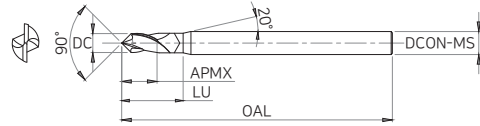
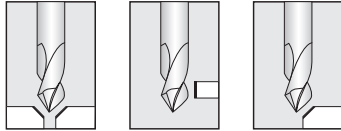


CEM-W

Centering End Mill - Brazed Type



Centering
Tool

Centering
Tool

► Tolerance

DC		Shank Dia
All Sizes	0 ~ +0.1	h7



EDP No	DC	APMX	LU	OAL	DCONMS
CEM 1016W	10	15	33	115	16
CEM 1216W	12	20	39	145	16
CEM 1620W	16	23	39.5	150	20
CEM 2025W	20	25	43.8	155	25

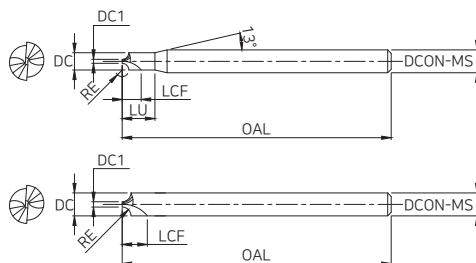
► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel ~HB225	Alloy Steel HB225 ~325	Prehardened Steel HRC30~50	Cast Iron ~FCD500	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~									
		○			○	○		○	○	

CRC Corner Rounding Cutter

Centering
Tool



► Tolerance

DC		Shank Dia
All Sizes	±0.05	h6



EDP No	DC	DC1	RE	LCF	LU	OAL	DCONMS
CRC 209 050	2	0.9	0.5	2	3	45	4
CRC 209 075	2.5	0.9	0.75	2.5	4	45	4
CRC 209 100	3	0.9	1	3	5	50	6
CRC 259 100	8	5.9	1	8	-	60	8
CRC 214 150	4.5	1.4	1.5	4.5	8	50	6
CRC 249 150	8	4.9	1.5	8	-	60	8
CRC 214 200	5.5	1.47	2	5.5	10	50	6
CRC 239 200	8	3.9	2	8	-	60	8
CRC 219 250	7	1.9	2.5	7	13	60	8
CRC 219 300	8	1.9	3	8	-	60	8
CRC 219 350	9	1.9	3.5	9	13	70	10
CRC 219 400	10	1.9	4	10	-	70	10
CRC 219 450	11	1.9	4.5	11	13	80	12
CRC 219 500	12	1.9	5	12	-	80	12
CRC 239 600	16	3.9	6	16	-	85	16
CRC 259 700	20	5.9	7	20	-	85	20
CRC 239 800	20	3.9	8	20	-	85	20

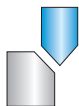
► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

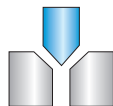
H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~	~HB225	~325	HRC30~50	~FCD500					
		○			○	○		○	○	

CFT-W Chamfer Tool

Centering
Tool



Available work(O)



Available work(O)



Centering
Tool

► Tolerance

DC		Shank Dia
All Sizes	0 ~ +0.1	h6



EDP No	DC	APMX	OAL	DCONMS	ZEFP	Point Angle
CFT 0660W	6	5.1	50	6	3	60°
CFT 0690W	6	3	50	6	3	90°
CFT 0860W	8	6.9	60	8	3	60°
CFT 0890W	8	4	60	8	3	90°
CFT 1060W	10	8.6	70	10	4	60°
CFT 1090W	10	5	70	10	4	90°
CFT 1260W	12	10.3	75	12	4	60°
CFT 1290W	12	6	75	12	4	90°

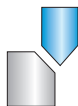
► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

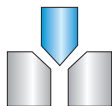
H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRc55	SKD11 HRc55~	~HB225	HB225 ~325	HRc30~50	~FCD500					
		○			○	○		○	○	

CCT Chamfer Cutter

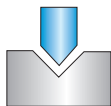
Centering
Tool



Available work(O)



Available work(O)



Available work(O)

► Tolerance

DC		Shank Dia
All Sizes	0 ~ +0.1	h6



EDP No	DC	APMX	OAL	DCONMS
CCT 502 030 S3	3	1.5	60	3
CCT 502 040 S4	4	2	60	4
CCT 502 060	6	3	60	6
CCT 502 080	8	4	65	8
CCT 502 100	10	5	70	10
CCT 502 120	12	6	75	12

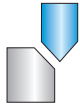
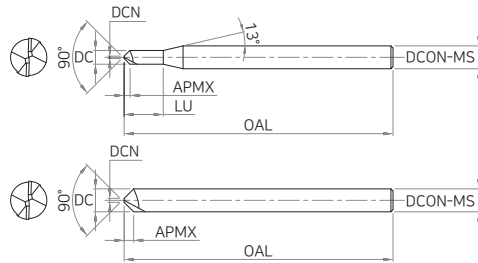
► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

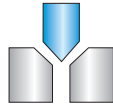
H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~	~HB225	HB225 ~325	HRC30~50	~FCD500					
		○			○	○		○	○	

CCF Chamfer Cutter Face

Centering
Tool



Available work(O)



Available work(O)

Centering
Tool

► Tolerance

DC		Shank Dia
All Sizes	0 ~ +0.1	h6



EDP No	DC	APMX	LU	OAL	DCONMS	DCN
CCF 502 020 S4	2	0.85	6	50	4	0.3
CCF 502 020	2	0.85	6	50	6	0.3
CCF 502 040 S4	4	1.85	-	50	4	0.3
CCF 502 040	4	1.85	12	50	6	0.3
CCF 502 060	6	2.85	-	50	6	0.3
CCF 502 080	8	3.8	-	60	8	0.4
CCF 502 100	10	4.75	-	70	10	0.5
CCF 502 120	12	5.75	-	75	12	0.5

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRc55	SKD11 HRc55~	~HB225	~325	HRc30~50	~FCD500					
		○			○	○		○	○	

Reamer Series

Reamer

P. 595

Reamer

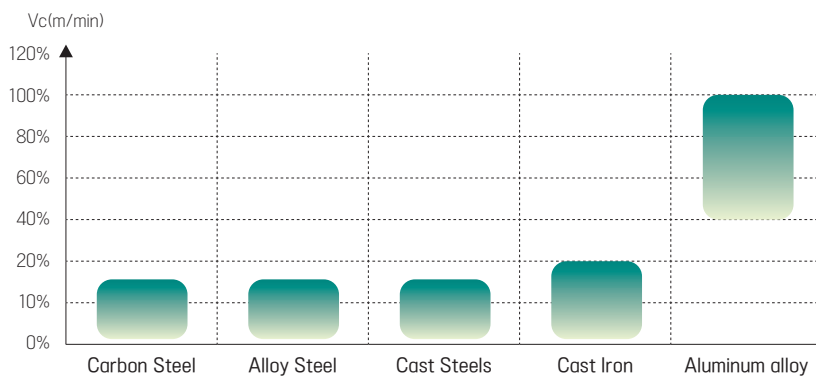
Characteristics

- Suitable to work for Carbon Steels, Alloy Steels, Prehardened Steels, Copper, Cast Iron, Aluminum
- Extend customer choice with variety of size and type

Features

- Excellent Chip emission by applied to Helical cutting edge
- Reduced friction by applied to clearance angle of the chamfer

Vc by Application area



Contents

EDP No	Geometry	Product	Page
SSR		Straight Flute Reamer	596
SHR		Helical Flute Reamer	597
HRS-W		Helical Neck Type Reamer	598
SBR		High-Helix Broach Reamer	601

EDP No. System

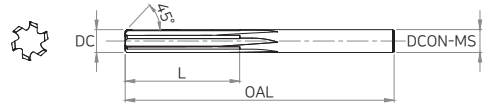
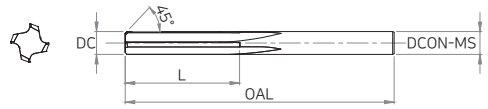
* If expressed as an integer, the decimal point is omitted.

SS R 060		
①	②	③
Appearance	Type	Diameter
SS : Solid Straight	R : Reamer	030 : Ø3.0
SH : Solid Helix	S : Separate Diameter	035 : Ø3.5
HR : Neck Type Helix		040 : Ø4.0
SB : Solid Broach		

SSR Straight Flute Reamer

Reamer

Reamer



► Tolerance

DC		Shank Dia
~ Ø3	+0.002 ~ +0.006	h6
Ø3.5 ~ Ø6	+0.004 ~ +0.009	
Ø6.5 ~ Ø10	+0.006 ~ +0.012	
Ø11 ~ Ø12	+0.007 ~ +0.015	



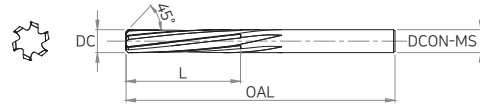
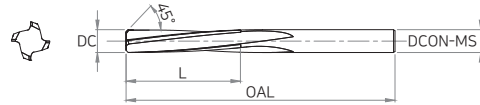
EDP No	DC	L	OAL	DCON-MS	NOF
SSR 020	2	25	60	4	4
SSR 025	2.5	25	60	4	4
SSR 030	3	28	70	4	6
SSR 035	3.5	30	75	4	6
SSR 040	4	30	75	4	6
SSR 045	4.5	35	80	6	6
SSR 050	5	35	80	6	6
SSR 055	5.5	35	80	6	6
SSR 060	6	35	80	6	6
SSR 065	6.5	45	100	8	6
SSR 070	7	45	100	8	6
SSR 080	8	45	100	8	6
SSR 090	9	50	110	10	6
SSR 100	10	50	110	10	6
SSR 110	11	50	120	12	6
SSR 120	12	50	120	12	6

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~	~HB225	HB225 ~325	HRc30~50	~FCD500					
		○	○	○	○	○		○	○	

SHR Helical Flute Reamer



► Tolerance

DC		Shank Dia
~ Ø3	+0.002 ~ +0.006	h6
Ø3.5 ~ Ø6	+0.004 ~ +0.009	
Ø6.5 ~ Ø10	+0.006 ~ +0.012	
Ø11 ~ Ø12	+0.007 ~ +0.015	



EDP No	DC	L	OAL	DCON-MS	NOF
SHR 020	2	25	60	4	4
SHR 025	2.5	25	60	4	4
SHR 030	3	28	70	4	6
SHR 035	3.5	30	75	4	6
SHR 040	4	30	75	4	6
SHR 045	4.5	35	80	6	6
SHR 050	5	35	80	6	6
SHR 055	5.5	35	80	6	6
SHR 060	6	35	80	6	6
SHR 065	6.5	45	100	8	6
SHR 070	7	45	100	8	6
SHR 080	8	45	100	8	6
SHR 090	9	50	110	10	6
SHR 100	10	50	110	10	6
SHR 110	11	50	120	12	6
SHR 120	12	50	120	12	6

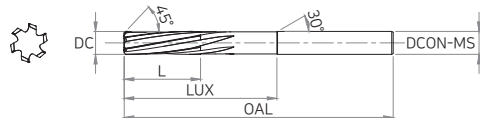
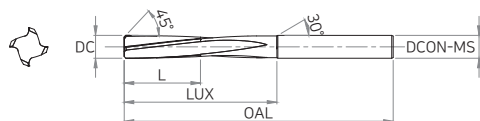
► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRc55	SKD11 HRc55~	~HB225	~325	HRc30~50	~FCD500					
		○	○	○	○	○		○	○	

HRS-W Helical Neck Type Reamer

Reamer



► Tolerance

DC		Shank Dia
~ Ø5.03	0 ~ +0.004	h6
Ø5.5 ~ Ø12.05	0 ~ +0.005	



EDP No	DC	L	LUX	OAL	DCON-MS	NOF
HRS 0198W	1.98	12	22	50	4	4
HRS 0199W	1.99	12	22	50	4	4
HRS 0200W	2	12	22	50	4	4
HRS 0201W	2.01	12	22	50	4	4
HRS 0202W	2.02	12	22	50	4	4
HRS 0203W	2.03	12	22	50	4	4
HRS 0248W	2.48	16	26	60	4	4
HRS 0249W	2.49	16	26	60	4	4
HRS 0250W	2.5	16	26	60	4	4
HRS 0251W	2.51	16	26	60	4	4
HRS 0252W	2.52	16	26	60	4	4
HRS 0253W	2.53	16	26	60	4	4
HRS 0297W	2.97	18	30	65	4	6
HRS 0298W	2.98	18	30	65	4	6
HRS 0299W	2.99	18	30	65	4	6
HRS 0300W	3	18	30	65	4	6
HRS 0301W	3.01	18	30	65	4	6
HRS 0302W	3.02	18	30	65	4	6
HRS 0303W	3.03	18	30	65	4	6
HRS 0350W	3.5	20	35	75	4	6

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~	~HB225	HB225 ~325	HRC30~50	~FCD500					
		○	○	○	○	○		○	○	

HRS-W

Helical Neck Type Reamer

Reamer

Reamer

EDP No	DC	L	LUX	OAL	DCON-MS	NOF
HRS 0397W	3.97	20	35	75	4	6
HRS 0398W	3.98	20	35	75	4	6
HRS 0399W	3.99	20	35	75	4	6
HRS 0400W	4	20	35	75	4	6
HRS 0401W	4.01	20	35	75	4	6
HRS 0402W	4.02	20	35	75	4	6
HRS 0403W	4.03	20	35	75	4	6
HRS 0450W	4.5	25	40	80	6	6
HRS 0497W	4.97	25	40	80	6	6
HRS 0498W	4.98	25	40	80	6	6
HRS 0499W	4.99	25	40	80	6	6
HRS 0500W	5	25	40	80	6	6
HRS 0501W	5.01	25	40	80	6	6
HRS 0502W	5.02	25	40	80	6	6
HRS 0503W	5.03	25	40	80	6	6
HRS 0550W	5.5	25	45	80	6	6
HRS 0597W	5.97	25	45	80	6	6
HRS 0598W	5.98	25	45	80	6	6
HRS 0599W	5.99	25	45	80	6	6
HRS 0600W	6	25	45	80	6	6
HRS 0601W	6.01	25	45	80	6	6
HRS 0602W	6.02	25	45	80	6	6
HRS 0603W	6.03	25	45	80	6	6
HRS 0650W	6.5	30	60	100	8	6
HRS 0700W	7	30	60	100	8	6
HRS 0750W	7.5	33	65	100	8	6
HRS 0797W	7.97	33	65	100	8	6
HRS 0798W	7.98	33	65	100	8	6
HRS 0799W	7.99	33	65	100	8	6
HRS 0800W	8	33	65	100	8	6
HRS 0801W	8.01	33	65	100	8	6
HRS 0802W	8.02	33	65	100	8	6
HRS 0803W	8.03	33	65	100	8	6
HRS 0850W	8.5	35	70	110	10	6

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRc55	SKD11 HRc55~	~HB225	~325	HRc30~50	~FCD500					
		○	○	○	○	○		○	○	

HRS-W

Helical Neck Type Reamer

Reamer

Reamer

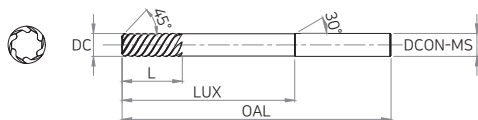
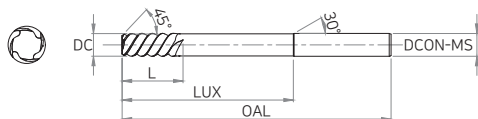
EDP No	DC	L	LUX	OAL	DCON-MS	NOF
HRS 0900W	9	35	70	110	10	6
HRS 0997W	9.97	35	70	110	10	6
HRS 0998W	9.98	35	70	110	10	6
HRS 0999W	9.99	35	70	110	10	6
HRS 1000W	10	35	70	110	10	6
HRS 1001W	10.01	35	70	110	10	6
HRS 1002W	10.02	35	70	110	10	6
HRS 1003W	10.03	35	70	110	10	6
HRS 1004W	10.04	35	70	110	10	6
HRS 1005W	10.05	35	70	110	10	6
HRS 1100W	11	40	80	120	12	6
HRS 1197W	11.97	40	80	120	12	6
HRS 1198W	11.98	40	80	120	12	6
HRS 1199W	11.99	40	80	120	12	6
HRS 1200W	12	40	80	120	12	6
HRS 1201W	12.01	40	80	120	12	6
HRS 1202W	12.02	40	80	120	12	6
HRS 1203W	12.03	40	80	120	12	6
HRS 1204W	12.04	40	80	120	12	6
HRS 1205W	12.05	40	80	120	12	6

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRC55	SKD11 HRC55~	~HB225	HB225 ~325	HRC30~50	~FCD500					
		○	○	○	○	○		○	○	

SBR High-Helix Broach Reamer



► Tolerance

DC		Shank Dia
~ Ø3	+0.002 ~ +0.006	h6
Ø4 ~ Ø6	+0.004 ~ +0.009	
Ø8 ~ Ø10	+0.006 ~ +0.012	
Ø12 ~ Ø18	+0.007 ~ +0.015	
Ø20	+0.007 ~ +0.017	



EDP No	DC	L	OAL	LUX	DCON-MS	NOF
SBR 030	3	12	70	40	4	4
SBR 040	4	12	75	45	4	4
SBR 050	5	16	80	45	6	4
SBR 060	6	16	80	45	6	4
SBR 080	8	20	100	60	8	4
SBR 100	10	25	110	65	10	4
SBR 120	12	28	120	70	12	4
SBR 140	14	30	145	90	14	4
SBR 160	16	35	155	100	16	6
SBR 180	18	38	170	110	18	6
SBR 200	20	40	180	120	20	6

► Applicable Working Material

○ : GOOD ◎ : EXCELLENT

H		P			K	N			M	S
Hardened Steel		Carbon Steel	Alloy Steel	Prehardened Steel	Cast Iron	Copper	Graphite	Aluminum	Stainless Steel	Heat Resistant Alloy
SKD61 ~HRc55	SKD11 HRc55~	~HB225	HB225 ~325	HRc30~50	~FCD500					
		○	○	○	○	○		○	○	

