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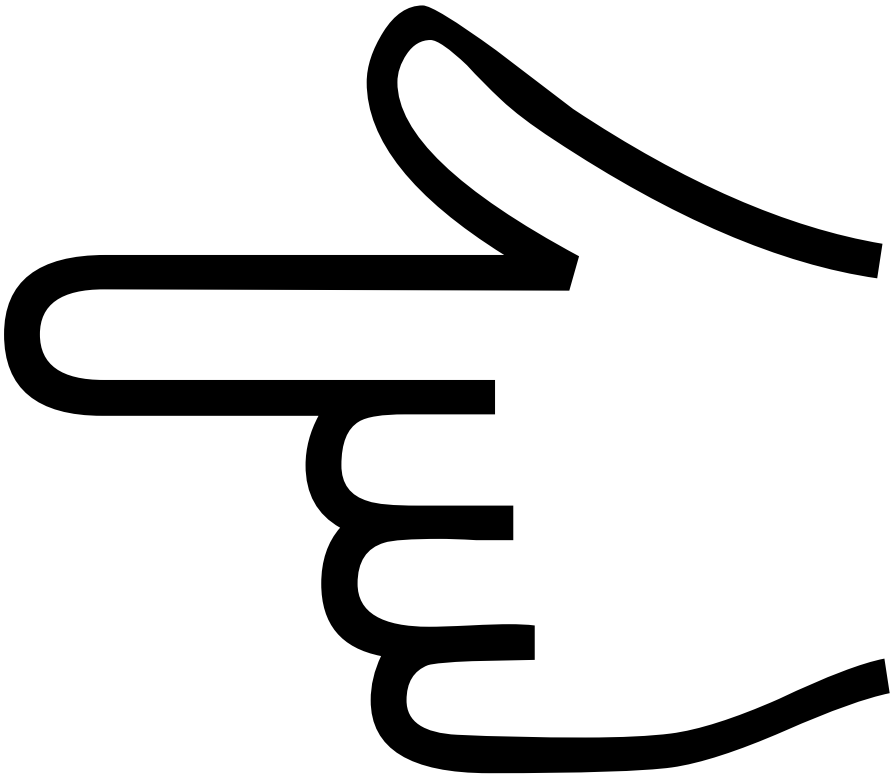


Coromant U drills R416.2

- Diameter range 12,7 – 58 mm
- Drill depth 2 – 4 × diameter
- Different shank types
- Tailor Made options up to 5 x diameter available

B 54

Coromant U Socket head cap screw drills

- Standard diameter for screw sizes M12, M14, M16 and M20
- Drill depth 2 x D
- Cylindrical shank with flat (ISO 9766)
- Tailor Made options available

B 67

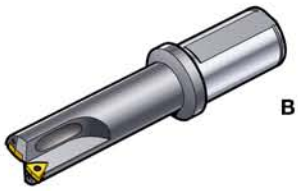
Coromant U drills, step and chamfer

- Available as Tailor Made
- Diameter range 12,7 – 57 mm
- Three tools in one
- Different shank types

B 65

Coromant U Plunge drills

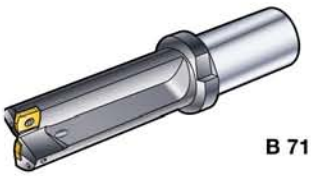
- Suitable for rough opening of deeper cavities
- Diameter 12,7 – 35 mm
- Drill depth 4 x D
- Cylindrical shank with flat (ISO 9766)
- Engineered special options diameter range 12,7 – 58 mm, 2 – 6 xD



B 70

T-Max® U – Left hand drills

- Diameter range 17,5 – 58 mm
- Drill depth 2,5 × diameter
- Coromant Whistle Notch shank
- Tailor Made options available



B 71

T-Max® U stack drills R416.01

- Problem solver for drilling stacked components
- Diameter range 27 – 59 mm
- Drill depth 2,5 × diameter
- Coromant Whistle Notch shank

B 73

T-Max® U – ≥ 60 mm

- Exchangeable cartridges
- Diameter range 60 – 80 mm
- Drill depth 2,5 × diameter
- Varilock coupling

B 74

T-Max® U trepanning drills R416.7

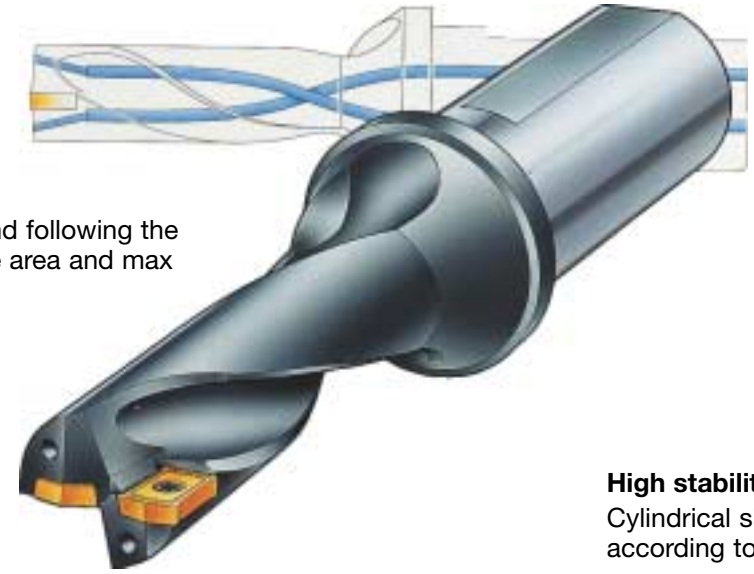
- Suitable when machine power is a limitation for solid drilling
- Exchangeable cartridges
- Diameter range 60 – 110 mm, drill diameter over 110 mm available on request
- Drill depth 2,5 × diameter
- Varilock coupling
- Special inner cartridge can be used for drilling stacked components

B 74

Coromant U

Indexable drills for high productivity and cost efficient holes

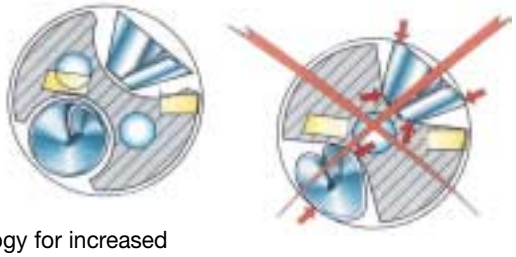
Lengths for hole depths: 2 – 4 × Dia. As Tailor Made option: 5 × Dia
Hole diameters 12,7–58 mm



Effective cutting fluid holes
located along the periphery and following the helix — to allow optimum flute area and max cutting fluid flow.

High stability shank
Cylindrical shank with flat according to ISO 9766

Smooth, unobstructed chip evacuation
for good hole quality and trouble-free operation. The safe tool for unmanned production.

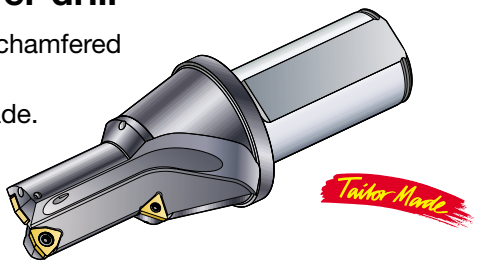


Wiper High feed Wiper technology for increased productivity with good surface finish.

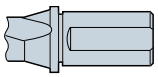
Step and chamfer drill

The hole is drilled and chamfered in one operation.

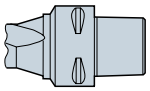
Standard and Tailor Made.



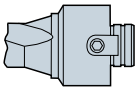
Mounting options



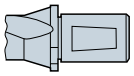
Cylindrical with flat
- according to ISO 9766



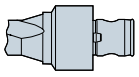
Coromant Capto®



Varilock



Coromant Whistle Notch



Compatible with ABS holders

Benchmarks – Coromant U drills

Productivity

The most cost efficient holmaking tool

Drill diameter from 12,7 mm up to 58 mm.

Hole depths from 2 × D_c, all the way up to 5 × D_c.

Designed for use in all materials for safe and unmanned production. Excellent in difficult materials, e. g. low carbon steel and stainless steel.

Wiper High feed Wiper technology for increased productivity with good surface finish.

Safe and easy to use

One grade and one geometry covers almost all materials.

CoroKey. Recommended stat values for feeds and speeds on the insert box.

Torx plus screw and key for a safe grip and insert clamping.

Tailor Made

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.

Versatility

A wide variety of shanks, drill diameters and lengths.

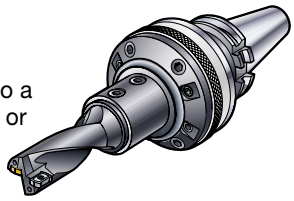
Tailor Made drills, made to your specification.

Use the drill as boring bar for close tolerances

Drilling against inclined surfaces, cross hole drilling, plunge drilling, back chamfering as well as drilling of conical holes are possible.

Closer tolerances

The drill can be radially adjusted to a closer tolerances, either in a lathe or with an adjustable holder. See page B 97 for more information.



Drill adaptor for silent drilling

To improve the work environment this patented dampened adaptor has been developed and it should be used with Coromant U indexable insert drills in specific applications where high pitch noise is a problem.

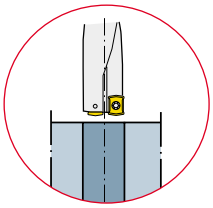
It is available for Coromant Capto®, ISO taper 7388/1 and MAS-BT40 and 50.

Every single adaptor will be individually optimised for the drill size requested.

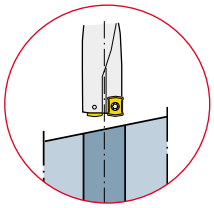
Note: the drill diameter and drill length must be stated in the order.

B

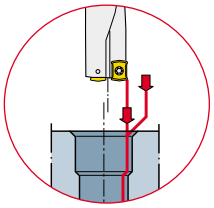
Operations:



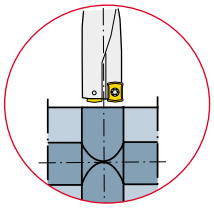
General drilling



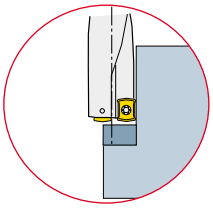
Surface with angle



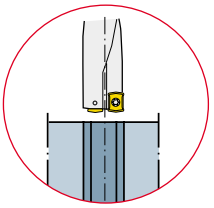
Radial adjustment
Non rotating drill



Cross holes



Plunge drilling

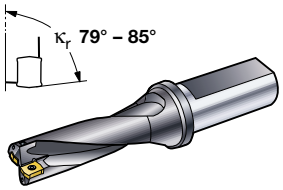


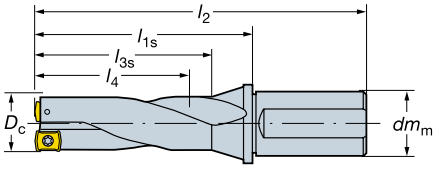
Boring

2 × D_c

Cylindrical shank

Flat according to ISO 9766





Drill diameter, D_c 12,7–58 mm

Hole tolerance +0,3 mm
-0,1 mm

Tolerance, D_c ± 0,15 mm (D_c 12,7 – 25,0 mm)
± 0,20 mm (D_c 26,0 – 58,0 mm)

Max hole depth, l_4 2 x D_c

l_{1s} = programming length

Drill diameter D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	kg	Inserts[2]	Spare parts: Insert screw	Spare parts: Screwdriver (Torx Plus)	Radial adjustment (max)	Max D_c
12,7	**R416.2- 0127L20-21**		41	91	28	25	0,2	LCMX 02..P LCMX 02..C	5513 020-33	5680 046-03 (7IP)	+ 1,2 →	15,1
13	**0130L20-21**		42	92	29	26	0,2				+ 1,15	15,3
13,5	**0135L20-21**	20	43	93	30	27	0,2				+ 1,1	15,7
14	**0140L20-21**		44	95	31	28	0,2				+ 1,0	16,0
14,5	**0145L20-21**		46	96	32	29	0,2				+ 0,9	16,3
15	**0150L20-21**		47	97	33	30	0,2				+ 0,85	16,7
15,5	**0155L20-21**		49	99	35	31	0,2				+ 0,75	17,0
16	**0160L20-21**	20	51	101	36	32	0,2				+ 0,7	17,4
16,5	**0165L20-21**		52	102	37	33	0,2				+ 0,6	17,7
17	**0170L20-21**		53	103	38	34	0,2				+ 0,5	18,0
17,5	**R416.2- 0175L25-21**		55	111	39	35	0,3	LCMX 03	5513 020-19	5680 046-03 (7IP)	+ 1,0 →	19,5
18	**0180L25-21**		56	112	40	36	0,3				+ 0,9	19,8
18,5	**0185L25-21**	25	57	113	41	37	0,3				+ 0,85	20,2
19	**0190L25-21**		58	114	42	38	0,3				+ 0,8	20,6
20	**0200L25-21**		61	117	44	40	0,3				+ 0,75	21,5
21	**R416.2- 0210L25-21**		64	120	46	42	0,3	LCMX 04	5513 020-20	5680 046-03 (7IP)	+ 1,5 →	24,0
22	**0220L25-21**		66	122	48	44	0,3				+ 1,25	24,5
23	**0230L25-21**	25	69	125	50	46	0,3				+ 1,0	25,0
24	**0240L25-21**		71	127	52	48	0,4				+ 0,75	25,5
25	**0250L25-21**		74	130	54	50	0,4				+ 0,5	26,0
26	**R416.2- 0260L32-21**		77	137	56	52	0,6	WCMX 05	416.1-832	5680 046-04 (9IP)	+ 2,5 →	31,0
27	**0270L32-21**		79	139	58	54	0,6				+ 2,2	31,4
28	**0280L32-21**	32	82	142	60	56	0,6				+ 2,1	32,2
29	**0290L32-21**		84	144	62	58	0,6				+ 1,8	32,6
30	**0300L32-21**		87	147	64	60	0,6				+ 1,8	33,0
31	**R416.2- 0310L40-21**		90	160	66	62	1,0	WCMX 06	416.1-833	5680 046-05 (10IP)	+ 3,5 →	38,0
32	**0320L40-21**		92	162	68	64	1,0				+ 3,2	38,4
33	**0330L40-21**	40	95	165	70	66	1,1				+ 3,0	39,0
34	**0340L40-21**		98	168	73	68	1,1				+ 2,8	39,6
35	**0350L40-21**		101	171	75	70	1,1				+ 2,5	40,0
36	**0360L40-21**		104	174	77	72	1,1				+ 2,3	40,6
37	**0370L40-21**		105	175	78	74	1,2				+ 2,0	41,0
38	**0380L40-21**	40	108	178	80	76	1,2				+ 1,8	41,6
39	**0390L40-21**		110	180	82	78	1,2				+ 1,5	42,0
40	**0400L40-21**		113	183	84	80	1,3				+ 1,2	42,4
41	**0410L40-21**		117	187	87	82	1,3				+ 1,0	43,0
42	**R416.2- 0420L40-21**		119	189	89	84	1,3	WCMX 08	416.1-834	5680 046-02 (15IP)	+ 4,2 →	50,4
43	**0430L40-21**		122	192	91	86	1,3				+ 4,0	51,0
44	**0440L40-21**	40	124	194	93	88	1,4				+ 3,7	51,4
45	**0450L40-21**		127	197	95	90	1,4				+ 3,6	52,2
46	**0460L40-21**		130	200	97	92	1,5				+ 3,3	52,6
47	**0470L40-21**		132	202	99	94	1,8				+ 3,0	53,0
48	**0480L40-21**		135	205	101	96	1,8				+ 2,7	53,4
49	**0490L40-21**	40	137	207	103	98	1,9				+ 2,5	54,0
50	**0500L40-21**		140	210	105	100	2,0				+ 2,2	54,4
51	**0510L40-21**		144	214	108	102	2,0				+ 2,0	55,0
52	**0520L40-21**		146	216	110	104	2,1				+ 1,8	55,6
53	**0530L40-21**		149	219	112	106	2,2				+ 1,5	56,0
54	**0540L40-21**	40	151	221	114	108	2,2				+ 1,2	56,4
55	**0550L40-21**		154	224	116	110	2,3				+ 0,8	56,6
56	**0560L40-21**		157	227	118	112	2,4				+ 0,6	57,2
57	**0570L40-21**		159	229	120	114	2,4				+ 0,5	58,0
58	**0580L40-21**	40	162	232	122	116	2,5				+ 0,4	58,8

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127L20-21

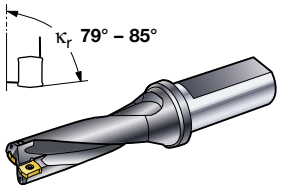
B 64 | B 75 | B 78 | B 80 | B 87 | B 95

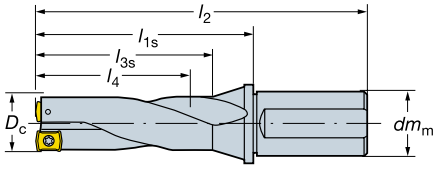
SANDVIK Coromant

3 × D_c

Cylindrical shank

Flat according to ISO 9766





Drill diameter, D_c	12,7–58 mm
Hole tolerance	+0,3 mm -0,1 mm
Tolerance, D_c	± 0,15 mm (D_c 12,7 – 30,0 mm) ± 0,20 mm (D_c 31,0 – 58,0 mm)
Max hole depth, l_4	3 x D_c

l_{1s} = programming length

Drill diameter	**Ordering code**	**Dimensions, mm**						**Inserts**[1]	**Spare parts**		**Radial adjustment (max)**	
D_c mm		dm_m	l_{1s}	l_2	l_{3s}	l_4	KG		Insert screw	Screwdriver (Torx Plus)		Max D_c
12,7	R416.2- 0127L20-31		54	104	41	38	0,2	LCMX 02..P LCMX 02..C	5513 020-33	5680 046-03 (7IP)	+ 1,2 →	15,1
13	0130L20-31		55	105	42	39	0,2				+ 1,15	15,3
13,5	0135L20-31	20	56	106	43	41	0,2				+ 1,1	15,7
14	0140L20-31		58	108	45	42	0,2				+ 1,0	16,0
14,5	0145L20-31		60	110	46	44	0,2				+ 0,9	16,3
15	0150L20-31		62	112	48	45	0,2				+ 0,85	16,7
15,5	0155L20-31		64	114	50	47	0,2				+ 0,75	17,0
16	0160L20-31	20	66	116	51	48	0,2				+ 0,7	17,4
16,5	0165L20-31		68	118	53	50	0,2				+ 0,6	17,7
17	0170L20-31		69	119	54	51	0,2				+ 0,5	18,0
17,5	R416.2- 0175L25-31		72	128	56	53	0,3	LCMX 03	5513 020-19	5680 046-03 (7IP)	+ 1,0 →	19,5
18	0180L25-31		73	129	57	54	0,3				+ 0,9	19,8
18,5	0185L25-31	25	75	131	59	56	0,3				+ 0,85	20,2
19	0190L25-31		76	132	60	57	0,3				+ 0,8	20,6
20	0200L25-31		81	137	64	60	0,3				+ 0,75	21,5
21	R416.2- 0210L25-31		84	140	66	63	0,3	LCMX 04	5513 020-20	5680 046-03 (7IP)	+ 1,5 →	24,0
22	0220L25-31		87	143	69	66	0,3				+ 1,25	24,5
23	0230L25-31	25	91	147	72	69	0,3				+ 1,0	25,0
24	0240L25-31		95	151	76	72	0,4				+ 0,75	25,5
25	0250L25-31		99	155	79	75	0,4				+ 0,5	26,0
26	R416.2- 0260L32-31		102	162	81	78	0,6	WCMX 05	416.1-832	5680 046-04 (9IP)	+ 2,5 →	31,0
27	0270L32-31		105	165	84	81	0,6				+ 2,2	31,4
28	0280L32-31	32	109	169	87	84	0,6				+ 2,1	32,2
29	0290L32-31		112	172	90	87	0,7				+ 1,8	32,6
30	0300L32-31		117	177	94	90	0,7				+ 1,8	33,0
31	R416.2- 0310L40-31		121	191	97	93	1,0	WCMX 06	416.1-833	5680 046-05 (10IP)	+ 3,5 →	38,0
32	0320L40-31		124	194	100	96	1,0				+ 3,2	38,4
33	0330L40-31	40	128	198	103	99	1,1				+ 3,0	39,0
34	0340L40-31		131	201	106	102	1,1				+ 2,8	39,6
35	0350L40-31		135	205	109	105	1,2				+ 2,5	40,0
36	0360L40-31		139	209	112	108	1,2				+ 2,3	40,6
37	0370L40-31		142	212	115	111	1,3				+ 2,0	41,0
38	0380L40-31	40	146	216	118	114	1,3				+ 1,8	41,6
39	0390L40-31		149	219	121	117	1,4				+ 1,5	42,0
40	0400L40-31		153	223	124	120	1,4				+ 1,2	42,4
41	0410L40-31		157	227	127	123	1,5				+ 1,0	43,0
42	R416.2- 0420L40-31		160	230	130	126	1,5	WCMX 08	416.1-834	5680 046-02 (15IP)	+ 4,2 →	50,4
43	0430L40-31		164	234	133	129	1,6				+ 4,0	51,0
44	0440L40-31	40	167	237	136	132	1,7				+ 3,7	51,4
45	0450L40-31		172	242	140	135	1,7				+ 3,6	52,2
46	0460L40-31		176	246	143	138	1,8				+ 3,3	52,6
47	0470L40-31		179	249	146	141	2,1				+ 3,0	53,0
48	0480L40-31		183	253	149	144	2,2				+ 2,7	53,4
49	0490L40-31	40	186	256	152	147	2,3				+ 2,5	54,0
50	0500L40-31		190	260	155	150	2,3				+ 2,2	54,4
51	0510L40-31		194	264	158	153	2,4				+ 2,0	55,0
52	0520L40-31		197	267	161	156	2,5				+ 1,8	55,6
53	0530L40-31		201	271	164	159	2,6				+ 1,5	56,0
54	0540L40-31	40	204	274	167	162	2,7				+ 1,2	56,4
55	0550L40-31		209	279	171	165	2,8				+ 0,8	56,6
56	0560L40-31		213	283	174	168	2,9				+ 0,6	57,2
57	0570L40-31		216	286	177	171	3,0				+ 0,5	58,0
58	0580L40-31	40	220	290	180	174	3,1				+ 0,4	58,8

[1] Inserts are ordered separately.

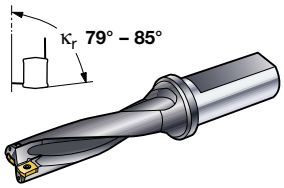
Ordering example: 2 pieces R416.2-0127L20-31

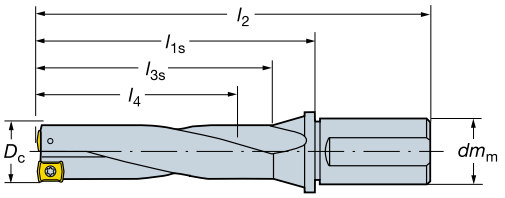
B 64 | B 75 | B 78 | B 80 | B 87 | B 95

4 × D_c

Cylindrical shank

Flat according to ISO 9766





Drill diameter, D_c	12,7–58 mm
Hole tolerance	+0,4 mm -0,1 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	4 x D_c

l_{1s} = programming length

Drill diameter D_c mm	Ordering code	dm_m	l_{1s}	l_2	l_{3s}	l_4	kg	Inserts[1]	Spare parts: Insert screw	Spare parts: Screwdriver (Torx Plus)	Radial adjustment (max)	Max D_c
12,7	R416.2- 0127L20-41		66	116	53	51	0,2	LCMX 02..P LCMX 02..C	5513 020-33	5680 046-03 (7IP)	+ 1,2 →	15,1
13	0130L20-41		68	118	55	52	0,2				+ 1,15	15,3
13,5	0135L20-41	20	70	120	57	54	0,2				+ 1,1	15,7
14	0140L20-41		72	122	59	56	0,2				+ 1,0	16,0
14,5	0145L20-41		75	125	61	58	0,2				+ 0,9	16,3
15	0150L20-41		77	127	63	60	0,2				+ 0,85	16,7
15,5	0155L20-41		79	129	65	62	0,2				+ 0,75	17,0
16	0160L20-41	20	82	132	67	64	0,2				+ 0,7	17,4
16,5	0165L20-41		84	134	69	66	0,2				+ 0,6	17,7
17	0170L20-41		86	136	71	68	0,2				+ 0,5	18,0
17,5	R416.2- 0175L25-41		89	145	73	70	0,3	LCMX 03	5513 020-19	5680 046-03 (7IP)	+ 1,0 →	19,5
18	0180L25-41		91	147	75	72	0,3				+ 0,9	19,8
18,5	0185L25-41	25	93	149	77	74	0,3				+ 0,85	20,2
19	0190L25-41		95	151	79	76	0,3				+ 0,8	20,6
20	0200L25-41		101	157	84	80	0,3				+ 0,75	21,5
21	R416.2- 0210L25-41		105	161	87	84	0,3	LCMX 04	5513 020-20	5680 046-03 (7IP)	+ 1,5 →	24,0
22	0220L25-41		109	165	91	88	0,3				+ 1,25	24,5
23	0230L25-41	25	114	170	95	92	0,4				+ 1,0	25,0
24	0240L25-41		119	175	100	96	0,4				+ 0,75	25,5
25	0250L25-41		124	180	104	100	0,4				+ 0,5	26,0
26	R416.2- 0260L32-41		128	188	107	104	0,6	WCMX 05	416.1-832	5680 046-04 (9IP)	+ 2,5 →	31,0
27	0270L32-41		132	192	111	108	0,6				+ 2,2	31,4
28	0280L32-41	32	137	197	115	112	0,7				+ 2,1	32,2
29	0290L32-41		141	201	119	116	0,7				+ 1,8	32,6
30	0300L32-41		147	207	124	120	0,8				+ 1,5	33,0
31	R416.2- 0310L40-41		152	222	128	124	1,1	WCMX 06	416.1-833	5680 046-05 (10IP)	+ 3,5 →	38,0
32	0320L40-41		156	226	132	128	1,1				+ 3,2	38,4
33	0330L40-41	40	161	231	136	132	1,2				+ 3,0	39,0
34	0340L40-41		165	235	140	136	1,2				+ 2,8	39,6
35	0350L40-41		170	240	144	140	1,3				+ 2,5	40,0
36	0360L40-41		175	245	148	144	1,3				+ 2,3	40,6
37	0370L40-41		179	249	152	148	1,4				+ 2,0	41,0
38	0380L40-41		184	254	156	152	1,4				+ 1,8	41,6
39	0390L40-41	40	188	258	160	156	1,5				+ 1,5	42,0
40	0400L40-41		193	263	164	160	1,6				+ 1,2	42,4
41	0410L40-41		198	268	168	164	1,7				+ 1,0	43,0
42	R416.2- 0420L50-41		202	282	172	168	1,8	WCMX 08	416.1-834	5680 046-02 (15IP)	+ 4,2 →	50,4
43	0430L50-41		207	287	176	172	1,9				+ 4,0	51,0
44	0440L50-41	50	211	291	180	176	1,9				+ 3,7	51,4
45	0450L50-41		217	297	185	180	2,0				+ 3,6	52,2
46	0460L50-41		222	302	189	184	2,1				+ 3,3	52,6
47	0470L50-41		226	306	193	188	2,4				+ 3,0	53,0
48	0480L50-41		231	311	197	192	2,5				+ 2,7	53,4
49	0490L50-41	50	235	315	201	196	2,6				+ 2,5	54,0
50	0500L50-41		240	320	205	200	2,7				+ 2,2	54,4
51	0510L50-41		245	325	209	204	2,8				+ 2,0	55,0
52	0520L50-41		249	329	213	208	2,9				+ 1,8	55,6
53	0530L50-41		254	334	217	212	3,0				+ 1,5	56,0
54	0540L50-41	50	258	338	221	216	3,1				+ 1,2	56,4
55	0550L50-41		264	344	226	220	3,3				+ 0,8	56,6
56	0560L50-41		269	349	230	224	3,4				+ 0,6	57,2
57	0570L50-41		273	353	234	228	3,5				+ 0,5	58,0
58	0580L50-41	50	278	358	238	232	3,6				+ 0,4	58,8

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127L20-41

B 64 | B 75 | B 78 | B 80 | B 87 | B 95

SANDVIK Coromant

3 × D_c

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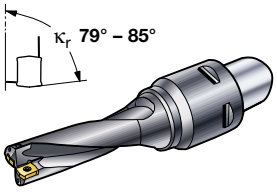
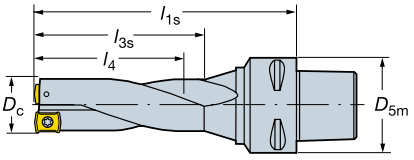
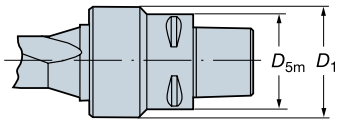






Drill diameter, D_c	12,7–30 mm
Hole tolerance	+0,3 mm -0,1 mm
Tolerance, D_c	± 0,15 mm (D_c 12,7 – 25,0 mm) ± 0,20 mm (D_c 26,0 – 30,0 mm)
Max hole depth, l_4	3 x D_c

l_{1s} = programming length

Drill diameter	**Size C3**						**Size C4**						**Inserts**[1]
	Ordering code	**Dimensions, mm**					**Ordering code**	**Dimensions, mm**					
D_c mm		D_{5m}	D_1	l_{1s}	l_{3s}	l_4	KG		D_{5m}	l_{1s}	l_{3s}	l_4	KG	
12,7	**R416.2- 0127C3-31**		-	81	41	38	0,2	**R416.2- 0127C4-31**		79	41	38	0,3	LCMX 02..P
13	**0130C3-31**		-	82	42	39	0,2	**0130C4-31**		80	42	39	0,3	LCMX 02..C
13,5	**0135C3-31**	32	-	83	43	41	0,2	**0135C4-31**	40	81	43	41	0,3	
14	**0140C3-31**		-	85	45	42	0,2	**0140C4-31**		83	45	42	0,3	
14,5	**0145C3-31**		-	87	46	44	0,2	**0145C4-31**		85	46	44	0,3	
15	**0150C3-31**		-	89	48	45	0,2	**0150C4-31**		87	48	45	0,4	
15,5	**0155C3-31**		-	91	50	47	0,2	**0155C4-31**		89	50	47	0,4	
16	**0160C3-31**	32	-	93	51	48	0,2	**0160C4-31**	40	91	51	48	0,4	
16,5	**0165C3-31**		-	95	53	50	0,2	**0165C4-31**		93	53	50	0,4	
17	**0170C3-31**		-	96	54	51	0,2	**0170C4-31**		94	54	51	0,4	
17,5	**R416.2- 0175C3-31**		40	104	56	53	0,3	**R416.2- 0175C4-31**		102	56	53	0,4	LCMX 03
18	**0180C3-31**		40	105	57	54	0,3	**0180C4-31**		103	57	54	0,4	
18,5	**0185C3-31**	32	40	107	59	56	0,3	**0185C4-31**	40	105	59	56	0,4	
19	**0190C3-31**		40	108	60	57	0,3	**0190C4-31**		106	60	57	0,4	
20	**0200C3-31**		40	113	64	60	0,3	**0200C4-31**		111	64	60	0,4	
21								**R416.2- 0210C4-31**		114	66	63	0,5	LCMX 04
22								**0220C4-31**		117	69	66	0,5	
23								**0230C4-31**	40	121	72	69	0,5	
24								**0240C4-31**		125	76	72	0,5	
25								**0250C4-31**		129	79	75	0,5	
26								**R416.2- 0260C4-31**		132	81	78	0,6	WCMX 05
27								**0270C4-31**		135	84	81	0,6	
28								**0280C4-31**	40	139	87	84	0,7	
29								**0290C4-31**		142	90	87	0,7	
30								**0300C4-31**		147	94	90	0,7	

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127C3-31

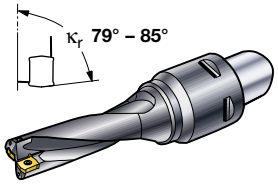
Radial adjustment

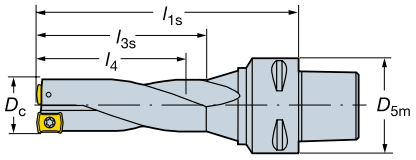
When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

B 64 | B 75 | B 78 | B 80 | B 87 | B 95

3 × D_c

Coromant Capto®





Drill diameter, D_c 12,7–41 mm

Hole tolerance +0,3 mm
-0,1 mm

Tolerance, D_c ± 0,15 mm (D_c 12,7 – 25,0 mm)
± 0,20 mm (D_c 26,0 – 41,0 mm)

Max hole depth, l_4 3 x D_c

l_{1s} = programming length

Drill diameter	Size C5						Size C6						Inserts[1]
	Ordering code	Dimensions, mm					Ordering code	Dimensions, mm					
D_c mm		D_{5m}	l_{1s}	l_{3s}	l_4	KG		D_{5m}	l_{1s}	l_{3s}	l_4	KG	
12,7	R416.2-0127C5-31		79	41	38	0,6	R416.2-0127C6-31		84	41	38	1,1	LCMX 02..P
13	0130C5-31		80	42	39	0,6	0130C6-31		85	42	39	1,1	LCMX 02..C
13,5	0135C5-31	50	81	43	41	0,6	0135C6-31	63	86	43	41	1,1	
14	0140C5-31		83	45	42	0,6	0140C6-31		88	45	42	1,1	
14,5	0145C5-31		85	46	44	0,6	0145C6-31		90	46	44	1,1	
15	0150C5-31		87	48	45	0,6	0150C6-31		92	48	45	1,1	
15,5	0155C5-31		89	50	47	0,6	0155C6-31		94	50	47	1,1	
16	0160C5-31	50	91	51	48	0,6	0160C6-31	63	96	51	48	1,1	
16,5	0165C5-31		93	53	50	0,6	0165C6-31		98	53	50	1,1	
17	0170C5-31		94	54	51	0,6	0170C6-31		99	54	51	1,1	
17,5	R416.2-0175C5-31		102	56	53	0,6	R416.2-0175C6-31		107	56	53	1,2	LCMX 03
18	0180C5-31		103	57	54	0,7	0180C6-31		108	57	54	1,2	
18,5	0185C5-31	50	105	59	56	0,7	0185C6-31	63	110	59	56	1,2	
19	0190C5-31		106	60	57	0,7	0190C6-31		111	60	57	1,2	
20	0200C5-31		111	64	60	0,7	0200C6-31		116	64	60	1,2	
21	R416.2-0210C5-31		114	66	63	0,7	R416.2-0210C6-31		114	66	63	1,3	LCMX 04
22	0220C5-31		117	69	66	0,7	0220C6-31		122	69	66	1,3	
23	0230C5-31	50	121	72	69	0,7	0230C6-31	63	126	72	69	1,3	
24	0240C5-31		125	76	72	0,8	0240C6-31		130	76	72	1,3	
25	0250C5-31		129	79	75	0,8	0250C6-31		134	79	75	1,3	
26	R416.2-0260C5-31		132	81	78	0,9	R416.2-0260C6-31		137	81	78	1,4	WCMX 05
27	0270C5-31		135	84	81	0,9	0270C6-31		140	84	81	1,4	
28	0280C5-31	50	139	87	84	0,9	0280C6-31	63	144	87	84	1,5	
29	0290C5-31		142	90	87	0,9	0290C6-31		147	90	87	1,5	
30	0300C5-31		147	94	90	1,0	0300C6-31		152	94	90	1,5	
31	R416.2-0310C5-31		156	97	93	1,1	R416.2-0310C6-31		156	97	93	1,6	WCMX 06
32	0320C5-31		159	100	96	1,1	0320C6-31		159	100	96	1,6	
33	0330C5-31	50	163	103	99	1,2	0330C6-31	63	163	103	99	1,7	
34	0340C5-31		166	106	102	1,2	0340C6-31		166	106	102	1,7	
35	0350C5-31		170	109	105	1,2	0350C6-31		170	109	105	1,7	
36	0360C5-31		174	112	108	1,3	0360C6-31		174	112	108	1,7	
37	0370C5-31		177	115	111	1,3	0370C6-31		177	115	111	1,8	
38	0380C5-31	50	181	118	114	1,4	0380C6-31	63	181	118	114	1,8	
39	0390C5-31		184	121	117	1,4	0390C6-31		184	121	117	1,9	
40	0400C5-31		188	124	120	1,5	0400C6-31		188	124	120	1,9	
41	0410C5-31		192	127	123	1,5	0410C6-31		192	127	123	2,0	

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127C5-31

Radial adjustment

When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

B 64 B 75 B 78 B 80 B 87 B 95

4 × D_c

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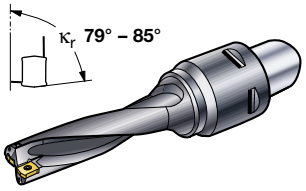
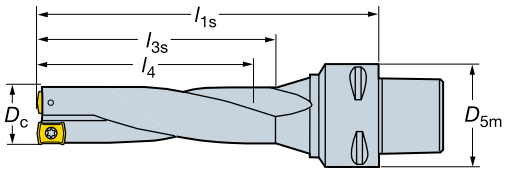




Drill diameter, D_c	12,7–41 mm
Hole tolerance	+0,4 mm -0,1 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	4 x D_c

l_{1s} = programming length

Drill diameter	Size C4						Size C5						Inserts[1]
	Ordering code	Dimensions, mm					Ordering code	Dimensions, mm					
D_c mm		D_{5m}	l_{1s}	l_{3s}	l_4	KG		D_{5m}	l_{1s}	l_{3s}	l_4	KG	
12,7	**R416.2-0127C4-41**		91	53	51	0,3	**R416.2- 0127C5-41**		91	53	51	0,6	LCMX 02..P
13	**0130C4-41**		93	55	52	0,3	**0130C5-41**		93	55	52	0,6	LCMX 02..C
13,5	**0135C4-41**	40	95	57	54	0,3	**0135C5-41**	50	95	57	54	0,6	
14	**0140C4-41**		97	59	56	0,3	**0140C5-41**		97	59	56	0,6	
14,5	**0145C4-41**		100	61	58	0,3	**0145C5-41**		100	61	58	0,6	
15	**0150C4-41**		102	63	60	0,4	**0150C5-41**		102	63	60	0,6	
15,5	**0155C4-41**		104	65	62	0,4	**0155C5-41**		104	65	62	0,6	
16	**0160C4-41**	40	107	67	64	0,4	**0160C5-41**	50	107	67	64	0,6	
16,5	**0165C4-41**		109	69	66	0,4	**0165C5-41**		109	69	66	0,6	
17	**0170C4-41**		111	71	68	0,4	**0170C5-41**		111	71	68	0,6	
17,5	**R416.2-0175C4-41**		119	73	70	0,4	**R416.2- 0175C5-41**		119	73	70	0,7	LCMX 03
18	**0180C4-41**		121	75	72	0,4	**0180C5-41**		121	75	72	0,7	
18,5	**0185C4-41**	40	123	77	74	0,4	**0185C5-41**	50	123	77	74	0,7	
19	**0190C4-41**		125	79	76	0,4	**0190C5-41**		125	79	76	0,7	
20	**0200C4-41**		131	84	80	0,4	**0200C5-41**		131	84	80	0,7	
21	**R416.2-0210C4-41**		135	87	84	0,5	**R416.2- 0210C5-41**		135	87	84	0,7	LCMX 04
22	**0220C4-41**		139	91	88	0,5	**0220C5-41**		139	91	88	0,8	
23	**0230C4-41**	40	144	95	92	0,5	**0230C5-41**	50	144	95	92	0,8	
24	**0240C4-41**		149	100	96	0,5	**0240C5-41**		149	100	96	0,8	
25	**0250C4-41**		154	104	100	0,6	**0250C5-41**		154	104	100	0,8	
26	**R416.2-0260C4-41**		158	107	104	0,7	**R416.2- 0260C5-41**		158	107	104	0,9	WCMX 05
27	**0270C4-41**		162	111	108	0,7	**0270C5-41**		162	111	108	0,9	
28	**0280C4-41**	40	167	115	112	0,7	**0280C5-41**	50	167	115	112	0,9	
29	**0290C4-41**		171	119	116	0,7	**0290C5-41**		171	119	116	0,9	
30	**0300C4-41**		177	124	120	0,8	**0300C5-41**		177	124	120	1,0	
31							**R416.2- 0310C5-41**		187	128	124	1,2	WCMX 06
32							**0320C5-41**		191	132	128	1,2	
33							**0330C5-41**	50	196	136	132	1,3	
34							**0340C5-41**		200	140	136	1,3	
35							**0350C5-41**		205	144	140	1,4	
36							**0360C5-41**		210	148	144	1,4	
37							**0370C5-41**		214	152	148	1,5	
38							**0380C5-41**	50	219	156	152	1,5	
39							**0390C5-41**		223	160	156	1,6	
40							**0400C5-41**		228	164	160	1,6	
41							**0410C5-41**		233	168	164	1,7	

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127C4-41

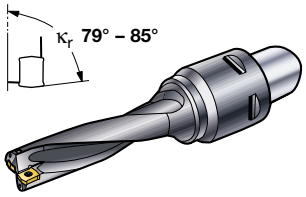
Radial adjustment

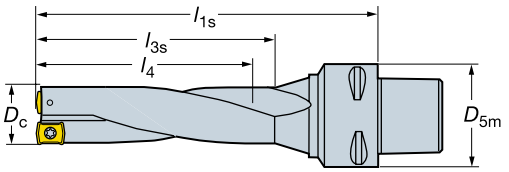
When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

Tailor Made B 64 | B 75 | B 78 | B 80 | V_c B 87 | B 95

4 × D_c

Coromant Capto®





Drill diameter, D_c	12,7–41 mm
Hole tolerance	+0,4 mm -0,1 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	4 x D_c

l_{1s} = programming length

Drill diameter	Size C6						Inserts[1]	
	Ordering code	Dimensions, mm						
D_c mm		D_{5m}	l_{1s}	l_{3s}	l_4	KG		
12,7	**R416.2-0127C6-41**		96	53	51	1,1	LCMX 02..P LCMX 02..C	
13	**0130C6-41**		98	55	52	1,1		
13,5	**0135C6-41**	63	100	57	54	1,1		
14	**0140C6-41**		102	59	56	1,1		
14,5	**0145C6-41**		105	61	58	1,1		
15	**0150C6-41**		107	63	60	1,1		
15,5	**0155C6-41**		109	65	62	1,1		
16	**0160C6-41**	63	112	67	64	1,1		
16,5	**0165C6-41**		114	69	66	1,1		
17	**0170C6-41**		116	71	68	1,1		
17,5	**R416.2-0175C6-41**		124	73	70	1,2	LCMX 03	
18	**0180C6-41**		126	75	72	1,2		
18,5	**0185C6-41**	63	128	77	74	1,3		
19	**0190C6-41**		130	79	76	1,3		
20	**0200C6-41**		136	84	80	1,3		
21	**R416.2-0210C6-41**		140	87	84	1,3	LCMX 04	
22	**0220C6-41**		144	91	88	1,3		
23	**0230C6-41**	63	149	95	92	1,3		
24	**0240C6-41**		154	100	96	1,3		
25	**0250C6-41**		159	104	100	1,4		
26	**R416.2-0260C6-41**		163	107	104	1,5	WCMX 05	
27	**0270C6-41**		167	111	108	1,5		
28	**0280C6-41**	63	172	115	112	1,5		
29	**0290C6-41**		176	119	116	1,5		
30	**0300C6-41**		182	124	120	1,6		
31	**R416.2-0310C6-41**		187	128	124	1,7	WCMX 06	
32	**0320C6-41**		191	132	128	1,7		
33	**0330C6-41**	63	196	136	132	1,7		
34	**0340C6-41**		200	140	136	1,8		
35	**0350C6-41**		205	144	140	1,8		
36	**0360C6-41**		210	148	144	1,9		
37	**0370C6-41**		214	152	148	1,9		
38	**0380C6-41**	63	219	156	152	2,0		
39	**0390C6-41**		223	160	156	2,0		
40	**0400C6-41**		228	164	160	2,1		
41	**0410C6-41**		233	168	164	2,2		

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127C6-41

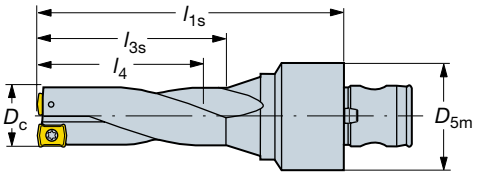
Radial adjustment

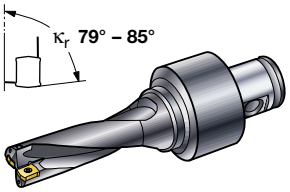
When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

B 64 B 75 B 78 B 80 B 87 B 95

$3 \times D_c$

Compatible with ABS holders





Drill diameter, D_c	12,7–41 mm
Hole tolerance	+0,3 mm -0,1 mm
Tolerance, D_c	± 0,15 mm (D_c 12,7 – 25,0 mm) ± 0,20 mm (D_c 26,0 – 41,0 mm)
Max hole depth, l_4	3 x D_c

l_{1s} = programming length

Drill diameter D_c mm	Ordering code	Dimensions, mm D_{5m}	l_{1s}	l_{3s}	l_4	KG	Inserts[1]	Spare parts: Insert screw	Spare parts: Screwdriver (Torx Plus)
12,7	**R416.2-0127AS5-31**		79	41	38	0,7	LCMX 02..P LCMX 02..C	5513 020-33	5680 046-03 (7IP)
13	**0130AS5-31**		80	42	39	0,7			
13,5	**0135AS5-31**	50	81	43	41	0,7			
14	**0140AS5-31**		83	45	42	0,7			
14,5	**0145AS5-31**		85	46	44	0,7			
15	**R416.2-0150AS5-31**		87	48	45	0,7			
15,5	**0155AS5-31**		89	50	47	0,7			
16	**0160AS5-31**	50	91	51	48	0,7			
16,5	**0165AS5-31**		93	53	50	0,7			
17	**0170AS5-31**		94	54	51	0,7			
17,5	**R416.2-0175AS5-31**		102	56	53	0,6	LCMX 03	5513 020-19	5680 046-03 (7IP)
18	**0180AS5-31**		103	57	54	0,6			
18,5	**0185AS5-31**	50	105	59	56	0,6			
19	**0190AS5-31**		106	60	57	0,7			
20	**0200AS5-31**		111	64	60	0,7			
21	**R416.2-0210AS5-31**		114	66	63	0,7	LCMX 04	5513 020-20	5680 046-03 (7IP)
22	**0220AS5-31**		117	69	66	0,7			
23	**0230AS5-31**	50	121	72	67	0,7			
24	**0240AS5-31**		125	76	72	0,7			
25	**0250AS5-31**		129	79	75	0,8			
26	**R416.2-0260AS5-31**		132	81	78	0,8	WCMX 05	416.1-832	5680 046-04 (9IP)
27	**0270AS5-31**		135	84	81	0,9			
28	**0280AS5-31**	50	139	87	84	0,9			
29	**0290AS5-31**		142	90	87	0,9			
30	**0300AS5-31**		147	94	90	0,9			
31	**R416.2-0310AS5-31**		156	97	93	1,1	WCMX 06	416.1-833	5680 046-05 (10IP)
32	**0320AS5-31**		159	100	96	1,1			
33	**0330AS5-31**	50	163	103	99	1,1			
34	**0340AS5-31**		166	106	102	1,2			
35	**0350AS5-31**		170	109	105	1,2			
36	**R416.2-0360AS5-31**		174	112	108	1,2			
37	**0370AS5-31**		177	115	111	1,3			
38	**0380AS5-31**	50	181	118	114	1,3			
39	**0390AS5-31**		184	121	117	1,4			
40	**0400AS5-31**		188	124	120	1,4			
41	**0410AS5-31**		192	127	123	1,5			

[1] Inserts are ordered separately.

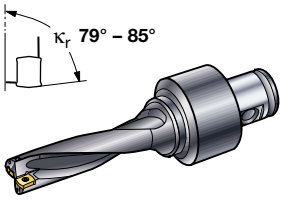
Ordering example: 2 pieces R416.2-0127AS5-31

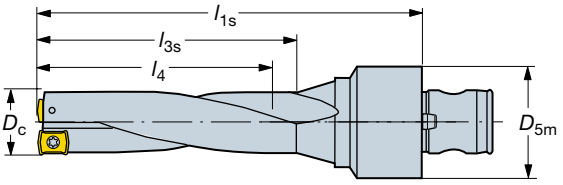
Radial adjustment
When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

B 64 | B 75 | B 78 | B 80 | B 87 | B 95

4 × D_c

Compatible with ABS holders





Drill diameter, D_c	12,7–41 mm
Hole tolerance	+0,4 mm -0,1 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	4 x D_c

l_{1s} = programming length

Drill diameter	Ordering code	Dimensions, mm					Inserts[1]	Spare parts	
D_c mm		D_{5m}	l_{1s}	l_{3s}	l_4	KG		Insert screw	Screwdriver (Torx Plus)
12,7	**R416.2-0127AS5-41**		91	53	51	0,5	LCMX 02..P LCMX 02..C	5513 020-33	5680 046-03 (7IP)
13	**0130AS5-41**		93	55	52	0,5			
13,5	**0135AS5-41**	50	95	57	54	0,5			
14	**0140AS5-41**		97	59	56	0,5			
14,5	**0145AS5-41**		100	61	58	0,5			
15	**R416.2-0150AS5-41**		102	63	60	0,5			
15,5	**0155AS5-41**		104	65	62	0,5			
16	**0160AS5-41**	50	107	67	64	0,5			
16,5	**0165AS5-41**		109	69	66	0,5			
17	**0170AS5-41**		111	71	68	0,5			
17,5	**R416.2-0175AS5-41**		119	73	70	0,7	LCMX 03	5513 020-19	5680 046-03 (7IP)
18	**0180AS5-41**		121	75	72	0,7			
18,5	**0185AS5-41**	50	123	77	74	0,7			
19	**0190AS5-41**		125	79	76	0,7			
20	**0200AS5-41**		131	84	80	0,7			
21	**R416.2-0210AS5-41**		135	87	84	0,7	LCMX 04	5513 020-20	5680 046-03 (7IP)
22	**0220AS5-41**		139	91	88	0,7			
23	**0230AS5-41**	50	144	95	92	0,8			
24	**0240AS5-41**		149	100	96	0,8			
25	**0250AS5-41**		154	104	100	0,8			
26	**R416.2-0260AS5-41**		158	107	104	0,9	WCMX 05	416.1-832	5680 046-04 (9IP)
27	**0270AS5-41**		162	111	108	0,9			
28	**0280AS5-41**	50	167	115	112	0,9			
29	**0290AS5-41**		171	119	116	1,0			
30	**0300AS5-41**		177	124	120	1,0			
31	**R416.2-0310AS5-41**		187	128	124	1,2	WCMX 06	416.1-833	5680 046-05 (10IP)
32	**0320AS5-41**		191	132	128	1,2			
33	**0330AS5-41**	50	196	136	132	1,2			
34	**0340AS5-41**		200	140	136	1,3			
35	**0350AS5-41**		205	144	140	1,3			
36	**R416.2-0360AS5-41**		210	148	144	1,4			
37	**0370AS5-41**		214	152	148	1,4			
38	**0380AS5-41**	50	219	156	152	1,5			
39	**0390AS5-41**		223	160	156	1,5			
40	**0400AS5-41**		228	164	160	1,6			
41	**0410AS5-41**		233	168	164	1,7			

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0127AS5-41

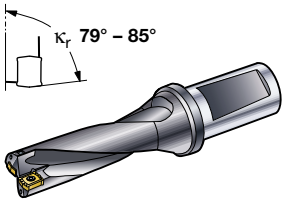
Radial adjustment

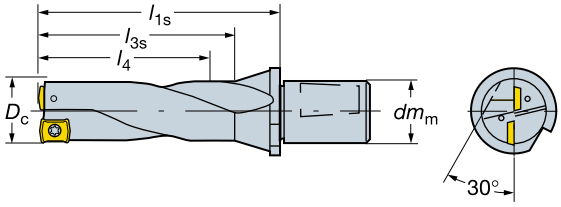
When drilling, use the same radial adjustment values as for drills with ISO/Whistle Notch shank.

B 64 B 75 B 78 B 80 B 87 B 95

3 × D_c

Coromant Whistle Notch shank





Drill diameter, D_c 17,5–41,3 mm
Hole tolerance +0,3 mm
-0,1 mm
Tolerance, D_c ± 0,15 mm (D_c 12,7 – 25,0 mm)
± 0,20 mm (D_c 26,0 – 41,3 mm)
Max hole depth, l_4 3 x D_c

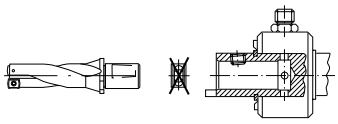
l_{1s} = programming length

Drill diameter	Ordering code	Dimensions, mm					Inserts[1]	Spare parts		Radial adjustment (max)
D_c mm		dm_m	l_{1s}	l_{3s}	l_4	kg		Insert screw	Screwdriver (Torx Plus)	Stationary drill
17,5	**R416.2-0175W20-31**		72	56	53	0,2	LCMX 03	5513 020-19	5680 046-03 (7IP)	+ 1,0
18	**0180W20-31**		73	57	54	0,2				+ 0,9
18,5	**0185W20-31**	20	75	59	56	0,2				+ 0,85
19	**0190W20-31**		76	60	57	0,2				+ 0,8
20	**0200W20-31**		81	64	60	0,2				+ 0,75
21	**R416.2-0210W25-31**		84	66	63	0,3	LCMX 04	5513 020-20	5680 046-03 (7IP)	+ 1,5
22	**0220W25-31**		87	69	66	0,3				+ 1,25
22,2	**0222W25-31**		88	70	67	0,3				+ 1,2
23	**0230W25-31**	25	91	72	69	0,3				+ 1,0
24	**0240W25-31**		95	76	72	0,3				+ 0,75
25	**0250W25-31**		99	79	75	0,4				+ 0,5
25,4	**0254W25-31**		100	80	76	0,4				+ 0,4
26	**R416.2-0260W25-31**		102	81	78	0,5	WCMX 05	416.1-832	5680 046-04 (9IP)	+ 2,5
27	**0270W25-31**		105	84	81	0,5				+ 2,2
28	**0280W25-31**	25	109	87	84	0,5				+ 2,1
28,6	**0286W25-31**		111	89	86	0,5				+ 1,9
29	**0290W25-31**		112	90	87	0,5				+ 1,8
30	**0300W25-31**		117	94	90	0,5				+ 1,5
31	**R416.2-0310W32-31**		121	97	93	0,8	WCMX 06	416.1-833	5680 046-05 (10IP)	+ 3,5
31,8	**0318W32-31**		123	99	95	0,8				+ 3,3
32	**0320W32-31**	32	124	100	96	0,8				+ 3,2
33	**0330W32-31**		128	103	99	0,8				+ 3,0
34	**0340W32-31**		131	106	102	0,8				+ 3,0
35	**0350W32-31**		135	109	105	0,9				+ 2,5
36	**R416.2-0360W32-31**		139	112	108	0,9				+ 2,3
37	**0370W32-31**		142	115	111	1,0				+ 2,0
38	**0380W32-31**		146	118	114	1,0				+ 1,8
39	**0390W32-31**	32	149	121	117	1,1				+ 1,5
40	**0400W32-31**		153	124	120	1,1				+ 1,2
41	**0410W32-31**		157	127	123	1,2				+ 1,0
41,3	**0413W32-31**		158	128	124	1,2				+ 0,9

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.2-0175W20-31

Note!
Make sure that the coolant volume compensator for a Coromant Delta drill is not in the drill holder.



Tailor Made B 64 | B 75 | B 78 | B 80 | v_c B 87 | B 95

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	Coromant Whistle Notch	Coromant Capto®	Varilock	Compatible with ABS holders
D_c mm	Mounting Size dm_m		Mounting Size D_{5m}		
12,70-17,43	16, 20 [1], 25, 32	16, 20, 25, 32	C3, C4, C5, C6	50, 63	50
17,44-20,99	20, 25, 32	20, 25, 32	C3, C4, C5, C6	50, 63	50
21,00-25,99	25, 32	25, 32	C4, C5, C6	50, 63	50
26,00-30,99	32, 40	25, 32, 40	C4, C5, C6	50, 63	50
31,00-41,99	40	32, 40	C5, C6	50, 63	50
42,00-58,99	40, 50	40	C6	63	-

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

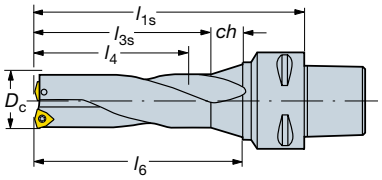
Standard inserts:

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

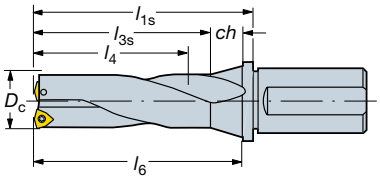

WCMX

Coromant Capto®



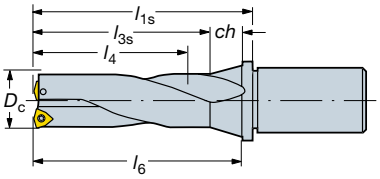
Cylindrical with flat

(acc. to ISO 9766)

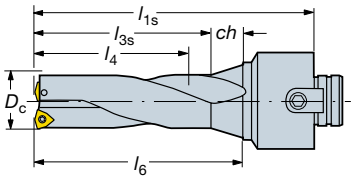


Cylindrical

(Same length as ISO 9766)

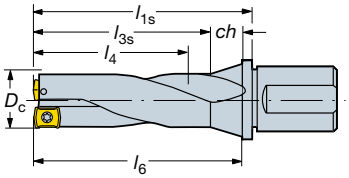


Varilock

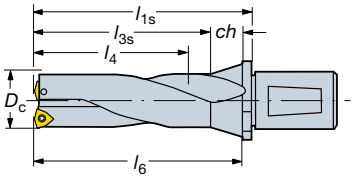


Short cylindrical with flat

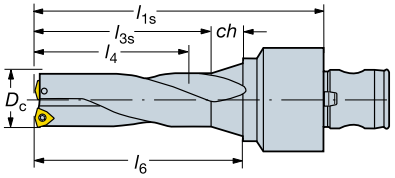
(Only shank size 20)



Coromant Whistle Notch



Compatible with ABS holders



Options

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

Diameter D_c	**12,70-58,99 mm**
Drill length l_{3s}	**28,0-239,7 mm** depending on other parameters
Drill depth l_4	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**
dm_m /D_{5m}	**Mounting size—see above**
Taper length ch	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
Programming length l_{1s}	**38,9-346,6 mm**—depending on other parameters
Flute length l_6	**34,2-277,1 mm,** Recommended value must be used to obtain required l_{3s} or l_4

SANDVIK Coromant

Coromant U step and chamfer

High productivity – three tools in one

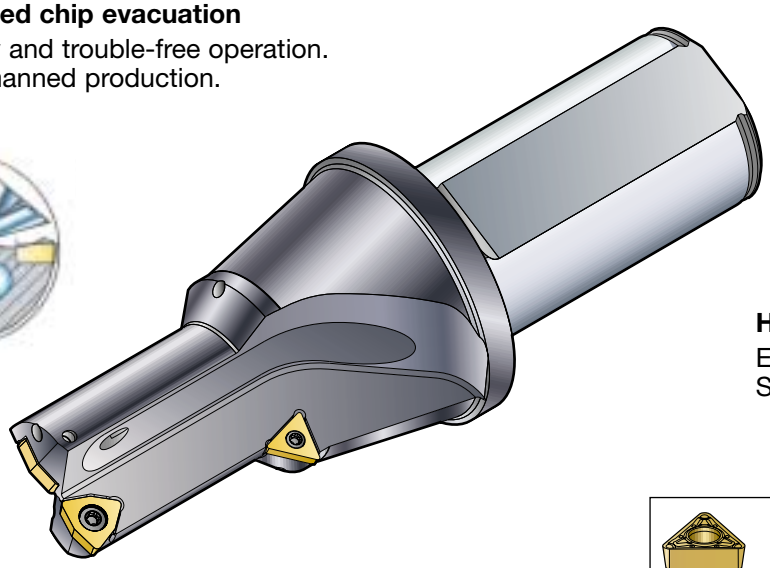
The true cost saver

Standard programme

Socket head cap screw drills for sizes M12, M14, M16 and M20.

Smooth, unobstructed chip evacuation

For good hole quality and trouble-free operation.
The safe tool for unmanned production.



Tailor Made

High stability shank

Easy mounting
Self locating

B

Wiper TECHNOLOGY New LCMX and WCMX wiper inserts in -WM geometry for drilling diameter 17,5 – 41 mm holes faster

TCMT CoroTurn 107

CoroTurn 107 inserts for increased productivity. Insert geometries dedicated to steel, stainless steel, cast iron and aluminium.

Coromant U step and chamfer in combination with Wiper inserts, the true cost saver

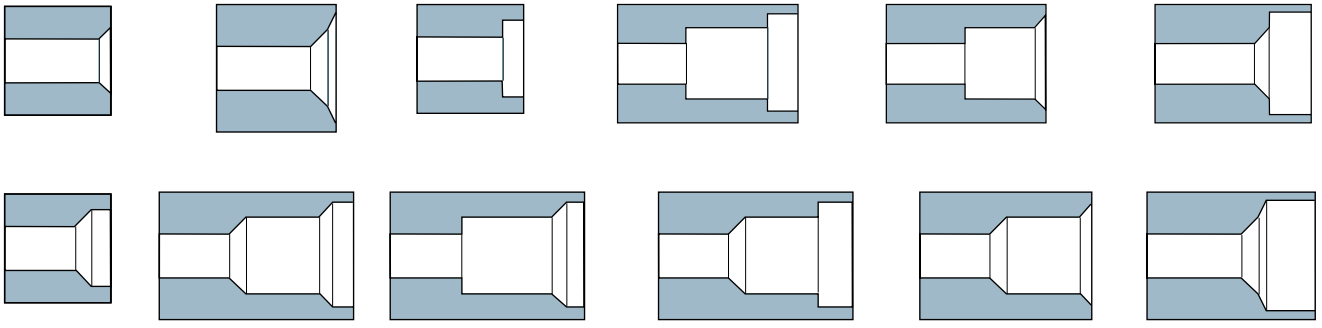
Improved productivity and reduced stock inventory.
The hole is machined in one hit, including steps and chamfers.
Saves space in tool magazine and minimises tool change time.
Modern Coromant U and CoroTurn 107 inserts for improved chip flow and tool life.

LCMX

WCMX

For ordering information, see page B 75.

Operations



Benchmarks – Coromant U step and chamfer

Productivity

Improved productivity and reduced stock inventory. The hole is machined in one hit, including steps and chamfers.

By using the new Coromant U wiper insert in -WM geometry, a 50% higher feed rate can be used compared with conventional drill inserts. Despite this the high surface finish will be maintained!

Versatility

Tailor Made drills, made to your specification.
With up to four inserts in the same drill, positioned according to your requirements.

A wide variety of shanks, drill diameters and lengths.

Safe and easy to use

Recommended start values for feeds and speeds on the insert box.

Torx plus screw and key for a safe grip and insert clamping.

Built-in precision

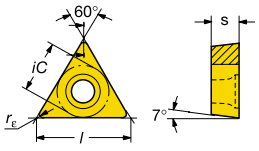
The design makes it possible to adjust the hole and step diameter to a close tolerance by pre-setting the drill.

Cutting data recommendations

- Choose cutting data according to the drilling operation
- Reduce cutting data when step drilling
- Choose corner radius 0,4 mm for step/chamfer insert. If stronger insert is needed, choose radius 0,8 mm.
- For alternative step/chamfer inserts, see Turning tool catalogue.

B

Recommended step and chamfer inserts



ISO

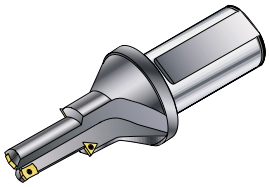
		COROMANT GRADES																					
		P					M					K					H			S			N		
		1025	4025				1025	2015				1025					1025			1025			H13A	1025	
CoroTurn 107																									
	TCMT 06 T1 04-UF	★					★					★					★			★			★		
	TCMT 06 T1 04-MF	★					★	☆				★					★						★	☆	
	TCMT 06 T1 04-KF																								
	TCMT 09 02 04-PF		☆																						
	TCMT 09 02 04-MF	★					★	☆				★					★			★			★	☆	
	TCMT 09 02 04-KF																								
	TCMT 11 03 04-PF		☆																						
	TCMT 11 03 04-MF	★					★					★					★			★			★	☆	
	TCMT 11 03 04-KF																								
	TCMT 16 T3 04-PF		☆																						
	TCMT 16 T3 04-MF	★					★					★					★			★			★	☆	
	TCMT 16 T3 04-KF																								
	TCMT 09 02 04-UF	★					★					★					★						★	☆	
	TCMT 09 02 04-UM	★					★					★					★						★	☆	
	TCMT 16 T3 04-UF	★					★					★					★						★	☆	
	TCMT 16 T3 04-UM	★					★					★					★						★	☆	

★ = First choice

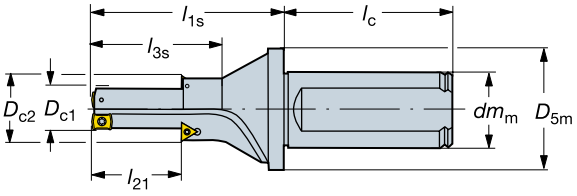
Socket head cap screw

Cylindrical shank

Flat according to ISO 9766



Drill diameter: 13—21 mm
Hole depth: 1–3xD_c
Hole tolerance: +0,30 mm
-0,10 mm
Cutting fluid: Emulsion



l_{21} = Recommended max drilling depth

Drill diameter			Ordering code	Dimensions, mm						Drilling inserts[1]	Chamfer/Step inserts[1]
D_{c1}	D_{c2}	Screw size		dm_m	D_{5m}	l_{1s}	l_{21}[2]	l_{3s}[3]	l_c		
13	20	M12	**R416.21-0130L25-21**	25	40	61	26	40	56	LCMX 02..P LCMX 02..C	TCMT 06
15	24	M14	**R416.21-0150L25-21**	25	40	70	30	48	56	LCMX 02..P LCMX 02..C	TCMT 09
17	26	M16	**R416.21-0170L25-21**	25	40	77	34	52	56	LCMX 02..P LCMX 02..C	TCMT 09
21	33	M20	**R416.21-0210L32-21**	32	40	94	42	66	60	LCMX 04	TCMT 09

[1] Inserts are ordered separately.

Ordering example: 2 pieces R416.21-0130L25-21

[2] l_{21} max drill depth D_{c1}

[3] l_{3s} max drill depth D_{c1} + D_{c2}

For other dimensions see page B 65.

B 68 | B 66, 75 | B 78 | B 80 | B 87 | B 102

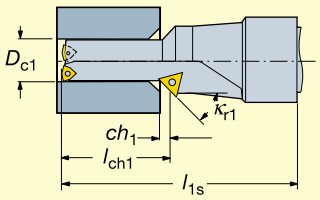
Tailor Made

– 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.

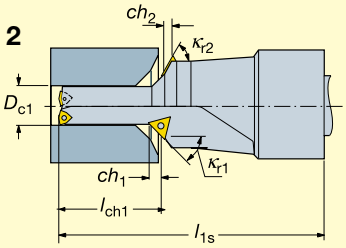
Type TM 416.20

1



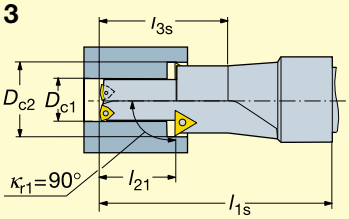
$l_{ch1} = 2{,}3 \times D_{c1}$

2



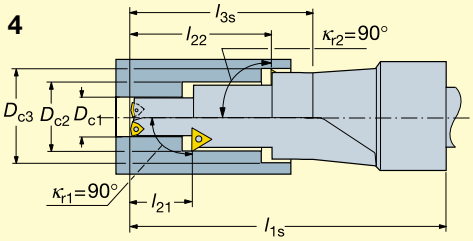
$l_{ch1} = 2{,}3 \times D_{c1}$

3



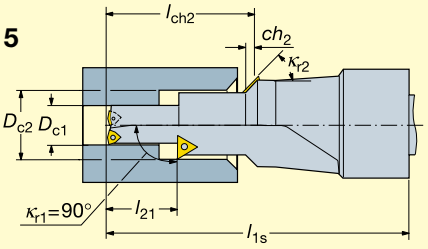
$l_{21} = 1{,}5 \times D_{c1}$
$l_{3s} = 1{,}5 \times D_{c2}$

4



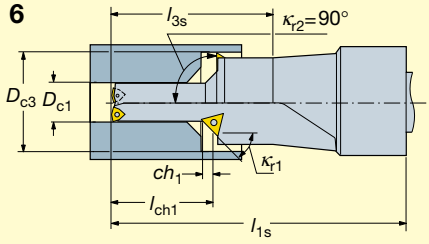
$l_{21} = 1{,}5 \times D_{c1}$
$l_{22} = 1{,}5 \times D_{c2}$
$l_{3s} = 1{,}5 \times D_{c3}$

5



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

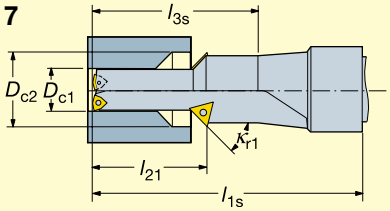
6



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

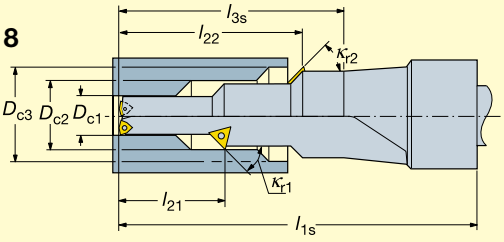
Type S 416.20

7



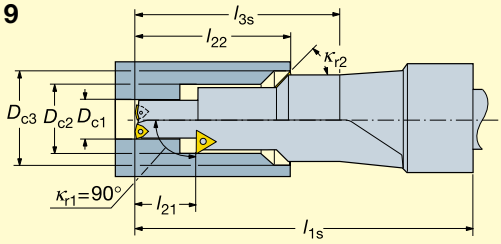
$l_{21} = 3{,}0 \times D_{c1}$
$l_{3s} = 3{,}0 \times D_{c2}$

8



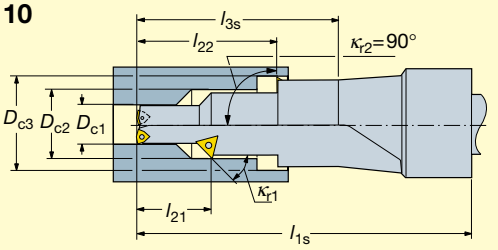
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

9



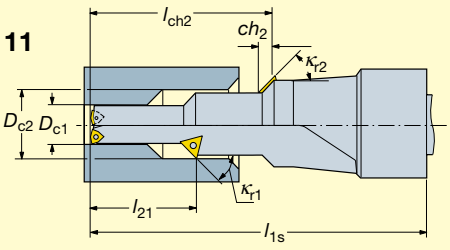
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

10



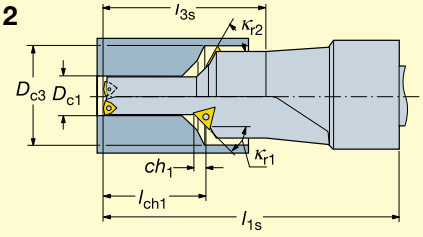
$l_{21} = 3{,}0 \times D_{c1}$
$l_{22} = 3{,}0 \times D_{c2}$
$l_{3s} = 3{,}0 \times D_{c3}$

11



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

12



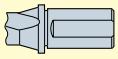
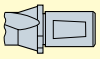
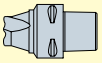
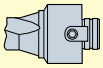
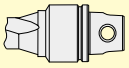
$l_{ch1} = 2{,}3 \times D_{c1}$
$l_{3s} = 3{,}0 \times D_{c3}$

SANDVIK Coromant

– 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

Drill diameter	Mounting type				
	 Cylindrical with flat and Cylindrical	 Coromant Whistle Notch	 Coromant Capto®	 Varilock	 Compatible with ABS holders
D_{c1} mm	Mounting Size dm_m		Mounting Size D_{5m}		
12,70-17,43	16, 20, 25, 32	16, 20, 25, 32	C3, C4, C5, C6	50, 63	50
17,44-20,99	20, 25, 32	20, 25, 32	C3, C4, C5, C6	50, 63	50
21,00-25,99	25, 32	25, 32	C4, C5, C6	50, 63	50
26,00-30,99	32, 40	25, 32, 40	C4, C5, C6	50, 63	50
31,00-41,99	40	32, 40	C5, C6	50, 63	50
42,00-58,99	40, 50	40	C6	63	-

Standard inserts:

LCMX 02, D_{c1} = 12,70-17,43
LCMX 03, D_{c1} = 17,44-20,99
LCMX 04, D_{c1} = 21,00-25,99
WCMX 05, D_{c1} = 26,00-30,99
WCMX 06, D_{c1} = 31,00-41,99
WCMX 08, D_{c1} = 42,00-58,99


LCMX


WCMX

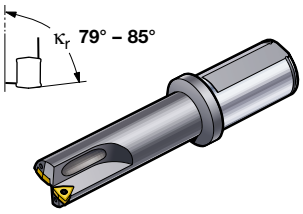
Options

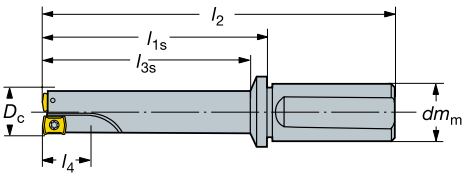
Note For specific details regarding the options, contact your Coromant sales representative.

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
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**
Rotate Capto coupling 180°	**Yes or No**
dm_m/D_{5m}	**Coupling size**
Coupling unit	**M**=metric or **U**=inch
l_{1s}	Programming length **35,3-307,4** mm

4 × D_c Plunge drills





Drill diameter, D_c 12,7–35 mm
Tolerance, D_c ± 0,20 mm
Max hole depth, l_4 4 x D_c

l_{1s} = programming length

Drill diameter D_c mm	Ordering code	Dimensions, mm dm_m	l_{1s}	l_2	l_{3s}	l_4	kg	Inserts[1]	Spare parts: Insert screw	Spare parts: Screwdriver (Torx Plus)
12,7	**R416.22-0127L20-41**	20	63	113	53	12,7	0,2	LCMX 02	5513 020-33	5680 046-03 (7IP)
16	**-0160L20-41**	20	77	127	67	16	0,2	LCMX 02	5513 020-33	5680 046-03 (7IP)
19	**-0190L25-41**	25	89	145	79	19	0,3	LCMX 03	5513 020-19	5680 046-03 (7IP)
25	**-0250L25-41**	25	114	170	104	25	0,4	LCMX 04	5513 020-20	5680 046-03 (7IP)
35	**-0350L32-41**	32	154	214	144	35	1,3	WCMX 06	416.1-833	5680 046-05 (10IP)

[1] Inserts are ordered separately.

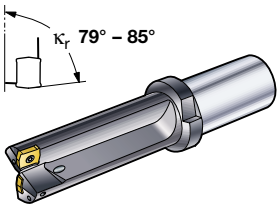
Ordering example: 2 pieces R416.22-0160L20-51

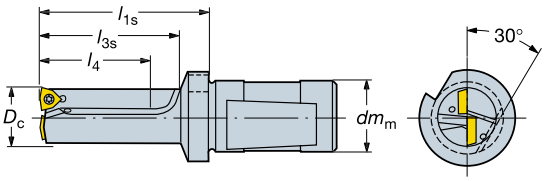
B Engineered special options diameter range 12,7-58 mm, 2-6 x D_c to be quoted.

B 75 B 78 B 80 B 87 B 102

2,5 × D_c Left hand drills

Coromant Whistle Notch shank





Drill diameter, D_c 17,5–58 mm
Tolerance, D_c ± 0,20 mm
Max hole depth, l_4 2,5 x D_c

l_{1s} = programming length

Drill diameter D_c mm	Ordering code	dm_m	l_{1s}	l_{3s}	l_4	kg	Inserts[1]	Spare parts: Insert screw	Spare parts: Screwdriver (Torx Plus)	Radial adjustment (max): Stationary drill
17,5	**L416.1-0175-20-05**		68	55	45	0,2	LCMX 03	5513 020-19	5680 046-03 (7IP)	+ 1,5
18	**-0180-20-05**		68	55	45	0,2				+ 1,4
18,5	**-0185-20-05**	20	68	60	50	0,2				+ 1,3
19	**-0190-20-05**		68	60	50	0,2				+ 1,2
20	**-0200-20-05**		68	60	50	0,2				+ 1,0
21	**L416.1-0210-20-05**		83	75	65	0,3	LCMX 04	5513 020-20	5680 046-03 (7IP)	+ 1,6
22	**-0220-20-05**		83	75	65	0,3				+ 1,5
23	**-0230-20-05**	25	83	75	65	0,3				+ 1,25
24	**-0240-20-05**		83	75	65	0,3				+ 1,0
25	**-0250-20-05**		83	75	65	0,3				+ 0,8
26	**L416.1-0260-20-05**		99	90	75	0,4	WCMX 05	416.1-832	5680 046-04 (9IP)	+ 2,5
27	**-0270-20-05**		99	90	75	0,4				+ 2,2
28	**-0280-20-05**	25	99	90	75	0,5				+ 2,1
29	**-0290-20-05**		99	90	75	0,5				+ 1,8
30	**-0300-20-05**		99	90	75	0,5				+ 1,5
31	**L416.1-0310-20-05**		115	105	90	0,6	WCMX 06	416.1-833	5680 046-05 (10IP)	+ 3,5
32	**-0320-20-05**		115	105	90	0,6				+ 3,2
33	**-0330-20-05**	32	115	105	90	0,7				+ 3,0
34	**-0340-20-05**		115	105	90	0,7				+ 2,8
35	**-0350-20-05**		115	105	90	0,7				+ 2,5
36	**L416.1-0360-20-05**		115	105	90	0,8				+ 2,3
37	**-0370-20-05**		130	120	105	0,8				+ 2,0
38	**-0380-20-05**	32	130	120	105	0,9				+ 1,8
39	**-0390-20-05**		130	120	105	0,9				+ 1,5
40	**-0400-20-05**		130	120	105	0,9				+ 1,2
41	**-0410-20-05**		130	120	105	0,9				+ 1,0
42	**L416.1-0420-20-05**		145	135	120	1,3	WCMX 08	416.1-834	5680 046-02 (15IP)	+ 4,2
43	**-0430-20-05**		145	135	120	1,3				+ 4,0
44	**-0440-20-05**	40	145	135	120	1,4				+ 3,7
45	**-0450-20-05**		145	135	120	1,4				+ 3,5
46	**-0460-20-05**		145	135	120	1,4				+ 3,3
47	**L416.1-0470-20-05**		145	135	120	1,5				+ 3,0
48	**-0480-20-05**		145	135	120	1,6				+ 2,7
49	**-0490-20-05**	40	175	165	145	1,7				+ 2,5
50	**-0500-20-05**		175	165	145	1,8				+ 2,2
51	**-0510-20-05**		175	165	145	1,8				+ 2,0
52	**L416.1-0520-20-05**		175	165	145	1,9				+ 1,8
53	**-0530-20-05**		175	165	145	1,9				+ 1,5
54	**-0540-20-05**	40	175	165	145	2,0				+ 1,2
55	**-0550-20-05**		175	165	145	2,0				+ 0,8
56	**-0560-20-05**		175	165	145	2,1				+ 0,6
58	**-0580-20-05**		175	165	145	2,2				+ 0,4

[1] Inserts are ordered separately.

Ordering example: 2 pieces L416.1-0175-20-05

B 72 | B 75 | B 78 | B 80 | B 87 | B 97

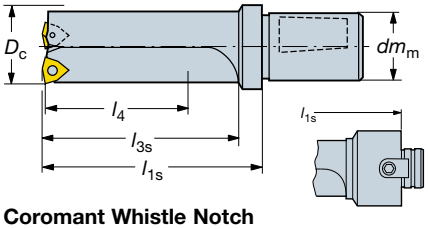
Tailor Made

– 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.

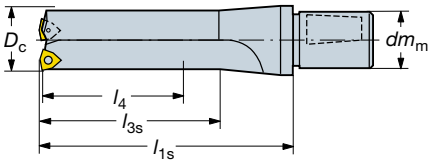
T-Max® U drill R/L416.1

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, mm	Mounting size, mm
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

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

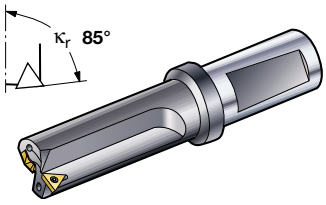
Options

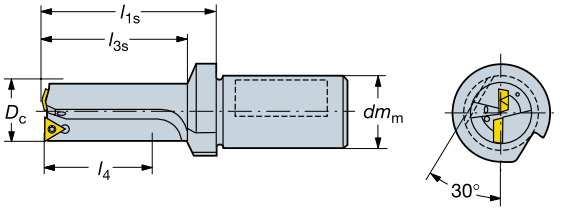
Note: For specific details regarding the options, contact your Coromant sales representative.

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

2,5 × D_c

Coromant Whistle Notch shank





Drill diameter, D_c	27–59 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	2,5 x D_c

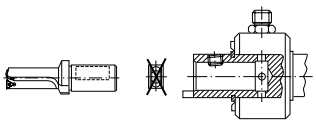
l_{1s} = programming length

Drill diameter[1] D_c mm	**Ordering code**	**Dimensions, mm** dm_m	l_{1s}	l_{3s}	l_4	KG	**Inserts**[2]		**Spare parts** Insert screw	Screwdriver (Torx)
27	**R416.01-0270-20-05**		99	90	75	0,4	WCMX 05 03 SR	TCMT 13 03 08	416.1-832	5680 046-04 (9IP)
28	**-0280-20-05**	25	99	90	75	0,4				
29	**-0290-20-05**		99	90	75	0,4				
30	**-0300-20-05**		99	90	75	0,4				
31	**-0310-20-05**	32	115	105	90	0,6				
32	**-0320-20-05**		115	105	90	0,6				
33	**R416.01-0330-20-05**		115	105	90	0,6	WCMX 06 T3 SR	TCMT 16 T3 08	416.1-833	5680 046-05 (10IP)
34	**-0340-20-05**		115	105	90	0,6				
35	**-0350-20-05**	32	115	105	90	0,6				
36	**-0360-20-05**		115	105	90	0,8				
37	**-0370-20-05**		130	120	105	0,8				
38	**R416.01-0380-20-05**		130	120	105	0,9				
39	**-0390-20-05**	32	130	120	105	0,9				
40	**-0400-20-05**		130	120	105	0,9				
41	**-0410-20-05**		130	120	105	0,9				
42	**-0420-20-05**	40	145	135	120	1,3				
43	**R416.01-0430-20-05**		145	135	120	1,3	WCMX 08 04 SR	TCMT 22 04 12	416.1-834	5680 046-02 (15IP)
44	**-0440-20-05**		145	135	120	1,4				
45	**-0450-20-05**	40	145	135	120	1,4				
46	**-0460-20-05**		145	135	120	1,4				
47	**-0470-20-05**		145	135	120	1,5				
48	**-0480-20-05**		145	135	120	1,6				
49	**R416.01-0490-20-05**		175	165	150	1,7				
50	**-0500-20-05**		175	165	150	1,8				
51	**-0510-20-05**	40	175	165	150	1,8				
52	**-0520-20-05**		175	165	150	1,9				
53	**-0530-20-05**		175	165	150	1,9				
54	**R416.01-0540-20-05**		175	165	150	2,0				
55	**-0550-20-05**		175	165	150	2,0				
56	**-0560-20-05**	40	175	165	150	2,1				
58	**-0580-20-05**		175	165	150	2,2				
59	**-0590-20-05**		175	165	150	2,3				

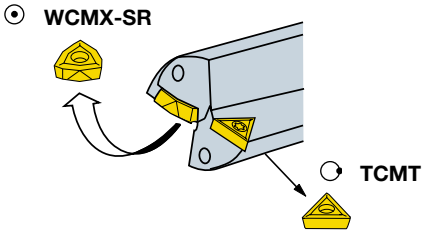
[1] Drills of other length than 2,5 × dia. are available on request.
[2] Inserts are ordered separately.

Ordering example: 2 pieces R416.01-0270-20-05

Note!
Make sure that the coolant volume compensator for a Coromant Delta drill is not in the drill holder.



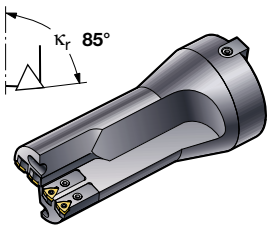
Note!
Only use WCMX-56 SR as central inserts.
For more information, see page B 92.

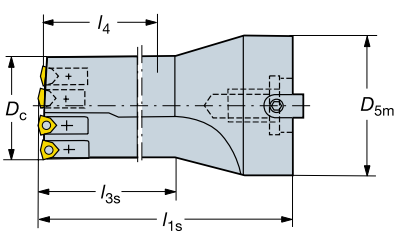


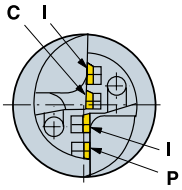
B 56 B 78 B 80 B 92 B 96

Indexable drills – D_c 60-80 mm

Varilock coupling







Drill diameter, D_c	60–80 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	2,5 x D_c

l_{1s} = programming length

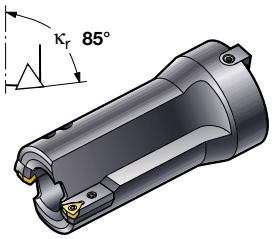
Drill diameter[1)] D_c mm	Ordering code	Dimensions, mm D_{5m}	l_{1s}	l_{3s}	l_4	KG	Cartridges Central	No.	Intermediate	No.	Peripheral	No.	Inserts[2)]
60	**R416.9-0600-25-01**	80	230	160	150	3,7	**R430.26-1011-05-M**	**1**	**R430.26-1011-05-M**	**2**	**R430.26-1011-05-P**	**1**	WCMX 05
65	**0650-25-01**	80	245	175	165	4,2	**1011-05-M**	**1**	**1011-05-M**	**2**	**R430.26-1011-05-P**	**1**	
70	**R416.9-0700-25-01**	80	250	185	175	4,8	**R430.26-1113-06-M**	**1**	**R430.26-1113-06-M**	**2**	**R430.26-1113-06-P**	**1**	
75	**0750-25-01**	80	265	200	190	5,4	**1113-06-M**	**1**	**1113-06-M**	**2**	**R430.26-1113-06-P**	**1**	WCMX 06
80	**0800-25-01**	80	270	210	200	6,0	**1113-06-M**	**1**	**1113-06-M**	**2**	**R430.26-1113-06-P**	**1**	
>86	**On request**	80	-	-	-	-	**R430.26-1318-08-M**	**1**	**R430.26-1318-08-M**	**2**	**R430.26-1318-08-P**	**1**	WCMX 08

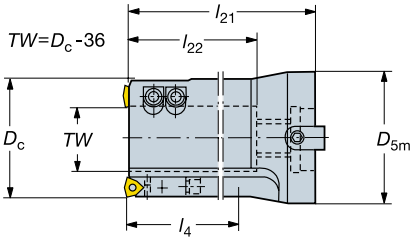
Ordering example: 2 pieces R416.9-0600-25-01

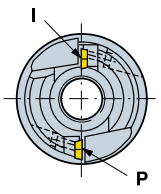
B

Trepanning drills – D_c 60-110 mm

Varilock coupling







Drill diameter, D_c	60–110 mm
Tolerance, D_c	± 0,20 mm
Max hole depth, l_4	2,5 x D_c

l_{1s} = programming length

Drill diameter[1)] D_c mm	Ordering code	Dimensions, mm D_{5m}	l_{21}	l_{22}	l_4	KG	Cartridges Inner (I)	No.	Inserts[2)]	Cartridges Peripheral (P)	No.	Inserts[2)]
60	**R416.7- 0600-25-01**	80	195	160	150	2,9	*All dimensions*			*All dimensions*		
65	**0650-25-01**	80	210	175	165	3,3						
70	**0700-25-01**	80	220	185	175	3,8	**L430.26-1117-06**	**1**	WCMX 06	**R430.26-1114-06**	**1**	WCMX 06
75	**0750-25-01**	80	235	200	190	4,4						
80	**0800-25-01**	80	245	210	200	4,9						
85	**R416.7- 0850-25-01**	80	260	225	215	5,4	*Stackdrilling All dimensions*			*Stackdrilling All dimensions*		
90	**0900-25-01**	80	270	235	225	5,9						
95	**0950-25-01**	80	285	250	240	6,4	**L430.26-1117-06 SD**[3)]	**1**	WCMX 06	**R430.26-1114-06 SD**[3)]	**1**	WCMX 06
100	**1000-25-01**	80	295	260	250	6,9	**3282 32 L4-1**[4)]	**1**	TCMT 16			
110	**1100-25-01**	80	320	285	275	8,0						
>110	**On request**	80	-	-	-	-						

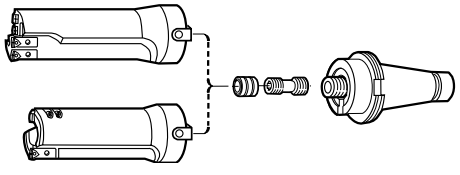
Ordering example: 2 pieces R416.7-0600-25-01

[1)] Other diameter and lengths are available as special.
[2)] Inserts are ordered separately.
[3)] Cartridges for stack drilling, are available on request.
[4)] Cartridges for stack drilling of plates with air gaps, are available on request.

B 75-77 B 79 B 80 B 87-91 B 98

Note!

When using Varilock basic holders the original screw and lock nut must be replaced by a centering sleeve (5638 030-01) and screw (5516 030-01), which must be ordered separately.



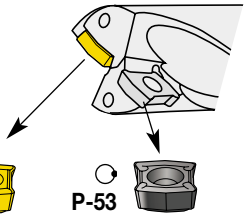
SANDVIK Coromant

Geometry recommendations for Coromant U and T-MAX U drills

Central insert Peripheral insert

D_c 12,7 — 17 mm

General choice



C-53 P-53

P M K N S H

- Good chip control in most materials including: steel, stainless, cast iron, titanium, heat resistant alloys and aluminium
- Low to high cutting speeds
- Central and peripheral insert

Complementary choice

TC-53 P-53

P K H

- TC -53, optimized geometry for increased edge security

D_c 17,5 — 41 mm

Productivity choice

Wiper

-WM -WM

-WM -WM

P K M

- Wiper geometry for up to 50% higher feed
- For steel and cast iron with hardness above 200HB and easy to machine stainless steels
- For stable conditions and open tolerance holes
- Central and peripheral insert

D_c 17,5 — 58 mm

General choice

-53 -53

-53 -53

P M K N S H

- Good chip control in most materials including: steel, stainless, cast iron, titanium, heat resistant alloys and aluminium
- Low to high cutting speeds
- Central and peripheral insert

Complementary choice

-53 -58

-53 -58

P M

- Geometry -58, optimized as peripheral insertfor low carbon steel and stainless steel
- High cutting speeds

T-53 T-53

T-53 T-53

P K H

- Optimized geometries with increased edge security

D_c 26 — 58 mm

Complementary choice

-53 -51

P M K

- Geometry -51, optimized as peripheral for good chip control in steel, stainless, cast iron
- High cutting speeds

-56 -56

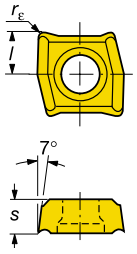
P M

- Good chip control in steel and stainless

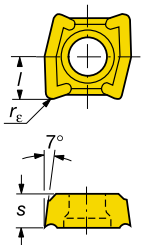
B

Inserts for Coromant U drills R416.2, R416.21, R416.22 and T-Max® U drills R416.9, L416.1

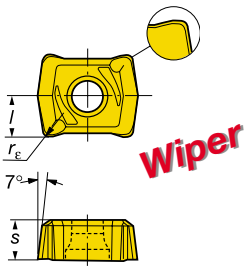
Central
LCMX 02
C-53
D_c 12,7-17,0



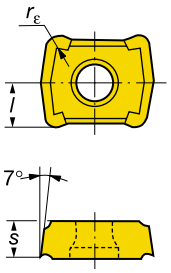
Peripheral
LCMX 02
P-53
D_c 12,7-17,0



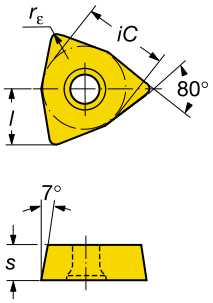
LCMX 03/04
R-WM
D_c 12,7-17,0



LCMX 03/04
D_c 17,5-25,0



WCMX 05/06/08
D_c 26,0-80,0



Insert code

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

	Insert code		COROMANT GRADES																		Dimensions, mm				
			P				M				K				N			S			H				
			3040	235	1020	1120	3040	235	1020	1120 H13A	3040	1020	1120	H13A	1020	1120	H13A	1020	1120	H13A	1020	1120	3040	*l*	*iC*	d_1	*s*	r_ε
All-round geometry																												
02	**LCMX 02 02 04 P-53**	○	★			☆	☆			★		★		☆					★			★	☆	2,68	–	2,5	2,38	0,4
	02 02 04 C-53	⊙			★				★			★			★			★			★			2,68	–	2,5	2,38	0,4
	02 02 04 TC-53	⊙			★							★									☆			2,68	–	2,5	2,38	0,4
03	**LCMX 03 03 08-53**	○	★	☆	☆		☆	☆	★		☆	★	☆		☆		★	★		☆	★		☆	3,25	–	2,5	3,18	0,8
	03 03 08-53	⊙			★			☆	★		☆	★		☆	☆		★	★		☆	★			3,25	–	2,5	3,18	0,8
	03 03 04-58	○	★	☆			★	☆				★												3,25	–	2,5	3,18	0,4
	03 03 08 T-53	⊙			★							★									☆			3,25	–	2,5	3,18	0,8
	03 03 04R-WM	○	★								★													3,25	–	2,5	3,18	0,4
	03 03 04R-WM	⊙			★							★												3,25	–	2,5	3,18	0,4
04	**LCMX 04 03 08-53**	○	★	☆	☆		☆	☆	★		☆	★	☆		☆		★	★		☆	★		☆	4,0	–	2,8	3,18	0,8
	04 03 08-53	⊙			★			☆	★		☆	★		☆	☆		★	★		☆	★			4,0	–	2,8	3,18	0,8
	04 03 04-58	○	★	☆			★	☆				★												4,0	–	2,8	3,18	0,4
	04 03 08 T-53	⊙			★							★									☆			4,0	–	2,8	3,18	0,8
	04 03 04R-WM	○	★								★													4,0	–	2,8	3,18	0,4
	04 03 04R-WM	⊙			★							★												4,0	–	2,8	3,18	0,4
05	**WCMX 05 03 04 R-WM**	○	★								★													5,07	7,938	3,2	3,18	0,4
	05 03 04 R-WM	⊙			★							★												5,07	7,938	3,2	3,18	0,4
	050308 R-51	○		☆				☆		☆			☆											5,07	7,938	3,2	3,18	0,8
	05 03 08 R-53	○	★		☆		☆	☆	★	☆	★	☆	☆		☆		★	★		☆	★		☆	5,07	7,938	3,2	3,18	0,8
	05 03 08 R-53	⊙			★			☆	★	☆		★	☆		☆		★	★		☆	★			5,07	7,938	3,2	3,18	0,8
	05 03 08-58	○	★	☆			★	☆																5,07	7,938	3,2	3,18	0,8
	05 03 08 T-53	⊙			★							★									☆			5,07	7,938	3,2	3,18	0,8
	05 03 08-56	○		☆				☆																5,07	7,938	3,2	3,18	0,8
06	**WCMX 06 T3 04 R-WM**	○	★								★													6,14	9,525	3,7	3,97	0,4
	06 T3 04 R-WM	⊙			★							★												6,14	9,525	3,7	3,97	0,4
	06 T3 08 R-51	○		☆				☆		☆			☆											6,14	9,525	3,7	3,97	0,8
	06 T3 08 R-53	○	★	☆	☆		☆	☆	★	☆	★	☆	☆		☆		★	★		☆	★		☆	6,14	9,525	3,7	3,97	0,8
	06 T3 08 R-53	⊙			★			☆	★	☆		★	☆		☆		★	★		☆				6,14	9,525	3,7	3,97	0,8
	06 T3 08-58	○	★	☆			★	☆																6,14	9,525	3,7	3,97	0,8
	06 T3 08 T-53	⊙			★							★									☆			6,14	9,525	3,7	3,97	0,8
	06 T3 08-56	○		☆				☆																6,14	9,525	3,7	3,97	0,8
08	**WCMX 08 04 12 R-51**	○		☆				☆		☆			☆											8,14	12,7	4,3	4,76	1,2
	08 04 12 R-53	○	★	☆	☆		☆	☆	★	☆	★	☆	☆		☆		★	★		☆	★		☆	8,14	12,7	4,3	4,76	1,2
	08 04 12 R-53	⊙			★			☆	★	☆		★	☆		☆		★	★		☆				8,14	12,7	4,3	4,76	1,2
	08 04 12-58	○	★	☆			★	☆																8,14	12,7	4,3	4,76	1,2
	08 04 12 T-53	⊙			★							★									☆			8,14	12,7	4,3	4,76	1,2
	08 04 12-56	○		☆				☆																				

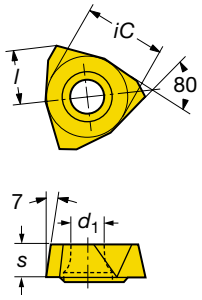
★ = First choice

Ordering example: 100 pieces LCMX 02 02 04 P-53 3040

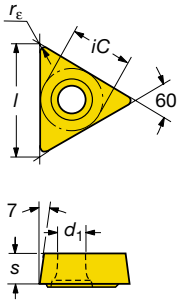
For grade description, see page E 18.

Inserts for T-Max® U stack drills R416.01

Central
WCMX
D_c 27-59



Peripheral
TCMT
D_c 27-59



Insert code ◯ = Peripheral insert ⊙ = Central insert			COROMANT GRADE P STEEL					M STAINLESS STEEL					Dimensions, mm				
			235					235					*l*	*iC*	d_1	*s*	r_ε
All round geometry																	
05	**WCMX 05 03 SR-54**	⊙	★					★					5,07	7,938	3,2	3,18	-
06	**WCMX 06 T3 SR-56**	⊙	★					★					6,14	9,525	3,7	3,97	-
08	**WCMX 08 04 SR-56**	⊙	★					★					8,14	12,7	4,3	4,76	-
13	**TCMT 13 03 08-54**	◯	★					★					13,7	7,938	3,2	3,18	0,8
16	**TCMT 16 T3 08-56**	◯	★					★					16,5	9,525	3,7	3,97	0,8
22	**TCMT 22 04 12-56**	◯	★					★					22	12,7	4,3	4,76	1,2

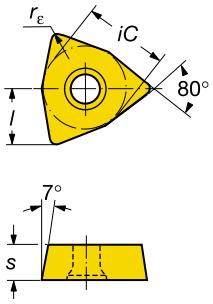
★= First choice

Ordering example: 100 pieces : WCMX 05 03 SR-54 235

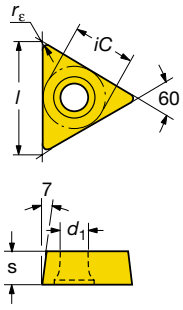
B

Inserts for T-Max® U trepanning drills R416.7

Central and Peripheral
WCMX
D_c 60-110



Central
TCMT
D_c 60-110



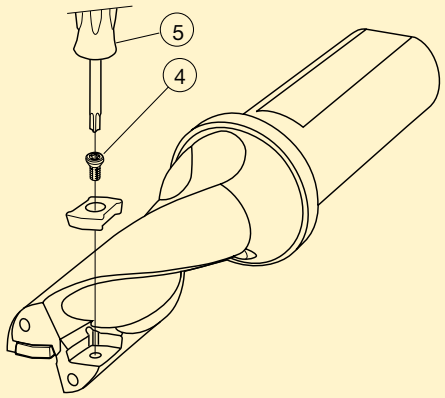
Insert code ◯ = Peripheral insert ⊙ = Central insert			COROMANT GRADES P STEEL						M STAINLESS STEEL					K CAST IRON					N		Dimensions, mm				
			3040	235	1020	3040			235	1020	3040	H13A		3040	1020		H13A				*l*	*iC*	d_1	*s*	r_ε
All round geometry																									
06	**WCMX 06 T3 08 R-53**	⊙	☆	☆	★					★		☆		☆	★		☆				6,14	9,525	3,7	3,97	0,8
	WCMX 06 T3 08 R-51	◯		★					★			☆									6,14	9,525	3,7	3,97	0,8
Optimized geometry																									
06	**WCMX 06 T3 08-58**	◯		★		☆			★		☆										6,14	9,525	3,7	3,97	0,8
	WCMX 06 T3 08-56	⊙		★					★												6,14	9,525	3,7	3,97	0,8
16	**TCMT 16 T3 08-UR**	⊙		★					★												16,5	9,525	4,4	3,97	0,8

★= First choice

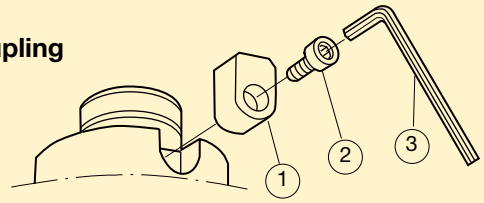
Ordering example: 100 pieces : WCMX 06 T3 08 R-53 1020

For grade description, see page E 18.

Coromant U drills R416.2, R416.21 and R416.22
T-Max® U drills R/L416.1 and R416.01



Varilock coupling



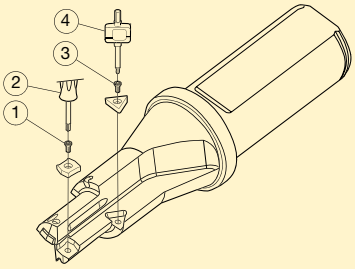
Varilock size	1 Driving key	2 Screw	3 Key (mm)
50	5631 010-01	3212 010-257	174.1-864 (3,0)
63	5631 010-02	3212 010-358	3021 010-050 (5,0)
80	5631 010-03	3212 010-360	3021 010-050 (5,0)

B

Insert size	4 Insert screw	5 Screwdriver (Torx Plus)
LCMX 02	5513 020-33	5680 046-03 (7IP)
LCMX 03	5513 020-19	5680 046-03 (7IP)
LCMX 04	5513 020-20	5680 046-03 (7IP)
TCMT 06	5513 020-28	5680 051-01 (6IP)
TCMT 09	5513 020-05	5680 051-02 (7IP)
TCMT 11	5513 020-03	5680 051-02 (7IP)
TCMT 13	416.1-832	5680 046-04 (9IP)
TCMT 16	5513 020-10	5680 049-01 (15IP)
TCMT 16..-56	416.1-833	5680 046-05 (10IP)
TCMT 22	416.1-834	5680 046-02 (15IP)
WCMX 05	416.1-832	5680 046-04 (9IP)
WCMX 06	416.1-833	5680 046-05 (10IP)
WCMX 08	416.1-834	5680 046-02 (15IP)
WCMX 05 SR	416.1-832	5680 046-04 (9IP)
WCMX 06 SR	416.1-833	5680 046-05 (10IP)
WCMX 08 SR	416.1-834	5680 046-02 (15IP)

Ordering example: 10 pieces 5513 020-33

Coromant U socket head cap screw drills

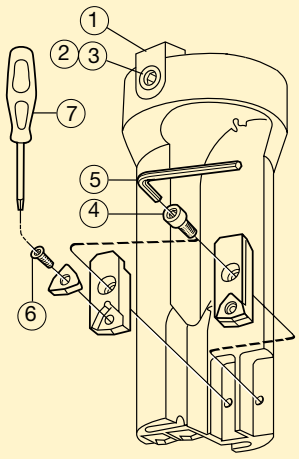


Tool type	1 Insert screw	2 Key (Torx Plus)	3 Insert screw for chamfer/step insert	4 Key (Torx Plus)
R416.21-0130L25-21	5513 020-33	5680 046-03 (7IP)	5513 020-28 (2x)	5680 051-01 (6IP)
R416.21-0150L25-21	5513 020-33	5680 046-03 (7IP)	5513 020-05 (2x)	5680 051-02 (7IP)
R416.21-0170L25-21	5513 020-33	5680 046-03 (7IP)	5513 020-05 (2x)	5680 051-02 (7IP)
R416.21-0210L32-21	5513 020-20	5680 046-03 (7IP)	5513 020-05 (2x)	5680 051-02 (7IP)

Ordering example: 10 pieces 5513 020-33

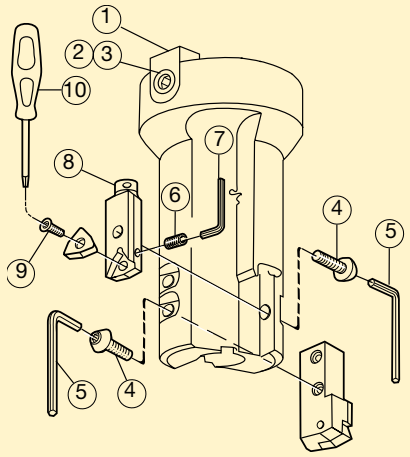
T-Max® U solid drills R416.9

R416.9



T-Max® U trepanning drills R416.7

R416.7



Spare parts 1 – 3 for the Varilock coupling, see B 78.

Drill	Ø	4 Screw	5 Key (mm)	Cartridge code	Insert size	6 Screw	7 Screwdriver (Torx Plus)
R416.9-	**0600-25-01 ▼ 0650-25-01**	3212 010-257 (M4)	174.1-864 (3,0)	**R430.26-1011-05-M R430.26-1011-05-P**	**WCMX 05**	416.1-832 (M3)	5680 046-04 (IP9)
	0700-25-01 ▼ 0800-25-01	3212 010-307 (M5)	3021 010-040 (4,0)	**R430.26-1113-06-M R430.26-1113-06-P**	**WCMX 06**	416.1-833 (M3,5)	5680 046-05 (IP10)
Dia >86		3212 010-308 (M5)	3021 010-040 (4,0)	**R430.26-1318-08-M R430.26-1318-08-P**	**WCMX 08**	416.1-834 (M4)	5680 046-02 (IP15)

Drill	Ø	4 Screw	5 Key (mm)	Cartridge code	6 Screw	7 Key (mm)	8 Axial adjustment screw
R416.7-	**0600-25-01 ▼ 0950-25-01**	430.21-825 (M6)	3021 010-040 (4,0)	**R430.26-1114-06 R430.26-1114-06 SD**	3214 010-254 (M4)	174.1-870 (1,98)	438.3-824(M5)
	1000-25-01 ▼ 1100-25-01	3212 010-360 (M6)	3021 010-050 (5,0)	**L430.26-1117-06 L430.26-1117-06-SD**	-	-	-
				3282 32 L4-1	-	-	-

Cartridge code	Insert size	9 Screw	10 Screwdriver (Torx Plus)
R430.26-1114-06 R430.26-1114-06 SD	**WCMX 06**	416.1-833 (M3,5)	5680 046-05 (IP10)
L430.26-1117-06 L430.26-1117-06-SD	**WCMX 06**	416.1-833 (M3,5)	5680 046-05 (IP10)
3282 32 L4-1	**TCMT 16**	5513 020-02 (M4)	5680 046-02 (T15)

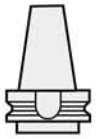
Ordering example: 10 pieces 3212 010-257

Coromant Capto®

Page D 11

Basic holders

C 3
C 4
C 5
C 6
C 8



Front clamping

C 5
C 6
C 8

Intermediate parts

SOLID HOLDERS

Page D 87

Coromant CoroGrip®

D 97

Coromant Hydro-Grip

D 104

D 82
D 83
D 92

D 84
D 93

D 86
D 94

TOOL ADAPTORS

Page D 72 D 41

D 97 D 104

D 66 D 34

D 68 D 37

D 70 D 39

Type of shank

1. = Cylindrical
2. = Whistle Notch DIN 6537
3. = Acc. to ISO 9766
4. = Varilock
5. = Coromant Capto
6. = Coromant Whistle Notch

1.

CoroDrill™ Delta-C
R840
R850
R415.5

2.

CoroDrill™ Delta-C
R840
R415.5

3.

Coromant Delta
R411.5

3.

Coromant U
R416.2
R416.21
R416.22

Varilock

Page D 49

DRILL HOLDERS

D 12/ D 50 D 60

Basic holders

50
63
80

Front clamping

50
63
80

Intermediate parts

D 114

D 114 D 114 D 71 D 69 D 68 D 38 D 100

Mounting screw and sleeve

Volume compensator

D 70 D 69

3. 6. 4. 5. 6. 6. 6. 4. 4.

Coromant U
R416.2
R416.21
R416.22

Coromant Delta
R411.5

T-Max® U
R416.01

Coromant U
R416.2
R416.21
R416.22

T-Max® U
R416.9 R416.7

B

This PDF document is divided into several files

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