



**CARBIDE
END MILLS**



TTN



**PRODUCTS
CATALOG**



Type	Page	Shape	Code	Helix Angel	Flute	End Shape	Coating	Shank Dia	Shank Dia
Aluminum End Mill	P4-5		AST2-*****	45°	2	Square	-	3	20
			AST3-*****		3		-	3	20
			AST2-*****Z		2		ZRN	3	20
			AST3-*****Z		3		ZRN	3	20
Chatter Free End Mill	P6		CHF4-*****	35/38°	4	Square	TiN-TiAlN	3	20
Square End Mill	P6-8		DST2-*****	30°	2	Square	TiN-TiAlN	1	20
			DST3-*****	30°	3		TiN-TiAlN	2	20
			DST4-*****	30°	4		TiN-TiAlN	2	20
			6FD-*****	45°	6		TiN-TiAlN	6	20
Square Long End Mill	P8-9		DU02-*****	30°	2	Square	TiN-TiAlN	3	12
			DU12-*****	30°	3		TiN-TiAlN	3	12
			DU03-*****	30°	3		TiN-TiAlN	3	12
			DU13-*****	30°	4		TiN-TiAlN	3	12
Square Hard End Mill	P10		DSS4-*****	30°	4	Square	TiAlSiN	3	20
			6HFD-*****	45°	6		TiAlSiN	6	20
Ball Nose End Mill	P11		KST2-*****	30°	2	Ball Nose	TiN-TiAlN	3	20
			KST4-*****	30°	4		TiN-TiAlN	3	20
Ball Nose Long End Mill	P12		KU02-*****	30°	2	Ball Nose	TiN-TiAlN	3	12
			KU12-*****	30°	3		TiN-TiAlN	3	12
			KU04-*****	30°	4		TiN-TiAlN	3	12
Ball Nose Hard End Mill	P13		KSS2-*****	30°	2	Ball Nose	TiAlSiN	3	20
			KSS4-*****	30°	4		TiAlSiN	3	20
Corner Radius End Mill	P14-15		RST2-*****	30°	2	Corner Radius	TiN-TiAlN	3	20
			RST3-*****	30°	3		TiN-TiAlN	3	20
			RST4-*****	30°	4		TiN-TiAlN	3	20
			6FR-*****	45°	6		TiN-TiAlN	6	20
Corner Radius Long End Mill	P16-17		RU02-*****	30°	2	Corner Radius	TiN-TiAlN	3	12
			RU12-*****	30°	3		TiN-TiAlN	3	12
			RU03-*****	30°	3		TiN-TiAlN	3	12
			RU13-*****	30°	4		TiN-TiAlN	3	12
Corner Radius Hard End Mill	P17-18		RSS4-*****	30°	4	Corner Radius	TiAlSiN	3	20
			6HFR-*****	45°	6		TiAlSiN	6	20
Roughing End Mill	P18-19		KAB4-*****	35°	4	Roughing	TiN-TiAlN	6	20
			KAB6-*****	35°	6		TiN-TiAlN	16	20
Roughing Fine Pitch End Mill	P19-20		FIN4-*****	35°	4	Roughing	TiN-TiAlN	6	20
			FIN6-*****	35°	6		TiN-TiAlN	16	20

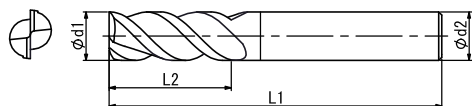


General Structual Steel	Carbon Steel S45C/S50C	Pre-Harden Steel	Tempered Steel	Alloy Steel	High Hardened Steel			Stainless Steel	Titanium Alloy	Cast Iron	Copper Alloy	Aluminium Alloy
	Alloy Steel SCM	NAK/HPM1	SCM 30~45HRC	SKD11	SKD61 45~55HRC	SKD11/SKS 55~60HRC	SKH 60~65HRC	SUS304 SUS316	Heat Resistant Alloy	FC	Cu	Al/AC/ADC
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ALUMINIUM 2 FLUTE END MILLS

AST2-*****

MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
AST2-030600	3	6	9	50		-
AST2-030300	3	3	9	50		-
AST2-040600	4	6	14	50		-
AST2-040400	4	4	14	50		-
AST2-050600	5	6	15	50		-
AST2-050500	5	5	15	50		-
AST2-060600	6	6	15	50	●	-
AST2-080800	8	8	20	60	●	-
AST2-101000	10	10	21	72	●	-
AST2-121200	12	12	25	75	●	-
AST2-141600	14	16	32	80		-
AST2-161600	16	16	32	92		-
AST2-182000	18	20	32	100		-
AST2-202000	20	20	35	100		-

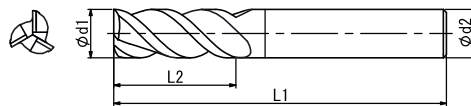
DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
				○	◎	

ALUMINIUM 3 FLUTE END MILLS

AST3-*****

MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
AST3-030600	3	6	9	50		-
AST3-030300	3	3	9	50		-
AST3-040600	4	6	14	50		-
AST3-040400	4	4	14	50		-
AST3-050600	5	6	15	50		-
AST3-050500	5	5	15	50		-
AST3-060600	6	6	15	50	●	-
AST3-080800	8	8	20	60	●	-
AST3-101000	10	10	21	72	●	-
AST3-121200	12	12	25	75	●	-
AST3-141600	14	16	32	80		-
AST3-161600	16	16	32	92		-
AST3-182000	18	20	32	100		-
AST3-202000	20	20	35	100		-

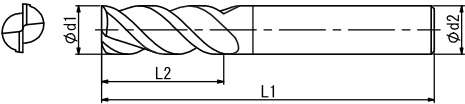
DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
				○	◎	

ZRN ALUMINIUM 2 FLUTE END MILLS

AST2-*****Z

MICRO GRAIN CARBIDE



CARBIDE

2

45°

ZnR

φ3-φ20

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
AST2-030600Z	3	6	9	50		-
AST2-030300Z	3	3	9	50		-
AST2-040600Z	4	6	14	50		-
AST2-040400Z	4	4	14	50		-
AST2-050600Z	5	6	15	50		-
AST2-050500Z	5	5	15	50		-
AST2-060600Z	6	6	15	50	●	-
AST2-080800Z	8	8	20	60	●	-
AST2-101000Z	10	10	21	72	●	-
AST2-121200Z	12	12	25	75	●	-
AST2-141600Z	14	16	32	80		-
AST2-161600Z	16	16	32	92		-
AST2-182000Z	18	20	32	100		-
AST2-202000Z	20	20	35	100		-

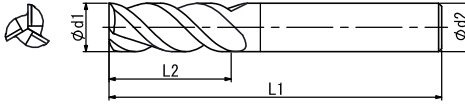
DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
				○	◎	

ZRN ALUMINIUM 3 FLUTE END MILLS

AST3-*****Z

MICRO GRAIN CARBIDE



CARBIDE

3

45°

ZnR

φ3-φ20

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
AST3-030600Z	3	6	9	50		-
AST3-030300Z	3	3	9	50		-
AST3-040600Z	4	6	14	50		-
AST3-040400Z	4	4	14	50		-
AST3-050600Z	5	6	15	50		-
AST3-050500Z	5	5	15	50		-
AST3-060600Z	6	6	15	50	●	-
AST3-080800Z	8	8	20	60	●	-
AST3-101000Z	10	10	21	72	●	-
AST3-121200Z	12	12	25	75	●	-
AST3-141600Z	14	16	32	80		-
AST3-161600Z	16	16	32	92		-
AST3-182000Z	18	20	32	100		-
AST3-202000Z	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
				○	◎	

CHF 4 FLUTE SQUARE END MILLS (~55 HRC)

CHF4-*****

2 FLUTE SQUARE END MILLS (~55 HRC)

DST2-*****

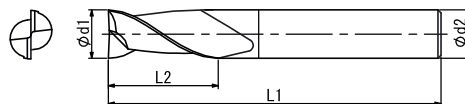
MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
CHF4-030600	3	6	9	50		-
CHF4-040600	4	6	14	50		-
CHF4-050600	5	6	15	50		-
CHF4-060600	6	6	15	50	●	-
CHF4-080800	8	8	20	60	●	-
CHF4-101000	10	10	21	72	●	-
CHF4-121200	12	12	25	75	●	-
CHF4-141600	14	16	32	80		-
CHF4-161800	16	16	32	92		-
CHF4-182000	18	20	32	100		-
CHF4-202000	20	20	35	100		-

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
DST2-010300	1	3	4	50		-
DST2-015300	1.5	3	4	50		-
DST2-020200	2	2	6	50		-
DST2-020300	2	3	6	50		-
DST2-025300	2.5	3	6	50		-
DST2-030600	3	6	9	50		-
DST2-040600	4	6	14	50		-
DST2-050600	5	6	15	50		-
DST2-060600	6	6	15	50	●	-
DST2-080800	8	8	20	60	●	-
DST2-101000	10	10	21	72	●	-
DST2-121200	12	12	25	75	●	-
DST2-141600	14	16	32	80		-
DST2-161600	16	16	32	92		-
DST2-182000	18	20	32	100		-
DST2-202000	20	20	35	100		-

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	◎	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

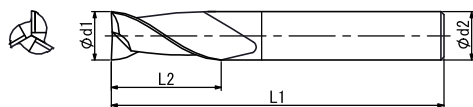
3 FLUTE SQUARE END MILLS (~55 HRC)

DST3-*****

4 FLUTE SQUARE END MILLS (~55 HRC)

DST4-*****

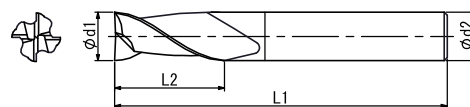
MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
DST3-020200	2	2	6	50		-
DST3-020300	2	3	6	50		-
DST3-025300	2.5	3	6	50		-
DST3-030600	3	6	9	50		-
DST3-040600	4	6	14	50		-
DST3-050600	5	6	15	50		-
DST3-060600	6	6	15	50		-
DST3-080800	8	8	20	60		-
DST3-101000	10	10	21	72		-
DST3-121200	12	12	25	75		-
DST3-141600	14	16	32	80		-
DST3-161600	16	16	32	92		-
DST3-182000	18	20	32	100		-
DST3-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
DST4-020200	2	2	6	50		-
DST4-020300	2	3	6	50		-
DST4-025300	2.5	3	6	50		-
DST4-030600	3	6	9	50		-
DST4-040600	4	6	14	50		-
DST4-050600	5	6	15	50		-
DST4-060600	6	6	15	50	●	-
DST4-080800	8	8	20	60	●	-
DST4-101000	10	10	21	72	●	-
DST4-121200	12	12	25	75	●	-
DST4-141600	14	16	32	80		-
DST4-161600	16	16	32	92		-
DST4-182000	18	20	32	100		-
DST4-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

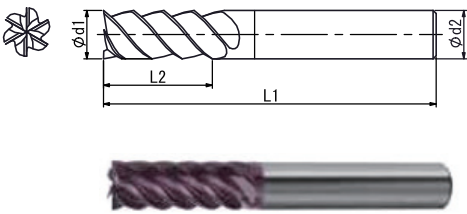
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

6 FLUTE SQUARE
END MILLS (~55 HRC)

6FD-*****

MICRO GRAIN CARBIDE



CARBIDE

6

45°

TIN-TIALN

φ6-φ20

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

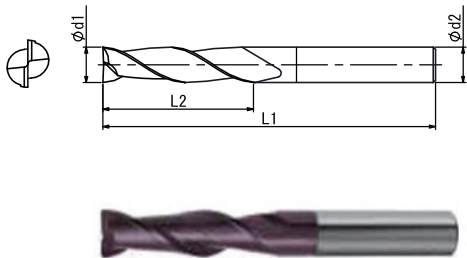
Code	d1	d2	L2	L1	Stock	Price
6FD-060600	6	6	15	50	●	-
6FD-080800	8	8	20	60	●	-
6FD-101000	10	10	21	72	●	-
6FD-121200	12	12	25	75	●	-
6FD-141600	14	16	32	80		-
6FD-161600	16	16	32	92		-
6FD-182000	18	20	32	100		-
6FD-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

2 FLUTE LONG SQUARE
END MILLS (~55 HRC)

DU*2-*****

MICRO GRAIN CARBIDE



CARBIDE

2

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
DU02-030600	3	6	18	75		-
DU02-040600	4	6	25	75		-
DU02-050600	5	6	25	75		-
DU02-060600	6	6	30	75	●	-
DU02-080800	8	8	30	75	●	-
DU12-030600	3	6	20	100		-
DU12-040600	4	6	30	100		-
DU12-050600	5	6	30	100		-
DU12-060600	6	6	40	100	●	-
DU12-080800	8	8	40	100	●	-
DU12-101000	10	10	40	100	●	-
DU12-121200	12	12	45	100	●	-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

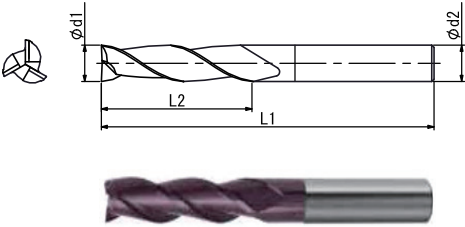
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

3 FLUTE LONG SQUARE
END MILLS (~55 HRC)

DU*3-*****

MICRO GRAIN CARBIDE



CARBIDE

3

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

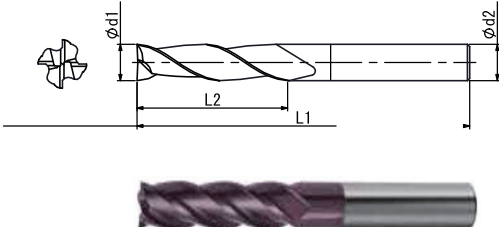
Code	d1	d2	L2	L1	Stock	Price
DU03-030600	3	6	18	75		-
DU03-040600	4	6	25	75		-
DU03-050600	5	6	25	75		-
DU03-060600	6	6	30	75	●	-
DU03-080800	8	8	30	75	●	-
DU13-030600	3	6	20	100		-
DU13-040600	4	6	30	100		-
DU13-050600	5	6	30	100		-
DU13-060600	6	6	40	100	●	-
DU13-080800	8	8	40	100	●	-
DU13-101000	10	10	40	100	●	-
DU13-121200	12	12	45	100	●	-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

4 FLUTE LONG SQUARE
END MILLS (~55 HRC)

DU*4-*****

MICRO GRAIN CARBIDE



CARBIDE

4

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
DU04-030600	3	6	18	75		-
DU04-040600	4	6	25	75		-
DU04-050600	5	6	25	75		-
DU04-060600	6	6	30	75	●	-
DU04-080800	8	8	30	75	●	-
DU14-030600	3	6	20	100		-
DU14-040600	4	6	30	100		-
DU14-050600	5	6	30	100		-
DU14-060600	6	6	40	100	●	-
DU14-080800	8	8	40	100	●	-
DU14-101000	10	10	40	100	●	-
DU14-121200	12	12	45	100	●	-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

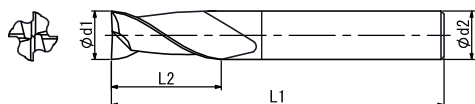
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

4 FLUTE HARD SQUARE END MILLS (~65 HRC)

DSS4-*****

ULTRA FINE MICRO GRAIN CARBIDE



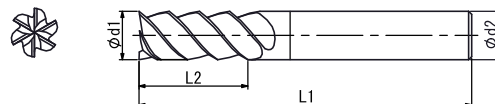
Code	d1	d2	L2	L1	Stock	Price
DSS4-030600	3	6	9	50		-
DSS4-040600	4	6	14	50		-
DSS4-050600	5	6	15	50		-
DSS4-060600	6	6	15	50	●	-
DSS4-080800	8	8	20	60	●	-
DSS4-101000	10	10	21	72	●	-
DSS4-121200	12	12	25	75	●	-
DSS4-141600	14	16	32	80		-
DSS4-161600	16	16	32	92		-
DSS4-182000	18	20	32	100		-
DSS4-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

6 FLUTE HARD SQUARE END MILLS (~65 HRC)

6HFD-*****

ULTRA FINE MICRO GRAIN CARBIDE



Code	d1	d2	L2	L1	Stock	Price
6HFD-060600	6	6	15	50	●	-
6HFD-080800	8	8	20	60	●	-
6HFD-101000	10	10	21	72	●	-
6HFD-121200	12	12	25	75	●	-
6HFD-141600	14	16	32	80		-
6HFD-161600	16	16	32	92		-
6HFD-182000	18	20	32	100		-
6HFD-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

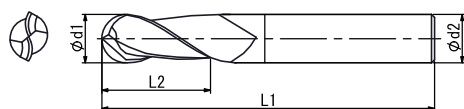
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

2 FLUTE BALL NOSE END MILLS (~55 HRC)

KST2-*****

MICRO GRAIN CARBIDE



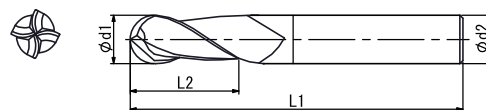
Code	R	d1	d2	L2	L1	Stock	Price
KST2-030600	1.5	3	6	9	50		-
KST2-040600	2	4	6	14	50		-
KST2-050600	2.5	5	6	15	50		-
KST2-060600	3	6	6	15	50	●	-
KST2-080800	4	8	8	20	60	●	-
KST2-101000	5	10	10	21	72	●	-
KST2-121200	6	12	12	25	75	●	-
KST2-141600	7	14	16	32	80		-
KST2-161600	8	16	16	32	92		-
KST2-181800	9	18	18	32	100		-
KST2-182000	9	20	20	32	100		-
KST2-202000	10	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

4 FLUTE BALL NOSE END MILLS (~55 HRC)

KST4-*****

MICRO GRAIN CARBIDE



Code	R	d1	d2	L2	L1	Stock	Price
KST4-030600	1.5	3	6	9	50		-
KST4-040600	2	4	6	14	50		-
KST4-050600	2.5	5	6	15	50		-
KST4-060600	3	6	6	15	50	●	-
KST4-080800	4	8	8	20	60	●	-
KST4-101000	5	10	10	21	72	●	-
KST4-121200	6	12	12	25	75	●	-
KST4-141600	7	14	16	32	80		-
KST4-161600	8	16	16	32	92		-
KST4-182000	9	18	20	32	100		-
KST4-202000	10	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

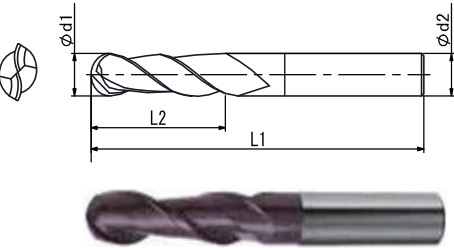
2 FLUTE LONG BALL NOSE
END MILLS (~55 HRC)

KU*2-*****

4 FLUTE LONG BALL NOSE
END MILLS (~55 HRC)

KU*4-*****

MICRO GRAIN CARBIDE



CARBIDE

2

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

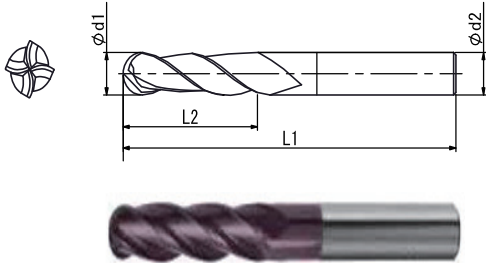
COATING

DIAMETER

Code	R	d1	d2	L2	L1	Stock	Price
KU02-030600	1.5	3	6	18	75		-
KU02-040600	2	4	6	25	75		-
KU02-050600	2.5	5	6	25	75		-
KU02-060600	3	6	6	30	75	●	-
KU02-080800	4	8	8	30	75	●	-
KU12-030600	1.5	3	6	20	100		-
KU12-040600	2	4	6	30	100		-
KU12-050600	2.5	5	6	30	100		-
KU12-060600	3	6	6	40	100	●	-
KU12-080800	4	8	8	40	100	●	-
KU12-101000	5	10	10	40	100	●	-
KU12-121200	6	12	12	45	100	●	-

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

MICRO GRAIN CARBIDE



CARBIDE

4

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	R	d1	d2	L2	L1	Stock	Price
KU04-030600	1.5	3	6	18	75		-
KU04-040600	2	4	6	25	75		-
KU04-050600	2.5	5	6	25	75		-
KU04-060600	3	6	6	30	75	●	-
KU04-080800	4	8	8	30	75	●	-
KU14-030600	1.5	3	6	20	100		-
KU14-040600	2	4	6	30	100		-
KU14-050600	2.5	5	6	30	100		-
KU14-060600	3	6	6	40	100	●	-
KU14-080800	4	8	8	40	100	●	-
KU14-101000	5	10	10	40	100	●	-
KU14-121200	6	12	12	45	100	●	-

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

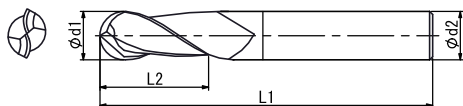
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

2 FLUTE HARD BALL NOSE END MILLS (~65 HRC)

KSS2-*****

ULTRA FINE MICRO GRAIN CARBIDE



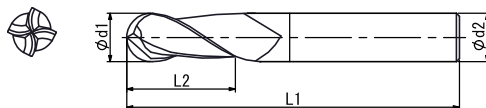
Code	R	d1	d2	L2	L1	Stock	Price
KSS2-030600	1.5	3	6	9	50		-
KSS2-040600	2	4	6	14	50		-
KSS2-050600	2.5	5	6	15	50		-
KSS2-060600	3	6	6	15	50	●	-
KSS2-080800	4	8	8	20	60	●	-
KSS2-101000	5	10	10	21	72	●	-
KSS2-121200	6	12	12	25	75	●	-
KSS2-141600	7	14	16	32	80		-
KSS2-161600	8	16	16	32	92		-
KSS2-182000	9	18	20	32	100		-
KSS2-202000	10	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

4 FLUTE HARD BALL NOSE END MILLS (~65 HRC)

KSS4-*****

ULTRA FINE MICRO GRAIN CARBIDE



Code	R	d1	d2	L2	L1	Stock	Price
KSS4-030600	1.5	3	6	9	50		-
KSS4-040600	2	4	6	14	50		-
KSS4-050600	2.5	5	6	15	50		-
KSS4-060600	3	6	6	15	50	●	-
KSS4-080800	4	8	8	20	60	●	-
KSS4-101000	5	10	10	21	72	●	-
KSS4-121200	6	12	12	25	75	●	-
KSS4-141600	7	14	16	32	80		-
KSS4-161600	8	16	16	32	92		-
KSS4-182000	9	18	20	32	100		-
KSS4-202000	10	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

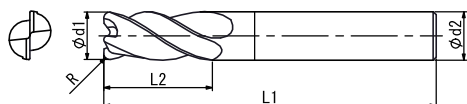
2 FLUTE CORNER RADIUS SQUARE END MILLS (~55 HRC)

RST2-*****

3 FLUTE CORNER RADIUS SQUARE END MILLS (~55 HRC)

RST3-*****

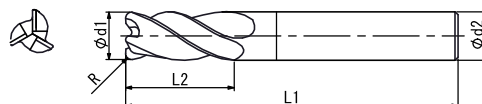
MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
RST2-030602	0.2	3	6	9	50		-
RST2-030605	0.5						
RST2-040602	0.2	4	6	14	50		-
RST2-040605	0.5						
RST2-050602	0.2	5	6	15	50		-
RST2-050605	0.5						
RST2-060603	0.3	6	6	15	50		-
RST2-060605	0.5						
RST2-060610	1.0						
RST2-080803	0.3	8	8	20	60		-
RST2-080805	0.5						
RST2-080810	1.0						
RST2-101003	0.3	10	10	21	72		-
RST2-101005	0.5						
RST2-101010	1.0						
RST2-121205	0.5	12	12	25	75		-
RST2-121210	1.0						
RST2-121220	2.0						
RST2-141605	0.5	14	16	32	80		-
RST2-141610	1.0						
RST2-141620	2.0						
RST2-161610	1.0	16	16	32	92		-
RST2-161620	2.0						
RST2-161630	3.0						
RST2-182010	1.0	18	20	32	100		-
RST2-182020	2.0						
RST2-182030	3.0						
RST2-202010	1.0	20	20	35	100		-
RST2-202020	2.0						
RST2-202030	3.0						

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
RST3-030602	0.2	3	6	9	50		-
RST3-030605	0.5						
RST3-040602	0.2	4	6	14	50		-
RST3-040605	0.5						
RST3-050602	0.2	5	6	15	50		-
RST3-050605	0.5						
RST3-060603	0.3	6	6	15	50		-
RST3-060605	0.5						
RST3-060610	1.0						
RST3-080803	0.3	8	8	20	60		-
RST3-080805	0.5						
RST3-080810	1.0						
RST3-101003	0.3	10	10	21	72		-
RST3-101005	0.5						
RST3-101010	1.0						
RST3-121205	0.5	12	12	25	75		-
RST3-121210	1.0						
RST3-121220	2.0						
RST3-141605	0.5	14	16	32	80		-
RST3-141610	1.0						
RST3-141620	2.0						
RST3-161610	1.0	16	16	32	92		-
RST3-161620	2.0						
RST3-161630	3.0						
RST3-182010	1.0	18	20	32	100		-
RST3-182020	2.0						
RST3-182030	3.0						
RST3-202010	1.0	20	20	35	100		-
RST3-202020	2.0						
RST3-202030	3.0						

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

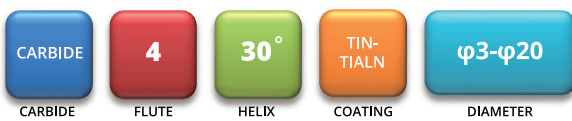
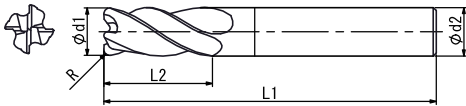
4 FLUTE CORNER RADIUS SQUARE END MILLS (~55 HRC)

RST4-*****

6 FLUTE CORNER RADIUS SQUARE END MILLS (~55 HRC)

6FR-*****

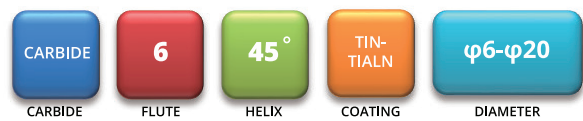
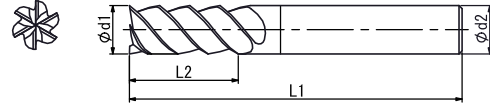
MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
RST4-030602	0.2	3	6	9	50		-
RST4-030605	0.5						
RST4-040602	0.2	4	6	14	50		-
RST4-040605	0.5						
RST4-050602	0.2	5	6	15	50		-
RST4-050605	0.5						
RST4-060603	0.3	6	6	15	50		-
RST4-060605	0.5						
RST4-060610	1.0						
RST4-080803	0.3	8	8	20	60		-
RST4-080805	0.5						
RST4-080810	1.0						
RST4-101003	0.3	10	10	21	72		-
RST4-101005	0.5						
RST4-101010	1.0						
RST4-121205	0.5	12	12	25	75		-
RST4-121210	1.0						
RST4-121220	2.0						
RST4-141605	0.5	14	16	32	80		-
RST4-141610	1.0						
RST4-141620	2.0						
RST4-161610	1.0	16	16	32	92		-
RST4-161620	2.0						
RST4-161630	3.0						
RST4-182010	1.0	18	20	32	100		-
RST4-182020	2.0						
RST4-182030	3.0						
RST4-202010	1.0	20	20	35	100		-
RST4-202020	2.0						
RST4-202030	3.0						

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
6FR-060603	0.3	6	6	15	50		-
6FR-060605	0.5						
6FR-060610	1.0						
6FR-080803	0.3	8	8	20	60		-
6FR-080805	0.5						
6FR-080810	1.0						
6FR-101003	0.3	10	10	21	72		-
6FR-101005	0.5						
6FR-101010	1.0						
6FR-121205	0.5	12	12	25	75		-
6FR-121210	1.0						
6FR-121220	2.0						
6FR-141605	0.5	14	16	32	80		-
6FR-141610	1.0						
6FR-141620	2.0						
6FR-161610	1.0	16	16	32	92		-
6FR-161620	2.0						
6FR-161630	3.0						
6FR-182010	1.0	18	20	32	100		-
6FR-182020	2.0						
6FR-182030	3.0						
6FR-202010	1.0	20	20	35	100		-
6FR-202020	2.0						
6FR-202030	3.0						

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

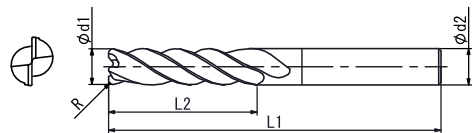
2 FLUTE LONG CORNER RADIUS
SQUARE END MILLS (~55 HRC)

RU*2-*****

3 FLUTE LONG CORNER RADIUS
SQUARE END MILLS (~55 HRC)

RU*3-*****

MICRO GRAIN CARBIDE



CARBIDE

2

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

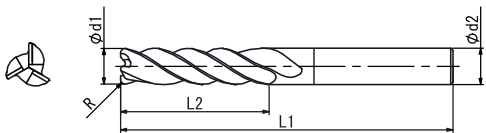
COATING

DIAMETER

Code	CORNER R	d1	d2	L2	L1	Stock	Price
RU02-030602	0.2	3	6	18	75		-
RU02-030605	0.5						
RU02-040602	0.2	4	6	25	75		-
RU02-040605	0.5						
RU02-050602	0.2	5	6	25	75		-
RU02-050605	0.5						
RU02-060603	0.3	6	6	30	75		-
RU02-060605	0.5						
RU02-060610	1.0						
RU02-080803	0.3	8	8	30	75		-
RU02-080805	0.5						
RU02-080810	1.0						
RU12-030602	0.2	3	6	20	100		-
RU12-030605	0.5						
RU12-040602	0.2	4	6	30	100		-
RU12-040605	0.5						
RU12-050602	0.2	5	6	30	100		-
RU12-050605	0.5						
RU12-060603	0.3	6	6	40	100		-
RU12-060605	0.5						
RU12-060610	1.0						
RU12-080803	0.3	8	8	40	100		-
RU12-080805	0.5						
RU12-080810	1.0						
RU12-101003	0.3	10	10	40	100		-
RU12-101005	0.5						
RU12-101010	1.0						
RU12-121205	0.5	12	12	45	100		-
RU12-121210	1.0						
RU12-121220	2.0						

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

MICRO GRAIN CARBIDE



CARBIDE

3

30°

TIN-TIALN

φ3-φ12

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	CORNER R	d1	d2	L2	L1	Stock	Price
RU03-030602	0.2	3	6	18	75		-
RU03-030605	0.5						
RU03-040602	0.2	4	6	25	75		-
RU03-040605	0.5						
RU03-050602	0.2	5	6	25	75		-
RU03-050605	0.5						
RU03-060603	0.3	6	6	30	75		-
RU03-060605	0.5						
RU03-060610	1.0						
RU03-080803	0.3	8	8	30	75		-
RU03-080805	0.5						
RU03-080810	1.0						
RU13-030602	0.2	3	6	20	100		-
RU13-030605	0.5						
RU13-040602	0.2	4	6	30	100		-
RU13-040605	0.5						
RU13-050602	0.2	5	6	30	100		-
RU13-050605	0.5						
RU13-060603	0.3	6	6	40	100		-
RU13-060605	0.5						
RU13-060610	1.0						
RU13-080803	0.3	8	8	40	100		-
RU13-080805	0.5						
RU13-080810	1.0						
RU13-101003	0.3	10	10	40	100		-
RU13-101005	0.5						
RU13-101010	1.0						
RU13-121205	0.5	12	12	45	100		-
RU13-121210	1.0						
RU13-121220	2.0						

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

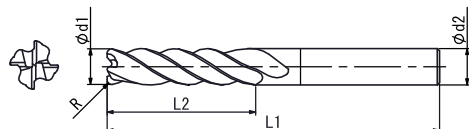
4 FLUTE LONG CORNER RADIUS SQUARE END MILLS (~55 HRC)

RU*4-*****

4 FLUTE HARD CORNER RADIUS SQUARE END MILLS (~65 HRC)

RSS4-*****

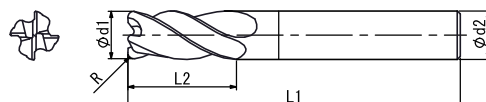
MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
RU04-030602	0.2	3	6	18	75		-
RU04-030605	0.5						-
RU04-040602	0.2	4	6	25	75		-
RU04-040605	0.5						-
RU04-050602	0.2	5	6	25	75		-
RU04-050605	0.5						-
RU04-060603	0.3	6	6	30	75		-
RU04-060605	0.5						-
RU04-060610	1.0						-
RU04-080803	0.3	8	8	30	75		-
RU04-080805	0.5						-
RU04-080810	1.0						-
RU14-030602	0.2	3	6	20	100		-
RU14-030605	0.5						-
RU14-040602	0.2	4	6	30	100		-
RU14-040605	0.5						-
RU14-050602	0.2	5	6	30	100		-
RU14-050605	0.5						-
RU14-060603	0.3	6	6	40	100		-
RU14-060605	0.5						-
RU14-060610	1.0						-
RU14-080803	0.3	8	8	40	100		-
RU14-080805	0.5						-
RU14-080810	1.0						-
RU14-101003	0.3	10	10	40	100		-
RU14-101005	0.5						-
RU14-101010	1.0						-
RU14-121205	0.5	12	12	45	100		-
RU14-121210	1.0						-
RU14-121220	2.0						-

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	○	○	○		

ULTRA FINE MICRO GRAIN CARBIDE



Code	CORNER R	d1	d2	L2	L1	Stock	Price
RSS4-030602	0.2	3	6	9	50		-
RSS4-030605	0.5						-
RSS4-040602	0.2	4	6	14	50		-
RSS4-040605	0.5						-
RSS4-050602	0.2	5	6	15	50		-
RSS4-050605	0.5						-
RSS4-060603	0.3	6	6	15	50		-
RSS4-060605	0.5						-
RSS4-060610	1.0						-
RSS4-080803	0.3	8	8	20	60		-
RSS4-080805	0.5						-
RSS4-080810	1.0						-
RSS4-101003	0.3	10	10	21	72		-
RSS4-101005	0.5						-
RSS4-101010	1.0						-
RSS4-121205	0.5	12	12	25	75		-
RSS4-121210	1.0						-
RSS4-121220	2.0						-
RSS4-141605	0.5	14	16	32	83		-
RSS4-141610	1.0						-
RSS4-141620	2.0						-
RSS4-161610	1.0	16	16	32	92		-
RSS4-161620	2.0						-
RSS4-161630	3.0						-
RSS4-182010	1.0	18	20	32	100		-
RSS4-182020	2.0						-
RSS4-182030	3.0						-
RSS4-202010	1.0	20	20	35	100		-
RSS4-202020	2.0						-
RSS4-202030	3.0						-

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

6 FLUTE HARD CORNER RADIUS
SQUARE END MILLS (~65 HRC)

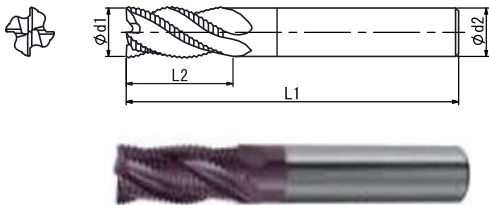
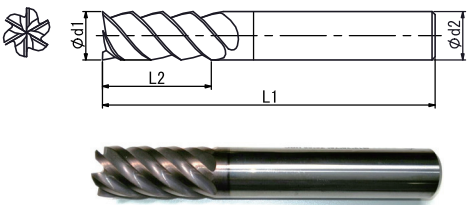
6HFR-*****

4 FLUTE ROUGHING
END MILLS (~55 HRC)

KAB4-*****

ULTRA FINE MICRO GRAIN CARBIDE

MICRO GRAIN CARBIDE



CARBIDE

6

45°

TIALSIN

φ6-φ20

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

CARBIDE

4

35°

TIN-TIALN

φ6-φ20

CARBIDE

FLUTE

HELIX

COATING

DIAMETER

Code	CORNER R	d1	d2	L2	L1	Stock	Price
6HFR-060603	0.3	6	6	15	50		-
6HFR-060605	0.5						
6HFR-060610	1.0						
6HFR-080803	0.3	8	8	20	60		-
6HFR-080805	0.5						
6HFR-080810	1.0						
6HFR-101003	0.3	10	10	21	72		-
6HFR-101005	0.5						
6HFR-101010	1.0						
6HFR-121205	0.5	12	12	25	75		-
6HFR-121210	1.0						
6HFR-121220	2.0						
6HFR-141605	0.5	14	16	32	83		-
6HFR-141610	1.0						
6HFR-141620	2.0						
6HFR-161610	1.0	16	16	32	92		-
6HFR-161620	2.0						
6HFR-161630	3.0						
6HFR-182010	1.0	18	20	32	100		-
6HFR-182020	2.0						
6HFR-182030	3.0						
6HFR-202010	1.0	20	20	35	100		-
6HFR-202020	2.0						
6HFR-202030	3.0						

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
					◎	◎
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
○		◎				

Code	d1	d2	L2	L1	Stock	Price
KAB4-060600	6	6	15	50		-
KAB4-080800	8	8	20	60		-
KAB4-101000	10	10	21	72	●	-
KAB4-121200	12	12	25	75	●	-
KAB4-141600	14	16	32	80		-
KAB4-161600	16	16	32	92		-
KAB4-182000	18	20	32	100		-
KAB4-202000	20	20	35	100		-

DIAMETER	TOLERANCE
φ3~	±0.015
φ3 ~ φ12	±0.020
φ12 ~ φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	◎	◎	○	○	

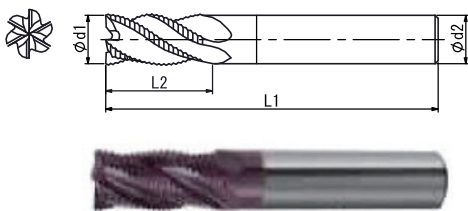
6 FLUTE ROUGHING END MILLS (~55 HRC)

KAB6-*****

4 FLUTE FINE PITCH ROUGHING END MILLS (~55 HRC)

FIN4-*****

MICRO GRAIN CARBIDE



CARBIDE

CARBIDE

6

FLUTE

35°

HELIX

TIN-TIALN

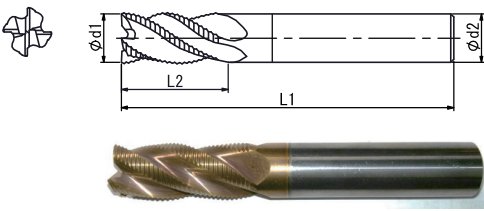
COATING

φ16-φ20

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
KAB6-161600	16	16	32	92		-
KAB6-182000	18	20	32	100		-
KAB6-202000	20	20	35	100		-

MICRO GRAIN CARBIDE



CARBIDE

CARBIDE

4

FLUTE

35°

HELIX

TIN-TIALN

COATING

φ6-φ20

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
FIN4-060600	6	6	15	50		-
FIN4-080800	8	8	20	60		-
FIN4-101000	10	10	21	72		-
FIN4-121200	12	12	25	75		-
FIN4-141600	14	16	32	80		-
FIN4-161600	16	16	32	92		-
FIN4-182000	18	20	32	100		-
FIN4-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

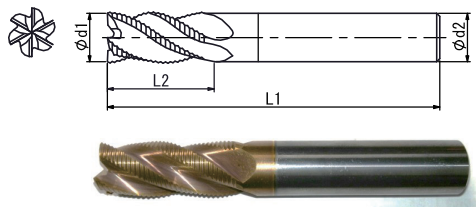
General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	◎	◎	○	○	

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	◎	◎	○	○	

6 FLUTE FINE PITCH ROUGHING END MILLS (~55 HRC)

FIN6-*****

MICRO GRAIN CARBIDE



CARBIDE

CARBIDE

6

FLUTE

35°

HELIX

TIN-TIALN

COATING

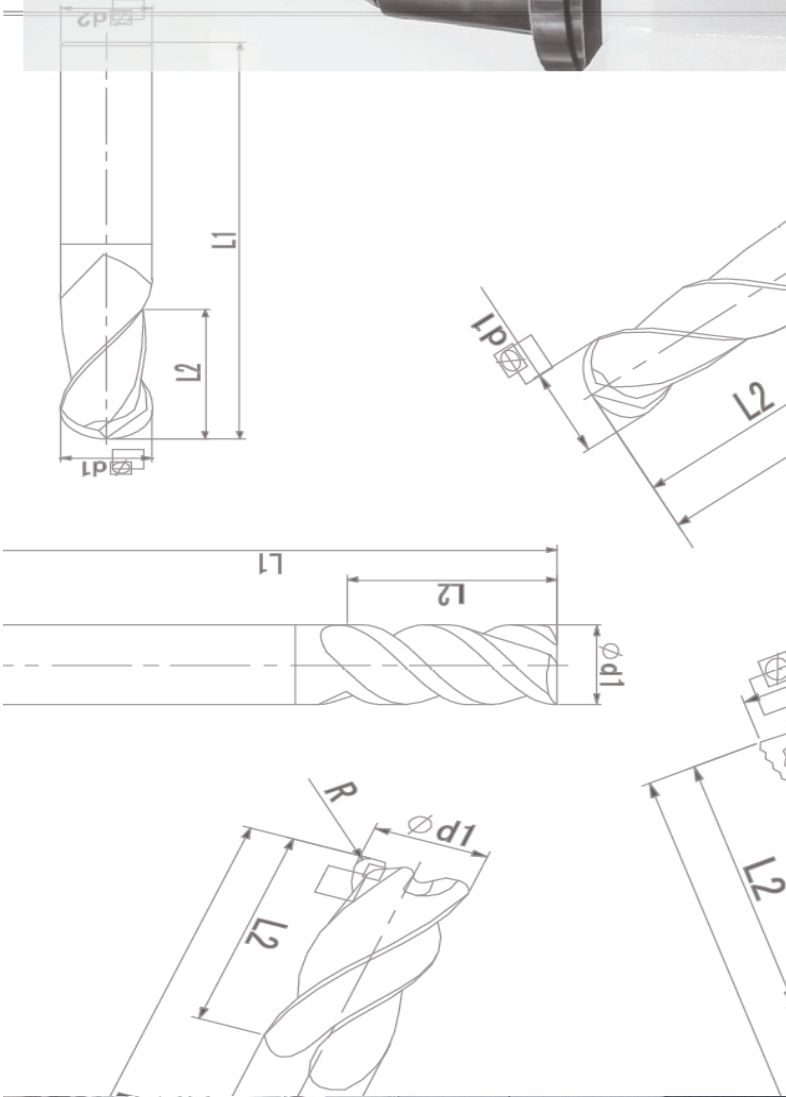
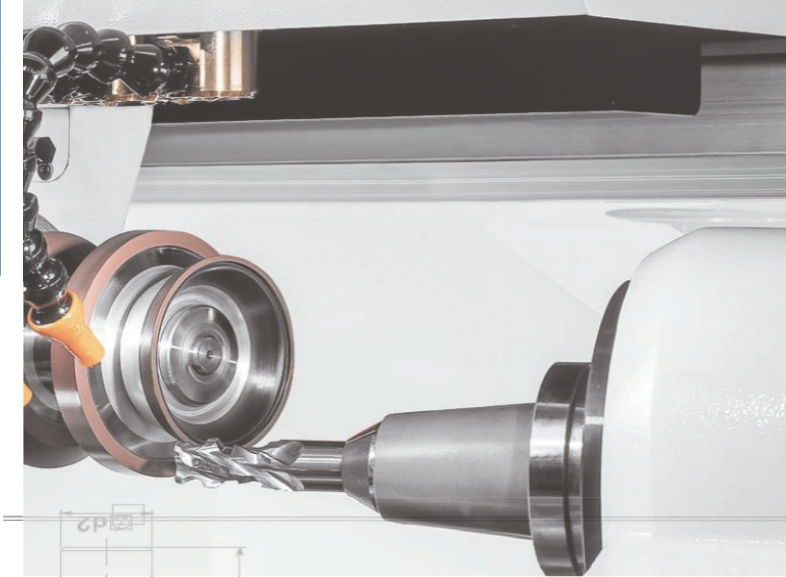
φ16-φ20

DIAMETER

Code	d1	d2	L2	L1	Stock	Price
FIN6-161600	16	16	32	92		-
FIN6-182000	18	20	32	100		-
FIN6-202000	20	20	35	100		-

DIAMETER	TOLERANCE
Φ3~	±0.015
Φ3 ~ Φ12	±0.020
Φ12 ~ Φ20	±0.030

General Structural Steel	Carbon Steel Alloy Steel	Pre-Hardened Steel	Tempered Steel	Die Steel	High Hardness Steel	
SS400	~40HRC	~45HRC		SKD61	45~55HRC	55~60HRC
◎	◎	◎	◎	◎	◎	
High Hardness Steel	Stainless Steel	Titanium Alloy Heat Resistant Alloy	Cast Iron	Copper Alloy	Aluminum Alloy	Graphite
60~65HRC	SUS304/316		FC20	Cu	Al AC ADC	
	◎	◎	◎	○	○	

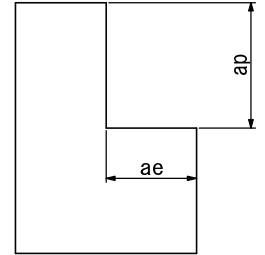


APPLICATION

● Aluminum (No Coat) ●

P4 : AST-*****

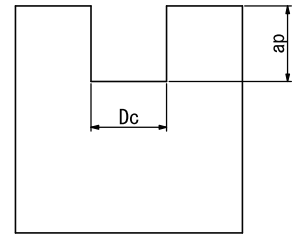
Work Material		Pure Aluminum 1070			Aluminum Alloy A7075			Aluminum Alloy AC/ADC		
Dia		Rotational Speed	Feed Speed	Feed Speed	Rotational Speed	Feed Speed	Feed Speed	Rotational Speed	Feed Speed	Feed Speed
		(min)	(mm/min)	(mm/min)	(min)	(mm/min)	(mm/min)	(min)	(mm/min)	(mm/min)
2		37000	2000	800	16000	850	350	28000	1100	450
3		35000	2000	900	14000	850	450	18000	1100	550
4		26000	2000	1100	11000	850	550	13000	1100	660
5		21000	2000	1100	9000	850	550	10000	1100	660
6		1700	2000	1100	7000	850	550	9000	1100	660
8		13000	2000	1100	5500	850	650	7000	1100	800
10		11000	2000	1300	7000	850	650	5500	1100	800
12		8800	2000	1300	3600	850	800	4500	1100	800
16		6500	2000	1100	3000	850	550	3500	1100	900
20		5500	2000	1100	2200	850	550	2500	1100	650
Side Processing	ap	1.5 Dc								
	ae	0.2 Dc								
Rooving	ap	0.5 Dc								



● Aluminum (No Coat) ●

P5 : AST-*****Z

Work Material		Pure Aluminum 1070		Aluminum Alloy A7075		Aluminum Alloy AC/ADC		Copper Alloy C1100	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
2		50000	1000	38000	840	34000	750	15300	240
3		41000	1200	32000	1100	29000	960	12700	300
5		25000	1300	19000	1100	17000	960	7600	310
6		21000	1300	16000	1100	14000	960	6400	310
8		16000	1300	12000	1100	10700	960	4800	310
10		12000	1300	10000	1100	8600	960	3800	310
12		10000	1300	8000	1100	7200	960	3200	310
16		7800	1300	6000	1100	5400	960	2400	310
20		6200	1300	4800	1100	4300	960	1900	310
Side Processing	ap	1.5 Dc							
	ae	0.2 Dc							
Rooving	ap	0.5 Dc							



● CTFR Square End Mills ●

P6 : CHF4-*****

Work Material		HRC30		HRC50	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)
4		15000	1400	12000	1250
5		13000	1650	10000	1400
6		11500	16500	8500	1300
8		8000	1800	6500	1350
10		7000	1800	5000	1400
12		6000	1700	4000	1300
16		3560	1500	3000	1250
20		3000	1450	2500	1250
Side Processing	ap	1.5 Dc			
	ae	0.2 Dc			
Rooving	ap	0.2Dc ~ 0.5 Dc			

● 6 Flute Square End Mills ●

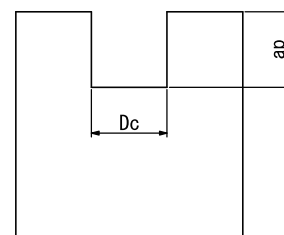
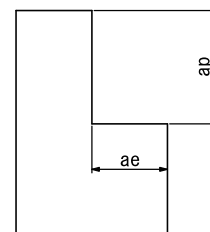
P8 : 6FD-*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
6		1900	400	1500	300	1200	220
8		1500	380	1100	280	900	200
10		1200	360	850	260	750	190
12		1000	340	700	230	650	180
16		750	280	550	200	450	150
20		600	240	450	170	350	120
Side Processing	ap	1.5D		1.5Dc			
	ae	0.05Dc		0.02Dc			
Rooving	ap	0.5Dc		0.1 Dc			

● Square End Mills ●

P6-7 : DST*_*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
1		22000	400	18000	200	9000	140
2		10000	500	10000	280	4600	170
3		9000	550	5500	310	3500	220
4		6000	600	5000	400	2200	220
5		4800	600	4000	400	1700	240
6		4500	750	3800	420	1600	300
8		3500	800	2800	420	1000	300
10		3000	820	1800	420	900	300
12		2000	820	1600	350	800	300
16		1500	650	1000	300	500	150
20		1200	650	900	300	400	150
Side Processing	ap	1.5 Dc		1.0 Dc			
	ae	0.1-0.05 Dc		0.05 Dc			
Rooving	ap	0.5 Dc					



P10 : DSS4-*****
6HFD-*****

● Hard Square End Mills ●

● Square Long End Mills ●

P8-9 : DU**_*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
2		3000	50	2500	40	1000	15
3		2500	60	2000	50	800	20
4		2000	80	1700	70	700	30
5		180	110	1500	85	600	40
6		1500	110	1400	75	550	50
8		1300	110	1100	75	450	50
10		1000	110	800	75	300	50
12		900	110	700	75	250	40
16		800	95	500	70	150	20
20		500	80	400	60	120	20
Side Processing	ap	1.5 Dc		1.0 Dc			
	ae	0.05 Dc		0.02 Dc			
Rooving	ap	0.5 Dc					

Work Material		HRC60	
Dia		Rotational Speed	Feed Speed
		(min)	(mm/min)
3		9000	500
4		6000	550
5		5000	500
6		4500	700
8		3500	600
10		3000	500
12		2000	500
Side Processing	ap	1.0 Dc	
	ae	0.01 Dc	
Rooving	ap	0.5 Dc	

P13 : KSS*_*****

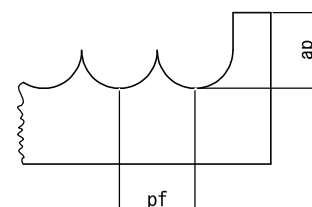
● Hard Ball Nose End Mills ●

● Ball Nose End Mills ●

P11 : KST*_*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
D	R						
1	0.5	45000	800	35000			
2	1	23000	800	18000			
3	1.5	16000	1000	12000			
4	2	12000	1000	9500			
6	3	8000	1100	6000			
8	4	6000	1200	5000			
10	5	5000	1100	4000			
12	6	4000	1000	3000			
16	8	3000	1000	2000			
Depth Of Cut	ap	0.05Dc		0.04 Dc			
	pf	0.1Dc		0.06 Dc			

Work Material		HRC60	
Dia		Rotational Speed	Feed Speed
		(min)	(mm/min)
D	R		
2	1	16000	900
3	1.5	11000	900
4	2	10000	1300
6	3	9000	1500
8	4	6200	1400
10	5	5200	900
12	6	4300	800
Depth Of Cut	ap	0.05 Dc	
	Pf	0.1 Dc	



● Ball Nose Long End Mills ●

P12 : KU**-*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
D	R	(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
3	1.5	16000	1000	12000	600	6500	200
4	2	12000	1000	9500	700	5000	300
6	3	8000	1100	6000	700	3500	300
8	4	6000	1200	5000	800	2500	350
10	5	5000	1100	4000	800	2000	350
12	6	4000	1000	3000	700	1500	300
16	8	3000	1000	2000	700	1000	300
Depth Of Cut	ap	0.05 Dc		0.04 Dc			
	pf	0.08 Dc		0.06 Dc			

● Corner Radius End Mills ●

P14-15 : RST*-*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
3		9500	450	6000	290	3600	120
4		8000	800	5000	480	3200	160
5		6800	820	4000	500	2500	170
6		6000	900	3600	530	2300	220
8		4600	1000	2800	530	1800	250
10		3500	850	3200	420	1400	220
12		3000	720	1800	350	1200	200
16		2300	520	1400	250	900	150
Side Processing	ap	1.0 Dc		1.0 Dc			
	ae	0.02 Dc		0.01 Dc			
Rooving	ap	0.5 Dc		0.5 Dc			

● Corner Radius Long End Mills ●

P16-17 : RU**-*****

Work Material		HRC30		HRC50		HRC60	
Dia		Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed
		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)
6		4800	2560	2900	330	1800	140
8		3700	620	2200	330	1500	160
10		2900	530	1700	260	1100	140
12		2400	450	1400	220	1000	125
Side Processing	ap	1.0 Dc		1.0 Dc			
	ae	0.02 Dc		0.01 Dc			
Rooving	ap	0.5 Dc		0.02 Dc			

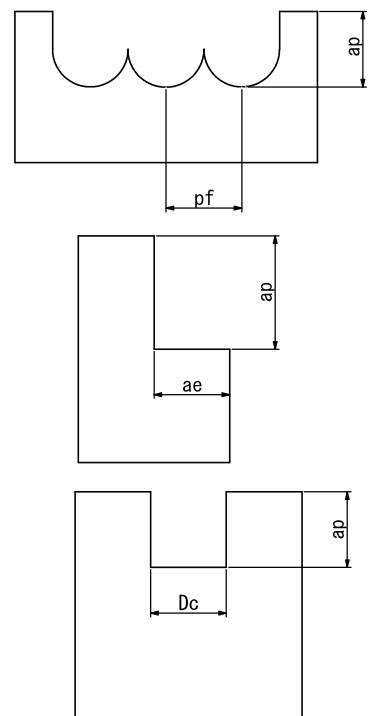
● Roughing End Mills ●

Work Material		HRC30		HRC50		HRC60		Work Material		HRC30		HRC50		HRC60	
Dia	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Dia	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed	Rotational Speed	Feed Speed		
	(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)		(min)	(mm/min)	(min)	(mm/min)	(min)	(mm/min)		
Side Processing								Grooving							
6	5500	550	3000	310	1150	120	6	4400	440	2400	250	920	100		
8	4600	550	2500	310	920	120	8	3600	440	2000	250	730	100		
10	3700	550	2000	310	730	120	10	3000	440	1600	250	580	100		
12	3000	500	1700	310	600	120	12	2400	440	1350	250	480	100		
16	2300	520	1200	310	460	120	16	1800	440	960	250	370	100		
Depth Of Cut	ap	1.5 Dc		1.0 Dc				Depth Of Cut	ap	0.6 Dc		0.2 Dc			
	ae	0.3 Dc		0.05 Dc											

P17 : RSS4-*****
P18: 6HFR-*****

● Hard Corner Radius End Mills ●

Work Material		HRC60	
Dia		Rotational Speed	Feed Speed
		(min)	(mm/min)
3		5400	360
4		4800	480
5		3800	500
6		3500	650
8		2700	750
10		2100	650
12		1800	600
Side Processing	ap	1.0 Dc	
	ae	0.01 Dc	
Rooving	ap	0.1 Dc	



Recommended

- The numerical values listed in the cutting condition table are reference numerical values. Change the conditions according to the actual work material, depth of cut, machine condition and tooling.
- Use the appropriate coolant according to the work material and machining conditions.
- In dry cutting, Air blow is used to prevent chips from being scattered. We recommend that you use it.
- If the machine rotation speed is insufficient, reduce the rotation speed and feed speed by the same ratio.



TTN

Meşrutiyet Mah. Gazi Berkay Sok. No:12/1 Şişli / İstanbul

Telefon +90 212 343 23 47 / +90 212 343 23 48

Faks +90 212 343 23

E-Posta info@ttn-tateno.com

www.ttn-tateno.com