Size φ0.4～φ6

DCLS

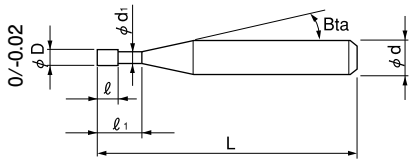
MG | DIA COAT | 30° | Sharp Corner | Shank Dia 0/-0.005

Material Applications（☆ Highly Recommended ◎ Recommended ○ Suggested）

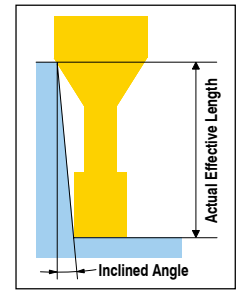
Work Material															
Carbon Steels S45C S55C	Alloy Steels SK / SCM SUS	Prehardened Steels NAK HPM	Hardened Steels ～55HRC	Hardened Steels ～60HRC	Hardened Steels ～70HRC	Cast Iron	Aluminum Alloys	Graphite	Copper	Plastics	Glass Filled Plastics	Titanium Alloys	Heat Resistant Alloys	Cemented Carbide	Hard Brittle (Non-Metallic) Materials
							○	☆	○	○	◎				○

Features

DIA COAT 2 flute, square design with long neck for milling Graphite Electrodes.
New diamond coating, with a highly adhesive base layer, offers excellent wear resistance and up to 20x longer tool life.



The shank taper angle shown is not an exact value and to avoid contact with the work piece, we recommend the user controls the precise value of this angle. Shank taper angle should not make contact with the work piece.



Neck diameter / effective length by inclined angles have been changed.
Change Date: From Production in November, 2012

Total 33 models

Unit（mm）

Model Number	Outside Diameter φD	Effective Length ℓ1	Length of Cut ℓ	Neck Diameter φd1	Shank Taper Angle Bta	Overall Length L	Shank Diameter φd	Price (¥)	Effective Length by Inclined Angles 30'	1°	1° 30'	2°	3°
DCLS 2004-020	0.4	2	0.8	0.37	16°	45	4	16,000	2.26	2.43	2.57	2.68	2.89
DCLS 2004-040		4				45	4	16,000	4.40	4.63	4.80	4.97	5.34
DCLS 2004-060		6				45	4	16,000	6.51	6.77	7.00	7.24	7.79
DCLS 2005-020	0.5	2	1	0.47	16°	45	4	16,000	2.32	2.52	2.68	2.82	3.07
DCLS 2005-040		4				45	4	16,000	4.48	4.74	4.95	5.13	5.51
DCLS 2005-060		6				45	4	16,000	6.60	6.91	7.15	7.40	7.96
DCLS 2006-020	0.6	2	1.2	0.57	16°	45	4	16,000	2.36	2.60	2.78	2.95	3.23
DCLS 2006-040		4				45	4	16,000	4.55	4.85	5.08	5.29	5.68
DCLS 2006-060		6				45	4	16,000	6.69	7.04	7.31	7.56	8.13
DCLS 2006-080		8				45	4	16,000	8.80	9.19	9.51	9.84	10.58
DCLS 2006-100		10				45	4	16,000	10.90	11.33	11.71	12.12	13.03

Next Page ➡

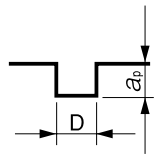
Unit (mm)

Model Number	Outside Diameter φD	Effective Length ℓ1	Length of Cut ℓ	Neck Diameter φd1	Shank Taper Angle Bta	Overall Length L	Shank Diameter φd	Price (¥)	Effective Length by Inclined Angles				
									30'	1°	1° 30'	2°	3°
DCLS 2010-040	1	4	2	0.96	16°	45	4	16,000	4.57	4.86	5.09	5.30	5.70
DCLS 2010-060		6				45	4	16,000	6.70	7.05	7.32	7.57	8.14
DCLS 2010-080		8				45	4	16,000	8.82	9.20	9.52	9.85	10.59
DCLS 2010-100		10				45	4	16,000	10.91	11.34	11.72	12.13	13.04
DCLS 2010-160		16				50	4	16,000	17.16	17.73	18.32	18.96	20.38
DCLS 2010-210		21				55	4	16,000	22.33	23.05	23.82	24.65	26.50
DCLS 2015-060	1.5	6	3	1.44	16°	45	4	16,000	6.17	6.37	6.58	6.81	7.33
DCLS 2015-100		10				45	4	16,000	10.29	10.63	10.98	11.37	12.22
DCLS 2015-160		16				50	4	16,000	16.48	17.02	17.59	18.20	19.56
DCLS 2015-210		21				55	4	16,000	21.64	22.34	23.09	23.89	No Interference
DCLS 2020-060	2	6	4	1.9	16°	50	4	16,000	6.22	6.42	6.64	6.87	7.39
DCLS 2020-100		10				50	4	16,000	10.35	10.68	11.04	11.43	12.28
DCLS 2020-160		16				50	4	16,000	16.53	17.07	17.65	18.26	No Interference
DCLS 2020-210		21				55	4	16,000	21.69	22.40	23.15	23.95	No Interference
DCLS 2020-260		26				55	4	16,000	26.85	27.72	28.65	No Interference	No Interference
DCLS 2030-160	3	16	6	2.9	16°	70	6	18,000	16.53	17.07	17.65	18.26	19.63
DCLS 2030-320		32				80	6	20,000	33.04	34.11	35.25	36.48	No Interference
DCLS 2040-210	4	21	8	3.91	16°	70	6	20,000	21.68	22.39	23.14	23.94	No Interference
DCLS 2040-320		32				70	6	20,000	33.03	34.10	35.24	No Interference	No Interference
DCLS 2040-420		42				80	6	23,000	43.34	44.75	No Interference	No Interference	No Interference
DCLS 2060-420	6	42	12	5.71	—	80	6	23,000	No Interference	No Interference	No Interference	No Interference	No Interference
DCLS 2060-630		63				120	6	30,000	No Interference	No Interference	No Interference	No Interference	No Interference

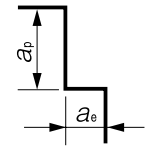
Milling Conditions for DCLS

WORK MATERIAL			GRAPHITE				
					Side Milling		Slotting
Mode Numberl	Outside Diameter (mm)	Effective Length (mm)	Spindle Speed (min^{-1})	Feed Rate (mm/min)	a_p Axial Depth (mm)	a_e Radial Depth (mm)	a_p Axial Depth (mm)
2004-020	0.4	2	34,000	410	0.4	0.02	0.02
2004-040		4	34,000	240	0.4	0.02	0.02
2004-060		6	34,000	180	0.4	0.02	0.02
2005-020	0.5	2	34,000	540	0.5	0.025	0.025
2005-040		4	34,000	350	0.5	0.025	0.025
2005-060		6	34,000	240	0.5	0.025	0.025
2006-020	0.6	2	34,000	660	0.6	0.03	0.03
2006-040		4	34,000	520	0.6	0.03	0.03
2006-060		6	34,000	320	0.6	0.03	0.03
2006-080		8	25,000	220	0.6	0.03	0.03
2006-100		10	24,000	120	0.6	0.03	0.03
2010-040	1	4	34,000	1,170	1	0.05	0.1
2010-060		6	26,000	850	1	0.05	0.1
2010-080		8	22,000	660	1	0.05	0.1
2010-100		10	22,100	530	1	0.05	0.1
2010-160		16	14,300	300	1	0.05	0.1
2010-210		21	12,500	200	1	0.05	0.1
2015-060	1.5	6	22,000	1,620	1.5	0.075	0.15
2015-100		10	17,000	1,050	1.5	0.075	0.15
2015-160		16	15,000	600	1.5	0.075	0.15
2015-210		21	10,000	370	1.5	0.075	0.15
2020-060	2	6	25,500	2,175	2	0.1	0.2
2020-100		10	21,000	1,680	2	0.1	0.2
2020-160		16	19,500	1,230	2	0.1	0.2
2020-210		21	16,500	750	2	0.1	0.2
2020-260		26	12,000	590	2	0.1	0.2
2030-160	3	16	22,000	2,200	3	0.15	0.3
2030-320		32	15,000	1,040	3	0.15	0.3
2040-210	4	21	14,000	1,760	4	0.2	0.4
2040-320		32	13,000	1,160	4	0.2	0.4
2040-420		42	11,000	900	4	0.2	0.4
2060-420	6	42	10,800	1,160	6	0.6	1.2
2060-630		63	7,400	620	6	0.6	1.2

Slotting
a_p : Axial Depth (mm)
D : Outside Diamater (mm)



Side Milling
a_p : Axial Depth (mm)
a_e : Radial Depth (mm)



Note:
・Use a milling machine dedicated for Graphite.
・Recommend air blow for Graphite.

Single Source Technologies
2600 Superior Court
Auburn Hills, MI 48326
(877) 228-2884
SST.MillingTeam@singlesourcetech.com
www.singlesourcetech.com