

OKABE CENTER DRILLS



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OKABE CENTER DRILLS

OKABE is the world's sole professional manufacturer of center drills. OKABE's High Speed Center Drills are made by adjusting with the best heat-treatment after due and mathematical considerations of all processes of machining. We dare to recommend our products as the best with the necessary and sufficient conditions for center drills.

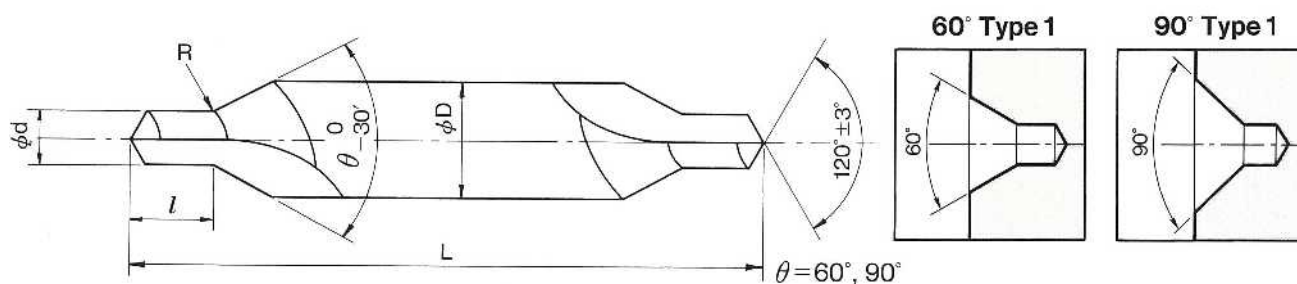
Center drills are used mainly for drilling center holes, but they are also used for countersinking holes after boring, or drilling holes into a workpiece to locate it accurately for drilling.

Other options such as the coated type, left-hand type and the type for drilling into stainless steel objects are also available.

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OKABE Standard Type 1



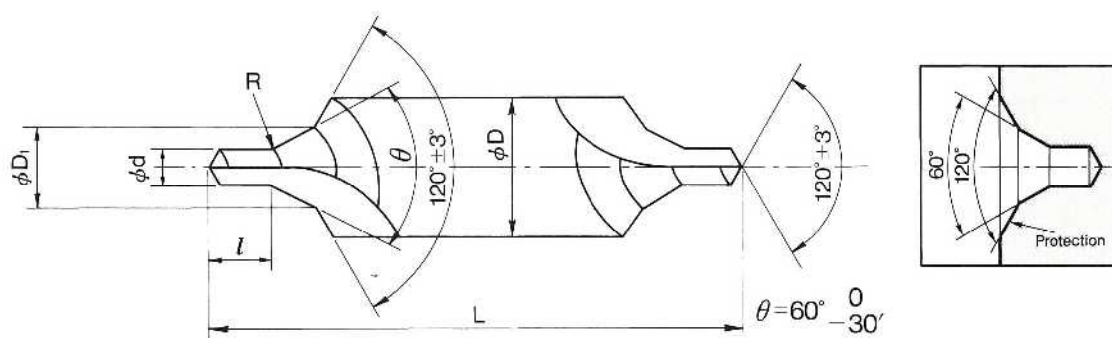
Material : SKH51

Unit : mm

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
0.3	0.3	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.4
0.4	0.4	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.5
0.5	0.5	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.6
0.6	0.6	±0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	0.7
0.7	0.7	±0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	0.9
0.8	0.8	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.0
0.9	0.9	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.1
1	1.0	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.3
1.2	1.2	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	1.6
1.5	1.5	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	2.0
2×5	2.0	±0.08	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	2.6
2	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	47	2.6
2.5×6	2.5	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	47	3.2
2.5	2.5	±0.08	7.7	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	57	3.2

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
3	3.0	±0.08	7.7	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	57	3.9
3×8	3.0	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	53	3.9
3.2	3.2	±0.08	7.7	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	57	4.2
4×10	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	69	5.2
4	4.0	±0.08	11.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	5.2
5	5.0	±0.12	11.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	6.6
5×12	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	6.6
6×16	6.0	±0.12	16.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	90	7.8
6	6.0	±0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	95	7.8
8	8.0	±0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	100	10.4
10	10.0	±0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	100	13.1
12×22	12.0	±0.12	22.0	$\begin{smallmatrix} 0 \\ -0.033 \end{smallmatrix}$	110	15.7
12×25	12.0	±0.12	25.0	$\begin{smallmatrix} 0 \\ -0.033 \end{smallmatrix}$	120	15.7

OKABE Standard Type 2

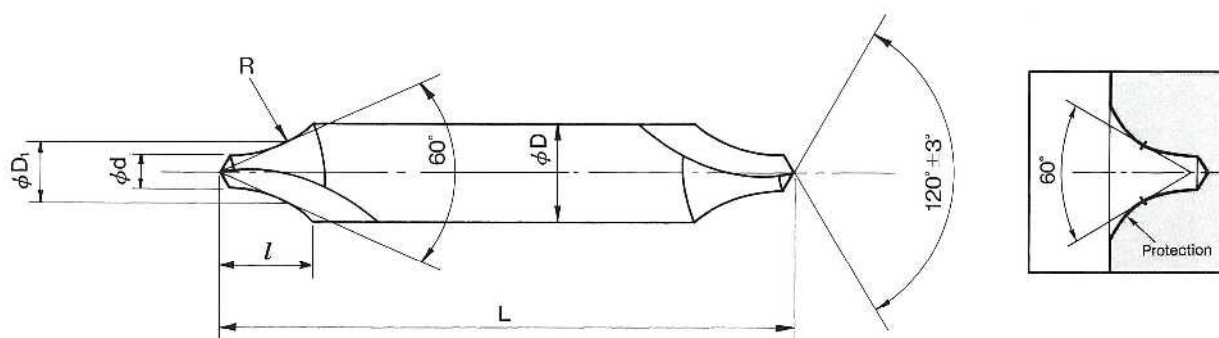


Material : SKH51

Unit : mm

Nominal Size	d		D		D_1	L	l
	Size	Tolerance	Size	Tolerance			
1	1.0	± 0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	2.5	42	1.3
1.5	1.5	± 0.05	6.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	3.5	47	2.0
2	2.0	± 0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	4.5	53	2.6
2.5	2.5	± 0.08	9.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	5.3	58	3.2
3	3.0	± 0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	6.0	63	3.9
4	4.0	± 0.08	13.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	8.0	73	5.2
5	5.0	± 0.12	16.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	10.0	84	6.6
6	6.0	± 0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	12.0	95	7.8

OKABE Standard Type R

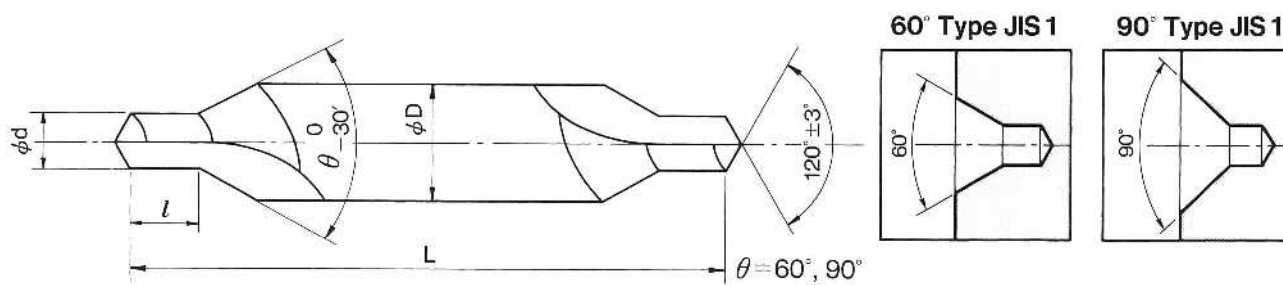


Material : SKH51

Unit : mm

Nominal Size	d		D		L	l	R	D ₁
	Size	Tolerance	Size	Tolerance				
0.7	0.7	±0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	3.0	3.5	1.7
1	1.0	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	4.0	4.0	2.1
1.2	1.2	±0.05	5.0	$\begin{smallmatrix} 0 \\ 0.018 \end{smallmatrix}$	42	4.3	5.0	2.5
1.5	1.5	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	5.0	5.0	2.8
2	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	47	6.0	6.0	3.6
2.5	2.5	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	53	7.5	8.0	4.6
3	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	58	9.5	10.0	5.7
4	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	11.0	12.0	7.2
5	5.0	±0.12	14.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	82	13.0	14.0	8.8
6	6.0	±0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	95	16.0	18.0	10.8

Type JIS 1



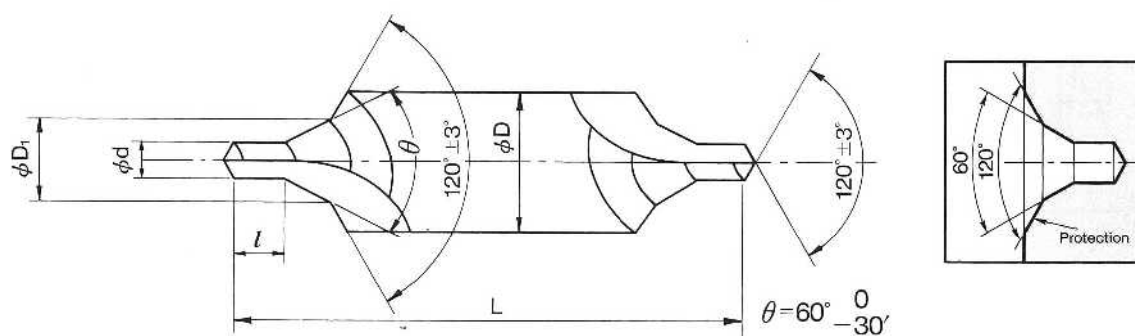
Material: SKH51

Unit: mm

Nominal Size	d		D		L		l
	Size	Tolerance	Size	Tolerance	Size	Tolerance	
0.7	0.7	± 0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	35	$\begin{smallmatrix} -1 \\ 0 \end{smallmatrix}$	0.7
1	1.0	± 0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	35	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	1.1
1.5	1.5	± 0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	40	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	1.6
2	2.0	± 0.08	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	45	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	2.1
2.5	2.5	± 0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	50	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	2.6
3	3.0	± 0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	55	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	3.2
4	4.0	± 0.08	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	66	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	4.2
5	5.0	± 0.12	14.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	78	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	5.3
6	6.0	± 0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	90	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	6.3

※ l: dimensions are in accordance with original OKABE standards.

Type JIS 2



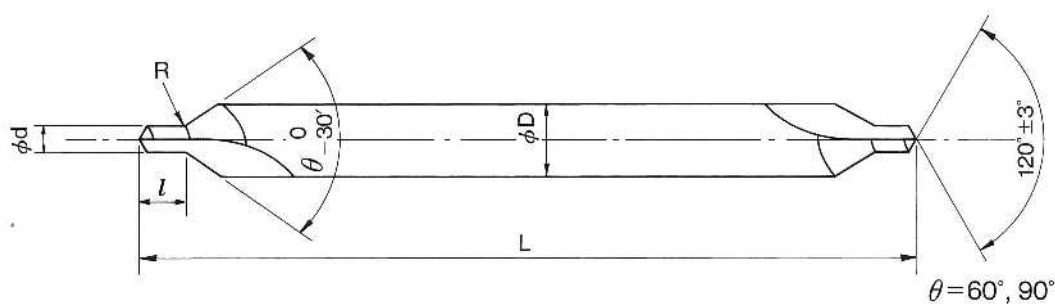
Material : SKH51

Unit : mm

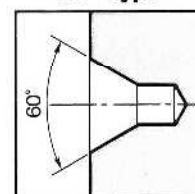
Nominal Size	d		D		D ₁	L		l
	Size	Tolerance	Size	Tolerance	Size	Size	Tolerance	
1	1.0	±0.05	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	2.5	45	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	1.1
1.5	1.5	±0.05	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	4.0	50	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	1.6
2	2.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	5.0	55	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	2.1
2.5	2.5	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	6.5	60	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	2.6
3	3.0	±0.08	14.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	8.0	65	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	3.2
4	4.0	±0.08	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	10.0	76	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	4.2
5	5.0	±0.12	22.0	$\begin{smallmatrix} 0 \\ -0.033 \end{smallmatrix}$	12.0	88	$\begin{smallmatrix} -1 \\ 0 \end{smallmatrix}$	5.3
6	6.0	±0.12	25.0	$\begin{smallmatrix} 0 \\ -0.033 \end{smallmatrix}$	15.0	100	$\begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$	6.3

※ L: dimensions are in accordance with original OKABE standards.

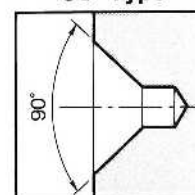
OKABE Standard Long Shank Center Drills



60° Type



90° Type



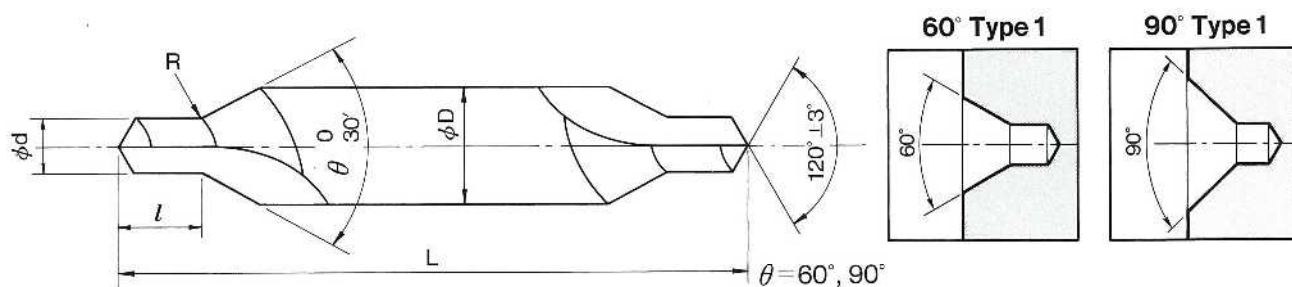
Material: SKH51

Unit : mm

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
1×4×100	1.0	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	100	1.2
1×4×150	1.0	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	150	1.2
1.5×5×100	1.5	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	100	1.9
1.5×5×150	1.5	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	150	1.9
2×6×100	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	100	2.5
2×6×150	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	150	2.5
2×6×200	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$	200	2.5
2.5×8×100	2.5	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	100	3.1
2.5×8×150	2.5	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	150	3.1
2.5×8×200	2.5	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	200	3.1
3×8×100	3.0	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	100	3.7
3×8×150	3.0	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	150	3.7
3×8×200	3.0	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	200	3.7
3×10×100	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	100	3.7
3×10×150	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	150	3.7

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
3×10×200	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	200	3.7
3×10×250	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	250	3.7
4×10×100	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	100	5.0
4×10×150	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	150	5.0
4×10×200	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	200	5.0
4×10×250	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.036 \end{smallmatrix}$	250	5.0
4×12×100	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	100	5.0
4×12×150	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	150	5.0
4×12×200	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	200	5.0
4×12×250	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	250	5.0
5×12×100	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	100	6.3
5×12×150	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	150	6.3
5×12×200	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	200	6.3
5×12×250	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.043 \end{smallmatrix}$	250	6.3

OKABE Standard Cemented Carbide Type 1



Unit : mm

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
0.3×3	0.3	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.4
0.4×3	0.4	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.5
0.5×3	0.5	±0.05	3.0	$\begin{smallmatrix} 0 \\ -0.014 \end{smallmatrix}$	31	0.6
0.6×3.5	0.6	±0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	0.7
0.7×3.5	0.7	±0.05	3.5	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	0.9
0.8×4	0.8	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.0
0.9×4	0.9	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.1
1×4	1.0	±0.05	4.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	36	1.2
1.2×5	1.2	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	1.5
1.5×5	1.5	±0.05	5.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	42	1.9
2×6	2.0	±0.08	6.0	$\begin{smallmatrix} 0 \\ -0.018 \end{smallmatrix}$	47	2.5
2.5×7.7	2.5	±0.08	7.7	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	57	3.1
2.5×8	2.5	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	53	3.1

Nominal Size	d		D		L	l
	Size	Tolerance	Size	Tolerance		
3×7.7	3.0	±0.08	7.7	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	57	3.7
3×8	3.0	±0.08	8.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	53	3.7
3×10	3.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	58	3.7
4×10	4.0	±0.08	10.0	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	58	5.0
4×11	4.0	±0.08	11.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	5.0
4×12	4.0	±0.08	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	5.0
5×11	5.0	±0.12	11.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	6.3
5×12	5.0	±0.12	12.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	69	6.3
5×14	5.0	±0.12	14.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	82	6.3
6×18	6.0	±0.12	18.0	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	95	7.5

Center drills of special sizes and angles

Center drills of special sizes and angles will be made to order upon customer's requests.



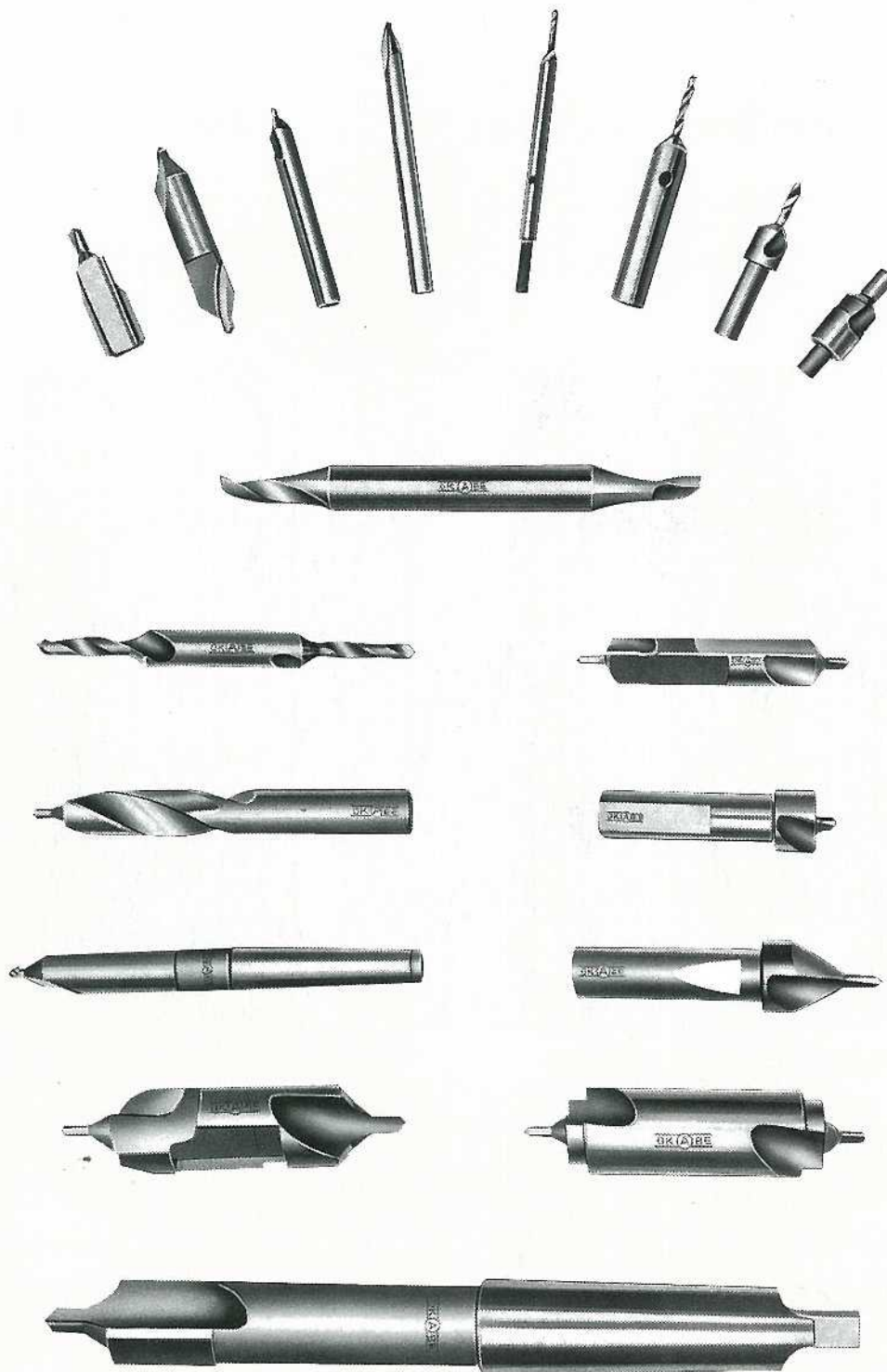


Please Follow These Directions to Ensure Your Safety.

Warning

- Cutting tools may shatter if broken. The wearing of safety glasses is strongly requested in the vicinity of their use.
- Do not touch the edges of cutting tools with bare hands.
- Do not touch chips with bare hands.
- Do not wear gloves in drilling operations. The gloves may entangle with turning tools.
- Do not use tools which are worn-out or chipped severely.
- Immediately halt all operations in case abnormal sound or vibration occurs.
- Do not correct tools.
- Use a holder that matches the tool.
- Check that the workpieces are secured and properly positioned in the holders.
- Confirm hole sizes after processing.
- Grinding may produce hazardous dust. Use adequate ventilation to avoid adverse-health effects.

Variety of special type of OKABE CENTER DRILLS



AGENCY

2312.1000(M)

