

WB512, WB512xxS6 Series

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Work Material		Alloy Steels, Carbon Steels (SCM, SNCM, S45C)			Prehardened Steels (NAK, CENA, KP4)			Hardened Steels (SKD, SKT, STAVAX)		
Hardness		≤ 35 HRC			35 ~ 45 HRC			45 ~ 55 HRC		
Strength		≤ 1100N / mm ²			1100~1500N / mm ²			1500~2000N / mm ²		
Cutting Diameter (metric)	Effective Length	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)
1.4	16.0	17,200	830	0.032	16,240	705	0.025	14,400	600	0.018
1.5	4.0	23,900	1,580	0.135	22,600	1,355	0.105	20,000	1,075	0.075
1.5	5.0	23,900	1,580	0.095	22,600	1,355	0.074	20,000	1,075	0.053
1.5	6.0	23,900	1,580	0.095	22,600	1,355	0.074	20,000	1,075	0.053
1.5	7.0	23,900	1,580	0.095	22,600	1,355	0.074	20,000	1,075	0.053
1.5	8.0	21,510	1,280	0.054	20,340	1,100	0.042	18,000	870	0.030
1.5	10.0	21,510	1,280	0.054	20,340	1,100	0.042	18,000	870	0.030
1.5	12.0	21,510	1,280	0.054	20,340	1,100	0.042	18,000	870	0.030
1.5	14.0	21,510	1,280	0.034	20,340	1,100	0.026	18,000	870	0.019
1.5	16.0	19,120	1,010	0.034	18,080	865	0.026	16,000	690	0.019
1.5	18.0	19,120	1,010	0.034	18,080	865	0.026	16,000	690	0.019
1.5	20.0	19,120	1,010	0.020	18,080	865	0.016	16,000	690	0.011
1.5	22.0	19,120	1,010	0.020	18,080	865	0.016	16,000	690	0.011
1.5	26.0	14,340	665	0.014	13,560	570	0.011	12,000	450	0.008
1.5	30.0	14,340	665	0.014	13,560	570	0.011	12,000	450	0.008
1.5	35.0	7,170	285	0.010	6,780	245	0.008	6,000	195	0.005
1.5	40.0	7,170	285	0.010	6,780	245	0.008	6,000	195	0.005
1.6	4.0	22,200	1,555	0.101	21,000	1,300	0.078	18,500	1,110	0.056
1.6	6.0	22,200	1,555	0.101	21,000	1,300	0.078	18,500	1,110	0.056
1.6	8.0	22,200	1,555	0.101	21,000	1,300	0.078	18,500	1,110	0.056
1.6	10.0	19,980	1,260	0.058	18,900	1,055	0.045	16,650	900	0.032
1.6	12.0	19,980	1,260	0.058	18,900	1,055	0.045	16,650	900	0.032
1.6	16.0	19,980	1,260	0.036	18,900	1,055	0.028	16,650	900	0.020
1.6	20.0	17,760	995	0.036	16,800	830	0.028	14,800	710	0.020
1.8	4.0	22,200	1,780	0.113	21,000	1,470	0.088	18,500	1,225	0.063
1.8	6.0	22,200	1,780	0.113	21,000	1,470	0.088	18,500	1,225	0.063
1.8	8.0	22,200	1,780	0.113	21,000	1,470	0.088	18,500	1,225	0.063
1.8	10.0	19,980	1,440	0.065	18,900	1,190	0.050	16,650	990	0.036
1.8	12.0	19,980	1,440	0.065	18,900	1,190	0.050	16,650	990	0.036
1.8	16.0	19,980	1,440	0.041	18,900	1,190	0.032	16,650	990	0.023
1.8	20.0	17,760	1,140	0.041	16,800	940	0.032	14,800	785	0.023
2.0	6.0	18,000	1,795	0.180	17,000	1,525	0.140	15,000	1,285	0.100
2.0	8.0	18,000	1,795	0.126	17,000	1,525	0.098	15,000	1,285	0.070
2.0	10.0	18,000	1,795	0.126	17,000	1,525	0.098	15,000	1,285	0.070
2.0	12.0	16,200	1,455	0.072	15,300	1,235	0.056	13,500	1,040	0.040
2.0	14.0	16,200	1,455	0.072	15,300	1,235	0.056	13,500	1,040	0.040
2.0	16.0	16,200	1,455	0.072	15,300	1,235	0.056	13,500	1,040	0.040
2.0	18.0	16,200	1,455	0.045	15,300	1,235	0.035	13,500	1,040	0.025
2.0	20.0	16,200	1,455	0.045	15,300	1,235	0.035	13,500	1,040	0.025
2.0	22.0	14,400	1,150	0.045	13,600	975	0.035	12,000	820	0.025
2.0	26.0	14,400	1,150	0.045	13,600	975	0.035	12,000	820	0.025
2.0	30.0	14,400	1,150	0.027	13,600	975	0.021	12,000	820	0.015
2.0	35.0	10,800	755	0.018	10,200	640	0.014	9,000	540	0.010
2.0	40.0	10,800	755	0.018	10,200	640	0.014	9,000	540	0.010
2.0	45.0	5,400	325	0.018	5,100	275	0.014	4,500	230	0.010
2.0	50.0	5,400	325	0.018	5,100	275	0.014	4,500	230	0.010
2.0	60.0	5,400	325	0.018	5,100	275	0.014	4,500	230	0.010
2.5	8.0	15,800	1,925	0.158	14,900	1,605	0.123	13,200	1,305	0.088
2.5	10.0	15,800	1,925	0.158	14,900	1,605	0.123	13,200	1,305	0.088
2.5	12.0	15,800	1,925	0.158	14,900	1,605	0.123	13,200	1,305	0.088

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Work Material		Alloy Steels, Carbon Steels (SCM, SNCM, S45C)			Prehardened Steels (NAK, CENA, KP4)			Hardened Steels (SKD, SKT, STAVAX)		
Hardness		≤ 35 HRC			35 ~ 45 HRC			45 ~ 55 HRC		
Strength		≤ 1100N / mm ²			1100~1500N / mm ²			1500~2000N / mm ²		
Cutting Diameter (metric)	Effective Length	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)
2.5	16.0	14,220	1,560	0.090	13,410	1,300	0.070	11,880	1,055	0.050
2.5	20.0	14,220	1,560	0.090	13,410	1,300	0.070	11,880	1,055	0.050
2.5	22.0	14,220	1,560	0.056	13,410	1,300	0.044	11,880	1,055	0.031
2.5	26.0	12,640	1,230	0.056	11,920	1,025	0.044	10,560	835	0.031
2.5	30.0	12,640	1,230	0.056	11,920	1,025	0.044	10,560	835	0.031
2.5	35.0	12,640	1,230	0.034	11,920	1,025	0.026	10,560	835	0.019
2.5	40.0	9,480	810	0.034	8,940	675	0.026	7,920	550	0.019
2.5	45.0	9,480	810	0.023	8,940	675	0.018	7,920	550	0.013
2.5	50.0	9,480	810	0.023	8,940	675	0.018	7,920	550	0.013
3.0	6.0	13,700	2,050	0.270	12,900	1,730	0.210	11,400	1,435	0.150
3.0	8.0	13,700	2,050	0.270	12,900	1,730	0.210	11,400	1,435	0.150
3.0	10.0	13,700	2,050	0.189	12,900	1,730	0.147	11,400	1,435	0.105
3.0	12.0	13,700	2,050	0.189	12,900	1,730	0.147	11,400	1,435	0.105
3.0	14.0	13,700	2,050	0.189	12,900	1,730	0.147	11,400	1,435	0.105
3.0	16.0	12,330	1,660	0.108	11,610	1,400	0.084	10,260	1,160	0.060
3.0	18.0	12,330	1,660	0.108	11,610	1,400	0.084	10,260	1,160	0.060
3.0	20.0	12,330	1,660	0.108	11,610	1,400	0.084	10,260	1,160	0.060
3.0	22.0	12,330	1,660	0.108	11,610	1,400	0.084	10,260	1,160	0.060
3.0	26.0	12,330	1,660	0.068	11,610	1,400	0.053	10,260	1,160	0.038
3.0	30.0	12,330	1,660	0.068	11,610	1,400	0.053	10,260	1,160	0.038
3.0	35.0	10,960	1,310	0.068	10,320	1,105	0.053	9,120	920	0.038
3.0	40.0	10,960	1,310	0.041	10,320	1,105	0.032	9,120	920	0.023
3.0	45.0	10,960	1,310	0.041	10,320	1,105	0.032	9,120	920	0.023
3.0	50.0	8,220	860	0.027	7,740	725	0.021	6,840	605	0.015
3.0	60.0	8,220	860	0.027	7,740	725	0.021	6,840	605	0.015
4.0	8.0	9,800	1,965	0.360	9,300	1,670	0.280	8,200	1,395	0.200
4.0	10.0	9,800	1,965	0.360	9,300	1,670	0.280	8,200	1,395	0.200
4.0	12.0	9,800	1,965	0.360	9,300	1,670	0.280	8,200	1,395	0.200
4.0	14.0	9,800	1,965	0.252	9,300	1,670	0.196	8,200	1,395	0.140
4.0	16.0	9,800	1,965	0.252	9,300	1,670	0.196	8,200	1,395	0.140
4.0	18.0	9,800	1,965	0.252	9,300	1,670	0.196	8,200	1,395	0.140
4.0	20.0	9,800	1,965	0.252	9,300	1,670	0.196	8,200	1,395	0.140
4.0	22.0	8,820	1,590	0.144	8,370	1,355	0.112	7,380	1,130	0.080
4.0	26.0	8,820	1,590	0.144	8,370	1,355	0.112	7,380	1,130	0.080
4.0	30.0	8,820	1,590	0.144	8,370	1,355	0.112	7,380	1,130	0.080
4.0	35.0	8,820	1,590	0.090	8,370	1,355	0.070	7,380	1,130	0.050
4.0	40.0	8,820	1,590	0.090	8,370	1,355	0.070	7,380	1,130	0.050
4.0	45.0	7,840	1,260	0.090	7,440	1,070	0.070	6,560	895	0.050
4.0	50.0	7,840	1,260	0.090	7,440	1,070	0.070	6,560	895	0.050
4.0	60.0	7,840	1,260	0.054	7,440	1,070	0.042	6,560	895	0.030
5.0	15.0	7,700	1,845	0.315	7,300	1,455	0.245	6,400	1,285	0.175
5.0	20.0	7,700	1,845	0.315	7,300	1,455	0.245	6,400	1,285	0.175
5.0	26.0	6,930	1,495	0.180	6,570	1,180	0.140	5,760	1,040	0.100
5.0	30.0	6,930	1,495	0.180	6,570	1,180	0.140	5,760	1,040	0.100
5.0	35.0	6,930	1,495	0.180	6,570	1,180	0.140	5,760	1,040	0.100
5.0	40.0	6,930	1,495	0.180	6,570	1,180	0.140	5,760	1,040	0.100
5.0	50.0	6,930	1,495	0.113	6,570	1,180	0.088	5,760	1,040	0.063
5.0	60.0	6,160	1,180	0.113	5,840	930	0.088	5,120	820	0.063
6.0	20.0	6,500	1,900	0.378	6,200	1,600	0.294	5,500	1,330	0.210
6.0	30.0	6,500	1,900	0.378	6,200	1,600	0.294	5,500	1,330	0.210

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Strength		≤ 1100N / mm ²			1100~1500N / mm ²			1500~2000N / mm ²		
Cutting Diameter (metric)	Effective Length	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)	RPM	FEED	Ap(mm)
8.0	25.0	4,850	1,800	0.504	4,600	1,500	0.392	4,000	1,280	0.280
8.0	30.0	4,850	1,800	0.504	4,600	1,500	0.392	4,000	1,280	0.280
10.0	30.0	3,850	1,650	0.900	3,680	1,400	0.700	3,200	1,200	0.500
10.0	40.0	3,850	1,650	0.630	3,680	1,400	0.490	3,200	1,200	0.350
12.0	32.0	3,200	1,520	1.080	3,050	1,300	0.840	2,650	1,100	0.600
12.0	45.0	3,200	1,520	0.756	3,050	1,300	0.588	2,650	1,100	0.420

RPM = rev. / min.
FEED = mm / min.

