

How to choose your drill

1 Define your hole diameter and drill depth

Find diameter ranges and drill depths for drills listed in the table.

2 Select the type of drill

Choose a drill for roughing or finishing holes.

Check that the drill is suitable for your workpiece material.

3 Select the shank style

Many drills are available with different mounting options.

Find the style compatible with your machine.

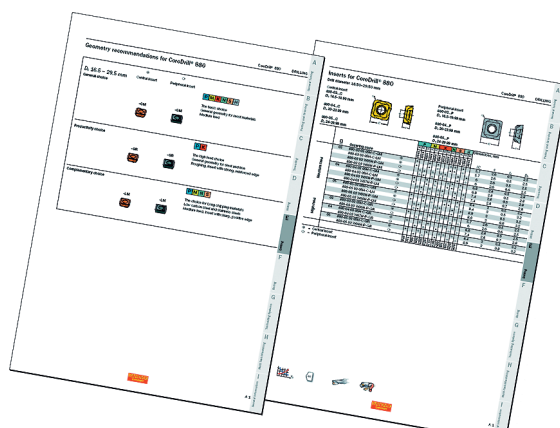
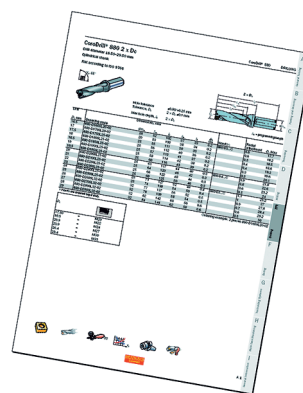
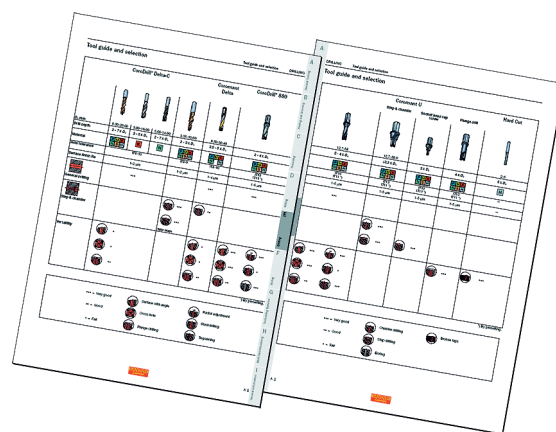
4 Order your drill

When you have found the drill that suits your needs, choose a drill that covers the hole diameter range you need.

5 Choose the insert, if applicable

If you have selected an indexable short hole drill, you must order the inserts separately.

Find the inserts for your drill diameter and choose geometries and grades based on the recommendations for the workpiece material.



Symbols for page references:



Indexable drills



Spare parts/accessories



Solid drills



How to choose tool, overview



Tooling systems



Grade descriptions



Inserts



Cutting data



Tailor Made options



Conversion table, formulas and definitions



For more technical information, see our Metalcutting Technical Guide.

DRILLING

Applications

Tool selection guide

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Products

Indexable insert drills

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CoroDrill® 880, spiral flute

E55

Cylindrical shank

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Coromant Capto®

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Eccentric sleeve for metric drills

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Inserts

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CoroDrill® 881, spiral flute

Cylindrical shank

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Coromant Capto®

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Inserts

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Coromant U, straight flute

Drill for socket head cap screw

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Plunge drill

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Inserts

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Adjustable drill holder

Holder for drills with cylindrical shanks

E90

Solid carbide drills

E6

CoroDrill® Delta-C 840, general drilling in all materials

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CoroDrill® Delta-C 841, for threaded holes

E24

CoroDrill® Delta-C 842, cast iron drilling

E25

CoroDrill® Delta-C 846, for heat resistant super alloys

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CoroDrill® Delta-C 850, for aluminum

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CoroDrill® 854/856, for composite materials

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CoroDrill® 452, for composite materials

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Brazed carbide drills

Coromant Delta, for close tolerance holes

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Hard cut drills

Drill for removal of broken taps

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Cutting data

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Grade information

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DEEP HOLE DRILLING

CoroDrill® 805

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Support pads for T-Max® adjustable drill heads

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Cutting data for CoroDrill® 805

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Tool selection guide

Milling

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



















Boring

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Tooling Systems






















J

General Information

CoroDrill® Delta-C Solid carbide drill						CoroDrill® 854 and 856 CoroDrill® 452 ¹⁾	Coromant Delta Braze carbide drill	
Page	E7	E25	E29	E32	E24	E37	E52	
D_c mm	0.30-20.00	3.00-16.00	3.00-12.00	5.00-14.00	3.35-17.50	4.00-12.70	9.50-30.40	
D_c inch	.0118-.787	.118-.630	.118-.472	.197-.551	.132-.689	.157-.500	.3740-1.197	
								
	R840	R842	R846	R850	R841	854.1	856.1	R411.5
Drill depth	2 - 7 x D _c	2 - 5 x D _c	2 - 5 x D _c	2 - 7 x D _c	2 - 3 x D _c	4 - 5 x D _c	3.5 - 5 x D _c	
Material						 Composite materials		
Hole tolerance	IT8-10				IT8-9	IT 8-9	IT8-10	
Surface finish Ra	1-2 μm 40-75 μ inch				1-2 μm 40-75 μ inch	1-5 μm 40-200 μ inch	1-4 μm 40-160 μ inch	
 General drilling	
 Step & chamfer					 ...  ... <i>Hand Made</i>		 ..	
Versatility	 •  •  ..						 •  •  ..	 •  •  ..
<ul style="list-style-type: none"> ••• = Very good •• = Good • = Fair 	 Surface with angle	 Radial adjustment	 Plunge drilling	 Cross-hole	 Stackdrilling	 Trepanning		

1) CoroDrill® 452, for composite materials, see page E39

Tool selection guide

CoroDrill® 880 Indexable insert drill Step & chamfer		CoroDrill® 881 Indexable insert drill	Coromant U Indexable insert drill Plunge drill	Hard Cut
E62	J3	E78	E86	E54
12.00-63.50	12.00-63.50	14.00-23.50	12.70-35.00	2.00-6.00
.492-2.500	.422-2.480	.562-.937	.500-1.378	.079-.236
	<i>Tailor Made</i> 			
880		881	R416.22	HC
2 - 5 x D _c	<=3.0 x D _c	2 - 5 x D _c	4 x D _c	5 x D _c
				
IT13 IT11 *)	IT13 IT11 *)	IT13 IT11 *)	IT13 IT11 *)	—
1-5 μm 40-200 μ inch	1-5 μm 40-200 μ inch	1-5 μm 40-200 μ inch	1-5 μm 40-200 μ inch	1-5 μm 40-200 μ inch
...				
	 ...  ...			
 ...  ...  ...  ...		 ...  ...  ...	 ...	 ...

*) By presetting.

- = Very good
- = Good
- = Fair



Chamfer drilling



Boring



Step drilling



Broken taps

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General information

CoroDrill® Delta-C

Solid carbide drills R840/R841, R842 and R846

For high productivity holemaking

CoroDrill® Delta-C R840

First choice for general drilling in all materials

- Short: 2-3 x D_c
- Long: 4-5 x D_c
- Extra long: 6-7 x D_c
- Geometry easy to regrind

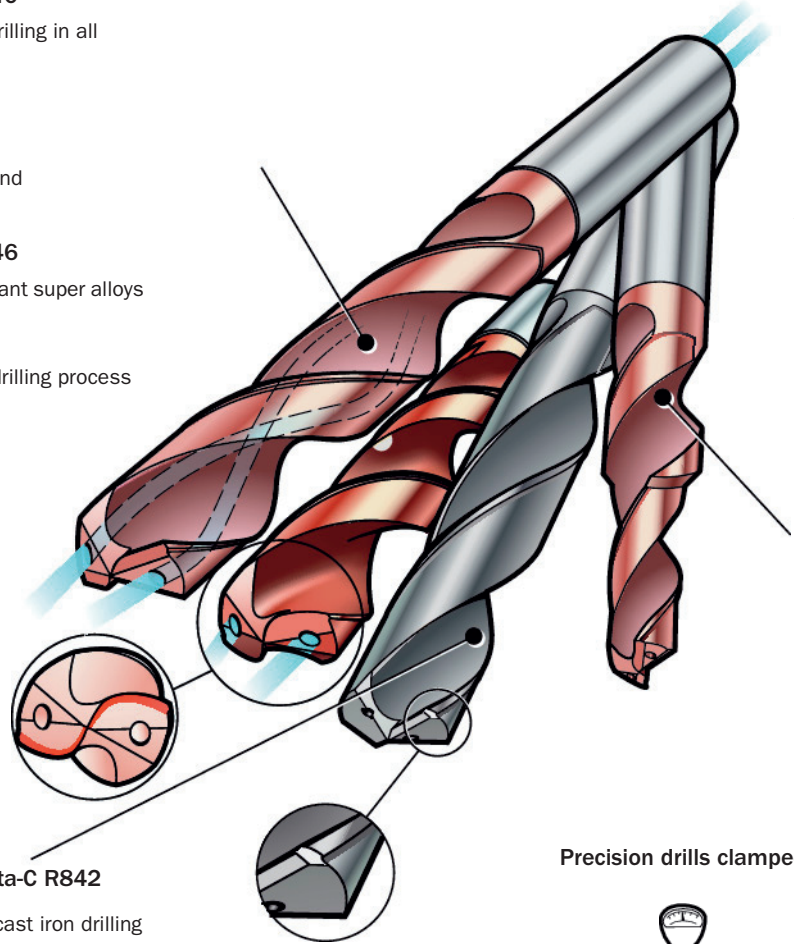
CoroDrill® Delta-C R846

First choice in heat resistant super alloys

- Short: 2-3 x D_c
- Long: 4-5 x D_c
- Geometry for reliable drilling process

Shanks:

First choice Cylindrical (DIN 6535HA)
Option Whistle Notch (DIN 6535 HE)



CoroDrill® Delta-C R841 chamfer drill

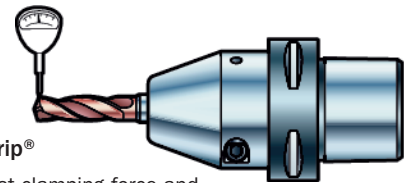
For thread holes

CoroDrill® Delta-C R842

First choice for cast iron drilling

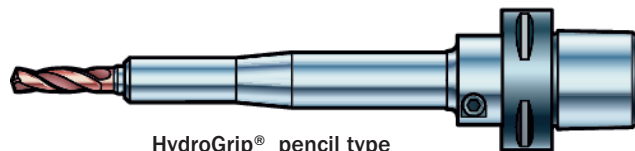
- Short: 2-3 x D_c
- Long: 4-5 x D_c
- Geometry easy to regrind

Precision drills clamped in precision chucks



Hydro-Grip®

for highest clamping force and minimum runout



HydroGrip® pencil type

for improved accessibility

Grades:

ISO application areas:

GC 1220
General



GC 1210
Optimized



Tailor Made

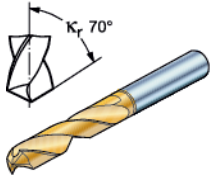
Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J3.

CoroDrill® Delta-C 4 – 5 × D_c for small part machining

R840

Cylindrical shank

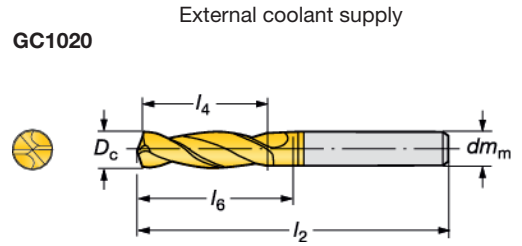
Inch/metric dimensions



Drill diameter: 1.50-2.90 mm (.059-.114 inch)
 Max hole depth: 4 - 5 × D_c
 Coating: TiN
 Hole tolerance: IT8-10
 Surface finish: Ra 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard 4-5 × D_c: DIN 1899

Tolerances: $dm_m = h6$
 $D_c = h7$

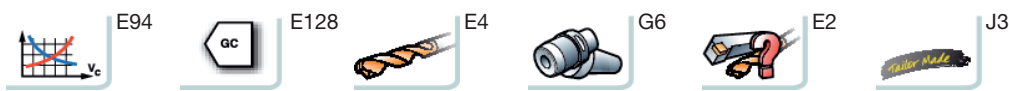


External coolant supply

GC1020

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply	P M K N S H						Dimensions, millimeter, inch (mm, in.)					
				GC		GC		GC		GC		GC		GC	
				1020	1220	1020	1220	1020	1220	1020	1220	1020	1220	1020	1220
			Ordering code							<i>dm_m</i> mm	<i>l₂</i> mm	<i>l₂</i> in.	<i>l₄</i> mm	<i>l₄</i> in.	<i>l₆</i> mm
1.50	.0591		R840-0150-50-A0B	☆		☆		☆		1.50	32	1.260	7	.276	9
1.59	.0626		R840-0159-50-A0B	☆		☆		☆		1.59	34	1.339	8	.315	10
1.60	.0630		R840-0160-50-A0B	☆		☆		☆		1.60	34	1.339	8	.315	10
1.70	.0669		R840-0170-50-A0B	☆		☆		☆		1.70	34	1.339	8	.315	10
1.80	.0709		R840-0180-50-A0B	☆		☆		☆		1.80	36	1.417	9	.354	11
1.90	.0748		R840-0190-50-A0B	☆		☆		☆		1.90	36	1.417	9	.354	11
1.98	.0780		R840-0198-50-A0B	☆		☆		☆		1.98	38	1.496	9	.354	12
2.00	.0787		R840-0200-50-A0B	☆		☆		☆		2.00	38	1.496	9	.354	12
2.10	.0827		R840-0210-50-A0B	☆		☆		☆		2.10	38	1.496	9	.354	12
2.20	.0866		R840-0220-50-A0B	☆		☆		☆		2.20	40	1.575	10	.394	13
2.30	.0906		R840-0230-50-A0B	☆		☆		☆		2.30	40	1.575	10	.394	13
2.38	.0937		R840-0238-50-A0B	☆		☆		☆		2.38	43	1.693	11	.433	14
2.40	.0945		R840-0240-50-A0B	☆		☆		☆		2.40	43	1.693	11	.433	14
2.50	.0984		R840-0250-50-A0B	☆		☆		☆		2.50	43	1.693	11	.433	14
2.60	.1024		R840-0260-50-A0B	☆		☆		☆		2.60	43	1.693	11	.433	14
2.70	.1063		R840-0270-50-A0B	☆		☆		☆		2.70	46	1.811	12	.472	16
2.78	.1094		R840-0278-50-A0B	☆		☆		☆		2.78	46	1.811	12	.472	16
2.80	.1102		R840-0280-50-A0B	☆		☆		☆		2.80	46	1.811	12	.472	16
2.90	.1142		R840-0290-50-A0B	☆		☆		☆		2.90	46	1.811	12	.472	16



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General Information

DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 6 – 7 × D_c for small part machining

R840
Cylindrical shank

Inch/metric dimensions

Drill diameter: 0.30-1.40 mm (.0118-.055 inch)
 Max hole depth: 6 - 7 × D_c
 Coating: -
 Hole tolerance: IT8-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard 6-7 × D_c: DIN 1897 (dia. 1.5-1.8 mm (.059-.071 inch))
 DIN 6539 (dia. 1.9-2.9 mm (.075-.114 inch))
 Tolerances: d_m = h6
 D_c = h7

H10F External coolant supply

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply	Dimensions, millimeter, inch (mm, in.)																			
				P		M		K		N		S		H									
				GC	H10F	GC	H10F	GC	H10F	GC	H10F	GC	H10F	GC	H10F								
			Ordering code ¹⁾	1220	H10F	1220	H10F	1220	H10F	1220	H10F	1220	H10F	1220	H10F	1220	H10F	dm _m mm	l ₂ mm	l ₆ in.	l ₄ mm	l ₄ in.	l ₆ mm
0.30	.0118		R840-0030-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.00	25	.984	1.5	.059	1.9	
0.40	.0157		R840-0040-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.00	25	.984	2.2	.087	3	
0.50	.0197		R840-0050-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.00	25	.984	2.7	.106	3.4	
0.60	.0236		R840-0060-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.00	25	.984	3.1	.122	3.9	
0.70	.0276		R840-0070-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.00	25	.984	3.8	.150	4.8	
0.80	.0315		R840-0080-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	4.2	.165	5.3	
0.90	.0354		R840-0090-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	4.8	.189	6	
1.00	.0394		R840-0100-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	5.4	.213	6.8	
1.10	.0433		R840-0110-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	6	.236	7.6	
1.20	.0472		R840-0120-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	6.8	.268	8.5	
1.30	.0512		R840-0130-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	6.8	.268	8.5	
1.40	.0551		R840-0140-70-A0B	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	1.50	25	.984	7.6	.299	9.5	

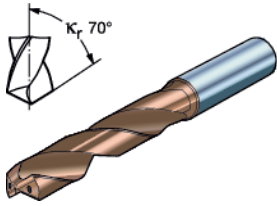
1) 5 pieces

E 8

CoroDrill® Delta-C 2 – 3 × D_c

R840

Cylindrical shank



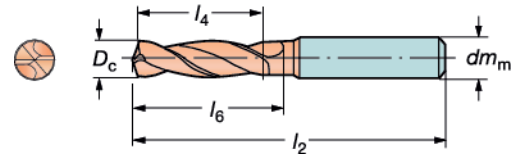
Drill diameter: 3.00-20.00 mm (.118-.787 inch)
 Max hole depth: 2 - 3 × D_c

Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

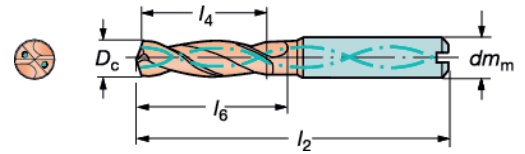
Drill standard: DIN 6537

Tolerances: d_m = h6
 D_c = m7

External coolant supply

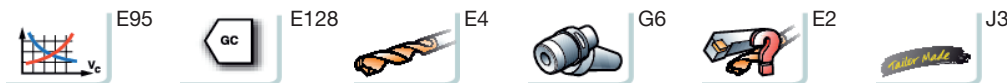


Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply						Internal coolant supply						Dimensions, millimeter, inch (mm, in.)							
			P	M	K	N	S	H	P	M	K	N	S	H	dm _m	l ₂	l ₂	l ₄	l ₄	l ₆		
			GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	mm	mm	in.	mm	in.	mm		
3.00	.1181		R840-0300-30-A0A	☆	☆	☆	☆	☆	☆	R840-0300-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.10	.1220		R840-0310-30-A0A	☆	☆	☆	☆	☆	☆	R840-0310-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.17	.1248									R840-0317-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.20	.1260		R840-0320-30-A0A	☆	☆	☆	☆	☆	☆	R840-0320-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.30	.1299		R840-0330-30-A0A	☆	☆	☆	☆	☆	☆	R840-0330-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.40	.1339	M4 65%	R840-0340-30-A0A	☆	☆	☆	☆	☆	☆	R840-0340-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20
3.45	.1358	8-32 UNC								R840-0345-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.50	.1378		R840-0350-30-A0A	☆	☆	☆	☆	☆	☆	R840-0350-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.55	.1398	8-36 UNF								R840-0355-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.57	.1406									R840-0357-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.60	.1417		R840-0360-30-A0A	☆	☆	☆	☆	☆	☆	R840-0360-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.70	.1457		R840-0370-30-A0A	☆	☆	☆	☆	☆	☆	R840-0370-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.80	.1496		R840-0380-30-A0A	☆	☆	☆	☆	☆	☆	R840-0380-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.90	.1535	10-24 UNC	R840-0390-30-A0A	☆	☆	☆	☆	☆	☆	R840-0390-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	14	.551	20
3.97	.1563									R840-0397-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.00	.1575		R840-0400-30-A0A	☆	☆	☆	☆	☆	☆	R840-0400-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.10	.1614	10-32 UNF	R840-0410-30-A0A	☆	☆	☆	☆	☆	☆	R840-0410-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.20	.1654		R840-0420-30-A0A	☆	☆	☆	☆	☆	☆	R840-0420-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.30	.1693	M5 65%	R840-0430-30-A0A	☆	☆	☆	☆	☆	☆	R840-0430-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.36	.1717									R840-0436-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.40	.1732		R840-0440-30-A0A	☆	☆	☆	☆	☆	☆	R840-0440-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.50	.1772		R840-0450-30-A0A	☆	☆	☆	☆	☆	☆	R840-0450-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.55	.1791	12-24 UNC								R840-0455-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.60	.1811		R840-0460-30-A0A	☆	☆	☆	☆	☆	☆	R840-0460-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.70	.1850		R840-0470-30-A0A	☆	☆	☆	☆	☆	☆	R840-0470-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24
4.76	.1874									R840-0476-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
4.80	.1890	12-32 UNF	R840-0480-30-A0A	☆	☆	☆	☆	☆	☆	R840-0480-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
4.90	.1929		R840-0490-30-A0A	☆	☆	☆	☆	☆	☆	R840-0490-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.00	.1969	M6 75%	R840-0500-30-A0A	☆	☆	☆	☆	☆	☆	R840-0500-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.10	.2008	M6 65%	R840-0510-30-A0A	☆	☆	☆	☆	☆	☆	R840-0510-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.16	.2031									R840-0516-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.20	.2047		R840-0520-30-A0A	☆	☆	☆	☆	☆	☆	R840-0520-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.30	.2087		R840-0530-30-A0A	☆	☆	☆	☆	☆	☆	R840-0530-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.40	.2126		R840-0540-30-A0A	☆	☆	☆	☆	☆	☆	R840-0540-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28
5.50	.2165		R840-0550-30-A0A	☆	☆	☆	☆	☆	☆	R840-0550-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.56	.2189									R840-0556-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.60	.2205		R840-0560-30-A0A	☆	☆	☆	☆	☆	☆	R840-0560-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.70	.2244		R840-0570-30-A0A	☆	☆	☆	☆	☆	☆	R840-0570-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.80	.2283		R840-0580-30-A0A	☆	☆	☆	☆	☆	☆	R840-0580-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.90	.2323		R840-0590-30-A0A	☆	☆	☆	☆	☆	☆	R840-0590-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
5.95	.2343									R840-0595-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28
6.00	.2362		R840-0600-30-A0A	☆	☆	☆	☆	☆	☆	R840-0600-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28



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DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 2 – 3 × D_c

R840

Cylindrical shank

Drill diameter: 3.00-20.00 mm (.118-.787 inch)
Max hole depth: 2 - 3 × D_c

Coating: TiN/TiAlN multilayer
Hole tolerance: IT8-9
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537

Tolerances: d_m = h6
D_c = m7

External coolant supply

Internal coolant supply

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply	P M K N S H						Internal coolant supply	P M K N S H						Dimensions, millimeter, inch (mm, in.)									
				GC		GC		GC			GC		GC		GC		GC		GC		d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
				1220	1220	1220	1220	1220	1220		1220	1220	1220	1220	1220	1220	1220	1220	1220							
Ordering code			Ordering code						Ordering code																	
6.10	.2402		R840-0610-30-A0A	☆	☆	☆	☆	☆	☆	R840-0610-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.20	.2441		R840-0620-30-A0A	☆	☆	☆	☆	☆	☆	R840-0620-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.30	.2480		R840-0630-30-A0A	☆	☆	☆	☆	☆	☆	R840-0630-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.35	.2500									R840-0635-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.40	.2520		R840-0640-30-A0A	☆	☆	☆	☆	☆	☆	R840-0640-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.50	.2559		R840-0650-30-A0A	☆	☆	☆	☆	☆	☆	R840-0650-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.60	.2598		R840-0660-30-A0A	☆	☆	☆	☆	☆	☆	R840-0660-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.70	.2638	5/16-18 UNC	R840-0670-30-A0A	☆	☆	☆	☆	☆	☆	R840-0670-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.75	.2657									R840-0675-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.80	.2677		R840-0680-30-A0A	☆	☆	☆	☆	☆	☆	R840-0680-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
6.90	.2717	M8 65%	R840-0690-30-A0A	☆	☆	☆	☆	☆	☆	R840-0690-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
7.00	.2756	5/16-24 UNF	R840-0700-30-A0A	☆	☆	☆	☆	☆	☆	R840-0700-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34				
7.10	.2795	MF8 x 1	R840-0710-30-A0A	☆	☆	☆	☆	☆	☆	R840-0710-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.14	.2811									R840-0714-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.20	.2835		R840-0720-30-A0A	☆	☆	☆	☆	☆	☆	R840-0720-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.30	.2874		R840-0730-30-A0A	☆	☆	☆	☆	☆	☆	R840-0730-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.40	.2913		R840-0740-30-A0A	☆	☆	☆	☆	☆	☆	R840-0740-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.50	.2953		R840-0750-30-A0A	☆	☆	☆	☆	☆	☆	R840-0750-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.54	.2969									R840-0754-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.60	.2992		R840-0760-30-A0A	☆	☆	☆	☆	☆	☆	R840-0760-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.70	.3031		R840-0770-30-A0A	☆	☆	☆	☆	☆	☆	R840-0770-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.80	.3071		R840-0780-30-A0A	☆	☆	☆	☆	☆	☆	R840-0780-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.90	.3110		R840-0790-30-A0A	☆	☆	☆	☆	☆	☆	R840-0790-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
7.94	.3126									R840-0794-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
8.00	.3150		R840-0800-30-A0A	☆	☆	☆	☆	☆	☆	R840-0800-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41				
8.10	.3189		R840-0810-30-A0A	☆	☆	☆	☆	☆	☆	R840-0810-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.20	.3228		R840-0820-30-A0A	☆	☆	☆	☆	☆	☆	R840-0820-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.30	.3268		R840-0830-30-A0A	☆	☆	☆	☆	☆	☆	R840-0830-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.33	.3280									R840-0833-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.40	.3307		R840-0840-30-A0A	☆	☆	☆	☆	☆	☆	R840-0840-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.50	.3346		R840-0850-30-A0A	☆	☆	☆	☆	☆	☆	R840-0850-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.60	.3386	M10 70%	R840-0860-30-A0A	☆	☆	☆	☆	☆	☆	R840-0860-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.70	.3425	M10 65%	R840-0870-30-A0A	☆	☆	☆	☆	☆	☆	R840-0870-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.73	.3437									R840-0873-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.80	.3465		R840-0880-30-A0A	☆	☆	☆	☆	☆	☆	R840-0880-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				
8.90	.3504	MF10 x 1.25	R840-0890-30-A0A	☆	☆	☆	☆	☆	☆	R840-0890-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47				

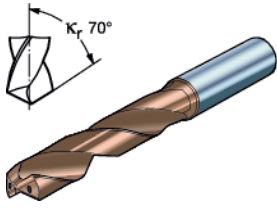
E 10

General Information

CoroDrill® Delta-C 2 – 3 × D_c

R840

Cylindrical shank



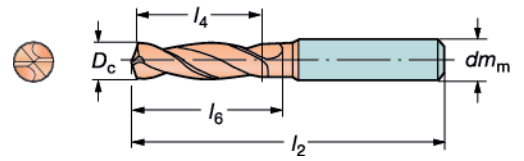
Drill diameter: 3.00-20.00 mm (.118-.787 inch)
 Max hole depth: 2 - 3 × D_c

Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

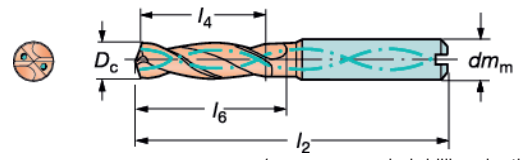
Drill standard: DIN 6537

Tolerances: d_m = h6
 D_c = m7

External coolant supply



Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply						Internal coolant supply						Dimensions, millimeter, inch (mm, in.)					
			P	M	K	N	S	H	P	M	K	N	S	H	d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
			GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	1220	1220	1220	1220	1220	1220
9.00	.3543		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.10	.3583		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.13	.3594		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.20	.3622		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.30	.3661		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.40	.3701		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.50	.3740		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.52	.3748		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.60	.3780		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.70	.3819		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.80	.3858		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.90	.3898		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.92	.3906		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
10.00	.3937	7/16-20 UNF	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
10.10	.3976		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.20	.4016		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.30	.4055	M12 75%	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.32	.4063	M12	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.40	.4094	M12 70%	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.50	.4134		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.60	.4173		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.70	.4213	MF12 x 1,5	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.71	.4217		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.80	.4252		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.90	.4291		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
11.00	.4331	1/2-13 UNC	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.10	.4370		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.11	.4374		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.20	.4409		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.30	.4449		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.40	.4488		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.50	.4528		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.51	.4531		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.60	.4567	1/2-20 UNF	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.70	.4606		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.80	.4646		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.90	.4685		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
12.00	.4724		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
12.10	.4764	M14 72%	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.20	.4803	M14 65%	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.30	.4843		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.40	.4882		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.50	.4921		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.60	.4961		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.70	.5000		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60
12.80	.5039		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	14.00	107	4.213	38	1.496	60

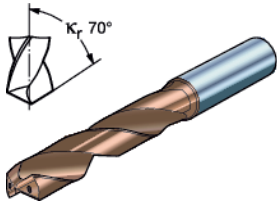


Milling
E
Drilling
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Boring
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Tooling Systems
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General Information

CoroDrill® Delta-C 4 – 5 × D_c

R840

Cylindrical shank



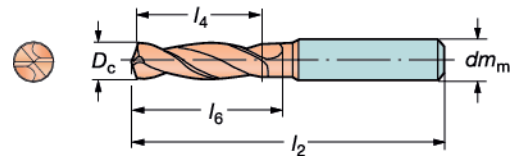
Drill diameter: 3.00-20.00 mm (.118-.787 inch)
 Max hole depth: 4 - 5 × D_c

Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

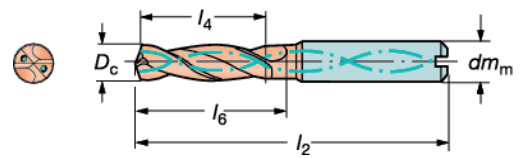
Drill standard: DIN 6537

Tolerances: d_m = h6
 D_c = m7

External coolant supply

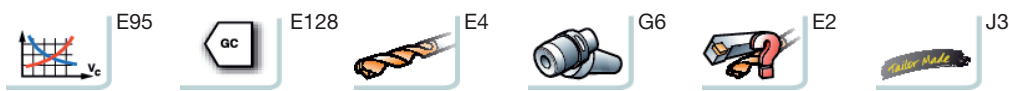


Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	External coolant supply	P M K N S H										Internal coolant supply	Dimensions, millimeter, inch (mm, in.)																	
				P		M		K		N		S			H		P		M		K		N		S		H					
				GC	GC	GC	GC	GC	GC	GC	GC	GC	GC		GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC		
Ordering code			1020	1220	1220	1020	1220	1220	1020	1220	1220	1020	1220	1220	1020	1220	1220	1020	1220	1220	1020	1220	1220	1020	1220	1220	d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
3.00	.1181		R840-0300-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.10	.1220		R840-0310-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.17	.1248																									6.00	66	2.598	20	.787	28	
3.20	.1260		R840-0320-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.30	.1299		R840-0330-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.38	.1331	M5	R840-0338-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.40	.1339	M4 65%	R840-0340-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.45	.1358	8-32 UNC	R840-0345-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.50	.1378		R840-0350-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.55	.1398	8-36 UNF	R840-0355-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.57	.1406																									6.00	66	2.598	20	.787	28	
3.60	.1417		R840-0360-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.70	.1457		R840-0370-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.80	.1496		R840-0380-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.90	.1535	10-24 UNC	R840-0390-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	66	2.598	20	.787	28	
3.97	.1563																									6.00	66	2.598	20	.787	28	
4.00	.1575		R840-0400-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.10	.1614	10-32 UNF	R840-0410-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.20	.1654		R840-0420-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.30	.1693	M5 65%	R840-0430-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.36	.1717																									6.00	74	2.913	27	1.06	36	
4.40	.1732		R840-0440-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.50	.1772		R840-0450-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.55	.1791	12-24 UNC	R840-0455-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.60	.1811		R840-0460-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.70	.1850		R840-0470-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.76	.1874																									6.00	74	2.913	27	1.06	36	
4.80	.1890	12-32 UNF	R840-0480-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	74	2.913	27	1.06	36	
4.90	.1929		R840-0490-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	34	1.33	44	
5.00	.1969	M6 75%	R840-0500-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.10	.2008	M6 65%	R840-0510-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.16	.2031																									6.00	82	3.228	35	1.37	44	
5.20	.2047		R840-0520-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.25	.2067	1/4-20 UNC																								6.00	82	3.228	35	1.37	44	
5.30	.2087		R840-0530-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.40	.2126		R840-0540-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.50	.2165		R840-0550-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.55	.2185	1/4-28 UNF																								6.00	82	3.228	35	1.37	44	
5.56	.2189																									6.00	82	3.228	35	1.37	44	
5.60	.2205		R840-0560-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.70	.2244		R840-0570-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.80	.2283		R840-0580-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.90	.2323		R840-0590-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
5.95	.2343																									6.00	82	3.228	35	1.37	44	
6.00	.2362		R840-0600-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.37	44	
6.10	.2402		R840-0610-50-A0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.53	53	



D Milling E Drilling F Boring G Tooling Systems J General Information

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General Information

DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 4 – 5 × D_c
R840
Cylindrical shank

Drill diameter: 3.00-20.00 mm (.118-.787 inch)
Max hole depth: 4 - 5 × D_c

Coating: TiN/TiAlN multilayer
Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537

Tolerances: d_m = h6
D_c = m7

External coolant supply

Internal coolant supply

l₄ = recommended drilling depth

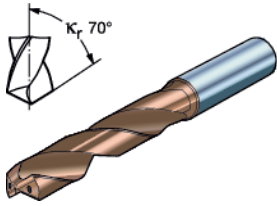
D _c mm	D _c inch	Thread size	External coolant supply Ordering code	P M K N S H						Internal coolant supply Ordering code	P M K N S H						Dimensions, millimeter, inch (mm, in.)					
				GC		GC		GC			GC		GC		GC		d _m mm	l ₂ mm	l ₆ in.	l ₄ mm	l ₄ in.	l ₆ mm
				1020	1220	1220	1020	1020	1220		1020	1220	1220	1020	1220	1220						
13.80	.5433		R840-1380-50-A0A	☆	☆	☆	☆	☆	☆	R840-1380-50-A1A	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
13.89	.5469									R840-1389-50-A1A	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
14.00	.5512		R840-1400-50-A0A	☆	☆	☆	☆	☆	☆	R840-1400-50-A1A	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
14.10	.5551									R840-1410-50-A1A	☆	☆	☆	☆	☆	16.00	124	5.236	59	2.323	83	
14.25	.5610	M16 66%	R840-1425-50-A0A	☆	☆	☆	☆	☆	☆	R840-1425-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.29	.5626									R840-1429-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.50	.5709		R840-1450-50-A0A	☆	☆	☆	☆	☆	☆	R840-1450-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.69	.5783									R840-1469-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.75	.5807		R840-1475-50-A0A	☆	☆	☆	☆	☆	☆	R840-1475-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.80	.5827	M15 75%	R840-1480-50-A0A	☆	☆	☆	☆	☆	☆	R840-1480-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
15.00	.5906		R840-1500-50-A0A	☆	☆	☆	☆	☆	☆	R840-1500-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83	
15.50	.6102	M18 76%	R840-1550-50-A0A	☆	☆	☆	☆	☆	☆	R840-1550-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83	
15.80	.6220		R840-1580-50-A0A	☆	☆	☆	☆	☆	☆	R840-1580-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83	
15.87	.6248									R840-1587-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83	
16.00	.6299		R840-1600-50-A0A	☆	☆	☆	☆	☆	☆	R840-1600-50-A1A	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83	
16.10	.6339	Tube sheet								R840-1610-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93	
16.50	.6496		R840-1650-50-A0A	☆	☆	☆	☆	☆	☆	R840-1650-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93	
16.67	.6563									R840-1667-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93	
16.80	.6614		R840-1680-50-A0A	☆	☆	☆	☆	☆	☆	R840-1680-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93	
17.00	.6693		R840-1700-50-A0A	☆	☆	☆	☆	☆	☆	R840-1700-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93	
17.46	.6874									R840-1746-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93	
17.50	.6890	M20 76%	R840-1750-50-A0A	☆	☆	☆	☆	☆	☆	R840-1750-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93	
17.80	.7008		R840-1780-50-A0A	☆	☆	☆	☆	☆	☆	R840-1780-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93	
18.00	.7087		R840-1800-50-A0A	☆	☆	☆	☆	☆	☆	R840-1800-50-A1A	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93	
18.50	.7283		R840-1850-50-A0A	☆	☆	☆	☆	☆	☆	R840-1850-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	71	2.795	101	
18.80	.7402		R840-1880-50-A0A	☆	☆	☆	☆	☆	☆	R840-1880-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	71	2.795	101	
19.00	.7480		R840-1900-50-A0A	☆	☆	☆	☆	☆	☆	R840-1900-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
19.05	.7500									R840-1905-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
19.25	.7579	Tube sheet								R840-1925-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
19.30	.7598									R840-1930-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
19.50	.7677									R840-1950-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
19.80	.7795		R840-1980-50-A0A	☆	☆	☆	☆	☆	☆	R840-1980-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	
20.00	.7874		R840-2000-50-A0A	☆	☆	☆	☆	☆	☆	R840-2000-50-A1A	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101	

E 16

CoroDrill® Delta-C 6 – 7 × D_c

R840

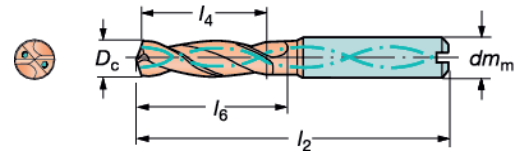
Cylindrical shank



Drill diameter: 5.00-16.30 mm (.197-.642 inch)
 Max hole depth: 6 - 7 × D_c
 Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: dm_m = h6
 Dc = m7

Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	Dimensions, millimeter, inch (mm, in.)																
					P		M		K		N		S		H						
					GC	-	GC	-	GC	-	GC	-	GC	-	GC	-					
5.00	.1969	M6 75%		R840-0500-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.10	.2008	M6 65%		R840-0510-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.16	.2031			R840-0516-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.20	.2047			R840-0520-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.30	.2087			R840-0530-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.40	.2126			R840-0540-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.50	.2165			R840-0550-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.56	.2189			R840-0556-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.60	.2205			R840-0560-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.70	.2244			R840-0570-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.80	.2283			R840-0580-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.90	.2323			R840-0590-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
5.95	.2343			R840-0595-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
6.00	.2362			R840-0600-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	6.00	93	3.661	42	1.654	50.0
6.10	.2402			R840-0610-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.20	.2441			R840-0620-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.30	.2480			R840-0630-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.35	.2500			R840-0635-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.40	.2520			R840-0640-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.50	.2559			R840-0650-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.60	.2598			R840-0660-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.70	.2638	5/16-18 UNC		R840-0670-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.75	.2657			R840-0675-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.80	.2677			R840-0680-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
6.90	.2717	M8 65%		R840-0690-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
7.00	.2756	5/16-24 UNF		R840-0700-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	49	1.929	59.0
7.10	.2795	MF8 x 1		R840-0710-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.14	.2811			R840-0714-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.20	.2835			R840-0720-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.30	.2874			R840-0730-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.40	.2913			R840-0740-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.50	.2953			R840-0750-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.54	.2969			R840-0754-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.60	.2992			R840-0760-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.70	.3031			R840-0770-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.80	.3071			R840-0780-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.90	.3110			R840-0790-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
7.94	.3126			R840-0794-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
8.00	.3150			R840-0800-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	105	4.134	56	2.205	67.0
8.10	.3189			R840-0810-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.20	.3228			R840-0820-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.30	.3268			R840-0830-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.33	.3280			R840-0833-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.40	.3307			R840-0840-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.50	.3346			R840-0850-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.60	.3386	M10 70%		R840-0860-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.70	.3425	M10 65%		R840-0870-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.73	.3437			R840-0873-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.80	.3465			R840-0880-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
8.90	.3504	MF10 x 1.25		R840-0890-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	120	4.724	62	2.441	75.0
9.00	.3543			R840-0900-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.10	.3583			R840-0910-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.13	.3594			R840-0913-70-A1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0



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General Information

DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 6 – 7 × D_c

R840

Cylindrical shank

Drill diameter: 5.00-16.30 mm (.197-.642 inch)
 Max hole depth: 6 - 7 × D_c
 Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Internal coolant supply

Drill standard: DIN 6537
 Tolerances: dm_m = h6
 Dc = m7

l₄ = recommended drilling depth

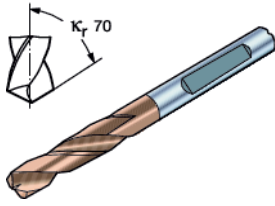
D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	Material						Dimensions, millimeter, inch (mm, in.)					
					P	M	K	N	S	H	dm _m mm	l ₂ mm	l ₃ in.	l ₄ mm	l ₄ in.	l ₆ mm
					GC	H10F	GC	H10F	GC	H10F						
9.20	.3622			R840-0920-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.30	.3661			R840-0930-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.40	.3701			R840-0940-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.50	.3740			R840-0950-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.52	.3748			R840-0952-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.60	.3780			R840-0960-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.70	.3819			R840-0970-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.80	.3858			R840-0980-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.90	.3898			R840-0990-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
9.92	.3906			R840-0992-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
10.00	.3937	7/16-20 UNF		R840-1000-70-A1A	☆	☆	☆	☆	☆	☆	10.00	133	5.236	70	2.756	84.0
10.10	.3976			R840-1010-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.20	.4016			R840-1020-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.30	.4055	M12 75%		R840-1030-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.32	.4063	M12		R840-1032-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.40	.4094	M12 70%		R840-1040-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.45	.4114			R840-1045-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.50	.4134			R840-1050-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.60	.4173			R840-1060-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.70	.4213	MF12 x 1,5		R840-1070-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.71	.4217			R840-1071-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.80	.4252			R840-1080-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
10.90	.4291			R840-1090-70-A1A	☆	☆	☆	☆	☆	☆	12.00	140	5.512	76	2.992	91.0
11.00	.4331	1/2-13 UNC		R840-1100-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.10	.4370			R840-1110-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.11	.4374			R840-1111-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.20	.4409			R840-1120-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.30	.4449			R840-1130-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.40	.4488			R840-1140-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.50	.4528			R840-1150-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.60	.4567	1/2-20 UNF		R840-1160-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.70	.4606			R840-1170-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.80	.4646			R840-1180-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
11.90	.4685			R840-1190-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
12.00	.4724			R840-1200-70-A1A	☆	☆	☆	☆	☆	☆	12.00	151	5.945	84	3.307	101.0
12.10	.4764	M14 72%		R840-1210-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.20	.4803	M14 65%		R840-1220-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.30	.4843			R840-1230-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.40	.4882			R840-1240-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.50	.4921			R840-1250-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.60	.4961			R840-1260-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.70	.5000			R840-1270-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
12.80	.5039			R840-1280-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.00	.5118			R840-1300-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.10	.5157			R840-1310-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.25	.5217			R840-1325-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.30	.5315	5/8-11 UNC		R840-1330-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.75	.5413			R840-1375-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.80	.5433			R840-1380-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
13.89	.5469			R840-1389-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
14.00	.5512			R840-1400-70-A1A	☆	☆	☆	☆	☆	☆	14.00	160	6.299	89	3.504	107.0
16.00	.6299			R840-1600-70-A1A	☆	☆	☆	☆	☆	☆	16.00	178	7.008	105	4.134	128.0
16.30	.6417			R840-1630-70-A1A	☆	☆	☆	☆	☆	☆	18.00	187	7.362	114	4.488	137.0

E 18

CoroDrill® Delta-C 2 – 3 × D_c

R840

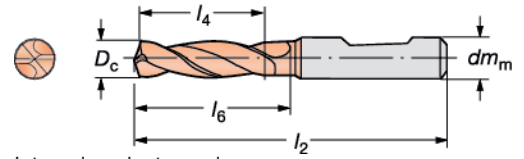
Whistle Notch shank



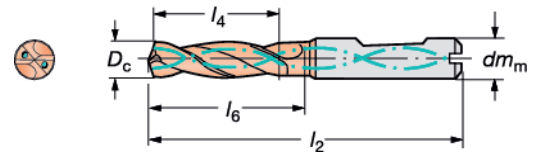
Drill diameter: 3.00-20.00 mm (.118-.787 inch)
 Max hole depth: 2 - 3 × D_c
 Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: dm_m= h6
 D_c= m7

External coolant supply



Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Ordering code	External coolant supply						Internal coolant supply						Dimensions, millimeter, inch (mm, in.)						
			P	M	K	N	S	H	P	M	K	N	S	H	dm _m	l ₂	l ₆	l ₄	l ₄	l ₆	
			GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	mm	mm	in.	mm	in.	mm	
3.00	.1181	R840-0300-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	13	.512	20
3.10	.1220	R840-0310-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	13	.512	20
3.20	.1260	R840-0320-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	13	.512	20
3.30	.1299	R840-0330-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	13	.512	20
3.40	.1339	R840-0340-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	13	.512	20
3.50	.1378	R840-0350-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	14	.551	20
3.60	.1417	R840-0360-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	14	.551	20
3.70	.1457	R840-0370-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	14	.551	20
3.80	.1496	R840-0380-30-W0A	☆	☆	☆	☆	☆	☆								6.00	62	2.441	14	.551	20
4.00	.1575	R840-0400-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.10	.1614	R840-0410-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.20	.1654	R840-0420-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.30	.1693	R840-0430-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.40	.1732	R840-0440-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.50	.1772	R840-0450-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.70	.1850	R840-0470-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	17	.669	24
4.80	.1890	R840-0480-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	18	.709	28
5.00	.1969	R840-0500-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	18	.709	28
5.10	.2008	R840-0510-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	18	.709	28
5.20	.2047	R840-0520-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	18	.709	28
5.30	.2087	R840-0530-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	18	.709	28
5.40	.2126	R840-0540-30-W0A	☆	☆	☆	☆	☆	☆								6.00	66	2.598	18	.709	28
5.50	.2165	R840-0550-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
5.60	.2205									☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
5.70	.2244									☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
5.80	.2283	R840-0580-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
5.90	.2323									☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
6.00	.2362	R840-0600-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		6.00	66	2.598	19	.748	28
6.10	.2402									☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.20	.2441	R840-0620-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.30	.2480	R840-0630-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.40	.2520	R840-0640-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.50	.2559	R840-0650-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.60	.2598	R840-0660-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.70	.2638									☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.80	.2677	R840-0680-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
6.90	.2717	R840-0690-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
7.00	.2756	R840-0700-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	22	.866	34
7.10	.2795	R840-0710-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	28	1.102	41
7.20	.2835	R840-0720-30-W0A	☆	☆	☆	☆	☆	☆		☆	☆	☆	☆	☆		8.00	79	3.110	28	1.102	41



E95



E128



E4



G6



E2

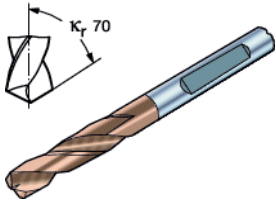


J3

D
Milling
E
Drilling
F
Boring
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Tooling Systems
J

DRILLING CoroDrill® Delta-C high precision carbide drill

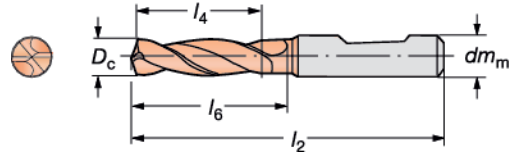
CoroDrill® Delta-C 2 – 3 × D_c
R840
Whistle Notch shank



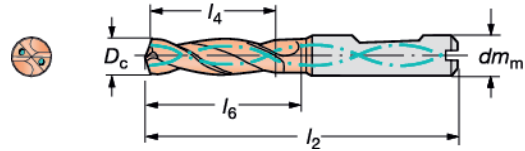
Drill diameter: 3.00-20.00 mm (.118-.787 inch)
Max hole depth: 2 - 3 × D_c
Coating: TiN/TiAlN multilayer
Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
Tolerances: $dm_m = h6$
 $D_c = m7$

External coolant supply

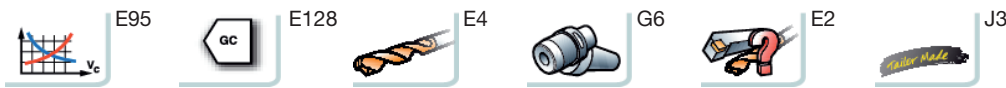


Internal coolant supply



l_4 = recommended drilling depth

D _c mm	D _c inch	Ordering code	External coolant supply						Internal coolant supply						Dimensions, millimeter, inch (mm, in.)						
			P	M	K	N	S	H	P	M	K	N	S	H	dm _m	l ₂	l ₄	l ₄	l ₆		
			GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	mm	mm	in.	mm	in.	mm	
7.30	.2874	R840-0730-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
7.40	.2913	R840-0740-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
7.50	.2953	R840-0750-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
7.60	.2992															8.00	79	3.110	28	1.102	41
7.70	.3031															8.00	79	3.110	28	1.102	41
7.80	.3071	R840-0780-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
7.90	.3110	R840-0790-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
8.00	.3150	R840-0800-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41
8.10	.3189	R840-0810-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.20	.3228	R840-0820-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.30	.3268															10.00	89	3.504	30	1.181	47
8.40	.3307															10.00	89	3.504	30	1.181	47
8.50	.3346	R840-0850-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.60	.3386	R840-0860-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.70	.3425	R840-0870-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.80	.3465	R840-0880-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
8.90	.3504	R840-0890-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47
9.00	.3543	R840-0900-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.20	.3622	R840-0920-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.30	.3661	R840-0930-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.40	.3701	R840-0940-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.50	.3740	R840-0950-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
9.60	.3780															10.00	89	3.504	31	1.220	47
9.70	.3819															10.00	89	3.504	31	1.220	47
9.80	.3858															10.00	89	3.504	31	1.220	47
9.90	.3898															10.00	89	3.504	31	1.220	47
10.00	.3937	R840-1000-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47
10.10	.3976	R840-1010-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.20	.4016	R840-1020-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.30	.4055	R840-1030-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.40	.4094	R840-1040-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.50	.4134	R840-1050-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.60	.4173	R840-1060-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.70	.4213	R840-1070-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
10.80	.4252	R840-1080-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55
11.00	.4331	R840-1100-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.10	.4370															12.00	102	4.016	35	1.378	55
11.20	.4409	R840-1120-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.50	.4528	R840-1150-30-W0A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55
11.60	.4567	R840-1160-30-W1A	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55



E 20

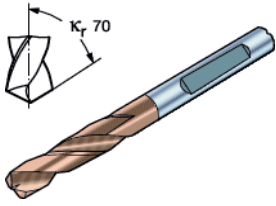


General Information

D
Milling
E
Drilling
F
Boring
G
Tooling Systems
J

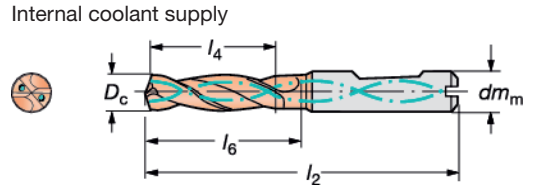
DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 4 – 5 × D_c
R840
Whistle Notch shank



Drill diameter: 5.00-20.00 mm (.197-.787 inch)
Max hole depth: 4 - 5 × D_c
Coating: TiN/TiAlN multilayer
Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

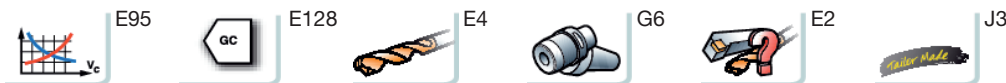
Internal coolant supply



Drill standard: DIN 6537
Tolerances: dm_m = h6
D_c = m7

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	Material					Dimensions, millimeter, inch (mm, in.)						
					P	M	K	N	S	H	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
					GC	GC	GC	GC	GC	GC	1220	1220	1220	1220	1220	1220
5.00	.1969			R840-0500-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.10	.2008			R840-0510-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.20	.2047			R840-0520-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.30	.2087			R840-0530-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.50	.2165			R840-0550-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.60	.2205			R840-0560-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.70	.2244			R840-0570-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.80	.2283			R840-0580-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
5.90	.2323			R840-0590-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
6.00	.2362			R840-0600-50-W1A	☆	☆	☆	☆	☆	☆	6.00	82	3.228	35	1.378	44
6.10	.2402			R840-0610-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.20	.2441			R840-0620-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.30	.2480			R840-0630-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.40	.2520			R840-0640-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.50	.2559			R840-0650-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.60	.2598			R840-0660-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.70	.2638			R840-0670-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.80	.2677			R840-0680-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
6.90	.2717			R840-0690-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
7.00	.2756			R840-0700-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	39	1.535	53
7.10	.2795			R840-0710-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.20	.2835			R840-0720-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.30	.2874			R840-0730-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.40	.2913			R840-0740-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.50	.2953			R840-0750-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.60	.2992			R840-0760-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.70	.3031			R840-0770-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.80	.3071			R840-0780-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
7.90	.3110			R840-0790-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
8.00	.3150			R840-0800-50-W1A	☆	☆	☆	☆	☆	☆	8.00	91	3.583	40	1.575	53
8.10	.3189			R840-0810-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.20	.3228			R840-0820-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.30	.3268			R840-0830-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.40	.3307			R840-0840-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.50	.3346			R840-0850-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.60	.3386			R840-0860-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.70	.3425			R840-0870-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.80	.3465			R840-0880-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
8.90	.3504			R840-0890-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	44	1.732	61
9.00	.3543			R840-0900-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.10	.3583			R840-0910-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.20	.3622			R840-0920-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.30	.3661			R840-0930-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.40	.3701			R840-0940-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.50	.3740			R840-0950-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.60	.3780			R840-0960-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.70	.3819			R840-0970-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
9.80	.3858			R840-0980-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61
10.00	.3937			R840-1000-50-W1A	☆	☆	☆	☆	☆	☆	10.00	103	4.055	45	1.772	61



E 22

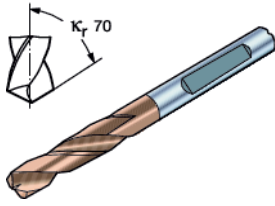


General Information

CoroDrill® Delta-C 4 – 5 × D_c

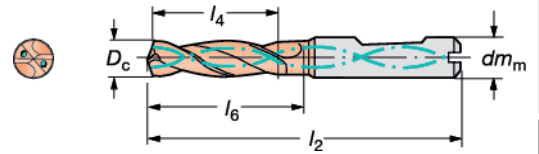
R840

Whistle Notch shank



Drill diameter: 5.00-20.00 mm (.197-.787 inch)
 Max hole depth: 4 - 5 × D_c
 Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

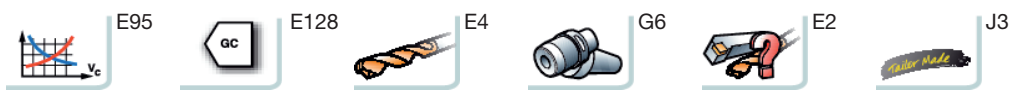
Internal coolant supply



Drill standard: DIN 6537
 Tolerances: dm_m = h6
 D_c = m7

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	Material						Dimensions, millimeter, inch (mm, in.)					
					P	M	K	N	S	H	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
					GC	GC	GC	GC	GC	GC						
10.10	.3976	M12 70%		R840-1010-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71
10.20	.4016		R840-1020-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.30	.4055		R840-1030-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.40	.4094		R840-1040-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.50	.4134		R840-1050-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.60	.4173		R840-1060-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.70	.4213		R840-1070-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.80	.4252		R840-1080-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
10.90	.4291		R840-1090-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	50	1.968	71	
11.00	.4331		R840-1100-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71	
11.10	.4370		R840-1110-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71	
11.20	.4409		R840-1120-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71	
11.30	.4449		R840-1130-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71	
11.50	.4528		R840-1150-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71	
11.80	.4646	R840-1180-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71		
11.90	.4685	R840-1190-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71		
12.00	.4724	R840-1200-50-W1A	☆	☆	☆	☆	☆	☆	12.00	118	4.646	51	2.008	71		
12.10	.4764	R840-1210-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	55	2.165	77		
12.20	.4803	M14 65%		R840-1220-50-W1A	☆	☆	☆	☆	☆	14.00	124	4.882	55	2.165	77	
12.30	.4843		R840-1230-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	55	2.165	77	
12.50	.4921		R840-1250-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	55	2.165	77	
12.70	.5000		R840-1270-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	55	2.165	77	
13.00	.5118		R840-1300-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
13.25	.5217		R840-1325-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
13.50	.5315		R840-1350-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
13.75	.5413		R840-1375-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
13.80	.5433		R840-1380-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
14.00	.5512		R840-1400-50-W1A	☆	☆	☆	☆	☆	☆	14.00	124	4.882	56	2.205	77	
14.25	.5610		R840-1425-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.50	.5709		R840-1450-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.75	.5807		R840-1475-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
14.80	.5827		R840-1480-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	59	2.323	83	
15.00	.5906	R840-1500-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83		
15.50	.6102	R840-1550-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83		
15.80	.6220	R840-1580-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83		
16.00	.6299	R840-1600-50-W1A	☆	☆	☆	☆	☆	☆	16.00	133	5.236	60	2.362	83		
16.50	.6496	R840-1650-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93		
16.80	.6614	R840-1680-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	66	2.598	93		
17.00	.6693	R840-1700-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93		
17.50	.6890	R840-1750-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93		
17.80	.7008	R840-1780-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93		
18.00	.7087	R840-1800-50-W1A	☆	☆	☆	☆	☆	☆	18.00	143	5.630	67	2.638	93		
18.50	.7283	R840-1850-50-W1A	☆	☆	☆	☆	☆	☆	20.00	153	6.024	71	2.795	101		
19.00	.7480	R840-1900-50-W1A	☆	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101		
19.50	.7677	R840-1950-50-W1A	☆	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101		
19.80	.7795	R840-1980-50-W1A	☆	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101		
20.00	.7874	R840-2000-50-W1A	☆	☆	☆	☆	☆	☆	20.00	153	6.024	72	2.835	101		



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DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 2 – 3 × D_c Chamfer drill for tap-size holes

R841
Cylindrical shank

Drill diameter: 3.35-17.50 mm (.132-.689 inch)
 Max hole depth: 2 - 3 × D_c
 Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: dm_m = h6
 D_c = m8

1) Rolled
2) Thread milling

l₄ = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	P M K N S H						Dimensions, millimeter, inch (mm, in.)						
					GC	GC	GC	GC	GC	GC	dm _m	D ₂₁ max	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
					1220	1220	1220	1220	1220	1220							
3.35	.1319	M4 75%		R841-0335-30-A1A	☆	☆	☆	☆	☆	☆	6.00	4.5	62	2.441	10.7	.421	19.0
3.40	.1339	M4 65%		R841-0340-30-A1A	☆	☆	☆	☆	☆	☆	6.00	4.6	62	2.441	10.8	.425	19.0
3.70	.1457	M4x0,7 rolled		R841-0370-30-A1A	☆	☆	☆	☆	☆	☆	6.00	5.0	62	2.441	11.8	.465	19.0
4.25	.1673	M5 75%		R841-0425-30-A1A	☆	☆	☆	☆	☆	☆	6.00	5.7	66	2.598	13.5	.532	23.0
4.30	.1693	M5 75%		R841-0430-30-A1A	☆	☆	☆	☆	☆	☆	6.00	5.8	66	2.598	13.7	.539	23.0
4.65	.1831	M5x0,8 rolled		R841-0465-30-A1A	☆	☆	☆	☆	☆	☆	6.00	5.9	66	2.598	14.6	.575	23.0
5.00	.1969	M6 75%		R841-0500-30-A1A	☆	☆	☆	☆	☆	☆	8.00	6.8	79	3.110	15.9	.626	28.0
5.10	.2008	M6 & 1/4-20 UNC		R841-0510-30-A1A	☆	☆	☆	☆	☆	☆	8.00	6.9	79	3.110	16.2	.638	28.0
5.30	.2087	MF6x0,75		R841-0530-30-A1A	☆	☆	☆	☆	☆	☆	8.00	7.2	79	3.110	16.9	.665	28.0
5.50	.2165	MF6x0,50 thread mill		R841-0550-30-A1A	☆	☆	☆	☆	☆	☆	8.00	7.4	79	3.110	17.5	.689	28.0
5.55	.2185	M6x1,0 thread mill		R841-0555-30-A1A	☆	☆	☆	☆	☆	☆	8.00	7.5	79	3.110	17.7	.697	28.0
6.60	.2598	5/16-18 UNC		R841-0660-30-A1A	☆	☆	☆	☆	☆	☆	10.00	8.9	89	3.504	21	.827	37.0
6.75	.2657	M8x1,25 thread mill		R841-0675-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.1	89	3.504	21.5	.846	37.0
6.85	.2697	M8 70%		R841-0685-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.2	89	3.504	21.8	.858	37.0
6.90	.2717	M8 65%		R841-0690-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.3	89	3.504	21.9	.862	37.0
7.00	.2756	MF8x1,0		R841-0700-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.5	89	3.504	22.3	.878	37.0
7.25	.2854	MF8x0,75 thread mill		R841-0725-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.8	89	3.504	23.1	.909	37.0
7.30	.2874	MF8x0,75		R841-0730-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.8	89	3.504	23.2	.913	37.0
7.40	.2913	M8x1,25 rolled		R841-0740-30-A1A	☆	☆	☆	☆	☆	☆	10.00	9.8	89	3.504	23.4	.921	37.0
8.00	.3150	3/8-16 UNC		R841-0800-30-A1A	☆	☆	☆	☆	☆	☆	12.00	10.8	102	4.016	25.4	1.000	42.0
8.50	.3346	M10 thread mill		R841-0850-30-A1A	☆	☆	☆	☆	☆	☆	12.00	11.5	102	4.016	27	1.063	42.0
8.60	.3386	M10 70%		R841-0860-30-A1A	☆	☆	☆	☆	☆	☆	12.00	11.6	102	4.016	27.3	1.075	42.0
8.70	.3425	M10 65%		R841-0870-30-A1A	☆	☆	☆	☆	☆	☆	12.00	11.7	102	4.016	27.6	1.087	42.0
9.00	.3543	MF10x1,0		R841-0900-30-A1A	☆	☆	☆	☆	☆	☆	12.00	11.8	102	4.016	28.4	1.118	42.0
9.25	.3642	M10x0,75		R841-0925-30-A1A	☆	☆	☆	☆	☆	☆	14.00	12.5	107	4.213	29.4	1.158	52.0
9.30	.3661	M10x1,5 rolled		R841-0930-30-A1A	☆	☆	☆	☆	☆	☆	14.00	12.6	107	4.213	29.6	1.165	52.0
10.25	.4035	M12x1,75 thread mill		R841-1025-30-A1A	☆	☆	☆	☆	☆	☆	14.00	13.8	107	4.213	32.6	1.284	52.0
10.30	.4055	M12 75%		R841-1030-30-A1A	☆	☆	☆	☆	☆	☆	14.00	13.8	107	4.213	32.7	1.287	52.0
10.40	.4094	M12 65%		R841-1040-30-A1A	☆	☆	☆	☆	☆	☆	14.00	13.8	107	4.213	32.9	1.295	52.0
10.50	.4134	MF12x1,5		R841-1050-30-A1A	☆	☆	☆	☆	☆	☆	14.00	13.8	107	4.213	33.2	1.307	52.0
10.80	.4252	MF12x1,25 & 1/2-13		R841-1080-30-A1A	☆	☆	☆	☆	☆	☆	16.00	14.6	115	4.528	34.3	1.350	59.0
11.00	.4331	MF12x1,0 thread mill		R841-1100-30-A1A	☆	☆	☆	☆	☆	☆	16.00	14.9	115	4.528	35	1.378	59.0
11.20	.4409	M12x1,75 rolled		R841-1120-30-A1A	☆	☆	☆	☆	☆	☆	16.00	15.1	115	4.528	35.6	1.402	59.0
11.50	.4528	1/2-20 UNF		R841-1150-30-A1A	☆	☆	☆	☆	☆	☆	16.00	15.5	115	4.528	36.5	1.437	59.0
12.00	.4724	M14x2,0 thread mill		R841-1200-30-A1A	☆	☆	☆	☆	☆	☆	16.00	15.8	115	4.528	37.9	1.492	59.0
12.10	.4764	M14 72%		R841-1210-30-A1A	☆	☆	☆	☆	☆	☆	18.00	16.3	123	4.842	38.4	1.512	67.0
12.25	.4823	M14 & 9/16-12 UNC		R841-1225-30-A1A	☆	☆	☆	☆	☆	☆	18.00	16.5	123	4.842	38.9	1.532	67.0
12.50	.4921	MF14x1,5		R841-1250-30-A1A	☆	☆	☆	☆	☆	☆	18.00	16.9	123	4.842	39.7	1.563	67.0
13.10	.5157	M14x2,0 rolled		R841-1310-30-A1A	☆	☆	☆	☆	☆	☆	18.00	17.7	123	4.842	41.6	1.638	67.0
13.50	.5315	5/8-11 UNC		R841-1350-30-A1A	☆	☆	☆	☆	☆	☆	18.00	17.8	123	4.842	42.7	1.681	67.0
14.00	.5512	M16x2,0 thread mill		R841-1400-30-A1A	☆	☆	☆	☆	☆	☆	20.00	18.9	131	5.158	44.5	1.752	78.0
14.10	.5551	M16 75%		R841-1410-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.0	131	5.158	44.8	1.764	78.0
14.25	.5610	M16 66%		R841-1425-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.2	131	5.158	45.3	1.784	78.0
14.50	.5709	MF16x1,5		R841-1450-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.6	131	5.158	46.1	1.815	78.0
15.00	.5906	MF16x1,0		R841-1500-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.8	131	5.158	47.4	1.866	78.0
15.10	.5945	M16x2,0 rolled		R841-1510-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.8	131	5.158	47.7	1.878	78.0
15.50	.6102	M18 75%		R841-1550-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.8	131	5.158	48.7	1.917	78.0
16.50	.6496	3/4-10 UNC		R841-1650-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.8	131	5.158	49.2	1.937	78.0
17.50	.6890	3/4-16 UNF		R841-1750-30-A1A	☆	☆	☆	☆	☆	☆	20.00	19.8	131	5.158	49.7	1.957	78.0

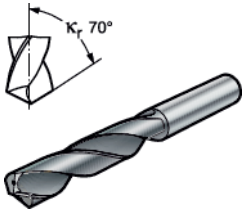
E 24

General Information

CoroDrill® Delta-C 2 – 3 × D_c

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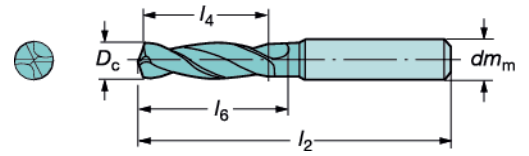
Cylindrical shank



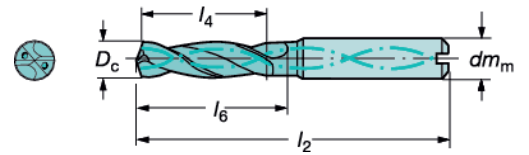
Drill diameter: 3.00 - 16.00 mm (.118-.630 inch)
 Max hole depth: 2 - 3 × D_c
 Coating: AlCrN (Alcrona)
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: d_m = h6
 D_c = m7

External coolant supply



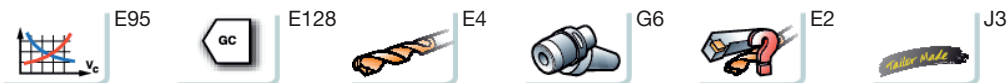
Internal coolant supply



l₄ = recommended drilling depth

P Without corner chamfer (Tailor Made)

D _c mm	D _c inch	Thread size	External coolant supply		Internal coolant supply		Dimensions, millimeter, inch (mm, in.)					
			Ordering code	K	Ordering code	K	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
3.00	.1181		R842-0300-30-A0A	☆			6.00	62	2.441	13	.512	20
3.20	.1260		R842-0320-30-A0A	☆			6.00	62	2.441	13	.512	20
3.30	.1299		R842-0330-30-A0A	☆			6.00	62	2.441	13	.512	20
3.38	.1331	M4 65%	R842-0338-30-A0A	☆			6.00	62	2.441	13	.512	20
3.50	.1378		R842-0350-30-A0A	☆			6.00	62	2.441	14	.551	20
4.00	.1575		R842-0400-30-A0A	☆			6.00	66	2.598	17	.669	24
4.10	.1614	10-32 UNF	R842-0410-30-A0A	☆			6.00	66	2.598	17	.669	24
4.20	.1654		R842-0420-30-A0A	☆			6.00	66	2.598	17	.669	24
4.30	.1693	M5 65%	R842-0430-30-A0A	☆			6.00	66	2.598	17	.669	24
4.50	.1772		R842-0450-30-A0A	☆			6.00	66	2.598	17	.669	24
4.80	.1890	12-28 UNF	R842-0480-30-A0A	☆			6.00	66	2.598	18	.709	28
5.00	.1969	M6 75%	R842-0500-30-A0A	☆			6.00	66	2.598	18	.709	28
5.10	.2008	M6 65%	R842-0510-30-A0A	☆			6.00	66	2.598	18	.709	28
5.20	.2047		R842-0520-30-A0A	☆			6.00	66	2.598	18	.709	28
5.30	.2087		R842-0530-30-A0A	☆			6.00	66	2.598	18	.709	28
5.50	.2165		R842-0550-30-A0A	☆			6.00	66	2.598	19	.748	28
5.56	.2189		R842-0556-30-A0A	☆			6.00	66	2.598	19	.748	28
6.00	.2362		R842-0600-30-A0A	☆			6.00	66	2.598	19	.748	28
6.30	.2480				R842-0630-30-A1A	☆	8.00	79	3.110	22	.866	34
6.50	.2559				R842-0650-30-A1A	☆	8.00	79	3.110	22	.866	34
6.70	.2638	5/16-18 UNF			R842-0670-30-A1A	☆	8.00	79	3.110	22	.866	34
6.80	.2677				R842-0680-30-A1A	☆	8.00	79	3.110	22	.866	34
6.90	.2717	M8 65%			R842-0690-30-A1A	☆	8.00	79	3.110	22	.866	34
7.00	.2756	5/16-24 UNF			R842-0700-30-A1A	☆	8.00	79	3.110	22	.866	34
7.50	.2953				R842-0750-30-A1A	☆	8.00	79	3.110	28	1.102	41
7.94	.3126				R842-0794-30-A1A	☆	8.00	79	3.110	28	1.102	41
8.00	.3150	3/8-16 UNC			R842-0800-30-A1A	☆	8.00	79	3.110	28	1.102	41
8.20	.3228				R842-0820-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.30	.3268				R842-0830-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.40	.3307				R842-0840-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.50	.3346	3/8-24 UNF			R842-0850-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.60	.3386	M10 70%			R842-0860-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.70	.3425	M10 65%			R842-0870-30-A1A	☆	10.00	89	3.504	30	1.181	47
8.90	.3504	MF10x1.25			R842-0890-30-A1A	☆	10.00	89	3.504	30	1.181	47



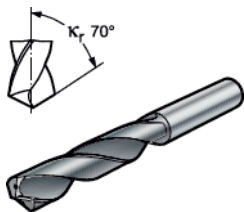
Milling
E
Drilling
F
Boring
G
Tooling Systems
J
General Information

CoroDrill® Delta-C 2 – 3 × D_c

R842

Cylindrical shank

Milling

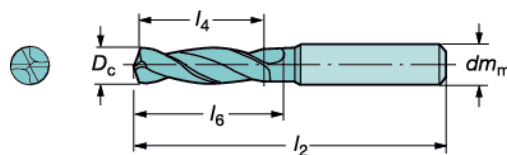


Drill diameter: 3.00 - 16.00 mm (.118-.630 inch)
 Max hole depth: 2 - 3 × D_c

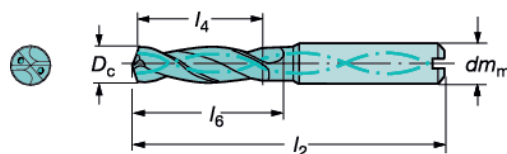
Coating: AlCrN (Alcrona)
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: d_m = h6
 D_c = m7

External coolant supply



Internal coolant supply



l₄ = recommended drilling depth

E

P Without corner chamfer (Tailor Made)

Drilling

F

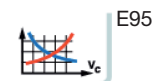
Boring

G

Tooling Systems

J

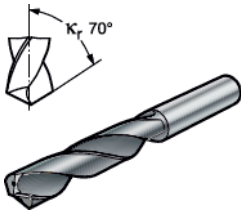
D _c mm	D _c inch	Thread size	Ordering code	External coolant supply		Internal coolant supply		Dimensions, millimeter, inch (mm, in.)					
				K	GC	K	GC	d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
9.00	.3543					☆		10.00	89	3.504	31	1.220	47
9.50	.3740	7/16-14 UNC				☆		10.00	89	3.504	31	1.220	47
9.80	.3858					☆		10.00	89	3.504	31	1.220	47
10.00	.3937	7/16-20 UNF				☆		10.00	89	3.504	31	1.220	47
10.10	.3976					☆		12.00	102	4.016	34	1.339	55
10.20	.4016					☆		12.00	102	4.016	34	1.339	55
10.30	.4055	M12 75%				☆		12.00	102	4.016	34	1.339	55
10.40	.4094	M12 70%				☆		12.00	102	4.016	34	1.339	55
10.50	.4134	MF12x1.5				☆		12.00	102	4.016	34	1.339	55
10.70	.4213					☆		12.00	102	4.016	34	1.339	55
10.80	.4252	1/2-13 UNC				☆		12.00	102	4.016	34	1.339	55
11.00	.4331					☆		12.00	102	4.016	35	1.378	55
11.50	.4528	1/2-20 UNF				☆		12.00	102	4.016	35	1.378	55
12.00	.4724					☆		12.00	102	4.016	35	1.378	55
12.10	.4764	M14 72%				☆		14.00	107	4.213	38	1.496	60
12.20	.4803	9/16-12 UNC				☆		14.00	107	4.213	38	1.496	60
12.30	.4843					☆		14.00	107	4.213	38	1.496	60
12.50	.4921					☆		14.00	107	4.213	38	1.496	60
12.70	.5000					☆		14.00	107	4.213	38	1.496	60
13.00	.5118					☆		14.00	107	4.213	39	1.535	60
13.10	.5157					☆		14.00	107	4.213	39	1.535	60
13.50	.5315	5/8-11 UNC				☆		14.00	107	4.213	39	1.535	60
14.00	.5512					☆		14.00	107	4.213	39	1.535	60
14.10	.5551	M16				☆		16.00	115	4.528	41	1.614	65
14.50	.5709	5/8-18 UNF				☆		16.00	115	4.528	41	1.614	65
15.00	.5906					☆		16.00	115	4.528	42	1.654	65
15.50	.6102	M18 75%				☆		16.00	115	4.528	42	1.654	65
15.87	.6248					☆		16.00	115	4.528	42	1.654	65
16.00	.6299					☆		16.00	115	4.528	42	1.654	65



CoroDrill® Delta-C 4 – 5 × D_c

R842

Cylindrical shank

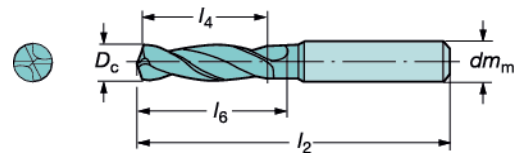


Drill diameter: 3.00 - 16.00 mm (.118-.630 inch)
 Max hole depth: 4 - 5 × D_c

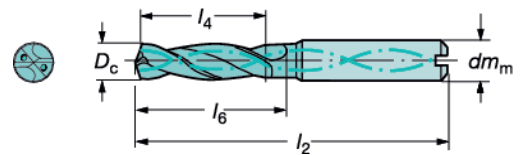
Coating: AlCrN (Alcrona)
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: d_m = h6
 D_c = m7

External coolant supply



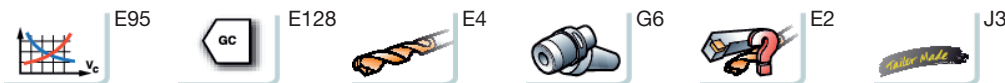
Internal coolant supply



l₄ = recommended drilling depth

P Without corner chamfer (Tailor Made)

D _c mm	D _c inch	Thread size	External coolant supply		Internal coolant supply		Dimensions, millimeter, inch (mm, in.)					
			Ordering code	K	Ordering code	K	d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
3.00	.1181		R842-0300-50-A0A	☆			6.00	66	2.598	20	.787	28
3.20	.1260		R842-0320-50-A0A	☆			6.00	66	2.598	20	.787	28
3.30	.1299		R842-0330-50-A0A	☆			6.00	66	2.598	20	.787	28
3.38	.1331	M4 65%	R842-0338-50-A0A	☆			6.00	66	2.598	20	.787	28
3.50	.1378		R842-0350-50-A0A	☆			6.00	66	2.598	20	.787	28
4.00	.1575		R842-0400-50-A0A	☆			6.00	74	2.913	27	1.063	36
4.10	.1614	10-32 UNF	R842-0410-50-A0A	☆			6.00	74	2.913	27	1.063	36
4.20	.1654		R842-0420-50-A0A	☆			6.00	74	2.913	27	1.063	36
4.30	.1693	M5 65%	R842-0430-50-A0A	☆			6.00	74	2.913	27	1.063	36
4.50	.1772		R842-0450-50-A0A	☆			6.00	74	2.913	27	1.063	36
4.80	.1890	12-28 UNF	R842-0480-50-A0A	☆			6.00	74	2.913	27	1.063	36
5.00	.1969	M6 75%	R842-0500-50-A0A	☆			6.00	82	3.228	35	1.378	44
5.10	.2008	M6 65%	R842-0510-50-A0A	☆			6.00	82	3.228	35	1.378	44
5.20	.2047		R842-0520-50-A0A	☆			6.00	82	3.228	35	1.378	44
5.30	.2087		R842-0530-50-A0A	☆			6.00	82	3.228	35	1.378	44
5.50	.2165		R842-0550-50-A0A	☆			6.00	82	3.228	35	1.378	44
5.56	.2189		R842-0556-50-A0A	☆			6.00	82	3.228	35	1.378	44
6.00	.2362		R842-0600-50-A0A	☆			6.00	82	3.228	35	1.378	44
6.10	.2402				R842-0610-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.20	.2441				R842-0620-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.30	.2480				R842-0630-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.35	.2500				R842-0635-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.50	.2559				R842-0650-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.60	.2598				R842-0660-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.70	.2638	5/16-18 UNF			R842-0670-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.80	.2677				R842-0680-50-A1A	☆	8.00	91	3.583	39	1.535	53
6.90	.2717	M8 65%			R842-0690-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.00	.2756	5/16-24 UNC			R842-0700-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.10	.2795	MF8x1			R842-0710-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.14	.2811				R842-0714-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.40	.2913				R842-0740-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.50	.2953				R842-0750-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.80	.3071				R842-0780-50-A1A	☆	8.00	91	3.583	40	1.575	53
7.94	.3126				R842-0794-50-A1A	☆	8.00	91	3.583	44	1.732	53
8.00	.3150	3/8-16 UNC			R842-0800-50-A1A	☆	8.00	91	3.583	44	1.732	53
8.10	.3189				R842-0810-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.20	.3228				R842-0820-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.30	.3268				R842-0830-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.40	.3307				R842-0840-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.50	.3346	3/8-24 UNF			R842-0850-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.60	.3386	M10 70%			R842-0860-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.70	.3425	M10 65%			R842-0870-50-A1A	☆	10.00	103	4.055	44	1.732	61
8.80	.3465				R842-0880-50-A1A	☆	10.00	103	4.055	45	1.772	61
8.90	.3504	MF10x1,25			R842-0890-50-A1A	☆	10.00	103	4.055	45	1.772	61



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DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 4 – 5 × D_c
R842
Cylindrical shank

Drill diameter: 3.00 - 16.00 mm (.118-.630 inch)
Max hole depth: 4 - 5 × D_c

Coating: AlCrN (Alcrona)
Hole tolerance: IT8-9
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
Tolerances: dm_m = h6
D_c = m7

External coolant supply

Internal coolant supply

l₄ = recommended drilling depth

P Without corner chamfer (Tailor Made)

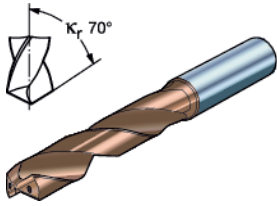
D _c mm	D _c inch	Thread size	Ordering code	External coolant supply		Internal coolant supply		Dimensions, millimeter, inch (mm, in.)					
				K	GC	K	GC	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
9.00	.3543					R842-0900-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.10	.3583					R842-0910-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.30	.3661					R842-0930-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.40	.3701	7/16-14 UNC				R842-0940-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.50	.3740					R842-0950-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.52	.3748					R842-0952-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.60	.3780					R842-0960-50-A1A	☆	10.00	103	4.055	45	1.772	61
9.80	.3858					R842-0980-50-A1A	☆	10.00	103	4.055	45	1.772	61
10.00	.3937	7/16-20 UNF				R842-1000-50-A1A	☆	10.00	103	4.055	45	1.772	61
10.10	.3976					R842-1010-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.20	.4016					R842-1020-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.30	.4055	M 12 75%				R842-1030-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.40	.4094	M10 70%				R842-1040-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.50	.4134	MF 12x1,5				R842-1050-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.60	.4173					R842-1060-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.70	.4213					R842-1070-50-A1A	☆	12.00	118	4.646	50	1.968	71
10.80	.4252	1/2-13 UNC				R842-1080-50-A1A	☆	12.00	118	4.646	50	1.968	71
11.00	.4331					R842-1100-50-A1A	☆	12.00	118	4.646	51	2.008	71
11.10	.4370					R842-1110-50-A1A	☆	12.00	118	4.646	51	2.008	71
11.20	.4409					R842-1120-50-A1A	☆	12.00	118	4.646	51	2.008	71
11.50	.4528	1/2-20 UNF				R842-1150-50-A1A	☆	12.00	118	4.646	51	2.008	71
11.70	.4606					R842-1170-50-A1A	☆	12.00	118	4.646	51	2.008	71
11.80	.4646					R842-1180-50-A1A	☆	12.00	118	4.646	51	2.008	71
12.00	.4724					R842-1200-50-A1A	☆	12.00	118	4.646	51	2.008	71
12.10	.4764	M14 72%				R842-1210-50-A1A	☆	14.00	124	4.882	55	2.165	77
12.20	.4803	9/16-12 UNC				R842-1220-50-A1A	☆	14.00	124	4.882	55	2.165	77
12.30	.4843					R842-1230-50-A1A	☆	14.00	124	4.882	55	2.165	77
12.50	.4921					R842-1250-50-A1A	☆	14.00	124	4.882	55	2.165	77
12.70	.5000					R842-1270-50-A1A	☆	14.00	124	4.882	55	2.165	77
13.00	.5118					R842-1300-50-A1A	☆	14.00	124	4.882	56	2.205	77
13.10	.5157					R842-1310-50-A1A	☆	14.00	124	4.882	56	2.205	77
13.25	.5217					R842-1325-50-A1A	☆	14.00	124	4.882	56	2.205	77
13.50	.5315	5/8-11 UNC				R842-1350-50-A1A	☆	14.00	124	4.882	56	2.205	77
14.00	.5512					R842-1400-50-A1A	☆	14.00	124	4.882	56	2.205	77
14.10	.5551	M16 75%				R842-1410-50-A1A	☆	16.00	133	5.236	59	2.323	83
14.25	.5610	M16 66%				R842-1425-50-A1A	☆	16.00	133	5.236	59	2.323	83
14.29	.5626					R842-1429-50-A1A	☆	16.00	133	5.236	59	2.323	83
14.50	.5709	5/8-18 UNF				R842-1450-50-A1A	☆	16.00	133	5.236	59	2.323	83
15.00	.5906					R842-1500-50-A1A	☆	16.00	133	5.236	60	2.362	83
15.50	.6102	M18 76%				R842-1550-50-A1A	☆	16.00	133	5.236	60	2.362	83
15.87	.6248					R842-1587-50-A1A	☆	16.00	133	5.236	60	2.362	83
16.00	.6299					R842-1600-50-A1A	☆	16.00	133	5.236	60	2.362	83

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CoroDrill® Delta-C 2 – 3 × D_c

R846

Cylindrical shank

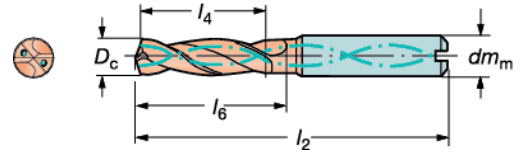


Drill diameter: 3.00-12.00 mm (.118-.472 inch)
 Max hole depth: 2 - 3 × D_c

Coating: TiN/TiAlN multilayer
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances: dm_m = h6
 D_c = m7

Internal coolant supply



l₄ = recommended drilling depth

D _c mm	D _c inch	Internal coolant supply	P	M	K	N	S	H	Dimensions, millimeter, inch (mm, in.)										
									GC	GC	GC	GC	GC	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
									1220	1220	1220	1220	1220						
3.00	.1181	R846-0300-30-A1A	☆	☆	☆	☆	☆	☆	6.00	62	2.441	13	.512	20					
4.00	.1575	R846-0400-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24					
4.30	.1693	R846-0430-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24					
4.50	.1772	R846-0450-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	17	.669	24					
4.80	.1890	R846-0480-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28					
5.00	.1969	R846-0500-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28					
5.10	.2008	R846-0510-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	18	.709	28					
5.50	.2165	R846-0550-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28					
5.55	.2185	R846-0555-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28					
5.60	.2205	R846-0560-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28					
5.80	.2283	R846-0580-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28					
6.00	.2362	R846-0600-30-A1A	☆	☆	☆	☆	☆	☆	6.00	66	2.598	19	.748	28					
6.50	.2559	R846-0650-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34					
6.60	.2598	R846-0660-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34					
6.70	.2638	R846-0670-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34					
6.90	.2717	R846-0690-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34					
7.00	.2756	R846-0700-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	22	.866	34					
7.10	.2795	R846-0710-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41					
7.30	.2874	R846-0730-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41					
7.40	.2913	R846-0740-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41					
7.50	.2953	R846-0750-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41					
8.00	.3150	R846-0800-30-A1A	☆	☆	☆	☆	☆	☆	8.00	79	3.110	28	1.102	41					
8.10	.3189	R846-0810-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47					
8.20	.3228	R846-0820-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47					
8.50	.3346	R846-0850-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47					
8.60	.3386	R846-0860-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47					
8.70	.3425	R846-0870-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	30	1.181	47					
9.00	.3543	R846-0900-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47					
9.50	.3740	R846-0950-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47					
9.60	.3780	R846-0960-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47					
10.00	.3937	R846-1000-30-A1A	☆	☆	☆	☆	☆	☆	10.00	89	3.504	31	1.220	47					
10.20	.4016	R846-1020-30-A1A	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55					
10.50	.4134	R846-1050-30-A1A	☆	☆	☆	☆	☆	☆	12.00	102	4.016	34	1.339	55					
11.00	.4331	R846-1100-30-A1A	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55					
12.00	.4724	R846-1200-30-A1A	☆	☆	☆	☆	☆	☆	12.00	102	4.016	35	1.378	55					



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DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 4 – 5 × D_c

R846

Cylindrical shank

Drill diameter: 3.00-12.00 mm (.118-.472 inch)
Max hole depth: 4 - 5 × D_c

Coating: TiN/TiAlN multilayer
Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
Tolerances: d_m = h6
D_c = m7

Internal coolant supply

l₄ = recommended drilling depth

D _c mm	D _c inch	Internal coolant supply	P	M	K	N	S	H	Dimensions, millimeter, inch (mm, in.)											
									GC	GC	GC	GC	GC	d _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm	
3.00	.1181	R846-0300-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	66	2.598	20	.787	28
4.00	.1575	R846-0400-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	74	2.913	27	1.063	36
4.30	.1693	R846-0430-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	74	2.913	27	1.063	36
4.50	.1772	R846-0450-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	74	2.913	27	1.063	36
4.80	.1890	R846-0480-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	74	2.913	27	1.063	36
5.00	.1969	R846-0500-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	82	3.228	35	1.378	44
5.80	.2283	R846-0580-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	82	3.228	35	1.378	44
6.00	.2362	R846-0600-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	6.00	82	3.228	35	1.378	44
6.80	.2677	R846-0680-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	8.00	91	3.583	39	1.535	53
7.00	.2756	R846-0700-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	8.00	91	3.583	40	1.575	53
8.00	.3150	R846-0800-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	8.00	91	3.583	40	1.575	53
8.50	.3346	R846-0850-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	44	1.732	61
9.00	.3543	R846-0900-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	45	1.772	61
9.30	.3661	R846-0930-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	45	1.772	61
9.60	.3780	R846-0960-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	45	1.772	61
9.80	.3858	R846-0980-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	45	1.772	61
10.00	.3937	R846-1000-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	10.00	103	4.055	45	1.772	61
10.20	.4016	R846-1020-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	12.00	118	4.646	50	1.968	71
11.00	.4331	R846-1100-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	12.00	118	4.646	51	2.008	71
12.00	.4724	R846-1200-50-A1A	☆	☆	☆	☆	☆	☆	GC	GC	GC	GC	GC	GC	12.00	118	4.646	51	2.008	71

Diameter recommendations when using CoroDrill Delta-C drills

Many tables containing recommended tapping drill sizes are not valid for modern drills such as CoroDrill Delta-C. These drills normally produce a slightly smaller but more accurate hole than conventional HSS drills. If these tables are used, therefore, tap breakages may occur.

Recommended drill type	Thread	Drill dia.	Pitch mm
CoroDrill® Delta-C	M4	3.35 - 3.4	0.7
	M5	4.25 - 4.3	0.8
	M6	5.0 - 5.1	1
	M7	6.85 - 6.9	1
	M8	7.5 - 7.6	1.25
	M10	8.6 - 8.7	1.5
	M12	10.3 - 10.4	1.75
	M14	12.1 - 12.2	2
	M16	14.1 - 14.2	2
	M18	15.5	
	M20	17.5	

The drill diameters are chosen for a depth of thread engagement of 75 - 66%.

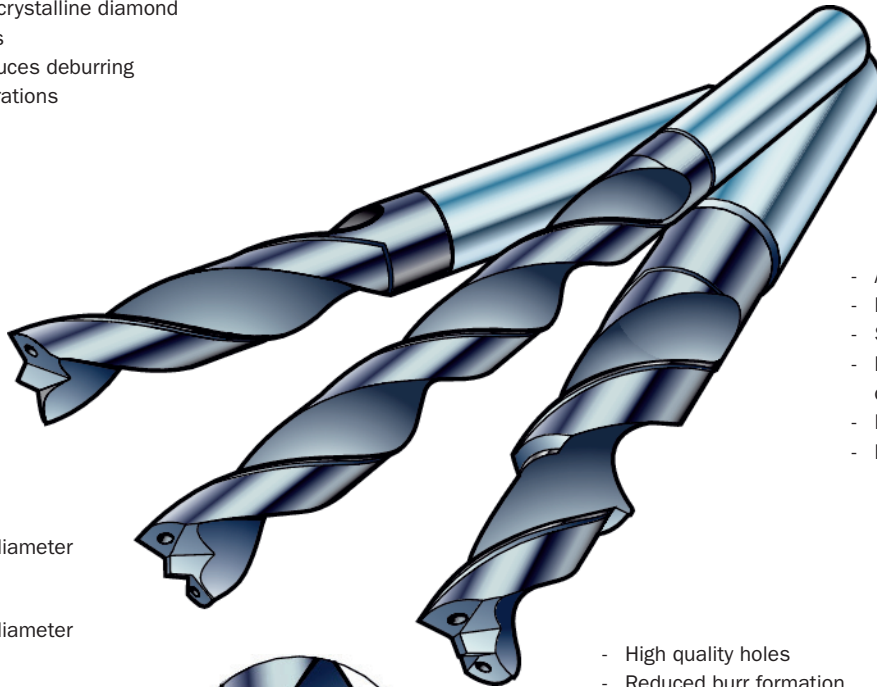
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CoroDrill® Delta-C R850

Solid carbide drills for aluminum

High quality holemaking with high feed

- Good total economy
- High productivity
- Low cost alternative to polycrystalline diamond drills
- Reduces deburring operations



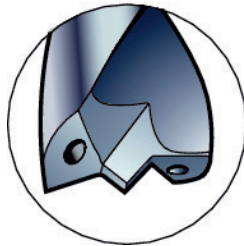
- Advanced geometry
- Balanced cutting forces
- Stabilized cutting action
- Minimized runout and deflection
- High penetration rate
- Regrindable

Short design:

Max hole depth: 2 – 3 x diameter

Extra long design:

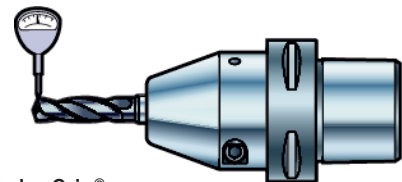
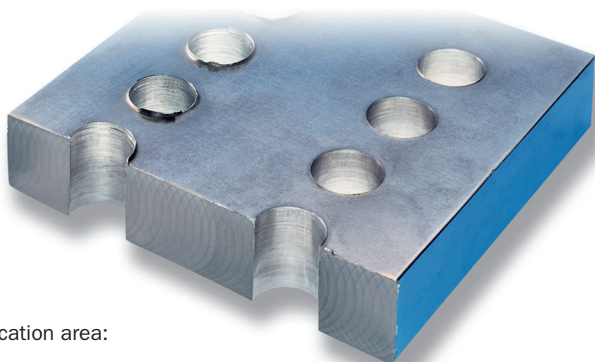
Max hole depth: 6 – 7 x diameter



- High quality holes
- Reduced burr formation
- High surface finish

Conventional drill

Delta-C R850



Hydro-Grip®
for highest clamping force and minimum runout

Tailor Made

Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J8.

ISO application area:



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DRILLING CoroDrill® Delta-C high precision carbide drill

CoroDrill® Delta-C 2 – 3 × D_c

R850

Aluminum

Drill diameter: 5.0-14.00 mm (.197-.551 inch)
Max hole depth: 2 - 3 × D_c

Coating: TiAlN extra surface finish
Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Internal coolant supply

Drill standard: DIN 6537
Tolerances, mm: dm_m = h6
D_c = m7

l₄ = recommended drilling depth

D _c mm		D _c inch	Thread size	Internal coolant supply	N	Dimensions, millimeter, inch (mm, in.)					
				Ordering code	N20D	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
5.00	.1969	M6 75%	R850-0500-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.10	.2008	M6 65%	R850-0510-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.16	.2031		R850-0516-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.20	.2047		R850-0520-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.30	.2087		R850-0530-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.40	.2126		R850-0540-30-A1A	☆	6.00	66	2.598	18	.709	28	
5.50	.2165		R850-0550-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.56	.2189		R850-0556-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.60	.2205		R850-0560-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.70	.2244		R850-0570-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.80	.2283		R850-0580-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.90	.2323		R850-0590-30-A1A	☆	6.00	66	2.598	19	.748	28	
5.95	.2343		R850-0595-30-A1A	☆	6.00	66	2.598	19	.748	28	
6.00	.2362		R850-0600-30-A1A	☆	6.00	66	2.598	19	.748	28	
6.10	.2402		R850-0610-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.20	.2441		R850-0620-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.30	.2480		R850-0630-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.35	.2500		R850-0635-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.40	.2520		R850-0640-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.50	.2559		R850-0650-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.60	.2598		R850-0660-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.70	.2638	5/16-18 UNC	R850-0670-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.75	.2657		R850-0675-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.80	.2677		R850-0680-30-A1A	☆	8.00	79	3.110	22	.866	34	
6.90	.2717	M8 65%	R850-0690-30-A1A	☆	8.00	79	3.110	22	.866	34	
7.00	.2756	5/16-24 UNF	R850-0700-30-A1A	☆	8.00	79	3.110	22	.866	34	
7.10	.2795		R850-0710-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.14	.2811		R850-0714-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.20	.2835		R850-0720-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.30	.2874		R850-0730-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.40	.2913		R850-0740-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.50	.2953		R850-0750-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.60	.2992		R850-0760-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.70	.3031		R850-0770-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.80	.3071		R850-0780-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.90	.3110		R850-0790-30-A1A	☆	8.00	79	3.110	28	1.102	41	
7.94	.3126		R850-0794-30-A1A	☆	8.00	79	3.110	28	1.102	41	
8.00	.3150		R850-0800-30-A1A	☆	8.00	79	3.110	28	1.102	41	
8.10	.3189		R850-0810-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.20	.3228		R850-0820-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.30	.3268		R850-0830-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.33	.3280		R850-0833-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.40	.3307		R850-0840-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.50	.3346		R850-0850-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.60	.3386	3/8-24 UNF	R850-0860-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.70	.3425	M10 65%	R850-0870-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.73	.3437		R850-0873-30-A1A	☆	10.00	89	3.504	30	1.181	47	
8.80	.3465		R850-0880-30-A1A	☆	10.00	89	3.504	30	1.181	47	

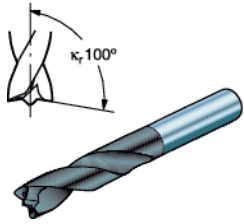
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General Information

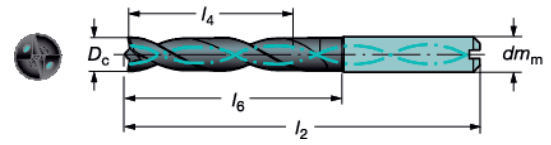
CoroDrill® Delta-C 2 – 3 × D_c

R850

Aluminum



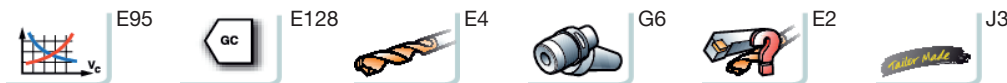
Drill diameter: 5.0-14.00 mm (.197-.551 inch) Internal coolant supply
 Max hole depth: 2 - 3 × D_c
 Coating: TiAlN extra surface finish
 Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil



Drill standard: DIN 6537
 Tolerances, mm: dm_m = h6
 D_c = m7

l₄ = recommended drilling depth

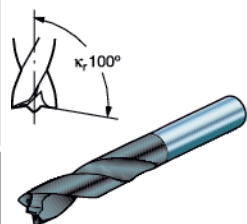
		Internal coolant supply		N	Dimensions, millimeter, inch (mm, in.)					
D _c mm	D _c inch	Thread size	Ordering code	N20D	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm
9.00	.3543		R850-0900-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.10	.3583		R850-0910-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.13	.3594		R850-0913-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.20	.3622		R850-0920-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.30	.3661		R850-0930-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.40	.3701		R850-0940-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.50	.3740		R850-0950-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.52	.3748		R850-0952-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.60	.3780		R850-0960-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.70	.3819		R850-0970-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.80	.3858		R850-0980-30-A1A	☆	10.00	89	3.504	31	1.220	47
9.90	.3898		R850-0990-30-A1A	☆	10.00	89	3.504	31	1.220	47
10.00	.3937	7/16-20 UNF	R850-1000-30-A1A	☆	10.00	89	3.504	31	1.220	47
10.10	.3976		R850-1010-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.20	.4016		R850-1020-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.30	.4055	M12 75%	R850-1030-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.32	.4063		R850-1032-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.40	.4094	M12 70%	R850-1040-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.45	.4114		R850-1045-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.50	.4134		R850-1050-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.60	.4173		R850-1060-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.70	.4213		R850-1070-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.71	.4217		R850-1071-30-A1A	☆	12.00	102	4.016	34	1.339	55
10.90	.4291		R850-1090-30-A1A	☆	12.00	102	4.016	34	1.339	55
11.00	.4331	1/2-13 UNC	R850-1100-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.10	.4370		R850-1110-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.11	.4374		R850-1111-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.20	.4409		R850-1120-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.50	.4528		R850-1150-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.60	.4567	1/2-20 UNF	R850-1160-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.80	.4646		R850-1180-30-A1A	☆	12.00	102	4.016	35	1.378	55
11.90	.4685		R850-1190-30-A1A	☆	12.00	102	4.016	35	1.378	55
12.00	.4724		R850-1200-30-A1A	☆	12.00	102	4.016	35	1.378	55
12.10	.4764	M14 72%	R850-1210-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.20	.4803	M14	R850-1220-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.30	.4843		R850-1230-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.40	.4882		R850-1240-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.50	.4921		R850-1250-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.60	.4961		R850-1260-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.70	.5000		R850-1270-30-A1A	☆	14.00	107	4.213	38	1.496	60
12.80	.5039		R850-1280-30-A1A	☆	14.00	107	4.213	38	1.496	60
13.00	.5118		R850-1300-30-A1A	☆	14.00	107	4.213	39	1.535	60
13.10	.5157		R850-1310-30-A1A	☆	14.00	107	4.213	39	1.535	60
13.25	.5217		R850-1325-30-A1A	☆	14.00	107	4.213	39	1.535	60
13.50	.5315		R850-1350-30-A1A	☆	14.00	107	4.213	39	1.535	60
13.80	.5433		R850-1380-30-A1A	☆	14.00	107	4.213	39	1.535	60
14.00	.5512		R850-1400-30-A1A	☆	14.00	107	4.213	39	1.535	60



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General Information

CoroDrill® Delta-C 6 – 7 × D_c

R850
Aluminum



Drill diameter: 5.0-14.00 mm (.197-.551 inch)
Max hole depth: 6 - 7 × D_c

Coating: TiAlN extra surface finish

Hole tolerance: IT8-9-10
Surface finish: R_a 1-2 μm (40-75 μ inch)
Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
Tolerances, mm: $dm_m = h6$
 $D_c = m7$

Internal coolant supply



l_4 = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	Ordering code	N	Dimensions, millimeter, inch (mm, in.)					
						dm _m mm	b mm	b in.	l ₄ mm	l ₄ in.	l ₆ mm
5.00	.1969	M6 75%		R850-0500-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.10	.2008	M6 65%		R850-0510-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.16	.2031			R850-0516-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.20	.2047			R850-0520-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.30	.2087			R850-0530-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.40	.2126			R850-0540-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.50	.2165			R850-0550-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.56	.2189			R850-0556-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.60	.2205			R850-0560-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.70	.2244			R850-0570-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.80	.2283			R850-0580-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.90	.2323			R850-0590-70-A1A	☆	6.00	93	3.661	42	1.654	50
5.95	.2343			R850-0595-70-A1A	☆	6.00	93	3.661	42	1.654	50
6.00	.2362			R850-0600-70-A1A	☆	6.00	93	3.661	42	1.654	50
6.10	.2402			R850-0610-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.20	.2441			R850-0620-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.30	.2480			R850-0630-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.35	.2500			R850-0635-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.40	.2520			R850-0640-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.50	.2559			R850-0650-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.60	.2598			R850-0660-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.70	.2638	5/16-18 UNC		R850-0670-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.75	.2657			R850-0675-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.80	.2677			R850-0680-70-A1A	☆	8.00	105	4.134	49	1.929	59
6.90	.2717	M8 65%		R850-0690-70-A1A	☆	8.00	105	4.134	49	1.929	59
7.00	.2756	5/16-24 UNF		R850-0700-70-A1A	☆	8.00	105	4.134	49	1.929	59
7.10	.2795			R850-0710-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.14	.2811			R850-0714-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.20	.2835			R850-0720-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.30	.2874			R850-0730-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.40	.2913			R850-0740-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.50	.2953			R850-0750-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.60	.2992			R850-0760-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.80	.3071			R850-0780-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.90	.3110			R850-0790-70-A1A	☆	8.00	105	4.134	56	2.205	67
7.94	.3126			R850-0794-70-A1A	☆	8.00	105	4.134	56	2.205	67
8.00	.3150			R850-0800-70-A1A	☆	8.00	105	4.134	56	2.205	67
8.10	.3189			R850-0810-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.20	.3228			R850-0820-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.30	.3268			R850-0830-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.40	.3307			R850-0840-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.50	.3346			R850-0850-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.60	.3386	M10 70% & 3/8-24 UNF		R850-0860-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.70	.3425	M10 65%		R850-0870-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.73	.3437			R850-0873-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.80	.3465			R850-0880-70-A1A	☆	10.00	120	4.724	62	2.441	75
8.90	.3504			R850-0890-70-A1A	☆	10.00	120	4.724	62	2.441	75
9.00	.3543			R850-0900-70-A1A	☆	10.00	133	5.236	70	2.756	84



E95



E128



E4



G6



E2

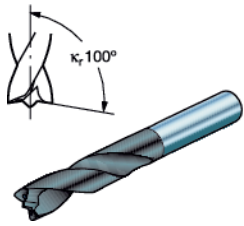


J3

CoroDrill® Delta-C 6 – 7 × D_c

R850

Aluminum



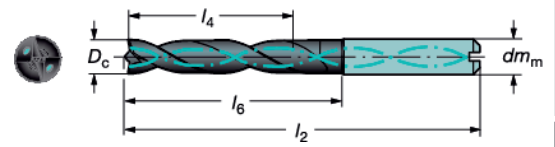
Drill diameter: 5.0-14.00 mm (.197-.551 inch)
 Max hole depth: 6 - 7 × D_c

Coating: TiAlN extra surface finish

Hole tolerance: IT8-9-10
 Surface finish: R_a 1-2 μm (40-75 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances, mm: $dm_m = h6$
 $D_c = m7$

Internal coolant supply



l_4 = recommended drilling depth

D _c mm	D _c inch	Thread size	Internal coolant supply	N	Dimensions, millimeter, inch (mm, in.)					
					dm _m mm	l ₆ mm	l ₆ in.	l ₄ mm	l ₄ in.	l ₂ mm
9.10	.3583		R850-0910-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.13	.3594		R850-0913-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.20	.3622		R850-0920-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.30	.3661		R850-0930-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.40	.3701		R850-0940-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.50	.3740		R850-0950-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.52	.3748		R850-0952-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.60	.3780		R850-0960-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.70	.3819		R850-0970-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.80	.3858		R850-0980-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.90	.3898		R850-0990-70-A1A	☆	10.00	133	5.236	70	2.756	84
9.92	.3906		R850-0992-70-A1A	☆	10.00	133	5.236	70	2.756	84
10.00	.3937	7/16-20 UNF	R850-1000-70-A1A	☆	10.00	133	5.236	70	2.756	84
10.10	.3976		R850-1010-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.20	.4016		R850-1020-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.30	.4055	M12 75%	R850-1030-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.32	.4063		R850-1032-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.40	.4094	M12 70%	R850-1040-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.50	.4134		R850-1050-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.60	.4173		R850-1060-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.70	.4213		R850-1070-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.71	.4217		R850-1071-70-A1A	☆	12.00	140	5.512	76	2.992	91
10.80	.4252		R850-1080-70-A1A	☆	12.00	140	5.512	76	2.992	91
11.00	.4331	1/2-13 UNC	R850-1100-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.10	.4370		R850-1110-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.11	.4374		R850-1111-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.20	.4409		R850-1120-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.50	.4528		R850-1150-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.60	.4567	1/2-20 UNF	R850-1160-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.70	.4606		R850-1170-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.80	.4646		R850-1180-70-A1A	☆	12.00	151	5.945	84	3.307	101
11.90	.4685		R850-1190-70-A1A	☆	12.00	151	5.945	84	3.307	101
12.00	.4724		R850-1200-70-A1A	☆	12.00	151	5.945	84	3.307	101
12.10	.4764	M14 72%	R850-1210-70-A1A	☆	14.00	160	6.299	89	3.504	107
12.20	.4803	M14	R850-1220-70-A1A	☆	14.00	160	6.299	89	3.504	107
12.30	.4843		R850-1230-70-A1A	☆	14.00	160	6.299	89	3.504	107
12.50	.4921		R850-1250-70-A1A	☆	14.00	160	6.299	89	3.504	107
12.70	.5000		R850-1270-70-A1A	☆	14.00	160	6.299	89	3.504	107
13.00	.5118		R850-1300-70-A1A	☆	14.00	160	6.299	89	3.504	107
13.25	.5217		R850-1325-70-A1A	☆	14.00	160	6.299	89	3.504	107
13.50	.5315		R850-1350-70-A1A	☆	14.00	160	6.299	89	3.504	107
14.00	.5512		R850-1400-70-A1A	☆	14.00	160	6.299	89	3.504	107



E95



E128



E4



G6



E2



J3

CoroDrill® 854/856

Solid carbide drills for composite

High quality holemaking in composite

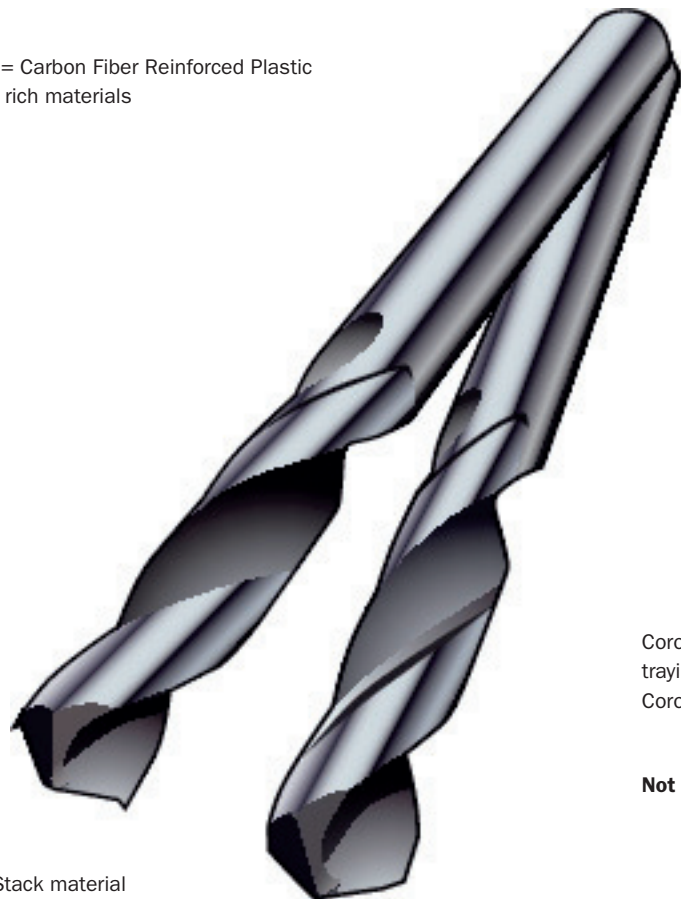
Milling

E

CFRP = Carbon Fiber Reinforced Plastic
Resin rich materials

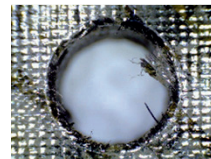
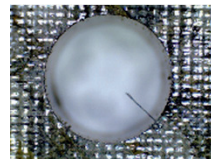
Drilling

F



Stack material

Grade N20C



CoroDrill 854



CoroDrill 856

CoroDrill 854: Point geometry designed to prevent splintering and traying

CoroDrill 856: Designed to reduce delamination problems

Not recommended for handheld machines

Boring

G

Tooling Systems



CoroDrill 854



CoroDrill® 855



CoroDrill 856

ISO application area:

N

Composite materials

Tailor Made

Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J3.

General Information

CoroDrill® 854

4 – 5 × D_c

854.1

Cylindrical shank according to DIN 6535 HA

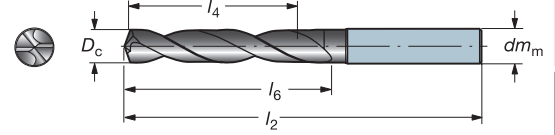


Drill diameter: 4.0-12.7 mm (.157-.500 inch)
 Max hole depth: 4 - 5 × D_c

Coating: Diamond
 Hole tolerance: IT 8-9
 Surface finish: R_a 1-5 μm (40-200 μ inch)
 Cutting fluid: Emulsion or cutting oil

Drill standard: DIN 6537
 Tolerances, mm: dm_m = h6
 D_c = m7

External coolant supply



l₄ = Recommended max drilling depth

		External coolant supply	N	Dimensions, millimeter, inch (mm, in.)					
D _c mm	D _c inch	Ordering code	N20C	dm _m mm	l mm	l in.	l ₄ mm	l ₄ in.	l ₆ ¹⁾ mm
4.00	.1575	854.1-0400-05-A0	☆	6.00	74	2.913	27	1.063	36
4.76	.1874	854.1-0476-05-A0	☆	6.00	74	2.913	27	1.063	36
5.00	.1969	854.1-0500-05-A0	☆	6.00	82	3.228	35	1.378	44
6.00	.2362	854.1-0600-05-A0	☆	6.00	82	3.228	35	1.378	44
6.35	.2500	854.1-0635-05-A0	☆	8.00	91	3.583	39	1.535	53
7.00	.2756	854.1-0700-05-A0	☆	8.00	91	3.583	40	1.575	53
7.94	.3126	854.1-0794-05-A0	☆	8.00	91	3.583	40	1.575	53
8.00	.3150	854.1-0800-05-A0	☆	8.00	91	3.583	40	1.575	53
9.00	.3543	854.1-0900-05-A0	☆	10.00	103	4.055	45	1.772	61
9.52	.3748	854.1-0952-05-A0	☆	10.00	103	4.055	45	1.772	61
11.11	.4374	854.1-1111-05-A0	☆	12.00	118	4.646	51	2.008	71
12.70	.5000	854.1-1270-05-A0	☆	14.00	124	4.882	55	2.165	77

1) Flute length



E95



E128



E4



G6



E2



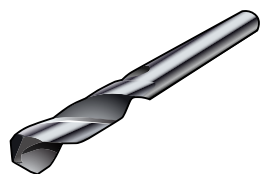
J3

CoroDrill® 856

4 – 5 × D_c

856.1

Cylindrical shank according to DIN 6535 HA

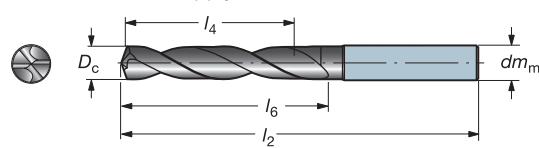


Drill diameter: 4.0-12.7 mm (.157-.500 inch)
 Max hole depth: 4 - 5 × D_c

Coating: Diamond
 Hole tolerance: IT 8-9
 Surface finish: R_a 1-5 μm (40-200 μ inch)
 Cutting fluid: Emulsion or cutting oil

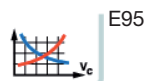
Drill standard: DIN 6537
 Tolerances, mm: $dm_m = h6$
 $D_c = m7$

External coolant supply

l₄ = Recommended max drilling depth

		External coolant supply	N	Dimensions, millimeter, inch (mm, in.)					
D _c mm	D _c inch	Ordering code	N20C	dm _m mm	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ ¹⁾ mm
4.00	.1575	856.1-0400-05-A0	☆	6.00	74	2.913	27	1.063	36
4.76	.1874	856.1-0476-05-A0	☆	6.00	74	2.913	27	1.063	36
5.00	.1969	856.1-0500-05-A0	☆	6.00	82	3.228	35	1.378	44
6.00	.2362	856.1-0600-05-A0	☆	6.00	82	3.228	35	1.378	44
6.35	.2500	856.1-0635-05-A0	☆	8.00	91	3.583	39	1.535	53
7.00	.2756	856.1-0700-05-A0	☆	8.00	91	3.583	40	1.575	53
7.94	.3126	856.1-0794-05-A0	☆	8.00	91	3.583	40	1.575	53
8.00	.3150	856.1-0800-05-A0	☆	8.00	91	3.583	40	1.575	53
9.00	.3543	856.1-0900-05-A0	☆	10.00	103	4.055	45	1.772	61
9.52	.3748	856.1-0952-05-A0	☆	10.00	103	4.055	45	1.772	61
11.11	.4374	856.1-1111-05-A0	☆	12.00	118	4.646	51	2.008	71
12.70	.5000	856.1-1270-05-A0	☆	14.00	124	4.882	55	2.165	77

1) Flute length



E95



E128



E4



G6



E2



J3

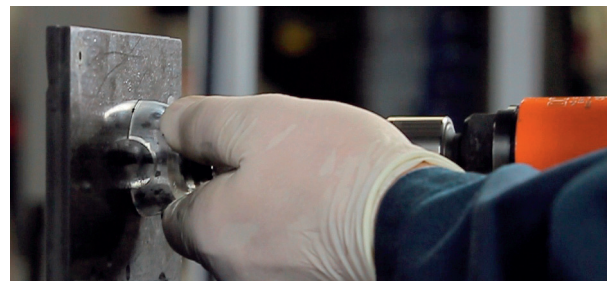
CoroDrill® 452

Tooling solutions for composite and metallic-stack materials

High quality hole making for
hand-held applications



In cooperation with



ISO application areas:

ISO N - including composite materials

ISO S - mainly Titanium alloys



Tolerance

Portable drill bushing is recommended to achieve close tolerances when drilling and reaming.

Tool selection examples for the CoroDrill® 452 family*

- Step 1: select material
- Step 2: select required diameter
- Step 3: define required hole and surface tolerance

Material	Diameter	IT+/H11		IT++/H8	
		Ra+	Ra++	Ra+	Ra++
CFRP		421.1-C	421.1-C + 452.R	421.1-C + 452.R	421.1-C + 452.R
CFRP/metallic-stack	< 6.35	452.1-CM	452.1-CM + 452.R-CM	452.1-CM	452.1-CM + 452.R-CM
CFRP/metallic-stack	> 6.35	452.4-CM	452.4-CM + 452.R-CM	452.4-CM	452.4-CM + 452.R-CM
Titanium/Aluminum	≤ 6.35	452.1-CM	452.1-CM + 452.R-CM	452.1-CM	452.1-CM + 452.R-CM
Titanium/Aluminum	> 6.35	452.4-CM	452.4-CM + 452.R-CM	452.4.4-CM	452.4-CM + 452.R-CM

* Refers to first choice only; other selections may also be relevant.

IT + = Normal tolerance demand

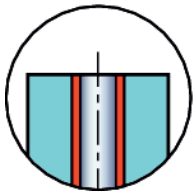
RA + = Normal surface demand

IT ++ = High tolerance demand

RA ++ = High surface demand

Through hole

Example tool combinations for through-hole application - select tool for desired application results.



The following example relates to drill hole diameter 6.35 mm (0.250 inch)

Example 6.35 mm (.25 inch)	Normal demand (drill process)	High demand (drill process)	Extreme demand (drill-ream process)
CFRP material	452.1-0635-044AO-C H10F (drill)	-	452.1-0556-044AO-C H10F (drill) 452.R-0635-032AO-C H10F ¹⁾ (reamer)
CFRP and metal material	452.1-0635-044AO-CM H10F (drill)	452.4-0635-044AO-CM H10F (pilot drill)	452.1-0556-044AO-CM H10F (drill) 452.R-0635-044AO-CM H10F (reamer)



¹⁾ Reamer pilot diameter (PHD) must correspond to pre-hole drill (diameter).

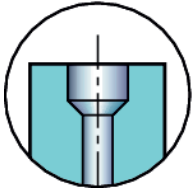
Cutting data

Application	Material	V _c m/min	ft/min	f _n mm	inch
Drilling/reaming	CFRP	60	197	0.08	.003
	CFRP/Aluminum	120	394	0.05	.002
	CFRP/Titanium	20	66	0.05	.002
	Aluminum	60	197	0.08	.003
	Titanium	15	49	0.05	.002
	Stainless steel	15	49	0.05	.002
Countersink	CFRP	60	197	0.08	.003

CFRP = Carbon Fiber Reinforced Plastic

Countersinks

To be used with microstop device



PCD cutting edge for stable constant tool life and re-sharpening.



Carbide pilot ensures accuracy and durability.

Threaded coupling 1/4" and 3/8" thread pitch for combination with microstop adapter.



Microstop adapter



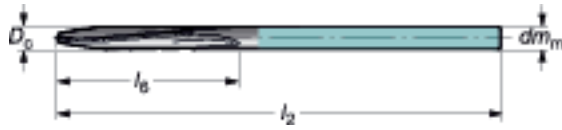
A total offer, including engineered products and support.

Sandvik Coromant and Precorp can offer solutions and support from dedicated application specialists globally. Along with our standard product offer, engineered solutions with customized designs are available. Please contact your local sales representative and visit www.sandvik.coromant.com/composites for more information.

CoroDrill® 452

Drill for CFRP materials

452.1-C



Hole tolerance:
Surface finish:

IT tolerance (+/-0.025 mm / +/-0.0010 inch)
For standard demands

Milling

E

Drilling

F

Boring

G

Tooling Systems

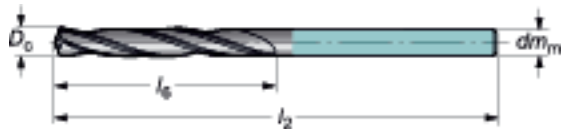
J

General Information

D _c mm	D _c inch	Ordering code	Dimensions, millimeter, inch (mm, in.)									
			P H10F	K H10F	N H10F	S H10F						
2.50	.098	452.1-0250-044A0-C	☆	☆	☆	☆	dm _{mm} 2.50	dm _{in.} .098	l ₂ mm 101.6	l ₂ in. 4.000	l ₆ mm 50.8	l ₆ in. 2.000
3.26	.128	452.1-0326-044A0-C	☆	☆	☆	☆	3.18	.125	101.6	4.000	50.8	2.000
4.17	.164	452.1-0417-044A0-C	☆	☆	☆	☆	3.97	.156	101.6	4.000	50.8	2.000
4.83	.190	452.1-0483-044A0-C	☆	☆	☆	☆	4.76	.188	101.6	4.000	50.8	2.000
5.56	.219	452.1-0556-044A0-C	☆	☆	☆	☆	5.56	.219	101.6	4.000	50.8	2.000
6.35	.250	452.1-0635-044A0-C	☆	☆	☆	☆	6.35	.250	101.6	4.000	50.8	2.000
7.94	.313	452.1-0794-044A0-C	☆	☆	☆	☆	7.94	.312	101.6	4.000	50.8	2.000
9.53	.375	452.1-0953-044A0-C	☆	☆	☆	☆	9.52	.375	101.6	4.000	50.8	2.000
11.12	.438	452.1-1112-044A0-C	☆	☆	☆	☆	11.11	.438	101.6	4.000	50.8	2.000
12.7	.500	452.1-1270-044A0-C	☆	☆	☆	☆	12.70	.500	101.6	4.000	50.8	2.000

Drill for CFRP-metallic stack materials

452.1-CM



Hole tolerance:
Surface finish:

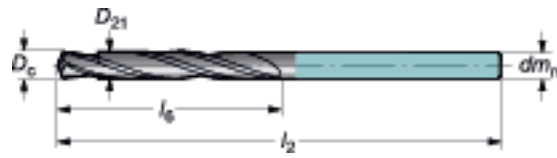
IT tolerance (+/-0.025 mm / +/-0.0010 inch)
For standard demands

D _c mm	D _c inch	Ordering code	Dimensions, millimeter, inch (mm, in.)									
			P H10F	K H10F	N H10F	S H10F						
2.50	.098	452.1-0250-044A0-CM	☆	☆	☆	☆	dm _{mm} 2.50	dm _{in.} .098	l ₂ mm 101.6	l ₂ in. 4.000	l ₆ mm 50.8	l ₆ in. 2.000
3.26	.128	452.1-0326-044A0-CM	☆	☆	☆	☆	3.18	.125	101.6	4.000	50.8	2.000
4.17	.164	452.1-0417-044A0-CM	☆	☆	☆	☆	3.18	.125	101.6	4.000	50.8	2.000
4.83	.190	452.1-0483-044A0-CM	☆	☆	☆	☆	4.76	.188	101.6	4.000	50.8	2.000
5.56	.219	452.1-0556-044A0-CM	☆	☆	☆	☆	5.56	.219	101.6	4.000	50.8	2.000
6.35	.250	452.1-0635-044A0-CM	☆	☆	☆	☆	6.35	.250	101.6	4.000	50.8	2.000
7.94	.313	452.1-0794-044A0-CM	☆	☆	☆	☆	7.94	.312	101.6	4.000	50.8	2.000
9.53	.375	452.1-0953-044A0-CM	☆	☆	☆	☆	9.52	.375	101.6	4.000	50.8	2.000
11.12	.438	452.1-1112-044A0-CM	☆	☆	☆	☆	11.11	.438	101.6	4.000	50.8	2.000
12.7	.500	452.1-1270-044A0-CM	☆	☆	☆	☆	12.70	.500	101.6	4.000	50.8	2.000
11.91	.469	452.4-0417-034A0-CM	☆	☆	☆	☆	12.70	.500	101.6	4.000	50.8	2.000

CoroDrill® 452

Pilot high precision drill for CFRP-metallic stack materials

452.4



Hole tolerance:
Surface finish:

+/- 0.025mm Using high quality drill bushing
For high demands

D_{21} mm	D_{21} in.	Ordering code	P K N S			Dimensions, millimeter, inch (mm, in.)							
			H10F	H10F	H10F	D_c mm	D_c in.	d_m mm	d_m in.	l_2 mm	l_2 in.	l_6 mm	l_6 in.
4.17	.164	452.4-0417-034A0-CM	☆	☆	☆	3.37	.133	3.97	.156	101.6	4.000	50.8	2.000
4.83	.190	452.4-0483-034A0-CM	☆	☆	☆	4.06	.160	4.76	.188	101.6	4.000	50.8	2.000
5.56	.219	452.4-0556-034A0-CM	☆	☆	☆	4.76	.188	5.56	.219	101.6	4.000	50.8	2.000
6.35	.250	452.4-0635-034A0-CM	☆	☆	☆	5.56	.219	6.35	.250	101.6	4.000	50.8	2.000
7.94	.313	452.4-0794-034A0-CM	☆	☆	☆	7.15	.281	7.94	.312	101.6	4.000	50.8	2.000
9.53	.375	452.4-0953-034A0-CM	☆	☆	☆	8.73	.344	9.52	.375	101.6	4.000	50.8	2.000
11.12	.438	452.4-1112-034A0-CM	☆	☆	☆	10.32	.406	11.11	.438	101.6	4.000	50.8	2.000
12.70	.500	452.4-1270-034A0-CM	☆	☆	☆	11.91	.469	12.70	.500	101.6	4.000	50.8	2.000

CoroDrill® 452

REAMER

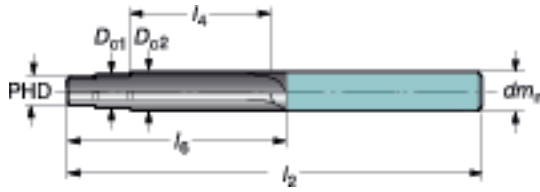
For CFRP materials: -C geometry

For CFRP metallic stack materials: -CM geometry

452.R

Milling

E

Hole tolerance:
Surface finish:+/- 0.010mm Using high quality drill bushing
For very high demands

Drilling

F

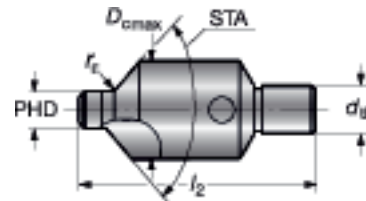
D _{c2} mm	D _{c2} in.	Ordering code	Material				PHD mm	PHD in.	d _m mm	d _m in.	D _{c1} mm	D _{c1} in.	l ₂ mm	l ₂ in.	l ₄ mm	l ₄ in.	l ₆ mm	l ₆ in.
			P	K	N	S												
4.17	.164	452.R-0417-032A0-C	☆	☆	☆	☆	2.568	.101	3.97	.156	3.36	.132	101.6	4.000	30.3	1.193	50.8	2.000
4.83	.190	452.R-0483-032A0-C	☆	☆	☆	☆	3.228	.127	4.76	.187	4.01	.158	101.6	4.000	30.3	1.193	50.8	2.000
5.56	.219	452.R-0556-032A0-C	☆	☆	☆	☆	3.957	.156	5.56	.219	4.74	.187	101.6	4.000	30.3	1.193	50.8	2.000
6.35	.250	452.R-0635-032A0-C	☆	☆	☆	☆	4.752	.187	6.35	.250	5.54	.218	101.6	4.000	30.3	1.193	50.8	2.000
7.94	.313	452.R-0794-029A0-C	☆	☆	☆	☆	6.34	.250	7.94	.312	7.13	.281	101.6	4.000	27.1	1.067	50.8	2.000
9.53	.375	452.R-0953-025A0-C	☆	☆	☆	☆	7.927	.312	9.53	.375	8.71	.343	101.6	4.000	23.9	.941	50.8	2.000
11.12	.438	452.R-1112-025A0-C	☆	☆	☆	☆	9.518	.375	11.11	.437	10.31	.406	101.6	4.000	23.9	.941	50.8	2.000
12.7	.500	452.R-1270-025A0-C	☆	☆	☆	☆	11.105	.437	12.7	.500	11.89	.468	101.6	4.000	23.9	.941	50.8	2.000
4.17	.164	452.R-0417-032A0-CM	☆	☆	☆	☆	2.568	.101	3.97	.156	3.36	.132	101.6	4.000	31.4	1.236	50.8	2.000
4.83	.190	452.R-0483-032A0-CM	☆	☆	☆	☆	3.228	.127	4.76	.187	4.01	.158	101.6	4.000	31.4	1.236	50.8	2.000
5.56	.219	452.R-0556-032A0-CM	☆	☆	☆	☆	3.957	.156	5.56	.219	4.74	.187	101.6	4.000	31.4	1.236	50.8	2.000
6.35	.250	452.R-0635-032A0-CM	☆	☆	☆	☆	4.752	.187	6.35	.250	5.54	.218	101.6	4.000	31.4	1.236	50.8	2.000
7.94	.313	452.R-0794-029A0-CM	☆	☆	☆	☆	6.34	.250	7.94	.312	7.13	.281	101.6	4.000	28.2	1.110	50.8	2.000
9.53	.375	452.R-0953-025A0-CM	☆	☆	☆	☆	7.927	.312	9.53	.375	8.71	.343	101.6	4.000	25.0	.984	50.8	2.000
11.12	.438	452.R-1112-025A0-CM	☆	☆	☆	☆	9.518	.375	11.11	.437	10.31	.406	101.6	4.000	25.0	.984	50.8	2.000
12.7	.500	452.R-1270-025A0-CM	☆	☆	☆	☆	11.105	.437	12.7	.500	11.89	.468	101.6	4.000	25.0	.984	50.8	2.000

Single edge PCD countersink for CFRP materials

452.C1

Boring

G



Tooling Systems

J

STA	PHD mm	PHD in.	Ordering code	N Dimensions, millimeter, inch (mm, in.)						
				CD	D _{cmax} mm	D _{cmax} in.	d _{th}	l ₂ mm	l ₂ in.	r _s
100	4.143	.163	452.C1-0414-100T-C	☆	10	.394	1/4 x 24	36	1.417	0.9
	4.803	.189	452.C1-0480-100T-C	☆	10	.394		36.6	1.441	0.9
	5.532	.218	452.C1-0553-100T-C	☆	10	.394		36.6	1.441	0.9
	6.327	.249	452.C1-0632-100T-C	☆	14	.551		37.8	1.488	0.9
	7.915	.312	452.C1-0791-100T-C	☆	18	.709		39.7	1.563	1.15
	9.502	.374	452.C1-0950-100T-C	☆	20	.787		49.5	1.949	1.15
	11.093	.437	452.C1-1109-100T-C	☆	23	.906		51	2.008	1.4
	12.68	.499	452.C1-1268-100T-C	☆	26	1.024		49	1.929	1.4
130	4.143	.163	452.C1-0414-130T-C	☆	10	.394	3/8 x 28	36	1.417	0.9
	4.803	.189	452.C1-0480-130T-C	☆	10	.394		36.6	1.441	0.9
	5.532	.218	452.C1-0553-130T-C	☆	10	.394		36.6	1.441	0.9
	6.327	.249	452.C1-0632-130T-C	☆	14	.551		37.8	1.488	0.9
	7.915	.312	452.C1-0791-130T-C	☆	18	.709		39.7	1.563	1.15
	9.502	.374	452.C1-0950-130T-C	☆	20	.787		49.5	1.949	1.15
	11.093	.437	452.C1-1109-130T-C	☆	23	.906		51	2.008	1.4
	12.68	.499	452.C1-1268-130T-C	☆	26	1.024		49	1.929	1.4

General Information

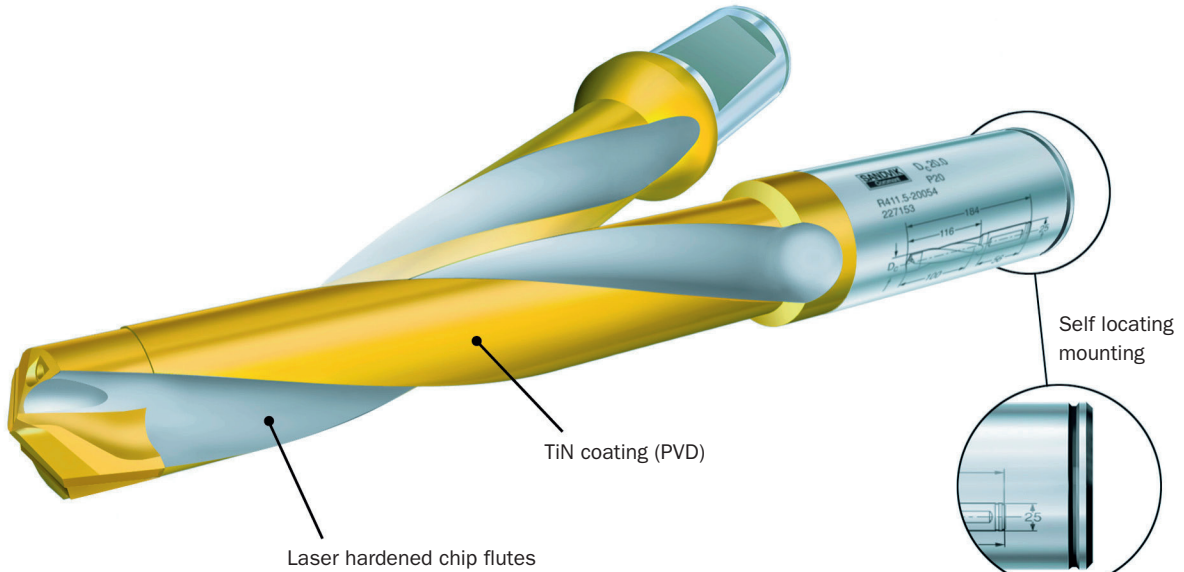
Coromant Delta

Brazed carbide drill

High productivity drilling of close tolerance holes

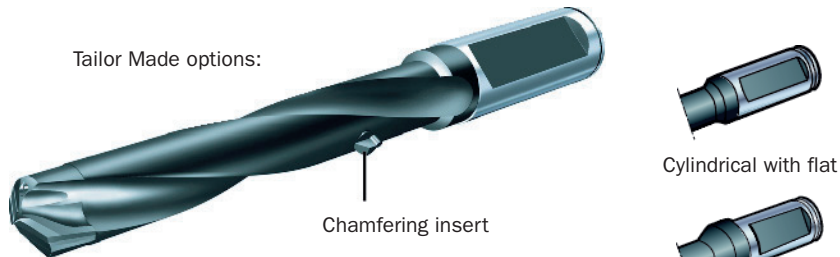
Short and long designs:
3.5-5.0 x D_c

Diameter, carbide grade, code number and batch number permanently marked on drill



Regrinding service available.

Tailor Made options:



Chamfering insert

Cylindrical with flat

Whistle Notch

- Choice of various coatings
- Production of chamfered holes for threading
- Pre-drilling of thread holes

ISO application areas:

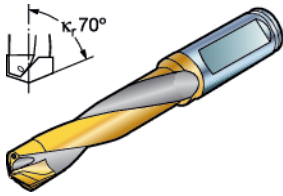


Tailor Made

Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J3.

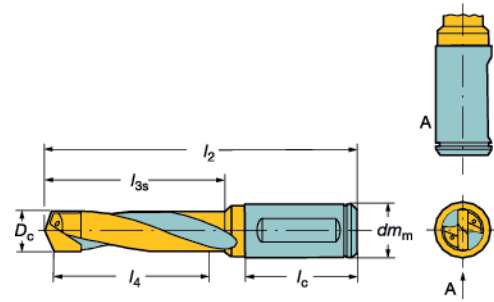
Coromant Delta 3.5 × D_c

Cylindrical shank with flat according to ISO 9766



Drill diameter: 9.50-30.40 mm (.374-1.197 inch)
 Hole depth: 3.5 × D_c
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-80 μ inch)
 Cutting fluid: Emulsion or Neat oil

Tolerances, mm: D_c = js7
 dm_m h6

l₄ = recommended drilling depth

Metric design

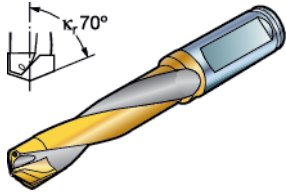
Stocked drills		Non-stocked drills					Dimensions							
D _c mm	Ordering code	Drilling dia. range	Ordering code	P	M	K	N	H	dm _m	l ₂	l _{3s}	l ₄	l ₆	σ _K
9.75	R411.5-10034D9.75	9.50-10.00	R411.5-10034Dxx.xx	☆	☆	☆	☆	☆	16	98	39	35	48	0.1
10.00	R411.5-10034D10.00			☆	☆	☆	☆	☆	16	98	39	35	48	0.1
10.25	R411.5-10534D10.25	10.01-10.50	R411.5-10534Dxx.xx	☆	☆	☆	☆	☆	16	100	41	37	48	0.1
10.50	R411.5-10534D10.50			☆	☆	☆	☆	☆	16	100	41	37	48	0.1
10.75	R411.5-11034D10.75			☆	☆	☆	☆	☆	16	103	44	39	48	0.1
11.00	R411.5-11034D11.00			☆	☆	☆	☆	☆	16	103	44	39	48	0.1
11.25	R411.5-11534D11.25	11.01-11.50	R411.5-11534Dxx.xx	☆	☆	☆	☆	☆	16	105	46	40	48	0.1
11.50	R411.5-11534D11.50			☆	☆	☆	☆	☆	16	105	46	40	48	0.1
11.75	R411.5-12034D11.75	11.51-12.00	R411.5-12034Dxx.xx	☆	☆	☆	☆	☆	16	108	49	42	48	0.1
12.00	R411.5-12034D12.00			☆	☆	☆	☆	☆	16	108	49	42	48	0.1
12.50	R411.5-12534D12.50			☆	☆	☆	☆	☆	16	113	54	44	48	1.2
12.75	R411.5-13034D12.75			☆	☆	☆	☆	☆	16	113	54	46	48	0.1
13.00	R411.5-13034D13.00			☆	☆	☆	☆	☆	16	113	54	46	48	0.1
13.25	R411.5-13534D13.25			☆	☆	☆	☆	☆	16	118	59	47	48	0.1
13.50	R411.5-13534D13.50			☆	☆	☆	☆	☆	16	118	59	47	48	0.1
14.00	R411.5-14034D14.00			☆	☆	☆	☆	☆	16	118	59	49	48	0.1
14.25	R411.5-14534D14.25	14.01-14.50	R411.5-14534Dxx.xx	☆	☆	☆	☆	☆	20	123	63	51	50	0.2
14.50	R411.5-14534D14.50			☆	☆	☆	☆	☆	20	123	63	51	50	0.2
15.00	R411.5-15034D15.00			☆	☆	☆	☆	☆	20	123	63	53	50	0.2
15.25	R411.5-15534D15.25	15.01-15.50	R411.5-15534Dxx.xx	☆	☆	☆	☆	☆	20	128	68	54	50	0.2
15.50	R411.5-15534D15.50			☆	☆	☆	☆	☆	20	128	68	54	50	0.2
15.75	R411.5-16034D15.75	15.51-16.00	R411.5-16034Dxx.xx	☆	☆	☆	☆	☆	20	128	68	56	50	0.3
16.00	R411.5-16034D16.00			☆	☆	☆	☆	☆	20	128	68	56	50	0.2
16.25	R411.5-16534D16.25	16.01-16.50	R411.5-16534Dxx.xx	☆	☆	☆	☆	☆	20	133	73	58	50	0.2
16.50	R411.5-16534D16.50			☆	☆	☆	☆	☆	20	133	73	58	50	0.2

Ordering example for stocked drills: 2 pieces R411.5-10034 D9.75 P20
 Ordering example for non-stocked drills: 2 pieces R411.5-10034 D*9.80* P20



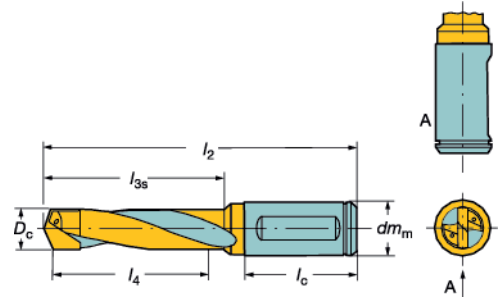
Coromant Delta 3.5 × D_c

Cylindrical shank with flat according to ISO 9766



Drill diameter: 9.50-30.40 mm (.374-1.197 inch)
 Hole depth: 3.5 × D_c
 Hole tolerance: IT8-9
 Surface finish: R_a 1-2 μm (40-80 μ inch)
 Cutting fluid: Emulsion or Neat oil

Tolerances, mm: D_c = js7
 dm_m h6

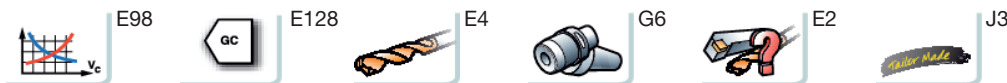


l₄ = recommended drilling depth

Metric design

Stocked drills		Non-stocked drills					Dimensions							
D _c mm	Ordering code	Drilling dia. range	Ordering code	P	M	K	N	H	dm _m	l ₂	l _{3s}	l ₄	l _c	R _a
				-	-	-	-	-						
16.75	R411.5-17034D16.75			☆	☆	☆	☆	☆	20	133	73	60	50	0.2
17.00	R411.5-17034D17.00			☆	☆	☆	☆	☆	20	133	73	60	50	0.2
17.50	R411.5-17534D17.50			☆	☆	☆	☆	☆	20	136	76	61	50	0.2
17.75	R411.5-18034D17.75	17.51-18.00	R411.5-18034Dxx.xx	☆	☆	☆	☆	☆	20	136	76	63	50	0.2
18.00	R411.5-18034D18.00			☆	☆	☆	☆	☆	20	136	76	63	50	0.2
18.50	R411.5-18534D18.50	18.01-18.50	R411.5-18534Dxx.xx	☆	☆	☆	☆	☆	20	139	79	65	50	0.2
18.75	R411.5-19034D18.75			☆	☆	☆	☆	☆	25	149	81	67	56	0.4
19.00	R411.5-19034D19.00			☆	☆	☆	☆	☆	25	149	81	67	56	0.4
19.25	R411.5-19534D19.25	19.01-19.50	R411.5-19534Dxx.xx	☆	☆	☆	☆	☆	25	154	86	68	56	0.4
19.50	R411.5-19534D19.50			☆	☆	☆	☆	☆	25	154	86	68	56	0.4
19.75	R411.5-20034D19.75			☆	☆	☆	☆	☆	25	154	86	70	56	0.4
20.00	R411.5-20034D20.00			☆	☆	☆	☆	☆	25	154	86	70	56	0.4
20.50	R411.5-20534D20.50	20.01-20.50	R411.5-20534Dxx.xx	☆	☆	☆	☆	☆	25	159	91	72	56	0.4
21.00	R411.5-21034D21.00	20.51-21.00	R411.5-21034Dxx.xx	☆	☆	☆	☆	☆	25	159	91	74	56	0.4
21.50	R411.5-21534D21.50	21.01-21.50	R411.5-21534Dxx.xx	☆	☆	☆	☆	☆	25	164	96	75	56	0.4
22.00	R411.5-22034D22.00	21.51-22.00	R411.5-22034Dxx.xx	☆	☆	☆	☆	☆	25	164	96	77	56	0.4
22.50	R411.5-22534D22.50	22.01-22.50	R411.5-22534Dxx.xx	☆	☆	☆	☆	☆	25	168	96	79	56	0.4
23.00	R411.5-23034D23.00	22.51-23.00	R411.5-23034Dxx.xx	☆	☆	☆	☆	☆	25	168	100	81	56	0.4
23.50	R411.5-23534D23.50			☆	☆	☆	☆	☆	25	174	106	82	56	0.4
24.00	R411.5-24034D24.00	23.51-24.00	R411.5-24034Dxx.xx	☆	☆	☆	☆	☆	25	174	106	84	56	0.6
24.50	R411.5-24534D24.50			☆	☆	☆	☆	☆	32	183	110	86	60	0.4
25.00	R411.5-25034D25.00	24.51-25.00	R411.5-25034Dxx.xx	☆	☆	☆	☆	☆	32	183	110	88	60	0.7
25.50	R411.5-25534D25.50	25.01-25.50	R411.5-25534Dxx.xx	☆	☆	☆	☆	☆	32	189	116	89	60	0.7
26.00	R411.5-26034D26.00	25.51-26.00	R411.5-26034Dxx.xx	☆	☆	☆	☆	☆	32	189	116	91	60	0.6
26.50	R411.5-26534D26.50			☆	☆	☆	☆	☆	32	193	120	93	60	0.7
27.00	R411.5-27034D27.00			☆	☆	☆	☆	☆	32	193	120	95	60	0.7
28.00	R411.5-28034D28.00			☆	☆	☆	☆	☆	32	199	126	98	60	0.8
28.50	R411.5-28534D28.50			☆	☆	☆	☆	☆	32	204	131	100	60	0.8
30.00	R411.5-30034D30.00			☆	☆	☆	☆	☆	32	208	135	105	60	0.9

Ordering example for stocked drills: 2 pieces R411.5-25034 D25.00 P20
 Ordering example for non-stocked drills: 2 pieces R411.5-18034D*17.80*

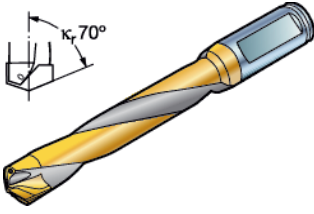


D
Milling
E
Drilling
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Boring
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Tooling Systems
J
General Information

Coromant Delta 5 × D_c

Cylindrical shank with flat according to ISO 9766

Milling



Drill diameter: 10.01-20.00 mm (.394-.787 inch)

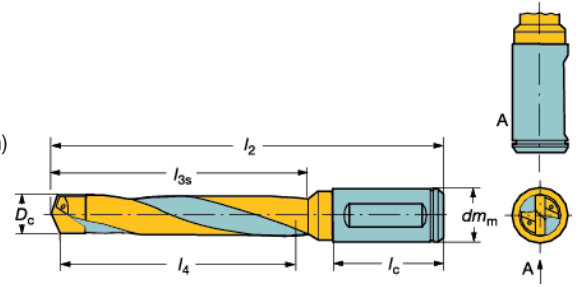
Hole depth: 5 × D_c

Hole tolerance: IT9-10

Surface finish: R_a 2-4 μm (80-160 μ inch)

Cutting fluid: Emulsion or Neat oil

Tolerances, mm: D_c = js7
dm_m h6



l₄ = recommended drilling depth

E

Drilling

F

Boring

G

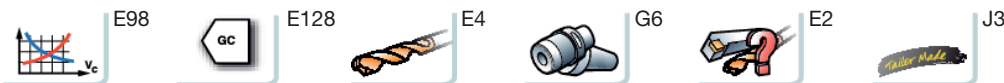
Metric design

Stocked drills		Non-stocked drills		P	M	K	N	H	Dimensions					
D _c mm	Ordering code	Drilling dia. range	Ordering code	P20	K20	K20	K20	K20	dm _m	l ₂	l _{3s}	l ₄	l _c	Ω _{kg}
10.20	R411.5-10554D10.20	10.01-10.50	R411.5-10554Dxx.xx	☆					16	116	57	53	48	0.1
10.50	R411.5-10554D10.50			☆					16	116	57	53	48	0.1
11.00	R411.5-11054D11.00			☆					16	120	61	55	48	0.1
11.50	R411.5-11554D11.50			☆					16	122	63	58	48	0.1
12.00	R411.5-12054D12.00			☆	☆	☆	☆	☆	16	126	67	60	48	0.1
12.25	R411.5-12554D12.25			☆					16	133	74	63	48	0.1
12.50	R411.5-12554D12.50			☆					16	133	74	63	48	0.1
13.00	R411.5-13054D13.00			☆	☆	☆	☆	☆	16	133	74	65	48	0.1
13.50	R411.5-13554D13.50	13.01-13.50	R411.5-13554Dxx.xx	☆					16	139	80	68	48	0.1
14.00	R411.5-14054D14.00			☆	☆	☆	☆	☆	16	139	80	70	48	0.1
14.50	R411.5-14554D14.50	14.01-14.50	R411.5-14554Dxx.xx	☆					20	146	86	73	50	0.2
15.00	R411.5-15054D15.00			☆	☆	☆	☆	☆	20	146	86	75	50	0.2
15.10	R411.5-15554D15.10			☆					20	152	92	78	50	0.2
15.25	R411.5-15554D15.25			☆					20	152	92	78	50	0.3
15.50	R411.5-15554D15.50			☆	☆	☆	☆	☆	20	152	92	78	50	0.2
16.00	R411.5-16054D16.00			☆	☆	☆	☆	☆	20	152	92	80	50	0.2
16.50	R411.5-16554D16.50	16.01-16.50	R411.5-16554Dxx.xx	☆	☆	☆	☆	☆	20	159	99	83	50	0.2
17.00	R411.5-17054D17.00	16.51-17.00	R411.5-17054Dxx.xx	☆	☆	☆	☆	☆	20	159	99	85	50	0.3
17.50	R411.5-17554D17.50	17.01-17.50	R411.5-17554Dxx.xx	☆	☆	☆	☆	☆	20	163	99	85	50	0.3
18.00	R411.5-18054D18.00			☆					20	163	103	90	50	0.3
18.50	R411.5-18554D18.50			☆					20	167	107	93	50	0.3
19.00	R411.5-19054D19.00			☆					25	178	110	95	56	0.4
19.50	R411.5-19554D19.50			☆	☆	☆	☆	☆	25	184	86	98	56	0.4
20.00	R411.5-20054D20.00			☆	☆	☆	☆	☆	25	184	116	100	56	0.4

Ordering example for stocked drills: 2 pieces R411.5-10554D10.20 P20
Ordering example for non-stocked drills: 2 pieces R411.5-10554D*10.30* P20

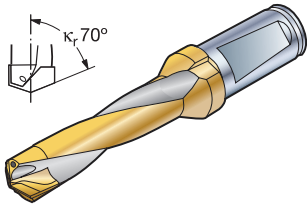
Tooling Systems

J



Coromant Delta 3.5 × D_c

Whistle Notch shank



Drill diameter: 10.00-30.40 mm (.394-1.197 inch)

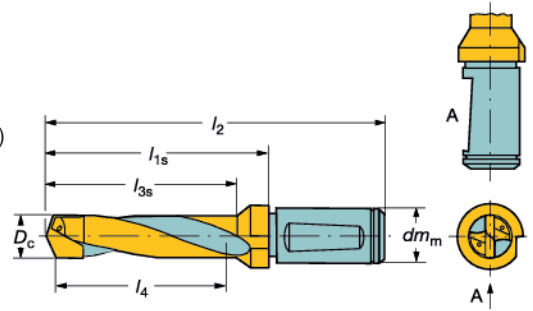
Hole depth: 3.5 × D_c

Hole tolerance: IT8-9

Surface finish: R_a 1-2 μm (40-80 μ inch)

Cutting fluid: Emulsion or Neat oil

Tolerances: D_c = js7
dm_m h6



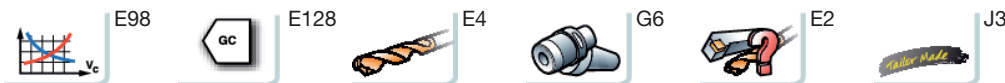
l_{3s} = programming length

l₄ = recommended drilling depth

Metric design

Stocked drills		Non-stocked drills		P	Dimensions					
D _c mm	Ordering code	Drilling dia. range	Ordering code	P20	dm _m	l ₂	l _{3s}	l _{1s}	l ₄	σ ₃₀
10.00	R411.5-10032D10.00			☆	16	92	39	52	35	0.1
10.20	R411.5-10232D10.20			☆	16	94	41	54	36	0.1
10.25	R411.5-10232D10.25			☆	16	94	41	54	36	0.1
10.50	R411.5-10532D10.50			☆	16	94	41	54	37	0.1
10.75	R411.5-10732D10.75			☆	16	97	44	57	38	0.1
11.00	R411.5-11032D11.00	10.76-11.00	R411.5-11032Dxx.xx	☆	16	97	44	57	39	0.1
11.11	R411.5-11232D11.11	11.01-11.25	R411.5-11232Dxx.xx	☆	16	99	46	59	39	0.1
11.25	R411.5-11232D11.25			☆	16	99	46	59	40	0.1
11.50	R411.5-11532D11.50	11.26-11.50	R411.5-11532Dxx.xx	☆	16	99	46	59	40	0.1
11.75	R411.5-11732D11.75			☆	16	102	49	62	41	0.1
12.00	R411.5-12032D12.00			☆	16	102	49	62	42	0.1
12.10	R411.5-12232D12.10	12.01-12.25	R411.5-12232Dxx.xx	☆	16	107	54	67	43	0.1
12.25	R411.5-12232D12.25			☆	16	107	54	67	43	0.1
12.50	R411.5-12532D12.50			☆	16	107	54	67	44	0.1
12.70	R411.5-12732D12.70	12.51-12.75	R411.5-12732Dxx.xx	☆	16	107	54	67	45	0.1
12.75	R411.5-12732D12.75			☆	16	107	54	67	46	0.1
12.80	R411.5-13032D12.80			☆	16	107	54	67	46	0.1
13.00	R411.5-13032D13.00			☆	16	107	54	67	46	0.1
13.25	R411.5-13232D13.25	13.01-13.25	R411.5-13232Dxx.xx	☆	16	112	59	72	46	0.1
13.50	R411.5-13532D13.50			☆	16	112	59	72	47	0.1
13.75	R411.5-13732D13.75	13.51-13.75	R411.5-13732Dxx.xx	☆	16	112	59	72	49	0.1
14.00	R411.5-14032D14.00	13.76-14.00	R411.5-14032Dxx.xx	☆	16	112	59	72	49	0.1
14.10	R411.5-14232D14.10			☆	20	115	63	77	50	0.2
14.20	R411.5-14232D14.20			☆	20	117	63	77	50	0.2
14.25	R411.5-14232D14.25			☆	20	117	63	77	50	0.4
14.50	R411.5-14532D14.50	14.26-14.50	R411.5-14532Dxx.xx	☆	20	117	63	77	51	0.2
14.75	R411.5-14732D14.75	14.51-14.75	R411.5-14732Dxx.xx	☆	20	117	63	77	53	0.2
15.00	R411.5-15032D15.00			☆	20	117	63	77	53	0.2
15.25	R411.5-15232D15.25			☆	20	122	68	82	53	0.2
15.50	R411.5-15532D15.50			☆	20	122	68	82	54	0.2
15.75	R411.5-15732D15.75			☆	20	122	68	82	56	0.2
15.88	R411.5-16032D15.88	15.76-16.00	R411.5-16032Dxx.xx	☆	20	122	68	82	56	0.2
16.00	R411.5-16032D16.00			☆	20	122	68	82	56	0.2
16.10	R411.5-16232D16.10	16.01-16.25	R411.5-16232Dxx.xx	☆	20	127	73	87	57	0.2
16.25	R411.5-16232D16.25			☆	20	127	73	87	57	0.2
16.50	R411.5-16532D16.50			☆	20	127	73	87	58	0.2
16.60	R411.5-16732D16.60			☆	20	127	73	87	59	0.2
16.75	R411.5-16732D16.75			☆	20	127	73	87	60	0.2
17.00	R411.5-17032D17.00	16.76-17.00	R411.5-17032Dxx.xx	☆	20	127	73	87	60	0.2
17.50	R411.5-17532D17.50			☆	25	137	76	92	61	0.3
17.75	R411.5-17732D17.75			☆	25	137	76	92	63	0.3
18.00	R411.5-18032D18.00			☆	25	137	76	92	63	0.3
18.04	R411.5-18232D18.04	18.01-18.25	R411.5-18232Dxx.xx	☆	20	142	81	97	64	0.3
18.50	R411.5-18532D18.50			☆	25	142	81	97	65	0.3
18.75	R411.5-18732D18.75			☆	25	142	81	97	66	0.3

Ordering example for stocked drills: 2 pieces R411.5-11032 D11.00 P20
 Ordering example for non-stocked drills: 2 pieces R411.5-11032 D*10.80* P20



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DRILLING Coromant Delta
Coromant Delta 3.5 × D_c

Whistle Notch shank

Drill diameter: 10.00-30.40 mm (.394-1.197 inch)
Hole depth: 3.5 × D_c
Hole tolerance: IT8-9
Surface finish: R_a 1-2 μm (40-80 μ inch)
Cutting fluid: Emulsion or Neat oil
Tolerances: D_c = js7
dm_m h6

l_{1s} = programming length
l₄ = recommended drilling depth

Metric design

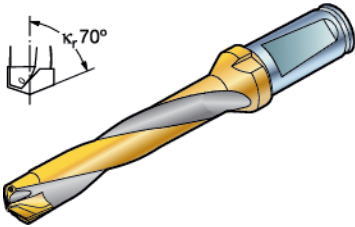
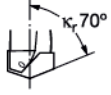
Stocked drills		Non-stocked drills		P	Dimensions					
D _c mm	Ordering code	Drilling dia. range	Ordering code	P20	dm _m	l ₂	l _{3s}	l _{1s}	l ₄	R _a
19.00	R411.5-19032D19.00			☆	25	142	81	97	67	0.4
19.05	R411.5-19232D19.05			☆	25	147	86	102	67	0.4
19.25	R411.5-19232D19.25			☆	25	147	86	102	67	0.4
19.50	R411.5-19532D19.50			☆	25	147	86	102	68	0.4
19.75	R411.5-19732D19.75			☆	25	147	86	102	70	0.4
20.00	R411.5-20032D20.00	19.76-20.00	R411.5-20032Dxx.xx	☆	25	147	86	102	70	0.4
20.50	R411.5-20532D20.50	20.01-20.50	R411.5-20532Dxx.xx	☆	25	152	91	107	72	0.4
21.00	R411.5-21032D21.00			☆	25	152	91	107	74	0.4
21.20	R411.5-21532D21.20			☆	25	155	96	112	75	0.4
21.50	R411.5-21532D21.50			☆	25	157	96	112	75	0.4
22.00	R411.5-22032D22.00			☆	25	157	96	112	77	0.4
22.50	R411.5-22532D22.50	22.01-22.50	R411.5-22532Dxx.xx	☆	25	161	100	116	79	0.4
23.00	R411.5-23032D23.00			☆	25	161	100	116	81	0.4
23.50	R411.5-23532D23.50			☆	25	167	106	122	82	0.4
24.00	R411.5-24032D24.00			☆	25	167	106	122	84	0.5
24.50	R411.5-24532D24.50	24.01-24.50	R411.5-24532Dxx.xx	☆	25	171	110	126	86	0.5
25.00	R411.5-25032D25.00	24.51-25.00	R411.5-25032Dxx.xx	☆	25	171	110	126	88	0.5
25.50	R411.5-25532D25.50	25.01-25.50	R411.5-25532Dxx.xx	☆	25	178	116	133	89	0.5
26.00	R411.5-26032D26.00			☆	25	178	116	133	91	0.5
26.50	R411.5-26532D26.50			☆	25	182	120	137	93	0.5
27.00	R411.5-27032D27.00			☆	25	182	120	137	95	0.5
27.50	R411.5-27532D27.50			☆	25	188	126	143	96	0.6
28.00	R411.5-28032D28.00			☆	25	188	126	143	98	0.6
28.50	R411.5-28532D28.50			☆	25	193	131	148	100	0.5
30.00	R411.5-30032D30.00			☆	25	197	135	152	105	0.7

Ordering example for stocked drills: 2 pieces R411.5-20032 D20.00 P20
Ordering example for non-stocked drills: 2 pieces R411.5-20032 D*19.90* P20

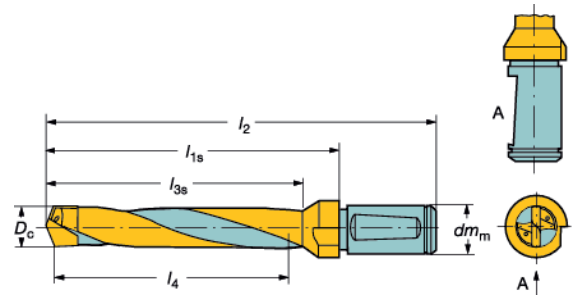
E 50

Coromant Delta 5 × D_c

Whistle Notch shank



Drill diameter: 9.50-20.00 mm (.374-.787 inch)
 Hole depth: 5 × D_c
 Hole tolerance: IT9-10
 Surface finish: R_a 2-4 μm (80-160 μ inch)
 Cutting fluid: Emulsion or Neat oil
 Tolerances, mm: D_c = js7
 d_m h6



l_{1s} = programming length
 l₄ = recommended drilling depth

Metric design

Stocked drills		Non-stocked drills		P	Dimensions					
D _c mm	Ordering code	Drilling dia. range	Ordering code	P20	d _m	l ₂	l _{3s}	l _{1s}	l ₄	σ _{IT9}
10.00	R411.5-10052D10.00	9.50-10.00	R411.5-10052Dxx.xx	☆	16	107	54	67	50	0.1
10.25	R411.5-10552D10.25	10.01-10.50	R411.5-10552Dxx.xx	☆	16	110	57	70	53	0.1
10.50	R411.5-10552D10.50			☆	16	110	57	70	53	0.1
11.00	R411.5-11052D11.00	10.51-11.00	R411.5-11052Dxx.xx	☆	16	114	61	74	55	0.1
11.50	R411.5-11552D11.50			☆	16	116	63	76	58	0.1
12.00	R411.5-12052D12.00			☆	16	120	67	80	60	0.1
12.50	R411.5-12552D12.50			☆	16	127	74	87	63	0.1
13.00	R411.5-13052D13.00			☆	16	127	74	87	65	0.1
13.50	R411.5-13552D13.50	13.01-13.50	R411.5-13552Dxx.xx	☆	16	133	80	93	68	0.1
14.00	R411.5-14052D14.00	13.51-14.00	R411.5-14052Dxx.xx	☆	16	133	80	93	70	0.1
14.25	R411.5-14552D14.25			☆	20	137	86	100	73	0.2
14.50	R411.5-14552D14.50			☆	20	140	86	100	73	0.2
15.00	R411.5-15052D15.00	14.51-15.00	R411.5-15052Dxx.xx	☆	20	140	92	100	75	0.2
15.50	R411.5-15552D15.50			☆	20	146	92	106	78	0.2
16.00	R411.5-16052D16.00			☆	20	146	92	106	80	0.2
16.50	R411.5-16552D16.50			☆	20	153	99	113	83	0.2
17.00	R411.5-17052D17.00	16.51-17.00	R411.5-17052Dxx.xx	☆	20	153	99	113	85	0.3
17.50	R411.5-17552D17.50			☆	25	164	103	119	88	0.4
18.00	R411.5-18052D18.00			☆	25	164	103	119	90	0.4
18.50	R411.5-18552D18.50			☆	25	171	110	126	93	0.4
19.00	R411.5-19052D19.00			☆	25	171	110	126	95	0.4
19.50	R411.5-19552D19.50			☆	25	177	116	132	98	0.4
20.00	R411.5-20052D20.00			☆	25	177	116	132	100	0.4

Ordering example for stocked drills: 2 pieces R411.5-10052 D10.00 P20
 Ordering example for non-stocked drills: 2 pieces R411.5-10052 D*9.80* P20



E98



E128



E4



G6



E2

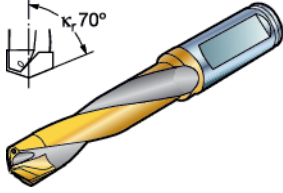


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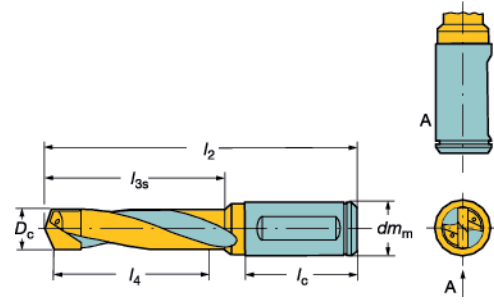
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DRILLING Coromant Delta
Coromant Delta 3.5 × D_c
Cylindrical shank with flat according to ISO 9766



Drill diameter: .375 - 1.0156 inch
Hole depth: 3.5 × D_c
Hole tolerance: 0 / .0015 inch
Surface finish: R_a 1-2 μm (40-80 μ inch)
Cutting fluid: Emulsion or Neat oil
Tolerances: D_c = js7
dm_m h6



l₄ = recommended drilling depth

Inch design

Stocked drills

D _c inch	Ordering code	Material				Dimensions, inch						
		P	M	K	N	H	dm _m	l ₂	l _{3s}	l ₄	l _c	Surface finish
.3750	RA411.5-2534D0.3750	☆	☆	☆	☆	☆	.625	3.860	1.530	1.380	1.890	.4409
.4062	RA411.5-2634D0.4062	☆	☆	☆	☆	☆	.625	3.940	1.610	1.460	1.890	.4409
.4219	RA411.5-2734D0.4219	☆	☆	☆	☆	☆	.625	4.060	1.730	1.540	1.890	.4409
.4375	RA411.5-2834D0.4375	☆	☆	☆	☆	☆	.625	4.130	1.810	1.570	1.890	.4409
.4531	RA411.5-3034D0.4531	☆	☆	☆	☆	☆	.625	4.250	1.930	1.650	1.890	.4409
.4688	RA411.5-3034D0.4688	☆	☆	☆	☆	☆	.625	4.250	1.930	1.650	1.890	.4409
.4844	RA411.5-3134D0.4844	☆	☆	☆	☆	☆	.625	4.450	2.130	1.730	1.890	.4409
.5000	RA411.5-3234D0.5000	☆	☆	☆	☆	☆	.625	4.450	2.130	1.810	1.890	.4409
.5312	RA411.5-3434D0.5312	☆	☆	☆	☆	☆	.625	4.650	2.320	1.850	1.890	.4409
.5469	RA411.5-3534D0.5469	☆	☆	☆	☆	☆	.625	4.650	2.320	1.930	1.890	.4409
.5625	RA411.5-3634D0.5625	☆	☆	☆	☆	☆	.750	4.840	2.480	2.010	1.970	.8818
.6250	RA411.5-4034D0.6250	☆	☆	☆	☆	☆	.750	5.040	2.680	2.200	1.970	.8818
.6406	RA411.5-4134D0.6406	☆	☆	☆	☆	☆	.750	5.240	2.870	2.280	1.970	.8818
.6562	RA411.5-4234D0.6562	☆	☆	☆	☆	☆	.750	5.240	2.870	2.360	1.970	.8818
.6719	RA411.5-4434D0.6719	☆	☆	☆	☆	☆	.750	5.350	2.990	2.400	1.970	1.5432
.6875	RA411.5-4434D0.6875	☆	☆	☆	☆	☆	.750	5.350	2.990	2.400	1.970	1.5432
.7188	RA411.5-4634D0.7188	☆	☆	☆	☆	☆	.750	5.470	3.110	2.560	1.970	1.5432
.7500	RA411.5-4934D0.7500	☆	☆	☆	☆	☆	1.000	6.060	3.390	2.680	2.200	1.5432
.7656	RA411.5-4934D0.7656	☆	☆	☆	☆	☆	1.000	6.060	3.390	2.680	2.200	1.5432
.7812	RA411.5-5034D0.7812	☆	☆	☆	☆	☆	1.000	6.060	3.390	2.760	2.200	1.5432
.8125	RA411.5-5234D0.8125	☆	☆	☆	☆	☆	1.000	6.260	3.580	2.910	2.200	1.9841
.8437	RA411.5-5434D0.8437	☆	☆	☆	☆	☆	1.000	6.460	3.780	2.950	2.200	1.9841
.8750	RA411.5-5634D0.8750	☆	☆	☆	☆	☆	1.000	6.610	3.940	3.110	2.200	1.9841
.8906	RA411.5-5734D0.8906	☆	☆	☆	☆	☆	1.000	6.610	3.940	3.190	2.200	1.9841
.9375	RA411.5-6034D0.9375	☆	☆	☆	☆	☆	1.000	6.850	4.170	3.310	2.200	1.9841
.9844	RA411.5-6434D0.9844	☆	☆	☆	☆	☆	1.250	7.440	4.570	3.500	2.360	1.9841
1.0000	RA411.5-6434D1.0000	☆	☆	☆	☆	☆	1.250	7.440	4.570	3.500	2.360	1.9841
1.0156	RA411.5-6534D1.0156	☆	☆	☆	☆	☆	1.250	7.440	4.570	3.580	2.360	1.9841

Ordering example for stocked drills: 2 pieces RA411.5-2534D0.3750 P20



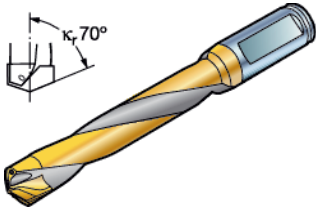
E 52



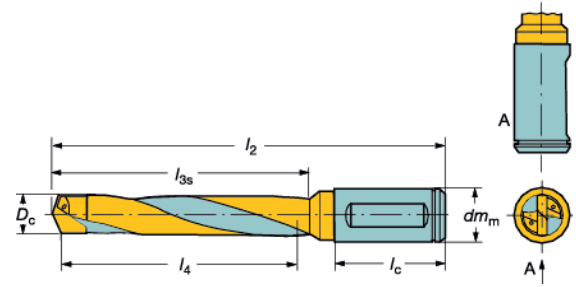
General Information

Coromant Delta 5 × D_c

Cylindrical shank with flat according to ISO 9766



Drill diameter: .375 - .750 inch
 Hole depth: 5 × D_c
 Hole tolerance: 0 / .0015 inch
 Surface finish: R_a 2-4 μm (80-160 μ inch)
 Cutting fluid: Emulsion or Neat oil



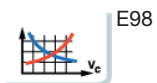
l₄ = recommended drilling depth

Inch design

Stocked drills

D _c inch	Ordering code	Material				Dimensions, inch					Lbs	
		P	M	K	N	H	dm _m	l ₂	l _{3s}	l ₄		l _c
.3750	RA411.5-2554D0.3750	☆					.625	4.450	2.130	1.970	1.890	.4409
.4062	RA411.5-2654D0.4062	☆					.625	4.570	2.240	2.090	1.890	.4409
.4219	RA411.5-2754D0.4219	☆	☆	☆	☆	☆	.625	4.720	2.400	2.170	1.890	.4409
.4375	RA411.5-2854D0.4375	☆	☆	☆	☆	☆	.625	4.800	2.480	2.280	1.890	.4409
.4531	RA411.5-3054D0.4531	☆					.625	4.960	2.640	2.360	1.890	.4409
.4688	RA411.5-3054D0.4688	☆					.625	4.960	2.640	2.360	1.890	.4409
.4844	RA411.5-3154D0.4844	☆					.625	5.240	2.910	2.480	1.890	.4409
.5000	RA411.5-3254D0.5000	☆					.625	5.240	2.910	2.560	1.890	.4409
.5312	RA411.5-3454D0.5312	☆	☆	☆	☆	☆	.625	5.310	2.990	2.680	1.890	.4409
.5469	RA411.5-3554D0.5469	☆					.625	5.470	3.150	2.760	1.890	.4409
.5625	RA411.5-3654D0.5625	☆	☆	☆	☆	☆	.750	5.750	3.390	2.870	1.970	.8818
.6250	RA411.5-4054D0.6250	☆					.750	5.980	3.620	3.150	1.970	.8818
.6562	RA411.5-4254D0.6562	☆	☆	☆	☆	☆	.750	6.260	3.900	3.350	1.970	.8818
.6875	RA411.5-4454D0.6875	☆	☆	☆	☆	☆	.750	6.260	3.900	3.460	1.970	1.5432
.7031	RA411.5-4554D0.7031		☆	☆	☆	☆	.750	6.420	4.060	3.540	1.970	1.5432
.7188	RA411.5-4654D0.7188		☆	☆	☆	☆	.750	6.570	4.210	3.660	1.970	1.5432
.7344	RA411.5-4754D0.7344	☆					1.000	7.010	4.330	3.740	2.200	1.5432
.7500	RA411.5-4954D0.7500	☆	☆	☆	☆	☆	1.000	7.240	4.570	3.860	2.200	1.5432

Ordering example for stocked drills: 2 pieces RA411.5-2554D0.3750 P20



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General Information

DRILLING Hard cut drills

Hard cut drills

For removal of broken taps or drilling difficult materials

5 × D_c

Field of application: For removal of broken taps

Drill dia.		Ordering code	Dimensions, millimeter, inch (mm, in.)						To remove taps	
D _c mm	D _c inch		l ₂ mm	l ₂ in.	l ₃ mm	l ₃ in.	dm mm	dm in.		
2	.079	HC2	30	1.181	10	.394	2	.079	M3	4-40 UNC, 6-40 UNF, 6 BA-4 BA
3	.118	HC3	40	1.575	15	.591	3	.118	M4, M5	8-32 UNC, 10-32 UNF, 3 BA-2 BA
4	.157	HC4	45	1.772	20	.787	4	.157	M6	1/4-5/16 UNC, 1/4-5/16 UNF, 1 BA-0 BA
5	.197	HC5	50	1.969	25	.984	5	.197	M8, M10	5/16-3/8 UNC, 5/16-3/8 UNF
6	.236	HC6	60	2.362	30	1.181	6	.236	M10, M12	3/8-1/2 UNC, 3/8-1/2 UNF
HC23456; set of diameters 2-6										

Geometry

- The extra negative geometry produces a high working temperature – anneales the tap.
- Regrindable geometry.
- No cutting fluid is required – drill dry.

Application

- Drills are primarily designed for removal of broken taps, hardened bolts etc.
- Can also be used for drilling in other difficult materials, e.g. chilled cast irons, stellite and glass.

Use machines with a stable spindle.

- FMS (flexible machining system), M/Cs, NC and NC-lathes, CNC, automatics, center and turret lathes and milling machines.

SAFETY INFORMATION

Precautions when grinding and brazing of cemented carbide, see page J7.

Operating procedure when drilling

1. Securely clamp the workpiece on the machine table in a vice or similar rigid workholding fixture. Center the drill on the broken tap.

2. Center drill in the uneven surface of the fractured tap, with a larger, more rigid drill than the one which will eventually be used for drilling out the tap.

3. Select the correct size of Hard Cut drill according to the list in the table above. The recommended spindle speeds are **1500-3500 rpm**. Drill with a consistent, steady, manual feed. Stop frequently to clear chips from the hole.

4. Once the tap has been drilled out, it is a relatively simple matter to remove the remaining parts of the tap using a scriber or similar pointed tool.

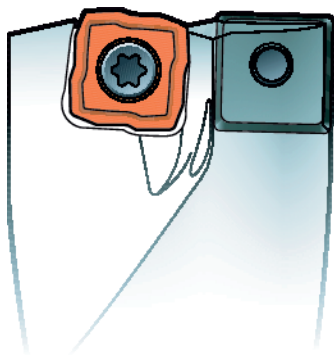
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CoroDrill® 880

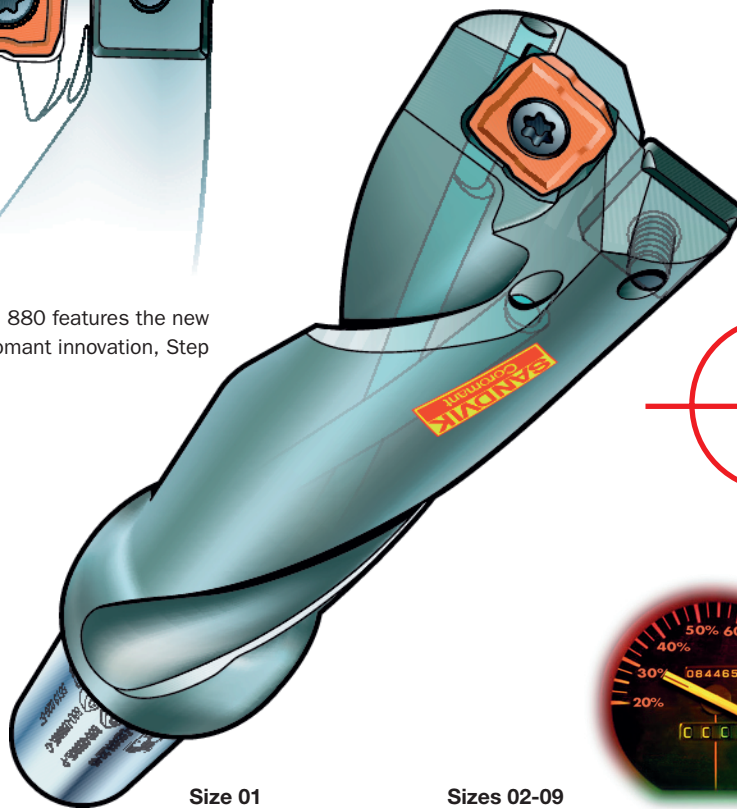
Indexable insert drill

Adding a new dimension to success

Step Technology™



The CoroDrill 880 features the new Sandvik Coromant innovation, Step Technology



Closer hole tolerances. Advanced insert positioning. Wiper technology. Excellent surface finish.



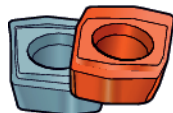
Step-by-step entrance into the workpiece. Perfectly balanced cutting forces. Up to 100% productivity increase.

Size 01

Sizes 02-09

Two cutting edges

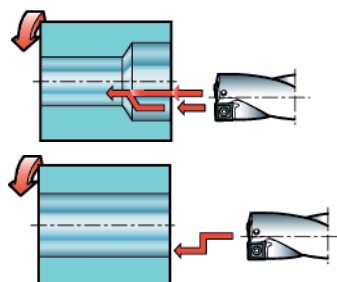
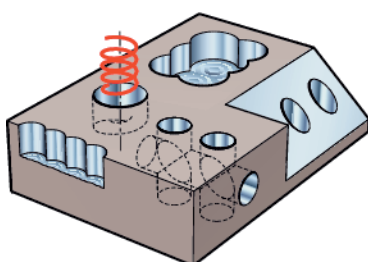
Four cutting edges



Specially optimized grades and geometries. High performance in all workpiece materials.

Rotating drill

Stationary drill



Tailor Made

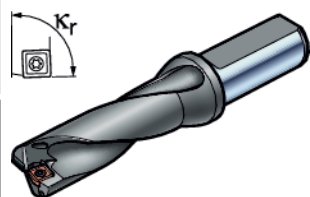
Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J3.



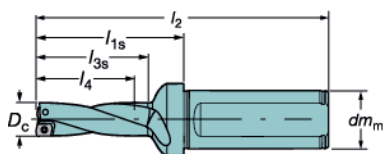
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DRILLING CoroDrill® 880
CoroDrill® 880 2 x D_c
Drill diameter 12.00 - 63.00 mm
Cylindrical shank

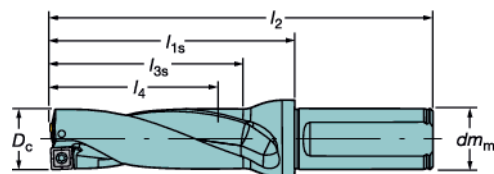
Flat according to ISO 9766



D_c 12.00 - 13.99 mm κ_r 79°



D_c 14.00 - 63.00 mm κ_r 88°

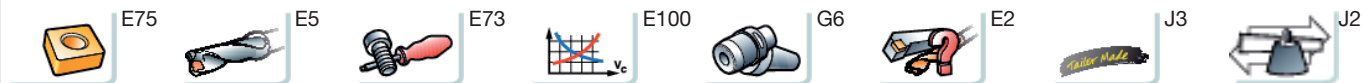


l_{1s} = programming length

Drill diameter, mm	12.00 - 43.99	44.00 - 52.99	53.00 - 63.00
Hole tolerance, mm	0/+0.25	0/+0.28	0/+0.30
Tolerance, D_c mm	0/+0.20	0/+0.25	0/+0.28
Max hole depth, l_4	2 x D_c		

Metric design

Drill dia.		Dimensions							Radial adjustment	
D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	$\frac{D_c}{mm}$	D_c Max		
01	12.0	880-D1200L20-02	20	39	89	27	24	0.2	0.25	12.5
	12.5	880-D1250L20-02	20	41	91	28	25	0.2	0.25	13.0
	12.7	880-D1270L20-02	20	41	91	28	25	0.2	0.25	13.2
	13.0	880-D1300L20-02	20	42	92	29	26	0.2	0.25	13.5
	13.5	880-D1350L20-02	20	43	93	30	27	0.2	0.25	14.0
02	14.0	880-D1400L20-02	20	44	95	31	28	0.2	0.50	15.0
	14.5	880-D1450L20-02	20	46	96	32	29	0.2	0.45	15.4
	15.0	880-D1500L20-02	20	47	97	33	30	0.2	0.40	15.8
	15.5	880-D1550L20-02	20	49	99	35	31	0.2	0.30	16.1
	16.0	880-D1600L20-02	20	51	101	36	32	0.2	0.30	16.6
03	16.5	880-D1650L20-02	20	52	102	37	33	0.2	0.60	17.7
	17.0	880-D1700L20-02	20	53	103	38	34	0.2	0.60	18.2
	17.5	880-D1750L25-02	25	55	111	39	35	0.3	0.50	18.5
	18.0	880-D1800L25-02	25	56	112	40	36	0.3	0.40	18.8
	18.5	880-D1850L25-02	25	57	113	41	37	0.3	0.40	19.3
	19.0	880-D1900L25-02	25	58	114	42	38	0.3	0.30	19.6
	19.5	880-D1950L25-02	25	60	116	43	39	0.3	0.30	20.1
04	20.0	880-D2000L25-02	25	61	117	44	40	0.3	0.90	21.8
	21.0	880-D2100L25-02	25	64	120	46	42	0.3	0.80	22.6
	22.0	880-D2200L25-02	25	66	122	48	44	0.3	0.60	23.2
	23.0	880-D2300L25-02	25	69	125	50	46	0.3	0.50	24.0
05	24.0	880-D2400L25-02	25	71	127	52	48	0.4	1.10	26.2
	25.0	880-D2500L25-02	25	74	130	54	50	0.4	1.00	27.0
	26.0	880-D2600L32-02	32	77	137	56	52	0.5	0.90	27.8
	27.0	880-D2700L32-02	32	79	139	58	54	0.5	0.70	28.4
	28.0	880-D2800L32-02	32	82	142	60	56	0.6	0.60	29.2
	29.0	880-D2900L32-02	32	84	144	62	58	0.6	0.50	30.0
06	30.0	880-D3000L32-02	32	87	147	64	60	0.6	1.12	32.2
	31.0	880-D3100L40-02	40	90	160	66	62	1.0	0.99	33.0
	32.0	880-D3200L40-02	40	92	162	68	64	1.0	0.87	33.7
	33.0	880-D3300L40-02	40	95	165	70	66	1.1	0.75	34.5
	34.0	880-D3400L40-02	40	98	168	73	68	1.1	0.62	35.2
	35.0	880-D3500L40-02	40	101	171	75	70	1.1	0.50	36.0
07	36.0	880-D3600L40-02	40	104	174	77	72	1.2	1.38	38.8
	37.0	880-D3700L40-02	40	105	175	78	74	1.2	1.25	39.5
	38.0	880-D3800L40-02	40	108	178	80	76	1.2	1.13	40.2
	39.0	880-D3900L40-02	40	110	178	82	78	1.2	1.00	41.0
	40.0	880-D4000L40-02	40	113	183	84	80	1.3	0.88	41.8
	41.0	880-D4100L40-02	40	117	187	87	82	1.3	0.75	42.5
	42.0	880-D4200L40-02	40	119	189	89	84	1.4	0.63	43.2
	43.0	880-D4300L40-02	40	122	192	91	86	1.4	0.50	44.0



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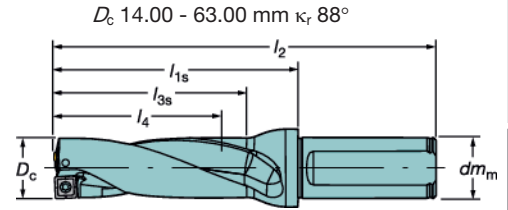
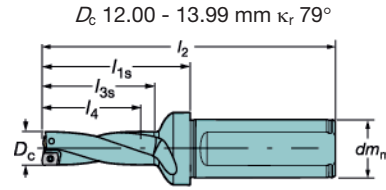
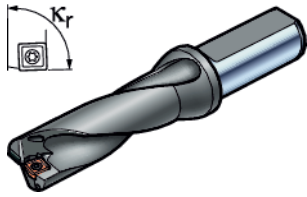
General Information

CoroDrill® 880 2 x D_c

Drill diameter 12.00 - 63.00 mm

Cylindrical shank

Flat according to ISO 9766



l_s = programming length

Drill diameter, mm	12.00 - 43.99	44.00 - 52.99	53.00 - 63.00
Hole tolerance, mm	0/+0.25	0/+0.28	0/+0.30
Tolerance, D _c mm	0/+0.20	0/+0.25	0/+0.28
Max hole depth, l ₄	2 x D _c		

Metric design

Drill dia.		Dimensions							Radial adjustment	
□	D _c mm	Ordering code	dm _m	l _s	l ₂	l _{3s}	l ₄			D _c Max
08	44.0	880-D4400L40-02	40	124	194	93	88	1.4	1.50	47.0
	45.0	880-D4500L40-02	40	127	197	95	90	1.5	1.40	47.8
	46.0	880-D4600L40-02	40	130	200	97	92	1.5	1.30	48.6
	47.0	880-D4700L40-02	40	132	202	99	94	1.8	1.10	49.2
	48.0	880-D4800L40-02	40	135	205	101	96	1.9	1.00	50.0
	49.0	880-D4900L40-02	40	137	207	103	98	1.9	0.90	50.8
	50.0	880-D5000L40-02	40	140	210	105	100	2.0	0.80	51.6
	51.0	880-D5100L40-02	40	144	214	108	102	2.1	0.60	52.2
09	52.0	880-D5200L40-02	40	146	216	110	104	2.1	0.50	53.0
	53.0	880-D5300L40-02	40	149	219	112	106	2.2	2.00	57.0
	54.0	880-D5400L40-02	40	151	221	114	108	2.2	1.90	57.8
	55.0	880-D5500L40-02	40	154	224	116	110	2.3	1.70	58.4
	56.0	880-D5600L40-02	40	157	227	118	112	2.4	1.60	59.2
	57.0	880-D5700L40-02	40	159	229	120	114	2.4	1.50	60.0
	58.0	880-D5800L40-02	40	162	232	122	116	2.5	1.40	60.8
	59.0	880-D5900L40-02	40	164	234	124	118	2.6	1.20	61.4
	60.0	880-D6000L40-02	40	167	237	126	120	2.7	1.10	62.2
	61.0	880-D6100L40-02	40	171	241	129	122	2.8	1.00	63.0
	62.0	880-D6200L40-02	40	173	243	131	124	2.8	0.80	63.6
	63.0	880-D6300L40-02	40	176	246	133	126	2.9	0.70	64.4



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E5



E73



E100



G6



E2



J3

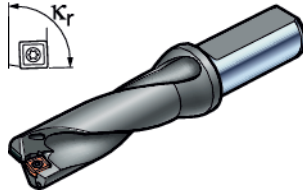


J2

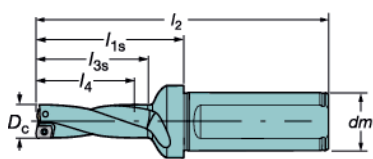
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DRILLING CoroDrill® 880
CoroDrill® 880 3 x D_c
Drill diameter 12.00 - 63.00 mm
Cylindrical shank

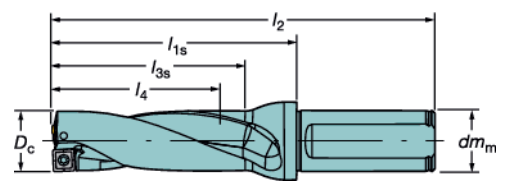
Flat according to ISO 9766



D_c 12.00 - 13.99 mm κ_r 79°



D_c 14.00 - 63.00 mm κ_r 88°



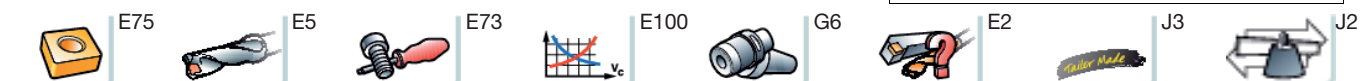
l_{1s} = programming length

Drill diameter, mm	12.00 - 43.99	44.00 - 52.99	53.00 - 63.00
Hole tolerance, mm	0/+0.25	0/+0.28	0/+0.30
Tolerance, D_c mm	0/+0.20	0/+0.25	0/+0.28
Max hole depth, l_4	3 x D_c		

Drill dia.		Dimensions							Radial adjustment	
D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	$\frac{\sigma}{\sigma_{AC}}$	D_c Max		
01	12.0	880-D1200L20-03	20	51	101	39	36	0.2	0.25	12.5
	12.5	880-D1250L20-03	20	53	103	40	38	0.2	0.25	13.0
	12.7	880-D1270L20-03	20	54	104	41	38	0.2	0.25	13.2
	13.0	880-D1300L20-03	20	55	105	42	39	0.2	0.25	13.5
	13.5	880-D1350L20-03	20	56	106	43	41	0.2	0.25	14.0
02	14.0	880-D1400L20-03	20	58	108	45	42	0.2	0.50	15.0
	14.5	880-D1450L20-03	20	60	110	46	44	0.2	0.45	15.4
	15.0	880-D1500L20-03	20	62	112	48	45	0.2	0.40	15.8
	15.5	880-D1550L20-03	20	64	114	50	47	0.2	0.30	16.1
	16.0	880-D1600L20-03	20	66	116	51	48	0.2	0.30	16.6
03	16.5	880-D1650L20-03	20	68	118	53	50	0.2	0.60	17.7
	17.0	880-D1700L20-03	20	69	119	54	51	0.2	0.60	18.2
	17.5	880-D1750L25-03	25	72	128	56	53	0.3	0.50	18.5
	18.0	880-D1800L25-03	25	73	129	57	54	0.3	0.40	18.8
	18.5	880-D1850L25-03	25	75	131	59	56	0.3	0.40	19.3
	19.0	880-D1900L25-03	25	76	132	60	57	0.3	0.30	19.6
	19.5	880-D1950L25-03	25	79	135	62	59	0.3	0.30	20.1
04	20.0	880-D2000L25-03	25	81	137	64	60	0.3	0.90	21.8
	20.5	880-D2050L25-03	25	82	138	65	62	0.3	0.80	22.1
	20.9	880-D2090L25-03	25	84	140	66	63	0.3	0.80	22.5
	21.0	880-D2100L25-03	25	84	140	66	63	0.3	0.80	22.6
	21.5	880-D2150L25-03	25	86	142	68	65	0.3	0.70	22.9
	22.0	880-D2200L25-03	25	87	143	69	66	0.3	0.60	23.2
	22.5	880-D2250L25-03	25	90	146	71	68	0.3	0.50	23.5
	23.0	880-D2300L25-03	25	91	147	72	69	0.3	0.50	24.0
	23.5	880-D2350L25-03	25	93	149	74	71	0.3	0.40	24.3
	23.9	880-D2390L25-03	25	95	151	76	72	0.3	0.30	24.5
05	24.0	880-D2400L25-03	25	95	151	76	72	0.4	1.10	26.2
	24.5	880-D2450L25-03	25	97	153	77	74	0.4	1.00	26.5
	25.0	880-D2500L25-03	25	99	155	79	75	0.4	1.00	27.0
	25.5	880-D2550L25-03	25	100	156	80	77	0.4	0.90	27.4
	26.0	880-D2600L32-03	32	102	162	81	78	0.5	0.90	27.8
	26.4	880-D2640L32-03	32	104	164	83	79	0.5	0.80	28.0
	26.5	880-D2650L32-03	32	104	164	83	80	0.5	0.80	28.1
	27.0	880-D2700L32-03	32	105	165	84	81	0.5	0.70	28.4
	27.5	880-D2750L32-03	32	108	168	86	83	0.5	0.60	28.7
	28.0	880-D2800L32-03	32	109	169	87	84	0.6	0.60	29.2
	28.5	880-D2850L32-03	32	111	171	89	86	0.6	0.50	29.5
	29.0	880-D2900L32-03	32	112	172	90	87	0.6	0.50	30.0
	29.4	880-D2940L32-03	32	115	175	92	88	0.6	0.40	30.2
	29.5	880-D2950L32-03	32	115	175	92	89	0.6	0.40	30.3

Drill diameters for tap-size holes

D_c	=	Tap Size
20.9	=	M24
23.9	=	M27
26.4	=	M30
29.4	=	M33



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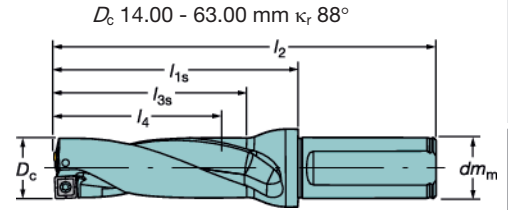
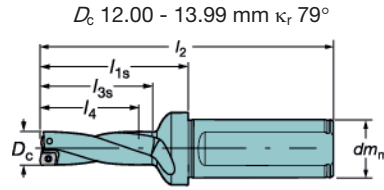
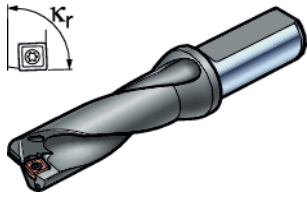


CoroDrill® 880 3 x D_c

Drill diameter 12.00 - 63.00 mm

Cylindrical shank

Flat according to ISO 9766

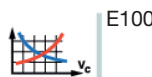


l_s = programming length

Drill diameter, mm	12.00 - 43.99	44.00 - 52.99	53.00 - 63.00
Hole tolerance, mm	0/+0.25	0/+0.28	0/+0.30
Tolerance, D _c mm	0/+0.20	0/+0.25	0/+0.28
Max hole depth, l ₄	3 x D _c		

Metric design

Drill dia.		Dimensions							Radial adjustment	
□	D _c mm	Ordering code	dm _m	l _s	l ₂	l _{3s}	l ₄	$\frac{\Delta}{100}$		D _c Max
06	30.0	880-D3000L32-03	32	117	177	94	90	0.7	1.12	32.2
	30.5	880-D3050L32-03	32	118	178	95	92	0.7	1.05	32.6
	31.0	880-D3100L40-03	40	121	191	97	93	1.1	0.99	33.0
	31.5	880-D3150L40-03	40	122	192	98	95	1.1	0.93	33.4
	32.0	880-D3200L40-03	40	124	194	100	96	1.1	0.87	33.7
	32.5	880-D3250L40-03	40	126	196	101	98	1.1	0.81	34.1
	33.0	880-D3300L40-03	40	128	198	103	99	1.2	0.75	34.5
	33.5	880-D3350L40-03	40	130	200	105	101	1.2	0.68	34.9
	34.0	880-D3400L40-03	40	131	201	106	102	1.2	0.62	35.2
	34.5	880-D3450L40-03	40	134	204	108	104	1.2	0.56	35.6
	35.0	880-D3500L40-03	40	135	205	109	105	1.2	0.50	36.0
	35.5	880-D3550L40-03	40	137	207	111	107	1.3	0.44	36.4
07	36.0	880-D3600L40-03	40	139	209	112	108	1.3	1.38	38.8
	37.0	880-D3700L40-03	40	142	212	115	111	1.3	1.25	39.5
	38.0	880-D3800L40-03	40	146	216	118	114	1.4	1.13	40.2
	39.0	880-D3900L40-03	40	149	219	121	117	1.4	1.00	41.0
	40.0	880-D4000L40-03	40	153	223	124	120	1.5	0.88	41.8
	41.0	880-D4100L40-03	40	157	227	127	123	1.5	0.75	42.5
	42.0	880-D4200L40-03	40	160	230	130	126	1.6	0.63	43.2
	43.0	880-D4300L40-03	40	164	234	133	129	1.6	0.50	44.0
08	44.0	880-D4400L40-03	40	167	237	136	132	1.7	1.50	47.0
	45.0	880-D4500L40-03	40	172	242	140	135	1.7	1.40	47.8
	46.0	880-D4600L40-03	40	176	246	143	138	1.8	1.30	48.6
	47.0	880-D4700L40-03	40	179	249	146	141	2.1	1.10	49.2
	48.0	880-D4800L40-03	40	183	253	149	144	2.2	1.00	50.0
	49.0	880-D4900L40-03	40	186	256	152	147	2.3	0.90	50.8
	50.0	880-D5000L40-03	40	190	260	155	150	2.3	0.80	51.6
	51.0	880-D5100L40-03	40	194	264	158	153	2.4	0.60	52.2
	52.0	880-D5200L40-03	40	197	267	161	156	2.5	0.50	53.0
09	53.0	880-D5300L40-03	40	201	271	164	159	2.6	2.00	57.0
	54.0	880-D5400L40-03	40	204	274	167	162	2.7	1.90	57.8
	55.0	880-D5500L40-03	40	209	279	171	165	2.8	1.70	58.4
	56.0	880-D5600L40-03	40	213	283	174	168	2.9	1.60	59.2
	57.0	880-D5700L40-03	40	216	286	177	171	3.0	1.50	60.0
	58.0	880-D5800L40-03	40	220	290	180	174	3.1	1.40	60.8
	59.0	880-D5900L40-03	40	223	293	183	177	3.2	1.20	61.4
	60.0	880-D6000L40-03	40	227	297	186	180	3.3	1.10	62.2
	61.0	880-D6100L40-03	40	232	302	190	183	3.4	1.00	63.0
	62.0	880-D6200L40-03	40	235	305	193	186	3.5	0.80	63.6
	63.0	880-D6300L40-03	40	239	309	196	189	3.6	0.70	64.4

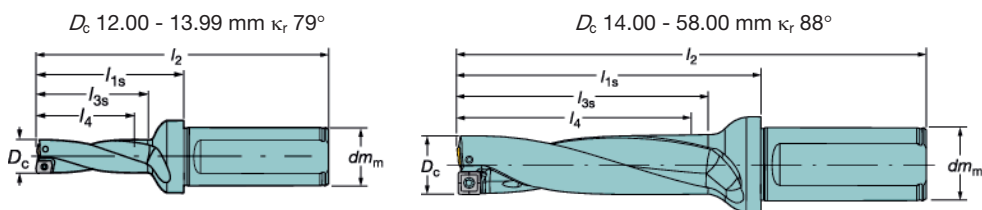
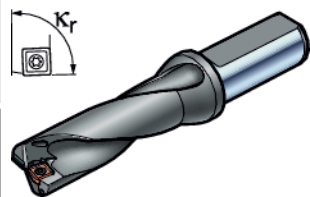


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CoroDrill® 880 4 x D_c

Drill diameter 12.00 - 58.00 mm

Cylindrical shank
Flat according to ISO 9766



Milling

E

Drill diameter, mm	12.00 - 43.99	44.00 - 52.99	53.00 - 58.00
Hole tolerance, mm	0/+0.40	0/+0.43	0/+0.45
Tolerance, D _c mm	+0.04/+0.24	+0.04/+0.29	+0.04/+0.32
Max hole depth, l ₄	4 x D _c		

l_{1s} = programming length

Metric design

Drill dia.		Dimensions							Radial adjustment	
□	D _c mm	Ordering code	dm _m	l _{1s}	b	l _{3s}	l ₄			D _c Max
01	12.0	880-D1200L20-04	20	63	113	51	48	0.2	0.25	12.5
	12.5	880-D1250L20-04	20	66	116	53	50	0.2	0.25	13.0
	12.7	880-D1270L20-04	20	66	116	53	51	0.2	0.25	13.2
	13.0	880-D1300L20-04	20	68	118	55	52	0.2	0.25	13.5
	13.5	880-D1350L20-04	20	70	120	57	54	0.2	0.25	14.0
02	14.0	880-D1400L20-04	20	72	122	59	56	0.2	0.50	15.0
	14.5	880-D1450L20-04	20	75	125	61	58	0.2	0.45	15.4
	15.0	880-D1500L20-04	20	77	127	63	60	0.2	0.40	15.8
	15.5	880-D1550L20-04	20	79	129	65	62	0.2	0.30	16.1
	16.0	880-D1600L20-04	20	82	132	67	64	0.2	0.30	16.6
03	16.5	880-D1650L20-04	20	84	134	69	66	0.2	0.60	17.7
	17.0	880-D1700L20-04	20	86	136	71	68	0.2	0.60	18.2
	17.5	880-D1750L25-04	25	89	145	73	70	0.3	0.50	18.5
	18.0	880-D1800L25-04	25	91	147	75	72	0.3	0.40	18.8
	18.5	880-D1850L25-04	25	93	149	77	74	0.3	0.40	19.3
	19.0	880-D1900L25-04	25	95	151	79	76	0.3	0.30	19.6
	19.5	880-D1950L25-04	25	99	155	82	78	0.3	0.30	20.1
04	20.0	880-D2000L25-04	25	101	157	84	80	0.3	0.90	21.8
	21.0	880-D2100L25-04	25	105	161	87	84	0.3	0.80	22.6
	22.0	880-D2200L25-04	25	109	165	91	88	0.3	0.60	23.2
	23.0	880-D2300L25-04	25	114	170	95	92	0.3	0.50	24.0
05	24.0	880-D2400L25-04	25	119	175	100	96	0.4	1.10	26.2
	25.0	880-D2500L25-04	25	124	180	104	100	0.4	1.00	27.0
	26.0	880-D2600L32-04	32	128	188	107	104	0.5	0.90	27.8
	27.0	880-D2700L32-04	32	132	192	111	108	0.5	0.70	28.4
	28.0	880-D2800L32-04	32	137	197	115	112	0.6	0.60	29.2
	29.0	880-D2900L32-04	32	141	201	119	116	0.6	0.50	30.0
06	30.0	880-D3000L32-04	32	147	207	124	120	0.8	1.12	32.2
	31.0	880-D3100L40-04	40	152	222	128	124	1.2	0.99	33.0
	32.0	880-D3200L40-04	40	156	226	132	128	1.2	0.87	33.7
	33.0	880-D3300L40-04	40	161	231	136	132	1.3	0.75	34.5
	34.0	880-D3400L40-04	40	165	235	140	136	1.3	0.62	35.2
	35.0	880-D3500L40-04	40	170	240	144	140	1.4	0.50	36.0
07	36.0	880-D3600L40-04	40	175	245	148	144	1.4	1.38	38.8
	37.0	880-D3700L40-04	40	179	249	152	148	1.5	1.25	39.5
	38.0	880-D3800L40-04	40	184	254	156	152	1.5	1.13	40.2
	39.0	880-D3900L40-04	40	188	258	160	156	1.6	1.00	41.0
	40.0	880-D4000L40-04	40	193	263	164	160	1.7	0.88	41.8
	41.0	880-D4100L40-04	40	198	268	168	164	1.7	0.75	42.5
	42.0	880-D4200L50-04	50	202	282	172	168	2.4	0.63	43.2
	43.0	880-D4300L50-04	50	207	287	176	172	2.5	0.50	44.0
08	44.0	880-D4400L50-04	50	211	291	180	176	2.6	1.50	47.0
	45.0	880-D4500L50-04	50	217	297	185	180	2.6	1.40	47.8
	46.0	880-D4600L50-04	50	222	302	189	184	2.7	1.30	48.6
	47.0	880-D4700L50-04	50	226	306	193	188	2.8	1.10	49.2
	48.0	880-D4800L50-04	50	231	311	197	192	2.9	1.00	50.0
	49.0	880-D4900L50-04	50	235	315	201	196	3.0	0.90	50.8
	50.0	880-D5000L50-04	50	240	320	205	200	3.1	0.80	51.6
	51.0	880-D5100L50-04	50	245	325	209	204	3.2	0.60	52.2
	52.0	880-D5200L50-04	50	249	329	213	208	3.3	0.50	53.0
09	53.0	880-D5300L50-04	50	254	334	217	212	3.4	2.00	57.0
	54.0	880-D5400L50-04	50	258	338	221	216	3.5	1.90	57.8
	55.0	880-D5500L50-04	50	264	344	226	220	3.7	1.70	58.4
	56.0	880-D5600L50-04	50	269	349	230	224	3.8	1.60	59.2
	57.0	880-D5700L50-04	50	273	353	234	228	3.9	1.50	60.0
	58.0	880-D5800L50-04	50	278	358	238	232	4.0	1.40	60.8

Drilling

F

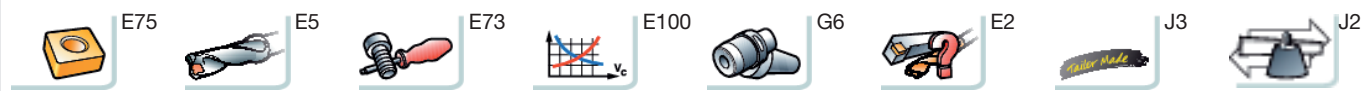
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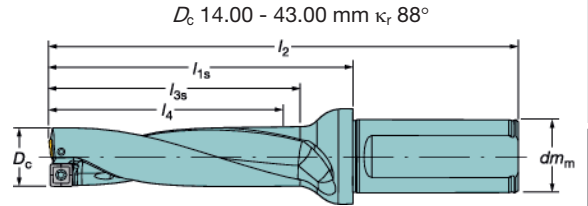
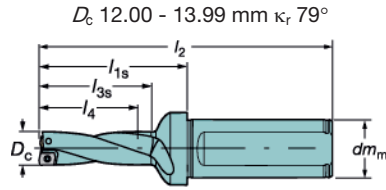
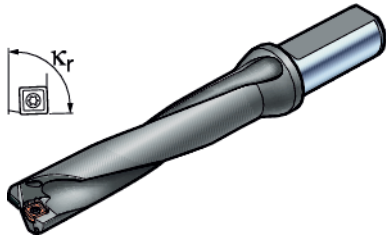


CoroDrill® 880 5 x D_c

Drill diameter 12.00 - 43.00 mm

Cylindrical shank

Flat according to ISO 9766

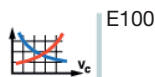


l_s = programming length

Drill diameter, mm	12.00 - 43.00
Hole tolerance, mm	0/+0.40
Tolerance, D _c mm	+0.4/+0.24
Max hole depth, l ₄	5 x D _c

Metric design

Drill dia.		Dimensions						Radial adjustment	
□ D _c mm	Ordering code	dm _m	l _s	l ₂	l _{3s}	l ₄			D _c Max
01 12.0	880-D1200L20-05	20	75	125	63	60	0.2	0.25	12.5
12.5	880-D1250L20-05	20	78	128	65	63	0.2	0.25	13.0
12.7	880-D1270L20-05	20	79	129	66	64	0.2	0.25	13.2
13.0	880-D1300L20-05	20	81	131	68	65	0.2	0.25	13.5
13.5	880-D1350L20-05	20	84	134	71	68	0.2	0.25	14.0
02 14.0	880-D1400L20-05	20	86	136	73	70	0.2	0.50	15.0
14.5	880-D1450L20-05	20	89	139	75	72	0.2	0.45	15.4
15.0	880-D1500L20-05	20	92	142	78	75	0.2	0.40	15.8
15.5	880-D1550L20-05	20	95	145	81	78	0.2	0.30	16.1
16.0	880-D1600L20-05	20	98	148	83	80	0.2	0.30	16.6
03 16.5	880-D1650L20-05	20	101	151	86	83	0.2	0.60	17.7
17.0	880-D1700L20-05	20	103	153	88	85	0.2	0.60	18.2
17.5	880-D1750L25-05	25	107	163	91	88	0.3	0.50	18.5
18.0	880-D1800L25-05	25	109	165	93	90	0.3	0.40	18.8
18.5	880-D1850L25-05	25	112	168	96	93	0.3	0.40	19.3
19.0	880-D1900L25-05	25	114	170	98	95	0.3	0.30	19.6
19.5	880-D1950L25-05	25	118	174	101	97	0.4	0.30	20.1
04 20.0	880-D2000L25-05	25	121	177	104	100	0.4	0.90	21.8
21.0	880-D2100L25-05	25	126	182	108	105	0.4	0.80	22.6
22.0	880-D2200L25-05	25	131	187	113	110	0.4	0.60	23.2
23.0	880-D2300L25-05	25	138	194	119	116	0.4	0.50	24.0
05 24.0	880-D2400L25-05	25	143	199	124	120	0.5	1.10	26.2
25.0	880-D2500L25-05	25	149	205	129	125	0.5	1.00	27.0
26.0	880-D2600L32-05	32	154	214	133	130	0.7	0.90	27.8
27.0	880-D2700L32-05	32	159	219	138	135	0.7	0.70	28.4
28.0	880-D2800L32-05	32	165	225	143	140	0.8	0.60	29.2
29.0	880-D2900L32-05	32	171	231	149	146	0.8	0.50	30.0
06 30.0	880-D3000L32-05	32	177	237	154	150	0.9	1.12	32.2
31.0	880-D3100L40-05	40	183	253	159	155	1.3	0.99	33.0
32.0	880-D3200L40-05	40	188	258	164	160	1.3	0.87	33.7
33.0	880-D3300L40-05	40	194	264	169	165	1.4	0.75	34.5
34.0	880-D3400L40-05	40	200	270	175	170	1.4	0.62	35.2
35.0	880-D3500L40-05	40	206	276	180	175	1.5	0.50	36.0
07 36.0	880-D3600L40-05	40	212	282	185	180	1.5	1.38	38.8
37.0	880-D3700L40-05	40	216	286	189	185	1.6	1.25	39.5
38.0	880-D3800L40-05	40	222	292	194	190	1.7	1.13	40.2
39.0	880-D3900L40-05	40	228	298	200	195	1.7	1.00	41.0
40.0	880-D4000L40-05	40	234	304	205	200	1.8	0.88	41.8
41.0	880-D4100L40-05	40	240	310	210	205	1.9	0.75	42.5
42.0	880-D4200L50-05	50	245	325	215	210	2.6	0.63	43.2
43.0	880-D4300L50-05	50	251	331	220	215	2.7	0.50	44.0



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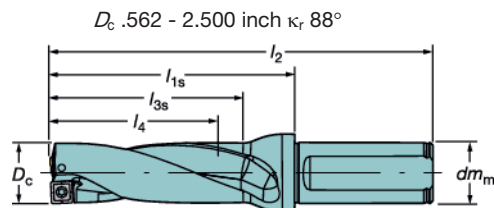
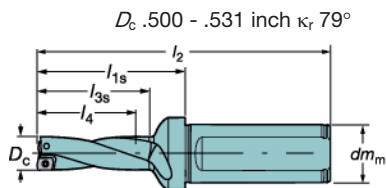
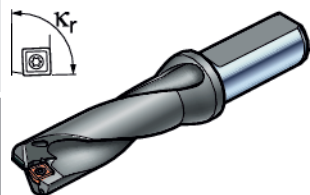
CoroDrill® 880 2 x D_c

Drill diameter .500 - 2.500 inch

Cylindrical shank

Flat according to ISO 9766

Milling



l_{1s} = programming length

E

Drill diameter, inch	.500 - 1.687	1.750 - 2.000	2.125 - 2.500
Hole tolerance, inch	0/+ .010	0/+ .011	0/+ .012
Tolerance, D _c inch	0/+ .008	0/+ .010	0/+ .011
Max hole depth, l ₄	2 x D _c		

Drilling

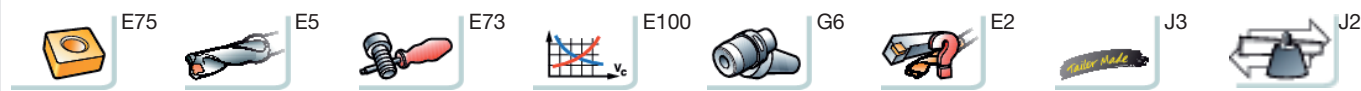
Drill dia. D _c inch	Ordering code	Dimensions, inch						Radial adjustment (+)	
		dm _m	l _{1s}	l ₂	l _{3s}	l ₄	⊖ l ₄		
01 .500	A880-D0500LX19-02	.750	1.582	3.550	1.100	1.000	.4	.010	.520
.531	A880-D0531LX19-02	.750	1.668	3.636	1.168	1.062	.4	.010	.551
02 .562	A880-D0562LX19-02	.750	1.756	3.724	1.237	1.124	.4	.018	.597
.625	A880-D0625LX19-02	.750	1.932	3.900	1.375	1.250	.4	.010	.646
03 .656	A880-D0656LX19-02	.750	2.018	3.986	1.443	1.312	.4	.023	.702
.687	A880-D0687LX25-02	1.000	2.092	4.297	1.498	1.374	.7	.020	.727
.750	A880-D0750LX25-02	1.000	2.267	4.472	1.635	1.500	.7	.010	.770
04 .812	A880-D0812LX25-02	1.000	2.439	4.644	1.770	1.624	.7	.032	.875
.875	A880-D0875LX25-02	1.000	2.636	4.841	1.929	1.750	.7	.023	.921
.937	A880-D0937LX25-02	1.000	2.787	4.992	2.043	1.874	.7	.014	.965
05 1.000	A880-D1000LX25-02	1.000	2.962	5.167	2.180	2.000	.9	.037	1.075
1.062	A880-D1062LX31-02	1.250	3.102	5.464	2.283	2.124	.9	.030	1.121
1.125	A880-D1125LX31-02	1.250	3.297	5.659	2.440	2.250	.9	.020	1.164
06 1.187	A880-D1187LX31-02	1.250	3.411	5.773	2.517	2.374	1.3	.043	1.274
1.250	A880-D1250LX38-02	1.500	3.582	6.338	2.650	2.500	2.2	.035	1.321
1.312	A880-D1312LX38-02	1.500	3.751	6.507	2.782	2.624	2.2	.028	1.368
1.375	A880-D1375LX38-02	1.500	3.922	6.678	2.915	2.750	2.4	.020	1.415
07 1.437	A880-D1437LX38-02	1.500	4.091	6.847	3.047	2.874	2.4	.052	1.540
1.500	A880-D1500LX38-02	1.500	4.232	6.988	3.150	3.000	2.6	.044	1.588
1.562	A880-D1562LX38-02	1.500	4.399	7.155	3.280	3.124	2.6	.036	1.634
1.625	A880-D1625LX38-02	1.500	4.570	7.326	3.413	3.250	2.9	.028	1.681
1.687	A880-D1687LX38-02	1.500	4.737	7.493	3.543	3.374	2.9	.020	1.728
08 1.750	A880-D1750LX38-02	1.500	4.907	7.663	3.675	3.500	3.1	.057	1.864
1.875	A880-D1875LX38-02	1.500	5.245	8.001	3.938	3.750	4.0	.041	1.957
2.000	A880-D2000LX38-02	1.500	5.582	8.338	4.200	4.000	4.4	.026	2.051
09 2.125	A880-D2125LX38-02	1.500	5.920	8.676	4.463	4.250	4.9	.074	2.273
2.250	A880-D2250LX38-02	1.500	6.257	9.013	4.725	4.500	5.3	.061	2.372
2.375	A880-D2375LX38-02	1.500	6.595	9.351	4.988	4.750	5.7	.042	2.458
2.500	A880-D2500LX38-02	1.500	6.932	9.688	5.250	5.000	6.4	.026	2.551

Boring

G

Tooling Systems

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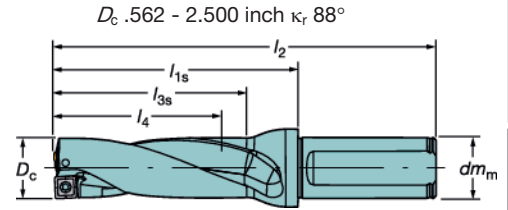
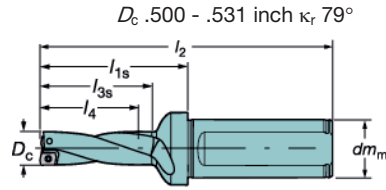
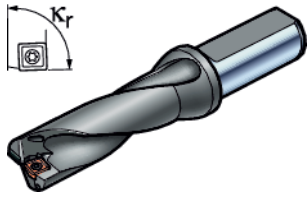


CoroDrill® 880 3 x D_c

Drill diameter .500 - 2.500 inch

Cylindrical shank

Flat according to ISO 9766

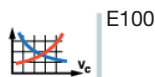


l_{1s} = programming length

Drill diameter, inch	.500 - 1.687	1.750 - 2.000	2.125 - 2.500
Hole tolerance, inch	0/+ .010	0/+ .011	0/+ .012
Tolerance, D _c inch	0/+ .008	0/+ .010	0/+ .011
Max hole depth, l ₄	3 x D _c		

Inch design

Drill dia. □ D _c inch	Ordering code	Dimensions, inch						Radial adjustment (+)	
		dm _m	l _{1s}	l ₂	l _{3s}	l ₄	□ L _{max}	D _c Max	
01 .500	A880-D0500LX19-03	.750	2.082	4.051	1.600	1.500	.4	.010	.520
	A880-D0531LX19-03	.750	2.199	4.168	1.699	1.593	.4	.010	.551
02 .562	A880-D0562LX19-03	.750	2.330	4.298	1.811	1.686	.4	.018	.597
	A880-D0625LX19-03	.750	2.565	4.534	2.008	1.875	.4	.010	.646
03 .656	A880-D0656LX19-03	.750	2.701	4.670	2.126	1.968	.4	.023	.702
	A880-D0687LX25-03	1.000	2.799	5.004	2.205	2.061	.7	.020	.727
	A880-D0750LX25-03	1.000	3.034	5.239	2.402	2.250	.7	.010	.770
04 .812	A880-D0812LX25-03	1.000	3.267	5.472	2.598	2.436	.7	.032	.875
	A880-D0875LX25-03	1.000	3.463	5.668	2.756	2.625	.7	.023	.921
	A880-D0937LX25-03	1.000	3.697	5.902	2.953	2.811	.7	.014	.965
05 1.000	A880-D1000LX25-03	1.000	3.932	6.137	3.150	3.000	.9	.037	1.075
	A880-D1062LX31-03	1.250	4.164	6.526	3.345	3.186	.9	.030	1.121
	A880-D1125LX31-03	1.250	4.401	6.763	3.544	3.375	.9	.020	1.164
06 1.187	A880-D1187LX31-03	1.250	4.598	6.960	3.704	3.561	1.5	.043	1.274
	A880-D1250LX38-03	1.500	4.832	7.588	3.900	3.750	2.4	.035	1.321
	A880-D1312LX38-03	1.500	5.063	7.819	4.094	3.936	2.4	.028	1.368
	A880-D1375LX38-03	1.500	5.297	8.053	4.290	4.125	2.6	.020	1.415
07 1.437	A880-D1437LX38-03	1.500	5.527	8.283	4.483	4.311	2.9	.052	1.540
	A880-D1500LX38-03	1.500	5.732	8.488	4.650	4.500	2.9	.044	1.588
	A880-D1562LX38-03	1.500	5.961	8.717	4.842	4.686	2.6	.036	1.634
	A880-D1625LX38-03	1.500	6.194	8.950	5.037	4.875	3.3	.028	1.681
08 1.687	A880-D1687LX38-03	1.500	6.423	9.179	5.229	5.061	3.5	.020	1.728
	A880-D1750LX38-03	1.500	6.657	9.413	5.425	5.250	4.0	.057	1.864
	A880-D1875LX38-03	1.500	7.120	9.876	5.813	5.625	4.6	.041	1.957
09 2.000	A880-D2000LX38-03	1.500	7.582	10.338	6.200	6.000	5.3	.026	2.051
	A880-D2125LX38-03	1.500	8.045	10.801	6.588	6.375	5.7	.074	2.273
2.250	A880-D2250LX38-03	1.500	8.507	11.263	6.975	6.750	6.4	.061	2.372
	A880-D2375LX38-03	1.500	8.970	11.726	7.363	7.125	7.3	.042	2.458
	A880-D2500LX38-03	1.500	9.432	12.188	7.750	7.500	7.9	.026	2.551



D
Milling
E
Drilling
F
Boring
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Tooling Systems
J
General Information

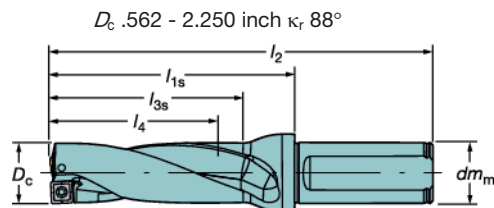
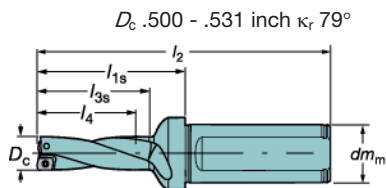
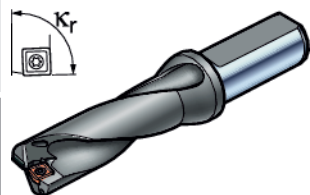
CoroDrill® 880 4 x D_c

Drill diameter .500 - 2.250 inch

Cylindrical shank

Flat according to ISO 9766

Milling



*l*_{1s} = programming length

E

Drill diameter, inch	.500 - 1.687	1.750 - 2.000	2.125 - 2.250
Hole tolerance, inch	0/+ .016	0/+ .017	0/+ .018
Tolerance, D _c inch	+.0016/+ .009	+.0016/+ .011	.0016/+ .013
Max hole depth, <i>l</i> ₄	4 x D _c		

Drilling

Inch design		Dimensions, inch							Radial adjustment (+)	
Drill dia.		<i>dm</i> _m	<i>l</i> _{1s}	<i>l</i> ₂	<i>l</i> _{3s}	<i>l</i> ₄	$\frac{R}{L}$		D _c Max	
01	.500	A880-D0500LX19-04	.750	2.582	4.550	2.100	2.000	.4	.010	.520
	.531	A880-D0531LX19-04	.750	2.720	4.688	2.230	2.124	.4	.010	.551
02	.562	A880-D0562LX19-04	.750	2.881	4.850	2.362	2.248	.4	.018	.597
	.625	A880-D0625LX19-04	.750	3.195	5.164	2.638	2.500	.4	.010	.646
03	.656	A880-D0656LX19-04	.750	3.331	5.300	2.756	2.624	.4	.024	.703
	.687	A880-D0687LX25-04	1.000	3.468	5.673	2.874	2.748	.7	.020	.727
	.750	A880-D0750LX25-04	1.000	3.781	5.986	3.149	3.000	.7	.010	.770
04	.812	A880-D0812LX25-04	1.000	4.054	6.259	3.385	3.248	.9	.032	.875
	.875	A880-D0875LX25-04	1.000	4.329	6.534	3.622	3.500	.9	.023	.921
	.937	A880-D0937LX25-04	1.000	4.602	6.807	3.858	3.748	.9	.014	.965
05	1.000	A880-D1000LX25-04	1.000	4.915	7.120	4.133	4.000	1.1	.037	1.075
	1.062	A880-D1062LX31-04	1.250	5.189	7.551	4.370	4.248	1.5	.030	1.121
	1.125	A880-D1125LX31-04	1.250	5.502	7.864	4.645	4.500	1.5	.020	1.164
06	1.187	A880-D1187LX31-04	1.250	5.785	8.147	4.891	4.748	1.8	.043	1.274
	1.250	A880-D1250LX38-04	1.500	6.082	8.838	5.150	5.000	2.6	.035	1.321
	1.312	A880-D1312LX38-04	1.500	6.375	9.131	5.406	5.248	2.6	.028	1.368
	1.375	A880-D1375LX38-04	1.500	6.672	9.428	5.665	5.500	2.9	.020	1.415
07	1.437	A880-D1437LX38-04	1.500	6.964	9.720	5.920	5.748	3.1	.052	1.540
	1.500	A880-D1500LX38-04	1.500	7.232	9.988	6.150	6.000	3.3	.044	1.588
	1.562	A880-D1562LX38-04	1.500	7.523	10.279	6.404	6.248	3.5	.036	1.634
	1.625	A880-D1625LX38-04	1.500	7.819	10.575	6.662	6.500	3.7	.028	1.681
08	1.687	A880-D1687LX38-04	1.500	8.110	10.866	6.916	6.748	4.0	.020	1.728
	1.750	A880-D1750LX38-04	1.500	8.407	11.163	7.175	7.000	4.2	.057	1.864
	1.875	A880-D1875LX38-04	1.500	8.993	11.749	7.686	7.500	5.3	.041	1.957
09	2.000	A880-D2000LX38-04	1.500	9.582	12.338	8.200	8.000	6.0	.026	2.051
	2.125	A880-D2125LX38-04	1.500	10.170	12.926	8.713	8.500	6.8	.074	2.273
	2.250	A880-D2250LX38-04	1.500	10.757	13.513	9.225	9.000	7.7	.061	2.372

F

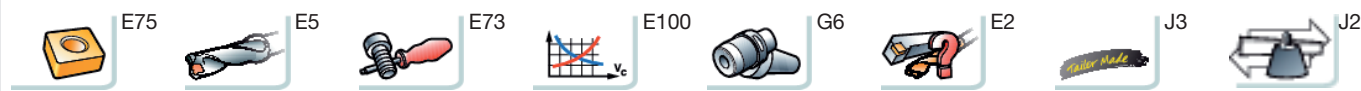
Boring

G

Tooling Systems

J

General Information

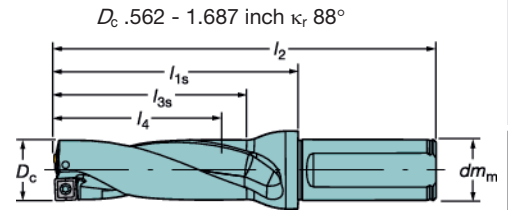
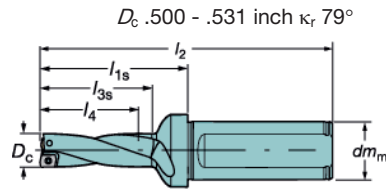
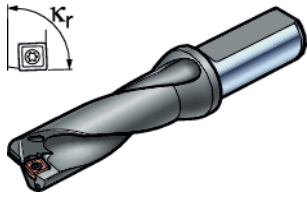


CoroDrill® 880 5 x D_c

Drill diameter .500 - 1.687 inch

Cylindrical shank

Flat according to ISO 9766

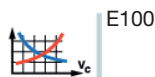


l_s = programming length

Drill diameter, inch	.500 - 1.687
Hole tolerance, inch	0/+ .016
Tolerance, D _c inch	+ .0016/+ .009
Max hole depth, l ₄	5 x D _c

Inch design

Drill dia. □ D _c inch	Ordering code	Dimensions, inch							Radial adjustment (+)	
		dm _m	l _s	l ₂	l _{3s}	l ₄		D _c Max		
01 .500	A880-D0500LX19-05	.750	3.082	5.050	2.600	2.500	.4	.010	.520	
	A880-D0531LX19-05	.750	3.255	5.224	2.755	2.655	.4	.010	.551	
02 .562	A880-D0562LX19-05	.750	3.441	5.410	2.922	2.810	.4	.018	.597	
	A880-D0625LX19-05	.750	3.807	5.776	3.250	3.125	.4	.010	.646	
03 .656	A880-D0656LX19-05	.750	3.986	5.954	3.411	3.280	.4	.024	.703	
	A880-D0687LX25-05	1.000	4.166	6.371	3.572	3.435	.7	.020	.727	
04 .750	A880-D0750LX25-05	1.000	4.517	6.722	3.885	3.750	.7	.010	.770	
	A880-D0812LX25-05	1.000	4.875	7.080	4.206	4.060	.9	.032	.875	
05 .812	A880-D0875LX25-05	1.000	5.213	7.418	4.506	4.375	.9	.023	.921	
	A880-D0937LX25-05	1.000	5.569	7.774	4.825	4.685	1.1	.014	.965	
06 1.000	A880-D1000LX25-05	1.000	5.932	8.137	5.150	5.000	1.3	.037	1.075	
	A880-D1062LX31-05	1.250	6.256	8.618	5.437	5.310	1.5	.030	1.121	
07 1.125	A880-D1125LX31-05	1.250	6.617	8.979	5.760	5.625	1.8	.020	1.164	
	A880-D1187LX31-05	1.250	6.971	9.333	6.077	5.935	2.0	.043	1.274	
08 1.250	A880-D1250LX38-05	1.500	7.332	10.088	6.400	6.250	2.6	.035	1.321	
	A880-D1312LX38-05	1.500	7.686	10.442	6.717	6.560	2.9	.028	1.368	
09 1.312	A880-D1375LX38-05	1.500	8.047	10.803	7.040	6.875	2.9	.020	1.415	
	A880-D1437LX38-05	1.500	8.401	11.157	7.357	7.185	3.3	.052	1.540	
10 1.437	A880-D1500LX38-05	1.500	8.732	11.488	7.650	7.500	3.5	.044	1.588	
	A880-D1562LX38-05	1.500	9.085	11.841	7.966	7.810	3.7	.036	1.634	
11 1.562	A880-D1625LX38-05	1.500	9.445	12.201	8.288	8.125	4.2	.028	1.681	
	A880-D1687LX38-05	1.500	9.798	12.554	8.604	8.435	4.4	.020	1.728	



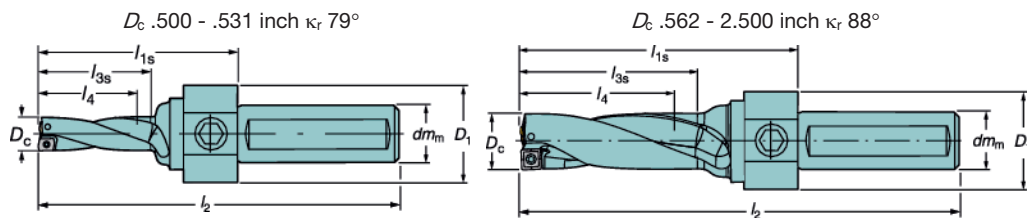
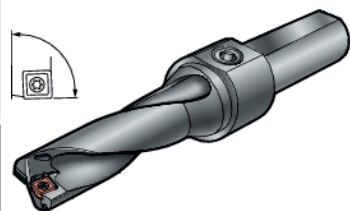
CoroDrill® 880 3 x D_c

Drill diameter .500 - 2.500 inch

Cylindrical shank with flat, US P shank

Milling

E



l_{1s} = programming length

Drill diameter, inch	.500 - 1.687	1.750 - 2.000	2.125 - 2.500
Hole tolerance, inch	0/+ .010	0/+ .011	0/+ .012
Tolerance, D _c inch	0/+ .008	0/+ .010	0/+ .011
Max hole depth, l ₄	3 x D _c		

Inch design

Drill dia.		Dimensions, inch							Radial adjustment (+)	
D _c inch	Ordering code	dm _m	D ₁	l _{1s}	l ₂	l _{3s}	l ₄	l ₄	D _c Max	
01 .500	A880-D0500P19-03	.750	3.150	3.263	6.243	1.600	1.500	.4	.010	.520
	A880-D0531P19-03	.750	3.150	3.380	6.360	1.699	1.593	.4	.010	.551
02 .562	A880-D0562P19-03	.750	3.150	3.511	6.491	1.811	1.686	.4	.018	.597
	A880-D0625P19-03	.750	3.150	3.746	6.726	2.008	1.875	.4	.010	.646
03 .656	A880-D0656P19-03	.750	3.937	3.843	6.823	2.126	1.968	.4	.023	.702
	A880-D0687P25-03	1.000	3.937	4.059	7.039	2.205	2.061	.7	.020	.727
04 .750	A880-D0750P25-03	1.000	3.937	4.293	7.273	2.402	2.250	.7	.010	.770
	A880-D0812P25-03	1.000	6.299	4.527	7.507	2.598	2.436	.7	.032	.875
05 .875	A880-D0875P31-03	1.250	6.299	4.722	7.702	2.756	2.625	.9	.023	.921
	A880-D0937P31-03	1.250	6.299	4.957	7.937	2.953	2.811	.9	.014	.965
06 1.000	A880-D1000P31-03	1.250	7.874	5.191	8.171	3.150	3.000	1.0	.037	1.075
	A880-D1062P31-03	1.250	7.874	5.386	8.366	3.345	3.186	1.1	.030	1.121
07 1.125	A880-D1125P31-03	1.250	7.874	5.620	8.600	3.544	3.375	1.1	.020	1.164
	A880-D1187P31-03	1.250	9.449	5.854	8.834	3.700	3.561	1.1	.043	1.274
08 1.250	A880-D1250P38-03	1.500	9.449	6.089	9.069	3.898	3.750	1.6	.035	1.321
	A880-D1312P38-03	1.500	9.449	6.324	9.304	4.095	3.936	1.6	.028	1.368
09 1.375	A880-D1375P38-03	1.500	9.449	6.557	9.537	4.291	4.125	1.7	.020	1.415
	A880-D1437P38-03	1.500	9.449	6.792	9.772	4.488	4.311	1.8	.052	1.540
10 1.500	A880-D1500P38-03	1.500	9.449	6.987	9.967	4.646	4.500	1.8	.044	1.588
	A880-D1562P38-03	1.500	9.449	7.222	10.202	4.843	4.686	1.9	.036	1.634
11 1.625	A880-D1625P38-03	1.500	9.449	7.455	10.435	5.039	4.875	2.0	.028	1.681
	A880-D1687P38-03	1.500	9.449	7.886	10.866	5.236	5.061	2.0	.020	1.728
12 1.750	A880-D1750P38-03	1.500	9.449	8.121	11.101	5.433	5.250	2.7	.057	1.864
	A880-D1875P38-03	1.500	9.449	8.590	11.570	5.827	5.625	2.9	.041	1.957
13 2.000	A880-D2000P38-03	1.500	9.449	9.058	12.038	6.220	6.000	3.1	.026	2.051
	A880-D2125P38-03	1.500	9.449	9.488	12.468	6.575	6.375	3.4	.074	2.273
14 2.250	A880-D2250P38-03	1.500	9.449	9.957	12.937	6.969	6.750	3.7	.061	2.372
	A880-D2375P38-03	1.500	9.449	10.426	13.406	7.363	7.125	4.0	.042	2.458
15 2.500	A880-D2500P38-03	1.500	9.449	10.888	13.868	7.750	7.500	4.4	.026	2.551

Drilling

F

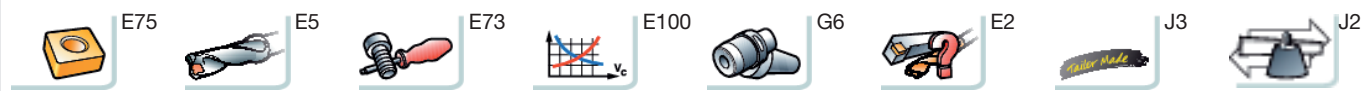
Boring

G

Tooling Systems

J

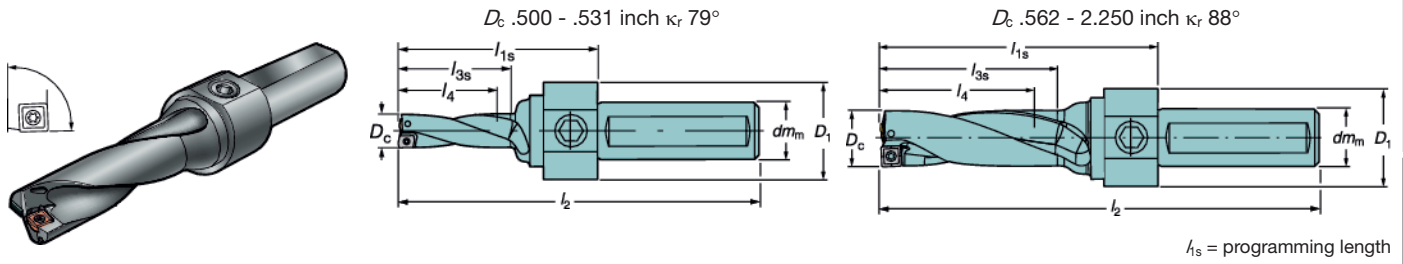
General Information



CoroDrill® 880 4 x D_c

Drill diameter .500 - 2.250 inch

Cylindrical shank with flat, US P shank



Drill diameter, inch	.500 - 1.687	1.750 - 2.000	2.125 - 2.250
Hole tolerance, inch	0/+0.016	0/+0.017	0/+0.018
Tolerance, D _c inch	+0.0016/+0.009	+0.0016/+0.011	.0016/+0.013
Max hole depth, l ₄	4 x D _c		

Inch design

Drill dia.		Dimensions, inch							Radial adjustment (+)		
□	D _c inch	Ordering code	dm	D ₁	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
01	.500	A880-D0500P19-04	.750	3.150	3.763	6.743	2.100	2.000	.4	.010	.520
	.531	A880-D0531P19-04	.750	3.150	3.911	6.891	2.230	2.124	.4	.010	.551
02	.562	A880-D0562P19-04	.750	3.150	4.062	7.042	2.362	2.248	.4	.018	.597
	.625	A880-D0625P19-04	.750	3.150	4.376	7.356	2.638	2.500	.4	.010	.646
03	.656	A880-D0656P19-04	.750	3.937	4.512	7.492	2.756	2.624	.4	.023	.702
	.687	A880-D0687P25-04	1.000	3.937	4.728	7.708	2.874	2.748	.7	.020	.727
	.750	A880-D0750P25-04	1.000	3.937	5.040	8.020	3.149	3.000	.7	.010	.770
04	.812	A880-D0812P25-04	1.000	6.299	5.314	8.294	3.385	3.248	.7	.032	.875
	.875	A880-D0875P31-04	1.250	6.299	5.588	8.568	3.622	3.500	.9	.023	.921
	.937	A880-D0937P31-04	1.250	6.299	5.862	8.842	3.858	3.748	1.0	.014	.965
05	1.000	A880-D1000P31-04	1.250	7.874	6.174	9.154	4.133	4.000	1.0	.037	1.075
	1.062	A880-D1062P31-04	1.250	7.874	6.449	9.429	4.370	4.248	1.1	.030	1.121
	1.125	A880-D1125P31-04	1.250	7.874	6.761	9.741	4.645	4.500	1.2	.020	1.164
06	1.187	A880-D1187P31-04	1.250	9.449	7.035	10.015	4.881	4.748	1.2	.043	1.274
	1.250	A880-D1250P38-04	1.500	9.449	7.348	10.328	5.157	5.000	1.7	.035	1.321
	1.312	A880-D1312P38-04	1.500	9.449	7.622	10.602	5.393	5.248	1.7	.028	1.368
	1.375	A880-D1375P38-04	1.500	9.449	7.931	10.911	5.665	5.500	1.8	.020	1.415
07	1.437	A880-D1437P38-04	1.500	9.449	8.209	11.189	5.905	5.748	1.9	.052	1.540
	1.500	A880-D1500P38-04	1.500	9.449	8.483	11.463	6.142	6.000	2.0	.044	1.588
	1.562	A880-D1562P38-04	1.500	9.449	8.796	11.776	6.417	6.248	2.1	.036	1.634
	1.625	A880-D1625P38-04	1.500	9.449	9.070	12.050	6.654	6.500	2.2	.028	1.681
	1.687	A880-D1687P38-04	1.500	9.449	9.579	12.559	6.929	6.748	2.8	.020	1.728
08	1.750	A880-D1750P38-04	1.500	9.449	9.853	12.833	7.165	7.000	2.9	.057	1.864
	1.875	A880-D1875P38-04	1.500	9.449	10.440	13.420	7.677	7.500	3.2	.041	1.957
	2.000	A880-D2000P38-04	1.500	9.449	11.027	14.007	8.189	8.000	3.5	.026	2.051
09	2.125	A880-D2125P38-04	1.500	9.449	11.614	14.594	8.701	8.500	3.8	.074	2.273
	2.250	A880-D2250P38-04	1.500	9.449	12.201	15.181	9.213	9.000	4.2	.061	2.372

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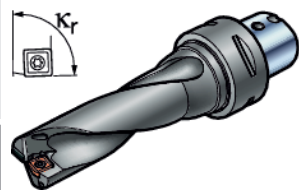
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DRILLING CoroDrill® 880

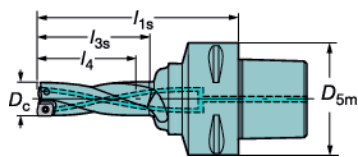
CoroDrill® 880 3 x D_c

Drill diameter 12.00 - 30.00 mm (.472 - 1.181 inch)

Coromant Capto®

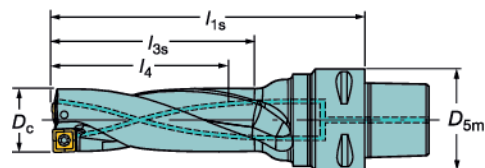


D_c 12.00 - 13.99 mm (.472 - .550 inch) κ_r 79°



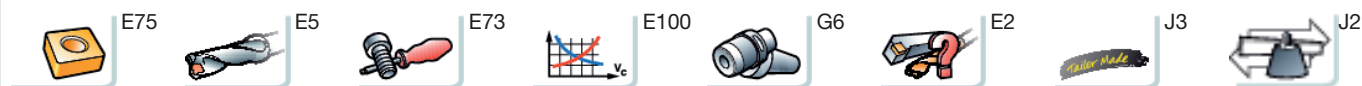
Hole tolerance 0/+0.25 mm (+.010 inch)
Tolerance, D_c 0/+0.20 mm (+.008 inch)
Max hole depth, l₄ 3 × D_c

D_c 14.00 - 30.00 mm (.551 - 1.181 inch) κ_r 88°



l_{3s} = programming length

Drill dia.				Dimensions, millimeter, inch (mm, in.)								Radial adjustment	
□	D _c mm	D _c inch	Coupling size	Ordering code	D _{5m} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	Δ_{rad}	D _c Max	
01	12.0	.472	C4	880-D1200C4-03	40	71	39	1.535	36	1.417	0.3	0.25	12.5
	12.5	.492	C4	880-D1250C4-03	40	73	40	1.575	38	1.496	0.3	0.25	13.0
	12.7	.500	C4	880-D1270C4-03	40	74	41	1.614	38	1.496	0.3	0.25	13.2
	13.0	.512	C4	880-D1300C4-03	40	75	42	1.654	39	1.535	0.3	0.25	13.5
	13.5	.532	C4	880-D1350C4-03	40	77	44	1.732	41	1.614	0.3	0.25	14.0
02	14.0	.551	C4	880-D1400C4-03	40	78	45	1.772	42	1.654	0.3	0.50	15.0
	14.5	.571	C4	880-D1450C4-03	40	80	46	1.811	44	1.732	0.3	0.45	15.4
	15.0	.591	C4	880-D1500C4-03	40	82	48	1.890	45	1.772	0.3	0.40	15.8
	15.5	.610	C4	880-D1550C4-03	40	84	50	1.968	47	1.850	0.3	0.30	16.1
	16.0	.630	C4	880-D1600C4-03	40	86	51	2.008	48	1.890	0.3	0.30	16.6
	03	16.5	.650	C4	880-D1650C4-03	40	88	53	2.087	50	1.968	0.3	0.60
17.0		.669	C4	880-D1700C4-03	40	89	54	2.126	51	2.008	0.3	0.60	18.2
17.5		.689	C4	880-D1750C4-03	40	92	56	2.205	53	2.087	0.3	0.50	18.5
18.0		.709	C4	880-D1800C4-03	40	93	57	2.244	54	2.126	0.3	0.40	18.8
18.5		.728	C4	880-D1850C4-03	40	95	59	2.323	56	2.205	0.4	0.40	19.3
19.0		.748	C4	880-D1900C4-03	40	96	60	2.362	57	2.244	0.4	0.30	19.6
19.5		.768	C4	880-D1950C4-03	40	99	62	2.441	59	2.323	0.4	0.30	20.1
04	20.0	.787	C4	880-D2000C4-03	40	101	64	2.520	60	2.362	0.4	0.90	21.8
	21.0	.827	C4	880-D2100C4-03	40	104	66	2.598	63	2.480	0.4	0.80	22.6
	22.0	.866	C4	880-D2200C4-03	40	107	69	2.716	66	2.598	0.4	0.60	23.2
	23.0	.906	C4	880-D2300C4-03	40	111	72	2.835	69	2.716	0.4	0.50	24.0
05	24.0	.945	C4	880-D2400C4-03	40	115	76	2.992	72	2.835	0.4	1.10	26.2
	25.0	.984	C4	880-D2500C4-03	40	119	79	3.110	75	2.953	0.5	1.00	27.0
	26.0	1.024	C4	880-D2600C4-03	40	122	81	3.189	78	3.071	0.5	0.90	27.8
	27.0	1.063	C4	880-D2700C4-03	40	125	84	3.307	81	3.189	0.5	0.70	28.4
	28.0	1.102	C4	880-D2800C4-03	40	129	87	3.425	84	3.307	0.5	0.60	29.2
	29.0	1.142	C4	880-D2900C4-03	40	132	90	3.543	87	3.425	0.6	0.50	30.0
06	30.0	1.181	C4	880-D3000C4-03	40	137	94	3.701	90	3.543	0.6	1.12	32.2



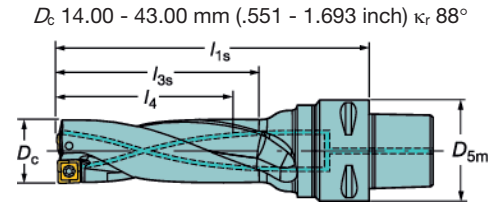
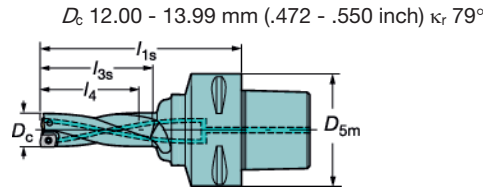
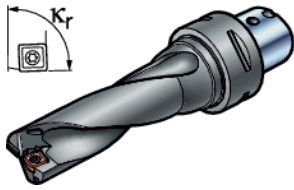
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CoroDrill® 880 3 x D_c

Drill diameter 12.00 - 43.00 mm (.472 - 1.693 inch)

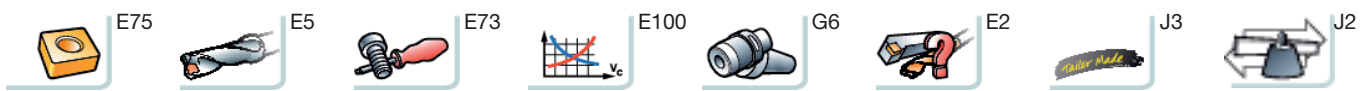
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Hole tolerance 0/+0.25 mm (+.010 inch)
 Tolerance, D_c 0/+0.20 mm (+.008 inch)
 Max hole depth, l_4 3 x D_c

l_{1s} = programming length

Drill dia.				Dimensions, millimeter, inch (mm, in.)								Radial adjustment	
\square	D_c mm	D_c inch	Coupling size	Ordering code	D_{5m} mm	l_{1s} mm	l_{3s} mm	l_{3s} in.	l_4 mm	l_4 in.	Δ_{AS}	D_c Max	
01	12.0	.472	C5	880-D1200C5-03	50	71	39	1.535	36	1.417	0.5	0.25	
	12.5	.492	C5	880-D1250C5-03	50	73	40	1.575	38	1.496	0.5	0.25	
	12.7	.500	C5	880-D1270C5-03	50	74	41	1.614	38	1.496	0.5	0.25	
	13.0	.512	C5	880-D1300C5-03	50	75	42	1.654	39	1.535	0.5	0.25	
	13.5	.532	C5	880-D1350C5-03	50	77	44	1.732	41	1.614	0.5	0.25	
02	14.0	.551	C5	880-D1400C5-03	50	78	45	1.772	42	1.654	0.5	0.50	
	14.5	.571	C5	880-D1450C5-03	50	80	46	1.811	44	1.732	0.5	0.45	
	15.0	.591	C5	880-D1500C5-03	50	82	48	1.890	45	1.772	0.5	0.40	
	15.5	.610	C5	880-D1550C5-03	50	84	50	1.968	47	1.850	0.5	0.30	
	16.0	.630	C5	880-D1600C5-03	50	86	51	2.008	48	1.890	0.5	0.30	
03	16.5	.650	C5	880-D1650C5-03	50	88	53	2.087	50	1.968	0.5	0.60	
	17.0	.669	C5	880-D1700C5-03	50	89	54	2.126	51	2.008	0.5	0.60	
	17.5	.689	C5	880-D1750C5-03	50	92	56	2.205	53	2.087	0.5	0.50	
	18.0	.709	C5	880-D1800C5-03	50	93	57	2.244	54	2.126	0.5	0.40	
	18.5	.728	C5	880-D1850C5-03	50	95	59	2.323	56	2.205	0.6	0.40	
04	19.0	.748	C5	880-D1900C5-03	50	96	60	2.362	57	2.244	0.6	0.30	
	19.5	.768	C5	880-D1950C5-03	50	99	62	2.441	59	2.323	0.6	0.30	
	20.0	.787	C5	880-D2000C5-03	50	101	64	2.520	60	2.362	0.6	0.90	
	21.0	.827	C5	880-D2100C5-03	50	104	66	2.598	63	2.480	0.6	0.80	
	22.0	.866	C5	880-D2200C5-03	50	107	69	2.716	66	2.598	0.6	0.60	
05	23.0	.906	C5	880-D2300C5-03	50	111	72	2.835	69	2.716	0.6	0.50	
	24.0	.945	C5	880-D2400C5-03	50	115	76	2.992	72	2.835	0.6	1.10	
	25.0	.984	C5	880-D2500C5-03	50	119	79	3.110	75	2.953	0.7	1.00	
	26.0	1.024	C5	880-D2600C5-03	50	122	81	3.189	78	3.071	0.7	0.90	
	27.0	1.063	C5	880-D2700C5-03	50	125	84	3.307	81	3.189	0.8	0.70	
06	28.0	1.102	C5	880-D2800C5-03	50	129	87	3.425	84	3.307	0.8	0.60	
	29.0	1.142	C5	880-D2900C5-03	50	132	90	3.543	87	3.425	0.8	0.50	
	30.0	1.181	C5	880-D3000C5-03	50	137	94	3.701	90	3.543	0.8	1.12	
	31.0	1.220	C5	880-D3100C5-03	50	141	97	3.819	93	3.661	0.9	0.99	
	32.0	1.260	C5	880-D3200C5-03	50	144	100	3.937	96	3.780	0.9	0.87	
07	33.0	1.299	C5	880-D3300C5-03	50	148	103	4.055	99	3.898	1.0	0.75	
	34.0	1.339	C5	880-D3400C5-03	50	151	106	4.173	102	4.016	1.0	0.62	
	35.0	1.378	C5	880-D3500C5-03	50	155	109	4.291	105	4.134	1.1	0.50	
	36.0	1.417	C5	880-D3600C5-03	50	159	112	4.409	108	4.252	1.1	1.38	
	37.0	1.457	C5	880-D3700C5-03	50	162	115	4.528	111	4.370	1.1	1.25	
08	38.0	1.496	C5	880-D3800C5-03	50	166	118	4.646	114	4.488	1.2	1.13	
	39.0	1.535	C5	880-D3900C5-03	50	169	121	4.764	117	4.606	1.2	1.00	
	40.0	1.575	C5	880-D4000C5-03	50	173	124	4.882	120	4.724	1.3	0.88	
	41.0	1.614	C5	880-D4100C5-03	50	177	127	5.000	123	4.842	1.3	0.75	
	42.0	1.654	C5	880-D4200C5-03	50	186	130	5.118	126	4.961	1.6	0.63	
43.0	1.693	C5	880-D4300C5-03	50	190	133	5.236	129	5.079	1.7	0.50		



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DRILLING CoroDrill® 880

CoroDrill® 880 3 x D_c

Drill diameter 12.00 - 43.00 mm (.472 - 1.693 inch)

Coromant Capto®

D_c 12.00 - 13.99 mm (.472 - .550 inch) κ_r 79°

D_c 14.00 - 43.00 mm (.551 - 1.693 inch) κ_r 88°

Hole tolerance 0/+0.25 mm (+.010 inch)
Tolerance, D_c 0/+0.20 mm (+.008 inch)
Max hole depth, l_4 3 x D_c

l_{1s} = programming length

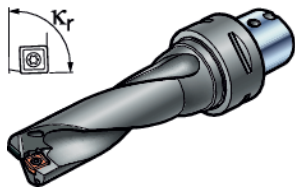
Drill dia.			Coupling size	Ordering code	Dimensions, millimeter, inch (mm, in.)							Radial adjustment	
D_c mm	D_c inch				D_{5m} mm	l_{1s} mm	l_{3s} mm	l_{3s} in.	l_4 mm	l_4 in.	Δ_{rad}	D_c Max	
01	12.0	.472	C6	880-D1200C6-03	63	73	39	1.535	36	1.417	0.9	0.25	12.5
	12.5	.492		880-D1250C6-03	63	75	40	1.575	38	1.496	0.9	0.25	13.0
	12.7	.500		880-D1270C6-03	63	76	41	1.614	38	1.496	0.9	0.25	13.2
	13.0	.512		880-D1300C6-03	63	77	42	1.654	39	1.535	0.9	0.25	13.5
	13.5	.532		880-D1350C6-03	63	79	44	1.732	41	1.614	0.9	0.25	14.0
02	14.0	.551	C6	880-D1400C6-03	63	80	45	1.772	42	1.654	0.9	0.50	15.0
	14.5	.571		880-D1450C6-03	63	82	46	1.811	44	1.732	0.9	0.45	15.4
	15.0	.591		880-D1500C6-03	63	84	48	1.890	45	1.772	0.9	0.40	15.8
	15.5	.610		880-D1550C6-03	63	86	50	1.968	47	1.850	0.9	0.30	16.1
	16.0	.630		880-D1600C6-03	63	88	51	2.008	48	1.890	0.9	0.30	16.6
03	16.5	.650	C6	880-D1650C6-03	63	90	53	2.087	50	1.968	0.9	0.60	17.7
	17.0	.669		880-D1700C6-03	63	91	54	2.126	51	2.008	0.9	0.60	18.2
	17.5	.689		880-D1750C6-03	63	94	56	2.205	53	2.087	0.9	0.50	18.5
	18.0	.709		880-D1800C6-03	63	95	57	2.244	54	2.126	1.0	0.40	18.8
	18.5	.728		880-D1850C6-03	63	97	59	2.323	56	2.205	1.0	0.40	19.3
04	19.0	.748	C6	880-D1900C6-03	63	98	60	2.362	57	2.244	1.0	0.30	19.6
	19.5	.768		880-D1950C6-03	63	101	62	2.441	59	2.323	1.0	0.30	20.1
	20.0	.787		880-D2000C6-03	63	103	64	2.520	60	2.362	1.0	0.90	21.8
	21.0	.827		880-D2100C6-03	63	106	66	2.598	63	2.480	1.0	0.80	22.6
	22.0	.866		880-D2200C6-03	63	109	69	2.716	66	2.598	1.0	0.60	23.2
05	23.0	.906	C6	880-D2300C6-03	63	113	72	2.835	69	2.716	1.1	0.50	24.0
	24.0	.945		880-D2400C6-03	63	117	76	2.992	72	2.835	1.0	1.10	26.2
	25.0	.984		880-D2500C6-03	63	121	79	3.110	75	2.953	1.1	1.00	27.0
	26.0	1.024		880-D2600C6-03	63	124	81	3.189	78	3.071	1.1	0.90	27.8
	27.0	1.063		880-D2700C6-03	63	127	84	3.307	81	3.189	1.2	0.70	28.4
06	28.0	1.102	C6	880-D2800C6-03	63	131	87	3.425	84	3.307	1.2	0.60	29.2
	29.0	1.142		880-D2900C6-03	63	134	90	3.543	87	3.425	1.2	0.50	30.0
	30.0	1.181		880-D3000C6-03	63	139	94	3.701	90	3.543	1.2	1.12	32.2
	31.0	1.220		880-D3100C6-03	63	143	97	3.819	93	3.661	1.3	0.99	33.0
	32.0	1.260		880-D3200C6-03	63	146	100	3.937	96	3.780	1.3	0.87	33.7
07	33.0	1.299	C6	880-D3300C6-03	63	150	103	4.055	99	3.898	1.4	0.75	34.5
	34.0	1.339		880-D3400C6-03	63	153	106	4.173	102	4.016	1.4	0.62	35.2
	35.0	1.378		880-D3500C6-03	63	157	109	4.291	105	4.134	1.5	0.50	36.0
	36.0	1.417		880-D3600C6-03	63	161	112	4.409	108	4.252	1.5	1.38	38.8
	37.0	1.457		880-D3700C6-03	63	164	115	4.528	111	4.370	1.5	1.25	39.5
	38.0	1.496	C6	880-D3800C6-03	63	168	118	4.646	114	4.488	1.6	1.13	40.2
	39.0	1.535		880-D3900C6-03	63	171	121	4.764	117	4.606	1.6	1.00	41.0
	40.0	1.575		880-D4000C6-03	63	175	124	4.882	120	4.724	1.7	0.88	41.8
	41.0	1.614		880-D4100C6-03	63	179	127	5.000	123	4.842	1.7	0.75	42.5
	42.0	1.654		880-D4200C6-03	63	182	130	5.118	126	4.961	1.9	0.63	43.2
43.0	1.693	880-D4300C6-03	63	186	133	5.236	129	5.079	2.0	0.50	44.0		

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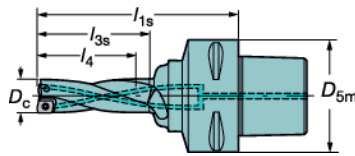
CoroDrill® 880 4 x D_c

Drill diameter 12.00 - 30.00 mm (.472 - 1.181 inch)

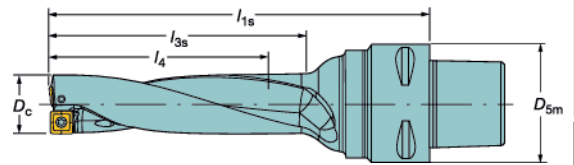
Coromant Capto®



D_c 12.00 - 13.99 mm (.472 - .550 inch) κ_r 79°



D_c 14.00 - 30.00 mm (.551 - 1.181 inch) κ_r 88°



Hole tolerance 0/+0.40 mm (+.016 inch)
 Tolerance, D_c +0.04/+0.24 mm (+.0016/+.009 inch)
 Max hole depth, l₄ 4 × D_c

l_{1s} = programming length

Drill dia.		Dimensions, millimeter, inch (mm, in.)										Radial adjustment	
□	D _c mm	D _c inch	Coupling size	Ordering code	D _{5m} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	$\frac{D_c}{R_1}$		D _c Max
01	12.0	.472	C4	880-D1200C4-04	40	83	51	2.008	48	1.890	0.3	0.25	12.5
	12.5	.492	C4	880-D1250C4-04	40	86	53	2.087	50	1.968	0.3	0.25	13.0
	12.7	.500	C4	880-D1270C4-04	40	86	53	2.087	51	2.008	0.3	0.25	13.2
	13.0	.512	C4	880-D1300C4-04	40	88	55	2.165	52	2.047	0.3	0.25	13.5
	13.5	.532	C4	880-D1350C4-04	40	90	57	2.244	54	2.126	0.3	0.25	14.0
02	14.0	.551	C4	880-D1400C4-04	40	92	59	2.323	56	2.205	0.3	0.50	15.0
	14.5	.571	C4	880-D1450C4-04	40	95	61	2.402	58	2.284	0.3	0.45	15.4
	15.0	.591	C4	880-D1500C4-04	40	97	63	2.480	60	2.362	0.3	0.40	15.8
	15.5	.610	C4	880-D1550C4-04	40	99	65	2.559	62	2.441	0.3	0.30	16.1
	16.0	.630	C4	880-D1600C4-04	40	102	67	2.638	64	2.520	0.3	0.30	16.6
03	16.5	.650	C4	880-D1650C4-04	40	104	69	2.716	66	2.598	0.4	0.60	17.7
	17.0	.669	C4	880-D1700C4-04	40	106	71	2.795	68	2.677	0.3	0.60	18.2
	17.5	.689	C4	880-D1750C4-04	40	109	73	2.874	70	2.756	0.4	0.50	18.5
	18.0	.709	C4	880-D1800C4-04	40	111	75	2.953	72	2.835	0.4	0.40	18.8
	18.5	.728	C4	880-D1850C4-04	40	113	77	3.032	74	2.913	0.4	0.40	19.3
04	19.0	.748	C4	880-D1900C4-04	40	115	79	3.110	76	2.992	0.4	0.30	19.6
	19.5	.768	C4	880-D1950C4-04	40	119	82	3.228	78	3.071	0.4	0.30	20.1
	20.0	.787	C4	880-D2000C4-04	40	121	84	3.307	80	3.150	0.4	0.90	21.8
	21.0	.827	C4	880-D2100C4-04	40	125	87	3.425	84	3.307	0.4	0.80	22.6
	22.0	.866	C4	880-D2200C4-04	40	129	91	3.583	88	3.465	0.4	0.60	23.2
05	23.0	.906	C4	880-D2300C4-04	40	134	95	3.740	92	3.622	0.5	0.50	24.0
	24.0	.945	C4	880-D2400C4-04	40	139	100	3.937	96	3.780	0.5	1.10	26.2
	25.0	.984	C4	880-D2500C4-04	40	144	104	4.094	100	3.937	0.5	1.00	27.0
	26.0	1.024	C4	880-D2600C4-04	40	148	107	4.213	104	4.094	0.6	0.90	27.8
	27.0	1.063	C4	880-D2700C4-04	40	152	111	4.370	108	4.252	0.6	0.70	28.4
06	28.0	1.102	C4	880-D2800C4-04	40	157	115	4.528	112	4.409	0.6	0.60	29.2
	29.0	1.142	C4	880-D2900C4-04	40	161	119	4.685	116	4.567	0.7	0.50	30.0
	30.0	1.181	C4	880-D3000C4-04	40	167	124	4.882	120	4.724	0.7	1.12	32.2



E75



E5



E73



E100



G6



E2



J3



J2

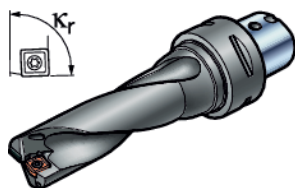
CoroDrill® 880 4 x D_c

Drill diameter 12.00 - 43.00 mm (.472 - 1.693 inch)

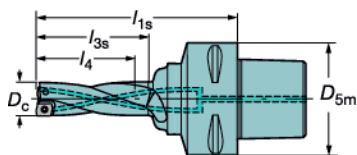
Coromant Capto®

Milling

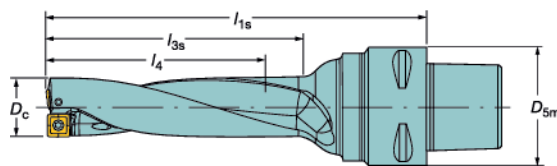
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D_c 12.00 - 13.99 mm (.472 - .550 inch) κ_r 79°



D_c 14.00 - 43.00 mm (.551 - 1.693 inch) κ_r 88°



Hole tolerance 0/+0.40 mm (+.016 inch)
 Tolerance, D_c +0.04/+0.24 mm (+.0016/+.009 inch)
 Max hole depth, l₄ 4 × D_c

l_{1s} = programming length

Drilling

F

Boring

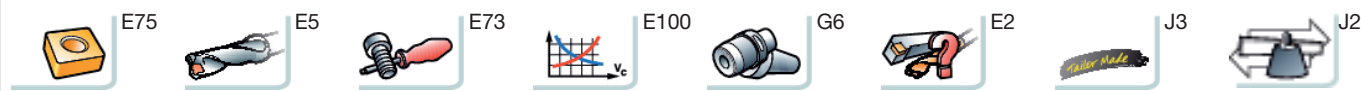
G

Tooling Systems

Drill dia.				Dimensions, millimeter, inch (mm, in.)								Radial adjustment	
□	D _c mm	D _c inch	Coupling size	Ordering code	D _{5m} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	$\frac{\Delta}{D_c}$		D _c Max
01	12.0	.472	C5	880-D1200C5-04	50	83	51	2.008	48	1.890	0.5	0.25	12.5
	12.5	.492	C5	880-D1250C5-04	50	86	53	2.087	50	1.968	0.5	0.25	13.0
	12.7	.500	C5	880-D1270C5-04	50	86	53	2.087	51	2.008	0.5	0.25	13.2
	13.0	.512	C5	880-D1300C5-04	50	88	55	2.165	52	2.047	0.5	0.25	13.5
	13.5	.532	C5	880-D1350C5-04	50	90	57	2.244	54	2.126	0.5	0.25	14.0
02	14.0	.551	C5	880-D1400C5-04	50	92	59	2.323	56	2.205	0.5	0.50	15.0
	14.5	.571	C5	880-D1450C5-04	50	95	61	2.402	58	2.284	0.5	0.45	15.4
	15.0	.591	C5	880-D1500C5-04	50	97	63	2.480	60	2.362	0.5	0.40	15.8
	15.5	.610	C5	880-D1550C5-04	50	99	65	2.559	62	2.441	0.5	0.30	16.1
	16.0	.630	C5	880-D1600C5-04	50	102	67	2.638	64	2.520	0.5	0.30	16.6
03	16.5	.650	C5	880-D1650C5-04	50	104	69	2.716	66	2.598	0.5	0.60	17.7
	17.0	.669	C5	880-D1700C5-04	50	106	71	2.795	68	2.677	0.5	0.60	18.2
	17.5	.689	C5	880-D1750C5-04	50	109	73	2.874	70	2.756	0.6	0.50	18.5
	18.0	.709	C5	880-D1800C5-04	50	111	75	2.953	72	2.835	0.6	0.40	18.8
	18.5	.728	C5	880-D1850C5-04	50	113	77	3.032	74	2.913	0.6	0.40	19.3
	19.0	.748	C5	880-D1900C5-04	50	115	79	3.110	76	2.992	0.6	0.30	19.6
	19.5	.768	C5	880-D1950C5-04	50	119	82	3.228	78	3.071	0.6	0.30	20.1
04	20.0	.787	C5	880-D2000C5-04	50	121	84	3.307	80	3.150	0.6	0.90	21.8
	21.0	.827	C5	880-D2100C5-04	50	125	87	3.425	84	3.307	0.6	0.80	22.6
	22.0	.866	C5	880-D2200C5-04	50	129	91	3.583	88	3.465	0.6	0.60	23.2
	23.0	.906	C5	880-D2300C5-04	50	134	95	3.740	92	3.622	0.7	0.50	24.0
05	24.0	.945	C5	880-D2400C5-04	50	139	100	3.937	96	3.780	0.7	1.10	26.2
	25.0	.984	C5	880-D2500C5-04	50	144	104	4.094	100	3.937	0.7	1.00	27.0
	26.0	1.024	C5	880-D2600C5-04	50	148	107	4.213	104	4.094	0.8	0.90	27.8
	27.0	1.063	C5	880-D2700C5-04	50	152	111	4.370	108	4.252	0.8	0.70	28.4
	28.0	1.102	C5	880-D2800C5-04	50	157	115	4.528	112	4.409	0.8	0.60	29.2
	29.0	1.142	C5	880-D2900C5-04	50	161	119	4.685	116	4.567	0.9	0.50	30.0
06	30.0	1.181	C5	880-D3000C5-04	50	167	124	4.882	120	4.724	0.9	1.12	32.2
	31.0	1.220	C5	880-D3100C5-04	50	172	128	5.039	124	4.882	1.0	0.99	33.0
	32.0	1.260	C5	880-D3200C5-04	50	176	132	5.197	128	5.039	1.0	0.87	33.7
	33.0	1.299	C5	880-D3300C5-04	50	181	136	5.354	132	5.197	1.1	0.75	34.5
	34.0	1.339	C5	880-D3400C5-04	50	185	140	5.512	136	5.354	1.1	0.62	35.2
	35.0	1.378	C5	880-D3500C5-04	50	190	144	5.669	140	5.512	1.2	0.50	36.0
07	36.0	1.417	C5	880-D3600C5-04	50	195	148	5.827	144	5.669	1.2	1.38	38.8
	37.0	1.457	C5	880-D3700C5-04	50	199	152	5.984	148	5.827	1.3	1.25	39.5
	38.0	1.496	C5	880-D3800C5-04	50	204	156	6.142	152	5.984	1.4	1.13	40.2
	39.0	1.535	C5	880-D3900C5-04	50	208	160	6.299	156	6.142	1.4	1.00	41.0
	40.0	1.575	C5	880-D4000C5-04	50	213	164	6.457	160	6.299	1.5	0.88	41.8
	41.0	1.614	C5	880-D4100C5-04	50	218	168	6.614	164	6.457	1.6	0.75	42.5
	42.0	1.654	C5	880-D4200C5-04	50	228	172	6.772	168	6.614	1.8	0.63	43.2
	43.0	1.693	C5	880-D4300C5-04	50	233	176	6.929	172	6.772	1.9	0.50	44.0

J

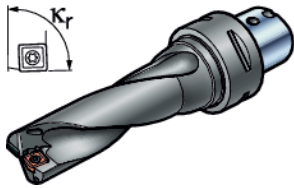
General Information



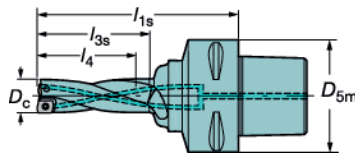
CoroDrill® 880 4 x D_c

Drill diameter 12.00 - 43.00 mm (.472 - 1.693 inch)

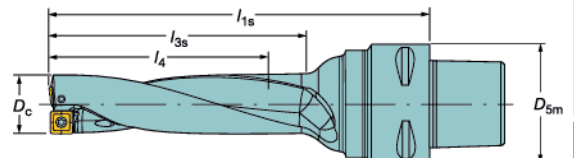
Coromant Capto®



D_c 12.00 - 13.99 mm (.472 - .550 inch) κ_r 79°



D_c 14.00 - 43.00 mm (.551 - 1.693 inch) κ_r 88°

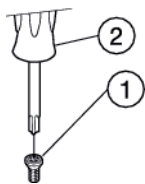


Hole tolerance 0/+0.40 mm (+.016 inch)
 Tolerance, D_c +0.04/+0.24 mm (+.0016/+.009 inch)
 Max hole depth, l₄ 4 × D_c

l_{1s} = programming length

Drill dia.			Coupling size	Ordering code	Dimensions, millimeter, inch (mm, in.)							Radial adjustment	
□	D _c mm	D _c inch			D _{5m} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	Δ ₁₅	D _c Max	
01	12.0	.472	C6	880-D1200C6-04	63	85	51	2.008	48	1.890	0.9	0.25	12.5
	12.5	.492		880-D1250C6-04	63	88	53	2.087	50	1.968	0.9	0.25	13.0
	12.7	.500		880-D1270C6-04	63	88	53	2.087	51	2.008	0.9	0.25	13.2
	13.0	.512		880-D1300C6-04	63	90	55	2.165	52	2.047	0.9	0.25	13.5
	13.5	.532		880-D1350C6-04	63	92	57	2.244	54	2.126	0.9	0.25	14.0
02	14.0	.551	C6	880-D1400C6-04	63	94	59	2.323	56	2.205	0.9	0.50	15.0
	14.5	.571		880-D1450C6-04	63	97	61	2.402	58	2.284	0.9	0.45	15.4
	15.0	.591		880-D1500C6-04	63	99	63	2.480	60	2.362	0.9	0.40	15.8
	15.5	.610		880-D1550C6-04	63	101	65	2.559	62	2.441	0.9	0.30	16.1
	16.0	.630		880-D1600C6-04	63	104	67	2.638	64	2.520	0.9	0.30	16.6
03	16.5	.650	C6	880-D1650C6-04	63	106	69	2.716	66	2.598	0.9	0.60	17.7
	17.0	.669		880-D1700C6-04	63	108	71	2.795	68	2.677	1.0	0.60	18.2
	17.5	.689		880-D1750C6-04	63	111	73	2.874	70	2.756	1.0	0.50	18.5
	18.0	.709		880-D1800C6-04	63	113	75	2.953	72	2.835	1.0	0.40	18.8
	18.5	.728		880-D1850C6-04	63	115	77	3.032	74	2.913	1.0	0.40	19.3
04	19.0	.748	C6	880-D1900C6-04	63	117	79	3.110	76	2.992	1.0	0.30	19.6
	19.5	.768		880-D1950C6-04	63	121	82	3.228	78	3.071	1.0	0.30	20.1
	20.0	.787		880-D2000C6-04	63	123	84	3.307	80	3.150	1.0	0.90	21.8
	21.0	.827		880-D2100C6-04	63	127	87	3.425	84	3.307	1.0	0.80	22.6
	22.0	.866		880-D2200C6-04	63	131	91	3.583	88	3.465	1.0	0.60	23.2
05	23.0	.906	C6	880-D2300C6-04	63	136	95	3.740	92	3.622	1.1	0.50	24.0
	24.0	.945		880-D2400C6-04	63	141	100	3.937	96	3.780	1.1	1.10	26.2
	25.0	.984		880-D2500C6-04	63	146	104	4.094	100	3.937	1.1	1.00	27.0
	26.0	1.024		880-D2600C6-04	63	150	107	4.213	104	4.094	1.2	0.90	27.8
	27.0	1.063		880-D2700C6-04	63	154	111	4.370	108	4.252	1.2	0.70	28.4
06	28.0	1.102	C6	880-D2800C6-04	63	159	115	4.528	112	4.409	1.2	0.60	29.2
	29.0	1.142		880-D2900C6-04	63	163	119	4.685	116	4.567	1.3	0.50	30.0
	30.0	1.181		880-D3000C6-04	63	169	124	4.882	120	4.724	1.3	1.12	32.2
	31.0	1.220		880-D3100C6-04	63	174	128	5.039	124	4.882	1.4	0.99	33.0
	32.0	1.260		880-D3200C6-04	63	178	132	5.197	128	5.039	1.4	0.87	33.7
07	33.0	1.299	C6	880-D3300C6-04	63	183	136	5.354	132	5.197	1.5	0.75	34.5
	34.0	1.339		880-D3400C6-04	63	187	140	5.512	136	5.354	1.5	0.62	35.2
	35.0	1.378		880-D3500C6-04	63	192	144	5.669	140	5.512	1.6	0.50	36.0
	36.0	1.417		880-D3600C6-04	63	197	148	5.827	144	5.669	1.6	1.38	38.8
	37.0	1.457		880-D3700C6-04	63	201	152	5.984	148	5.827	1.7	1.25	39.5
08	38.0	1.496	C6	880-D3800C6-04	63	206	156	6.142	152	5.984	1.8	1.13	40.2
	39.0	1.535		880-D3900C6-04	63	210	160	6.299	156	6.142	1.8	1.00	41.0
	40.0	1.575		880-D4000C6-04	63	215	164	6.457	160	6.299	1.9	0.88	41.8
	41.0	1.614		880-D4100C6-04	63	220	168	6.614	164	6.457	2.0	0.75	42.5
	42.0	1.654		880-D4200C6-04	63	224	172	6.772	168	6.614	2.1	0.63	43.2
43.0	1.693	880-D4300C6-04	63	229	176	6.929	172	6.772	2.2	0.50	44.0		

Spare parts for CoroDrill® 880



Insert size	1		2	
	Insert screw	Screwdriver (Torx Plus)	Torque value Nm (in-lbs)	
880-01	5513 020-28	5680 046-08 (6IP)	0.6 (5)	
880-02	5513 020-28	5680 046-08 (6IP)	0.6 (5)	
880-03	5513 020-33	5680 046-03 (7IP)	0.8 (7)	
880-04	5513 020-58	5680 046-03 (7IP)	0.8 (7)	
880-05	5513 020-57	5680 046-04 (9IP)	1.7 (15)	
880-06	416.1-833	5680 046-05 (10IP)	2.0 (18)	
880-07	416.1-833	5680 046-05 (10IP)	2.0 (18)	
880-08	416.1-834	5680 046-02 (15IP)	3.0 (26)	
880-09	416.1-834	5680 046-02 (15IP)	3.0 (26)	



D Milling E Drilling F Boring G Tooling Systems J General information

D

DRILLING

CoroDrill® 880

Eccentric sleeve for CoroDrill® 880

Milling

E

The versatile, easy-to-use adjustable sleeve fits all ISO shank 9766 holders with screw clamping. By adjusting the eccentric sleeve ± 0.3 mm (± 0.012 inch), the drill diameter can be adjusted for closer hole tolerances. From nominal diameter adjust max -0.10 mm ($.004$ inch). Note: the total tool length will be $2.5 - 3.5$ mm ($.098 - .128$ inch) longer when using the sleeve.

Drilling

F

Also fits Coromant U drills

For drill diameter 12 – 63 mm (.472 - 2.480 inch)

Boring

G

Drill diameter		Ordering code	Dimensions, millimeter, inch (mm, in.)							
D_c mm	D_c inch		D_1 mm	D_1 in.	dm_m mm	dm_m in.	dm_t mm	dm_t in.	l_1 mm	l_1 in.
12-17.49	.472 - .689	416.2-L20-25	33	1.299	25	.984	20	.787	5	.197
17.5-25.99	.690 - 1.023	416.2-L25-32	40	1.575	32	1.260	25	.984	5	.197
26.0-30.99	1.024 - 1.220	416.2-L32-40	50	1.969	40	1.575	32	1.260	5	.197
31.0-63	1.220 - 2.480	416.2-L40-50	60	2.362	50	1.969	40	1.575	5	.197

Tooling Systems

J

General Information

E 74

Inserts for CoroDrill® 880

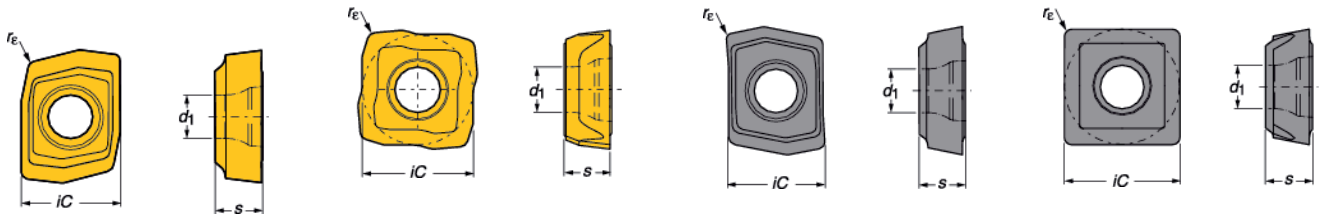
Drill diameter 12.00 - 63.00 mm (.472 - 2.500 inch)

Central insert
Size 01

Sizes 02-09

Peripheral insert
Size 01

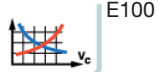
Sizes 02-09



□	Ordering code	Insert position	P			M				K				N		S			H			Dimensions, millimeter, inch (mm, in.)											
			1044	4014	4024	4034	4044	1044	1144	2044	4024	4034	4044	1044	4014	4024	4034	4044	H13A	1044	4044	H13A	1044	1144	2044	4044	H13A	1044	4024	4044	r _c mm	r _c in.	
Medium feed	01	880-01 02 03H-C-LM	★				★																								0.3	.012	
		880-01 02 W04H-P-LM		☆	☆	★				☆	☆	★									★										0.4	.016	
	02	880-02 02 04H-C-GM	⊙	☆				☆														☆										0.4	.016
		880-02 02 04H-C-LM	⊙	★				☆	★													★										0.4	.016
		880-02 02 W04H-P-GM	⊙			☆				☆	☆	☆																				0.4	.016
		880-02 02 W05H-P-GT	⊙			☆				☆	☆	☆																				0.5	.020
	03	880-02 02 W05H-P-LM	⊙			☆				☆	☆	☆																				0.5	.020
		880-02 02 W05H-P-MS	⊙																													0.5	.020
		880-03 03 05H-C-GM	⊙	☆					☆														☆									0.5	.020
		880-03 03 05H-C-LM	⊙	★					☆	★													☆									0.5	.020
		880-03 03 W05H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.5	.020
		880-03 03 W06H-P-GT	⊙			☆	☆	☆			☆	☆	☆																			0.6	.024
		880-03 03 W06H-P-LM	⊙			☆	☆	☆			☆	☆	☆																			0.6	.024
		880-03 03 W06H-P-MS	⊙																													0.6	.024
	04	880-04 03 05H-C-GM	⊙	☆					☆														☆									0.5	.020
		880-04 03 05H-C-LM	⊙	★					☆	★													☆									0.5	.020
		880-04 03 W05H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.5	.020
		880-04 03 W07H-P-GT	⊙			☆	☆	☆			☆	☆	☆																			0.7	.028
		880-04 03 W07H-P-LM	⊙			☆	★	☆	☆		☆	☆	☆																			0.7	.028
		880-04 03 W07H-P-MS	⊙																													0.7	.028
	05	880-05 03 05H-C-GM	⊙	☆					☆														☆									0.5	.020
		880-05 03 05H-C-LM	⊙	★					☆	★													☆									0.5	.020
		880-05 03 W05H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.5	.020
		880-05 03 W08H-P-GT	⊙			☆	☆	☆			☆	☆	☆																			0.8	.032
880-05 03 W08H-P-LM		⊙			☆	★	☆	☆		☆	☆	☆																			0.8	.032	
880-05 03 W08H-P-MS		⊙																													0.8	.032	
06	880-06 04 06H-C-GM	⊙	☆					☆														☆									0.6	.024	
	880-06 04 06H-C-LM	⊙	★					☆	★													☆									0.6	.024	
	880-06 04 W06H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.6	.024	
	880-06 04 W08H-P-LM	⊙			☆	★	☆			☆	☆	☆																			0.8	.032	
07	880-06 04 W08H-P-MS	⊙																													0.8	.032	
	880-07 04 06H-C-GM	⊙	☆					☆														☆									0.6	.024	
	880-07 04 06H-C-LM	⊙	★					☆	★													☆									0.6	.024	
	880-07 04 W06H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.6	.024	
08	880-07 04 W10H-P-LM	⊙			☆	☆	☆			☆	☆	☆																			1.0	.039	
	880-08 05 08H-C-GM	⊙	☆					☆														☆									0.8	.032	
	880-08 05 08H-C-LM	⊙	★					☆	★													☆									0.8	.032	
09	880-08 05 W08H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.8	.032	
	880-08 05 W10H-P-LM	⊙			☆	★	☆			☆	☆	☆																			1.0	.039	
	880-09 06 08H-C-GM	⊙	☆					☆														☆									0.8	.032	
	880-09 06 08H-C-LM	⊙	★					☆	★													☆									0.8	.032	
	880-09 06 W08H-P-GM	⊙		☆	☆	☆				☆	☆	☆																			0.8	.032	
	880-09 06 W10H-P-LM	⊙			☆	★	☆			☆	☆	☆																			1.0	.039	
			P40	P15	P20	P30	P40	M35	M35	M35	M20	M30	M35	K20	K15	K20	K20	K20	K20	N20	N20	N20	S35	S35	S30	S35	S20	H20	H15	H20			

⊙ = Central insert
⊙ = Peripheral insert

★ = First choice



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DRILLING CoroDrill® 880

Inserts for CoroDrill® 880

Drill diameter 12.00 - 63.00 mm (.472 - 2.500 inch)

Central insert
Size 01

Sizes 02-09

Peripheral insert
Size 01

Sizes 02-09

	□	Ordering code	Insert position	P			M			K			N			S			H			Dimensions, millimeter, inch (mm, in.)		
				GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	r _e mm	r _e in.	
High feed	01	880-01 02 03H-C-GR	⊙	★																		0.3	.012	
		880-01 02 W04H-P-GR	⊙		☆	☆	★				☆	☆	☆	★									0.4	.016
	02	880-02 02 04H-C-GR	⊙	★																			0.4	.016
		880-02 02 W05H-P-GR	⊙			☆	★							☆	★								0.5	.020
	03	880-03 03 05H-C-GR	⊙	★																			0.5	.020
		880-03 03 W06H-P-GR	⊙			☆	★								☆	★							0.6	.024
	04	880-04 03 05H-C-GR	⊙	★																			0.5	.020
		880-04 03 W07H-P-GR	⊙			★	☆	☆							★	☆	☆						0.7	.028
	05	880-05 03 05H-C-GR	⊙	★																			0.5	.020
		880-05 03 W08H-P-GR	⊙			★	☆	☆							★	☆	☆						0.8	.032
	06	880-06 04 06H-C-GR	⊙	★																			0.6	.024
		880-06 04 W10H-P-GR	⊙			★	☆								★	☆	☆						1.0	.039
	07	880-07 04 06H-C-GR	⊙	★																			0.6	.024
		880-07 04 W12H-P-GR	⊙			★	☆								★	☆	☆						1.2	.047
	08	880-08 05 08H-C-GR	⊙	★																			0.8	.032
		880-08 05 W12H-P-GR	⊙			★	☆								★	☆	☆						1.2	.047
	09	880-09 06 08H-C-GR	⊙	★																			0.8	.032
		880-09 06 W12H-P-GR	⊙			★	☆								★	☆	☆						1.2	.047

⊙ = Central insert ⊙ = Peripheral insert ★ = First choice

Insert size	Dimensions							
	D _c mm	D _c inch	iC mm	iC inch	s mm	s inch	D ₁ mm	D ₁ inch
880-01...C	12.00-13.99	.472-.550	4.8	.189	2.2	.087	2.2	.087
880-01...P			4.8	.189				
880-02...C	14.00-16.49	.551-.649	4.9	.193	2.4	.094	2.2	.087
880-02...P			5.1	.201				
880-03...C	16.50-19.99	.650-.786	5.7	.224	2.6	.102	2.5	.098
880-03...P			6.0	.236				
880-04...C	20.00-23.99	.787-.944	6.8	.268	2.8	.110	2.5	.098
880-04...P			7.4	.291			2.8	.110
880-05...C	24.00-29.99	.945-1.181	8.4	.331	3.0	.118	3.2	.120
880-05...P			8.9	.350				
880-06...C	30.00-35.99	1.182-1.416	10.2	.402	3.5	.138	4.0	.157
880-06...P			10.6	.419				
880-07...C	36.00-43.99	1.417-1.731	12.4	.486	4.0	.157	4.0	.157
880-07...P			12.6	.498				
880-08...C	44.00-52.99	1.732-2.086	14.8	.585	4.5	.177	4.7	.185
880-08...P			15.4	.608				
880-09...C	53.00-63.50	2.087-2.500	17.9	.705	5.5	.216	4.7	.185
880-09...P			18.6	.732				

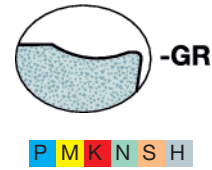
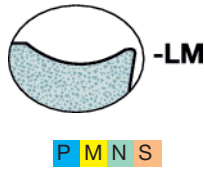
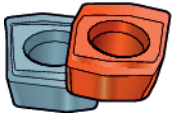
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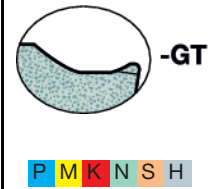
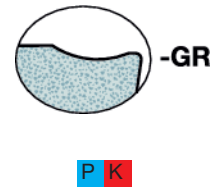
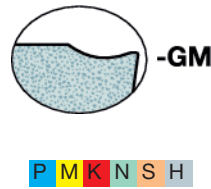
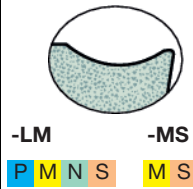
CoroDrill® 880

Insert geometries

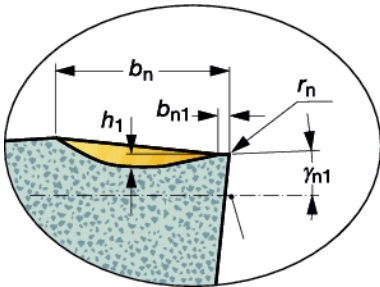
D_c 12.00 - 13.99 mm (.472 - .550 inch)



D_c 14.00 - 63.00 mm (.551 - 2.500 inch)



Characteristics



- Low to medium feed
- Light cutting
- Excellent chip control in long-chipping materials
- LM - first choice for long-chipping materials
- MS - sharp edge geometry optimized for stainless steel

- Low to medium feed
- Light cutting
- Excellent chip control in feed area
- Low deflection

- Low to high feed
- Strong reinforced edge
- Good chip control in high feeds

- Low to high feed
- Very strong reinforced edge
- Good chip control in most materials
- First choice for unstable conditions and interrupted cuts

Features

		-LM	-MS			
Corner radius (peripheral insert)	r_e	Large	Large		Medium	Large
Chipbreaker length	b_h	Long	Long		Short	Medium
Chipbreaker depth	h_1	Deep	Deep		Medium	Medium
Primary land width	b_{n1}	Long	Long		Short	Medium/Long
Primary land angle	γ_{n1}	Positive	Positive		Neutral	Neutral
Edge radius	r_n	Medium	Small		Small	Large

		Light	First choice	Tough
P	Low carbon	GM	LM	GT*
	High carbon	GM	GR	GT*
M		GM	LM/MS***	GT*
K		GM	GR	GT*
N		GM	LM	GT*
S		GM	LM	GT*
H		GM	GM**	GT*

Definitions

Light

- Low feed rates
- Applications requiring low cutting forces, e.g. with long drill, 4-5 x D_c

Tough

- Unstable conditions and interrupted cuts

* Note: -GT geometry is available in insert sizes 02-05. For drills in other sizes (01, 06, 07, 08 & 09), use -GR geometry for the highest demands on edge toughness.

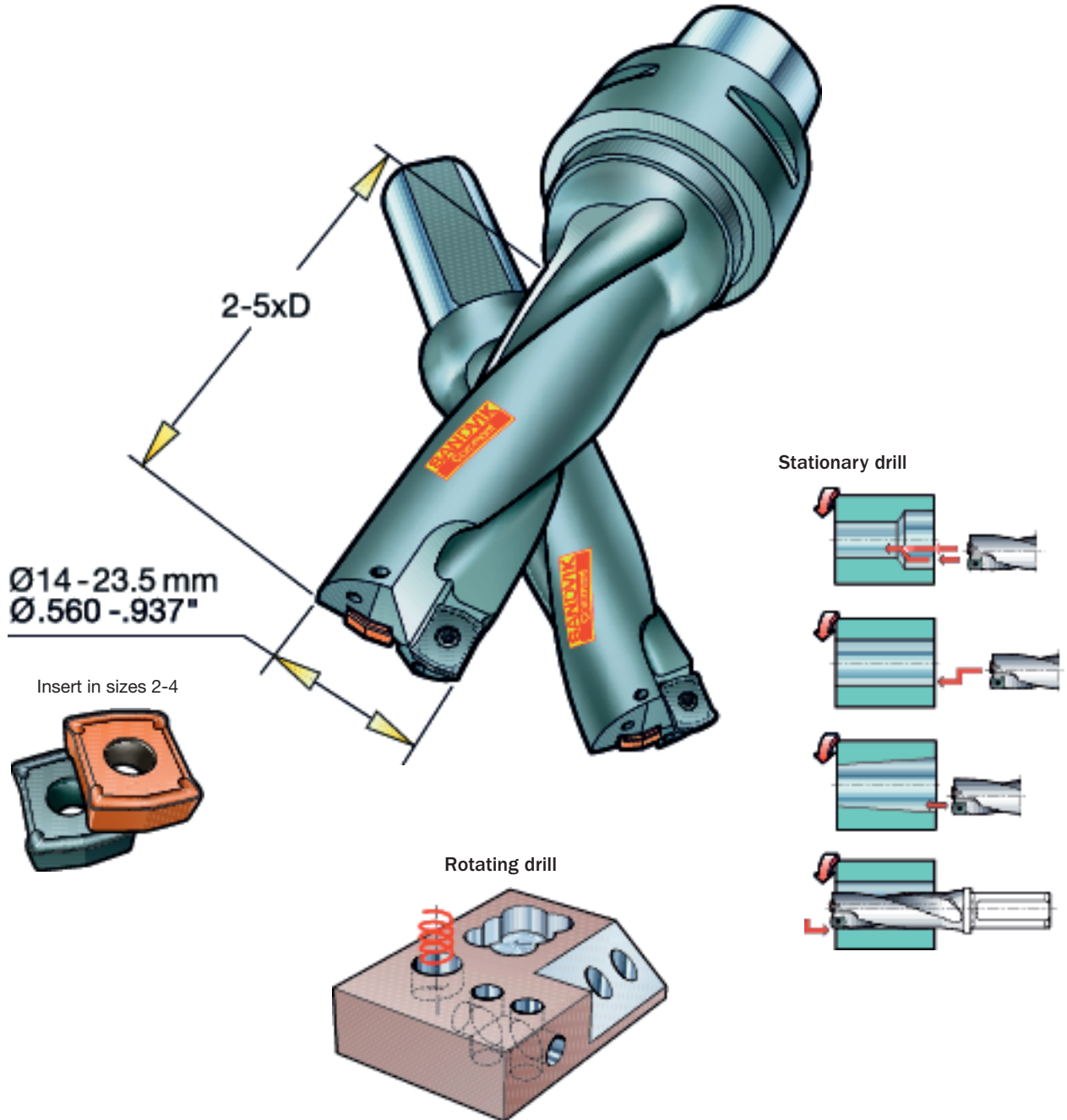
** Note: For insert size 01 the first choice is -GR geometry.

*** MS geometry available in peripheral insert sizes 02-06.

CoroDrill® 881

Indexable insert drill

Problem solver in unstable conditions



ISO application areas:



Tailor Made

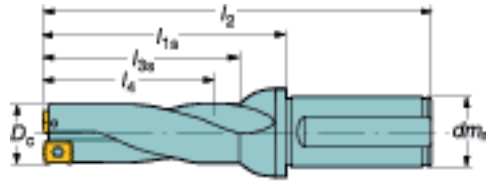
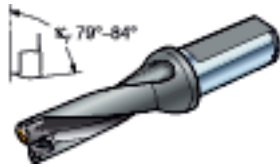
Tool options designed to individual customer requirements are available. For information on our Tailor Made program see page J3.

CoroDrill® 881 2 – 3 x D_c

Drill diameter 14.00 - 23.50 mm

Cylindrical shank

Flat according to ISO 9766



l_{1s} = programming length

Hole tolerance, mm -0.1/+0.3 mm (-.004/+.008 inch)
 Tolerance, D_c mm ±0.15 mm (±.006 inch)
 Max hole depth, l_4 2 – 3 x D_c

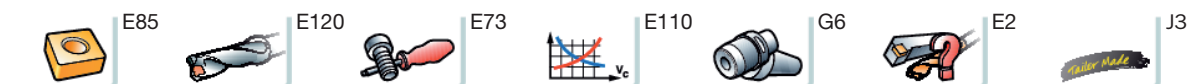
Metric design

2 x D_c

Drill dia.		Ordering code	Dimensions						Radial adjustment	
□	D _c mm		dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	14.0	881-D1400L20-02	20	44	95	31	28	0.2	1.00	16.0
	14.5	881-D1450L20-02	20	46	96	32	29	0.2	0.90	16.3
	15.0	881-D1500L20-02	20	47	97	33	30	0.2	0.85	16.7
	15.5	881-D1550L20-02	20	49	99	35	31	0.2	0.75	17.0
	16.0	881-D1600L20-02	20	51	101	36	32	0.2	0.70	17.4
	16.5	881-D1650L20-02	20	52	102	37	33	0.2	0.60	17.7
	17.0	881-D1700L20-02	20	53	103	38	34	0.2	0.50	18.0
03	17.5	881-D1750L25-02	25	55	111	39	35	0.3	1.00	19.5
	18.0	881-D1800L25-02	25	56	112	40	36	0.3	0.90	19.8
	18.5	881-D1850L25-02	25	57	113	41	37	0.3	0.85	20.2
	19.0	881-D1900L25-02	25	58	114	42	38	0.3	0.80	20.6
	19.5	881-D1950L25-02	25	60	116	43	39	0.3	0.75	21.0
	20.0	881-D2000L25-02	25	61	117	44	40	0.3	0.75	21.5
04	21.0	881-D2100L25-02	25	64	120	46	42	0.3	1.50	24.0
	22.0	881-D2200L25-02	25	66	122	48	44	0.3	1.25	24.5
	23.0	881-D2300L25-02	25	69	125	50	46	0.3	1.00	25.0

3 x D_c

Drill dia.		Ordering code	Dimensions						Radial adjustment	
□	D _c mm		dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	14.0	881-D1400L20-03	20	58	108	45	42	0.2	1.00	16.0
	14.5	881-D1450L20-03	20	60	110	46	44	0.2	0.90	16.3
	15.0	881-D1500L20-03	20	62	112	48	45	0.2	0.85	16.7
	15.5	881-D1550L20-03	20	64	114	50	47	0.2	0.75	17.0
	16.0	881-D1600L20-03	20	66	116	51	48	0.2	0.70	17.4
	16.5	881-D1650L20-03	20	68	118	53	50	0.2	0.60	17.7
	17.0	881-D1700L20-03	20	69	119	54	51	0.2	0.50	18.0
03	17.5	881-D1750L25-03	25	72	128	56	53	0.3	1.00	19.5
	18.0	881-D1800L25-03	25	73	129	57	54	0.3	0.90	19.8
	18.5	881-D1850L25-03	25	75	131	60	56	0.3	0.85	20.2
	19.0	881-D1900L25-03	25	76	132	60	57	0.3	0.80	20.6
	19.5	881-D1950L25-03	25	79	135	62	59	0.3	0.75	21.0
	20.0	881-D2000L25-03	25	81	137	64	60	0.3	0.75	21.5
	20.5	881-D2050L25-03	25	83	139	66	62	0.3	0.70	21.9
04	21.0	881-D2100L25-03	25	84	140	66	63	0.3	1.50	24.0
	21.5	881-D2150L25-03	25	86	125	68	65	0.3	1.30	24.1
	22.0	881-D2200L25-03	25	87	143	69	66	0.3	1.25	24.5
	22.5	881-D2250L25-03	25	90	146	71	68	0.3	1.10	24.7
	23.0	881-D2300L25-03	25	91	147	72	69	0.3	1.00	25.0
	23.5	881-D2350L25-03	25	93	149	74	71	0.3	0.70	24.9



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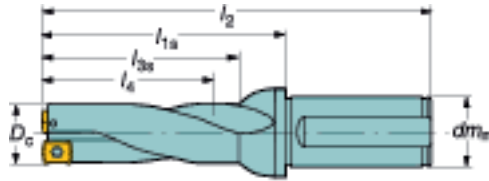
CoroDrill® 881 4 – 5 x D_c

Drill diameter 14.00 - 23.50 mm

Cylindrical shank

Flat according to ISO 9766

Milling

 l_{1s} = programming length

Hole tolerance, mm -0.1/+0.4 mm (-.004/+.016 inch)
 Tolerance, D_c mm ± 0.2 mm ($\pm .008$ inch)
 Max hole depth, l_4 4 – 5 x D_c

Metric design

4 x D_c

Drilling

Drill dia.		Dimensions							Radial adjustment	
\square	D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	$\frac{\sigma}{\text{kg}}$	D_c Max	
02	14.0	881-D1400L20-04	20	72	122	59	56	0.2	1.00	16.0
	14.5	881-D1450L20-04	20	75	125	61	58	0.2	0.90	16.3
	15.0	881-D1500L20-04	20	77	127	63	60	0.2	0.85	16.7
	15.5	881-D1550L20-04	20	79	129	65	62	0.2	0.75	17.0
	16.0	881-D1600L20-04	20	82	132	67	64	0.2	0.70	17.4
	16.5	881-D1650L20-04	20	84	134	69	66	0.2	0.60	17.7
	17.0	881-D1700L20-04	20	86	136	71	68	0.2	0.50	18.0
03	17.5	881-D1750L25-04	25	89	145	73	70	0.3	1.00	19.5
	18.0	881-D1800L25-04	25	91	147	75	72	0.3	0.90	19.8
	18.5	881-D1850L25-04	25	93	149	77	74	0.3	0.85	20.2
	19.0	881-D1900L25-04	25	95	151	79	76	0.3	0.80	20.6
	19.5	881-D1950L25-04	25	99	155	82	78	0.3	0.75	21.0
	20.0	881-D2000L25-04	25	101	157	84	80	0.3	0.75	21.5
04	21.0	881-D2100L25-04	25	105	161	87	84	0.3	1.50	24.0
	22.0	881-D2200L25-04	25	109	165	91	88	0.3	1.25	24.5
	23.0	881-D2300L25-04	25	113	170	95	92	0.3	1.00	25.0

5 x D_c

Boring

Drill dia.		Dimensions							Radial adjustment	
\square	D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	$\frac{\sigma}{\text{kg}}$	D_c Max	
02	14.0	881-D1400L20-05	20	86	122	73	70	0.2	1.00	16.0
	14.5	881-D1450L20-05	20	89	125	75	72	0.2	0.90	16.3
	15.0	881-D1500L20-05	20	92	142	78	75	0.2	0.85	16.7
	15.5	881-D1550L20-05	20	95	145	81	78	0.2	0.75	17.0
	16.0	881-D1600L20-05	20	98	148	83	80	0.2	0.70	17.4
	16.5	881-D1650L20-05	20	101	151	86	83	0.2	0.60	17.7
	17.0	881-D1700L20-05	20	103	153	88	85	0.2	0.50	18.0
03	17.5	881-D1750L25-05	25	107	163	91	88	0.3	1.00	19.5
	18.0	881-D1800L25-05	25	109	165	93	90	0.3	0.90	19.8
	18.5	881-D1850L25-05	25	112	168	96	93	0.3	0.85	20.2
	19.0	881-D1900L25-05	25	114	170	98	95	0.3	0.80	20.6
	19.5	881-D1950L25-05	25	118	174	101	97	0.3	0.75	21.0
	20.0	881-D2000L25-05	25	121	177	104	100	0.3	0.75	21.5
04	21.0	881-D2100L25-05	25	126	182	108	105	0.3	1.50	24.0
	22.0	881-D2200L25-05	25	131	187	113	110	0.3	1.25	24.5
	23.0	881-D2300L25-05	25	138	194	119	116	0.3	1.00	25.0

Tooling Systems

J



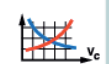
E85



E2



E73



E110



G6



E2



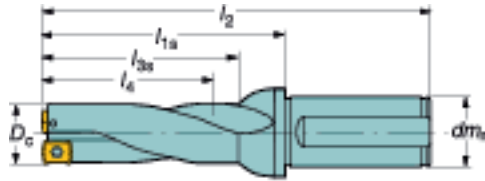
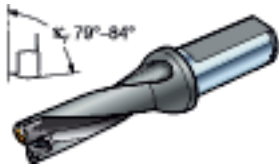
J3

CoroDrill® 881 2 – 5 x D_c

Drill diameter .562 - .937 inch

Cylindrical shank

Flat according to ISO 9766



l_{3s} = programming length

Inch design	Hole tolerance, inch	- .004/+ .008 inch	- .004 inch + .016 inch
	Tolerance, D _c inch	± .006 inch	± .008 inch
	Max hole depth, l ₄	2 – 3 x D _c	4 – 5 x D _c

2 x D_c

Drill dia.		Ordering code	Dimensions, inch						Radial adjustment (+)	
D _c inch			dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	.562	A881-D0562LX19-02	.750	1.788	3.756	1.237	1.124	.9	.035	.632
	.625	A881-D0625LX19-02	.750	1.965	3.933	1.375	1.250	.9	.027	.679
	.656	A881-D0656LX19-02	.750	2.034	4.004	1.444	1.312	.9	.023	.702
03	.687	A881-D0687LX25-02	1.000	2.088	4.291	1.498	1.374	1.5	.039	.765
	.750	A881-D0750LX25-02	1.000	2.304	4.508	1.635	1.500	1.5	.031	.812
	.812	A881-D0812LX25-02	1.000	2.440	4.646	1.771	1.624	1.5	.029	.870
04	.875	A881-D0875LX25-02	1.000	2.630	4.835	1.882	1.750	1.5	.047	.969
	.937	A881-D0937LX25-02	1.000	2.763	4.968	2.015	1.874	1.5	.029	.995

3 x D_c

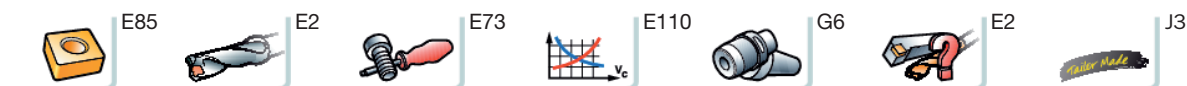
Drill dia.		Ordering code	Dimensions, inch						Radial adjustment (+)	
D _c inch			dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	.562	A881-D0562LX19-03	.750	2.204	4.331	1.811	1.686	.9	.035	.632
	.625	A881-D0625LX19-03	.750	2.598	4.567	2.008	1.875	.9	.027	.679
	.656	A881-D0656LX19-03	.750	2.716	4.685	2.126	1.968	.9	.023	.702
03	.687	A881-D0687LX25-03	1.000	2.795	5.000	2.205	2.061	1.5	.039	.765
	.750	A881-D0750LX25-03	1.000	3.071	5.276	2.402	2.250	1.5	.031	.812
	.812	A881-D0812LX25-03	1.000	3.267	5.472	2.598	2.436	1.5	.029	.870
04	.875	A881-D0875LX25-03	1.000	3.504	5.709	2.756	2.625	1.5	.047	.969
	.937	A881-D0937LX25-03	1.000	3.701	5.906	2.953	2.811	1.5	.029	.995

4 x D_c

Drill dia.		Ordering code	Dimensions, inch						Radial adjustment (+)	
D _c inch			dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	.562	A881-D0562LX19-04	.750	2.913	4.882	2.362	2.248	.9	.035	.632
	.625	A881-D0625LX19-04	.750	3.228	5.197	2.638	2.500	.9	.027	.679
	.656	A881-D0656LX19-04	.750	3.346	5.315	2.756	2.624	.9	.023	.702
03	.687	A881-D0687LX25-04	1.000	3.464	5.669	2.874	2.748	1.5	.039	.765
	.750	A881-D0750LX25-04	1.000	3.818	6.024	3.149	3.000	1.5	.031	.812
	.812	A881-D0812LX25-04	1.000	4.054	6.260	3.385	3.248	2.0	.029	.870
04	.875	A881-D0875LX25-04	1.000	4.370	6.575	3.622	3.500	2.0	.047	.969
	.937	A881-D0937LX25-04	1.000	4.606	6.811	3.858	3.748	2.0	.029	.995

5 x D_c

Drill dia.		Ordering code	Dimensions, inch						Radial adjustment (+)	
D _c inch			dm _m	l _{1s}	l ₂	l _{3s}	l ₄		D _c Max	
02	.562	A881-D0562LX19-05	.750	3.473	5.441	2.922	2.810	.9	.035	.632
	.625	A881-D0625LX19-05	.750	3.840	5.807	3.250	3.125	.9	.027	.679
	.656	A881-D0656LX19-05	.750	4.001	5.968	3.411	3.280	.9	.023	.702
03	.687	A881-D0687LX25-05	1.000	4.162	6.366	3.572	3.435	1.5	.039	.765
	.750	A881-D0750LX25-05	1.000	4.554	6.760	3.885	3.750	1.5	.031	.812
	.812	A881-D0812LX25-05	1.000	4.875	7.079	4.206	4.060	2.0	.029	.870
04	.875	A881-D0875LX25-05	1.000	5.254	7.461	4.506	4.375	2.0	.047	.969
	.937	A881-D0937LX25-05	1.000	5.573	7.780	4.825	4.685	2.0	.029	.995



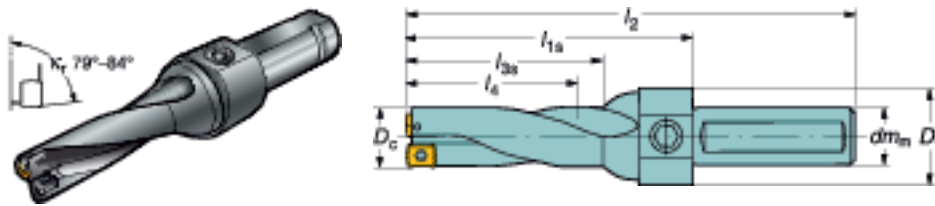
CoroDrill® 881 3 – 4 x D_c

Drill diameter .562 - .937 inch

Cylindrical shank with flat, US P shank

Milling

E



l_{1s} = programming length

Hole tolerance, inch
Tolerance, D_c inch
Max hole depth, l_4

-.004/+.008 inch
 $\pm .006$ inch
 $3 \times D_c$

-.004 inch +.016 inch
 $\pm .008$ inch
 $4 \times D_c$

Inch design

3 x D_c

Drilling

F

Drill dia.		Ordering code	Dimensions, inch							Radial adjustment (+)	
\square D_c inch			dm_m	D_1	l_{1s}	l_2	l_{3s}	l_4	$\frac{\circ}{\Delta}$ lbs	D_c Max	
02	.562	A881-D0562P19-03	.750	1.287	3.149	6.150	1.811	1.686	2.0	.035	.632
	.625	A881-D0625P19-03	.750	1.287	3.386	6.386	2.008	1.875	2.0	.027	.679
	.656	A881-D0656P19-03	.750	1.287	3.465	6.465	2.087	1.968	2.0	.023	.702
03	.687	A881-D0687P25-03	1.000	1.750	3.622	6.622	2.205	2.061	3.3	.039	.765
	.750	A881-D0750P25-03	1.000	1.750	3.858	6.858	2.402	2.250	3.3	.031	.812
	.812	A881-D0812P25-03	1.000	1.750	4.094	7.094	2.598	2.436	3.3	.029	.870
04	.875	A881-D0875P31-03	1.250	1.750	4.291	7.291	2.756	2.625	4.4	.047	.969
	.937	A881-D0937P31-03	1.250	1.750	4.528	7.528	2.953	2.811	4.4	.029	.995

4 x D_c

Boring

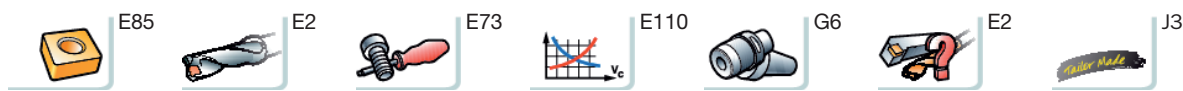
Drill dia.		Ordering code	Dimensions, inch							Radial adjustment (+)	
\square D_c inch			dm_m	D_1	l_{1s}	l_2	l_{3s}	l_4	$\frac{\circ}{\Delta}$ lbs	D_c Max	
02	.562	A881-D0562P19-04	.750	1.287	3.700	6.701	2.362	2.248	2.0	.035	.632
	.625	A881-D0625P19-04	.750	1.287	4.016	7.016	2.638	2.500	2.0	.027	.679
	.656	A881-D0656P19-04	.750	1.287	4.134	7.134	2.756	2.624	2.0	.023	.702
03	.687	A881-D0687P25-04	1.000	1.750	4.291	7.291	2.874	2.748	3.3	.039	.765
	.750	A881-D0750P25-04	1.000	1.750	4.605	7.606	3.149	3.000	3.3	.031	.812
	.812	A881-D0812P25-04	1.000	1.750	4.881	7.882	3.385	3.248	3.3	.029	.870
04	.875	A881-D0875P31-04	1.250	1.750	5.157	8.158	3.622	3.500	4.4	.047	.969
	.937	A881-D0937P31-04	1.250	1.750	5.433	8.433	3.858	3.748	4.4	.029	.995

G

Tooling Systems

J

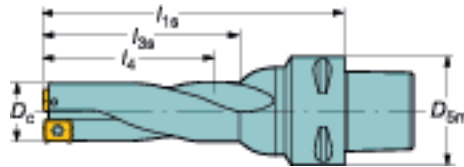
General Information



CoroDrill® 881 3 x D_c

Drill diameter 14.00 - 23.50 mm

Coromant Capto®



l_{1s} = programming length

Hole tolerance, mm -0.1/+0.3 mm (-.004/+0.008 inch)
 Tolerance, D_c mm ±0.15 mm (±.006 inch)
 Max hole depth, l₄ 3 x D_c

Metric design

Drill dia.			Coupling size	Ordering code	Dimensions, millimeter, inch (mm, in.)						Radial adjustment		
□ mm	D _c mm	D _c inch			D _{5m} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	$\frac{D}{H7}$	D _c Max	
02	14.0	.551	C4	881-D1400C4-03	40	83	45	1.772	42	1.654	0.2	1.00	16.0
	14.5	.571	C4	881-D1450C4-03	40	85	46	1.811	44	1.732	0.3	0.90	16.3
	15.0	.591	C4	881-D1500C4-03	40	87	48	1.890	45	1.772	0.4	0.85	16.7
	15.5	.610	C4	881-D1550C4-03	40	89	50	1.968	47	1.850	0.3	0.75	17.0
	16.0	.630	C4	881-D1600C4-03	40	91	51	2.008	48	1.890	0.3	0.70	17.4
	16.5	.650	C4	881-D1650C4-03	40	93	53	2.087	50	1.968	0.3	0.60	17.7
	17.0	.669	C4	881-D1700C4-03	40	94	54	2.126	51	2.008	0.3	0.50	18.0
03	17.5	.689	C4	881-D1750C4-03	40	102	56	2.205	53	2.087	0.3	1.00	19.5
	18.0	.709	C4	881-D1800C4-03	40	103	57	2.244	54	2.126	0.3	0.90	19.8
	18.5	.728	C4	881-D1850C4-03	40	105	59	2.323	56	2.205	0.4	0.85	20.2
	19.0	.748	C4	881-D1900C4-03	40	106	60	2.362	57	2.244	0.4	0.80	20.6
	19.5	.768	C4	881-D1950C4-03	40	109	62	2.441	59	2.323	0.4	0.75	21.0
	20.0	.787	C4	881-D2000C4-03	40	111	64	2.520	60	2.362	0.4	0.75	21.5
04	21.0	.827	C4	881-D2100C4-03	40	114	66	2.598	63	2.480	0.4	1.50	24.0
	22.0	.866	C4	881-D2200C4-03	40	117	69	2.716	66	2.598	0.4	1.25	24.5
	23.0	.906	C4	881-D2300C4-03	40	126	72	2.835	69	2.716	0.4	1.00	25.0
02	14.0	.551	C5	881-D1400C5-03	50	83	45	1.772	42	1.654	0.2	1.00	16.0
	14.5	.571	C5	881-D1450C5-03	50	85	46	1.811	44	1.732	0.5	0.90	16.3
	15.0	.591	C5	881-D1500C5-03	50	87	48	1.890	45	1.772	0.5	0.85	16.7
	15.5	.610	C5	881-D1550C5-03	50	89	50	1.968	47	1.850	0.5	0.75	17.0
	16.0	.630	C5	881-D1600C5-03	50	91	51	2.008	48	1.890	0.5	0.70	17.4
	16.5	.650	C5	881-D1650C5-03	50	93	53	2.087	50	1.968	0.5	0.60	17.7
	17.0	.669	C5	881-D1700C5-03	50	94	54	2.126	51	2.008	0.5	0.50	18.0
03	17.5	.689	C5	881-D1750C5-03	50	102	56	2.205	53	2.087	0.5	1.00	19.5
	18.0	.709	C5	881-D1800C5-03	50	103	57	2.244	54	2.126	0.5	0.90	19.8
	18.5	.728	C5	881-D1850C5-03	50	105	59	2.323	56	2.205	0.6	0.85	20.2
	19.0	.748	C5	881-D1900C5-03	50	106	60	2.362	57	2.244	0.6	0.80	20.6
	19.5	.768	C5	881-D1950C5-03	50	109	62	2.441	59	2.323	0.6	0.75	21.0
	20.0	.787	C5	881-D2000C5-03	50	111	64	2.520	60	2.362	0.6	0.75	21.5
04	21.0	.827	C5	881-D2100C5-03	50	114	66	2.598	63	2.480	0.6	1.50	24.0
	22.0	.866	C5	881-D2200C5-03	50	117	69	2.716	66	2.598	0.6	1.25	24.5
	23.0	.906	C5	881-D2300C5-03	50	121	72	2.835	69	2.716	0.6	1.00	25.0
02	14.0	.551	C6	881-D1400C6-03	63	88	45	1.772	42	1.654	0.9	1.00	16.0
	14.5	.571	C6	881-D1450C6-03	63	90	46	1.811	44	1.732	0.9	0.90	16.3
	15.0	.591	C6	881-D1500C6-03	63	92	48	1.890	45	1.772	0.9	0.85	16.7
	15.5	.610	C6	881-D1550C6-03	63	94	50	1.968	47	1.850	0.9	0.75	17.0
	16.0	.630	C6	881-D1600C6-03	63	96	51	2.008	48	1.890	0.9	0.70	17.4
	16.5	.650	C6	881-D1650C6-03	63	98	53	2.087	50	1.968	0.9	0.60	17.7
	17.0	.669	C6	881-D1700C6-03	63	99	54	2.126	51	2.008	0.9	0.50	18.0
03	17.5	.689	C6	881-D1750C6-03	63	107	56	2.205	53	2.087	0.9	1.00	19.5
	18.0	.709	C6	881-D1800C6-03	63	108	57	2.244	54	2.126	1.0	0.90	19.8
	18.5	.728	C6	881-D1850C6-03	63	110	59	2.323	56	2.205	1.0	0.85	20.2
	19.0	.748	C6	881-D1900C6-03	63	111	60	2.362	57	2.244	1.0	0.80	20.6
	19.5	.768	C6	881-D1950C6-03	63	114	62	2.441	59	2.323	1.0	0.75	21.0
	20.0	.787	C6	881-D2000C6-03	63	111	64	2.520	60	2.362	0.4	0.75	21.5
04	21.0	.827	C6	881-D2100C6-03	63	119	66	2.598	63	2.480	1.0	1.50	24.0
	22.0	.866	C6	881-D2200C6-03	63	122	69	2.716	66	2.598	1.0	1.25	24.5
	23.0	.906	C6	881-D2300C6-03	63	126	72	2.835	69	2.716	1.1	1.00	25.0



E85



E2



E73



E110



G6



E2



J3

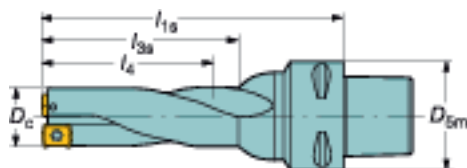
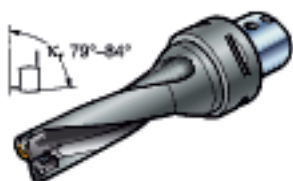
CoroDrill® 881 4 x D_c

Drill diameter 14.00 - 23.50 mm

Coromant Capto®

Milling

E



l_{1s} = programming length

Hole tolerance, mm -0.1/+0.4 mm (-.004/+.016 inch)
 Tolerance, D_c mm ±0.2 mm (±.008 inch)
 Max hole depth, l₄ 4 x D_c

Metric design

Drill dia.			Coupling size	Ordering code	Dimensions, millimeter, inch (mm, in.)							Radial adjustment	
□	D _c mm	D _c inch			D _{sm} mm	l _{1s} mm	l _{3s} mm	l _{3s} in.	l ₄ mm	l ₄ in.	Δ	Δ	D _c Max
02	14.0	.551	C4	881-D1400C4-04	40	97	59	2.323	56	2.205	0.3	1.00	16.0
	14.5	.571	C4	881-D1450C4-04	40	100	61	2.402	58	2.284	0.3	0.90	16.3
	15.0	.591	C4	881-D1500C4-04	40	102	63	2.480	60	2.362	0.3	0.85	16.7
	15.5	.610	C4	881-D1550C4-04	40	104	65	2.559	62	2.441	0.3	0.75	17.0
	16.0	.630	C4	881-D1600C4-04	40	107	67	2.638	64	2.520	0.3	0.70	17.4
	16.5	.650	C4	881-D1650C4-04	40	109	69	2.716	66	2.598	0.3	0.60	17.7
17.0	.669	C4	881-D1700C4-04	40	111	71	2.795	68	2.677	0.3	0.50	18.0	
03	17.5	.689	C4	881-D1750C4-04	40	119	73	2.874	70	2.756	0.4	1.00	19.5
	18.0	.709	C4	881-D1800C4-04	40	121	75	2.953	72	2.835	0.4	0.90	19.8
	18.5	.728	C4	881-D1850C4-04	40	123	77	3.032	74	2.913	0.4	0.85	20.2
	19.0	.748	C4	881-D1900C4-04	40	125	79	3.110	76	2.992	0.4	0.80	20.6
	19.5	.768	C4	881-D1950C4-04	40	129	82	3.228	78	3.071	0.4	0.75	21.0
	20.0	.787	C4	881-D2000C4-04	40	131	84	3.307	80	3.150	0.4	0.75	21.5
04	21.0	.827	C4	881-D2100C4-04	40	135	87	3.425	84	3.307	0.4	1.50	24.0
	22.0	.866	C4	881-D2200C4-04	40	139	91	3.583	88	3.465	0.4	1.25	24.5
	23.0	.906	C4	881-D2300C4-04	40	144	95	3.740	92	3.622	0.5	1.00	25.0
02	14.0	.551	C5	881-D1400C5-04	50	97	59	2.323	56	2.205	0.5	1.00	16.0
	14.5	.571	C5	881-D1450C5-04	50	100	61	2.402	58	2.284	0.5	0.90	16.3
	15.0	.591	C5	881-D1500C5-04	50	102	63	2.480	60	2.362	0.5	0.85	16.7
	15.5	.610	C5	881-D1550C5-04	50	104	65	2.559	62	2.441	0.5	0.75	17.0
	16.0	.630	C5	881-D1600C5-04	50	107	67	2.638	64	2.520	0.5	0.70	17.4
	16.5	.650	C5	881-D1650C5-04	50	109	69	2.716	66	2.598	0.5	0.60	17.7
17.0	.669	C5	881-D1700C5-04	50	111	71	2.795	68	2.677	0.5	0.50	18.0	
03	17.5	.689	C5	881-D1750C5-04	50	119	73	2.874	70	2.756	0.6	1.00	19.5
	18.0	.709	C5	881-D1800C5-04	50	121	75	2.953	72	2.835	0.6	0.90	19.8
	18.5	.728	C5	881-D1850C5-04	50	123	77	3.032	74	2.913	0.6	0.85	20.2
	19.0	.748	C5	881-D1900C5-04	50	125	79	3.110	76	2.992	0.6	0.80	20.6
	19.5	.768	C5	881-D1950C5-04	50	129	82	3.228	78	3.071	0.6	0.75	21.0
	20.0	.787	C5	881-D2000C5-04	50	131	84	3.307	80	3.150	0.6	0.75	21.5
04	21.0	.827	C5	881-D2100C5-04	50	135	87	3.425	84	3.307	0.6	1.50	24.0
	22.0	.866	C5	881-D2200C5-04	50	139	91	3.583	88	3.465	0.6	1.25	24.5
	23.0	.906	C5	881-D2300C5-04	50	144	95	3.740	92	3.622	0.5	1.00	25.0
02	14.0	.551	C6	881-D1400C6-04	63	102	59	2.323	56	2.205	0.9	1.00	16.0
	14.5	.571	C6	881-D1450C6-04	63	105	61	2.402	58	2.284	0.9	0.90	16.3
	15.0	.591	C6	881-D1500C6-04	63	107	63	2.480	60	2.362	0.9	0.85	16.7
	15.5	.610	C6	881-D1550C6-04	63	109	65	2.559	62	2.441	0.9	0.75	17.0
	16.0	.630	C6	881-D1600C6-04	63	112	67	2.638	64	2.520	0.9	0.70	17.4
	16.5	.650	C6	881-D1650C6-04	63	114	69	2.716	66	2.598	0.9	0.60	17.7
17.0	.669	C6	881-D1700C6-04	63	116	71	2.795	68	2.677	0.9	0.50	18.0	
03	17.5	.689	C6	881-D1750C6-04	63	124	73	2.874	70	2.756	1.0	1.00	19.5
	18.0	.709	C6	881-D1800C6-04	63	126	75	2.953	72	2.835	1.0	0.90	19.8
	18.5	.728	C6	881-D1850C6-04	63	128	77	3.032	74	2.913	1.0	0.85	20.2
	19.0	.748	C6	881-D1900C6-04	63	130	79	3.110	76	2.992	1.0	0.80	20.6
	19.5	.768	C6	881-D1950C6-04	63	134	82	3.228	78	3.071	1.0	0.75	21.0
	20.0	.787	C6	881-D2000C6-04	63	136	84	3.307	80	3.150	1.0	0.75	21.5
04	21.0	.827	C6	881-D2100C6-04	63	140	87	3.425	84	3.307	1.0	1.50	24.0
	22.0	.866	C6	881-D2200C6-04	63	144	91	3.583	88	3.465	1.0	1.25	24.5
	23.0	.906	C6	881-D2300C6-04	63	149	95	3.740	92	3.622	1.1	1.00	25.0

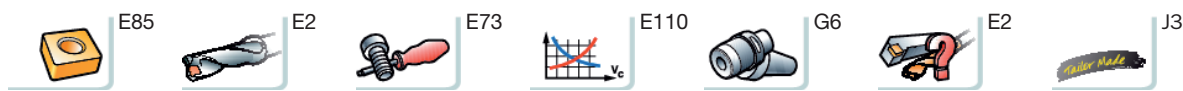
Boring

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Tooling Systems

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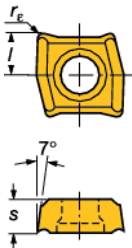
General Information



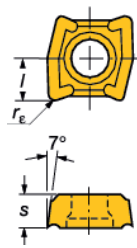
Inserts for CoroDrill® 881

Drill diameter 14.00 - 23.50 mm

Central insert



Peripheral insert

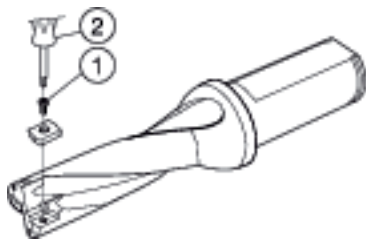


□	Ordering code	Insert position	Dimensions, millimeter, inch (mm, in.)																									
			P				M				K				N				S				H				r _ε mm	r _ε in.
			GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC		
02	881-02 02 04M-C-GM1	⊙	★																						0.4	.016		
	881-02 02 04M-P-GM1	⊙		★																					0.4	.016		
03	881-03 03 08M-C-GM1	⊙	★																						0.8	.032		
	881-03 03 08M-P-GM1	⊙		★																					0.8	.032		
04	881-04 03 08M-C-GM1	⊙	★																						0.8	.032		
	881-04 03 08M-P-GM1	⊙		★																					0.8	.032		
			P40	P40	M35	M35	M20	M35	K25	K25	N20	N20	S30	S35	S30	H20	H15	H20										

⊙ = Central insert
 ⊙ = Peripheral insert

★ = First choice

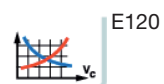
Insert size	Dimensions							
	D _c mm	D _c inch	l ₁ mm	l ₁ inch	s mm	s inch	D ₁ mm	D ₁ inch
881-02...C	12.70-17.43	.500-.686	2.7	.106	2.4	.094	2.5	.098
881-02...P								
881-03...C	17.44-20.99	.687-.826	3.3	.130	3.2	.126	2.5	.098
881-03...P								
881-04...C	21.00-25.99	.827-1.023	4.0	.157	3.2	.126	2.8	.110
881-04...P								



Spare parts for CoroDrill® 881

Insert size	1			2	
	Insert screw	Screwdriver (Torx Plus)	Torque wrench ¹⁾	Torque Nm	
881-02	5513 020-33	5680 046-03 (7IP)	5680 100-02	0.9	
881-03	5513 020-19	5680 046-03 (7IP)	5680 100-02	0.9	
881-04	5513 020-20	5680 046-03 (7IP)	5680 100-02	0.9	

¹⁾ Accessories, must be ordered separately.



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DRILLING Coromant U drills

$4 \times D_c$

Drill diameter, D_c 12.7 - 35 mm (.500-1.378 inch)
 Tolerance, D_c ± 0.2 mm (± 0.008 inch)
 Max hole depth, l_4 $4 \times D_c$

l_{1s} = programming length

Metric design

Drill diameter			Dimensions, millimeter, inch (mm, in.)									Inserts
D_c mm	D_c inch	Ordering code	d_{m_m} mm	l_{1s} mm	l_2 mm	l_2 in.	l_{3s} mm	l_{3s} in.	l_4 mm	l_4 in.	R_{fs}	
12.7	.500	R416.22-0127L20-41	20	63	113	4.449	53	2.087	12.7	0.500	0.2	LCMX02
16.0	.630	R416.22-0160L20-41	20	77	127	5.000	67	2.638	16.0	0.630	0.2	LCMX02
19.0	.748	R416.22-0190L25-41	25	89	145	5.709	79	3.110	19.0	0.748	0.3	LCMX03
25.0	.984	R416.22-0250L25-41	25	114	170	6.693	104	4.094	25.0	0.984	0.4	LCMX04
35.0	1.378	R416.22-0350L40-41	40	154	214	8.425	144	5.669	35.0	1.378	1.3	WCMX06

Engineered special options diameter range 12.7-58 mm, 2-6 $\times D_c$ to be quoted.



































Spare parts for Coromant U drills R416.2, R416.21 and R416.22

	1	2	
Insert size	Insert screw	Screwdriver (Torx Plus)	Torque value Nm (in-lbs)
LCMX 02	5513 020-33	5680 046-03 (7IP)	0.8 (7)
LCMX 03	5513 020-19	5680 046-03 (7IP)	0.8 (7)
LCMX 04	5513 020-20	5680 046-03 (7IP)	0.8 (7)
TCMT 06	5513 020-28	5680 051-01 (6IP)	0.6 (5)
TCMT 09	5513 020-05	5680 051-02 (7IP)	0.8 (7)
WCMX 05	416.1-832	5680 046-04 (9IP)	1.7 (15)
WCMX 06	416.1-833	5680 046-05 (10IP)	2.0 (18)
WCMX 08	416.1-834	5680 046-02 (15IP)	3.0 (26)

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Geometry recommendations for Coromant U drills

Geometry recommendations for Coromant U and T-MAX U drills

<p>D_c 12.7 - 17 mm (.500 - .669 inch) General choice</p>	 Central insert	 Peripheral insert		<ul style="list-style-type: none"> - Good chip control in most materials including: steel, stainless steel, cast iron, titanium, heat resistant alloys and aluminum - Low to high cutting speeds - Central and peripheral insert
	<p>C-53</p> 	<p>P-53</p> 		
<p>Complementary choice</p>	<p>TC-53</p> 	<p>P-53</p> 		<ul style="list-style-type: none"> - TC -53, optimized geometry for increased edge security
<p>D_c 17.5 - 25 mm (.689 - .984 inch) Productivity choice</p>	<p>-WM</p> 	<p>-WM</p> 		<ul style="list-style-type: none"> - Wiper geometry for up to 50% higher feed - For steel and cast iron with hardness above 200HB and easy to machine stainless steels
	<p>-WM</p> 	<p>-WM</p> 		<ul style="list-style-type: none"> - For stable conditions and open tolerance holes - Central and peripheral insert
<p>D_c 17.5 - 58 mm (.689 - 2.283 inch) General choice</p>	<p>-53</p> 	<p>-53</p> 		<ul style="list-style-type: none"> - Good chip control in most materials including: steel, stainless steel, cast iron, titanium, heat resistant alloys and aluminum - Low to high cutting speeds - Central and peripheral insert
	<p>-53</p> 	<p>-53</p> 		
<p>Complementary choice</p>	<p>-53</p> 	<p>-58</p> 		<ul style="list-style-type: none"> - Geometry -58, optimized as peripheral insert for low carbon steel and stainless steel - High cutting speeds
	<p>-53</p> 	<p>-58</p> 		
	<p>T-53</p> 	<p>T-53</p> 		<ul style="list-style-type: none"> - Optimized geometries with increased edge security
	<p>T-53</p> 	<p>T-53</p> 		
<p>D_c 26 - 58 mm (1.024 - 2.283 inch) Complementary choice</p>	<p>-53</p> 	<p>-51</p> 		<ul style="list-style-type: none"> - Geometry -51, optimized as peripheral for good chip control in steel, stainless steel, cast iron - High cutting speeds
	<p>-56</p> 	<p>-56</p> 		<ul style="list-style-type: none"> - Good chip control in steel and stainless steel

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DRILLING Coromant U drills

Inserts for Coromant U drills R416.2, R416.21, R416.22

**Central
LCMX 02
C-53**

D_c 12.7 - 17.0 mm
 D_c .500 - .669 inch

**Peripheral
LCMX 02
P-53**

D_c 12.7 - 17.0 mm
 D_c .500 - .669 inch

**LCMX 03/04
R-WM**

D_c 17.5 - 25.0 mm
 D_c .689 - .984 inch

Ordering code	P												M				K				N				S				H				Dimensions, millimeter, inch (mm, in.)		
	GC			GC			GC			GC			GC			GC			GC			GC			GC			GC			l	s	r _e		
	1020	1120	235	3040	1020	1120	235	3040	1020	1120	3040	H13A	1020	1120	3040	H13A	1020	1120	H13A	1020	1120	H13A	1020	1120	H13A	1020	1120	3040							
02 LCMX 02 02 04 P-53	☆			★																								2.68	2.38	0.4					
LCMX 02 02 04 C-53	★				★												★											2.68	2.38	0.4					
LCMX 02 02 04 TC-53	★																							☆				2.68	2.38	0.4					
03 LCMX 03 03 08-53	☆		☆	★		☆	☆	☆		☆				★	☆	☆		★	★			☆	★		☆			3.25	3.18	0.8					
LCMX 03 03 08-53	★				★												☆	☆		★	★		☆	★				3.25	3.18	0.8					
LCMX 03 03 04-58			☆	★				☆	★																			3.25	3.18	0.4					
LCMX 03 03 08 T-53	★																★							★				3.25	3.18	0.8					
LCMX 03 03 04 R-WM				★														★										3.25	3.18	0.4					
LCMX 03 03 04 R-WM	★																											3.25	3.18	0.4					
04 LCMX 04 03 08-53	☆		☆	★		☆	☆	☆		☆				★	☆	☆		★	★			☆	★		☆			4.0	3.18	0.8					
LCMX 04 03 08-53	★				★													☆	☆		★	★		☆	★			4.0	3.18	0.8					
LCMX 04 03 04-58			☆	★				☆	★																			4.0	3.18	0.4					
LCMX 04 03 08 T-53	★																★							☆				4.0	3.18	0.8					
LCMX 04 03 04 R-WM				★														★										4.0	3.18	0.4					
LCMX 04 03 04 R-WM	★																											4.0	3.18	0.4					
																													.157	.125	.016				

Ordering example: 100 pieces LCMX 02 02 04 P-53 3040
★= First choice

○ = Peripheral insert
⊙ = Central insert
⊕ = Central and peripheral insert

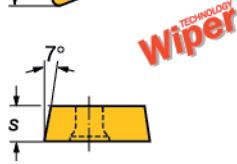
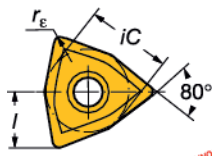
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Inserts for Coromant U drills R416.2, R416.21, R416.22

WCMX 05/06

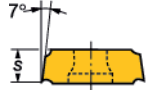
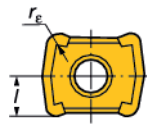
R-WM

D_c 26.0 - 41.3 mm
 D_c 1.024 - 1.626 inch



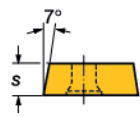
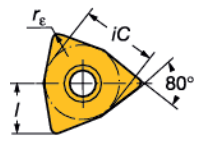
LCMX 03/04

D_c 17.5 - 25.0 mm
 D_c .689 - .984 inch



WCMX 05/06/08

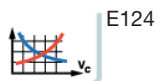
D_c 26.0 - 80.0 mm
 D_c 1.024 - 3.150 inch



Ordering code	P												M				K			N			S			H			Dimensions, millimeter, inch (mm, in.)			
	GC			GC			GC			GC			GC			GC			GC			GC			GC			l	iC	s	rE	
	1020	1120	235	3040	1020	1120	235	3040	H13A	1020	1120	3040	H13A	1020	1120	H13A	1020	1120	H13A	1020	1120	H13A	1020	1120	3040							
05 WCMX 05 03 04 R-WM				★																						5.07	7.94	3.18	0.4			
WCMX 05 03 04 R-WM																											.200	.313	.125	.016		
WCMX 05 03 08 R-51			☆					☆	☆					☆													5.07	7.94	3.18	0.8		
WCMX 05 03 08 R-53		☆		★	★			☆	☆	☆			★	☆	☆		★	★		☆	★		☆			5.07	7.94	3.18	0.8			
WCMX 05 03 08 R-53		★			★			☆				★	☆	☆		★	★		☆	★						5.07	7.94	3.18	0.8			
WCMX 05 03 08-58			☆	★				☆	★																	5.07	7.94	3.18	0.8			
WCMX 05 03 08-58					☆	★		☆	★																	.200	.313	.125	.031			
WCMX 05 03 08 T-53		★										★											☆			5.07	7.94	3.18	0.8			
WCMX 05 03 08-56			☆					☆																		5.07	7.94	3.18	0.8			
WCMX 05 03 08-56																										.200	.313	.125	.031			
06 WCMX 06 T3 04 R-WM				★																						6.14	9.52	3.97	0.4			
WCMX 06 T3 04 R-WM		★										★														.242	.375	.156	.016			
WCMX 06 T3 08 R-51			☆					☆	☆					☆												6.14	9.52	3.97	0.8			
WCMX 06 T3 08 R-53		☆	☆	★	★			☆	☆	☆			★	☆	☆		★	★		☆	★		☆			6.14	9.52	3.97	0.8			
WCMX 06 T3 08 R-53		★			★			☆		☆	★			☆	☆		★	★		☆						6.14	9.52	3.97	0.8			
WCMX 06 T3 08-58			☆	★				☆	★																	.242	.375	.156	.031			
WCMX 06 T3 08-58					☆	★		☆	★																	6.14	9.52	3.97	0.8			
WCMX 06 T3 08-58																										.242	.375	.156	.031			
WCMX 06 T3 08 T-53		★										★											☆			6.14	9.52	3.97	0.8			
WCMX 06 T3 08 T-53																										.242	.375	.156	.031			
WCMX 06 T3 08-56			☆					☆																		6.14	9.52	3.97	0.8			
WCMX 06 T3 08-56																										.242	.375	.156	.031			
08 WCMX 08 04 12 R-51			☆					☆	☆					☆												8.14	12.7	4.76	1.2			
WCMX 08 04 12 R-53		☆	☆	★	★			☆	☆	☆			☆	☆		★	★		☆	★		☆				8.14	12.7	4.76	1.2			
WCMX 08 04 12 R-53		★			★			☆	☆	★			☆	☆		★	★		☆							.320	.500	.187	.047			
WCMX 08 04 12-58			☆	★				☆	★																	8.14	12.7	4.76	1.2			
WCMX 08 04 12-58																										.320	.500	.187	.047			
WCMX 08 04 12 T-53		★										★											☆			8.14	12.7	4.76	1.2			
WCMX 08 04 12 T-53																										.320	.500	.187	.047			
WCMX 08 04 12-56			☆					☆																		8.14	12.7	4.76	1.2			
WCMX 08 04 12-56																										.320	.500	.187	.047			

Ordering example: 100 pieces LCMX 02 02 04 P-53 3040
 ★ = First choice

- = Peripheral insert
- ⊙ = Central insert
- ⊕ = Central and peripheral insert



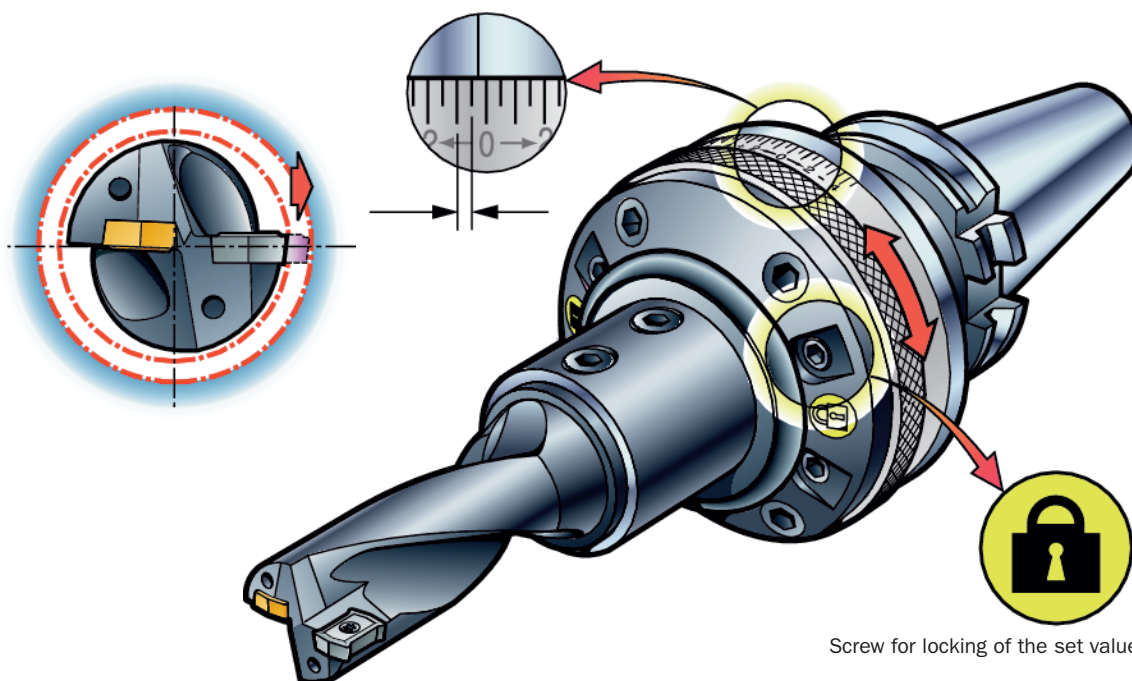
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General Information

Coromant holder for drills with cylindrical shanks (ISO 9766), adjustable for flexible holemaking.

Will optimize rotating use of Coromant drills with indexable inserts.

Working range: Nominal diameter +.055 inch (+1.4 mm). Adjustable in increments of .002 inch (0.05 mm). The scale-zero denotes nominal diameter.

Allows manufacturing of holes larger than the nominal hole diameter for which the drill is specified.



Screw for locking of the set value.

Improve the accuracy of holes produced on machining centers

Adjustable holders for CoroDrill® 880

Sandvik Coromant has developed a program of holders for CoroDrill® 880 drills to provide closer diameter control of the hole production.

The high precision of the holder simplifies fine adjustment for production of holes within tighter tolerance than specified for the drill, facilitating the production of high quality components.

Accurate adjustment makes it easy to compensate for diameter deviations or to offset the drill for manufacturing a larger hole than the nominal diameter of the drill.

To some extent this influences the inventory costs as a standard size drill can be used within a range of diameters, reducing the need for intermediate dimensions and special tooling.

The holder also makes it possible to widen the application area for CoroDrill® 880 drills on machining centers.

By just changing slides, different shank sizes can be used in the same holder/adaptor, giving better economy and flexibility.



Setting

Setting of the holder is easily done by just turning the scale ring surrounding the holder. It's marked in increments of .002 inch (0.05 mm) indicating a diametrical movement of the tool.

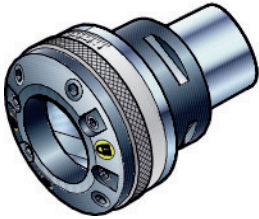
The scale also has a zero mark as a nominal setting for the holder only.

Note: A diameter below the nominal of the drill should never be chosen.

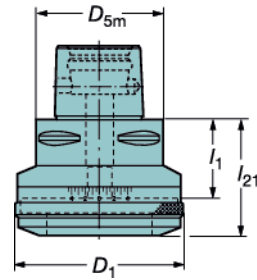
Adjustable drill holder

Coromant Capto®

391.277



Diametrical adjustment in increments of .002 inch (0.05 mm):
 -0.4 (-.016)
 +1.4 (+.055)
 Note: Drill should not be adjusted below nominal diameter.

 l_1 = programming length

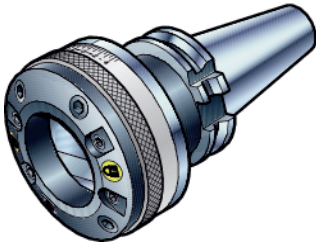
Coupling size	Ordering code	Coolant ¹⁾	Dimensions, millimeter, inch (mm, in.)									
			D_1 mm	D_1 in.	D_{5m} mm	D_{5m} in.	l_1 mm	l_1 in.	l_{21} mm	l_{21} in.	$\frac{\Delta}{100}$	Slide size
C5	C5-391.277-01 040A	1	86	3.386	50	1.968	40	1.575	64.6	2.543	1.7	01
C6	C6-391.277-01 040B	1	86	3.386	63	2.480	40	1.575	64.6	2.543	2.0	01
	C6-391.277-02 045A	1	106	4.173	63	2.480	45	1.772	69.6	2.740	2.7	02
C8	C8-391.277-02050A	1	106	4.173	80	3.150	50	1.968	74.6	2.937	3.6	02

¹⁾ 0 = no coolant, 1 = coolant through center, 6 = coolant through flange, 7 = coolant through center and through flange

Slides must be ordered separately, see page E93.

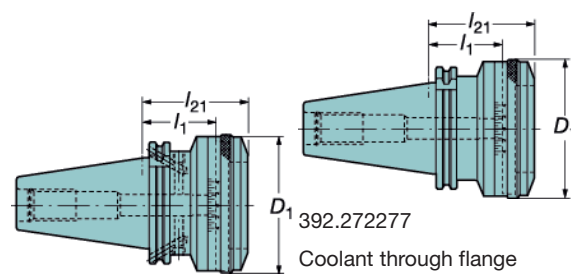
Solid

A392.45277 / 392.272277 / .140277 / .55277 / .58277



Diametrical adjustment in increments of .002 inch (0.05 mm):
 -0.4 (-.016)
 +1.4 (+.055)

Note: Drill should not be adjusted below nominal diameter.



392.140277
 392.55277
 392.58277

392.272277
 Coolant through flange

 l_1 = programming length

Metric design

Machine design	Taper	Ordering code	Coolant ¹⁾	Dimensions					Slide size
				D_1	l_1	l_{21}	$\frac{\Delta}{100}$		
DIN 69871 -A	40	392.140277-4001055A	1	86	55	79.6	2.3	01	
	50	392.140277-5002055A	1	106	55	79.6	4.7	02	
	50	392.140277-5003075A	1	140	75	85	6.5	03	
DIN 69871 -B	40	392.272277-4001055A	6	86	55	79.6	2.2	01	
	50	392.272277-5002055A	6	106	55	79.6	4.7	02	
	50	392.272277-5003075A	6	140	75	85	6.5	03	
MAS-BT 403	40	392.55277-40 01 055A	1	86	55	79.6	2.4	01	
	50	392.58277-50 02 063A	1	106	63	87.6	5.8	02	
	50	392.58277-50 03 080B	1	140	80	90	7.3	03	

¹⁾ 0 = no coolant, 1 = coolant through center, 6 = coolant through flange, 7 = coolant through center and through flange

Inch design

Machine design	Taper	Ordering code	Coolant ¹⁾	Dimensions, inch					Slide size
				D_1	l_1	l_{21}	$\frac{\Delta}{100}$		
CAT V	40	A392.45277-40 01 055A	1	3.386	2.165	3.130	4.9	01	
	50	A392.45277-50 02 055A	1	4.173	2.165	3.130	10.6	02	
	50	A392.45277-50 03 075A	1	5.512	2.953	3.346	15.0	03	

¹⁾ 0 = no coolant, 1 = coolant through center, 6 = coolant through flange, 7 = coolant through center and through flange

Slides must be ordered separately, see page E93.



E92



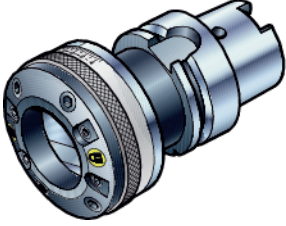
J2

D
E
F
G
J

DRILLING Adjustable drill holder

Adjustable drill holder

HSK
392.410 277



Diametrical adjustment in increments of .002 inch (0.05 mm): -0.4 (-.016) +1.4 (+.055)



l_1 = programming length

Note: Hole for data carrier is not standard. Drill should not be adjusted below nominal diameter.

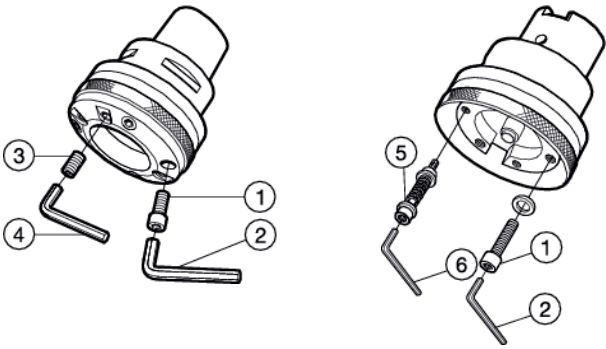
HSK size	Ordering code	Coolant ¹⁾	Dimensions, millimeter, inch (mm, in.)									
			D_1 mm	D_1 in.	D_{5m} mm	D_{5m} in.	l_1 mm	l_1 in.	l_{21} mm	l_{21} in.	$\frac{\Delta}{kg}$	Slide size
63	392.410277-6301060B	1	86	3.386	63	2.480	60	2.362	84.6	3.327	1.8	01
100	392.410277-10002065A	1	106	4.173	100	3.937	65	2.559	90.0	3.543	4.3	02
100	392.410277-10003085A	1	140	5.519	100	3.937	85	3.346	95.0	3.740	6.6	03

¹⁾ 0 = no coolant, 1 = coolant through center, 6 = coolant through flange, 7 = coolant through center and through flange

Slides must be ordered separately, see page E93. Ordering example: 2 pieces 392.410277-63 01 060 B

Coolant tube must be ordered separately, see page G77.

Spare parts for adjustable drill holders



	1	2 ¹⁾	3	4	5 ¹⁾	6
Size	Screw	Key (mm)	Screw	Key (mm)	Preclamp set	Key (mm)
01	3212 010-361	3021 010-050 (5.0)	5519 026-06	3021 010-040 (4.0)	-	-
02	3212 010-361	3021 010-050 (5.0)	5519 026-06	3021 010-040 (4.0)	-	-
03	3212 010-411	3021 010-060 (6.0)	-	-	5519 200-01	3021 010-050 (5.0)

¹⁾ Accessories, must be ordered separately. Ordering example: 10 pieces 3212 010-361



J2

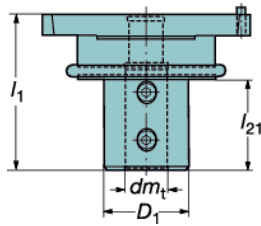
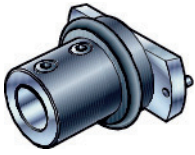
E 92



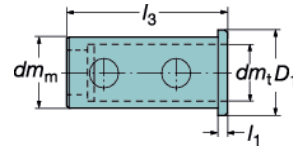
Slide for adjustable drill holders

Shank according to ISO 9766

393.277



Sleeve

 l_1 = programming length

Metric version

Slide size	Ordering code	Dimensions				
		dm_1	D_1	l_1	l_{21}	
01	393.277-20 01 075A	20	40	75	43	0.7
	393.277-25 01 080A	25	45	80	48	0.8
02	393.277-20 02 075A	20	40	75	43	1.0
	393.277-25 02 085A	25	45	85	54	1.2
	393.277-32 02 085A	32	52	85	54	1.3
03	393.277-40 03 090A	40	65	100	65	3.3
	393.277-50 03 100A	50	75	110	75	3.7

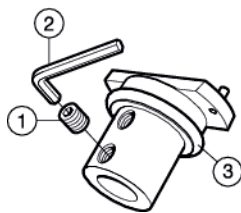
Inch version

Slide size	Ordering code	Dimensions, inch				
		dm_1	D_1	l_1	l_{21}	
01	A393.277-75 01 075A	.750	1.575	2.953	1.693	3.3
	A393.277-100 01 080A	1.000	1.772	3.150	1.890	4.0
02	A393.277-75 02 075A	.750	1.575	2.953	1.693	4.9
	A393.277-100 02 085A	1.000	1.772	3.346	2.126	5.7
	A393.277-125 02 085A	1.250	2.047	3.346	2.126	6.4

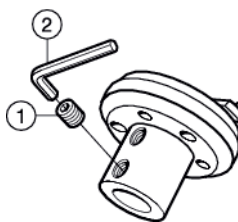
Spare parts for slide for adjustable drill holders

393.277

01 - 02



03



Slide	1	2 ¹⁾	3
	Screw	Key (mm)	O-ring
393.277-20 01	5514 042-04	3021 010-040 (4.0)	5641 001-31
393.277-25 01	416.1-838	3021 010-060 (6.0)	5641 001-31
393.277-20 02	5514 042-04	3021 010-040 (4.0)	5641 001-32
393.277-25 02	416.1-838	3021 010-060 (6.0)	5641 001-32
393.277-32 02	416.1-838	3021 010-060 (6.0)	5641 001-32
393.277-40 03	5514 042-06	3021 010-100 (10.0)	-
393.277-50 03	5514 042-06	3021 010-100 (10.0)	-
A393.277-75 01 075 A	5514 042-04	3021 010-040 (4.0)	5641 001-31
A393.277-75 02 075 A	5514 042-04	3021 010-040 (4.0)	5641 001-32
A393.277-100 01 080 A	416.1-838	3021 010-060 (6.0)	5641 001-31
A393.277-100 02 085 A	416.1-838	3021 010-060 (6.0)	5641 001-32
A393.277-125 02 085 A	416.1-838	3021 010-060 (6.0)	5641 001-32

1) Accessories, must be ordered separately.



CoroDrill® Delta-C R840 for drill diameters 0.30-2.90 mm

Metric values

ISO	CMC No.	Material	Hardness Brinell HB	Grade	Cutting speed (V _c), m/min	Drill diameter, mm				
						0.30-1.40 Feed f _n mm/rev	Grade	Cutting speed (V _c), m/min	1.50-2.90 Feed f _n mm/rev	
P	01.0	Unalloyed steel C = 0.05–0.10%	125	H10F	15-50	0.005-0.022	1020	80-100	0.04-0.08	
	01.1	C = 0.1–0.25%	125	H10F	15-50	0.005-0.022	1020	80-100	0.04-0.08	
	01.2	C = 0.25–0.55%	150	H10F	15-50	0.005-0.022	1020	70-85	0.03-0.07	
	01.3	C = 0.55–0.80%	170	H10F	15-50	0.005-0.022	1020	70-85	0.03-0.07	
	01.4	High carbon steel Carbon tool steel	210	H10F	10-42	0.004-0.020	1020	65-80	0.03-0.07	
	02.1	Low alloy steel Non-hardened	180	H10F	15-50	0.005-0.022	1020	60-75	0.03-0.06	
	02.2	Hardened and tempered	275	H10F	10-42	0.004-0.018	1020	45-60	0.03-0.06	
	02.2	Hardened and tempered	350	H10F	7-27	0.003-0.014	1020	35-50	0.015-0.030	
	03.11	High alloy steel Annealed	200	H10F	6-24	0.004-0.0175	1020	45-60	0.03-0.07	
	03.21	Hardened tool steel	325	H10F	5-20	0.004-0.0175	1020	40-50	0.03-0.06	
	06.1	Steel castings Unalloyed	180	H10F	15-50	0.005-0.022	1020	60-75	0.03-0.06	
	06.2	Low-alloy (alloying elements ≤5%)	200	H10F	15-50	0.005-0.022	1020	50-65	0.03-0.06	
	S	23.21	Titanium alloys α, near α and α + β alloys, annealed	Rm = 850	H10F	4-17	0.0023-0.01	1020	30-40	0.02-0.04
		23.22	α + β alloys in aged cond, β alloys, annealed or aged	Rm =1050	H10F	3-13	0.0015-0.007	1020	30-40	0.02-0.04
K	07.1	Malleable cast iron Ferritic (short chipping)	130	H10F	10-42	0.0048-0.021	1020	70-95	0.06-0.10	
	07.2	Pearlitic (long chipping)	230	H10F	6-30	0.0048-0.021	1020	65-80	0.06-0.10	
	08.1	Gray cast iron Low tensile strength	180	H10F	13-51	0.0056-0.0245	1020	70-95	0.06-0.10	
	08.2	High tensile strength	260	H10F	10-42	0.0048-0.021	1020	60-80	0.06-0.10	
	09.1	Nodular cast iron, SG iron Ferritic	160	H10F	10-42	0.0048-0.021	1020	60-80	0.06-0.10	
	09.2	Pearlitic	250	H10F	8-34	0.0032-0.014	1020	50-65	0.06-0.10	
H	04.1	Extra hard steel Hardened and tempered	43-47 HRc	–	–	–	1020	20-30	0.01-0.02	
	04.1		47-60 HRc	–	–	–	1020	20-30	0.01-0.02	
N	30.11	Aluminum alloys Wrought or wrought and coldworked, non-aging	60	H10F	35-135	0.0072-0.0315	1020	200-250	0.06-0.10	
	30.21	Cast, non-aging	75	H10F	24-95	0.0072-0.0315	1020	150-200	0.06-0.10	
	33.1	Copper and copper alloys Free cutting alloys, ≥1% Pb	110	H10F	17-68	0.0064-0.028	1020	140-170	0.06-0.10	
33.2	Brass, leaded bronzes, ≤1% Pb	90	H10F	10-40	0.0064-0.028	1020	160-190	0.06-0.10		

Higher feed recommendations should be used in stable and good machining conditions.

Use lower/higher feed recommendations at smaller/larger diameters within the range:

Example: f_n = .004-.0055-.010

Example: D_c = .118-.197-.236

CoroDrill® Delta-C for drill diameters 3-20 mm

Metric values

ISO	CMC No.	Material	Hardness Brinell HB	Grades	Cutting speed (V_c), m/min	Drill diameter, mm			
						3.00–6.00	6.01–10.00	10.01–14.00	14.01–20.00
						Feed f_n mm/rev 3)			
P		Unalloyed steel							
	01.0	C = 0.05–0.10%	125	1220	80-140	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45
	01.1	C = 0.1–0.25%	125	1220	80-140	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45
	01.2	C = 0.25–0.55%	150	1220	80-140	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45
	01.3	C = 0.55–0.80%	170	1220	70-130	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45
		High carbon steel							
	01.4	Carbon tool steel	210	1220	70-120	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45
		Low alloy steel							
	02.1	Non-hardened	180	1220	70-120	0.10-0.20	0.14-0.30	0.18-0.35	0.20-0.40
	02.2	Hardened and tempered	275	1220	70-100	0.10-0.20	0.14-0.30	0.18-0.35	0.20-0.40
	02.2	Hardened and tempered	350	1220	50-80	0.10-0.20	0.14-0.25	0.18-0.35	0.20-0.38
		High alloy steel							
	03.11	Annealed	200	1220	40-80	0.08-0.14	0.10-0.22	0.14-0.25	0.16-0.32
	03.21	Hardened tool steel	325	1220	40-70	0.08-0.14	0.10-0.22	0.12-0.25	0.18-0.28
	Steel castings								
06.1	Unalloyed	180	1220	70-130	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45	
06.2	Low-alloy (alloying elements ≤5%)	200	1220	70-120	0.10-0.25	0.15-0.34	0.20-0.40	0.22-0.45	
M		Stainless steel							
	05.11	Non-hardened/ Ferritic/ Martensitic	200	1220	40-80 ¹⁾	0.08-0.14	0.08-0.20	0.12-0.22	0.14-0.24
	05.21	Austenitic	180	1220	40-80 ¹⁾	0.08-0.14	0.08-0.20	0.12-0.22	0.14-0.24
	15.21	Austenitic castings	200	1220	40-80 ¹⁾	0.08-0.14	0.08-0.20	0.12-0.22	0.14-0.24
S		Heat resistant super alloys – Nickel base							
	20.21	Annealed or solution treated	250	1220	10-25	0.06-0.12	0.08-0.15	0.08-0.15	0.10-0.16
	20.22	Aged or solution treated and aged	350	1220	10-25	0.06-0.12	0.08-0.15	0.08-0.15	0.10-0.16
	20.24	Cast or cast and aged	320	1220	10-25	0.06-0.12	0.08-0.15	0.08-0.15	0.10-0.16
		Titanium alloys							
23.21	α , near α and $\alpha + \beta$ alloys, annealed	Rm ²⁾ = 850	1220	20-60	0.06-0.12	0.08-0.20	0.14-0.28	0.16-0.30	
23.22	$\alpha + \beta$ alloys in aged cond, β alloys, annealed or aged	Rm ²⁾ = 1050	1220	20-60	0.06-0.12	0.08-0.20	0.14-0.28	0.16-0.30	
K		Malleable cast iron							
	07.1	Ferritic (short chipping)	130	1220	90-150	0.15-0.30	0.25-0.40	0.35-0.60	0.40-0.60
	07.2	Pearlitic (long chipping)	230	1220	70-130	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55
				1210	100-150	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55
		Gray cast iron							
	08.1	Low tensile strength	180	1220	90-150	0.15-0.30	0.25-0.40	0.35-0.60	0.40-0.60
	08.2	High tensile strength	260	1220	70-130	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55
				1210	100-140	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55
		Nodular cast iron, SG iron							
	09.1	Ferritic	160	1220	80-110	0.15-0.30	0.25-0.40	0.35-0.60	0.40-0.60
09.2	Pearlitic	250	1220	70-100	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55	
			1210	100-140	0.15-0.25	0.20-0.35	0.30-0.55	0.35-0.55	
	CGI		1210	90-130	0.15-0.30	0.20-0.40	0.30-0.60	0.35-0.60	
H		Extra hard steel							
	04.1	Hardened and tempered	43-47 HRc	1220	30-50	0.06-0.10	0.08-0.12	0.10-0.15	0.12-0.18
			47-60 HRc	1220	15-25	0.06-0.10	0.08-0.12	0.10-0.15	0.12-0.18
N		Aluminum alloys							
	30.11	Wrought or wrought and coldworked, non-aging	60	N20D	120-230	0.15-0.25	0.20-0.40	0.30-0.50	0.40-0.60
	30.21	Cast, non-aging	75	N20D	120-230	0.15-0.25	0.20-0.40	0.30-0.50	0.40-0.60
		Copper and copper alloys							
33.1	Free cutting alloys, ≥1% Pb	110	N20D	90-150	0.15-0.25	0.20-0.40	0.30-0.50	0.40-0.60	
33.2	Brass, leaded bronzes, ≤1% Pb	90	N20D	90-150	0.15-0.25	0.20-0.40	0.30-0.50	0.40-0.60	

1) Internal cutting fluid supply is recommended when drilling stainless steel, as a good supply of coolant at the cutting edges is essential for chip evacuation and tool life.

2) Rm = ultimate tensile strength measured in MPa.

3) Higher feeds should be used in stable and favorable machining conditions.

CoroDrill® Delta-C R840 for drill diameters .012-.114 inch

Inch values

ISO	CMC No.	Material	Hardness Brinell HB	Grade	Cutting speed (V _c) ft/min	Drill diameter	Grade	Cutting speed (V _c) ft/min	Drill diameter
						0.30-1.40 mm (.012-.055 inch)			1.50-2.90 mm (.059-.114 inch)
						Feed f _n inch/rev			Feed f _n inch/rev
P	Unalloyed steel								
	01.0	C = 0.05-0.10%	125	H10F	50-170	0.0002-0.0009	1020	260-330	.002-.003
	01.1	C = 0.10-0.25%	125	H10F	50-170	0.0002-0.0009	1020	260-330	.002-.003
	01.2	C = 0.25-0.55%	150	H10F	50-170	0.0002-0.0009	1020	230-280	.001-.003
	01.3	C = 0.55-0.80%	170	H10F	50-170	0.0002-0.0009	1020	230-280	.001-.003
	High carbon steel								
	01.4	Carbon tool steel	210	H10F	30-140	0.00015-0.0008	1020	210-260	.001-.003
	Low alloy steel								
	02.1	Non-hardened	180	H10F	50-170	0.0002-0.0009	1020	200-250	.001-.002
	02.2	Hardened and tempered	275	H10F	30-140	0.00015-0.0007	1020	150-200	.001-.002
	02.2	Hardened and tempered	350	H10F	25-90	0.0001-0.0006	1020	115-160	.001-.002
	High alloy steel								
	03.11	Annealed	200	H10F	20-80	0.00015-0.0007	1020	150-200	.001-.003
	03.21	Hardened tool steel	325	H10F	17-65	0.00015-0.0007	1020	130-160	.001-.002
Steel castings									
06.1	Unalloyed	180	H10F	50-170	0.0002-0.0009	1020	200-250	.001-.002	
06.2	Low-alloy (alloying elements ≤5%)	200	H10F	50-170	0.0002-0.0009	1020	160-210	.001-.002	
S	Titanium alloys								
	23.21	α, near α and α + β alloys, annealed	Rm = 850	H10F	15-55	0.0001-0.0004	1020	100-130	.001-.002
23.22	α + β alloys in aged cond, β alloys, annealed or aged	Rm = 1050	H10F	10-45	0.00006-0.0003	1020	100-130	.001-.002	
K	Malleable cast iron								
	07.1	Ferritic (short chipping)	130	H10F	30-140	0.0002-0.0008	1020	230-310	.002-.004
	07.2	Pearlitic (long chipping)	230	H10F	20-100	0.0002-0.0008	1020	210-260	.002-.004
	Gray cast iron								
	08.1	Low tensile strength	180	H10F	40-170	0.0002-0.00095	1020	230-310	.002-.004
	08.2	High tensile strength	260	H10F	30-140	0.0002-0.0008	1020	200-260	.002-.004
	Nodular cast iron, SG iron								
	09.1	Ferritic	160	H10F	30-140	0.0002-0.0008	1020	200-260	.002-.004
09.2	Pearlitic	250	H10F	25-15	0.00012-0.0006	1020	160-210	.002-.004	
H	Extra hard steel								
	04.1	Hardened and tempered	43-47 HRc	-	-	-	1020	65-100	.0004-.0008
04.1	Hardened and tempered	47-60 HRc	-	-	-	1020	65-100	.0004-.0008	
N	Aluminum alloys								
	30.11	Wrought or wrought and coldworked, non-aging	60	H10F	120-450	0.0003-0.0012	1020	650-820	.002-.004
	30.21	Cast, non-aging	75	H10F	80-310	0.0003-0.0012	1020	490-650	.002-.004
Copper and copper alloys									
33.1	Free cutting alloys, ≥1% Pb	110	H10F	60-220	0.00025-0.0011	1020	460-560	.002-.004	
33.2	Brass, leaded bronzes, ≤1% Pb	90	H10F	30-130	0.00025-0.0011	1020	520-620	.002-.004	

Higher feed recommendations should be used in stable and good machining conditions.

Use lower/higher feed recommendations at smaller/larger diameters within the range:

Example: f_n = .004-.006-.010 inch

Example: D_c = .039-.197-.236 inch

CoroDrill® Delta-C for drill diameters .118-.787 inch

Inch values

ISO	CMC No.	Material	Hardness Brinell HB	Grades	Cutting speed (V _c) ft/min	Drill diameter			
						3.00-6.00 mm (.118- .236 inch)	6.01-10.00 mm (.237- .394 inch)	10.01-14.00 mm (.395- .551 inch)	14.01-20.00 mm (.552- .787 inch)
						Feed f _n inch/rev ³⁾			
P	Unalloyed steel								
	01.0	C = 0.05-0.10%	125	1220	260-460	.004-.010	.006-.013	.008-.016	.009-.018
	01.1	C = 0.10-0.25%	125	1220	260-460	.004-.010	.006-.013	.008-.016	.009-.018
	01.2	C = 0.25-0.55%	150	1220	260-460	.004-.010	.006-.013	.008-.016	.009-.018
	01.3	C = 0.55-0.80%	170	1220	230-430	.004-.010	.006-.013	.008-.016	.009-.018
	High carbon steel								
	01.4	Carbon tool steel	210	1220	230-400	.004-.010	.006-.013	.008-.016	.009-.018
	Low alloy steel								
	02.1	Non-hardened	180	1220	230-400	.004-.008	.006-.012	.007-.014	.008-.016
	02.2	Hardened and tempered	275	1220	230-330	.004-.008	.006-.012	.007-.014	.008-.016
	02.2	Hardened and tempered	350	1220	160-260	.004-.008	.006-.010	.007-.014	.008-.016
	High alloy steel								
	03.11	Annealed	200	1220	130-260	.003-.006	.004-.009	.006-.010	.006-.013
	03.21	Hardened tool steel	325	1220	130-230	.003-.006	.004-.009	.005-.010	.007-.011
Steel castings									
06.1	Unalloyed	180	1220	230-430	.004-.010	.006-.013	.008-.016	.009-.018	
06.2	Low-alloy (alloying elements ≤5%)	200	1220	230-400	.004-.010	.006-.013	.008-.016	.009-.018	
M	Stainless steel								
	05.11	Non-hardened/ Ferritic/ Martensitic	200	1220	130-260 ¹⁾	.003-.006	.003-.008	.005-.009	.006-.009
	05.21	Austenitic	180	1220	130-260 ¹⁾	.003-.006	.003-.008	.005-.009	.006-.009
	15.21	Austenitic castings	200	1220 1030	130-260 ¹⁾	.003-.006 .003-.008	.003-.008 .004-.010	.005-.009 .006-.012	.006-.009 .007-.014
S	Heat resistant super alloys – Nickel base								
	20.21	Annealed or solution treated	250	1220	30-80	.002-.005	.003-.006	.003-.006	.004-.006
	20.22	Aged or solution treated and aged	350	1220	30-80	.002-.005	.003-.006	.003-.006	.004-.006
	20.24	Cast or cast and aged	320	1220	30-80	.002-.005	.003-.006	.003-.006	.004-.006
	Titanium alloys								
23.21	α, near α and α + β alloys, annealed	Rm ²⁾ = 850	1220	70-200	.002-.005	.003-.008	.006-.011	.006-.012	
23.22	α + β alloys in aged cond, β alloys, annealed or aged	Rm ²⁾ = 1050	1220	70-200	.002-.005	.003-.008	.006-.011	.006-.012	
K	Malleable cast iron								
	07.1	Ferritic (short chipping)	130	1220	300-500	.006-.012	.010-.016	.014-.024	.016-.024
	07.2	Pearlitic (long chipping)	230	1220	230-430	.006-.010	.008-.014	.012-.022	.014-.022
				1210	300-500	.006-.010	.008-.014	.012-.022	.014-.022
	Gray cast iron								
	08.1	Low tensile strength	180	1220	300-500	.006-.012	.010-.016	.014-.024	.016-.024
				1210	330-560	.006-.012	.010-.016	.014-.024	.016-.024
	08.2	High tensile strength	260	1220	230-430	.006-.010	.008-.014	.012-.022	.014-.022
				1210	300-500	.006-.010	.008-.014	.012-.022	.014-.022
	Nodular cast iron, SG iron								
09.1	Ferritic	160	1220	80-300	.006-.012	.010-.016	.014-.024	.016-.024	
09.2	Pearlitic	250	1220	330-500	.006-.012	.010-.016	.014-.024	.016-.024	
			1210	200-300	.006-.010	.008-.014	.012-.022	.014-.022	
			1210	300-500	.006-.010	.008-.014	.012-.022	.014-.022	
	CGI		1210	230-400	.006-.012	.010-.016	.014-.024	.016-.024	
H	Extra hard steel								
	04.1	Hardened and tempered	43-47 HRc	1220	90-150	.002-.004	.003-.005	.004-.006	.005-.007
			47-60 HRc	1220	50-80	.002-.004	.003-.005	.004-.006	.005-.007
N	Aluminum alloys								
	30.11	Wrought or wrought and coldworked, non-aging	60	N20D	400-750	.006-.010	.008-.016	.012-.020	.016-.024
	30.21	Cast, non-aging	75	N20D	400-750	.006-.010	.008-.016	.012-.020	.016-.024
	Copper and copper alloys								
33.1	Free cutting alloys, ≥1% Pb	110	N20D	240-450	.006-.010	.008-.016	.012-.020	.016-.024	
33.2	Brass, leaded bronzes, ≤1% Pb	90	N20D	240-450	.006-.010	.008-.016	.012-.020	.016-.024	

1) Internal cutting fluid supply is recommended when drilling stainless steel, as a good supply of coolant at the cutting edges is essential for chip evacuation and tool life.

2) Rm = ultimate tensile strength measured in MPa.

3) Higher feeds should be used in stable and favorable machining conditions.

Coromant Delta drill® R411.5

Metric values

ISO	CMC No.	Material	Hardness Brinell HB	Grade	Cutting speed v_c m/min	Drill diameter, mm		
						9.50-14	14.01-17	17.01-30.40
						Feed f_n mm/rev		
P	01.0 01.1 01.2 01.3 01.4	Unalloyed steel						
		Non-hardened 0.05-0.10% C	80-170	P20	75-100	0.14-0.22	0.15-0.25	0.18-0.31
		Non-hardened 0.10-0.25% C	90-200					
		Non-hardened 0.25-0.55% C	125-225		70-90	0.15-0.23	0.18-0.26	0.20-0.30
		Non-hardened 0.55-0.80% C	150-225					
	01.4	High carbon and carbon tool steel	180-225					
	02.1 02.2	Low alloy steel						
		Non-hardened	150-260	P20	55-90	0.14-0.22	0.18-0.26	0.20-0.28
		Hardened	220-400		35-65	0.14-0.22	0.15-0.25	0.18-0.26
	03.11 03.22	High alloy steel						
Annealed		150-250	P20	40-70	0.15-0.20	0.18-0.25	0.20-0.27	
	Hardened steel	250-400		40-60	0.15-0.20	0.17-0.20	0.18-0.24	
06.1 06.2	Steel castings							
	Unalloyed	90-225	P20	70-90	0.17-0.23	0.19-0.25	0.20-0.26	
	Low alloyed (alloying elements $\leq 5\%$)	150-250		50-75	0.15-0.21	0.17-0.23	0.19-0.25	
M	05.11 05.21	Stainless steel						
		Ferritic, Martensitic 13-25% Cr	150-270	K20	25-55	0.14-0.21	0.17-0.24	0.18-0.27
		Stainless steel						
		Austenitic Ni > 8%, 18-25% Cr	150-270	K20	25-55	0.14-0.20 ¹⁾	0.16-0.23 ¹⁾	0.19-0.25 ¹⁾
K	07.1 07.2	Malleable cast iron						
		Ferritic (short chipping)	110-145	K20	75-120	0.15-0.26	0.18-0.30	0.21-0.39
		Pearlitic (long chipping)	150-270		75-110	0.15-0.25	0.16-0.29	0.18-0.35
	08.1 08.2	Gray cast iron						
		Low tensile strength	150-220	K20	85-115	0.19-0.31	0.23-0.39	0.26-0.46
		High tensile strength	200-330		55-100	0.19-0.30	0.24-0.36	0.28-0.44
09.1 09.2	Nodular cast iron							
	Ferritic	125-230	K20	65-105	0.16-0.26	0.20-0.35	0.23-0.41	
	Pearlitic	200-300		55-95	0.15-0.25	0.18-0.33	0.21-0.39	
H	04.1	Extra hard steel						
		Hardened and tempered	HRC 43-47 47-60	P20	25-40 15-30	0.10-0.15	0.12-0.17	0.15-0.20
N	30.12	Aluminum alloys						
		Wrought solution treated and aged	75-150	K20	95-150	0.21-0.33	0.18-0.41	0.18-0.41
	30.21	Cast	40-100					
	33.1 33.2	Copper and copper alloys						
Free cutting alloys		50-160	K20	45-150	0.16-0.29	0.20-0.35	0.25-0.44	
	Brass and leaded bronzes (Pb $\leq 1\%$)							

1) If chip control is difficult to achieve with the recommended cutting data, reduce the feed to .003 - .004 inch/rev.

Coromant Delta drill® R411.5

Inch values

ISO	CMC No.	Material	Hardness Brinell HB	Grade	Cutting speed v_c ft/min	Drill diameter		
						9.50-14 mm (.374-.551 inch)	14.01-17 mm (.552-.669 inch)	17.01-30.40 mm (.670-1.197 inch)
						Feed f_r inch/rev		
P	Unalloyed steel							
	01.0	Non-hardened 0.05-0.10% C	80-170	P20	250-330	.006-.009	.006-.010	.007-.012
	01.1	Non-hardened 0.10-0.25% C	90-200					
	01.2	Non-hardened 0.25-0.55% C	125-225		220-300	.006-.009	.007-.010	.008-.012
	01.3	Non-hardened 0.55-0.80% C	150-225					
	01.4	High carbon and carbon tool steel	180-225					
	Low alloy steel							
	02.1	Non-hardened	150-260	P20	180-300	.006-.009	.007-.010	.008-.011
	02.2	Hardened	220-400		120-220	.006-.009	.006-.010	.007-.010
	High alloy steel							
03.11	Annealed	150-250	P20	120-220	.006-.008	.007-.010	.008-.011	
03.22	Hardened steel	250-400		120-190	.006-.008	.007-.009	.007-.009	
Steel castings								
06.1	Unalloyed	90-225	P20	220-300	.007-.009	.007-.010	.008-.010	
06.2	Low alloyed (alloying elements ≤ 5%)	150-250		150-240	.006-.008	.007-.009	.007-.010	
M	Stainless steel							
	05.11	Ferritic, Martensitic 13-25% Cr	150-270	K20	80-180	.006-.008	.007-.009	.007-.011
05.21	Austenitic Ni > 8%, 18-25% Cr	150-270	K20	80-180	.006-.008 ¹⁾	.006-.009 ¹⁾	.007-.010 ¹⁾	
K	Malleable cast iron							
	07.1	Ferritic (short chipping)	110-145	K20	240-390	.006-.010	.007-.012	.008-.015
	07.2	Pearlitic (long chipping)	150-270		240-370	.006-.010	.006-.011	.007-.014
	Gray cast iron							
	08.1	Low tensile strength	150-220	K20	270-380	.009-.012	.009-.015	.010-.018
	08.2	High tensile strength	200-330		180-330	.009-.012	.009-.014	.011-.017
Nodular cast iron								
09.1	Ferritic	125-230	K20	210-350	.006-.010	.008-.014	.009-.016	
09.2	Pearlitic	200-300		180-310	.006-.010	.007-.013	.008-.015	
H	Extra hard steel							
04.1	Hardened and tempered	HRC 43-47 47-60	P20	80-130 50-100	.004-.006	.005-.007	.006-.008	
N	Aluminum alloys							
	30.12	Wrought solution treated and aged	75-150	K20	310-490	.008-.013	.007-.016	.007-.016
	30.21	Cast	40-100					
	Copper and copper alloys							
33.1	Free cutting alloys	50-160	K20	150-490	.006-.011	.008-.014	.010-.017	
33.2	Brass and leaded bronzes (Pb ≤ 1%)							

1) If chip control is difficult to achieve with the recommended cutting data, reduce the feed to .003 - .004 inch/rev.

CoroDrill® 880

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	v_c (m/min)	D_c mm
P	P1.0.Z.AN (01.0)	Unalloyed steel Non hardened 0.05-0.10% C	80-170	4014 4024 4034 4044	220-400 230-380 210-310 190-235	12.00-13.99
						14.00-16.49
						16.50-19.99
						20.00-23.99
						24.00-29.99
	30.00-35.99					
	36.00-43.99					
	44.00-52.99					
53.00-63.50						
P1.1.Z.AN (01.1)	Non hardened 0.05-0.25% C	90-200	4014 4024 4034 4044	240-390 230-350 200-290 170-225	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						
P1.2.Z.AN (01.2)	Non hardened 0.25-0.55% C	125-225	4014 4024 4034 4044	200-320 190-290 155-235 120-180	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						
P1.3.Z.AN (01.3)	Non hardened 0.55-0.80% C	150-250	4014 4024 4034 4044	175-305 170-275 140-225 105-175	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						
P1.3.Z.AN (01.4)	High carbon and carbon tool steel	180-275	4014 4024 4034 4044	175-300 200-275 155-225 105-170	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						
P2.1.Z.AN (02.1)	Low alloy steel (Non-hardened)	150-260	4014 4024 4034 4044	175-320 180-290 150-235 115-180	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						
P2.5.Z.HT (02.2)	Hardened steel	220-450	4014 4024 4034 4044	150-255 90-230 85-185 75-140	12.00-13.99	
					14.00-16.49	
					16.50-19.99	
					20.00-23.99	
24.00-29.99						
30.00-35.99						
36.00-43.99						
44.00-52.99						
53.00-63.50						

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	v_c (m/min)	D_e mm
P	P3.0.Z.AN (03.11)	High alloy steel (Annealed)	150-250	4014	155-300	12.00-13.99
				4024	160-275	14.00-16.49
				4034	130-225	16.50-19.99
				4044	100-170	20.00-23.99
	P3.0.Z.HT (03.21)	Hardened steel	250-350	4014	100-215	24.00-29.99
				4024	80-200	30.00-35.99
				4034	75-165	36.00-43.99
				4044	70-125	44.00-52.99
	P1.5.C.UT (06.1)	Steel castings (Unalloyed)	90-225	4014	190-345	53.00-63.50
				4024	140-310	12.00-13.99
				4034	135-250	14.00-16.49
				4044	125-190	16.50-19.99
	P2.6.C.UT (06.2)	Low alloyed (alloying elements less than 5%)	150-250	4014	125-265	20.00-23.99
				4024	110-250	24.00-29.99
				4034	105-200	30.00-35.99
				4044	100-150	36.00-43.99
						44.00-52.99
						53.00-63.50

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Drill length 2-3xD				Geometry / Feed Drill length 4xD				Drill length 5xD			
-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev	-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev	-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev
0.04-0.10		0.04-0.15		0.04-0.10		0.04-0.12		0.04-0.07		0.04-0.10	
0.04-0.10	0.04-0.10	0.04-0.16	0.04-0.16	0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.07	0.04-0.07	0.04-0.11	0.04-0.11
0.06-0.14	0.06-0.14	0.06-0.20	0.06-0.20	0.06-0.14	0.06-0.14	0.06-0.16	0.06-0.16	0.06-0.09	0.06-0.09	0.06-0.13	0.06-0.13
0.06-0.18	0.06-0.18	0.06-0.22	0.06-0.22	0.06-0.18	0.06-0.18	0.06-0.20	0.06-0.20	0.06-0.12	0.06-0.12	0.06-0.15	0.06-0.15
0.06-0.18	0.08-0.18	0.08-0.26	0.08-0.26	0.06-0.18	0.08-0.18	0.08-0.22	0.08-0.22	0.06-0.12	0.08-0.12	0.08-0.17	0.08-0.17
0.06-0.24	0.08-0.24	0.08-0.30		0.06-0.20	0.08-0.20	0.08-0.24		0.06-0.16	0.08-0.16	0.08-0.20	
0.06-0.24	0.08-0.24	0.08-0.30		0.06-0.22	0.08-0.22	0.08-0.24		0.06-0.16	0.08-0.16	0.08-0.20	
0.10-0.24	0.10-0.24	0.10-0.32		0.10-0.22	0.10-0.22	0.10-0.24					
0.10-0.24	0.10-0.24	0.10-0.32		0.10-0.22	0.10-0.22	0.10-0.24					
0.04-0.10		0.04-0.12		0.04-0.10		0.04-0.11		0.04-0.07		0.04-0.09	
0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.07	0.04-0.07	0.04-0.09	0.04-0.09
0.06-0.14	0.06-0.14	0.06-0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.16	0.06-0.16	0.06-0.09	0.06-0.09	0.06-0.11	0.06-0.11
0.06-0.18	0.06-0.18	0.06-0.18	0.06-0.20	0.06-0.18	0.06-0.18	0.06-0.20	0.06-0.20	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12
0.06-0.18	0.08-0.18	0.08-0.22	0.08-0.26	0.06-0.18	0.08-0.18	0.08-0.22	0.08-0.22	0.06-0.12	0.08-0.12	0.08-0.15	0.08-0.17
0.06-0.20	0.08-0.20	0.08-0.24		0.06-0.20	0.08-0.20	0.08-0.24		0.06-0.13	0.08-0.13	0.08-0.16	
0.06-0.22	0.08-0.22	0.08-0.26		0.06-0.22	0.08-0.22	0.08-0.24		0.06-0.15	0.08-0.15	0.08-0.17	
0.10-0.22	0.10-0.22	0.10-0.26		0.10-0.22	0.10-0.22	0.10-0.24					
0.10-0.22	0.10-0.22	0.10-0.26		0.10-0.22	0.10-0.22	0.10-0.24					
0.04-0.08		0.04-0.12		0.04-0.08		0.04-0.12		0.04-0.05		0.04-0.08	
0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.12	0.04-0.05	0.04-0.05	0.04-0.08	0.04-0.08
0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.12	0.04-0.05	0.04-0.05	0.04-0.08	0.04-0.08
0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.07	0.04-0.07	0.04-0.09	0.04-0.09
0.04-0.10	0.04-0.10	0.04-0.14	0.06-0.22	0.04-0.10	0.04-0.10	0.04-0.14	0.06-0.14	0.04-0.07	0.04-0.07	0.04-0.09	0.04-0.09
0.06-0.14	0.06-0.14	0.06-0.16		0.06-0.14	0.06-0.14	0.06-0.16		0.06-0.09	0.06-0.09	0.06-0.11	
0.06-0.14	0.06-0.14	0.06-0.16		0.06-0.14	0.06-0.14	0.06-0.16		0.06-0.09	0.06-0.09	0.06-0.11	
0.08-0.14	0.08-0.14	0.08-0.16		0.08-0.14	0.08-0.14	0.08-0.16					
0.08-0.14	0.08-0.14	0.08-0.16		0.08-0.14	0.08-0.14	0.08-0.16					
0.04-0.10		0.04-0.15		0.04-0.10		0.04-0.12		0.04-0.07		0.04-0.10	
0.04-0.10	0.04-0.10	0.04-0.20	0.04-0.20	0.04-0.10	0.04-0.10	0.04-0.14	0.04-0.14	0.04-0.07	0.04-0.07	0.04-0.13	0.04-0.13
0.04-0.14	0.06-0.14	0.06-0.22	0.06-0.22	0.04-0.14	0.06-0.14	0.06-0.16	0.06-0.16	0.04-0.09	0.06-0.09	0.06-0.15	0.06-0.15
0.06-0.18	0.06-0.18	0.06-0.26	0.06-0.26	0.06-0.18	0.06-0.18	0.06-0.20	0.06-0.20	0.06-0.12	0.06-0.12	0.06-0.17	0.06-0.17
0.06-0.18	0.08-0.18	0.08-0.30	0.08-0.30	0.06-0.18	0.08-0.18	0.08-0.22	0.08-0.22	0.06-0.12	0.08-0.12	0.08-0.20	0.08-0.20
0.06-0.20	0.08-0.20	0.08-0.32		0.06-0.20	0.08-0.20	0.08-0.24		0.06-0.13	0.08-0.13	0.08-0.21	
0.06-0.22	0.08-0.22	0.08-0.34		0.06-0.22	0.08-0.22	0.08-0.24		0.06-0.15	0.08-0.15	0.08-0.23	
0.10-0.22	0.10-0.22	0.10-0.34		0.10-0.22	0.10-0.22	0.10-0.24					
0.10-0.22	0.10-0.22	0.10-0.34		0.10-0.22	0.10-0.22	0.10-0.24					

CoroDrill® 880

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell HB	Grade G	Cutting speed v_c (m/min)	Drill diameter D_c mm	Geometry/ feed (f_n inch/rev.) Drill length 2-3xD				
							-LM	-MS ¹⁾	-GM		
M	P5.0.Z.AN (05.11)	Stainless steel Ferritic/Martensitic 13-25% Cr	150-270	4024	120-265	12.00-13.99	0.04-0.12				
						14.00-16.49	0.04-0.14	0.04-0.14	0.04-0.08		
						16.50-19.99	0.06-0.16	0.06-0.16	0.04-0.08		
						20.00-23.99	0.06-0.18	0.06-0.18	0.06-0.14		
						24.00-29.99	0.06-0.18	0.06-0.18	0.06-0.14		
						30.00-35.99	0.06-0.20	0.06-0.20	0.06-0.16		
	M1.0.Z.AQ (05.21)	Austenitic Ni > 8%, 13-25% Cr	150-275	4024	120-250	12.00-13.99	0.04-0.12				
						14.00-16.49	0.04-0.14	0.04-0.14	0.04-0.08		
						16.50-19.99	0.06-0.14	0.06-0.14	0.04-0.08		
						20.00-23.99	0.06-0.16	0.06-0.16	0.06-0.12		
						24.00-29.99	0.06-0.16	0.06-0.16	0.06-0.12		
						30.00-35.99	0.06-0.18	0.06-0.18	0.06-0.16		
	M3.1.Z.AQ (05.51) M3.2.Z.AQ (05.52)	Austenitic/Ferritic (Duplex)	200-320	4024	90-145	12.00-13.99	0.04-0.12				
						14.00-16.49	0.04-0.14	0.04-0.14	0.04-0.08		
						16.50-19.99	0.06-0.14	0.06-0.14	0.04-0.08		
20.00-23.99						0.06-0.16	0.06-0.16	0.06-0.12			
24.00-29.99						0.06-0.16	0.06-0.16	0.06-0.12			
30.00-35.99						0.06-0.18	0.06-0.18	0.06-0.16			
M1.0.C.UT (15.21)	Austenitic castings	150-250	4024	150-200	12.00-13.99	0.04-0.12					
					14.00-16.49	0.04-0.12	0.04-0.12	0.04-0.08			
					16.50-19.99	0.06-0.14	0.06-0.14	0.04-0.08			
					20.00-23.99	0.06-0.16	0.06-0.16	0.06-0.12			
					24.00-29.99	0.06-0.16	0.06-0.16	0.06-0.12			
					30.00-35.99	0.06-0.18	0.06-0.18	0.06-0.16			
S	S2.0.Z.AN (20.21) S2.0.Z.AG (20.22) S2.0.C.NS (20.24)	Heat resistant alloys, Ni based	140-425	4044	20-90	12.00-13.99	0.04-0.08				
						14.00-16.49	0.04-0.08	0.04-0.08	0.04-0.10		
						16.50-19.99	0.05-0.08	0.05-0.08	0.05-0.10		
						20.00-23.99	0.05-0.08	0.05-0.08	0.05-0.10		
						24.00-29.99	0.06-0.10	0.06-0.10	0.06-0.12		
						30.00-35.99	0.06-0.12	0.06-0.12	0.06-0.12		
	S4.2.Z.AN (23.21) S4.3.Z.AG (23.22)	Titanium: α , near α and $\alpha+\beta$ alloys in annealed condition	Rm (Mpa) 600-1500	4044	40-135	12.00-13.99	0.04-0.14				
						14.00-16.49	0.06-0.14	0.06-0.14	0.06-0.12		
						16.50-19.99	0.08-0.16	0.08-0.16	0.08-0.14		
		Titanium: $\alpha+\beta$ alloys in aged condition, β alloys in annealed or aged condition				4044	40-135	20.00-23.99	0.08-0.16	0.08-0.16	0.08-0.14
								24.00-29.99	0.12-0.18	0.12-0.18	0.10-0.16
								30.00-35.99	0.12-0.18	0.12-0.18	0.10-0.18
		36.00-43.99						0.12-0.18	0.12-0.18	0.10-0.18	
		44.00-52.99						0.12-0.18	0.12-0.18	0.10-0.18	
		53.00-63.50						0.14-0.20	0.14-0.20	0.14-0.20	

Note: Bold text is recommended geometry

¹⁾ -MS geometry is only available in GC2044

GC1044 is the universal central insert grade for all materials

GC1144 is the optimized central insert grade for ISO M materials (Available in D_c 14.00 to 35.99 mm)

CoroDrill® 880

Geometry/ feed (f_n inch/rev.)											
Drill length 2-3xD		Drill length 4xD					Drill length 5xD				
-GR	-GT	-LM	MS ¹⁾	-GM	-GR	-GT	-LM	MS ¹⁾	-GM	-GR	-GT
0.04-0.08		0.04-0.10			0.04-0.08		0.04-0.08			0.04-0.05	
0.04-0.08	0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.09	0.04-0.09	0.04-0.05	0.04-0.05	0.04-0.09
0.04-0.08	0.06-0.16	0.06-0.14	0.06-0.14	0.04-0.08	0.04-0.08	0.06-0.14	0.06-0.11	0.06-0.11	0.04-0.05	0.04-0.05	0.06-0.11
0.06-0.14	0.06-0.18	0.06-0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.16	0.06-0.12	0.06-0.12	0.06-0.09	0.06-0.09	0.06-0.12
0.06-0.14	0.06-0.18	0.06-0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.16	0.06-0.12	0.06-0.12	0.06-0.09	0.06-0.09	0.06-0.12
0.06-0.16		0.06-0.18	0.06-0.18	0.06-0.16	0.06-0.16		0.06-0.13	0.06-0.13	0.06-0.11	0.06-0.11	
0.06-0.16		0.06-0.18		0.06-0.16	0.06-0.16		0.06-0.13		0.06-0.11	0.06-0.11	
0.10-0.18		0.10-0.20		0.10-0.16	0.10-0.16						
0.10-0.18		0.10-0.20		0.10-0.16	0.10-0.16						
0.04-0.08		0.04-0.10			0.04-0.08		0.04-0.08			0.04-0.05	
0.04-0.08	0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.09	0.04-0.09	0.04-0.05	0.04-0.05	0.04-0.09
0.04-0.08	0.06-0.14	0.06-0.12	0.06-0.12	0.04-0.08	0.04-0.08	0.06-0.12	0.06-0.09	0.06-0.09	0.04-0.05	0.04-0.05	0.06-0.09
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.16		0.06-0.16	0.06-0.16	0.06-0.16	0.06-0.16		0.06-0.12	0.06-0.12	0.06-0.11	0.06-0.11	
0.06-0.16		0.06-0.16		0.06-0.16	0.06-0.16		0.06-0.13		0.06-0.11	0.06-0.11	
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.04-0.08		0.04-0.10			0.04-0.08		0.04-0.08			0.04-0.05	
0.04-0.08	0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.09	0.04-0.09	0.04-0.05	0.04-0.05	0.04-0.09
0.04-0.08	0.06-0.14	0.06-0.12	0.06-0.12	0.04-0.08	0.04-0.08	0.06-0.12	0.06-0.09	0.06-0.09	0.04-0.05	0.04-0.05	0.06-0.09
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.16		0.06-0.18	0.06-0.18	0.06-0.16	0.06-0.16		0.06-0.12	0.06-0.12	0.06-0.11	0.06-0.11	
0.06-0.16		0.06-0.18		0.06-0.16	0.06-0.16		0.06-0.13		0.06-0.11	0.06-0.11	
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.04-0.08		0.04-0.10			0.04-0.08		0.04-0.08			0.04-0.05	
0.04-0.08	0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.08	0.04-0.08	0.04-0.12	0.04-0.09	0.04-0.09	0.04-0.05	0.04-0.05	0.04-0.09
0.04-0.08	0.06-0.14	0.06-0.12	0.06-0.12	0.04-0.08	0.04-0.08	0.06-0.12	0.06-0.09	0.06-0.09	0.04-0.05	0.04-0.05	0.06-0.09
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.12	0.06-0.16	0.06-0.14	0.06-0.14	0.06-0.12	0.06-0.12	0.06-0.14	0.06-0.11	0.06-0.11	0.06-0.08	0.06-0.08	0.06-0.11
0.06-0.16		0.06-0.18	0.06-0.18	0.06-0.16	0.06-0.16		0.06-0.12	0.06-0.12	0.06-0.11	0.06-0.11	
0.06-0.16		0.06-0.18		0.06-0.16	0.06-0.16		0.06-0.13		0.06-0.11	0.06-0.11	
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.10-0.16		0.10-0.16		0.10-0.16	0.10-0.16						
0.04-0.08		0.04-0.08			0.04-0.08		0.04-0.08			0.04-0.05	
0.04-0.08	0.04-0.08	0.04-0.08	0.04-0.08	0.04-0.08	0.04-0.08	0.04-0.08	0.04-0.05	0.04-0.05	0.04-0.07	0.04-0.05	
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.05	0.05-0.05	0.05-0.07	0.05-0.05	
0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.08	0.05-0.05	0.05-0.05	0.05-0.07	0.05-0.05	
0.06-0.08	0.05-0.08	0.05-0.10	0.05-0.10	0.06-0.10	0.06-0.10	0.06-0.08	0.06-0.07	0.06-0.07	0.06-0.08	0.05-0.06	
0.06-0.12		0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.12		0.06-0.08	0.06-0.08	0.06-0.08	0.06-0.08	
0.06-0.12		0.06-0.12		0.06-0.12	0.06-0.12		0.06-0.08		0.06-0.08	0.06-0.08	
0.06-0.12		0.06-0.12		0.06-0.12	0.06-0.12						
0.08-0.12		0.08-0.14		0.08-0.14	0.08-0.12						
0.04-0.10		0.04-0.12			0.04-0.10		0.04-0.10			0.04-0.08	
0.06-0.10	0.06-0.10	0.04-0.12	0.04-0.12	0.04-0.10	0.08-0.12	0.06-0.10	0.06-0.09	0.06-0.09	0.06-0.08	0.06-0.07	0.06-0.07
0.08-0.12	0.08-0.12	0.08-0.14	0.08-0.14	0.06-0.12	0.08-0.12	0.08-0.12	0.08-0.11	0.08-0.11	0.08-0.09	0.08-0.08	0.08-0.08
0.08-0.12	0.08-0.12	0.08-0.14	0.08-0.14	0.06-0.12	0.10-0.14	0.08-0.12	0.08-0.11	0.08-0.11	0.08-0.09	0.08-0.08	0.08-0.08
0.10-0.14	0.10-0.14	0.10-0.16	0.10-0.16	0.08-0.14	0.10-0.14	0.10-0.14	0.12-0.12	0.12-0.12	0.10-0.11	0.09-0.10	0.09-0.10
0.10-0.16		0.12-0.18	0.12-0.18	0.10-0.16	0.10-0.16		0.12-0.12	0.12-0.12	0.10-0.12	0.10-0.11	
0.10-0.16		0.12-0.18		0.10-0.16	0.12-0.16		0.12-0.12		0.10-0.12	0.10-0.11	
0.10-0.16		0.12-0.18		0.10-0.16	0.12-0.16						
0.12-0.16		0.14-0.20		0.14-0.18	0.12-0.16						

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General Information

CoroDrill® 880

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	v_c (m/min)	D_c mm
K	K1.1.C.NS (07.1)	Malleable cast iron Ferritic (Short chipping)	110-145	4014	140-255	12.00-13.99
				4024	140-230	14.00-16.49
				4034	110-190	16.50-19.99
				4044	80-145	20.00-23.99
						24.00-29.99
	K1.1.C.NS (07.2)	Pearlitic (long chipping)	150-270	4014	100-185	30.00-35.99
				4024	105-170	36.00-43.99
				4034	85-140	44.00-52.99
				4044	65-105	53.00-63.50
						12.00-13.99
K2.1.C.UT (08.1)	Gray cast iron: Low tensile strength	150-220	4014	225-345	14.00-16.49	
			4024	210-310	16.50-19.99	
			4034	170-255	20.00-23.99	
			4044	130-195	24.00-29.99	
					30.00-35.99	
K2.2.C.UT (08.2)	High tensile strength	200-330	4014	110-250	36.00-43.99	
			4024	125-230	44.00-52.99	
			4034	100-185	53.00-63.50	
			4044	75-140	12.00-13.99	
					14.00-16.49	
K3.1.C.UT (09.1)	Nodular cast iron (Ferritic)	150-230	4014	120-235	16.50-19.99	
			4024	125-215	20.00-23.99	
			4034	100-175	24.00-29.99	
			4044	80-135	30.00-35.99	
					36.00-43.99	
K3.3.C.UT (09.2)	Pearlitic	200-330	4014	100-215	44.00-52.99	
			4024	110-200	53.00-63.50	
			4034	90-165	12.00-13.99	
			4044	70-125	14.00-16.49	
					16.50-19.99	

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Drill length 2-3xD				Geometry / Feed Drill length 4xD				Drill length 5xD			
-LM f _n mm/rev	-GM f _n mm/rev	-GR f _n mm/rev	-GT f _n mm/rev	-LM f _n mm/rev	-GM f _n mm/rev	-GR f _n mm/rev	-GT f _n mm/rev	-LM f _n mm/rev	-GM f _n mm/rev	-GR f _n mm/rev	-GT f _n mm/rev
0.06-0.10		0.06-0.15		0.06-0.10		0.06-0.13		0.06-0.08		0.06-0.10	
0.06-0.10	0.06-0.12	0.06-0.20	0.06-0.20	0.06-0.10	0.06-0.12	0.06-0.14	0.06-0.14	0.06-0.07	0.06-0.08	0.06-0.13	0.06-0.13
0.06-0.12	0.08-0.14	0.08-0.22	0.08-0.22	0.06-0.12	0.08-0.14	0.08-0.18	0.08-0.18	0.06-0.08	0.08-0.09	0.08-0.15	0.08-0.15
0.08-0.14	0.10-0.18	0.10-0.28	0.10-0.28	0.08-0.14	0.10-0.18	0.10-0.22	0.10-0.22	0.08-0.09	0.10-0.12	0.10-0.19	0.08-0.19
0.08-0.14	0.10-0.20	0.10-0.30	0.10-0.30	0.08-0.14	0.10-0.20	0.10-0.26	0.10-0.26	0.08-0.09	0.10-0.13	0.10-0.20	0.10-0.20
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.28		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.34		0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.11	0.10-0.13	0.10-0.23	
0.12-0.18	0.12-0.22	0.12-0.34		0.12-0.16	0.12-0.20	0.12-0.30					
0.12-0.18	0.12-0.22	0.12-0.34		0.12-0.16	0.12-0.20	0.12-0.30					
0.06-0.10		0.06-0.15		0.06-0.10		0.06-0.12		0.06-0.08		0.06-0.10	
0.06-0.10	0.06-0.12	0.06-0.16	0.06-0.16	0.06-0.10	0.06-0.12	0.06-0.12	0.06-0.12	0.06-0.07	0.06-0.08	0.06-0.11	0.06-0.11
0.06-0.12	0.08-0.14	0.08-0.18	0.08-0.18	0.06-0.12	0.08-0.14	0.08-0.14	0.08-0.14	0.06-0.08	0.08-0.09	0.08-0.12	0.08-0.12
0.08-0.14	0.10-0.16	0.10-0.24	0.10-0.24	0.08-0.14	0.10-0.16	0.10-0.19	0.10-0.19	0.08-0.09	0.10-0.11	0.10-0.16	0.08-0.16
0.08-0.14	0.10-0.18	0.10-0.28	0.10-0.28	0.08-0.14	0.10-0.18	0.10-0.22	0.10-0.22	0.08-0.09	0.10-0.12	0.10-0.19	0.10-0.19
0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.16	0.10-0.20	0.10-0.24		0.10-0.11	0.10-0.13	0.10-0.20	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26					
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26					
0.06-0.10	0.06-0.12	0.06-0.20		0.06-0.10	0.06-0.12	0.06-0.14		0.06-0.07	0.06-0.08	0.06-0.13	
0.06-0.12	0.08-0.14	0.08-0.22	0.08-0.22	0.06-0.12	0.08-0.14	0.08-0.18	0.08-0.18	0.06-0.08	0.08-0.09	0.08-0.15	0.08 - 0.15
0.08-0.14	0.10-0.18	0.10-0.28	0.10 - 0.28	0.08-0.14	0.10-0.18	0.10-0.22	0.10 - 0.22	0.08-0.09	0.10-0.12	0.10-0.19	0.08 - 0.19
0.08-0.14	0.10-0.20	0.10-0.32		0.08-0.14	0.10-0.20	0.10-0.26		0.08-0.09	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.28		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.34		0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.11	0.10-0.13	0.10-0.23	
0.12-0.18	0.12-0.22	0.12-0.34		0.12-0.16	0.12-0.20	0.12-0.30					
0.12-0.18	0.12-0.22	0.12-0.34		0.12-0.16	0.12-0.20	0.12-0.30					
0.06-0.10	0.06-0.12	0.06-0.16		0.06-0.10	0.06-0.12	0.06-0.12		0.06-0.07	0.06-0.08	0.06-0.11	
0.06-0.12	0.08-0.14	0.08-0.18	0.08 - 0.18	0.06-0.12	0.08-0.14	0.08-0.14	0.08 - 0.14	0.06-0.08	0.08-0.09	0.08-0.12	0.08 - 0.12
0.08-0.14	0.10-0.16	0.10-0.24	0.10 - 0.24	0.08-0.14	0.10-0.16	0.10-0.19	0.10 - 0.19	0.08-0.09	0.10-0.11	0.10-0.16	0.08 - 0.16
0.08-0.14	0.10-0.18	0.10-0.28		0.08-0.14	0.10-0.18	0.10-0.22		0.08-0.09	0.10-0.12	0.10-0.19	
0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.16	0.10-0.20	0.10-0.24		0.10-0.11	0.10-0.13	0.10-0.20	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26					
0.06-0.10	0.06-0.12	0.08-0.16		0.06-0.10	0.06-0.12	0.08-0.12		0.06-0.07	0.06-0.08	0.06-0.11	
0.06-0.12	0.08-0.14	0.10-0.18	0.08 - 0.18	0.06-0.12	0.08-0.14	0.10-0.14	0.08 - 0.14	0.06-0.08	0.08-0.09	0.08-0.12	0.08 - 0.12
0.08-0.14	0.10-0.16	0.12-0.24	0.10 - 0.24	0.08-0.14	0.10-0.16	0.12-0.18	0.10 - 0.19	0.08-0.09	0.10-0.11	0.10-0.16	0.08 - 0.16
0.08-0.14	0.10-0.18	0.14-0.28		0.08-0.14	0.10-0.18	0.14-0.22		0.08-0.09	0.10-0.12	0.10-0.19	
0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.16	0.10-0.20	0.10-0.24		0.10-0.11	0.10-0.13	0.10-0.20	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26					
0.06-0.10	0.06-0.12	0.08-0.16		0.06-0.10	0.06-0.12	0.08-0.12		0.06-0.07	0.06-0.08	0.06-0.11	
0.06-0.12	0.08-0.14	0.10-0.18	0.08 - 0.18	0.06-0.12	0.08-0.14	0.10-0.14	0.08 - 0.14	0.06-0.08	0.08-0.09	0.08-0.12	0.08 - 0.12
0.08-0.14	0.10-0.16	0.12-0.24	0.10 - 0.24	0.08-0.14	0.10-0.16	0.12-0.18	0.10 - 0.19	0.08-0.09	0.10-0.11	0.10-0.16	0.08 - 0.16
0.08-0.14	0.10-0.18	0.14-0.28		0.08-0.14	0.10-0.18	0.14-0.22		0.08-0.09	0.10-0.12	0.10-0.19	
0.10-0.16	0.10-0.20	0.10-0.30		0.10-0.16	0.10-0.20	0.10-0.24		0.10-0.11	0.10-0.13	0.10-0.20	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.24		0.10-0.11	0.10-0.13	0.10-0.20	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26		0.10-0.11	0.10-0.13	0.10-0.21	
0.10-0.16	0.10-0.20	0.10-0.32		0.10-0.16	0.10-0.20	0.10-0.26					

Milling

E

Drilling

F

Boring

G

Tooling Systems

J

General Information

CoroDrill® 880

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter		
			HB	⊙	v_c (m/min)	D_c mm		
H	H1.3.Z.HA (04.1)	Hardened and tempered	47-65	4014	40-100	12.00-13.99		
				4024	30-80	14.00-16.49		
				4034	30-80	16.50-19.99		
				4044	30-80	20.00-23.99		
					30-80	24.00-29.99		
N	N1.2.Z.AG (30.12)	Al. alloys Wrought or wrought and aged	30-150	4044	300-385	30.00-35.99		
				H13A	300-400	36.00-43.99		
						44.00-52.99		
						53.00-63.50		
						12.00-13.99		
	N1.3.C.UT (30.21)	Cast, non-aging	40-100	4044	300-385	14.00-16.49		
						H13A	300-400	16.50-19.99
								20.00-23.99
								24.00-29.99
								30.00-35.99
N1.3.C.AG (30.22)	Cast or cast and aged	70-140	4044	250-335	36.00-43.99			
					H13A	250-350	44.00-52.99	
							53.00-63.50	
							12.00-13.99	
							14.00-16.49	
N3.3.U.UT (33.1)	Copper and copper alloys	70-160	4044	250-380	16.50-19.99			
					H13A	250-400	20.00-23.99	
							24.00-29.99	
							30.00-35.99	
							36.00-43.99	
N3.2.C.UT (33.2)	Brass and leaded alloys (Pb < 1%)	50-200	4044	180-230	44.00-52.99			
					H13A	180-240	53.00-63.50	
							12.00-13.99	
							14.00-16.49	
							16.50-19.99	

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Drill length 2-3xD				Geometry / Feed Drill length 4xD				Drill length 5xD			
-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev	-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev	-LM f_n mm/rev	-GM f_n mm/rev	-GR f_n mm/rev	-GT f_n mm/rev
0.04-0.08		0.04-0.10		0.04-0.08		0.04-0.10		0.04-0.05		0.04-0.06	
0.04-0.08	0.04-0.12	0.04-0.08		0.04-0.08	0.04-0.10	0.04-0.08		0.04-0.05	0.04-0.08	0.04-0.05	
0.05-0.12	0.06-0.14	0.05-0.12	0.05 - 0.12	0.05-0.10	0.06-0.12	0.05-0.10	0.05 - 0.10	0.05-0.08	0.06-0.09	0.05-0.08	0.05 - 0.08
0.05-0.14	0.06-0.18	0.05-0.14	0.05 - 0.14	0.05-0.12	0.06-0.15	0.05-0.12	0.05 - 0.12	0.05-0.09	0.06-0.12	0.05-0.09	0.05 - 0.09
0.05-0.14	0.06-0.18	0.05-0.14		0.05-0.12	0.06-0.15	0.05-0.12		0.05-0.09	0.06-0.12	0.05-0.09	
0.06-0.16	0.06-0.20	0.06-0.16		0.06-0.16	0.06-0.18	0.06-0.16		0.06-0.11	0.06-0.13	0.06-0.11	
0.06-0.16	0.06-0.20	0.06-0.16		0.06-0.16	0.06-0.18	0.06-0.16		0.06-0.11	0.06-0.13	0.06-0.11	
0.10-0.16	0.10-0.20	0.10-0.16		0.10-0.16	0.10-0.18	0.10-0.16					
0.10-0.16	0.10-0.20	0.10-0.16		0.10-0.16	0.10-0.18	0.10-0.16					
0.04-0.08		0.04-0.08		0.04-0.08		0.04-0.08		0.04-0.05		0.04-0.05	
0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.10	0.04-0.10		0.04-0.09	0.04-0.08	0.04-0.08	
0.04-0.16	0.04-0.14	0.04-0.14	0.04 - 0.14	0.04-0.14	0.04-0.12	0.04-0.12	0.04 - 0.12	0.04-0.11	0.04-0.09	0.04-0.09	0.04 - 0.09
0.06-0.18	0.06-0.16	0.06-0.16	0.06 - 0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06 - 0.16	0.06-0.12	0.06-0.11	0.06-0.11	0.06 - 0.11
0.10-0.20	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.16	0.10-0.16		0.10-0.13	0.10-0.12	0.10-0.12	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.18	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.20	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.12-0.28	0.12-0.22	0.12-0.22		0.12-0.25	0.12-0.22	0.12-0.18					
0.12-0.28	0.12-0.22	0.12-0.22									
0.04-0.12		0.04-0.12		0.04-0.12		0.04-0.12		0.04-0.08		0.04-0.08	
0.04-0.14	0.04-0.14	0.04-0.14	0.04-0.14	0.04-0.12	0.04-0.14	0.04-0.12	0.04 - 0.12	0.04-0.09	0.04-0.11	0.04-0.09	0.04 - 0.09
0.06-0.16	0.06-0.18	0.06-0.16	0.06 - 0.16	0.06-0.14	0.06-0.16	0.06-0.14	0.06 - 0.16	0.06-0.11	0.06-0.12	0.06-0.11	0.06 - 0.11
0.10-0.18	0.10-0.20	0.10-0.18	0.10-0.18	0.10-0.16	0.10-0.18	0.10-0.16		0.10-0.12	0.10-0.13	0.10-0.12	
0.10-0.20	0.10-0.22	0.10-0.20		0.10-0.18	0.10-0.20	0.10-0.18		0.10-0.13	0.10-0.15	0.10-0.13	
0.10-0.20	0.10-0.24	0.10-0.20		0.10-0.18	0.10-0.22	0.10-0.18		0.10-0.13	0.10-0.16	0.10-0.13	
0.12-0.22	0.12-0.26	0.12-0.22		0.12-0.20	0.12-0.24	0.12-0.20					
0.12-0.22	0.12-0.26	0.12-0.22									
0.04-0.12		0.04-0.12		0.04-0.12		0.04-0.12		0.04-0.08		0.04-0.08	
0.04-0.14	0.04-0.14	0.04-0.14	0.04-0.14	0.04-0.10	0.04-0.12	0.04-0.10		0.04-0.09	0.04-0.09	0.04-0.08	
0.04-0.14	0.04-0.16	0.04-0.14	0.04 - 0.14	0.04-0.12	0.04-0.14	0.04-0.12	0.04 - 0.12	0.04-0.09	0.04-0.11	0.04-0.09	0.04 - 0.09
0.06-0.16	0.06-0.18	0.06-0.16	0.06 - 0.16	0.06-0.14	0.06-0.16	0.06-0.14	0.06 - 0.16	0.06-0.11	0.06-0.12	0.06-0.11	0.06 - 0.11
0.10-0.18	0.10-0.20	0.10-0.18	0.10-0.18	0.10-0.16	0.10-0.18	0.10-0.16		0.10-0.12	0.10-0.13	0.10-0.12	
0.10-0.20	0.10-0.22	0.10-0.20		0.10-0.18	0.10-0.20	0.10-0.18		0.10-0.13	0.10-0.15	0.10-0.13	
0.10-0.20	0.10-0.24	0.10-0.20		0.10-0.18	0.10-0.22	0.10-0.18		0.10-0.13	0.10-0.16	0.10-0.13	
0.12-0.22	0.12-0.26	0.12-0.22		0.12-0.20	0.12-0.24	0.12-0.20					
0.12-0.22	0.12-0.26	0.12-0.22									
0.04-0.14		0.04-0.12		0.04-0.12		0.04-0.10		0.04-0.09		0.04-0.08	
0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.10	0.04-0.10		0.04-0.11	0.04-0.09	0.04-0.09	0.04 - 0.09
0.04-0.16	0.04-0.14	0.04-0.14	0.04 - 0.14	0.04-0.14	0.04-0.12	0.04-0.12	0.04 - 0.12	0.04-0.11	0.04-0.09	0.04-0.09	0.04 - 0.09
0.06-0.18	0.06-0.16	0.06-0.16	0.06 - 0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06 - 0.16	0.06-0.12	0.06-0.11	0.06-0.11	0.06 - 0.11
0.10-0.20	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.16	0.10-0.16		0.10-0.13	0.10-0.12	0.10-0.12	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.18	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.20	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.12-0.28	0.12-0.22	0.12-0.22		0.12-0.25	0.12-0.22	0.12-0.18					
0.12-0.28	0.12-0.22	0.12-0.22									
0.04-0.14		0.04-0.12		0.04-0.12		0.04-0.10		0.04-0.09		0.04-0.08	
0.04-0.14	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.12	0.04-0.10	0.04-0.10		0.04-0.11	0.04-0.09	0.04-0.09	0.04 - 0.09
0.04-0.16	0.04-0.14	0.04-0.14	0.04 - 0.14	0.04-0.14	0.04-0.12	0.04-0.12	0.04 - 0.12	0.04-0.11	0.04-0.09	0.04-0.09	0.04 - 0.09
0.06-0.18	0.06-0.16	0.06-0.16	0.06 - 0.16	0.06-0.16	0.06-0.14	0.06-0.14	0.06 - 0.14	0.06-0.12	0.06-0.11	0.06-0.11	0.06 - 0.11
0.10-0.20	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.18	0.10-0.16	0.10-0.16		0.10-0.13	0.10-0.12	0.10-0.12	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.18	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.10-0.25	0.10-0.20	0.10-0.20		0.10-0.22	0.10-0.20	0.10-0.16		0.10-0.17	0.10-0.13	0.10-0.13	
0.12-0.28	0.12-0.22	0.12-0.22		0.12-0.25	0.12-0.22	0.12-0.18					
0.12-0.28	0.12-0.22	0.12-0.22									

Milling

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General Information

CoroDrill® 880

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	(ft/min)	D _c inch
P	P1.0.Z.AN (01.0)	Non hardened 0.05-0.10% C	90-200	4014	720-1300	.472-.550
				4024	760-1250	.551-.649
				4034	690-1000	.650-.787
				4044	620-770	.788-.944
						.945-1.181
	P1.0.Z.AN (01.1)	Non hardened 0.05-0.25% C	90-200	4014	790-1250	1.182-1.417
				4024	750-1150	1.418-1.732
				4034	650-950	1.733-2.086
4044				550-740	2.087-2.500	
P1.2.Z.AN (01.2)	Non hardened 0.25-0.55% C	125-225	4014	650-1050	.472-.550	
			4024	620-950	.551-.649	
			4034	510-770	.650-.787	
			4044	395-590	.788-.944	
					.945-1.181	
P1.3.Z.AN (01.3)	Non hardened 0.55-0.80% C	150-250	4014	580-1000	1.182-1.417	
			4024	560-910	1.418-1.732	
			4034	460-740	1.733-2.086	
			4044	345-580	2.087-2.500	
P1.3.Z.AN (01.4)	High carbon and carbon tool steel	180-275	4014	580-990	.472-.550	
			4024	660-910	.551-.649	
			4034	510-740	.650-.787	
			4044	345-560	.788-.944	
					.945-1.181	
P2.1.Z.AN (02.1)	Low alloy steel (Non-hardened)	150-260	4014	570-1050	1.182-1.417	
			4024	590-950	1.418-1.732	
			4034	490-770	1.733-2.086	
			4044	375-590	2.087-2.500	
P2.5.Z.HT (02.2)	Hardened steel	220-450	4014	490-840	.472-.550	
			4024	295-750	.551-.649	
			4034	280-610	.650-.787	
			4044	245-460	.788-.944	
					.945-1.181	

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	(ft/min)	D ₂ inch
P	P3.0.Z.AN (03.11)	High alloy steel (Annealed)	150-250	4014	510-980	.472-.550
				4024	520-900	.551-.649
				4034	425-730	.650-.787
				4044	325-560	.788-.944
P	P3.0.Z.HT (03.21)	Hardened steel	250-350	4014	330-710	.945-1.181
				4024	265-660	1.182-1.417
				4034	245-540	1.418-1.732
				4044	230-410	1.733-2.086
P	P1.5.C.UT (06.1)	Steel castings (Unalloyed)	90-225	4014	620-1150	2.087-2.500
				4024	455-1000	.472-.550
				4034	440-810	.551-.649
				4044	405-620	.650-.787
P	P2.6.C.UT (06.2)	Low alloyed (alloying elements less than 5%)	150-250	4014	410-870	.788-.944
				4024	360-820	.945-1.181
				4034	345-650	1.182-1.417
				4044	325-490	1.418-1.732
P	P2.6.C.UT (06.2)	Low alloyed (alloying elements less than 5%)	150-250	4014	410-870	1.733-2.086
				4024	360-820	2.087-2.500
				4034	345-650	.472-.550
				4044	325-490	.551-.649

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Drill length 2-3xD				Geometry / Feed Drill length 4xD				Drill length 5xD			
-LM	-GM	-GR	-GT	-LM	-GM	-GR	-GT	-LM	-GM	-GR	-GT
<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.	<i>f_n</i> inch/rev.
.002-.004		.002-.006		.002-.004		.002-.005		.002-.003		.002-.004	
.002-.004	.002-.004	.002-.006	.002-.006	.002-.004	.002-.004	.002-.006	.002-.006	.002-.003	.002-.003	.002-.004	.002-.004
.002-.006	.002-.006	.002-.008	.002-.008	.002-.006	.002-.006	.002-.006	.002-.006	.002-.004	.002-.004	.002-.005	.002-.005
.002-.007	.002-.007	.002-.009	.002-.009	.002-.007	.002-.007	.002-.008	.002-.008	.002-.005	.002-.005	.002-.006	.002-.006
.002-.007	.003-.007	.003-.010	.003-.010	.002-.007	.003-.007	.003-.009	.003-.009	.002-.005	.003-.005	.003-.007	.003-.007
.002-.009	.003-.009	.003-.012		.002-.008	.003-.008	.003-.009		.002-.006	.003-.006	.003-.008	
.002-.009	.003-.009	.003-.012		.002-.009	.003-.009	.003-.009		.002-.006	.003-.006	.003-.008	
.004-.009	.004-.009	.004-.013		.004-.009	.004-.009	.004-.009					
.004-.009	.004-.009	.004-.013		.004-.009	.004-.009	.004-.009					
.002-.004		.002-.005		.002-.004		.002-.004		.002-.003		.002-.004	
.002-.004	.002-.004	.002-.006	.002-.006	.002-.004	.002-.004	.002-.006	.002-.006	.002-.003	.002-.003	.002-.004	.002-.004
.002-.006	.002-.006	.002-.006	.002-.006	.002-.006	.002-.006	.002-.006	.002-.006	.002-.004	.002-.004	.002-.004	.002-.004
.002-.007	.002-.007	.002-.007	.002-.008	.002-.007	.002-.007	.002-.008	.002-.008	.002-.005	.002-.005	.002-.005	.002-.005
.002-.007	.003-.007	.003-.009	.003-.010	.002-.007	.003-.007	.003-.009	.003-.009	.002-.005	.003-.005	.003-.006	.003-.007
.002-.008	.003-.008	.003-.009		.002-.008	.003-.008	.003-.009		.002-.005	.003-.005	.003-.006	
.002-.009	.003-.009	.003-.010		.002-.009	.003-.009	.003-.009		.002-.006	.003-.006	.003-.007	
.004-.009	.004-.009	.004-.010		.004-.009	.004-.009	.004-.009					
.004-.009	.004-.009	.004-.010		.004-.009	.004-.009	.004-.009					
.002-.003		.002-.005		.002-.003		.002-.005		.001-.002		.002-.003	
.002-.003	.002-.003	.002-.005	.002-.005	.002-.003	.002-.003	.002-.005	.002-.005	.001-.002	.001-.002	.002-.003	.002-.003
.002-.003	.002-.003	.002-.005	.002-.005	.002-.003	.002-.003	.002-.005	.002-.005	.001-.002	.001-.002	.002-.003	.002-.003
.002-.004	.002-.004	.002-.006	.002-.006	.002-.004	.002-.004	.002-.006	.002-.006	.002-.003	.002-.003	.002-.004	.002-.004
.002-.004	.002-.004	.002-.006	.003-.009	.002-.004	.002-.004	.002-.006	.002-.006	.002-.003	.002-.003	.002-.004	.002-.004
.002-.006	.002-.006	.002-.006		.002-.006	.002-.006	.002-.006		.002-.004	.002-.004	.002-.004	
.002-.006	.002-.006	.002-.006		.002-.006	.002-.006	.002-.006		.002-.004	.002-.004	.002-.004	
.003-.006	.003-.006	.003-.006		.003-.006	.003-.006	.003-.006					
.003-.006	.003-.006	.003-.006		.003-.006	.003-.006	.003-.006					
.002-.004		.002-.006		.002-.004		.002-.005		.002-.003		.002-.004	
.002-.004	.002-.004	.002-.008	.002-.008	.002-.004	.002-.004	.002-.006	.002-.006	.002-.003	.002-.003	.002-.005	.002-.005
.002-.006	.002-.006	.002-.009	.002-.009	.002-.006	.002-.006	.002-.006	.002-.006	.002-.004	.002-.004	.002-.006	.002-.006
.002-.007	.002-.007	.002-.010	.002-.010	.002-.007	.002-.007	.002-.008	.002-.008	.002-.005	.002-.005	.002-.007	.002-.007
.002-.007	.003-.007	.003-.012	.003-.012	.002-.007	.003-.007	.003-.009	.003-.009	.002-.005	.003-.005	.003-.008	.003-.008
.002-.008	.003-.008	.003-.013		.002-.008	.003-.008	.003-.009		.002-.005	.003-.005	.003-.008	
.002-.009	.003-.009	.003-.013		.002-.009	.003-.009	.003-.009		.002-.006	.003-.006	.003-.009	
.004-.009	.004-.009	.004-.013		.004-.009	.004-.009	.004-.009					
.004-.009	.004-.009	.004-.013		.004-.009	.004-.009	.004-.009					

Milling

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Tooling Systems

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General Information

CoroDrill® 880

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter	Geometry/feed (f_n inch/rev.) Drill length 2-3xD			
			HB	\odot	(ft/min)	D_c inch	-LM	-MS ¹⁾	-GM	
M	P5.0.Z.AN (05.11)	Stainless steel Ferritic/Martensitic 13-25% Cr	150-270	4024	390-870	.472-.550	.002-.005			
				4034	375-700	.551-.649	.002-.006	.002-.006	.002-.004	
				4044	375-540	.650-.787	.002-.007	.002-.007	.002-.004	
				2044	375-540	.788-.944	.002-.008	.002-.008	.002-.006	
							.945-1.181	.002-.008	.002-.008	.002-.006
							1.182-1.417	.002-.008	.002-.008	.002-.007
							1.418-1.732	.002-.008	.002-.008	.002-.007
							1.733-2.086	.004-.009		.004-.008
							2.087-2.500	.004-.009		.004-.008
	M1.0.Z.AQ (05.21)	Austenitic Ni > 8%, 13-25% Cr	150-275	4024	390-820	.472-.550	.002-.005			
				4034	375-700	.551-.649	.002-.006	.002-.006	.002-.004	
				4044	375-590	.650-.787	.002-.006	.002-.006	.002-.004	
2044				375-590	.788-.944	.002-.007	.002-.007	.002-.005		
						.945-1.181	.002-.007	.002-.007	.002-.005	
						1.182-1.417	.002-.008	.002-.008	.002-.007	
						1.418-1.732	.002-.008		.002-.007	
						1.733-2.086	.004-.008		.004-.007	
						2.087-2.500	.004-.008		.004-.007	
M3.1.Z.AQ (05.51)	Austenitic/Ferritic (Duplex)	200-320	4024	295-475	.472-.550	.002-.005				
			4034	280-445	.551-.649	.002-.006	.002-.006	.002-.004		
			4044	280-410	.650-.787	.002-.006	.002-.006	.002-.004		
			2044	280-410	.788-.944	.002-.007	.002-.007	.002-.005		
M3.2.Z.AQ (05.52)						.945-1.181	.002-.007	.002-.007	.002-.005	
						1.182-1.417	.002-.008	.002-.008	.002-.007	
						1.418-1.732	.002-.008		.002-.007	
						1.733-2.086	.004-.008		.004-.007	
						2.087-2.500	.004-.008		.004-.007	
M1.0.C.UT (15.21)	Austenitic castings	150-250	4024	495-660	.472-.550	.002-.005				
			4034	380-570	.551-.649	.002-.005	.002-.005	.002-.004		
			4044	265-510	.650-.787	.002-.006	.002-.006	.002-.004		
			2044	265-510	.788-.944	.002-.007	.002-.007	.002-.005		
						.945-1.181	.002-.007	.002-.007	.002-.005	
						1.182-1.417	.002-.008	.002-.008	.002-.007	
						1.418-1.732	.002-.008		.002-.007	
						1.733-2.086	.004-.008		.004-.007	
						2.087-2.500	.004-.008		.004-.007	
S	S2.0.Z.AN (20.21)	Heat resistant alloys, Ni based	140-425	4044	65-290	.472-.550	.002-.004			
				H13A	50-290	.551-.649	.002-.005	.002-.004	.002-.004	
				2044	65-290	.650-.787	.002-.006	.002-.004	.002-.004	
						.788-.944	.002-.007	.002-.004	.002-.005	
							.945-1.181	.002-.007	.002-.004	.002-.005
							1.182-1.417	.002-.005	.002-.005	.002-.005
							1.418-1.732	.002-.005		.002-.005
							1.733-2.086	.002-.005		.002-.005
							2.087-2.500	.003-.006		.003-.006
	S4.2.Z.AN (23.21)	Titanium: α , near α and $\alpha + \beta$ alloys in annealed condition	RM (Mpa)	4044	135-440	135-440	.472-.550	.002-.006		
							.551-.649	.002-.006	.002-.006	.002-.005
							.650-.787	.003-.007	.003-.007	.003-.006
.788-.944								.003-.007	.003-.006	
S4.3.Z.AG (23.22)	Titanium: $\alpha + \beta$ alloys in aged condition, β alloys in annealed or aged condition	600-1500	H13A 2044	135-440 135-440	135-440 135-440	.945-1.181	.005-.008			
						1.182-1.417	.005-.008	.005-.008	.004-.007	
						1.418-1.732	.005-.008	.005-.008	.004-.008	
						1.733-2.086	.005-.008		.004-.008	
						2.087-2.500	.006-.008		.006-.008	

Note: **Bold text** is recommended geometry

¹⁾ -MS geometry is only available in GC2044

GC1044 is the universal central insert grade for all materials

GC1144 is the optimized central insert grade for ISO M materials (Available in D_c .551 to 1.417 inch)

CoroDrill® 880

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	(ft/min)	D _c inch
K	K1.1.C.NS (07.1)	Malleable cast iron Ferritic (Short chipping)	110-145	4014	460-840	.472-.550
				4024	460-750	.551-.649
				4034	360-620	.650-.787
				4044	260-475	.788-.944
	K1.1.C.NS (07.2)	Pearlitic (long chipping)	150-270	4014	325-600	.945-1.181
				4024	345-560	1.182-1.417
4034				280-455	1.418-1.732	
4044				210-345	1.733-2.086	
K2.1.C.UT (08.1)	Gray cast iron: Low tensile strength	150-220	4014	740-1150	2.087-2.500	
			4024	690-1000	.472-.550	
			4034	560-840	.551-.649	
			4044	430-640	.650-.787	
K2.2.C.UT (08.2)	High tensile strength	200-330	4014	360-820	.788-.944	
			4024	410-750	.945-1.181	
			4034	325-610	1.182-1.417	
			4044	245-460	1.418-1.732	
K3.1.C.UT (09.1)	Nodular cast iron (Ferritic)	150-230	4014	395-770	1.733-2.086	
			4024	410-700	2.087-2.500	
			4034	325-570	.472-.550	
			4044	260-440	.551-.649	
K3.3.C.UT (09.2)	Pearlitic	200-330	4014	100-215	.650-.787	
			4024	110-200	.788-.944	
			4034	90-165	.945-1.181	
			4044	70-125	1.182-1.417	
						1.418-1.732
						1.733-2.086
						2.087-2.500

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 880

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell	Grade	Cutting speed	Drill diameter
			HB	⊙	(ft/min)	D _c inch
H	H1.3.Z.HA (04.1)	Hardened and tempered	450	4014	130-330	.472-.550
				4024	100-265	.551-.649
				4034	100-265	.650-.787
				4044	100-265	.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				
N	N1.2.Z.AG (30.12)	Al. alloys Wrought or wrought and aged	30-150	4044	980-1250	.472-.550
				H13A	980-1300	.551-.649
						.650-.787
						.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				
F	N1.3.C.UT (30.21)	Cast, non-aging	40-100	4044	980-1250	.472-.550
				H13A	980-1300	.551-.649
						.650-.787
						.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				
G	N1.3.C.AG (30.22)	Cast or cast and aged	70-140	4044	820-1100	.472-.550
				H13A	820-1150	.551-.649
						.650-.787
						.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				
J	N3.3.U.UT (33.1)	Copper and copper alloys	70-160	4044	820-1250	.472-.550
				H13A	820-1300	.551-.649
						.650-.787
						.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				
K	N3.2.C.UT (33.2)	Brass and leaded alloys (Pb < 1%)	50-200	4044	590-750	.472-.550
				H13A	590-780	.551-.649
						.650-.787
						.788-.944
						.945-1.181
		1.182-1.417				
		1.418-1.732				
		1.733-2.086				
		2.087-2.500				

Note: **Bold text** is recommended geometry
Central insert grade is always 1044.

CoroDrill® 881

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell HB	Grade G	Cutting speed v_c (m/min)	Drill diameter D_c mm	Geometry / Feed		
							2-3xD -GM1 f_n mm/rev	4xD -GM1 f_n mm/rev	5xD -GM1 f_n mm/rev
P	P1.0.Z.AN (01.0)	Unalloyed steel Non hardened 0.05-0.10% C	80-170	4024 4044	230-380 190-235	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10	0.04-0.09	0.04-0.07
							0.04-0.10	0.04-0.09	0.04-0.07
							0.04-0.12	0.04-0.10	0.04-0.08
	P1.1.Z.AN (01.1)	Non hardened 0.05-0.25% C	90-200	4024 4044	230-350 170-225	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10	0.04-0.09	0.04-0.07
							0.04-0.10	0.04-0.09	0.04-0.07
	P1.2.Z.AN (01.2)	Non hardened 0.25-0.55% C	125-225	4024 4044	190-290 120-180	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08
							0.04-0.14	0.04-0.12	0.04-0.09
	P1.3.Z.AN (01.3)	Non hardened 0.55-0.80% C	150-250	4024 4044	170-275 105-175	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08
							0.06-0.14	0.06-0.12	0.06-0.09
	P1.3.Z.AN (01.4)	High carbon and carbon tool steel	180-275	4024 4044	200-275 105-170	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08
0.06-0.14							0.06-0.12	0.06-0.09	
P2.1.Z.AN (02.1)	Low alloy steel (Non-hardened)	150-260	4024 4044	180-290 115-180	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.14	0.04-0.12	0.04-0.09	
						0.06-0.16	0.06-0.13	0.06-0.11	
P2.5.Z.HT (02.2)	Hardened steel	220-450	4024 4044	90-230 75-140	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08	
						0.06-0.14	0.06-0.12	0.06-0.09	
P3.0.Z.AN 03.11	High alloy steel (Annealed)	150-250	4024 4044	160-275 100-170	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10	0.04-0.08	0.04-0.07	
						0.04-0.16	0.04-0.13	0.04-0.11	
P3.0.Z.HT (03.21)	Hardened steel	250-350	4024 4044	80-200 70-125	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08	
						0.06-0.14	0.06-0.11	0.06-0.09	
P1.5.C.UT (06.1)	Steel castings (Unalloyed)	90-225	4024 4044	140-310 125-190	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10	0.04-0.08	0.04-0.07	
						0.04-0.10	0.04-0.08	0.04-0.07	
P2.6.C.UT (06.2)	Low alloyed (alloying elements less than 5%)	150-250	4024 4044	110-250 100-150	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12	0.04-0.10	0.04-0.08	
						0.06-0.14	0.06-0.11	0.06-0.09	
M	P5.0.Z.AN (05.11)	Stainless steel Ferritic/ Martensitic 13-25% Cr	150-270	4024	120-265	12.70-17.43	0.04-0.12	0.04-0.10	0.04-0.08
				4044	115-165	17.44-20.99	0.04-0.14	0.04-0.12	0.04-0.09
				2044	115-165	21.00-25.99	0.04-0.16	0.04-0.14	0.04-0.11
	M1.0.Z.AQ (05.21)	Austenitic Ni > 8%, 13-25% Cr	150-275	4024	120-250	12.70-17.43	0.04-0.12	0.04-0.10	0.04-0.08
				4044	115-180	17.44-20.99	0.04-0.12	0.04-0.10	0.04-0.08
2044				115-180	21.00-25.99	0.04-0.14	0.04-0.12	0.04-0.09	
M3.1.Z.AQ (05.51)	Austenitic/Ferritic (Duplex)	200-320	4024	90-145	12.70-17.43	0.04-0.12	0.04-0.10	0.04-0.08	
									4044
M3.2.Z.AQ (05.52)			2044	85-125	21.00-25.99	0.04-0.14	0.04-0.12	0.04-0.09	
									M1.0.C.UT (15.21)
4044	80-155	17.44-20.99	0.04-0.12	0.04-0.10	0.04-0.08				
2044	80-155	21.00-25.99	0.04-0.14	0.04-0.12	0.04-0.09				

GC1044 is the universal central insert grade for all materials

GC1144 is the optimized central insert grade for ISO M materials

CoroDrill® 881

Metric values

ISO	MC No. (CMC No.)	Material	Hardness Brinell HB	Grade ○	Cutting speed v_c (m/min)	Drill diameter D_c mm	Geometry / Feed Drill length			
							2-3xD -GM1 f_n mm/rev	4xD -GM1 f_n mm/rev	5xD -GM1 f_n mm/rev	
S	S2.0.Z.AN (20.21)	Heat resistant alloys, Ni based	140-425	2044	20-90	12.70-17.43	0.03-0.08	0.03-0.08	0.03-0.05	
	4044			20-90	17.44-20.99	0.04-0.08	0.04-0.08	0.04-0.05		
					21.00-25.99	0.04-0.08	0.04-0.08	0.04-0.05		
	S4.2.Z.AN (23.21)	Titanium: α , near α and $\alpha + \beta$ alloys in annealed condition Titanium: $\alpha + \beta$ alloys in aged condition, β alloys in annealed or aged condition	Rm (MPa) 600-1500	2044	40-135	12.70-17.43	0.04-0.12	0.04-0.10	0.04-0.08	
	4044			40-135	17.44-20.99	0.06-0.14	0.06-0.12	0.06-0.09		
					21.00-25.99	0.08-0.14	0.08-0.12	0.08-0.09		
	S4.3.Z.AG (23.22)									
K	K1.1.C.NS (07.1)	Malleable cast iron Ferritic (Short chipping)	110-145	4024 4044	140-230 80-145	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.16 0.08-0.18 0.10-0.22	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.11 0.06-0.12 0.06-0.15	
	K1.1.C.NS (07.2)	Pearlitic (long chipping)	150-270	4024 4044	105-170 65-105	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.10 0.06-0.12 0.08-0.14	0.04-0.08 0.06-0.09 0.08-0.11	
	K2.1.C.UT (08.1)	Gray cast iron: Low tensile strength	150-220	4024 4044	210-310 130-195	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.16 0.08-0.18 0.10-0.22	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.11 0.06-0.12 0.06-0.15	
	K2.2.C.UT (08.2)	High tensile strength	200-330	4024 4044	125-230 75-140	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.10 0.06-0.12 0.08-0.14	0.04-0.08 0.06-0.09 0.08-0.11	
	K3.1.C.UT (09.1)	Nodular cast iron (Ferritic)	150-230	4024 4044	125-215 80-135	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.10 0.06-0.12 0.08-0.14	0.04-0.08 0.06-0.09 0.08-0.11	
	K3.3.C.UT (09.2)	Pearlitic	200-330	4024 4044	110-200 70-125	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.06-0.14 0.08-0.16	0.04-0.10 0.06-0.12 0.08-0.14	0.04-0.08 0.06-0.09 0.08-0.11	
H	H1.3.Z.HA (04.1)	Hardened and tempered	47-65	4024 4044	30-80 30-80	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10 0.06-0.14 0.06-0.16	0.04-0.08 0.06-0.11 0.06-0.13	0.04-0.06 0.06-0.09 0.06-0.11	
N	N1.2.Z.AG (30.12)	Al. alloys Wrought or wrought and aged	30-150	4044	300-385	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.04-0.14 0.06-0.16	0.04-0.10 0.04-0.12 0.06-0.14	0.04-0.08 0.04-0.09 0.06-0.11	
	N1.3.C.UT (30.21)	Cast, non-aging	40-100	4044	300-385	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10 0.04-0.12 0.06-0.14	0.04-0.08 0.04-0.10 0.06-0.12	0.04-0.07 0.04-0.08 0.06-0.09	
	N1.3.C.AG (30.22)	Cast or cast and aged	70-140	4044	250-335	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.10 0.04-0.12 0.06-0.14	0.04-0.08 0.04-0.10 0.06-0.12	0.04-0.07 0.04-0.08 0.06-0.09	
	N3.3.U.UT (33.1)	Copper and copper alloys	70-160	4044	250-380	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.04-0.14 0.06-0.16	0.04-0.10 0.04-0.12 0.06-0.14	0.04-0.08 0.04-0.09 0.06-0.11	
	N3.2.C.UT (33.2)	Brass and leaded alloys (Pb < 1%)	50-200	4044	180-230	12.70-17.43 17.44-20.99 21.00-25.99	0.04-0.12 0.04-0.14 0.06-0.16	0.04-0.10 0.04-0.12 0.06-0.14	0.04-0.08 0.04-0.09 0.06-0.11	

GC1044 is the universal central insert grade for all materials

CoroDrill® 881

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell HB	Grade ⊙	Cutting speed (ft/min)	Drill diameter D _e inch	Geometry / Feed											
							2-3xD -GM1 f _n inch/rev.	4xD -GM1 f _n inch/rev.	5xD -GM1 f _n inch/rev.									
P	P1.0.Z.AN (01.0)	Unalloyed steel Non hardened 0.05-0.10% C	80-170	4024 4044	760-1250 620-770	.500-.686 .687-.826 .827-1.023	.002-.004 .002-.004 .002-.005	.002-.004 .002-.004 .002-.004	.002-.003 .002-.003 .002-.003									
										P1.1.Z.AN (01.1)	Non hardened 0.05-0.25% C	90-200	4024 4044	750-1150 550-740	.500-.686 .687-.826 .827-1.023	.002-.004 .002-.004 .002-.005	.002-.004 .002-.004 .002-.004	.002-.003 .002-.003 .002-.003
	P1.3.Z.AN (01.3)	Non hardened 0.55-0.80% C	150-250	4024 4044	560-910 345-580	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.006	.002-.004 .002-.005 .002-.006	.002-.003 .002-.004 .002-.004									
										P1.3.Z.AN (01.4)	High carbon and carbon tool steel	180-275	4024 4044	660-910 345-560	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.006	.002-.004 .002-.005 .002-.006	.002-.003 .002-.004 .002-.004
	P2.1.Z.AN (02.1)	Low alloy steel (Non-hardened)	150-260	4024 4044	590-950 375-590	.500-.686 .687-.826 .827-1.023	.002-.006 .002-.006 .002-.007	.002-.005 .002-.005 .002-.006	.002-.004 .002-.004 .002-.005									
										P2.5.Z.HT (02.2)	Hardened steel	220-450	4024 4044	295-750 245-460	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.006	.002-.004 .002-.005 .002-.005	.002-.003 .002-.004 .002-.004
	P3.0.Z.AN (03.11)	High alloy steel (Annealed)	150-250	4024 4044	520-900 325-560	.500-.686 .687-.826 .827-1.023	.002-.004 .002-.006 .002-.007	.002-.003 .002-.005 .002-.006	.002-.003 .002-.004 .002-.005									
										P3.0.Z.HT (03.21)	Hardened steel	250-350	4024 4044	265-660 230-410	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.006	.002-.004 .002-.004 .002-.005	.002-.003 .002-.004 .002-.004
	P1.5.C.UT (06.1)	Steel castings (Unalloyed)	90-225	4024 4044	455-1000 405-620	.500-.686 .687-.826 .827-1.023	.002-.004 .002-.004 .002-.005	.002-.003 .002-.003 .002-.004	.002-.003 .002-.003 .002-.003									
P2.6.C.UT (06.2)										Low alloyed (alloying elements less than 5%)	150-250	4024 4044	360-820 325-490	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.006	.002-.004 .002-.004 .002-.005	.002-.003 .002-.004 .002-.004	
	M	P5.0.Z.AN (05.11)	Stainless steel Ferritic/ Martensitic 13-25% Cr	150-270	4024 4044 2044	390-870 375-540 375-540	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.006 .002-.007	.002-.004 .002-.005 .002-.006									.002-.004 .002-.004 .002-.005
M1.0.Z.AQ (05.21)										Austenitic Ni > 8%, 13-25% Cr	150-275	4024 4044 2044	390-820 375-590 375-590	.500-.686 .687-.826 .827-1.023	.002-.005 .002-.005 .002-.006	.002-.004 .002-.004 .002-.005	.002-.004 .002-.004 .002-.004	
M3.2.Z.AQ (05.52)																		
										M1.0.C.UT (15.21)	Austenitic castings	150-250	4024 4044 2044	495-660 265-510 265-510	.500-.686 .687-.826 .827-1.023	.002-.004 .002-.005 .002-.006	.002-.004 .002-.004 .002-.005	.002-.003 .002-.004 .002-.004

GC1044 is the universal central insert grade for all materials

CoroDrill® 881

Inch values

ISO	MC No. (CMC No.)	Material	Hardness Brinell HB	Grade ○	Cutting speed (ft/min)	Drill diameter D _c inch	Geometry / Feed Drill length		
							2-3xD -GM1 f _n inch/rev	4xD -GM f _n inch/rev	5xD -GM f _n inch/rev
S	S2.0.Z.AN (20.21)	Heat resistant alloys, Ni based	140-425	2044	65-290	.500-.686	.001-.004	.001-.004	.001-.003
	4044			.687-.826		.002-.004	.002-.004	.002-.003	
	S2.0.Z.AG (20.22)			.827-1.023	.002-.004	.002-.004	.002-.003		
	S4.2.Z.AN (23.21)	Titanium: α, near α and α+ β alloys in annealed condition	Rm(MPa) 600-1500	2044	135-440	.500-.686	.002-.005	.002-.004	.002-.004
	4044			.687-.826		.002-.006	.002-.005	.002-.004	
	S4.3.Z.AG (23.22)	Titanium: α+ β alloys in aged condition, β alloys in annealed or aged condition	.827-1.023	.003-.006	.003-.005	.003-.004			
K	K1.1.C.NS (07.1)	Malleable cast iron Ferritic (Short chipping)	110-145	4024	460-750	.500-.686	.002-.007	.002-.005	.002-.005
	4044	.687-.826	.003-.008	.002-.006		.002-.005			
	K1.1.C.NS (07.2)	Pearlitic (long chipping)	150-270	4024	345-560	.500-.686	.002-.005	.002-.004	.002-.004
	4044	.687-.826	.002-.006	.002-.005		.002-.004			
	K2.1.C.UT (08.1)	Gray cast iron: Low tensile strength	150-220	4024	690-1000	.500-.686	.002-.007	.002-.005	.002-.005
	4044			.687-.826		.003-.008	.002-.006	.002-.005	
K2.2.C.UT (08.2)	High tensile strength	200-330	4024	410-750	.500-.686	.002-.005	.002-.004	.002-.004	
4044			.687-.826		.002-.006	.002-.005	.002-.004		
K3.1.C.UT (09.1)	Nodular cast iron (Ferritic)	150-230	4024	410-750	.500-.686	.002-.005	.002-.004	.002-.004	
4044			.687-.826		.002-.006	.002-.005	.002-.004		
K3.3.C.UT (09.2)	Pearlitic	200-330	4024	110-200	.500-.686	.002-.005	.002-.004	.002-.004	
4044			.687-.826		.002-.006	.002-.005	.002-.004		
H	H1.3.Z.HA (04.1)	Hardened and tempered	47-65	4024	100-265	.500-.686	.002-.004	.002-.004	.002-.003
				4044		.687-.826	.002-.006	.002-.005	.002-.004
N	N1.2.Z.AG (30.12)	Al. alloys Wrought or wrought and aged	30-150	4044	980-1250	.500-.686	.002-.005	.002-.004	.002-.004
						.687-.826	.002-.006	.002-.005	.002-.004
						.827-1.023	.002-.007	.002-.006	.002-.005
	N1.3.C.UT (30.21)	Cast, non-aging	40-100	4044	980-1250	.500-.686	.002-.004	.002-.004	.002-.003
				.687-.826		.002-.005	.002-.004	.002-.004	
N1.3.C.AG (30.22)	Cast or cast and aged	70-140	4044	820-1100	.500-.686	.002-.004	.002-.004	.002-.003	
			.687-.826		.002-.005	.002-.004	.002-.004		
N3.3.U.UT (33.1)	Copper and copper alloys	70-160	4044	820-1250	.500-.686	.002-.005	.002-.004	.002-.004	
			.687-.826		.002-.006	.002-.005	.002-.004		
N3.2.C.UT (33.2)	Brass and leaded alloys (Pb < 1%)	50-200	4044	590-750	.500-.686	.002-.005	.002-.004	.002-.004	
			.687-.826		.002-.006	.002-.005	.002-.004		
						.827-1.023	.002-.007	.002-.006	.002-.005

GC1044 is the universal central insert grade for all materials

Coromant U drills, metric values

ISO	CMC No.	Material	Hardness Brinell HB	Drill dia D_c mm	Feed f_n mm/r	Speed v_c m/min	Geometry / Grade				
							FIRST CHOICE Highest productivity		Complementary		
							⊙	⊙	⊙	⊙	
P	01.0	Unalloyed steel Non hardened 0.05–0.10% C	80–170	12.7–17.0	0.04–0.08	290 (230–380)	-53/3040	-53/1020	-53/1120	-53/1020	
				17.5–25.4	0.04–0.08						T-53/1020
				26.0–30.0	0.05–0.08						
				31.0–41.3	0.07–0.10						
				42.0–80.0	0.08–0.12						
	01.1	Non hardened 0.05–0.25% C	90–200	12.7–17.0	0.04–0.08	270 (225–345)	-53/3040	-53/1020	-53/1120	-53/1020	
				17.5–25.4	0.04–0.08						T-53/1020
				26.0–30.0	0.05–0.10						
				31.0–41.3	0.07–0.12						
	01.2	Non-hardened 0.25–0.55% C	125–225	12.7–17.0	0.04–0.10	230 (190–290)	-53/3040	-53/1020	-53/1120	-53/1020	
				17.5–25.4	0.04–0.14						T-53/1020
				26.0–30.0	0.08–0.18						
				31.0–41.3	0.10–0.20						
	01.3	Non hardened 0.55–0.80% C	150–225	12.7–17.0	0.04–0.10	210 (170–275)	-53/3040	-53/1020	-53/1120	-53/1020	
17.5–25.4				0.06–0.14	T-53/1020						
26.0–30.0				0.08–0.18							
31.0–41.3				0.10–0.20							
01.4	High carbon and carbon tool steel	180–275	12.7–17.0	0.04–0.10	210 (200–275)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.06–0.14						T-53/1020	
			26.0–30.0	0.08–0.18							
			31.0–41.3	0.10–0.20							
02.1	Low alloy steel Non-hardened	150–260	12.7–17.0	0.04–0.10	220 (180–290)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.06–0.12						T-53/1020	
			26.0–30.0	0.10–0.16							
			31.0–41.3	0.11–0.18							
02.2	Hardened	220–450	12.7–17.0	0.04–0.10	170 (90–230)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.06–0.14						T-53/1020	
			26.0–30.0	0.10–0.18							
			31.0–41.3	0.10–0.20							
03.11	High alloy steel Annealed	50–250	12.7–17.0	0.04–0.08	180 (160–275)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.04–0.14						T-53/1020	
			26.0–30.0	0.08–0.18							
			31.0–41.3	0.10–0.20							
03.21	Hardened steel	250–450	12.7–17.0	0.04–0.10	130 (80–200)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.06–0.12						T-53/1020	
			26.0–30.0	0.10–0.16							
			31.0–41.3	0.11–0.18							
06.1	Steel castings Unalloyed	90–225	12.7–17.0	0.04–0.08	200 (140–310)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.04–0.08						T-53/1020	
			26.0–30.0	0.05–0.10							
			31.0–41.3	0.06–0.12							
06.2	Low alloyed (alloying elements ≤ 5%)	150–250	12.7–17.0	0.04–0.10	160 (110–250)	-53/3040	-53/1020	-53/1120	-53/1020		
			17.5–25.4	0.06–0.12						T-53/1020	
			26.0–30.0	0.10–0.16							
			31.0–41.3	0.11–0.18							
M	05.11	Stainless steel Ferritic, Martensitic 13–25% Cr	150–270	12.7–17.0	0.04–0.10	170 (120–265)	53/3040	53/1020	53/1120	53/1020	
				17.5–25.4	0.04–0.14						53/1020
				26.0–30.0	0.08–0.18						
				31.0–41.3	0.10–0.20						
				42.0–80.0	0.12–0.24						
	05.21	Austenitic Ni > 8% 13–25% Cr	150–275	12.7–17.0	0.04–0.10	150 (120–250)	53/3040	53/1020	53/1120	53/1020	
				17.5–25.4	0.04–0.12						53/1020
				26.0–30.0	0.08–0.14						
				31.0–41.3	0.10–0.16						
	05.51 05.52	Austenitic Ferritic (duplex)	180–320	12.7–17.0	0.04–0.10	110 (90–145)	53/3040	53/1020	53/1120	53/1020	
17.5–25.4				0.04–0.12	53/1020						
26.0–30.0				0.08–0.14							
31.0–41.3				0.10–0.16							
42.0–80.0				0.11–0.18							

Insert positioning:

⊙ = Central

⊙ = Peripheral



-WM geometry: For machining steel and cast iron with hardness < 200 HB in stable conditions, increase feed (f_n) by 50%. For easy-to-machine stainless steels in stable conditions, increase feed (f_n) by 25%.

Coromant U drills, metric values

ISO	CMC No.	Material	Hardness Brinell HB	Drill dia D _c mm	Feed f _n mm/r	Speed v _c m/min	Geometry / Grade												
							FIRST CHOICE Highest productivity		Complementary										
							⊙	⊙	⊙	⊙									
M	15.21	Stainless steel Austenitic castings	150–250	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.08 0.04–0.12 0.05–0.12 0.06–0.14 0.06–0.14	110 (80–155)	-53/1120 -53/1020	-53/1020 -53/1020 -53/1020	-53/1120 -53/1020 -53/1020 -53/1020	-53/1020 -53/1020									
S	20.21 20.22 20.24	Heat resistant alloys Ni based	140–425	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.03–0.08 0.04–0.08 0.06–0.10 0.08–0.12 0.09–0.14	50 (20–88)	-53/1120 -53/1020	-53/1020 -53/1020 -53/1020	-53/1120 -53/1020 -53/1020 -53/1020	-53/1020 -53/1020									
											23.21 23.22	Titanium alloys α, near α and α+β alloys. Alloys in annealed or aged conditions.	600–1500	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.10 0.08–0.14 0.12–0.16 0.14–0.18 0.16–0.20	60 (40–132)	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A
K	07.1	Malleable cast iron Ferritic (short chipping)	110–145	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.14 0.10–0.18 0.14–0.20 0.16–0.26 0.18–0.28	170 (140–230)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020	-53/1020 T-53/1020									
											07.2	Pearlitic (long chipping)	150–270	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.10 0.08–0.14 0.12–0.18 0.14–0.20 0.15–0.22	140 (105–170)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020
	08.1	Gray cast iron Low tensile strength	150–220	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.14 0.10–0.18 0.14–0.20 0.16–0.26 0.18–0.28	250 (210–310)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020	-53/1020 T-53/1020									
											08.2	High tensile strength	200–330	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.10 0.08–0.14 0.12–0.18 0.14–0.20 0.15–0.22	170 (125–230)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020
	09.1	Nodular cast iron Ferritic	125–230	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.10 0.08–0.14 0.12–0.18 0.14–0.20 0.15–0.22	170 (125–215)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020	-53/1020 T-53/1020									
											09.2	Pearlitic	200–300	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.10 0.08–0.14 0.12–0.18 0.14–0.20 0.15–0.22	150 (110–200)	-53/3040	-53/1020	-53/1120 -53/1020 -53/1020 -53/1020
H	04.1	Extra hard steel Hardened and tempered	450	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.05–0.08 0.07–0.15 0.07–0.15 0.10–0.15 0.10–0.15	40 (30–80)	-53/3040	-53/1020	-53/1120 -53/1020	-53/1020									
N	30.12	Aluminum alloys Wrought or wrought and aged	30–150	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.12 0.06–0.16 0.10–0.18 0.12–0.22 0.14–0.26	350 (300–440)	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A									
											30.21	Cast, non-aging	40–100	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.12 0.06–0.16 0.10–0.18 0.12–0.22 0.14–0.26	150 (30–440)	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A
											33.1	Copper and copper alloys Free cutting alloys (Pb ≥ 1%)	50–160	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.12 0.06–0.16 0.10–0.18 0.12–0.22 0.14–0.26	300 (250–385)	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A
	33.2	Brass and leaded alloys (Pb ≤ 1%)	50–160	12.7–17.0 17.5–25.4 26.0–30.0 31.0–41.3 42.0–80.0	0.04–0.12 0.06–0.16 0.10–0.18 0.12–0.22 0.14–0.26	230 (180–265)	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1020 -53/H13A -53/H13A -53/H13A -53/H13A	-53/1120 -53/H13A -53/H13A -53/H13A -53/H13A										

Insert positioning:

⊙ = Central

⊙ = Peripheral

Cutting data for wiper inserts, see page J3.

Wiper

Indexable U-drills, inch values

ISO	CMC No.	Material	Hardness Brinell HB	Drill dia D _c inch	Feed f _n inch/rev.	Speed v _c ft/min	Geometry / Grade				
							FIRST CHOICE Highest productivity		Complementary		
							⊙	⊙	⊙	⊙	
P	01.0	Unalloyed steel Non hardened 0.05–0.10% C	80–170	.500-.669	.001–.003	950 (755–1245)	-53/3040	-53/1020	-53/1120	-53/1020	
				.689-1.000	.001–.003						T-53/1020
				1.024-1.181	.002–.003						
				1.220-1.614	.003–.004						
				1.654-3.500	.004–.006						
	01.1	Non hardened 0.05–0.25% C	90–200	.500-.669	.001–.003	885 (740–1130)	-53/3040	-53/1020	-53/1120	-53/1020	
				.689-1.000	.001–.003						T-53/1020
				1.024-1.181	.002–.003						
				1.220-1.614	.003–.004						
				1.654-3.500	.004–.006						
	01.2	Non-hardened 0.25–0.55% C	125–225	.500-.669	.001–.004	755 (625–950)	-53/3040	-53/1020	-53/1120	-53/1020	
				.689-1.000	.001–.006						T-53/1020
				1.024-1.181	.003–.007						
				1.220-1.614	.004–.008						
1.654-3.500				.005–.009							
01.3	Non hardened 0.55–0.80% C	150–225	.500-.669	.001–.004	690 (560–900)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.006						T-53/1020	
			1.024-1.181	.003–.007							
			1.220-1.614	.004–.008							
			1.654-3.500	.005–.009							
01.4	High carbon and carbon tool steel	180–275	.500-.669	.001–.004	690 (655–900)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.006						T-53/1020	
			1.024-1.181	.003–.007							
			1.220-1.614	.004–.008							
			1.654-3.500	.005–.009							
02.1	Low alloy steel Non-hardened	150–260	.500-.669	.001–.004	720 (590–950)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.005						T-53/1020	
			1.024-1.181	.004–.006							
			1.220-1.614	.004–.007							
			1.654-3.500	.005–.009							
02.2	Hardened	220–450	.500-.669	.001–.004	560 (295–755)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.006						T-53/1020	
			1.024-1.181	.004–.007							
			1.220-1.614	.004–.008							
			1.654-3.500	.005–.009							
03.11	High alloy steel Annealed	50–250	.500-.669	.001–.003	590 (525–900)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.001–.006						T-53/1020	
			1.024-1.181	.003–.007							
			1.220-1.614	.004–.008							
			1.654-3.500	.005–.009							
03.21	Hardened steel	250–450	.500-.669	.001–.004	1425 (260–655)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.005						T-53/1020	
			1.024-1.181	.004–.006							
			1.220-1.614	.004–.007							
			1.654-3.500	.005–.009							
06.1	Steel castings Unalloyed	90–225	.689-1.000	.001–.003	655 (460–1020)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.001–.003						T-53/1020	
			1.024-1.181	.002–.004							
			1.220-1.614	.002–.005							
			1.654-3.500	.003–.006							
06.2	Low alloyed (alloying elements ≤ 5%)	150–250	.500-.669	.001–.004	525 (360–820)	-53/3040	-53/1020	-53/1120	-53/1020		
			.689-1.000	.002–.005						T-53/1020	
			1.024-1.181	.004–.006							
			1.220-1.614	.004–.007							
			1.654-3.500	.005–.009							
M	05.11	Stainless steel Ferritic, Martensitic 13–25% Cr	150–270	.500-.669	.001–.004	560 (395–870)	53/3040	53/1020	53/1120	53/1020	
				.689-1.000	.001–.006						53/1020
				1.024-1.181	.003–.007						
				1.220-1.614	.004–.008						
				1.654-3.500	.005–.009						
	05.21	Austenitic Ni > 8% 13–25% Cr	150–275	.500-.669	.001–.004	490 (395–820)	53/3040	53/1020	53/1120	53/1020	
				.689-1.000	.001–.005						53/1020
				1.024-1.181	.003–.006						
				1.220-1.614	.004–.006						
				1.654-3.500	.004–.007						
05.51 05.52	Austenitic Ferritic (duplex)	180–320	.500-.669	.001–.004	360 (295–475)	53/3040	53/1020	53/1120	53/1020		
			.689-1.000	.001–.005						53/1020	
			1.024-1.181	.003–.006							
			1.220-1.614	.004–.006							
			1.654-3.500	.004–.007							

Insert positioning:

- ⊙ = Central
⊙ = Peripheral



-WM geometry: For machining steel and cast iron with hardness < 200 HB in stable conditions, increase feed (f_n) by 50%. For easy-to-machine stainless steels in stable conditions, increase feed (f_n) by 25%.

Indexable U-drills, inch values

ISO	CMC No.	Material	Hardness Brinell HB	Drill dia D _c inch	Feed f _n inch/rev.	Speed v _c ft/min	Geometry / Grade			
							FIRST CHOICE Highest productivity		Complementary	
							⊖	⊕	⊖	⊕
M	15.21	Stainless steel Austenitic castings	150-250	.500-.669	.001-.004	360 (260-510)	-53/1120		-53/1120	-53/1020
				.689-1.000	.001-.005		-53/1020	-53/1020	-53/1020	-53/1020
				1.024-1.181	.003-.006		-53/1020	-53/1020	-53/1020	-53/1020
				1.220-1.614	.002-.006		-53/1020	-53/1020	-53/1020	-53/1020
				1.654-3.500	.002-.006		-53/1020	-53/1020	-53/1020	-53/1020
S	20.21 20.22 20.24	Heat resistant alloys Ni based	140-425	.500-.669	.001-.003	165 (65-290)	-53/1120		-53/1120	-53/1020
				.689-1.000	.001-.004		-53/1020	-53/1020	-53/1020	-53/1020
				1.024-1.181	.002-.004		-53/1020	-53/1020	-53/1020	-53/1020
				1.220-1.614	.003-.005		-53/1020	-53/1020	-53/1020	-53/1020
				1.654-3.500	.004-.006		-53/1020	-53/1020	-53/1020	-53/1020
	23.21 23.22	Titanium alloys α, near α and α+β alloys. Alloys in annealed or aged conditions.	600-1500	.500-.669	.001-.004	195 (130-430)	-53/1120	-53/1020	-53/1120	-53/1020
				.689-1.000	.003-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.024-1.181	.005-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.220-1.614	.006-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.654-3.500	.006-.008		-53/H13A	-53/H13A	-53/H13A	-53/H13A
K	07.1	Malleable cast iron Ferritic (short chipping)	110-145	.500-.669	.001-.006	560 (460-755)	-53/3040	-53/1020	-53/1120	-53/1020
				.689-1.000	.004-.007		-53/1020	-53/1020	-53/1020	T-53/1020
				1.024-1.181	.006-.008		-53/1020	-53/1020	-53/1020	-53/1020
				1.220-1.614	.006-.010		-53/1020	-53/1020	-53/1020	-53/1020
				1.654-3.500	.007-.011		-53/1020	-53/1020	-53/1020	-53/1020
	07.2	Pearlitic (long chipping)	150-270	.500-.669	.001-.004	460 (345-560)	-53/3040	-53/1020	-53/1120	-53/1020
				.689-1.000	.003-.006		-53/1020	-53/1020	-53/1020	T-53/1020
	08.1	Gray cast iron Low tensile strength	150-220	.500-.669	.001-.006	820 (690-1020)	-53/3040	-53/1020	-53/1120	-53/1020
				.689-1.000	.004-.007		-53/1020	-53/1020	-53/1020	T-53/1020
				1.024-1.181	.006-.008		-53/1020	-53/1020	-53/1020	-53/1020
	08.2	High tensile strength	200-330	.500-.669	.001-.004	560 (410-755)	-53/3040	-53/1020	-53/1120	-53/1020
				.689-1.000	.003-.006		-53/1020	-53/1020	-53/1020	T-53/1020
	09.1	Nodular cast iron Ferritic	125-230	.500-.669	.001-.004	560 (410-705)	-53/3040	-53/1020	-53/1120	-53/1020
				.689-1.000	.003-.006		-53/1020	-53/1020	-53/1020	T-53/1020
1.024-1.181				.005-.007	-53/1020		-53/1020	-53/1020	-53/1020	
09.2	Pearlitic	200-300	.500-.669	.001-.004	490 (360-655)	-53/3040	-53/1020	-53/1120	-53/1020	
			.689-1.000	.003-.006		-53/1020	-53/1020	-53/1020	-53/1020	
H	04.1	Extra hard steel Hardened and tempered	450	.500-.669	.003-.004	130 (100-260)	-53/3040	-53/1020	-53/1020	-53/1020
				.689-1.000	.003-.006		-53/1020	-53/1020	-53/1020	-53/1020
				1.024-1.181	.003-.006		-53/1020	-53/1020	-53/1020	-53/1020
				1.220-1.614	.004-.006		-53/1020	-53/1020	-53/1020	-53/1020
				1.654-3.500	.004-.006		-53/1020	-53/1020	-53/1020	-53/1020
N	30.12	Aluminum alloys Wrought or wrought and aged	30-150	.500-.669	.001-.005	1150 (985-1440)	-53/1120	-53/1020	-53/1120	-53/1020
				.689-1.000	.002-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.024-1.181	.004-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.220-1.614	.005-.009		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.654-3.500	.006-.010		-53/H13A	-53/H13A	-53/H13A	-53/H13A
	30.21	Cast, non-aging	40-100	.500-.669	.001-.005	490 (100-1440)	-53/1120	-53/1020	-53/1120	-53/1020
				.689-1.000	.002-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.024-1.181	.004-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.220-1.614	.005-.009		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.654-3.500	.006-.010		-53/H13A	-53/H13A	-53/H13A	-53/H13A
	30.22	Cast or cast and aged	70-140	.500-.669	.001-.005	985 (820-1260)	-53/1120	-53/1020	-53/1120	-53/1020
				.689-1.000	.002-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.024-1.181	.004-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.220-1.614	.005-.009		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.654-3.500	.006-.010		-53/H13A	-53/H13A	-53/H13A	-53/H13A
	33.1	Copper and copper alloys Free cutting alloys (Pb ≥ 1%)	50-160	.500-.669	.001-.005	985 (820-1260)	-53/1120	-53/1020	-53/1120	-53/1020
				.689-1.000	.002-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.024-1.181	.004-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.220-1.614	.005-.009		-53/H13A	-53/H13A	-53/H13A	-53/H13A
				1.654-3.500	.006-.010		-53/H13A	-53/H13A	-53/H13A	-53/H13A
33.2	Brass and leaded alloys (Pb ≤ 1%)	50-160	.500-.669	.001-.005	755 (590-870)	-53/1120	-53/1020	-53/1120	-53/1020	
			.689-1.000	.002-.006		-53/H13A	-53/H13A	-53/H13A	-53/H13A	
			1.024-1.181	.004-.007		-53/H13A	-53/H13A	-53/H13A	-53/H13A	
			1.220-1.614	.005-.009		-53/H13A	-53/H13A	-53/H13A	-53/H13A	
			1.654-3.500	.006-.010		-53/H13A	-53/H13A	-53/H13A	-53/H13A	

Insert positioning:

⊖ = Central

⊕ = Peripheral

WIPER

Cutting data for wiper inserts, see page J3.

Grades for drilling

Milling

E

Drilling

F

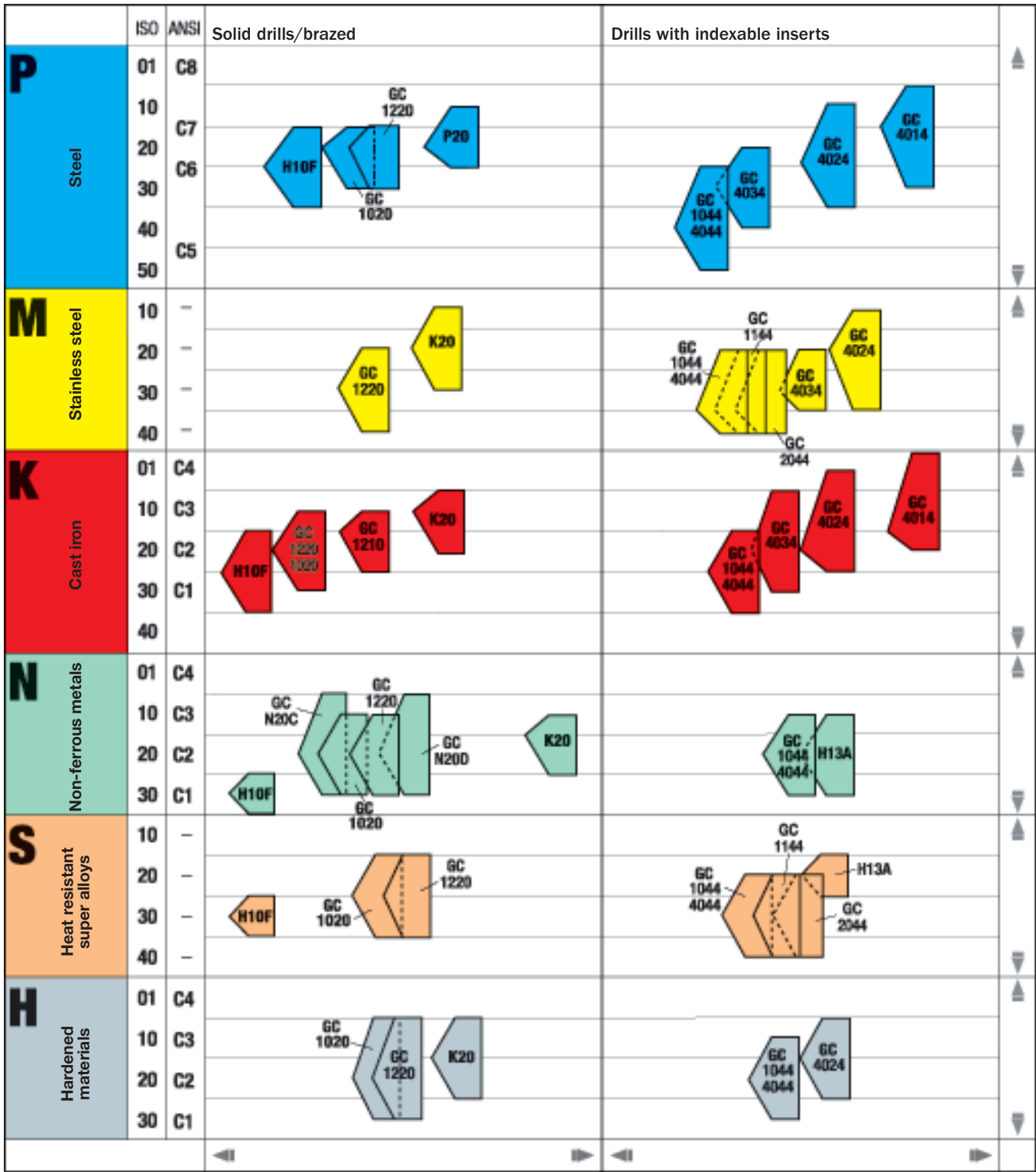
Boring

G

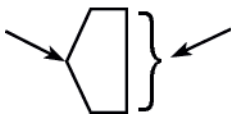
Tooling Systems

J

General Information



The position and form of the grade symbols indicate the suitable field of application. Center of the field of application.



Recommended field of application.

- ▲ Stable
- ▼ Unstable
- Heat**
- ◀ Low
- ▶ High

Grades for solid drills



Steel, cast steel, long chipping malleable iron

GC1220 (HC) – P25 (P10-P30)

Fine grained cemented carbide substrate with excellent combination of both hardness and toughness. PVD coated with 3-5 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for mixed production in all types of materials.

GC1020 (HC) – P25 (P10-P30)

PVD coated grade for drilling of most materials. Fine grained carbide substrate with TiCN+TiN coating. Wide application area.

P20 (HC) – P20 (P10-P30)

PVD coating, TiN, on wear resistant substrate. General steel applications.

H10F (HW) – P25 (P15-P35)

Uncoated fine grain carbide grade with good edge strength. Suitable for drilling in most materials at low speed and feed.



Austenitic/ferritic/martensitic stainless steel

GC 1220 (HC) – M30 (M20-M40)

Fine grained cemented carbide with an excellent combination of both hardness and toughness. The carbide is PVD coated with 3 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for steel, stainless steels and cast iron in Coromant Delta C.

K20 (HC) – M20 (M10-M30)

PVD-coated, TiN, on WC-Co substrate. Stainless steel, cast iron, aluminum and some heat resistant materials.



Cast iron

GC 1210 (HC) – K15 (K10-K25)

Hard and very wear resistant carbide substrate containing gamma phase. The substrate is coated with AlCrN giving excellent wear and oxidation resistance and good hot hardness. Ideal PVD-grade in the Coromant Delta-C family for drilling at medium to high speed in all kinds of cast iron.

GC 1220 (HC) – K20 (K10-K30)

Fine grained cemented carbide with an excellent combination of both hardness and toughness. The carbide is PVD coated with 3 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for steel, stainless steels and cast iron in Coromant Delta C.

GC1020 (HC) – K20 (K10-K20)

PVD coated grade for drilling of most materials. Fine grained carbide substrate with TiCN+TiN coating. Wide application area.

K20 (HC) – K20 (K05-K20)

PVD-coated, TiN, on WC-Co substrate. Stainless steel, cast iron, aluminum and some heat resistant materials.

H10F (HW) – K25 (K15-K35)

Uncoated fine grain carbide grade with good edge strength. Suitable for drilling in most materials at low speed and feed.



Non-ferrous metals, plastics, wood

N20C (HC) – N20 (N05-N30)

Fine carbide with diamond coating. First choice for dry drilling in carbon fiber reinforced plastics (CFRP). Excellent tool life. Low friction coefficient. Stable hole dimensions. Cost efficient. Not regrindable. For CFRP/Al stacks, DLC (Diamond-Like Coating) is preferred due to less risk of flaking in aluminum.

N20D (HC) – N20 (N05-N30)

A fine grained cemented carbide with an excellent combination of both hardness and toughness. The fine grains contribute to keeping the cutting edge sharp throughout the entire tool life. The carbide is PVD coated with smooth TiAlN adding wear resistance and lowering adherence to work material on the cutting edge.

First choice for Aluminum with a Silicon content up to 12%.

K20 (HC) – N15 (N10-N25)

PVD-coated, TiN, on WC-Co substrate. Stainless steel, cast iron, aluminum and some heat resistant materials.

H10F (HW) – N20 (N10-N30)

Uncoated fine grain carbide grade with good edge strength. Suitable for drilling in most materials at low speed and feed.

GC1020 (HC) – N20 (N10-N30)

PVD coated grade for drilling of most materials. Fine grained carbide substrate with TiCN+TiN coating. Wide application area.

GC1220 (HC) – N10 (N10-N30)

Fine grained cemented carbide substrate with excellent combination of both hardness and toughness. PVD coated with 3-5 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for mixed production in all types of materials.

Grades for solid drills

S Heat resistant alloys Titanium alloys

GC1020 (HC) – S25 (S10-S30)

PVD coated grade for drilling of most materials. Fine grained carbide substrate with TiCN+TiN coating. Wide application area.

H10F (HW) –S30 (S25-S35)

Uncoated fine grain carbide grade with good edge strength. Suitable for drilling in most materials at low speed and feed.

GC 1220 (HC) – S25 (S15 -S35)

Fine grained cemented carbide with an excellent combination of both hardness and toughness. The carbide is PVD coated with 3 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for steel, stainless steels and cast iron in Coromant Delta C.

H Hardened steel

GC 1220 (HC) – H20 (H05 –H30)

Fine grained cemented carbide with an excellent combination of both hardness and toughness. The carbide is PVD coated with 3 microns of nano-multilayers of TiAlN coating giving very good edge line security. First choice grade for steel, stainless steels and cast iron in Coromant Delta C.

K20 (HC) – H15 (H05-H25)

PVD coated, TiN on WC-Co substrate. Stainless steel, cast iron, aluminum and heat resistant materials.

GC1020 (HC) – H15 (H05-H25)

PVD coated grade for drilling of most materials. Fine grained carbide substrate with TiCN+TiN coating. Wide application area.

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Letter symbols specifying the designation of hard cutting materials:

Hardmetals:

HW Uncoated hardmetal containing primarily tungsten carbide (WC)

HT Uncoated hardmetal, also called cermet, containing primarily titanium carbides (TiC) or titanium nitrides (TiN) or both.

HC Hardmetals as above, but coated

Ceramics:

CA Oxide ceramics containing primarily aluminum oxide (Al₂O₃).

CM Mixed ceramics containing primarily aluminum oxide (Al₂O₃) but containing components other than oxides.

CN Nitride ceramics containing primarily silicon nitride (Si₃N₄).

CC Ceramics as above, but coated.

Diamond:

DP Polycrystalline diamond¹⁾

Cubic boron nitride:

BN Polycrystalline boron nitride¹⁾

¹⁾ Polycrystalline diamond and polycrystalline boron nitride are also named *superhard cutting materials*.

Grades for drills with indexable inserts

P

Steel, cast steel, long chipping malleable iron

GC4014 (HC) – P15 (P05-P30)

Grade for peripheral insert. Low to medium feed rates at high cutting speed. High wear resistance and good resistance against plastic deformation.

GC4024 (HC) – P20 (P10-P35)

Grade for peripheral insert. Excellent toughness behavior and high wear resistance. For moderate to very high cutting speeds. MT-CVD coated grade.

GC1044 (HC) – P40 (P25-P50)

The basic choice as central insert for ISO P application area. PVD coated grade with excellent wear resistance and toughness at low to high cutting speeds.

GC4034 (HC) - P30 (P20-P40)

Peripheral grade for smaller diameter drills. Excellent wear resistance. For moderate to high cutting speeds. MT-CVD coated grade.

GC4044 (HC) – P40 (P25-P50) The basic choice as peripheral grade for ISO P application area. PVD-coated grade with excellent wear resistance and toughness at low to moderate cutting speeds.**M**

Austenitic/ferritic/martensitic stainless steel

GC1144 (HC) – M35 (M20-M40)

Optimized center ISO M grade based on fine-grained cemented carbide coated with a new PVD-oxide coating for excellent wear resistance and resistance against built-up edge in all types of stainless steels.

GC2044 (HC) – M35 (M20-M40)

Optimized periphery ISO M grade based on fine-grained cemented carbide coated with a new PVD-oxide coating for excellent wear resistance and resistance against built-up edge in all types of stainless steels.

GC4024 (HC) – M20 (M10-M35)

Grade for peripheral insert. Excellent edge toughness and very high wear resistance. Very good resistance against built-up edges. For medium to high cutting speeds. MT-CVD coated grade.

GC1044 (HC) M35 (M25-M40)

The basic choice as central grade for ISO M application area. PVD coated grade with excellent edge toughness and resistance against built-up edge.

GC4034 (HC) - M30 (M20-M35)

Supplementary grade for stainless steels. Excellent wear resistance and good resistance to built-up edge. For medium to high cutting speeds. MT-CVD coated grade.

GC4044 (HC) – M35 (M20-M40)

Grade for ISO M application area. PVD coated grade with excellent edge toughness and resistance against built-up edge.

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Grades for drills with indexable inserts



Cast iron

GC4014 (HC) – K15 (K01-K25)

Grade for peripheral insert. Finishing to light roughing of cast iron at high cutting speeds.

GC4024 (HC) – K20 (K05-K30)

Grade for peripheral insert. Very good combination of toughness and wear resistance. Universal grade for medium to high cutting speeds. MT-CVD coated grade.

GC1044 (HC) – K25 (K10-K35)

The basic choice as central for ISO K application area. A PVD coated grade for toughness demanding operations.

GC4034 (HC) - K20 (K10-K30)

Peripheral grade for smaller diameter drills. Excellent wear resistance. For moderate to high cutting speeds. MT-CVD coated grade.

GC4044 (HC) – K25 (K10-K35)

The basic choice as peripheral grade for ISO K application area. A PVD coated grade with excellent wear resistance and toughness at low to moderate cutting speeds.



Non-ferrous metals, plastics, wood

GC1020 (HC) – (N10-N30)

Basic choice as central insert for toughness demanding operations. A PVD coated grade.

GC1120 (HC) – (N10-N30)

Suitable for toughness demanding applications as peripheral insert for Coromant U drill in diameter range .500 - .669 inch (12.7-17 mm). Good combination of wear resistance and toughness. A PVD coated grade.

H13A (HW) – (N10-N25)

The universal grade for low to moderate cutting speeds. Suitable both for central and peripheral inserts.

GC1044 (HC) – (N10-N30)

The basic choice as central grade for ISO N application area. PVD coated grade with excellent wear resistance and toughness at moderate to very high cutting speeds.

GC4044 (HC)– (N10-N30)

The basic choice as peripheral grade for ISO N application area. PVD coated grade with excellent edge toughness and resistance against built-up edge.

Grades for drills with indexable inserts

S Heat resistant alloys Titanium alloys

H13A (HW) – S20 (S15-S25)

A complementary choice for heat resistant alloys and titanium. Good edge sharpness, wear resistance and toughness. Suitable both for central and peripheral inserts. Uncoated grade.

GC1044 (HC) – S30 (S20-S35)

The basic choice as central grade in ISO S application area. PVD coated grade with excellent wear resistance and toughness at low to moderate cutting speeds.

GC4044 (HC) – S30 (S20-S35)

The basic choice as peripheral grade in ISO S application area. PVD coated grade with excellent edge toughness and resistance against built-up edge.

GC1144 (HC) – S35 (S20-S40)

Complementary center grade for ISO S materials.

GC2044 (HC) – S30 (S20-S40)

Complementary periphery ISO S grade based on fine-grained cemented carbide coated with a new PVD-oxide coating.

H Hardened steel

GC4024 (HC) – H15 (H05-H25)

Grade for peripheral insert. Good toughness behavior and high wear resistance. For moderate to high cutting speeds. MT-CVD coated grade.

GC1044 (HC) – H20 (H10-H30)

The basic choice for central grade in ISO H application area. PVD coated grade with excellent wear resistance and toughness at low to moderate cutting speeds.

GC4044 (HC) – H20 (H10-H30)

The basic choice as peripheral grade for ISO H application area. A PVD coated grade with excellent edge toughness and resistance against built-up edge.

Letter symbols specifying the designation of hard cutting materials:

Hardmetals:

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CN Nitride ceramics containing primarily silicon nitride (Si₃N₄).

CC Ceramics as above, but coated.

Diamond:

DP Polycrystalline diamond¹⁾

BN Polycrystalline boron nitride¹⁾

¹⁾ Polycrystalline diamond and polycrystalline boron nitride are also named *superhard cutting materials*.

Tools for deep holes in conventional machines



CoroDrill® 805 increases the efficiency of deep hole drilling and is now available as a standard tool. It can drill up to 15 x hole diameter in a conventional machine, without moving the workpiece to a dedicated deep hole drilling machine.

The highly productive CoroDrill 805 provides the same surface finish as deep hole drilling methods. The tool achieves a secure machining process with indexable insert technology, and can be used for hole making applications in steel shafts and titanium landing gear components.

Application

- Diameter range: 1.000 - 2.000 inch and 25-60 mm
- Tolerance: IT10
- Length to hole dia. ratio: 8-12 x D
- Material: steel, cast iron, titanium
- Typical components: shafts, landing gear

Benefits

- Single setup machining of deep holes
- Achieves same quality as deep hole drilling
- Highly effective chip evacuation
- No extra coolant pump capacity required
- Wide availability of standard tools

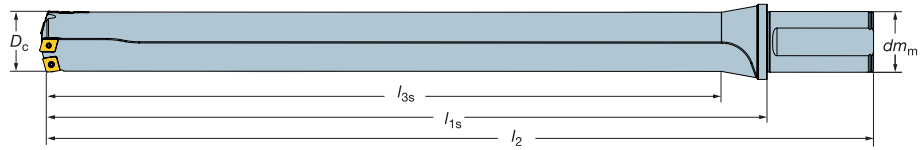
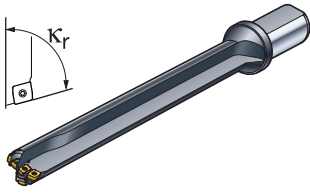
CoroDrill 805 can be used in conventional machining centers, lathes and turn-mill centers with high efficiency.



CoroDrill® 805 8-12 x Dc

Drill diameter 25-60 mm (1.000-2.000 inch)

Cylindrical shank



l_{1s} = programming length

Hole tolerance: IT 10
 Surface finish: <math>\lt;Ra\ 2\ \mu m\ (<Ra\ 80\ \mu\ \text{inch})\ \text{comparable with CoroDrill 800}</math>
 Workpiece materials: ISO P, M, K, N and S
 Machines: Horizontal machining centers, lathes and multi-task (turn-mill) machines.
 Coolant: Internal coolant supply

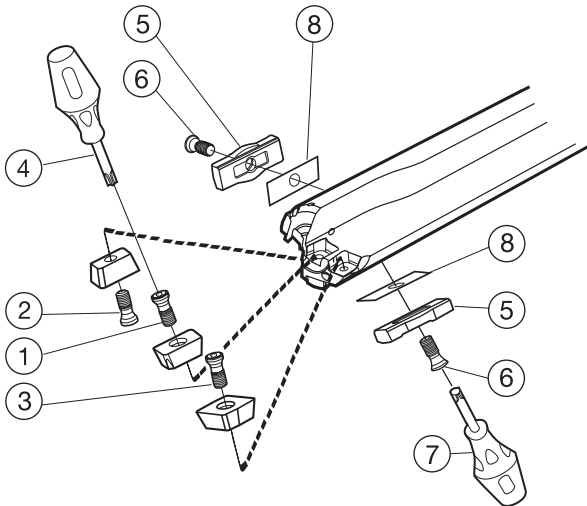
Metric dimensions

Drill dia.		Dimensions							
D_c mm	Ordering code	d_{m_m}	l_{1s}	l_2	l_{3s}	Central insert	Intermediate insert	Peripheral insert	Support pad
25	805-D2500L32-120	32	323.5	383.5	302.5	800-05 03 08M-C-G	800-05 03 08M-I-G	800-06 03 08H-P-G	800-06A
30	805-D3000L32-120	32	387	447	363	800-06 T3 08M-C-G	800-05 03 08M-I-G	800-06 03 08H-P-G	800-06A
32	805-D3200L32-100	32	348.4	408.4	323.2	800-06 T3 08M-C-G	800-06 T3 08M-I-G	800-08 T3 08H-P-G	800-07A
38	805-D3800L40-100	40	412.6	482.6	383.2	800-08 T3 08M-C-G	800-08 T3 08M-I-G	800-08 T3 08H-P-G	800-07A
40	805-D4000L40-110	40	474	544	444	800-08 T3 08M-C-G	800-08 T3 08M-I-G	800-09 T3 08H-P-G	800-08A
45	805-D4500L40-100	40	487.5	557.5	454.5	800-10 T3 08M-C-G	800-08 T3 08M-I-G	800-09 T3 08H-P-G	800-08A
50	805-D5000L50-100	50	541	621	505	800-10 T3 08M-C-G	800-08 T3 08M-I-G	800-11 T3 08H-P-G	800-10A
60	805-D6000L50-080	50	528	608	486	800-12 T3 08M-C-G	800-12 T3 08M-I-G	800-11 T3 08H-P-G	800-12A

Inch dimensions

Drill dia.		Dimensions, inch							
D_c inch	Ordering code	d_{m_m}	l_{1s}	l_2	l_{3s}	Central insert	Intermediate insert	Peripheral insert	Support pad
1.000	A805-D1000LX31-120	1.250	12.937	15.299	12.098	800-05 03 08M-C-G	800-05 03 08M-I-G	800-06 03 08H-P-G	800-06A
1.250	A805-D1250LX31-120	1.250	16.110	18.472	15.126	800-06 T3 08M-C-G	800-06 T3 08M-I-G	800-08 T3 08H-P-G	800-07A
1.375	A805-D1375LX38-100	1.500	14.945	17.701	13.886	800-08 T3 08M-C-G	800-06 T3 08M-I-G	800-08 T3 08H-P-G	800-07A
1.500	A805-D1500LX38-100	1.500	16.287	19.043	15.150	800-08 T3 08M-C-G	800-08 T3 08M-I-G	800-08 T3 08H-P-G	800-07A
1.750	A805-D1750LX50-100	2.000	18.961	22.110	17.673	800-10 T3 08M-C-G	800-08 T3 08M-I-G	800-09 T3 08H-P-G	800-08A
1.875	A805-D1875LX50-100	2.000	20.299	23.449	18.941	800-12 T3 08M-C-G	800-08 T3 08M-I-G	800-09 T3 08H-P-G	800-10A
2.000	A805-D2000LX50-100	2.000	21.638	24.787	20.201	800-10 T3 08M-C-G	800-08 T3 08M-I-G	800-11 T3 08H-P-G	800-10A

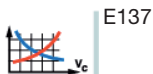
Inserts to be ordered separately. For ordering information, see Deep Hole Drilling catalog.



8	Dimensions, mm (inch)		
	s	l	b
Shim set (8 pcs)			
5549 127-85	0.02 (.0008)	18 (.707)	6 (.236)
5549 127-86	0.03 (.0012)	18 (.707)	6 (.236)
5549 127-88	0.02 (.0008)	20 (.787)	7 (.276)
5549 127-89	0.03 (.0012)	20 (.787)	7 (.276)
5549 127-91	0.02 (.0008)	25 (.984)	8 (.315)
5549 127-92	0.03 (.0012)	25 (.984)	8 (.315)
5549 127-94	0.02 (.0008)	30 (1.181)	10 (.394)
5549 127-95	0.03 (.0012)	30 (1.181)	10 (.394)
5549 127-97	0.02 (.0008)	35 (1.378)	12 (.472)
5549 127-98	0.03 (.0012)	35 (1.378)	12 (.472)

Note: Do not add more than 0.05 mm (.002 inch) thickness of shims

Diameter range		1	2	3	4	5	6	7
D_c mm	D_c inch	Central insert screw	Intermediate insert screw	Peripheral insert screw	Key (Torx Plus)	Support pad	Support pad screw	Key (Torx Plus)
25	1.000	5513 020-05	5513 020-05	5513 020-05	5680 046-03 (7IP)	800-06A	5513 020-20	5680 046-03 (7IP)
30	-	5513 020-34	5513 020-05	5513 020-05	5680 046-03 (7IP) 5680 046-01 (8IP)	800-06A	5513 020-20	5680 046-03 (7IP)
32-38	1.250-1.500	5513 020-34	5513 020-34	5513 020-34	5680 046-01 (8IP)	800-07A	416.1-832	5680 046-04 (9IP)
40-60	1.750-2.000	5513 020-34	5513 020-34	5513 020-34	5680 046-01 (8IP)	800-08A-12A	5513 020-16	5680 046-05 (10IP)



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General Information

Support pads

for T-Max adjustable solid drill head 424.10/A424.10



Drill head dia. mm (inch)	Support pads Ordering code						Dimensions, millimeter, inch (mm, in.)					
		P	M	K	N	S	<i>b</i>		<i>l</i>		<i>s</i>	
		GC	GC	GC	GC	GC	mm	in.	mm	in.	mm	in.
63.5-74.99 (2.480-2.952)	800-14 D065	☆	☆	☆	☆	☆	14	.551	35	1.379	7.0	.276
75.0-84.99 (2.953-3.346)	800-16 D075	☆	☆	☆	☆	☆	14	.551	35	1.379	7.0	.276
85.0-99.99 (3.346-3.936)	800-18 D085	☆	☆	☆	☆	☆	14	.551	35	1.379	7.0	.276
100-109.99 (3.937-4.330)	800-20 D100	☆	☆	☆	☆	☆	20	.787	50	1.969	8.5	.335
110-119.99 (4.331-4.724)	800-22 D110	☆	☆	☆	☆	☆	20	.787	50	1.969	8.5	.335
120-129.99 (4.724-5.118)	800-24 D120	☆	☆	☆	☆	☆	20	.787	50	1.969	8.5	.335
130-139.99 (5.118-5.511)	800-26 D130	☆	☆	☆	☆	☆	20	.787	50	1.969	8.5	.335

Note: For drill head diameter above 140 mm (5.512 inch), support pads can be ordered as special. Contact your local Sandvik Coromant representative for more information.

Cutting data, metric values

ISO	CMC No.	Material	Specific cutting force k_c 0.4 N/mm ²	Hardness Brinell HB	Geometry / Grade			Support pad grade	Cutting speed v_c m/min	Feed (f_n) mm/rev	
					Inserts					Drill diameter, mm	
					P	I	C			25.00-43.00	43.00-65.00
P	01.1	Unalloyed steel Non-hardened 0.1–0.25% C	2000	90-200	G/1025	G/1025	G/1025	P1	70-130	0.11-0.31	0.14-0.34
	01.2	Non-hardened 0.25–0.55% C	2100	125-225	G/1025	G/1025	G/1025	P1	70-130	0.11-0.31	0.14-0.34
	01.3	Non-hardened 0.55–0.80% C	2180	150-250	G/1025	G/1025	G/1025	P1	70-130	0.11-0.31	0.14-0.34
	01.4	High carbon steel, annealed	2320	180-275	G/1025	G/1025	G/1025	P1	70-130	0.11-0.31	0.14-0.34
	02.1	Low alloy steel Non-hardened	2100	150-260	G/1025	G/1025	G/1025	P1	70-120	0.11-0.31	0.20-0.34
	02.2	Hardened and tempered	2775	220-450	G/1025	G/1025	G/1025	P1	55-110	0.11-0.31	0.20-0.34
	03.11	High alloy steel Annealed	2500	150-250	G/1025	G/1025	G/1025	P1	70-120	0.11-0.31	0.20-0.34
	03.13	Annealed HSS	2750	150-250	G/1025	G/1025	G/1025	P1	70-120	0.11-0.31	0.20-0.34
	03.21	Hardened tool steel	3750	250-350	G/1025	G/1025	G/1025	P1	55-110	0.11-0.29	0.20-0.30
	03.22	Hardened steel, others	4000	250-450	G/1025	G/1025	G/1025	P1	55-110	0.20-0.29	0.20-0.30
	06.1	Castings Unalloyed	1800	90-225	G/1025	G/1025	G/1025	P1	55-110	0.11-0.31	0.20-0.34
	06.2	Low alloyed (alloying elements < 5%)	2100	150-250	G/1025	G/1025	G/1025	P1	55-110	0.11-0.31	0.20-0.34
	06.32	Castings Stainless austenitic	2300	150-250	G/1025	G/1025	G/1025	P1	50-100	0.11-0.25	0.20-0.29
	06.33	Manganese steel, 12–14% Mn	3600	200-300	G/1025	G/1025	G/1025	P1	35-85	0.11-0.25	0.20-0.29
K	07.1	Malleable Ferritic	950	110-145	G/1025	G/1025	G/1025	M1	80-120	0.11-0.29	0.24-0.31
	07.2	Pearlitic	1100	150-270	G/1025	G/1025	G/1025	M1	80-120	0.11-0.29	0.24-0.31
	08.1	Gray Low tensile strength	1100	150-220	G/1025	G/1025	G/1025	M1	60-110	0.11-0.29	0.24-0.31
	08.2	High tensile strength	1290	200-330	G/1025	G/1025	G/1025	M1	60-110	0.11-0.29	0.24-0.31
	09.1	Nodular Ferritic	1050	125-230	G/1025	G/1025	G/1025	M1	50-110	0.11-0.29	0.24-0.31
	09.2	Pearlitic	1750	200-300	G/1025	G/1025	G/1025	M1	50-110	0.11-0.29	0.24-0.31
M	05.11	Rolled/forged Ferritic, martensitic Non hardened	2300	150-270	G/1025	G/1025	G/1025	M1	40-110	0.11-0.30	0.20-0.33
	05.21	Rolled/forged Austenitic	2600	150-275	G/1025	G/1025	G/1025	M1	40-110	0.11-0.30	0.20-0.33
	05.51	Rolled/forged Austenitic/ferritic (Duplex) non- weldable ≥ 0.06 % C	2600	180-290	G/1025	G/1025	G/1025	M1	40-110	0.11-0.25	0.20-0.25
	05.52	Austenitic/ferritic (Duplex) weldable < 0.05 % C	3000	200-320	G/1025	G/1025	G/1025	M1	40-90	0.11-0.25	0.20-0.25

Cutting data, metric values

ISO	CMC No.	Material	Specific cutting force k_c 0.4 N/mm ²	Hardness Brinell HB	Geometry / Grade			Support pad grade	Cutting speed v_c m/min	Feed (f_n) mm/rev	
					Inserts					Drill diameter, mm	
					P	I	C			25.00-43.00	43.00-65.00
N	30.11	Aluminum alloys Wrought or wrought and coldworked, non-aging	500	30-100	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
	30.12	Wrought or wrought and aged	800	30-150	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
	30.21	Aluminum alloys Cast non-aging	750	40-100	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
	30.22	Cast or cast and aged	900	70-140	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
	33.1	Copper and copper alloys Free cutting alloys (Pb > 1%)	700	70-160	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
	33.2	Brass and leaded bronzes (Pb ≤ 1%)	700	50-200	G/1025	G/1025	G/1025	M1	65-150	0.09-0.25	0.24-0.30
S	20.11	Iron base Annealed or solution treated	3000	180-230	G/1025	G/1025	G/1025	PM1	10-55	0.09-0.22	0.20-0.25
	20.21	Nickel base Annealed or solution treated	3320	140-300	G/1025	G/1025	G/1025	PM1	10-55	0.09-0.22	0.20-0.25
	20.31	Cobalt base Annealed or solution treated	3300	180-230	G/1025	G/1025	G/1025	PM1	10-55	0.09-0.22	0.20-0.25
	23.21	Titanium α , near α and $\alpha + \beta$ alloys annealed	1675	600-1100	G/1025	G/1025	G/1025	PM1	20-40	0.09-0.22	0.20-0.25

Method

1. Make a short pilot hole, min .472 inch (12 mm) deep for diameter 1 inch (25 mm) and min .787 inch (20 mm) deep for diameter 2 inch (65 mm). To achieve a hole with a close tolerance, the diameter of the pilot hole should be of H8, which normally can be achieved by helical interpolation with a solid carbide endmill. If hole tolerance is not critical, the pilot hole can be drilled with the CoroDrill 880 in a corresponding diameter.
2. Feed the CoroDrill 805 into the pilot hole with slow rotation and coolant on.
3. Start rpm and feed movement.

Cutting data, inch values

ISO	CMC No.	Material Description Condition	Specific cutting force k_c .016 lbs/in ²	Hardness Brinell HB	Geometry / Grade			Support pad grade	Cutting speed v _c ft/min	Feed f_n , inch/rev	
					Inserts					Drill diameter, inch	
					P	I	C			.984-1.693	1.694-2.559
P	01.1	1018, 1020, 1215	290,000	90-200	G/1025	G/1025	G/1025	P1	230-425	.004-.016	.005-.017
	01.2	1045, 1050, 1335	304,500	125-225	G/1025	G/1025	G/1025	P1	230-425	.004-.016	.005-.017
	01.3	1055, 1060	316,100	150-250	G/1025	G/1025	G/1025	P1	230-425	.004-.016	.005-.017
	01.4	1095	336,400	180-275	G/1025	G/1025	G/1025	P1	230-425	.004-.016	.005-.017
	Low alloy steel										
	02.1	4140, 52100, 8620	290,000	150-260	G/1025	G/1025	G/1025	P1	230-390	.004-.016	.007-.017
	02.2	4140, 52100, 8620	402,375	220-450	G/1025	G/1025	G/1025	P1	180-360	.004-.016	.007-.017
	High alloy steel										
	03.11	D3, H13, A2	362,500	150-250	G/1025	G/1025	G/1025	P1	230-390	.004-.016	.007-.017
	03.13	M3, M35	398,750	150-250	G/1025	G/1025	G/1025	P1	230-390	.004-.016	.007-.017
	03.21	D3, H13, A2	543,750	250-350	G/1025	G/1025	G/1025	P1	180-360	.004-.014	.007-.015
	03.22	D3, H13, A2	580,000	250-450	G/1025	G/1025	G/1025	P1	180-360	.004-.014	.007-.015
	Castings										
	06.1	1018, 1045, 1055	261,000	90-225	G/1025	G/1025	G/1025	P1	180-360	.004-.016	.007-.017
06.2	4140, 52100, 8620	290,000	150-250	G/1025	G/1025	G/1025	P1	180-360	.004-.016	.007-.017	
06.32		333,500	150-250	G/1025	G/1025	G/1025	P1	160-330	.004-.012	.007-.014	
06.33		522,000	200-300	G/1025	G/1025	G/1025	P1	115-280	.004-.012	.007-.014	
K	Malleable										
	07.1	3510	137,750	110-145	G/1025	G/1025	G/1025	M1	260-390	.004-.014	.009-.016
	07.2	40010, 50005	159,500	150-270	G/1025	G/1025	G/1025	M1	260-390	.004-.014	.009-.016
	Gray										
	08.1	Class 20, 25, 30	159,500	150-220	G/1025	G/1025	G/1025	M1	195-360	.004-.014	.009-.016
	08.2	Class 45, 50, 60	187,050	200-330	G/1025	G/1025	G/1025	M1	195-360	.004-.014	.009-.016
Nodular											
09.1	60-40-18, 80-55-56	152,250	125-230	G/1025	G/1025	G/1025	M1	160-360	.004-.014	.009-.016	
09.2	100-70-03	253,750	200-300	G/1025	G/1025	G/1025	M1	160-360	.004-.014	.009-.016	
M	Rolled/forged										
	05.11	403, 405, 410	333,500	150-270	G/1025	G/1025	G/1025	M1	130-360	.004-.012	.008-.013
	Non hardened										
	05.21	304, 316, 318	377,000	150-275	G/1025	G/1025	G/1025	M1	130-360	.004-.012	.008-.013
Rolled/forged Austenitic											
05.51	S31500, S32900	377,000	180-290	G/1025	G/1025	G/1025	M1	130-360	.004-.010	.008-.010	
05.52	S32304, S31803	435,000	200-320	G/1025	G/1025	G/1025	M1	130-260	.004-.010	.008-.010	

Milling

E

Drilling

F

Boring

G

Tooling Systems

J

General Information

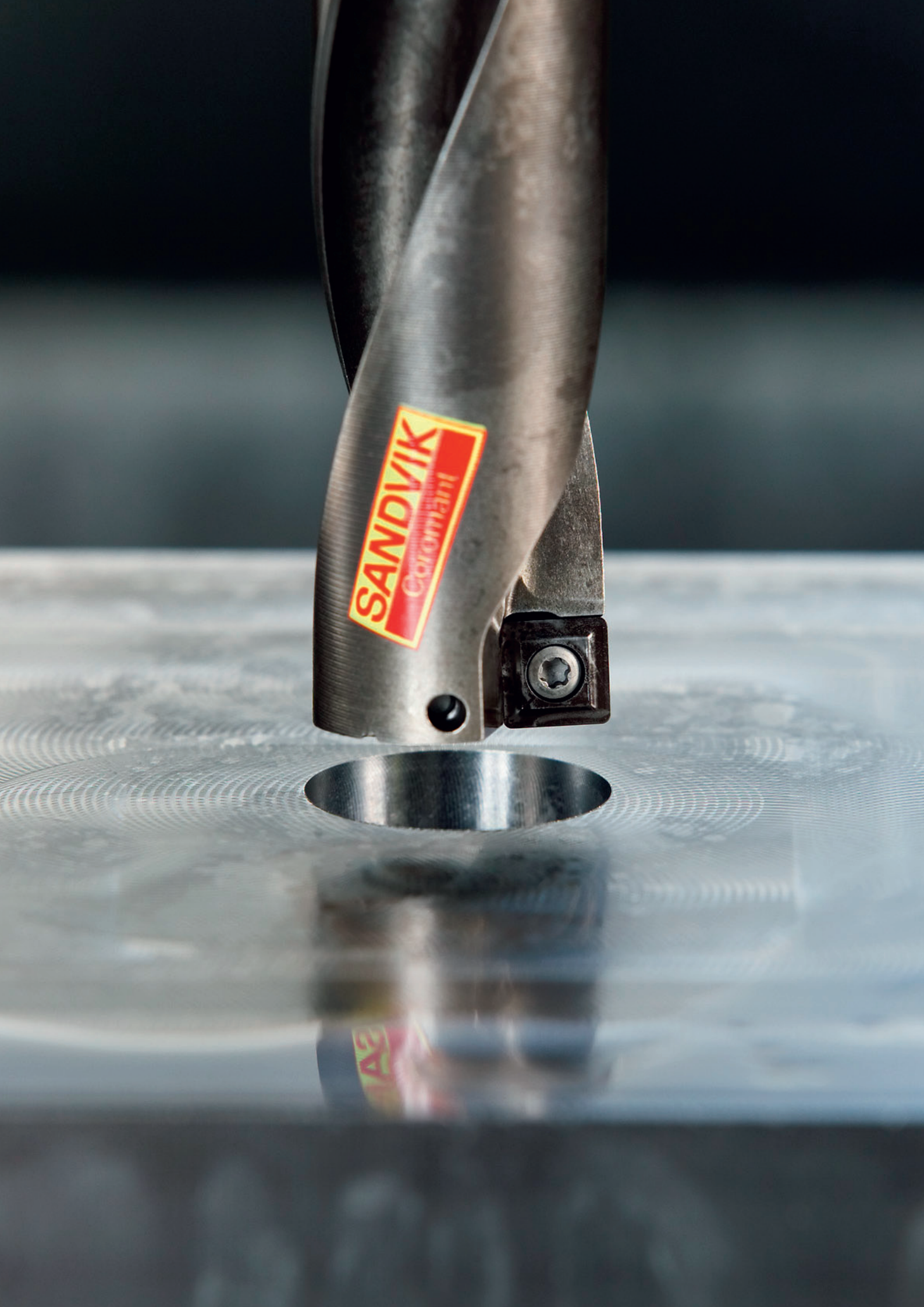


Cutting data, inch values

ISO	CMC No.	Material Description Condition	Specific cutting force k_c .016 lbs/in ²	Hardness Brinell HB	Geometry / Grade			Support pad grade	Cutting speed v_c ft/min	Feed f_n , inch/rev	
					Inserts					Drill diameter, inch	
					P	I	C			.984-1.693	1.694-2.559
N	30.11	7075, 2024, 7010	72,500	30-100	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
	30.12	7075, 2024, 7010	116,000	30-150	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
	30.21	7075, 2024, 7010	108,750	40-100	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
	30.22	7075, 2024, 7010	130,500	70-140	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
	33.1	Copper	101,500	70-160	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
	33.2	Copper	101,500	50-200	G/1025	G/1025	G/1025	M1	210-600	.004-.010	.009-.012
S	20.11	330	435,000	180-230	G/1025	G/1025	G/1025	PM1	30-180	.004-.009	.008-.010
	20.21	Waspaloy, Inconel	481,400	140-300	G/1025	G/1025	G/1025	PM1	30-180	.004-.009	.008-.010
	20.31	Air resistant 213, Jetalloy 209	478,500	180-230	G/1025	G/1025	G/1025	PM1	30-180	.004-.009	.008-.010
	23.21	Ti6Al4V	242,875	600-1100	G/1025	G/1025	G/1025	PM1	65-130	.004-.009	.008-.010

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