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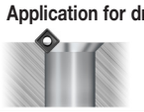
CoroDrill® 870 Drill body

Drill types

Application for drill type 1

Application for drill type 2.1

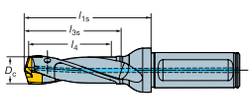


Application for drill type 2.2

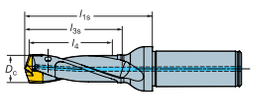
Drill bodies for drill tip diameter	Coupling type ❶❸	❶❸	❷❹	❷❹	❺
	Coupling Size dm_m				
DC mm	metric	inch	metric	inch	metric
10.00-13.99	16, 20, 25	.625, .75, 1.0	16, 20, 25	.625, .75, 1.0	16, 20, 25
14.00-18.99	20, 25, 32	.75, 1.0, 1.25	20, 25, 32	.75, 1.0, 1.25	20, 25, 32
19.00-23.99	25, 32	1.0, 1.25	25, 32	1.0, 1.25	25, 32
24.00-33.00	32	1.25	32	1.25	32

Drill type 1

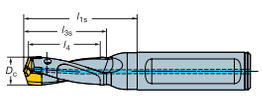
❶ Cylindrical with flat (with flange) (acc. to ISO 9766)



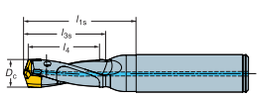
❷ Cylindrical (with flange) (Same length as ISO 9766)



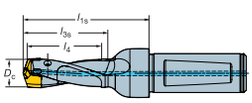
❸ Cylindrical with flat (without flange) (acc. to ISO 9766)



❹ Cylindrical (without flange) (Same length as ISO 9766)

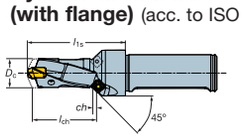


❺ Coromant whistle notch

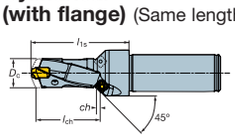


Drill type 2.1 and 2.2

❶ Cylindrical with flat (with flange) (acc. to ISO 9766)



❷ Cylindrical (with flange) (Same length as ISO 9766)



Sizes of standard drill tip interface

Tip Interface size	DC min (mm)	DC max (mm)
6	10.00	10.49
7	10.50	10.99
8	11.00	11.49
9	11.50	11.99
10	12.00	12.49
11	12.50	12.99
12	13.00	13.49
13	13.50	13.99
14	14.00	14.99
15	15.00	15.99
16	16.00	16.99
17	17.00	17.99
18	18.00	18.99
19	19.00	19.99
20	20.00	20.99
21	21.00	21.99
22	22.00	22.99
23	23.00	23.99
24	24.00	24.99
25	25.00	25.99
26	26.00	26.99
27	27.00	27.99
28	28.00	28.99
29	29.00	29.99
30	30.00	30.99
31	31.00	33.00

Options

Note Drill tips to be ordered separately.

Note For specific details regarding the options, contact your Sandvik Coromant sales representative.

Type of drill	**1**=straight, **2.1**=45° chamfer drill (one chamfer insert) **2.2**=45° chamfer drill (two chamfer inserts)
DC	Drill tip diameter — **10.00-33.00 mm**
Optimized drill body diameter	Drill body diameter optimized (largest possible) for chosen drill tip diameter
Drill length	l_{3s} or l_4
l_{3s}	Drill length — **23.6-277.0 mm** — depending on other parameters
l_4	Drill depth — **20-270 mm or 20 mm - 10** × **DC***) — depending on other parameters
ch	Chamfer width — **0.1-4 mm** — depending on other parameters
l_{ch}	Length to chamfer — **21.9 mm - 4** × **DC** — depending on other parameters
Coupling unit	**M** = Metric or **U** = Inch, only for cylindrical with flat and cylindrical
	*) For DC ≥ 27 mm maximum l_4 = 8 × DC

Coupling type	Cylindrical with flat, acc. to ISO 9766 (with flange) — **CYLPFF** Cylindrical same length as ISO 9766 (with flange) — **CYLFA** Cylindrical with flat, acc. to ISO 9766 (without flange) — **CYLPF** (only available for drill type 1) Cylindrical same length as ISO 9766 (without flange) — **CYL** (only available for drill type 1) Coromant whistle notch — **CWN** (only available for drill type 1)
dm_m	**Coupling size — see above**
l_{1s}	Programming length — Type 1 **39.1-316.6 mm** — Type 2.1 and 2.2 **36.6-173.7 mm** depending on other parameters

Form No. C-1150:140-ENG
Family code = D275
CoroPak 12.1 12.03.01 **Revised** 14.03.01

SANDVIK Coromant

Tailor Made

CoroDrill® 870 Drill body

Inquiry/ordering No.

Customer	**Customer No. (Coromant internal)**	**Date**
Street	**Telephone**	**Customer attention**
Post Code/City/State	**Telefax**	**Issuer**
Quantity	**Customer denomination**	

State nearest standard catalogue code, see main catalogue or supplement catalogue

870 - | | | | | - | | | | | | - | | | metric std

Your value/ Your choice

State only your options deviating from the above standard

Type of drill	**1**=straight, **2.1**=45° chamfer drill (one chamfer insert), **2.2**=45° chamfer drill (two chamfer inserts)	
Drill tip diameter DC	**DC=10.00-33.00 mm**	
Optimized drill body diameter	Drill body diameter optimized (largest possible) for chosen drill tip diam eter **Yes** or **No**	
Drill length l_{3s} or l_4	l_{3s} or l_4 Only valid for drill type 1	
Drill length l_{3s} or Drill depth l_4	Specify drill length l_{3s} or drill depth l_4 Drill length l_{3s}**= 23.6-277 mm**, depending on the other parameters Drill depth l_4**= 20-270 mm or 20 mm - 10 × DC**, depending on the other parameters (for DC ≥ 27 mm maximum l_4 = 8 × DC)	l_{3s}= l_4=
Chamfer width *ch*	***ch*** **— 0.1-4 mm —** depending on other parameters, only valid for drill type 2.1 and 2.2	
Length to chamfer l_{ch}	l_{ch} **= 21.9 mm - 4 × DC** — depending on other parameters, only valid for drill type 2.1 and 2.2	

Coupling type and size dm_m/D_{5m}

- ❶ **Cylindrical with flat (with flange)** (acc. to ISO 9766)
- ❷ **Cylindrical (with flange)** (Same length as ISO 9766)
- ❸ **Cylindrical with flat (without flange)** (acc. to ISO 9766)
- ❹ **Cylindrical (without flange)** (Same length as ISO 9766)
- ❺ **Coromant whistle notch**

DC	❶ CYLPFF ❷ CYLFA ❸ CYLPF ❹ CYL ❺ CWN *metric* dm_m	❶ CYLPFF ❷ CYLFA ❸ CYLPF ❹ CYL *inch* dm_m
10.00 13.99	**16, 20, 25**	**.625, .75, 1.0**
14.00 18.99	**20, 25, 32**	**.75, 1.0, 1.25**
19.00 23.99	**25, 32**	**1.0, 1.25**
24.00 33.00	**32**	**1.25**

Drill type 2.1 and 2.2 are only available with ❶ **CYLPFF and** ❷ **CYLFA**

Type:

Size:

Coupling unit	**M** = metric or **U** = Inch Only for **❶CYLPFF, ❷CYLFA, ❸CYLPF and ❹CYL**	
Programming length l_{1s}	l_{1s} Type 1 **39.1-316.6 mm** — Type 2.1 and 2.2 **36.6-173.7 mm** depending on other parameters	

SANDVIK Coromant

The value/choice must be given

If no value/choice is specified, it will be recommended by the system

Form No. C-1150:140-ENG
Family code = D275
CoroPak 12.1 12.03.01 **Revised** 14.03.01

Tailor Made

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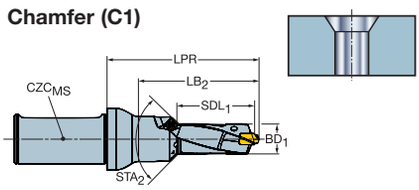
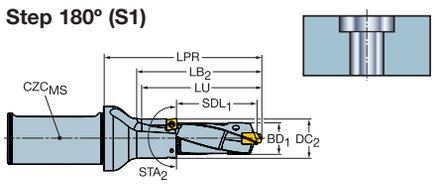
CoroDrill® 870 Step and chamfer

Type of drill

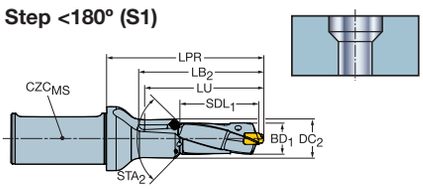
Chamfer (C1)



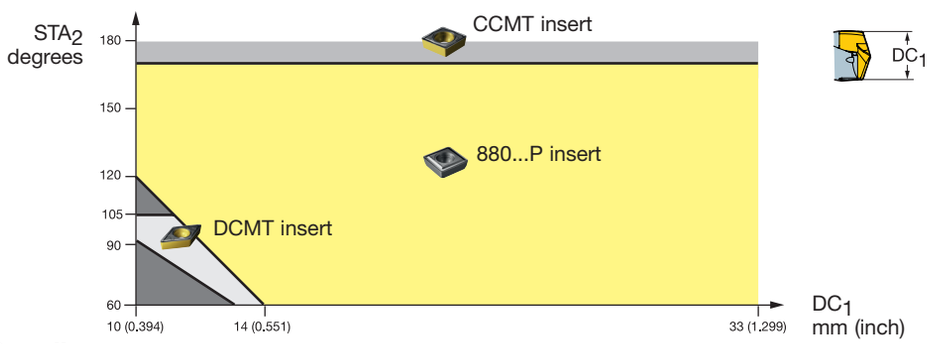
Step 180° (S1)



Step <180° (S1)



Type of step or chamfer insert

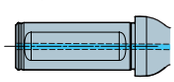


Couplings

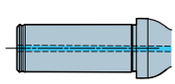
Drill bodies for drill tip diameter	Coupling type ❶❷	❶❷
	Coupling size CZC_{MS}	
DC mm	metric	inch
10.00-13.99	16, 20, 25	.625, .75, 1.0
14.00-15.99	16, 20, 25, 32	.625, .75, 1.0, 1.25
16.00-19.99	20, 25, 32	.75, 1.0, 1.25
20.00-24.99	25, 32	1.0, 1.25
25.00-48.5	32, 40	1.25, 1.5

*For chamfer drills DC_1 influences the size of shank.
For step drills DC_2 influences the size of shank

❶ **Cylindrical with flat (with flange)**
(acc. to ISO 9766)



❷ **Cylindrical (with flange)**
(Same length as ISO 9766)



Sizes of standard drill tip interface

Tip Interface size	DC_1 min (mm)	DC_1 max (mm)
6	10.00	10.49
7	10.50	10.99
8	11.00	11.49
9	11.50	11.99
10	12.00	12.49
11	12.50	12.99
12	13.00	13.49
13	13.50	13.99
14	14.00	14.99
15	15.00	15.99
16	16.00	16.99
17	17.00	17.99
18	18.00	18.99
19	19.00	19.99
20	20.00	20.99
21	21.00	21.99
22	22.00	22.99
23	23.00	23.99
24	24.00	24.99
25	25.00	25.99
26	26.00	26.99
27	27.00	27.99
28	28.00	28.99
29	29.00	29.99
30	30.00	30.99
31	31.00	33.00

Options

Note Drill tips to be ordered separately.

Note For specific details regarding the options, contact your Sandvik Coromant sales representative.

Type of drill	**S1** = step drill, **C1** = chamfer drill
DC_1	Drill tip diameter – **10.00–33.00 mm**
MIID	Master drill tip identification
Optimized drill body diameter	Drill body diameter (BD_1) optimized (largest possible) for chosen drill tip diameter
STA_2	Step included angle, step **60–180 degrees,** chamfer **60–150 degrees** depending on other parameters
DC_2*	Cutting diameter on step – **15–48.5 mm** depending on other parameters
SDL_1	Length to step or chamfer – **20 mm–5 x DC_1** depending on other parameters
CICT	Number of inserts on step or chamfer – **1 or 2**
LU*	Usable length – max **SDL_1 + 2 x DC_1**, depending on other parameters
LB_2	Drill body length – max **8 x DC_1**, depending on other parameters
Coupling type	Cylindrical with flat, acc. to ISO 9766 (with flange) – **CYLPFF** Cylindrical, same length as ISO 9766 (with flange) – **CYLFA**
Coupling unit	**M** = metric **U** = inch
CZC_{MS}	Coupling size – see above table
LPR	Protruding length – depending on other parameters

*Parameter only valid for step drill

Form No. C-1150:143-ENG
Family code = D295
CoroPak 15.1 15.03.01

SANDVIK Coromant

Tailor Made

CoroDrill® 870 Step and chamfer

Inquiry/ordering No.

Customer	**Customer No. (Coromant internal)**	**Date**
Street	**Telephone**	**Customer attention**
Post Code/City/State	**Telefax**	**Issuer**
Quantity	**Customer denomination**	

Your value/ Your choice

State only your options deviating from the above standard

Type of drill	**S1** = step drill, **C1** = chamfer drill	
DC_1	Drill tip diameter – **10.00–33.00 mm**	
MIID	Master drill tip identification	
Optimized drill body diameter	Drill body diameter (BD_1) optimized (largest possible) for chosen drill tip diameter	
STA_2	Step included angle, step **60–180 degrees,** chamfer **60–150 degrees,** depending on other parameters	
DC_2*	Cutting diameter on step – **15–48,5** mm depending on other parameters	
SDL_1	Length to step or chamfer – **20 mm–5 x DC_1,** depending on other parameters	
CICT	Number of inserts on step or chamfer – **1 or 2**	
LU*	Usable length – max **SDL_1 + 2 x DC_1** depending on other parameters	
LB_2	Drill body length – max **8 x DC_1**, depending on other parameters	
Coupling type	Cylindrical with flat, acc. to ISO 9766 (with flange) – **CYLPFF** Cylindrical, same length as ISO 9766 (with flange) – **CYLFA**	
Coupling unit	**M** = metric **U** = inch	
CZC_{MS}	Coupling size – see table on previous page	
LPR	Protruding length – depending on other parameters	

*Parameter only valid for step drill

Form No. C-1150:143-ENG
Family code = D295
CoroPak 15.1 15.03.01

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The value/choice must be given

If no value/choice is specified, it will be recommended by the system

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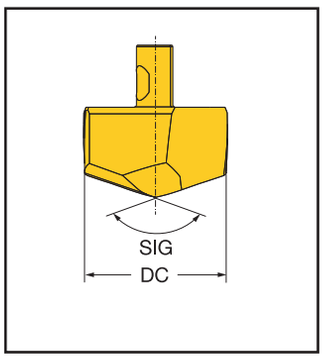
CoroDrill 870® Drill tip



Sizes of standard drill tip interface

Tip Interface size	DC min (mm)	DC max (mm)
6	10.00	10.49
7	10.50	10.99
8	11.00	11.49
9	11.50	11.99
10	12.00	12.49
11	12.50	12.99
12	13.00	13.49
13	13.50	13.99
14	14.00	14.99
15	15.00	15.99
16	16.00	16.99
17	17.00	17.99
18	18.00	18.99
19	19.00	19.99
20	20.00	20.99
21	21.00	21.99
22	22.00	22.99
23	23.00	23.99
24	24.00	24.99
25	25.00	25.99
26	26.00	26.99
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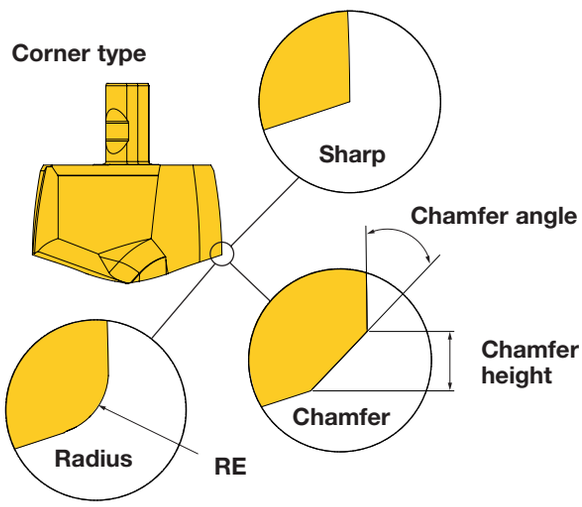
31	31.00	33.00



Options

Note: For specific details regarding the options, contact your Sandvik Coromant sales representative.

DC	Drill tip diameter—**10.00-33.00 mm**
Drill tip Geometry	**-PM, -KM, -MM, -GP**
Drill tip Grade	**GC4234, GC3234, GC2234**
SIG	Point angle — **130-148° (on zero line) (-GP=152° only)**
Corner type	**Sharp, chamfer, radius**
Chamfer angle	**30-60°**
Chamfer height	**0.15-3 mm**
RE	Corner radius — **0.4 mm - 0.1 × DC mm**

Form No. C-1150:141-ENG
Family code = I275
CoroPak 12.1 12.03.01 **Revised** 14.03.01

SANDVIK Coromant

Tailor Made

CoroDrill® 870 Drill Tip

Inquiry/ordering No.

Customer	Customer No. (Coromant internal)	Date
Street	Telephone	Customer attention
Post Code/City/State	Telefax	Issuer
Quantity	Customer denomination	

State nearest standard catalogue code, see main catalogue or supplement catalogue

870 - | | | | | - | | | - | | | metric std

Your value/ Your choice

State only your options deviating from the above standard

Drill tip diameter DC	10.00 - 33.00 mm	
Drill tip geometry	-PM, -KM, -MM, -GP	
Drill tip grade	GC4234, GC3234, GC2234	
Point angle SIG	Point angle - 130-148° (on zero line) (-GP=152° only)	
Corner type	Sharp, chamfer, radius	
Chamfer angle	30-60°	
Chamfer height	0.15 - 3 mm	
Corner radius RE	0.4 mm - 0.1 x DC mm	

SANDVIK Coromant

The value/choice must be given

If no value/choice is specified, it will be recommended by the system

Form No. C-1150:141-ENG
Family code = I275
CoroPak 12.1 12.03.01 **Revised** 14.03.01