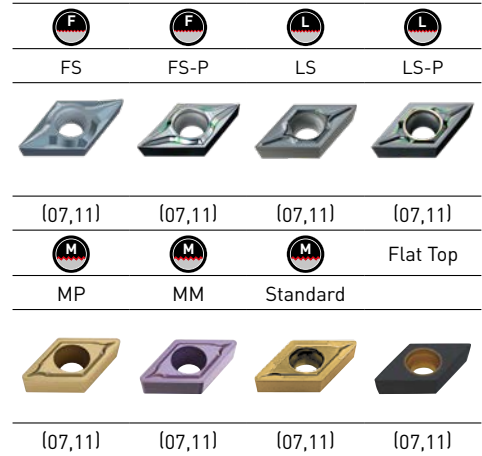
C-SDQC-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

DC $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C13-10SDQCR07-140-C	●	R	13	10	140	18	7.5	9	10°	0°	DC $\odot\odot$
C13-10SDQCL07-140-C	●	L	13	10	140	18	7.5	9	10°	0°	
C16-12SDQCR07-140-C	●	R	16	12	140	23	9.25	11	8°	0°	
C16-12SDQCL07-140-C	●	L	16	12	140	23	9.25	11	8°	0°	
C20-16SDQCR07-180-C	●	R	20	16	180	28	11.3	15	6°	0°	
C20-16SDQCL07-180-C	●	L	20	16	180	28	11.3	15	6°	0°	
C23-16SDQCR07-180-C	●	R	23	16	180	28	12.8	15	5°	0°	
C23-16SDQCL07-180-C	●	L	23	16	180	28	12.8	15	5°	0°	
C25-20SDQCR11-180-C	●	R	25	20	180	32	14.4	19	5°	0°	
C25-20SDQCL11-180-C	●	L	25	20	180	32	14.4	19	5°	0°	
C30-25SDQCR11-180-C	★	R	30	25	180	38	16.9	24	4°	0°	
C30-25SDQCL11-180-C	★	L	30	25	180	38	16.9	24	4°	0°	

1/1



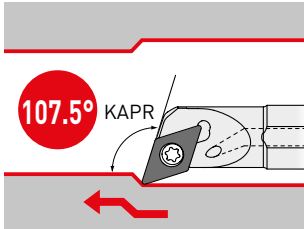
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C $\odot\odot\odot$ SDQCR/L07	TS25	TKY08F
C $\odot\odot\odot$ SDQCR/L11	TS4	TKY15F

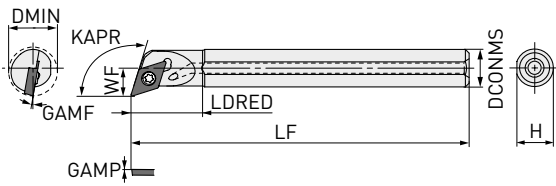
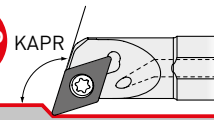
* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

H-SDQC-C

HARD STEEL SHANK WITH COOLANT HOLE

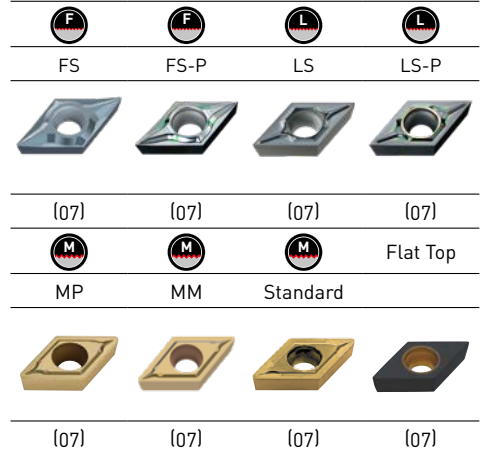


107.5°



Right hand tool holder shown.

DC^{○○}-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H13-10SDQCR07-090-C	●	R	13	10	90	19	7.5	9.7	10.0°	0°	DC ^{○○} 0702 ^{○○}
H13-10SDQCL07-090-C	●	L	13	10	90	19	7.5	9.7	10.0°	0°	DC ^{○○} 0702 ^{○○}

1/1



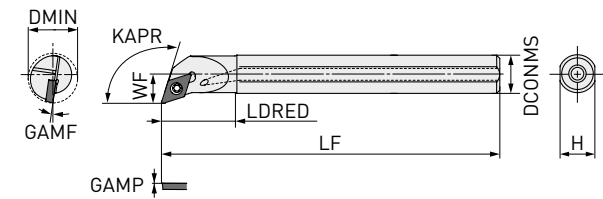
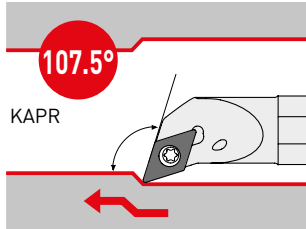
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H13-10SDQCR/L07	TS25	TKY08F

* Clamp torque (Nm): TS25 = 1.0

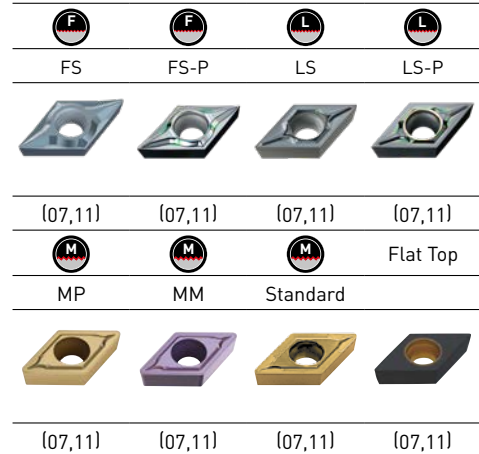
S-SDQC-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

DC $\circ\circ$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
S16-12SDQCR07-090-C	●	R	16	12	90	22	9.25	11	8°	0°	DC $\circ\circ$
S16-12SDQCL07-090-C	●	L	16	12	90	22	9.25	11	8°	0°	
S20-16SDQCR07-150-C	●	R	20	16	150	25	11.3	15	6°	0°	DC $\circ\circ$
S20-16SDQCL07-150-C	●	L	20	16	150	25	11.3	15	6°	0°	
S23-16SDQCR07-150-C	●	R	23	16	150	25	12.8	15	5°	0°	DC $\circ\circ$
S23-16SDQCL07-150-C	●	L	23	16	150	25	12.8	15	5°	0°	
S25-20SDQCR11-150-C	●	R	25	20	150	31	14.4	19	5°	0°	DC $\circ\circ$
S25-20SDQCL11-150-C	●	L	25	20	150	31	14.4	19	5°	0°	
S30-25SDQCR11-150-C	●	R	30	25	150	38	16.9	24	4°	0°	DC $\circ\circ$
S30-25SDQCL11-150-C	●	L	30	25	150	38	16.9	24	4°	0°	

1/1



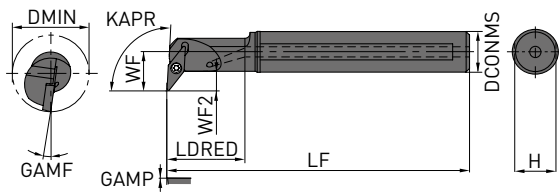
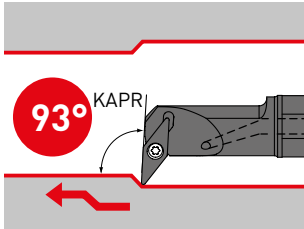
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S $\circ\circ\circ$ SDQCR/L07	TS25	TKY08F
S $\circ\circ\circ$ SDQCR/L11	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

C-SVUC/B-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

VC/VB $\odot\odot$ -Inserts

FP	FM	LP	LM
[11,16]	[08,11,16]	[08,11,16]	[08,11,16]
			PCBN/PCD
MP	MM	Standard	
[16]	[16]	[16]	[11,16]

Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	WF2	H	GAMF	GAMP	Insert number	
C16-12SVUCR08-140-C	●	R	16	12	140	23	11.5	5.6	11	8°	0°	VC $\odot\odot$	0802 $\odot\odot$
C20-16SVUBR11-180-C	●	R	20	16	180	28	16.0	8.1	15	8°	0°		1103 $\odot\odot$
C20-16SVUBL11-180-C	●	L	20	16	180	28	16.0	8.1	15	8°	0°		1103 $\odot\odot$
C25-20SVUBR11-180-C	●	R	25	20	180	32	18.0	8.1	19	7°	0°	VB $\odot\odot$	1103 $\odot\odot$
C30-20SVUBR11-180-C	●	R	30	20	180	32	18.0	8.1	19	6°	0°		1103 $\odot\odot$
C34-25SVUBR16-180-C	●	R	34	25	180	38	20.5	8.4	24	13°	0°		1604 $\odot\odot$

1/1



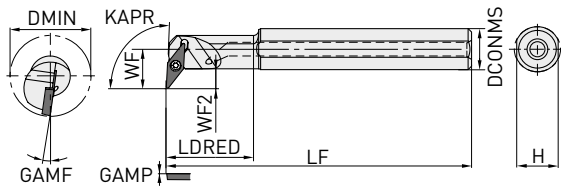
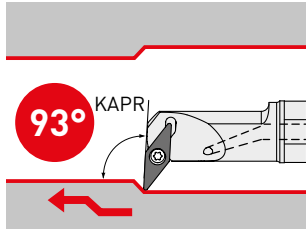
SPARE PARTS

Boring bar type		
	Clamp screw *	Wrench
C16-12SVUCR08	TS202	TKY06F
C $\odot\odot\odot\odot$ SVUBR/L11	TS255	TKY08F
C34-25SVUBR16	TS35D	TKY15F

* Clamp torque [Nm]: TS202 = 0.6, TS255 = 1.0, TS35D = 3.5

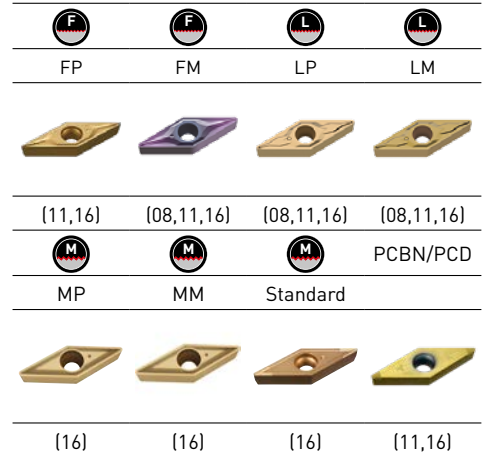
S-SVUC/B-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

VC/VB $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	WF2	H	GAMF	GAMP	Insert number	
S16-12SVUCR08-090-C	●	R	16	12	90	25.5	11.5	5.6	11	8°	0°	VC $\odot\odot$	0802 $\odot\odot$
S20-16SVUBR11-150-C	●	R	20	16	150	32.5	16.0	8.1	15	8°	0°		1103 $\odot\odot$
S20-16SVUBL11-150-C	●	L	20	16	150	32.5	16.0	8.1	15	8°	0°	VB $\odot\odot$	1103 $\odot\odot$
S25-20SVUBR11-150-C	●	R	25	20	150	40.5	18.0	8.1	19	7°	0°		1103 $\odot\odot$
S30-20SVUBR11-150-C	●	R	30	20	150	40.5	18.0	8.1	19	6°	0°		1103 $\odot\odot$
S34-25SVUBR16-150-C	●	R	34	25	150	40.0	20.5	8.4	24	13°	0°		1604 $\odot\odot$
S40-32SVUBR16-200-C	●	R	40	32	200	84.0	28.0	12.4	31	9°	0°		1604 $\odot\odot$

1/1



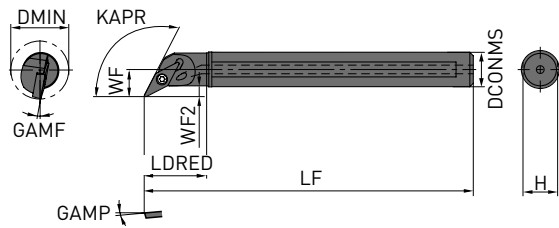
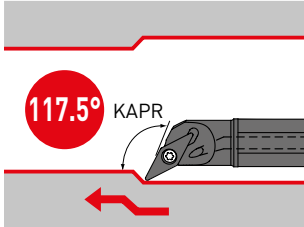
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S16-12SVUCR08	TS202	TKY06F
S $\odot\odot\odot$ SVUBR/L11	TS255	TKY08F
S $\odot\odot\odot$ SVUBR16	TS35D	TKY15F

* Clamp torque (Nm): TS202 = 0.6, TS255 = 1.0, TS35D = 3.5

C-SVPC/B-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

VC/VB $\odot\odot$ -Inserts

FP	FM	LP	LM
{11,16}	{08,11,16}	{08,11,16}	{08,11,16}
			PCBN/PCD
MP	MM	Standard	
{16}	{16}	{16}	{11,16}

Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	WF2	H	GAMF	GAMP	Insert number
C16-10SVPCR08-140-C	●	R	16	10	140	18	8.0	3.1	9	8°	-5°	VC $\odot\odot$
C16-10SVPCL08-140-C	●	L	16	10	140	18	8.0	3.1	9	8°	-5°	
C20-12SVPBR11-180-C	●	R	20	12	180	23	10.0	4.1	11	8°	-5°	VB $\odot\odot$
C20-12SVPBL11-180-C	●	L	20	12	180	23	10.0	4.1	11	8°	-5°	
C25-16SVPBR11-180-C	●	R	25	16	180	28	12.5	4.6	15	6°	-5°	VB $\odot\odot$
C25-16SVPBL11-180-C	●	L	25	16	180	28	12.5	4.6	15	6°	-5°	
C30-20SVPBR11-180-C	●	R	30	20	180	32	15.0	5.1	19	5°	-5°	1103 $\odot\odot$
C34-25SVPBR16-180-C	●	R	34	25	180	38	17.0	4.9	24	13°	-5°	1604 $\odot\odot$

1/1



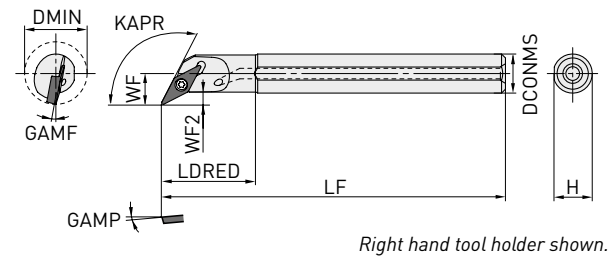
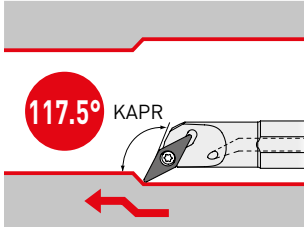
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C16-10SVPCR/L08	TS202	TKY06F
C $\odot\odot\odot$ SVPBR/L11	TS255	TKY08F
C34-25SVPBR16	TS35D	TKY15F

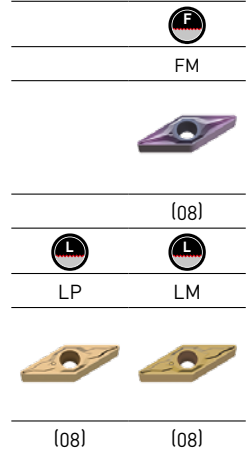
* Clamp torque [Nm]: TS202 = 0.6, TS255 = 1.0, TS35D = 3.5

H-SVPC-C

HARD STEEL SHANK WITH COOLANT HOLE



VC⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	WF2	H	GAMF	GAMP	Insert number
H16-10SVPCR08-090-C	●	R	16	10	90	24	8.0	3.1	9.7	8.0°	-5°	VC ⁰⁰ 0802 ⁰⁰

1/1



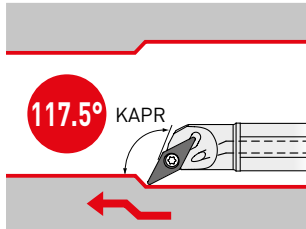
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H16-10SVPCR08	TS202	TKY06F

* Clamp torque (Nm): TS202 = 0.6

S-SVPB-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



117.5°

KAPR

DMIN

KAPR

GAMF

WF

WF2

LDRED

LF

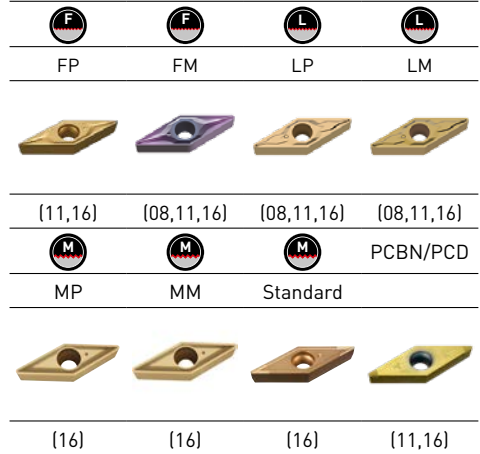
GAMP

DCONMS

H

Right hand tool holder shown.

VB^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	WF2	H	GAMF	GAMP	Insert number
S20-12SVPBR11-150-C	●	R	20	12	150	29	10.0	4.1	11	8°	-5°	1103 ^{○○}
S20-12SVPBL11-150-C	●	L	20	12	150	29	10.0	4.1	11	8°	-5°	1103 ^{○○}
S25-16SVPBR11-150-C	●	R	25	16	150	35	12.5	4.6	15	6°	-5°	1103 ^{○○}
S25-16SVPBL11-150-C	●	L	25	16	150	35	12.5	4.6	15	6°	-5°	VB ^{○○} 1103 ^{○○}
S30-20SVPBR11-150-C	●	R	30	20	150	41	15.0	5.1	19	5°	-5°	1103 ^{○○}
S34-25SVPBR16-150-C	●	R	34	25	150	51	17.0	4.9	24	13°	-5°	1604 ^{○○}
S40-32SVPBR16-200-C	●	R	40	32	200	54	22.0	6.4	31	9°	-5°	1604 ^{○○}

1/1



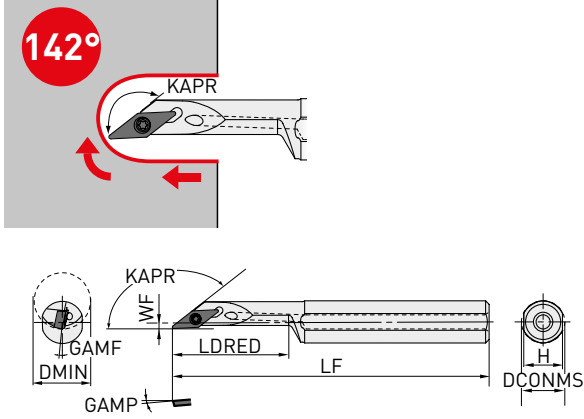
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S ^{○○} - ^{○○} SVPBR/L11	TS255	TKY08F
S ^{○○} - ^{○○} SVPBR16	TS35D	TKY15F

* Clamp torque (Nm): TS255 = 1.0, TS35D = 3.5

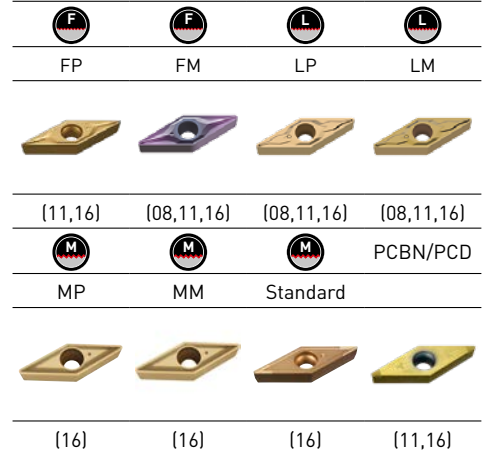
S-SVJC/B-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

VC/VB $\odot\odot$ -Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number	
S16-12SVJCR08-090-C	●	R	16	12	90	33	2.0	11	6°	-5°	VC $\odot\odot$	0802 $\odot\odot$
S20-16SVJCR08-150-C	●	R	20	16	150	43	2.0	15	5°	-5°		0802 $\odot\odot$
S25-20SVJBR11-150-C	●	R	25	20	150	48	2.0	19	6°	-5°	VB $\odot\odot$	1103 $\odot\odot$
S30-25SVJBR11-150-C	●	R	30	25	150	58	3.5	24	5°	-5°		1103 $\odot\odot$
S40-32SVJBR16-200-C	●	R	40	32	200	74	3.5	31	8°	-5°		1604 $\odot\odot$
S50-40SVJBR16-250-C	●	R	50	40	250	91	4.5	39	7°	-5°	1604 $\odot\odot$	

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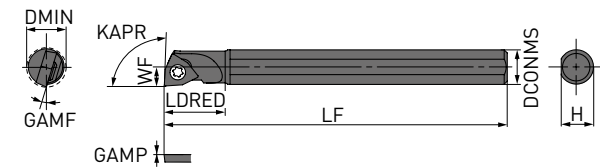
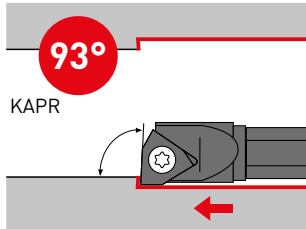
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
S $\odot\odot\odot$ SVJCR08	TS202	TKY06F
S $\odot\odot\odot$ SVJBR11	TS255	TKY08F
S $\odot\odot\odot$ SVJBR16	TS35D	TKY15F

* Clamp torque [Nm]: TS202 = 0.6, TS255 = 1.0, TS35D = 3.5

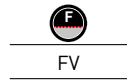
C-SWUC

CARBIDE SHANK BORING BAR WITHOUT COOLANT HOLE



Right hand tool holder shown.

WC[⊙] Inserts



(02,L3)

PCBN/PCD





[L3]

Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C06-05SWUCR02-080	●	R	6	5	80	9	3.0	4.7	17°	0°	WC [⊙]
C06-05SWUCL02-080	●	L	6	5	80	9	3.0	4.7	17°	0°	
C08-07SWUCRL3-090	●	R	8	7	90	10	4.0	6.7	15°	0°	L302 [⊙]
C08-07SWUCLL3-090	●	L	8	7	90	10	4.0	6.7	15°	0°	

1/1



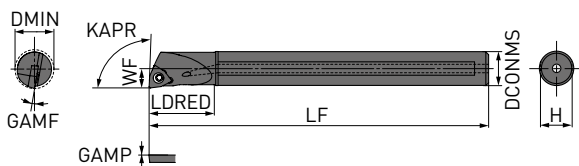
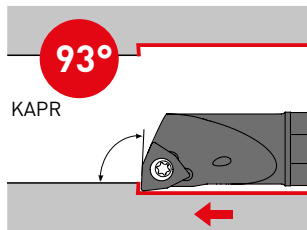
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
C06-05SWUCR/L02	TS21	TKY06F
C08-07SWUCR/LL3	TS2	TKY06F

* Clamp torque (Nm): TS21 = 0.6, TS2 = 0.6

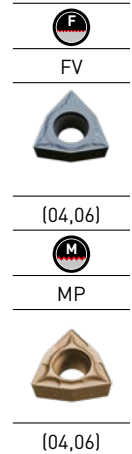
C-SWUC-C

CARBIDE SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

WC $\odot\odot$ -Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
C10-08SWUCR04-090-C	●	R	10	8	90	14	5.0	7	15°	0°	0402 $\odot\odot$
C10-08SWUCL04-090-C	●	L	10	8	90	14	5.0	7	15°	0°	0402 $\odot\odot$
C12-10SWUCR04-090-C	●	R	12	10	90	18	6.0	9	12°	0°	0402 $\odot\odot$
C12-10SWUCL04-090-C	●	L	12	10	90	18	6.0	9	12°	0°	0402 $\odot\odot$
C14-12SWUCR04-140-C	●	R	14	12	140	23	7.0	11	10°	0°	0402 $\odot\odot$
C14-12SWUCL04-140-C	●	L	14	12	140	23	7.0	11	10°	0°	0402 $\odot\odot$
C16-12SWUCR06-140-C	●	R	16	12	140	23	8.0	11	12°	0°	WC $\odot\odot$ 06T3 $\odot\odot$
C16-12SWUCL06-140-C	●	L	16	12	140	23	8.0	11	12°	0°	06T3 $\odot\odot$
C18-16SWUCR06-140-C	●	R	18	16	140	28	9.0	15	10°	0°	06T3 $\odot\odot$
C18-16SWUCL06-140-C	●	L	18	16	140	28	9.0	15	10°	0°	06T3 $\odot\odot$
C22-20SWUCR06-180-C	●	R	22	20	180	32	11.0	19	7°	0°	06T3 $\odot\odot$
C22-20SWUCL06-180-C	●	L	22	20	180	32	11.0	19	7°	0°	06T3 $\odot\odot$

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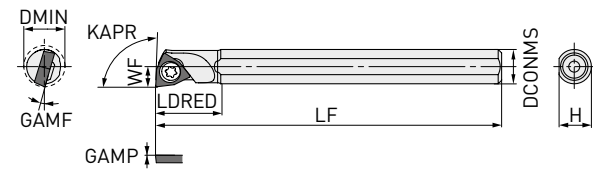
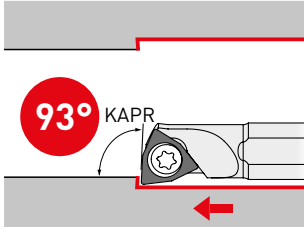
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
C $\odot\odot\odot$ SWUCR/L04	TS25	TKY08F
C $\odot\odot\odot$ SWUCR/L06	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

H-SWUC

HARD STEEL SHANK WITHOUT COOLANT HOLE



Right hand tool holder shown.

WC^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H06-05SWUCR02-070	●	R	6	5	70	9	3.0	4.7	17°	0°	WC ^{○○}
H06-05SWUCL02-070	●	L	6	5	70	9	3.0	4.7	17°	0°	
H08-07SWUCRL3-080	●	R	8	7	80	11	4.0	6.7	15°	0°	
H08-07SWUCLL3-080	●	L	8	7	80	11	4.0	6.7	15°	0°	
H10-08SWUCR04-080	●	R	10	8	80	16	5.0	7.7	15°	0°	
H10-08SWUCL04-080	●	L	10	8	80	16	5.0	7.7	15°	0°	

1/1



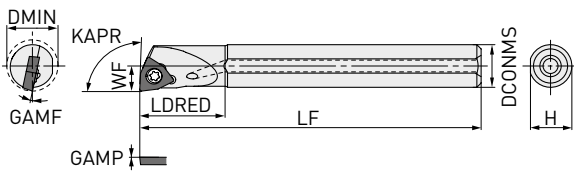
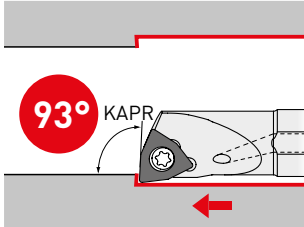
SPARE PARTS

Boring bar type	Clamp screw *	Wrench
H06-05SWUCR/L02	TS21	TKY06F
H08-07SWUCR/LL3	TS2	TKY06F
H10-08SWUCR/L04	TS25	TKY08F

* Clamp torque (Nm): TS21 = 0.6, TS2 = 0.6, TS25 = 1.0

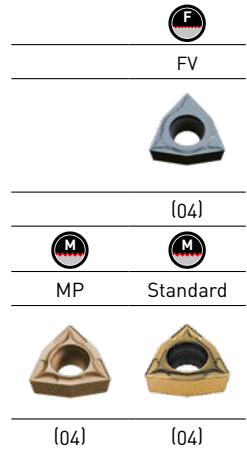
H-SWUC-C

HARD STEEL SHANK WITH COOLANT HOLE



Right hand tool holder shown.

WC⁰⁰-Inserts





Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number
H12-10SWUCR04-080-C	●	R	12	10	80	20	6.0	9.7	12°	0°	WC ⁰⁰ 0402 ⁰⁰
H12-10SWUCL04-080-C	●	L	12	10	80	20	6.0	9.7	12°	0°	WC ⁰⁰ 0402 ⁰⁰

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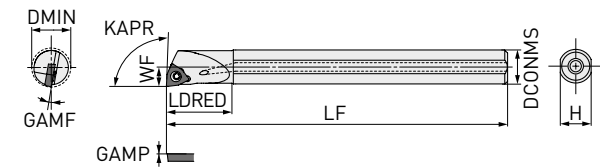
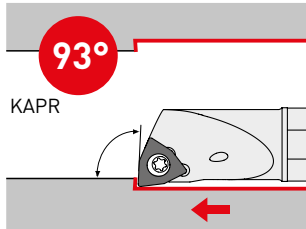
SPARE PARTS

Boring bar type	 Clamp screw *	 Wrench
H12-10SWUCR/L04	TS25	TKY08F

* Clamp torque (Nm): TS25 = 1.0

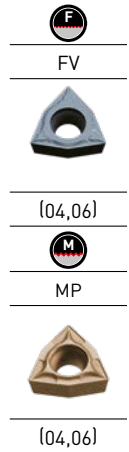
S-SWUC-C

STEEL SHANK BORING BAR WITH COOLANT HOLE



Right hand tool holder shown.

WC^{○○}-Inserts



Order number	Stock	Hand	DMIN	DCONMS	LF	LDRED	WF	H	GAMF	GAMP	Insert number	
S14-12SWUCR04-090-C	●	R	14	12	90	24	7.0	11	10°	0°	WC ^{○○}	0402 ^{○○}
S14-12SWUCL04-090-C	●	L	14	12	90	24	7.0	11	10°	0°		0402 ^{○○}
S16-12SWUCR06-090-C	●	R	16	12	90	24	8.0	11	12°	0°		06T3 ^{○○}
S16-12SWUCL06-090-C	●	L	16	12	90	24	8.0	11	12°	0°		06T3 ^{○○}
S18-16SWUCR06-090-C	●	R	18	16	90	30	9.0	15	10°	0°		06T3 ^{○○}
S18-16SWUCL06-090-C	●	L	18	16	90	30	9.0	15	10°	0°		06T3 ^{○○}
S22-20SWUCR06-150-C	●	R	22	20	150	36	11.0	19	7°	0°		06T3 ^{○○}
S22-20SWUCL06-150-C	●	L	22	20	150	36	11.0	19	7°	0°		06T3 ^{○○}

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SPARE PARTS

Boring bar type	Clamp screw *	Wrench
S14-12SWUCR/L04	TS25	TKY08F
S ^{○○○○} SWUCR/L06	TS4	TKY15F

* Clamp torque (Nm): TS25 = 1.0, TS4 = 3.5

CC TYPE INSERTS, 80° WITH HOLE



Material	Coated																				Coated Cermet			Cermet			Carbide			Shape												
	MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N		NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15				
P Steel	●	●	●	●	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕										⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕		
M Stainless steel										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrous metal																																										
S Heat resistant alloy, Titanium alloy																																										
Order number	RE																														Shape											
CCGT060202-AZ	0.2																																							●	AZ	
CCGT060204-AZ	0.4																																							●	Medium cutting - Finish cutting	
CCGT09T302-AZ	0.2																																						●			
CCGT09T304-AZ	0.4																																						●			
CCGT09T308-AZ	0.8																																							●		
*3 CCGT03S1V3L-F	0.03																					●																				
*3 CCGT03S101L-F	0.1																					●																				
*3 CCGT03S102L-F	0.2																					●					●															
*3 CCGT03S104L-F	0.4																					●					★															
*3 CCGT04T0V3L-F	0.03																					●																				
*3 CCGT04T001L-F	0.1																					●																				
*3 CCGT04T002L-F	0.2																					●					●															
*3 CCGT04T004L-F	0.4																					●					●															
*3 CCGT03S101MR-F	0.1*2	●																																								
*3 CCGT03S101ML-F	0.1*2	●																																								
*3 CCGT03S102MR-F	0.2*2	●																																								
*3 CCGT03S102ML-F	0.2*2	●																																								
*3 CCGT03S104MR-F	0.4*2	●																																								
*3 CCGT03S104ML-F	0.4*2	●																																								
*3 CCGT04T001MR-F	0.1*2	●																																								
*3 CCGT04T001ML-F	0.1*2	●																																								
*3 CCGT04T002MR-F	0.2*2	●																																								
*3 CCGT04T002ML-F	0.2*2	●																																								
*3 CCGT04T004MR-F	0.4*2	●																																								
*3 CCGT04T004ML-F	0.4*2	●																																								
CCGH060202R-F	0.2																					●																		★		
CCGH060202L-F	0.2																					●																		★		
CCGH060204R-F	0.4																					●																		★		
CCGH060204L-F	0.4																					●																		★		
CCGH060202MR-F	0.2*2	●																																								
CCGH060202ML-F	0.2*2	●																																								
CCGH060204MR-F	0.4*2	●																																								
CCGH060204ML-F	0.4*2	●																																								
CCMT060202-LP	0.2		●	●	●	●	●																																			
CCMT060204-LP	0.4		●	●	●	●	●	●																				●														
CCMT09T302-LP	0.2		●	●	●	●	●																																			
CCMT060208-LP	0.8		●	●	●	●	●	●																				●														
CCMT09T304-LP	0.4		●	●	●	●	●	●																				●														
CCMT09T308-LP	0.8		●	●	●	●	●	●																				●														

*1 To be replaced by new products.
 *2 Indicates the maximum value of the corner R.
 *3 Diameter of inscribed circle is special.

- : Stable cutting [1st recommendation]
- : Stable cutting [2nd recommendation]
- ⊕: General cutting [1st recommendation]
- ⊖: General cutting [2nd recommendation]
- ⊕: Unstable cutting [1st recommendation]
- ⊖: Unstable cutting [2nd recommendation]

● / ★ = Expansion

●: Inventory maintained. ★: Inventory maintained in Japan.



CC TYPE INSERTS, 80° WITH HOLE

P	Steel	
M	Stainless steel	
K	Cast iron	
N	Non-ferrous metal	
S	Heat resistant alloy, Titanium alloy	

Order number	RE	Coated												Coated Cermet			Cermet			Carbide					Shape																				
		MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT		VP15TF	VP30RT	LP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15					
CCGT060201M-SMG	0.1*2	●																																											
CCGT060202M-SMG	0.2*2	●																							●																				
CCGT060204M-SMG	0.4*2	●																						●																					
CCGT09T301M-SMG	0.1*2	●																																											
CCGT09T302M-SMG	0.2*2	●																																											
CCGT09T304M-SMG	0.4*2	●																																											
CCGT0602V3R-SN	0.03																							●																					
CCGT060201R-SN	0.1																							★																					
CCGT060201L-SN	0.1																							★																					
CCGT060202R-SN	0.2																							●																					
CCGT060202L-SN	0.2																							●																					
CCGT09T3V3R-SN	0.03																							★																					
CCGT09T3V3L-SN	0.03																							★																					
CCGT09T301R-SN	0.1																							●																					
CCGT09T301L-SN	0.1																							★																					
CCGT09T302R-SN	0.2																							●																					
CCGT09T302L-SN	0.2																							●																					
CCGT09T304R-SN	0.4																							●																					
CCGT09T304L-SN	0.4																							●																					
CCGT060201MR-SN	0.1*2	●							●								●																												
CCGT060201ML-SN	0.1*2	●																																											
CCGT060202MR-SN	0.2*2	●							●								●																												
CCGT060202ML-SN	0.2*2	●																																											
CCGT09T301MR-SN	0.1*2	●							●								●																												
CCGT09T301ML-SN	0.1*2	●																																											
CCGT09T302MR-SN	0.2*2	●							●								●																												
CCGT09T302ML-SN	0.2*2	●																																											
CCGT09T304MR-SN	0.4*2	●							●								●																												
CCGT09T304ML-SN	0.4*2	●																																											

*1 To be replaced by new products.
 *2 Indicates the maximum value of the corner R.
 (10 inserts in one case)

●: Stable cutting (1st recommendation) ●: General cutting (1st recommendation) ⚠: Unstable cutting (1st recommendation)
 ○: Stable cutting (2nd recommendation) Ⓜ: General cutting (2nd recommendation) ⚠: Unstable cutting (2nd recommendation)

● / ★ = Expansion

●: Inventory maintained. ★: Inventory maintained in Japan.

CC TYPE INSERTS, 80° WITH HOLE



	P	M	K	N	S
Steel	●	○			
Stainless steel	●	○			
Cast iron			●		
Non-ferrous metal				○	
Heat resistant alloy, Titanium alloy					●

Order number	RE	Coated															Coated Cermet		Cermet		Carbide					Shape																		
		MS6015	MC6115	MC6125	MC6135	MC6015 ^{*1}	MC6025 ^{*1}	UE6105 ^{*1}	UE6110 ^{*1}	UE6020 ^{*1}	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF		VP30RT	LP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15				
CCET060200R-SN	0.0 ^{*2}																																										★	R/L-SN
CCET060200L-SN	0.0 ^{*2}																																									★	R/L-SN	
CCET0602V3R-SN	0.03 ^{*2}																																									★	R/L-SN	
CCET0602V3L-SN	0.03 ^{*2}																																									★	R/L-SN	
CCET060201R-SN	0.1 ^{*2}																																									★	R/L-SN	
CCET060201L-SN	0.1 ^{*2}																																									★	R/L-SN	
CCET060202R-SN	0.2 ^{*2}																																									★	R/L-SN	
CCET060202L-SN	0.2 ^{*2}																																									★	R/L-SN	
CCET060204R-SN	0.4 ^{*2}																																									★	R/L-SN	
CCET060204L-SN	0.4 ^{*2}																								●																★	R/L-SN		
CCET09T300R-SN	0.0 ^{*2}																								●																	★	R/L-SN	
CCET09T300L-SN	0.0 ^{*2}																								★																	★	R/L-SN	
CCET09T3V3R-SN	0.03 ^{*2}																								●																	★	R/L-SN	
CCET09T3V3L-SN	0.03 ^{*2}																								★																★	R/L-SN		
CCET09T301R-SN	0.1 ^{*2}																								●																	★	Medium cutting	
CCET09T301L-SN	0.1 ^{*2}																								●																★	Medium cutting		
CCET09T302R-SN	0.2 ^{*2}																								●																★	Medium cutting		
CCET09T302L-SN	0.2 ^{*2}																								●																★	Medium cutting		
CCET09T304R-SN	0.4 ^{*2}																								●																★	Medium cutting		
CCET09T304L-SN	0.4 ^{*2}																								●															★	Medium cutting			
CCET0602V3RW-SN	0.03 ^{*2}																								★																★	R/LW-SN		
CCET0602V3LW-SN	0.03 ^{*2}																								●																★	Medium cutting (Wiper)		
CCET09T3V3RW-SN	0.03 ^{*2}																								★																★	Medium cutting (Wiper)		
CCET09T3V3LW-SN	0.03 ^{*2}																								★																★	Medium cutting (Wiper)		

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*¹ To be replaced by new products.*² Indicates the maximum value of the corner R.

(10 inserts in one case)

●: Stable cutting (1st recommendation)
○: Stable cutting (2nd recommendation)

●: General cutting (1st recommendation)
○: General cutting (2nd recommendation)

⊕: Unstable cutting (1st recommendation)
⊖: Unstable cutting (2nd recommendation)

● / ★ = Expansion

●: Inventory maintained. ★: Inventory maintained in Japan.



CC TYPE INSERTS, 80° WITH HOLE

Material	Coated																			Coated Cermet	Cermet	Carbide		Shape																			
	MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT		VP15TF	VP30RT	VP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15				
P Steel	●	●	●	+	+	○	○	○	○							+	+	+		+	+	+	+	+	+	+	○	○	○	○				○				○					
M Stainless steel										●	●	●	○	○	○				●					+	+	+	○	○										○					
K Cast iron															●	●	+								+	+	+			○	○										○		
N Non-ferrous metal																																									○		
S Heat resistant alloy, Titanium alloy																●	●	+																							○		
Order number	RE																				Coated Cermet	Cermet	Carbide																				
CCMW060202	0.2																																								●	Flat Top	
CCMW060204	0.4															★	●	●	★																					●	●	★	Flat Top
CCMW060208	0.8																★	●	★																					●	●		
CCMW09T304	0.4																●	●	●																							★	●
CCMW09T308	0.8																●	●	●																						●	●	
CCMW09T312	1.2															★	●	★																									
CCGW060200	0.0																																										Flat Top
CCGW0602V5	0.05																																								★		
CCGW060201	0.1																																								★		
CCGW060202	0.2																																								★		
CCGW060204	0.4																																										
CCGW060208	0.8																																										
CCGW09T300	0.0																																								★		
CCGW09T3V5	0.05																																								★		
CCGW09T301	0.1																																								★		
CCGW09T302	0.2																																								★		
CCGW09T304	0.4																																								★		
CCGW060202E	0.2																																										
CCGW060204E	0.4																																										
CCGW060208E	0.8																																										

8/8

*1 To be replaced by new products.
 (10 inserts in one case)

●: Stable cutting (1st recommendation) ●: General cutting (1st recommendation) +: Unstable cutting (1st recommendation)
 ○: Stable cutting (2nd recommendation) ⊖: General cutting (2nd recommendation) ⊖: Unstable cutting (2nd recommendation)











● / ★ = Expansion

●: Inventory maintained. ★: Inventory maintained in Japan.

CP TYPE INSERTS, 80° WITH HOLE



P	Steel	●●●●●●●●●●●●●●							⊕⊕⊕⊕⊕⊕⊕⊕⊕⊕⊕⊕⊕										
M	Stainless steel	●●●●●●●●●●●●	●●●●●●●●●●●●								⊕⊕⊕⊕⊕⊕			⊕⊕⊕⊕⊕	⊕⊕⊕				
K	Cast iron							●●●●●●●●●●●●							⊕⊕⊕⊕⊕	⊕⊕⊕			⊕⊕⊕⊕⊕
N	Non-ferrous metal																		⊕⊕⊕
S	Heat resistant alloy, Titanium alloy								●●●●●●●●●●●●	⊕⊕⊕⊕⊕⊕						●●●	●		⊕

Order number	RE	Coated										Coated Cermet				Cermet				Carbide				Shape																										
		MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025		VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15										
CPMH080202-LP	0.2		●	●	★																																									LP				
CPMH080204-LP	0.4		●	●	★																																													
CPMH080208-LP	0.8		●	●	★																																													
CPMH090302-LP	0.2		●	●	★																																										Light cutting			
CPMH090304-LP	0.4		●	●	★																																													
CPMH090308-LP	0.8		●	●	★																																													
CPMH080204-LM	0.4								●	●																●																								
CPMH080208-LM	0.8								●	●															●																									
CPMH090304-LM	0.4								●	●															●																									
CPMH090308-LM	0.8								●	●															●																									
CPMH080204-LS	0.4																						●																											
CPMH080208-LS	0.8																						●																											
CPMH090304-LS	0.4																						●																											
CPMH090308-LS	0.8																						●																											
CPMH080202-SV	0.2					●		●					★	●									●			★		★		●	★																			
CPMH080204-SV	0.4					●		●					★	●									●			★		●		●	★																			
CPMH090302-SV	0.2					●		●					★	●									●			★		★		★	★																			
CPMH090304-SV	0.4					●		●					★	●									●			★		●		●	★																			
CPMH090308-SV	0.8					●		●					★	●									●			★		★		★	★																			
CPMH080204	0.4		★	●																																														
CPMH080208	0.8		★	●																																														
CPMH090304	0.4		★	●																																														
CPMH090308	0.8		★	●	★																																													
CPMX080204	0.4							★	★															★																										
CPMX080208	0.8							★	★															★																										
CPMX090304	0.4							★	★															★																										
CPMX090308	0.8							★	★															★																										

2/3

*1 To be replaced by new products.
[10 inserts in one case]

- : Stable cutting (1st recommendation)
- : Stable cutting (2nd recommendation)
- / ★ = Expansion
- : Inventory maintained. ★: Inventory maintained in Japan.
- ⊕: General cutting (1st recommendation)
- ⊖: General cutting (2nd recommendation)
- ⊕ / ★ = Expansion
- ⊕: Inventory maintained. ★: Inventory maintained in Japan.
- ⊗: Unstable cutting (1st recommendation)
- ⊘: Unstable cutting (2nd recommendation)
- ⊗ / ★ = Expansion
- ⊗: Inventory maintained. ★: Inventory maintained in Japan.

CP TYPE INSERTS, 80° WITH HOLE



		Coated													Coated Cermet				Cermet			Carbide																									
Order number		RE	MS6015	MC6115	MG6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	LP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15	Shape						
CPMH080204-MP		0.4	●●●●																																								MP				
CPMH080208-MP		0.8	●●●●																																												
CPMH090304-MP		0.4	●●●●																																												
CPMH090308-MP		0.8	●●●●																																												
CPMH080204-MM		0.4										●●																●																			
CPMH080208-MM		0.8										●●																●																			
CPMH090304-MM		0.4										●●																●																			
CPMH090308-MM		0.8										●●																●																			
CPMH080204-MK		0.4											●●●●																																		
CPMH080208-MK		0.8											●●●●																																		
CPMH090304-MK		0.4											●●●●																																		
CPMH090308-MK		0.8											●●●●																																		
CPMH080204-MS		0.4																					●																								
CPMH080208-MS		0.8																					●																								
CPMH090304-MS		0.4																					●																								
CPMH090308-MS		0.8																					●																								
CPMH080204-MV		0.4	●★	●●								●●		★											●			★●●●	●●●★																		
CPMH080208-MV		0.8	●★	●●								●●		★											●			★★★	★★★																		
CPMH090304-MV		0.4	●★	●●								●●		★											●			★★●●	●●●★																		
CPMH090308-MV		0.8	●★	●●								●●		★											●			★★★	★★★																		
CPMB080202		0.2																																									★		Flat Top		
CPMB080204		0.4																																										★			
CPMB080208		0.8																																											★		
CPMB090302		0.2																																											★		
CPMB090304		0.4																																											★		
CPMB090308		0.8																																											★		

*1 To be replaced by new products.
[10 inserts in one case]

- : Stable cutting (1st recommendation)
- : Stable cutting (2nd recommendation)
- : General cutting (1st recommendation)
- : General cutting (2nd recommendation)
- ✖ : Unstable cutting (1st recommendation)
- ✖ : Unstable cutting (2nd recommendation)

● / ★ = Expansion

● : Inventory maintained. ★ : Inventory maintained in Japan.

TP TYPE INSERTS, 60° WITH HOLE



Material	Coated												Coated Cermet			Cermet	Carbide					Shape																		
	MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025		VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15		
P Steel	●	●	●	●	●	●	●																		●	○	○	○	○										○	
M Stainless steel															●							●	●	●																
K Cast iron															●	●	●																							
N Non-ferrous metal																																								
S Heat resistant alloy, Titanium alloy																																								

Order number	RE	Coated												Coated Cermet			Cermet	Carbide					Shape																	
		MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025		VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15	
TPGX080202R	0.2																																							
TPGX080202L	0.2																																							
TPGX080204R	0.4																									★												★	★	
TPGX080204L	0.4																								●													●	●	
TPGX090202R	0.2																																							
TPGX090202L	0.2																																							
TPGX090204R	0.4																									★												★	★	
TPGX090204L	0.4																								●													●	●	
TPGX090208R	0.8																																							
TPGX090208L	0.8																								★														●	
TPGX110302L	0.2																																							
TPGX110304R	0.4																									●														
TPGX110304L	0.4																								●															
TPGX110308R	0.8																																							
TPGX110308L	0.8																								●															
TPMX090204L	0.4																																							
TPMX110304L	0.4																																							
TPMH080202-LP	0.2			●	★																																			
TPMH080204-LP	0.4			●	★																																			
TPMH090202-LP	0.2			●	★	★																																		
TPMH090204-LP	0.4			●	●	★																																		
TPMH110302-LP	0.2			●	★	★																																		
TPMH110304-LP	0.4			●	●	★																																		
TPMH110308-LP	0.8			●	★	★																																		
TPMH090202-LM	0.2									●	●														●															
TPMH090204-LM	0.4									●	●														●															
TPMH110302-LM	0.2									●	●														●															
TPMH110304-LM	0.4									●	●														●															
TPMH110308-LM	0.8									●	●														●															
TPMH110302-LK	0.2															●	●	●																						
TPMH110304-LK	0.4															●	●	●																						
TPMH110308-LK	0.8															●	●	●																						

*1 To be replaced by new products.
(10 inserts in one case)

●: Stable cutting (1st recommendation) ●: General cutting (1st recommendation) ⊕: Unstable cutting (1st recommendation)
○: Stable cutting (2nd recommendation) ⊗: General cutting (2nd recommendation) ⊕: Unstable cutting (2nd recommendation)

● / ★ = Expansion

60 ●: Inventory maintained. ★: Inventory maintained in Japan.

VB TYPE INSERTS, 35° WITH HOLE



Order number	RE	Coated														Coated Cermet				Cermet				Carbide				Shape																			
		MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	VP20M		MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15							
VBMT110304-LP	0.4	●	●	●	★	●	●	●	●																		●					★															
VBMT110308-LP	0.8	●	●	●	★	●	●	●	●																			★						●													
VBMT160404-LP	0.4	●	●	●	★	●	●	●	●																		●						●														
VBMT160408-LP	0.8	●	●	●	★	●	●	●	●																		●						●														
VBMT160412-LP	1.2	●	●	●																																											
VBMT110304-LM	0.4									●	●	●													●	●																					
VBMT110308-LM	0.8									●	★	★													●	●																					
VBMT160404-LM	0.4									●	●	●													●																						
VBMT160408-LM	0.8									●	●	★													●																						
VBMT160412-LM	1.2									●	●																																				
VBMT110302-LS	0.2																			●	●	●																									
VBMT110304-LS	0.4																			●	●	●																									
VBMT110308-LS	0.8																			●	●	●																									
VBMT160404-LS	0.4																			●	●	●																									
VBMT160408-LS	0.8																			●	●	●																									
VBMT160412-LS	1.2																				●																										
VBMT110304-SV	0.4									●															●																						
VBMT110308-SV	0.8									★															●																						
VBMT160404-SV	0.4									●															●																						
VBMT160408-SV	0.8									●															●																						
VBMT160404-MP	0.4	●	●	●	★	●	●	●																			●																				
VBMT160408-MP	0.8	●	●	●	★	●	●	●																			★																				
VBMT160404-MM	0.4									●	●														●																						
VBMT160408-MM	0.8									●	●														●																						
VBMT160404-MK	0.4																			★	●	★																									
VBMT160408-MK	0.8																			★	●	★																									
VBMT160402-MS	0.2																								●	●	●																				
VBMT160404-MS	0.4																								●	●	●																				
VBMT160408-MS	0.8																								●	●	●																				
VBMT160412-MS	1.2																								●	●	●																				

*1 To be replaced by new products.
(10 inserts in one case)

- : Stable cutting (1st recommendation)
- : Stable cutting (2nd recommendation)
- / ★ = Expansion
- : Inventory maintained. ★: Inventory maintained in Japan.
- : General cutting (1st recommendation)
- : General cutting (2nd recommendation)
- ✦: Unstable cutting (1st recommendation)
- ✧: Unstable cutting (2nd recommendation)

VC TYPE INSERTS



35° WITH HOLE

Material	MS6015	MC6115	MC6125	MC6135	MC6015*	MC6025*	UE6105*	UE6110*	UE6020*	MS7025	MC7015	MP7025	US7020	US735	MC5105	MC5115	MS5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15		
P Steel	●	●	●	●	●	●	●	●	●															⊗	⊗	○	○	○	○									○	
M Stainless steel											●	●	●	●		●																							○
K Cast iron															●	●	●																						○
N Non-ferrous metal																																							○
S Heat resistant alloy, Titanium alloy																		●	●	●	●	●	●	●	●													○	

Order number	RE	Coated											Coated Cermet			Cermet		Carbide					Shape																	
		MS6015	MC6115	MC6125	MC6135	MC6015*	MC6025*	UE6105*	UE6110*	UE6020*	MS7025	MC7015	MP7025	US7020	US735	MC5105	MC5115	MS5125	MS9025	MP9005	MP9015	MP9025		VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15	
VCMT080202-FP	0.2	●	●	●																																				FP
VCMT080204-FP	0.4	●	●	●																																				
VCMT080202-FM	0.2																						●																FM	
VCMT080204-FM	0.4																						●																	
VCMT080202-FV	0.2	●	★	●	●	★																	●	★			★		●	★										FV
VCMT080204-FV	0.4	●	★	●	●	★																	●	★			★		●	★										
VCMT080202-FS	0.2																					●																	FS	
VCMT080204-FS	0.4																					●																		
VCMT080202-LP	0.2	●	★	★																																				LP
VCMT080204-LP	0.4	●	●	★																																				
VCMT080202-LM	0.2																							●																LM
VCMT080204-LM	0.4																							●																
VCMT080202-LS	0.2																						●																	LS
VCMT080204-LS	0.4																						●																	

*1 To be replaced by new products.
 (10 inserts in one case)









● : Stable cutting (1st recommendation)
 ○ : Stable cutting (2nd recommendation)
 ● / ★ = Expansion
 ● : Inventory maintained. ★ : Inventory maintained in Japan.

● : General cutting (1st recommendation)
 ○ : General cutting (2nd recommendation)

⊕ : Unstable cutting (1st recommendation)
 ⊗ : Unstable cutting (2nd recommendation)

INSERTS FOR OTHER TYPES OF BORING BARS

POSITIVE WITH HOLE

Order number	RE	Coated																				Coated Cermet		Cermet	Carbide				Shape																											
		MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	UP20M	MP3025		AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15																
CCMT120404-MM	0.4																				MM																																			
CCMT120408-MM	0.8																																																							
CCMT120412-MM	1.2																				Medium cutting																																			
TCGW080201	0.1																				★	Flat Top																																		
TCGW080202	0.2																				★																																			
TPMH160304-FV	0.4	●	★	★					★													●	★	●	★	★	★	★	★													FV														
																																																								
																																								Finish cutting																
TPMH160302-LM	0.2																				●													LM																						
TPMH160304-LM	0.4																				●																																			
TPMH160308-LM	0.8																				●													Light cutting																						
TPMH160302-LS	0.2																																	LS																						
TPMH160304-LS	0.4																																																							
TPMH160308-LS	0.8																																	Light cutting																						
VCMT160404-FM	0.4																																	●	●																				FM	
VCMT160408-FM	0.8																																	★	●																					
																																									Finish cutting															
VCMT160404-FS	0.4																																	●													FS									
VCMT160408-FS	0.8																																	●																						
																																									Finish cutting															
VCGT110301M-FS-P	0.1*2																				●													●	●																				FS-P	
VCGT110302M-FS-P	0.2*2																				●													●	●																					
																																									Finish cutting															

*1 To be replaced by new products.

*2 Indicates the maximum value of the corner R.



(10 inserts in one case)

●: Stable cutting [1st recommendation] ●: General cutting [1st recommendation] ⊕: Unstable cutting [1st recommendation]
 ○: Stable cutting [2nd recommendation] ⊖: General cutting [2nd recommendation] ⊗: Unstable cutting [2nd recommendation]

● / ★ = Expansion

●: Inventory maintained. ★: Inventory maintained in Japan.


INSERTS FOR OTHER TYPES OF BORING BARS, POSITIVE WITH HOLE

P	Steel	●	●	●	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																					
M	Stainless steel					●	●	●	+	+	+																													
K	Cast iron					●	●	+																																
N	Non-ferrous metal																																							
S	Heat resistant alloy, Titanium alloy					●	●	+	+																															
		Coated												Coated Cermet			Cermet	Carbide																						
Order number	RE	MS6015	MC6115	MC6125	MC6135	MC6015*1	MC6025*1	UE6105*1	UE6110*1	UE6020*1	MS7025	MC7015	MC7025	MP7035	US7020	US735	MC5105	MC5115	MC5125	MS9025	MP9005	MP9015	MP9025	VP10RT	VP15TF	VP30RT	UP20M	MP3025	AP25N	VP25N	VP45N	NX2525	NX3035	MT9005	RT9010	UT120T	HT105T	HT110	TF15	Shape
VPET1103V3R-SRF	0.03																			●					★														R/L-SRF	
VPET1103V3L-SRF	0.03																			●					★															
																																								Finish cutting
VPET080201MR-SRF	0.1*2																			●																			R/L-SRF	
VPET080201ML-SRF	0.1*2																			●																				
VPET080202MR-SRF	0.2*2																			●																			Finish cutting	
VPET080202ML-SRF	0.2*2																			●																			Finish cutting	
VPET110301MR-SRF	0.1*2																			●																			Finish cutting	
VPET110301ML-SRF	0.1*2																			●																			Finish cutting	
VPET110302MR-SRF	0.2*2																			●																			Finish cutting	
VPET110302ML-SRF	0.2*2																			●																			Finish cutting	

*1 To be replaced by new products.
 *2 Indicates the maximum value of the corner R.
 (10 inserts in one case)

- : Stable cutting (1st recommendation)
- : Stable cutting (2nd recommendation)
- / ★ = Expansion
- : Inventory maintained. ★ : Inventory maintained in Japan.
- : General cutting (1st recommendation)
- : General cutting (2nd recommendation)
- ✚ : Unstable cutting (1st recommendation)
- ⊕ : Unstable cutting (2nd recommendation)

RECOMMENDED CUTTING CONDITIONS

Material	Hardness	Cutting mode		Grade	Vc	f	ap		
P Pure iron Free cutting steel	—	Finish	R/L-F	MS6015	150 (50 – 250)	0.01 – 0.15	0.1 – 0.4		
		Light	LS-P	MS6015	150 (50 – 250)	0.01 – 0.15	0.3 – 2.2		
		Light	R/L-SS	MS6015	150 (50 – 250)	0.01 – 0.15	0.2 – 0.8		
		Medium	R/L-SN	MS6015	150 (50 – 250)	0.01 – 0.15	0.1 – 0.4		
		Medium	SMG	MS6015	150 (50 – 250)	0.01 – 0.15	0.1 – 1.5		
Carbon steel Alloy steel	180 – 280 HB	Finish	R/L-F	MS6015	100 (50 – 150)	0.01 – 0.15	0.1 – 0.4		
		Light	LS-P	MS6015	100 (50 – 150)	0.01 – 0.15	0.3 – 2.2		
		Light	R/L-SS	MS6015	100 (50 – 150)	0.01 – 0.15	0.2 – 0.8		
		Medium	R/L-SN	MS6015	100 (50 – 150)	0.01 – 0.15	0.1 – 0.4		
		Medium	SMG	MS6015	100 (50 – 150)	0.01 – 0.15	0.1 – 1.5		
M Austenitic stainless steel	—	Finish	FS-P	MS7025	60 (40 – 100)	0.01 – 0.08	0.2 – 0.5		
		Finish	FS-P	MS9025	100 (60 – 150)	0.04 – 0.15	0.2 – 0.5		
		Finish	R/L-F	MS7025	60 (40 – 100)	0.01 – 0.08	0.1 – 0.4		
		Finish	R-SRF	MS9025	100 (60 – 150)	0.04 – 0.15	0.1 – 0.4		
		Light	LS-P	MS7025	60 (40 – 100)	0.01 – 0.08	0.3 – 2.2		
		Light	LS-P	MS9025	100 (60 – 150)	0.05 – 0.15	0.3 – 2.2		
		Medium	R-SN	MS7025	60 (40 – 100)	0.01 – 0.08	0.1 – 3.8		
		Medium	R-SN	MS9025	100 (60 – 150)	0.05 – 0.15	0.1 – 3.8		
		Ferritic and martensitic stainless steel	—	Finish	FS-P	MS7025	60 (40 – 100)	0.01 – 0.08	0.2 – 0.5
				Finish	R-SRF	MS7025	60 (40 – 100)	0.01 – 0.08	0.1 – 0.4
				Light	LS-P	MS7025	60 (40 – 100)	0.01 – 0.08	0.3 – 2.2
				Light	R-SN	MS7025	60 (40 – 100)	0.01 – 0.08	0.1 – 3.8
		Soft magnetic stainless steel [X105CrMo17 / 1.4125, X42Cr13 / 1.2083, etc.]	230 HBW	Finish	FS-P	MS7025	80 (40 – 160)	0.02 – 0.08	0.2 – 1.4
				Finish	FS-P	MS9025	100 (50 – 180)	0.04 – 0.12	0.2 – 1.4
Finish	R-SRF			MS7025	80 (40 – 160)	0.03 – 0.08	0.1 – 0.4		
Finish	R-SRF			MS9025	100 (50 – 180)	0.05 – 0.12	0.1 – 0.4		
Light	LS-P			MS7025	80 (40 – 160)	0.02 – 0.10	0.3 – 2.2		
Light	LS-P			MS9025	100 (50 – 180)	0.04 – 0.15	0.3 – 2.2		
Medium	R-SN			MS7025	80 (40 – 160)	0.01 – 0.10	0.1 – 3.8		
Medium	R-SN			MS9025	100 (50 – 180)	0.01 – 0.10	0.1 – 3.8		
Precipitation hardened stainless steel [17-4PH / 1.4542, 17-7PH / X7CrNi-A117-7 / X5CrNi-CuNb17-4, etc.]	< 450 HB	Finish	FS-P	MS7025	60 (40 – 80)	0.01 – 0.10	0.1 – 1.0		
		Finish	FS-P	MS9025	70 (50 – 100)	0.03 – 0.15	0.1 – 1.0		
		Finish	R-SRF	MS7025	60 (40 – 80)	0.01 – 0.10	0.1 – 0.4		
		Finish	R-SRF	MS9025	70 (50 – 100)	0.03 – 0.15	0.1 – 0.4		
		Light	LS-P	MS7025	60 (40 – 80)	0.04 – 0.10	0.2 – 2.2		
		Light	LS-P	MS9025	70 (50 – 100)	0.04 – 0.15	0.2 – 2.2		
		Medium	R-SN	MS7025	60 (40 – 80)	0.03 – 0.10	0.3 – 2.2		
		Medium	R-SN	MS9025	70 (50 – 100)	0.04 – 0.15	0.2 – 2.2		
K Grey cast iron	Tensile strength < 350MPa	Finish	Flat Top	MC5115	225 (150 – 300)	0.04 – 0.15	0.1 – 0.5		
		Finish	Flat Top	HTi10	100 (50 – 150)	0.04 – 0.15	0.1 – 0.5		
		Light	Flat Top	MC5115	225 (150 – 300)	0.04 – 0.15	0.2 – 1.0		
		Light	Flat Top	HTi10	100 (50 – 150)	0.04 – 0.15	0.2 – 1.0		
		Medium	Flat Top	MC5115	225 (150 – 300)	0.04 – 0.15	0.1 – 2.0		
		Medium	Flat Top	HTi10	100 (50 – 150)	0.04 – 0.15	0.1 – 2.0		
S Heat resistant alloy (Heat resistant stainless steel, etc.)	—	Finish	FS-P	MS9025	80 (40 – 140)	0.04 – 0.12	0.2 – 1.0		
		Finish	R-SRF	MS9025	80 (40 – 140)	0.05 – 0.12	0.1 – 0.4		
		Light	LS-P	MS9025	80 (40 – 140)	0.04 – 0.15	0.3 – 2.2		
		Medium	R-SN	MS9025	80 (40 – 140)	0.01 – 0.10	0.1 – 3.8		



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1. If chatter or vibration occurs, adjust the cutting conditions and perform machining.
2. If the tool overhang amount is L/D = 5 or more for carbide shank or L/D = 3 or more for steel shank, please reduce the cutting speed by 10 % to 20 %.
3. Regarding the feed rate and depth of cut for breakers not listed in the table, please refer to the general catalogue C010J page A058 of for 7° positive and page A066 for 11° positive. For cutting speed, please refer to the grade introduction page A034.



RECOMMENDED CUTTING CONDITIONS

MC6100 SERIES – 5°, 7° POSITIVE INSERTS (FOR EXTERNAL TURNING)






























Material	Hardness	Cutting mode		Priority	Grade		Vc	f	ap
Mild steel	≤180HB	●	F	1	MC6115	FP	295 – 570	0.04 – 0.20	0.20 – 0.90
		●	F	2	MC6115	FV	295 – 570	0.04 – 0.20	0.20 – 0.90
		●	L	1	MC6115	LP	295 – 570	0.06 – 0.25	0.20 – 1.00
		●	L	2	MC6115	SW	295 – 570	0.06 – 0.24	0.20 – 1.50
		●	M	1	MC6115	MP	245 – 475	0.08 – 0.30	0.30 – 2.00
		●	M	2	MC6115	MV	245 – 475	0.08 – 0.30	0.30 – 2.00
		●	M	3	MC6115	MW	245 – 475	0.10 – 0.35	0.80 – 2.50
		✱	F	1	MC6125	FP	320 – 505	0.04 – 0.20	0.20 – 0.90
		✱	F	2	MC6135	FP	265 – 400	0.04 – 0.20	0.20 – 0.90
		✱	L	1	MC6125	LP	320 – 505	0.06 – 0.25	0.20 – 1.00
		✱	L	2	MC6135	LP	265 – 400	0.06 – 0.25	0.20 – 1.00
		✱	L	3	MC6125	SW	320 – 505	0.06 – 0.24	0.20 – 1.50
		✱	M	1	MC6125	MP	270 – 420	0.08 – 0.30	0.30 – 2.00
		✱	M	2	MC6135	MP	220 – 330	0.08 – 0.30	0.30 – 2.00
		✱	M	3	MC6125	MV	270 – 420	0.08 – 0.30	0.30 – 2.00
		Carbon steel Alloy steel	180 – 280HB	●	F	1	MC6115	FP	220 – 420
●	F			2	MC6125	FP	240 – 370	0.04 – 0.20	0.20 – 0.90
●	F			3	MC6115	FV	220 – 420	0.04 – 0.20	0.20 – 0.90
●	L			1	MC6115	LP	220 – 420	0.06 – 0.25	0.20 – 1.00
●	L			2	MC6125	LP	240 – 370	0.06 – 0.25	0.20 – 1.00
●	M			1	MC6125	MP	200 – 310	0.08 – 0.30	0.30 – 2.00
●	M			2	MC6115	MP	180 – 350	0.08 – 0.30	0.30 – 2.00
●	M			3	MC6125	MV	200 – 310	0.08 – 0.30	0.30 – 2.00
●	M			4	MC6115	MV	180 – 350	0.08 – 0.30	0.30 – 2.00
●	M			5	MC6115	MW	180 – 350	0.10 – 0.35	0.80 – 2.50
✱	F			1	MC6125	FP	240 – 370	0.04 – 0.20	0.20 – 0.90
✱	F			2	MC6135	FP	195 – 295	0.04 – 0.20	0.20 – 0.90
✱	F			3	MC6125	FV	240 – 370	0.04 – 0.20	0.20 – 0.90
✱	L			1	MC6125	LP	240 – 370	0.06 – 0.25	0.20 – 1.00
✱	L			2	MC6135	LP	195 – 295	0.06 – 0.25	0.20 – 1.00
✱	L			3	MC6125	SW	240 – 370	0.06 – 0.24	0.20 – 1.50
✱	M	1	MC6125	MP	200 – 310	0.08 – 0.30	0.30 – 2.00		
✱	M	2	MC6135	MP	160 – 245	0.08 – 0.30	0.30 – 2.00		
✱	M	3	MC6125	MV	200 – 310	0.08 – 0.30	0.30 – 2.00		
Carbon steel Alloy steel	280 – 350HB	●	F	1	MC6115	FP	155 – 295	0.04 – 0.20	0.20 – 0.90
		●	F	2	MC6115	FV	155 – 295	0.04 – 0.20	0.20 – 0.90
		●	L	1	MC6115	LP	155 – 295	0.06 – 0.25	0.20 – 1.00
		●	M	1	MC6115	MP	130 – 245	0.08 – 0.30	0.30 – 2.00
		●	M	2	MC6115	MV	130 – 245	0.08 – 0.30	0.30 – 2.00
		✱	F	1	MC6125	FP	170 – 265	0.04 – 0.20	0.20 – 0.90
		✱	F	2	MC6135	FP	135 – 210	0.04 – 0.20	0.20 – 0.90
		✱	L	1	MC6125	LP	170 – 265	0.06 – 0.25	0.20 – 1.00
		✱	L	2	MC6135	LP	135 – 210	0.06 – 0.25	0.20 – 1.00
		✱	M	1	MC6125	MP	140 – 220	0.08 – 0.30	0.30 – 2.00
		✱	M	2	MC6135	MP	115 – 175	0.08 – 0.30	0.30 – 2.00
		✱	M	3	MC6125	MV	140 – 220	0.08 – 0.30	0.30 – 2.00

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1. Recommended cutting conditions for 5° / 7° / 11° positive inserts are provided as a guideline only.
Verify the recommended conditions for each boring bar as cutting conditions for internal machining will vary depending on the length of overhang.

RECOMMENDED CUTTING CONDITIONS

MC6100 SERIES – 11° POSITIVE INSERTS (FOR EXTERNAL TURNING)

Material	Hardness	Cutting mode	Priority	Grade		Vc	f	ap	
Mild steel	≤180HB		F	1	MC6125	FP	320 – 505	0.04 – 0.20	0.20 – 0.90
			F	2	MC6125	FV	320 – 505	0.04 – 0.20	0.20 – 0.90
			L	1	MC6125	LP	320 – 505	0.06 – 0.25	0.20 – 1.00
			L	2	MC6115	R-Std	245 – 475	0.08 – 0.30	0.30 – 2.00
			M	1	MC6125	MP	270 – 420	0.08 – 0.30	0.30 – 2.00
			M	2	MC6115	MP	245 – 475	0.08 – 0.30	0.30 – 2.00
			M	3	MC6125	MV	270 – 420	0.08 – 0.30	0.30 – 2.00
			M	4	MC6115	MV	245 – 475	0.08 – 0.30	0.30 – 2.00
			L	1	MC6125	LP	320 – 505	0.06 – 0.25	0.20 – 1.00
			L	2	MC6135	LP	265 – 400	0.06 – 0.25	0.20 – 1.00
			M	1	MC6125	MP	270 – 420	0.08 – 0.30	0.30 – 2.00
			M	2	MC6135	MP	220 – 330	0.08 – 0.30	0.30 – 2.00
			M	3	MC6125	MV	270 – 420	0.08 – 0.30	0.30 – 2.00
			M	4	MC6135	MV	220 – 330	0.08 – 0.30	0.30 – 2.00
Carbon steel Alloy steel	180 – 280HB		F	1	MC6125	FP	240 – 370	0.04 – 0.20	0.20 – 0.90
			F	2	MC6125	FV	240 – 370	0.04 – 0.20	0.20 – 0.90
			L	1	MC6125	LP	240 – 370	0.06 – 0.25	0.20 – 1.00
			L	2	MC6115	LP	220 – 420	0.06 – 0.25	0.20 – 1.00
			M	1	MC6125	MP	200 – 310	0.08 – 0.30	0.30 – 2.00
			M	2	MC6125	MV	200 – 310	0.08 – 0.30	0.30 – 2.00
			M	3	MC6115	R-Std	180 – 350	0.08 – 0.30	0.30 – 2.00
			M	4	MC6125	R-Std	200 – 310	0.08 – 0.30	0.30 – 2.00
			L	1	MC6125	LP	240 – 370	0.06 – 0.25	0.20 – 1.00
			L	2	MC6135	LP	195 – 295	0.06 – 0.25	0.20 – 1.00
			M	1	MC6125	MP	200 – 310	0.08 – 0.30	0.30 – 2.00
			M	2	MC6135	MP	160 – 245	0.08 – 0.30	0.30 – 2.00
			M	3	MC6125	MV	200 – 310	0.08 – 0.30	0.30 – 2.00
			M	4	MC6135	MV	160 – 245	0.08 – 0.30	0.30 – 2.00

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1. Recommended cutting conditions for 5° / 7° / 11° positive inserts are provided as a guideline only. Verify the recommended conditions for each boring bar as cutting conditions for internal machining will vary depending on the length of overhang.

RECOMMENDED CUTTING CONDITIONS

MC5100 SERIES – 5°, 7° POSITIVE INSERTS (FOR EXTERNAL TURNING)


Material	Properties	Cutting mode	Grade	Vc
Gray cast iron	Tensile strength ≤350MPa	●	MC5115	190 – 350
		●	MC5115	140 – 270
		✘	MC5115	80 – 150
Ductile cast iron	Tensile strength ≤450MPa	●	MC5115	170 – 320
		●	MC5115	130 – 250
		✘	MC5125	60 – 130
	Tensile strength ≤800MPa	●	MC5115	125 – 240
		●	MC5115	105 – 200
		✘	MC5125	55 – 115

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MC5100 SERIES – 11° POSITIVE INSERTS (FOR EXTERNAL TURNING)

Material	Properties	Cutting mode	Grade	Vc
Gray cast iron	Tensile strength ≤350MPa	●	MC5115	150 – 300
		●	MC5115	140 – 270
		✘	MC5115	80 – 150
Ductile cast iron	Tensile strength ≤450MPa	●	MC5115	170 – 320
		●	MC5115	130 – 250
		✘	MC5125	60 – 130
	Tensile strength ≤800MPa	●	MC5115	125 – 240
		●	MC5115	105 – 200
		✘	MC5125	55 – 115

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Cutting area		f	ap
Light cutting	LK	0.06 – 0.25	0.2 – 1.0
	SW	0.06 – 0.24	0.2 – 1.5
Medium cutting	MK	0.08 – 0.30	0.3 – 2.0
	MV	0.08 – 0.30	0.3 – 2.0
	Standard	0.08 – 0.30	0.3 – 2.0
	MW	0.10 – 0.35	0.8 – 2.5
Heavy cutting	Flat Top	0.08 – 0.30	0.3 – 2.0

Cutting conditions : ● : Stable cutting ● : General cutting ✘ : Unstable cutting

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