



Drill dia. ϕD_c	L/D	Cat. No.	Stock	Dimensions (mm)			Drill dia. ϕD_c	L/D	Cat. No.	Stock	Dimensions (mm)			Drill dia. ϕD_c	L/D	Cat. No.	Stock	Dimensions (mm)		
				L	ℓ	ℓ_1					L	ℓ	ℓ_1					L	ℓ	ℓ_1
1.57	5	DSM0157G05	◇	45	12.1	12.7	2.06	5	DSM0206G05	◇	45	16.1	16.7	2.55	5	DSM0255G05	◇	55	20.1	20.7
1.58		DSM0158G05	◇				2.07		DSM0207G05	◇				2.56		DSM0256G05	◇			
1.59		DSM0159G05	◇				2.08		DSM0208G05	◇				2.57		DSM0257G05	◇			
1.60		DSM0160G05	◇				2.09		DSM0209G05	◇				2.58		DSM0258G05	◇			
1.61	5	DSM0161G05	◇	45	12.9	13.6	2.10	5	DSM0210G05	◇	45	16.9	17.5	2.59	5	DSM0259G05	◇	55	20.9	21.5
1.62		DSM0162G05	◇				2.11		DSM0211G05	◇				2.60		DSM0260G05	◇			
1.63		DSM0163G05	◇				2.12		DSM0212G05	◇				2.61		DSM0261G05	◇			
1.64		DSM0164G05	◇				2.13		DSM0213G05	◇				2.62		DSM0262G05	◇			
1.65		DSM0165G05	◇				2.14		DSM0214G05	◇				2.63		DSM0263G05	◇			
1.66		DSM0166G05	◇				2.15		DSM0215G05	◇				2.64		DSM0264G05	◇			
1.67		DSM0167G05	◇				2.16		DSM0216G05	◇				2.65		DSM0265G05	◇			
1.68		DSM0168G05	◇				2.17		DSM0217G05	◇				2.66		DSM0266G05	◇			
1.69		DSM0169G05	◇				2.18		DSM0218G05	◇				2.67		DSM0267G05	◇			
1.70		DSM0170G05	◇				2.19		DSM0219G05	◇				2.68		DSM0268G05	◇			
1.71		DSM0171G05	◇				2.20		DSM0220G05	◇				2.69		DSM0269G05	◇			
1.72		DSM0172G05	◇				2.21		DSM0221G05	◇				2.70		DSM0270G05	◇			
1.73	5	DSM0173G05	◇	45	13.7	14.3	2.22	5	DSM0222G05	◇	45	17.7	18.3	2.71	5	DSM0271G05	◇	55	21.7	22.3
1.74		DSM0174G05	◇				2.23		DSM0223G05	◇				2.72		DSM0272G05	◇			
1.75		DSM0175G05	◇				2.24		DSM0224G05	◇				2.73		DSM0273G05	◇			
1.76		DSM0176G05	◇				2.25		DSM0225G05	◇				2.74		DSM0274G05	◇			
1.77		DSM0177G05	◇				2.26		DSM0226G05	◇				2.75		DSM0275G05	◇			
1.78		DSM0178G05	◇				2.27		DSM0227G05	◇				2.76		DSM0276G05	◇			
1.79		DSM0179G05	◇				2.28		DSM0228G05	◇				2.77		DSM0277G05	◇			
1.80		DSM0180G05	◇				2.29		DSM0229G05	◇				2.78		DSM0278G05	◇			
1.81		DSM0181G05	◇				2.30		DSM0230G05	◇				2.79		DSM0279G05	◇			
1.82		DSM0182G05	◇				2.31		DSM0231G05	◇				2.80		DSM0280G05	◇			
1.83		DSM0183G05	◇				2.32		DSM0232G05	◇				2.81		DSM0281G05	◇			
1.84		DSM0184G05	◇				2.33		DSM0233G05	◇				2.82		DSM0282G05	◇			
1.85	5	DSM0185G05	◇	45	14.5	15.1	2.34	5	DSM0234G05	◇	55	18.5	19.1	2.83	5	DSM0283G05	◇	55	22.5	23.1
1.86		DSM0186G05	◇				2.35		DSM0235G05	◇				2.84		DSM0284G05	◇			
1.87		DSM0187G05	◇				2.36		DSM0236G05	◇				2.85		DSM0285G05	◇			
1.88		DSM0188G05	◇				2.37		DSM0237G05	◇				2.86		DSM0286G05	◇			
1.89		DSM0189G05	◇				2.38		DSM0238G05	◇				2.87		DSM0287G05	◇			
1.90		DSM0190G05	◇				2.39		DSM0239G05	◇				2.88		DSM0288G05	◇			
1.91		DSM0191G05	◇				2.40		DSM0240G05	◇				2.89		DSM0289G05	◇			
1.92		DSM0192G05	◇				2.41		DSM0241G05	◇				2.90		DSM0290G05	◇			
1.93		DSM0193G05	◇				2.42		DSM0242G05	◇				2.91		DSM0291G05	◇			
1.94		DSM0194G05	◇				2.43		DSM0243G05	◇				2.92		DSM0292G05	◇			
1.95		DSM0195G05	◇				2.44		DSM0244G05	◇				2.93		DSM0293G05	◇			
1.96		DSM0196G05	◇				2.45		DSM0245G05	◇				2.94		DSM0294G05	◇			
1.97	DSM0197G05	◇	2.46	DSM0246G05	◇	2.95	DSM0295G05	◇												
1.98	DSM0198G05	◇	2.47	DSM0247G05	◇	2.96	DSM0296G05	◇												
1.99	DSM0199G05	◇	2.48	DSM0248G05	◇	2.97	DSM0297G05	◇												
2.00	DSM0200G05	◇	2.49	DSM0249G05	◇	2.98	DSM0298G05	◇												
2.01	DSM0201G05	◇	2.50	DSM0250G05	◇	2.99	DSM0299G05	◇												
2.02	DSM0202G05	◇	2.51	DSM0251G05	◇	3.00	DSM0300G05	◇												
2.03	5	DSM0203G05	◇	45	16.1	16.7	2.52	5	DSM0252G05	◇	55	20.1	20.7	2.99	5	DSM0299G05	◇	55	23.3	23.9
2.04		DSM0204G05	◇				2.53		DSM0253G05	◇				2.97		DSM0297G05	◇			
2.05		DSM0205G05	◇				2.54		DSM0254G05	◇				2.98		DSM0298G05	◇			

Note: L/D = Hole depth / Drill diameter

◇ : Non-Stocked items.
◇ : TJ dealer stock

Standard cutting conditions

Work materials	Cutting speed: Vc (m/min)			Feed: f (mm/rev)					
	$\phi 0.1 \sim \phi 0.3$	$\phi 0.3 \sim \phi 0.5$	$\phi 0.5 \sim \phi 3.0$	$\phi 0.1 \sim \phi 0.3$	$\phi 0.3 \sim \phi 0.5$	$\phi 0.5 \sim \phi 1.0$	$\phi 1.0 \sim \phi 2.0$	$\phi 2.0 \sim \phi 3.0$	
Carbon and alloy steels	5 - 15 - 20	15 - 25 - 30	25 - 40 - 60	0.001 - 0.002 - 0.004	0.002 - 0.005 - 0.01	0.005 - 0.01 - 0.05	0.03 - 0.06 - 0.09	0.05 - 0.08 - 0.1	
Stainless steels	2 - 6 - 12	6 - 12 - 18	10 - 15 - 20	0.0005 - 0.002 - 0.004	0.002 - 0.005 - 0.008	0.005 - 0.01 - 0.03	0.01 - 0.02 - 0.04	0.02 - 0.03 - 0.05	
Grey cast irons	5 - 10 - 15	10 - 20 - 25	20 - 35 - 50	0.0005 - 0.002 - 0.004	0.002 - 0.005 - 0.012	0.005 - 0.01 - 0.03	0.01 - 0.03 - 0.06	0.03 - 0.05 - 0.12	
Ductile cast irons	5 - 10 - 15	10 - 20 - 25	20 - 35 - 50	0.001 - 0.002 - 0.003	0.002 - 0.005 - 0.01	0.005 - 0.01 - 0.02	0.01 - 0.03 - 0.05	0.03 - 0.05 - 0.1	
Aluminum alloys	10 - 15 - 20	10 - 20 - 30	20 - 35 - 50	0.001 - 0.005 - 0.01	0.005 - 0.01 - 0.03	0.01 - 0.03 - 0.05	0.04 - 0.05 - 0.15	0.06 - 0.1 - 0.2	
Copper / Brass	10 - 15 - 20	10 - 20 - 30	20 - 35 - 50	0.001 - 0.005 - 0.01	0.005 - 0.01 - 0.03	0.01 - 0.03 - 0.05	0.04 - 0.05 - 0.15	0.06 - 0.1 - 0.2	
Hard materials	4 - 6 - 8	6 - 8 - 10	6 - 10 - 16	0.0005 - 0.001 - 0.002	0.001 - 0.003 - 0.005	0.005 - 0.01 - 0.02	0.01 - 0.02 - 0.03	0.02 - 0.04 - 0.06	
Heat-resistant alloys	2 - 4 - 6	5 - 8 - 10	8 - 15 - 20	0.0005 - 0.001 - 0.003	0.002 - 0.003 - 0.004	0.002 - 0.003 - 0.004	0.002 - 0.003 - 0.004	Not recommended	

Notes : • When the drilling depth is deeper than L/D = 5, use drill pecking every 10 to 50% of the drill diameter.
• The above cutting conditions should be applied when a water soluble cutting fluid is used. For drilling a hole smaller than $\phi 0.3$ mm, use of a starting drill is recommended.
• When setting the drill, the drill run out should be within 0.002 mm on the taper. (Especially for a drill diameter smaller than $\phi 0.5$ mm)