

MIRACLE DRILLS

VCSSS

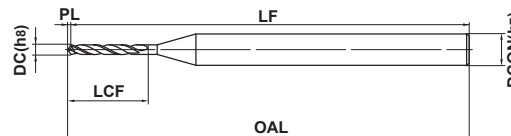
Short, For steel (3mm shank series)



CARBIDE

P	M	K	N	S	H
Steel	Stainless Steel	Cast Iron	Non-ferrous Metal	Heat Resistant Alloy	Hardened Steel

	DC ≤ 2.4
	0 -0.014
	DC ≥ 0.7
	0 -0.010



● First recommendation for pilot hole drilling of hardened material.

Unit : mm

Order Number	DC	LCF	OAL	LF	PL	DCON	Stock
VCSSSD0030	0.3	3.07	38.07	38	0.07	3	●
VCSSSD0040	0.4	4.09	38.09	38	0.09	3	●
VCSSSD0050	0.5	4.12	38.12	38	0.12	3	●
VCSSSD0060	0.6	5.14	38.14	38	0.14	3	●
VCSSSD0070	0.7	5.20	38.20	38	0.20	3	●
VCSSSD0080	0.8	6.23	38.23	38	0.23	3	●
VCSSSD0090	0.9	6.26	38.26	38	0.26	3	●
VCSSSD0100	1.0	8.3	38.3	38	0.3	3	●
VCSSSD0110	1.1	8.3	38.3	38	0.3	3	●
VCSSSD0120	1.2	8.4	38.4	38	0.4	3	●
VCSSSD0130	1.3	8.4	38.4	38	0.4	3	●

Order Number	DC	LCF	OAL	LF	PL	DCON	Stock
VCSSSD0140	1.4	8.4	38.4	38	0.4	3	●
VCSSSD0150	1.5	10.4	45.4	45	0.4	3	●
VCSSSD0160	1.6	10.5	45.5	45	0.5	3	●
VCSSSD0170	1.7	10.5	45.5	45	0.5	3	●
VCSSSD0180	1.8	10.5	45.5	45	0.5	3	●
VCSSSD0190	1.9	10.6	45.6	45	0.6	3	●
VCSSSD0200	2.0	12.6	45.6	45	0.6	3	●
VCSSSD0210	2.1	12.6	45.6	45	0.6	3	●
VCSSSD0220	2.2	12.6	45.6	45	0.6	3	●
VCSSSD0230	2.3	12.7	45.7	45	0.7	3	●
VCSSSD0240	2.4	12.7	45.7	45	0.7	3	●

RECOMMENDED CUTTING CONDITIONS

Work Material	Heat-treated steel AISI H13, AISI 4140 etc. (40–50HRC)			Hardened steel AISI H13, AISI 420 etc. (50–55HRC)			Hardened steel AISI D2, Powder high-speed steel etc. (55–60HRC)		
	Dia. DC (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Step feed (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)	Step feed (mm)	Revolution (min ⁻¹)	Feed rate (mm/rev)
0.3	21000	0.005	0.03	16000	0.005	0.03	11000	0.005	0.03
0.5	13000	0.005	0.05	9600	0.005	0.05	6400	0.005	0.05
0.8	8000	0.008	0.08	6000	0.008	0.08	4000	0.008	0.08
1.0	6400	0.01	0.10	4800	0.01	0.10	3200	0.01	0.10
1.2	5300	0.01	0.15	4000	0.01	0.15	2700	0.01	0.10
1.5	4200	0.02	0.20	3200	0.01	0.20	2100	0.01	0.20
1.8	3500	0.03	0.25	2700	0.01	0.25	1800	0.01	0.20
2.0	3200	0.04	0.30	2400	0.02	0.30	1600	0.02	0.30
2.2	2900	0.04	0.40	2200	0.02	0.40	1400	0.02	0.30
2.4	2700	0.05	0.50	2000	0.02	0.50	1300	0.02	0.30

- 1) Please use a machine with a high accuracy spindle.
- 2) A collet chuck is recommended to maintain shank condition.
- 3) Use emulsion as a cutting fluid.

● : Inventory maintained in Japan.