PRODUCT NEWS

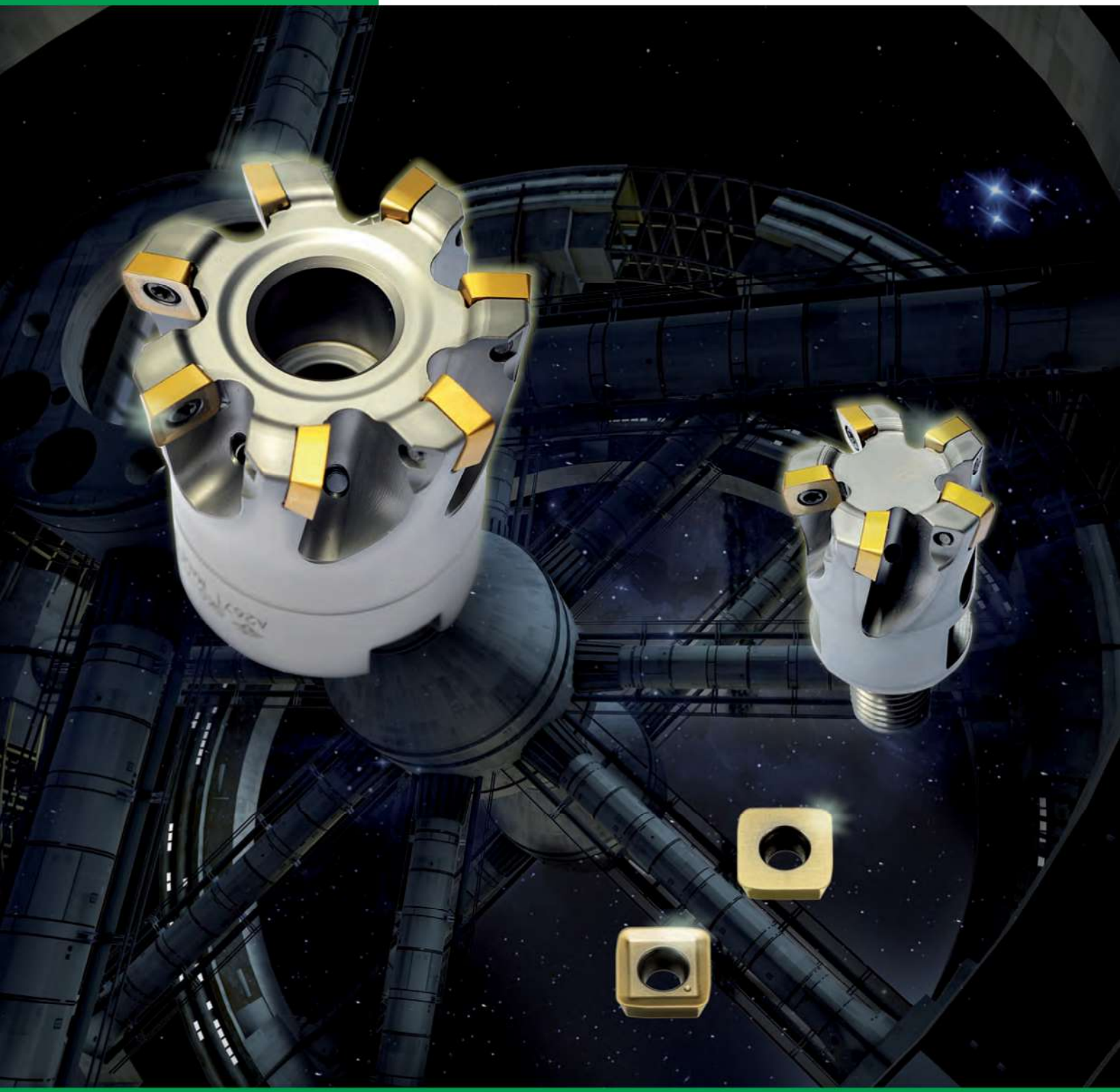
PN-E-004

TYPE
SKG 09 / MSG 09

DIJET

SKS-GII

For heat resistant alloy, titanium alloy and hardened stainless steel.



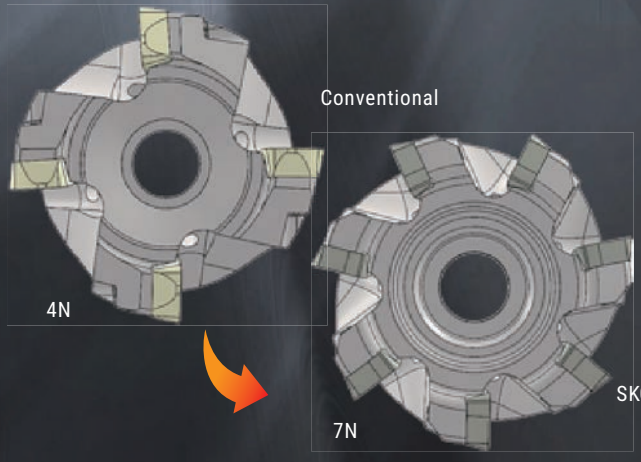
Mills for Aerospace & Transportation: **www.dijet.de**

Specifically designed for high effciency machining of difficult to cut materials

Feature 1

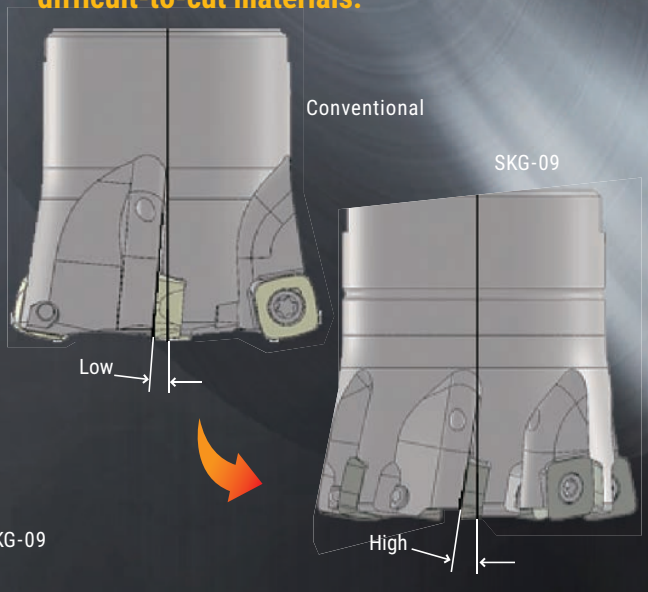
Multi-edge design enables high efficiency machining. Achieved Max ap=0.9 mm even if difficult-to-cut materials such as titanium alloy , stainless steel & heat-resistant alloy

● **Tool dia. φ50**



Feature 2

The optimised cutting edge design provides the sharpness and low cutting resistance that is ideal for difficult-to-cut materials.

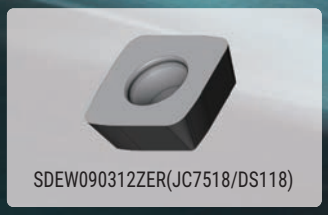


Feature 3

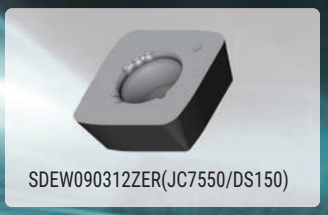
Economical 4 cutting edges
Precise ground insert provides run out accuracy and longer tool life.

Line up

Wear resistance → Fracture resistance


SDEW090312ZER(JC7518/DS118)


SDET090312ZDER-SM(DS118)

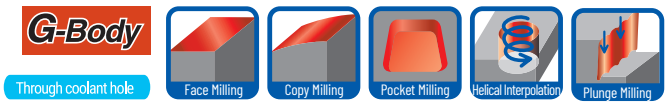

SDEW090312ZER(JC7550/DS150)

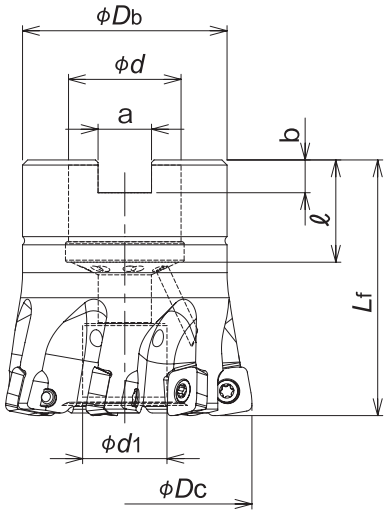

SDET090312ZDER-SM(JC7550/DS150)

Insert		Titanium alloy	Inconel	SUS630	SUS316
SDEW090312ZER	(JC7518)		■	◎	
SDEW090312ZER	(JC7550)			●	◎
SDEW090312ZER	(DS118)	◎	■		
SDEW090312ZER	(DS150)	●	●		
SDET090312ZDER-SM	(JC7550)		●	●	●
SDET090312ZDER-SM	(DS150)	●	●		
SDET090312ZDER-SM	(DS118)	●	◎		

◎: stable machining ●: unstable machining ■: light load machining

■ SKG09 Facemill Type





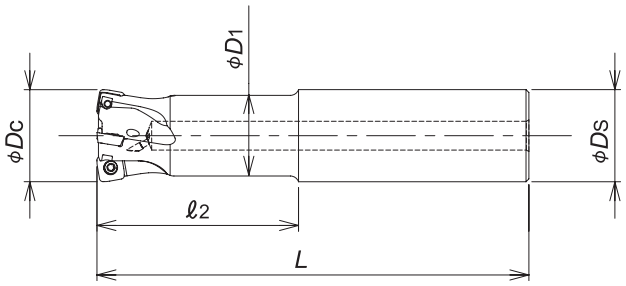
Cat.No.	Stock	No. of inserts	Dimensions (mm)								Arbor set bolt	Weight (kg)	Inserts
			φDc	Lf	φDb	φd	φd1	a	b	ℓ			
SKG-5040R-09-16	●	5	40	40	37	16	13.5	8.4	5.6	18	M8	0.21	SDEW090312ZER; SDET090312ZDER-SM
SKG-7050R-09-22	●	7	50	50	40	22	16.5	10.4	6.3	20	M10	0.35	
SKG-7052R-09-22	●		52								M10	0.37	
SKG-8063R-09-22	●	8	63		48		17				M10	0.58	
SKG-8066R-09-27	●		66		50	27	20	12.4	7	22	M12X1.75X30★	0.60	
SKG-9080R-09-27	●	9	80		60						M12X1.75X30★	0.97	

Screw	Torque(N.m)	Wrench
DSW-307H	2.1	A-10

● : Standard stock items ○ : Stock in Japan

■ SKG09 Endmill Type

Through coolant hole

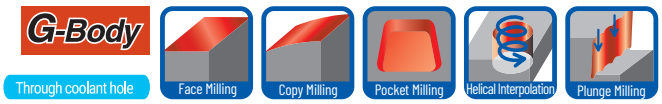


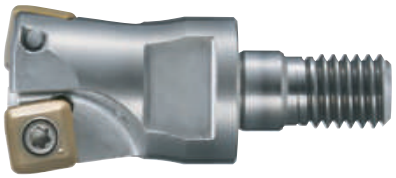
Cat.No.	Stock	No. of inserts	Dimensions (mm)					Inserts
			φDc	ℓ2	L	φD1	φDs	
SKG-3025-60-09-S25	●	3	25	60	140	23	25	SDEW090312ZER; SDET090312ZDER-SM
SKG-3025-100-09-S25	●			100	180			
SKG-4032-70-09-S32	●	4	32	70	150	28	32	
SKG-4032-120-09-S32	●			120	200			
SKG-5035-70-09-S32	●	5	35	70	150	31		
SKG-5035-120-09-S32	●			120	200			

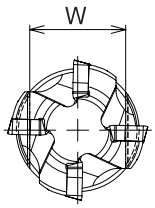
Screw	Torque(N.m)	Wrench
DSW-307H	2.1	A-10

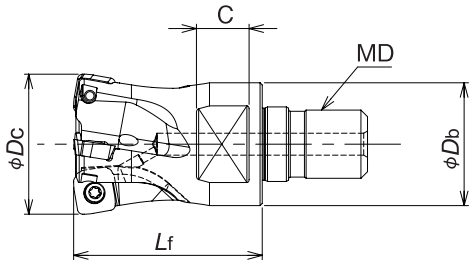
● : Standard stock items　　○ : Stock in Japan

■ MSG09 Modular Head Type









Cat.No.	Stock	No. of inserts	Dimensions (mm)						Inserts	Parts
			φDc	Lf	φDb	MD	C	W		
MSG-2020-09-M10	●	2	20	30	19	M10	9	14	SDEW090312ZER; SDET090312ZDER-SM	DSW-306H
MSG-2022-09-M10	●		22			M10				DSW-307H
MSG-3025-09-M12	●	3	25	35	23	M12	11	19		
MSG-4028-09-M12	●	4	28		23.6	M12				
MSG-4032-09-M16	●		32	43	28	M16	12	22		
MSG-5035-09-M16	●	5	35		29	M16				
MSG-5040-09-M16	●		40		32	M16	14	26		
MSG-5042-09-M16	●		42			M16				

Screw	Torque(N.m)	Wrench
DSW-306H	1.8	A-10
DSW-307H	2.1	A-10

● : Standard stock items ○ : Stock in Japan

■ SKG/MSG09 Type Insert

Fig. 1

Fig. 1

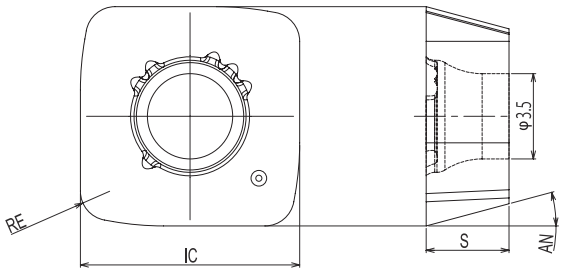
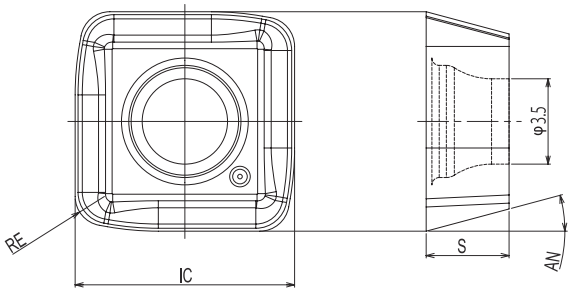


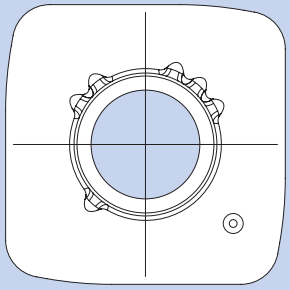
Fig. 2

Fig. 2

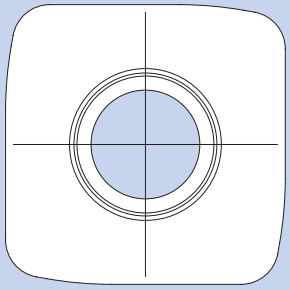


Cat.No.	Tolerance	PVD Coating				Dimensions (mm)				Fig.
		DS118	DS150	JC7518	JC7550	RE	IC	S	AN	
SDEW090312ZER	E	●	●	●	●	1.2	9	3.4	15°	1
SDET090312ZDER-SM		●	●		●					2

GRADE MARKING



JC7550/DS150

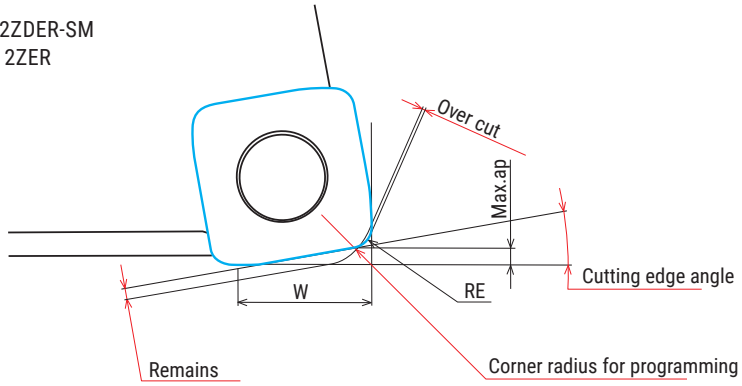


JC7518/DS118

● : Standard stock items　　○ : Stock in Japan

■ Definition of corner shape for programming

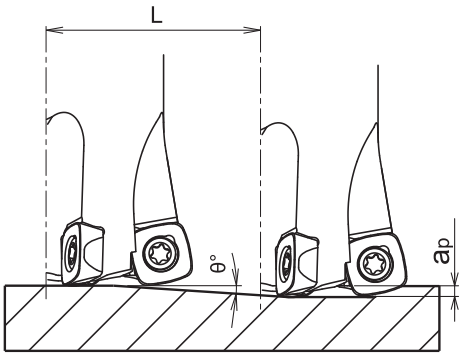
■ SDET090312ZDER-SM
SDEW090312ZER



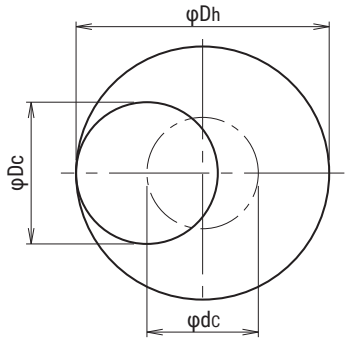
Corner radius for programming	Remains	Over cut	Max.ap	W	Cutting edge angle
1.5	0.81	0	0.9	7.1	10°
2 (Standard)	0.73	0			
2.5	0.65	0.08			

■ Recommended Data 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, tool pass rotation should be counterclockwise

● In case of ramping and helical interpolation, apply 70% or less feed (Vf) from standard cutting condition table

Cat.No.	Tool dia.	Effective cutting dia.	Max.depth of cut : ap	Ramping		Helical interpolation	
				Max.ramping angle θ	Total cutting length at Max.ap : L(mm)	Min.Bore dia. (mm)	Max.Bore dia. (mm)
MSG-2020-09-M10	20	5.6	0.9	1°	51.6	27	38
MSG-2022-09-M10	22	7.7	0.9	1°	51.6	31	42
MSG-3025-09-M12	25	10.7	0.9	1°	51.6	37	48
MSG-4028-09-M12	28	13.7	0.9	1°	51.6	43	54
MSG-4032-09-M16	32	17.6	0.9	1°	51.6	51	62
MSG-5035-09-M16	35	20.6	0.9	1°	51.6	57	68
MSG-5040-09-M16	40	25.7	0.9	1°	51.6	67	78
MSG-5042-09-M16	42	27.7	0.9	1°	51.6	71	82
SKG-3025-60-09-S25	25	10.7	0.9	1°	51.6	37	48
SKG-3025-100-09-S25	25	10.7	0.9	1°	51.6	37	48
SKG-4032-70-09-S32	32	17.6	0.9	1°	51.6	51	62
SKG-4032-120-09-S32	32	17.6	0.9	1°	51.6	51	62
SKG-5035-70-09-S32	35	20.6	0.9	1°	51.6	57	68
SKG-5035-120-09-S32	35	20.6	0.9	1°	51.6	57	68
SKG-5040R-09-16	40	25.7	0.9	1°	51.6	67	78
SKG-7050R-09-22	50	35.6	0.9	1°	51.6	87	98
SKG-7052R-09-22	52	37.6	0.9	1°	51.6	91	102
SKG-8063R-09-22	63	48.7	0.9	0°45'	68.8	113	124
SKG-8066R-09-27	66	51.7	0.9	0°45'	68.8	119	130
SKG-9080R-09-27	80	65.7	0.9	0°30'	103.1	147	158

■ Recommended cutting conditions

● MSG09 Type + MSN shank

Material	Cat.No	Grade	Tool dia.(mm)														
			20					22					25				
			2N					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)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~60	0.8	~5	2,390	4,780	~60	0.8	~6	2,170	4,340	~75	0.8	~9	1,910	5,730
			100	0.6	~5	2,390	4,780	100	0.6	~6	2,170	4,340	125	0.6	~9	1,910	5,730
			140	0.6	~5	1,990	3,180	140	0.6	~6	1,810	2,900	175	0.6	~9	1,720	4,390
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~60	0.8	~5	3,020	6,040	~60	0.8	~6	2,750	5,500	~75	0.8	~9	2,420	7,260
			100	0.6	~5	3,020	6,040	100	0.6	~6	2,750	5,500	125	0.6	~9	2,420	7,260
			140	0.6	~5	2,470	3,950	140	0.6	~6	2,240	3,580	175	0.6	~9	2,160	5,510
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~60	0.8	~5	1,590	950	~60	0.8	~6	1,450	870	~75	0.8	~9	1,270	1,140
			100	0.6	~5	1,590	950	100	0.6	~6	1,450	870	125	0.6	~9	1,270	1,140
			140	0.6	~5	1,350	680	140	0.6	~6	1,230	620	175	0.6	~9	1,150	860
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~60	0.8	~5	950	1,140	~60	0.8	~6	870	1,040	~75	0.8	~9	760	1,370
			100	0.6	~5	950	1,140	100	0.6	~6	870	1,040	125	0.6	~9	760	1,370
			140	0.6	~5	800	800	140	0.6	~6	720	720	175	0.6	~9	700	1,050
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~60	0.5	~5	480	580	~60	0.5	~6	430	520	~75	0.5	~9	380	680
			100	0.4	~5	480	580	100	0.4	~6	430	520	125	0.4	~9	380	680
			140	0.4	~5	400	400	140	0.4	~6	360	360	175	0.4	~9	320	480

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.

■ Recommended cutting conditions

● MSG09 Type + MSN shank

Material	Cat.No	Grade	Tool dia.(mm)														
			28					32					35				
			4N					4N					5N				
			ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~75	0.8	~12	1,710	6,840	~90	0.8	~15	1,490	5,960	~90	0.8	~18	1,360	6,800
			125	0.6	~12	1,710	6,840	150	0.6	~15	1,490	5,960	150	0.6	~18	1,360	6,800
			175	0.6	~12	1,530	5,200	210	0.6	~15	1,240	3,970	210	0.6	~18	1,140	4,560
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~75	0.8	~12	2,160	8,640	~90	0.8	~15	1,890	7,560	~90	0.8	~18	1,730	8,650
			125	0.6	~12	2,160	8,640	150	0.6	~15	1,890	7,560	150	0.6	~18	1,730	8,650
			175	0.6	~12	1,930	6,560	210	0.6	~15	1,540	4,930	210	0.6	~18	1,410	5,640
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~75	0.8	~12	1,140	1,370	~90	0.8	~15	990	1,190	~90	0.8	~18	910	1,370
			125	0.6	~12	1,140	1,370	150	0.6	~15	990	1,190	150	0.6	~18	910	1,370
			175	0.6	~12	1,020	1,020	210	0.6	~15	850	850	210	0.6	~18	770	960
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~75	0.8	~12	680	1,630	~90	0.8	~15	600	1,440	~90	0.8	~18	550	1,650
			125	0.6	~12	680	1,630	150	0.6	~15	600	1,440	150	0.6	~18	550	1,650
			175	0.6	~12	630	1,260	210	0.6	~15	500	1,000	210	0.6	~18	450	1,130
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~75	0.5	~12	340	820	~90	0.5	~15	300	720	~90	0.5	~18	270	810
			125	0.4	~12	340	820	150	0.4	~15	300	720	150	0.4	~18	270	810
			175	0.4	~12	280	560	210	0.4	~15	250	500	210	0.4	~18	230	580

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.

■ Recommended cutting conditions

● MSG09 Type + MSN shank

Material	Cat.No	Grade	Tool dia.(mm)									
			40					42				
			5N					5N				
			ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~120	0.8	~23	1,190	5,950	~120	0.8	~24	1,140	5,700
			200	0.6	~23	1,190	5,950	200	0.6	~24	1,140	5,700
			280	0.6	~23	990	4,210	280	0.6	~24	950	4,040
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~120	0.8	~23	1,510	7,550	~120	0.8	~24	1,440	7,200
			200	0.6	~23	1,510	7,550	200	0.6	~24	1,440	7,200
			280	0.6	~23	1,230	5,230	280	0.6	~24	1,170	4,970
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~120	0.8	~23	800	1,200	~120	0.8	~24	760	1,140
			200	0.6	~23	800	1,200	200	0.6	~24	760	1,140
			280	0.6	~23	680	850	280	0.6	~24	640	800
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~120	0.8	~23	480	1,440	~120	0.8	~24	450	1,350
			200	0.6	~23	480	1,440	200	0.6	~24	450	1,350
			280	0.6	~23	400	1,000	280	0.6	~24	380	950
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~120	0.5	~23	240	720	~120	0.5	~24	230	690
			200	0.4	~23	240	720	200	0.4	~24	230	690
			280	0.4	~23	200	500	280	0.4	~24	190	480

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.

■ Recommended cutting conditions

● SKG09 Endmill shank type

Material	Cat.No	Grade	Tool dia.(mm)														
			25					32					35				
			3N					4N					5N				
			ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~70	0.6	~9	1,910	5,730	~90	0.6	~15	1,490	5,960	~90	0.6	~18	1,360	6,800
			70~120	0.6	~9	1,590	3,820	90~140	0.6	~15	1,240	3,970	90~140	0.6	~18	1,140	4,560
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~70	0.6	~9	2,420	7,260	~90	0.6	~15	1,890	7,560	~90	0.6	~18	1,730	8,650
			70~120	0.6	~9	1,970	4,730	90~140	0.6	~15	1,540	4,930	90~140	0.6	~18	1,410	5,640
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~70	0.6	~9	1,270	1,140	~90	0.6	~15	990	1,190	~90	0.6	~18	910	1,370
			70~120	0.6	~9	1,080	810	90~140	0.6	~15	850	850	90~140	0.6	~18	770	960
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~70	0.6	~9	760	1,370	~90	0.6	~15	600	1,440	~90	0.6	~18	550	1,650
			70~120	0.6	~9	640	960	90~140	0.6	~15	500	1,000	90~140	0.6	~18	450	1,130
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~70	0.5	~9	380	680	~90	0.5	~15	300	720	~90	0.5	~18	270	810
			70~120	0.5	~9	320	480	90~140	0.5	~15	250	500	90~140	0.5	~18	230	580

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.

■ Recommended cutting conditions

● SKG09 Facemill type

Material	Cat.No	Grade	Tool dia.(mm)														
			40					50					52				
			5N					7N					7N				
			ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min^{-1})	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~150	0.6	~23	1,190	5,950	~150	0.8	~32	950	6,650	~150	0.8	~33	920	6,440
			200	0.4	~23	1,190	5,950	200	0.6	~32	950	6,650	200	0.6	~33	920	6,440
			250	0.3	~23	990	4,950	250	0.4	~32	800	5,600	250	0.4	~33	770	5,390
			300	-	-	-	-	300	0.3	~32	800	5,600	300	0.3	~33	770	5,390
			350	-	-	-	-	350	0.3	~32	800	4,760	350	0.3	~33	770	4,580
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~150	0.6	~23	1,510	7,550	~150	0.8	~32	1,210	8,470	~150	0.8	~33	1,160	8,120
			200	0.4	~23	1,510	7,550	200	0.6	~32	1,210	8,470	200	0.6	~33	1,160	8,120
			250	0.3	~23	1,230	6,150	250	0.4	~32	990	6,930	250	0.4	~33	950	6,650
			300	-	-	-	-	300	0.3	~32	990	6,930	300	0.3	~33	950	6,650
			350	-	-	-	-	350	0.3	~32	990	5,890	350	0.3	~33	950	5,650
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~150	0.6	~23	800	1,200	~150	0.8	~32	640	1,340	~150	0.8	~33	610	1,280
			200	0.4	~23	800	1,200	200	0.6	~32	640	1,340	200	0.6	~33	610	1,280
			250	0.3	~23	680	1,020	250	0.4	~32	540	1,130	250	0.4	~33	520	1,090
			300	-	-	-	-	300	0.3	~32	540	1,130	300	0.3	~33	520	1,090
			350	-	-	-	-	350	0.3	~32	540	950	350	0.3	~33	520	910
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~150	0.6	~23	480	1,440	~150	0.8	~32	380	1,600	~150	0.8	~33	370	1,550
			200	0.4	~23	480	1,440	200	0.6	~32	380	1,600	200	0.6	~33	370	1,550
			250	0.3	~23	400	1,200	250	0.4	~32	320	1,340	250	0.4	~33	310	1,300
			300	-	-	-	-	300	0.3	~32	320	1,340	300	0.3	~33	310	1,300
			350	-	-	-	-	350	0.3	~32	320	1,120	350	0.3	~33	310	1,090
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~150	0.5	~23	240	720	~150	0.5	~32	190	800	~150	0.5	~33	180	760
			200	0.35	~23	240	720	200	0.4	~32	190	800	200	0.4	~33	180	760
			250	0.25	~23	200	600	250	0.25	~32	160	670	250	0.25	~33	150	630
			300	-	-	-	-	300	0.2	~32	160	670	300	0.2	~33	150	630
			350	-	-	-	-	350	0.2	~32	160	560	350	0.2	~33	150	530

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.

■ Recommended cutting conditions

● SKG09 Facemill type

Material	Cat.No	Grade	Tool dia.(mm)														
			63					66					80				
			8N					8N					9N				
			ℓ (mm)	ap (mm)	ae (mm)	n (min⁻¹)	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min⁻¹)	Vf (mm/min)	ℓ (mm)	ap (mm)	ae (mm)	n (min⁻¹)	Vf (mm/min)
Austenitic stainless steel (SUS304, 316, 317) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~150	0.8	~43	760	6,080	~150	0.8	~46	720	5,760	~150	0.8	~59	600	5,400
			200	0.6	~43	760	6,080	200	0.6	~46	720	5,760	200	0.6	~59	600	5,400
			250	0.4	~43	630	5,040	250	0.4	~46	600	4,800	250	0.4	~59	500	4,500
			300	0.3	~43	630	5,040	300	0.3	~46	600	4,800	300	0.3	~59	500	4,500
			350	0.3	~43	630	4,280	350	0.3	~46	600	4,080	350	0.3	~59	500	3,830
Ferritic and martensitic stainless steel (SUS403 420J2, 430) 17Cr	SDEW 090312 ZER (SDET 090312 ZDER-SM)	JC7550	~150	0.8	~43	960	7,680	~150	0.8	~46	920	7,360	~150	0.8	~59	760	6,840
			200	0.6	~43	960	7,680	200	0.6	~46	920	7,360	200	0.6	~59	760	6,840
			250	0.4	~43	780	6,240	250	0.4	~46	750	6,000	250	0.4	~59	620	5,580
			300	0.3	~43	780	6,240	300	0.3	~46	750	6,000	300	0.3	~59	620	5,580
			350	0.3	~43	780	5,300	350	0.3	~46	750	5,100	350	0.3	~59	620	4,740
Duplex stainless steel	SDEW 090312 ZER	JC7518 (JC7550)	~150	0.8	~43	510	1,220	~150	0.8	~46	480	1,150	~150	0.8	~59	400	1,080
			200	0.6	~43	510	1,220	200	0.6	~46	480	1,150	200	0.6	~59	400	1,080
			250	0.4	~43	430	1,030	250	0.4	~46	410	980	250	0.4	~59	340	920
			300	0.3	~43	430	1,030	300	0.3	~46	410	980	300	0.3	~59	340	920
			350	0.3	~43	430	860	350	0.3	~46	410	820	350	0.3	~59	340	770
Titanium alloy (Ti-6Al-4V) 35-43HRC	SDEW 090312 ZER	DS118 (DS150)	~150	0.8	~43	300	1,440	~150	0.8	~46	290	1,390	~150	0.8	~59	240	1,300
			200	0.6	~43	300	1,440	200	0.6	~46	290	1,390	200	0.6	~59	240	1,300
			250	0.4	~43	250	1,200	250	0.4	~46	240	1,150	250	0.4	~59	200	1,080
			300	0.3	~43	250	1,200	300	0.3	~46	240	1,150	300	0.3	~59	200	1,080
			350	0.3	~43	250	1,000	350	0.3	~46	240	960	350	0.3	~59	200	900
Heat resistant alloy (INCO718) 35-43HRC	SDET 090312 ZDER-SM (SDEW 090312 ZER)	DS118 (DS150)	~150	0.5	~43	150	720	~150	0.5	~46	140	670	~150	0.5	~59	120	650
			200	0.4	~43	150	720	200	0.4	~46	140	670	200	0.4	~59	120	650
			250	0.25	~43	130	620	250	0.25	~46	120	580	250	0.25	~59	100	540
			300	0.2	~43	130	620	300	0.2	~46	120	580	300	0.2	~59	100	540
			350	0.2	~43	130	520	350	0.2	~46	120	480	350	0.2	~59	100	450

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.
5. Wet cutting is recommended for machining super duplex , titanium alloy and heat resistant alloy.