

Recommended Cutting Condition

Technical Data

[DB312, 342, 402, 502, 512, 522, 54(5)2 series] ▶ High Speed Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS	
HARDNESS	~ HRC45		HRC30 ~ HRC40	
STRENGTH	~ 1500N/mm ²		1500 ~ 2000N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED
1	26,000	1,500	26,000	920
1.5	24,000	1,600	24,000	990
2	22,000	1,700	22,000	1,080
2.5	22,000	2,000	20,000	1,130
3	22,000	2,300	17,800	1,200
4	22,000	3,350	14,300	1,300
5	22,000	4,150	12,600	1,380
6	22,000	4,600	11,000	1,440
8	17,500	4,600	8,800	1,440
10	14,700	4,450	7,350	1,380
12	12,800	4,450	6,400	1,330
16	10,000	4,000	5,000	1,150
20	8,350	3,650	4,150	1,060

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

Ae: D1-D6=0.2mm
D8-D20=0.3mm
Ap: 0.2X D



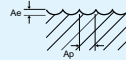
* Please reduce cutting speed around 20~30% from the above table or DB522 series..

[DB514 series] ▶ High Speed Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		HARDENED STEELS	
HARDNESS	~ HRC45		HRC45 ~ HRC65	
STRENGTH	~ 1500N/mm ²		~ 1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED
3	21,000	1,500	17,000	780
4	21,000	2,210	13,660	870
5	21,000	2,700	12,000	900
6	21,000	3,470	10,500	940
8	15,760	4,260	7,880	1,110
10	13,660	4,580	6,300	1,260
12	10,500	3,950	5,260	1,260
16	8,200	3,950	3,780	1,060
20	6,300	3,780	2,940	790

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

Ae: D1-D6=0.2mm
D8-D20=0.3mm
Ap: 0.05 X D

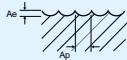


[DB514 series] ▶ General Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED	RPM	FEED
3	13,100	1,020	10,000	690	4,520	220
4	10,500	1,110	8,400	800	4,200	270
5	9,140	1,230	7,300	870	3,680	270
6	7,780	1,260	6,300	950	3,160	280
8	5,260	1,430	4,420	990	2,100	280
10	4,620	1,530	3,780	1,070	1,780	280
12	3,780	1,350	2,940	990	1,360	280
16	2,740	1,380	2,320	980	1,160	280
20	2,100	1,260	1,900	950	840	280

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

Ae: D1-D6=0.2mm
D8-D20=0.3mm
Ap: 0.2 X D



Ae: D1-D6=0.2mm
D8-D20=0.3mm
Ap: 0.1 X D

[DB532 series] ▶ General Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED	RPM	FEED
3	35,000	2,800	33,000	2,600	12,000	900
4	26,000	2,300	25,000	2,200	9,000	800
5	21,000	2,100	20,000	2,000	7,000	700
6	17,000	1,900	16,000	1,800	6,000	650
8	13,000	1,700	12,000	1,600	4,500	550
10	10,500	1,450	10,000	1,400	3,500	500
12	9,000	1,400	8,000	1,300	3,000	450
16	6,000	1,200	5,500	1,100	2,000	400

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



ae = 0.05 x d1
ap = 0.02 x d1

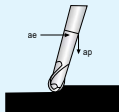
Recommended Cutting Condition

Technical Data

[DB532 series] ▶ High Speed Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED	RPM	FEED
3	47,000	3,700	44,000	3,500	17,000	1,400
4	35,000	3,200	33,000	3,000	13,000	1,200
5	28,000	2,800	27,000	2,600	10,000	1,100
6	23,000	2,600	22,000	2,400	8,000	950
8	18,000	2,300	17,000	2,100	6,000	850
10	14,000	2,000	13,000	1,900	5,000	750
12	12,000	1,800	11,000	1,800	4,000	700
16	9,000	1,600	8,000	1,500	3,300	600

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

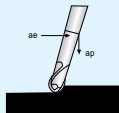


$ae = 0.05 \times d1$
 $ap = 0.02 \times d1$

[DB534 series] ▶ High Speed Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED	RPM	FEED
5	28,000	5,600	27,000	5,300	11,000	2,100
6	23,000	5,100	22,000	4,900	9,000	1,900
8	18,000	4,600	17,000	4,300	7,000	1,700
10	14,000	3,900	13,000	3,700	5,000	1,400
12	12,000	3,700	11,000	3,500	4,500	1,300
16	9,000	3,100	8,000	3,000	3,300	1,100

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

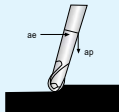


$ae = 0.05 \times d1$
 $ap = 0.02 \times d1$

[DB534 series] ▶ General Cutting

WORKPIECE	NON-ALLOYED STEELS ALLOY STEELS - CAST IRON		ALLOY STEELS, HEAT RESISTANT STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETER(mm)	RPM	FEED	RPM	FEED	RPM	FEED
5	21,000	4,000	20,000	4,000	7,000	1,400
6	17,000	4,000	16,000	3,500	6,000	1,300
8	13,000	3,500	12,000	3,000	4,500	1,100
10	10,500	3,000	10,000	2,500	3,500	1,000
12	9,000	2,800	8,000	2,500	3,000	950
16	6,000	2,800	5,500	2,200	2,000	800

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



$ae = 0.05 \times d1$
 $ap = 0.02 \times d1$