

4

CENTERING TOOLS & REAMERS >



4

Centering Tools
(General Purpose)

651

Reamers
(General Purpose)

664



CENTERING TOOLS & REAMERS







Centering Tools

WIDIN

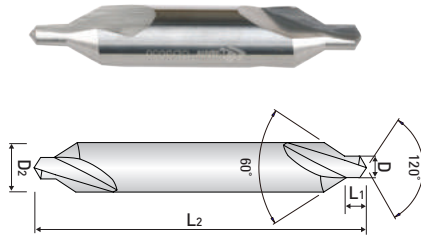
EDP. No.	APPEARANCE	FEATURE	STOCK	PAGE
CDS ...series		SOLID CENTER DRILL	•	652
LDS ...series		NC SPOTTING DRILL	•	653
LDF ...series		NC SPOTTING DRILL MULTY TYPE	•	654
LDA ...series		NC SPOTTING DRILL	•	655
CES302 ...series		CENTERING END MILL - SOLID	•	656
CEM ...series		CENTERING END MILL - BRAZED TYPE	•	657
CRC ...series		CORNER ROUNDING CUTTER	•	658
CFT ...series		CHAMFER TOOL	•	659
BFT ...series		BACK CHAMFER TOOL	•	660
BFD ...series		BACK CHAMFER TOOL	•	661
CCT ...series		CHAMFER CUTTER	•	662
CCF ...series		CHAMFER CUTTER FACE	•	603

Reamers

WIDIN

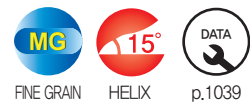
EDP. No.	APPEARANCE	FEATURE	STOCK	PAGE
SSR ...series		STRAIGHT FLUTE REAMERS	•	664
SHR ...series		HELICAL FLUTE REAMERS	•	665
SBR ...series		BROACH REAMERS	•	666
HRS ...series		MACHINE CHUCKING REAMER	•	667

Centering Tools Series



SOLID CENTER DRILL

CDS ...series



EDP. No.	D	L ₁	L ₂	D ₂
CDS010	1	1	40	3
CDS015	1.5	1.5	40	4
CDS020	2	2	45	5
CDS025	2.5	2.5	45	6
CDS030	3	3	55	8
CDS040	4	4.5	60	10
CDS050	5	5.5	65	12

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○			○			○	○	○

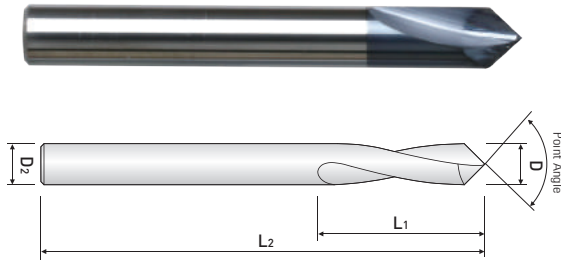
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
All sizes 0~+0.1	h6

※ These tools are manufactured based on order received.

Centering Tools



NC SPOTTING DRILL

LDS ...series



EDP. No.	D	L ₁	L ₂	D ₂	Point Angle
LDS030	3	9	50	3	90°
LDS030A					120°
LDS040	4	10	50	4	90°
LDS040A					120°
LDS050	5	12	50	5	90°
LDS050A					120°
LDS060	6	13	60	6	90°
LDS060A					120°
LDS080	8	23	70	8	90°
LDS080A					120°
LDS100	10	24	80	10	90°
LDS100A					120°
LDS120	12	28	80	12	90°
LDS120A					120°
LDS160	16	32	90	16	90°
LDS160A					120°
LDS200	20	35	100	20	90°
LDS200A					120°

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○		○

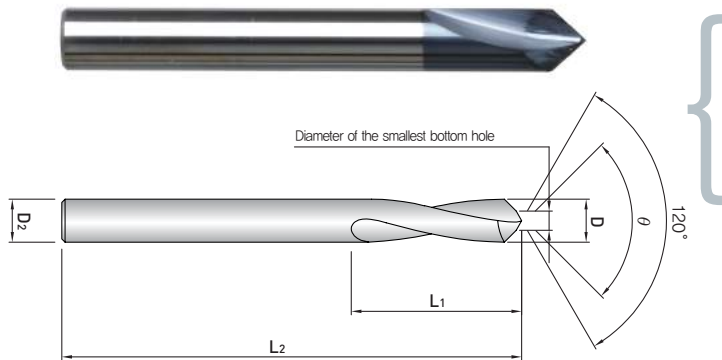
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0,01	h6

※ These tools are manufactured based on order received.

Centering Tools Series



NC SPOTTING DRILL MULTY TYPE

- Minimize breakage of chisel edge by adjusting 120° point angle in the smallest bottom hole

LDF ...series



EDP. No.	D	L ₁	L ₂	D ₂	θ	The smallest bottom hole
LDF0360	3	9	50	3	60°	1.5
LDF0390					90°	1.2
LDF0460	4	10	50	4	60°	1.7
LDF0490					90°	1.3
LDF0560	5	12	50	5	60°	1.9
LDF0590					90°	1.5
LDF0660	6	13	60	6	60°	1.9
LDF0690					90°	1.5
LDF0860	8	23	70	8	60°	1.9
LDF0890					90°	1.6
LDF1060	10	24	80	10	60°	2.1
LDF1090					90°	2.1
LDF1260	12	28	80	12	60°	2.1
LDF1290					90°	2.1

※ The smallest bottom hole means the smallest size of bottom hole on the use of chamfer

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○		○

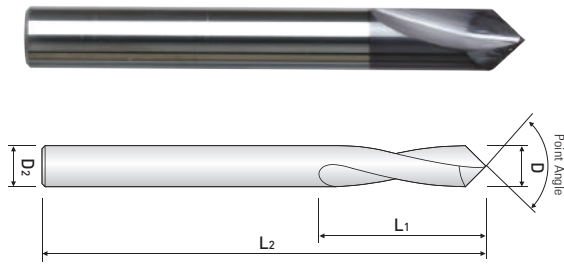
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0.01	h6

※ These tools are manufactured based on order received.

Centering Tools



NC SPOTTING DRILL

LDA ...series



EDP. No.	D			L ₁	L ₂	D ₂	Point Angle
	INCH (DECIMAL)	INCH (FRACTION)	mm				
LDA006A	.0938	3/32	2.383	2"	3/8"	3/32"	90°
LDA006B							120°
LDA006C							142°
LDA008A	.1250	1/8	3.175	2"	3/8"	1/8"	90°
LDA008B							120°
LDA008C							142°
LDA012A	.1875	3/16	4.763	3"	3/4"	3/16"	90°
LDA012B							120°
LDA012C							142°
LDA016A	.2500	1/4	6.350	3"	3/4"	1/4"	90°
LDA016B							120°
LDA016C							142°
LDA020A	.3125	5/16	7.938	3"	1"	5/16"	90°
LDA020B							120°
LDA020C							142°
LDA024A	.3750	3/8	9.525	3"	1"	3/8"	90°
LDA024B							120°
LDA024C							142°
LDA028A	.4375	7/16	11.113	4"	1"	7/16"	90°
LDA028B							120°
LDA028C							142°
LDA032A	.5000	1/2	12.700	4"	1"	1/2"	90°
LDA032B							120°
LDA032C							142°

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○	○	○

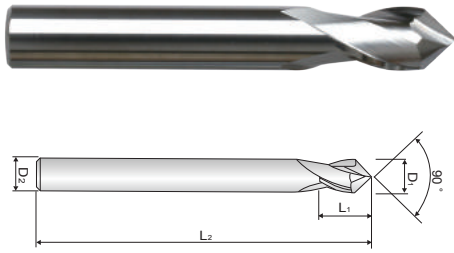
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0,01	h6

※ These tools are manufactured based on order received.

Centering Tools Series

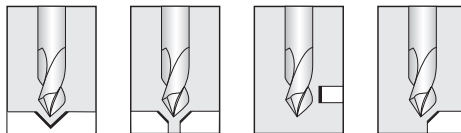


CENTERING END MILL - SOLID

CES302 ...series



EDP. No.		D ₁	L ₁	L ₂	D ₂
비코팅	코팅				
CES302030	CES302030-C	3	6	50	6
CES302040	CES302040-C	4	8	50	6
CES302050	CES302050-C	5	10	50	6
CES302060	CES302060-C	6	12	60	6
CES302080	CES302080-C	8	16	70	8
CES302100	CES302100-C	10	18	70	10
CES302120	CES302120-C	12	20	75	12
CES302140	CES302140-C	14	24	80	14
CES302160	CES302160-C	16	26	80	16
CES302200	CES302200-C	20	32	100	20



■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○			○	○

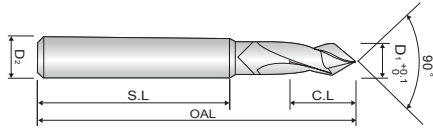
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
-0.05~0	h6

※ These tools are manufactured based on order received.

Centering Tools



**CENTERING END MILL
- BRAZED TYPE**

CEM ...series

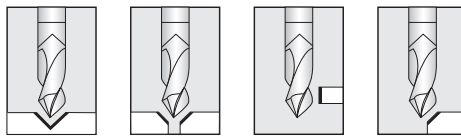


HELIX



p.1040

EDP. No.	D ₁	C.L	S.L	OAL	D ₂
CEM1016	10	15	80	115	16
CEM1216	12	20	100	145	16
CEM1620	16	23	100	150	20
CEM2025	20	25	100	155	25



■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○	○	○

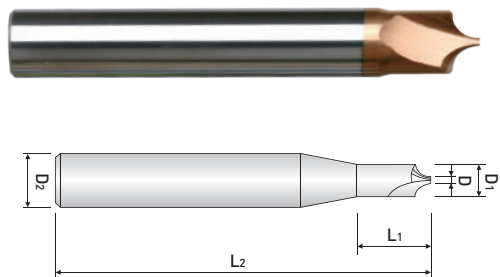
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ +0.1	h7

※ These tools are manufactured based on order received.

Centering Tools Series



CORNER ROUNDING CUTTER

- Designed for prehardened, hardened and stainless steels and cast iron up to HRc 52.
- By using the newly developed raw-material(0.2 um), it provides excellent performance during high speed cutting.

CRC ...series



ULTRA FINE



HELIX



p.1041

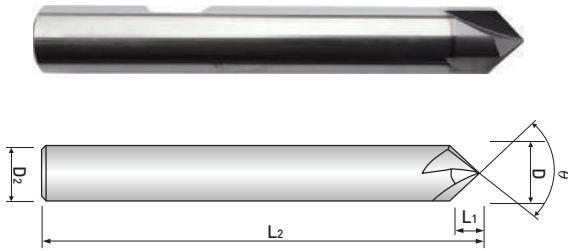
EDP. No.	D	R	D ₁	L ₁	L ₂	D ₂
CRC 209 050	0.9	0.5	2	3	45	4
CRC 209 075	0.9	0.75	2.5	4	45	4
CRC 209 100	0.9	1.0	3	5	50	6
CRC 259 100	5.9	1.0	8	-	60	8
CRC 214 150	1.4	1.5	4.5	8	50	6
CRC 249 150	4.9	1.5	8	-	60	8
CRC 214 200	1.4	2	5.5	10	50	6
CRC 239 200	3.9	2	8	-	60	8
CRC 219 250	1.9	2.5	7	13	60	8
CRC 219 300	1.9	3	8	-	60	8
CRC 219 350	1.9	3.5	9	13	70	10
CRC 219 400	1.9	4	10	-	70	10
CRC 219 450	1.9	4.5	11	13	80	12
CRC 219 500	1.9	5	12	-	80	12
CRC 239 600	3.9	6	16	-	85	16
CRC 259 700	5.9	7	20	-	85	20
CRC 239 800	3.9	8	20	-	85	20

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRc30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	◎	◎	◎	○		○	○	○

○:General Application ◎:The most suitable Application

Centering Tools

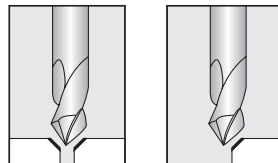


3F, 4F CHAMFER TOOL

CFT ...series



EDP. No.	D	θ	L ₁	L ₂	D ₂	Z
CFT0660	6	60°	5.1	50	6	3
CFT0690	6	90°	3	50	6	3
CFT0860	8	60°	6.9	60	8	3
CFT0890	8	90°	4	60	8	3
CFT1060	10	60°	8.6	70	10	4
CFT1090	10	90°	5	70	10	4
CFT1260	12	60°	10.3	75	12	4
CFT1290	12	90°	6	75	12	4



■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○		○

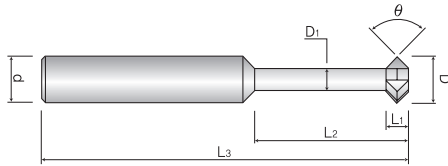
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0,01	h6

※ These tools are manufactured based on order received.

Centering Tools Series

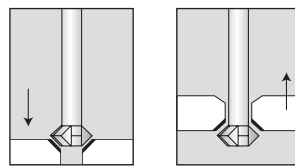


4F BACK CHAMFER TOOL



BFT ...series

EDP. No.	D	θ	L ₁	L ₂	D ₁	L ₃	d
BFT0660	6	60°	1.73	15	3	50	6
BFT0690	6	90°	2.8	15	3	50	6
BFT0860	8	60°	2.3	20	4	60	8
BFT0890	8	90°	3.8	20	4	60	8
BFT1060	10	60°	2.8	25	5	70	10
BFT1090	10	90°	4.8	25	5	70	10
BFT1260	12	60°	3.4	30	6	75	12
BFT1290	12	90°	5.8	30	6	75	12



■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○		○

○:General Application ◎:The most suitable Application

■ Tolerance

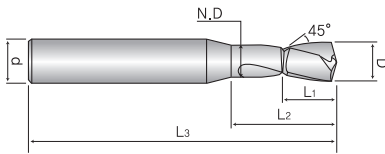
Mill Dia. (mm)	Shank Dia.
-0.5~0	h6

※ These tools are manufactured based on order received.

Centering Tools



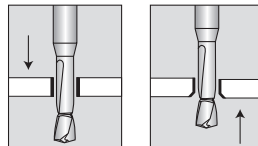
BACK CHAMFER DRILL



BFD ...series



EDP. No.	D	N.D	L ₁	L ₂	L ₃	d	Mac. C
BFD050	5	3.7	8	26	62	5	0.5
BFD051	5.1	3.8	8	28	66	6	0.5
BFD053	5.3	4	8	28	66	6	0.5
BFD055	5.5	4.2	8	28	66	6	0.5
BFD060	6	4.7	10	30	66	6	0.5
BFD065	6.5	4.6	10	34	74	7	0.5
BFD068	6.8	4.9	10	37	74	7	0.5
BFD070	7	5.1	10	37	74	7	0.8
BFD075	7.5	5.2	12	40	79	8	1
BFD078	7.8	5.5	12	40	79	8	1
BFD080	8	5.7	12	40	79	8	1
BFD085	8.5	6.2	12	43	84	9	1
BFD088	8.5	6.5	12	43	84	9	1
BFD090	9	6.7	12	43	84	9	1
BFD095	9.5	7.2	12	47	89	10	1
BFD100	10	7.7	12	47	89	10	1
BFD103	10.3	8	12	51	95	11	1
BFD105	10.5	8.2	12	51	95	11	1
BFD108	10.8	8.5	12	51	95	11	1
BFD110	11	8.7	12	51	95	11	1
BFD115	11.5	9.2	12	54	102	12	1
BFD120	12	9.7	12	54	102	12	1



■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	◎	◎	○	○			◎		◎

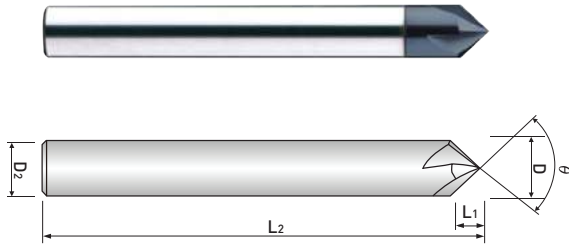
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
h8	h6

※ These tools are manufactured based on order received.

Centering Tools Series



CHAMFER CUTTER

- Superior workpiece surface and excellent cutting performance on edge chamfer machining
- Use micro grain cemented carbide material which has high deflexive strength

CCT ...series



EDP. No.	D	θ	L ₁	L ₂	D ₂
CCT502 030 S3	3	90°	1.5	60	3
CCT502 040 S4	4	90°	2	60	4
CCT502 060	6	90°	3	60	6
CCT502 080	8	90°	4	65	8
CCT502 100	10	90°	5	70	10
CCT502 120	12	90°	6	75	12

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○		○

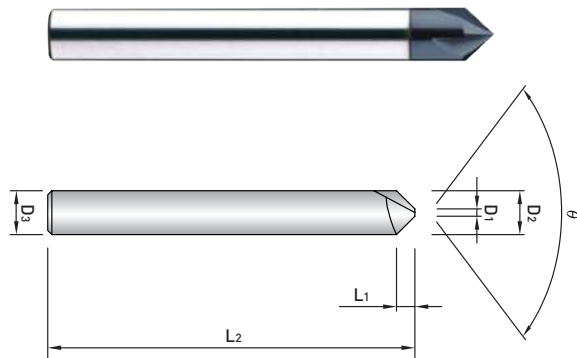
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0,01	h6

※ These tools are manufactured based on order received.

Centering Tools



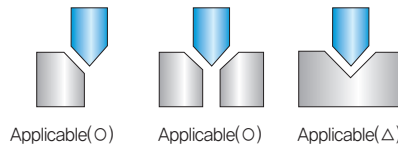
CHAMFER CUTTER FACE

- Superior workpiece surface and excellent cutting performance on edge chamfer machining with 2 Flutes Helix type
- Use micro grain cemented carbide material which has high deflective strength

CCF ...series



EDP. No.	D ₁	θ	D ₂	L ₁	L ₂	D ₃
CCF502 020 S4	0.3	90°	2	0.85	50	4
CCF502 020	0.3	90°	2	0.85	50	6
CCF502 040 S4	0.3	90°	4	1.85	50	4
CCF502 040	0.3	90°	4	1.85	50	6
CCF502 060	0.3	90°	6	2.85	50	6
CCF502 080	0.4	90°	8	3.8	60	8
CCF502 100	0.5	90°	10	4.75	70	10
CCF502 120	0.5	90°	12	5.75	75	12



Applicable(O)

Applicable(O)

Applicable(Δ)

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRC55 SKD61	~HRC55 SKD11					
○	○	○			○		○	○	○

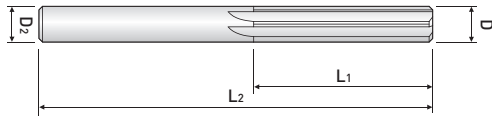
○:General Application ◎:The most suitable Application

■ Tolerance

Mill Dia. (mm)	Shank Dia.
±0.01	h6

※ These tools are manufactured based on order received.

Reamers



STRAIGHT FLUTE REAMERS

SSR ...series



EDP. No.	D	L ₁	L ₂	D ₂	Z
SSR020	2	25	60	4	4
SSR025	2.5	25	60	4	4
SSR030	3	28	70	4	6
SSR035	3.5	30	75	4	6
SSR040	4	30	75	4	6
SSR045	4.5	35	80	6	6
SSR050	5	35	80	6	6
SSR055	5.5	35	80	6	6
SSR060	6	35	80	6	6
SSR065	6.5	45	100	8	6
SSR070	7	45	100	8	6
SSR080	8	45	100	8	6
SSR090	9	50	110	10	6
SSR100	10	50	110	10	6
SSR110	11	50	120	12	6
SSR120	12	50	120	12	6

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRc30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○	○	○

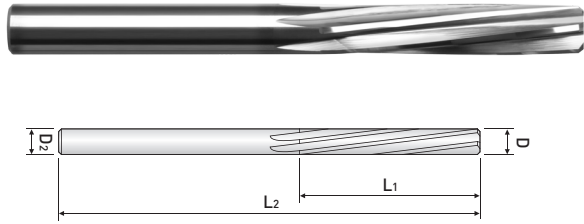
○:General Application ◎:The most suitable Application

■ Tolerance

μm = 1/1000mm

Tolerance \ Diameter	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting edge(m5)	+6 +2	+9 +4	+12 +6	+15 +7	+17 +8
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13

Reamers



HELICAL FLUTE REAMERS

SHR ...series



EDP. No.	D	L ₁	L ₂	D ₂	Z
SHR020	2	25	60	4	4
SHR025	2.5	25	60	4	4
SHR030	3	28	70	4	6
SHR035	3.5	30	75	4	6
SHR040	4	30	75	4	6
SHR045	4.5	35	80	6	6
SHR050	5	35	80	6	6
SHR055	5.5	35	80	6	6
SHR060	6	35	80	6	6
SHR065	6.5	45	100	8	6
SHR070	7	45	100	8	6
SHR080	8	45	100	8	6
SHR090	9	50	110	10	6
SHR100	10	50	110	10	6
SHR110	11	50	120	12	6
SHR120	12	50	120	12	6

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRc30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○	○	○

○:General Application ⊙:The most suitable Application

■ Tolerance

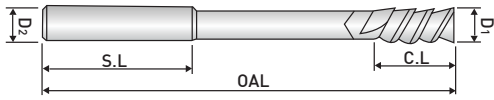
μm = 1/1000mm

Tolerance \ Diameter	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting edge(m5)	+6 +2	+9 +4	+12 +6	+15 +7	+17 +8
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13

Reamers



BROACH REAMERS



SBR ...series



EDP. No.	D ₁	C.L	S.L	OAL	D ₂	Z
SBR030	3	12	30	70	4	4
SBR040	4	12	30	75	4	4
SBR050	5	16	35	80	6	4
SBR060	6	16	35	80	6	4
SBR080	8	20	40	100	8	4
SBR100	10	25	45	110	10	4
SBR120	12	28	50	120	12	4
SBR140	14	30	55	145	14	4
SBR160	16	35	55	155	16	6
SBR180	18	38	60	170	18	6
SBR200	20	40	60	180	20	6

* Above \varnothing 14 will be manufactured with brazed type.

* \varnothing 14~20 are manufactured based on order received.

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRc30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○	○	○

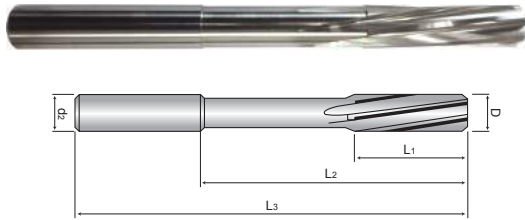
○:General Application ◎:The most suitable Application

■ Tolerance

$\mu\text{m} = 1/1000\text{mm}$

Tolerance \ Diameter	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting edge(m5)	+6 +2	+9 +4	+12 +6	+15 +7	+17 +8
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13

Reamers



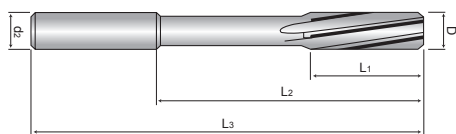
**MACHINE CHUCKING REAMER
- Solid Type**

HRS ...series



EDP. No.	D	L ₁	L ₂	L ₃	d ₂	Z
HRS0198	1.98	12	22	50	4	4
HRS0199	1.99	12	22	50	4	4
HRS0200	2	12	22	50	4	4
HRS0201	2.01	12	22	50	4	4
HRS0202	2.02	12	22	50	4	4
HRS0203	2.03	12	22	50	4	4
HRS0248	2.48	16	26	60	4	4
HRS0249	2.49	16	26	60	4	4
HRS0250	2.5	16	26	60	4	4
HRS0251	2.51	16	26	60	4	4
HRS0252	2.52	16	26	60	4	4
HRS0253	2.53	16	26	60	4	4
HRS0297	2.97	18	30	65	4	6
HRS0298	2.98	18	30	65	4	6
HRS0299	2.99	18	30	65	4	6
HRS0300	3	18	30	65	4	6
HRS0301	3.01	18	30	65	4	6
HRS0302	3.02	18	30	65	4	6
HRS0303	3.03	18	30	65	4	6
HRS0350	3.5	20	35	75	4	6
HRS0397	3.97	20	35	75	4	6
HRS0398	3.98	20	35	75	4	6
HRS0399	3.99	20	35	75	4	6
HRS0400	4	20	35	75	4	6
HRS0401	4.01	20	35	75	4	6
HRS0402	4.02	20	35	75	4	6
HRS0403	4.03	20	35	75	4	6
HRS0450	4.5	25	40	80	6	6
HRS0497	4.97	25	40	80	6	6
HRS0498	4.98	25	40	80	6	6
HRS0499	4.99	25	40	80	6	6
HRS0500	5	25	40	80	6	6
HRS0501	5.01	25	40	80	6	6
HRS0502	5.02	25	40	80	6	6
HRS0503	5.03	25	40	80	6	6
HRS0550	5.5	25	45	80	6	6
HRS0597	5.97	25	45	80	6	6
HRS0598	5.98	25	45	80	6	6
HRS0599	5.99	25	45	80	6	6

Reamers



MACHINE CHUCKING REAMER - Solid Type

HRS ...series



HELIX

EDP. No.	D	L ₁	L ₂	L ₃	d ₂	Z
HRS0600	6	25	45	80	6	6
HRS0601	6.01	25	45	80	6	6
HRS0602	6.02	25	45	80	6	6
HRS0603	6.03	25	45	80	6	6
HRS0650	6.5	30	60	100	8	6
HRS0700	7	30	60	100	8	6
HRS0750	7.5	33	65	100	8	6
HRS0797	7.97	33	65	100	8	6
HRS0798	7.98	33	65	100	8	6
HRS0799	7.99	33	65	100	8	6
HRS0800	8	33	65	100	8	6
HRS0801	8.01	33	65	100	8	6
HRS0802	8.02	33	65	100	8	6
HRS0803	8.03	33	65	100	8	6
HRS0850	8.5	35	70	110	10	6
HRS0900	9	35	70	110	10	6
HRS0997	9.97	35	70	110	10	6
HRS0998	9.98	35	70	110	10	6
HRS0999	9.99	35	70	110	10	6
HRS1000	10	35	70	110	10	6
HRS1001	10.01	35	70	110	10	6
HRS1002	10.02	35	70	110	10	6
HRS1003	10.03	35	70	110	10	6
HRS1004	10.04	35	70	110	10	6
HRS1005	10.05	35	70	110	10	6
HRS1100	11	40	80	120	12	6
HRS1197	11.97	40	80	120	12	6
HRS1198	11.98	40	80	120	12	6
HRS1199	11.99	40	80	120	12	6
HRS1200	12	40	80	120	12	6
HRS1201	12.01	40	80	120	12	6
HRS1202	12.02	40	80	120	12	6
HRS1203	12.03	40	80	120	12	6
HRS1204	12.04	40	80	120	12	6
HRS1205	12.05	40	80	120	12	6

■ Applicable Working Material

Carbon Steels (S45C, S55C...) ~HB225	Alloy Steels (SCM, SK...) HB22 ~325	Prehardened Steels(NAK...) HRC30~50	Hardened Steels		Copper	Graphite	Cast Iron FCD400, 500~	Aluminum	Stainless Steels
			~HRc55 SKD61	~HRc55 SKD11					
○	○	○			○		○		○

■ Tolerance

Mill Dia. (mm)		Shank Dia.
Diameter	Tolerance	
~ φ 5.03	0~+0.004	h6
φ 5.5 ~ φ 12.05	0~+0.005	

○:General Application ◎:The most suitable Application

※ These tools are manufactured based on order received.