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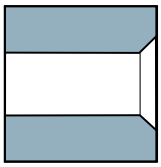
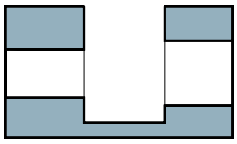
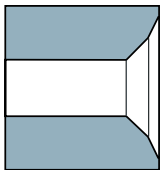
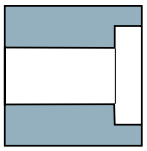
Application types for short hole drills

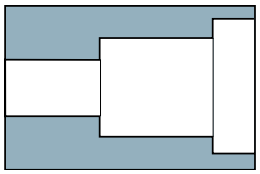
A

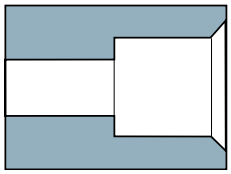
B 

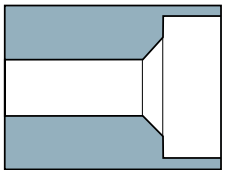
C 

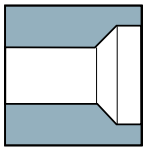
D 

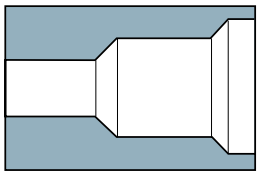
E 

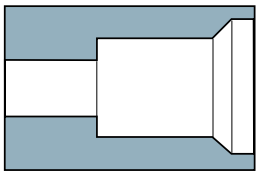
F 

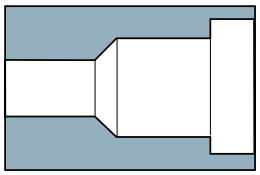
G 

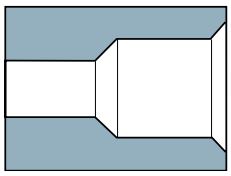
H 

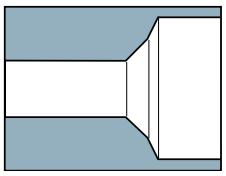
I 

J 

K 

L 

M 

N 

Options

Drill type

		CoroDrill 880/881 Coromant U/T-Max U	Coromant Delta	CoroDrill Delta-C
A	Special diameter and length	880/881/416.2/416.1	411.5	840/842/844/846/850/854/855/856
B	With one chamfer	880/416.20	411.5	840/842/846/850/854/855/856
C	For drills with extended shank	–	411.5	840/842/846/850
D	With two chamfers	416.20	–	854/855/856
E	With one step	880/416.20	–	840/842/850
F	With two steps	416.20	–	–
G	With one step and one chamfer	416.20	–	840/850
H	With one chamfer and one step	416.20	–	854/855/856
I	With one step	880/416.20	–	840/842/850
J	With two steps	416.20	–	–
K	With two steps	416.20	–	–
L	With two steps	416.20	–	–
M	With one step and one chamfer	416.20	–	840/850
N	With one chamfer and one step	416.20	–	854/855/856

SANDVIK Coromant

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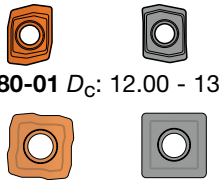
CoroDrill 880

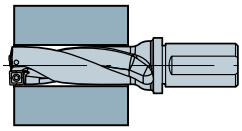
Drill diameter	Coupling type							
	Cylindrical with flat and Cylindrical	Cylindrical with flat and Cylindrical	Cylindrical with flat US type	Coromant Whistle Notch	Coromant Capto®	Varilock	Compatible with ABS holders	HSK
	Coupling Size dm_m				Coupling Size D_{5m}			
D_C mm	metric	inch	Inch	metric				
12.00-17.43	20[1], 25	.75, 1.0	.75, 1.0	20, 25	C3[3], C4, C5, C6	50, 63	50	63
17.44-20.99	20[2], 25, 32	.75[2], 1.0, 1.25	1.0, 1.25, 1.5	20, 25, 32	C3[3], C4, C5, C6	50, 63	50	63
21.00-25.99	25, 32	1.0, 1.25	1.25, 1.5	25, 32	C3[2], C4, C5, C6	50, 63	50	63
26.00-30.99	25[3], 32, 40	1.0[3], 1.25, 1.5	1.25, 1.5	25[3], 32, 40	C3[2], C4[3], C5, C6	50, 63	50	63
31.00-41.99	32[2], 40	1.25[2], 1.5	1.5, 2.0	32[2], 40	C4[2], C5, C6	50, 63	50	63
42.00-43.99	40, 50	1.5, 2,0	1.5, 2.0	40	C5[3], C6	63	-	63
44.00-63.50[4][5]	40, 50	1.5, 2,0	1.5, 2.0	40	C5[2], C6	63	-	63

[1] Also as Short cylindrical with flat in drill diameter 12.00-17.43 mm
[2] Not available for >3xD_C
[3] Not available for >4xD_C
[4] 5xD_C available for $D_C \leq$ 47.00 mm
[5] 4xD_C available for $D_C \leq$ 58.00 mm

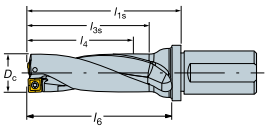
Standard inserts:



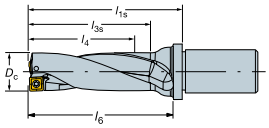
880-01 D_C: 12.00 - 13.99 mm
880-02 D_C: 14.00 - 16.49 mm
880-03 D_C: 16.50 - 19.99 mm
880-04 D_C: 20.00 - 23.99 mm
880-05 D_C: 24.00 - 29.99 mm
880-06 D_C: 30.00 - 35.99 mm
880-07 D_C: 36.00 - 43.99 mm
880-08 D_C: 44.00 - 52.99 mm
880-09 D_C: 53.00 - 63.50 mm



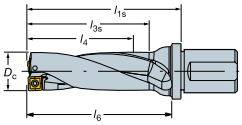
❶ Cylindrical with flat
(acc. to ISO 9766)



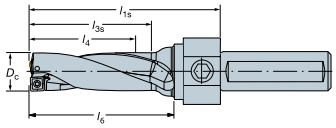
❷ Cylindrical
(Same length as ISO 9766)



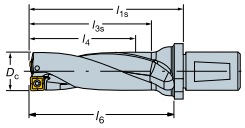
❸ Short cylindrical with flat
(Only shank size 20)



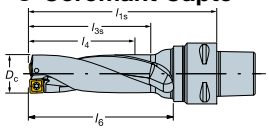
❹ Cylindrical with flat
(US type, inch)



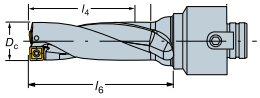
❺ Coromant Whistle Notch



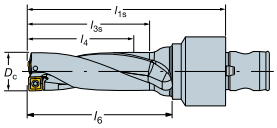
❻ Coromant Capto®



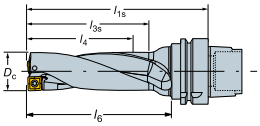
❼ Varilock



❽ Compatible with ABS holders



❾ HSK



Options

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

D_c	Diameter—**12.00-63.50 mm**
Drill length	l_{3S} or l_4
l_{3s}	Drill length—**26.4-239.7 mm**—depending on other parameters
l_4	Drill depth—**24-235.0 mm or 2 - 5 × D_c** depending on other parameters
Coupling type	Cylindrical with flat, acc. to ISO 9766—**CYLPFF,** Cylindrical same length as ISO 9766—**CYLFA** Short cylindrical with flat—**CYLFB** Coromant Whistle Notch—**CWN** Cylindrical with flat, US type—**CYLUS** Coromant Capto®—**Capto** Varilock—**VL** Compatible with ABS holders—**ABS** HSK coupling—**HSK**
Rotate Capto coupling 180°	**Yes** or **No**
Coupling unit	**M** = Metric or **U** = Inch, only for cylindrical with flat and cylindrical
dm_m/D_{5m}	**Coupling size—see above**
l_{1s}	Programming length—**38.2-341.6 mm**—depending on other parameters
l_6	Flute length—**32.9-277.4 mm,** Recommended value must be used to obtain required l_{3s} or l_4

Form No. C-1150:130-ENG
Family code = D106
CoroPak 05.2 05.08.20 **Revised** 09.02.28

Tailor Made

CoroDrill 880

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

880 - [ ][ ][ ][ ][ ][ ][ ][ ][ ] **-** [ ][ ] **metric std**

For cylindrical shank use cylindrical shank with flat

Your value/ Your choice

State only your options deviating from the above standard

Drill diameter D_c	D_c=**12-63.50**	
Drill length l_{3s} or l_4	l_{3s} or l_4	
Drill length l_{3s} or Drill depth l_4	Specify drill length l_{3s}or drill depth l_4 Drill length l_{3s}=**26.4-239.7 mm**, depending on the other parameters Drill depth l_4= **24-235.0 mm or 2 - 5** × D_c, depending on the other parameters	l_{3s}= l_4=

Coupling type and Coupling size dm_m/D_{5m}

❶ **Cylindrical with flat** (acc. to ISO 9766)
❷ **Cylidrical** (same length as ISO 9766)
❸ **Short cylindrical with flat** (Only shank size 20)
❹ **Cylindrical with flat** US type, inch
❺ **Coromant Whistle Notch®**
❻ **Coromant Capto®**
❼ **Varilock**
❽ **Compatible with ABS holders**
❾ **HSK**

D_c	❶ CYLPFF ❷ CYLFA *metric* dm_m	❶ CYLPFF ❷ CYLFA *inch* dm_m	❸ CYLFB *metric* dm_m	❹ CYLUS *inch* dm_m	❺ CWN *metric* dm_m	❻ CAPTO D_{5m}	❼ VL ❽ ABS D_{5m}	❼ VL ❾ HSK D_{5m}
12.00 17.43	20 25	.75 1.0	20	.75 1.0	20 25	C3[3] C4 C5 C6	50	63
17.44 20.99	20[2] 25 32	.75[2] 1.0 1.25		1.0 1.25 1.5	20 25 32	C3[3] C4 C5 C6	50	63
21.00 25.99	25 32	1.0 1.25		1.25 1.5	25 32	C3[2] C4 C5 C6	50	63
26.00 30.99	25[3] 32 40	1.0[3] 1.25 1.5		1.25 1.5	25[3] 32 40	C3[2] C4[3] C5 C6	50	63
31.00 41.99	32[2] 40	1.25[2] 1.5		1.5 2.0	32[2] 40	C4[2] C5 C6	50	63
42.00 43.99	40 50	1.5 2.0		1.5 2.0	40	C5[3] C6	-	63
44.00 63.50[4][5]	40 50	1.5 2.0		1.5 2.0	40	C5[2] C6	-	63

Depending on the other parameters
[2] not available for >3xD_c
[3] not available for >4xD_c
[4] 5xD_c available for D_c ≤ 47.00 mm [5] 4xD_c available for D_c ≤ 58.00 mm

Rotate Coromant Capto coupling 180°	**Yes** or **No**	
Coupling unit	**M** = metric or **U** = Inch Only for **❶CYLPFF** and **❷CYLFA**	
Programming length l_{1s}	l_{1s} = **38.2-341.6 mm** depending on the other parameters	
Flute length l_6	l_6 = **32.9-277.4 mm** recommended value must be used to obtain required l_{3s} or l_4	

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:130-ENG
Family code = D106
CoroPak 05.2 05.08.29 **Revised** 09.02.28

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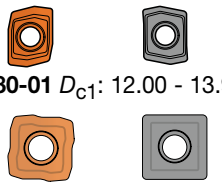
CoroDrill 880, Step and chamfer

Diameter	Coupling type							
	Cylindrical with flat and Cylindrical	Cylindrical with flat and Cylindrical	Cylindrical with flat US type	Coromant Whistle Notch	Coromant Capto®	Varilock	Compatible with ABS holders	HSK
	Coupling Size dm_m				Coupling Size D_{5m}			
D_{c2} mm	metric	inch	Inch	metric				
20.45-30.99	20[1], 25, 32, 40	.75, 1.0, 1.25, 1.5	.75, 1.0, 1.25, 1.5	20, 25, 32, 40	C3, C4, C5, C6	50, 63	50	63
31.00-41.99	25, 32, 40, 50	1.0, 1.25, 1.5, 2.0	1.5, 2.0	25, 32, 40	C4, C5, C6	50, 63	50	63
42.00-58.49	32, 40, 50	1.25, 1.5, 2.0	1.5, 2.0	32, 40	C5, C6	63	-	63
58.50-63.50	40, 50	1.5, 2.0	-	-	-	-	-	-
63.51-85.00	40, 50	1.5, 2.0	-	-	-	-	-	-

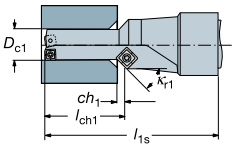
[1] Also as Short cylindrical with flat in diameter D_{c2} 20.45-30.99 mm

Standard inserts:

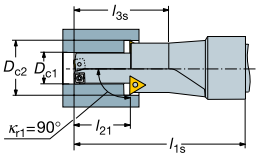


880-01 D_{c1}: 12.00 - 13.99 mm
880-02 D_{c1}: 14.00 - 16.49 mm
880-03 D_{c1}: 16.50 - 19.99 mm
880-04 D_{c1}: 20.00 - 23.99 mm
880-05 D_{c1}: 24.00 - 29.99 mm
880-06 D_{c1}: 30.00 - 35.99 mm
880-07 D_{c1}: 36.00 - 43.99 mm
880-08 D_{c1}: 44.00 - 52.99 mm
880-09 D_{c1}: 53.00 - 63.50 mm

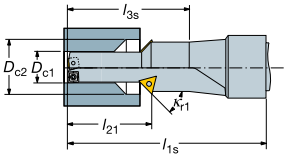
Chamfer (C1)



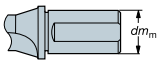
Step 90° (S1)



Step < 90° (S1)

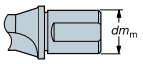


❶ Cylindrical with flat
(acc. to ISO 9766)

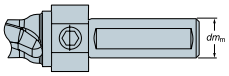


❷ Cylindrical
(Same length as ISO 9766)

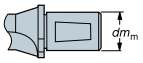
❸ Short cylindrical with flat
(Only shank size 20)



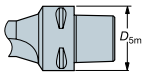
❹ Cylindrical with flat
(US type, inch)



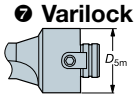
❺ Coromant Whistle Notch



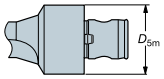
❻ Coromant Capto®



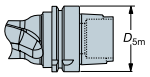
❼ Varilock



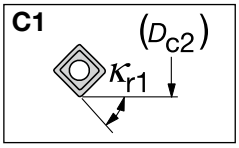
❽ Compatible with ABS holders



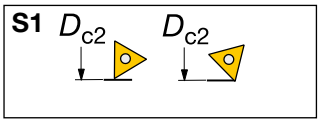
❾ HSK



Chamfer with 1 standard insert



Step/boring with 1 insert



Options

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

D_{c1}	1 extra insert; Drill diameter—**12.00-63.50 mm**
Drill alternative	Chamfer = **C1,** Step/boring = **S1**
κ_{r1}	Chamfer angle 1 = **15°-90°**
ch_1	Chamfer width 1 = **0.03-9.74** mm
l_{ch1}	Length chamfer l_{ch1} = **12.3-190.5** mm
D_{c2}	Step/boring diameter **19-85** mm
l_{21}	Length to step/boring **12-190.5** mm
Supporting step insert	**Yes** or **No**

Coupling type	**Coupling type—see above**
dm_m/D_{5m}	**Coupling size—see above**
Rotate Capto coupling 180°	**Yes** or **No**
Coupling unit	**M** = Metric or **U** = Inch, only for cylindrical with flat and cylindrical
l_{1s}	Programming length—**40.1-361.5 mm**
l_{3s}	Reach length—**18.5-255.0 mm**

Form No. C-1150:132-ENG
Family code = D110
CoroPak 08.2 08.08.04 **Revised** 09.02.28

SANDVIK Coromant

Tailor Made

CoroDrill 880, 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**	

State only your options

Your value/ Your choice

Drill diameter D_{c1}	1 extra insert; D_{c1} = **12.00-63,5**
Drill alternative	**C1** = Chamfer **S1** = Step/boring
Cutting edge angle κ_{r1}	κ_{r1} = **15° - 90°**
Chamfer width ch_1	ch_1 = **0.03-9.74**
Length to insert l_{ch1}	l_{ch1} = **12.3-190.5**
Step/Boring diameter D_{c2}	D_{c2} = **19-85.0**
Length to insert l_{21}	l_{21} = **12-190.5**
Supporting step insert	**Yes** or **No**

Coupling type and Coupling size dm_m/D_{5m}

❶ **Cylindrical with flat** (acc. to ISO 9766)
❷ **Cylidrical** (same length as ISO 9766)
❸ **Short cylindrical with flat** (Only shank size 20)
❹ **Cylindrical with flat** US type, inch
❺ **Coromant Whistle Notch®**
❻ **Coromant Capto®**
❼ **Varilock**
❽ **Compatible with ABS holders**
❾ **HSK**

D_{c2}	❶ CYLPFF ❷ CYLFA *metric* dm_m	❶ CYLPFF ❷ CYLFA *inch* dm_m	❸ CYLFB *metric* dm_m	❹ CYLUS *inch* dm_m	❺ CWN *metric* dm_m	❻ CAPTO D_{5m}	❼ VL D_{5m}	❽ ABS D_{5m}	❾ HSK D_{5m}
20.45 30.99	20 25 32 40	.75 1.0 1.25 1.5	20	.75 1.0 1.25 1.5	20 25 32 40	C3 C4 C5 C6	50 63	50	63
31.00 41.99	25 32 40 50	1.0 1.25 1.5 2.0		1.5 2.0	20 25 32	C4 C5 C6	50 63	50	63
42.00 58.49	32 40 50	1.25 1.5 2.0		1.5 2.0	32 40	C5 C6	63		63
58.50 63.50	40 50	1.5 2.0							
63.51 85.00	40 50	1.5 2.0							

Depending on the other parameters

Rotate Coromant Capto coupling 180°	**Yes** or **No**
Coupling unit	**M**=metric or **U**=inch Only for ❶**CYLPFF** and ❷**CYLFA**
Programming length l_{1s}	l_{1s} = **40.1-361.5**
Reach length l_{3s}	l_{3s} = **18.5-255.0**

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:132-ENG
Family code = D110
CoroPak 08.2 08.08.04 **Revised** 09.02.28

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

Even more possibilities thanks to tailored design!

If you do not find what you need in our comprehensive standard programme, choose the tool shape you require and we will tailor it for you to *your* dimensions.

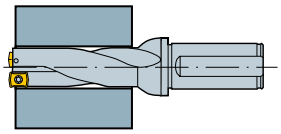
CoroDrill 881

Standard inserts:
881 02, D_c = 12,70-17,43
881 03, D_c = 17,44-20,99
881 04, D_c = 21,00-25,99

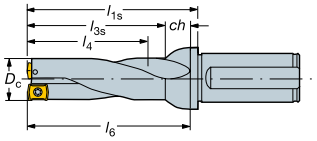
881

Drill diameter	Mounting type				
	Cylindrical with flat and Cylindrical	Cylindrical with flat	Coromant Whistle Notch	Coromant Capto®	Compatible with ABS holders
	Mounting Size dm_m			Mounting Size D_{5m}	
D_c mm	metric	inch	metric		
12,70-17,43	**20** [1], **25, 32**	**.750, 1.000, 1.250**	**20, 25, 32**	**C3, C4, C5, C6**	**50**
17,44-20,99	**20, 25, 32**	**.750, 1.000, 1.250**	**20, 25, 32**	**C3, C4, C5, C6**	**50**
21,00-25,99	**25, 32**	**1.000, 1.250**	**25, 32**	**C3, C4, C5, C6**	**50**

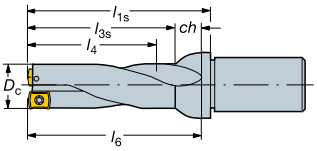
[1] Also as Short cylindrical with flat in drill diameter 12,70-17,43 mm



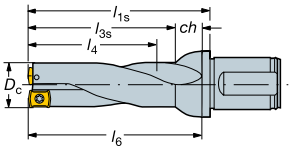
❶ Cylindrical with flat (acc. to ISO 9766)



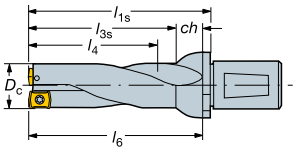
❷ Cylindrical (Same length as ISO 9766)



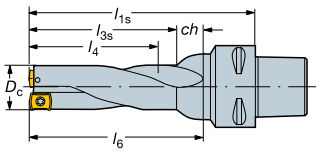
❸ Short cylindrical with flat (Only shank size 20)



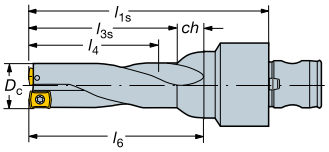
❹ Coromant Whistle Notch



❺ Coromant Capto®



❻ Compatible with ABS holders



Options

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

D_c	Diameter—**12,70-25,99 mm**
l_{3s}	Drill length—**28,0-134,6 mm**—depending on other parameters
l_4	Drill depth—D_c—12,70-25,99—**2** × D_c - **5** × D_c
Mounting type	Cylindrical with flat, acc. to ISO 9766—**CYLPFF** Cylindrical same length as ISO 9766—**CYLFA** Short cylindrical with flat—**CYLFB** Coromant Whistle Notch—**CWN** Coromant Capto®—**Capto** Compatible with ABS holders—**ABS**

Rotate Capto coupling 180°	**Yes** or **No**
Mounting unit	**M** = Metric or **U** = Inch, only for cylindrical with flat
dm_m/D_{5m}	**Mounting size—see above**
ch	Taper length—D_c—12,70-25,99—**0,5** × D_c - **1** × D_c Recommended value 0,6 × D_c
l_{1s}	Programming length—**39,8-207,3 mm** depending on other parameters
l_6	Flute length—**34,2-160,5 mm,** Recommended value must be used to obtain required l_{3s} or l_4

Form No. C-1150:138-ENG
Family code = D112
CoroPak 11.1 10.10.01

SANDVIK Coromant

Tailor Made

CoroDrill 881

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

881- _ _ _ _ _ _ _ **-** _ _ **metric std**

For cylindrical and Short cylindrical shank use cylindrical shank with flat

Your value/ Your choice

State only your options deviating from the above standard

Drill diameter D_c

D_c=**12,70-25,99**

Drill length l_{3s} or Drill depth l_4

Specify drill length l_{3s} or drill depth l_4

Drill length l_{3s}=**28,0-134,6**, depending on the other parameters — l_{3s}=

Drill depth: D_c=12,70-25,99 -> l_4=**2**×D_c-**5**×D_c

Note! The value must always be given if l_4 is choosen — l_4=

Mounting type and Mounting size dm_m/D_{5m}

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

❷ **Cylindrical** (same length as ISO 9766)

❸ **Short cylindrical with flat**

❹ **Coromant Whistle Notch**

❺ **Coromant Capto®**

❻ **Compatible with ABS holders**

D_c	❶ CYLPFF ❷ CYLFA *mm* dm_m	❶ CYLPFF *inch* dm_m	❸ CYLFB *mm* dm_m	❹ CWN *mm* dm_m	❺ CAPTO D_{5m}	❻ ABS D_{5m}
12.70 17.43	20 25 32	750 1.000 1.250	20	20 25 32	C3 C4 C5 C6	50
17.44 20.99	20 25 32	.750 1.000 1.250		20 25 32	C3 C4 C5 C6	50
21.00 25.99	25 32	1.000 1.250		25 32	C3 C4 C5 C6	50

Depending on the other parameters

Rotate Coromant Capto coupling 180°

Yes or **No**

Mounting unit

M = metric or **U** = Inch Only for ❶**CYLPFF**

Taper length *ch*

Taper length: D_c=12,70-25,99 -> ***ch***=**0,5**×D_c-**1,0**×D_c
recommended value 0,6×D_c

Programming length l_{1s}

l_{1s} = **39,8-207,3 mm** depending on the other parameters

Flute length l_6

l_6 = **34,2-160,5 mm**
recommended value must be used to obtain required l_{3s} or l_4

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:138-ENG
Family code = D112
CoroPak 11.1 10.10.01

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

Even more possibilities thanks to tailored design!

If you do not find what you need in our comprehensive standard programme, choose the tool shape you require and we will tailor it for you to *your* dimensions.

Coromant U drill R416.2

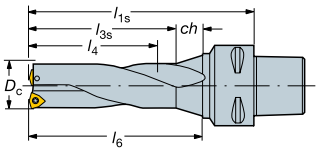
Drill diameter	Mounting type					
	Cylindrical with flat and Cylindrical	Cylindrical with flat	Coromant Whistle Notch	Coromant Capto®	Varilock	Compatible with ABS holders
	Mounting Size dm_m			Mounting Size D_{5m}		
D_c mm	metric	inch	metric			
12,70-17,43	16, 20 [1], 25, 32	.625, .750, 1.000, 1.250	16, 20, 25, 32	C3, C4, C5, C6	50, 63	50
17,44-20,99	20, 25, 32	.750, 1.000, 1.250	20, 25, 32	C3, C4, C5, C6	50, 63	50
21,00-25,99	25, 32	1.000, 1.250	25, 32	C4, C5, C6	50, 63	50
26,00-30,99	32, 40	1.250, 1.500	25, 32, 40	C4, C5, C6	50, 63	50
31,00-41,99	40	1.500	32, 40	C5, C6	50, 63	50
42,00-58,99	40, 50	1.500, 2.000	40	C6	63	-

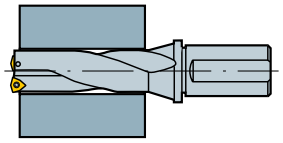
[1] Also as Short cylindrical with flat in drill diameter 12,70-17,43 mm

Standard inserts:
LCMX 02, D_c = 12,70-17,43
LCMX 03, D_c = 17,44-20,99
LCMX 04, D_c = 21,00-25,99
WCMX 05, D_c = 26,00-30,99
WCMX 06, D_c = 31,00-41,99
WCMX 08, D_c = 42,00-58,99

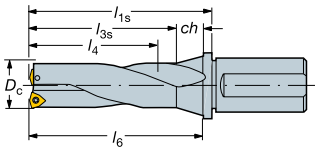
LCMX WCMX

❺ Coromant Capto®

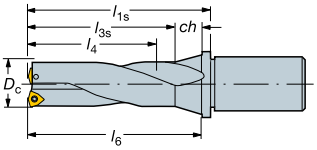




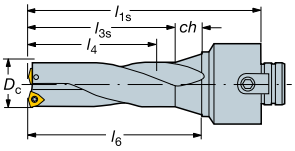
❶ Cylindrical with flat (acc. to ISO 9766)



❷ Cylindrical (Same length as ISO 9766)

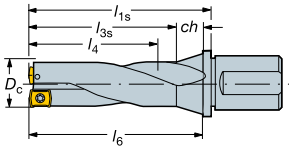


❻ Varilock

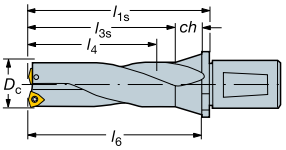


❸ Short cylindrical with flat

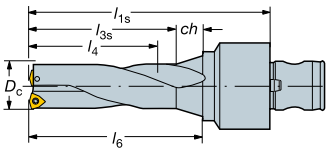
(Only shank size 20)



❹ Coromant Whistle Notch



❼ Compatible with ABS holders



Options

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

D_c	Diameter—**12,70-58,99 mm**
l_{3s}	Drill length—**28,0-239,7 mm**—depending on other parameters
l_4	Drill depth—D_c—12,70-47,00—**2 × D_c - 5 × D_c** D_c—47,01-58,99—**Max 235 mm**
Mounting type	Cylindrical with flat, acc. to ISO 9766—**CYLPFF,** Cylindrical same length as ISO 9766—**CYLFA** Short cylindrical with flat—**CYLFB** Coromant Whistle Notch—**CWN** Coromant Capto®—**Capto** Varilock—**VL** Compatible with ABS holders—**ABS**

Rotate Capto coupling 180°	**Yes** or **No**
Mounting unit	**M** = Metric or **U** = Inch, only for cylindrical with flat
dm_m/D_{5m}	**Mounting size—see above**
ch	Taper length—D_c—12,70-45,40—**0,5 × D_c - 1 × D_c** D_c—45,41-58,99—**Max 37,4 mm**— Recommened value 0,6 × D_c
l_{1s}	Programming length—**38,9-346,6 mm**—depending on other parameters
l_6	Flute length—**34,2-277,1 mm,** Recommended value must be used to obtain required l_{3s} or l_4

Form No. C-1150:112-ENG
Family code = D102
CoroPak 94.1 93.10.01 **Revised** 09.02.28

SANDVIK Coromant

Tailor Made

Coromant U drill
R416.2

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

R416.2- [ ][ ][ ][ ][ ][ ][ ] **-** [ ][ ] **metric std**

For cylindrical and Short cylindrical shank use cylindrical shank with flat

Your value/ Your choice

State only your options deviating from the above standard

Drill diameter D_c

D_c=**12,70-58,99**

Drill length l_{3s} or Drill depth l_4

Specify drill length l_{3s} or drill depth l_4

Drill length l_{3s}=**28,0-239,7**, depending on the other parameters — l_{3s}=

Drill depth: D_c=12,70-47,00 -> l_4=**2×D_c-5×D_c** — l_4=

Drill depth: D_c=47,01-58,99 -> l_4=**max 235 mm**

Note! The value must always be given if l_4 is choosen

Mounting type and Mounting size dm_m/D_{5m}

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

❷ **Cylidrical** (same length as ISO 9766)

❸ **Short cylindrical with flat**

❹ **Coromant Whistle Notch**

❺ **Coromant Capto®**

❻ **Varilock**

❼ **Compatible with ABS holders**

D_c	❶ CYLPFF ❷ CYLFA *mm* dm_m	❶ CYLPFF *inch* dm_m	❸ CYLFB *mm* dm_m	❹ CWN *mm* dm_m	❺ CAPTO D_{5m}	❻ VL D_{5m}	❼ ABS D_{5m}
12.70 17.43	16 20 25 32	.625 .750 1.000 1.250	20	16 20 25 32	C3 C4 C5 C6	50 63	50
17.44 20.99	20 25 32	.750 1.000 1.250		20 25 32	C3 C4 C5 C6	50 63	50
21.00 25.99	25 32	1.000 1.250		25 32	C4 C5 C6	50 63	50
26.00 30.99	32 40	1.250 1.500		25 32 40	C4 C5 C6	50 63	50
31.00 41.99	40	1.500		32 40	C5 C6	50 63	50
42.00 58.99	40 50	1.500 2.000		40	C6	63	

Depending on the other parameters

Rotate Coromant Capto coupling 180°

Yes or **No**

Mounting unit

M = metric or **U** = Inch Only for ❶**CYLPFF**

Taper length *ch*

Taper length: D_c=12,70-45,40 -> ***ch*=0,5×D_c-1,0×D_c**
recommended value 0,6×D_c

Taper length: D_c=45,41-58,99 -> ***ch*=max 37,4 mm**

Programming length l_{1s}

l_{1s} = **39,8-346,6 mm** depending on the other parameters

Flute length l_6

l_6 = **34,2-277,1 mm**
recommended value must be used to obtain required l_{3s} or l_4

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:112-ENG
Family code = D102
CoroPak 94.1 93.10.01 **Revised** 09.02.28

Tailor Made

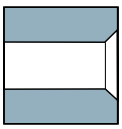
– Quick quotation
– Easy to order
– Competitive delivery

Even more possibilities thanks to tailored design!

If you do not find what you need in our comprehensive standard programme, choose the tool shape you require and we will tailor it for you to *your* dimensions.

Coromant U drill, Step and chamfer

Type TM 416.20

1

C1

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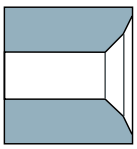
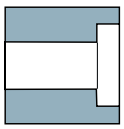

C1/C2

3

B1

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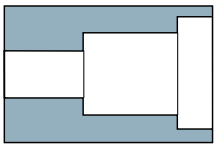
B1/B2

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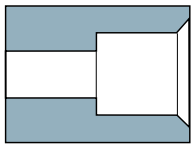
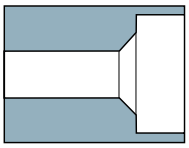
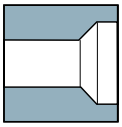

B1/C2

6

C1/B2

Type S 416.20 with stepboring insert at entering angle less than 90°

7

B1

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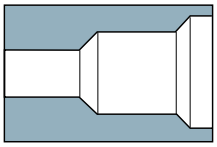
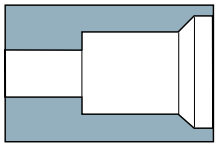

B1/B2

9

B1/B2

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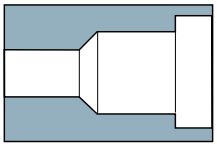
B1/B2

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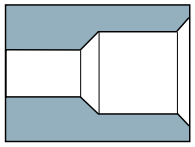
B1/C2

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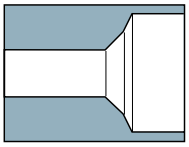

C1/B2

Options

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

No of extra inserts	**1 or 2**
D_{c1}	1 extra insert; Drill diameter—**12,7-57,00** mm 2 extra inserts; Drill diameter—**12,7-55,10** mm
Drill alternative	Step/boring = **B1**, Chamfer = **C1**
κ_{r1}	Chamfer angle 1 = **15°-90°**
ch_1	Chamfer width 1 = **0,03-11,23** mm
l_{ch1}	Length chamfer l_{ch1} = **12,3-171,0** mm
D_{c2}	Step/boring diameter **18,43-58,90** mm
l_{21}	Length to step/boring **12-171,0** mm
Supporting insert	**Yes** or **No,** only for drill type 3, 7 and opposite to step/boring insert B1
Drill alternative	Step/boring = **B2**, Chamfer = **C2**

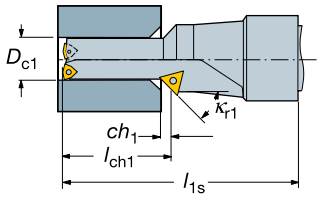
κ_{r2}	Chamfer angle 2 = **15°-90°**
ch_2	Chamfer width 2 = **0,03-11,23** mm
l_{ch2}	Length chamfer l_{ch2} = **12,3-171,0** mm
D_{c3}	Step/boring diameter **21,4-58,90** mm
l_{22}	Length to step/boring **12,8-171,0** mm
l_{3s}	Reach length **17,5-176,7** mm
Coupling type	**Coupling type—see page 3**
Rotate Capto coupling 180°	**Yes or No**
dm_m/D_{5m}	**Coupling size—see page 3**
Coupling unit	**M**=metric or **U**=inch
l_{1s}	Programming length **35,3-307,4** mm

Form No. C-1150:120-ENG
Family code = D105
CoroPak 01.1 01.01.01 **Revised** 09.02.28

Continued

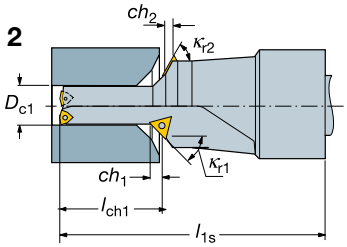
Type TM 416.20

1



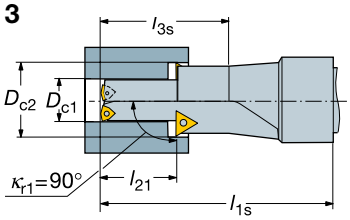
$l_{ch1} = 2{,}3 \times D_{c1}$

2



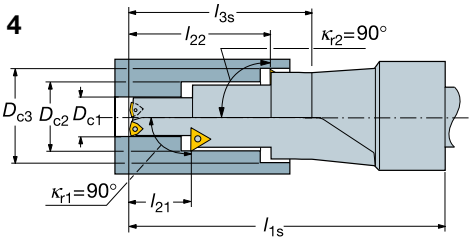
$l_{ch1} = 2{,}3 \times D_{c1}$

3



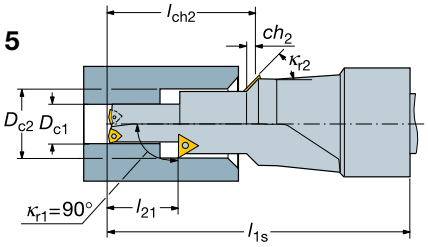
$l_{21} = 1{,}5 \times D_{c1}$
$l_{3s} = 1{,}5 \times D_{c2}$

4



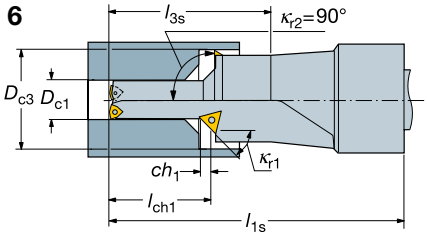
$l_{21} = 1{,}5 \times D_{c1}$
$l_{22} = 1{,}5 \times D_{c2}$
$l_{3s} = 1{,}5 \times D_{c3}$

5



$l_{21} = 1{,}5 \times D_{c1}$
$l_{ch2} = 1{,}5 \times D_{c2}$

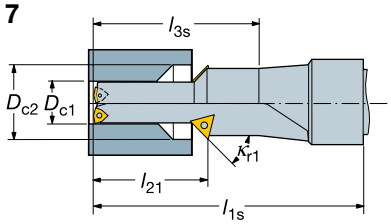
6



$l_{ch1} = 2{,}3 \times D_{c1}$
$l_{3s} = 1{,}5 \times D_{c3}$

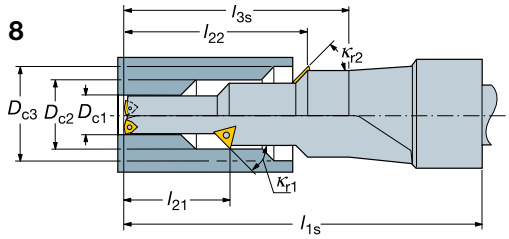
Type S 416.20

7



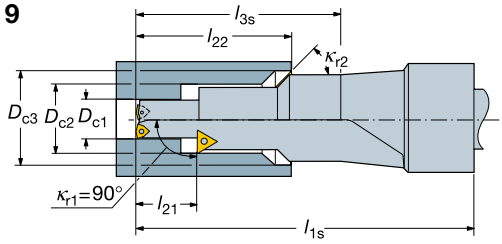
$l_{21} = 3{,}0 \times D_{c1}$
$l_{3s} = 3{,}0 \times D_{c2}$

8



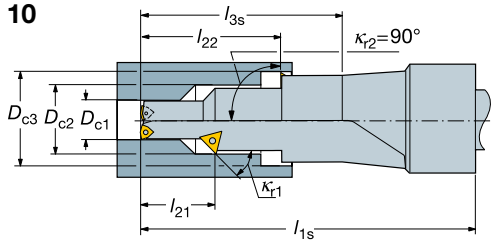
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

9



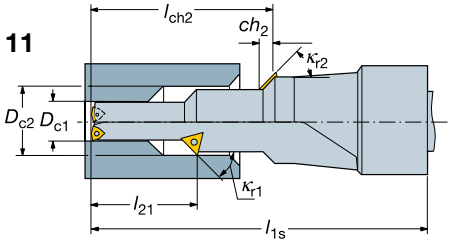
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

10



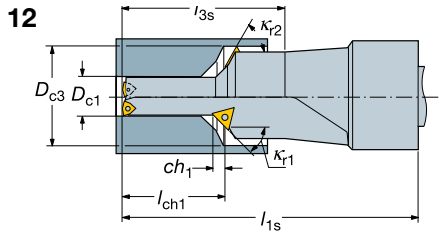
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

11



$l_{21} = 3{,}0 \times D_{c1}$
$l_{ch2} = 3{,}0 \times D_{c2}$

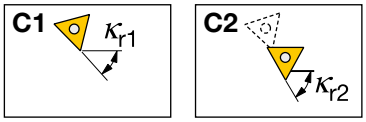
12



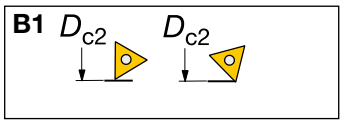
$l_{ch1} = 3{,}0 \times D_{c1}$
$l_{3s} = 3{,}0 \times D_{c3}$

Form No. C-1150:120-ENG
Family code = D105
CoroPak 01.1 01.01.01 **Revised** 09.02.28

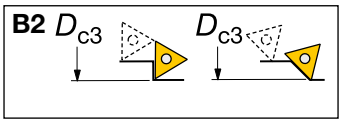
Chamfer with 1 or 2 insert



Step/boring with 1 insert



Step/boring with 2 inserts



Inserts

	D_{c1}
LCMX 02	12,70-17,43
LCMX 03	17,44-20,99
LCMX 04	21,00-25,99
WCMX 05	26,00-30,99
WCMX 06	31,00-41,99
WCMX 08	42,00-57,00

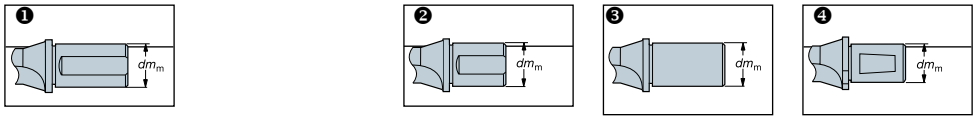
Chamfer or step/boring inserts

CoroTurn 107

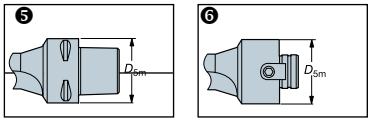
TCMT 06
TCMT 09
TCMT 11
TCMT 16

Selected of the programme

Coromant shanks

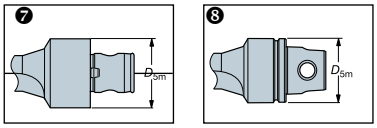


Cutting diameter	❶ Cylindrical with flat		❷ Short cylindrical with flat	❸ Cylindrical	❹ Whistle Notch
D_{c2}/D_{c3}	dm_m (metric)	dm_m (inch)	dm_m	dm_m	dm_m
12,70-17,43	20 25 32 40	0,75 1,0 1,25 1,5	20	20 25 32 40	20 25 32 40
17,44-20,99	20 25 32 40	0,75 1,0 1,25 1,5	20	20 25 32 40	20 25 32 40
21,00-25,99	20 25 32 40	0,75 1,0 1,25 1,5	20	20 25 32 40	20 25 32 40
26,00-30,99	20 25 32 40	0,75 1,0 1,25 1,5	20	20 25 32 40	20 25 32 40
31,00-41,99	25 32 40 50	1,0 1,25 1,5 2,0	-	25 32 40 50	25 32 40
42,00-58,90	32 40 50	1,25 1,5 2,0	-	32 40 50	32 40



Cutting diameter	❺ Coromant Capto®	❻ Varilock
D_{c2}/D_{c3}	D_{5m}	D_{5m}
12,70-17,43	C3 C4 C5 C6	50 63
17,44-20,99	C3 C4 C5 C6	50 63
21,00-25,99	C3 C4 C5 C6	50 63
26,00-30,99	C3 C4 C5 C6	50 63
31,00-41,99	C4 C5 C6	50 63
42,00-58,90	C5 C6	63

Shanks compatible with other holders



Cutting diameter	❼ ABS	❽ KM
D_{c2}/D_{c3}	D_{5M}	D_{5M}
12,70-30,99	50	40 50
31,00-41,99	50	-
42,00-58,90	-	-

Tailor Made

Coromant U drill,
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**	

State only your options

Your value/ Your choice

No of extra insert	No of extra insert = **1 or 2**
Drill diameter D_{c1}	1 extra insert; D_{c1} = **12,7-57,0** 2 extra insert D_{c1} = **12,7-55,1**
Drill alternative	**B1** = Step/boring **C1** = Chamfer
Cutting edge angle κ_{r1}	κ_{r1} = **15° - 90°**
Chamfer width ch_1	ch_1 = **0,03-11,23**
Length to insert l_{ch1}	l_{ch1} = **12,3-171,0**
Step/Boring diameter D_{c2}	D_{c2} = **18,43-58,90**
Length to insert l_{21}	l_{21} = **12-171,0**
Supporting insert	**Yes** or **No,** only for drill type 3, 7 and opposite to step/boring insert B1
Drill alternative	**B2** = Step/boring **C2** = Chamfer (only for 2 extra inserts)
Cutting edge angle κ_{r2}	κ_{r2} = **15° - 90°**
Chamfer width ch_2	ch_2 = **0,03-11,23**
Length to insert l_{ch2}	l_{ch2} = **12,3-171,0**
Step/Boring diameter D_{c3}	D_{c3} = **21,4-58,9**
Length to insert l_{22}	l_{22} = **12,8-171,0**
Reach length l_{3s}	l_{3s} = **17,5-176,7**

Coupling type and Coupling size dm_m/D_{5m}

❶/❷/❸ Cylindrical holders

❹ Coromant Whistle Notch
❺ Coromant Capto®
❻ Varilock
❼/❽ Compatible holders

	❶ CYLPFF ❷ CYLFB ❸ CYLFA ❹ CWN	❺ CAPTO	❻ VL	Compatible holders ❼ ABS	❽ KM
D_{c1}	dm_m	D_{5m}	D_{5m}	D_{5m}	D_{5m}
12,70-58,90	**16 20 25 32 40 50 0,75 1,0 1,25 1,5 2,0**	**C3 C4 C5 C6**	**50 63**	**50**	**40 50**

Type =

Size =

Rotate Coromant Capto coupling 180°	**Yes** or **No**
Coupling unit	**M**=metric or **U**=inch Only for ❶**CYLPFF**
Programming length l_{1s}	l_{1s} = **35,3-307,4**

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:120-ENG
Family code = D105
CoroPak 01.1 01.01.01 **Revised** 09.02.28

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

Even more possibilities thanks to tailored design!

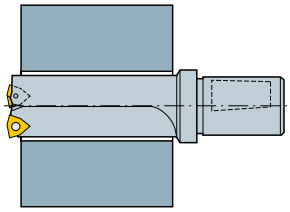
If you do not find what you need in our comprehensive standard programme, choose the tool shape you require and we will tailor it for you to *your* dimensions.

T-Max U drill R/L416.1

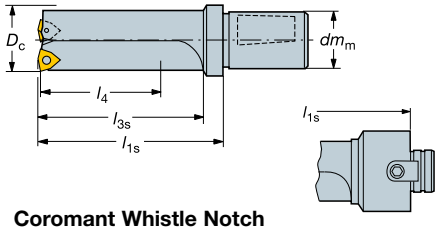
Standard inserts:

LCMX 03, D_c = 17,50-20,99
LCMX 04, D_c = 21,00-25,99

WCMX 05, D_c = 26,00-30,99
WCMX 06, D_c = 31,00-41,99
WCMX 08, D_c = 42,00-60,00

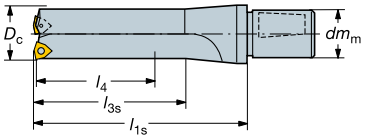


Type 2.1
Drills without chamfer insert



Coromant Whistle Notch and Varilock

Type 2.2
Drills without chamfer insert



Coromant Whistle Notch

Drill diameter, mm	Mounting type	
	Coromant Whistle Notch	Varilock
	Mounting size	Mounting size
D_c	dm_m	D_{5m}
17,50-20,99	16, 20, 25, 32, 40	50, 63
21,00-30,99	20, 25, 32, 40	50, 63
31,00-41,99	25, 32, 40	63
42,00-60,00	40	63

Options

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

Drill type	**2.1 2.2**
Diameter D_c	**17,5-60,0** mm
Coolant	**Internal** or **External**
Drill length l_{3s}	Drill type 2.1 2.2—**Min 1,2-1,9-**×–D_c — **Max 4-**×–D_c
Drill length l_4	Drill type 2.1—**3,2-**×–D_c Drill type 2.2—**3,8-**×–D_c
Design	2.1 2.2—**Right hand** or **Left hand**
Mounting type	Coromant Whistle Notch—**CWN,** Varilock—**VL**
dm_m/D_{5m}	**Mounting size—see above**
Programming length-l_{1s}	2.1 2.2—depending on l_{3s}, l_4

Form No. C-1150:113-ENG
Family code = D100
CoroPak 92.2 92.10.01 **Revised** 09.02.28

SANDVIK Coromant

Tailor Made

T-Max U drill R/L 416.1

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

L416.1- | | | | | **-** | | | **-** | | | **metric std**

Your value/ Your choice

State only your options deviating from the above standard

Type of design	Without chamfering insert=**2.1** and **2.2**	
Diameter D_c	D_c=**17,5-60,0**	
Coolant	**Internal** or **External**	
Drill length l_{3s}	Type of design: 2.1/2.2 Drill length l_{3s}: **Min=1,2-1,9×D_c, Max=4×D_c** Depending on other parameters	
Drill depth l_4	Type of design: 2.1 / 2.2 Drill depth l_4: **Max=3,2×D_c** / **Max=3,8×D_c**	
Design	Type of design: 2.1/2.2 Design: **Right** or **left hand**	
Mounting type and Mounting size dm_m/D_{5m} ❶ **Coromant Whistle Notch** ❷ **Varilock**		
Programming length l_{1s}	Type of design: 2.1/2.2 Progr. length l_{1s}: **Depending on l_{3s} and l_4**	

D_c	❶ CWN dm_m	❷ VL D_{5m}
17,50-20,99	**16 20 25 32 40**	**50 63**
21,00-30,99	**20 25 32 40**	**50 63**
31,00-41,99	**25 32 40**	**63**
42,00-60,00	**40**	**63**

Form No. C-1150:113-ENG
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SANDVIK Coromant

The value/choice must be given

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