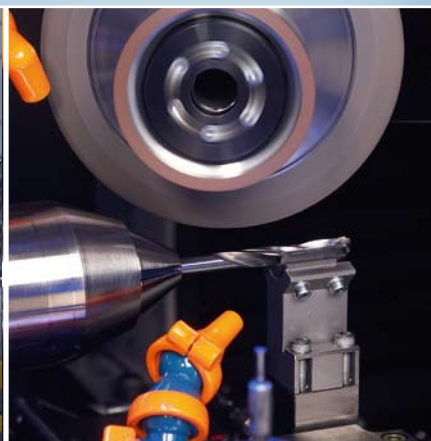
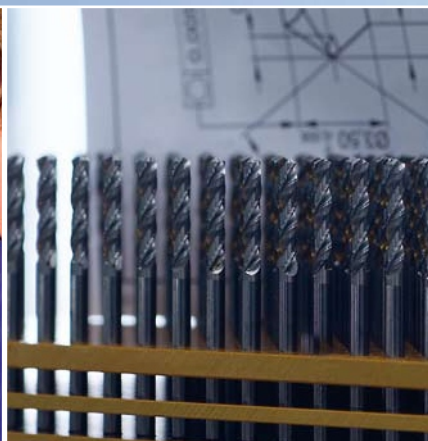




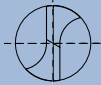
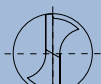
Спиральные сверла

SPHINX

Your partner



Содержание

Артикул		Страница	Диаметр	Длина	Материал сверла	Покрытие		
	50810	4	ø 2.00–20.00		VHM MD/SC			
	50812	5	ø 2.00–20.00		VHM MD/SC			
	50814	6	ø 2.00–20.00		VHM MD/SC			
	50820	7	ø 0.70–14.00	–10xd	VHM MD/SC			
	50830	8	ø 0.30–20.00	–5xd	VHM MD/SC			
	50838	9	ø 0.30–6.00	4–10xd	VHM MD/SC			
$V = \frac{d \times \pi \times n}{1000}$		10–11	Режимы резания					

✓ hervorragend
remarquablement
ottimo
outstanding

✓ gut
bien
bene
well

	сталь	сталь <1000 Н/мм ²	сталь >1000 Н/мм ²	Нерж.ст. мартен.	Нерж.ст. аустен.	Cu, ВЧ КЧ	Al <9% Si	Al >9% Si	Ti	CuZn	CuSn	Cu	Пластик	Au	Ag
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓					✓	✓	✓		✓	✓		✓		
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		

Центровочное сверло 90°

Арт. 50810

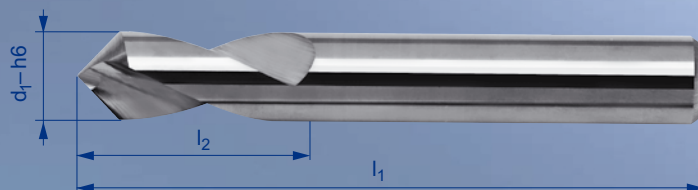
сталь

Нерж.ст.

СЧ, ВЧ
КЧ

Al

CuZn



VHM
MD/SC

SPHINX
NORM

Z
2



Vc => S./p. 10

d_1 mm	l_2 mm	l_1 mm
2.00	8.5	25
3.00	9.5	32
4.00	10.5	40
5.00	16.0	50
6.00	16.0	50
8.00	20.0	60
10.00	22.0	70
12.00	22.0	70
14.00	25.0	75
16.00	25.0	75
20.00	35.0	75

Центровочное сверло 120°

Арт. 50812

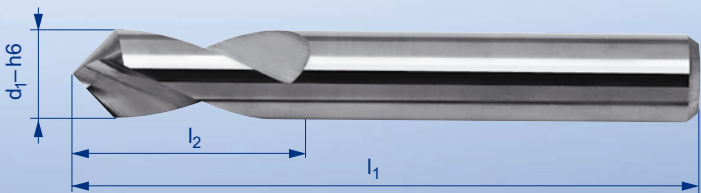
сталь

Нерж.ст.

СЧ, ВЧ
КЧ

Al

CuZn



VHM
MD/SC

SPHINX
NORM

Z
2



Vc => S./p. 10

d ₁ mm	l ₂ mm	l ₁ mm
2.00	8.5	25
3.00	9.5	32
4.00	10.5	40
5.00	16.0	50
6.00	16.0	50
8.00	20.0	60
10.00	22.0	70
12.00	22.0	70
14.00	25.0	75
16.00	25.0	75
20.00	35.0	75

Центровочное сверло 140°

Арт. 50814

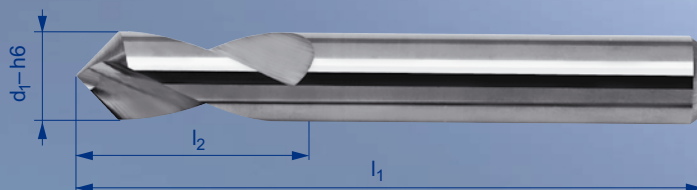
сталь

Нерж.ст

СЧ, ВЧ
КЧ

Al

CuZn



VHM
MD/SC

SPHINX
NORM

Z
2



Vc => S./p. 10

d_1 mm	l_2 mm	l_1 mm
2.00	8.5	25
3.00	9.5	32
4.00	10.5	40
5.00	16.0	50
6.00	16.0	50
8.00	20.0	60
10.00	22.0	70
12.00	22.0	70
14.00	25.0	75
16.00	25.0	75
20.00	35.0	75

Спиральное сверло SPICUT

Арт. 50820

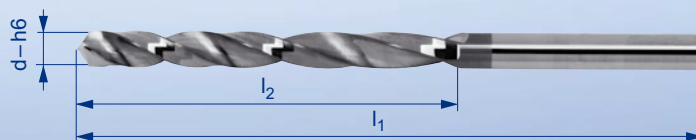
сталь

СЧ, ВЧ
КЧ

Al

CuSn

пластик



от $\varnothing$ 2 мм с 4 направляющими
фасками

$V_c \Rightarrow S./p. 10$

VHM
MD/SC

DIN
338



Z
2



d_1 мм	l_2 мм	l_1 мм
0.70	8	28
0.80	9	30
0.90	10	32
1.00	11	34
1.10	13	36
1.20	15	38
1.30	15	38
1.40	17	40
1.50	17	40
1.60	19	43
1.70	19	43
1.80	21	46
1.90	21	46
2.00	23	49
2.10	23	49
2.20	26	53
2.30	26	53
2.40	29	57
2.50	29	57
2.60	29	57
2.70	31	61
2.80	31	61
2.90	31	61
3.00	31	61
3.10	34	65
3.20	34	65
3.30	34	65
3.40	37	70
3.50	37	70
3.60	37	70
3.70	37	70
3.80	41	75
3.90	41	75
4.00	41	75
4.10	41	75
4.20	41	75
4.30	45	80
4.40	45	80

d_1 мм	l_2 мм	l_1 мм
4.50	45	80
4.60	45	80
4.70	45	80
4.80	50	86
4.90	50	86
5.00	50	86
5.10	50	86
5.20	50	86
5.30	50	86
5.40	55	93
5.50	55	93
5.60	55	93
5.70	55	93
5.80	55	93
5.90	55	93
6.00	55	93
6.10	61	101
6.20	61	101
6.30	61	101
6.40	61	101
6.50	61	101
6.60	61	101
6.70	61	101
6.80	67	109
6.90	67	109
7.00	67	109
7.10	67	109
7.20	67	109
7.30	67	109
7.40	67	109
7.50	67	109
7.60	73	117
7.70	73	117
7.80	73	117
7.90	73	117
8.00	73	117
8.10	73	117
8.20	73	117

d_1 мм	l_2 мм	l_1 мм
8.30	73	117
8.40	73	117
8.50	73	117
8.60	78	125
8.70	78	125
8.80	78	125
8.90	78	125
9.00	78	125
9.10	78	125
9.20	78	125
9.30	78	125
9.40	78	125
9.50	78	125
9.60	84	133
9.70	84	133
9.80	84	133
9.90	84	133
10.00	84	133
10.20	84	133
10.50	84	133
11.00	91	142
11.50	91	142
12.00	98	151
12.50	98	151
13.00	98	151
13.50	105	160
14.00	105	160

Спиральное сверло POSICUT

Арт. 50830

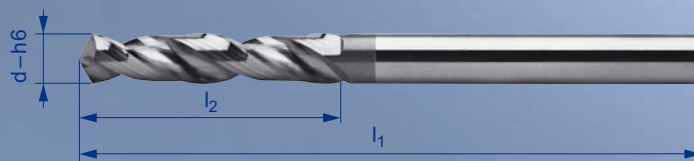
сталь

СЧ, ВЧ
КЧ

Al

Cu

Нерж.ст.



VHM
MD/SC

DIN
6539



Typ
N

Z
2



Vc => S./p. 11

d ₁ MM	l ₂ MM	l ₁ MM
0.30	1.5	19
0.40	2.3	19
0.50	2.8	20
0.60	3.3	21
0.70	4.3	23
0.80	4.8	24
0.90	5.3	25
1.00	5.7	26
1.10	6.7	28
1.20	7.7	30
1.30	7.7	30
1.40	8.7	32
1.50	8.7	32
1.60	9.7	34
1.70	9.7	34
1.80	10.7	36
1.90	10.7	36
2.00	11.5	38
2.10	11.5	38
2.20	12.5	40
2.30	12.5	40
2.40	13.5	43
2.50	13.5	43
2.60	13.5	43
2.70	15.5	46
2.80	15.5	46
2.90	15.5	46
3.00	15.5	46
3.10	17.5	49
3.20	17.5	49
3.30	17.5	49
3.40	19.5	52
3.50	19.5	52
3.60	19.5	52
3.70	19.5	52
3.80	21.5	55

d ₁ MM	l ₂ MM	l ₁ MM
3.90	21.5	55
4.00	21.5	55
4.10	21.5	55
4.20	21.5	55
4.30	23	58
4.40	23	58
4.50	23	58
4.60	23	58
4.70	23	58
4.80	25	62
4.90	25	62
5.00	25	62
5.10	25	62
5.20	25	62
5.30	25	62
5.40	27	66
5.50	27	66
5.60	27	66
5.70	27	66
5.80	27	66
5.90	27	66
6.00	27	66
6.10	30	70
6.20	30	70
6.30	30	70
6.40	30	70
6.50	30	70
6.60	30	70
6.70	30	70
6.80	33	74
6.90	33	74
7.00	33	74
7.10	33	74
7.20	33	74
7.30	33	74
7.40	33	74

d ₁ MM	l ₂ MM	l ₁ MM
7.50	33	74
7.60	36	79
7.70	36	79
7.80	36	79
7.90	36	79
8.00	36	79
8.10	36	79
8.20	36	79
8.30	36	79
8.40	36	79
8.50	36	79
8.60	39	84
8.70	39	84
8.80	39	84
8.90	39	84
9.00	39	84
9.10	39	84
9.20	39	84
9.30	39	84
9.40	39	84
9.50	39	84
9.60	41	89
9.70	41	89
9.80	41	89
9.90	41	89
10.00	41	89
10.20	41	89
10.50	41	89
11.00	45	95
11.50	45	95
12.00	49	102
12.50	49	102
13.00	49	102
13.50	52	107
14.00	52	107
15.00	54	111

d ₁ MM	l ₂ MM	l ₁ MM
16.00	56	115
17.00	58	119
18.00	60	123
19.00	62	127
20.00	64	131

Спиральное сверло SPIREC

Арт. 50838

сталь

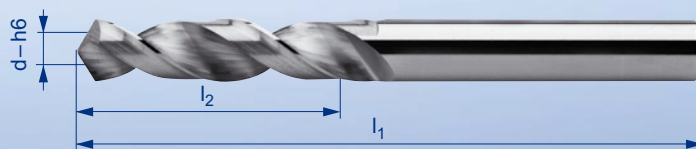
Нерж.ст.

СЧ, ВЧ
КЧ

Al

пластик

CuZn



VHM
MD/SC

SPHINX
NORM



Typ
N

Z
2



Vc => S./p. 11

d ₁ mm	l ₂ mm	l ₁ mm
0.30	3.7	38
0.35	3.7	38
0.40	4.7	38
0.45	4.7	38
0.50	5.7	38
0.55	5.7	38
0.60	7.7	38
0.65	7.7	38
0.70	9.7	38
0.75	9.7	38
0.80	11.7	38
0.85	11.7	38
0.90	14.7	38
0.95	14.7	38
1.00	14.7	38
1.05	14.7	38
1.10	14.7	38
1.15	14.7	38
1.20	14.7	38
1.25	14.7	38
1.30	14.7	38
1.35	14.7	38
1.40	14.7	38
1.45	14.7	38
1.50	14.7	38
1.55	14.7	38
1.60	14.7	38
1.65	14.7	38
1.70	14.7	38
1.75	14.7	38
1.80	14.7	38
1.85	14.7	38
1.90	14.7	38
1.95	14.7	38
2.00	14.7	38
2.05	14.7	38

d ₁ mm	l ₂ mm	l ₁ mm
2.10	14.7	38
2.15	14.7	38
2.20	14.7	38
2.25	14.7	38
2.30	14.7	38
2.35	14.7	38
2.40	14.7	38
2.45	14.7	38
2.50	14.7	38
2.55	14.7	38
2.60	14.7	38
2.65	14.7	38
2.70	14.7	38
2.75	14.7	38
2.80	14.7	38
2.85	14.7	38
2.90	14.7	38
2.95	14.7	38
3.00	14.7	38
3.05	14.7	38
3.10	14.7	38
3.15	14.7	38
3.175	14.7	38
3.20	19.7	50
3.30	19.7	50
3.40	19.7	50
3.50	19.7	50
3.60	19.7	50
3.70	19.7	50
3.80	19.7	50
3.90	19.7	50
4.00	19.7	50
4.10	24.7	50
4.20	24.7	50
4.30	24.7	50
4.40	24.7	50

d ₁ mm	l ₂ mm	l ₁ mm
4.50	24.7	50
4.60	24.7	50
4.70	24.7	50
4.80	24.7	50
4.90	24.7	50
5.00	24.7	50
5.10	24.7	50
5.20	24.7	50
5.30	24.7	50
5.40	24.7	50
5.50	24.7	50
5.60	24.7	50
5.70	24.7	50
5.80	24.7	50
5.90	24.7	50
6.00	24.7	50

Режимы резания

Арт. 50810/50812/50814

Материал	Диаметр, мм	v=м/мин	f=мм/об
сталь	3.0 – 6.0	60 – 90	0.03 – 0.07
	8.0 – 12.0	60 – 90	0.06 – 0.14
	14.0 – 20.0	60 – 90	0.12 – 0.25
сталь <1000Н/мм ²	3.0 – 6.0	35 – 60	0.03 – 0.06
	8.0 – 12.0	35 – 60	0.05 – 0.12
	14.0 – 20.0	35 – 60	0.12 – 0.23
сталь >1000Н/мм ²	3.0 – 6.0	30 – 50	0.02 – 0.06
	8.0 – 12.0	30 – 50	0.06 – 0.10
	14.0 – 20.0	30 – 50	0.10 – 0.20
Нерж.ст.	3.0 – 6.0	30 – 50	0.02 – 0.06
	8.0 – 12.0	30 – 50	0.06 – 0.10
	14.0 – 20.0	30 – 50	0.10 – 0.20
СЧ, ВЧ	3.0 – 6.0	80 – 120	0.04 – 0.08
	8.0 – 12.0	80 – 120	0.08 – 0.16
	14.0 – 20.0	80 – 120	0.16 – 0.50
КЧ	3.0 – 6.0	50 – 80	0.03 – 0.06
	8.0 – 12.0	50 – 80	0.06 – 0.12
	14.0 – 20.0	50 – 80	0.12 – 0.30
Al <9% Si	3.0 – 6.0	100 – 150	0.04 – 0.10
	8.0 – 12.0	100 – 150	0.10 – 0.20
	14.0 – 20.0	100 – 150	0.20 – 0.45
Al >9% Si	3.0 – 6.0	100 – 150	0.04 – 0.10
	8.0 – 12.0	100 – 150	0.10 – 0.18
	14.0 – 20.0	100 – 150	0.18 – 0.40
Ti	3.0 – 6.0	70 – 120	0.03 – 0.08
	8.0 – 12.0	70 – 120	0.08 – 0.12
	14.0 – 20.0	70 – 120	0.12 – 0.20

Арт. 50820

Материал	Диаметр, мм	v=м/мин	f=мм/об
сталь	0.7 – 2.5	25 – 60	0.004 – 0.007
	2.6 – 6.0	60 – 90	0.007 – 0.012
	6.1 – 9.0	60 – 90	0.010 – 0.025
	9.1 – 11.0	60 – 90	0.020 – 0.040
	11.1 – 14.0	60 – 90	0.040 – 0.070
сталь <1000Н/мм ²	0.7 – 2.5	10 – 35	0.003 – 0.005
	2.6 – 6.0	35 – 60	0.004 – 0.010
	6.1 – 9.0	35 – 60	0.010 – 0.020
	9.1 – 11.0	35 – 60	0.020 – 0.035
	11.1 – 14.0	35 – 60	0.035 – 0.060
Al <9% Si	0.7 – 2.5	80 – 160	0.004 – 0.007
	2.6 – 6.0	80 – 180	0.007 – 0.015
	6.1 – 9.0	80 – 180	0.015 – 0.030
	9.1 – 11.0	80 – 180	0.030 – 0.080
	11.1 – 14.0	80 – 180	0.080 – 0.150
Al >9% Si	0.7 – 2.5	60 – 100	0.004 – 0.007
	2.6 – 6.0	60 – 120	0.007 – 0.015
	6.1 – 9.0	60 – 120	0.015 – 0.030
	9.1 – 11.0	60 – 120	0.030 – 0.080
	11.1 – 14.0	60 – 120	0.080 – 0.150
CuZn	0.7 – 2.5	40 – 80	0.005 – 0.020
	2.6 – 6.0	80 – 160	0.020 – 0.040
	6.1 – 9.0	80 – 160	0.040 – 0.080
	9.1 – 11.0	80 – 160	0.080 – 0.120
	11.1 – 14.0	80 – 160	0.120 – 0.180
пластик	0.7 – 2.5	30 – 50	0.005 – 0.020
	2.6 – 6.0	30 – 100	0.020 – 0.040
	6.1 – 9.0	30 – 100	0.040 – 0.080
	9.1 – 11.0	30 – 100	0.060 – 0.120
	11.1 – 14.0	30 – 100	0.100 – 0.150

Указанные режимы резания являются ориентировочными и подлежат корректировке на станке.

Режимы резания

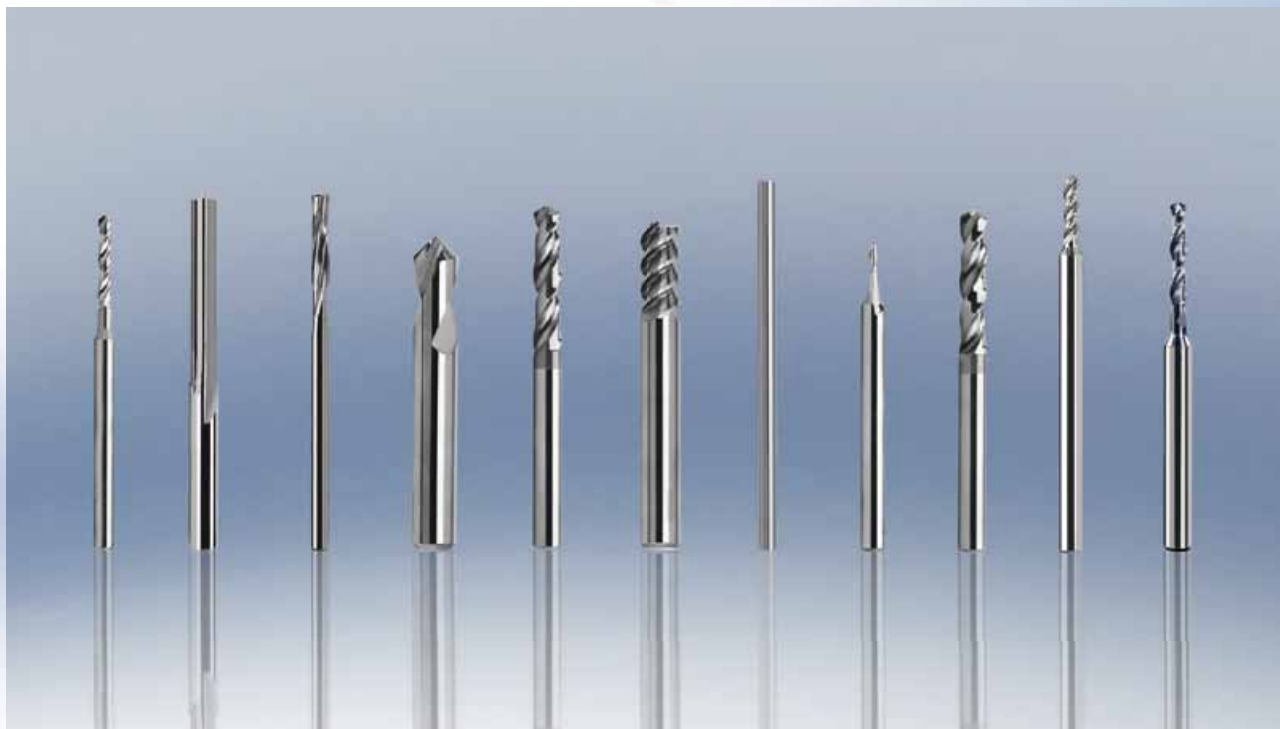
Арт. 50830/50838

Материал	Диаметр, мм	v=м/мин	f=мм/об
сталь	0.3 – 4.0	30 – 90	0.01 – 0.04
	4.1 – 8.0	60 – 90	0.04 – 0.08
	8.1 – 12.0	60 – 90	0.08 – 0.14
	12.1 – 16.0	60 – 90	0.14 – 0.20
	16.1 – 20.0	60 – 90	0.20 – 0.26
сталь <1000Н/мм ²	0.3 – 4.0	20 – 35	0.01 – 0.03
	4.1 – 8.0	35 – 60	0.03 – 0.07
	8.1 – 12.0	35 – 60	0.07 – 0.12
	12.1 – 16.0	35 – 60	0.12 – 0.18
	16.1 – 20.0	35 – 60	0.18 – 0.23
сталь >1000Н/мм ²	0.3 – 4.0	15 – 30	0.005-0.02
	4.1 – 8.0	30 – 50	0.02 – 0.06
	8.1 – 12.0	30 – 50	0.06 – 0.10
	12.1 – 16.0	30 – 50	0.10 – 0.15
	16.1 – 20.0	30 – 50	0.15 – 0.20
Нерж.ст. мартен.	0.3 – 4.0	15 – 30	0.005-0.02
	4.1 – 8.0	30 – 50	0.02 – 0.06
	8.1 – 12.0	30 – 50	0.06 – 0.10
	12.1 – 16.0	30 – 50	0.10 – 0.15
	16.1 – 20.0	30 – 50	0.15 – 0.20
Нерж.ст. аустен.	0.3 – 4.0	10 – 20	0.004-0.02
	4.1 – 8.0	20 – 40	0.02 – 0.06
	8.1 – 12.0	20 – 40	0.06 – 0.10
	12.1 – 16.0	20 – 40	0.10 – 0.14
	16.1 – 20.0	20 – 40	0.14 – 0.18
СЧ, ВЧ	0.3 – 4.0	40 – 80	0.01 – 0.06
	4.1 – 8.0	80 – 120	0.06 – 0.10
	8.1 – 12.0	80 – 120	0.10 – 0.16
	12.1 – 16.0	80 – 120	0.16 – 0.30
	16.1 – 20.0	80 – 120	0.30 – 0.50
КЧ	0.3 – 4.0	20 – 50	0.01 – 0.03
	4.1 – 8.0	50 – 80	0.03 – 0.08
	8.1 – 12.0	50 – 80	0.08 – 0.13
	12.1 – 16.0	50 – 80	0.13 – 0.18
	16.1 – 20.0	50 – 80	0.18 – 0.30
Al <9% Si	0.3 – 4.0	60 – 100	0.015 – 0.05
	4.1 – 8.0	100 – 150	0.05 – 0.12
	8.1 – 12.0	100 – 150	0.12 – 0.20
	12.1 – 16.0	100 – 150	0.20 – 0.30
	16.1 – 20.0	100 – 150	0.30 – 0.45

Материал	Диаметр, мм	v=м/мин	f=мм/об
Al >9% Si	0.3 – 4.0	30 – 70	0.01 – 0.05
	4.1 – 8.0	70 – 120	0.05 – 0.11
	8.1 – 12.0	70 – 120	0.11 – 0.18
	12.1 – 16.0	70 – 120	0.18 – 0.28
	16.1 – 20.0	70 – 120	0.28 – 0.40
Ti	0.3 – 4.0	20 – 30	0.02 – 0.04
	4.1 – 8.0	30 – 50	0.04 – 0.08
	8.1 – 12.0	30 – 50	0.08 – 0.12
	12.1 – 16.0	30 – 50	0.12 – 0.16
	16.1 – 20.0	30 – 50	0.16 – 0.20

Указанные режимы резания являются ориентировочными и подлежат корректировке на станке.

Обзор программы



Фотографии заводов в г. Дерендинген и Поррентруй, доказательство того, что товар носит статус: "Сделано в Швейцарии".

ООО "ДВЛ-Инжиниринг"
ул. Новгородская, д.1
Москва, Россия

Тел.: (495) 585-5465, 585-0665
Факс: (495) 223-4039
www.dwl-e.ru ; info@dwl-e.ru