Эскиз инструмента	Вид охлаждения	Диаметры	Артикул	Область применения					
				P	M	K	N	S	H
Монолитные твердосплавные свёрла **3xD**									
		d1 3-20	D001	●	●		●	●	
		d1 3-20	ID001	●	●		●	●	
		d1 3-20	D002	●	○	●	○	○	○
		d1 3-20	ID002	●	○	●	○	○	○
		d1 3-20	D003	●				○	●
		d1 3-20	ID003	●				○	●
		d1 3-20	ID004		●			●	
		d1 3-20	D006				●		
		d1 3-20	ID006				●		
Монолитные твердосплавные свёрла **5xD**									
		d1 3-25	D019	●	●		●	●	
		d1 3-25	ID019	●	●		●	●	
		d1 3-25	D021	●	○	●	○	○	○
		d1 3-25	ID021	●	○	●	○	○	○
		d1 3-25	ID022	●				○	●
		d1 3-25	ID020		●			●	
		d1 3-25	ID026				●		
Монолитные твердосплавные свёрла **7xD**									
		d1 3-20	D045	●	○	●	○	○	○
		d1 3-20	ID046	●				○	●
		d1 3-20	ID047				●		

● - *рекомендованное применение*
○ - *возможное применение*

	Вид охлаждения	Диаметры	Артикул	Область применения					
				P	M	K	N	S	H
Монолитные твердосплавные свёрла с прямой канавкой **4xD**									
		d1 3-20	ID082				●		
		d1 3-20	ID088				●		
		d1 3-20	ID085			●			
Монолитные твердосплавные свёрла с прямой канавкой **7xD**									
		d1 3-20	ID083				●		
		d1 3-20	ID089				●		
		d1 3-20	ID086			●			
Монолитные твердосплавные свёрла с прямой канавкой **10xD**									
		d1 3-20	ID084				●		
		d1 3-20	ID090				●		
		d1 3-20	ID087			●			
Спиральные твердосплавные свёрла с цилиндрическим хвостовиком **3xD**									
		d1 3-16	D005	●	●	●	●	●	○
Спиральные твердосплавные свёрла с цилиндрическим хвостовиком **5xD**									
		d1 3-14	D025	●	●	●	●	●	○
Центровочные твердосплавные сверла									
		90° d1 3-25	D077	●	●	●	●	●	●
		120° d1 3-25	D078	●	●	●	●	●	●
		118°/60° d1 1-12,5	D079	●	●	●	●	●	●

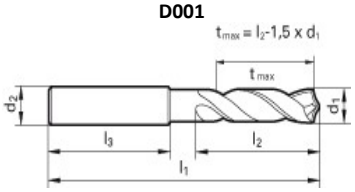
● - *рекомендованное применение*
○ - *возможное применение*

Сверла. Каталог 2022

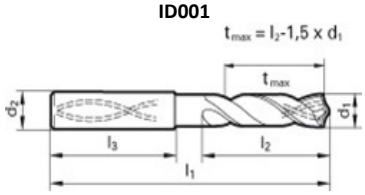
Артикул
D001/ID001
d1 = 3-20

3xd1 | m7 | 140° | HA | HE | С покрытием

D001



ID001



P	M	K	N	S	H
•	•		•	•	

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	62,0	20,0	36,0	8,7	10,0	89,0	47,0	40,0	14,4	16,0	115,0	65,0	48,0
3,1	6,0	62,0	20,0	36,0	8,8	10,0	89,0	47,0	40,0	14,5	16,0	115,0	65,0	48,0
3,2	6,0	62,0	20,0	36,0	8,9	10,0	89,0	47,0	40,0	14,6	16,0	115,0	65,0	48,0
3,3	6,0	62,0	20,0	36,0	9,0	10,0	89,0	47,0	40,0	14,7	16,0	115,0	65,0	48,0
3,4	6,0	62,0	20,0	36,0	9,1	10,0	89,0	47,0	40,0	14,8	16,0	115,0	65,0	48,0
3,5	6,0	62,0	20,0	36,0	9,2	10,0	89,0	47,0	40,0	14,9	16,0	115,0	65,0	48,0
3,6	6,0	62,0	20,0	36,0	9,3	10,0	89,0	47,0	40,0	15,0	16,0	115,0	65,0	48,0
3,7	6,0	62,0	20,0	36,0	9,4	10,0	89,0	47,0	40,0	15,1	16,0	115,0	65,0	48,0
3,8	6,0	66,0	24,0	36,0	9,5	10,0	89,0	47,0	40,0	15,2	16,0	115,0	65,0	48,0
3,9	6,0	66,0	24,0	36,0	9,6	10,0	89,0	47,0	40,0	15,3	16,0	115,0	65,0	48,0
4,0	6,0	66,0	24,0	36,0	9,7	10,0	89,0	47,0	40,0	15,4	16,0	115,0	65,0	48,0
4,1	6,0	66,0	24,0	36,0	9,8	10,0	89,0	47,0	40,0	15,5	16,0	115,0	65,0	48,0
4,2	6,0	66,0	24,0	36,0	9,9	10,0	89,0	47,0	40,0	15,6	16,0	115,0	65,0	48,0
4,3	6,0	66,0	24,0	36,0	10,0	10,0	89,0	47,0	40,0	15,7	16,0	115,0	65,0	48,0
4,4	6,0	66,0	24,0	36,0	10,1	12,0	102,0	55,0	45,0	15,8	16,0	115,0	65,0	48,0
4,5	6,0	66,0	24,0	36,0	10,2	12,0	102,0	55,0	45,0	15,9	16,0	115,0	65,0	48,0
4,6	6,0	66,0	24,0	36,0	10,3	12,0	102,0	55,0	45,0	16,0	16,0	115,0	65,0	48,0
4,7	6,0	66,0	24,0	36,0	10,4	12,0	102,0	55,0	45,0	16,1	18,0	123,0	73,0	48,0
4,8	6,0	66,0	28,0	36,0	10,5	12,0	102,0	55,0	45,0	16,2	18,0	123,0	73,0	48,0
4,9	6,0	66,0	28,0	36,0	10,6	12,0	102,0	55,0	45,0	16,3	18,0	123,0	73,0	48,0
5,0	6,0	66,0	28,0	36,0	10,7	12,0	102,0	55,0	45,0	16,4	18,0	123,0	73,0	48,0
5,1	6,0	66,0	28,0	36,0	10,8	12,0	102,0	55,0	45,0	16,5	18,0	123,0	73,0	48,0
5,2	6,0	66,0	28,0	36,0	10,9	12,0	102,0	55,0	45,0	16,6	18,0	123,0	73,0	48,0
5,3	6,0	66,0	28,0	36,0	11,0	12,0	102,0	55,0	45,0	16,7	18,0	123,0	73,0	48,0
5,4	6,0	66,0	28,0	36,0	11,1	12,0	102,0	55,0	45,0	16,8	18,0	123,0	73,0	48,0
5,5	6,0	66,0	28,0	36,0	11,2	12,0	102,0	55,0	45,0	16,9	18,0	123,0	73,0	48,0
5,6	6,0	66,0	28,0	36,0	11,3	12,0	102,0	55,0	45,0	17,0	18,0	123,0	73,0	48,0
5,7	6,0	66,0	28,0	36,0	11,4	12,0	102,0	55,0	45,0	17,1	18,0	123,0	73,0	48,0
5,8	6,0	66,0	28,0	36,0	11,5	12,0	102,0	55,0	45,0	17,2	18,0	123,0	73,0	48,0
5,9	6,0	66,0	28,0	36,0	11,6	12,0	102,0	55,0	45,0	17,3	18,0	123,0	73,0	48,0
6,0	6,0	66,0	28,0	36,0	11,7	12,0	102,0	55,0	45,0	17,4	18,0	123,0	73,0	48,0
6,1	8,0	79,0	34,0	36,0	11,8	12,0	102,0	55,0	45,0	17,5	18,0	123,0	73,0	48,0
6,2	8,0	79,0	34,0	36,0	11,9	12,0	102,0	55,0	45,0	17,6	18,0	123,0	73,0	48,0
6,3	8,0	79,0	34,0	36,0	12,0	12,0	102,0	55,0	45,0	17,7	18,0	123,0	73,0	48,0
6,4	8,0	79,0	34,0	36,0	12,1	14,0	107,0	60,0	45,0	17,8	18,0	123,0	73,0	48,0
6,5	8,0	79,0	34,0	36,0	12,2	14,0	107,0	60,0	45,0	17,9	18,0	123,0	73,0	48,0
6,6	8,0	79,0	34,0	36,0	12,3	14,0	107,0	60,0	45,0	18,0	18,0	123,0	73,0	48,0
6,7	8,0	79,0	34,0	36,0	12,4	14,0	107,0	60,0	45,0	18,1	20,0	131,0	79,0	50,0
6,8	8,0	79,0	34,0	36,0	12,5	14,0	107,0	60,0	45,0	18,2	20,0	131,0	79,0	50,0
6,9	8,0	79,0	34,0	36,0	12,6	14,0	107,0	60,0	45,0	18,3	20,0	131,0	79,0	50,0
7,0	8,0	79,0	34,0	36,0	12,7	14,0	107,0	60,0	45,0	18,4	20,0	131,0	79,0	50,0
7,1	8,0	79,0	41,0	36,0	12,8	14,0	107,0	60,0	45,0	18,5	20,0	131,0	79,0	50,0
7,2	8,0	79,0	41,0	36,0	12,9	14,0	107,0	60,0	45,0	18,6	20,0	131,0	79,0	50,0
7,3	8,0	79,0	41,0	36,0	13,0	14,0	107,0	60,0	45,0	18,7	20,0	131,0	79,0	50,0
7,4	8,0	79,0	41,0	36,0	13,1	14,0	107,0	60,0	45,0	18,8	20,0	131,0	79,0	50,0
7,5	8,0	79,0	41,0	36,0	13,2	14,0	107,0	60,0	45,0	18,9	20,0	131,0	79,0	50,0
7,6	8,0	79,0	41,0	36,0	13,3	14,0	107,0	60,0	45,0	19,0	20,0	131,0	79,0	50,0
7,7	8,0	79,0	41,0	36,0	13,4	14,0	107,0	60,0	45,0	19,1	20,0	131,0	79,0	50,0
7,8	8,0	79,0	41,0	36,0	13,5	14,0	107,0	60,0	45,0	19,2	20,0	131,0	79,0	50,0
7,9	8,0	79,0	41,0	36,0	13,6	14,0	107,0	60,0	45,0	19,3	20,0	131,0	79,0	50,0
8,0	8,0	79,0	41,0	36,0	13,7	14,0	107,0	60,0	45,0	19,4	20,0	131,0	79,0	50,0
8,1	10,0	89,0	47,0	40,0	13,8	14,0	107,0	60,0	45,0	19,5	20,0	131,0	79,0	50,0
8,2	10,0	89,0	47,0	40,0	13,9	14,0	107,0	60,0	45,0	19,6	20,0	131,0	79,0	50,0
8,3	10,0	89,0	47,0	40,0	14,0	14,0	107,0	60,0	45,0	19,7	20,0	131,0	79,0	50,0
8,4	10,0	89,0	47,0	40,0	14,1	16,0	115,0	65,0	48,0	19,8	20,0	131,0	79,0	50,0
8,5	10,0	89,0	47,0	40,0	14,2	16,0	115,0	65,0	48,0	19,9	20,0	131,0	79,0	50,0
8,6	10,0	89,0	47,0	40,0	14,3	16,0	115,0	65,0	48,0	20,0	20,0	131,0	79,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D001-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID001-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

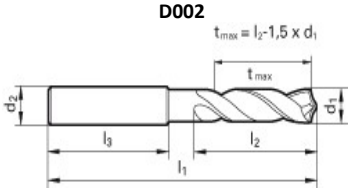
	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		D001	ID001	D001	ID001
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		130	145	7	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		110	120	6	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		145	170	8	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		110	145	7	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		120	130	7	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		110	125	7	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		105	120	7	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		105	120	7	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		100	105	6	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		130	145	8	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	120	7	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	85	5	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		100	110	6	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		90	105	5	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	80	6	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		55	65	5	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400			60	4	4
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	45	60	3	3
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		55	60	4	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		45	55	4	5
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		45	45	3	5
S	Специальные сплавы	Нимоник, инконель, монель, хастеллой	≤2000		25	35	4	4
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		40	45	3	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		35	40	3	3
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	310	9	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	310	9	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		220	260	9	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	220	8	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		260	280	8	8
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		105	125	7	7
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		270	325	8	8
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		180	220	7	7
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		105	125	6	7
		2.0790 CuNi18Zn19Pb	≤850		85	105	6	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		80	90	5	6
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		60	80	5	6

Сверла. Каталог 2022

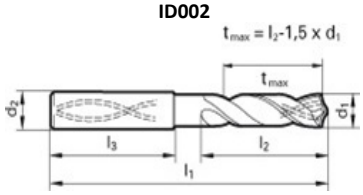
Артикул
D002/ID002
d1 = 3-20

3xd1 | m7 | 140° | HA | HE | С покрытием

D002



ID002



P	M	K	N	S	H
●	○	●	○	○	○

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	62,0	20,0	36,0	8,7	10,0	89,0	47,0	40,0	14,4	16,0	115,0	65,0	48,0
3,1	6,0	62,0	20,0	36,0	8,8	10,0	89,0	47,0	40,0	14,5	16,0	115,0	65,0	48,0
3,2	6,0	62,0	20,0	36,0	8,9	10,0	89,0	47,0	40,0	14,6	16,0	115,0	65,0	48,0
3,3	6,0	62,0	20,0	36,0	9,0	10,0	89,0	47,0	40,0	14,7	16,0	115,0	65,0	48,0
3,4	6,0	62,0	20,0	36,0	9,1	10,0	89,0	47,0	40,0	14,8	16,0	115,0	65,0	48,0
3,5	6,0	62,0	20,0	36,0	9,2	10,0	89,0	47,0	40,0	14,9	16,0	115,0	65,0	48,0
3,6	6,0	62,0	20,0	36,0	9,3	10,0	89,0	47,0	40,0	15,0	16,0	115,0	65,0	48,0
3,7	6,0	62,0	20,0	36,0	9,4	10,0	89,0	47,0	40,0	15,1	16,0	115,0	65,0	48,0
3,8	6,0	66,0	24,0	36,0	9,5	10,0	89,0	47,0	40,0	15,2	16,0	115,0	65,0	48,0
3,9	6,0	66,0	24,0	36,0	9,6	10,0	89,0	47,0	40,0	15,3	16,0	115,0	65,0	48,0
4,0	6,0	66,0	24,0	36,0	9,7	10,0	89,0	47,0	40,0	15,4	16,0	115,0	65,0	48,0
4,1	6,0	66,0	24,0	36,0	9,8	10,0	89,0	47,0	40,0	15,5	16,0	115,0	65,0	48,0
4,2	6,0	66,0	24,0	36,0	9,9	10,0	89,0	47,0	40,0	15,6	16,0	115,0	65,0	48,0
4,3	6,0	66,0	24,0	36,0	10,0	10,0	89,0	47,0	40,0	15,7	16,0	115,0	65,0	48,0
4,4	6,0	66,0	24,0	36,0	10,1	12,0	102,0	55,0	45,0	15,8	16,0	115,0	65,0	48,0
4,5	6,0	66,0	24,0	36,0	10,2	12,0	102,0	55,0	45,0	15,9	16,0	115,0	65,0	48,0
4,6	6,0	66,0	24,0	36,0	10,3	12,0	102,0	55,0	45,0	16,0	16,0	115,0	65,0	48,0
4,7	6,0	66,0	24,0	36,0	10,4	12,0	102,0	55,0	45,0	16,1	18,0	123,0	73,0	48,0
4,8	6,0	66,0	28,0	36,0	10,5	12,0	102,0	55,0	45,0	16,2	18,0	123,0	73,0	48,0
4,9	6,0	66,0	28,0	36,0	10,6	12,0	102,0	55,0	45,0	16,3	18,0	123,0	73,0	48,0
5,0	6,0	66,0	28,0	36,0	10,7	12,0	102,0	55,0	45,0	16,4	18,0	123,0	73,0	48,0
5,1	6,0	66,0	28,0	36,0	10,8	12,0	102,0	55,0	45,0	16,5	18,0	123,0	73,0	48,0
5,2	6,0	66,0	28,0	36,0	10,9	12,0	102,0	55,0	45,0	16,6	18,0	123,0	73,0	48,0
5,3	6,0	66,0	28,0	36,0	11,0	12,0	102,0	55,0	45,0	16,7	18,0	123,0	73,0	48,0
5,4	6,0	66,0	28,0	36,0	11,1	12,0	102,0	55,0	45,0	16,8	18,0	123,0	73,0	48,0
5,5	6,0	66,0	28,0	36,0	11,2	12,0	102,0	55,0	45,0	16,9	18,0	123,0	73,0	48,0
5,6	6,0	66,0	28,0	36,0	11,3	12,0	102,0	55,0	45,0	17,0	18,0	123,0	73,0	48,0
5,7	6,0	66,0	28,0	36,0	11,4	12,0	102,0	55,0	45,0	17,1	18,0	123,0	73,0	48,0
5,8	6,0	66,0	28,0	36,0	11,5	12,0	102,0	55,0	45,0	17,2	18,0	123,0	73,0	48,0
5,9	6,0	66,0	28,0	36,0	11,6	12,0	102,0	55,0	45,0	17,3	18,0	123,0	73,0	48,0
6,0	6,0	66,0	28,0	36,0	11,7	12,0	102,0	55,0	45,0	17,4	18,0	123,0	73,0	48,0
6,1	8,0	79,0	34,0	36,0	11,8	12,0	102,0	55,0	45,0	17,5	18,0	123,0	73,0	48,0
6,2	8,0	79,0	34,0	36,0	11,9	12,0	102,0	55,0	45,0	17,6	18,0	123,0	73,0	48,0
6,3	8,0	79,0	34,0	36,0	12,0	12,0	102,0	55,0	45,0	17,7	18,0	123,0	73,0	48,0
6,4	8,0	79,0	34,0	36,0	12,1	14,0	107,0	60,0	45,0	17,8	18,0	123,0	73,0	48,0
6,5	8,0	79,0	34,0	36,0	12,2	14,0	107,0	60,0	45,0	17,9	18,0	123,0	73,0	48,0
6,6	8,0	79,0	34,0	36,0	12,3	14,0	107,0	60,0	45,0	18,0	18,0	123,0	73,0	48,0
6,7	8,0	79,0	34,0	36,0	12,4	14,0	107,0	60,0	45,0	18,1	20,0	131,0	79,0	50,0
6,8	8,0	79,0	34,0	36,0	12,5	14,0	107,0	60,0	45,0	18,2	20,0	131,0	79,0	50,0
6,9	8,0	79,0	34,0	36,0	12,6	14,0	107,0	60,0	45,0	18,3	20,0	131,0	79,0	50,0
7,0	8,0	79,0	34,0	36,0	12,7	14,0	107,0	60,0	45,0	18,4	20,0	131,0	79,0	50,0
7,1	8,0	79,0	41,0	36,0	12,8	14,0	107,0	60,0	45,0	18,5	20,0	131,0	79,0	50,0
7,2	8,0	79,0	41,0	36,0	12,9	14,0	107,0	60,0	45,0	18,6	20,0	131,0	79,0	50,0
7,3	8,0	79,0	41,0	36,0	13,0	14,0	107,0	60,0	45,0	18,7	20,0	131,0	79,0	50,0
7,4	8,0	79,0	41,0	36,0	13,1	14,0	107,0	60,0	45,0	18,8	20,0	131,0	79,0	50,0
7,5	8,0	79,0	41,0	36,0	13,2	14,0	107,0	60,0	45,0	18,9	20,0	131,0	79,0	50,0
7,6	8,0	79,0	41,0	36,0	13,3	14,0	107,0	60,0	45,0	19,0	20,0	131,0	79,0	50,0
7,7	8,0	79,0	41,0	36,0	13,4	14,0	107,0	60,0	45,0	19,1	20,0	131,0	79,0	50,0
7,8	8,0	79,0	41,0	36,0	13,5	14,0	107,0	60,0	45,0	19,2	20,0	131,0	79,0	50,0
7,9	8,0	79,0	41,0	36,0	13,6	14,0	107,0	60,0	45,0	19,3	20,0	131,0	79,0	50,0
8,0	8,0	79,0	41,0	36,0	13,7	14,0	107,0	60,0	45,0	19,4	20,0	131,0	79,0	50,0
8,1	10,0	89,0	47,0	40,0	13,8	14,0	107,0	60,0	45,0	19,5	20,0	131,0	79,0	50,0
8,2	10,0	89,0	47,0	40,0	13,9	14,0	107,0	60,0	45,0	19,6	20,0	131,0	79,0	50,0
8,3	10,0	89,0	47,0	40,0	14,0	14,0	107,0	60,0	45,0	19,7	20,0	131,0	79,0	50,0
8,4	10,0	89,0	47,0	40,0	14,1	16,0	115,0	65,0	48,0	19,8	20,0	131,0	79,0	50,0
8,5	10,0	89,0	47,0	40,0	14,2	16,0	115,0	65,0	48,0	19,9	20,0	131,0	79,0	50,0
8,6	10,0	89,0	47,0	40,0	14,3	16,0	115,0	65,0	48,0	20,0	20,0	131,0	79,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D002-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID002-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

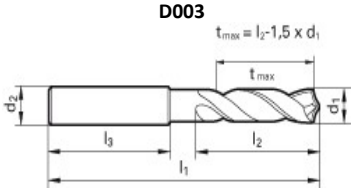
	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		D002	ID002	D002	ID002
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		130	145	7	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		110	120	6	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		145	170	8	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		110	145	7	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		120	130	7	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		110	125	7	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		105	120	7	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		105	120	7	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		100	105	6	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		130	145	8	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	120	7	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	85	5	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		100	110	6	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		90	105	5	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	80	6	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		55	65	5	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400			60		4
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	45	60	3	3
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		55	60	4	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		45	55	4	5
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		45	45	3	5
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	210	210	8	9
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	155	160	8	9
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	155	140	7	9
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	125	130	7	8
	Отбеленный чугун	–		≤350 HB	35	40	3	3
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	310	9	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	310	9	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		220	260	8	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	220	8	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		260	280	8	8
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		105	125	7	7
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		270	325	8	8
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		180	220	7	7
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		105	125	6	7
		2.0790 CuNi18Zn19Pb	≤850		85	105	6	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		80	90	5	6
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		60	80	5	6

Сверла. Каталог 2022

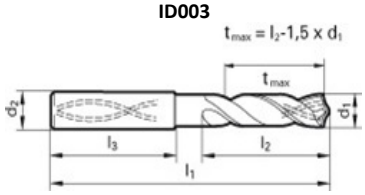
Артикул
D003/ID003
d1 = 3-20

3xd1 | m7 | 140° | HA | HE | С покрытием

D003



ID003



P	M	K	N	S	H
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Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	62,0	20,0	36,0	8,7	10,0	89,0	47,0	40,0	14,4	16,0	115,0	65,0	48,0
3,1	6,0	62,0	20,0	36,0	8,8	10,0	89,0	47,0	40,0	14,5	16,0	115,0	65,0	48,0
3,2	6,0	62,0	20,0	36,0	8,9	10,0	89,0	47,0	40,0	14,6	16,0	115,0	65,0	48,0
3,3	6,0	62,0	20,0	36,0	9,0	10,0	89,0	47,0	40,0	14,7	16,0	115,0	65,0	48,0
3,4	6,0	62,0	20,0	36,0	9,1	10,0	89,0	47,0	40,0	14,8	16,0	115,0	65,0	48,0
3,5	6,0	62,0	20,0	36,0	9,2	10,0	89,0	47,0	40,0	14,9	16,0	115,0	65,0	48,0
3,6	6,0	62,0	20,0	36,0	9,3	10,0	89,0	47,0	40,0	15,0	16,0	115,0	65,0	48,0
3,7	6,0	62,0	20,0	36,0	9,4	10,0	89,0	47,0	40,0	15,1	16,0	115,0	65,0	48,0
3,8	6,0	66,0	24,0	36,0	9,5	10,0	89,0	47,0	40,0	15,2	16,0	115,0	65,0	48,0
3,9	6,0	66,0	24,0	36,0	9,6	10,0	89,0	47,0	40,0	15,3	16,0	115,0	65,0	48,0
4,0	6,0	66,0	24,0	36,0	9,7	10,0	89,0	47,0	40,0	15,4	16,0	115,0	65,0	48,0
4,1	6,0	66,0	24,0	36,0	9,8	10,0	89,0	47,0	40,0	15,5	16,0	115,0	65,0	48,0
4,2	6,0	66,0	24,0	36,0	9,9	10,0	89,0	47,0	40,0	15,6	16,0	115,0	65,0	48,0
4,3	6,0	66,0	24,0	36,0	10,0	10,0	89,0	47,0	40,0	15,7	16,0	115,0	65,0	48,0
4,4	6,0	66,0	24,0	36,0	10,1	12,0	102,0	55,0	45,0	15,8	16,0	115,0	65,0	48,0
4,5	6,0	66,0	24,0	36,0	10,2	12,0	102,0	55,0	45,0	15,9	16,0	115,0	65,0	48,0
4,6	6,0	66,0	24,0	36,0	10,3	12,0	102,0	55,0	45,0	16,0	16,0	115,0	65,0	48,0
4,7	6,0	66,0	24,0	36,0	10,4	12,0	102,0	55,0	45,0	16,1	18,0	123,0	73,0	48,0
4,8	6,0	66,0	28,0	36,0	10,5	12,0	102,0	55,0	45,0	16,2	18,0	123,0	73,0	48,0
4,9	6,0	66,0	28,0	36,0	10,6	12,0	102,0	55,0	45,0	16,3	18,0	123,0	73,0	48,0
5,0	6,0	66,0	28,0	36,0	10,7	12,0	102,0	55,0	45,0	16,4	18,0	123,0	73,0	48,0
5,1	6,0	66,0	28,0	36,0	10,8	12,0	102,0	55,0	45,0	16,5	18,0	123,0	73,0	48,0
5,2	6,0	66,0	28,0	36,0	10,9	12,0	102,0	55,0	45,0	16,6	18,0	123,0	73,0	48,0
5,3	6,0	66,0	28,0	36,0	11,0	12,0	102,0	55,0	45,0	16,7	18,0	123,0	73,0	48,0
5,4	6,0	66,0	28,0	36,0	11,1	12,0	102,0	55,0	45,0	16,8	18,0	123,0	73,0	48,0
5,5	6,0	66,0	28,0	36,0	11,2	12,0	102,0	55,0	45,0	16,9	18,0	123,0	73,0	48,0
5,6	6,0	66,0	28,0	36,0	11,3	12,0	102,0	55,0	45,0	17,0	18,0	123,0	73,0	48,0
5,7	6,0	66,0	28,0	36,0	11,4	12,0	102,0	55,0	45,0	17,1	18,0	123,0	73,0	48,0
5,8	6,0	66,0	28,0	36,0	11,5	12,0	102,0	55,0	45,0	17,2	18,0	123,0	73,0	48,0
5,9	6,0	66,0	28,0	36,0	11,6	12,0	102,0	55,0	45,0	17,3	18,0	123,0	73,0	48,0
6,0	6,0	66,0	28,0	36,0	11,7	12,0	102,0	55,0	45,0	17,4	18,0	123,0	73,0	48,0
6,1	8,0	79,0	34,0	36,0	11,8	12,0	102,0	55,0	45,0	17,5	18,0	123,0	73,0	48,0
6,2	8,0	79,0	34,0	36,0	11,9	12,0	102,0	55,0	45,0	17,6	18,0	123,0	73,0	48,0
6,3	8,0	79,0	34,0	36,0	12,0	12,0	102,0	55,0	45,0	17,7	18,0	123,0	73,0	48,0
6,4	8,0	79,0	34,0	36,0	12,1	14,0	107,0	60,0	45,0	17,8	18,0	123,0	73,0	48,0
6,5	8,0	79,0	34,0	36,0	12,2	14,0	107,0	60,0	45,0	17,9	18,0	123,0	73,0	48,0
6,6	8,0	79,0	34,0	36,0	12,3	14,0	107,0	60,0	45,0	18,0	18,0	123,0	73,0	48,0
6,7	8,0	79,0	34,0	36,0	12,4	14,0	107,0	60,0	45,0	18,1	20,0	131,0	79,0	50,0
6,8	8,0	79,0	34,0	36,0	12,5	14,0	107,0	60,0	45,0	18,2	20,0	131,0	79,0	50,0
6,9	8,0	79,0	34,0	36,0	12,6	14,0	107,0	60,0	45,0	18,3	20,0	131,0	79,0	50,0
7,0	8,0	79,0	34,0	36,0	12,7	14,0	107,0	60,0	45,0	18,4	20,0	131,0	79,0	50,0
7,1	8,0	79,0	41,0	36,0	12,8	14,0	107,0	60,0	45,0	18,5	20,0	131,0	79,0	50,0
7,2	8,0	79,0	41,0	36,0	12,9	14,0	107,0	60,0	45,0	18,6	20,0	131,0	79,0	50,0
7,3	8,0	79,0	41,0	36,0	13,0	14,0	107,0	60,0	45,0	18,7	20,0	131,0	79,0	50,0
7,4	8,0	79,0	41,0	36,0	13,1	14,0	107,0	60,0	45,0	18,8	20,0	131,0	79,0	50,0
7,5	8,0	79,0	41,0	36,0	13,2	14,0	107,0	60,0	45,0	18,9	20,0	131,0	79,0	50,0
7,6	8,0	79,0	41,0	36,0	13,3	14,0	107,0	60,0	45,0	19,0	20,0	131,0	79,0	50,0
7,7	8,0	79,0	41,0	36,0	13,4	14,0	107,0	60,0	45,0	19,1	20,0	131,0	79,0	50,0
7,8	8,0	79,0	41,0	36,0	13,5	14,0	107,0	60,0	45,0	19,2	20,0	131,0	79,0	50,0
7,9	8,0	79,0	41,0	36,0	13,6	14,0	107,0	60,0	45,0	19,3	20,0	131,0	79,0	50,0
8,0	8,0	79,0	41,0	36,0	13,7	14,0	107,0	60,0	45,0	19,4	20,0	131,0	79,0	50,0
8,1	10,0	89,0	47,0	40,0	13,8	14,0	107,0	60,0	45,0	19,5	20,0	131,0	79,0	50,0
8,2	10,0	89,0	47,0	40,0	13,9	14,0	107,0	60,0	45,0	19,6	20,0	131,0	79,0	50,0
8,3	10,0	89,0	47,0	40,0	14,0	14,0	107,0	60,0	45,0	19,7	20,0	131,0	79,0	50,0
8,4	10,0	89,0	47,0	40,0	14,1	16,0	115,0	65,0	48,0	19,8	20,0	131,0	79,0	50,0
8,5	10,0	89,0	47,0	40,0	14,2	16,0	115,0	65,0	48,0	19,9	20,0	131,0	79,0	50,0
8,6	10,0	89,0	47,0	40,0	14,3	16,0	115,0	65,0	48,0	20,0	20,0	131,0	79,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D003-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID003-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

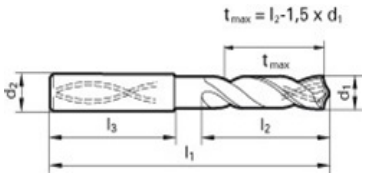
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		D003	ID003	D003	ID003
P	**Углеродистые стали общего назначения**	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		130	145	7	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		110	120	6	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		145	170	8	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		110	145	7	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		120	130	7	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		110	125	7	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		105	120	7	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		105	120	7	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		100	105	6	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		130	145	8	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	120	7	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	85	5	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		100	110	6	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		90	105	5	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	80	6	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		55	65	5	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400		55	60	4	4
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	45	60	3	3
H	**Закаленные стали**	–		≤48 HRC	45	55	3	3
				≤66 HRC	25	35	2	2
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		25	35	4	4
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		40	45	3	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		35	40	3	3

Сверла. Каталог 2022

Артикул
ID004
d1 = 3-20

3xd1 | m7 | 140° | HA | HE | С покрытием



P	M	K	N	S	H
	•			•	

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	62,0	20,0	36,0	8,7	10,0	89,0	47,0	40,0	14,4	16,0	115,0	65,0	48,0
3,1	6,0	62,0	20,0	36,0	8,8	10,0	89,0	47,0	40,0	14,5	16,0	115,0	65,0	48,0
3,2	6,0	62,0	20,0	36,0	8,9	10,0	89,0	47,0	40,0	14,6	16,0	115,0	65,0	48,0
3,3	6,0	62,0	20,0	36,0	9,0	10,0	89,0	47,0	40,0	14,7	16,0	115,0	65,0	48,0
3,4	6,0	62,0	20,0	36,0	9,1	10,0	89,0	47,0	40,0	14,8	16,0	115,0	65,0	48,0
3,5	6,0	62,0	20,0	36,0	9,2	10,0	89,0	47,0	40,0	14,9	16,0	115,0	65,0	48,0
3,6	6,0	62,0	20,0	36,0	9,3	10,0	89,0	47,0	40,0	15,0	16,0	115,0	65,0	48,0
3,7	6,0	62,0	20,0	36,0	9,4	10,0	89,0	47,0	40,0	15,1	16,0	115,0	65,0	48,0
3,8	6,0	66,0	24,0	36,0	9,5	10,0	89,0	47,0	40,0	15,2	16,0	115,0	65,0	48,0
3,9	6,0	66,0	24,0	36,0	9,6	10,0	89,0	47,0	40,0	15,3	16,0	115,0	65,0	48,0
4,0	6,0	66,0	24,0	36,0	9,7	10,0	89,0	47,0	40,0	15,4	16,0	115,0	65,0	48,0
4,1	6,0	66,0	24,0	36,0	9,8	10,0	89,0	47,0	40,0	15,5	16,0	115,0	65,0	48,0
4,2	6,0	66,0	24,0	36,0	9,9	10,0	89,0	47,0	40,0	15,6	16,0	115,0	65,0	48,0
4,3	6,0	66,0	24,0	36,0	10,0	10,0	89,0	47,0	40,0	15,7	16,0	115,0	65,0	48,0
4,4	6,0	66,0	24,0	36,0	10,1	12,0	102,0	55,0	45,0	15,8	16,0	115,0	65,0	48,0
4,5	6,0	66,0	24,0	36,0	10,2	12,0	102,0	55,0	45,0	15,9	16,0	115,0	65,0	48,0
4,6	6,0	66,0	24,0	36,0	10,3	12,0	102,0	55,0	45,0	16,0	16,0	115,0	65,0	48,0
4,7	6,0	66,0	24,0	36,0	10,4	12,0	102,0	55,0	45,0	16,1	18,0	123,0	73,0	48,0
4,8	6,0	66,0	28,0	36,0	10,5	12,0	102,0	55,0	45,0	16,2	18,0	123,0	73,0	48,0
4,9	6,0	66,0	28,0	36,0	10,6	12,0	102,0	55,0	45,0	16,3	18,0	123,0	73,0	48,0
5,0	6,0	66,0	28,0	36,0	10,7	12,0	102,0	55,0	45,0	16,4	18,0	123,0	73,0	48,0
5,1	6,0	66,0	28,0	36,0	10,8	12,0	102,0	55,0	45,0	16,5	18,0	123,0	73,0	48,0
5,2	6,0	66,0	28,0	36,0	10,9	12,0	102,0	55,0	45,0	16,6	18,0	123,0	73,0	48,0
5,3	6,0	66,0	28,0	36,0	11,0	12,0	102,0	55,0	45,0	16,7	18,0	123,0	73,0	48,0
5,4	6,0	66,0	28,0	36,0	11,1	12,0	102,0	55,0	45,0	16,8	18,0	123,0	73,0	48,0
5,5	6,0	66,0	28,0	36,0	11,2	12,0	102,0	55,0	45,0	16,9	18,0	123,0	73,0	48,0
5,6	6,0	66,0	28,0	36,0	11,3	12,0	102,0	55,0	45,0	17,0	18,0	123,0	73,0	48,0
5,7	6,0	66,0	28,0	36,0	11,4	12,0	102,0	55,0	45,0	17,1	18,0	123,0	73,0	48,0
5,8	6,0	66,0	28,0	36,0	11,5	12,0	102,0	55,0	45,0	17,2	18,0	123,0	73,0	48,0
5,9	6,0	66,0	28,0	36,0	11,6	12,0	102,0	55,0	45,0	17,3	18,0	123,0	73,0	48,0
6,0	6,0	66,0	28,0	36,0	11,7	12,0	102,0	55,0	45,0	17,4	18,0	123,0	73,0	48,0
6,1	8,0	79,0	34,0	36,0	11,8	12,0	102,0	55,0	45,0	17,5	18,0	123,0	73,0	48,0
6,2	8,0	79,0	34,0	36,0	11,9	12,0	102,0	55,0	45,0	17,6	18,0	123,0	73,0	48,0
6,3	8,0	79,0	34,0	36,0	12,0	12,0	102,0	55,0	45,0	17,7	18,0	123,0	73,0	48,0
6,4	8,0	79,0	34,0	36,0	12,1	14,0	107,0	60,0	45,0	17,8	18,0	123,0	73,0	48,0
6,5	8,0	79,0	34,0	36,0	12,2	14,0	107,0	60,0	45,0	17,9	18,0	123,0	73,0	48,0
6,6	8,0	79,0	34,0	36,0	12,3	14,0	107,0	60,0	45,0	18,0	18,0	123,0	73,0	48,0
6,7	8,0	79,0	34,0	36,0	12,4	14,0	107,0	60,0	45,0	18,1	20,0	131,0	79,0	50,0
6,8	8,0	79,0	34,0	36,0	12,5	14,0	107,0	60,0	45,0	18,2	20,0	131,0	79,0	50,0
6,9	8,0	79,0	34,0	36,0	12,6	14,0	107,0	60,0	45,0	18,3	20,0	131,0	79,0	50,0
7,0	8,0	79,0	34,0	36,0	12,7	14,0	107,0	60,0	45,0	18,4	20,0	131,0	79,0	50,0
7,1	8,0	79,0	41,0	36,0	12,8	14,0	107,0	60,0	45,0	18,5	20,0	131,0	79,0	50,0
7,2	8,0	79,0	41,0	36,0	12,9	14,0	107,0	60,0	45,0	18,6	20,0	131,0	79,0	50,0
7,3	8,0	79,0	41,0	36,0	13,0	14,0	107,0	60,0	45,0	18,7	20,0	131,0	79,0	50,0
7,4	8,0	79,0	41,0	36,0	13,1	14,0	107,0	60,0	45,0	18,8	20,0	131,0	79,0	50,0
7,5	8,0	79,0	41,0	36,0	13,2	14,0	107,0	60,0	45,0	18,9	20,0	131,0	79,0	50,0
7,6	8,0	79,0	41,0	36,0	13,3	14,0	107,0	60,0	45,0	19,0	20,0	131,0	79,0	50,0
7,7	8,0	79,0	41,0	36,0	13,4	14,0	107,0	60,0	45,0	19,1	20,0	131,0	79,0	50,0
7,8	8,0	79,0	41,0	36,0	13,5	14,0	107,0	60,0	45,0	19,2	20,0	131,0	79,0	50,0
7,9	8,0	79,0	41,0	36,0	13,6	14,0	107,0	60,0	45,0	19,3	20,0	131,0	79,0	50,0
8,0	8,0	79,0	41,0	36,0	13,7	14,0	107,0	60,0	45,0	19,4	20,0	131,0	79,0	50,0
8,1	10,0	89,0	47,0	40,0	13,8	14,0	107,0	60,0	45,0	19,5	20,0	131,0	79,0	50,0
8,2	10,0	89,0	47,0	40,0	13,9	14,0	107,0	60,0	45,0	19,6	20,0	131,0	79,0	50,0
8,3	10,0	89,0	47,0	40,0	14,0	14,0	107,0	60,0	45,0	19,7	20,0	131,0	79,0	50,0
8,4	10,0	89,0	47,0	40,0	14,1	16,0	115,0	65,0	48,0	19,8	20,0	131,0	79,0	50,0
8,5	10,0	89,0	47,0	40,0	14,2	16,0	115,0	65,0	48,0	19,9	20,0	131,0	79,0	50,0
8,6	10,0	89,0	47,0	40,0	14,3	16,0	115,0	65,0	48,0	20,0	20,0	131,0	79,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID004-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID004-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

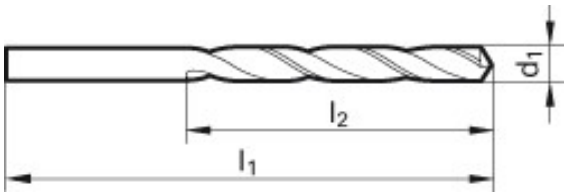
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
M	**Нерж. стали, с сод. Серы аустенитные мартенситные**	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		80	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		60	2-3
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		80	5
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		30	2
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		35	2
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400			

Сверла. Каталог 2022

Артикул
D005
d1 = 3-16

3xd1 | h7 | 118° | С покрытием



P	M	K	N	S	H
●	●	●	●	●	○

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 h7	l1	l2	d1 h7	l1	l2	d1 h7	l1	l2
3,0	46,0	16,0	7,4	74,0	34,0	11,8	95,0	47,0
3,1	49,0	18,0	7,5	74,0	34,0	11,9	102,0	51,0
3,2	49,0	18,0	7,6	79,0	37,0	12,0	102,0	51,0
3,3	49,0	18,0	7,7	79,0	37,0	12,1	102,0	51,0
3,4	52,0	20,0	7,8	79,0	37,0	12,2	102,0	51,0
3,5	52,0	20,0	7,9	79,0	37,0	12,3	102,0	51,0
3,6	52,0	20,0	8,0	79,0	37,0	12,4	102,0	51,0
3,7	52,0	20,0	8,1	79,0	37,0	12,5	102,0	51,0
3,8	55,0	22,0	8,2	79,0	37,0	12,6	102,0	51,0
3,9	55,0	22,0	8,3	79,0	37,0	12,7	102,0	51,0
4,0	55,0	22,0	8,4	79,0	37,0	12,8	102,0	51,0
4,1	55,0	22,0	8,5	79,0	37,0	12,9	102,0	51,0
4,2	55,0	22,0	8,6	84,0	40,0	13,0	102,0	51,0
4,3	58,0	24,0	8,7	84,0	40,0	13,1	102,0	51,0
4,4	58,0	24,0	8,8	84,0	40,0	13,2	102,0	51,0
4,5	58,0	24,0	8,9	84,0	40,0	13,3	107,0	54,0
4,6	58,0	24,0	9,0	84,0	40,0	13,4	107,0	54,0
4,7	58,0	24,0	9,1	84,0	40,0	13,5	107,0	54,0
4,8	62,0	26,0	9,2	84,0	40,0	13,6	107,0	54,0
4,9	62,0	26,0	9,3	84,0	40,0	13,7	107,0	54,0
5,0	62,0	26,0	9,4	84,0	40,0	13,8	107,0	54,0
5,1	62,0	26,0	9,5	84,0	40,0	13,9	107,0	54,0
5,2	62,0	26,0	9,6	89,0	43,0	14,0	107,0	54,0
5,3	62,0	26,0	9,7	89,0	43,0	14,1	111,0	56,0
5,4	66,0	28,0	9,8	89,0	43,0	14,2	111,0	56,0
5,5	66,0	28,0	9,9	89,0	43,0	14,3	111,0	56,0
5,6	66,0	28,0	10,0	89,0	43,0	14,4	111,0	56,0
5,7	66,0	28,0	10,1	89,0	43,0	14,5	111,0	56,0
5,8	66,0	28,0	10,2	89,0	43,0	14,6	111,0	56,0
5,9	66,0	28,0	10,3	89,0	43,0	14,7	111,0	56,0
6,0	66,0	28,0	10,4	89,0	43,0	14,8	111,0	56,0
6,1	70,0	31,0	10,5	89,0	43,0	14,9	111,0	56,0
6,2	70,0	31,0	10,6	89,0	43,0	15,0	111,0	56,0
6,3	70,0	31,0	10,7	95,0	47,0	15,1	115,0	58,0
6,4	70,0	31,0	10,8	95,0	47,0	15,2	115,0	58,0
6,5	70,0	31,0	10,9	95,0	47,0	15,3	115,0	58,0
6,6	70,0	31,0	11,0	95,0	47,0	15,4	115,0	58,0
6,7	70,0	31,0	11,1	95,0	47,0	15,5	115,0	58,0
6,8	74,0	34,0	11,2	95,0	47,0	15,6	115,0	58,0
6,9	74,0	34,0	11,3	95,0	47,0	15,7	115,0	58,0
7,0	74,0	34,0	11,4	95,0	47,0	15,8	115,0	58,0
7,1	74,0	34,0	11,5	95,0	47,0	15,9	115,0	58,0
7,2	74,0	34,0	11,6	95,0	47,0	16,0	115,0	58,0
7,3	74,0	34,0	11,7	95,0	47,0			

При заказе указывать: артикул, диаметр d1.

Пример: D005-10,0 - *сверло диаметром 10,0 без внутренних каналов охлаждения*

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

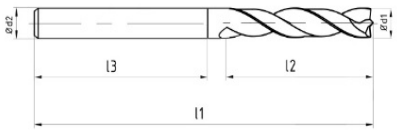
	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		104	5
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		91	5
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		104	6
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		91	5
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		104	5
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		91	5
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		78	5
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		78	5
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400			
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		104	6
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		78	5
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400			
	Азотированные стали	**1.8504** 34CrAl6	≤850		65	5
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400			
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	4
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400			
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	32	3
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		32	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		32	4
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		32	4
H	Закаленные стали	–		≤48 HRC	26	4
				≤66 HRC		
S	Специальные сплавы	Нимоник, инконель, монель, хастеллой	≤2000		20	3
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	117	5
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	104	5
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	91	5
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	104	5
S	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		26	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		20	3
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		195	7
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		156	7
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		234	6
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		104	6
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		234	6
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		234	6
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		156	6
		2.0790 CuNi18Zn19Pb	≤850		156	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		91	5
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		65	4
	Пласт, термореактивные термопластичные	Бакелит, Ресопал, Пертинакс, Молтопрен	≤150		65	5
		Флексигласс, Хостален, Новодур, Макралон	≤100		52	4

Сверла. Каталог 2022

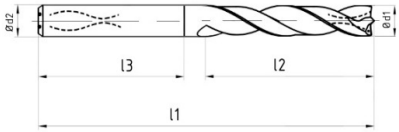
Артикул
D006/ID006
d1 = 3-20

3xd1 | m7 | 80° | HA | HE | Покрытие опционально

D006



ID006



P	M	K	N	S	H
			●		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	62,0	20,0	36,0	8,7	10,0	89,0	47,0	40,0	14,4	16,0	115,0	65,0	48,0
3,1	6,0	62,0	20,0	36,0	8,8	10,0	89,0	47,0	40,0	14,5	16,0	115,0	65,0	48,0
3,2	6,0	62,0	20,0	36,0	8,9	10,0	89,0	47,0	40,0	14,6	16,0	115,0	65,0	48,0
3,3	6,0	62,0	20,0	36,0	9,0	10,0	89,0	47,0	40,0	14,7	16,0	115,0	65,0	48,0
3,4	6,0	62,0	20,0	36,0	9,1	10,0	89,0	47,0	40,0	14,8	16,0	115,0	65,0	48,0
3,5	6,0	62,0	20,0	36,0	9,2	10,0	89,0	47,0	40,0	14,9	16,0	115,0	65,0	48,0
3,6	6,0	62,0	20,0	36,0	9,3	10,0	89,0	47,0	40,0	15,0	16,0	115,0	65,0	48,0
3,7	6,0	62,0	20,0	36,0	9,4	10,0	89,0	47,0	40,0	15,1	16,0	115,0	65,0	48,0
3,8	6,0	66,0	24,0	36,0	9,5	10,0	89,0	47,0	40,0	15,2	16,0	115,0	65,0	48,0
3,9	6,0	66,0	24,0	36,0	9,6	10,0	89,0	47,0	40,0	15,3	16,0	115,0	65,0	48,0
4,0	6,0	66,0	24,0	36,0	9,7	10,0	89,0	47,0	40,0	15,4	16,0	115,0	65,0	48,0
4,1	6,0	66,0	24,0	36,0	9,8	10,0	89,0	47,0	40,0	15,5	16,0	115,0	65,0	48,0
4,2	6,0	66,0	24,0	36,0	9,9	10,0	89,0	47,0	40,0	15,6	16,0	115,0	65,0	48,0
4,3	6,0	66,0	24,0	36,0	10,0	10,0	89,0	47,0	40,0	15,7	16,0	115,0	65,0	48,0
4,4	6,0	66,0	24,0	36,0	10,1	12,0	102,0	55,0	45,0	15,8	16,0	115,0	65,0	48,0
4,5	6,0	66,0	24,0	36,0	10,2	12,0	102,0	55,0	45,0	15,9	16,0	115,0	65,0	48,0
4,6	6,0	66,0	24,0	36,0	10,3	12,0	102,0	55,0	45,0	16,0	16,0	115,0	65,0	48,0
4,7	6,0	66,0	24,0	36,0	10,4	12,0	102,0	55,0	45,0	16,1	18,0	123,0	73,0	48,0
4,8	6,0	66,0	28,0	36,0	10,5	12,0	102,0	55,0	45,0	16,2	18,0	123,0	73,0	48,0
4,9	6,0	66,0	28,0	36,0	10,6	12,0	102,0	55,0	45,0	16,3	18,0	123,0	73,0	48,0
5,0	6,0	66,0	28,0	36,0	10,7	12,0	102,0	55,0	45,0	16,4	18,0	123,0	73,0	48,0
5,1	6,0	66,0	28,0	36,0	10,8	12,0	102,0	55,0	45,0	16,5	18,0	123,0	73,0	48,0
5,2	6,0	66,0	28,0	36,0	10,9	12,0	102,0	55,0	45,0	16,6	18,0	123,0	73,0	48,0
5,3	6,0	66,0	28,0	36,0	11,0	12,0	102,0	55,0	45,0	16,7	18,0	123,0	73,0	48,0
5,4	6,0	66,0	28,0	36,0	11,1	12,0	102,0	55,0	45,0	16,8	18,0	123,0	73,0	48,0
5,5	6,0	66,0	28,0	36,0	11,2	12,0	102,0	55,0	45,0	16,9	18,0	123,0	73,0	48,0
5,6	6,0	66,0	28,0	36,0	11,3	12,0	102,0	55,0	45,0	17,0	18,0	123,0	73,0	48,0
5,7	6,0	66,0	28,0	36,0	11,4	12,0	102,0	55,0	45,0	17,1	18,0	123,0	73,0	48,0
5,8	6,0	66,0	28,0	36,0	11,5	12,0	102,0	55,0	45,0	17,2	18,0	123,0	73,0	48,0
5,9	6,0	66,0	28,0	36,0	11,6	12,0	102,0	55,0	45,0	17,3	18,0	123,0	73,0	48,0
6,0	6,0	66,0	28,0	36,0	11,7	12,0	102,0	55,0	45,0	17,4	18,0	123,0	73,0	48,0
6,1	8,0	79,0	34,0	36,0	11,8	12,0	102,0	55,0	45,0	17,5	18,0	123,0	73,0	48,0
6,2	8,0	79,0	34,0	36,0	11,9	12,0	102,0	55,0	45,0	17,6	18,0	123,0	73,0	48,0
6,3	8,0	79,0	34,0	36,0	12,0	12,0	102,0	55,0	45,0	17,7	18,0	123,0	73,0	48,0
6,4	8,0	79,0	34,0	36,0	12,1	14,0	107,0	60,0	45,0	17,8	18,0	123,0	73,0	48,0
6,5	8,0	79,0	34,0	36,0	12,2	14,0	107,0	60,0	45,0	17,9	18,0	123,0	73,0	48,0
6,6	8,0	79,0	34,0	36,0	12,3	14,0	107,0	60,0	45,0	18,0	18,0	123,0	73,0	48,0
6,7	8,0	79,0	34,0	36,0	12,4	14,0	107,0	60,0	45,0	18,1	20,0	131,0	79,0	50,0
6,8	8,0	79,0	34,0	36,0	12,5	14,0	107,0	60,0	45,0	18,2	20,0	131,0	79,0	50,0
6,9	8,0	79,0	34,0	36,0	12,6	14,0	107,0	60,0	45,0	18,3	20,0	131,0	79,0	50,0
7,0	8,0	79,0	34,0	36,0	12,7	14,0	107,0	60,0	45,0	18,4	20,0	131,0	79,0	50,0
7,1	8,0	79,0	41,0	36,0	12,8	14,0	107,0	60,0	45,0	18,5	20,0	131,0	79,0	50,0
7,2	8,0	79,0	41,0	36,0	12,9	14,0	107,0	60,0	45,0	18,6	20,0	131,0	79,0	50,0
7,3	8,0	79,0	41,0	36,0	13,0	14,0	107,0	60,0	45,0	18,7	20,0	131,0	79,0	50,0
7,4	8,0	79,0	41,0	36,0	13,1	14,0	107,0	60,0	45,0	18,8	20,0	131,0	79,0	50,0
7,5	8,0	79,0	41,0	36,0	13,2	14,0	107,0	60,0	45,0	18,9	20,0	131,0	79,0	50,0
7,6	8,0	79,0	41,0	36,0	13,3	14,0	107,0	60,0	45,0	19,0	20,0	131,0	79,0	50,0
7,7	8,0	79,0	41,0	36,0	13,4	14,0	107,0	60,0	45,0	19,1	20,0	131,0	79,0	50,0
7,8	8,0	79,0	41,0	36,0	13,5	14,0	107,0	60,0	45,0	19,2	20,0	131,0	79,0	50,0
7,9	8,0	79,0	41,0	36,0	13,6	14,0	107,0	60,0	45,0	19,3	20,0	131,0	79,0	50,0
8,0	8,0	79,0	41,0	36,0	13,7	14,0	107,0	60,0	45,0	19,4	20,0	131,0	79,0	50,0
8,1	10,0	89,0	47,0	40,0	13,8	14,0	107,0	60,0	45,0	19,5	20,0	131,0	79,0	50,0
8,2	10,0	89,0	47,0	40,0	13,9	14,0	107,0	60,0	45,0	19,6	20,0	131,0	79,0	50,0
8,3	10,0	89,0	47,0	40,0	14,0	14,0	107,0	60,0	45,0	19,7	20,0	131,0	79,0	50,0
8,4	10,0	89,0	47,0	40,0	14,1	16,0	115,0	65,0	48,0	19,8	20,0	131,0	79,0	50,0
8,5	10,0	89,0	47,0	40,0	14,2	16,0	115,0	65,0	48,0	19,9	20,0	131,0	79,0	50,0
8,6	10,0	89,0	47,0	40,0	14,3	16,0	115,0	65,0	48,0	20,0	20,0	131,0	79,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D006-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID006-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63

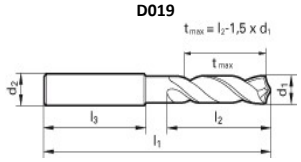
	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		180	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		180	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		180	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		110	9
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		110	9
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		110	9
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		120	9

Сверла. Каталог 2022

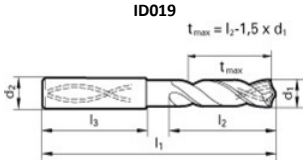
Артикул
D019/ID019
d1 = 3-25

5xd1 | m7 | 140° | HA | HE | С покрытием

D019



ID019



P	M	K	N	S	H
•	•		•	•	

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	28,0	36,0
3,1	6,0	66,0	28,0	36,0
3,2	6,0	66,0	28,0	36,0
3,3	6,0	66,0	28,0	36,0
3,4	6,0	66,0	28,0	36,0
3,5	6,0	66,0	28,0	36,0
3,6	6,0	66,0	28,0	36,0
3,7	6,0	66,0	28,0	36,0
3,8	6,0	74,0	36,0	36,0
3,9	6,0	74,0	36,0	36,0
4,0	6,0	74,0	36,0	36,0
4,1	6,0	74,0	36,0	36,0
4,2	6,0	74,0	36,0	36,0
4,3	6,0	74,0	36,0	36,0
4,4	6,0	74,0	36,0	36,0
4,5	6,0	74,0	36,0	36,0
4,6	6,0	74,0	36,0	36,0
4,7	6,0	74,0	36,0	36,0
4,8	6,0	82,0	44,0	36,0
4,9	6,0	82,0	44,0	36,0
5,0	6,0	82,0	44,0	36,0
5,1	6,0	82,0	44,0	36,0
5,2	6,0	82,0	44,0	36,0
5,3	6,0	82,0	44,0	36,0
5,4	6,0	82,0	44,0	36,0
5,5	6,0	82,0	44,0	36,0
5,6	6,0	82,0	44,0	36,0
5,7	6,0	82,0	44,0	36,0
5,8	6,0	82,0	44,0	36,0
5,9	6,0	82,0	44,0	36,0
6,0	6,0	82,0	44,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	77,0	45,0
12,2	14,0	124,0	77,0	45,0
12,3	14,0	124,0	77,0	45,0
12,4	14,0	124,0	77,0	45,0
12,5	14,0	124,0	77,0	45,0
12,6	14,0	124,0	77,0	45,0
12,7	14,0	124,0	77,0	45,0
12,8	14,0	124,0	77,0	45,0
12,9	14,0	124,0	77,0	45,0
13,0	14,0	124,0	77,0	45,0
13,1	14,0	124,0	77,0	45,0
13,2	14,0	124,0	77,0	45,0
13,3	14,0	124,0	77,0	45,0
13,4	14,0	124,0	77,0	45,0
13,5	14,0	124,0	77,0	45,0
13,6	14,0	124,0	77,0	45,0
13,7	14,0	124,0	77,0	45,0
13,8	14,0	124,0	77,0	45,0
13,9	14,0	124,0	77,0	45,0
14,0	14,0	124,0	77,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0
20,1	25,0	165,0	105,0	56,0
20,2	25,0	165,0	105,0	56,0
20,3	25,0	165,0	105,0	56,0
20,4	25,0	165,0	105,0	56,0
20,5	25,0	165,0	105,0	56,0
20,6	25,0	165,0	105,0	56,0
20,7	25,0	165,0	105,0	56,0
20,8	25,0	165,0	105,0	56,0
20,9	25,0	165,0	105,0	56,0
21,0	25,0	165,0	105,0	56,0
21,1	25,0	165,0	105,0	56,0
21,2	25,0	165,0	105,0	56,0
21,3	25,0	165,0	105,0	56,0
21,4	25,0	165,0	105,0	56,0
21,5	25,0	165,0	105,0	56,0
21,6	25,0	165,0	105,0	56,0
21,7	25,0	165,0	105,0	56,0
21,8	25,0	165,0	105,0	56,0
21,9	25,0	165,0	105,0	56,0
22,0	25,0	165,0	105,0	56,0
22,1	25,0	180,0	117,0	56,0
22,2	25,0	180,0	117,0	56,0
22,3	25,0	180,0	117,0	56,0
22,4	25,0	180,0	117,0	56,0
22,5	25,0	180,0	117,0	56,0
22,6	25,0	180,0	117,0	56,0
22,7	25,0	180,0	117,0	56,0
22,8	25,0	180,0	117,0	56,0
22,9	25,0	180,0	117,0	56,0
23,0	25,0	180,0	117,0	56,0
23,1	25,0	180,0	117,0	56,0
23,2	25,0	180,0	117,0	56,0
23,3	25,0	180,0	117,0	56,0
23,4	25,0	180,0	117,0	56,0
23,5	25,0	180,0	117,0	56,0
23,6	25,0	180,0	117,0	56,0
23,7	25,0	180,0	117,0	56,0
23,8	25,0	180,0	117,0	56,0
23,9	25,0	180,0	117,0	56,0
24,0	25,0	180,0	117,0	56,0
24,1	25,0	180,0	117,0	56,0
24,2	25,0	180,0	117,0	56,0
24,3	25,0	180,0	117,0	56,0
24,4	25,0	180,0	117,0	56,0
24,5	25,0	180,0	117,0	56,0
24,6	25,0	180,0	117,0	56,0
24,7	25,0	180,0	117,0	56,0
24,8	25,0	180,0	117,0	56,0
24,9	25,0	180,0	117,0	56,0
25,0	25,0	180,0	117,0	56,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D019-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID019-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

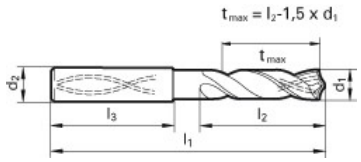
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		D019	ID019	D019	ID019
P	**Углеродистые стали общего назначения**	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		130	145	7	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		110	120	6	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		145	170	8	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		110	145	7	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		120	130	7	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		110	125	7	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		105	120	7	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		105	120	7	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		100	105	6	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		130	145	8	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	120	7	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	85	5	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		100	105	6	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		90	100	5	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	70	6	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		55	55	5	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400			60	4	5
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	45	60	3	3
M	**Нерж. стали, с сод. Серы аустенитные мартенситные**	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		55	60	4	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		45	55	4	5
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		45	50	3	5
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		25	35	4	4
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		40	45	3	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		35	40	3	3
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	310	9	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	310	9	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		220	260	9	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	220	8	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		260	280	8	8
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		105	125	7	7
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		270	325	8	8
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		180	220	7	7
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		105	125	6	7
		2.0790 CuNi18Zn19Pb	≤850		85	105	6	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		80	90	5	6
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		60	80	5	6

Сверла. Каталог 2022

Артикул
ID020
d1 = 3-25

5xd1 | m7 | 140° | HA | HE | С покрытием



P	M	K	N	S	H
	•			•	

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	28,0	36,0
3,1	6,0	66,0	28,0	36,0
3,2	6,0	66,0	28,0	36,0
3,3	6,0	66,0	28,0	36,0
3,4	6,0	66,0	28,0	36,0
3,5	6,0	66,0	28,0	36,0
3,6	6,0	66,0	28,0	36,0
3,7	6,0	66,0	28,0	36,0
3,8	6,0	74,0	36,0	36,0
3,9	6,0	74,0	36,0	36,0
4,0	6,0	74,0	36,0	36,0
4,1	6,0	74,0	36,0	36,0
4,2	6,0	74,0	36,0	36,0
4,3	6,0	74,0	36,0	36,0
4,4	6,0	74,0	36,0	36,0
4,5	6,0	74,0	36,0	36,0
4,6	6,0	74,0	36,0	36,0
4,7	6,0	74,0	36,0	36,0
4,8	6,0	82,0	44,0	36,0
4,9	6,0	82,0	44,0	36,0
5,0	6,0	82,0	44,0	36,0
5,1	6,0	82,0	44,0	36,0
5,2	6,0	82,0	44,0	36,0
5,3	6,0	82,0	44,0	36,0
5,4	6,0	82,0	44,0	36,0
5,5	6,0	82,0	44,0	36,0
5,6	6,0	82,0	44,0	36,0
5,7	6,0	82,0	44,0	36,0
5,8	6,0	82,0	44,0	36,0
5,9	6,0	82,0	44,0	36,0
6,0	6,0	82,0	44,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	77,0	45,0
12,2	14,0	124,0	77,0	45,0
12,3	14,0	124,0	77,0	45,0
12,4	14,0	124,0	77,0	45,0
12,5	14,0	124,0	77,0	45,0
12,6	14,0	124,0	77,0	45,0
12,7	14,0	124,0	77,0	45,0
12,8	14,0	124,0	77,0	45,0
12,9	14,0	124,0	77,0	45,0
13,0	14,0	124,0	77,0	45,0
13,1	14,0	124,0	77,0	45,0
13,2	14,0	124,0	77,0	45,0
13,3	14,0	124,0	77,0	45,0
13,4	14,0	124,0	77,0	45,0
13,5	14,0	124,0	77,0	45,0
13,6	14,0	124,0	77,0	45,0
13,7	14,0	124,0	77,0	45,0
13,8	14,0	124,0	77,0	45,0
13,9	14,0	124,0	77,0	45,0
14,0	14,0	124,0	77,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0
20,1	25,0	165,0	105,0	56,0
20,2	25,0	165,0	105,0	56,0
20,3	25,0	165,0	105,0	56,0
20,4	25,0	165,0	105,0	56,0
20,5	25,0	165,0	105,0	56,0
20,6	25,0	165,0	105,0	56,0
20,7	25,0	165,0	105,0	56,0
20,8	25,0	165,0	105,0	56,0
20,9	25,0	165,0	105,0	56,0
21,0	25,0	165,0	105,0	56,0
21,1	25,0	165,0	105,0	56,0
21,2	25,0	165,0	105,0	56,0
21,3	25,0	165,0	105,0	56,0
21,4	25,0	165,0	105,0	56,0
21,5	25,0	165,0	105,0	56,0
21,6	25,0	165,0	105,0	56,0
21,7	25,0	165,0	105,0	56,0
21,8	25,0	165,0	105,0	56,0
21,9	25,0	165,0	105,0	56,0
22,0	25,0	165,0	105,0	56,0
22,1	25,0	180,0	117,0	56,0
22,2	25,0	180,0	117,0	56,0
22,3	25,0	180,0	117,0	56,0
22,4	25,0	180,0	117,0	56,0
22,5	25,0	180,0	117,0	56,0
22,6	25,0	180,0	117,0	56,0
22,7	25,0	180,0	117,0	56,0
22,8	25,0	180,0	117,0	56,0
22,9	25,0	180,0	117,0	56,0
23,0	25,0	180,0	117,0	56,0
23,1	25,0	180,0	117,0	56,0
23,2	25,0	180,0	117,0	56,0
23,3	25,0	180,0	117,0	56,0
23,4	25,0	180,0	117,0	56,0
23,5	25,0	180,0	117,0	56,0
23,6	25,0	180,0	117,0	56,0
23,7	25,0	180,0	117,0	56,0
23,8	25,0	180,0	117,0	56,0
23,9	25,0	180,0	117,0	56,0
24,0	25,0	180,0	117,0	56,0
24,1	25,0	180,0	117,0	56,0
24,2	25,0	180,0	117,0	56,0
24,3	25,0	180,0	117,0	56,0
24,4	25,0	180,0	117,0	56,0
24,5	25,0	180,0	117,0	56,0
24,6	25,0	180,0	117,0	56,0
24,7	25,0	180,0	117,0	56,0
24,8	25,0	180,0	117,0	56,0
24,9	25,0	180,0	117,0	56,0
25,0	25,0	180,0	117,0	56,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID020-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID020-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

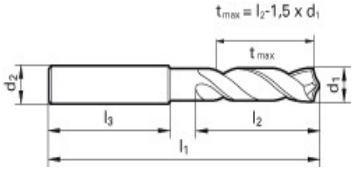
	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
M	**Нерж. стали, с сод. Серы аустенитные мартенситные**	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		80	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		60	2-3
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		80	5
S	**Титан и титановые сплавы**	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		35	2
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400			

Сверла. Каталог 2022

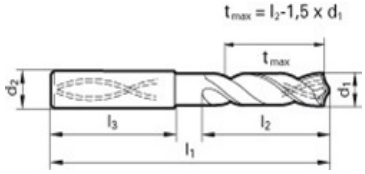
Артикул
D021/ID021
d1 = 3-20

5xd1 | m7 | 140° | HA | HE | С покрытием

D021



ID021



P	M	K	N	S	H
●	○	●	○	○	○

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	28,0	36,0	8,7	10,0	103,0	61,0	40,0	14,4	16,0	133,0	83,0	48,0
3,1	6,0	66,0	28,0	36,0	8,8	10,0	103,0	61,0	40,0	14,5	16,0	133,0	83,0	48,0
3,2	6,0	66,0	28,0	36,0	8,9	10,0	103,0	61,0	40,0	14,6	16,0	133,0	83,0	48,0
3,3	6,0	66,0	28,0	36,0	9,0	10,0	103,0	61,0	40,0	14,7	16,0	133,0	83,0	48,0
3,4	6,0	66,0	28,0	36,0	9,1	10,0	103,0	61,0	40,0	14,8	16,0	133,0	83,0	48,0
3,5	6,0	66,0	28,0	36,0	9,2	10,0	103,0	61,0	40,0	14,9	16,0	133,0	83,0	48,0
3,6	6,0	66,0	28,0	36,0	9,3	10,0	103,0	61,0	40,0	15,0	16,0	133,0	83,0	48,0
3,7	6,0	66,0	28,0	36,0	9,4	10,0	103,0	61,0	40,0	15,1	16,0	133,0	83,0	48,0
3,8	6,0	74,0	36,0	36,0	9,5	10,0	103,0	61,0	40,0	15,2	16,0	133,0	83,0	48,0
3,9	6,0	74,0	36,0	36,0	9,6	10,0	103,0	61,0	40,0	15,3	16,0	133,0	83,0	48,0
4,0	6,0	74,0	36,0	36,0	9,7	10,0	103,0	61,0	40,0	15,4	16,0	133,0	83,0	48,0
4,1	6,0	74,0	36,0	36,0	9,8	10,0	103,0	61,0	40,0	15,5	16,0	133,0	83,0	48,0
4,2	6,0	74,0	36,0	36,0	9,9	10,0	103,0	61,0	40,0	15,6	16,0	133,0	83,0	48,0
4,3	6,0	74,0	36,0	36,0	10,0	10,0	103,0	61,0	40,0	15,7	16,0	133,0	83,0	48,0
4,4	6,0	74,0	36,0	36,0	10,1	12,0	118,0	71,0	45,0	15,8	16,0	133,0	83,0	48,0
4,5	6,0	74,0	36,0	36,0	10,2	12,0	118,0	71,0	45,0	15,9	16,0	133,0	83,0	48,0
4,6	6,0	74,0	36,0	36,0	10,3	12,0	118,0	71,0	45,0	16,0	16,0	133,0	83,0	48,0
4,7	6,0	74,0	36,0	36,0	10,4	12,0	118,0	71,0	45,0	16,1	18,0	143,0	93,0	48,0
4,8	6,0	82,0	44,0	36,0	10,5	12,0	118,0	71,0	45,0	16,2	18,0	143,0	93,0	48,0
4,9	6,0	82,0	44,0	36,0	10,6	12,0	118,0	71,0	45,0	16,3	18,0	143,0	93,0	48,0
5,0	6,0	82,0	44,0	36,0	10,7	12,0	118,0	71,0	45,0	16,4	18,0	143,0	93,0	48,0
5,1	6,0	82,0	44,0	36,0	10,8	12,0	118,0	71,0	45,0	16,5	18,0	143,0	93,0	48,0
5,2	6,0	82,0	44,0	36,0	10,9	12,0	118,0	71,0	45,0	16,6	18,0	143,0	93,0	48,0
5,3	6,0	82,0	44,0	36,0	11,0	12,0	118,0	71,0	45,0	16,7	18,0	143,0	93,0	48,0
5,4	6,0	82,0	44,0	36,0	11,1	12,0	118,0	71,0	45,0	16,8	18,0	143,0	93,0	48,0
5,5	6,0	82,0	44,0	36,0	11,2	12,0	118,0	71,0	45,0	16,9	18,0	143,0	93,0	48,0
5,6	6,0	82,0	44,0	36,0	11,3	12,0	118,0	71,0	45,0	17,0	18,0	143,0	93,0	48,0
5,7	6,0	82,0	44,0	36,0	11,4	12,0	118,0	71,0	45,0	17,1	18,0	143,0	93,0	48,0
5,8	6,0	82,0	44,0	36,0	11,5	12,0	118,0	71,0	45,0	17,2	18,0	143,0	93,0	48,0
5,9	6,0	82,0	44,0	36,0	11,6	12,0	118,0	71,0	45,0	17,3	18,0	143,0	93,0	48,0
6,0	6,0	82,0	44,0	36,0	11,7	12,0	118,0	71,0	45,0	17,4	18,0	143,0	93,0	48,0
6,1	8,0	91,0	53,0	36,0	11,8	12,0	118,0	71,0	45,0	17,5	18,0	143,0	93,0	48,0
6,2	8,0	91,0	53,0	36,0	11,9	12,0	118,0	71,0	45,0	17,6	18,0	143,0	93,0	48,0
6,3	8,0	91,0	53,0	36,0	12,0	12,0	118,0	71,0	45,0	17,7	18,0	143,0	93,0	48,0
6,4	8,0	91,0	53,0	36,0	12,1	14,0	124,0	77,0	45,0	17,8	18,0	143,0	93,0	48,0
6,5	8,0	91,0	53,0	36,0	12,2	14,0	124,0	77,0	45,0	17,9	18,0	143,0	93,0	48,0
6,6	8,0	91,0	53,0	36,0	12,3	14,0	124,0	77,0	45,0	18,0	18,0	143,0	93,0	48,0
6,7	8,0	91,0	53,0	36,0	12,4	14,0	124,0	77,0	45,0	18,1	20,0	153,0	101,0	50,0
6,8	8,0	91,0	53,0	36,0	12,5	14,0	124,0	77,0	45,0	18,2	20,0	153,0	101,0	50,0
6,9	8,0	91,0	53,0	36,0	12,6	14,0	124,0	77,0	45,0	18,3	20,0	153,0	101,0	50,0
7,0	8,0	91,0	53,0	36,0	12,7	14,0	124,0	77,0	45,0	18,4	20,0	153,0	101,0	50,0
7,1	8,0	91,0	53,0	36,0	12,8	14,0	124,0	77,0	45,0	18,5	20,0	153,0	101,0	50,0
7,2	8,0	91,0	53,0	36,0	12,9	14,0	124,0	77,0	45,0	18,6	20,0	153,0	101,0	50,0
7,3	8,0	91,0	53,0	36,0	13,0	14,0	124,0	77,0	45,0	18,7	20,0	153,0	101,0	50,0
7,4	8,0	91,0	53,0	36,0	13,1	14,0	124,0	77,0	45,0	18,8	20,0	153,0	101,0	50,0
7,5	8,0	91,0	53,0	36,0	13,2	14,0	124,0	77,0	45,0	18,9	20,0	153,0	101,0	50,0
7,6	8,0	91,0	53,0	36,0	13,3	14,0	124,0	77,0	45,0	19,0	20,0	153,0	101,0	50,0
7,7	8,0	91,0	53,0	36,0	13,4	14,0	124,0	77,0	45,0	19,1	20,0	153,0	101,0	50,0
7,8	8,0	91,0	53,0	36,0	13,5	14,0	124,0	77,0	45,0	19,2	20,0	153,0	101,0	50,0
7,9	8,0	91,0	53,0	36,0	13,6	14,0	124,0	77,0	45,0	19,3	20,0	153,0	101,0	50,0
8,0	8,0	91,0	53,0	36,0	13,7	14,0	124,0	77,0	45,0	19,4	20,0	153,0	101,0	50,0
8,1	10,0	103,0	61,0	40,0	13,8	14,0	124,0	77,0	45,0	19,5	20,0	153,0	101,0	50,0
8,2	10,0	103,0	61,0	40,0	13,9	14,0	124,0	77,0	45,0	19,6	20,0	153,0	101,0	50,0
8,3	10,0	103,0	61,0	40,0	14,0	14,0	124,0	77,0	45,0	19,7	20,0	153,0	101,0	50,0
8,4	10,0	103,0	61,0	40,0	14,1	16,0	124,0	83,0	48,0	19,8	20,0	153,0	101,0	50,0
8,5	10,0	103,0	61,0	40,0	14,2	16,0	133,0	83,0	48,0	19,9	20,0	153,0	101,0	50,0
8,6	10,0	103,0	61,0	40,0	14,3	16,0	133,0	83,0	48,0	20,0	20,0	153,0	101,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: D021-10,0-HA - *сверло диаметром 10,0 без внутренних каналов охлаждения, форма хвостовика HA по DIN 6535*

ID021-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

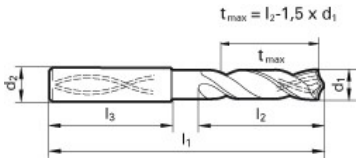
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		D021	ID021	D021	ID021
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		130	145	7	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		110	120	6	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		145	170	8	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		110	145	7	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		120	130	7	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		110	125	7	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		105	120	7	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		105	120	7	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		100	105	6	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		130	145	8	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	120	7	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	85	5	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		100	105	6	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		90	100	5	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	70	6	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		55	55	5	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400			60		5
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	45	60	3	3
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		55	60	4	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		45	55	4	5
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		45	50	3	5
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	210	195	8	9
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	155	160	8	9
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	145	140	7	9
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	125	130	7	8
	Отбеленный чугун	–		≤350 HB	35	40	3	3
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	310	9	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	310	9	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		235	260	9	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		170	220	8	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		260	280	8	8
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		105	125	7	7
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		270	325	8	8
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		180	220	7	7
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		105	125	6	7
		2.0790 CuNi18Zn19Pb	≤850		85	105	6	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		80	90	5	6
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		60	80	5	6

Сверла. Каталог 2022

Артикул
ID022
d1 = 3-25

5xd1 | m7 | 140° | HA | HE | С покрытием



P	M	K	N	S	H
●				○	●

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	28,0	36,0
3,1	6,0	66,0	28,0	36,0
3,2	6,0	66,0	28,0	36,0
3,3	6,0	66,0	28,0	36,0
3,4	6,0	66,0	28,0	36,0
3,5	6,0	66,0	28,0	36,0
3,6	6,0	66,0	28,0	36,0
3,7	6,0	66,0	28,0	36,0
3,8	6,0	74,0	36,0	36,0
3,9	6,0	74,0	36,0	36,0
4,0	6,0	74,0	36,0	36,0
4,1	6,0	74,0	36,0	36,0
4,2	6,0	74,0	36,0	36,0
4,3	6,0	74,0	36,0	36,0
4,4	6,0	74,0	36,0	36,0
4,5	6,0	74,0	36,0	36,0
4,6	6,0	74,0	36,0	36,0
4,7	6,0	74,0	36,0	36,0
4,8	6,0	82,0	44,0	36,0
4,9	6,0	82,0	44,0	36,0
5,0	6,0	82,0	44,0	36,0
5,1	6,0	82,0	44,0	36,0
5,2	6,0	82,0	44,0	36,0
5,3	6,0	82,0	44,0	36,0
5,4	6,0	82,0	44,0	36,0
5,5	6,0	82,0	44,0	36,0
5,6	6,0	82,0	44,0	36,0
5,7	6,0	82,0	44,0	36,0
5,8	6,0	82,0	44,0	36,0
5,9	6,0	82,0	44,0	36,0
6,0	6,0	82,0	44,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	77,0	45,0
12,2	14,0	124,0	77,0	45,0
12,3	14,0	124,0	77,0	45,0
12,4	14,0	124,0	77,0	45,0
12,5	14,0	124,0	77,0	45,0
12,6	14,0	124,0	77,0	45,0
12,7	14,0	124,0	77,0	45,0
12,8	14,0	124,0	77,0	45,0
12,9	14,0	124,0	77,0	45,0
13,0	14,0	124,0	77,0	45,0
13,1	14,0	124,0	77,0	45,0
13,2	14,0	124,0	77,0	45,0
13,3	14,0	124,0	77,0	45,0
13,4	14,0	124,0	77,0	45,0
13,5	14,0	124,0	77,0	45,0
13,6	14,0	124,0	77,0	45,0
13,7	14,0	124,0	77,0	45,0
13,8	14,0	124,0	77,0	45,0
13,9	14,0	124,0	77,0	45,0
14,0	14,0	124,0	77,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0
20,1	25,0	165,0	105,0	56,0
20,2	25,0	165,0	105,0	56,0
20,3	25,0	165,0	105,0	56,0
20,4	25,0	165,0	105,0	56,0
20,5	25,0	165,0	105,0	56,0
20,6	25,0	165,0	105,0	56,0
20,7	25,0	165,0	105,0	56,0
20,8	25,0	165,0	105,0	56,0
20,9	25,0	165,0	105,0	56,0
21,0	25,0	165,0	105,0	56,0
21,1	25,0	165,0	105,0	56,0
21,2	25,0	165,0	105,0	56,0
21,3	25,0	165,0	105,0	56,0
21,4	25,0	165,0	105,0	56,0
21,5	25,0	165,0	105,0	56,0
21,6	25,0	165,0	105,0	56,0
21,7	25,0	165,0	105,0	56,0
21,8	25,0	165,0	105,0	56,0
21,9	25,0	165,0	105,0	56,0
22,0	25,0	165,0	105,0	56,0
22,1	25,0	180,0	117,0	56,0
22,2	25,0	180,0	117,0	56,0
22,3	25,0	180,0	117,0	56,0
22,4	25,0	180,0	117,0	56,0
22,5	25,0	180,0	117,0	56,0
22,6	25,0	180,0	117,0	56,0
22,7	25,0	180,0	117,0	56,0
22,8	25,0	180,0	117,0	56,0
22,9	25,0	180,0	117,0	56,0
23,0	25,0	180,0	117,0	56,0
23,1	25,0	180,0	117,0	56,0
23,2	25,0	180,0	117,0	56,0
23,3	25,0	180,0	117,0	56,0
23,4	25,0	180,0	117,0	56,0
23,5	25,0	180,0	117,0	56,0
23,6	25,0	180,0	117,0	56,0
23,7	25,0	180,0	117,0	56,0
23,8	25,0	180,0	117,0	56,0
23,9	25,0	180,0	117,0	56,0
24,0	25,0	180,0	117,0	56,0
24,1	25,0	180,0	117,0	56,0
24,2	25,0	180,0	117,0	56,0
24,3	25,0	180,0	117,0	56,0
24,4	25,0	180,0	117,0	56,0
24,5	25,0	180,0	117,0	56,0
24,6	25,0	180,0	117,0	56,0
24,7	25,0	180,0	117,0	56,0
24,8	25,0	180,0	117,0	56,0
24,9	25,0	180,0	117,0	56,0
25,0	25,0	180,0	117,0	56,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID022-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID022-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

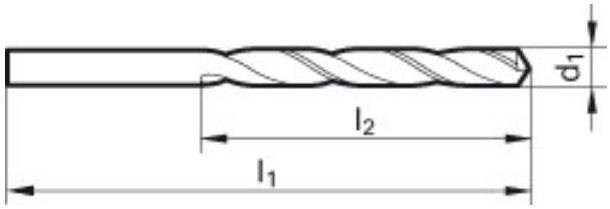
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	**Углеродистые стали общего назначения**	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		145	7
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		120	6
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		170	8
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		145	8
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		130	8
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		125	7
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		120	7
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		120	7
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		105	7
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		145	8
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	7
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	5
	Азотированные стали	**1.8504** 34CrAl6	≤850		110	7
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		105	5
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		80	6
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		65	5
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400		60	4
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	60	3
H	**Закаленные стали**	–		≤48 HRC	55	3
				≤66 HRC	35	2
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		35	4
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		45	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		40	3

Сверла. Каталог 2022

Артикул
D025
d1 = 3-14

5xd1 | h7 | 118° | С покрытием



P	M	K	N	S	H
●	●	●	●	●	○

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 h7	l1	l2	d1 h7	l1	l2	d1 h7	l1	l2
3,0	61,0	33,0	6,7	101,0	63,0	10,4	133,0	87,0
3,1	65,0	36,0	6,8	109,0	69,0	10,5	133,0	87,0
3,2	65,0	36,0	6,9	109,0	69,0	10,6	133,0	87,0
3,3	65,0	36,0	7,0	109,0	69,0	10,7	142,0	94,0
3,4	70,0	39,0	7,1	109,0	69,0	10,8	142,0	94,0
3,5	70,0	39,0	7,2	109,0	69,0	10,9	142,0	94,0
3,6	70,0	39,0	7,3	109,0	69,0	11,0	142,0	94,0
3,7	70,0	39,0	7,4	109,0	69,0	11,1	142,0	94,0
3,8	75,0	43,0	7,5	109,0	69,0	11,2	142,0	94,0
3,9	75,0	43,0	7,6	117,0	75,0	11,3	142,0	94,0
4,0	75,0	43,0	7,7	117,0	75,0	11,4	142,0	94,0
4,1	75,0	43,0	7,8	117,0	75,0	11,5	142,0	94,0
4,2	75,0	43,0	7,9	117,0	75,0	11,6	142,0	94,0
4,3	80,0	47,0	8,0	117,0	75,0	11,7	142,0	94,0
4,4	80,0	47,0	8,1	117,0	75,0	11,8	142,0	94,0
4,5	80,0	47,0	8,2	117,0	75,0	11,9	151,0	101,0
4,6	80,0	47,0	8,3	117,0	75,0	12,0	151,0	101,0
4,7	80,0	47,0	8,4	117,0	75,0	12,1	151,0	101,0
4,8	86,0	52,0	8,5	117,0	75,0	12,2	151,0	101,0
4,9	86,0	52,0	8,6	125,0	81,0	12,3	151,0	101,0
5,0	86,0	52,0	8,7	125,0	81,0	12,4	151,0	101,0
5,1	86,0	52,0	8,8	125,0	81,0	12,5	151,0	101,0
5,2	86,0	52,0	8,9	125,0	81,0	12,6	151,0	101,0
5,3	86,0	52,0	9,0	125,0	81,0	12,7	151,0	101,0
5,4	93,0	57,0	9,1	125,0	81,0	12,8	151,0	101,0
5,5	93,0	57,0	9,2	125,0	81,0	12,9	151,0	101,0
5,6	93,0	57,0	9,3	125,0	81,0	13,0	151,0	101,0
5,7	93,0	57,0	9,4	125,0	81,0	13,1	151,0	101,0
5,8	93,0	57,0	9,5	125,0	81,0	13,2	151,0	101,0
5,9	93,0	57,0	9,6	133,0	87,0	13,3	160,0	108,0
6,0	93,0	57,0	9,7	133,0	87,0	13,4	160,0	108,0
6,1	101,0	63,0	9,8	133,0	87,0	13,5	160,0	108,0
6,2	101,0	63,0	9,9	133,0	87,0	13,6	160,0	108,0
6,3	101,0	63,0	10,0	133,0	87,0	13,7	160,0	108,0
6,4	101,0	63,0	10,1	133,0	87,0	13,8	160,0	108,0
6,5	101,0	63,0	10,2	133,0	87,0	13,9	160,0	108,0
6,6	101,0	63,0	10,3	133,0	87,0	14,0	160,0	108,0

При заказе указывать: артикул, диаметр d1.

Пример: D025-10,0 - *сверло диаметром 10,0 без внутренних каналов охлаждения*

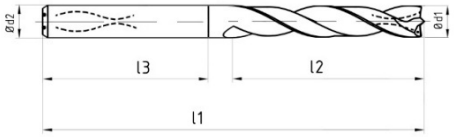
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	**Углеродистые стали общего назначения**	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		100	5
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		90	5
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		100	6
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		90	4
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		100	5
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		90	5
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		80	5
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		80	5
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400			
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		100	6
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		80	5
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400			
	Азотированные стали	**1.8504** 34CrAl6	≤850		65	5
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400			
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	3
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400			
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400			
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	30	3
M	**Нерж. стали, с сод. Серы аустенитные мартенситные**	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		30	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		30	4
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		30	4
H	**Закаленные стали**	–		≤48 HRC	25	3
				≤66 HRC		
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		20	3
K	**Серый чугун**	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	115	5
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	100	5
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	90	5
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	80	5
S	**Титан и титановые сплавы**	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		25	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		20	3
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		195	7
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		155	7
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		235	6
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		100	6
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		235	6
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		235	6
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		155	6
		2.0790 CuNi18Zn19Pb	≤850		155	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		90	5
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		65	4
	Пласт, термореактивные термопластичные	Бакелит, Ресопал, Пертинакс, Молтопрен	≤150		50	5
		Флексигласс, Хостален, Новодур, Макралон	≤100		65	4

Сверла. Каталог 2022

Артикул
ID026
d1 = 3-25

5xd1 | m7 | 80° | HA | HE | Покрытие опционально



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	28,0	36,0
3,1	6,0	66,0	28,0	36,0
3,2	6,0	66,0	28,0	36,0
3,3	6,0	66,0	28,0	36,0
3,4	6,0	66,0	28,0	36,0
3,5	6,0	66,0	28,0	36,0
3,6	6,0	66,0	28,0	36,0
3,7	6,0	66,0	28,0	36,0
3,8	6,0	74,0	36,0	36,0
3,9	6,0	74,0	36,0	36,0
4,0	6,0	74,0	36,0	36,0
4,1	6,0	74,0	36,0	36,0
4,2	6,0	74,0	36,0	36,0
4,3	6,0	74,0	36,0	36,0
4,4	6,0	74,0	36,0	36,0
4,5	6,0	74,0	36,0	36,0
4,6	6,0	74,0	36,0	36,0
4,7	6,0	74,0	36,0	36,0
4,8	6,0	82,0	44,0	36,0
4,9	6,0	82,0	44,0	36,0
5,0	6,0	82,0	44,0	36,0
5,1	6,0	82,0	44,0	36,0
5,2	6,0	82,0	44,0	36,0
5,3	6,0	82,0	44,0	36,0
5,4	6,0	82,0	44,0	36,0
5,5	6,0	82,0	44,0	36,0
5,6	6,0	82,0	44,0	36,0
5,7	6,0	82,0	44,0	36,0
5,8	6,0	82,0	44,0	36,0
5,9	6,0	82,0	44,0	36,0
6,0	6,0	82,0	44,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
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8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0
8,7	10,0	103,0	61,0	40,0
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8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
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9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
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10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
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11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	77,0	45,0
12,2	14,0	124,0	77,0	45,0
12,3	14,0	124,0	77,0	45,0
12,4	14,0	124,0	77,0	45,0
12,5	14,0	124,0	77,0	45,0
12,6	14,0	124,0	77,0	45,0
12,7	14,0	124,0	77,0	45,0
12,8	14,0	124,0	77,0	45,0
12,9	14,0	124,0	77,0	45,0
13,0	14,0	124,0	77,0	45,0
13,1	14,0	124,0	77,0	45,0
13,2	14,0	124,0	77,0	45,0
13,3	14,0	124,0	77,0	45,0
13,4	14,0	124,0	77,0	45,0
13,5	14,0	124,0	77,0	45,0
13,6	14,0	124,0	77,0	45,0
13,7	14,0	124,0	77,0	45,0
13,8	14,0	124,0	77,0	45,0
13,9	14,0	124,0	77,0	45,0
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14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
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16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
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17,3	18,0	143,0	93,0	48,0
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17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
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18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
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19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0
20,1	25,0	165,0	105,0	56,0
20,2	25,0	165,0	105,0	56,0
20,3	25,0	165,0	105,0	56,0
20,4	25,0	165,0	105,0	56,0
20,5	25,0	165,0	105,0	56,0
20,6	25,0	165,0	105,0	56,0
20,7	25,0	165,0	105,0	56,0
20,8	25,0	165,0	105,0	56,0
20,9	25,0	165,0	105,0	56,0
21,0	25,0	165,0	105,0	56,0
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21,2	25,0	165,0	105,0	56,0
21,3	25,0	165,0	105,0	56,0
21,4	25,0	165,0	105,0	56,0
21,5	25,0	165,0	105,0	56,0
21,6	25,0	165,0	105,0	56,0
21,7	25,0	165,0	105,0	56,0
21,8	25,0	165,0	105,0	56,0
21,9	25,0	165,0	105,0	56,0
22,0	25,0	165,0	105,0	56,0
22,1	25,0	180,0	117,0	56,0
22,2	25,0	180,0	117,0	56,0
22,3	25,0	180,0	117,0	56,0
22,4	25,0	180,0	117,0	56,0
22,5	25,0	180,0	117,0	56,0
22,6	25,0	180,0	117,0	56,0
22,7	25,0	180,0	117,0	56,0
22,8	25,0	180,0	117,0	56,0
22,9	25,0	180,0	117,0	56,0
23,0	25,0	180,0	117,0	56,0
23,1	25,0	180,0	117,0	56,0
23,2	25,0	180,0	117,0	56,0
23,3	25,0	180,0	117,0	56,0
23,4	25,0	180,0	117,0	56,0
23,5	25,0	180,0	117,0	56,0
23,6	25,0	180,0	117,0	56,0
23,7	25,0	180,0	117,0	56,0
23,8	25,0	180,0	117,0	56,0
23,9	25,0	180,0	117,0	56,0
24,0	25,0	180,0	117,0	56,0
24,1	25,0	180,0	117,0	56,0
24,2	25,0	180,0	117,0	56,0
24,3	25,0	180,0	117,0	56,0
24,4	25,0	180,0	117,0	56,0
24,5	25,0	180,0	117,0	56,0
24,6	25,0	180,0	117,0	56,0
24,7	25,0	180,0	117,0	56,0
24,8	25,0	180,0	117,0	56,0
24,9	25,0	180,0	117,0	56,0
25,0	25,0	180,0	117,0	56,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID026-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID026-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

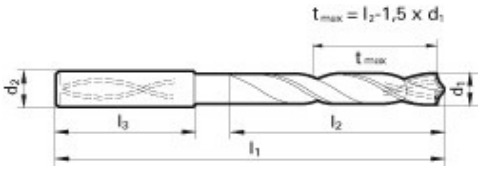
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,08	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,1	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,1	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,125	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,16	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,2	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,2	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,25	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,315	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,4	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		180	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		180	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		180	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		110	9
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		110	9
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		110	9
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		120	9

Сверла. Каталог 2022

Артикул
ID045
d1 = 3-20

7xd1 | m7 | 140° | HA | HE | С покрытием



P	M	K	N	S	H
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Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	70,0	30,0	36,0	8,7	10,0	131,0	87,0	40,0	14,4	16,0	204,0	152,0	48,0
3,1	6,0	70,0	30,0	36,0	8,8	10,0	131,0	87,0	40,0	14,5	16,0	204,0	152,0	48,0
3,2	6,0	70,0	30,0	36,0	8,9	10,0	131,0	87,0	40,0	14,6	16,0	204,0	152,0	48,0
3,3	6,0	70,0	30,0	36,0	9,0	10,0	131,0	87,0	40,0	14,7	16,0	204,0	152,0	48,0
3,4	6,0	75,0	35,5	36,0	9,1	10,0	139,0	95,0	40,0	14,8	16,0	204,0	152,0	48,0
3,5	6,0	75,0	35,5	36,0	9,2	10,0	139,0	95,0	40,0	14,9	16,0	204,0	152,0	48,0
3,6	6,0	75,0	35,5	36,0	9,3	10,0	139,0	95,0	40,0	15,0	16,0	204,0	152,0	48,0
3,7	6,0	75,0	35,5	36,0	9,4	10,0	139,0	95,0	40,0	15,1	16,0	204,0	152,0	48,0
3,8	6,0	75,0	37,5	36,0	9,5	10,0	139,0	95,0	40,0	15,2	16,0	204,0	152,0	48,0
3,9	6,0	75,0	37,5	36,0	9,6	10,0	139,0	95,0	40,0	15,3	16,0	204,0	152,0	48,0
4,0	6,0	75,0	37,5	36,0	9,7	10,0	139,0	95,0	40,0	15,4	16,0	204,0	152,0	48,0
4,1	6,0	75,0	37,5	36,0	9,8	10,0	139,0	95,0	40,0	15,5	16,0	204,0	152,0	48,0
4,2	6,0	75,0	37,5	36,0	9,9	10,0	139,0	95,0	40,0	15,6	16,0	204,0	152,0	48,0
4,3	6,0	85,0	45,0	36,0	10,0	10,0	139,0	95,0	40,0	15,7	16,0	204,0	152,0	48,0
4,4	6,0	85,0	45,0	36,0	10,1	12,0	155,0	106,0	45,0	15,8	16,0	204,0	152,0	48,0
4,5	6,0	85,0	45,0	36,0	10,2	12,0	155,0	106,0	45,0	15,9	16,0	204,0	152,0	48,0
4,6	6,0	85,0	45,0	36,0	10,3	12,0	155,0	106,0	45,0	16,0	16,0	204,0	152,0	48,0
4,7	6,0	85,0	45,0	36,0	10,4	12,0	155,0	106,0	45,0	16,1	18,0	223,0	171,0	48,0
4,8	6,0	90,0	50,0	36,0	10,5	12,0	155,0	106,0	45,0	16,2	18,0	223,0	171,0	48,0
4,9	6,0	90,0	50,0	36,0	10,6	12,0	155,0	106,0	45,0	16,3	18,0	223,0	171,0	48,0
5,0	6,0	90,0	50,0	36,0	10,7	12,0	155,0	106,0	45,0	16,4	18,0	223,0	171,0	48,0
5,1	6,0	90,0	50,0	36,0	10,8	12,0	155,0	106,0	45,0	16,5	18,0	223,0	171,0	48,0
5,2	6,0	90,0	50,0	36,0	10,9	12,0	155,0	106,0	45,0	16,6	18,0	223,0	171,0	48,0
5,3	6,0	90,0	50,0	36,0	11,0	12,0	155,0	106,0	45,0	16,7	18,0	223,0	171,0	48,0
5,4	6,0	97,0	57,0	36,0	11,1	12,0	163,0	114,0	45,0	16,8	18,0	223,0	171,0	48,0
5,5	6,0	97,0	57,0	36,0	11,2	12,0	163,0	114,0	45,0	16,9	18,0	223,0	171,0	48,0
5,6	6,0	97,0	57,0	36,0	11,3	12,0	163,0	114,0	45,0	17,0	18,0	223,0	171,0	48,0
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5,8	6,0	97,0	57,0	36,0	11,5	12,0	163,0	114,0	45,0	17,2	18,0	223,0	171,0	48,0
5,9	6,0	97,0	57,0	36,0	11,6	12,0	163,0	114,0	45,0	17,3	18,0	223,0	171,0	48,0
6,0	6,0	97,0	57,0	36,0	11,7	12,0	163,0	114,0	45,0	17,4	18,0	223,0	171,0	48,0
6,1	8,0	106,0	66,0	36,0	11,8	12,0	163,0	114,0	45,0	17,5	18,0	223,0	171,0	48,0
6,2	8,0	106,0	66,0	36,0	11,9	12,0	163,0	114,0	45,0	17,6	18,0	223,0	171,0	48,0
6,3	8,0	106,0	66,0	36,0	12,0	12,0	163,0	114,0	45,0	17,7	18,0	223,0	171,0	48,0
6,4	8,0	106,0	66,0	36,0	12,1	14,0	182,0	133,0	45,0	17,8	18,0	223,0	171,0	48,0
6,5	8,0	106,0	66,0	36,0	12,2	14,0	182,0	133,0	45,0	17,9	18,0	223,0	171,0	48,0
6,6	8,0	106,0	66,0	36,0	12,3	14,0	182,0	133,0	45,0	18,0	18,0	223,0	171,0	48,0
6,7	8,0	106,0	66,0	36,0	12,4	14,0	182,0	133,0	45,0	18,1	20,0	244,0	190,0	50,0
6,8	8,0	106,0	66,0	36,0	12,5	14,0	182,0	133,0	45,0	18,2	20,0	244,0	190,0	50,0
6,9	8,0	116,0	76,0	36,0	12,6	14,0	182,0	133,0	45,0	18,3	20,0	244,0	190,0	50,0
7,0	8,0	116,0	76,0	36,0	12,7	14,0	182,0	133,0	45,0	18,4	20,0	244,0	190,0	50,0
7,1	8,0	116,0	76,0	36,0	12,8	14,0	182,0	133,0	45,0	18,5	20,0	244,0	190,0	50,0
7,2	8,0	116,0	76,0	36,0	12,9	14,0	182,0	133,0	45,0	18,6	20,0	244,0	190,0	50,0
7,3	8,0	116,0	76,0	36,0	13,0	14,0	182,0	133,0	45,0	18,7	20,0	244,0	190,0	50,0
7,4	8,0	116,0	76,0	36,0	13,1	14,0	182,0	133,0	45,0	18,8	20,0	244,0	190,0	50,0
7,5	8,0	116,0	76,0	36,0	13,2	14,0	182,0	133,0	45,0	18,9	20,0	244,0	190,0	50,0
7,6	8,0	116,0	76,0	36,0	13,3	14,0	182,0	133,0	45,0	19,0	20,0	244,0	190,0	50,0
7,7	8,0	116,0	76,0	36,0	13,4	14,0	182,0	133,0	45,0	19,1	20,0	244,0	190,0	50,0
7,8	8,0	116,0	76,0	36,0	13,5	14,0	182,0	133,0	45,0	19,2	20,0	244,0	190,0	50,0
7,9	8,0	116,0	76,0	36,0	13,6	14,0	182,0	133,0	45,0	19,3	20,0	244,0	190,0	50,0
8,0	8,0	116,0	76,0	36,0	13,7	14,0	182,0	133,0	45,0	19,4	20,0	244,0	190,0	50,0
8,1	10,0	131,0	87,0	40,0	13,8	14,0	182,0	133,0	45,0	19,5	20,0	244,0	190,0	50,0
8,2	10,0	131,0	87,0	40,0	13,9	14,0	182,0	133,0	45,0	19,6	20,0	244,0	190,0	50,0
8,3	10,0	131,0	87,0	40,0	14,0	14,0	182,0	133,0	45,0	19,7	20,0	244,0	190,0	50,0
8,4	10,0	131,0	87,0	40,0	14,1	16,0	204,0	152,0	48,0	19,8	20,0	244,0	190,0	50,0
8,5	10,0	131,0	87,0	40,0	14,2	16,0	204,0	152,0	48,0	19,9	20,0	244,0	190,0	50,0
8,6	10,0	131,0	87,0	40,0	14,3	16,0	204,0	152,0	48,0	20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID045-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID045-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

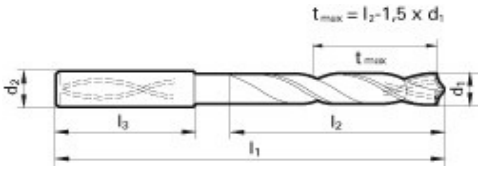
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		145	6
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		120	5
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		170	7
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		145	7
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		130	7
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		125	6
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		120	6
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		120	6
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		105	6
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		145	7
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	6
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	4
	Азотированные стали	**1.8504** 34CrAl6	≤850		110	6
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		105	4
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		80	5
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		65	4
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400		60	4
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	60	2
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		60	4
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		55	4
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		45	4
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	195	8
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	160	8
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	140	8
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	130	7
	Отбеленный чугун	–		≤350 HB	40	2
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		310	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		310	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		260	8
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		220	8
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		280	7
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		125	6
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		325	7
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		220	6
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		125	6
		2.0790 CuNi18Zn19Pb	≤850		105	5
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		90	5
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		80	5

Сверла. Каталог 2022

Артикул
ID046
d1 = 3-20

7xd1 | m7 | 140° | HA | HE | С покрытием



P	M	K	N	S	H
●				○	●

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	70,0	30,0	36,0	8,7	10,0	131,0	87,0	40,0	14,4	16,0	204,0	152,0	48,0
3,1	6,0	70,0	30,0	36,0	8,8	10,0	131,0	87,0	40,0	14,5	16,0	204,0	152,0	48,0
3,2	6,0	70,0	30,0	36,0	8,9	10,0	131,0	87,0	40,0	14,6	16,0	204,0	152,0	48,0
3,3	6,0	70,0	30,0	36,0	9,0	10,0	131,0	87,0	40,0	14,7	16,0	204,0	152,0	48,0
3,4	6,0	75,0	35,5	36,0	9,1	10,0	139,0	95,0	40,0	14,8	16,0	204,0	152,0	48,0
3,5	6,0	75,0	35,5	36,0	9,2	10,0	139,0	95,0	40,0	14,9	16,0	204,0	152,0	48,0
3,6	6,0	75,0	35,5	36,0	9,3	10,0	139,0	95,0	40,0	15,0	16,0	204,0	152,0	48,0
3,7	6,0	75,0	35,5	36,0	9,4	10,0	139,0	95,0	40,0	15,1	16,0	204,0	152,0	48,0
3,8	6,0	75,0	37,5	36,0	9,5	10,0	139,0	95,0	40,0	15,2	16,0	204,0	152,0	48,0
3,9	6,0	75,0	37,5	36,0	9,6	10,0	139,0	95,0	40,0	15,3	16,0	204,0	152,0	48,0
4,0	6,0	75,0	37,5	36,0	9,7	10,0	139,0	95,0	40,0	15,4	16,0	204,0	152,0	48,0
4,1	6,0	75,0	37,5	36,0	9,8	10,0	139,0	95,0	40,0	15,5	16,0	204,0	152,0	48,0
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4,3	6,0	85,0	45,0	36,0	10,0	10,0	139,0	95,0	40,0	15,7	16,0	204,0	152,0	48,0
4,4	6,0	85,0	45,0	36,0	10,1	12,0	155,0	106,0	45,0	15,8	16,0	204,0	152,0	48,0
4,5	6,0	85,0	45,0	36,0	10,2	12,0	155,0	106,0	45,0	15,9	16,0	204,0	152,0	48,0
4,6	6,0	85,0	45,0	36,0	10,3	12,0	155,0	106,0	45,0	16,0	16,0	204,0	152,0	48,0
4,7	6,0	85,0	45,0	36,0	10,4	12,0	155,0	106,0	45,0	16,1	18,0	223,0	171,0	48,0
4,8	6,0	90,0	50,0	36,0	10,5	12,0	155,0	106,0	45,0	16,2	18,0	223,0	171,0	48,0
4,9	6,0	90,0	50,0	36,0	10,6	12,0	155,0	106,0	45,0	16,3	18,0	223,0	171,0	48,0
5,0	6,0	90,0	50,0	36,0	10,7	12,0	155,0	106,0	45,0	16,4	18,0	223,0	171,0	48,0
5,1	6,0	90,0	50,0	36,0	10,8	12,0	155,0	106,0	45,0	16,5	18,0	223,0	171,0	48,0
5,2	6,0	90,0	50,0	36,0	10,9	12,0	155,0	106,0	45,0	16,6	18,0	223,0	171,0	48,0
5,3	6,0	90,0	50,0	36,0	11,0	12,0	155,0	106,0	45,0	16,7	18,0	223,0	171,0	48,0
5,4	6,0	97,0	57,0	36,0	11,1	12,0	163,0	114,0	45,0	16,8	18,0	223,0	171,0	48,0
5,5	6,0	97,0	57,0	36,0	11,2	12,0	163,0	114,0	45,0	16,9	18,0	223,0	171,0	48,0
5,6	6,0	97,0	57,0	36,0	11,3	12,0	163,0	114,0	45,0	17,0	18,0	223,0	171,0	48,0
5,7	6,0	97,0	57,0	36,0	11,4	12,0	163,0	114,0	45,0	17,1	18,0	223,0	171,0	48,0
5,8	6,0	97,0	57,0	36,0	11,5	12,0	163,0	114,0	45,0	17,2	18,0	223,0	171,0	48,0
5,9	6,0	97,0	57,0	36,0	11,6	12,0	163,0	114,0	45,0	17,3	18,0	223,0	171,0	48,0
6,0	6,0	97,0	57,0	36,0	11,7	12,0	163,0	114,0	45,0	17,4	18,0	223,0	171,0	48,0
6,1	8,0	106,0	66,0	36,0	11,8	12,0	163,0	114,0	45,0	17,5	18,0	223,0	171,0	48,0
6,2	8,0	106,0	66,0	36,0	11,9	12,0	163,0	114,0	45,0	17,6	18,0	223,0	171,0	48,0
6,3	8,0	106,0	66,0	36,0	12,0	12,0	163,0	114,0	45,0	17,7	18,0	223,0	171,0	48,0
6,4	8,0	106,0	66,0	36,0	12,1	14,0	182,0	133,0	45,0	17,8	18,0	223,0	171,0	48,0
6,5	8,0	106,0	66,0	36,0	12,2	14,0	182,0	133,0	45,0	17,9	18,0	223,0	171,0	48,0
6,6	8,0	106,0	66,0	36,0	12,3	14,0	182,0	133,0	45,0	18,0	18,0	223,0	171,0	48,0
6,7	8,0	106,0	66,0	36,0	12,4	14,0	182,0	133,0	45,0	18,1	20,0	244,0	190,0	50,0
6,8	8,0	106,0	66,0	36,0	12,5	14,0	182,0	133,0	45,0	18,2	20,0	244,0	190,0	50,0
6,9	8,0	116,0	76,0	36,0	12,6	14,0	182,0	133,0	45,0	18,3	20,0	244,0	190,0	50,0
7,0	8,0	116,0	76,0	36,0	12,7	14,0	182,0	133,0	45,0	18,4	20,0	244,0	190,0	50,0
7,1	8,0	116,0	76,0	36,0	12,8	14,0	182,0	133,0	45,0	18,5	20,0	244,0	190,0	50,0
7,2	8,0	116,0	76,0	36,0	12,9	14,0	182,0	133,0	45,0	18,6	20,0	244,0	190,0	50,0
7,3	8,0	116,0	76,0	36,0	13,0	14,0	182,0	133,0	45,0	18,7	20,0	244,0	190,0	50,0
7,4	8,0	116,0	76,0	36,0	13,1	14,0	182,0	133,0	45,0	18,8	20,0	244,0	190,0	50,0
7,5	8,0	116,0	76,0	36,0	13,2	14,0	182,0	133,0	45,0	18,9	20,0	244,0	190,0	50,0
7,6	8,0	116,0	76,0	36,0	13,3	14,0	182,0	133,0	45,0	19,0	20,0	244,0	190,0	50,0
7,7	8,0	116,0	76,0	36,0	13,4	14,0	182,0	133,0	45,0	19,1	20,0	244,0	190,0	50,0
7,8	8,0	116,0	76,0	36,0	13,5	14,0	182,0	133,0	45,0	19,2	20,0	244,0	190,0	50,0
7,9	8,0	116,0	76,0	36,0	13,6	14,0	182,0	133,0	45,0	19,3	20,0	244,0	190,0	50,0
8,0	8,0	116,0	76,0	36,0	13,7	14,0	182,0	133,0	45,0	19,4	20,0	244,0	190,0	50,0
8,1	10,0	131,0	87,0	40,0	13,8	14,0	182,0	133,0	45,0	19,5	20,0	244,0	190,0	50,0
8,2	10,0	131,0	87,0	40,0	13,9	14,0	182,0	133,0	45,0	19,6	20,0	244,0	190,0	50,0
8,3	10,0	131,0	87,0	40,0	14,0	14,0	182,0	133,0	45,0	19,7	20,0	244,0	190,0	50,0
8,4	10,0	131,0	87,0	40,0	14,1	16,0	204,0	152,0	48,0	19,8	20,0	244,0	190,0	50,0
8,5	10,0	131,0	87,0	40,0	14,2	16,0	204,0	152,0	48,0	19,9	20,0	244,0	190,0	50,0
8,6	10,0	131,0	87,0	40,0	14,3	16,0	204,0	152,0	48,0	20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID046-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID046-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

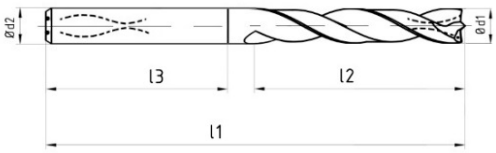
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	**Углеродистые стали общего назначения**	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		145	6
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		120	5
	Автоматные стали (повыш. обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		170	7
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		145	7
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		130	7
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		125	6
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		120	6
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		120	6
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400		105	6
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		145	7
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		120	6
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400		85	4
	Азотированные стали	**1.8504** 34CrAl6	≤850		110	6
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400		105	4
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		80	5
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400		65	4
	Быстрорежущие стали	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400		60	3
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	60	2
H	**Закаленные стали**	–		≤48 HRC	55	2
				≤66 HRC	35	1
S	**Специальные сплавы**	Нимоник, инконель, монель, хастеллой	≤2000		35	3
	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		45	3
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		40	4

Сверла. Каталог 2022

Артикул
ID047
d1 = 3-20

7xd1 | m7 | 80° | HA | HE | Покрытие опционально



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	70,0	30,0	36,0	8,7	10,0	131,0	87,0	40,0	14,4	16,0	204,0	152,0	48,0
3,1	6,0	70,0	30,0	36,0	8,8	10,0	131,0	87,0	40,0	14,5	16,0	204,0	152,0	48,0
3,2	6,0	70,0	30,0	36,0	8,9	10,0	131,0	87,0	40,0	14,6	16,0	204,0	152,0	48,0
3,3	6,0	70,0	30,0	36,0	9,0	10,0	131,0	87,0	40,0	14,7	16,0	204,0	152,0	48,0
3,4	6,0	75,0	35,5	36,0	9,1	10,0	139,0	95,0	40,0	14,8	16,0	204,0	152,0	48,0
3,5	6,0	75,0	35,5	36,0	9,2	10,0	139,0	95,0	40,0	14,9	16,0	204,0	152,0	48,0
3,6	6,0	75,0	35,5	36,0	9,3	10,0	139,0	95,0	40,0	15,0	16,0	204,0	152,0	48,0
3,7	6,0	75,0	35,5	36,0	9,4	10,0	139,0	95,0	40,0	15,1	16,0	204,0	152,0	48,0
3,8	6,0	75,0	37,5	36,0	9,5	10,0	139,0	95,0	40,0	15,2	16,0	204,0	152,0	48,0
3,9	6,0	75,0	37,5	36,0	9,6	10,0	139,0	95,0	40,0	15,3	16,0	204,0	152,0	48,0
4,0	6,0	75,0	37,5	36,0	9,7	10,0	139,0	95,0	40,0	15,4	16,0	204,0	152,0	48,0
4,1	6,0	75,0	37,5	36,0	9,8	10,0	139,0	95,0	40,0	15,5	16,0	204,0	152,0	48,0
4,2	6,0	75,0	37,5	36,0	9,9	10,0	139,0	95,0	40,0	15,6	16,0	204,0	152,0	48,0
4,3	6,0	85,0	45,0	36,0	10,0	10,0	139,0	95,0	40,0	15,7	16,0	204,0	152,0	48,0
4,4	6,0	85,0	45,0	36,0	10,1	12,0	155,0	106,0	45,0	15,8	16,0	204,0	152,0	48,0
4,5	6,0	85,0	45,0	36,0	10,2	12,0	155,0	106,0	45,0	15,9	16,0	204,0	152,0	48,0
4,6	6,0	85,0	45,0	36,0	10,3	12,0	155,0	106,0	45,0	16,0	16,0	204,0	152,0	48,0
4,7	6,0	85,0	45,0	36,0	10,4	12,0	155,0	106,0	45,0	16,1	18,0	223,0	171,0	48,0
4,8	6,0	90,0	50,0	36,0	10,5	12,0	155,0	106,0	45,0	16,2	18,0	223,0	171,0	48,0
4,9	6,0	90,0	50,0	36,0	10,6	12,0	155,0	106,0	45,0	16,3	18,0	223,0	171,0	48,0
5,0	6,0	90,0	50,0	36,0	10,7	12,0	155,0	106,0	45,0	16,4	18,0	223,0	171,0	48,0
5,1	6,0	90,0	50,0	36,0	10,8	12,0	155,0	106,0	45,0	16,5	18,0	223,0	171,0	48,0
5,2	6,0	90,0	50,0	36,0	10,9	12,0	155,0	106,0	45,0	16,6	18,0	223,0	171,0	48,0
5,3	6,0	90,0	50,0	36,0	11,0	12,0	155,0	106,0	45,0	16,7	18,0	223,0	171,0	48,0
5,4	6,0	97,0	57,0	36,0	11,1	12,0	163,0	114,0	45,0	16,8	18,0	223,0	171,0	48,0
5,5	6,0	97,0	57,0	36,0	11,2	12,0	163,0	114,0	45,0	16,9	18,0	223,0	171,0	48,0
5,6	6,0	97,0	57,0	36,0	11,3	12,0	163,0	114,0	45,0	17,0	18,0	223,0	171,0	48,0
5,7	6,0	97,0	57,0	36,0	11,4	12,0	163,0	114,0	45,0	17,1	18,0	223,0	171,0	48,0
5,8	6,0	97,0	57,0	36,0	11,5	12,0	163,0	114,0	45,0	17,2	18,0	223,0	171,0	48,0
5,9	6,0	97,0	57,0	36,0	11,6	12,0	163,0	114,0	45,0	17,3	18,0	223,0	171,0	48,0
6,0	6,0	97,0	57,0	36,0	11,7	12,0	163,0	114,0	45,0	17,4	18,0	223,0	171,0	48,0
6,1	8,0	106,0	66,0	36,0	11,8	12,0	163,0	114,0	45,0	17,5	18,0	223,0	171,0	48,0
6,2	8,0	106,0	66,0	36,0	11,9	12,0	163,0	114,0	45,0	17,6	18,0	223,0	171,0	48,0
6,3	8,0	106,0	66,0	36,0	12,0	12,0	163,0	114,0	45,0	17,7	18,0	223,0	171,0	48,0
6,4	8,0	106,0	66,0	36,0	12,1	14,0	182,0	133,0	45,0	17,8	18,0	223,0	171,0	48,0
6,5	8,0	106,0	66,0	36,0	12,2	14,0	182,0	133,0	45,0	17,9	18,0	223,0	171,0	48,0
6,6	8,0	106,0	66,0	36,0	12,3	14,0	182,0	133,0	45,0	18,0	18,0	223,0	171,0	48,0
6,7	8,0	106,0	66,0	36,0	12,4	14,0	182,0	133,0	45,0	18,1	20,0	244,0	190,0	50,0
6,8	8,0	106,0	66,0	36,0	12,5	14,0	182,0	133,0	45,0	18,2	20,0	244,0	190,0	50,0
6,9	8,0	116,0	76,0	36,0	12,6	14,0	182,0	133,0	45,0	18,3	20,0	244,0	190,0	50,0
7,0	8,0	116,0	76,0	36,0	12,7	14,0	182,0	133,0	45,0	18,4	20,0	244,0	190,0	50,0
7,1	8,0	116,0	76,0	36,0	12,8	14,0	182,0	133,0	45,0	18,5	20,0	244,0	190,0	50,0
7,2	8,0	116,0	76,0	36,0	12,9	14,0	182,0	133,0	45,0	18,6	20,0	244,0	190,0	50,0
7,3	8,0	116,0	76,0	36,0	13,0	14,0	182,0	133,0	45,0	18,7	20,0	244,0	190,0	50,0
7,4	8,0	116,0	76,0	36,0	13,1	14,0	182,0	133,0	45,0	18,8	20,0	244,0	190,0	50,0
7,5	8,0	116,0	76,0	36,0	13,2	14,0	182,0	133,0	45,0	18,9	20,0	244,0	190,0	50,0
7,6	8,0	116,0	76,0	36,0	13,3	14,0	182,0	133,0	45,0	19,0	20,0	244,0	190,0	50,0
7,7	8,0	116,0	76,0	36,0	13,4	14,0	182,0	133,0	45,0	19,1	20,0	244,0	190,0	50,0
7,8	8,0	116,0	76,0	36,0	13,5	14,0	182,0	133,0	45,0	19,2	20,0	244,0	190,0	50,0
7,9	8,0	116,0	76,0	36,0	13,6	14,0	182,0	133,0	45,0	19,3	20,0	244,0	190,0	50,0
8,0	8,0	116,0	76,0	36,0	13,7	14,0	182,0	133,0	45,0	19,4	20,0	244,0	190,0	50,0
8,1	10,0	131,0	87,0	40,0	13,8	14,0	182,0	133,0	45,0	19,5	20,0	244,0	190,0	50,0
8,2	10,0	131,0	87,0	40,0	13,9	14,0	182,0	133,0	45,0	19,6	20,0	244,0	190,0	50,0
8,3	10,0	131,0	87,0	40,0	14,0	14,0	182,0	133,0	45,0	19,7	20,0	244,0	190,0	50,0
8,4	10,0	131,0	87,0	40,0	14,1	16,0	204,0	152,0	48,0	19,8	20,0	244,0	190,0	50,0
8,5	10,0	131,0	87,0	40,0	14,2	16,0	204,0	152,0	48,0	19,9	20,0	244,0	190,0	50,0
8,6	10,0	131,0	87,0	40,0	14,3	16,0	204,0	152,0	48,0	20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID047-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID047-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

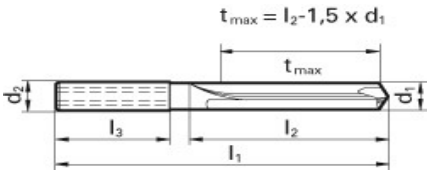
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		180	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		180	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		180	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		180	9
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		110	9
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		110	9
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		110	9
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		120	9

Сверла. Каталог 2022

Артикул
ID082
d1 = 3-20

4xd1 | m7 | 120° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	24,0	36,0
3,1	6,0	66,0	24,0	36,0
3,2	6,0	66,0	24,0	36,0
3,3	6,0	66,0	24,0	36,0
3,4	6,0	66,0	24,0	36,0
3,5	6,0	66,0	24,0	36,0
3,6	6,0	66,0	24,0	36,0
3,7	6,0	66,0	24,0	36,0
3,8	6,0	74,0	30,0	36,0
3,9	6,0	74,0	30,0	36,0
4,0	6,0	74,0	30,0	36,0
4,1	6,0	74,0	30,0	36,0
4,2	6,0	74,0	30,0	36,0
4,3	6,0	74,0	30,0	36,0
4,4	6,0	74,0	30,0	36,0
4,5	6,0	74,0	30,0	36,0
4,6	6,0	74,0	30,0	36,0
4,7	6,0	74,0	30,0	36,0
4,8	6,0	74,0	36,0	36,0
4,9	6,0	74,0	36,0	36,0
5,0	6,0	74,0	36,0	36,0
5,1	6,0	74,0	36,0	36,0
5,2	6,0	74,0	36,0	36,0
5,3	6,0	74,0	36,0	36,0
5,4	6,0	74,0	36,0	36,0
5,5	6,0	74,0	36,0	36,0
5,6	6,0	74,0	36,0	36,0
5,7	6,0	74,0	36,0	36,0
5,8	6,0	74,0	36,0	36,0
5,9	6,0	74,0	36,0	36,0
6,0	6,0	74,0	36,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0

d1 m7	d2 h6	l1	l2	l3
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	74,0	45,0
12,2	14,0	124,0	74,0	45,0
12,3	14,0	124,0	74,0	45,0
12,4	14,0	124,0	74,0	45,0
12,5	14,0	124,0	74,0	45,0
12,6	14,0	124,0	74,0	45,0
12,7	14,0	124,0	74,0	45,0
12,8	14,0	124,0	74,0	45,0
12,9	14,0	124,0	74,0	45,0
13,0	14,0	124,0	74,0	45,0
13,1	14,0	124,0	74,0	45,0
13,2	14,0	124,0	74,0	45,0
13,3	14,0	124,0	74,0	45,0
13,4	14,0	124,0	74,0	45,0
13,5	14,0	124,0	74,0	45,0
13,6	14,0	124,0	74,0	45,0
13,7	14,0	124,0	74,0	45,0
13,8	14,0	124,0	74,0	45,0
13,9	14,0	124,0	74,0	45,0
14,0	14,0	124,0	74,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0

d1 m7	d2 h6	l1	l2	l3
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID082-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID082-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

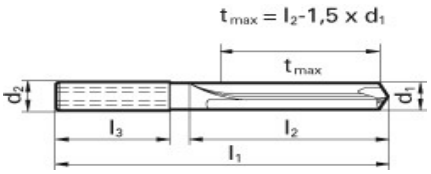
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	9
	Магниевые сплавы	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	9
	Медь, низколегир.	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Латунь с короткой струж	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
	с длинной стружкой	**2.0790** CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
ID083
d1 = 3-20

7xd1 | m7 | 120° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	74,0	32,0	36,0	8,7	10,0	139,0	95,0	40,0	14,4	16,0	204,0	152,0	48,0
3,1	6,0	74,0	32,0	36,0	8,8	10,0	139,0	95,0	40,0	14,5	16,0	204,0	152,0	48,0
3,2	6,0	74,0	32,0	36,0	8,9	10,0	139,0	95,0	40,0	14,6	16,0	204,0	152,0	48,0
3,3	6,0	74,0	32,0	36,0	9,0	10,0	139,0	95,0	40,0	14,7	16,0	204,0	152,0	48,0
3,4	6,0	74,0	34,0	36,0	9,1	10,0	139,0	95,0	40,0	14,8	16,0	204,0	152,0	48,0
3,5	6,0	74,0	34,0	36,0	9,2	10,0	139,0	95,0	40,0	14,9	16,0	204,0	152,0	48,0
3,6	6,0	74,0	34,0	36,0	9,3	10,0	139,0	95,0	40,0	15,0	16,0	204,0	152,0	48,0
3,7	6,0	74,0	34,0	36,0	9,4	10,0	139,0	95,0	40,0	15,1	16,0	204,0	152,0	48,0
3,8	6,0	97,0	45,0	36,0	9,5	10,0	139,0	95,0	40,0	15,2	16,0	204,0	152,0	48,0
3,9	6,0	97,0	45,0	36,0	9,6	10,0	139,0	95,0	40,0	15,3	16,0	204,0	152,0	48,0
4,0	6,0	97,0	45,0	36,0	9,7	10,0	139,0	95,0	40,0	15,4	16,0	204,0	152,0	48,0
4,1	6,0	97,0	45,0	36,0	9,8	10,0	139,0	95,0	40,0	15,5	16,0	204,0	152,0	48,0
4,2	6,0	97,0	45,0	36,0	9,9	10,0	139,0	95,0	40,0	15,6	16,0	204,0	152,0	48,0
4,3	6,0	97,0	45,0	36,0	10,0	10,0	139,0	95,0	40,0	15,7	16,0	204,0	152,0	48,0
4,4	6,0	97,0	45,0	36,0	10,1	12,0	163,0	114,0	45,0	15,8	16,0	204,0	152,0	48,0
4,5	6,0	97,0	45,0	36,0	10,2	12,0	163,0	114,0	45,0	15,9	16,0	204,0	152,0	48,0
4,6	6,0	97,0	45,0	36,0	10,3	12,0	163,0	114,0	45,0	16,0	16,0	204,0	152,0	48,0
4,7	6,0	97,0	45,0	36,0	10,4	12,0	163,0	114,0	45,0	16,1	18,0	223,0	171,0	48,0
4,8	6,0	97,0	57,0	36,0	10,5	12,0	163,0	114,0	45,0	16,2	18,0	223,0	171,0	48,0
4,9	6,0	97,0	57,0	36,0	10,6	12,0	163,0	114,0	45,0	16,3	18,0	223,0	171,0	48,0
5,0	6,0	97,0	57,0	36,0	10,7	12,0	163,0	114,0	45,0	16,4	18,0	223,0	171,0	48,0
5,1	6,0	97,0	57,0	36,0	10,8	12,0	163,0	114,0	45,0	16,5	18,0	223,0	171,0	48,0
5,2	6,0	97,0	57,0	36,0	10,9	12,0	163,0	114,0	45,0	16,6	18,0	223,0	171,0	48,0
5,3	6,0	97,0	57,0	36,0	11,0	12,0	163,0	114,0	45,0	16,7	18,0	223,0	171,0	48,0
5,4	6,0	97,0	57,0	36,0	11,1	12,0	163,0	114,0	45,0	16,8	18,0	223,0	171,0	48,0
5,5	6,0	97,0	57,0	36,0	11,2	12,0	163,0	114,0	45,0	16,9	18,0	223,0	171,0	48,0
5,6	6,0	97,0	57,0	36,0	11,3	12,0	163,0	114,0	45,0	17,0	18,0	223,0	171,0	48,0
5,7	6,0	97,0	57,0	36,0	11,4	12,0	163,0	114,0	45,0	17,1	18,0	223,0	171,0	48,0
5,8	6,0	97,0	57,0	36,0	11,5	12,0	163,0	114,0	45,0	17,2	18,0	223,0	171,0	48,0
5,9	6,0	97,0	57,0	36,0	11,6	12,0	163,0	114,0	45,0	17,3	18,0	223,0	171,0	48,0
6,0	6,0	97,0	57,0	36,0	11,7	12,0	163,0	114,0	45,0	17,4	18,0	223,0	171,0	48,0
6,1	8,0	116,0	76,0	36,0	11,8	12,0	163,0	114,0	45,0	17,5	18,0	223,0	171,0	48,0
6,2	8,0	116,0	76,0	36,0	11,9	12,0	163,0	114,0	45,0	17,6	18,0	223,0	171,0	48,0
6,3	8,0	116,0	76,0	36,0	12,0	12,0	163,0	114,0	45,0	17,7	18,0	223,0	171,0	48,0
6,4	8,0	116,0	76,0	36,0	12,1	14,0	182,0	133,0	45,0	17,8	18,0	223,0	171,0	48,0
6,5	8,0	116,0	76,0	36,0	12,2	14,0	182,0	133,0	45,0	17,9	18,0	223,0	171,0	48,0
6,6	8,0	116,0	76,0	36,0	12,3	14,0	182,0	133,0	45,0	18,0	18,0	223,0	171,0	48,0
6,7	8,0	116,0	76,0	36,0	12,4	14,0	182,0	133,0	45,0	18,1	20,0	244,0	190,0	50,0
6,8	8,0	116,0	76,0	36,0	12,5	14,0	182,0	133,0	45,0	18,2	20,0	244,0	190,0	50,0
6,9	8,0	116,0	76,0	36,0	12,6	14,0	182,0	133,0	45,0	18,3	20,0	244,0	190,0	50,0
7,0	8,0	116,0	76,0	36,0	12,7	14,0	182,0	133,0	45,0	18,4	20,0	244,0	190,0	50,0
7,1	8,0	116,0	76,0	36,0	12,8	14,0	182,0	133,0	45,0	18,5	20,0	244,0	190,0	50,0
7,2	8,0	116,0	76,0	36,0	12,9	14,0	182,0	133,0	45,0	18,6	20,0	244,0	190,0	50,0
7,3	8,0	116,0	76,0	36,0	13,0	14,0	182,0	133,0	45,0	18,7	20,0	244,0	190,0	50,0
7,4	8,0	116,0	76,0	36,0	13,1	14,0	182,0	133,0	45,0	18,8	20,0	244,0	190,0	50,0
7,5	8,0	116,0	76,0	36,0	13,2	14,0	182,0	133,0	45,0	18,9	20,0	244,0	190,0	50,0
7,6	8,0	116,0	76,0	36,0	13,3	14,0	182,0	133,0	45,0	19,0	20,0	244,0	190,0	50,0
7,7	8,0	116,0	76,0	36,0	13,4	14,0	182,0	133,0	45,0	19,1	20,0	244,0	190,0	50,0
7,8	8,0	116,0	76,0	36,0	13,5	14,0	182,0	133,0	45,0	19,2	20,0	244,0	190,0	50,0
7,9	8,0	116,0	76,0	36,0	13,6	14,0	182,0	133,0	45,0	19,3	20,0	244,0	190,0	50,0
8,0	8,0	116,0	76,0	36,0	13,7	14,0	182,0	133,0	45,0	19,4	20,0	244,0	190,0	50,0
8,1	10,0	139,0	95,0	40,0	13,8	14,0	182,0	133,0	45,0	19,5	20,0	244,0	190,0	50,0
8,2	10,0	139,0	95,0	40,0	13,9	14,0	182,0	133,0	45,0	19,6	20,0	244,0	190,0	50,0
8,3	10,0	139,0	95,0	40,0	14,0	14,0	182,0	133,0	45,0	19,7	20,0	244,0	190,0	50,0
8,4	10,0	139,0	95,0	40,0	14,1	16,0	204,0	152,0	48,0	19,8	20,0	244,0	190,0	50,0
8,5	10,0	139,0	95,0	40,0	14,2	16,0	204,0	152,0	48,0	19,9	20,0	244,0	190,0	50,0
8,6	10,0	139,0	95,0	40,0	14,3	16,0	204,0	152,0	48,0	20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID083-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID083-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

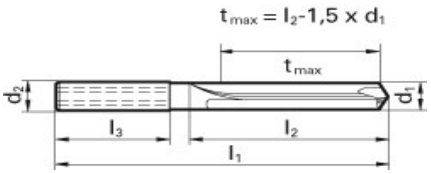
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	8
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	8
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	7
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
		2.0790 CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
ID084
d1 = 3-20

10xd1 | m7 | 120° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	91,0	42,0	36,0	8,7	10,0	175,0	130,0	40,0	14,4	16,0	260,0	207,0	48,0
3,1	6,0	91,0	42,0	36,0	8,8	10,0	175,0	130,0	40,0	14,5	16,0	260,0	207,0	48,0
3,2	6,0	91,0	42,0	36,0	8,9	10,0	175,0	130,0	40,0	14,6	16,0	260,0	207,0	48,0
3,3	6,0	91,0	42,0	36,0	9,0	10,0	175,0	130,0	40,0	14,7	16,0	260,0	207,0	48,0
3,4	6,0	91,0	48,0	36,0	9,1	10,0	175,0	130,0	40,0	14,8	16,0	260,0	207,0	48,0
3,5	6,0	91,0	48,0	36,0	9,2	10,0	175,0	130,0	40,0	14,9	16,0	260,0	207,0	48,0
3,6	6,0	91,0	48,0	36,0	9,3	10,0	175,0	130,0	40,0	15,0	16,0	260,0	207,0	48,0
3,7	6,0	91,0	48,0	36,0	9,4	10,0	175,0	130,0	40,0	15,1	16,0	260,0	207,0	48,0
3,8	6,0	121,0	77,0	36,0	9,5	10,0	175,0	130,0	40,0	15,2	16,0	260,0	207,0	48,0
3,9	6,0	121,0	77,0	36,0	9,6	10,0	175,0	130,0	40,0	15,3	16,0	260,0	207,0	48,0
4,0	6,0	121,0	77,0	36,0	9,7	10,0	175,0	130,0	40,0	15,4	16,0	260,0	207,0	48,0
4,1	6,0	121,0	77,0	36,0	9,8	10,0	175,0	130,0	40,0	15,5	16,0	260,0	207,0	48,0
4,2	6,0	121,0	77,0	36,0	9,9	10,0	175,0	130,0	40,0	15,6	16,0	260,0	207,0	48,0
4,3	6,0	121,0	77,0	36,0	10,0	10,0	175,0	130,0	40,0	15,7	16,0	260,0	207,0	48,0
4,4	6,0	121,0	77,0	36,0	10,1	12,0	209,0	159,0	45,0	15,8	16,0	260,0	207,0	48,0
4,5	6,0	121,0	77,0	36,0	10,2	12,0	209,0	159,0	45,0	15,9	16,0	260,0	207,0	48,0
4,6	6,0	121,0	77,0	36,0	10,3	12,0	209,0	159,0	45,0	16,0	16,0	260,0	207,0	48,0
4,7	6,0	121,0	77,0	36,0	10,4	12,0	209,0	159,0	45,0	16,1	18,0	284,0	231,0	48,0
4,8	6,0	121,0	82,0	36,0	10,5	12,0	209,0	159,0	45,0	16,2	18,0	284,0	231,0	48,0
4,9	6,0	121,0	82,0	36,0	10,6	12,0	209,0	159,0	45,0	16,3	18,0	284,0	231,0	48,0
5,0	6,0	121,0	82,0	36,0	10,7	12,0	209,0	159,0	45,0	16,4	18,0	284,0	231,0	48,0
5,1	6,0	121,0	82,0	36,0	10,8	12,0	209,0	159,0	45,0	16,5	18,0	284,0	231,0	48,0
5,2	6,0	121,0	82,0	36,0	10,9	12,0	209,0	159,0	45,0	16,6	18,0	284,0	231,0	48,0
5,3	6,0	121,0	82,0	36,0	11,0	12,0	209,0	159,0	45,0	16,7	18,0	284,0	231,0	48,0
5,4	6,0	121,0	82,0	36,0	11,1	12,0	209,0	159,0	45,0	16,8	18,0	284,0	231,0	48,0
5,5	6,0	121,0	82,0	36,0	11,2	12,0	209,0	159,0	45,0	16,9	18,0	284,0	231,0	48,0
5,6	6,0	121,0	82,0	36,0	11,3	12,0	209,0	159,0	45,0	17,0	18,0	284,0	231,0	48,0
5,7	6,0	121,0	82,0	36,0	11,4	12,0	209,0	159,0	45,0	17,1	18,0	284,0	231,0	48,0
5,8	6,0	121,0	82,0	36,0	11,5	12,0	209,0	159,0	45,0	17,2	18,0	284,0	231,0	48,0
5,9	6,0	121,0	82,0	36,0	11,6	12,0	209,0	159,0	45,0	17,3	18,0	284,0	231,0	48,0
6,0	6,0	121,0	82,0	36,0	11,7	12,0	209,0	159,0	45,0	17,4	18,0	284,0	231,0	48,0
6,1	8,0	146,0	106,0	36,0	11,8	12,0	209,0	159,0	45,0	17,5	18,0	284,0	231,0	48,0
6,2	8,0	146,0	106,0	36,0	11,9	12,0	209,0	159,0	45,0	17,6	18,0	284,0	231,0	48,0
6,3	8,0	146,0	106,0	36,0	12,0	12,0	209,0	159,0	45,0	17,7	18,0	284,0	231,0	48,0
6,4	8,0	146,0	106,0	36,0	12,1	14,0	233,0	183,0	45,0	17,8	18,0	284,0	231,0	48,0
6,5	8,0	146,0	106,0	36,0	12,2	14,0	233,0	183,0	45,0	17,9	18,0	284,0	231,0	48,0
6,6	8,0	146,0	106,0	36,0	12,3	14,0	233,0	183,0	45,0	18,0	18,0	284,0	231,0	48,0
6,7	8,0	146,0	106,0	36,0	12,4	14,0	233,0	183,0	45,0	18,1	20,0	308,0	255,0	50,0
6,8	8,0	146,0	106,0	36,0	12,5	14,0	233,0	183,0	45,0	18,2	20,0	308,0	255,0	50,0
6,9	8,0	146,0	106,0	36,0	12,6	14,0	233,0	183,0	45,0	18,3	20,0	308,0	255,0	50,0
7,0	8,0	146,0	106,0	36,0	12,7	14,0	233,0	183,0	45,0	18,4	20,0	308,0	255,0	50,0
7,1	8,0	146,0	106,0	36,0	12,8	14,0	233,0	183,0	45,0	18,5	20,0	308,0	255,0	50,0
7,2	8,0	146,0	106,0	36,0	12,9	14,0	233,0	183,0	45,0	18,6	20,0	308,0	255,0	50,0
7,3	8,0	146,0	106,0	36,0	13,0	14,0	233,0	183,0	45,0	18,7	20,0	308,0	255,0	50,0
7,4	8,0	146,0	106,0	36,0	13,1	14,0	233,0	183,0	45,0	18,8	20,0	308,0	255,0	50,0
7,5	8,0	146,0	106,0	36,0	13,2	14,0	233,0	183,0	45,0	18,9	20,0	308,0	255,0	50,0
7,6	8,0	146,0	106,0	36,0	13,3	14,0	233,0	183,0	45,0	19,0	20,0	308,0	255,0	50,0
7,7	8,0	146,0	106,0	36,0	13,4	14,0	233,0	183,0	45,0	19,1	20,0	308,0	255,0	50,0
7,8	8,0	146,0	106,0	36,0	13,5	14,0	233,0	183,0	45,0	19,2	20,0	308,0	255,0	50,0
7,9	8,0	146,0	106,0	36,0	13,6	14,0	233,0	183,0	45,0	19,3	20,0	308,0	255,0	50,0
8,0	8,0	146,0	106,0	36,0	13,7	14,0	233,0	183,0	45,0	19,4	20,0	308,0	255,0	50,0
8,1	10,0	175,0	130,0	40,0	13,8	14,0	233,0	183,0	45,0	19,5	20,0	308,0	255,0	50,0
8,2	10,0	175,0	130,0	40,0	13,9	14,0	233,0	183,0	45,0	19,6	20,0	308,0	255,0	50,0
8,3	10,0	175,0	130,0	40,0	14,0	14,0	233,0	183,0	45,0	19,7	20,0	308,0	255,0	50,0
8,4	10,0	175,0	130,0	40,0	14,1	16,0	260,0	207,0	48,0	19,8	20,0	308,0	255,0	50,0
8,5	10,0	175,0	130,0	40,0	14,2	16,0	260,0	207,0	48,0	19,9	20,0	308,0	255,0	50,0
8,6	10,0	175,0	130,0	40,0	14,3	16,0	260,0	207,0	48,0	20,0	20,0	308,0	255,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID084-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID084-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

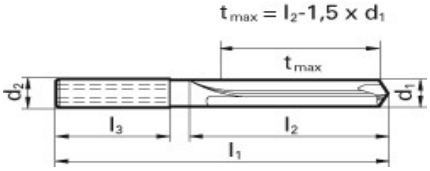
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	8
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	8
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	7
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
		2.0790 CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
ID085
d1 = 3-20

4xd1 | m7 | 130° | HA | HE | С покрытием



P	M	K	N	S	H
		•			

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	24,0	36,0
3,1	6,0	66,0	24,0	36,0
3,2	6,0	66,0	24,0	36,0
3,3	6,0	66,0	24,0	36,0
3,4	6,0	66,0	24,0	36,0
3,5	6,0	66,0	24,0	36,0
3,6	6,0	66,0	24,0	36,0
3,7	6,0	66,0	24,0	36,0
3,8	6,0	74,0	30,0	36,0
3,9	6,0	74,0	30,0	36,0
4,0	6,0	74,0	30,0	36,0
4,1	6,0	74,0	30,0	36,0
4,2	6,0	74,0	30,0	36,0
4,3	6,0	74,0	30,0	36,0
4,4	6,0	74,0	30,0	36,0
4,5	6,0	74,0	30,0	36,0
4,6	6,0	74,0	30,0	36,0
4,7	6,0	74,0	30,0	36,0
4,8	6,0	74,0	36,0	36,0
4,9	6,0	74,0	36,0	36,0
5,0	6,0	74,0	36,0	36,0
5,1	6,0	74,0	36,0	36,0
5,2	6,0	74,0	36,0	36,0
5,3	6,0	74,0	36,0	36,0
5,4	6,0	74,0	36,0	36,0
5,5	6,0	74,0	36,0	36,0
5,6	6,0	74,0	36,0	36,0
5,7	6,0	74,0	36,0	36,0
5,8	6,0	74,0	36,0	36,0
5,9	6,0	74,0	36,0	36,0
6,0	6,0	74,0	36,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	74,0	45,0
12,2	14,0	124,0	74,0	45,0
12,3	14,0	124,0	74,0	45,0
12,4	14,0	124,0	74,0	45,0
12,5	14,0	124,0	74,0	45,0
12,6	14,0	124,0	74,0	45,0
12,7	14,0	124,0	74,0	45,0
12,8	14,0	124,0	74,0	45,0
12,9	14,0	124,0	74,0	45,0
13,0	14,0	124,0	74,0	45,0
13,1	14,0	124,0	74,0	45,0
13,2	14,0	124,0	74,0	45,0
13,3	14,0	124,0	74,0	45,0
13,4	14,0	124,0	74,0	45,0
13,5	14,0	124,0	74,0	45,0
13,6	14,0	124,0	74,0	45,0
13,7	14,0	124,0	74,0	45,0
13,8	14,0	124,0	74,0	45,0
13,9	14,0	124,0	74,0	45,0
14,0	14,0	124,0	74,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID085-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID085-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

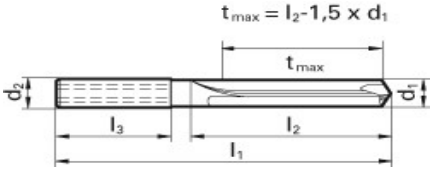
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
K	**Серый чугун**	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	120	7
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	100	7
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	90	7
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	80	7
	Отбеленный чугун	–		≤350 HB	40	2

Сверла. Каталог 2022

Артикул
ID086
d1 = 3-20

7xd1 | m7 | 130° | HA | HE | С покрытием



P	M	K	N	S	H
		•			

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	74,0	32,0	36,0
3,1	6,0	74,0	32,0	36,0
3,2	6,0	74,0	32,0	36,0
3,3	6,0	74,0	32,0	36,0
3,4	6,0	74,0	34,0	36,0
3,5	6,0	74,0	34,0	36,0
3,6	6,0	74,0	34,0	36,0
3,7	6,0	74,0	34,0	36,0
3,8	6,0	97,0	45,0	36,0
3,9	6,0	97,0	45,0	36,0
4,0	6,0	97,0	45,0	36,0
4,1	6,0	97,0	45,0	36,0
4,2	6,0	97,0	45,0	36,0
4,3	6,0	97,0	45,0	36,0
4,4	6,0	97,0	45,0	36,0
4,5	6,0	97,0	45,0	36,0
4,6	6,0	97,0	45,0	36,0
4,7	6,0	97,0	45,0	36,0
4,8	6,0	97,0	57,0	36,0
4,9	6,0	97,0	57,0	36,0
5,0	6,0	97,0	57,0	36,0
5,1	6,0	97,0	57,0	36,0
5,2	6,0	97,0	57,0	36,0
5,3	6,0	97,0	57,0	36,0
5,4	6,0	97,0	57,0	36,0
5,5	6,0	97,0	57,0	36,0
5,6	6,0	97,0	57,0	36,0
5,7	6,0	97,0	57,0	36,0
5,8	6,0	97,0	57,0	36,0
5,9	6,0	97,0	57,0	36,0
6,0	6,0	97,0	57,0	36,0
6,1	8,0	116,0	76,0	36,0
6,2	8,0	116,0	76,0	36,0
6,3	8,0	116,0	76,0	36,0
6,4	8,0	116,0	76,0	36,0
6,5	8,0	116,0	76,0	36,0
6,6	8,0	116,0	76,0	36,0
6,7	8,0	116,0	76,0	36,0
6,8	8,0	116,0	76,0	36,0
6,9	8,0	116,0	76,0	36,0
7,0	8,0	116,0	76,0	36,0
7,1	8,0	116,0	76,0	36,0
7,2	8,0	116,0	76,0	36,0
7,3	8,0	116,0	76,0	36,0
7,4	8,0	116,0	76,0	36,0
7,5	8,0	116,0	76,0	36,0
7,6	8,0	116,0	76,0	36,0
7,7	8,0	116,0	76,0	36,0
7,8	8,0	116,0	76,0	36,0
7,9	8,0	116,0	76,0	36,0
8,0	8,0	116,0	76,0	36,0
8,1	10,0	139,0	95,0	40,0
8,2	10,0	139,0	95,0	40,0
8,3	10,0	139,0	95,0	40,0
8,4	10,0	139,0	95,0	40,0
8,5	10,0	139,0	95,0	40,0
8,6	10,0	139,0	95,0	40,0

d1 m7	d2 h6	l1	l2	l3
8,7	10,0	139,0	95,0	40,0
8,8	10,0	139,0	95,0	40,0
8,9	10,0	139,0	95,0	40,0
9,0	10,0	139,0	95,0	40,0
9,1	10,0	139,0	95,0	40,0
9,2	10,0	139,0	95,0	40,0
9,3	10,0	139,0	95,0	40,0
9,4	10,0	139,0	95,0	40,0
9,5	10,0	139,0	95,0	40,0
9,6	10,0	139,0	95,0	40,0
9,7	10,0	139,0	95,0	40,0
9,8	10,0	139,0	95,0	40,0
9,9	10,0	139,0	95,0	40,0
10,0	10,0	139,0	95,0	40,0
10,1	12,0	163,0	114,0	45,0
10,2	12,0	163,0	114,0	45,0
10,3	12,0	163,0	114,0	45,0
10,4	12,0	163,0	114,0	45,0
10,5	12,0	163,0	114,0	45,0
10,6	12,0	163,0	114,0	45,0
10,7	12,0	163,0	114,0	45,0
10,8	12,0	163,0	114,0	45,0
10,9	12,0	163,0	114,0	45,0
11,0	12,0	163,0	114,0	45,0
11,1	12,0	163,0	114,0	45,0
11,2	12,0	163,0	114,0	45,0
11,3	12,0	163,0	114,0	45,0
11,4	12,0	163,0	114,0	45,0
11,5	12,0	163,0	114,0	45,0
11,6	12,0	163,0	114,0	45,0
11,7	12,0	163,0	114,0	45,0
11,8	12,0	163,0	114,0	45,0
11,9	12,0	163,0	114,0	45,0
12,0	12,0	163,0	114,0	45,0
12,1	14,0	182,0	133,0	45,0
12,2	14,0	182,0	133,0	45,0
12,3	14,0	182,0	133,0	45,0
12,4	14,0	182,0	133,0	45,0
12,5	14,0	182,0	133,0	45,0
12,6	14,0	182,0	133,0	45,0
12,7	14,0	182,0	133,0	45,0
12,8	14,0	182,0	133,0	45,0
12,9	14,0	182,0	133,0	45,0
13,0	14,0	182,0	133,0	45,0
13,1	14,0	182,0	133,0	45,0
13,2	14,0	182,0	133,0	45,0
13,3	14,0	182,0	133,0	45,0
13,4	14,0	182,0	133,0	45,0
13,5	14,0	182,0	133,0	45,0
13,6	14,0	182,0	133,0	45,0
13,7	14,0	182,0	133,0	45,0
13,8	14,0	182,0	133,0	45,0
13,9	14,0	182,0	133,0	45,0
14,0	14,0	182,0	133,0	45,0
14,1	16,0	204,0	152,0	48,0
14,2	16,0	204,0	152,0	48,0
14,3	16,0	204,0	152,0	48,0

d1 m7	d2 h6	l1	l2	l3
14,4	16,0	204,0	152,0	48,0
14,5	16,0	204,0	152,0	48,0
14,6	16,0	204,0	152,0	48,0
14,7	16,0	204,0	152,0	48,0
14,8	16,0	204,0	152,0	48,0
14,9	16,0	204,0	152,0	48,0
15,0	16,0	204,0	152,0	48,0
15,1	16,0	204,0	152,0	48,0
15,2	16,0	204,0	152,0	48,0
15,3	16,0	204,0	152,0	48,0
15,4	16,0	204,0	152,0	48,0
15,5	16,0	204,0	152,0	48,0
15,6	16,0	204,0	152,0	48,0
15,7	16,0	204,0	152,0	48,0
15,8	16,0	204,0	152,0	48,0
15,9	16,0	204,0	152,0	48,0
16,0	16,0	204,0	152,0	48,0
16,1	18,0	223,0	171,0	48,0
16,2	18,0	223,0	171,0	48,0
16,3	18,0	223,0	171,0	48,0
16,4	18,0	223,0	171,0	48,0
16,5	18,0	223,0	171,0	48,0
16,6	18,0	223,0	171,0	48,0
16,7	18,0	223,0	171,0	48,0
16,8	18,0	223,0	171,0	48,0
16,9	18,0	223,0	171,0	48,0
17,0	18,0	223,0	171,0	48,0
17,1	18,0	223,0	171,0	48,0
17,2	18,0	223,0	171,0	48,0
17,3	18,0	223,0	171,0	48,0
17,4	18,0	223,0	171,0	48,0
17,5	18,0	223,0	171,0	48,0
17,6	18,0	223,0	171,0	48,0
17,7	18,0	223,0	171,0	48,0
17,8	18,0	223,0	171,0	48,0
17,9	18,0	223,0	171,0	48,0
18,0	18,0	223,0	171,0	48,0
18,1	20,0	244,0	190,0	50,0
18,2	20,0	244,0	190,0	50,0
18,3	20,0	244,0	190,0	50,0
18,4	20,0	244,0	190,0	50,0
18,5	20,0	244,0	190,0	50,0
18,6	20,0	244,0	190,0	50,0
18,7	20,0	244,0	190,0	50,0
18,8	20,0	244,0	190,0	50,0
18,9	20,0	244,0	190,0	50,0
19,0	20,0	244,0	190,0	50,0
19,1	20,0	244,0	190,0	50,0
19,2	20,0	244,0	190,0	50,0
19,3	20,0	244,0	190,0	50,0
19,4	20,0	244,0	190,0	50,0
19,5	20,0	244,0	190,0	50,0
19,6	20,0	244,0	190,0	50,0
19,7	20,0	244,0	190,0	50,0
19,8	20,0	244,0	190,0	50,0
19,9	20,0	244,0	190,0	50,0
20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID086-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID086-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

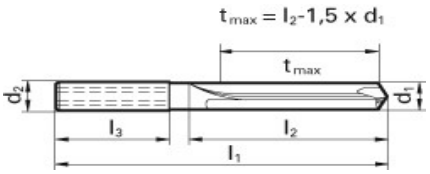
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
K	**Серый чугун**	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	120	7
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	100	7
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	90	7
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	80	7
	Отбеленный чугун	–		≤350 HB	40	2

Сверла. Каталог 2022

Артикул
ID087
d1 = 3-20

10xd1 | m7 | 130° | HA | HE | С покрытием



P	M	K	N	S	H
		•			

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	91,0	42,0	36,0	8,7	10,0	175,0	130,0	40,0	14,4	16,0	260,0	207,0	48,0
3,1	6,0	91,0	42,0	36,0	8,8	10,0	175,0	130,0	40,0	14,5	16,0	260,0	207,0	48,0
3,2	6,0	91,0	42,0	36,0	8,9	10,0	175,0	130,0	40,0	14,6	16,0	260,0	207,0	48,0
3,3	6,0	91,0	42,0	36,0	9,0	10,0	175,0	130,0	40,0	14,7	16,0	260,0	207,0	48,0
3,4	6,0	91,0	48,0	36,0	9,1	10,0	175,0	130,0	40,0	14,8	16,0	260,0	207,0	48,0
3,5	6,0	91,0	48,0	36,0	9,2	10,0	175,0	130,0	40,0	14,9	16,0	260,0	207,0	48,0
3,6	6,0	91,0	48,0	36,0	9,3	10,0	175,0	130,0	40,0	15,0	16,0	260,0	207,0	48,0
3,7	6,0	91,0	48,0	36,0	9,4	10,0	175,0	130,0	40,0	15,1	16,0	260,0	207,0	48,0
3,8	6,0	121,0	77,0	36,0	9,5	10,0	175,0	130,0	40,0	15,2	16,0	260,0	207,0	48,0
3,9	6,0	121,0	77,0	36,0	9,6	10,0	175,0	130,0	40,0	15,3	16,0	260,0	207,0	48,0
4,0	6,0	121,0	77,0	36,0	9,7	10,0	175,0	130,0	40,0	15,4	16,0	260,0	207,0	48,0
4,1	6,0	121,0	77,0	36,0	9,8	10,0	175,0	130,0	40,0	15,5	16,0	260,0	207,0	48,0
4,2	6,0	121,0	77,0	36,0	9,9	10,0	175,0	130,0	40,0	15,6	16,0	260,0	207,0	48,0
4,3	6,0	121,0	77,0	36,0	10,0	10,0	175,0	130,0	40,0	15,7	16,0	260,0	207,0	48,0
4,4	6,0	121,0	77,0	36,0	10,1	12,0	209,0	159,0	45,0	15,8	16,0	260,0	207,0	48,0
4,5	6,0	121,0	77,0	36,0	10,2	12,0	209,0	159,0	45,0	15,9	16,0	260,0	207,0	48,0
4,6	6,0	121,0	77,0	36,0	10,3	12,0	209,0	159,0	45,0	16,0	16,0	260,0	207,0	48,0
4,7	6,0	121,0	77,0	36,0	10,4	12,0	209,0	159,0	45,0	16,1	18,0	284,0	231,0	48,0
4,8	6,0	121,0	82,0	36,0	10,5	12,0	209,0	159,0	45,0	16,2	18,0	284,0	231,0	48,0
4,9	6,0	121,0	82,0	36,0	10,6	12,0	209,0	159,0	45,0	16,3	18,0	284,0	231,0	48,0
5,0	6,0	121,0	82,0	36,0	10,7	12,0	209,0	159,0	45,0	16,4	18,0	284,0	231,0	48,0
5,1	6,0	121,0	82,0	36,0	10,8	12,0	209,0	159,0	45,0	16,5	18,0	284,0	231,0	48,0
5,2	6,0	121,0	82,0	36,0	10,9	12,0	209,0	159,0	45,0	16,6	18,0	284,0	231,0	48,0
5,3	6,0	121,0	82,0	36,0	11,0	12,0	209,0	159,0	45,0	16,7	18,0	284,0	231,0	48,0
5,4	6,0	121,0	82,0	36,0	11,1	12,0	209,0	159,0	45,0	16,8	18,0	284,0	231,0	48,0
5,5	6,0	121,0	82,0	36,0	11,2	12,0	209,0	159,0	45,0	16,9	18,0	284,0	231,0	48,0
5,6	6,0	121,0	82,0	36,0	11,3	12,0	209,0	159,0	45,0	17,0	18,0	284,0	231,0	48,0
5,7	6,0	121,0	82,0	36,0	11,4	12,0	209,0	159,0	45,0	17,1	18,0	284,0	231,0	48,0
5,8	6,0	121,0	82,0	36,0	11,5	12,0	209,0	159,0	45,0	17,2	18,0	284,0	231,0	48,0
5,9	6,0	121,0	82,0	36,0	11,6	12,0	209,0	159,0	45,0	17,3	18,0	284,0	231,0	48,0
6,0	6,0	121,0	82,0	36,0	11,7	12,0	209,0	159,0	45,0	17,4	18,0	284,0	231,0	48,0
6,1	8,0	146,0	106,0	36,0	11,8	12,0	209,0	159,0	45,0	17,5	18,0	284,0	231,0	48,0
6,2	8,0	146,0	106,0	36,0	11,9	12,0	209,0	159,0	45,0	17,6	18,0	284,0	231,0	48,0
6,3	8,0	146,0	106,0	36,0	12,0	12,0	209,0	159,0	45,0	17,7	18,0	284,0	231,0	48,0
6,4	8,0	146,0	106,0	36,0	12,1	14,0	233,0	183,0	45,0	17,8	18,0	284,0	231,0	48,0
6,5	8,0	146,0	106,0	36,0	12,2	14,0	233,0	183,0	45,0	17,9	18,0	284,0	231,0	48,0
6,6	8,0	146,0	106,0	36,0	12,3	14,0	233,0	183,0	45,0	18,0	18,0	284,0	231,0	48,0
6,7	8,0	146,0	106,0	36,0	12,4	14,0	233,0	183,0	45,0	18,1	20,0	308,0	255,0	50,0
6,8	8,0	146,0	106,0	36,0	12,5	14,0	233,0	183,0	45,0	18,2	20,0	308,0	255,0	50,0
6,9	8,0	146,0	106,0	36,0	12,6	14,0	233,0	183,0	45,0	18,3	20,0	308,0	255,0	50,0
7,0	8,0	146,0	106,0	36,0	12,7	14,0	233,0	183,0	45,0	18,4	20,0	308,0	255,0	50,0
7,1	8,0	146,0	106,0	36,0	12,8	14,0	233,0	183,0	45,0	18,5	20,0	308,0	255,0	50,0
7,2	8,0	146,0	106,0	36,0	12,9	14,0	233,0	183,0	45,0	18,6	20,0	308,0	255,0	50,0
7,3	8,0	146,0	106,0	36,0	13,0	14,0	233,0	183,0	45,0	18,7	20,0	308,0	255,0	50,0
7,4	8,0	146,0	106,0	36,0	13,1	14,0	233,0	183,0	45,0	18,8	20,0	308,0	255,0	50,0
7,5	8,0	146,0	106,0	36,0	13,2	14,0	233,0	183,0	45,0	18,9	20,0	308,0	255,0	50,0
7,6	8,0	146,0	106,0	36,0	13,3	14,0	233,0	183,0	45,0	19,0	20,0	308,0	255,0	50,0
7,7	8,0	146,0	106,0	36,0	13,4	14,0	233,0	183,0	45,0	19,1	20,0	308,0	255,0	50,0
7,8	8,0	146,0	106,0	36,0	13,5	14,0	233,0	183,0	45,0	19,2	20,0	308,0	255,0	50,0
7,9	8,0	146,0	106,0	36,0	13,6	14,0	233,0	183,0	45,0	19,3	20,0	308,0	255,0	50,0
8,0	8,0	146,0	106,0	36,0	13,7	14,0	233,0	183,0	45,0	19,4	20,0	308,0	255,0	50,0
8,1	10,0	175,0	130,0	40,0	13,8	14,0	233,0	183,0	45,0	19,5	20,0	308,0	255,0	50,0
8,2	10,0	175,0	130,0	40,0	13,9	14,0	233,0	183,0	45,0	19,6	20,0	308,0	255,0	50,0
8,3	10,0	175,0	130,0	40,0	14,0	14,0	233,0	183,0	45,0	19,7	20,0	308,0	255,0	50,0
8,4	10,0	175,0	130,0	40,0	14,1	16,0	260,0	207,0	48,0	19,8	20,0	308,0	255,0	50,0
8,5	10,0	175,0	130,0	40,0	14,2	16,0	260,0	207,0	48,0	19,9	20,0	308,0	255,0	50,0
8,6	10,0	175,0	130,0	40,0	14,3	16,0	260,0	207,0	48,0	20,0	20,0	308,0	255,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID087-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID087-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

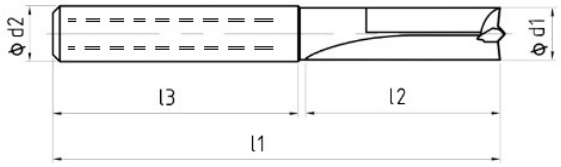
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
K	**Серый чугун**	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	120	6
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	100	6
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	90	6
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	80	6
	Отбеленный чугун	–		≤350 HB	40	2

Сверла. Каталог 2022

Артикул
ID088
d1 = 3-20

4xd1 | m7 | 80° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	66,0	24,0	36,0
3,1	6,0	66,0	24,0	36,0
3,2	6,0	66,0	24,0	36,0
3,3	6,0	66,0	24,0	36,0
3,4	6,0	66,0	24,0	36,0
3,5	6,0	66,0	24,0	36,0
3,6	6,0	66,0	24,0	36,0
3,7	6,0	66,0	24,0	36,0
3,8	6,0	74,0	30,0	36,0
3,9	6,0	74,0	30,0	36,0
4,0	6,0	74,0	30,0	36,0
4,1	6,0	74,0	30,0	36,0
4,2	6,0	74,0	30,0	36,0
4,3	6,0	74,0	30,0	36,0
4,4	6,0	74,0	30,0	36,0
4,5	6,0	74,0	30,0	36,0
4,6	6,0	74,0	30,0	36,0
4,7	6,0	74,0	30,0	36,0
4,8	6,0	74,0	36,0	36,0
4,9	6,0	74,0	36,0	36,0
5,0	6,0	74,0	36,0	36,0
5,1	6,0	74,0	36,0	36,0
5,2	6,0	74,0	36,0	36,0
5,3	6,0	74,0	36,0	36,0
5,4	6,0	74,0	36,0	36,0
5,5	6,0	74,0	36,0	36,0
5,6	6,0	74,0	36,0	36,0
5,7	6,0	74,0	36,0	36,0
5,8	6,0	74,0	36,0	36,0
5,9	6,0	74,0	36,0	36,0
6,0	6,0	74,0	36,0	36,0
6,1	8,0	91,0	53,0	36,0
6,2	8,0	91,0	53,0	36,0
6,3	8,0	91,0	53,0	36,0
6,4	8,0	91,0	53,0	36,0
6,5	8,0	91,0	53,0	36,0
6,6	8,0	91,0	53,0	36,0
6,7	8,0	91,0	53,0	36,0
6,8	8,0	91,0	53,0	36,0
6,9	8,0	91,0	53,0	36,0
7,0	8,0	91,0	53,0	36,0
7,1	8,0	91,0	53,0	36,0
7,2	8,0	91,0	53,0	36,0
7,3	8,0	91,0	53,0	36,0
7,4	8,0	91,0	53,0	36,0
7,5	8,0	91,0	53,0	36,0
7,6	8,0	91,0	53,0	36,0
7,7	8,0	91,0	53,0	36,0
7,8	8,0	91,0	53,0	36,0
7,9	8,0	91,0	53,0	36,0
8,0	8,0	91,0	53,0	36,0
8,1	10,0	103,0	61,0	40,0
8,2	10,0	103,0	61,0	40,0
8,3	10,0	103,0	61,0	40,0
8,4	10,0	103,0	61,0	40,0
8,5	10,0	103,0	61,0	40,0
8,6	10,0	103,0	61,0	40,0

d1 m7	d2 h6	l1	l2	l3
8,7	10,0	103,0	61,0	40,0
8,8	10,0	103,0	61,0	40,0
8,9	10,0	103,0	61,0	40,0
9,0	10,0	103,0	61,0	40,0
9,1	10,0	103,0	61,0	40,0
9,2	10,0	103,0	61,0	40,0
9,3	10,0	103,0	61,0	40,0
9,4	10,0	103,0	61,0	40,0
9,5	10,0	103,0	61,0	40,0
9,6	10,0	103,0	61,0	40,0
9,7	10,0	103,0	61,0	40,0
9,8	10,0	103,0	61,0	40,0
9,9	10,0	103,0	61,0	40,0
10,0	10,0	103,0	61,0	40,0
10,1	12,0	118,0	71,0	45,0
10,2	12,0	118,0	71,0	45,0
10,3	12,0	118,0	71,0	45,0
10,4	12,0	118,0	71,0	45,0
10,5	12,0	118,0	71,0	45,0
10,6	12,0	118,0	71,0	45,0
10,7	12,0	118,0	71,0	45,0
10,8	12,0	118,0	71,0	45,0
10,9	12,0	118,0	71,0	45,0
11,0	12,0	118,0	71,0	45,0
11,1	12,0	118,0	71,0	45,0
11,2	12,0	118,0	71,0	45,0
11,3	12,0	118,0	71,0	45,0
11,4	12,0	118,0	71,0	45,0
11,5	12,0	118,0	71,0	45,0
11,6	12,0	118,0	71,0	45,0
11,7	12,0	118,0	71,0	45,0
11,8	12,0	118,0	71,0	45,0
11,9	12,0	118,0	71,0	45,0
12,0	12,0	118,0	71,0	45,0
12,1	14,0	124,0	74,0	45,0
12,2	14,0	124,0	74,0	45,0
12,3	14,0	124,0	74,0	45,0
12,4	14,0	124,0	74,0	45,0
12,5	14,0	124,0	74,0	45,0
12,6	14,0	124,0	74,0	45,0
12,7	14,0	124,0	74,0	45,0
12,8	14,0	124,0	74,0	45,0
12,9	14,0	124,0	74,0	45,0
13,0	14,0	124,0	74,0	45,0
13,1	14,0	124,0	74,0	45,0
13,2	14,0	124,0	74,0	45,0
13,3	14,0	124,0	74,0	45,0
13,4	14,0	124,0	74,0	45,0
13,5	14,0	124,0	74,0	45,0
13,6	14,0	124,0	74,0	45,0
13,7	14,0	124,0	74,0	45,0
13,8	14,0	124,0	74,0	45,0
13,9	14,0	124,0	74,0	45,0
14,0	14,0	124,0	74,0	45,0
14,1	16,0	133,0	83,0	48,0
14,2	16,0	133,0	83,0	48,0
14,3	16,0	133,0	83,0	48,0

d1 m7	d2 h6	l1	l2	l3
14,4	16,0	133,0	83,0	48,0
14,5	16,0	133,0	83,0	48,0
14,6	16,0	133,0	83,0	48,0
14,7	16,0	133,0	83,0	48,0
14,8	16,0	133,0	83,0	48,0
14,9	16,0	133,0	83,0	48,0
15,0	16,0	133,0	83,0	48,0
15,1	16,0	133,0	83,0	48,0
15,2	16,0	133,0	83,0	48,0
15,3	16,0	133,0	83,0	48,0
15,4	16,0	133,0	83,0	48,0
15,5	16,0	133,0	83,0	48,0
15,6	16,0	133,0	83,0	48,0
15,7	16,0	133,0	83,0	48,0
15,8	16,0	133,0	83,0	48,0
15,9	16,0	133,0	83,0	48,0
16,0	16,0	133,0	83,0	48,0
16,1	18,0	143,0	93,0	48,0
16,2	18,0	143,0	93,0	48,0
16,3	18,0	143,0	93,0	48,0
16,4	18,0	143,0	93,0	48,0
16,5	18,0	143,0	93,0	48,0
16,6	18,0	143,0	93,0	48,0
16,7	18,0	143,0	93,0	48,0
16,8	18,0	143,0	93,0	48,0
16,9	18,0	143,0	93,0	48,0
17,0	18,0	143,0	93,0	48,0
17,1	18,0	143,0	93,0	48,0
17,2	18,0	143,0	93,0	48,0
17,3	18,0	143,0	93,0	48,0
17,4	18,0	143,0	93,0	48,0
17,5	18,0	143,0	93,0	48,0
17,6	18,0	143,0	93,0	48,0
17,7	18,0	143,0	93,0	48,0
17,8	18,0	143,0	93,0	48,0
17,9	18,0	143,0	93,0	48,0
18,0	18,0	143,0	93,0	48,0
18,1	20,0	153,0	101,0	50,0
18,2	20,0	153,0	101,0	50,0
18,3	20,0	153,0	101,0	50,0
18,4	20,0	153,0	101,0	50,0
18,5	20,0	153,0	101,0	50,0
18,6	20,0	153,0	101,0	50,0
18,7	20,0	153,0	101,0	50,0
18,8	20,0	153,0	101,0	50,0
18,9	20,0	153,0	101,0	50,0
19,0	20,0	153,0	101,0	50,0
19,1	20,0	153,0	101,0	50,0
19,2	20,0	153,0	101,0	50,0
19,3	20,0	153,0	101,0	50,0
19,4	20,0	153,0	101,0	50,0
19,5	20,0	153,0	101,0	50,0
19,6	20,0	153,0	101,0	50,0
19,7	20,0	153,0	101,0	50,0
19,8	20,0	153,0	101,0	50,0
19,9	20,0	153,0	101,0	50,0
20,0	20,0	153,0	101,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID088-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID088-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

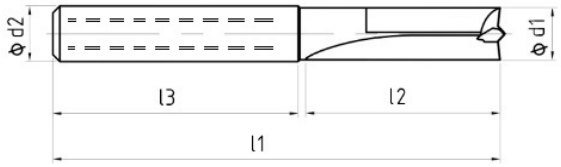
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	9
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	9
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	9
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	9
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	9
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Бронза, с короткой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
	стружкой	**2.0790** CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
ID089
d1 = 3-20

7xd1 | m7 | 80° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3	d1 m7	d2 h6	l1	l2	l3
3,0	6,0	74,0	32,0	36,0	8,7	10,0	139,0	95,0	40,0	14,4	16,0	204,0	152,0	48,0
3,1	6,0	74,0	32,0	36,0	8,8	10,0	139,0	95,0	40,0	14,5	16,0	204,0	152,0	48,0
3,2	6,0	74,0	32,0	36,0	8,9	10,0	139,0	95,0	40,0	14,6	16,0	204,0	152,0	48,0
3,3	6,0	74,0	32,0	36,0	9,0	10,0	139,0	95,0	40,0	14,7	16,0	204,0	152,0	48,0
3,4	6,0	74,0	34,0	36,0	9,1	10,0	139,0	95,0	40,0	14,8	16,0	204,0	152,0	48,0
3,5	6,0	74,0	34,0	36,0	9,2	10,0	139,0	95,0	40,0	14,9	16,0	204,0	152,0	48,0
3,6	6,0	74,0	34,0	36,0	9,3	10,0	139,0	95,0	40,0	15,0	16,0	204,0	152,0	48,0
3,7	6,0	74,0	34,0	36,0	9,4	10,0	139,0	95,0	40,0	15,1	16,0	204,0	152,0	48,0
3,8	6,0	97,0	45,0	36,0	9,5	10,0	139,0	95,0	40,0	15,2	16,0	204,0	152,0	48,0
3,9	6,0	97,0	45,0	36,0	9,6	10,0	139,0	95,0	40,0	15,3	16,0	204,0	152,0	48,0
4,0	6,0	97,0	45,0	36,0	9,7	10,0	139,0	95,0	40,0	15,4	16,0	204,0	152,0	48,0
4,1	6,0	97,0	45,0	36,0	9,8	10,0	139,0	95,0	40,0	15,5	16,0	204,0	152,0	48,0
4,2	6,0	97,0	45,0	36,0	9,9	10,0	139,0	95,0	40,0	15,6	16,0	204,0	152,0	48,0
4,3	6,0	97,0	45,0	36,0	10,0	10,0	139,0	95,0	40,0	15,7	16,0	204,0	152,0	48,0
4,4	6,0	97,0	45,0	36,0	10,1	12,0	163,0	114,0	45,0	15,8	16,0	204,0	152,0	48,0
4,5	6,0	97,0	45,0	36,0	10,2	12,0	163,0	114,0	45,0	15,9	16,0	204,0	152,0	48,0
4,6	6,0	97,0	45,0	36,0	10,3	12,0	163,0	114,0	45,0	16,0	16,0	204,0	152,0	48,0
4,7	6,0	97,0	45,0	36,0	10,4	12,0	163,0	114,0	45,0	16,1	18,0	223,0	171,0	48,0
4,8	6,0	97,0	57,0	36,0	10,5	12,0	163,0	114,0	45,0	16,2	18,0	223,0	171,0	48,0
4,9	6,0	97,0	57,0	36,0	10,6	12,0	163,0	114,0	45,0	16,3	18,0	223,0	171,0	48,0
5,0	6,0	97,0	57,0	36,0	10,7	12,0	163,0	114,0	45,0	16,4	18,0	223,0	171,0	48,0
5,1	6,0	97,0	57,0	36,0	10,8	12,0	163,0	114,0	45,0	16,5	18,0	223,0	171,0	48,0
5,2	6,0	97,0	57,0	36,0	10,9	12,0	163,0	114,0	45,0	16,6	18,0	223,0	171,0	48,0
5,3	6,0	97,0	57,0	36,0	11,0	12,0	163,0	114,0	45,0	16,7	18,0	223,0	171,0	48,0
5,4	6,0	97,0	57,0	36,0	11,1	12,0	163,0	114,0	45,0	16,8	18,0	223,0	171,0	48,0
5,5	6,0	97,0	57,0	36,0	11,2	12,0	163,0	114,0	45,0	16,9	18,0	223,0	171,0	48,0
5,6	6,0	97,0	57,0	36,0	11,3	12,0	163,0	114,0	45,0	17,0	18,0	223,0	171,0	48,0
5,7	6,0	97,0	57,0	36,0	11,4	12,0	163,0	114,0	45,0	17,1	18,0	223,0	171,0	48,0
5,8	6,0	97,0	57,0	36,0	11,5	12,0	163,0	114,0	45,0	17,2	18,0	223,0	171,0	48,0
5,9	6,0	97,0	57,0	36,0	11,6	12,0	163,0	114,0	45,0	17,3	18,0	223,0	171,0	48,0
6,0	6,0	97,0	57,0	36,0	11,7	12,0	163,0	114,0	45,0	17,4	18,0	223,0	171,0	48,0
6,1	8,0	116,0	76,0	36,0	11,8	12,0	163,0	114,0	45,0	17,5	18,0	223,0	171,0	48,0
6,2	8,0	116,0	76,0	36,0	11,9	12,0	163,0	114,0	45,0	17,6	18,0	223,0	171,0	48,0
6,3	8,0	116,0	76,0	36,0	12,0	12,0	163,0	114,0	45,0	17,7	18,0	223,0	171,0	48,0
6,4	8,0	116,0	76,0	36,0	12,1	14,0	182,0	133,0	45,0	17,8	18,0	223,0	171,0	48,0
6,5	8,0	116,0	76,0	36,0	12,2	14,0	182,0	133,0	45,0	17,9	18,0	223,0	171,0	48,0
6,6	8,0	116,0	76,0	36,0	12,3	14,0	182,0	133,0	45,0	18,0	18,0	223,0	171,0	48,0
6,7	8,0	116,0	76,0	36,0	12,4	14,0	182,0	133,0	45,0	18,1	20,0	244,0	190,0	50,0
6,8	8,0	116,0	76,0	36,0	12,5	14,0	182,0	133,0	45,0	18,2	20,0	244,0	190,0	50,0
6,9	8,0	116,0	76,0	36,0	12,6	14,0	182,0	133,0	45,0	18,3	20,0	244,0	190,0	50,0
7,0	8,0	116,0	76,0	36,0	12,7	14,0	182,0	133,0	45,0	18,4	20,0	244,0	190,0	50,0
7,1	8,0	116,0	76,0	36,0	12,8	14,0	182,0	133,0	45,0	18,5	20,0	244,0	190,0	50,0
7,2	8,0	116,0	76,0	36,0	12,9	14,0	182,0	133,0	45,0	18,6	20,0	244,0	190,0	50,0
7,3	8,0	116,0	76,0	36,0	13,0	14,0	182,0	133,0	45,0	18,7	20,0	244,0	190,0	50,0
7,4	8,0	116,0	76,0	36,0	13,1	14,0	182,0	133,0	45,0	18,8	20,0	244,0	190,0	50,0
7,5	8,0	116,0	76,0	36,0	13,2	14,0	182,0	133,0	45,0	18,9	20,0	244,0	190,0	50,0
7,6	8,0	116,0	76,0	36,0	13,3	14,0	182,0	133,0	45,0	19,0	20,0	244,0	190,0	50,0
7,7	8,0	116,0	76,0	36,0	13,4	14,0	182,0	133,0	45,0	19,1	20,0	244,0	190,0	50,0
7,8	8,0	116,0	76,0	36,0	13,5	14,0	182,0	133,0	45,0	19,2	20,0	244,0	190,0	50,0
7,9	8,0	116,0	76,0	36,0	13,6	14,0	182,0	133,0	45,0	19,3	20,0	244,0	190,0	50,0
8,0	8,0	116,0	76,0	36,0	13,7	14,0	182,0	133,0	45,0	19,4	20,0	244,0	190,0	50,0
8,1	10,0	139,0	95,0	40,0	13,8	14,0	182,0	133,0	45,0	19,5	20,0	244,0	190,0	50,0
8,2	10,0	139,0	95,0	40,0	13,9	14,0	182,0	133,0	45,0	19,6	20,0	244,0	190,0	50,0
8,3	10,0	139,0	95,0	40,0	14,0	14,0	182,0	133,0	45,0	19,7	20,0	244,0	190,0	50,0
8,4	10,0	139,0	95,0	40,0	14,1	16,0	204,0	152,0	48,0	19,8	20,0	244,0	190,0	50,0
8,5	10,0	139,0	95,0	40,0	14,2	16,0	204,0	152,0	48,0	19,9	20,0	244,0	190,0	50,0
8,6	10,0	139,0	95,0	40,0	14,3	16,0	204,0	152,0	48,0	20,0	20,0	244,0	190,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID089-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID089-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

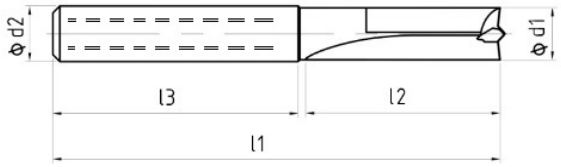
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	8
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	8
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	7
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
		2.0790 CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
ID090
d1 = 3-20

10xd1 | m7 | 80° | HA | HE | Без покрытия



P	M	K	N	S	H
			•		

Возможен заказ любых диаметров с ближайшими линейными параметрами большего табличного значения

d1 m7	d2 h6	l1	l2	l3
3,0	6,0	91,0	42,0	36,0
3,1	6,0	91,0	42,0	36,0
3,2	6,0	91,0	42,0	36,0
3,3	6,0	91,0	42,0	36,0
3,4	6,0	91,0	48,0	36,0
3,5	6,0	91,0	48,0	36,0
3,6	6,0	91,0	48,0	36,0
3,7	6,0	91,0	48,0	36,0
3,8	6,0	121,0	77,0	36,0
3,9	6,0	121,0	77,0	36,0
4,0	6,0	121,0	77,0	36,0
4,1	6,0	121,0	77,0	36,0
4,2	6,0	121,0	77,0	36,0
4,3	6,0	121,0	77,0	36,0
4,4	6,0	121,0	77,0	36,0
4,5	6,0	121,0	77,0	36,0
4,6	6,0	121,0	77,0	36,0
4,7	6,0	121,0	77,0	36,0
4,8	6,0	121,0	82,0	36,0
4,9	6,0	121,0	82,0	36,0
5,0	6,0	121,0	82,0	36,0
5,1	6,0	121,0	82,0	36,0
5,2	6,0	121,0	82,0	36,0
5,3	6,0	121,0	82,0	36,0
5,4	6,0	121,0	82,0	36,0
5,5	6,0	121,0	82,0	36,0
5,6	6,0	121,0	82,0	36,0
5,7	6,0	121,0	82,0	36,0
5,8	6,0	121,0	82,0	36,0
5,9	6,0	121,0	82,0	36,0
6,0	6,0	121,0	82,0	36,0
6,1	8,0	146,0	106,0	36,0
6,2	8,0	146,0	106,0	36,0
6,3	8,0	146,0	106,0	36,0
6,4	8,0	146,0	106,0	36,0
6,5	8,0	146,0	106,0	36,0
6,6	8,0	146,0	106,0	36,0
6,7	8,0	146,0	106,0	36,0
6,8	8,0	146,0	106,0	36,0
6,9	8,0	146,0	106,0	36,0
7,0	8,0	146,0	106,0	36,0
7,1	8,0	146,0	106,0	36,0
7,2	8,0	146,0	106,0	36,0
7,3	8,0	146,0	106,0	36,0
7,4	8,0	146,0	106,0	36,0
7,5	8,0	146,0	106,0	36,0
7,6	8,0	146,0	106,0	36,0
7,7	8,0	146,0	106,0	36,0
7,8	8,0	146,0	106,0	36,0
7,9	8,0	146,0	106,0	36,0
8,0	8,0	146,0	106,0	36,0
8,1	10,0	175,0	130,0	40,0
8,2	10,0	175,0	130,0	40,0
8,3	10,0	175,0	130,0	40,0
8,4	10,0	175,0	130,0	40,0
8,5	10,0	175,0	130,0	40,0
8,6	10,0	175,0	130,0	40,0

d1 m7	d2 h6	l1	l2	l3
8,7	10,0	175,0	130,0	40,0
8,8	10,0	175,0	130,0	40,0
8,9	10,0	175,0	130,0	40,0
9,0	10,0	175,0	130,0	40,0
9,1	10,0	175,0	130,0	40,0
9,2	10,0	175,0	130,0	40,0
9,3	10,0	175,0	130,0	40,0
9,4	10,0	175,0	130,0	40,0
9,5	10,0	175,0	130,0	40,0
9,6	10,0	175,0	130,0	40,0
9,7	10,0	175,0	130,0	40,0
9,8	10,0	175,0	130,0	40,0
9,9	10,0	175,0	130,0	40,0
10,0	10,0	175,0	130,0	40,0
10,1	12,0	209,0	159,0	45,0
10,2	12,0	209,0	159,0	45,0
10,3	12,0	209,0	159,0	45,0
10,4	12,0	209,0	159,0	45,0
10,5	12,0	209,0	159,0	45,0
10,6	12,0	209,0	159,0	45,0
10,7	12,0	209,0	159,0	45,0
10,8	12,0	209,0	159,0	45,0
10,9	12,0	209,0	159,0	45,0
11,0	12,0	209,0	159,0	45,0
11,1	12,0	209,0	159,0	45,0
11,2	12,0	209,0	159,0	45,0
11,3	12,0	209,0	159,0	45,0
11,4	12,0	209,0	159,0	45,0
11,5	12,0	209,0	159,0	45,0
11,6	12,0	209,0	159,0	45,0
11,7	12,0	209,0	159,0	45,0
11,8	12,0	209,0	159,0	45,0
11,9	12,0	209,0	159,0	45,0
12,0	12,0	209,0	159,0	45,0
12,1	14,0	233,0	183,0	45,0
12,2	14,0	233,0	183,0	45,0
12,3	14,0	233,0	183,0	45,0
12,4	14,0	233,0	183,0	45,0
12,5	14,0	233,0	183,0	45,0
12,6	14,0	233,0	183,0	45,0
12,7	14,0	233,0	183,0	45,0
12,8	14,0	233,0	183,0	45,0
12,9	14,0	233,0	183,0	45,0
13,0	14,0	233,0	183,0	45,0
13,1	14,0	233,0	183,0	45,0
13,2	14,0	233,0	183,0	45,0
13,3	14,0	233,0	183,0	45,0
13,4	14,0	233,0	183,0	45,0
13,5	14,0	233,0	183,0	45,0
13,6	14,0	233,0	183,0	45,0
13,7	14,0	233,0	183,0	45,0
13,8	14,0	233,0	183,0	45,0
13,9	14,0	233,0	183,0	45,0
14,0	14,0	233,0	183,0	45,0
14,1	16,0	260,0	207,0	48,0
14,2	16,0	260,0	207,0	48,0
14,3	16,0	260,0	207,0	48,0

d1 m7	d2 h6	l1	l2	l3
14,4	16,0	260,0	207,0	48,0
14,5	16,0	260,0	207,0	48,0
14,6	16,0	260,0	207,0	48,0
14,7	16,0	260,0	207,0	48,0
14,8	16,0	260,0	207,0	48,0
14,9	16,0	260,0	207,0	48,0
15,0	16,0	260,0	207,0	48,0
15,1	16,0	260,0	207,0	48,0
15,2	16,0	260,0	207,0	48,0
15,3	16,0	260,0	207,0	48,0
15,4	16,0	260,0	207,0	48,0
15,5	16,0	260,0	207,0	48,0
15,6	16,0	260,0	207,0	48,0
15,7	16,0	260,0	207,0	48,0
15,8	16,0	260,0	207,0	48,0
15,9	16,0	260,0	207,0	48,0
16,0	16,0	260,0	207,0	48,0
16,1	18,0	284,0	231,0	48,0
16,2	18,0	284,0	231,0	48,0
16,3	18,0	284,0	231,0	48,0
16,4	18,0	284,0	231,0	48,0
16,5	18,0	284,0	231,0	48,0
16,6	18,0	284,0	231,0	48,0
16,7	18,0	284,0	231,0	48,0
16,8	18,0	284,0	231,0	48,0
16,9	18,0	284,0	231,0	48,0
17,0	18,0	284,0	231,0	48,0
17,1	18,0	284,0	231,0	48,0
17,2	18,0	284,0	231,0	48,0
17,3	18,0	284,0	231,0	48,0
17,4	18,0	284,0	231,0	48,0
17,5	18,0	284,0	231,0	48,0
17,6	18,0	284,0	231,0	48,0
17,7	18,0	284,0	231,0	48,0
17,8	18,0	284,0	231,0	48,0
17,9	18,0	284,0	231,0	48,0
18,0	18,0	284,0	231,0	48,0
18,1	20,0	308,0	255,0	50,0
18,2	20,0	308,0	255,0	50,0
18,3	20,0	308,0	255,0	50,0
18,4	20,0	308,0	255,0	50,0
18,5	20,0	308,0	255,0	50,0
18,6	20,0	308,0	255,0	50,0
18,7	20,0	308,0	255,0	50,0
18,8	20,0	308,0	255,0	50,0
18,9	20,0	308,0	255,0	50,0
19,0	20,0	308,0	255,0	50,0
19,1	20,0	308,0	255,0	50,0
19,2	20,0	308,0	255,0	50,0
19,3	20,0	308,0	255,0	50,0
19,4	20,0	308,0	255,0	50,0
19,5	20,0	308,0	255,0	50,0
19,6	20,0	308,0	255,0	50,0
19,7	20,0	308,0	255,0	50,0
19,8	20,0	308,0	255,0	50,0
19,9	20,0	308,0	255,0	50,0
20,0	20,0	308,0	255,0	50,0

При заказе указывать: артикул, диаметр d1, тип хвостовика.

Пример: ID090-10,0-HA - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HA по DIN 6535*

ID090-10,0-HE - *сверло диаметром 10,0 с внутренними каналами охлаждения, форма хвостовика HE по DIN 6535*

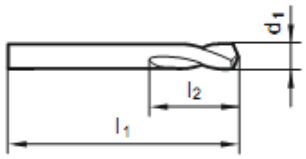
d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
N	**Алюминий и сплавы**	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		410	6
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		410	6
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		380	6
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		330	6
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		280	7
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600			
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		110	6
		2.0790 CuNi18Zn19Pb	≤850		80	5

Сверла. Каталог 2022

Артикул
D077
d1 = 3-25

h6 | 90° | Без покрытия



d1 h6	l1	l2
3,0	46,0	12,0
4,0	55,0	12,0
5,0	62,0	14,0
6,0	66,0	16,0
7,0	70,0	17,0
8,0	79,0	21,0
9,0	84,0	22,0
10,0	89,0	25,0
12,0	102,0	30,0
13,0	102,0	32,0
14,0	107,0	34,0
16,0	115,0	38,0
18,0	127,0	40,0
20,0	131,0	45,0
25,0	151,0	53,0

P	M	K	N	S	H
●	●	●	●	●	●

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,008	0,017	0,025	0,033	0,042	0,05	0,058	0,067	0,075
4	0,013	0,027	0,04	0,053	0,067	0,08	0,093	0,11	0,12
5	0,017	0,033	0,05	0,067	0,083	0,1	0,12	0,13	0,15
6	0,018	0,037	0,055	0,073	0,091	0,11	0,13	0,15	0,16
8	0,021	0,042	0,063	0,084	0,11	0,13	0,15	0,17	0,19
10	0,024	0,047	0,071	0,094	0,12	0,14	0,16	0,19	0,21
12	0,026	0,052	0,077	0,1	0,13	0,15	0,18	0,21	0,23
16	0,029	0,058	0,087	0,12	0,14	0,17	0,2	0,23	0,26
20	0,033	0,067	0,1	0,13	0,17	0,2	0,23	0,27	0,3
25	0,037	0,075	0,11	0,15	0,19	0,22	0,26	0,3	0,34

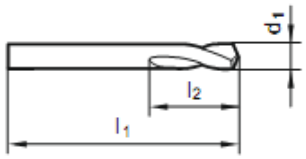
При заказе указывать: артикул, диаметр d1.

Пример: D077-10,0 - *центровочное сверло диаметром 10,0 без внутренних каналов охлаждения*

Сверла. Каталог 2022

Артикул
1078
d1 = 3-25

h6 | 120° | Без покрытия



d1 h6	l1	l2
3,0	46,0	12,0
4,0	55,0	12,0
5,0	62,0	14,0
6,0	66,0	16,0
7,0	70,0	17,0
8,0	79,0	21,0
9,0	84,0	22,0
10,0	89,0	25,0
12,0	102,0	30,0
13,0	102,0	32,0
14,0	107,0	34,0
16,0	115,0	38,0
18,0	127,0	40,0
20,0	131,0	45,0
25,0	151,0	53,0

P	M	K	N	S	H
●	●	●	●	●	●

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5
16	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63
20	0,125	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,63
25	0,16	0,2	0,25	0,315	0,4	0,5	0,63	0,8	0,8

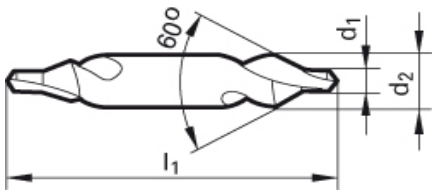
При заказе указывать: артикул, диаметр d1.

Пример: D078-10,0 - *центровочное сверло диаметром 10,0 без внутренних каналов охлаждения*

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности	Твёрд.	Vc м/мин		Подача (№ в табл.)	
			Н/мм²		1077	1078	1077	1078
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		104		5	
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		91		5	
	Автоматные стали (повыш.обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		104		6	
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		91		5	
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		104		5	
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		91		5	
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		78		5	
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		78		5	
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400					
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		104		6	
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		78		5	
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400					
	Азотированные стали	**1.8504** 34CrAl6	≤850		65		5	
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400					
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65		4	
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400					
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	32		3	
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		32		5	
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		32		4	
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		32		4	
H	Закаленные стали	–		≤48 HRC	26		4	
				≤66 HRC				
S	Специальные сплавы	Нимоник, инконель, монель, хастеллой	≤2000		20		3	
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	117		5	
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	104		5	
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	91		5	
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	104		5	
S	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		26		4	
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		20		3	
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260		8	
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260		8	
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		195		7	
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		156		7	
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		234		6	
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		104		6	
	Латунь с короткой струж с длинной стружкой	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		234		6	
		2.0250 CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		234		6	
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		156		6	
		2.0790 CuNi18Zn19Pb	≤850		156		6	
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		91		5	
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		65		4	
	Пласт, термореактивные термопластичные	Бакелит, Ресопал, Пертинакс, Молтопрен	≤150		65		5	
		Флексигласс, Хостален, Новодур, Макралон	≤100		52		4	
	армированные стекло- и углепластики	Кевлар	≤1000					
		GFK/CFK	≤1000		104		4	

Артикул
D079
d1 = 1-12,5

k12 | 118° | Без покрытия



P	M	K	N	S	H
●	●	●	●	●	●

d1 k12	d2 h6	l1
1,0	3,15	35,0
1,25	3,15	35,0
1,6	4,0	35,0
2,0	5,0	40,0
2,5	6,0	45,0
3,15	8,0	50,0
4,0	10,0	56,0
5,0	12,5	63,0
6,3	16,0	71,0
8,0	20,0	80,0
10,0	25,0	100,0
12,5	31,5	125,0

d1 mm	Подача (№ в табл.)								
	1	2	3	4	5	6	7	8	9
	Fo (mm/об.)								
3	0,032	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,16
4	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,2
5	0,04	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25
6	0,05	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315
8	0,063	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,315
10	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,4
12	0,08	0,1	0,125	0,16	0,2	0,25	0,315	0,4	0,5

При заказе указывать: артикул, диаметр d1.
Пример: D079-10,0 - *центровочное сверло диаметром 10,0 без внутренних каналов охлаждения*

	Группа материалов	Примеры материалов жирным шрифтом выделено обозначение по DIN EN	Предел прочности Н/мм²	Твёрд.	Vc м/мин	Подача (№ в табл.)
P	Углеродистые стали общего назначения	**1.0035** S185(St33), **1.0486** P275N(StE285), **1.0345** P235GH(H1), **1.0425** P265GH(H2)	≤500		104	5
		1.0050 E295 (St50-2), **1.0070** E360 (St70-2), **1.8937** P500NH (WStE500)	≤1000		91	5
	Автоматные стали (повыш.обраб.резанием)	**1.0718** 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36)	≤850		104	6
		1.0727 46S20 (45S20), **1.0728** (60S20), **1.0757** 46SPb20 (45SPb20)	≤1000		91	5
	Углеродистые улучшенные стали	**1.0402** C22, **1.1178** C30E (Ck30)	≤700		104	5
		1.0503 C45, **1.1191** C45E (Ck45)	≤850		91	5
		1.0601 C60, **1.1221** C60E (Ck60)	≤1000		78	5
	Легированные улучшенные стали	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000		78	5
		1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400			
	Углер. цементиров. стали	**1.0301** (C10), **1.1121** C10E (Ck10)	≤850		104	6
	Легированные цементированные стали	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000		78	5
		1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400			
	Азотированные стали	**1.8504** 34CrAl6	≤850		65	5
		1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400			
	Инструментальные стали	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850		65	4
		1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419** 105WCr6, **1.2767** X45NiCrMo4	≤1400			
	Рессорно-пружинные	**1.5026** 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	32	3
M	Нерж. стали, с сод. Серы аустенитные мартенситные	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105** X6CrMoS17, **1.4305** X8CrNiS18-9	≤900		32	5
		1.4301 X5CrNi18-10 (V2A), **1.4541** X6CrNiTi18-10, **1.4571** X6CrNiMoTi 17-12-2 (V4A)	≤1100		32	4
		1.4057 X20CrNi172 (X17CrNi16-2), **1.4122** X39CrMo17-1, **1.4521** X2CrMoTi18-2	≤1500		32	4
H	Закаленные стали	–		≤48 HRC	26	4
				≤66 HRC		
S	Специальные сплавы	Нимоник, инконель, монель, хастеллой	≤2000		20	3
K	Серый чугун	**0.6010** EN-GJL-100 (GG10), **0.6020** EN-GJL-200 (GG20)		≤240 HB	117	5
		0.6025 EN-GJL-250 (GG25), **0.6035** EN-GJL-350 (GG35)		≤350 HB	104	5
	Высокопрочный и ковкий чугун	**0.7050** EN-GJS-500-7 (GGG50), **0.8035** EN-GJMW-350-4 (GTW35)		≤240 HB	91	5
		0.7070 EN-GJS-700-2 (GGG70), **0.8170** EN-GJMB-700-2 (GTS70)		≤350 HB	104	5
S	Титан и титановые сплавы	**3.7024** Ti99,5, 3.7114 TiAl5Sn2,5, **3.7124** TiCu2	≤850		26	4
		3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184** TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤1400		20	3
N	Алюминий и сплавы	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400		260	8
	Деформир. ал. Сплавы	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245** AlMg3Si, **3.4365** AlZnMgCu1,5	≤650		260	8
	Лит. ал. сплавы ≤ 10% Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600		195	7
	> 10% Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		156	7
	Магниевые сплавы	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05** G-MgAl6Zn1	≤400		234	6
	Медь, низколегир.	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500		104	6
	Латунь с короткой струж	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410** CuZn43Pb2	≤600		234	6
	с длинной стружкой	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600		234	6
	Бронза, с короткой стружкой	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176** CuPb10Sn	≤600		156	6
		2.0790 CuNi18Zn19Pb	≤850		156	6
	Бронза, с длинной стружкой	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850		91	5
		2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000		65	4
	Пласт, термореактивные	Бакелит, Ресопал, Пертинакс, Молтопрен	≤150		65	5
	термопластичные	Флексигласс, Хостален, Новодур, Макралон	≤100		52	4
	армированные	Кевлар	≤1000			
	стекло- и углепластики	GFK/CFK	≤1000		104	4