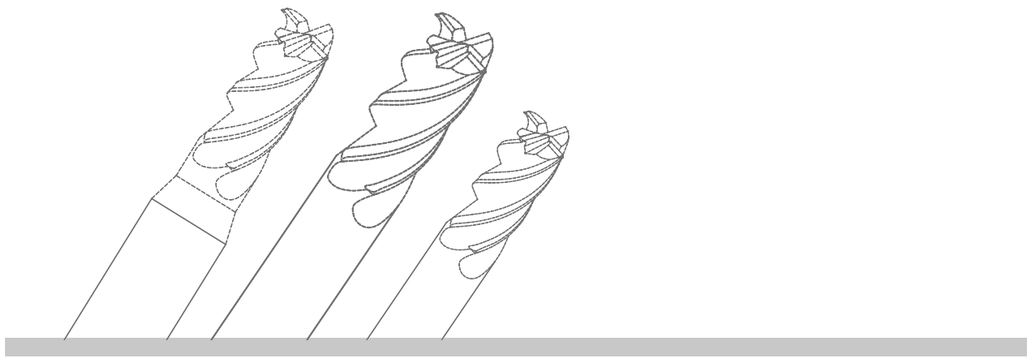
DUECI

Solid End Mill Contents

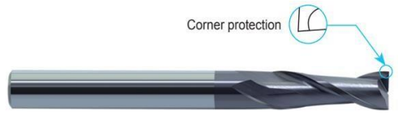






DU-2E

DU-2E 2 flute straight shank flat end mill



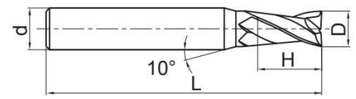


fig 1

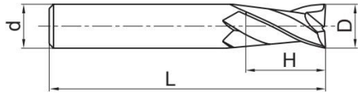


fig 2

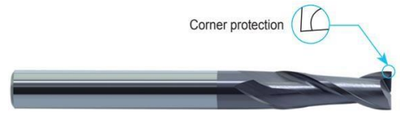
Suitable for machining side and shallow slot wide application.

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	Dimension (mm)				(z) Number of flutes	Geometry	Stock
	D	d	H	L			
DU-2E-010F	1.0	3	3	50	2	fig 1	▲
DU-2E-010S	1.0	4	3	50	2	fig 1	●
DU-2E-010	1.0	6	3	50	2	fig 1	●
DU-2E-015F	1.5	3	4	50	2	fig 1	▲
DU-2E-015S	1.5	4	4	50	2	fig 1	●
DU-2E-015	1.5	6	4	50	2	fig 1	●
DU-2E-020F	2.0	3	6	50	2	fig 1	▲
DU-2E-020S	2.0	4	6	50	2	fig 1	●
DU-2E-020	2.0	6	6	50	2	fig 1	●
DU-2E-025F	2.5	3	8	50	2	fig 1	▲
DU-2E-025S	2.5	4	8	50	2	fig 1	●
DU-2E-025	2.5	6	8	50	2	fig 1	●
DU-2E-030F	3.0	3	8	50	2	fig 2	▲
DU-2E-030S	3.0	4	8	50	2	fig 1	●
DU-2E-030	3.0	6	8	50	2	fig 1	●
DU-2E-035S	3.5	4	10	50	2	fig 1	●
DU-2E-035	3.5	6	10	50	2	fig 1	●
DU-2E-040S	4.0	4	11	50	2	fig 2	●
DU-2E-040	4.0	6	11	50	2	fig 1	●
DU-2E-045	4.5	6	11	50	2	fig 1	●
DU-2E-050	5.0	6	13	50	2	fig 1	●
DU-2E-055	5.5	6	16	50	2	fig 1	●
DU-2E-060	6.0	6	16	50	2	fig 2	●
DU-2E-070	7.0	8	20	60	2	fig 1	●
DU-2E-080	8.0	8	20	60	2	fig 2	●
DU-2E-090	9.0	10	22	75	2	fig 1	●
DU-2E-100	10.0	10	25	75	2	fig 2	●
DU-2E-110	11.0	12	26	75	2	fig 1	●
DU-2E-120	12.0	12	30	75	2	fig 2	●
DU-2E-140	14.0	14	32	75	2	fig 2	●
DU-2E-160	16.0	16	45	100	2	fig 2	●
DU-2E-180	18.0	18	45	100	2	fig 2	●
DU-2E-200	20.0	20	45	100	2	fig 2	●

DU-2EL

DU-2EL 2 flute straight shank flat end mill



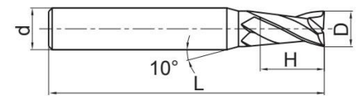


fig 1

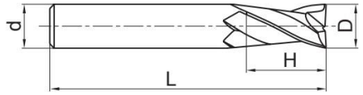


fig 2

Suitable for machining side and shallow slot wide application.

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	(mm) dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-2EL-030	3.0	6	12	75	2	fig 1	●
DU-2EL-040	4.0	6	15	75	2	fig 1	●
DU-2EL-050	5.0	6	20	75	2	fig 1	●
DU-2EL-060	6.0	6	20	75	2	fig 2	●
DU-2EL-080	8.0	8	25	100	2	fig 2	●
DU-2EL-100	10.0	10	30	100	2	fig 2	●
DU-2EL-120	12.0	12	35	100	2	fig 2	●
DU-2EL-140	14.0	14	40	100	2	fig 2	●
DU-2EL-160	16.0	16	50	150	2	fig 2	●
DU-2EL-200	20.0	20	55	150	2	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-2E/2EL Cutting Parameters

Workpiece Material	Cast Iron Nodular Cast Iron		Carbon steel Alloy steel ~750N/mm²		Carbon steel Alloy steel ~30HRC		Pre-hardened steel Hardened steel ~40HRC		Stainless steel		Pre-hardened steel Hardened steel ~50HRC	
Diameter (mm)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)
1	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
2	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
3	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
4	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
6	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
8	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
10	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
12	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420
16	3000	1050	3000	1050	2400	800	2000	600	1350	380	1600	375
20	2400	950	2400	950	1900	680	1600	560	1100	370	1250	330

DU-3E

DU-3E 3 flute straight shank flat end mill



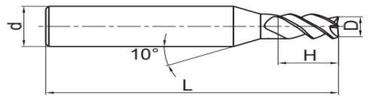


fig 1

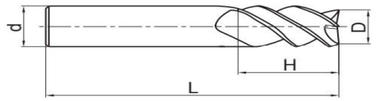


fig 2

Suitable for machining side and shallow slot wide application.



Helical angle $\angle 38°$ Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	Dimension (mm)				(z) Number of flutes	Geometry	Stock
	D	d	H	L			
DU-3E-010S	1	4	3	50	3	fig 1	▲
DU-3E-015S	1.5	4	4	50	3	fig 1	●
DU-3E-020S	2	4	6	50	3	fig 1	●
DU-3E-025S	2.5	4	8	50	3	fig 1	▲
DU-3E-030S	3	4	8	50	3	fig 1	●
DU-3E-040S	4	4	11	50	3	fig 1	●
DU-3E-010	1	6	3	50	3	fig 1	▲
DU-3E-015	1.5	6	4	50	3	fig 1	●
DU-3E-020	2	6	6	50	3	fig 1	●
DU-3E-025	2.5	6	8	50	3	fig 1	▲
DU-3E-030	3	6	8	50	3	fig 1	●
DU-3E-035	3.5	6	10	50	3	fig 1	●
DU-3E-040	4	6	11	50	3	fig 1	▲
DU-3E-045	4.5	6	11	50	3	fig 1	●
DU-3E-050	5	6	13	50	3	fig 1	●
DU-3E-055	5.5	6	16	50	3	fig 1	●
DU-3E-060	6	6	16	50	3	fig 2	●
DU-3E-070	7	8	20	60	3	fig 1	●
DU-3E-080	8	8	20	60	3	fig 2	●
DU-3E-090	9	10	22	75	3	fig 1	●
DU-3E-100	10	10	25	75	3	fig 2	●
DU-3E-110	11	12	26	75	3	fig 1	●
DU-3E-120	12	12	30	75	3	fig 2	●
DU-3E-140	14	14	32	75	3	fig 2	●
DU-3E-160	16	16	45	100	3	fig 2	●
DU-3E-180	18	18	45	100	3	fig 2	●
DU-3E-200	20	20	45	100	3	fig 2	●

DU-3EL

DU-3EL 3 flute straight shank flat end mill



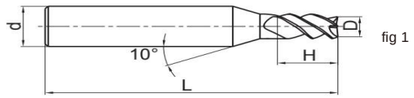


fig 1

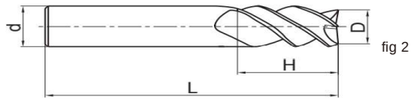


fig 2

Suitable for machining side and shallow slot wide application.



Helical angle $\angle 38°$ Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	(mm) dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-3EL-030	3.0	6	12	75	3	fig 1	●
DU-3EL-040	4.0	6	15	75	3	fig 1	●
DU-3EL-050	5.0	6	20	75	3	fig 1	●
DU-3EL-060	6.0	6	20	75	3	fig 2	●
DU-3EL-080	8.0	8	25	100	3	fig 2	●
DU-3EL-100	10.0	10	30	100	3	fig 2	●
DU-3EL-120	12.0	12	35	100	3	fig 2	●
DU-3EL-140	14.0	14	40	100	3	fig 2	●
DU-3EL-160	16.0	16	50	150	3	fig 2	●
DU-3EL-200	20.0	20	55	150	3	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-3E/3EL Cutting Parameters

Workpiece Material	Cast Iron Nodular Cast Iron		Carbon steel Alloy steel ~750N/mm²		Carbon steel Alloy steel ~30HRC		Pre-hardened steel Hardened steel ~40HRC		Stainless steel		Pre-hardened steel Hardened steel ~50HRC	
Diameter (mm)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)
1	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
2	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
3	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
4	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
6	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
8	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
10	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
12	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420
16	3000	1050	3000	1050	2400	800	2000	600	1350	380	1600	375
20	2400	950	2400	950	1900	680	1600	560	1100	370	1250	330



The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.

Please select high-precision machine and tool holder.

Please use air blow or cutting liquid with high mist retardant property.

Down milling is recommended in the case of side milling.

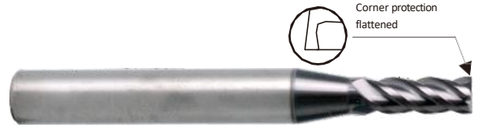
When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.

Make overhang of tool as short as possible in conditions of non-interference.



DU-4E

DU-4E 4 flute straight shank flat end mill



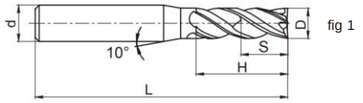


fig 1

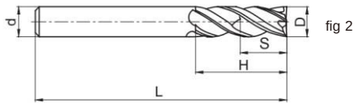


fig 2

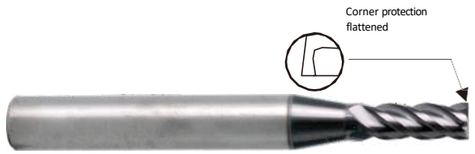
Suitable for machining side and shallow slot wide application.

Helical angle $\angle 38°$ Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

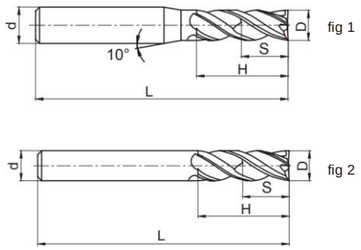
Part number	Dimension (mm)				(z) Number of flutes	Geometry	Stock
	D	d	H	L			
DU-4E-010F	1.0	3	3	50	4	fig 1	▲
DU-4E-010S	1.0	4	3	50	4	fig 1	●
DU-4E-010	1.0	6	3	50	4	fig 1	●
DU-4E-015F	1.5	3	4	50	4	fig 1	▲
DU-4E-015S	1.5	4	4	50	4	fig 1	●
DU-4E-015	1.5	6	4	50	4	fig 1	●
DU-4E-020F	2.0	3	6	50	4	fig 1	▲
DU-4E-020S	2.0	4	6	50	4	fig 1	●
DU-4E-020	2.0	6	6	50	4	fig 1	●
DU-4E-025F	2.5	3	8	50	4	fig 1	▲
DU-4E-025S	2.5	4	8	50	4	fig 1	●
DU-4E-025	2.5	6	8	50	4	fig 1	●
DU-4E-030F	3.0	3	8	50	4	fig 2	▲
DU-4E-030S	3.0	4	8	50	4	fig 1	●
DU-4E-030	3.0	6	8	50	4	fig 1	●
DU-4E-035S	3.5	4	10	50	4	fig 1	●
DU-4E-035	3.5	6	10	50	4	fig 1	●
DU-4E-040S	4.0	4	11	50	4	fig 2	●
DU-4E-040	4.0	6	11	50	4	fig 1	●
DU-4E-045	4.5	6	11	50	4	fig 1	●
DU-4E-050	5.0	6	13	50	4	fig 1	●
DU-4E-055	5.5	6	16	50	4	fig 1	●
DU-4E-060	6.0	6	16	50	4	fig 2	●
DU-4E-070	7.0	8	20	60	4	fig 1	●
DU-4E-080	8.0	8	20	60	4	fig 2	●
DU-4E-090	9.0	10	22	75	4	fig 1	●
DU-4E-100	10.0	10	25	75	4	fig 2	●
DU-4E-110	11.0	12	26	75	4	fig 1	●
DU-4E-120	12.0	12	30	75	4	fig 2	●
DU-4E-140	14.0	14	32	75	4	fig 2	●
DU-4E-160	16.0	16	45	100	4	fig 2	●
DU-4E-180	18.0	18	45	100	4	fig 2	●
DU-4E-200	20.0	20	45	100	4	fig 2	●

● Stock available ▲ Make-to-order

DU-4EL 4 flute long cutting edge flat end mill



DU-4EL long cutting edge series



Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	(mm) dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-4EL-030	3.0	6	12	75	4	fig 1	●
DU-4EL-040	4.0	6	15	75	4	fig 1	●
DU-4EL-050	5.0	6	20	75	4	fig 1	●
DU-4EL-060	6.0	6	20	75	4	fig 2	●
DU-4EL-080	8.0	8	25	100	4	fig 2	●
DU-4EL-100	10.0	10	30	100	4	fig 2	●
DU-4EL-120	12.0	12	35	100	4	fig 2	●
DU-4EL-140	14.0	14	40	100	4	fig 2	●
DU-4EL-160	16.0	16	50	150	4	fig 2	●
DU-4EL-200	20.0	20	55	150	4	fig 2	●

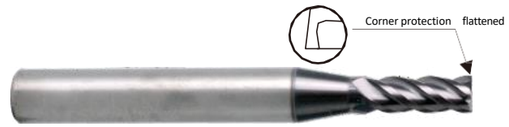
● Stock available▲ Make-to-order

DU-4E/4EL

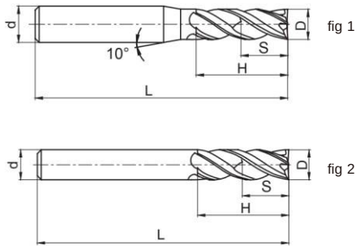
recommend cutting parameters

Workpiece material	Cast ironnodular cast		Carbon steel, Alloy steel		Carbon steel, Alloy steel		Pre-hardened steel,hardened		Stainless steel		Pre-hardened steel,hardened	
Diameter (mm)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)
1	20000	250	20000	250	20000	200	20000	200	20000	90	20000	150
2	15000	400	15000	400	15000	360	15000	350	11150	100	13000	225
3	14000	680	14000	680	13000	630	10600	525	7500	120	8500	410
4	10800	700	10800	700	10000	640	8000	535	5500	125	6500	420
5	8200	730	8200	730	7600	670	6400	560	4500	125	5000	440
6	7000	750	7000	750	6400	690	5300	575	3700	135	4200	450
8	5200	740	5200	740	4800	680	4000	565	2800	135	3200	460
10	4200	730	4200	730	3800	670	3200	560	2200	135	2500	435
12	3500	730	3500	730	3200	670	2650	560	1850	135	2100	435
14	3000	680	3000	680	2700	630	2300	525	1600	125	1800	410
16	2600	680	2600	680	2400	630	2000	525	1400	120	1600	410
18	2300	670	2300	670	2100	620	1800	515	1250	105	1400	405
20	2050	670	2050	670	1900	620	1600	515	1100	105	1250	405

DU-4EX 4 flute extra long cutting edge flat end mill



DU-4EX extra long cutting edge series, Suitable for deep side machining.



Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

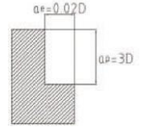
part number	Dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-4EX-030	3.0	6	20	75	4	fig 1	▲
DU-4EX-040	4.0	6	25	75	4	fig 1	▲
DU-4EX-050	5.0	6	30	75	4	fig 1	▲
DU-4EX-060	6.0	6	30	75	4	fig 2	▲
DU-4EX-080	8.0	8	40	100	4	fig 2	▲
DU-4EX-100	10.0	10	50	110	4	fig 2	▲
DU-4EX-120	12.0	12	50	110	4	fig 2	▲
DU-4EX-160	16.0	16	70	150	4	fig 2	▲
DU-4EX-200	20.0	20	75	150	4	fig 2	▲

Workpiece material (suitable、◎very suitable)

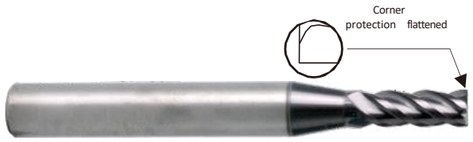
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-4EX

recommend cutting parameters

Workpiece material	Cast ironnodular cast		Carbon steel, Alloy steel ~750N/mm2		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel,hardened and tempered steel ~40HRC		Stainless steel		Pre-hardened steel,hardened and tempered steel ~50HRC	
Diameter (mm)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)
6	5800	475	5800	475	5300	430	4250	340	2650	70	3600	290
8	4400	475	4400	475	4000	430	3180	340	2000	70	2700	290
10	3500	460	3500	460	3200	420	2550	330	1600	70	2150	280
12	2900	460	2900	460	2650	420	2120	330	1350	70	1800	280
16	2200	430	2200	430	2000	390	1590	315	1000	65	1350	260
20	1750	430	1750	430	1600	385	1270	310	800	60	1050	255
max.cutting depth												

DU-4D Sharp flattened 4 flute straight shank flat end mill



Suitable for side milling and shallow slot machining.

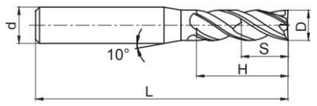


fig 1

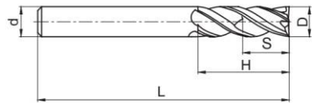


fig 2

Helical angle $\angle 38°$ Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

Part number	Dimension (mm)				(z) Number of flutes	Geometry	Stock
	D	d	H	L			
DU-4D-010S	1.0	4	3	50	4	fig 1	▲
DU-4D-010	1.0	6	3	50	4	fig 1	▲
DU-4D-015S	1.5	4	4	50	4	fig 1	▲
DU-4D-015	1.5	6	4	50	4	fig 1	▲
DU-4D-020S	2.0	4	6	50	4	fig 1	▲
DU-4D-020	2.0	6	6	50	4	fig 1	▲
DU-4D-025S	2.5	4	8	50	4	fig 1	▲
DU-4D-025	2.5	6	8	50	4	fig 1	▲
DU-4D-030S	3.0	4	8	50	4	fig 1	▲
DU-4D-030	3.0	6	8	50	4	fig 1	▲
DU-4D-035	3.5	6	10	50	4	fig 1	▲
DU-4D-040S	4.0	4	11	50	4	fig 2	●
DU-4D-040	4.0	6	11	50	4	fig 1	▲
DU-4D-045	4.5	6	11	50	4	fig 1	▲
DU-4D-050	5.0	6	13	50	4	fig 1	▲
DU-4D-055	5.5	6	16	50	4	fig 1	▲
DU-4D-060	6.0	6	16	50	4	fig 2	●
DU-4D-070	7.0	8	20	60	4	fig 1	▲
DU-4D-080	8.0	8	20	60	4	fig 2	●
DU-4D-090	9.0	10	22	75	4	fig 1	▲
DU-4D-100	10.0	10	25	75	4	fig 2	●
DU-4D-110	11.0	12	26	75	4	fig 1	▲
DU-4D-120	12.0	12	30	75	4	fig 2	●
DU-4D-140	14.0	14	32	75	4	fig 2	▲
DU-4D-160	16.0	16	45	100	4	fig 2	●
DU-4D-180	18.0	18	45	100	4	fig 2	▲
DU-4D-200	20.0	20	45	100	4	fig 2	▲

● Stock available▲ Make-to-order

Workpiece material (o suitable、◎very suitable)

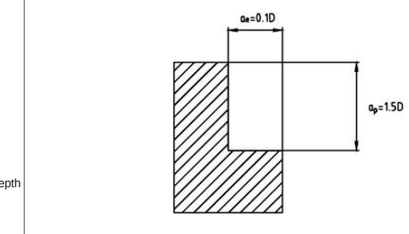
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	o		o	◎				

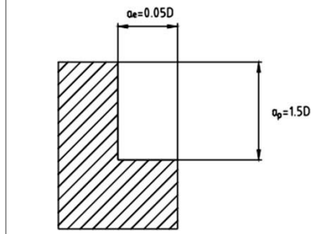
DU-4D

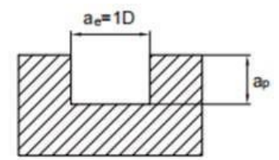
recommend cutting parameters

Workpiece material	Cast ironnodular cast		Carbon steel, Alloy steel ~750N/mm2		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel,hardened and tempered steel ~40HRC		Stainless steel		Pre-hardened steel,hardened and tempered steel ~50HRC	
Diameter (mm)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)	Rotating speed (min⁻¹)	Feedspeed (mm/ min)
1	20000	160	20000	160	20000	125	20000	125	20000	55	20000	95
2	15000	250	15000	250	15000	230	15000	230	11150	65	13000	140
3	14000	430	14000	430	13000	400	10600	400	7500	80	8500	260
4	10800	440	10800	440	10000	400	8000	400	5500	80	6500	265
5	8200	460	8200	460	7600	420	6400	420	4500	80	5000	280
6	7000	470	7000	470	6400	435	5300	435	3700	85	4200	285
8	5200	465	5200	465	4800	430	4000	430	2800	85	3200	290
10	4200	460	4200	460	3800	420	3200	420	2200	85	2500	275
12	3500	460	3500	460	3200	420	2650	420	1850	80	2100	275
14	3000	430	3000	430	2700	400	2300	400	1600	80	1800	260
16	2600	430	2600	430	2400	400	2000	400	1400	80	1600	260
18	2300	420	2300	420	2100	390	1800	390	1250	70	1400	255
20	2050	420	2050	420	1900	390	1600	390	1100	70	1250	255

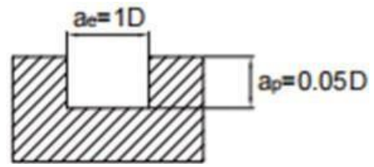
max.cutting depth







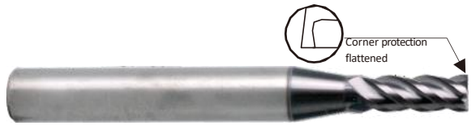
Diameter	Ap
Φ1≤D≤Φ3	0.15D
Φ3≤D	0.3D



1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

DU-4EH/G

DU-4EH/G 4 flute long shank/ extra long shank flat end mill



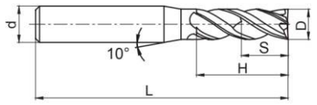


fig 1

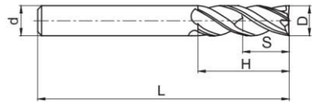


fig 2

DU-4E long and extra long shank series for deep cavity milling.

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

part number	dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-4EH-030S	3.0	4	8	75	4	fig 1	▲
DU-4EH-030	3.0	6	8	75	4	fig 1	▲
DU-4EH-040S	4.0	4	11	75	4	fig 2	▲
DU-4EH-040	4.0	6	11	75	4	fig 1	▲
DU-4EH-060	6.0	6	16	75	4	fig 2	▲
DU-4EG-060	6.0	6	16	100	4	fig 2	▲
DU-4EH-080	8.0	8	20	75	4	fig 2	▲
DU-4EG-080	8.0	8	20	100	4	fig 2	▲
DU-4EH-100	10.0	10	25	100	4	fig 2	▲
DU-4EG-100	10.0	10	25	150	4	fig 2	▲
DU-4EH-120	12.0	12	30	100	4	fig 2	▲
DU-4EG-120	12.0	12	30	150	4	fig 2	▲

• Stock available▲ Make-to-order

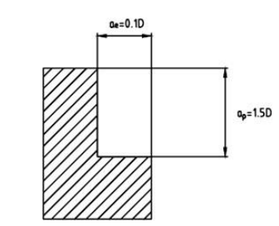
Workpiece material (○ suitable、◎very suitable)

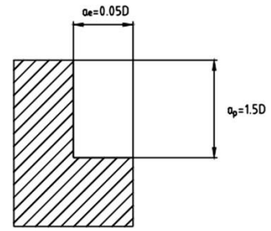
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

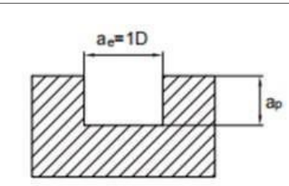
DU-4EH/G
recommend cutting parameters

Workpiece material	Cast ironnodular cast		Carbon steel, Alloy steel ~750N/mm2		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel,hardened and tempered steel ~40HRC		Stainless steel		Pre-hardened steel,hardened and tempered steel ~50HRC	
Diameter (mm)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)
1	20000	250	20000	250	20000	200	20000	200	20000	90	20000	150
2	15000	400	15000	400	15000	360	15000	350	11150	100	13000	225
3	14000	680	14000	680	13000	630	10600	525	7500	120	8500	410
4	10800	700	10800	700	10000	640	8000	535	5500	125	6500	420
5	8200	730	8200	730	7600	670	6400	560	4500	125	5000	440
6	7000	750	7000	750	6400	690	5300	575	3700	135	4200	450
8	5200	740	5200	740	4800	680	4000	565	2800	135	3200	460
10	4200	730	4200	730	3800	670	3200	560	2200	135	2500	435
12	3500	730	3500	730	3200	670	2650	560	1850	135	2100	435

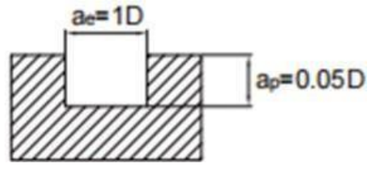
max.cutting depth







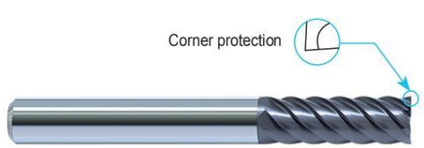
Φ1≤D≤Φ3	0.15D
Φ3≤D	0.3D



1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

DU-6E

DU-6E 6 flute long shank/ extra long shank flat end mill



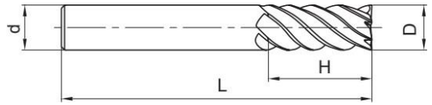


fig 1

DU-6E long and extra long shank series for deep cavity milling.

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

part number	dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-6E-060	6.0	6.0	18	60	6	fig 1	▲
DU-6E-080	8.0	8.0	20	60	6	fig 1	▲
DU-6E-100	10.0	10.0	30	75	6	fig 1	▲
DU-6E-120	12.0	12.0	32	75	6	fig 1	▲
DU-6E-160	16.0	16.0	40	100	6	fig 1	▲
DU-6E-200	20.0	20.0	45	100	6	fig 1	▲

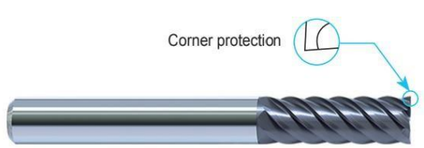
• Stock available▲ Make-to-order

Workpiece material (○ suitable、◎very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-6EL

DU-6EL 6 flute long shank/ extra long shank flat end mill



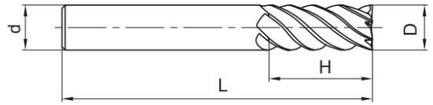


fig 1

DU-6E long and extra long shank series for deep cavity milling.

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D6\sim D14_{-0.025}^{0}$ / $D15\sim D20_{-0.03}^{0}$

part number	dimension (mm)				(z) Number of flutes	Geometry	stock
	D	d	H	L			
DU-6EL-060	6.0	6.0	24	75	6	fig 1	▲
DU-6EL-080	8.0	8.0	32	75	6	fig 1	▲
DU-6EL-100	10.0	10.0	40	100	6	fig 1	▲
DU-6EL-120	12.0	12.0	45	100	6	fig 1	▲
DU-6EL-160	16.0	16.0	64	150	6	fig 1	▲
DU-6EL-200	20.0	20.0	75	150	6	fig 1	▲

• Stock available▲ Make-to-order

DU-6E/6EL Cutting Parameters

Workpiece Material	Cast Iron Nodular Cast Iron		Carbon steel Alloy steel ~750N/mm²		Carbon steel Alloy steel ~30HRC		Pre-hardened steel Hardened steel ~40HRC		Stainless steel		Pre-hardened steel Hardened steel ~50HRC	
Diameter (mm)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)
6	7000	750	7000	750	6400	690	5300	575	3700	135	4200	450
8	5200	740	5200	740	4800	680	4000	565	2800	135	3200	460
10	4200	730	4200	730	3800	670	3200	560	2200	135	2500	435
12	3500	730	3500	730	3200	670	2650	560	1850	135	2100	435
16	2600	680	2600	680	2400	630	2000	525	1400	120	1600	410
20	2050	670	2050	670	1900	620	1600	515	1100	105	1250	405

DU-2R

DU-2R 2 flute Corner RadiusEnd Mills



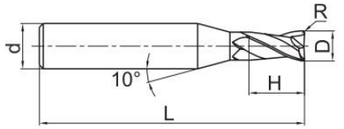


fig 1

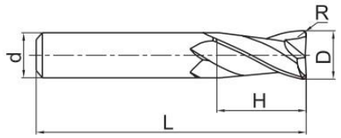


fig 2

Excellent vibration resistance, able to achieve various processing of slot milling, side milling, drilling and milling

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D7\sim D20_{-0.025}^{0}$ Radius R tolerance ±0.02



Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DU-2R-010R0.2S	1	0.2	4	3	50	2	fig 1	▲
DU-2R-015R0.2S	1.5	0.2	4	4	50	2	fig 1	●
DU-2R-020R0.2S	2	0.2	4	6	50	2	fig 1	●
DU-2R-020R0.5S	2	0.5	4	6	50	2	fig 1	▲
DU-2R-025R0.2S	2.5	0.2	4	8	50	2	fig 1	●
DU-2R-025R0.5S	2.5	0.5	4	8	50	2	fig 1	●
DU-2R-030R0.2S	3	0.2	4	8	50	2	fig 1	▲
DU-2R-030R0.3S	3	0.3	4	8	50	2	fig 1	●
DU-2R-030R0.5S	3	0.5	4	8	50	2	fig 1	●
DU-2R-040R0.2S	4	0.2	4	11	50	2	fig 2	▲
DU-2R-040R0.3S	4	0.3	4	11	50	2	fig 2	●
DU-2R-040R0.5S	4	0.5	4	11	50	2	fig 2	●
DU-2R-040R1.0S	4	1	4	11	50	2	fig 2	▲
DU-2R-050R0.3	5	0.3	6	13	50	2	fig 1	●
DU-2R-050R0.5	5	0.5	6	13	50	2	fig 1	●
DU-2R-050R1.0	5	1	6	13	50	2	fig 1	●
DU-2R-060R0.3	6	0.3	6	16	50	2	fig 2	●
DU-2R-060R0.5	6	0.5	6	16	50	2	fig 2	●
DU-2R-060R1.0	6	1	6	16	50	2	fig 2	●
DU-2R-080R0.3	8	0.3	8	20	60	2	fig 2	●
DU-2R-080R0.5	8	0.5	8	20	60	2	fig 2	●
DU-2R-080R1.0	8	10	8	20	60	2	fig 2	●
DU-2R-100R0.5	10.0	0.5	10.0	25	75	2	fig 2	●
DU-2R-100R1.0	10.0	1	10.0	25	75	2	fig 2	●
DU-2R-100R1.5	10.0	1.5	10.0	25	75	2	fig 2	●
DU-2R-100R2.0	10.0	2	10.0	25	75	2	fig 2	●
DU-2R-120R0.5	12.0	0.5	12.0	30	75	2	fig 2	●
DU-2R-120R1.0	12.0	1	12.0	30	75	2	fig 2	●
DU-2R-120R1.5	12.0	1.5	12.0	30	75	2	fig 2	●
DU-2R-120R2.0	12.0	2	12.0	30	75	2	fig 2	●

DU-2RH/L

DU-2R 2 flute Corner RadiusEnd Mills



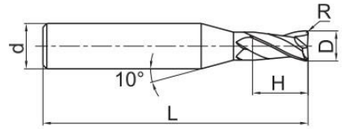


fig 1

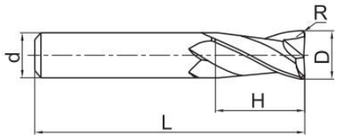


fig 2

Excellent vibration resistance, able to achieve various processing of slot milling, side milling, drilling and milling

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D7\sim D20_{-0.025}^{0}$ Radius R tolerance ±0.02

Part number	(mm) dimension (mm)					(z) Number of flutes	Geometry	stock
	D	R	d	H	L			
DU-2RH-060R0.5	6	0.5	6	16	75	2	fig 2	●
DU-2RH-060R1.0	6	1	6	16	75	2	fig 2	●
DU-2RH-100R0.5	10	0.5	10	25	100	2	fig 2	●
DU-2RH-100R1.0	10	1	10	25	100	2	fig 2	●
DU-2RH-100R2.0	10	2	10	25	100	2	fig 2	●
DU-2RH-120R0.5	12	0.5	12	30	100	2	fig 2	●
DU-2RH-120R1.0	12	1	12	30	100	2	fig 2	●
DU-2RH-120R2.0	12	2	12	30	100	2	fig 2	●

Part number	(mm) dimension (mm)					(z) Number of flutes	Geometry	stock
	D	R	d	H	L			
DU-2RG-080R0.5	8	0.5	8	20	100	2	fig 2	●
DU-2RG-080R1.0	8	1	8	20	100	2	fig 2	●
DU-2RG-100R0.5	10	0.5	10	25	150	2	fig 2	●
DU-2RG-100R1.0	10	1	10	25	150	2	fig 2	●
DU-2RG-100R2.0	10	2	10	25	150	2	fig 2	●
DU-2RG-120R0.5	12	0.5	12	30	150	2	fig 2	●
DU-2RG-120R1.0	12	1	12	30	150	2	fig 2	●
DU-2RG-120R2.0	12	2	12	30	150	2	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-2R/2RH/2RG Cutting Parameters

Workpiece Material	Cast Iron Nodular Cast Iron		Carbon steel Alloy steel ~750N/mm²		Carbon steel Alloy steel ~30HRC		Pre-hardened steel Hardened steel ~40HRC		Stainless steel		Pre-hardened steel Hardened steel ~50HRC	
Diameter (mm)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)	Rotating Speed (min⁻¹)	Feed Speed (mm/min)
1	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
2	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
3	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
4	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
6	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
8	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
10	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
12	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420

- The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property. Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.



DU-4R

DU-4R 4 flutes straight shank corner radius end mill

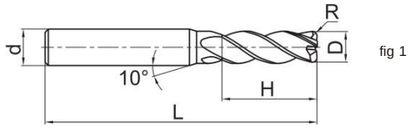


fig 1

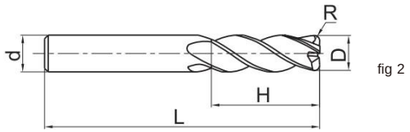


fig 2



Wide range of applications,able to achieve a variety of forms of processing

Helical angle ∠38° Diameter tolerance $D1\sim D6_{-0.02}^{0}$ / $D7\sim D20_{-0.025}^{0}$ Radius R tolerance ±0.02



Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DU-4R-010R0.2S	1.0	0.2	4	3	50	4	fig 1	▲
DU-4R-015R0.2S	1.5	0.2	4	4	50	4	fig 1	▲
DU-4R-020R0.2S	2.0	0.2	4	6	50	4	fig 1	▲
DU-4R-020R0.5S	2.0	0.5	4	6	50	4	fig 1	▲
DU-4R-025R0.2S	2.5	0.2	4	8	50	4	fig 1	▲
DU-4R-025R0.5S	2.5	0.5	4	8	50	4	fig 1	▲
DU-4R-030R0.2S	3.0	0.2	4	8	50	4	fig 1	●
DU-4R-030R0.5S	3.0	0.5	4	8	50	4	fig 1	●
DU-4R-040R0.2S	4.0	0.2	4	11	50	4	fig 2	●
DU-4R-040R0.3S	4.0	0.3	4	11	50	4	fig 2	●
DU-4R-040R0.5	4.0	0.5	6	11	50	4	fig 2	●
DU-4R-040R0.5S	4.0	0.5	4	11	50	4	fig 2	●
DU-4R-050R0.2	5.0	0.2	6	13	50	4	fig 2	●
DU-4R-050R0.5	5.0	0.5	6	13	50	4	fig 1	●
DU-4R-050R1.0	5.0	1.0	6	13	50	4	fig 1	●
DU-4R-060R0.2	6.0	0.2	6	16	50	4	fig 1	●
DU-4R-060R0.3	6.0	0.3	6	16	50	4	fig 2	●
DU-4R-060R0.5	6.0	0.5	6	16	50	4	fig 2	●
DU-4R-060R1.0	6.0	1.0	6	16	50	4	fig 2	●
DU-4R-080R0.3	8.0	0.3	8	20	60	4	fig 2	●
DU-4R-080R0.5	8.0	0.5	8	20	60	4	fig 2	●
DU-4R-080R1.0	8.0	1.0	8	20	60	4	fig 2	●
DU-4R-100R0.3	10.0	0.3	10	25	75	4	fig 2	●
DU-4R-100R0.5	10.0	0.5	10	25	75	4	fig 2	●
DU-4R-100R1.0	10.0	1.0	10	25	75	4	fig 2	●
DU-4R-100R2.0	10.0	2.0	10	25	75	4	fig 2	●
DU-4R-100R3.0	10.0	3.0	10	25	75	4	fig 2	●
DU-4R-120R0.3	12.0	0.3	12	30	75	4	fig 2	●
DU-4R-120R0.5	12.0	0.5	12	30	75	4	fig 2	●
DU-4R-120R1.0	12.0	1.0	12	30	75	4	fig 2	●
DU-4R-120R2.0	12.0	2.0	12	30	75	4	fig 2	●
DU-4R-120R3.0	12.0	3.0	12	30	75	4	fig 2	●

● Stock available ▲Make-to-order

DU-4RH/G

DU-4RH/G 4 flutes long shank /extra long shank corner radius end mill



DU-4R long shank/extra shank series.

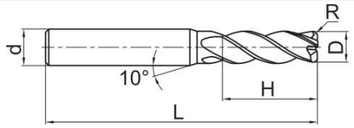


fig 1

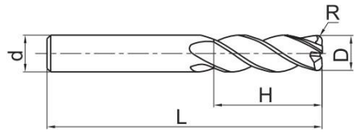


fig 2

Helical angle $\angle 38°$ Diameter tolerance $D1\sim D6\ ^{0}_{-0.02}$ / $D7\sim D20\ ^{0}_{-0.025}$ Radius R tolerance ± 0.02



Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DU-4RH-040R0.2S	4.0	0.2	4	10	75	4	fig 2	●
DU-4RH-040R0.2	4.0	0.2	6	10	75	4	fig 1	●
DU-4RH-040R0.5S	4.0	0.5	4	10	75	4	fig 2	●
DU-4RH-040R0.5	4.0	0.5	6	10	75	4	fig 1	●
DU-4RH-060R0.2	6.0	0.2	6	16	75	4	fig 2	●
DU-4RG-060R0.2	6.0	0.2	6	16	100	4	fig 2	●
DU-4RH-060R0.5	6.0	0.5	6	16	75	4	fig 2	●
DU-4RG-060R0.5	6.0	0.5	6	16	100	4	fig 2	●
DU-4RH-060R1.0	6.0	1.0	6	16	75	4	fig 2	●
DU-4RG-060R1.0	6.0	1.0	6	16	100	4	fig 2	●
DU-4RH-080R0.2	8.0	0.2	8	20	75	4	fig 2	●
DU-4RG-080R0.2	8.0	0.2	8	20	100	4	fig 2	●
DU-4RH-080R0.5	8.0	0.5	8	20	75	4	fig 2	●
DU-4RG-080R0.5	8.0	0.5	8	20	100	4	fig 2	●
DU-4RH-080R1.0	8.0	1.0	8	20	75	4	fig 2	●
DU-4RG-080R1.0	8.0	1.0	8	20	100	4	fig 2	●
DU-4RH-100R0.2	10.0	0.2	10	25	100	4	fig 2	●
DU-4RG-100R0.2	10.0	0.2	10	25	150	4	fig 2	●
DU-4RH-100R0.5	10.0	0.5	10	25	100	4	fig 2	●
DU-4RG-100R0.5	10.0	0.5	10	25	150	4	fig 2	●
DU-4RH-100R1.0	10.0	1.0	10	25	100	4	fig 2	●
DU-4RG-100R1.0	10.0	1.0	10	25	150	4	fig 2	●
DU-4RH-100R2.0	10.0	2.0	10	25	100	4	fig 2	●
DU-4RG-100R2.0	10.0	2.0	10	25	150	4	fig 2	●
DU-4RH-120R0.2	12.0	0.2	12	30	100	4	fig 2	●
DU-4RG-120R0.2	12.0	0.2	12	30	150	4	fig 2	●
DU-4RH-120R0.5	12.0	0.5	12	30	100	4	fig 2	●
DU-4RG-120R0.5	12.0	0.5	12	30	150	4	fig 2	●
DU-4RH-120R1.0	12.0	1.0	12	30	100	4	fig 2	●
DU-4RG-120R1.0	12.0	1.0	12	30	150	4	fig 2	●
DU-4RH-120R2.0	12.0	2.0	12	30	100	4	fig 2	●
DU-4RG-120R2.0	12.0	2.0	12	30	150	4	fig 2	●

● Stock available▲ Make-to-order

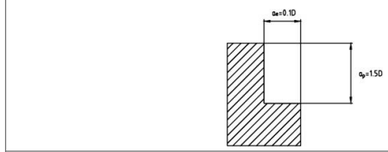
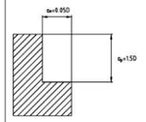
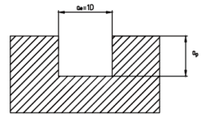
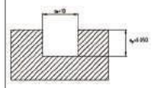
DUECI Solid End Mill Contents General purpose series

Workpiece material (○ suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DU-4R

recommend cutting parameters

Workpiece material	Cast ironnodular cast		Carbon steel, Alloy steel ~750N/mm2		Carbon steel, Alloy steel ~30HRC		Pre-hardened steel,hardened and tempered steel ~40HRC		Stainless steel		Pre-hardened steel,hardened and tempered steel ~50HRC	
Diameter (mm)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)
3	14000	820	14000	820	13000	755	10600	630	7500	145	8500	490
4	10800	840	10800	840	10000	770	8000	640	5500	145	6500	500
5	8200	880	8200	880	7600	810	6400	670	4500	145	5000	530
6	7000	900	7000	900	6400	830	5300	690	3700	160	4200	540
8	5200	890	5200	890	4800	815	4000	680	2800	160	3200	550
10	4200	880	4200	880	3800	810	3200	670	2200	160	2500	520
12	3500	880	3500	880	3200	810	2650	670	1850	160	2100	520
16	2600	680	2600	680	2400	630	2000	525	1400	120	1600	490
max.cutting depth												
												

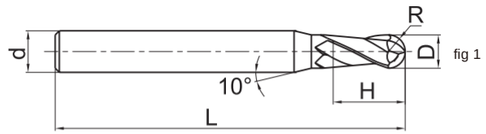
Diameter	Ap
Φ1≤D≤Φ3	0.15D
Φ3≤D	0.3D

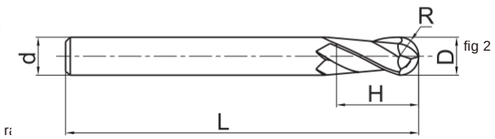
1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air cooling or liquid cooing (Smoke-resistant cutting fluid).
4. Climb cutting is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

DR-2B

DR-2B 2 flutes straight shank ball head end mill







Suitable for profile milling, and high speed machining, with wide ra

Helical angle ∠30° Diameter tolerance $D\ ^{0}_{-0.02}$ $R\pm0.005$

Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DR-2B-010R0.5S	1	0.5	4	2	50	2	fig 1	▲
DR-2B-010R0.5	1	0.5	6	2	50	2	fig 1	▲
DR-2B-015R0.75S	1.5	0.75	4	3	50	2	fig 1	▲
DR-2B-015R0.75	1.5	0.75	6	3	50	2	fig 1	▲
DR-2B-020R1.0F	2	1	3	4	50	2	fig 1	▲
DR-2B-020R1.0S	2	1	4	4	50	2	fig 1	▲
DR-2B-020R1.0	2	1	6	4	50	2	fig 1	▲
DR-2B-025R1.25F	2.5	1.25	3	5	50	2	fig 1	▲
DR-2B-025R1.25S	2.5	1.25	4	5	50	2	fig 1	▲
DR-2B-025R1.25	2.5	1.25	6	5	50	2	fig 1	▲
DR-2B-030R1.5F	3	1.5	3	6	50	2	fig 2	▲
DR-2B-030R1.5S	3	1.5	4	6	50	2	fig 1	●
DR-2B-030R1.5	3	1.5	6	6	50	2	fig 1	●
DR-2B-035R1.75S	3.5	1.75	4	8	50	2	fig 1	●
DR-2B-035R1.75	3.5	1.75	6	8	50	2	fig 1	●
DR-2B-040R2.0S	4	2	4	8	50	2	fig 2	●
DR-2B-040R2.0	4	2	6	8	50	2	fig 1	●
DR-2B-050R2.5	5	2.5	6	10	50	2	fig 1	●
DR-2B-055R2.75	5.5	2.75	6	12	50	2	fig 1	●
DR-2B-060R3.0	6	3	6	12	50	2	fig 2	●
DR-2B-070R3.5	7	3.5	8	14	60	2	fig 1	●
DR-2B-080R4.0	8	4	8	16	60	2	fig 2	●
DR-2B-090R4.5	9	4.5	10	18	75	2	fig 1	●
DR-2B-100R5.0	10	5	10	20	75	2	fig 2	●
DR-2B-120R6.0	12	6	12	24	75	2	fig 2	●
DR-2B-140R7.0	14	7	14	28	75	2	fig 2	●
DR-2B-160R8.0	16	8	16	32	100	2	fig 2	●
DR-2B-200R10.0	20	10	20	40	100	2	fig 2	●

● Stock available ▲ Make-to-order

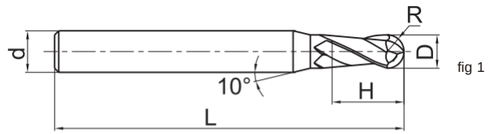
Workpiece material (○suitable、◎ very suitable)

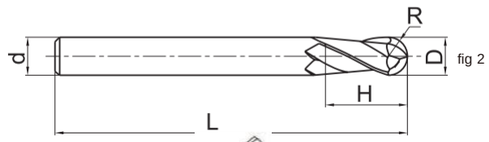
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DR-2BH/G

DR-2BH/G 2 flutes long shank/extra long shank ball head end mill







DR-2B long shank and extra long shank series

Helical angle ∠30° Diameter tolerance $D\ ^{0}_{-0.02}$ $R\pm0.005$

Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DR-2BH-020R1.0S	2	1	4	4	75	2	fig 1	●
DR-2BH-020R1.0	2	1	6	4	75	2	fig 1	●
DR-2BH-025R1.25S	2.5	1.25	4	5	75	2	fig 1	●
DR-2BH-025R1.25	2.5	1.25	6	5	75	2	fig 1	●
DR-2BH-030R1.5S	3	1.5	4	6	75	2	fig 1	●
DR-2BH-030R1.5	3	1.5	6	6	75	2	fig 1	●
DR-2BH-035R1.75S	3.5	1.75	4	8	75	2	fig 1	●
DR-2BH-035R1.75	3.5	1.75	6	8	75	2	fig 1	●
DR-2BH-040R2.0S	4	2	4	8	75	2	fig 2	●
DR-2BH-040R2.0	4	2	6	8	75	2	fig 1	●
DR-2BH-050R2.5	5	2.5	6	10	75	2	fig 1	●
DR-2BH-055R2.75	5.5	2.75	6	12	75	2	fig 1	●
DR-2BH-060R3.0	6	3	6	12	75	2	fig 2	●
DR-2BG-060R3.0	6	3	6	12	100	2	fig 2	●
DR-2BH-070R3.5	7	3.5	8	14	75	2	fig 1	●
DR-2BH-080R4.0	8	4	8	16	75	2	fig 2	●
DR-2BG-080R4.0	8	4	8	16	100	2	fig 2	●
DR-2BH-090R4.5	9	4.5	10	18	100	2	fig 1	●
DR-2BH-100R5.0	10	5	10	20	100	2	fig 2	●
DR-2BG-100R5.0	10	5	10	20	150	2	fig 2	●
DR-2BH-120R6.0	12	6	12	24	100	2	fig 2	●
DR-2BG-120R6.0	12	6	12	24	150	2	fig 2	●
DR-2BH-140R7.0	14	7	14	28	100	2	fig 2	●
DR-2BH-160R8.0	16	8	16	32	150	2	fig 2	●
DR-2BH-200R10.0	20	10	20	40	150	2	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

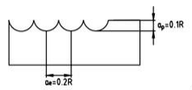
DR-2BH/G

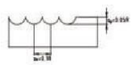
DR-2BH/G 2 flutes long shank/extra long shank ball head end mill

DR-2BH/G
recommend cutting parameters

Workpiece materia	Cast ironnodular cast		Carbon steel, Alloy stee ~750N/mm2		Carbon steel, Alloy stee ~30HRC		Pre-hardenedsteel,hardened and tempered steel ~40HRC		Stainless steel		Pre-hardened steel,hardened and tempered steel ~50HRC	
Diameter (mm)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)	Rotating speed (min^{-1})	Feedspeed (mm/min)
R0.5	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
R1.0	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
R1.5	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
R2.0	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
R2.5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
R3.0	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
R4.0	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
R5.0	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
R6.0	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420
R8.0	3000	1050	3000	1050	2400	800	2000	600	1350	380	1600	375
R10.0	2400	950	2400	950	1900	680	1600	560	1100	370	1250	330

max.cutting depth





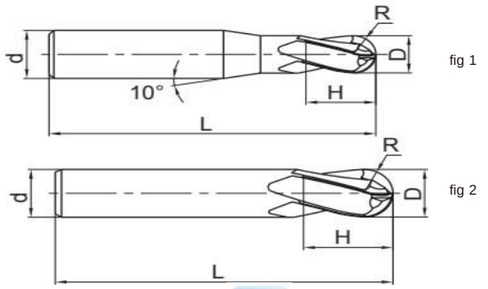
1. Please select high-precision machine and tool holder.
2. Please use air cooling or liquid cooing (Smoke-resistant cutting fluid).
3. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
4. Make overhang of tool as short as possible in conditions of non-interference.

DR-4B

DR-4B 4 flutes long shank/extra long shank ball head end mill



DR-4B long shank and extra long shank series



Helical angle $\angle 30^\circ$ Diameter tolerance $D\ ^{0}_{-0.02}$ $R \pm 0.005$

Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DR-4B-030R1.5	3	1.5	6	6	50	4	fig 1	●
DR-4B-040R2.0	4	2	6	8	50	4	fig 1	●
DR-4B-050R2.5	5	2.5	6	10	50	4	fig 1	●
DR-4B-060R3.0	6	3	6	12	50	4	fig 2	●
DR-4B-070R3.5	7	3.5	8	14	60	4	fig 1	●
DR-4B-080R4.0	8	4	8	16	60	4	fig 2	●
DR-4B-090R4.5	9	4.5	10	18	75	4	fig 1	●
DR-4B-100R5.0	10	5	10	20	75	4	fig 2	●
DR-4B-120R6.0	12	6	12	24	75	4	fig 2	●
DR-4B-140R7.0	14	7	14	28	75	4	fig 2	●
DR-4B-160R8.0	16	8	16	32	100	4	fig 2	●
DR-4B-200R10.0	20	10	20	40	100	4	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DR-4BL

DR-4BL 4 flutes long shank/extra long shank ball head end mill



DR-4BL long shank and extra long shank series

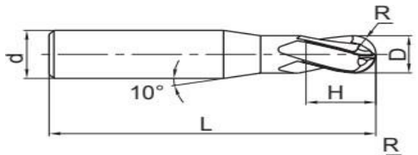


fig 1

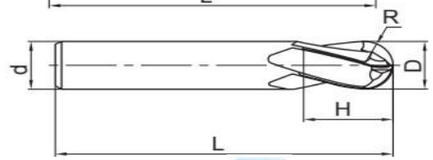


fig 2

Helical angle ∠30°

Diameter tolerance $D\ ^{0}_{-0.02}$

$R \pm 0.005$

Part number	Dimension (mm)					(z) Number of flutes	Geometry	Stock
	D	R	d	H	L			
DR-4BL-030R1.5	3	1.5	6	6	75	4	fig 1	●
DR-4BL-040R2.0	4	2	6	8	75	4	fig 1	●
DR-4BL-050R2.5	5	2.5	6	10	75	4	fig 1	●
DR-4BL-060R3.0	6	3	6	12	75	4	fig 2	●
DR-4BG-080R4.0	8	4	8	16	100	4	fig 2	●
DR-4BL-090R4.5	9	4.5	10	18	100	4	fig 1	●
DR-4BL-100R5.0	10	5	10	20	100	4	fig 2	●
DR-4BL-120R6.0	12	6	12	24	100	4	fig 2	●
DR-4BL-140R7.0	14	7	14	28	100	4	fig 2	●
DR-4BL-160R8.0	16	8	16	32	150	4	fig 2	●
DR-4BL-200R10.0	20	10	20	40	150	4	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎	○		○	◎				

DR-4B/4BL Cutting Parameters

Workpiece Material	Cast Iron Nodular Cast Iron		Carbon steel Alloy steel ~750N/mm²		Carbon steel Alloy steel ~30HRC		Pre-hardened steel Hardened steel ~40HRC		Stainless steel		Pre-hardened steel Hardened steel ~50HRC	
Diameter (mm)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)
R1.5	14000	680	14000	680	13000	630	10600	525	7500	120	8500	410
R2.0	10800	700	10800	700	10000	640	8000	535	5500	125	6500	420
R2.5	8200	730	8200	730	7600	670	6400	560	4500	125	5000	440
R3.0	7000	750	7000	750	6400	690	5300	575	3700	135	4200	450
R4.0	5200	740	5200	740	4800	680	4000	565	2800	135	3200	460
R5.0	4200	730	4200	730	3800	670	3200	560	2200	135	2500	435
R6.0	3500	730	3500	730	3200	670	2650	560	1850	135	2100	435
R8.0	2600	680	2600	680	2400	630	2000	525	1400	120	1600	410
R10.0	2050	670	2050	670	1900	620	1600	515	1100	105	1250	405

- Please select high-precision machine and tool holder.
- Please use air cooling or liquid cooing (Smoke-resistant cutting fluid).
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.



DC-2E

DC-2E 2-Flute Straight Shank Flat End Mill aluminum



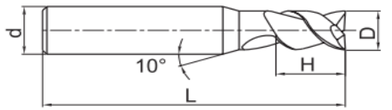


fig 1

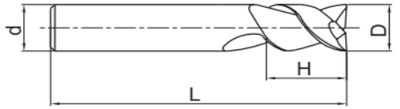


fig 2

Good chip removal performance, high machining efficiency.







TYPE	BASIC DIMENSION（mm）				NUMBER	GEOMETRY	STOCK
	D	d	H	L	Z		
DC-2E-010S	1	4	3	50	2	Fig 1	●
DC-2E-015S	1.5	4	4	50	2	Fig 1	●
DC-2E-020S	2	4	6	50	2	Fig 1	●
DC-2E-025S	2.5	4	8	50	2	Fig 1	●
DC-2E-030S	3	4	9	50	2	Fig 1	●
DC-2E-030	3	6	9	50	2	Fig 1	●
DC-2E-035S	3.5	4	10	50	2	Fig 1	●
DC-2E-040S	4	4	10	50	2	Fig 1	●
DC-2E-040	4	6	12	50	2	Fig 1	●
DC-2E-045	4.5	6	11	50	2	Fig 1	●
DC-2E-050	5	6	13	50	2	Fig 1	●
DC-2E-055	5.5	6	14	50	2	Fig 1	●
DC-2E-060	6	6	16	50	2	Fig 2	●
DC-2E-070	7	8	18	60	2	Fig 2	●
DC-2E-080	8	8	20	60	2	Fig 2	●
DC-2E-090	9	10	23	75	2	Fig 2	●
DC-2E-100	10	10	25	75	2	Fig 2	●
DC-2E-120	12	12	30	75	2	Fig 2	●
OMAL-2E-140	14	14	45	100	2	Fig 2	●
OMAL-2E-160	16	16	45	100	2	Fig 2	●
OMAL-2E-180	18	18	45	100	2	Fig 2	●
OMAL-2E-200	20	20	45	100	2	Fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

DC-2EL

DC-2EL 2-Flute Straight Shank Flat End Mill aluminum



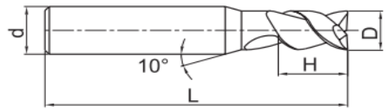


fig 1

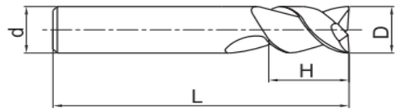


fig 2

Good chip removal performance, high machining efficiency.







TYPE	BASIC DIMENSION （mm）				NUMBER	GEOMETRY	STOCK
	D	d	H	L	Z		
DC-2EL-030	3	6	12	75	2	Fig 1	●
DC-2EL-040	4	6	16	75	2	Fig 1	●
DC-2EL-050	5	6	20	75	2	Fig 1	●
DC-2EL-060	6	6	25	75	2	Fig 2	●
DC-2EL-080	8	8	32	75	2	Fig 2	●
DC-2EL-100	10	10	45	100	2	Fig 2	●
DC-2EL-120	12	12	45	100	2	Fig 2	●
DC-2EL-140	14	14	50	100	2	Fig 2	●
DC-2EL-160	16	16	65	150	2	Fig 2	●
DC-2EL-200	20	20	75	150	2	Fig 2	●

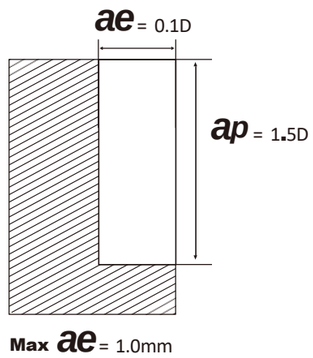
Workpiece material (○suitable、◎ very suitable)

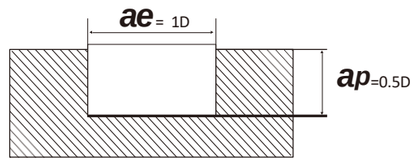
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

DC-2E/2EL Cutting parameters

Workpiece Material	Aluminum alloy		Silicon aluminum alloy Si=10%	
Diameter (mm)	Rotating Speed (min^{-1})	Feed Speed (mm/min)	Rotating Speed (min^{-1})	Feed Speed (mm/min)
1	40000	650	40000	500
2	40000	950	40000	750
3	26500	1250	21000	1000
4	20000	1400	16000	1100
5	16000	1500	13000	1100
6	13000	1500	10600	1100
8	10000	1600	8000	1250
10	8000	1600	6500	1250
12	6600	1650	5300	1300
14	5700	1700	4600	1350
16	5000	1700	40000	1350
18	4400	1700	3500	1350
20	4000	1700	3200	1350

Max Cutting Depth





- The above table is based on the baseline values for side milling. The cutting conditions for slot milling are based on 70% of the feed speed in the table above.
- Please use machine tools and tool holders with high rigidity and precision. When the machine tool and workpiece are installed with poor rigidity, vibration and abnormal sounds will occur. At this time, the rotating speed and feed recommended in the above table should be reduced .
- When the cutting depth is small, the Rotating speed and Feed speed can be increased.
- Please use water-soluble cutting fluid.
- Down milling is recommended for side milling. Keep the overhang length of the tool as short as possible without interference.

DC-3E

DC-3E 3-Flute Straight Shank Flat End Mill aluminum



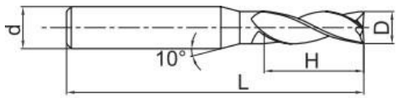


fig 1

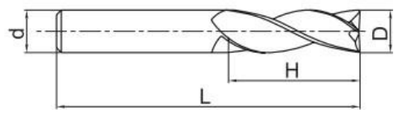


fig 2

Good chip removal performance, high machining efficiency.







TYPE	BASIC DIMENSION（mm）				NUMBER	GEOMETRY	STOCK
	D	d	H	L	Z		
DC-3E-D1.0	1	4	3	50	3	Fig 1	●
DC-3E-D1.5	1.5	4	4	50	3	Fig 1	●
DC-3E-D2.0	2	4	6	50	3	Fig 1	●
DC-3E-D2.5	2.5	4	7	50	3	Fig 1	●
DC-3E-D3.0	3	6	9	50	3	Fig 1	●
DC-3E-D4.0	4	6	12	50	3	Fig 1	●
DC-3E-D5.0	5	6	15	50	3	Fig 1	●
DC-3E-D6.0	6	6	18	60	3	Fig 2	●
DC-3E-D8.0	8	8	20	60	3	Fig 2	●
DC-3E-D10.0	10	10	30	75	3	Fig 2	●
DC-3E-D12.0	12	12	32	75	3	Fig 2	●
DC-3E-D16.0	16	16	45	100	3	Fig 2	●
DC-3E-D20.0	20	20	45	100	3	Fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

DC-3EL

DC-3EL 3-Flute Straight Shank Flat End Mill aluminum



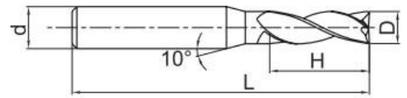


fig 1

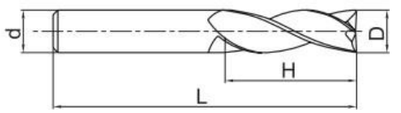


fig 2

Good chip removal performance, high machining efficiency.







TYPE	BASIC DIMENSION（mm）				NUMBER	GEOMETRY	STOCK
	D	d	H	L	Z		
DC-3EL-D3.0	3	6	12	60	3	Fig 1	●
DC-3EL-D4.0	4	6	16	60	3	Fig 1	●
DC-3EL-D5.0	5	6	20	60	3	Fig 1	●
DC-3EL-D6.0	6	6	25	75	3	Fig 2	●
DC-3EL-D8.0	8	8	32	75	3	Fig 2	●
DC-3EL-D10.0	10	10	45	100	3	Fig 2	●
DC-3EL-D12.0	12	12	45	100	3	Fig 2	●
DC-3EL-D16.0	16	16	65	150	3	Fig 2	●
DC-3EL-D20.0	20	20	75	150	3	Fig 2	●

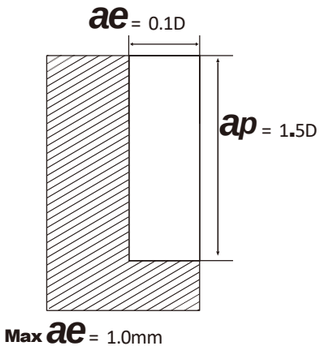
Workpiece material (○suitable、◎ very suitable)

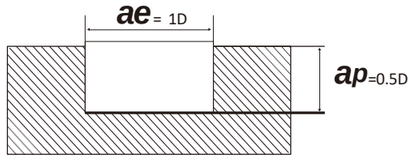
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

DC-3E/3EL Cutting parameters

Workpiece Material	Aluminum alloy		Silicon aluminum alloy Si=10%	
Diameter (mm)	Rotating Speed (min-1)	Feed Speed (mm/min)	Rotating Speed (min-1)	Feed Speed (mm/min)
1	40000	800	40000	600
2	40000	1200	40000	900
3	26500	1500	21000	1200
4	20000	1650	16000	1300
5	16000	1750	13000	1300
6	13000	1800	10600	1300
8	10000	1900	8000	1500
10	8000	1950	6500	1500
12	6600	2000	5300	1550
14	5700	2000	4600	1600
16	5000	2000	40000	1600
18	4400	2000	3500	1600
20	4000	2000	3200	1600

Max Cutting Depth





- The above table is based on the baseline values for side milling. The cutting conditions for slot milling are based on 70% of the feed speed in the table above.
- Please use machine tools and tool holders with high rigidity and precision. When the machine tool and workpiece are installed with poor rigidity, vibration and abnormal sounds will occur. At this time, the rotating speed and feed recommended in the above table should be reduced .
- When the cutting depth is small, the Rotating speed and Feed speed can be increased.
- Please use water-soluble cutting fluid.
- Down milling is recommended for side milling. Keep the overhang length of the tool as short as possible without interference.

BC-2B

BC-2B 2-flute ball nose end mills with straight shank



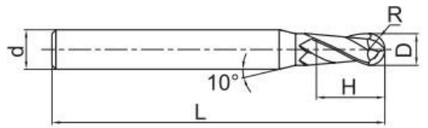


fig 1

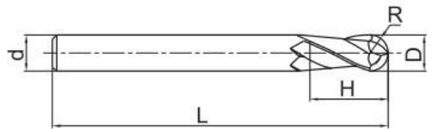


fig 2

Suitable for profile milling aluminum alloy



TYPE	BASIC DIMENSION (mm)					NUMBER	GEOMETRY	STOCK
	D	R	d	H	L	Z		
BC-2B-R1.0	2	1	6	4	60	2	2	●
BC-2B-R1.5	3	1.5	6	6	60	2	2	●
BC-2B-R2.0	4	2	6	8	60	2	2	●
BC-2B-R2.5	5	2.5	6	10	60	2	2	●
BC-2B-R3.0	6	3	6	12	60	2	2	●
BC-2B-R4.0	8	4	8	16	75	2	2	●
BC-2B-R5.0	10	5	10	20	75	2	2	●
BC-2B-R6.0	12	6	12	24	75	2	2	●
BC-2B-R7.0	14	7	14	28	100	2	2	●
BC-2B-R8.0	16	8	32	32	100	2	2	●
BC-2B-R10.0	20	10	20	40	100	2	2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

IBC-2B

IBC-2B 2-flute ball nose end mills with straight long shank



Suitable for profile milling aluminum alloy

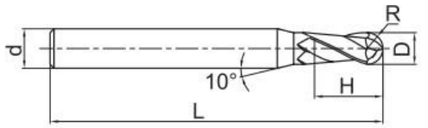


fig 1

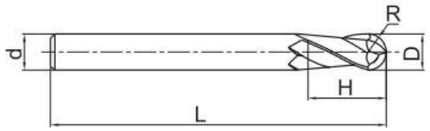


fig 2



TYPE	BASIC DIMENSION （mm）					NUMBER	GEOMETRY	STOCK
	D	R	d	H	L	Z		
IBC-2B-R1.5	3	1.5	6	6	100	2	fig 2	●
IBC-2B-R2.0	4	2	6	8	100	2	fig 2	●
IBC-2B-R3.0	6	3	6	12	100	2	fig 2	●
IBC-2B-R4.0	8	4	8	16	100	2	fig 2	●
IBC-2B-R5.0	10	5	10	20	100	2	fig 2	●
IBC-2B-R6.0	12	6	12	24	100	2	fig 2	●
IBC-2B-R8.0	16	8	16	32	150	2	fig 2	●
IBC-2B-R10.0	20	10	20	40	150	2	fig 2	●

Workpiece material (○suitable、◎ very suitable)

Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Castiron, nodularcastiron	copper alloy	Aluminum alloy	titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
									◎		

BC/IBC-2B Cutting parameters				
Workpiece material	Aluminum alloy		Silicon aluminum alloy Si≤10%	
Diameter (mm)	Rotating speed (min-1)	Feed speed (mm/min)	Rotating speed (min-1)	Feed speed (mm/min)
R1.0	40000	2000	32000	1600
R1.5	26500	1950	21000	1550
R2.0	20000	1950	16000	1550
R2.5	16000	1950	13000	1550
R3.0	13000	2000	10600	1600
R4.0	10000	2450	8000	2000
R5.0	8000	2200	6500	1750
R6.0	6600	2050	5300	1650
Maximum cutting depth	