SKS EXTREME

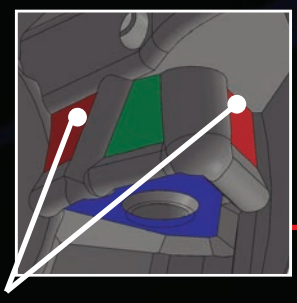
High-feed milling tools with double side inserts which achieve ultimate high-feed machining

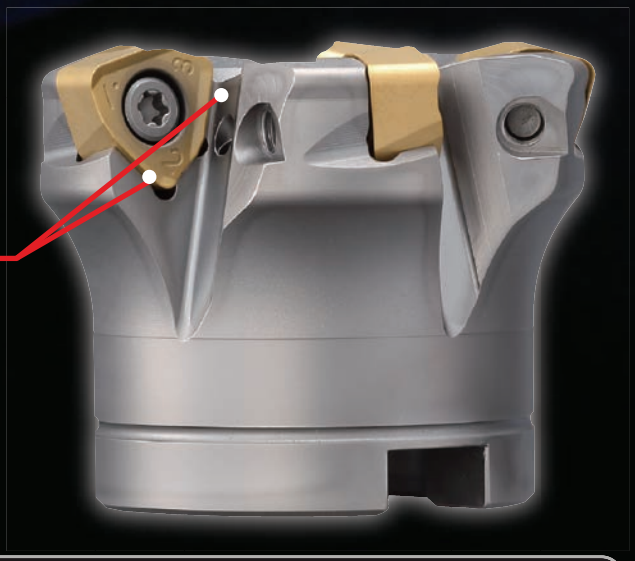
Feature 1

Economical double-side insert (with 6 cutting edges)

Feature 2

Due to dovetail-shaped binding face, movement of inserts which occur by cutting force is prevented only single screw clamping





Feature 3

Application

ISO	P					M					K				H		
	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	H01	H10	H20
Applicable range			JC8050					JC8050									
		JC8118										JC8118				JC8118	
				JC7560						JC7560							

Adopted 3 insert grades:

PVD coated grade "JC7560" improved fracture toughness & heat impact resistance.

PVD coated grade "JC8118" achieved longer tool life for mold steel,high hardened die steel less than 50HRC & cast iron.

PVD coated grade "JC8050", that adopted carbide substrate with improved fracture toughness & coating layer can be widely applied for carbon steel, mold steel, & stainless steel.

EXSKS-05 type

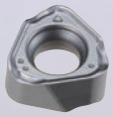
By adopting multi blade specification
with small diameter,
high-feed machining is possible.

M3 size screw for firm clamping of inserts

MaxAp=1.5mm

W=4.8

WNMU050320ZER-PM



grade : JC8050
JC8118

Optimal breaker for mold steel &
High hardened steel less than 50HRC

Coner radius for programming	Remains	Over cut
R2	0.59	0
R2.5	0.5	0
R3	0.41	0.13

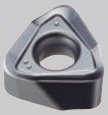
EXSKS-07type

Adopted specifications which
achieved both insert strength
and sharpness.
Stable high-feed machining is possible.

MaxAp=2mm

W=8.1

WNMU070620ZER-PM



grade : JC8050
JC8118

Optimal breaker for mold steel &
High hardened steel less than 50HRC

Coner radius for programming	Remains	Over cut
R3	0.80	0
R3.5	0.73	0.06
R4	0.66	0.21

EXSKS-09type

Lined up holders of big diameter.
High-feed machining with bigger depth of cut
is possible by adopting high-rigid inserts with
larger thickness.

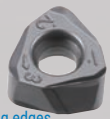
PM insert PL insert

MaxAp=3mm (2mm)

W=8.2

WNMU090828ZER-PL

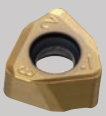
grade: JC8050 / JC8118



Suitable for machining shapes such as pocket milling
with ap = 0.6 mm to ap = 1.2 mm.
The composite shape of the straight and radius cutting edges
reduces fluctuations in cutting resistance during corner machining,
realizing stable machining and extending tool life.

WNMU090720ZER-PM

grade : JC8050/JC8118/JC7560



Suitable for face milling of ap=1.4mm or more and
shape machining such as pocket machining.

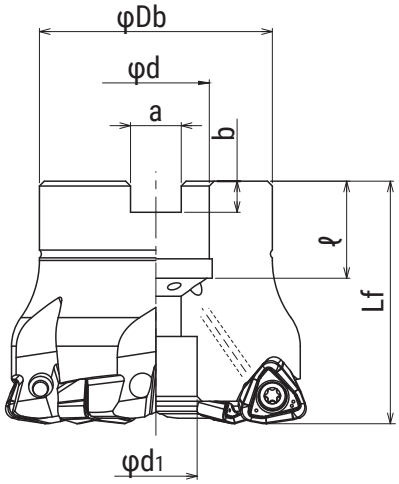
Coner radius for programming	Remains	Over cut
R3	1.41	0
R3.5	1.3	0
R4	1.19	0.025

SKS EXTREME — EXSKS/MEX Type

● EXSKS-07 Type

■ Facemill Type

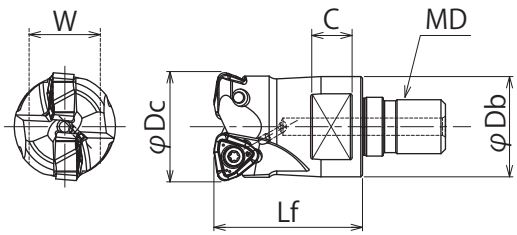
G-Body
Through coolant hole



Cat.No.	Stock	No. of inserts	Dimensions (mm)								Arbor set bolt	Weight (kg)	Inserts
			φDc	Lf	φDb	φd	φd1	a	b	ℓ			
EXSKS-5050R-07-22	●	5	50	50	40	22	16.5	10.4	6.3	20	M10	0.38	WNMU070620ZER-PM
EXSKS-5052R-07-22	●	5	52	50	40	22	16.5	10.4	6.3	20	M10	0.40	
EXSKS-6063R-07-22	●	6	63	50	48	22	17	10.4	6.3	20	M10	0.64	
EXSKS-7080R-07-27	●	7	80	55	65	27	20	12.4	7	22	M12X1.75X35★	1.23	

■ Modular head type

G-Body
Through coolant hole



Cat.No.	Stock	No. of inserts	Dimensions (mm)						Inserts
			φDc	Lf	φDb	MD	C	W	
MEX-2032-07-M16	●	2	32	43	29	M16	12	22	WNMU070620ZER-PM
MEX-3035-07-M16	●	3	35	43	29	M16	12	22	
MEX-4040-07-M16	●	4	40	43	32	M16	14	26	
MEX-4042-07-M16	●	4	42	43	32	M16	14	26	

SKS EXTREME — EXSKS/MEX Type

■ Endmill Shank Type

Through coolant hole

Fig.1

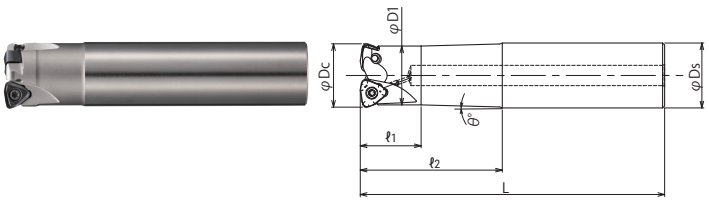
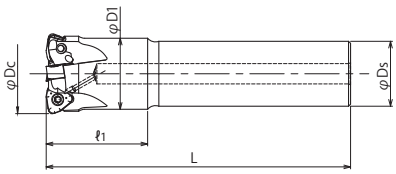
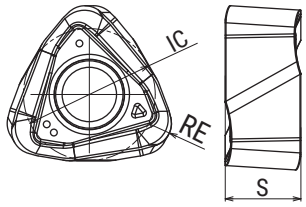


Fig.2



Cat.No.	Stock	No. of inserts	Dimensions (mm)							Fig.	Inserts
			φDc	ℓ1	ℓ2	L	φd1	φDs	θ°		
EXSKS-2032-07-70-S32	□	2	32	30	70	150	29	20	32	1	WNMU070620ZER-PM
EXSKS-2032-07-120-S32	□	2	32	30	120	200	29	20	32	1	
EXSKS-3035-07-40-S32	□	3	35	40	-	150	31	20	32	2	
EXSKS-3035-07-40L-S32	□	3	35	40	-	200	31	20	32	2	
EXSKS-4040-07-50-S32	□	4	40	50	-	150	35	25	32	2	
EXSKS-4040-07-50L-S32	□	4	40	50	-	200	35	25	32	2	

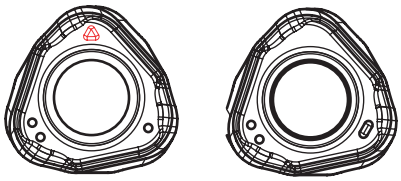
■ Insert



Screw	Torque(N.m)	Wrench
TSW-410H	3.5	A-15

Cat.No.	Tolerance	PVD coated		Dimensions (mm)		
		JC8118	JC8050	RE	IC	S
WNMU070620ZER-PM	M	●	●	2	11.2	6.4

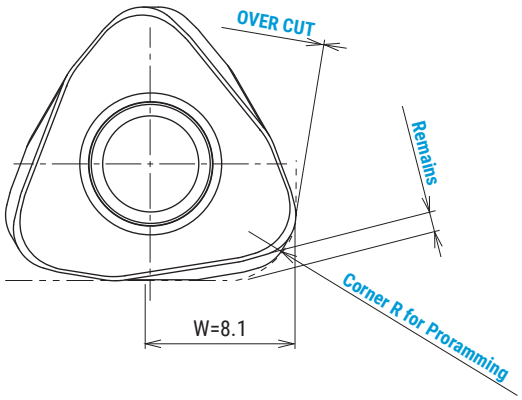
GRADE MARKING



JC8050　　JC8118

SKS EXTREME EXSKS/MEX Type

■ EXSKS-07 type : Definition of corner shape for programming

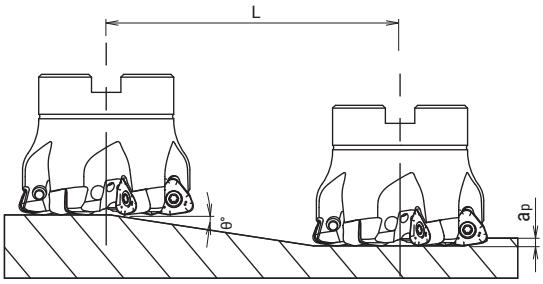


Corner radius for programming	Remains	Over cut
R3.0 (Std.)	0.8	0
R3.5	0.73	0.06
R4.0	0.66	0.21

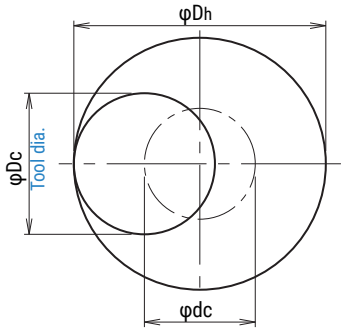
(mm)

Attention for profile milling

Ramping



Helical interpolation



● **Calculation of tool pass dia.**

$$\varphi dc = \varphi Dh - \varphi Dc$$

Tool pass dia. **Bore dia.** **Tool dia.**

● Depth of cut per one circuit should not exceed max. depth of cut ap.

● Down cutting is recommended, so tool pass rotation should be counterclockwise.

● To obtain a flat bottom surface when helical milling, it requires to remove "the uncut part" in the center of the work material at a final pass.

◎ In case of ramping and helical interpolation, apply 70% or less feed speed from standard cutting condition table.
◎ In case of drilling,apply 50% or less Z axis feed speed from standard cutting condition table.
◎ Long consecutive chips may come out in case of drilling, confirm the safe condition suffciently.

Cat. No.	Tool dia. (mm)	EFF. Cutting dia. (mm)	Max. depth of cut (mm) ap	Ramping		Helical interpolation			Max. drilling depth Z (mm)
				Max. ramping angle θ°	Total cutting length at Max ap	Min. bore dia. Dh min (mm)	Max. bore dia. Dh min (mm)	Dh min (mm)	
EXSKS-*032/MEX-*032	32	15	2	2.2	53	41	60	48	0.5
EXSKS-*035/MEX-*035	35	18	2	2.1	55	47	66	54	0.5
EXSKS-*040/MEX-*040	40	23	2	2	58	57	76	64	0.5
MEX-*042	42	25	2	1.8	64	61	80	68	0.5
EXSKS-*050	50	33	2	1.5	77	77	96	84	0.5
EXSKS-*052	52	35	2	1.2	96	81	100	88	0.5
EXSKS-*063	63	46	2	1	115	103	122	110	0.5
EXSKS-*080	80	63	2	0.8	144	137	156	144	0.5

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● MEX07 Modular Head type + MSN Shank

Material	Grade	Tool dia.(mm)									
		32					35				
		2N					3N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min-1)	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min-1)	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~100	1	~14	1,990	5,970	~100	1	~18	1,820	8,190
		150	0.8	~14	1,990	5,570	150	0.8	~18	1,820	7,640
		210	0.6	~14	1,790	4,650	210	0.6	~18	1,640	6,400
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~100	1	~14	1,790	5,370	~100	1	~18	1,640	7,380
		150	0.8	~14	1,790	5,010	150	0.8	~18	1,640	6,890
		210	0.6	~14	1,590	4,130	210	0.6	~18	1,460	5,690
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~100	1	~14	1,790	5,370	~100	1	~18	1,640	7,380
		150	0.8	~14	1,790	5,010	150	0.8	~18	1,640	6,890
		210	0.6	~14	1,590	4,130	210	0.6	~18	1,460	5,690
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~100	0.8	~14	1,290	3,100	~100	0.8	~18	1,180	4,250
		150	0.6	~14	1,290	2,840	150	0.6	~18	1,180	3,890
		210	0.4	~14	1,090	2,180	210	0.4	~18	1,000	3,000
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~100	0.8	~14	990	1,980	~100	0.8	~18	910	2,730
		150	0.6	~14	990	1,780	150	0.6	~18	910	2,460
		210	0.4	~14	800	1,280	210	0.4	~18	730	1,750
Gery cast iron (FC250) 160-260HB	JC8118	~100	1.5	~14	1,990	5,970	~100	1.5	~18	1,820	8,190
		150	1.2	~14	1,990	5,970	150	1.2	~18	1,820	8,190
		210	0.8	~14	1,790	5,010	210	0.8	~18	1,640	6,890
Nodular cast iron (FCD700) 170-300HB	JC8118	~100	1	~14	1,690	5,070	~100	1	~18	1,550	6,980
		150	0.8	~14	1,690	4,730	150	0.8	~18	1,550	6,510
		210	0.6	~14	1,490	3,870	210	0.6	~18	1,360	5,300
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~100	0.8	~14	1,490	3,580	~100	0.8	~18	1,360	4,900
		150	0.6	~14	1,490	3,280	150	0.6	~18	1,360	4,490
		210	0.4	~14	1,290	2,580	210	0.4	~18	1,180	3,540
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~100	1	~14	1,690	4,060	~100	1	~18	1,550	5,580
		150	0.8	~14	1,690	3,720	150	0.8	~18	1,550	5,120
		210	0.6	~14	1,490	2,980	210	0.6	~18	1,360	4,080

Note
1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
2. In case of chatter ocurring, recommended to reduce ap or rpm and keep feed per tooth.
3. ap should be reduced when using on low rigidity machine.
4. Use air blow.

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● MEX07 Modular Head type + MSN Shank

Material	Grade	Tool dia.(mm)				
		40/42				
		4N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min-1)	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~100	1	~23	1,430	8,580
		150	0.8	~23	1,430	8,010
		210	0.6	~23	1,270	6,600
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~100	1	~23	1,270	7,620
		150	0.8	~23	1,270	7,110
		210	0.6	~23	1,110	5,770
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~100	1	~23	1,270	7,620
		150	0.8	~23	1,270	7,110
		210	0.6	~23	1,110	5,770
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~100	0.8	~23	880	4,220
		150	0.6	~23	880	3,870
		210	0.4	~23	720	2,880
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~100	0.8	~23	720	2,880
		150	0.6	~23	720	2,590
		210	0.4	~23	560	1,790
Gery cast iron (FC250) 160-260HB	JC8118	~100	1.5	~23	1,430	8,580
		150	1.2	~23	1,430	8,580
		210	0.8	~23	1,270	7,110
Nodular cast iron (FCD700) 170-300HB	JC8118	~100	1	~23	1,190	7,140
		150	0.8	~23	1,190	6,660
		210	0.6	~23	1,030	5,360
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~100	0.8	~23	1,030	4,940
		150	0.6	~23	1,030	4,530
		210	0.4	~23	880	3,520
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~100	1	~23	1,190	5,710
		150	0.8	~23	1,190	5,240
		210	0.6	~23	1,030	4,120

Note
1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
2. In case of chatter ocurring, recommended to reduce ap or rpm and keep feed per tooth.
3. ap should be reduced when using on low rigidity machine.
4. Use air blow.

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● EXSKS07 Endmill shank type

Material	Grade	Tool dia.(mm)									
		32					35				
		2N					3N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~70	0.8	~14	1,990	4,780	~90	0.8	~18	1,820	6,550
		~120	0.7	~14	1,790	3,940	~140	0.7	~18	1,640	5,410
		-	-	-	-	-	-	-	-	-	-
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~70	0.8	~14	1,790	4,300	~90	0.8	~18	1,640	5,900
		~120	0.7	~14	1,590	3,500	~140	0.7	~18	1,460	4,820
		-	-	-	-	-	-	-	-	-	-
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~70	0.8	~14	1,790	4,300	~90	0.8	~18	1,640	5,900
		~120	0.7	~14	1,590	3,500	~140	0.7	~18	1,460	4,820
		-	-	-	-	-	-	-	-	-	-
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~70	0.6	~14	1,290	2,580	~90	0.6	~18	1,180	3,540
		~120	0.5	~14	1,090	1,960	~140	0.5	~18	1,000	2,700
		-	-	-	-	-	-	-	-	-	-
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~70	0.6	~14	990	1,780	~90	0.6	~18	910	2,460
		~120	0.5	~14	800	1,280	~140	0.5	~18	730	1,750
		-	-	-	-	-	-	-	-	-	-
Gery cast iron (FC250) 160-260HB	JC8118	~70	1.2	~14	1,990	4,780	~90	1.2	~18	1,820	6,550
		~120	1	~14	1,790	4,300	~140	1	~18	1,640	5,900
		-	-	-	-	-	-	-	-	-	-
Nodular cast iron (FCD700) 170-300HB	JC8118	~70	0.8	~14	1,690	4,060	~90	0.8	~18	1,550	5,580
		~120	0.6	~14	1,490	3,280	~140	0.6	~18	1,360	4,490
		-	-	-	-	-	-	-	-	-	-
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~70	0.6	~14	1,490	2,980	~90	0.6	~18	1,360	4,080
		~120	0.5	~14	1,290	2,320	~140	0.5	~18	1,180	3,190
		-	-	-	-	-	-	-	-	-	-
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~70	0.8	~14	1,690	3,380	~90	0.8	~18	1,550	4,650
		~120	0.7	~14	1,490	2,680	~140	0.7	~18	1,360	3,670
		-	-	-	-	-	-	-	-	-	-

Note
1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
2. In case of chatter ocurring, recommended to reduce ap or rpm and keep feed per tooth.
3. ap should be reduced when using on low rigidity machine.
4. Use air blow.

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● EXSKS07 Endmill shank type

Material	Grade	Tool dia.(mm)				
		40				
		4N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~90	0.8	~23	1,430	6,860
		~140	0.7	~23	1,350	5,940
		-	-	-	-	-
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~90	0.8	~23	1,270	6,100
		~140	0.7	~23	1,190	5,240
		-	-	-	-	-
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~90	0.8	~23	1,270	6,100
		~140	0.7	~23	1,190	5,240
		-	-	-	-	-
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~90	0.6	~23	880	3,520
		~140	0.5	~23	800	2,880
		-	-	-	-	-
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~90	0.6	~23	720	2,590
		~140	0.5	~23	640	2,050
		-	-	-	-	-
Gery cast iron (FC250) 160-260HB	JC8118	~90	1.2	~23	1,430	6,860
		~140	1	~23	1,350	6,480
		-	-	-	-	-
Nodular cast iron (FCD700) 170-300HB	JC8118	~90	0.8	~23	1,190	5,710
		~140	0.6	~23	1,110	4,880
		-	-	-	-	-
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~90	0.6	~23	1,030	4,120
		~140	0.5	~23	950	3,420
		-	-	-	-	-
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~90	0.8	~23	1,190	4,760
		~140	0.7	~23	1,110	4,000
		-	-	-	-	-

Note
1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
2. In case of chatter ocurring, recommended to reduce ap or rpm and keep feed per tooth.
3. ap should be reduced when using on low rigidity machine.
4. Use air blow.

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● EXSKS07 Facemill type

Material	Grade	Tool dia.(mm)									
		50/52					63				
		5N					6N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min⁻¹)	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min⁻¹)	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~150	1.5	~33	950	7,130	~150	1.5	~46	760	6,840
		200	1.2	~33	950	6,180	200	1.2	~46	760	5,930
		250	1	~33	830	5,400	250	1	~46	660	5,150
		300	0.7	~33	760	4,180	300	0.7	~46	610	4,030
		350	-	-	-	-	350	0.5	~46	610	4,030
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~150	1.5	~33	830	6,230	~150	1.5	~46	660	5,940
		200	1.2	~33	830	5,400	200	1.2	~46	660	5,150
		250	1	~33	700	4,550	250	1	~46	560	4,370
		300	0.7	~33	640	3,520	300	0.7	~46	510	3,370
		350	-	-	-	-	350	0.5	~46	510	3,370
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~150	1.5	~33	830	6,230	~150	1.5	~46	660	5,940
		200	1.2	~33	830	5,400	200	1.2	~46	660	5,150
		250	1	~33	700	4,550	250	1	~46	560	4,370
		300	0.7	~33	640	3,520	300	0.7	~46	510	3,370
		350	-	-	-	-	350	0.5	~46	510	3,370
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~150	1.2	~33	700	4,550	~150	1.2	~46	560	4,370
		200	1	~33	700	3,850	200	1	~46	560	3,700
		250	0.7	~33	570	3,140	250	0.7	~46	450	2,970
		300	0.5	~33	510	2,550	300	0.5	~46	400	2,400
		350	-	-	-	-	350	-	-	-	-
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~150	1	~33	570	2,850	~150	1	~46	450	2,700
		200	0.8	~33	570	2,570	200	0.8	~46	450	2,430
		250	0.6	~33	510	2,300	250	0.6	~46	400	2,160
		300	0.4	~33	450	1,800	300	0.4	~46	350	1,680
		350	-	-	-	-	350	-	-	-	-
Gery cast iron (FC250) 160-260HB	JC8118	~150	2	~33	950	7,130	~150	2	~46	760	6,840
		200	1.5	~33	950	6,180	200	1.5	~46	760	5,930
		250	1	~33	830	5,400	250	1	~46	660	5,150
		300	0.7	~33	760	4,180	300	0.7	~46	610	4,030
		350	-	-	-	-	350	0.5	~46	610	4,030
Nodular cast iron (FCD700) 170-300HB	JC8118	~150	1.5	~33	830	6,230	~150	1.5	~46	660	5,940
		200	1.2	~33	830	5,400	200	1.2	~46	660	5,150
		250	1	~33	700	4,550	250	1	~46	560	4,370
		300	0.7	~33	640	3,520	300	0.7	~46	510	3,370
		350	-	-	-	-	350	0.5	~46	510	3,370
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~150	1.2	~33	700	4,550	~150	1.2	~46	560	4,370
		200	1	~33	700	3,850	200	1	~46	560	3,700
		250	0.7	~33	570	3,140	250	0.7	~46	450	2,970
		300	0.5	~33	510	2,550	300	0.5	~46	400	2,400
		350	-	-	-	-	350	0.4	~46	400	2,400
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~150	1.5	~33	830	5,400	~150	1.5	~46	660	5,150
		200	1.2	~33	830	4,570	200	1.2	~46	660	4,360
		250	1	~33	700	3,850	250	1	~46	560	3,700
		300	0.7	~33	640	3,200	300	0.7	~46	510	3,060
		350	-	-	-	-	350	0.5	~46	510	3,060

Note

1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
2. In case of chatter ocurring, recommended to reduce ap or rpm and keep feed per tooth.
3. ap should be reduced when using on low rigidity machine.
4. Use air blow.

SKS EXTREME — EXSKS/MEX Type

■ Recommended cutting conditions

● EXSKS07 Facemill type

Material	Grade	Tool dia.(mm)				
		80				
		7N				
		ℓ (mm)	ap (mm)	ae (mm)	n (min-1)	Vf (mm/min)
Carbon steel (S50C, S55C) below 250HB	JC8050	~150	1.5	~63	600	6,300
		200	1.2	~63	600	5,460
		250	1	~63	520	4,730
		300	0.7	~63	480	3,700
		350	0.5	~63	480	3,700
Tool & die steel (SKD61, SKD11) below 255HB	JC8050	~150	1.5	~63	520	5,460
		200	1.2	~63	520	4,730
		250	1	~63	440	4,000
		300	0.7	~63	400	3,080
		350	0.5	~63	400	3,080
Mold steel (HPM7, PX5, P20) 30-36 HRC	JC8118	~150	1.5	~63	520	5,460
		200	1.2	~63	520	4,730
		250	1	~63	440	4,000
		300	0.7	~63	400	3,080
		350	0.5	~63	400	3,080
Mold steel (NAK80,HPM1,P21) 38-43HRC	JC8118	~150	1.2	~63	440	4,000
		200	1	~63	440	3,390
		250	0.7	~63	360	2,770
		300	0.5	~63	320	2,240
		350	-	-	320	2,240
Hardened die steel (SKD61,DAC,DHA) 42-52HRC	JC8118	~150	1	~63	360	2,520
		200	0.8	~63	360	2,270
		250	0.6	~63	320	2,020
		300	0.4	~63	280	1,570
		350	-	-	-	-
Gery cast iron (FC250) 160-260HB	JC8118	~150	2	~63	600	6,300
		200	1.5	~63	600	5,460
		250	1	~63	520	4,730
		300	0.7	~63	480	3,700
		350	0.5	~63	480	3,700
Nodular cast iron (FCD700) 170-300HB	JC8118	~150	1.5	~63	520	5,460
		200	1.2	~63	520	4,730
		250	1	~63	440	4,000
		300	0.7	~63	400	3,080
		350	0.5	~63	400	3,080
Austenitic stainless steel (SUS304, 316, 317) 17Cr	JC8050	~150	1.2	~63	440	4,000
		200	1	~63	440	3,390
		250	0.7	~63	360	2,770
		300	0.5	~63	320	2,240
		350	0.4	~63	320	2,240
Ferritic & martensitic stainless steel (SUS403 420J2, 430) 13Cr	JC8118	~150	1.5	~63	520	4,730
		200	1.2	~63	520	4,000
		250	1	~63	440	3,390
		300	0.7	~63	400	2,800
		350	0.5	~63	400	2,800

Note
1. Please adjust cutting conditions according to machine rigidity or work rigidity. (the above table is guide for cutting on a #50 BT machine.)
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