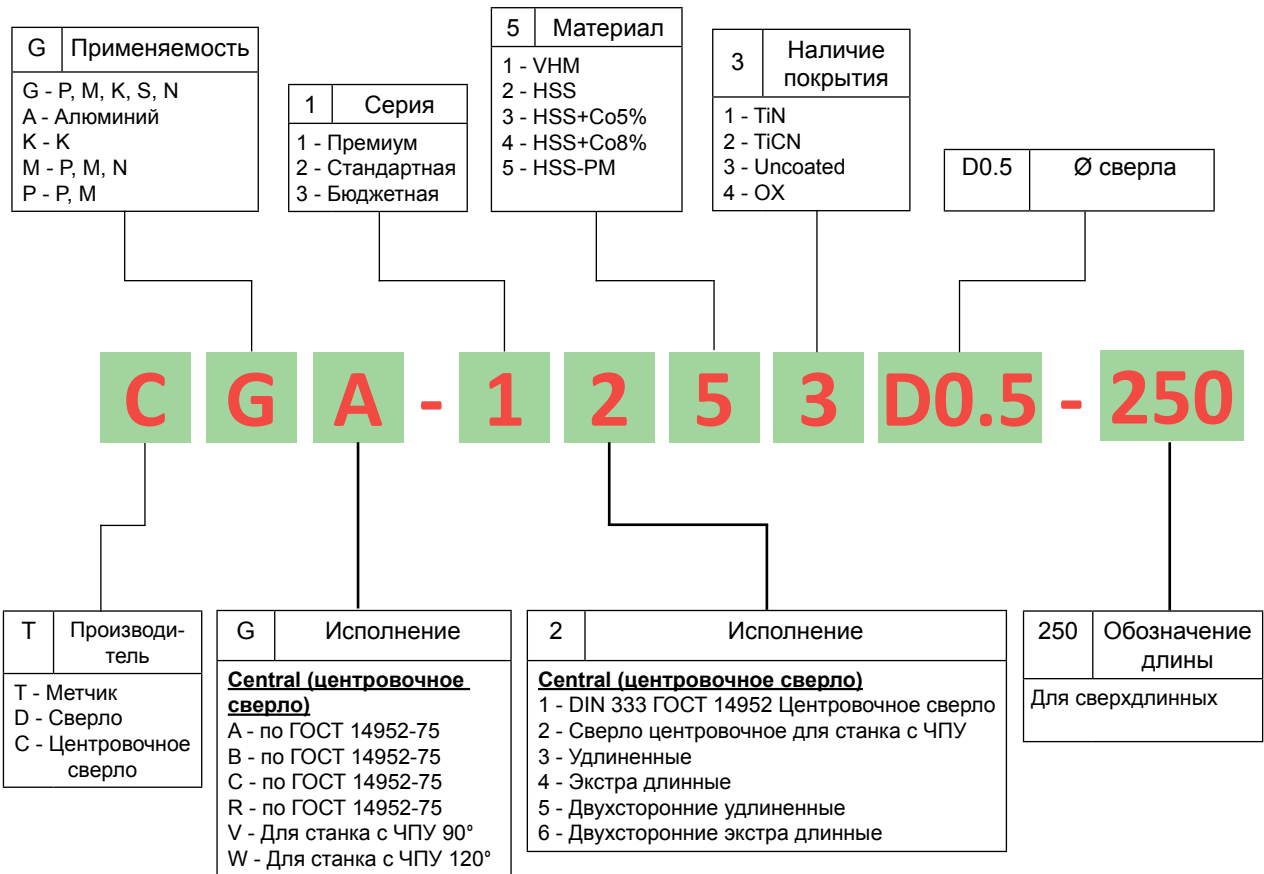
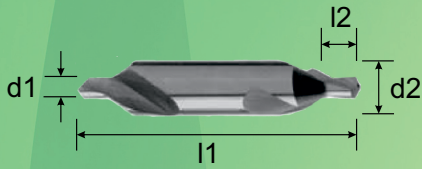
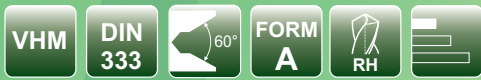


**ЦЕНТРОВОЧНЫЕ СВЕРЛА**



ISO	Обрабатываемый материал	НВ	D сверла	Скорость резания	Подача
P	Нелегированная сталь	125-170	0.50-1.25	15-50	0.005-0.022
			1.60-3.00		0.03-0.06
			3.15-6.00	70-120	0.10-0.20
			6.00-10.00		0.14-0.30
			10.00-14.00		0.18-0.35
	Легированная сталь	180-350	0.50-1.25	15-45	0.005-0.022
			1.60-3.00	60-110	0.03-0.06
			3.15-6.00		0.10-0.20
			6.00-10.00		0.14-0.30
			10.00-14.00		0.18-0.35
14.00-20.00	0.20-0.40				
M	Нержавеющая сталь	180-200	0.50-1.25	15-40	0.005-0.02
			1.60-3.00	40-80	0.03-0.06
			3.15-6.00		0.10-0.20
			6.00-10.00		0.14-0.30
			10.00-14.00		0.18-0.35
14.00-20.00	0.20-0.40				
K	Чугун	130-230	0.50-1.25	10-42	0.005-0.02
			1.60-3.00	60-80	0.06-0.10
			3.15-6.00	70-130	0.15-0.25
			6.00-10.00		0.20-0.40
			10.00-14.00		0.30-0.50
14.00-20.00	0.40-0.60				
N	Цветные материалы	60-110	0.50-1.25	20-70	0.007-0.032
			1.60-3.00	70-120	0.06-0.10
			3.15-6.00	120-200	0.15-0.25
			6.00-10.00		0.20-0.40
			10.00-14.00		0.30-0.50
14.00-20.00	0.40-0.60				
S	Жаропрочные сплавы	250-350	0.50-1.25	5-40	0.002-0.01
			1.60-3.00	10-25	0.02-0.04
			3.15-6.00		0.06-0.12
			6.00-10.00		0.08-0.15
			10.00-14.00		0.08-0.15
14.00-20.00	0.10-0.16				

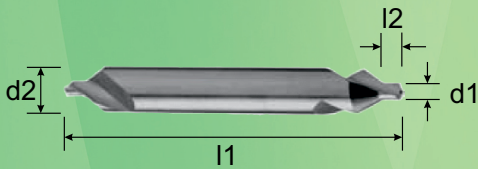
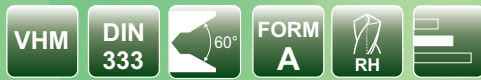


P	M	K	N	S	H
V	V	V	V	V	

## CGA-211\*

d1	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.50	1.00	21.0	3.15	○	○	●
0.80	1.50	21.0	3.15	○	○	●
1.00	1.90	33.5	3.15	○	○	●
1.25	2.20	33.5	3.15	○	○	●
1.60	2.80	37.5	4.00	○	○	●
2.00	3.30	42.0	5.00	○	○	●
2.50	4.10	47.0	6.30	○	○	●
3.15	4.90	52.0	8.00	○	○	●
4.00	6.20	59.0	10.00	○	○	●
5.00	7.50	66.0	12.50	○	○	●
6.30	9.20	74.0	16.00	○	○	●
8.00	11.50	83.0	20.00	○	○	●
10.00	14.20	103.0	25.00	○	○	●

Пример заказа : CGA-2113D1.60

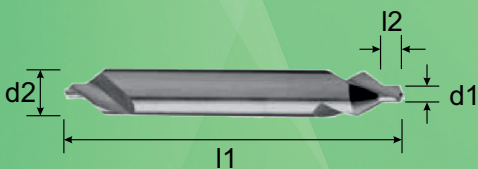
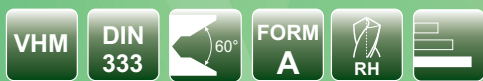


P	M	K	N	S	H
V	V	V	V	V	

## CGA-251\*

d1	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.50	1.00	50.0	3.15	○	○	●
0.80	1.50	50.0	3.15	○	○	●
1.00	1.90	50.0	3.15	○	○	●
1.25	2.20	50.0	3.15	○	○	●
1.60	2.80	50.0	4.00	○	○	●
2.00	3.30	80.0	5.00	○	○	●
2.50	4.10	80.0	6.30	○	○	●
3.15	4.90	80.0	8.00	○	○	●
4.00	6.20	100.0	10.00	○	○	●
5.00	7.50	100.0	12.50	○	○	●
6.30	9.20	120.0	16.00	○	○	●
8.00	11.50	120.0	20.00	○	○	●
10.00	14.20	150.0	25.00	○	○	●

Пример заказа : CGA-2513D1.60



P	M	K	N	S	H
V	V	V	V	V	

## CGA-261\*

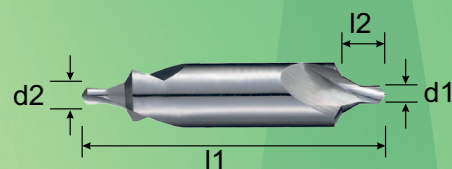
d1	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.50	1.00	100.0	3.15	○	○	●
0.80	1.50	100.0	3.15	○	○	●
1.00	1.90	100.0	3.15	○	○	●
1.25	2.20	100.0	3.15	○	○	●
1.60	2.80	100.0	4.00	○	○	●
2.00	3.30	120.0	5.00	○	○	●
2.50	4.10	120.0	6.30	○	○	●
3.15	4.90	120.0	8.00	○	○	●
4.00	6.20	150.0	10.00	○	○	●
5.00	7.50	150.0	12.50	○	○	●
6.30	9.20	200.0	16.00	○	○	●
8.00	11.50	200.0	20.00	○	○	●
10.00	14.20	200.0	25.00	○	○	●

Пример заказа : CGA-2613D1.60

## CGB-211\*

d1	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.80	1.50	33.5	4.0	○	○	●
1.00	1.90	37.5	4.0	○	○	●
1.25	2.20	42.0	5.0	○	○	●
1.60	2.80	47.0	6.3	○	○	●
2.00	3.30	52.5	8.0	○	○	●
2.50	4.10	59.0	10.0	○	○	●
3.15	4.90	63.0	11.2	○	○	●
4.00	6.20	70.0	14.0	○	○	●
5.00	7.50	78.0	18.0	○	○	●
6.30	9.20	83.0	20.0	○	○	●
8.00	11.50	103.0	25.0	○	○	●
10.00	14.20	128.0	31.5	○	○	●

Пример заказа : CGB-2113D1.60



P	M	K	N	S	H
V	V	V	V	V	

## CGC-211\*

d1	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.80	1.50	21.0	3.15	○	○	●
1.00	1.90	33.5	3.15	○	○	●
1.60	2.80	37.5	4.00	○	○	●
2.00	3.30	42.0	5.00	○	○	●
2.50	4.10	47.0	6.30	○	○	●

Пример заказа : CGC-2113D1.60

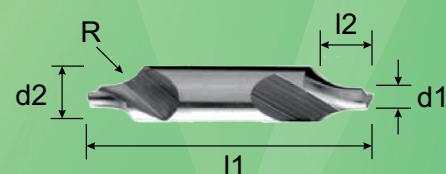


P	M	K	N	S	H
V	V	V	V	V	

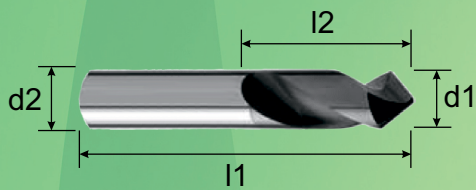
## CGR-211\*

d1	R	l2	l1	d2	TiN(1)	TiCN(2)	Uncoated(3)
0.50	1.6	2.0	21.0	3.15	○	○	●
0.63	2.0	2.0	21.0	3.15	○	○	●
0.80	2.5	2.0	21.0	3.15	○	○	●
1.00	3.15	4.0	33.5	3.15	○	○	●
1.25	4.0	4.0	33.5	3.15	○	○	●
1.60	5.0	4.0	37.5	4.0	○	○	●
2.00	6.3	4.0	42.0	5.0	○	○	●
2.50	8.0	4.0	47.0	6.3	○	○	●
3.15	10.0	4.0	52.0	8.0	○	○	●
4.00	12.5	6.0	59.0	10.0	○	○	●
5.00	16.0	6.0	66.0	12.5	○	○	●
6.30	20.0	6.0	74.0	16.0	○	○	●
8.00	25.	6.0	83.0	20.0	○	○	●
10.00	31.5	6.0	103.0	25.0	○	○	●

Пример заказа : CGR-2113D1.60



P	M	K	N	S	H
V	V	V	V	V	

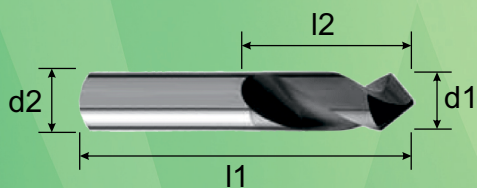


P	M	K	N	S	H
V	V	V	V	V	

## CGV-221\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.50	3.00	1.50	50.00	○	○	●
0.80	3.00	1.50	50.00	○	○	●
1.00	3.00	1.50	50.00	○	○	●
1.25	3.00	2.00	50.00	○	○	●
1.60	3.00	3.00	50.00	○	○	●
2.00	3.00	3.00	50.00	○	○	●
2.50	3.00	3.00	50.00	○	○	●
3.00	3.00	8.00	50.00	○	○	●
4.00	4.00	10.00	50.00	○	○	●
5.00	5.00	13.00	70.00	○	○	●
6.00	6.00	13.00	70.00	○	○	●
8.00	8.00	23.00	70.00	○	○	●
10.00	10.00	24.00	100.00	○	○	●
12.00	12.00	24.00	100.00	○	○	●
14.00	14.00	26.00	100.00	○	○	●
16.00	16.00	26.00	120.00	○	○	●
18.00	18.00	33.00	120.00	○	○	●
20.00	20.00	33.00	120.00	○	○	●

Пример заказа : CGV-2213D1.60

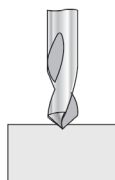


P	M	K	N	S	H
V	V	V	V	V	

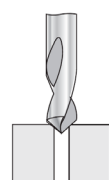
## CGW-221\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.50	3.00	1.50	50.00	○	○	●
0.80	3.00	1.50	50.00	○	○	●
1.00	3.00	1.50	50.00	○	○	●
1.25	3.00	2.00	50.00	○	○	●
1.60	3.00	3.00	50.00	○	○	●
2.00	3.00	3.00	50.00	○	○	●
2.50	3.00	3.00	50.00	○	○	●
3.00	3.00	8.00	50.00	○	○	●
4.00	4.00	10.00	50.00	○	○	●
5.00	5.00	13.00	70.00	○	○	●
6.00	6.00	13.00	70.00	○	○	●
8.00	8.00	23.00	70.00	○	○	●
10.00	10.00	24.00	100.00	○	○	●
12.00	12.00	24.00	100.00	○	○	●
14.00	14.00	26.00	100.00	○	○	●
16.00	16.00	26.00	120.00	○	○	●
18.00	18.00	33.00	120.00	○	○	●
20.00	20.00	33.00	120.00	○	○	●

Пример заказа : CGW-2213D1.60



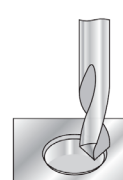
Центрование



Снятие фаски на отверстиях



Снятие фаски

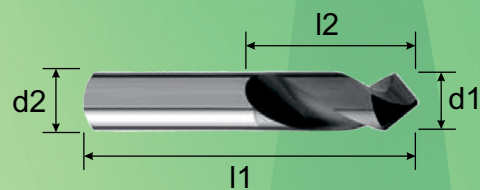
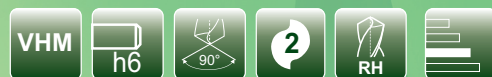


Снятие фаски на больших отверстиях

## CGV-231\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.70	3.00	1.70	70.00	○	○	●
0.80	3.00	1.70	70.00	○	○	●
1.00	3.00	1.70	70.00	○	○	●
1.25	3.00	2.00	70.00	○	○	●
1.60	3.00	3.00	70.00	○	○	●
2.00	3.00	3.00	70.00	○	○	●
2.70	3.00	3.00	70.00	○	○	●
3.00	3.00	8.00	70.00	○	○	●
4.00	4.00	10.00	70.00	○	○	●
5.00	5.00	13.00	100.00	○	○	●
6.00	6.00	13.00	100.00	○	○	●
8.00	8.00	23.00	100.00	○	○	●
10.00	10.00	24.00	150.00	○	○	●
12.00	12.00	24.00	150.00	○	○	●
14.00	14.00	26.00	150.00	○	○	●
16.00	16.00	26.00	200.00	○	○	●
18.00	18.00	33.00	200.00	○	○	●
20.00	20.00	33.00	200.00	○	○	●

Пример заказа : CGV-2313D1.60

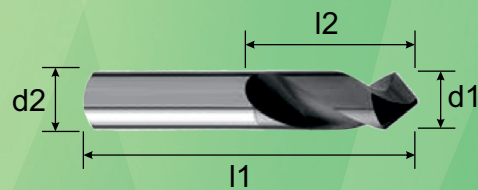
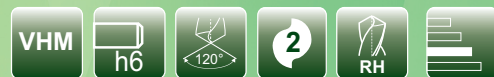


P	M	K	N	S	H
V	V	V	V	V	

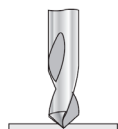
## CGW-231\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.70	3.00	1.70	70.00	○	○	●
0.80	3.00	1.70	70.00	○	○	●
1.00	3.00	1.70	70.00	○	○	●
1.25	3.00	2.00	70.00	○	○	●
1.60	3.00	3.00	70.00	○	○	●
2.00	3.00	3.00	70.00	○	○	●
2.70	3.00	3.00	70.00	○	○	●
3.00	3.00	8.00	70.00	○	○	●
4.00	4.00	10.00	70.00	○	○	●
5.00	5.00	13.00	100.00	○	○	●
6.00	6.00	13.00	100.00	○	○	●
8.00	8.00	23.00	100.00	○	○	●
10.00	10.00	24.00	150.00	○	○	●
12.00	12.00	24.00	150.00	○	○	●
14.00	14.00	26.00	150.00	○	○	●
16.00	16.00	26.00	200.00	○	○	●
18.00	18.00	33.00	200.00	○	○	●
20.00	20.00	33.00	200.00	○	○	●

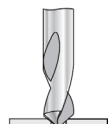
Пример заказа : CGW-2313D1.60



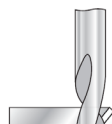
P	M	K	N	S	H
V	V	V	V	V	



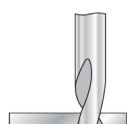
Центрование



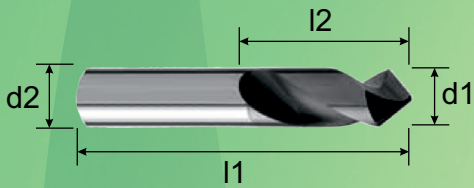
Снятие фаски на отверстиях



Снятие фаски



Снятие фаски на больших отверстиях

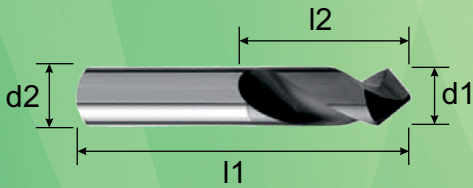


P	M	K	N	S	H
V	V	V	V	V	

## CGW-241\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.70	3.00	1.70	100.00	○	○	●
0.80	3.00	1.70	100.00	○	○	●
1.00	3.00	1.70	100.00	○	○	●
1.25	3.00	2.00	100.00	○	○	●
1.60	3.00	3.00	100.00	○	○	●
2.00	3.00	3.00	100.00	○	○	●
2.70	3.00	3.00	100.00	○	○	●
3.00	3.00	8.00	100.00	○	○	●
4.00	4.00	10.00	100.00	○	○	●
5.00	5.00	13.00	150.00	○	○	●
6.00	6.00	13.00	150.00	○	○	●
8.00	8.00	23.00	150.00	○	○	●
10.00	10.00	24.00	200.00	○	○	●
12.00	12.00	24.00	200.00	○	○	●
14.00	14.00	26.00	200.00	○	○	●
16.00	16.00	26.00	250.00	○	○	●
18.00	18.00	33.00	250.00	○	○	●
20.00	20.00	33.00	250.00	○	○	●

Пример заказа : CGW-2413D1.60

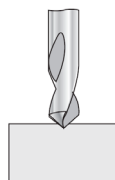


P	M	K	N	S	H
V	V	V	V	V	

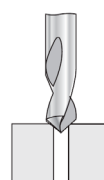
## CGV-241\*

d1	d2	l2	l1	TiN(1)	TiCN(2)	Uncoated(3)
0.70	3.00	1.70	100.00	○	○	●
0.80	3.00	1.70	100.00	○	○	●
1.00	3.00	1.70	100.00	○	○	●
1.25	3.00	2.00	100.00	○	○	●
1.60	3.00	3.00	100.00	○	○	●
2.00	3.00	3.00	100.00	○	○	●
2.70	3.00	3.00	100.00	○	○	●
3.00	3.00	8.00	100.00	○	○	●
4.00	4.00	10.00	100.00	○	○	●
5.00	5.00	13.00	150.00	○	○	●
6.00	6.00	13.00	150.00	○	○	●
8.00	8.00	23.00	150.00	○	○	●
10.00	10.00	24.00	200.00	○	○	●
12.00	12.00	24.00	200.00	○	○	●
14.00	14.00	26.00	200.00	○	○	●
16.00	16.00	26.00	250.00	○	○	●
18.00	18.00	33.00	250.00	○	○	●
20.00	20.00	33.00	250.00	○	○	●

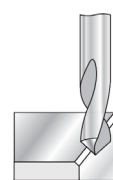
Пример заказа : CGW-2313D1.60



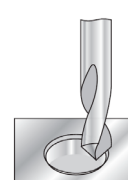
Центрование



Снятие фаски на отверстиях



Снятие фаски



Снятие фаски на больших отверстиях

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