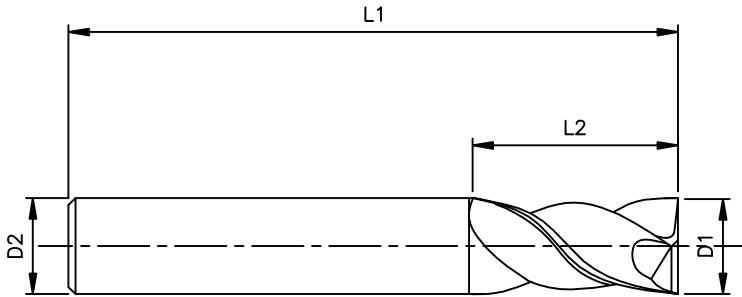


Solid Carbide 2 Fl Sq.End Regular End Mills



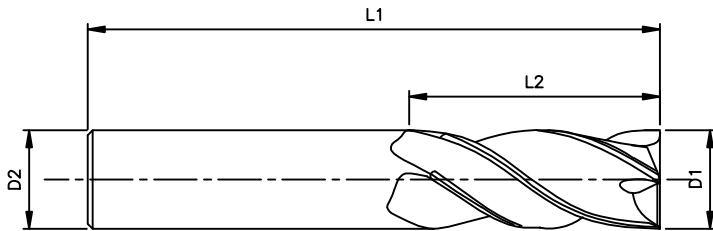
SERIES : H1F2S

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F2P010SC	1	3	3	39
H1F2P015SC	1.5	3	5	39
H1F2P020SC	2	3	7	39
H1F2P025SC	2.5	3	8	39
H1F2P030SC	3	3	10	39
H1F2P040SC	4	4	14	51
H1F2P045SC	4.5	5	14	51
H1F2P050SC	5	5	16	51
H1F2P060SC	6	6	19	64
H1F2P070SC	7	8	19	64
H1F2P080SC	8	8	21	64
H1F2P090SC	9	10	22	70
H1F2P100SC	10	10	25	70
H1F2P110SC	11	11	25	70
H1F2P120SC	12	12	25	76
H1F2P140SC	14	14	30	89
H1F2P160SC	16	16	32	89
H1F2P180SC	18	18	35	101
H1F2P200SC	20	20	38	101
H1F2P220SC	22	22	38	102
H1F2P250SC	25	25	38	102



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Sq.End Regular End Mills



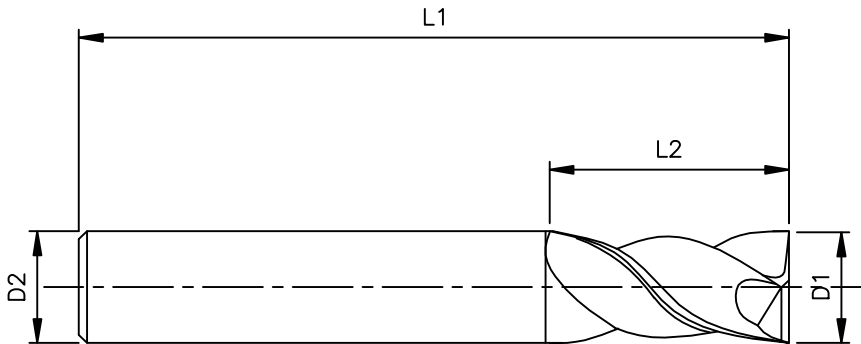
SERIES : H1F4S

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F4P010SC	1	3	3	39
H1F4P015SC	1.5	3	5	39
H1F4P020SC	2	3	7	39
H1F4P025SC	2.5	3	8	39
H1F4P030SC	3	3	10	39
H1F4P040SC	4	4	14	51
H1F4P045SC	4.5	5	14	51
H1F4P050SC	5	5	16	51
H1F4P060SC	6	6	19	64
H1F4P070SC	7	8	19	64
H1F4P080SC	8	8	21	64
H1F4P090SC	9	10	22	70
H1F4P100SC	10	10	25	70
H1F4P110SC	11	11	25	70
H1F4P120SC	12	12	25	76
H1F4P140SC	14	14	30	89
H1F4P160SC	16	16	32	89
H1F4P180SC	18	18	35	101
H1F4P200SC	20	20	38	101
H1F4P220SC	22	22	38	102
H1F4P250SC	25	25	38	102



Mill Dia Tol : e8
As per ANSI

Solid Carbide 2 Fl Sq.End Long End Mills



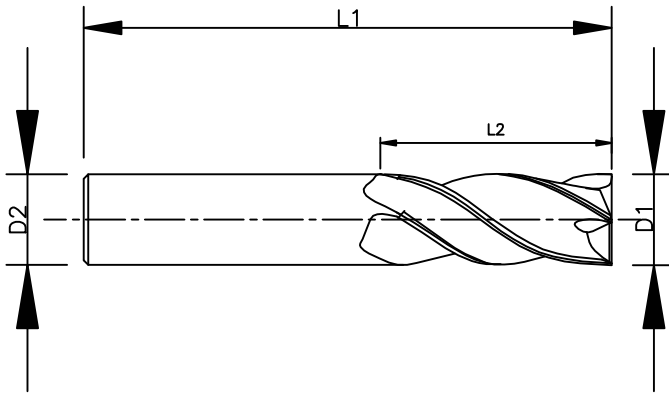
SERIES : H1F2L

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F2P030LC	3	3	19	57
H1F2P040LC	4	4	19	57
H1F2P050LC	5	5	25	64
H1F2P060LC	6	6	28	76
H1F2P080LC	8	8	29	76
H1F2P100LC	10	10	32	76
H1F2P120LC	12	12	51	102
H1F2P140LC	14	14	57	127
H1F2P160LC	16	16	57	127
H1F2P180LC	18	18	57	127
H1F2P200LC	20	20	57	127
H1F2P220LC	22	22	57	127
H1F2P250LC	25	25	57	127



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Sq.End Long End Mills



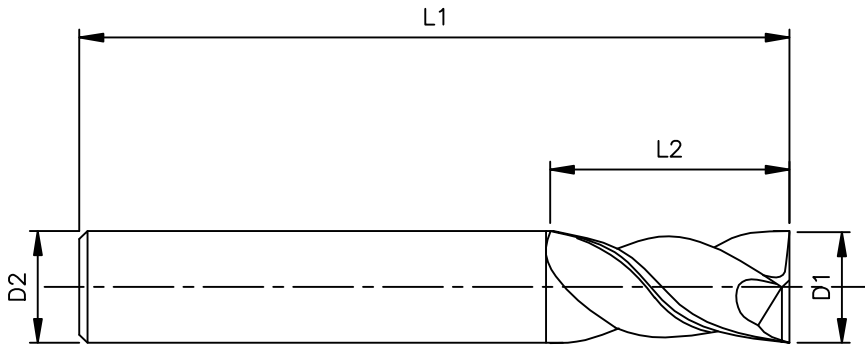
SERIES : H1F4L

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F4P030LC	3	3	19	57
H1F4P040LC	4	4	19	57
H1F4P050LC	5	5	25	64
H1F4P060LC	6	6	28	76
H1F4P080LC	8	8	29	76
H1F4P100LC	10	10	32	76
H1F4P120LC	12	12	51	102
H1F4P140LC	14	14	57	127
H1F4P160LC	16	16	57	127
H1F4P180LC	18	18	57	127
H1F4P200LC	20	20	57	127
H1F4P220LC	22	22	57	127
H1F4P250LC	25	25	57	127



Mill Dia Tol : e8
As per ANSI

Solid Carbide 2 Fl Sq.End Extra Long End Mills



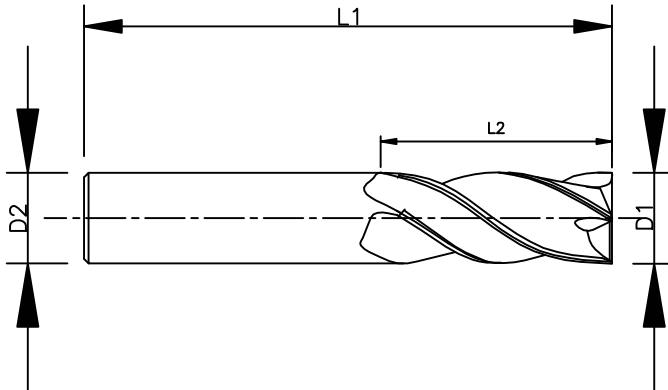
SERIES : H1F2X

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F2P030XC	3	3	25	76
H1F2P040XC	4	4	28	76
H1F2P050XC	5	5	32	76
H1F2P060XC	6	6	39	102
H1F2P080XC	8	8	42	102
H1F2P100XC	10	10	45	102
H1F2P120XC	12	12	76	153
H1F2P140XC	14	14	76	153
H1F2P160XC	16	16	76	153
H1F2P180XC	18	18	76	153
H1F2P200XC	20	20	76	153
H1F2P220XC	22	22	76	153
H1F2P250XC	25	25	76	153



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Sq.End Extra Long End Mills



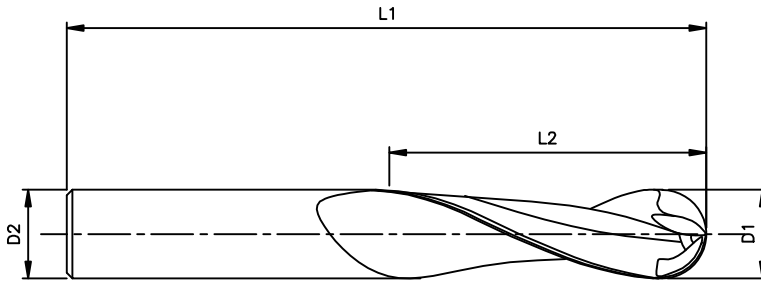
SERIES : H1F4X

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F4P030XC	3	3	25	76
H1F4P040XC	4	4	28	76
H1F4P050XC	5	5	32	76
H1F4P060XC	6	6	39	102
H1F4P080XC	8	8	42	102
H1F4P100XC	10	10	45	102
H1F4P120XC	12	12	76	153
H1F4P140XC	14	14	76	153
H1F4P160XC	16	16	76	153
H1F4P180XC	18	18	76	153
H1F4P200XC	20	20	76	153
H1F4P220XC	22	22	76	153
H1F4P250XC	25	25	76	153



Mill Dia Tol : e8
As per ANSI

Solid Carbide 2 Fl Ball Nose Regular End Mills



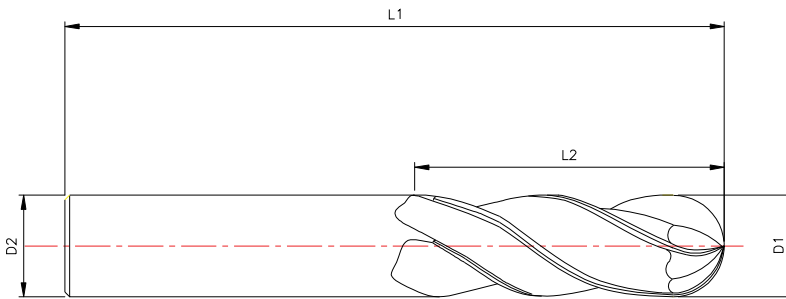
SERIES : H1B2S

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B2P010SC	1	3	3	39
H1B2P015SC	1.5	3	5	39
H1B2P020SC	2	3	7	39
H1B2P025SC	2.5	3	8	39
H1B2P030SC	3	3	10	39
H1B2P040SC	4	4	14	51
H1B2P045SC	4.5	5	14	51
H1B2P050SC	5	5	16	51
H1B2P060SC	6	6	19	64
H1B2P070SC	7	8	19	64
H1B2P080SC	8	8	21	64
H1B2P090SC	9	10	22	70
H1B2P100SC	10	10	25	70
H1B2P110SC	11	11	25	70
H1B2P120SC	12	12	25	76
H1B2P140SC	14	14	30	89
H1B2P160SC	16	16	32	89
H1B2P180SC	18	18	35	101
H1B2P200SC	20	20	38	101
H1B2P220SC	22	22	38	102
H1B2P250SC	25	25	38	102



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Ball Nose Regular End Mills



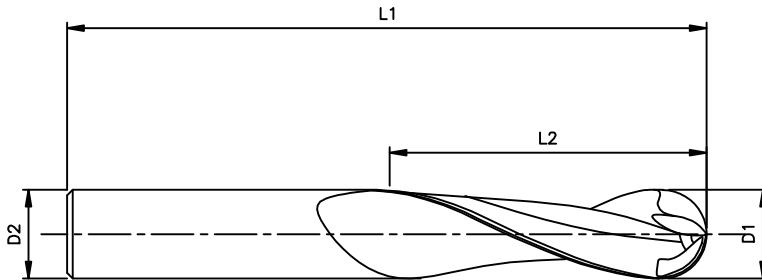
SERIES : H1B4S

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B4P010SC	1	3	3	39
H1B4P015SC	1.5	3	5	39
H1B4P020SC	2	3	7	39
H1B4P025SC	2.5	3	8	39
H1B4P030SC	3	3	10	39
H1B4P040SC	4	4	14	51
H1B4P045SC	4.5	5	14	51
H1B4P050SC	5	5	16	51
H1B4P060SC	6	6	19	64
H1B4P070SC	7	8	19	64
H1B4P080SC	8	8	21	64
H1B4P090SC	9	10	22	70
H1B4P100SC	10	10	25	70
H1B4P110SC	11	11	25	70
H1B4P120SC	12	12	25	76
H1B4P140SC	14	14	30	89
H1B4P160SC	16	16	32	89
H1B4P180SC	18	18	35	101
H1B4P200SC	20	20	38	101
H1B4P220SC	22	22	38	102
H1B4P250SC	25	25	38	102



Mill Dia Tol : e8
As per ANSI

Solid Carbide 2 Fl Ball Nose Long End Mills



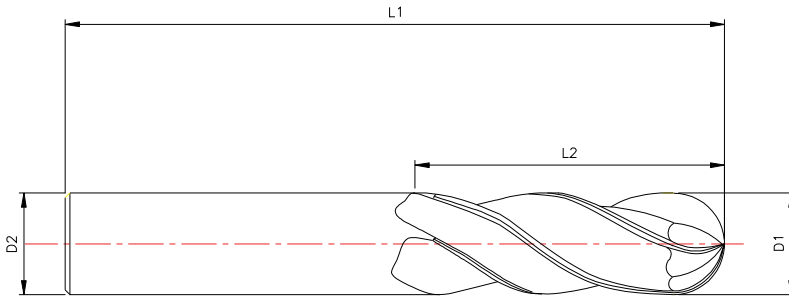
SERIES : H1B2L

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B2P030LC	3	3	19	57
H1B2P040LC	4	4	19	57
H1B2P050LC	5	5	25	64
H1B2P060LC	6	6	28	76
H1B2P080LC	8	8	29	76
H1B2P100LC	10	10	32	76
H1B2P120LC	12	12	51	102
H1B2P140LC	14	14	57	127
H1B2P160LC	16	16	57	127
H1B2P180LC	18	18	57	127
H1B2P200LC	20	20	57	127
H1B2P220LC	22	22	57	127
H1B2P250LC	25	25	57	127



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Ball Nose Long End Mills



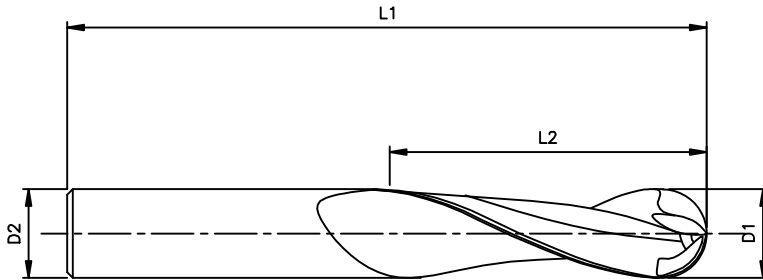
SERIES : H1B4L

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B4P030LC	3	3	19	57
H1B4P040LC	4	4	19	57
H1B4P050LC	5	5	25	64
H1B4P060LC	6	6	28	76
H1B4P080LC	8	8	29	76
H1B4P100LC	10	10	32	76
H1B4P120LC	12	12	51	102
H1B4P140LC	14	14	57	127
H1B4P160LC	16	16	57	127
H1B4P180LC	18	18	57	127
H1B4P200LC	20	20	57	127
H1B4P220LC	22	22	57	127
H1B4P250LC	25	25	57	127



Mill Dia Tol : e8
As per ANSI

Solid Carbide 2 Fl Ball Nose Extra Long End Mills



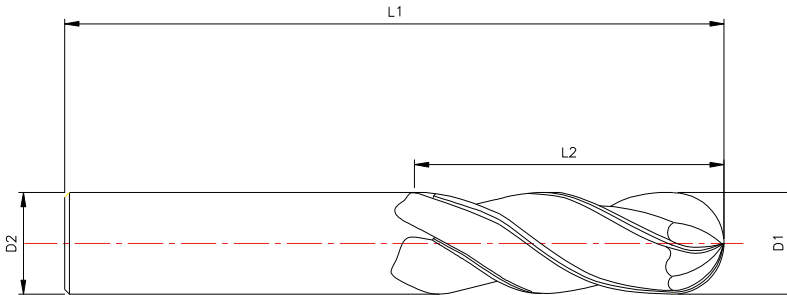
SERIES : H1B2X

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B2P030XC	3	3	25	76
H1B2P040XC	4	4	28	76
H1B2P050XC	5	5	32	76
H1B2P060XC	6	6	39	102
H1B2P080XC	8	8	42	102
H1B2P100XC	10	10	45	102
H1B2P120XC	12	12	76	153
H1B2P140XC	14	14	76	153
H1B2P160XC	16	16	76	153
H1B2P180XC	18	18	76	153
H1B2P200XC	20	20	76	153
H1B2P220XC	22	22	76	153
H1B2P250XC	25	25	76	153



Mill Dia Tol : e8
As per ANSI

Solid Carbide 4 Fl Ball Nose Extra Long End Mills



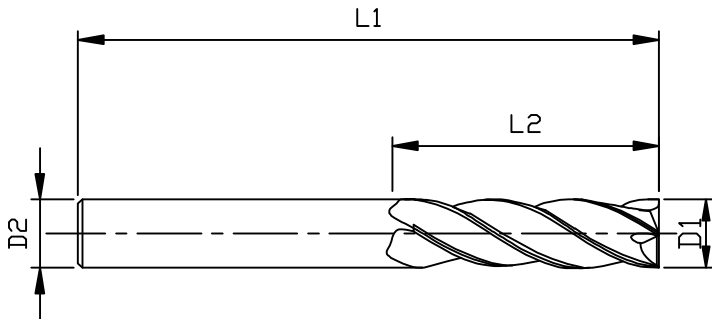
SERIES : H1B4X

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B4P030XC	3	3	25	76
H1B4P040XC	4	4	28	76
H1B4P050XC	5	5	32	76
H1B4P060XC	6	6	39	102
H1B4P080XC	8	8	42	102
H1B4P100XC	10	10	45	102
H1B4P120XC	12	12	76	153
H1B4P140XC	14	14	76	153
H1B4P160XC	16	16	76	153
H1B4P180XC	18	18	76	153
H1B4P200XC	20	20	76	153
H1B4P220XC	22	22	76	153
H1B4P250XC	25	25	76	153



Mill Dia Tol : e8
As per ANSI

3 Fl 45 Degree Std End Mills For Aluminium



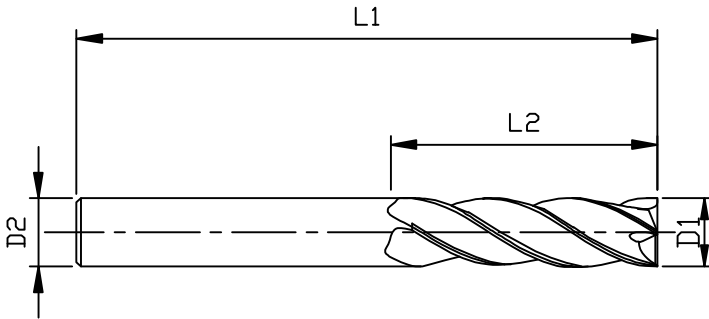
SERIES : H1F3S

ITEM CODE	DIA (D2)	SH.DIA (D1)	CEL (L2)	OAL (L1)
H1F3Q030S	3	6	9	50
H1F3Q040S	4	6	12	50
H1F3Q050S	5	6	15	50
H1F3Q060S	6	6	18	50
H1F3Q080S	8	8	20	60
H1F3Q100S	10	10	30	75
H1F3Q120S	12	12	32	75
H1F3Q160S	16	16	45	100
H1F3Q200S	20	20	45	100



Mill Dia Tol : e8

3 Fl 45 Degree Long End Mills For Aluminium



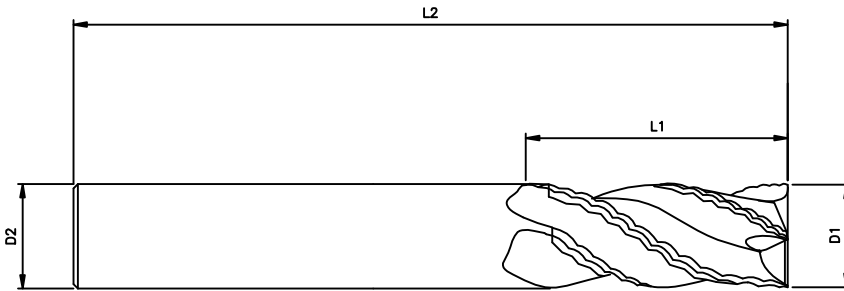
SERIES : H1F3L

ITEM CODE	DIA (D2)	SH.DIA (D1)	CEL (L2)	OAL (L1)
H1F3Q030L	3	6	12	60
H1F3Q040L	4	6	16	60
H1F3Q050L	5	6	20	60
H1F3Q060L	6	6	25	75
H1F3Q080L	8	8	32	75
H1F3Q100L	10	10	45	100
H1F3Q120L	12	12	45	100
H1F3Q160L	16	16	65	150
H1F3Q200L	20	20	75	150



Mill Dia Tol : e8

Roughing End Mills



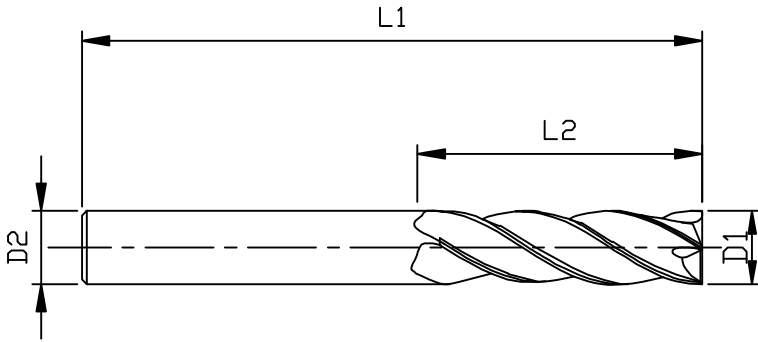
SERIES : H1FRC

ITEM CODE	DIA (D2)	SH.DIA (D1)	CEL (L1)	OAL (L2)	NO OF FLUTES
H1F4Q040RC	4	6	11	57	3
H1F4Q050RC	5	6	13	57	4
H1F4Q060RC	6	6	16	63	4
H1F4Q080RC	8	8	16	63	4
H1F4Q100RC	10	10	22	72	4
H1F4Q120RC	12	12	26	83	4
H1F4Q140RC	14	14	26	83	5
H1F4Q160RC	16	16	32	92	5
H1F4Q200RC	20	20	38	104	6
H1F4Q250RC	25	25	45	104	6



Mill Dia Tol : h10

Rocket Mills



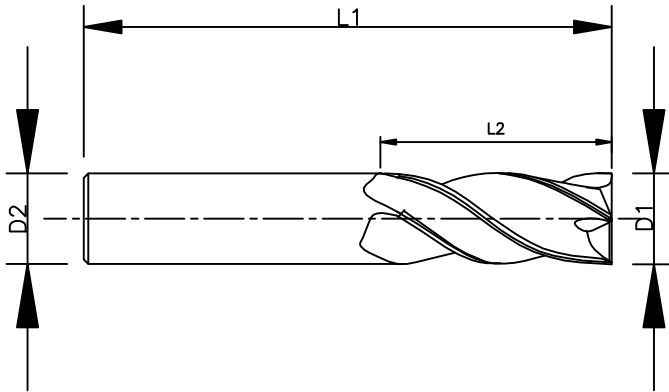
SERIES : HIF6R

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)	NO OF FLUTES
H1F6P060RM	6	6	13	57	6
H1F6P080RM	8	8	19	63	6
H1F6P100RM	10	10	22	72	6
H1F6P120RM	12	12	26	83	6
H1F6P160RM	16	16	32	89	6
H1F8P180RM	18	18	32	92	8
H1F8P200RM	20	20	38	102	8
H1F8P250RM	25	25	44	104	8



Mill Dia Tol : e8

Solid Carbide 4 Fl Sq.End High Performane End Mills



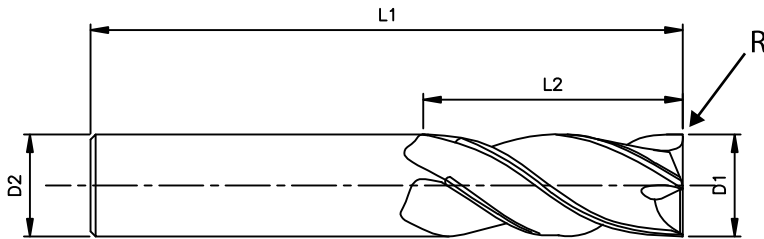
SERIES : H14UM

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1F4U030MC	3	4	8	50
H1F4U040MC	4	4	11	50
H1F4U050MC	5	6	13	50
H1F4U060MC	6	6	16	50
H1F4U080MC	8	8	21	60
H1F4U100MC	10	10	30	75
H1F4U120MC	12	12	32	75
H1F4U140MC	14	14	35	75
H1F4U160MC	16	16	46	100
H1F4U180MC	18	18	46	100
H1F4U200MC	20	20	46	100



Mill Dia Tol : e8

4 Flute Corner Radius End Mills



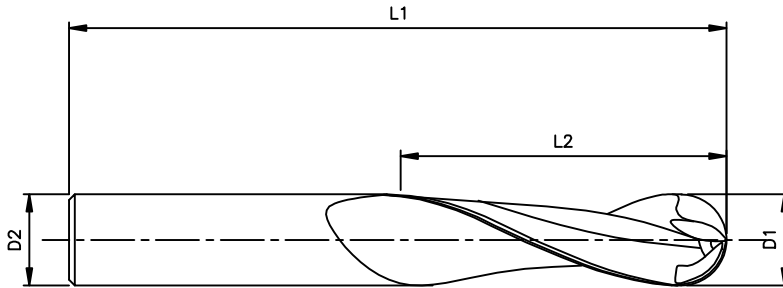
SERIES : H14PR

ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H14P060R0.5C	6 X R0.5	6	20	60
H14P060R1.0C	6 X R1	6	20	60
H14P080R0.5C	8 X R0.5	8	25	70
H14P080R1.0C	8 X R1	8	25	70
H14P080R1.5C	8 X R1.5	8	25	70
H14P080R2.0C	8 X R2	8	25	70
H14P100R0.5C	10 X R0.5	10	30	90
H14P100R1.0C	10 X R1	10	30	90
H14P100R1.5C	10 X R1.5	10	30	90
H14P100R2.5C	10 X R2	10	30	90
H14P120R0.5C	12 X R0.5	12	30	90
H14P120R1.0C	12 X R1	12	30	90
H14P120R1.5C	12 X R1.5	12	30	90
H14P120R2.0C	12 X R2	12	30	90



Mill Dia Tol : e8

Long Shank 2 Fl Ball Nose End Mills



SERIES : H1B2D

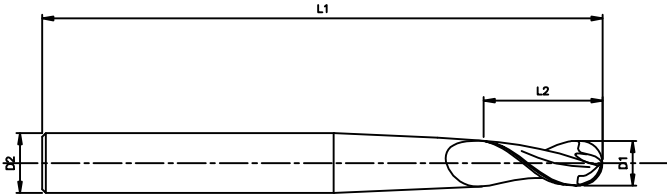
ITEM CODE	DIA (D1)	SH.DIA (D2)	CEL (L2)	OAL (L1)
H1B2P020DC	2	6	5	50
H1B2P030DC	3	6	8	60
H1B2P040DC	4	6	8	70
H1B2P050DC	5	6	10	80
H1B2P060DC	6	6	12	90
H1B2P080DC	8	8	14	100
H1B2P100DC	10	10	18	100
H1B2P120DC	12	12	22	110
H1B2P140DC	14	14	26	110
H1B2P160DC	16	16	30	140
H1B2P180DC	18	18	34	160
H1B2P200DC	20	20	38	160
H1B2P250DC	25	25	50	180



Mill Dia Tol : e8

Taper Neck Ball Nose End Mills For Mould

■ 2 Flute ■ 30° Helix ■ 3 DEG Neck Taper



SERIES : H1B2T

ITEM CODE	D1	D2	L2	L1
H1B2P030TC	3	6	8	75
H1B2P040TC	4	6	10	75
H1B2P050TC	5	8	12	100
H1B2P060TC	6	8	15	100
H1B2P080TC	8	10	17	100
H1B2P100TC	10	12	22	120
H1B2P120TC	12	16	26	150



Mill Dia Tol : e8

Solid Carbide Ground Rods

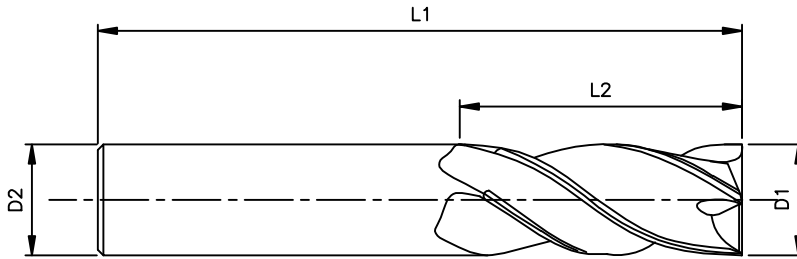
SERIES : HCB

ITEM CODE	DIA	OAL
HCB 030 100	3	100
HCB 040 100	4	100
HCB 050 100	5	100
HCB 060 100	6	100
HCB 080 100	8	100
HCB 100 100	10	100
HCB 120 100	12	100
HCB 140 100	14	100
HCB 160 100	16	100
HCB 200 100	20	100
HCB 220 100	22	100
HCB 250 100	25	100



Dia Tol : h6

4 Flute Square End Mills - Asia Std.



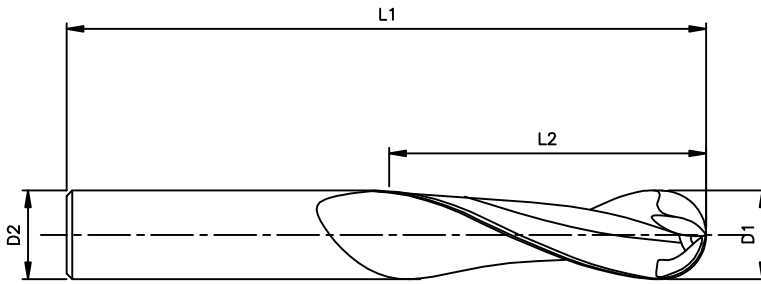
SERIES : HTEM4

ITEM CODE	DIA D1	CEL L2	O.A.L. L1	SH DIA D2
HTEM4300010	1.0	3	50	4
HTEM4300015	1.5	4	50	4
HTEM4300020	2.0	6	50	4
HTEM4300025	2.5	8	50	4
HTEM4300030	3.0	8	50	4
HTEM4300040	4.0	11	50	4
HTEM4300050	5.3	13	50	6
HTEM4300060	6.0	16	50	6
HTEM4300080	8.0	20	60	8
HTEM4300100	10.0	25	75	10
HTEM4300120	12.0	30	75	12
HTEM4300160	16.0	40	100	16
HTEM4300200	20.0	45	100	20



Mill Dia Tol : e8

2 Flute Ball Nose End Mills - Asia Std.



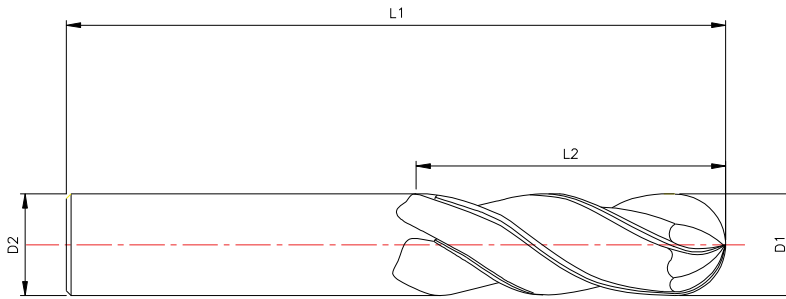
SERIES : HTBM2

ITEM CODE	DIA D1	CEL L2	O.A.L. L1	SH DIA D2
HTBM2300010	1	2	50	4
HTBM2300015	1.5	3	50	4
HTBM2300020	2	4	50	4
HTBM2300025	2.5	5	50	4
HTBM2300030	3	6	50	4
HTBM2300035	3.5	7	50	4
HTBM2300040	4	8	50	4
HTBM2300045	4.5	9	50	6
HTBM2300050	5	10	50	6
HTBM2300055	5.5	11	50	6
HTBM2300060	6	12	50	6
HTBM2300070	7	14	60	8
HTBM2300080	8	16	60	8
HTBM2300090	9	18	75	10
HTBM2300100	10	20	75	10
HTBM2300120	12	24	75	12
HTBM2300160	16	32	100	16
HTBM2300200	20	40	100	20



Mill Dia Tol : e8

4 Flute Ball Nose End Mills - Asia Std.



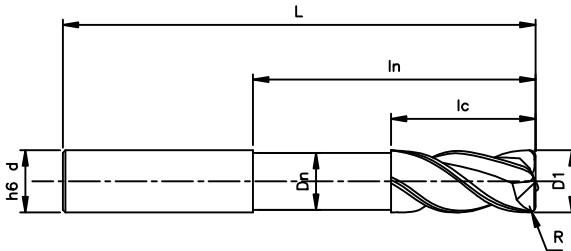
SERIES : HTBM4

ITEM CODE	DIA D1	CEL L2	O.A.L. L1	SH DIA D2
HTBM4300010	1	2	50	4
HTBM4300015	1.5	3	50	4
HTBM4300020	2	4	50	4
HTBM4300025	2.5	5	50	4
HTBM4300030	3	6	50	4
HTBM4300040	4	8	50	4
HTBM4300050	5	10	50	6
HTBM4300060	6	12	50	6
HTBM4300080	8	16	60	8
HTBM4300100	10	20	75	10
HTBM4300120	12	24	75	12



Mill Dia Tol : e8

Corner Radius 4 Flute End Mills - Necked Design 4 Flute



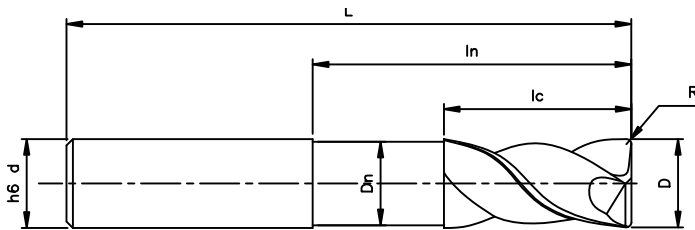
SERIES : H4F030

ITEM CODE	DIA D	CORNER RADIUS R	CEL Ic	REACH LENGTH In	NECK DIA Dn	SH. DIA d	OAL L
H4F030R02L045N	3.0	0.2	4.5	14	2.8	6	60
H4F030R05L045N	3.0	0.5	4.5	14	2.8	6	60
H4F040R02L060N	4.0	0.2	6.0	25	3.7	6	70
H4F040R05L060N	4.0	0.5	6.0	25	3.7	6	70
H4F040R10L060N	4.0	1.0	6.0	25	3.7	6	70
H4F050R02L075N	5.0	0.2	7.5	30	4.6	6	80
H4F050R05L075N	5.0	0.5	7.5	30	4.6	6	80
H4F050R10L075N	5.0	1.0	7.5	30	4.6	6	80
H4F060R02L090N	6.0	0.2	9.0	35	5.5	6	80
H4F060R05L090N	6.0	0.5	9.0	35	5.5	6	80
H4F060R10L090N	6.0	1.0	9.0	35	5.5	6	80
H4F060R15L090N	6.0	1.5	9.0	35	5.5	6	80
H4F060R20L090N	6.0	2.0	9.0	35	5.5	6	80
H4F080R05L120N	8.0	0.5	12	40	7.4	8	100
H4F080R10L120N	8.0	1.0	12	40	7.4	8	100
H4F080R15L120N	8.0	1.5	12	40	7.4	8	100
H4F080R20L120N	8.0	2.0	12	40	7.4	8	100
H4F100R05L150N	10	0.5	15	45	9.2	10	100
H4F100R10L150N	10	1.0	15	45	9.2	10	100
H4F100R15L150N	10	1.5	15	45	9.2	10	100
H4F100R20L150N	10	2.0	15	45	9.2	10	100
H4F100R30L150N	10	3.0	15	45	9.2	10	100
H4F120R05L180N	12	0.5	18	50	11	12	110
H4F120R10L180N	12	1.0	18	50	11	12	110
H4F120R15L180N	12	1.5	18	50	11	12	110
H4F120R20L180N	12	2.0	18	50	11	12	110
H4F120R30L180N	12	3.0	18	50	11	12	110



Mill Dia Tol : e8

Corner Radius End Mills - Necked Design 2 Flute

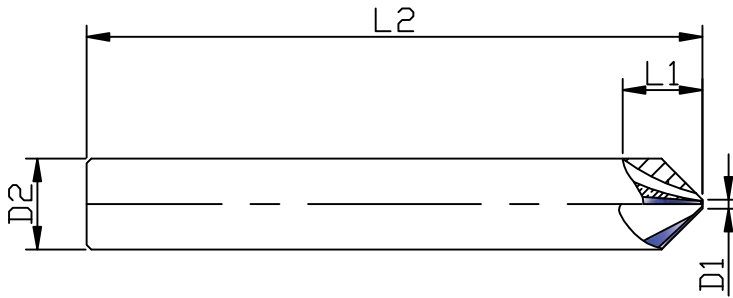


SERIES : H2F030

ITEM CODE	DIA D	CORNER RADIUS R	CEL Ic	REACH LENGTH In	NECK DIA Dn	SH.DIA d	OAL L
H2F030R02L045N	3.0	0.2	4.5	14	2.8	6	60
H2F030R05L045N	3.0	0.5	4.5	14	2.8	6	60
H2F040R02L060N	4.0	0.2	6.0	25	3.7	6	70
H2F040R05L060N	4.0	0.5	6.0	25	3.7	6	70
H2F040R10L060N	4.0	1.0	6.0	25	3.7	6	70
H2F050R02L075N	5.0	0.2	7.5	30	4.6	6	80
H2F050R05L075N	5.0	0.5	7.5	30	4.6	6	80
H2F050R10L075N	5.0	1.0	7.5	30	4.6	6	80
H2F060R02L090N	6.0	0.2	9.0	35	5.5	6	80
H2F060R05L090N	6.0	0.5	9.0	35	5.5	6	80
H2F060R10L090N	6.0	1.0	9.0	35	5.5	6	80
H2F060R15L090N	6.0	1.5	9.0	35	5.5	6	80
H2F060R20L090N	6.0	2.0	9.0	35	5.5	6	80
H2F080R05L120N	8.0	0.5	12	40	7.4	8	100
H2F080R10L120N	8.0	1.0	12	40	7.4	8	100
H2F080R15L120N	8.0	1.5	12	40	7.4	8	100
H2F080R20L120N	8.0	2.0	12	40	7.4	8	100
H2F100R05L150N	10	0.5	15	45	9.2	10	100
H2F100R10L150N	10	1.0	15	45	9.2	10	100
H2F100R15L150N	10	1.5	15	45	9.2	10	100
H2F100R20L150N	10	2.0	15	45	9.2	10	100
H2F100R30L150N	10	3.0	15	45	9.2	10	100
H2F120R05L180N	12	0.5	18	50	11	12	110
H2F120R10L180N	12	1.0	18	50	11	12	110
H2F120R15L180N	12	1.5	18	50	11	12	110
H2F120R20L180N	12	2.0	18	50	11	12	110
H2F120R30L180N	12	3.0	18	50.0	11	12	110



Chamfering End Mills

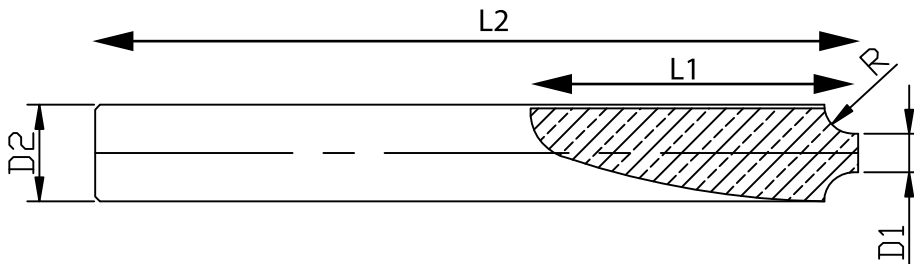


SERIES : HCEM



ITEM CODE	DIA D1	FL L1	O.A.L. L2	SH. DIA D2
HCEM010D04	1.0	1.5	50	4
HCEM020D06	2.0	2.0	50	6
HCEM020D08	2.0	3.0	60	8
HCEM020D10	2.0	4.0	75	10
HCEM020D12	2.0	5.0	75	12

Corner Rounding End Mills



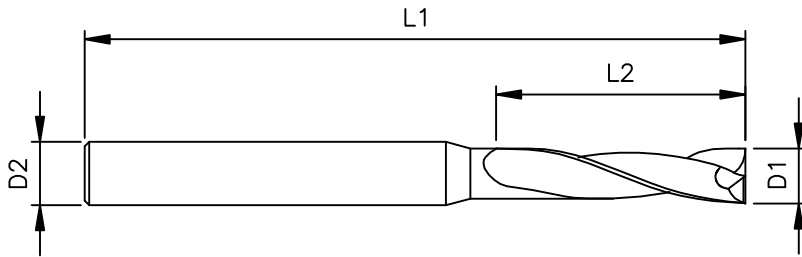
SERIES : HCREM

ITEM CODE	Radius R	FL L1	O.A.L. L2	SH. DIA D2
HCR050L04	R0.5	1.5	50	4
HCR075L04	R0.75	1.5	50	4
HCR100L04	R1.0	1.5	50	4
HCR125L06	R1.25	1.5	50	6
HCR150L06	R1.5	1.5	50	6
HCR175L06	R1.75	1.5	50	6
HCR200L06	R2.0	1.5	50	6
HCR250L08	R2.5	1.5	60	8
HCR300L08	R3.0	1.5	60	8
HCR400L12	R4.0	2	75	12
HCR500L16	R5.0	3	100	16
HCR600L16	R6.0	3	100	16



2 Flute, Micro End Mills

- ▶ High precision milling in medical, optical, electronics and aero space industries.



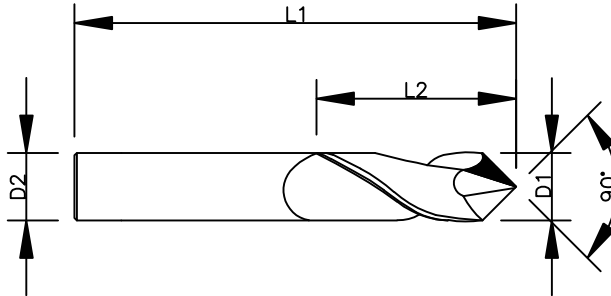
SERIES : HEMM

ITEM CODE	DIA D1	SH DIA D2	CEL L2	OAL L1
HEMM004L008	0.4	3	0.8	39
HEMM005L010	0.5	3	1.0	39
HEMM006L012	0.6	3	1.2	39
HEMM007L014	0.7	3	1.4	39
HEMM008L016	0.8	3	1.6	39
HEMM009L020	0.9	3	2.0	39

MILL DIAMETER	0.4~0.9	1.0~1.5
MILL DIA. TOLERANCE	0 -0.012	-0.014 -0.028
SHANK DIA. TOLERANCE	0 -0.006	0 -0.008

2 Flute Combo Mills

- ▶ Performs many drilling and milling operations not presently done with the standard end mill.
- ▶ Among the many vertical milling machine operations the Drill Mill performs are: Drilling, Slotting, NC Milling Drilling & Slotting, Profile Milling, Chamfering.



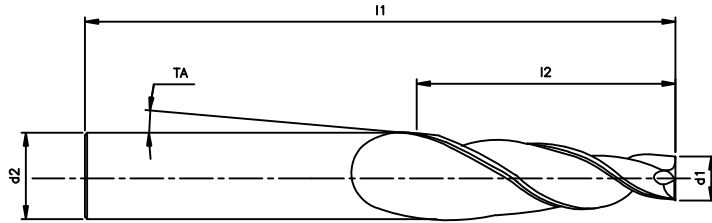
SERIES : HDRBF

ITEM CODE	DIA D1	SH DIA D2	CEL L2	OAL L1
HDRBFP030	3.0	4	6	50
HDRBFP040	4.0	5	8	50
HDRBFP050	5.0	6	10	50
HDRBFP060	6.0	8	12	60
HDRBFP080	8.0	10	16	70
HDRBFP100	10.0	12	18	70
HDRBFP120	12.0	12	20	70
HDRBFP140	14.0	14	24	80
HDRBFP160	16.0	16	26	80
HDRBFP200	20.0	20	32	100



MILL DIAMETER	MILL DIAMETER
$\varnothing 3 \sim \varnothing 10 = h9$ $\varnothing 12 \sim \varnothing 20 = d9$	h6

Solid Carbide 2 Flute Taper End Mills



SERIES : HTEM2

ITEM CODE	DIA d1	SH. DIA d2	CEL I2	OAL I1	TAPER ANGLE TA	NO OF FLUTE
HTEM20078130	2.00	6.00	40	78	1°30'	2
HTEM20078300	3.00	6.00	40	78	1°30'	2
HTEM20083500	4.00	8.00	40	78	1°30'	2
HTEM25078200	5.00	8.00	40	78	1°30'	2
HTEM25078300	2.50	8.00	40	78	2°	2
HTEM25078500	3.00	8.00	40	78	2°	2
HTEM25083500	3.50	8.00	40	78	2°	2
HTEM30078130	2.00	8.00	40	78	3°	2
HTEM30078200	2.50	8.00	40	78	3°	2
HTEM30078300	3.00	8.00	40	78	3°	2
HTEM30083500	3.00	10.00	50	92	3°	2
HTEM30092300	3.50	8.00	40	78	3°	2
HTEM30092500	3.50	10.00	50	92	3°	2
HTEM35078200	4.00	10.00	50	92	3°	2
HTEM35078300	4.50	10.00	50	92	3°	2
HTEM35092300	2.00	10.00	40	83	5°	2
HTEM35092500	2.50	8.00	30	78	5°	2
HTEM40078130	2.50	10.00	40	83	5°	2
HTEM40083500	3.00	10.00	40	83	5°	2
HTEM40092300	3.00	12.00	50	92	5°	2
HTEM40092500	3.50	12.00	40	92	5°	2
HTEM40104500	4.00	10.00	30	83	5°	2
HTEM45092300	4.00	12.00	40	92	5°	2
HTEM50078130	4.00	14.00	50	104	5°	2
HTEM50092500	5.00	12.00	40	92	5°	2
HTEM50104500	5.00	14.00	50	104	5°	2
HTEM50130500	5.00	16.00	60	130	5°	2
HTEM60104500	6.00	14.00	40	104	5°	2
HTEM60130500	6.00	18.00	60	130	5°	2

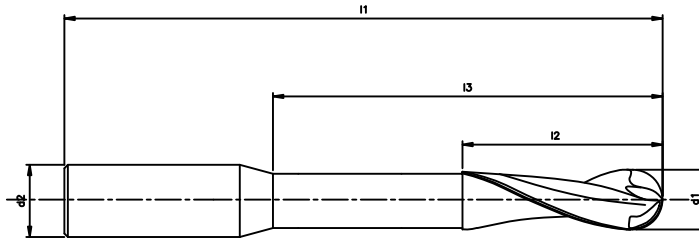


Mill Dia Tol : e8

Application:

- Designed for Aluminium Extrusion Die Machining

**Solid Carbide Ball Nose End Mills
Long Neck**



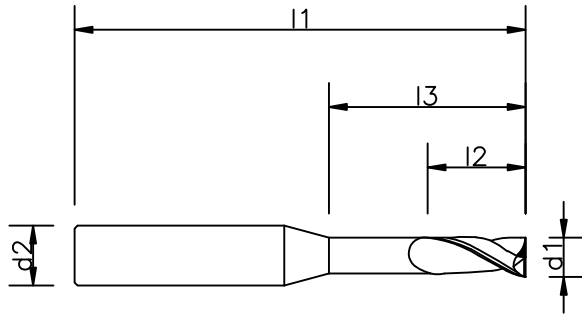
SERIES : H2BNLN

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1	NECK LENGTH L3	NO OF FLUTE
H2BNFLN06090635	0.60	3.00	0.9	35	6	2
H2BNFLN08120645	0.80	4.00	1.2	45	6	2
H2BNFLN10150650	1.00	4.00	1.5	50	6	2
H2BNFLN10150850	1.00	4.00	1.5	50	8	2
H2BNFLN10151050	1.00	4.00	1.5	50	10	2
H2BNFLN15200850	1.50	4.00	2.0	50	8	2
H2BNFLN15201250	1.50	4.00	2.0	50	12	2
H2BNFLN15201650	1.50	4.00	2.0	50	16	2
H2BNFLN20300650	2.00	4.00	3.0	50	6	2
H2BNFLN20300850	2.00	4.00	3.0	50	8	2
H2BNFLN20301050	2.00	4.00	3.0	50	10	2
H2BNFLN20301250	2.00	4.00	3.0	50	12	2
H2BNFLN20301650	2.00	4.00	3.0	50	16	2
H2BNFLN20302050	2.00	4.00	3.0	50	20	2
H2BNFLN25400850	2.50	4.00	4.0	50	8	2
H2BNFLN25401250	2.50	4.00	4.0	50	12	2
H2BNFLN25401650	2.50	4.00	4.0	50	16	2
H2BNFLN25402050	2.50	4.00	4.0	50	20	2
H2BNFLN30451060	3.00	6.00	4.5	60	10	2
H2BNFLN30451660	3.00	6.00	4.5	60	16	2
H2BNFLN30452060	3.00	6.00	4.5	60	20	2
H2BNFLN40601060	4.00	6.00	6.0	60	10	2
H2BNFLN40601660	4.00	6.00	6.0	60	16	2
H2BNFLN40602060	4.00	6.00	6.0	60	20	2
H2BNFLN50801660	5.00	6.00	8.0	60	16	2
H2BNFLN50802560	5.00	6.00	8.0	60	25	2



Mill Dia Tol : e8

**Solid Carbide End Mills
Long Neck**

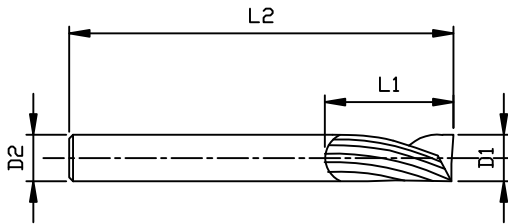


SERIES : H2FLN

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1	NECK LENGTH L3	NO OF FLUTE
H2FLN06P08	0.80	4.00	1.2	45	6	2
H2FLN06P10	1.00	4.00	1.5	50	6	2
H2FLN08P10	1.00	4.00	1.5	50	8	2
H2FLN10P10	1.00	4.00	1.5	50	10	2
H2FLN08P15	1.50	4.00	2.0	50	8	2
H2FLN12P15	1.50	4.00	2.0	50	12	2
H2FLN16P15	1.50	4.00	2.0	50	16	2
H2FLN06P20	2.00	4.00	3.0	50	6	2
H2FLN08P20	2.00	4.00	3.0	50	8	2
H2FLN10P20	2.00	4.00	3.0	50	10	2
H2FLN12P20	2.00	4.00	3.0	50	12	2
H2FLN16P20	2.00	4.00	3.0	50	16	2
H2FLN20P20	2.00	4.00	3.0	50	20	2
H2FLN08P25	2.50	4.00	4.0	50	8	2
H2FLN12P25	2.50	4.00	4.0	50	12	2
H2FLN16P25	2.50	4.00	4.0	50	16	2
H2FLN20P25	2.50	4.00	4.0	50	20	2
H2FLN10P30	3.00	6.00	4.5	60	10	2
H2FLN16P30	3.00	6.00	4.5	60	16	2
H2FLN20P30	3.00	6.00	4.5	60	20	2
H2FLN10P40	4.00	6.00	6.0	60	10	2
H2FLN16P40	4.00	6.00	6.0	60	16	2
H2FLN20P40	4.00	6.00	6.0	60	20	2
H2FLN16P50	5.00	6.00	8.0	60	16	2
H2FLN25P50	5.00	6.00	8.0	60	25	2



Solid Carbide Single Flute End Mill

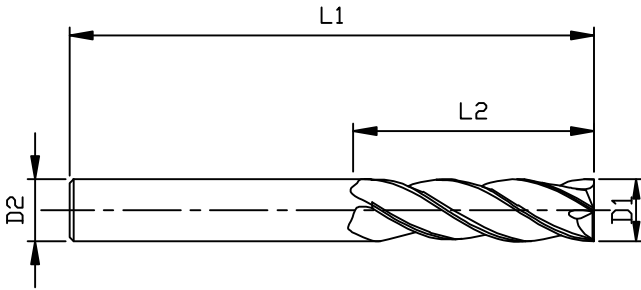


SERIES : H1F0

ITEM CODE	Dimensions in mm			
	Dia (D1)	SH.DIA (D2)	OAL (L2)	CEL (L1)
H1F02L40	2	3	40	4
H1F03L40	3	3	40	10
H1F04L50	4	4	50	14
H1F05L60	5	5	60	16
H1F06L63	6	6	63	20
H1F08L63	8	8	63	20
H1F10L75	10	10	75	25
H1F12L75	12	12	75	25



Solid Carbide Unequal Helix 4 Flute End Mill



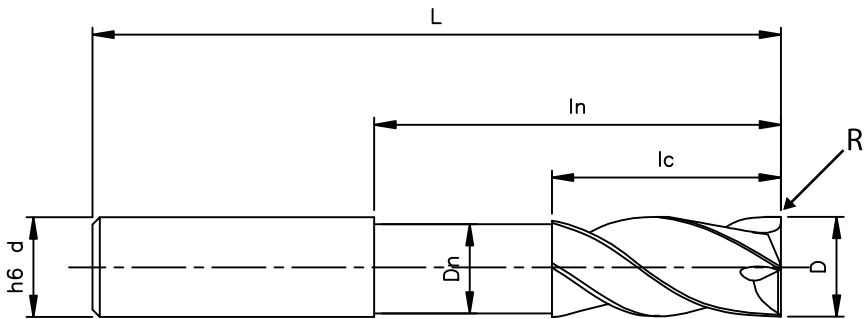
SERIES : H4FVH

ITEM CODE	DIA D1	CEL I2	SH DIA. D2	OAL L
H4FVH030L10	3.0	10	3	38
H4FVH040L14	4.0	14	4	50
H4FVH050L16	5.0	16	5	50
H4FVH060L19	6.0	19	6	64
H4FVH080L21	8.0	21	8	64
H4FVH100L25	10	25	10	70
H4FVH120L30	12	30	12	76
H4FVH160L32	16	32	16	80
H4FVH180L35	18	35	18	100
H4FVH200L38	20	38	20	100



MIII Dia Tol : e8

Super Tough 4 Flute End Mill



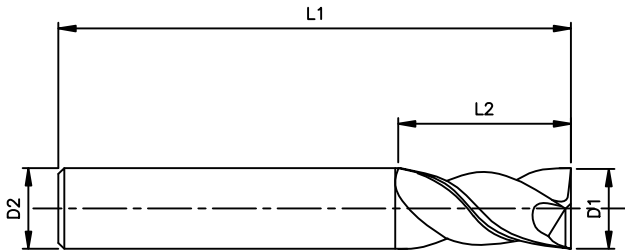
SERIES : H4FT

ITEM CODE	DIA D	CORNER RADIUS R	CEL Ic	REACH LENGTH In	NECK DIA Dn	SH. DIA d	OAL L
H4FT060R05L09	6.0	0.5	5.9	18	9	6	60
H4FT060R10L09	6.0	1.0	5.9	18	9	6	60
H4FT080R05L12	8.0	0.5	7.9	24	12	8	75
H4FT080R10L12	8.0	1.0	7.9	24	12	8	75
H4FT100R05L15	10	0.5	9.9	30	15	10	80
H4FT100R10L15	10	1.0	9.9	30	15	10	80
H4FT120R05L18	12	0.5	11.9	36	18	12	102
H4FT120R10L18	12	1.0	11.9	36	18	12	102
H4FT120R15L18	12	1.5	11.9	36	18	12	102



Mill Dia Tol : e8

2 Flute Standard Inch Size End Mill



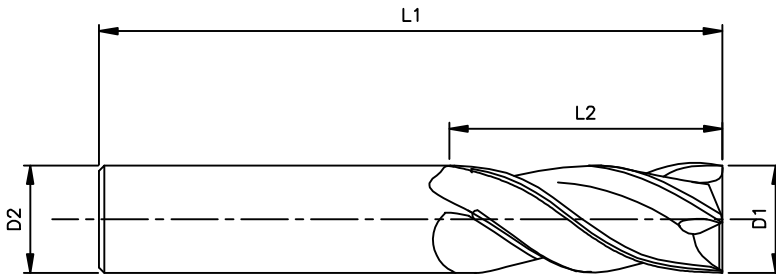
SERIES : H2FCC

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FCC00469	3/64	1/8	9/64	1-1/2
H2FCC00625	1/16	1/8	3/16	1-1/2
H2FCC00781	5/64	1/8	1/4	1-1/2
H2FCC00938	3/32	1/8	5/16	1-1/2
H2FCC01094	7/64	1/8	3/8	1-1/2
H2FCC01250	1/8	1/8	1/2	1-1/2
H2FCC01406	9/64	3/16	1/2	2
H2FCC01563	5/32	3/16	9/16	2
H2FCC01719	11/64	3/16	9/16	2
H2FCC01875	3/16	3/16	5/8	2
H2FCC02031	13/64	1/4	5/8	2-1/2
H2FCC02188	7/32	1/4	5/8	2-1/2
H2FCC02500	1/4	1/4	3/4	2-1/2
H2FCC02813	9/32	5/16	3/4	2-1/2
H2FCC03125	5/16	5/16	13/16	2-1/2
H2FCC03438	11/32	3/8	7/8	2-1/2
H2FCC03750	3/8	3/8	1	2-1/2
H2FCC04063	13/32	7/16	1	2-3/4
H2FCC04375	7/16	7/16	1	2-3/4
H2FCC05000	1/2	1/2	1	3
H2FCC05625	9/16	9/16	1-1/8	3-1/2
H2FCC06250	5/8	5/8	1-1/4	3-1/2
H2FCC06875	11/16	3/4	1-3/8	4
H2FCC07500	3/4	3/4	1-1/2	4
H2FCC08750	7/8	7/8	1-1/2	4
H2FCC10000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
3/64" thru 1"	+0.000"-.002"	+0.0000"-.0005"

3 Flute Standard Inch Size End Mill



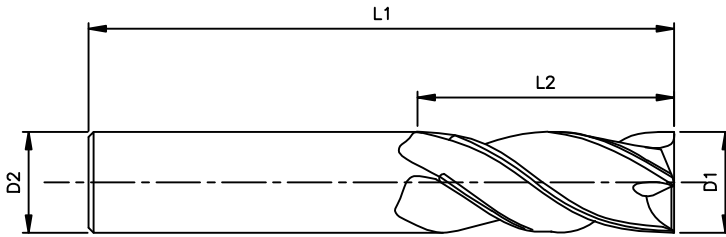
SERIES : H3FCC

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H3FCC00625	1/16	1/8	3/16	1-1/2
H3FCC00938	3/32	1/8	5/16	1-1/2
H3FCC01250	1/8	1/8	1/2	1-1/2
H3FCC01563	5/32	3/16	9/16	2
H3FCC01875	3/16	3/16	5/8	2
H3FCC02188	7/32	1/4	5/8	2-1/2
H3FCC02500	1/4	1/4	3/4	2-1/2
H3FCC02813	9/32	5/16	3/4	2-1/2
H3FCC03125	5/16	5/16	13/16	2-1/2
H3FCC03750	3/8	3/8	1	2-1/2
H3FCC04375	7/16	7/16	1	2-3/4
H3FCC05000	1/2	1/2	1	3
H3FCC05625	9/16	9/16	1-1/8	3-1/2
H3FCC06250	5/8	5/8	1-1/4	3-1/2
H3FCC06875	11/16	3/4	1-3/8	4
H3FCC07500	3/4	3/4	1-1/2	4
H3FCC08750	7/8	7/8	1-1/2	4
H3FCC10000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
1/16" thru 1"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Standard Inch Size End Mill



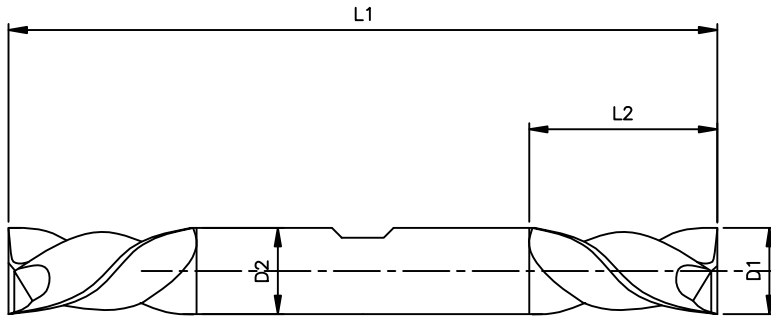
SERIES : H4FCC

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FCC00469	3/64	1/8	9/64	1-1/2
H4FCC00625	1/16	1/8	3/16	1-1/2
H4FCC00781	5/64	1/8	1/4	1-1/2
H4FCC00938	3/32	1/8	5/16	1-1/2
H4FCC01094	7/64	1/8	3/8	1-1/2
H4FCC01250	1/8	1/8	1/2	1-1/2
H4FCC01406	9/64	3/16	1/2	2
H4FCC01563	5/32	3/16	9/16	2
H4FCC01719	11/64	3/16	9/16	2
H4FCC01875	3/16	3/16	5/8	2
H4FCC02031	13/64	1/4	5/8	2-1/2
H4FCC02188	7/32	1/4	5/8	2-1/2
H4FCC02500	1/4	1/4	3/4	2-1/2
H4FCC02813	9/32	5/16	3/4	2-1/2
H4FCC03125	5/16	5/16	13/16	2-1/2
H4FCC03438	11/32	3/8	7/8	2-1/2
H4FCC03750	3/8	3/8	1	2-1/2
H4FCC04063	13/32	7/16	1	2-3/4
H4FCC04375	7/16	7/16	1	2-3/4
H4FCC05000	1/2	1/2	1	3
H4FCC05625	9/16	9/16	1-1/8	3-1/2
H4FCC06250	5/8	5/8	1-1/4	3-1/2
H4FCC06875	11/16	3/4	1-3/8	4
H4FCC07500	3/4	3/4	1-1/2	4
H4FCC08750	7/8	7/8	1-1/2	4
H4FCC10000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
3/64" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

2 Flute Double End End Mill - Inch



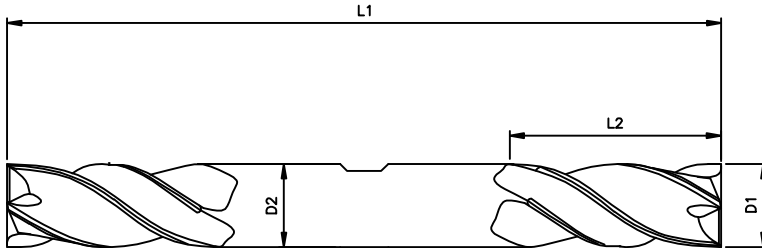
SERIES : H2FDE

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FDECC1250	1/8	3/8	3/8	3-1/16
H2FDECC1563	5/32	3/8	7/16	3-1/8
H2FDECC1875	3/16	3/8	1/2	3-1/4
H2FDECC2188	7/32	3/8	9/16	3-3/8
H2FDECC2500	1/4	3/8	5/8	3-3/8
H2FDECC2813	9/32	3/8	11/16	3-3/8
H2FDECC3125	5/16	3/8	3/4	3-1/2
H2FDECC3438	11/32	3/8	3/4	3-1/2
H2FDECC3750	3/8	3/8	3/4	3-1/2
H2FDECC4375	7/16	1/2	7/8	4
H2FDECC5000	1/2	1/2	1	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1/2"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Double End End Mill - Inch



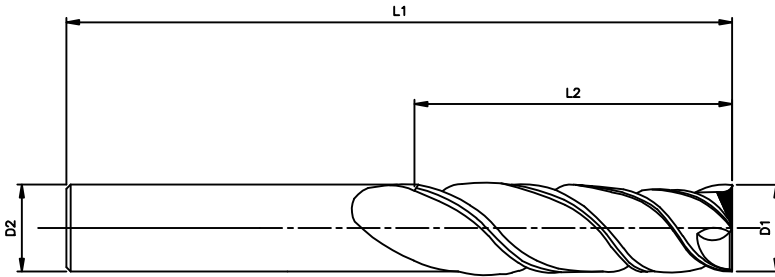
SERIES : H4FDE

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FDECC1250	1/8	3/8	3/8	3-1/16
H4FDECC1563	5/32	3/8	7/16	3-1/8
H4FDECC1875	3/16	3/8	1/2	3-1/4
H4FDECC2188	7/32	3/8	9/16	3-3/8
H4FDECC2500	1/4	3/8	5/8	3-3/8
H4FDECC2813	9/32	3/8	11/16	3-3/8
H4FDECC3125	5/16	3/8	3/4	3-1/2
H4FDECC3438	11/32	3/8	3/4	3-1/2
H4FDECC3750	3/8	3/8	3/4	3-1/2
H4FDECC4375	7/16	1/2	7/8	4
H4FDECC5000	1/2	1/2	1	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1/2"	+0.000"-0.002"	+0.0000"-0.0005"

3 Flute High Helix End Mills - For Aluminium



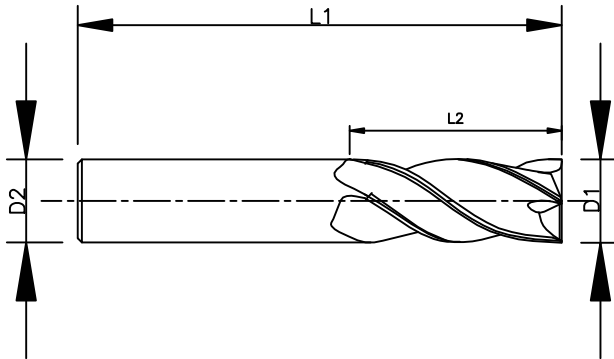
SERIES : H3F45

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H3F4500625	1/16	1/8	3/16	1-1/2
H3F4500938	3/32	1/8	5/16	1-1/2
H3F4501250	1/8	1/8	1/2	1-1/2
H3F4501563	5/32	3/16	9/16	2
H3F4501875	3/16	3/16	5/8	2
H3F4502188	7/32	1/4	5/8	2-1/2
H3F4502500	1/4	1/4	3/4	2-1/2
H3F4502813	9/32	5/16	3/4	2-1/2
H3F4503125	5/16	5/16	13/16	2-1/2
H3F4503750	3/8	3/8	7/8	2-1/2
H3F4504375	7/16	7/16	1	2-3/4
H3F4505000	1/2	1/2	1	3
H3F4505625	9/16	9/16	1-1/8	3-1/2
H3F4506250	5/8	5/8	1-1/4	3-1/2
H3F4506875	11/16	3/4	1-3/8	4
H3F4507500	3/4	3/4	1-1/2	4
H3F4508750	7/8	7/8	1-1/2	4
H3F4510000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
1/16" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

4 Flute Stub End Mill



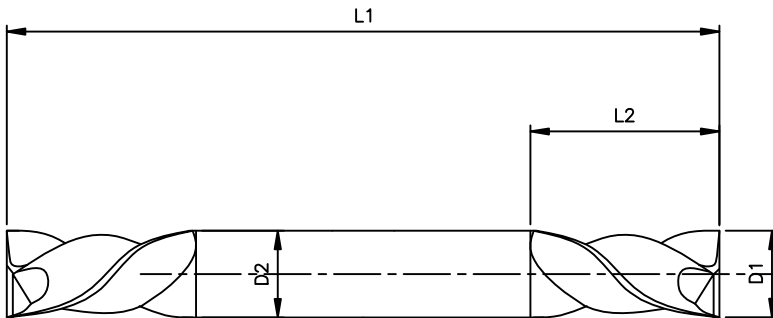
SERIES : H4FSL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FSLCC0313	1/32	1/8	5/64	1-1/2
H4FSLCC0469	3/64	1/8	3/32	1-1/2
H4FSLCC0625	1/16	1/8	1/8	1-1/2
H4FSLCC0781	5/64	1/8	5/32	1-1/2
H4FSLCC0938	3/32	1/8	3/16	1-1/2
H4FSLCC1094	7/64	1/8	7/32	1-1/2
H4FSLCC1250	1/8	1/8	1/4	1-1/2
H4FSLCC1406	9/64	3/16	9/32	2
H4FSLCC1563	5/32	3/16	5/16	2
H4FSLCC1875	3/16	3/16	3/8	2
H4FSLCC2188	7/32	1/4	7/16	2
H4FSLCC2500	1/4	1/4	1/2	2
H4FSLCC3125	5/16	5/16	1/2	2
H4FSLCC3750	3/8	3/8	5/8	2
H4FSLCC4375	7/16	7/16	5/8	2-1/2
H4FSLCC5000	1/2	1/2	5/8	2-1/2
H4FSLCC6250	5/8	5/8	3/4	3
H4FSLCC7500	3/4	3/4	1	3



Size	TOLERANCES	
	D1	D2
1/32" thru 3/4"	+0.000"-.002"	+0.0000"-.0005"

2 Flute Stub Double End End Mill



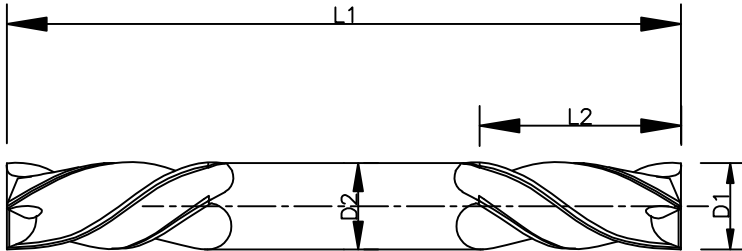
SERIES : H2FDES

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FDESL0313	1/32	1/8	5/64	1-1/2
H2FDESL0469	3/64	1/8	3/32	1-1/2
H2FDESL0625	1/16	1/8	1/8	1-1/2
H2FDESL0781	5/64	1/8	5/32	1-1/2
H2FDESL0938	3/32	1/8	3/16	1-1/2
H2FDESL1094	7/64	1/8	7/32	1-1/2
H2FDESL1250	1/8	1/8	1/4	1-1/2
H2FDESL1406	9/64	3/16	9/32	2
H2FDESL1563	5/32	3/16	5/16	2
H2FDESL1875	3/16	3/16	3/8	2
H2FDESL2188	7/32	1/4	7/16	2-1/2
H2FDESL2500	1/4	1/4	1/2	2-1/2
H2FDESL3125	5/16	5/16	1/2	2-1/2
H2FDESL3750	3/8	3/8	5/8	2-1/2
H2FDESL4375	7/16	7/16	5/8	2-3/4
H2FDESL5000	1/2	1/2	5/8	3



Size	TOLERANCES	
	D1	D2
1/32" thru 1/2"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Stub Double End End Mill



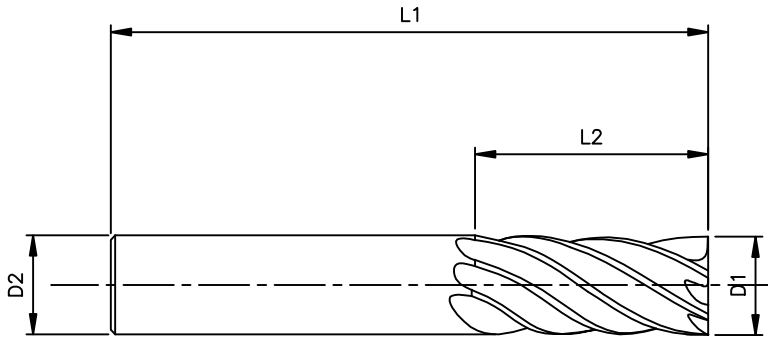
SERIES : H4FDES

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FDESL0313	1/32	1/8	5/64	1-1/2
H4FDESL0469	3/64	1/8	3/32	1-1/2
H4FDESL0625	1/16	1/8	1/8	1-1/2
H4FDESL0781	5/64	1/8	5/32	1-1/2
H4FDESL0938	3/32	1/8	3/16	1-1/2
H4FDESL1094	7/64	1/8	7/32	1-1/2
H4FDESL1250	1/8	1/8	1/4	1-1/2
H4FDESL1406	9/64	3/16	9/32	2
H4FDESL1563	5/32	3/16	5/16	2
H4FDESL1875	3/16	3/16	3/8	2
H4FDESL2188	7/32	1/4	7/16	2-1/2
H4FDESL2500	1/4	1/4	1/2	2-1/2
H4FDESL3125	5/16	5/16	1/2	2-1/2
H4FDESL3750	3/8	3/8	5/8	2-1/2
H4FDESL4375	7/16	7/16	5/8	2-3/4
H4FDESL5000	1/2	1/2	5/8	3



Size	TOLERANCES	
	D1	D2
1/32" thru 1/2"	+0.000"-0.002"	+0.0000"-0.0005"

Rocket Mills - Inch



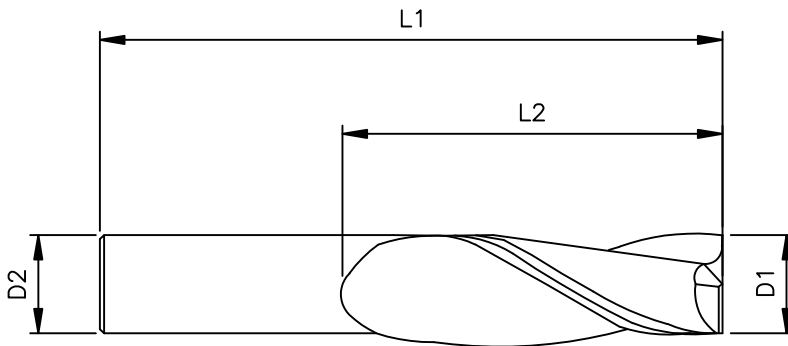
SERIES : HIRM

ITEM CODE	DIA D1	No.Of Flutes	SH. DIA D2	CEL L2	OAL L1
H4RM01250	1/8	4	1/8	1/2	11-1/2
H4RM01875	3/16	4	3/16	5/8	2
H6RM02500	1/4	6	1/4	3/4	2-1/2
H6RM03125	5/16	6	5/16	13/16	2-1/2
H6RM03750	3/8	6	3/8	1	2-1/2
H6RM04375	7/16	6	7/16	1	2-3/4
H6RM05000	1/2	6	1/2	1	3
H6RM05625	9/16	6	9/16	1-1/8	3-1/2
H6RM06250	5/8	6	5/8	1-1/4	3-1/2
H6RM07500	3/4	6	3/4	1-1/2	4
H6RM08750	7/8	6	7/8	1-1/2	4
H6RM10000	1	8	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

2 Flute Long Inch Size End Mill



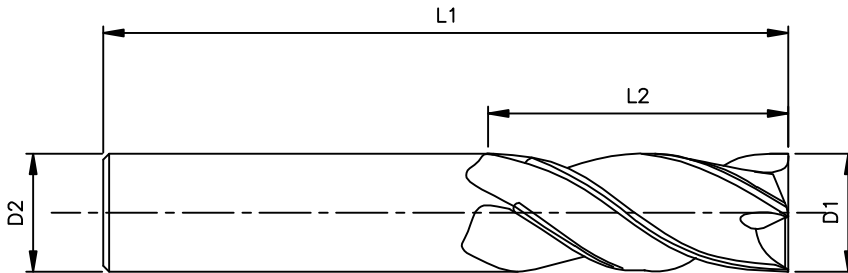
SERIES : H2FSEL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FSEL1250	1/8	1/8	3/4	2-1/4
H2FSEL1875	3/16	3/16	3/4	2-1/4
H2FSEL2500	1/4	1/4	1-1/8	3
H2FSEL3125	5/16	5/16	1-1/8	3
H2FSEL3750	3/8	3/8	1-1/8	3
H2FSEL4375	7/16	7/16	2	4
H2FSEL5000	1/2	1/2	2	4
H2FSEL6250	5/8	5/8	2-1/4	5
H2FSEL7500	3/4	3/4	2-1/4	5
H2FSEL1000	1	1	2-1/4	5



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+.000"-.002"	+.0000"-.0005"

4 Flute Long Inch Size End Mill



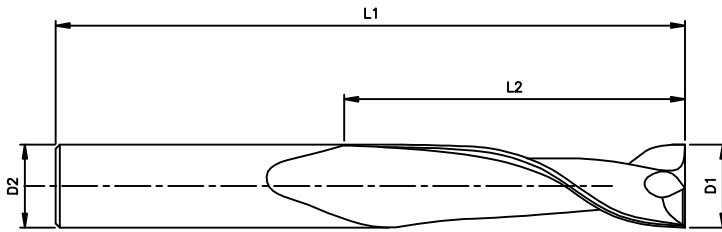
SERIES : H4FSEL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FSEL01250	1/8	1/8	3/4	2-1/4
H4FSEL01875	3/16	3/16	3/4	2-1/4
H4FSEL02500	1/4	1/4	1-1/8	3
H4FSEL03125	5/16	5/16	1-1/8	3
H4FSEL03750	3/8	3/8	1-1/8	3
H4FSEL04375	7/16	7/16	2	4
H4FSEL05000	1/2	1/2	2	4
H4FSEL06250	5/8	5/8	2-1/4	5
H4FSEL07500	3/4	3/4	2-1/4	5
H4FSEL10000	1	1	2-1/4	5



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-.002"	+0.0000"-.0005"

2 Flute Extra Long Inch Size End Mill



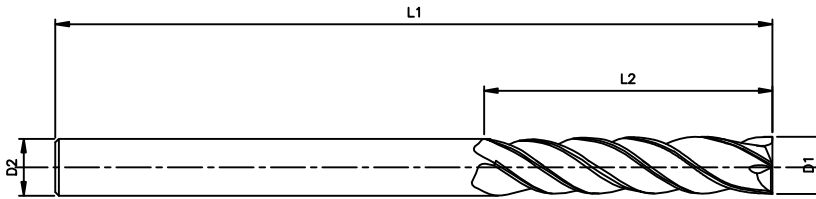
SERIES : H2FSXL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FSXL01250	1/8	11/8	1	3
H2FSXL01875	3/16	3/16	1-1/8	3
H2FSXL02500	1/4	1/4	1-1/2	4
H2FSXL03125	5/16	5/16	1-5/8	4
H2FSXL03750	3/8	3/8	1-3/4	4
H2FSXL04375	7/16	7/16	3	6
H2FSXL05000	1/2	1/2	3	6
H2FSXL06250	5/8	5/8	3	6
H2FSXL07500	3/4	3/4	3	6
H2FSXL10000	1	1	3	6



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

4 Flute Extra Long Inch Size End Mill



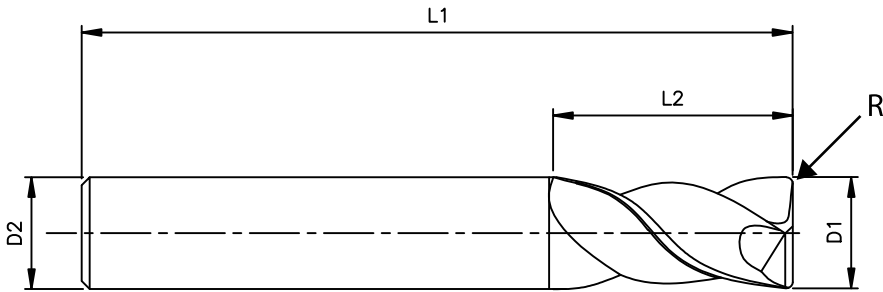
SERIES : H4FSXL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FSXL01250	1/8	11/8	1	3
H4FSXL01875	3/16	3/16	1-1/8	3
H4FSXL02500	1/4	1/4	1-1/2	4
H4FSXL03125	5/16	5/16	1-5/8	4
H4FSXL03750	3/8	3/8	1-3/4	4
H4FSXL04375	7/16	7/16	3	6
H4FSXL05000	1/2	1/2	3	6
H4FSXL06250	5/8	5/8	3	6
H4FSXL07500	3/4	3/4	3	6
H4FSXL10000	1	1	3	6



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-.002"	+0.0000"-.0005"

2 Flute Corner Radius End Mill - Inch



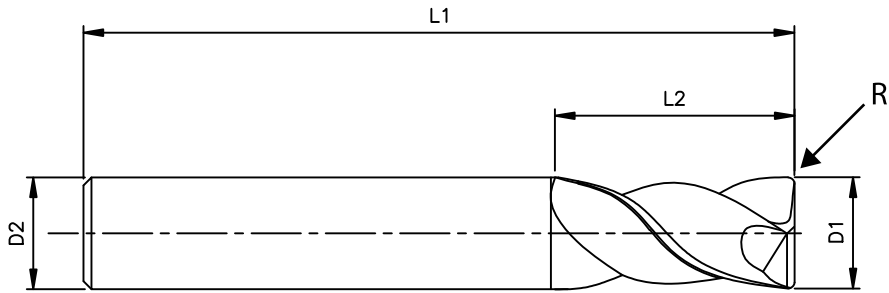
SERIES : H2FCR

ITEM CODE	DIA D1	Corner Radius R	SH. DIA D2	CEL L2	OAL L1
H2FCR01250R15	1/8	0.015	11/8	1/2	1-1/2
H2FCR01875R20	3/16	0.020	3/16	5/8	2
H2FCR01875R30	3/16	0.030	3/16	5/8	2
H2FCR02500R20	1/4	0.020	1/4	3/4	2-1/2
H2FCR02500R30	1/4	0.030	1/4	3/4	2-1/2
H2FCR02500R45	1/4	0.045	1/4	3/4	2-1/2
H2FCR03125R20	5/16	0.020	5/16	13/16	2-1/2
H2FCR03125R30	5/16	0.030	5/16	13/16	2-1/2
H2FCR03125R45	5/16	0.045	5/16	13/16	2-1/2
H2FCR03750R20	3/8	0.020	3/8	1	2-1/2
H2FCR03750R30	3/8	0.030	3/8	1	2-1/2
H2FCR03750R45	3/8	0.045	3/8	1	2-1/2
H2FCR05000R20	1/2	0.020	1/2	1	3
H2FCR05000R30	1/2	0.030	1/2	1	3
H2FCR05000R45	1/2	0.045	1/2	1	3
H2FCR05000R60	1/2	0.060	1/2	1	3



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+ .000" - .002"	+ .0000" - .0005"

2 Flute Corner Radius End Mill - Inch



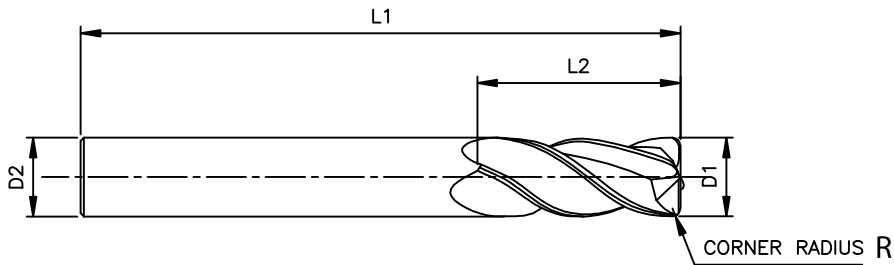
SERIES : H2FCR

ITEM CODE	DIA D1	Corner Radius R	SH. DIA D2	CEL L2	OAL L1
H2FCR06250R020	5/8	0.020	5/8	1-1/4	3-1/2
H2FCR06250R030	5/8	0.030	5/8	1-1/4	3-1/2
H2FCR06250R045	5/8	0.045	5/8	1-1/4	3-1/2
H2FCR06250R060	5/8	0.060	5/8	1-1/4	3-1/2
H2FCR06250R090	5/8	0.090	5/8	1-1/4	3-1/2
H2FCR07500R125	3/4	0.125	3/4	1-1/2	4
H2FCR07500R020	3/4	0.020	3/4	1-1/2	4
H2FCR07500R030	3/4	0.030	3/4	1-1/2	4
H2FCR07500R045	3/4	0.045	3/4	1-1/2	4
H2FCR07500R060	3/4	0.060	3/4	1-1/2	4
H2FCR07500R090	3/4	0.090	3/4	1-1/2	4
H2FCR10000R125	1	0.125	1	1-1/2	4
H2FCR10000R020	1	0.020	1	1-1/2	4
H2FCR10000R030	1	0.030	1	1-1/2	4
H2FCR10000R045	1	0.045	1	1-1/2	4
H2FCR10000R060	1	0.060	1	1-1/2	4
H2FCR10000R090	1	0.090	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Corner Radius End Mill - Inch



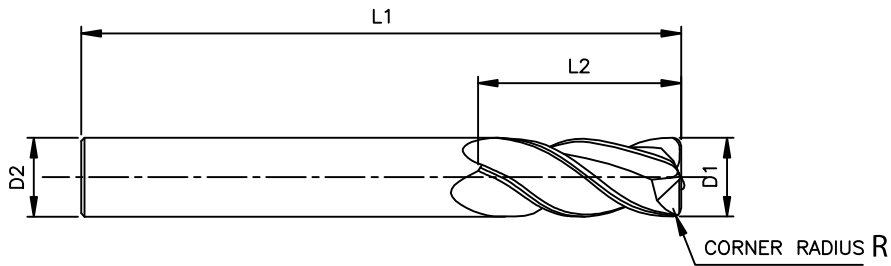
SERIES : H4FCR

ITEM CODE	DIA D1	Corner Radius R	SH. DIA D2	CEL L2	OAL L1
H4FCR01250R015	1/8	0.015	1/8	1/2	1-1/2
H4FCR01875R020	3/16	0.020	3/16	5/8	2
H4FCR01875R030	3/16	0.030	3/16	5/8	2
H4FCR02500R020	1/4	0.020	1/4	3/4	2-1/2
H4FCR02500R030	1/4	0.030	1/4	3/4	2-1/2
H4FCR02500R045	1/4	0.045	1/4	3/4	2-1/2
H4FCR03125R020	5/16	0.020	5/16	13/16	2-1/2
H4FCR03125R030	5/16	0.030	5/16	13/16	2-1/2
H4FCR03125R045	5/16	0.045	5/16	13/16	2-1/2
H4FCR03750R020	3/8	0.020	3/8	1	2-1/2
H4FCR03750R030	3/8	0.030	3/8	1	2-1/2
H4FCR03750R045	3/8	0.045	3/8	1	2-1/2
H4FCR05000R020	1/2	0.020	1/2	1	3
H4FCR05000R030	1/2	0.030	1/2	1	3
H4FCR05000R045	1/2	0.045	1/2	1	3
H4FCR05000R060	1/2	0.060	1/2	1	3



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+.000"-.002"	+.0000"-.0005"

4 Flute Corner Radius End Mill - Inch



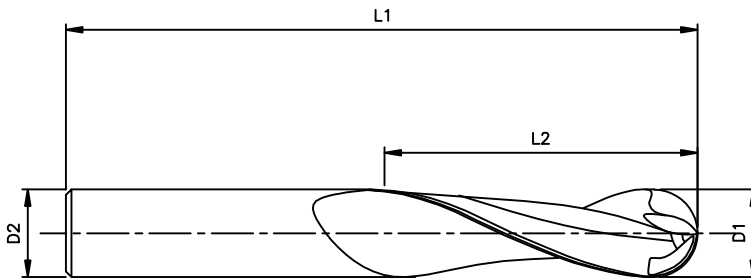
SERIES : H4FCR

ITEM CODE	DIA D1	Corner Radius R	SH. DIA D2	CEL L2	OAL L1
H4FCR06250R020	5/8	0.020	5/8	1-1/4	3-1/2
H4FCR06250R030	5/8	0.030	5/8	1-1/4	3-1/2
H4FCR06250R045	5/8	0.045	5/8	1-1/4	3-1/2
H4FCR06250R060	5/8	0.060	5/8	1-1/4	3-1/2
H4FCR06250R090	5/8	0.090	5/8	1-1/4	3-1/2
H4FCR07500R125	3/4	0.125	3/4	1-1/2	4
H4FCR07500R020	3/4	0.020	3/4	1-1/2	4
H4FCR07500R030	3/4	0.030	3/4	1-1/2	4
H4FCR07500R045	3/4	0.045	3/4	1-1/2	4
H4FCR07500R060	3/4	0.060	3/4	1-1/2	4
H4FCR07500R090	3/4	0.090	3/4	1-1/2	4
H4FCR10000R125	1	0.125	1	1-1/2	4
H4FCR10000R020	1	0.020	1	1-1/2	4
H4FCR10000R030	1	0.030	1	1-1/2	4
H4FCR10000R045	1	0.045	1	1-1/2	4
H4FCR10000R060	1	0.060	1	1-1/2	4
H4FCR10000R090	1	0.090	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+ .000" - .002"	+ .0000" - .0005"

2 Flute Standard Inch Size Ball Nose End Mill



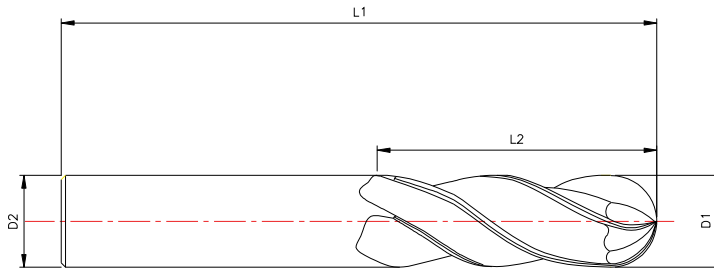
SERIES : H2FBN

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FBN00469	3/64	1/8	9/64	1-1/2
H2FBN00625	1/16	1/8	3/16	1-1/2
H2FBN00781	5/64	1/8	1/4	1-1/2
H2FBN00938	3/32	1/8	5/16	1-1/2
H2FBN01094	7/64	1/8	3/8	1-1/2
H2FBN01250	1/8	1/8	1/2	1-1/2
H2FBN01406	9/64	3/16	1/2	2
H2FBN01563	5/32	3/16	9/16	2
H2FBN01719	11/64	3/16	9/16	2
H2FBN01875	3/16	3/16	5/8	2
H2FBN02031	13/64	1/4	5/8	2-1/2
H2FBN02188	7/32	1/4	5/8	2-1/2
H2FBN02500	1/4	1/4	3/4	2-1/2
H2FBN02813	9/32	5/16	3/4	2-1/2
H2FBN03125	5/16	5/16	13/16	2-1/2
H2FBN03438	11/32	3/8	7/8	2-1/2
H2FBN03750	3/8	3/8	1	2-1/2
H2FBN04063	13/32	7/16	1	2-3/4
H2FBN04375	7/16	7/16	1	2-3/4
H2FBN05000	1/2	1/2	1	3
H2FBN05625	9/16	9/16	1-1/8	3-1/2
H2FBN06250	5/8	5/8	1-1/4	3-1/2
H2FBN06875	11/16	3/4	1-3/8	4
H2FBN07500	3/4	3/4	1-1/2	4
H2FBN08750	7/8	7/8	1-1/2	4
H2FBN10000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
3/64" thru 1"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Standard Inch Size Ball Nose End Mill



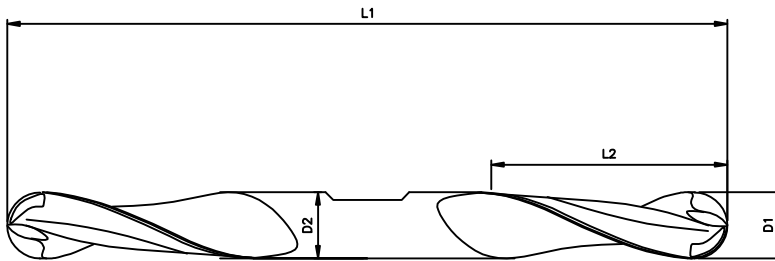
SERIES : H4FBN

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FBN00469	3/64	1/8	9/64	1-1/2
H4FBN00625	1/16	1/8	3/16	1-1/2
H4FBN00781	5/64	1/8	1/4	1-1/2
H4FBN00938	3/32	1/8	5/16	1-1/2
H4FBN01094	7/64	1/8	3/8	1-1/2
H4FBN01250	1/8	1/8	1/2	1-1/2
H4FBN01406	9/64	3/16	1/2	2
H4FBN01563	5/32	3/16	9/16	2
H4FBN01719	11/64	3/16	9/16	2
H4FBN01875	3/16	3/16	5/8	2
H4FBN02031	13/64	1/4	5/8	2-1/2
H4FBN02183	7/32	1/4	5/8	2-1/2
H4FBN02500	1/4	1/4	3/4	2-1/2
H4FBN02813	9/32	5/16	3/4	2-1/2
H4FBN03125	5/16	5/16	13/16	2-1/2
H4FBN03438	11/32	3/8	7/8	2-1/2
H4FBN03750	3/8	3/8	1	2-1/2
H4FBN04063	13/32	7/16	1	2-3/4
H4FBN04375	7/16	7/16	1	2-3/4
H4FBN05000	1/2	1/2	1	3
H4FBN05625	9/16	9/16	1-1/8	3-1/2
H4FBN06250	5/8	5/8	1-1/4	3-1/2
H4FBN06875	11/16	3/4	1-3/8	4
H4FBN07500	3/4	3/4	1-1/2	4
H4FBN08750	7/8	7/8	1-1/2	4
H4FBN10000	1	1	1-1/2	4



Size	TOLERANCES	
	D1	D2
3/64" thru 1"	+0.000"-.002"	+0.0000"-.0005"

2 Flute Ball Nose Double End End Mill - Inch



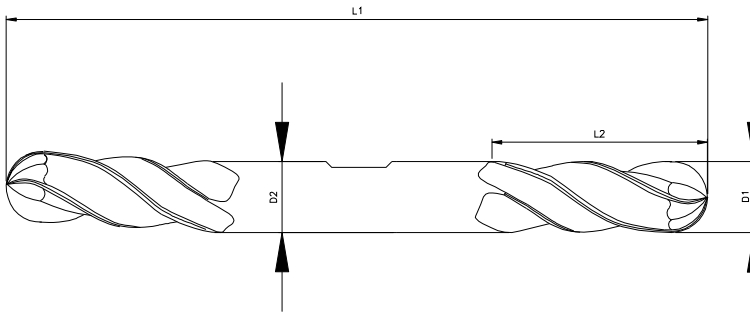
SERIES : H2FDEB

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FDEBN1250	1/8	3/8	3/8	3-1/16
H2FDEBN1563	5/32	3/8	7/16	3-1/8
H2FDEBN1875	3/16	3/8	1/2	3-1/4
H2FDEBN2188	7/32	3/8	9/16	3-3/8
H2FDEBN2500	1/4	3/8	5/8	3-3/8
H2FDEBN2813	9/32	3/8	11/16	3-3/8
H2FDEBN3125	5/16	3/8	3/4	3-1/2
H2FDEBN3438	11/32	3/8	3/4	3-1/2
H2FDEBN3750	3/8	3/8	3/4	3-1/2
H2FDEBN4375	7/16	1/2	7/8	4
H2FDEBN5000	1/2	1/2	1	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1/2"	+0.000"-0.002"	+0.0000"-0.0005"

4 Flute Ball Nose Double End End Mill - Inch



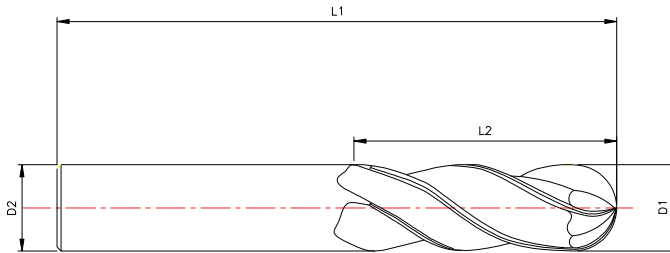
SERIES : H4FDEB

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FDEBN1250	1/8	3/8	3/8	3-1/16
H4FDEBN1563	5/32	3/8	7/16	3-1/8
H4FDEBN1875	3/16	3/8	1/2	3-1/4
H4FDEBN2188	7/32	3/8	9/16	3-3/8
H4FDEBN2500	1/4	3/8	5/8	3-3/8
H4FDEBN2813	9/32	3/8	11/16	3-3/8
H4FDEBN3125	5/16	3/8	3/4	3-1/2
H4FDEBN3438	11/32	3/8	3/4	3-1/2
H4FDEBN3750	3/8	3/8	3/4	3-1/2
H4FDEBN4375	7/16	1/2	7/8	4
H4FDEBN5000	1/2	1/2	1	4



Size	TOLERANCES	
	D1	D2
1/8" thru 1/2"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Stub Ball Nose End Mill



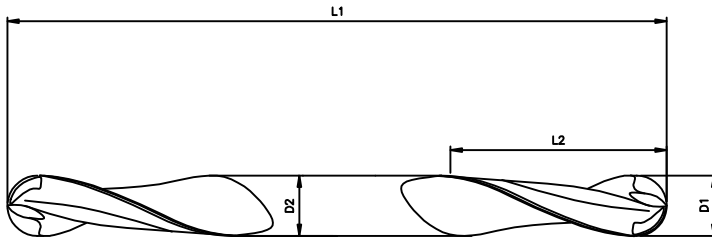
SERIES : H4FSLB

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FSLBN0313	1/32	1/8	5/64	1-1/2
H4FSLBN0469	3/64	1/8	3/32	1-1/2
H4FSLBN0625	1/16	1/8	1/8	1-1/2
H4FSLBN0781	5/64	1/8	5/32	1-1/2
H4FSLBN0938	3/32	1/8	3/16	1-1/2
H4FSLBN1094	7/64	1/8	7/32	1-1/2
H4FSLBN1250	1/8	1/8	1/4	1-1/2
H4FSLBN1406	9/64	3/16	9/32	2
H4FSLBN1563	5/32	3/16	5/16	2
H4FSLBN1875	3/16	3/16	3/8	2
H4FSLBN2188	7/32	1/4	7/16	2
H4FSLBN2500	1/4	1/4	1/2	2
H4FSLBN3125	5/16	5/16	1/2	2
H4FSLBN3750	3/8	3/8	5/8	2
H4FSLBN4375	7/16	7/16	5/8	2-1/2
H4FSLBN5000	1/2	1/2	5/8	2-1/2
H4FSLBN6250	5/8	5/8	3/4	3
H4FSLBN7500	3/4	3/4	1	3



Size	TOLERANCES	
	D1	D2
1/32" thru 3/4"	+.000"-.002"	+.0000"-.0005"

2 Flute Stub Ball Nose Double End End Mill



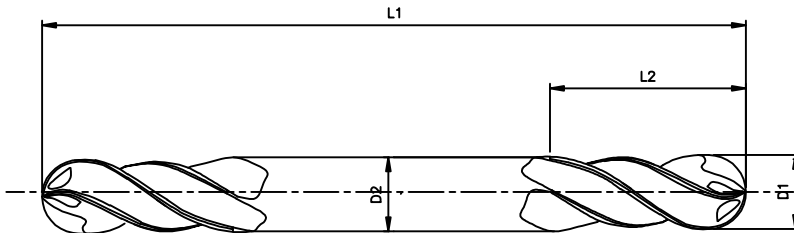
SERIES : H2FDEBS

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FDEBN0313	1/32	1/8	5/64	1-1/2
H2FDEBN0469	3/64	1/8	3/32	1-1/2
H2FDEBN0625	1/16	1/8	1/8	1-1/2
H2FDEBN0781	5/64	1/8	5/32	1-1/2
H2FDEBN0938	3/32	1/8	3/16	1-1/2
H2FDEBN1094	7/64	1/8	7/32	1-1/2
H2FDEBN1250	1/8	1/8	1/4	1-1/2
H2FDEBN1406	9/64	3/16	9/32	2
H2FDEBN1563	5/32	3/16	5/16	2
H2FDEBN1875	3/16	3/16	3/8	2
H2FDEBN2188	7/32	1/4	7/16	2-1/2
H2FDEBN2500	1/4	1/4	1/2	2-1/2
H2FDEBN3125	5/16	5/16	1/2	2-1/2
H2FDEBN3750	3/8	3/8	5/8	2-1/2
H2FDEBN4375	7/16	7/16	5/8	2-3/4
H2FDEBN5000	1/2	1/2	5/8	3



Size	TOLERANCES	
	D1	D2
1/32" thru 1/2"	+0.000"-.002"	+0.0000"-.0005"

4 Flute Stub Ball Nose Double End End Mill



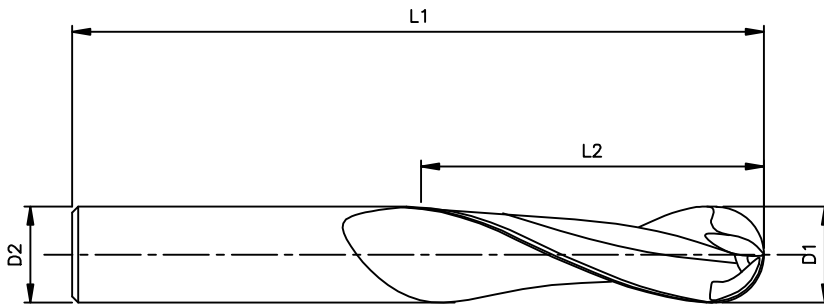
SERIES : H4FDEBS

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4SLDEBN0313	1/32	1/8	5/64	1-1/2
H4SLDEBN0469	3/64	1/8	3/32	1-1/2
H4SLDEBN0625	1/16	1/8	1/8	1-1/2
H4SLDEBN0781	5/64	1/8	5/32	1-1/2
H4SLDEBN0938	3/32	1/8	3/16	1-1/2
H4SLDEBN1094	7/64	1/8	7/32	1-1/2
H4SLDEBN1250	1/8	1/8	1/4	1-1/2
H4SLDEBN1406	9/64	3/16	9/32	2
H4SLDEBN1563	5/32	3/16	5/16	2
H4SLDEBN1875	3/16	3/16	3/8	2
H4SLDEBN2188	7/32	1/4	7/16	2-1/2
H4SLDEBN2500	1/4	1/4	1/2	2-1/2
H4SLDEBN3125	5/16	5/16	1/2	2-1/2
H4SLDEBN3750	3/8	3/8	5/8	2-1/2
H4SLDEBN4375	7/16	7/16	5/8	2-3/4
H4SLDEBN5000	1/2	1/2	5/8	3



Size	TOLERANCES	
	D1	D2
1/32" thru 1/2"	+0.000"-0.002"	+0.0000"-0.0005"

2 Flute Long Inch Size Ball Nose End Mill



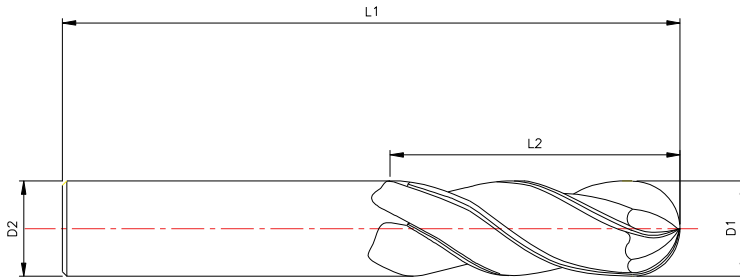
SERIES : H2FBNL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FBNL01250	1/8	1/8	3/4	2-1/4
H2FBNL01875	3/16	3/16	3/4	2-1/4
H2FBNL02500	1/4	1/4	1-1/8	3
H2FBNL03125	5/16	5/16	1-1/8	3
H2FBNL03750	3/8	3/8	1-1/8	3
H2FBNL04375	7/16	7/16	2	4
H2FBNL05000	1/2	1/2	2	4
H2FBNL06250	5/8	5/8	2-1/4	5
H2FBNL07500	3/4	3/4	2-1/4	5
H2FBNL10000	1	1	2-1/4	5



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

4 Flute Long Inch Size Ball Nose End Mill



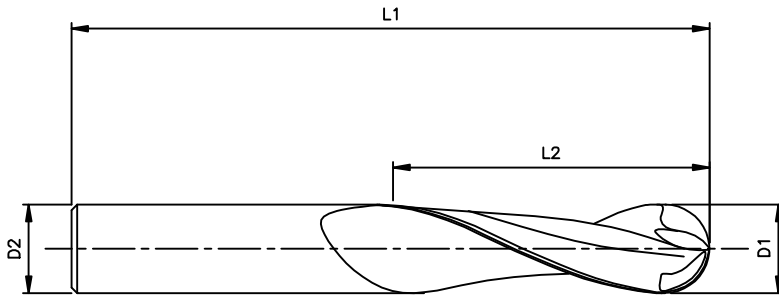
SERIES : H4FBNL

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FBNL01250	1/8	1/8	3/4	2-1/4
H4FBNL01875	3/16	3/16	3/4	2-1/4
H4FBNL02500	1/4	1/4	1-1/8	3
H4FBNL03125	5/16	5/16	1-1/8	3
H4FBNL03750	3/8	3/8	1-1/8	3
H4FBNL04375	7/16	7/16	2	4
H4FBNL05000	1/2	1/2	2	4
H4FBNL06250	5/8	5/8	2-1/4	5
H4FBNL07500	3/4	3/4	2-1/4	5
H4FBNL10000	1	1	2-1/4	5



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-.002"	+0.0000"-.0005"

2 Flute Extra Long Inch Size Ball Nose End Mill



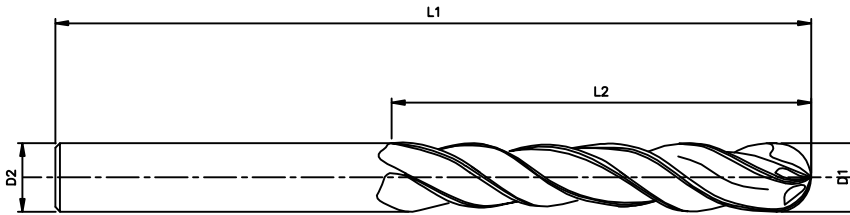
SERIES : H2FBNX

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2FBNX01250	1/8	11/8	1	3
H2FBNX01875	3/16	3/16	1-1/8	3
H2FBNX02500	1/4	1/4	1-1/2	4
H2FBNX03125	5/16	5/16	1-5/8	4
H2FBNX03750	3/8	3/8	1-3/4	4
H2FBNX04375	7/16	7/16	3	6
H2FBNX05000	1/2	1/2	3	6
H2FBNX06250	5/8	5/8	3	6
H2FBNX07500	3/4	3/4	3	6
H2FBNX10000	1	1	3	6



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-0.002"	+0.0000"-0.0005"

4 Flute Extra Long Inch Size Ball Nose End Mill



SERIES : H4FBNX

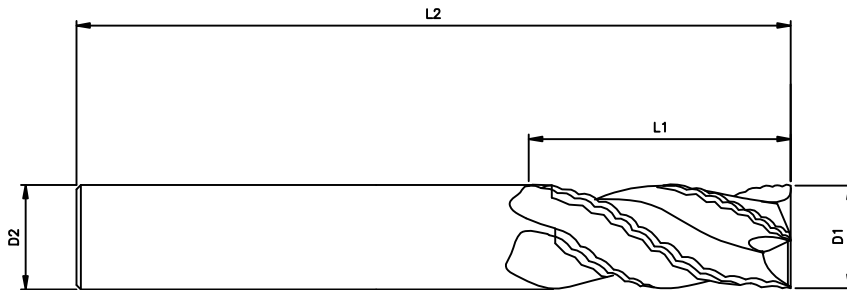
ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H4FBNX01250	1/8	11/8	1	3
H4FBNX01875	3/16	3/16	1-1/8	3
H4FBNX02500	1/4	1/4	1-1/2	4
H4FBNX03125	5/16	5/16	1-5/8	4
H4FBNX03750	3/8	3/8	1-3/4	4
H4FBNX04375	7/16	7/16	3	6
H4FBNX05000	1/2	1/2	3	6
H4FBNX06250	5/8	5/8	3	6
H4FBNX07500	3/4	3/4	3	6
H4FBNX10000	1	1	3	6



Size	TOLERANCES	
	D1	D2
1/8" thru 1"	+0.000"-.002"	+0.0000"-.0005"

Multi Flute 45° Helix Long Length Roughing End Mill

- ▶ For low hardness materials (under HRC45), alloy steels, tool steels, prehardened steel, titanium, Inconel, nimonic, etc.
- ▶ High chip removed and minimizing breakages of cutting edges.
- ▶ Corner protection against chipping.



SERIES : HRF45

ITEM CODE	DIA D1	SH. DIA D2	CEL L1	OAL L2	No.OF FLUTE
HRF4501875	3/16	1/4	1/2	2-1/4	3
HRF4502500	1/4	1/4	3/4	2-1/2	4
HRF4503125	5/16	5/16	3/4	2-1/2	4
HRF4503750	3/8	3/8	7/8	2-1/2	4
HRF4505000	1/2	1/2	1	3	4
HRF4506250	5/8	5/8	1-1/4	3-1/2	5
HRF4507500	3/4	3/4	1-5/8	4	6
HRF4510000	1	1	1-3/4	4	6



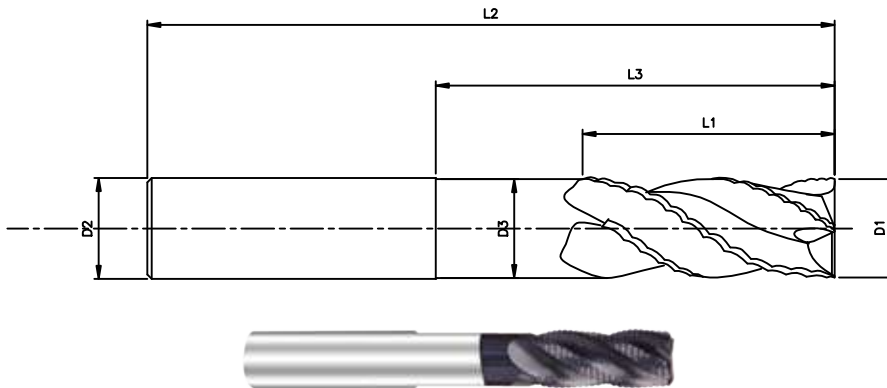
Mill Dia. (inch)	Mill Dia. Tolerance (inch)	Shank Dia. Tolerance (inch)
3/16	0~-0.0019	0~-0.0033
1/4~3/8	0~-0.0022	
1/2~5/8	0~-0.0027	
3/4~1	0~-0.0033	

⊙ Excellent ⊙ Good

Carbon Steels ~HRC20	Alloy Steels HRC20~30	Prehardened Steels HRC30~40	Hardened Steels		High Hardened Steels HRC55~70	Copper	Graphite	Cast Iron	Aluminium	Stainless Steels	Titanium	Inconel
			HRC40~45	HRC45~55								
⊙	⊙	⊙	⊙	⊙						⊙	⊙	⊙

Multi Flute 45° Helix Long Reach Roughing End Mill Fine Pitch

- ▶ For low hardness materials (under HRC45), alloy steels, tool steels, prehardened steel, titanium, Inconel, nimonic, etc.
- ▶ High chip removed and minimizing breakages of cutting edges.
- ▶ Corner protection against chipping.



SERIES : HRLR

ITEM CODE	DIA D1	SH. DIA D2	CEL L1	LENGTH BELOW SHANK L3	OAL L2	NECK DIAMETER D3	No.OF FLUTE
HRLR452500	1/4	1/4	3/4	7/8	2-1/2	0.230	4
HRLR453125	5/16	5/16	3/4	1	2-1/2	0.292	4
HRLR453750	3/8	3/8	7/8	1-1/4	2-1/2	0.355	4
HRLR455000	1/2	1/2	1	1-1/2	3	0.480	4
HRLR456250	5/8	5/8	1-1/4	2	4	0.605	5
HRLR457500	3/4	3/4	1-5/8	2-3/8	4-3/8	0.719	6

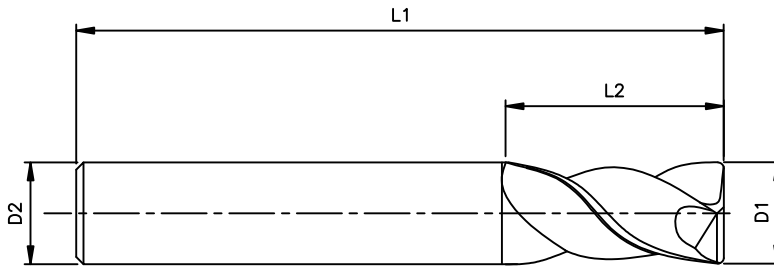
Mill Dia. (inch)	Mill Dia. Tolerance (inch)	Shank Dia. Tolerance (inch)
1/4~3/8	0~-0.0022	0~-0.0033
1/2~5/8	0~-0.0027	
3/4~1	0~-0.0033	

⊙ Excellent ○ Good

Carbon Steels ~HRC20	Alloy Steels HRC20~30	Prehardened Steels HRC30~40	Hardened Steels		High Hardened Steels HRC55~70	Copper	Graphite	Cast Iron	Aluminium	Stainless Steels	Titanium	Inconel
			HRC40~45	HRC45~55								
○	○	○	○							○	○	○

2 Flute 42° Helix End Mill For Soft Material

- ▶ High velocity milling of aluminum & other non ferrous materials.
- ▶ Excellent plunging capabilities.
- ▶ Improved surface roughness-cylindrical margin which is controlled tightly.
- ▶ Superior chip evacuation.
- ▶ Mirror face – excellent surface finish.



SERIES : H2F42

ITEM CODE	DIA D1	SH. DIA D2	CEL L2	OAL L1
H2F4200625S	1/16	1/8	1/8	1-1/2
H2F4200938S	3/32	1/8	1/4	1-1/2
H2F4201250S	1/8	1/4	5/16	1-3/4
H2F4201875S	3/16	1/4	7/16	2
H2F4202500S	1/4	3/8	3/4	2-1/2
H2F4203125S	5/16	3/8	13/16	2-1/2
H2F4203750S	3/8	3/8	1	2-1/2
H2F4204375S	7/16	7/16	1	2-3/4
H2F4205000S	1/2	1/2	1	3
H2F4205000L	1/2	1/2	2	4
H2F4206250S	5/8	5/8	1-1/4	3-1/2
H2F4207500S	3/4	3/4	1-1-2	4
H2F4207500L	3/4	3/4	3	5-1/2
H2F4201000S	1	1	1-1/2	4
H2F4201000L	1	1	3	5-1/2



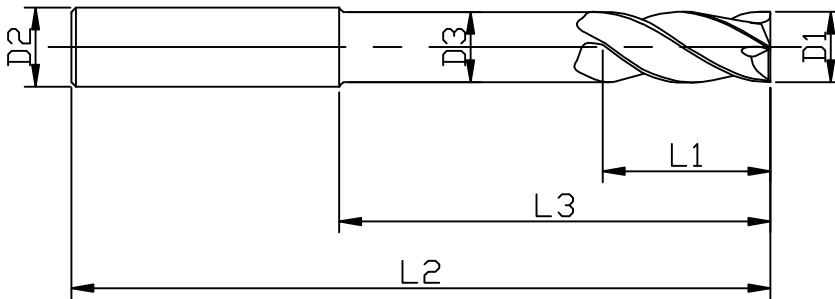
Mill Dia. Tolerance (inch)	Shank Dia. Tolerance (inch)
0~-.0012	0~-.0033

Excellent
 Good

Carbon Steels ~HRC20	Alloy Steels HRC20~30	Prehardened Steels HRC30~40	Hardened Steels		High Hardened Steels HRC55~70	Copper	Graphite	Cast Iron	Aluminium	Stainless Steels	Titanium	Inconel
			HRC40~45	HRC45~55								
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3 Flute 37° Helix End Mill With Extended Neck

- ▶ High velocity milling of aluminum & other non ferrous materials.
- ▶ 3flute and 37° helix allow harmonic balance at high speed condition and smooth cutting.
- ▶ Improved surface roughness-cylindrical margin which is controlled tightly.
- ▶ Maximum – metal removal rate.
- ▶ Mirror face – excellent surface finish.



SERIES : H3F37

ITEM CODE	DIA D1	SH. DIA D2	CEL L1	LENGTH BELOW SHANK L3	OAL L2	NECK DIAMETER D3
H3F3702500S	1/4	1/4	3/8	2-1/4	4	0.220
H3F3703750S	3/8	3/8	1/2	2-1/4	4	0.345
H3F3705000S	1/2	1/2	5/8	2-1/4	5	0.470
H3F3705000L	1/2	1/2	5/8	3-1/4	6	0.470
H3F3706250S	5/8	5/8	3/4	2-1/4	5	0.585
H3F3706250L	5/8	5/8	3/4	3-1/4	6	0.585
H3F3706250X	5/8	5/8	3/4	4-1/4	7	0.585
H3F3707500S	3/4	3/4	1	2-1/4	5	0.710
H3F3707500L	3/4	3/4	1	3-1/4	6	0.710
H3F3707500X	3/4	3/4	1	4-1/4	7	0.710
H3F3710000S	1	1	1-1/8	2-1/4	5	0.960
H3F3710000L	1	1	1-1/8	3-1/4	6	0.960
H3F3710000X	1	1	1-1/8	4-1/4	7	0.960

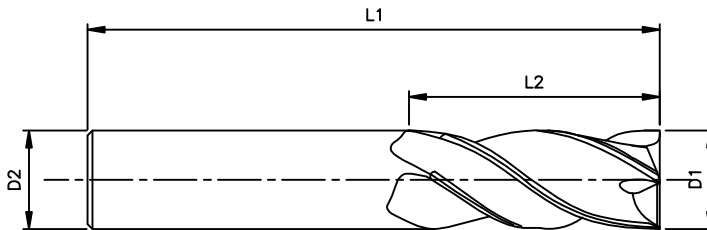


Mill Dia. Tolerance (inch)	Shank Dia. Tolerance (inch)
0~-.0005	0~-.0003

Excellent
 Good

Carbon Steels ~HRC20	Alloy Steels HRC20~30	Prehardened Steels HRC30~40	Hardened Steels		High Hardened Steels HRC55~70	Copper	Graphite	Cast Iron	Aluminium	Stainless Steels	Titanium	Inconel
			HRC40~45	HRC45~55					<input checked="" type="radio"/>			

Solid Carbide Helimill 4 Flute

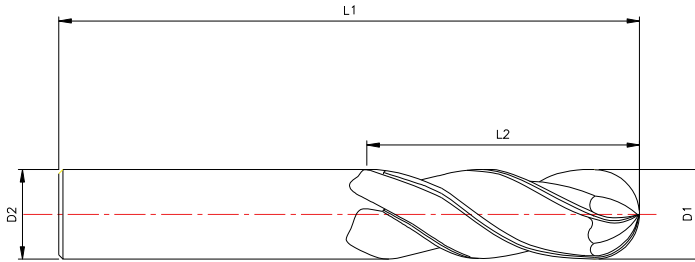


SERIES : HHMF4P

ITEM CODE	DIA D1	SH DIA D2	CEL L2	OAL L1
HHMF4P005S	0.5	3	1.5	38
HHMF4P006S	0.6	3	1.5	38
HHMF4P007S	0.7	3	1.8	38
HHMF4P008S	0.8	3	2	38
HHMF4P009S	0.9	3	2.2	38
HHMF4P010S	1.0	3	3	38
HHMF4P015S	1.5	3	5	38
HHMF4P020S	2.0	3	7	38
HHMF4P025S	2.5	3	7	38
HHMF4P030S	3.0	3	10	38
HHMF4P035S	3.5	4	12	50
HHMF4P040S	4.0	4	14	50
HHMF4P045S	4.5	5	16	50
HHMF4P050S	5.0	5	16	50
HHMF4P060S	6.0	6	19	57
HHMF4P070S	7.0	7	19	60
HHMF4P080S	8.0	8	19	60
HHMF4P090S	9.0	9	22	70
HHMF4P100S	10.0	10	22	70
HHMF4P110S	11.0	11	25	75
HHMF4P120S	12.0	12	25	75
HHMF4P140S	14.0	14	32	80
HHMF4P160S	16.0	16	32	80
HHMF4P180S	18.0	18	38	100
HHMF4P200S	20.0	18	38	100
HHMF4P220S	22.0	22	38	100
HHMF4P250S	25.0	25	38	100



Solid Carbide Helimill Ball Nose 4 Flute



SERIES : HHMB4P

ITEM CODE	DIA D1	SH DIA D2	CEL L2	OAL L1
HHMB4P005S	0.5	3	1.5	38
HHMB4P006S	0.6	3	1.5	38
HHMB4P007S	0.7	3	1.8	38
HHMB4P008S	0.8	3	2	38
HHMB4P009S	0.9	3	2.2	38
HHMB4P010S	1.0	3	3	38
HHMB4P015S	1.5	3	5	38
HHMB4P020S	2.0	3	7	38
HHMB4P025S	2.5	3	7	38
HHMB4P030S	3.0	3	10	38
HHMB4P035S	3.5	4	12	50
HHMB4P040S	4.0	4	14	50
HHMB4P045S	4.5	5	16	50
HHMB4P050S	5.0	5	16	50
HHMB4P060S	6.0	6	19	57
HHMB4P070S	7.0	7	19	60
HHMB4P080S	8.0	8	19	60
HHMB4P090S	9.0	9	22	70
HHMB4P100S	10.0	10	22	70
HHMB4P110S	11.0	11	25	75
HHMB4P120S	12.0	12	25	75
HHMB4P140S	14.0	14	32	80
HHMB4P160S	16.0	16	32	80
HHMB4P180S	18.0	18	38	100
HHMB4P200S	20.0	18	38	100
HHMB4P220S	22.0	22	38	100
HHMB4P250S	25.0	25	38	100

