NACHI นาชิ

Cutting Conditions

- **Straight Shank Drills L500/L520/L501/L561/L550**
- **1/2" Shank Drills L575**
- **Straight Shank Cobalt Drills (type I) L6520**

Work Material / Drilling Condition / Dia. of Drill mm	Rolled Steels Carbon Steels SS, S C		Alloy Steels SCM Pre-Hardended Steels NAK, HPM		Mold Steels Stainless Steels Hardended Steels (35~45HRC)		Cast Irons FC, FCD		Aluminium Nonferrous Alloys	
	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min
1	4800	100	3800	65	2900	44	5300	130	8100	200
2	2900	120	2300	78	1700	51	3200	160	4900	250
3	2100	150	1700	100	1300	68	2300	200	3600	320
5	1300	140	1000	94	760	63	1400	190	2200	300
8	800	120	640	82	480	54	900	170	1400	260
10	640	110	510	74	380	48	700	150	1100	230
12	530	100	420	68	320	46	580	140	900	210
16	400	92	320	63	240	41	440	130	680	200
20	320	83	250	55	190	37	350	110	540	180
25	250	75	200	51	150	34	280	110	430	160
30	210	67	170	46	130	31	230	90	360	140
40	160	58	130	40	100	27	180	81	270	120
50	130	52	100	34	80	24	140	70	220	110

As for the upper table, it is the value when it lubricates fully with the Vertical machine. In horizontal machine, use step process.
Adjust drilling condition when an unusual vibration, different sound occur by cutting.

หมายเหตุ : สำหรับ Straight shank long drills L550 (ดอกสว่านยาวพิเศษ) ใช้ความเร็วรอบเท่าตารางด้านบน แล้วลด Feed ลง 30%
เช่น หาก Feed ในตาราง = 100 mm/min หากใช้ L550 ปรับ Feed เป็น 70 mm/min ⟸ **L550**

- **G Standard Drills L520P**

Work Material / Drilling Condition / Dia. of Drill mm	Rolled Steels Carbon Steels SS, S C		Alloy Steels SCM Pre-Hardended Steels NAK, HPM		Mold Steels Stainless Steels Hardended Steels (35~45HRC)		Cast Irons FC, FCD		Aluminium Nonferrous Alloys	
	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min
1	7200	190	5700	130	4300	84	7900	260	12000	400
2	4300	220	3400	150	2600	101	4700	490	7300	470
3	3200	290	2500	190	1900	130	3500	640	5400	610
5	1900	270	1500	180	1200	120	2100	600	3200	570
8	1200	230	960	160	720	110	1300	320	2000	490
10	960	210	760	140	570	94	1100	290	1600	440
12	800	200	640	130	480	89	880	270	1400	430
16	600	180	480	120	360	81	660	250	1000	380
20	480	160	380	110	290	74	530	220	810	340
25	380	150	310	100	230	67	420	200	650	320
32	300	120	240	80	180	52	330	160	510	240

As for the upper table, it is the value when it lubricates fully with the Vertical machine. In horizontal machine, use step process.
Adjust drilling condition when an unusual vibration, different sound occur by cutting.

- **Taper Shank Cobalt Drills L6602**

Work Material / Drilling Condition / Dia. of Drill mm	Rolled Steels Carbon Steels SS, S C		Alloy Steels SCM Pre-Hardended Steels NAK, HPM		Mold Steels Stainless Steels Hardended Steels (35~45HRC)		Cast Irons FC, FCD		Aluminium Nonferrous Alloys	
	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min	Rotation min^{-1}	Feed mm/min
5	1300	140	1000	94	760	63	1400	190	2200	300
8	800	120	640	82	480	54	900	170	1400	260
10	640	110	510	74	380	48	700	150	1100	230
12	530	100	420	68	320	46	580	140	900	210
16	400	92	320	63	240	41	440	130	680	200
20	320	83	250	55	190	37	350	110	540	180
25	250	75	200	51	150	34	280	110	430	160
30	210	67	170	46	130	31	230	90	360	140
40	160	58	130	40	100	27	180	81	270	120
50	130	52	100	34	80	24	140	70	220	110