

ADL/ADLL

Work Materials	Carbon steels		Alloy Steels		Prehardened Steels Tool Steels Die Steels		Stainless Steels Austenitic		Stainless Steels Martensitic Ferritic	
	1010, 1018, 1035, 1045, 1065		4140, 4340		30~38HRC		304, 316		420, 440, 430	
	Drill Diameter (mm)	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM
Ø0.30~0.55	10,000	0.00016	9,000	0.00008	7,000	0.00006	4,000	0.00004	4,000	0.00004
Ø0.60~1.05	10,000~9,500	0.0004~0.0008	8,000~6,400	0.00028~0.0006	6,400~4,800	0.00012~0.0004	4,800~3,800	0.00004~0.0002	4,800~3,800	0.00004~0.0002
Ø1.10~2.05	7,200~6,400	0.0008~0.0024	5,800~3,200	0.0004~0.0008	4,400~3,200	0.0004~0.0006	4,300~3,200	0.0002~0.0008	4,300~3,200	0.0002~0.0008
Ø2.10~2.95	6,100~4,400	0.0024~0.0032	3,000~2,800	0.0008~0.0016	3,000~2,800	0.0006~0.0008	3,000~2,200	0.0004~0.0012	3,000~2,200	0.0004~0.0012
Ø3.00~5.95	4,300~2,600	0.0032~0.004	2,700~2,000	0.0016~0.0032	2,700~1,900	0.0008~0.0016	2,100~1,900	0.0012~0.002	2,100~1,900	0.0012~0.002
Ø6.00~8.90	2,200~1,900	0.004~0.005	1,600~1,400	0.002~0.004	1,600~1,400	0.0008~0.0024	1,600~1,200	0.002~0.004	1,600~1,200	0.002~0.004
Ø9.00~13.0	1,600~1,200	0.004~0.005	1,300~1,000	0.002~0.004	1,200~900	0.0016~0.0032	1,100~750	0.002~0.004	1,100~750	0.002~0.004

Work Materials	Cast Iron		Aluminum Alloys		Copper Alloys	
			6061, 7075			
	Drill Diameter (mm)	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM
Ø0.30~0.55	10,000	0.0002	10,000	0.0004~0.0008	10,000	0.0004~0.0008
Ø0.60~1.05	10,000~9,500	0.0004~0.0016	20,000~12,000	0.0024~0.006	20,000~12,000	0.0024~0.006
Ø1.10~2.05	8,700~7,200	0.0024~0.006	16,000~13,000	0.004~0.008	16,000~13,000	0.004~0.008
Ø2.10~2.95	6,800~4,900	0.0024~0.006	13,000~10,000	0.004~0.008	13,000~10,000	0.004~0.008
Ø3.00~5.95	4,800~3,200	0.004~0.008	8,500~6,400	0.008~0.01	8,500~6,400	0.008~0.01
Ø6.00~8.90	2,600~2,000	0.006~0.01	5,300~4,000	0.008~0.012	5,300~4,000	0.008~0.012
Ø9.00~13.0	1,800~1,500	0.008~0.012	3,000~2,500	0.012~0.016	3,000~2,500	0.012~0.016

Drill Diameter	Pecking Distance
Ø0.30~Ø0.49	10% of drill diameter
Ø0.50~Ø1.00	20% of drill diameter
Above Ø1.00	*25-50% of drill diameter

*Start at 25% and increase if needed, to 50%

Remarks:

- 1) This drilling condition is based on the length from the holder to drill tip, which is 1.1 times the flute length. When the length from the holder is longer than 1.1 times of the flute length, please reduce the speed and feed appropriately.
- 2) It is recommended to start with the lowest speed and feed shown in the table. They may be gradually increased in order to obtain the most appropriate condition.
- 3) The use of drill bushes are recommended for drilling stable and precise holes.