Tailor Made

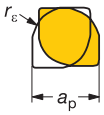
– Quick quotation
– Easy to order
– Competitive delivery

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.

Inserts for CoroMill® 331 side and facemilling cutters

Option	Style	Corner modification No		
1	L	2	04	r_ε = 0,2-2,6
			05	r_ε = 0,2-3,05
			08	r_ε = 0,2-4,0
			11/14	r_ε = 0,2-6,5
2	R	2	04	r_ε = 0,2-2,6
			05	r_ε = 0,2-3,05
			08	r_ε = 0,2-4,0
			11/14	r_ε = 0,2-6,5
3	N	2	04/05/08	r_ε = 0,2-2,0
			11/14	r_ε = 0,2-3,5
4	N	2	04	b_f = 0,2-1,1
			05	b_f = 0,2-1,5
			08/11/14	b_f = 0,2-2,0
5	N	4	04	r_ε = 0,2-1,0
			05/08	r_ε = 0,2-2,0
			11/14	r_ε = 0,2-2,0
6	N	4	04	b_f = 0,2-1,1
			05	b_f = 0,2-1,5
			08/11/14	b_f = 0,2-2,0
7[3]	N	4	04	r_ε = 0,2-1,0
			05/08	r_ε = 0,2-2,5
			11/14	r_ε = 0,2-3,5
8	L	2	04	r_ε = 0,2-2,6
			05	r_ε = 0,2-3,05
			08	r_ε = 0,2-4,0
			11/14	r_ε = 0,2-6,5
9	R	2	04	r_ε = 0,2-2,6
			05	r_ε = 0,2-3,05
			08	r_ε = 0,2-4,0
			11/14	r_ε = 0,2-6,5
10	N	2	04	r_ε = 0,2-1,6
			05/08	r_ε = 0,2-2,0
			11/14	r_ε = 0,2-3,5
11	N	2	04	b_f = 0,2-1,3
			05	b_f = 0,2-1,5
			08/11/14	b_f = 0,2-2,0

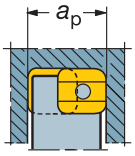


Limitations for full slot milling

Insert size	Calculated a_p
04	$a_p = r_\varepsilon + 4{,}6$
05	$a_p = r_\varepsilon + 6$
08	$a_p = r_\varepsilon + 8$
11	$a_p = r_\varepsilon + 11$

If, after calculation, a_p is less than required a_p options 1, 2, 3, 8, and 9 can be used.

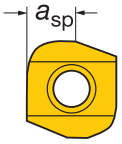
If, after calculation, a_p is more than required a_p only options 8 and 9 can be used.



[3] **No parallel land**

Limitations for full slot milling

Insert size				
04	05	08	11	14
Calculated a_p				
9,6–2 r_ε 9,6–2 b_f	12,6–2 r_ε 12,6–2 b_f	16,6–2 r_ε 16,6–2 b_f	22,6–2 r_ε 22,6–2 b_f	28,6–2 r_ε 28,6–2 b_f
a_p max.				
8	10	15	20,5	26,5



$$a_{sp} \approx \frac{a_p}{2} + 0{,}2$$

[1] Calculation of reduced cutting edge length a_{sp} as follows: for 2 inserts, options 8-11.

Options

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

Grades	**GC235,GC1025,GC3020,GC3040,GC4030,GC4040, CT530,SM30,H10F,H13A,GC2030,GC2040,GC1020, GC1030,GC3220,GC4220,GC4230,GC4240,S30T,S40T,GC1040**
Options	**1–11**
Insert size	**04, 05, 08, 11, 14**
Insert geometry	Insert geometry – **PL, ML, KL, WL, PM, MM, KM, WM** or **NL**
r_ε	Insert radius – **0,2–6,5 mm**
b_f	Corner chamfer 45° – **0,2–2,0 mm**

Radius r_ε and chamfer b_f limits on cutter and cassette

r_ε, mm	≤1,5	1,5–2,6	>2,6
b_f, mm	≤1,0	1,0–1,5	>1,5
Cutter body	**Standard**	**Standard**	**Tailor Made**
Cassette	**Standard**	**Standard[2]**	**Standard[2]**

[2] See main catalogue or supplement catalogue for correct optional cassette and radius clearance on cutter body

Form No. C-1150:105-ENG
Family code = I150
CoroPak 94.2 94.03.02 **Revised** 09.12.01

SANDVIK Coromant

Tailor Made

Inserts for CoroMill® 331 side and facemilling cutters

Inquiry/ordering No.

Customer	**Customer No. (Coromant internal)**	**Date**
Street	**Telephone**	**Customer attention**
Post Code/City/State	**Telefax**	**Issuer**
Quantity (min 20 pcs)	**Customer denomination**	

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

331.1A- | | | | | | | | | |

Your value/ Your choice

State only your options deviating from the above standard

Grades	**GC235,GC1025,GC3020,GC3040,GC4030,GC4040,CT530,SM30,H10F,GC2030, H13A,GC2040,GC1020,GC1030,GC3220,GC4220,GC4230,GC4240,S30T,S40T,GC1040**	
Option 1-11:	Radius option : **1, 2, 3. 5, 7, 8, 9, 10** / Corner chamfer option : **4, 6, 11**	
Insert size	Inserts size: **04, 05, 08, 11, 14**	
Insert geometry	**PL, ML, KL, WL, PM, MM, KM, WM** or **NL**	
Insert radius r_ε Depending on insert size	Inserts radius r_ε=**0,2-6,5 mm**	
Corner chamfer width b_f×45º Depending on insert size	Corner chamfer width b_f=**0,2-2,0 mm**	
Reduced cutting edge length a_{sp} For option 8-11	Calculate of reduced cutting edge length asp as follows: for 2 inserts. $a_{sp} \approx \frac{a_p}{2} + 0{,}2$	

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The value/choice must be given

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

Tailor Made

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Even more possibilities thanks to tailored design!

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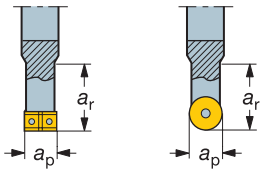
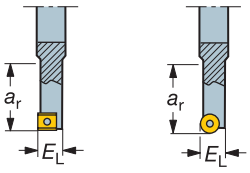
CoroMill® 331 side and facemilling cutter

Cutter type

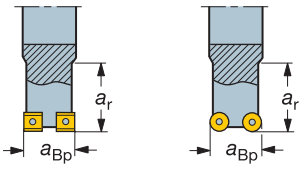
C
Full side and facemill



E
Half side and facemill



P
Double half side and facemill



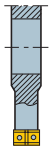
Insert size	Cutter diameter D_c	Radius corner r_ε	Chamfer corner b_f	Cutter width a_p	E_L	a_{Bp}
□ 04	80-400	0,2-2,6	0,2-1,3	C = 6-8	9,5-45	13,2-45
□ 05	80-400	0,2-3,05	0,2-1,5	D = 8-10	9,5-45	16,8-45
□ 08	80-550	0,2-4,0	0,2-2,0	E = 10-12 F = 12-15	9,5-45	21-45
□ 11	100-550	0,2-6,5	0,2-2,0	K = 15-17,5 L = 17,5-20,5	12,6-45	27,5-45
□ 14	100-550	0,2-6,5	0,2-2,0	Q = 20,5-23,5 R = 23,5-26,5	16,9-45	35,8-45
○ 9,52	82-550	4,76	-	9,52	9,5-45	21-45
○ 10	82-550	5	-	10	9,5-45	21-45
○ 12	82-550	6	-	12	11,5-45	25-45
○ 12,7	82-550	6,35	-	12,7	11,5-45	25-45
○ 16	102-550	8	-	16	14,4-45	30,6-45

X = 10–45

Mounting type

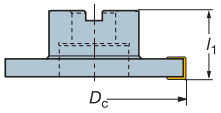
Bore with keyway

27, 32, 40, 50, 60, 80

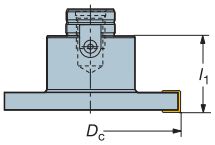


Arbor mounting

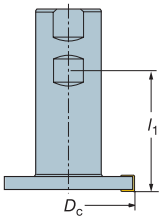
A16, A22, A27 B27, B32, B40 C40, C60



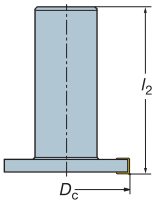
Varilock
50, 63, 80



Weldon
20, 25, 32, 40, 50



Cylindrical power chuck
32, 42



Options

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

Cutter type	**C/E/P**, see above
D_c	Diameter – **80–550 mm**
Insert edge shape and size	**04, 05, 08, 11, 14, 9,52, 10, 12, 12,7, 16**
$a_p/E_L/a_{Bp}$	Cutter width/setting range – **See above**
E/S/L	Chip pocket size – Extra small (**E**), Standard (**S**), Large (**L**)
Pitch type	**Even** or **Differential**

Mounting type/size	**See above**
F/B	Facing (**F**), Backfacing (**B**)
Design	**Right hand** or **Left hand**
a_r	Radial depth of cut – **20,7–226 mm**
l_3	Reach length – **5–63 mm + cutter width**
l_1	Programming length – **31,5–134,4 mm**
l_2	Overall length – **131,5–164,4 mm**

Form No. C-1150:106-ENG
Family code = M150
CoroPak 95.1 94.12.06 **Revised** 09.03.11

SANDVIK Coromant

Chip pocket size

Extra small (E) | Standard (S) | Large (L)

Chip pocket size depending on a_r and workpiece material

Pitch type

Even | Differential

Differential normally has fewer inserts compared to even

Max number of effective inserts, z_c

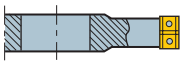
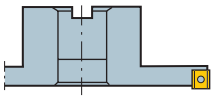
Full side and facemill, C

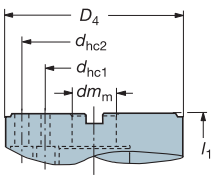
Cutter dia	Insert size □ 04/05/08 ○ 9,52/10/12/12,7			Insert size □ 11/14 ○ 16		
	Chip pocket size					
D_c	E	S	L	E	S	L
80	3	3	-	-	-	-
100	4	4	-	3	3	-
120	5	4	-	4	4	-
140	6	5	-	5	4	-
160	7	6	5	6	5	4
180	8	7	6	7	6	5
200	8	8	6	7	6	5
220	9	8	7	8	7	6
240	10	9	8	9	8	6
260	11	10	8	10	8	7
280	12	11	9	11	9	8
300	13	12	10	11	10	8
320	14	13	10	12	10	9
340	15	13	11	13	11	9
360	16	14	12	14	12	10
380	17	15	12	15	12	10
400	18	16	13	15	13	11
420	18	17	14	16	14	12
440	19	18	14	17	15	12
460	20	18	15	18	15	13
480	21	19	16	19	16	14
500	22	20	16	19	17	14
520	23	21	17	20	17	14
540	24	22	18	21	18	15
550	24	22	18	21	18	15

Half side and facemill, E and Double half side and facemill, P

Cutter dia	Insert size □ 04/05/08 ○ 9,52/10/12/12,7			Insert size □ 11/14 ○ 16		
	Chip pocket size					
D_c	E	S	L	E	S	L
80	6	6	-	-	-	-
100	8	8	-	6	6	-
120	10	9	-	8	8	-
140	12	11	-	10	9	-
160	14	13	10	12	10	9
180	16	14	12	14	12	10
200	17	16	13	15	13	11
220	19	17	15	17	14	12
240	21	19	16	18	16	13
260	23	21	17	20	17	15
280	25	22	19	22	19	16
300	26	24	20	23	20	17
320	28	26	21	25	21	18
340	30	27	23	26	23	19
360	32	29	24	28	24	20
380	34	31	25	30	25	21
400	36	32	27	31	27	23
420	37	34	28	33	28	24
440	39	36	29	34	30	25
460	41	37	31	36	31	26
480	43	39	32	38	32	28
500	45	41	33	39	34	28
520	46	42	35	41	35	29
540	48	44	36	42	36	31
550	49	45	37	43	37	31

Mounting type and size

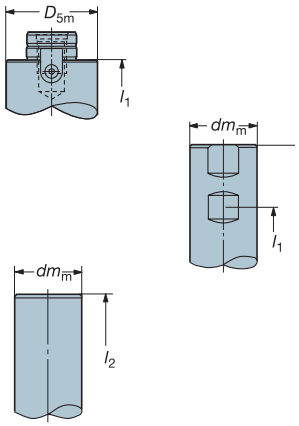
Mounting type	Style	Size dm_m	Cutter diameter □	Cutter diameter ○	Max cutter width	D_4 min	D_{21}
Bore with keyway 	-	27	80 - 150	82 - 152	20,5	-	-
	-	32	91 - 205	93 - 207	20,5	-	-
	-	40	100 - 250	102 - 252	45	-	-
	-	50	113 - 315	115 - 317	45	-	-
	-	60	128 - 550	130 - 550	45	-	-
	-	80	153,2 - 550	155,2 - 550	45	-	-
Arbor mounting (acc. to ISO 6462) 	A	16	80 - 102	82 - 104	15	29	38
	A	22	80 - 130	82 - 132	20,5	33,5	46
	A	27	80 - 160	82 - 162	26,5	35,5	54
	A	32	85,4 - 205	87,4 - 207	45	42,5	64
	B	27	98 - 205	100 - 207	26,5	54	54
	B	32	107,7 - 205	109,7 - 207	45	64	64
	B	40	109,9 - 315	111,9 - 317	45	76	76
	C	40	140,1 - 550	142,1 - 550	45	96	96
	C	60 d_{hc1}	180,4 - 550	182,4 - 550	45	136	136
	C	60 $d_{hc1}+d_{hc2}$	274,4 - 550	276,4 - 550	45	231	231



Form No. C-1150:106-ENG
Family code = M150
CoroPak 95.1 94.12.06 **Revised** 09.03.11

Mounting type and size

Mounting type	Size D_{5m}/ dm_m	Cutter diameter □	Cutter diameter ○	Max cutter width	D_4 min
Varilock	50	80-102	82-104	15	30
	63	80-130	82-132	20,5	43
	80	80-160	82-162	20,5	60
Weldon	20	80-102	82-104	15	20
	25	80-102	82-104	15	20
	32	80-102	82-104	15	20
	40	80-130	82-132	15	30
	50	80-130	82-132	15	30
Cylindrical	32	80-102	82-104	15	30
	42	80-102	82-104	15	30



Radial depth of cut a_r, Not valid for bore with keyway

Figure 1

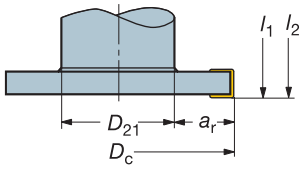


Figure 2

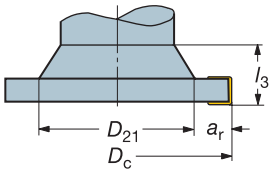
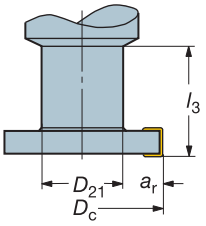


Figure 3



Recommended a_r value gives a cutter body as shown in **figure 1**

Calculation of required a_r gives cutter bodies as shown in **figures 2** and **3**

Calculation of required a_r

$$a_r = \frac{D_c - D_4}{2} - 1$$

Calculation of max a_r

$$a_{r\,max} = \frac{D_c - D_{4\,min}}{2} - 1$$

Example: Calculation of max a_r for 550 mm cutter with Arbor mounting C40

$$a_{r\,max} = \frac{550 - 96}{2} - 1 = 226 \text{ mm}$$

Min a_r

Insert size □	04/05/08			11/14		
Insert size ○	9,52/10/12/12,7			16		
Chip pocket size	E	S	L	E	S	L
a_r min	20,7	20,7	23,2	25,7	25,7	28,5

Reach length (l_3)

Not needed if a_r = recommended

l_3 min = Cutter width + 5
l_3 max = Cutter width + 63

Programming length (l_1)

Not required for bore with keyway or cylindrical shank

l_1 min—max	Arbor mounting	Varilock	Weldon
	31,5–134,4	53,5–128,5	78,5–124,4

Depending on diameter, cutter width and mounting size

Overall length (l_2)

Only for cylindrical shank

l_2 min—max	Cylindrical
	131,5–164,4

Depending on diameter, cutter width and mounting size

Form No. C-1150:106-ENG
Family code = M150
CoroPak 95.1 94.12.06 **Revised** 09.03.11

Tailor Made

CoroMill® 331 side and facemilling cutter

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

Full side and facemill 331.32 (C)

Half side and facemill 331.52 (E)
To be used for facing and backfacing

Double half and facemill 331.52 (P)

331. ___ ___ - ___ ___ ___ ___ ___ ___ ___ ___ ___

Your value/ Your choice

State only your options deviating from the above standard

Cutter type	**C/E/P**		
Cutter diameter	D_c = **80 - 550**		
Insert edge shape and size	Radius (**R**) =**0,2 - 6,5** Chamfer (**C**) = **0,2 - 2,0** × 45° Full radius (**F**) = **4,76/5/6/6,35** or **8**	**R/C/F**	=
Setting range	Setting range **C, D, E, F, K, L, Q, R** and **X**		
Width of cutter	a_p=**6 - 45** E_L=**9,5 - 45** a_{Bp}=**13,2 - 45**	$a_p/E_L/a_{Bp}$	=
Insert size	**04, 05, 08 ,11** or **14** **9,52, 10, 12, 12,7** or **16**		
Chip pocket size	Extra small (**E**), Standard (**S**) or Large (**L**)		
Pitch type	Even (**E**) or Differential (**D**)		
No of effective inserts	**Max or 1 - 49**		
Mounting type	**Bore with keyway,** **Arbor mounting (style A, style B, style C),** **Varilock, Cylindrical or Weldon**		
Mounting size	Size =**16 - 80**		
Facing or backfacing	Facing (**F**) or Backfacing (**B**)		
Design	Right hand (**R**) or Left hand (**L**)		
Radial depth of cut	Recommended value or your own choice, **20,7-226**		
Reach length	l_3 min = **cutter width + 5** l_3 max = **cutter width + 63**	l_3 =	
Programming length	l_1 = **31,5 - 134,4**	l_1 =	
Overall length	l_2 = **131,5 - 164,4**	l_2 =	

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:106-ENG
Family code = M150,
CoroPak 95.1 94.12.06 **Revised** 09.03.11

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

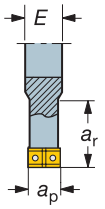
Even more possibilities thanks to tailored design!

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.

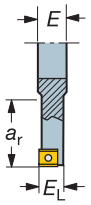
CoroMill® 331 with fixed pockets

Cutter type

C
Full side and facemill

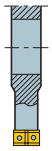
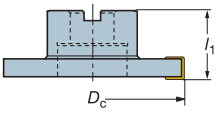
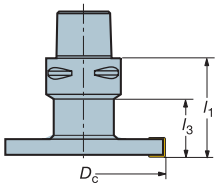
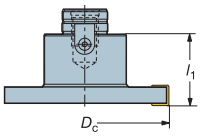
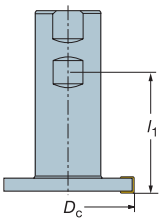
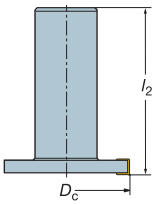


E
Half side and facemill



Insert size	Cutter diameter D_c	Radius corner r_ε	Chamfer corner b_f	Cutter width a_p	E_L	Width over hub E
□ **04**	38-205	0,2-2,6	0,2-1,3	C = 6-7,99	9,5-25	Min $E = a_p+2$ Max $E = a_p+10$
□ **05**	38-205	0,2-3,05	0,2-1,5	D = 8-9,99	9,5-25	
□ **08**	38-205	0,2-4,0	0,2-2,0	E = 10-11,99 F = 12-14,99	9,5-25	
□ **11**	43-205	0,2-6,5	0,2-2,0	K = 15-17,49 L = 17,5-20,49	12,6-25	
□ **14**	43-205	0,2-6,5	0,2-2,0	Q = 20,5-23,49 R = 23,5-26,5	16,9-25	

Mounting type

Bore with keyway	Arbor mounting	Coromant Capto®	Varilock	Weldon	Cylindrical
16, 27, 32, 40, 50, 60, 80	**A16, A22, A27, A32 B27, B32, B40**	**C3, C4, C5, C6, C8**	**50, 63, 80**	**16, 20, 25, 32, 40**	**16, 20, 25, 32 *, 40, 42 ***
					

* Power chuck dim.

Options

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

Cutter type	**C/E**, see above
D_c	Diameter – **38–205 mm**
Insert edge shape and size	**04, 05, 08, 11, 14**
a_p/E_L	Cutter width –**See above**
Design	**Right hand** or **Left hand**
Mounting type/size	**See above**
E	Width over hub –**See above**
l_1	Programming length – **32,6–160 mm**
l_3	Reach length – **5–80 mm + cutter width**
l_2	Overall length – **58,2–200 mm**
Pitch type	**Even** or **Differential**
Effective no of teeth Z_c	**4 - 20**, (depending on pitch type and insert size)
a_r	Radial depth of cut – **11–75 mm**
F/BF	Facing (**F**), Backfacing (**BF**)

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SANDVIK Coromant

Continued...

Pitch type

Even **Differential** Differential normally has fewer inserts compared to even

Number of effective inserts, z_c

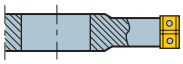
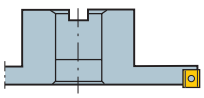
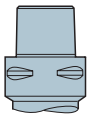
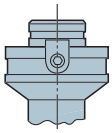
Min diameters for pitch type = Even

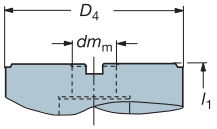
No of effective inserts	Insert size		
	□ 04	□ 05/08	□ 11/14
z_c	Min diameter D_c		
4	38	38	43
5	38	42	47
6	46	48	58
7	55	58	71
8	65	68	83
9	75	79	96
10	86	89	109
11	96	100	123
12	107	111	136
13	117	123	150
14	128	132	164
15	140	146	179
16	151	155	193
17	162	169	-
18	173	181	-
19	185	193	-
20	197	205	-

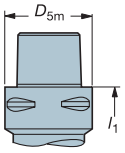
Min diameters for pitch type = Differential

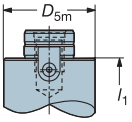
No of effective inserts	Insert size		
	□ 04	□ 05/08	□ 11/14
z_c	Min diameter D_c		
4	38	38	45
5	40	44	49
6	48	50	61
7	58	61	74
8	68	72	87
9	79	83	101
10	91	94	115
11	102	106	130
12	114	118	144
13	125	131	159
14	137	141	175
15	150	157	193
16	163	167	-
17	176	184	-
18	188	197	-
19	201	-	-

Mounting type and size

Mounting type	Style	Size dm_m	Size D_{5m}	Cutter diameter D_c		Max cutter width	D_{21} min	D_4
Bore with keyway 	- - - - - - -	16 27 32 40 50 60 80		47,9-102 62,9-150 68,9-180 76,9-205 90,9-205 105,9-205 130,9-205		12 15 20 26,5 26,5 26,5 26,5	 - - - - - -	 - - - - - -
Arbor mounting (acc. to ISO 6462) 	A A A A B B B	16 22 27 32 27 32 40		50,9-102 55,4-130 57,4-160 64,4-205 75,9-205 85,9-205 97,9-205		15 20,5 26,5 26,5 26,5 26,5 26,5	29 33,5 35,5 42,5 54 64 76	38 46 54 64 54 64 76
Coromant Capto® 			C3 C4 C5 C6 C8	38-102 38-130 38-160 38-205 38-205	Depending on Capto blank size available	12 15 20 26,5 26,5	16-32 16-40 16-50 16-63 16-80	- - - - -
Varilock 			50 63 80	38-102 38-130 38-160		15 20 20	16-50 16-63 16-80	- - -







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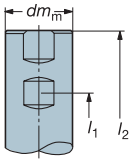
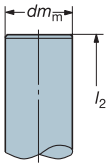
Family code = M152
CoroPak 01.1 01.01.01 **Revised** 09.03.11

Continued...

Mounting type and size

Mounting type	Style	Size dm_m	Size D_{5m}	Cutter diameter D_c	Max cutter width	D_{21} min	D_4
Weldon	- - - - -	16 20 25 32 40	- - - - -	38- 52 38- 65 38- 80 38-102 38-102	8 10 12 15 15	16-16 16-20 16-25 16-32 16-40	- - - - -
Cylindrical and cylindrical power chuck	- - - - - -	16 20 25 32 40 42	- - - - - -	38- 52 38- 65 38- 80 38-102 38-102 38-102	8 10 12 15 15 15	16-16 16-20 16-25 16-32 16-40 16-42	- - - - - -





Radial depth of cut a_r, Not valid for bore with keyway

Figure 1

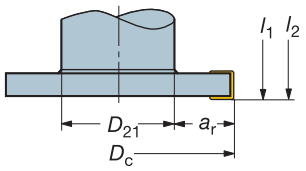
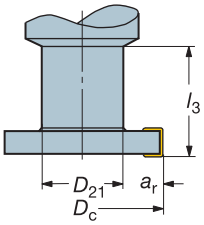


Figure 2



Recommended a_r value gives a cutter body as shown in **figure 1**

Calculation of required a_r gives cutter bodies as shown in **figures 2**

Calculation of required a_r

$$a_r = \frac{D_c - D_{21}}{2} - 1$$

Calculation of max a_r

$$a_r \text{ max} = \frac{D_c - D_{21}\ \text{min}}{2} - 1$$

Min a_r

Insert size	04/05/08	11/14
a_r min	11	13

Reach length (l_3)

Not needed if a_r = recommended

l_3 min = Cutter width + 5
l_3 max = Cutter width + 80

Programming length (l_1)

Not required for bore with keyway or cylindrical shank

l_1 min—max	Arbor mounting	Coromant Capto®	Varilock	Weldon
	40-160	32,6-160	44-160	34,7-150

Depending on diameter, cutter width and mounting size

Overall length (l_2)

Only for cylindrical shank

l_2 min—max	Cylindrical
	58,2-200

Depending on diameter, cutter width and mounting size

Form No. C-1150:122-ENG
Family code = M152
CoroPak 01.1 01.01.01 **Revised** 09.03.11

Tailor Made

CoroMill® 331 with fixed pockets

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

Full side and facemill 331.35 (C)

Half side and facemill 331.35 (E)
To be used for facing and backfacing

331.[ ][ ]-[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

Your value/ Your choice

State only your options deviating from the above standard

Cutter type	**C/E**	
Cutter diameter	D_c = **38 - 205**	
Insert edge shape and size	Radius (**R**) =**0,2 - 6,5** Chamfer (**C**) = **0,2 - 2,0** × 45°	**R/C** =
Width of cutter	a_p=**6 - 26,5** E_L=**9,5 - 25**	a_p/E_L =
Insert size	**04, 05, 08 ,11** or **14**	
Design	Right hand (**R**) or Left hand (**L**)	
Mounting type	**Bore with keyway, Arbor mounting (style A, style B), Coromant Capto®, Varilock, Cylindrical or Weldon**	
Mounting size	Size =**16 - 80**	
Width over hub	E = **(a_p + 2) - (a_p + 10)**	
Programming length	l_1 = **32,6 - 160**	l_1 =
Reach length	l_3 min = **cutter width + 5** l_3 max = **cutter width + 80**	l_3 =
Overall length	l_2 = **58,2 - 200**	l_2 =
Pitch type	Even (**E**) or Differential (**D**)	
No of effective inserts	**4 - 20,** depending on pitch type and insert size	
Radial depth of cut	a_r = Recommended value or your own choice, **11-75**	
Facing or backfacing	Facing (**F**) or Backfacing (**BF**)	

Form No. C-1150:122-ENG
Family code = M152
CoroPak 01.1 01.01.01 **Revised** 09.03.11

SANDVIK Coromant

The value/choice must be given

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

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

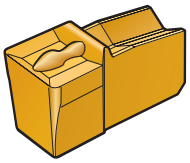
Even more possibilities thanks to tailored design!

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.

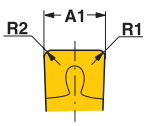
T-Max Q-Cut inserts— Geometries 3G, 4G and 6G

151.2-4G

*Recommended **first choice** geometry for grooving. *Options 1, 4, 5 and 8 also suitable for T-Max Q-cutter. The face of options 4 and 5 must be symmetrical for T-Max Q-cutter.*



Shape options

1*


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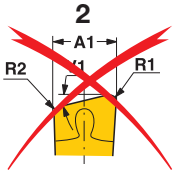

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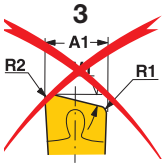

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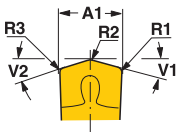
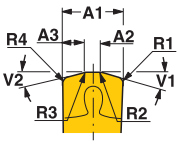


Shape options

5*


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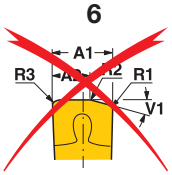

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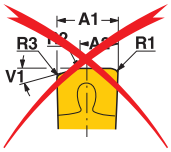
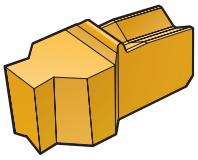


8*

151.2-3G

Alternative when shapes required lie outside Tailor Made range of -4G.



Shape options

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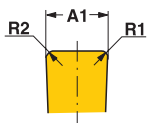

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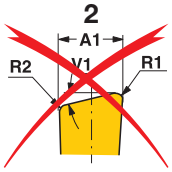

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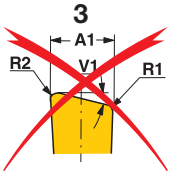

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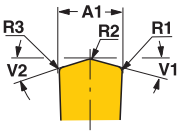

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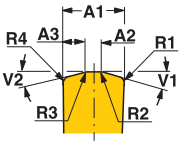
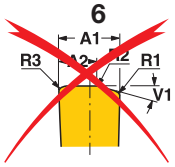
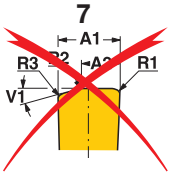


Shape options

6


7


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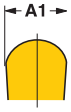

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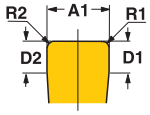

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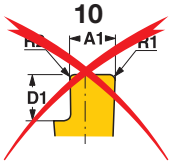

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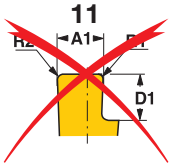
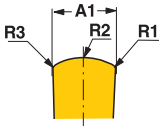


Shape options

12


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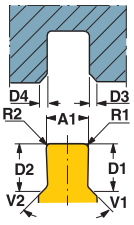

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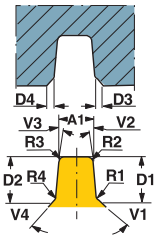
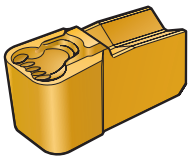


For applications requiring optimal chip control in width range 6–10 mm.

151.2-6G



Shape option 1

Options

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

Insert seat size	**20, 25, 30, 40, 50, 60**
Insert grade	3G— **GC1125, GC235, H13A, H10F** 4G— **GC1125, GC235, CT525, H10A, H13A, H10F** 6G—**GC1145, GC235**
ER	ER-treatment—**S**=small, **L**=Large or **R**=Recommended

A1, A2, A3	Insert width—**1,9-8,4 mm**
R1, R2, R3, R4	Insert radius **R1/R2/R3/R4** Insert radius **R1/R2**—6G;=**0,2-2,0 mm**
D1, D2, D3, D4	length—**D1/D2/D3/D4**
V1, V2, V3, V4	angle—**V1/V2/V3/V4**
Negative land	T-Max Q-Cutter—**10º**
Tolerance	A1—**Tolerance** —(± 0,02 mm — ± 0,1 mm)

Form No. C -1050:100-ENG
Family code = I235
CoroPak 94.1 94.01.01 **Revised** 09.03.11

SANDVIK Coromant

Tailor Made

T-Max Q-Cut inserts — Geometries 3G, 4G and 6G

Inquiry/ordering No.

Customer	**Customer No. (Coromant internal)**	**Date**
Street	**Telephone**	**Customer attention**
Post Code/City/State	**Telefax**	**Issuer**
Quantity (min 20 pcs)	**Customer denomination**	

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

N151.2 - [ ][ ][ ][ ] - [ ][ ] - [ ] G

For Geometry 3G use std geometry 4G

Metric std

Your value/ Your choice

State only your options deviating from the above standard

Option No

Option **1-17**

Insert seat size

Geometry	Insert seat size					
3G	**20**	**25**	**30**	**40**	**50**	**60**
4G	**20***	**25***	**30***	**40***	**50***	**60***
6G	-	-	-	-	-	**60**

* Also for T-Max Q-Cutter

Insert grade

Geometry	Insert grade * Also for T-Max Q-Cutter
3G	**GC1125 GC235 H13A H10F**
4G	**GC1125 GC235* CT525 H10A H13A* H10F**
6G	**GC1145 GC235**

ER treatment

S=small, **L**=large or **R**=Recommended

Insert Width A1, A2, A3

Geometry	Insert seat size 20	25	30	40	50	60
				A1		
3G	**1,9-2,4**	**2,3- 3,3**	**2,9-4,3**	**3,9-5,3**	**4,9-6,4**	**5,9-8,4**
4G	**1,9-2,3**	**2,26-3,3**	**3,0-4,3**	**4,0-5,3**	**5,0-6,4**	**6,0-8,4**
6G	-	-	-	-	-	**5,8-7,9**

A2 available for geometries 3G/4G and options 5, 6, 7
A3 available for geometries 3G/4G and option 5

A1=
A2=
A3=

Insert Radius R1, R2, R3, R4

Geometry	Radius
3G	**R1, R2, R3, R4**
4G	**R1, R2, R3, R4**
6G	R1/R2=**0,2-2,0**

Depending on insert size

R1=
R2=
R3=
R4=

Length D1, D2, D3, D4

Geometry	Length
3G	**D1, D2, D3, D4**

D1=
D2=
D3=
D4=

Angle V1, V2, V3, V4

Geometry	Angle
3G	**V1, V2, V3, V4**
4G	**V1, V2**

V1=
V2=
V3=
V4=

Negative land

For T-Max Q-cutter =**10°**

Tolerance on A1

Tolerance on A1 —(± 0,02 mm — ± 0,1 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 -1050:100-ENG
Family code = I235
CoroPak 94.1 94.01.01 **Revised** 09.03.11

Tailor Made

– Quick quotation
– Easy to order
– Competitive delivery

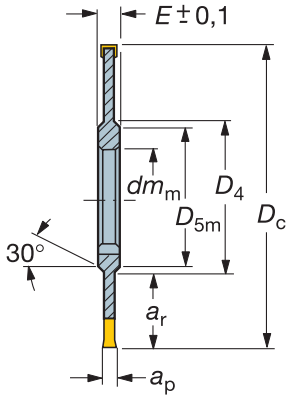
Even more possibilities thanks to tailored design!

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 Q-cutter R/L330.20

Standard insert:
330.20-..-AA, N151.2-...-4E, N151.2-...-5E
Tailor Made insert:
Symetrical, 151.2-4G:
Option: 1, 4, 5 and 8
Grades: GC4125, GC225, GC235, S10, S30, SM30, CT525, H10A, H13A, H10F, GC1025
Symetrical, 151.2-3G
Option: 1, 4, 5, 8, 9, 12,16 and 17
Grades: GC4125, GC225, GC235, H13A, H10F, GC1025
151.2-6G
Option: 1
Grades: GC4025, GC235

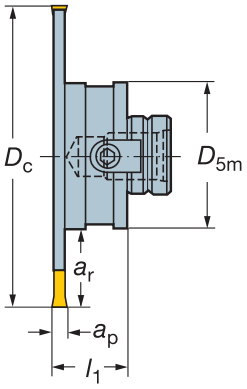
Bore with keyway



Mounting size dm_m	Cutter diameter D_c
27	67,9-226,4 *
32	74,8-292,0
40	84,8-302,0
50	98,7-316,0
60	110,7-328,0

*** Not available for seat size 60**

Varilock



Mounting size D_{5m}	Cutter diameter D_c
50	74- 96
63	87-131
80	104-146

Options

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

Insert seat size	**20, 25, 30, 40, 50, 60**
D_c	Diameter—**see above**— depending on insert seat size and mounting
Mounting type	**Bore with keyway, Varilock**
dm_m/D_{5m}	**Mounting size—see above**
E	Width of hub—**8, 10, 12 mm**,— depending on insert seat size
l_1	Programming length—**28-197 mm**,— depending on Varilock size
Design	**Bore with keyway**—Neutral style **Varilock**—Right hand or Left hand

Form No. C-1150:107-ENG
Family code = M130
CoroPak 91.3 91.09.01 **Revised** 09.03.11

SANDVIK Coromant

Tailor Made

T-Max Q-cutter R/L330.20

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

330.20- [ ][ ][ ][ ][ ][ ] **-** [ ][ ][ ] **metric std**

IMPORTANT! For larger diameter cutters with small hubs (dm_m), be careful with large cutting depth

Your value/ Your choice

State only your options deviating from the above standard code

Insert seat size

seat size	20	25	30	40	50	60
a_p size	1,90-2,30	2,26-3,30	3,00-4,30	4,00-5,30	5,00-6,30	6,00-8,40

Cutter diameter D_c

dm_m = Mounting diameter, Bore with keyway

D_{5m} = Mounting diameter, Varilock

seat size	20	25	30	40	50	60
dm_m	Cutter diameter D_c					
27	67,9- 96,7	71,9-144,5	71,7-174,2	78,9-225,8	79,4-226,4	–
32	74,8-103,7	78,9-151,5	78,6-181,2	85,8-232,8	86,4-233,4	94,0-292,0
40	84,8-113,7	88,8-161,5	88,6-191,2	95,8-242,8	96,3-242,4	104,0-302,0
50	98,7-127,7	102,8-175,5	102,5-205,2	109,7-256,8	110,3-257,4	118,0-316,0
60	110,7-139,7	114,7-187,5	114,5-217,2	121,7-268,8	122,3-269,4	129,9-328,0
D_{5m}						
50	74- 96	78- 96	78- 96	86- 96	86- 96	93- 96
63	87-131	91-131	91-131	99-131	99-131	106-131
80	104-146	108-146	108-146	116-146	116-146	123-146

Mounting type

Mounting type	Mounting size
Bore with keyway dm_m	**27 *, 32, 40, 50, 60**
Varilock D_{5m}	**VL50, VL63, VL80**

* Not available for seat 60

Programming length l_1

Only for Varilock

Varilock size D_{5m}	50	63	80
l_1	**28-147**	**28-177**	**28-197**

Design

Only for Varilock

Right or **left** hand style

Width of hub *E*

Only for Information

seat size	20	25	30	40	50	60
E	8	8	8	8	10	12

Calculation of a_r

Please control your reachable depth a_r

dm_m	27	32	40	50	60
D_{5m}	41	48	58	72	84

Seat size	20	25	30	40	50	60
D_4	D_{5m}+3,7	D_{5m}+3,5	D_{5m}+3,2	D_{5m}+2,8	D_{5m}+3,4	D_{5m}+4,0

For Bore with keyway $a_r = \frac{D_c - D_4}{2}$

For Varilock $a_r = \frac{D_c - D_{5m}}{2}$

SANDVIK Coromant

The value/choice must be given

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

Form No. C-1150:107-ENG
Family code = M130
CoroPak 91.3 91.09.01 **Revised** 09.03.11