CUTTING CONDITIONS

Drilling | Solid | Cutting conditions

ADO-40D

	Mild Steel - Low Carbon Steel SS400 - S10C ~150HB ~500 N/mm²		Carbon Steel S35C - S50C ~210HB ~710 N/mm²		Alloy Steel SCM - SCr - sncm 16~28HRC 710 ~900 N/mm²		Alloy Steel (C ≥0,3%) SCM440 28~35HRC 900~1,060N/mm²	
Vc	60~90m/min		60~90m/min		50~80m/min		40~70m/min	
Ø	S (min⁻¹)	f (mm/rev.)	S (min⁻¹)	f (mm/rev.)	S (min⁻¹)	f (mm/rev.)	S (min⁻¹)	f (mm/rev.)
3	7.500	0,06 ~ 0,12	7.500	0,06 ~ 0,12	6.400	0,06 ~ 0,12	5.300	0,06 ~ 0,11
4	5.600	0,08 ~ 0,16	5.600	0,08 ~ 0,16	4.800	0,08 ~ 0,16	4.000	0,08 ~ 0,14
5	4.500	0,1 ~ 0,2	4.500	0,1 ~ 0,2	3.800	0,1 ~ 0,2	3.200	0,1 ~ 0,17
6	3.700	0,12 ~ 0,24	3.700	0,12 ~ 0,24	3.200	0,12 ~ 0,24	2.700	0,12 ~ 0,21
8	2.800	0,16 ~ 0,28	2.800	0,16 ~ 0,28	2.400	0,16 ~ 0,28	2.000	0,16 ~ 0,24
10	2.300	0,2 ~ 0,35	2.300	0,2 ~ 0,35	1.900	0,2 ~ 0,35	1.600	0,2 ~ 0,3

	Cast Iron FC250 ~350N/mm²		Ductile Cast Iron FCD450 - FCD600 400 ~600 N/mm²		Stainless Steel SUS300/400 480 ~800 N/mm²	
Vc	60~90m/min		50~80m/min		40~60m/min	
Ø	S (min⁻¹)	f (mm/rev.)	S (min⁻¹)	f (mm/rev.)	S (min⁻¹)	f (mm/rev.)
3	7.500	0,06 ~ 0,12	6.400	0,06 ~ 0,12	5.300	0,06 ~ 0,12
4	5.600	0,08 ~ 0,16	4.800	0,08 ~ 0,16	4.000	0,08 ~ 0,16
5	4.500	0,1 ~ 0,2	3.800	0,1 ~ 0,2	3.200	0,1 ~ 0,2
6	3.700	0,12 ~ 0,24	3.200	0,12 ~ 0,24	2.700	0,12 ~ 0,24
8	2.800	0,16 ~ 0,28	2.400	0,16 ~ 0,28	2.000	0,16 ~ 0,28
10	2.300	0,2 ~ 0,35	1.900	0,2 ~ 0,35	1.600	0,2 ~ 0,35

1. The indicated speeds and feeds are for drilling with water-soluble coolant or MQL (mist drilling in stainless steels is not recommended).
2. Water-soluble high density coolant (20-30 times dilution) is recommended.
3. When using non-water-soluble coolant, set the cutting speed between 70-100% of the lowest limit.
4. Make a pilot hole before using in accordance with the recommended operation.
5. A clogged oil hole can lead to breakage. Make sure that a filter is attached to the oil feeder.
6. Peck drilling of 1D - 2D is strongly recommended.

*If it is difficult to process or if the straightness of the hole needed to be improved, use the coolant-through carbide drill ADO-20/30D after drilling a pilot hole, then process with the ADO-40/50D. When processing with 3 tools, the ADO-40/50D may be used at a more aggressive cutting condition than those listed above.