

CoroCut® 1-2 system

System with 1 or 2 cutting edges

Component diameter 6-32 mm

The first choice system for all parting and grooving

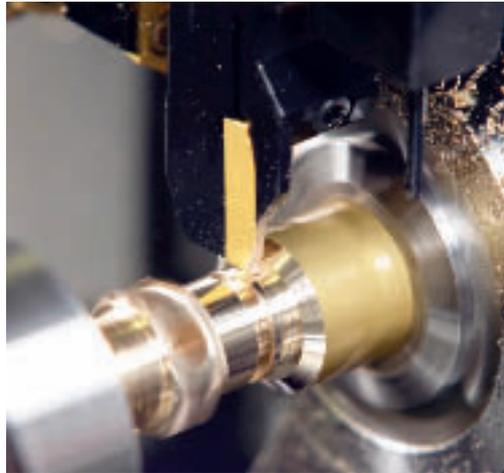
Tool holders

All inserts fit into the same tool holder

Inserts available for:

- Parting off
- Grooving
- Turning, profiling

Holder are also available in the newly introduced QS™ holding system, see page B31

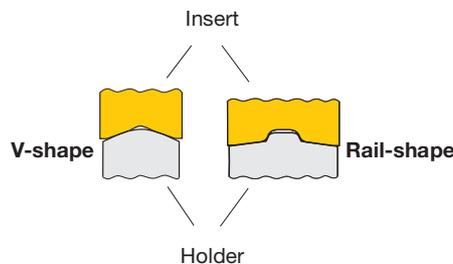


Inserts versions

CoroCut 1-2 inserts are available in widths from 1.5 mm

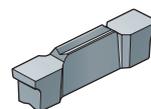
Accuracy

Based on a patented rail and V-shaped design tip seat which together with a long insert gives exceptional stability. This makes the system very successful in sliding head machines as the tool can also be used as a stop after parting off the bar.



CoroCut® insert geometries

- GF for high precision grooving and parting. Good chip control in most areas.
- CM is an all-round geometry fo parting which generates low cutting forces.
- CF geometry for parting with Wiper technology.
- CS geometry for pip and burr free parting.



Blanks for grinding

Insert blanks for "do-it-yourself" grinding are available allowing modification of the insert for any machining operation.

See main catalogue.

Tailor Made

Tool options designed to individual customer requirements are available. For information on our Tailor Made programme see page H4.

Practical hints



-CM geometry insert

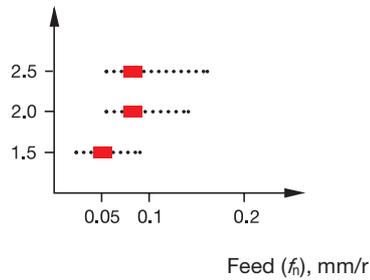
Parting

- When parting with a sub-spindle it is more productive to use a -CM geometry insert with a straight cutting edge. This is a more stable parting method and will generate the best surface finish.

- When parting without a sub-spindle we recommend you use an insert with a maximum 15° front angle to minimise the risk of burr and pips on the component.

Radial feed

Insert width (l_a), mm



Cutting speed



60-200 60-180 90-400 20-50

Grade GC4125 (v_c) m/min

■ = Recommended starting value



-GF geometry insert

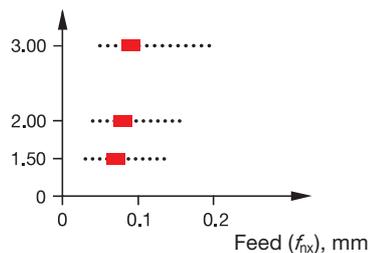
Grooving

- The -GF geometry, a low feed insert, is very suitable for producing high precision grooves from 1.5 mm widths. See feed recommendations below.

- Side turning is also possible with CoroCut holders and inserts due to their stability. See diagram below explaining how CoroCut should be applied in side turning applications.

Radial feed

Insert width (l_a), mm



Cutting speed



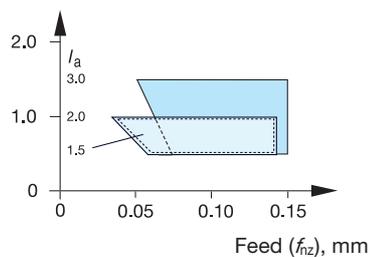
60-200 60-180 90-400 20-50

Grade GC4125 (v_c) m/min

■ = Recommended starting value

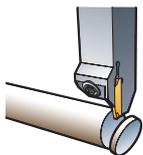
Axial feed

Depth of cut (a_p), mm



First choice recommendation

Parting off



Parting off

Insert: N123B2-0200-0005-CM 4125

Holder: R123E11-1212-B-S

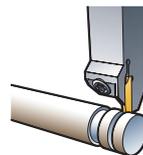
Material: low alloy steel

v_c m/min: 120

f_r mm/rev: 0.08

For more specific cutting data, see pages F8, F9, F10

Grooving



External grooving

Insert: N123E2-02000-0001-GF 4125

Holder: R123E11-1212-B-S

Material: low alloy steel

v_c m/min: 120

f_r mm/rev: 0.08

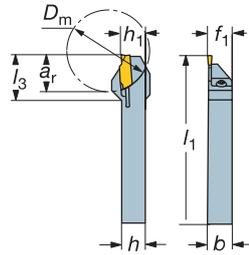
CoroCut® 1- and 2-edge

Parting and grooving

Shank tools

Screw clamp

R/LF123 -S



Note!

When using CoroCut® 2-edged insert the a_r of the insert gives the maximum depth of cut.

Right hand style shown

Main application	D_m max	a_r max ¹⁾	Seat size ²⁾	Ordering code	Dimensions, mm						Gauge inserts	Nm ³⁾
					b	f_1	h	h_1	l_1	l_3		
	20	10	D	R/LF123D10-1010B-S	10	10.15	10	10	125	18	N123D2-0150- CM	2.5
	22	11		R/LF123D11-1212B-S	12	12.15	12	12	125	20	N123D2-0150- CM	2.5
	20	10	E	R/LF123E10-1010B-S	10	10.15	10	10	125	21	N123E2-0200- CM	2.5
	22	11		R/LF123E11-1212B-S	12	12.15	12	12	125	21	N123E2-0200- CM	2.5
	34	17		R/LF123E17-1616B-S	16	16.15	16	16	125	26	N123E2-0200- CM	2.5
	34	17	F	R/LF123F17-1616B-S	16	16.15	16	16	125	26	N123F2-0250- CM	2.5

¹⁾ a_r max. for holder. For max stability choose a holder with shortest possible a_r .

²⁾ To correspond with seat size on insert.

³⁾ Insert tightening torque Nm.

R = Right hand, L = Left hand

Main spare parts

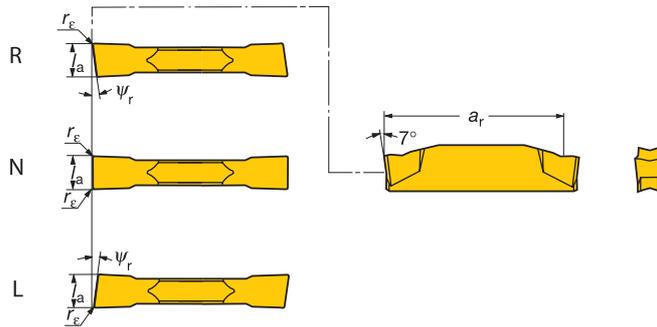
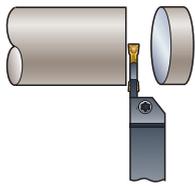
Seat size	Shank holder size	Screw	Key (Torx Plus)
D, E, F	1010	5513 021-07	5680 043-13 (15IP)
D, E, F	1212-1616	5513 021-04	5680 043-13 (15IP)



CoroCut® 1- and 2-edge

Parting and grooving

Parting



For ISO application areas, see bottom of the page.

Tolerances, mm:
 $l_a = +0.10$
 0
 $r_e = \pm 0.10$

	Selection criteria, mm	Seat size ¹⁾	Ordering code	P			M			S								
				GC	GC	GC	GC	GC	GC	GC	GC	GC	GC					
	l_a	ψ_r	r_e	a_r max		2135	2145	3115	4125	4225	2135	2145	4125	2135	2145	4125		
Low feed 				CoroCut® 2-edge														
	2.50	0°	0.1	18.4	F	N123F2-0250-0001-CF												
	2.50	5°	0.15	18.4		R/L123F2-0250-0501-CF												
Medium feed				CoroCut® 1-edge														
	2.00	0°	0.2	∞	E	N123E1-0200-0002-CM												
	2.50	0°	0.2	∞	F	N123F1-0250-0002-CM												
				CoroCut® 2-edge														
	1.50	0°	0.2	12.9	D	N123D2-0150-0002-CM												
2.00	0°	0.2	19	E	N123E2-0200-0002-CM													
2.00	5°	0.2	19		R/L123E2-0200-0502-CM													
2.50	0°	0.2	18.9	F	N123F2-0250-0002-CM													
2.50	5°	0.2	18.9		R/L123F2-0250-0502-CM													
						P35	P45	P15	P30	P20	M30	M40	M25	S30	S40	S25		

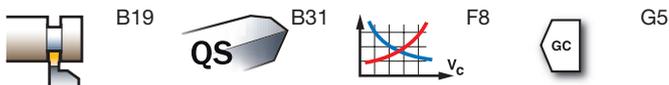
¹⁾ To correspond with seat size on holder.

N = Neutral, R = Right hand, L = Left hand
 ★ = First choice

	Selection criteria, mm	Seat size ¹⁾	Ordering code	P			M			K			S					
				GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC	GC			
	l_a	ψ_r	r_e	a_r max		2135	2145	3115	4125	4225	2135	2145	4125	2135	2145	4125		
Low feed 				CoroCut® 2-edge														
	1.50	10°	0.1	13.4	D	R/L123D2-0150-1001-CS												
	1.50	15°	0.1	13.4		R/L123D2-0150-1501-CS												
	2.00	10°	0.1	19.4	E	R/L123E2-0200-1001-CS												
	2.00	15°	0.1	19.4		R/L123E2-0200-1501-CS												
	2.50	10°	0.1	19.4	F	R/L123F2-0250-1001-CS												
2.50	15°	0.1	19.4		R/L123F2-0250-1501-CS													
						P35	P45	P15	P20	M30	M40	M25	K15	K30	K25	S30	S40	S25

¹⁾ To correspond with seat size on holder.

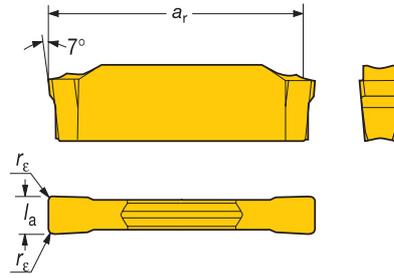
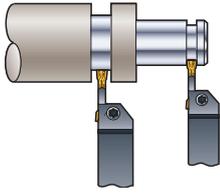
R = Right hand, L = Left hand
 ★ = First choice



CoroCut® 1- and 2-edge

Parting and grooving

Grooving



For ISO application areas, see bottom of the page.



Even more possibilities thanks to tailored design! See page H4.

Tolerances, mm:

$l_a = \pm 0.02$

$r_\epsilon = \pm 0.05$

For circlip grooves

$l_a = +0.09$

$+0.13$

$r_\epsilon = \pm 0.05$

	Selection criteria						Seat size ¹⁾	Ordering code	P				M				N		S				
	l_a	l_a	r_ϵ	r_ϵ	a_r max				GC														
	mm	inch	mm	inch					2135	3115	4125	4225	1005	1105	2135	4125	H13A	H13A	1005	1105	2135	4125	H13A
Low feed								CoroCut® 2-edge															
	1.50		0.1		13.3		D	N123D2-0150-0001-GF			★				★							★	
	1.98	.078	0.2	.008	19.2		E	N123E2-0198-0002-GF			★				★							★	
	2.00		0.2		19.2			N123E2-0200-0002-GF	☆		★		☆	☆	★	☆	★	☆	★	☆	★	☆	☆
	2.00		0.4		19.2			N123E2-0200-0004-GF			★		☆		★	☆	★	☆	★	☆	★	☆	☆
	2.24	.088	0.2	.008	19.2			N123E2-0224-0002-GF			★				★							★	
	2.39	.094	0.2	.008	19.2		F	N123F2-0239-0002-GF			★		☆		★	☆	★		★		☆	☆	☆
	2.39	.094	0.4	.016	19.2			N123F2-0239-0004-GF			★		☆		★	☆	★	☆	★		☆	☆	☆
	2.46	.097	0.3	.012	19.1			N123F2-0246-0003-GF			★				★	☆	★					★	☆
	2.67	.105	0.2	.008	19.2			N123F2-0267-0002-GF			★				★		★					★	
	2.79	.110	0.3	.012	19.1			N123F2-0279-0003-GF			★				★		★					★	
	For circlip grooves																						
	1.85		0.1		19.3		E	N123E2-0185-0001-GF			★				★	☆	★					★	☆
2.15		0.1		19.3			N123E2-0215-0001-GF			★				★	☆	★					★	☆	
2.65		0.2		19.2		F	N123F2-0265-0002-GF			★				★	☆	★					★	☆	
								P35	P15	P30	P20	M10	M15	M30	M25	M15	N20	S15	S15	S30	S25	S15	

¹⁾ To correspond with seat size on holder.

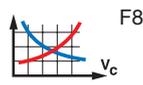
N = Neutral
★ = First choice



B19



B31



F8



G5