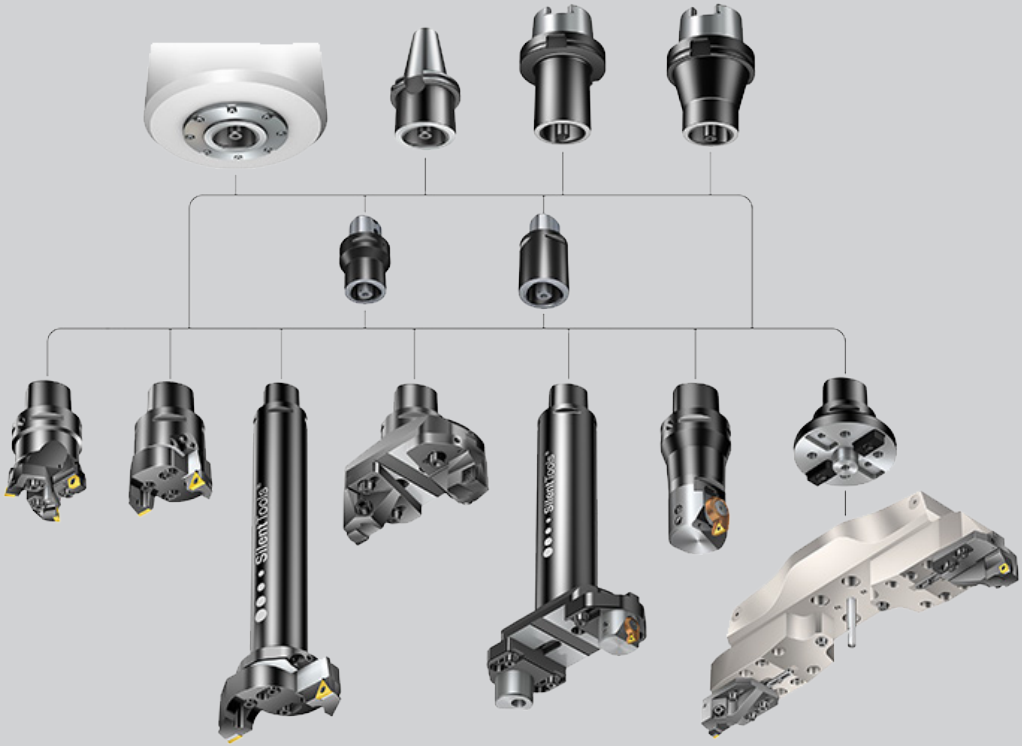
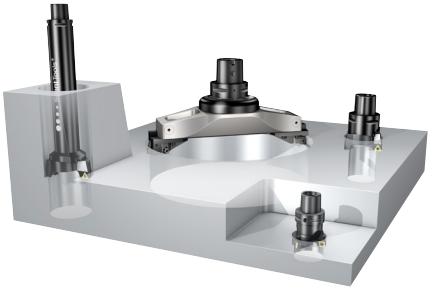
SANDVIK
Coromant

CoroBore®



Roughing



Productive boring

Step boring*

Single-edge boring*

*Accessories needed, ordered separately.

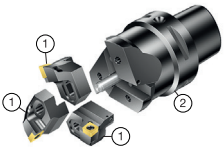
Holders for CoroBore XL

Must be bought separately. See main catalogue for more info. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore assembly kits – included parts

Necessary keys are included in each tool kit

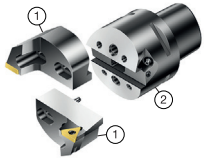
CoroBore 820



Ø 35–167 mm (1.378–6.57 inch)
1. Slide (3 pcs)
2. Adaptor (1 piece)

If no available pre-setter, adjust diameter of CoroBore 820 by measuring the distance from pin to insert and subtract half the pin diameter. Multiply by two for the effective boring diameter.

DuoBore 821

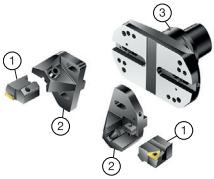


Ø 25–150 mm (0.984–5.906 inch)
1. Slide (2 pcs)
2. Adaptor (1 piece)

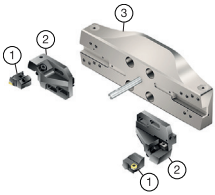
DuoBore 821D

Ø 25–150 mm (0.984–5.906 inch)
1. Slide (2 pcs)
2. Damped adaptor (1 piece)

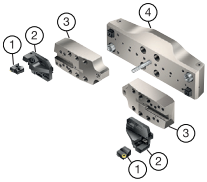
CoroBore 820 XL



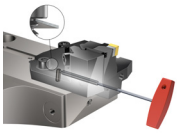
Ø 148–300 mm (5.827–11.811 inch)
1. Cartridge (2 pcs)
2. Slide (2 pcs)
3. Adaptor/Damped adaptor (1 piece)

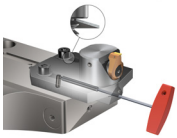


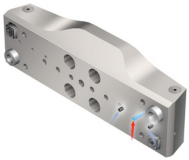
Ø 298–540 mm (11.732–21.259 inch)
1. Cartridge (2 pcs)
2. Slide (2 pcs)
3. Bridge (1 piece)



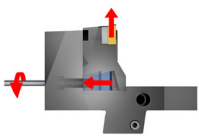
Ø 538–1260 mm (21.181–49.606 inch)
1. Cartridge (2 pcs)
2. Slide (2 pcs)
3. Bridge extension (2 pcs)
4. Bridge (1 piece)

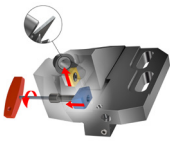




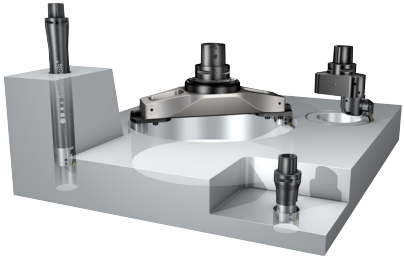


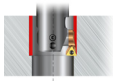
- Use same bridge/bridge extension for roughing and finishing (counterweight needed for finishing)
- Easy change of application, keeping same diameter using stop-plate set* (*to be ordered separately)
- For easy radial adjustment of slides, slightly tighten screws and adjust diameter with key
- For internal coolant to cutting edge, adjust coolant screws to the relevant position
- Cartridges are possible to adjust in axial direction, for step-boring



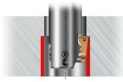


Finishing





Conventional boring



Back boring*

External boring

*Accessories needed, ordered separately.

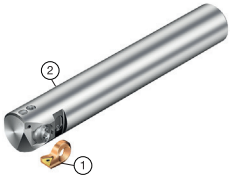
Holders for CoroBore XL

Must be bought separately. See main catalogue for more info. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore assembly kits – included parts

Necessary keys are included in each tool kit

CoroBore 825, cylindrical shank



Ø 19–36 mm (0.748–1.42 inch)
1. Cartridge (1 piece)
2. Fineboring tool with cylindrical shank (1 piece)

CoroBore 825, Coromant Capto integrated adaptor

Ø 19–167 mm (0.748–6.57 inch)
1. Cartridge (1 piece)
2. Adaptor (1 piece)

CoroBore 826 HP

Ø 36–91 mm (1.418–3.583 inch)

Ø 92–154 mm (3.622–6.063 inch)

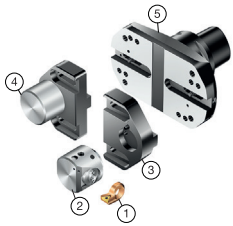
Ø 36–91 mm (1.418–3.583 inch)
1. Cartridge (1 piece)
2. Adaptor (1 piece)

Ø 92–154 mm (3.622–6.063 inch)
1. Cartridge (1 piece)
2. Fine boring head (1 piece)
3. Adaptor (1 piece)

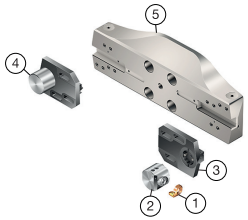
CoroBore 825D, Coromant Capto damped

Ø 23–167 mm (0.906–6.57 inch)
1. Cartridge (1 piece)
2. Damped adaptor (1 piece)

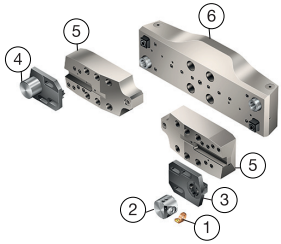
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 mm (5.709–12.402 inch)
826: Ø 148–300 mm (5.709–11.811 inch)
1. Cartridge (1 piece)
2. Fine boring head 825/826 (1 piece)
3. Slide (1 piece)
4. Counterweight (1 piece)
5. Adaptor (1 piece)



825: Ø 298–555 mm (11.732–21.850 inch)
826: Ø 298–540 mm (11.732–21.259 inch)
1. Cartridge (1 piece)
2. Fine boring head 825/826 (1 piece)
3. Slide (1 piece)
4. Counterweight (1 piece)
5. Bridge (1 piece)



825: Ø 538–1275 mm (21.181–50.196 inch)
826: Ø 538–1260 mm (21.181–49.606 inch)
1. Cartridge (1 piece)
2. Fine boring head 825/826 (1 piece)
3. Slide (1 piece)
4. Counterweight (1 piece)
5. Bridge extension (2 pcs)
6. Bridge (1 piece)

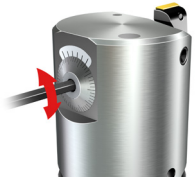
More information about CoroBore XL, see page 4.

Diameter adjustment

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Lock cartridge and insert with correct torque value, page 19

2. Unlock the locking screw before adjusting diameter



3. Always adjust small to large to avoid backlash. Don't exceed maximal limits! To set 825 and 826, page 8

4. Make sure locking screw is positioned as picture

5. Tighten locking screw with correct torque, page 19-20

6. To lubricate the tool, depress centre and fill with oil, page 18

Scale adjustment

CoroBore 825/825D/825 XL/825 SL

Blue line = reference

Start position

Adjusted position

Scale disc turned clockwise until red line lines up with green line on the vernier.
Diameter increased 0.002 mm (0.00008 inch).
Blue line = reference since it's aligned to a line on the vernier in the start position.

CoroBore 826 HP, CoroBore 826 XL

Blue line = reference

Start position

Adjusted position

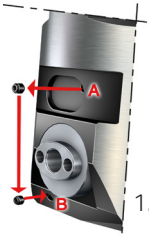
Each click adjusts diameter 0.002 mm (0.00008 inch).
360° turn changes diameter by 0.1 mm (0.00394 inch).

Adjustment range:
CB826B-cartridge (36–55 mm (1.417–3.583 inch)):
Nominal diameter +/- 0.55 mm (0.022 inch)
CB826C-cartridge (56–91 mm (3.662–6.063 inch)):
Nominal diameter +/- 0.65 mm (0.026 inch)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Back boring

CoroBore 825/825D/825 XL

(not for CoroBore 826 and 825 SL)



1.

2.

1. Remove grub screw from coolant duct A and screw it into coolant duct B
2. Lock X + Y + Z with correct torque

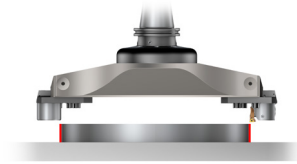
Back boring

Diameter range will change with backboring using slide extension, Ø 19–1275 mm (0.748–50.20 inch) = backboring Ø 25–1284.6 mm (0.984–50.57 inch).
For backboring, change spindle direction to counter clockwise (M04).

External boring

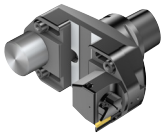
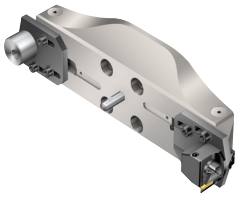
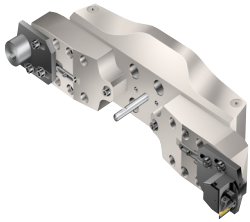
CoroBore 825 XL, CoroBore 826 XL

Diameter range will change for external boring:
CB825XL - Ø23-1150 mm (0.906-45.275 inch)
CB826XL - Ø38-1150 mm (1.496-45.275 inch)



Axial face grooving

CoroBore 825 SL

Blade type	Insert type	First choice geometry	Ø, mm (inch)
SL32 A-curve Left-hand 570- 32R/ L123xxxBxxxA LF = 18	CoroCut 1–2 system inserts	-CM nose radius <0,2 -TF nose radius >0,2 Recommended feed: 0.15 mm/rev (0.0059 inch/rev) If tighter tolerance is required, choose –GF. Recommended feed: 0.10 mm/rev (0.0039 inch/rev)	47–150 (1.85–5.90)
			148–1275 (5.82–50.19)

See main catalogue for blade and insert recommendations

Holders for CoroBore XL diameter > 148 mm (5.827 inch)

Must be bought separately. See main catalogue for more info. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, diameter 47–150 mm (1.850-5.905 inch)
Diameter adjustment: page 11

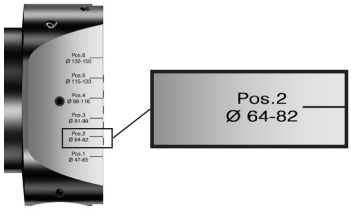
CoroBore 825 SL, diameter 148–1275 mm (5.827-50.196 inch)
Diameter adjustment: page 7–8

Diameter adjustment: Dia. 47–150 mm (1.850-5.905 inch)

CoroBore 825 SL

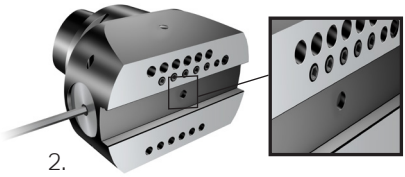
Example: Set tool to diameter 70 mm (2.76 inch)

1. Define position depending on chosen diameter, 70 mm (2.76 inch) = position 2
   Unlock counterweight locking screw



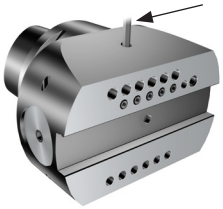
1.

2. Set internal counterweight with corresponding number to diameter position, position 2



2.

3. Lock counterweight clamping screw with appropriate torque: 8 Nm (6 ft/lbs)



3.

4. Open correct coolant channel with corresponded number to diameter position. (Five of them are closed when tool is delivered)

4.

5. Assemble head on adaptor to its right position (Position 2), and tighten the screw with correct torque: 16 Nm (12 ft/lbs)

6. Choose correct blade (type A, left-hand), to correspond to diameter range, see main catalogue

7. Fine adjust face grooving head with the same principles as the CoroBore 825 fine boring head, page 7–8

5.

SpiroGrooving™ with CoroBore® XL

API seal ring groove solution

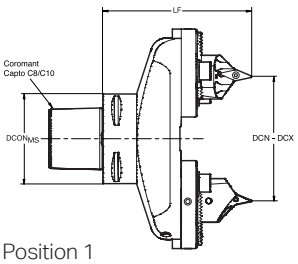
Area of usage

- All 23 deg, R-RX and BX grooves
- Not to be used for 45 deg chamfer on the outer flank on BX grooves
- Diameter range 50-294 mm (2-11,5")

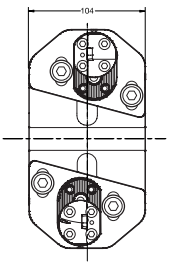
How to order

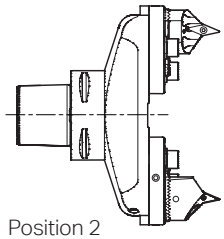
- Order a complete kit (one code – all components) which suits the diameter range to be machined
- The SpiroGrooving kits are available with C8 coupling. It is possible to run with a C6 & C10 up to diameter 239.6 mm. All components need to be bought separately. Please contact your local sales representant
- The SpiroGrooving™ software is required. Simply fill in the fields about diameter, cutting data etc. and click the "export G-code" button. Recommended to programming 'mid-tolerance' sizes for depth & diameter. Transfer the generated NC-code to the machine controller. Order the program at www.sandvik.coromant.com/spirogrooving

Overview of available adaptors and diameter ranges



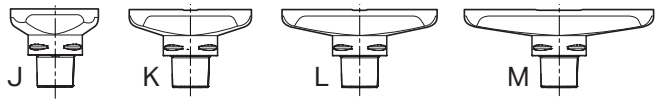
Position 1





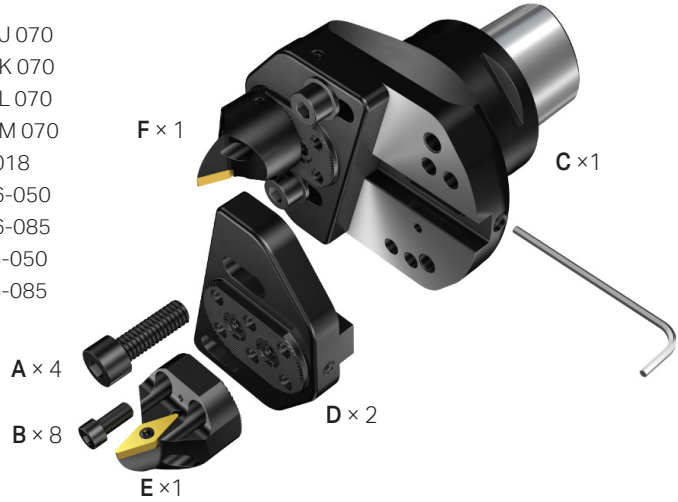
Position 2

					Position 1		Position 2	
	Adapter	Size	DCONMS	LF	DCN	DCX	DCN	DCX
Item 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



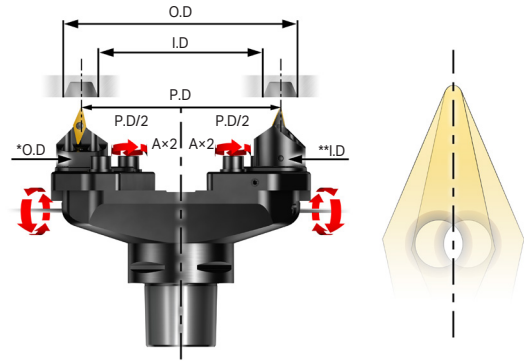
How to pre-set

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Step 1

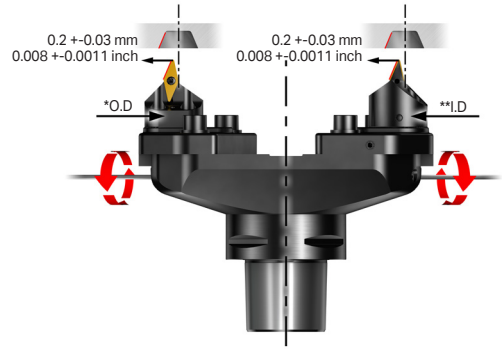
Loosen the four screws (A). Set the tool to match the groove diameter.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

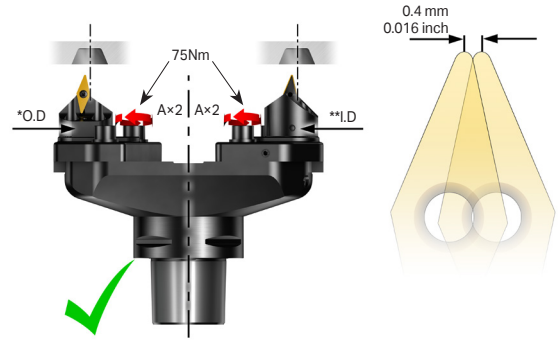
Step 2

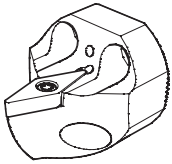
Set the SL cutting head 0.2 mm (0.008 inch) to the side. This ensures that the outer insert does not touch the inner groove wall and that the inner insert does not touch the outer groove wall.



Step 3

Tighten the slides with the four screws (A) and check that the inserts are set correctly.





For manual setting:

Use the reference plane on the head. The dimension is 19 mm (0.748") to the centre of the insert radius.

How to use

- Offset must be 0.2 mm (0.008") per head to ensure that outer insert does not touch the inner groove wall and that inner insert does not touch the outer groove wall. The measure of the track will be correct. The program generator will automatically compensate for this

Recommended maximum depth of a groove

- Not deeper than the insert cutting edge
- Pre-cladded grooves may be ok to cut deeper than insert edge length

Material to be machined

- Steel, different stainless steel and Inconel
- Inconel 625 is very difficult to machine

Limitations - machine types

- Grooves in Inconel or difficult stainless steel, cutting speed has to be reduced radically. Torque could then be a limitation in the machine.
- If surface finish isn't good enough, it may be due to parameter setting in the machine. Use look-ahead function or similar.

Start recommendations

- Steel = PF - GC4325 - v_c 250 – 350 max chip thickness: 0.15 – 0.18 - feed last rev. 40 – 50 mm/min – Pitch/rev 2.0 – 2.5 mm depending on material.
- Stainless steel = MM - GC2025, GC1115 - v_c 100 – 150 - max chip thickness: 0.12 – 0.16 - feed last rev. 30 – 40 mm/min Pitch/rev 0.5 – 1.5 mm depending on material.
- CRA (Corrosion Resistant Material) = XM, XF GC15 (inco625) alt MM, MF GC1105/GC1115 (inco718) v_c 30 – 50 - max chip thickness: 0.10 – 0.12. - Pitch/rev 0.4 – 1.0 mm depending on material, feed last rev. Use same feed mm/min as in the roughing operation.
- A separate feed is required for finishing because the last revolution creates the finishing of the groove and therefore requires a separate feed. In general:
  - Small groove diameters: use higher feed range for finishing
  - Larger groove diameters: use requires lower feed range for finishing

Fine tuning

- Deflection is sometimes bigger on inner flank due to cutting action, and groove width is a bit smaller than expected.
  - Run a groove and stop e.g. 1 mm before full depth especially useful in difficult material with more deflection tendencies
  - Verify the groove diameter by measuring outer flank and inner flank and calculate the difference between actual and nominal dimension
  - Adjust one of the heads so the difference is equal, which one depends on how big the difference is
  - Use the compensation in the machine to adjust the groove width and run the groove again

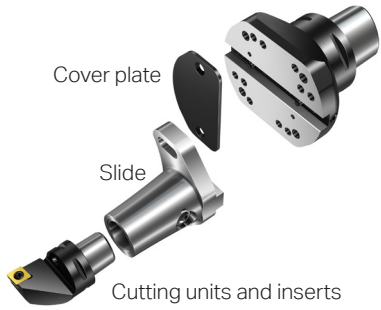
In Summary:

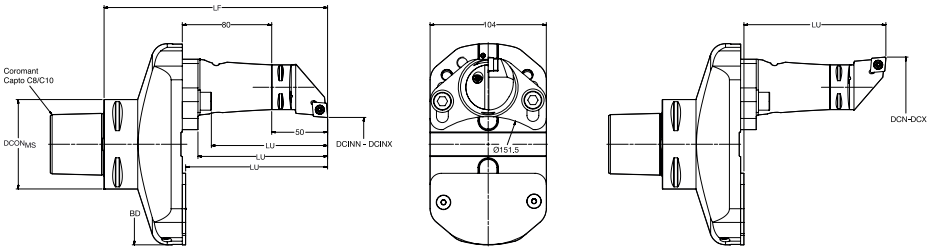
- Wrong groove diameter: adjust OD-head or/and ID-head position of tool. Use theoretical groove centreline as reference.
- Wrong width: adjust wear compensation in machine or/and adjust the depth.

CoroBore® XL

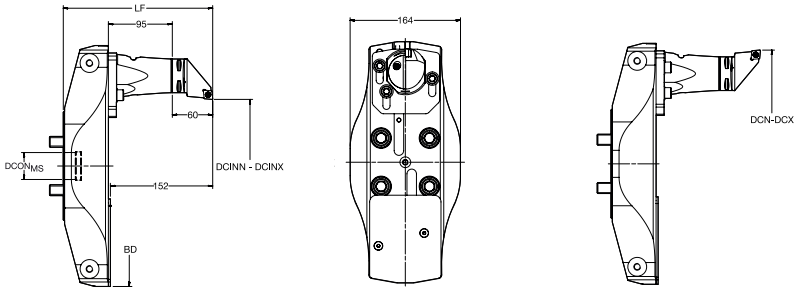
Interpolation turning

Interpolation turning is a flexible turning method developed for advanced machining centres and B-axis multi-task machines.



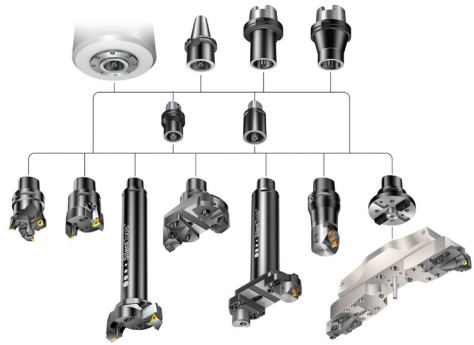


Cutting diameters for C4 standard cutting heads with WF = 27 mm (1.063 inch) and LF = 50 mm (1.968 inch)											
	Adaptor	**Size**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Item 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Cutting diameters for C5 standard cutting heads with WF = 35 mm (1.378 inch) and LF = 60 mm (2.362 inch)											
	Adaptor	**Size**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Item 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Boring – modular tooling



Bending stiffness and torque transmission are the foremost important factors when choosing a tool holder for boring operations. For best stability and hole quality use Coromant Capto machine interface adaptors in combination with boring tools as a modular tooling solution.

Use Coromant Capto system as a modular interface to combine adaptors, extensions and machine interface adaptors for greater flexibility.

– Reduce inventory and tool investment cost

– Use extension and reduction adaptors to optimize length

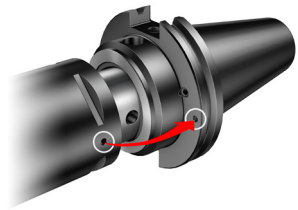
– Precision and stability allows higher cutting data

Tips & hints

- For maximum stability, choose largest possible coupling size and shortest possible overhang
- Increase the dynamic stiffness by adding a dampening mechanism
- For long overhangs (>4 x coupling diameter), use dedicated tools (Silent tools)
- If reductions are needed, use tapered version if possible
- Coromant Capto Tailor Made red/ext. adaptors are available for optimized design hence highest stability
- For long overhangs, a machine tool with a flange contact machine interface coupling provides best performance, e. g. Coromant Capto coupling, HSK, Big-Plus
- To avoid chip jamming, try to ensure that chips are adequately evacuated from the component

Tool assembly & maintenance

- Always make sure the marks are in line.
- Use assembly mounting fixture
- Always use a torque wrench and apply recommended torque on screws for insert and tool assembly torque
- Check machine spindle, run-out, wear and clamping force
- Replace worn or exhausted screws, washers and cupsprings



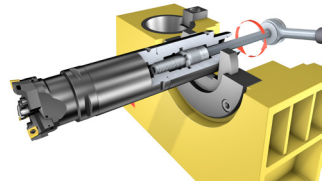
Damped tools

- Damped tools; never clamp straight over the adaptor body

Cleaning

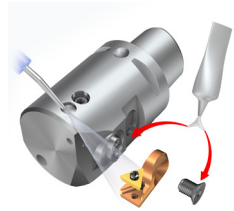
- Clean all assembly items before assembly
- Check inserts and insert seats regularly to be free from dirt & are not damaged
- Lubricate all assembly items with oil at least once a year
- Clean and lubricate with oil fine boring heads (825, 826) and face grooving head (825SL):

  Permanent use: Once a month
  Minimum: Once a year



Oil type: acid free light machine oil

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94



Use Molykote for screws

Coromant Capto size	Nm	ft/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Diameter mm	inch	ISO	ANSI	Slide Nm	Slide ft/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

Diameter mm	inch	ISO	ANSI	Slide Nm	Slide ft/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 inch)	Nm	ft/lbs
Slide	60	44
Cartridge	60	44
Insert screw CoroTurn RC	6.4	4.7
Insert screw CoroTurn 107 and CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 inch)	Nm	ft/lbs
Bridge	200	148
Bridge extension	100	74
Slide	60	44
Cartridge	60	44
Insert screw CoroTurn 107	3.0	2.2
Insert clamping CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 inch)
826: Ø 148–300 mm (5.866–11.810 inch)

	Nm	ft/lbs
Slide	60	44
Counterweight	60	44
Fine boring head	16	12
Locking screw (fine boring head)	6.0	4.4
Cartridge screw	6.0	4.4
Insert screw TC11/TP11 (TP22/TC22)	0.9	0.7
Insert screw CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 inch)
826: Ø 298–1260 mm (11.732–49.606 inch)

	Nm	ft/lbs
Bridge	200	148
Bridge extension	100	74
Slide	60	44
Counterweight	60	44
Fine boring head	16	12
Locking screw (fine boring head)	6	4.4
Cartridge screw	6	4.4
Insert screw TC11/TP11 (TP22/TC22)	0.9	0.7
Insert screw CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Cartridge screw

Ø mm (inch)	Nm	ft/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Locking screw

Ø mm (inch)	Nm	ft/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Insert screw

ISO	ANSI	Nm	ft/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 inch)

	Nm	ft/lbs
Face grooving head (S20)	16	12
Locking screw	8	6
Counterweight	8	6
Blade	9	6.6

Ø 150–1275 mm (5.905–50.197 inch)

	Nm	ft/lbs
Face grooving head (A34)	16	12
Locking screw	8	6
Blade	9	6.6

CoroBore 826 HP

Cartridge screw

Ø mm (inch)	Nm	ft/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

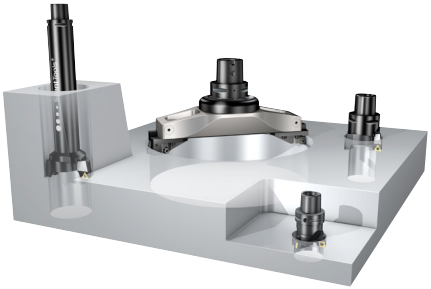
Locking screw

Ø mm (inch)	Nm	ft/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Insert screw

ISO	ANSI	Nm	ft/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

粗加工



高效率镗削

阶梯镗削*

单刃镗削*

*附件需单独订购。

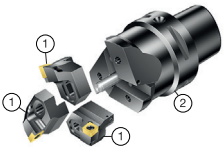
用于CoroBore XL的刀柄

必须单独购买。详细信息，请参见主样本。C8、C10、HSK-A 100、HSK-A 125、CAT-V 50、ISO 7388/1、MAS BT 50

CoroBore组件包 – 内含零部件

每个刀具包中均含所需的扳手

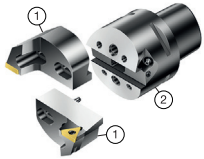
CoroBore 820



Ø 35–167 mm (1.378–6.57 inch)
1. 滑块（3件）
2. 接柄（1件）

如果没有测量装备，则可通过测量销与刀片之间的距离来调整CoroBore 820的直径，然后减去一半的销直径。所得结果乘以2即为有效的镗削直径。

DuoBore 821

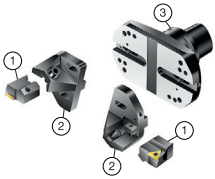


Ø 25–150 mm (0.984–5.906 inch)
1. 滑块（2件）
2. 接柄（1件）

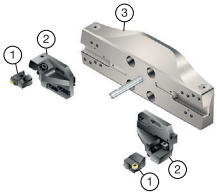
DuoBore 821D

Ø 25–150 mm (0.984–5.906 inch)
1. 滑块（2件）
2. 减振接柄（1件）

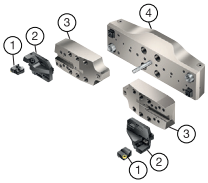
CoroBore 820 XL



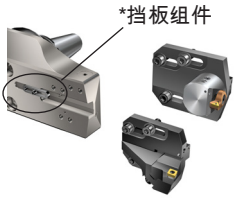
直径148–300 mm (5.827–11.811英寸)
1. 刀夹（2件）
2. 滑块（2件）
3. 接杆/减振接杆 (1件)

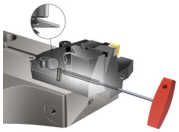


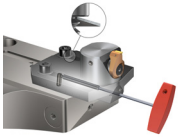
直径298–540 mm (11.732–21.259英寸)
1. 刀夹（2件）
2. 滑块（2件）
3. 桥式滑块（1件）

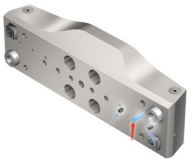


直径538–1260 mm (21.181–49.606英寸)
1. 刀夹（2件）
2. 滑块（2件）
3. 桥式加长滑块（2件）
4. 桥式滑块（1件）

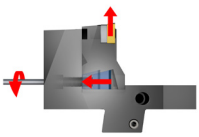


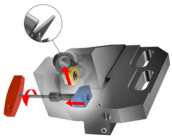




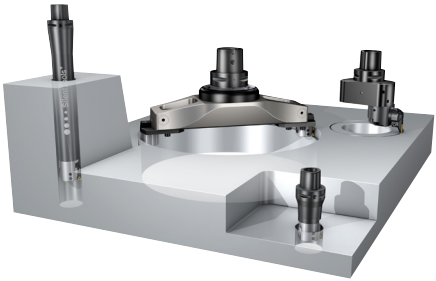


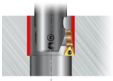
- 对于粗加工和精加工，使用相同的桥式滑块/桥式加长滑块（精加工时需要配重块）
- 容易调整，使用挡板组件*（*需单独订购）可保持相同的直径
- 轻松对滑块进行径向调整，可使用扳手略微拧紧螺钉并调节直径
- 为使内冷却液流向切削刃，可将冷却液螺钉调整至相应位置
- 对于阶梯镗削，能够轴向调整刀夹





精加工





镗削

背镗*

外镗

*附件需单独订购。

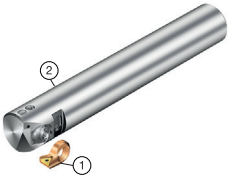
用于CoroBore XL的刀柄

必须单独购买。详细信息，请参见主样本。C8、C10、HSK-A 100、HSK-A 125、CAT-V 50、ISO 7388/1、MAS BT 50

CoroBore组件包 – 内含零部件

每个刀具包中均内含所需的扳手

CoroBore 825圆柱直柄



直径19–36 mm (0.748–1.42英寸)
1. 刀夹（1件）
2. 带圆柱直柄的精镗刀具（1件）

CoroBore 825, Coromant Capto整体式接柄

直径19–167 mm (0.748–6.57 英寸)
1. 刀夹（1件）
2. 接柄（1件）

CoroBore 826 HP

直径36–91 mm
(1.418–3.583英寸)

直径92–154 mm
(3.622–6.063英寸)

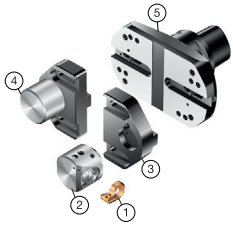
直径36–91 mm (1.418–3.583英寸)
1. 刀卡 (1件)
2. 接杆 (1件)

直径92–154 mm (3.622–6.063英寸)
1. 刀卡 (1件)
2. 精镗头 (1件)
3. 接杆 (1件)

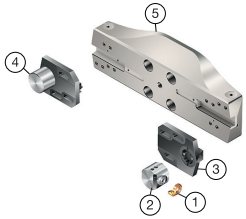
CoroBore 825D, Coromant Capto减振接柄

直径23–167 mm (0.906–6.57英寸)
1. 刀夹（1件）
2. 减振接柄（1件）

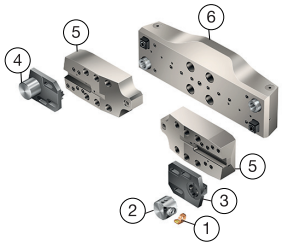
CoroBore 825 XL, CoroBore 826 XL



825: 直径148–315 mm (5.709–12.402英寸)
826: 直径148–300 mm (5.709–11.811英寸)
1. 刀夹（1件）
2. 精镗头825/826（1件）
3. 滑块（1件）
4. 配重块（1件）
5. 接柄（1件）



825: 直径298–555 mm (11.732–21.850英寸)
826: 直径298–540 mm (11.732–21.259英寸)
1. 刀夹（1件）
2. 精镗头825/826（1件）
3. 滑块（1件）
4. 配重块（1件）
5. 桥式滑块（1件）



825: 直径538–1275 mm (21.181–50.196英寸)
826: 直径538–1260 mm (21.181–49.606英寸)
1. 刀夹（1件）
2. 精镗头825/826（1件）
3. 滑块（1件）
4. 配重块（1件）
5. 桥式加长滑块（2件）
6. 桥式滑块（1件）

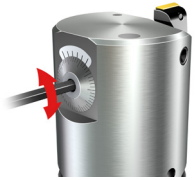
有关CoroBore XL的更多信息，请参见第22页。

直径调整

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. 用正确的扭矩值锁紧刀夹和刀片，参见第38页

2. 调整直径之前松开锁紧螺钉。



3. 务必由小到大调节，以避免反向间隙。
不要超过最大极限值！
要设置825和826，参见第26页

4. 确保锁紧螺钉如图所示定位

5. 用正确的扭矩拧松锁紧螺钉，参见第37-38页

6. 如需润滑刀具，可压下中心，然后添加油脂，参见第36页

刻度调节

CoroBore 825/825D/825 XL/825 SL

蓝线=参考值

起始位置

调整后位置

顺时针转动刻度盘，直到红线与游标上的绿线对准。直径增加0.002mm。
蓝线 = 作为参考因为它是对齐到游标起始位置的线。

CoroBore HP 826, CoroBore 826 XL

蓝线=参考值

起始位置

调整后位置

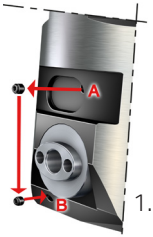
每次发出咔嗒声直径调整0.002 mm (0.00008 inch).
旋转360°直径变化0.1 mm (0.00394 inch).

调整范围：
CB826B-刀夹 (36–55 mm (1.417–3.583 inch)): 公称直径 +/- 0.55 mm (0.022 inch)
CB826C-刀夹 (56–91 mm (3.662–6.063 inch)): 公称直径 +/- 0.65 mm (0.026 inch)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

背镗

CoroBore 825/825D/825 XL

（不适合 CoroBore 826和826 SL）



1.

2.

1. 从冷却液导管A中拧下埋头螺钉，再将其拧入到冷却液导管B中
2. 用正确的扭矩锁定X + Y + Z

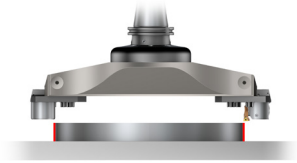
背镗

使用加长滑块背镗时直径范围将改变，直径19–1275 mm (0.748–50.20英寸) = 背镗直径 25–1284.6 mm (0.984–50.57英寸)。对于背镗，主轴方向变为逆时针（M04）。

外圆镗削

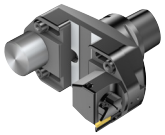
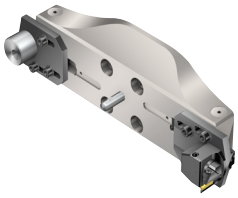
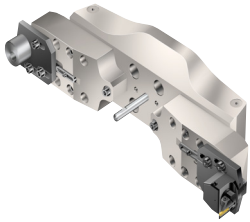
CoroBore 825 XL, CoroBore 826 XL

外圆镗削直径范围变化为：
CB825XL - Ø23-1150 mm (0.906-45.275 inch)
CB826XL - Ø38-1150 mm (1.496-45.275 inch)



轴向端面切槽

CoroBore 825 SL

刀板类型	刀片类型	首选槽形	Ø, mm (英寸)
SL32 A曲线 左手型 570- 32R/ L123xxxBxxxA LF=18	CoroCut单双刃系统刀片	--CM刀尖半径<0.2 -TF刀尖半径>0.2，推荐进给：0.15 mm/r (0.0059英寸/转) 如果要求更小的公差，请选择–GF槽形。 推荐进给：0.10 mm/r (0.0039英寸/转)	47–150 (1.85–5.90) 148–1275 (5.82–50.19)

对于刀板和刀片推荐值，请参见主样本

用于直径大于148 mm (5.827英寸) 的CoroBore XL的刀柄

必须单独购买。详细信息，请参见主样本。C8、C10、HSK-A 100、HSK-A 125、CAT-V 50、ISO 7388/1、MAS BT 50

CoroBore 825 SL，直径47-150 mm (1.850-5.905英寸)
直径调整：参见第29页

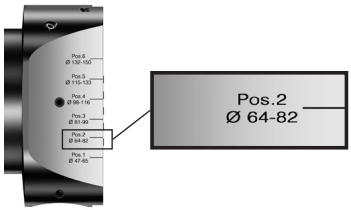
CoroBore 825 SL，直径148-1275 mm (5.827-50.196英寸)
直径调整：参见第25-26页

直径调节：直径47-150 mm (1.850-5.905英寸)

CoroBore 825 SL

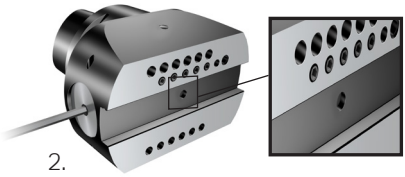
实例：设置刀具直径为70 mm (2.76英寸)

1. 根据所选的直径定义位置，70 mm (2.76英寸) =位置2
   松开配重锁紧螺钉。



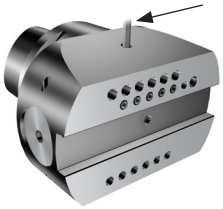
1.

2. 设置与直径位置编号（位置2）相对应的内部配重块



2.

3. 用适当的扭矩锁紧配重夹紧螺钉：
   8 Nm (6英尺磅)



3.

4. 打开与直径位置编号相对应的冷却液通道。（交付刀具时，五个冷却液通道均处于关闭状态

4.

5. 将接柄上的切削头装配至其正确位置（位置2），然后用正确的扭矩拧紧螺钉：16 Nm (12 ft/lbs)

6. 根据直径范围选择正确的刀板（A型，左手型），参见主样本

7. 精调端面切槽切削头与CoroBore 825精镗头原则上一致，参见第25-26页

5.

使用CoroBore® XL进行SpiroGrooving™

API密封环槽解决方案

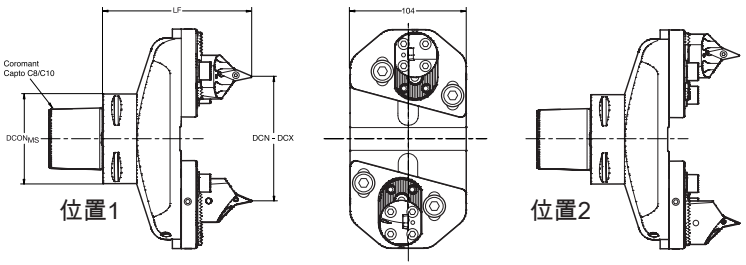
使用范围

- 所有23°、R-RX和BX槽
- 不能用于在BX槽的外侧面加工45°倒角。
- 直径范围50-294 mm (2-11.5英寸)

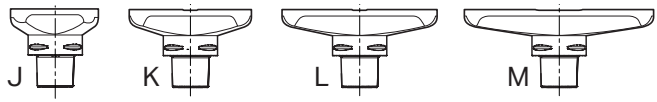
如何订购

- 订购适合待加工直径范围的完整套件 (一个代码 - 所有组件)。
- SpiroGrooving套件提供有C8接口。当直径不超过239.6 mm时，它能够与C6和C10接口一起使用。所有组件都需要单独购买。请与您当地的销售代表联系。
- 需要使用SpiroGrooving™软件。只需填写有关直径、切削参数等的输入字段，然后点击“export G-code”(导出G代码) 按钮。建议为深度和直径设置“中等公差”尺寸。将生成的NC代码传输至机床控制器。如需订购程序，敬请访问 www.sandvik.coromant.com/spirogrooving

可用接杆和直径范围概览

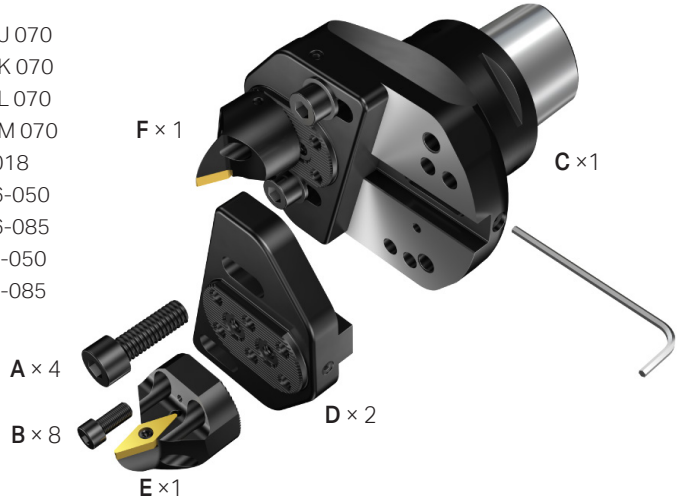


					位置1		位置2	
	接杆	尺寸	DCONMS	LF	DCN	DCX	DCN	DCX
部件4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



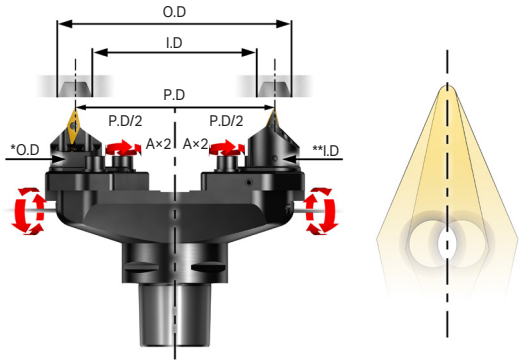
如何预设

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



第1步

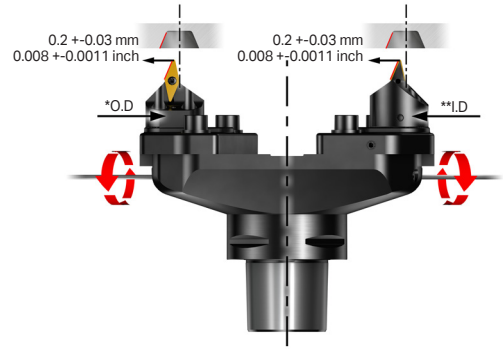
松开4个螺钉 (A)。设置刀具，使其与槽直径匹配。



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

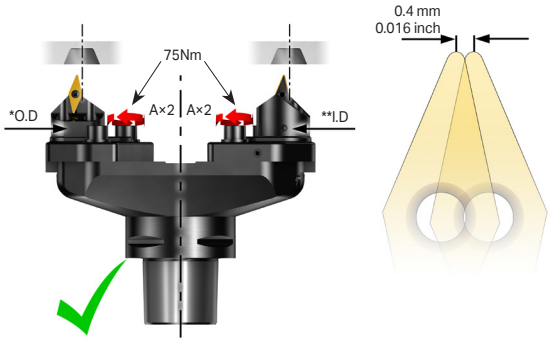
第2步

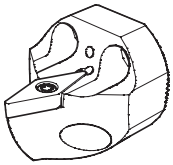
使SL切削头向侧面偏移0.2 mm (0.008英寸)。这可确保外刀片不会碰到内槽壁，以及内刀片不会碰到外槽壁。



第3步

用4个螺钉 (A) 拧紧滑块，检查并确认刀片正确设置。





对于手动设置：

使用切削头上的参考面。距离刀片半径中心的尺寸为19 mm (0.748英寸)。

如何使用

- 每个切削头的偏移量必须为0.2 mm (0.008英寸)，以确保外刀片不会接触到内槽壁，内刀片不会接触到外槽壁。轨迹测量将是正确的。程序生成器将自动对此进行补偿

推荐的最大槽深

- 不深于刀片切削刃。
- 切制预覆槽时，深度可以大于刀片切削刃长度

待加工材料

- 钢、各种不锈钢和Inconel
- Inconel 625的加工难度非常高

限制 - 机床类型

- 对Inconel或加工难度高的不锈钢切槽时，必须大幅降低切削速度。这样，扭矩可能成为机床的一项限制因素。
- 如果表面质量不够好，则原因可能是机床中的参数设置。使用“向前看”功能或类似功能。

起始推荐值

- 钢 = PF - GC4325 - v_c 250-350 最大切屑厚度：0.15-0.18 - 最后一转的进给40-50 mm/min - 每转齿距 2.0-2.5 mm，具体取决于材料。
- 不锈钢 = MM - GC2025、GC1115 - v_c 100-150 - 最大切屑厚度：0.12-0.16 - 最后一转的进给30-40 mm/min - 每转齿距 0.5-1.5 mm，具体取决于材料。
- CRA (耐腐蚀材料) = XM、XF GC15 (inco625) 或MM、MF GC1105/GC1115 (inco718) v_c 30-50 - 最大切屑厚度：0.10-0.12。- 每转齿距 0.4-1.0 mm，具体取决于材料。最后一转的进给使用与粗加工工序中相等的进给 (mm/min)
- 精加工时需要使用单独的进给，因为最后一转用于对槽进行精加工，因此需要单独的进给。总之：
- 小槽直径：精加工时使用更高的进给范围
- 更大的槽直径：精加工时使用更低的进给范围

微调

- 由于切削作用的原因，内侧面的挠曲有时更大，槽宽比预期稍小。
  - 加工一个槽，例如在达到最大深度前1 mm处停止。这在加工挠曲趋势更高的难切削材料时尤其有用。
  - 通过测量外侧面和内侧面验证槽直径，计算实际尺寸与标称尺寸之差。
  - 调节其中一个切削头，从而使差值相等。调节哪个切削头取决于差值的大小。
  - 利用机床中的补偿调节槽宽，然后再次切槽。

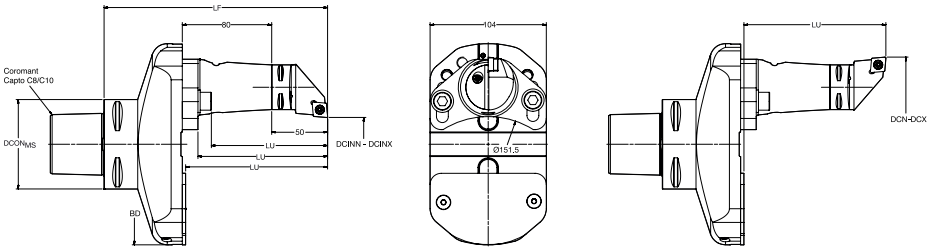
总结：

- 槽直径错误：调节刀具的外径切削头和/或内径切削头位置。使用理论槽中心线作为参考。
- 槽宽错误：调节机床中的磨损补偿和/或调节槽深

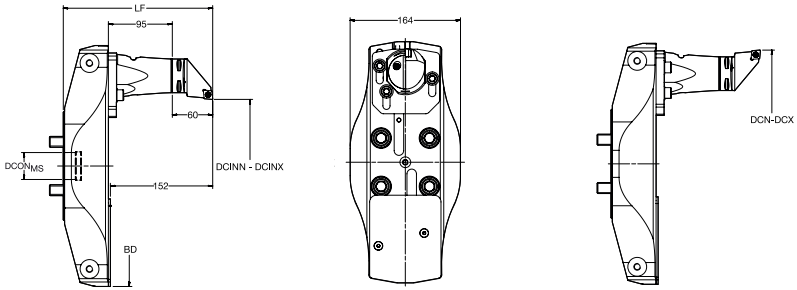
CoroBore® XL

插车

插车是为先进的加工中心和B轴多任务机床开发的一种灵活的车削方法。

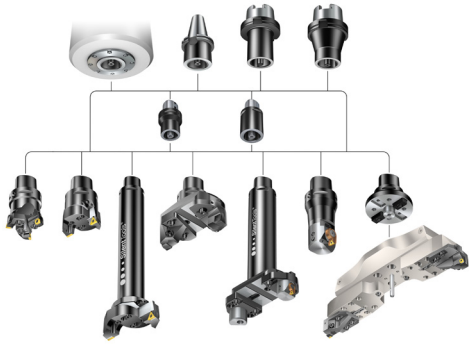


WF = 27 mm (1.063英寸) 和LF = 50 mm (1.968英寸) 的C4标准切削头的切削直径											
	接杆	尺寸	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
部件 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



WF = 35 mm (1.378英寸) 和LF = 60 mm (2.362英寸) 的C5标准切削头的切削直径											
	接杆	尺寸	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
部件 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

镗削 – 模块化刀具系统



选择镗削刀柄时，弯曲刚度和扭矩传递是最重要的因素。为了获得最佳稳定性和孔质量，可将Coromant Capto机床接口接柄与镗削刀具组合使用（即模块化工具系统）。

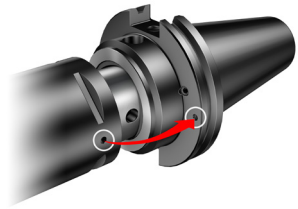
采用Coromant Capto系统作为模块化接口，由此组合接柄、加长滑块和机床接口接柄以获得更高的稳定性
– 降低库存和刀具投资成本
– 使用加长接柄和缩径接柄以优化长度
– 高精度和稳定性允许应用更高的切削参数

技巧和提示

- 为获得最大稳定性，应选择尽可能粗的接口型号和尽可能短的悬伸
- 阻尼减振机构可提高动态刚度
- 对于大悬伸（>4 x接口直径），请使用防振刀具（Silent tools）
- 如需缩径杆，请尽可能使用锥度接柄
- Coromant Capto订制的红色/外圆接柄设计经过优化，由此获得最高稳定性
- 对于大悬伸，带法兰接触机床接口接口的机床可提供最佳性能，例如Coromant Capto接口、Big-Plus
- 为避免切屑堵塞，应确保切屑从零件中充分排出

刀具装配与维护

- 应确保标记在一条直线上。
- 使用组件安装夹具
- 总是使用扭矩扳手，并使用推荐的扭矩值
- 检查机床主轴、跳动量、磨损以及夹紧力
- 更换已磨损或疲劳的螺钉、垫圈及盘形弹簧



减振刀具

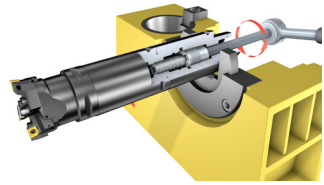
- 减振刀具；切勿直接夹紧接柄主体

清洁

- 装配之前清洁所有装配物件
- 定期检查刀片和刀片座，确保没有脏物或受损
- 每年至少一次用油润滑所有装配物件
- 清洁并用油润滑精镗头（825、826）和端面切槽切削头（825SL）：

  永久使用：每月一次

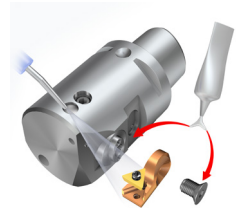
  最低限度：每年一次



油类型：无酸轻质机油

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94.

使用Molykote处理螺钉



Coromant Capto 型号	Nm	ft/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

直径 mm	英寸	ISO	ANSI	滑块 Nm	滑块 ft/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

直径 mm	英寸	ISO	ANSI	滑块 Nm	滑块 ft/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL
Ø 148–300 mm (5.512–11.811 英寸)

	Nm	ft/lbs
滑块	60	44
刀夹	60	44
刀片螺钉 - CoroTurn RC	6.4	4.7
刀片螺钉 - CoroTurn 107和CoroDrill 880	3.0	2.2

CoroBore 820 XL
Ø 298–1260 mm (11.732–49.606 英寸)

	Nm	ft/lbs
桥式滑块	200	148
桥式加长滑块	100	74
滑块	60	44
刀夹	60	44
刀片螺钉 - CoroTurn 107	3.0	2.2
刀片夹紧- CoroTurn® RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL
825: Ø 148–315 mm (5.866–12.402 英寸)
826: Ø 148–300 mm (5.866–11.810 英寸)

	Nm	ft/lbs
滑块	60	44
配重块	60	44
精镗头	16	12
锁紧螺钉（精镗头）	6.0	4.4
刀夹螺钉	6.0	4.4
刀片螺钉 - TC11/TP11 (TP22/TC22)	0.9	0.7
刀片螺钉 - CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL
825: Ø 298–1275 mm (11.732–50.197 英寸)
826: Ø 298–1260 mm (11.732–49.606 英寸)

	Nm	ft/lbs
桥式滑块	200	148
桥式加长滑块	100	74
滑块	60	44
配重块	60	44
精镗头	16	12
锁紧螺钉（精镗头）	6	4.4
刀夹螺钉	6	4.4
刀片螺钉 - TC11/TP11 (TP22/TC22)	0.9	0.7
刀片螺钉 - CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

刀夹螺钉

Ø mm (英寸)	Nm	ft/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

锁紧螺钉

Ø mm (英寸)	Nm	ft/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

刀片螺钉

ISO	ANSI	Nm	ft/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 英寸)

	Nm	ft/lbs
端面切槽切削头（S20）	16	12
锁紧螺钉	8	6
配重块	8	6
刀板	9	6.6

Ø 150–1275 mm (5.905–50.197 英寸)

	Nm	ft/lbs
端面切槽切削头（A34）	16	12
锁紧螺钉	8	6
刀板	9	6.6

CoroBore 826 HP

刀夹螺钉

Ø mm (英寸)	Nm	ft/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

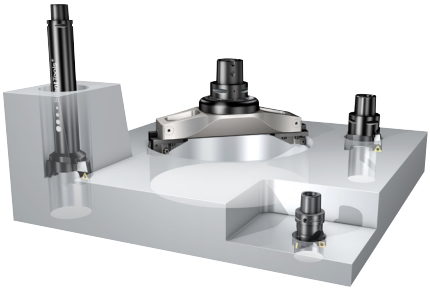
锁紧螺钉

Ø mm (英寸)	Nm	ft/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

刀片螺钉

ISO	ANSI	Nm	ft/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Ebauche



Alésage productif

Alésage décalé*

Alésage à plaquette unique*

*Des accessoires sont nécessaires et doivent être commandés séparément.

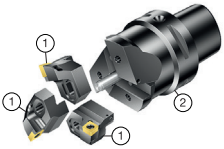
Porte-outils pour CoroBore XL

À acheter séparément. Pour plus d'informations, voir le Catalogue Général. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kits d'assemblés CoroBore – pièces inclues

Les clés nécessaires sont inclues dans les kits d'assemblés

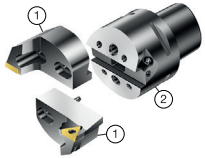
CoroBore 820



Ø 35–167 mm (1.378–6.57 pouces)
1. Coulisseau (3 pièces)
2. Adaptateur (1 pièce)

En l'absence de dispositif de pré-réglage, régler le diamètre de CoroBore 820 en mesurant la distance entre le pion central et la plaquette et en soustrayant la moitié du diamètre du pion. Le diamètre d'alésage effectif s'obtient en multipliant la valeur obtenue par deux.

DuoBore 821

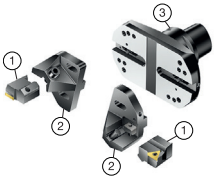


Ø 25–150 mm (0.984–5.906 pouces)
1. Coulisseau (2 pièces)
2. Adaptateur (1 pièce)

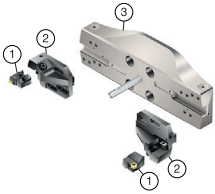
DuoBore 821D

Ø 25–150 mm (0.984–5.906 pouces)
1. Coulisseau (2 pièces)
2. Adaptateur antivibratoire (1 pièce)

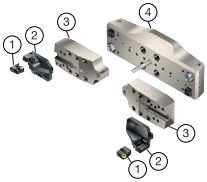
CoroBore 820 XL



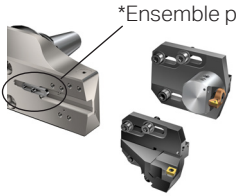
Ø 148–300 mm (5.827–11.811 pouces)
1. Cartouche (2 pièces)
2. Coulisseau (2 pièces)
3. Adaptateur / Adaptateur antivibratoire (1 pièce)

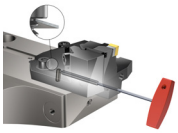


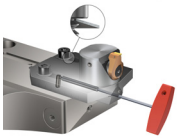
Ø 298–540 mm (11.732–21.259 pouces)
1. Cartouche (2 pièces)
2. Coulisseau (2 pièces)
3. Bras (1 pièce)

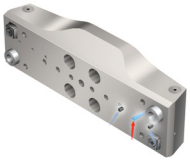


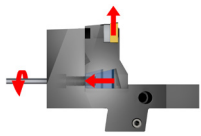
Ø 538–1260 mm (21.181–49.606 pouces)
1. Cartouche (2 pièces)
2. Coulisseau (2 pièces)
3. Allonge de bras (2 pièces)
4. Bras (1 pièce)

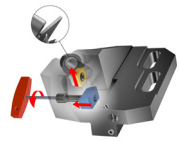






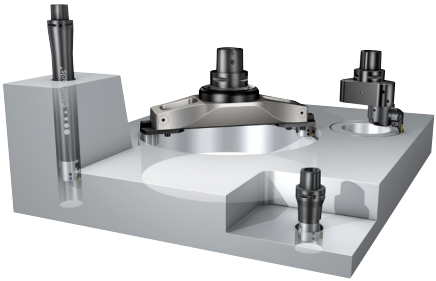


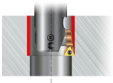




- Utiliser le même bras/allonge de bras pour l'ébauche et la finition (masse d'équilibrage nécessaire pour la finition)
- Changement aisé d'application en conservant le même diamètre avec l'ensemble plaque de butée* (*à commander séparément)
- Réglage radial des coulisseaux aisé, serrer légèrement les vis et régler le diamètre avec la clé
- Pour l'arrosage par l'intérieur jusqu'à l'arête de coupe, mettre les vis d'arrosage sur la bonne position
- Pour l'alésage décalé, il est possible de régler les cartouches dans le sens radial

Finition





Alésage conventionnel

Alésage en tirant*

Alésage extérieur

*Des accessoires sont nécessaires et doivent être commandés séparément.

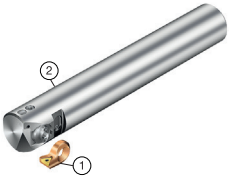
Porte-outils pour CoroBore XL

À acheter séparément. Pour plus d'informations, voir le Catalogue Général. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kits d'assemblés CoroBore – pièces inclues

Les clés nécessaires sont inclues dans les kits d'assemblés

CoroBore 825 à queue cylindrique



Ø 19–36 mm (0.748–1.42 pouce)
1. Cartouche (1 pièce)
2. Outil d'alésage micrométrique à queue cylindrique (1 pièce)

CoroBore 825 avec adaptateur Coromant Capto intégré

Ø 19–167 mm (0.748–6.57 pouce)
1. Cartouche (1 pièce)
2. Adaptateur (1 pièce)

CoroBore 826 HP

Ø 36–91 mm (1.418–3.583 pouces)

Ø 92–154 mm (3.622–6.063 pouces)

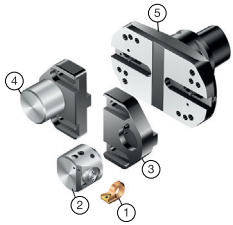
Ø 36–91 mm (1.418–3.583 pouces)
1. Cartouche (1 pièce)
2. Adaptateur (1 pièce)

Ø 92–154 mm (3.622–6.063 pouces)
1. Cartouche (1 pièce)
2. Tête d'alésage micrométrique (1 pièce)
3. Adaptateur (1 pièce)

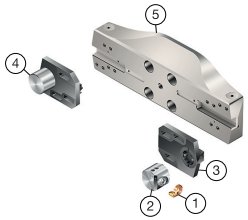
CoroBore 825D, Coromant Capto antivibratoire

Ø 23–167 mm (0.906–6.57 pouce)
1. Cartouche (1 pièce)
2. Adaptateur antivibratoire (1 pièce)

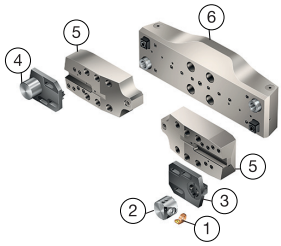
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 mm (5.709–12.402 pouces)
826: Ø 148–300 mm (5.709–11.811 pouces)
1. Cartouche (1 pièce)
2. Tête d'alésage micrométrique 825/826 (1 pièce)
3. Coulisseau (1 pièce)
4. Masse d'équilibrage (1 pièce)
5. Adaptateur (1 pièce)



825: Ø 298–555 mm (11.732–21.850 pouces)
826: Ø 298–540 mm (11.732–21.259 pouces)
1. Cartouche (1 pièce)
2. Tête d'alésage micrométrique 825/826 (1 pièce)
3. Coulisseau (1 pièce)
4. Masse d'équilibrage (1 pièce)
5. Bras (1 pièce)



825: Ø 538–1275 mm (21.181–50.196 pouces)
826: Ø 538–1260 mm (21.181–49.606 pouces)
1. Cartouche (1 pièce)
2. Tête d'alésage micrométrique 825/826 (1 pièce)
3. Coulisseau (1 pièce)
4. Masse d'équilibrage (1 pièce)
5. Allonge de bras (2 pièces)
6. Bras (1 pièce)

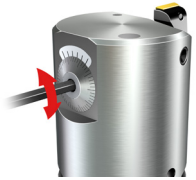
Pour plus d'informations sur CoroBore XL, voir page 40.

Réglage du diamètre

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Serrer le cartouche et la plaquette au couple correct, voir page 56

2. Desserrer la vis de blocage avant de régler le diamètre



3. Effectuer le réglage en allant du plus petit diamètre vers le plus grand pour éviter le jeu. Ne pas dépasser les limites maximum !
   Réglage de 825 et 826, page 44

4. S'assurer que la vis de blocage est bien positionnée comme sur la figure

5. Serrer la vis de blocage au couple correct, page 55–56

6. Pour la lubrification de l'outil, enfoncer le centre et remplir d'huile, page 54

Réglage du vernier

CoroBore 825/825D/825 XL/825 SL

Trait bleu = référence

Position de départ

Position réglée

Mesurez le disque en tournant dans le sens des aiguilles d'une montre jusqu'à ce que la ligne rouge s'aligne avec la Ligne Verte sur le vernier. Le diamètre a augmenté de 0,002 millimètres (0,00008 pouces).
Ligne bleue = référence puisqu'elle s'aligne sur une ligne sur le vernier en position de démarrage.

CoroBore HP 826, CoroBore 826 XL

Trait bleu = référence

Position de départ

Position réglée

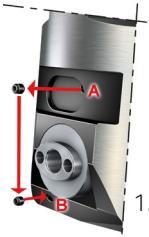
A chaque cran, le diamètre est modifié de 0.002 mm (0.00008 pouces).
Un tour complet modifie le diamètre de 0.1 mm (0.00394 pouces).

Amplitude de réglage :
La cartouche CB826B (36–55 mm (1.417–3.583 pouces)):
Diamètre nominal +/- 0.55 mm (0.022 pouces)
La cartouche CB826C (56–91 mm (3.662–6.063 pouces)):
Diamètre nominal +/- 0.65 mm (0.026 pouces)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Alésage en tirant

CoroBore 825/825D/825 XL

(sauf CoroBore 826 et 825 SL)



1.

2.

1. Retirer la vis sans tête de l'orifice de liquide de coupe A et la mettre en place dans l'orifice B
2. Serrer X + Y + Z au couple correct

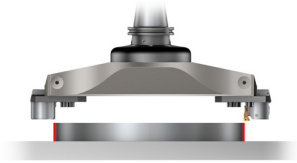
Alésage en tirant

La plage de diamètres est modifiée pour l'alésage en tirant avec l'allonge de coulisseau, Ø 19-1275 mm (0.748-50.20 pouces) = alésage en tirant Ø 25-1284.6 mm (0.984-50.57 pouces). Pour l'alésage en tirant, mettre la broche en rotation dans le sens contraire des aiguilles d'une montre (M04).

Alésage extérieur

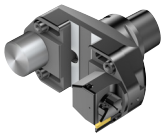
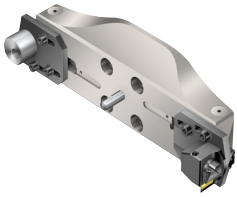
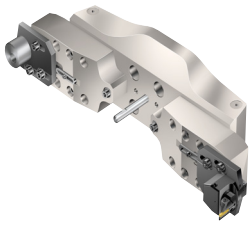
CoroBore 825 XL, CoroBore 826 XL

L'amplitude de diamètre est modifiée pour l'alésage externe :
CB825XL - Ø23-1150 mm (0.906-45.275 pouces)
CB826XL - Ø38-1150 mm (1.496-45.275 pouces)



Gorges frontales axiales

CoroBore 825 SL

Type de lame	Type de plaquette	Géométrie à choisir en priorité	Ø, mm (pouce)
SL32 Courbe A A gauche 570- 32R/ L123xxxBxxxA LF=18	Plaquettes du système CoroCut 1-2	-CM rayon de bec <0,2 -TF rayon de bec >0,2 Avance recommandée : 0.15 (mm/tr) (0.0059 pouce/tr) Si des tolérances plus serrées sont néces-saires, choisir -GF. Avance recommandée : 0.10 (mm/tr) (0.0039 pouce/tr)	47–150 (1.85–5.90) 148–1275 (5.82–50.19)

Lames et plaquettes recommandées, voir le Catalogue Général

Porte-outils pour CoroBore XL diamètre > 148 mm (5.827 pouces)

À acheter séparément. Pour plus d'informations, voir le Catalogue Général. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, diamètre 47–150 mm (1.850-5.905 pouces)
Réglage du diamètre : page 47

CoroBore 825 SL, diamètre 148–1275 mm (5.827-50.196 pouces)
Réglage du diamètre : page 43–44

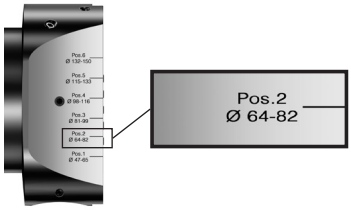
Réglage du diamètre : Diam. 47–150 mm (1.850-5.905 pouces)

CoroBore 825 SL

Exemple : Réglage de l'outil au diamètre 70 mm (2.76 pouces)

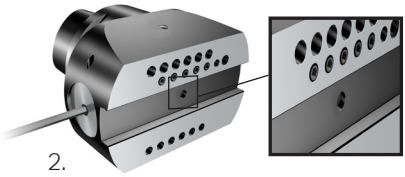
1. Définir la position en fonction du diamètre choisi, 70 mm (2.76 pouces) = position 2
   Desserrer la vis de blocage de la masse d'équilibrage.

1.



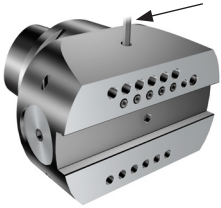
2. Régler la masse d'équilibrage intérieure sur le chiffre correspondant au diamètre, position 2

2.



3. Serrer la vis de blocage de la masse d'équilibrage au couple correct : 8 Nm (6 ft/lbs)

3.



4. Ouvrir l'orifice d'arrosage approprié correspondant à la position du diamètre. (Cinq canaux sont fermés à la livraison de l'outil)

4.

5. Monter la tête sur l'adaptateur dans la bonne position (Position 2) et serrer la vis au couple correct : 16 Nm (12 ft/lbs)

6. Sélectionner le type de lame approprié (Type A, à gauche) en fonction du diamètre ; voir le Catalogue Général

7. Effectuer le réglage micrométrique de la tête pour gorges frontales selon les mêmes principes que pour les têtes d'alésage micrométrique CoroBore 825, page 43–44

5.

SpiroGrooving™ avec CoroBore® XL

Solution pour les gorges de joints d'étanchéité API

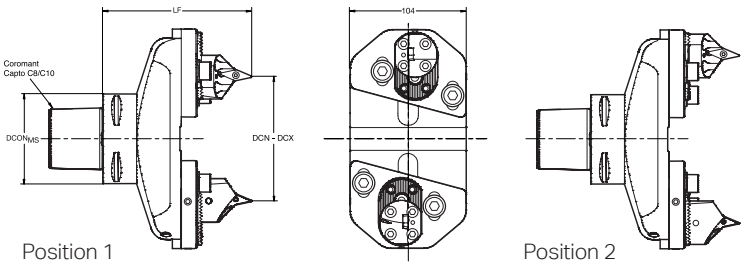
Application

- Gorges R-RX et BX à 23 degrés
- Ne pas utiliser pour les chanfreins à 45 degrés sur le bord extérieur des gorges BX.
- Plage de diamètres 50-294 mm (2-11,5")

Comment commander

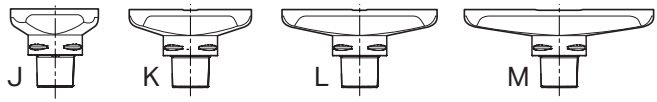
- Commander un kit complet (une seule référence de commande pour l'ensemble des pièces) adapté à la plage de diamètres à usiner.
- Les kits SpiroGrooving sont disponibles avec accouplement C8. Il est possible d'utiliser C6 & C10 jusqu'au diamètre 239.6 mm. Tous les éléments doivent être achetés séparément. Contactez votre technico-commercial.
- Le logiciel SpiroGrooving™ est nécessaire. Il suffit d'indiquer le diamètre, les conditions de coupe, etc. dans les champs prévus à cet effet et de cliquer sur le bouton « export G-code ». Il est recommandé de programmer des tolérances moyennes pour la profondeur et le diamètre. Transférer le code CN qui est généré automatiquement vers le système de commande de la machine. Pour commander le programme : www.sandvik.coromant.com/spirogrooving

Vue d'ensemble des adaptateurs et plages de diamètres disponibles



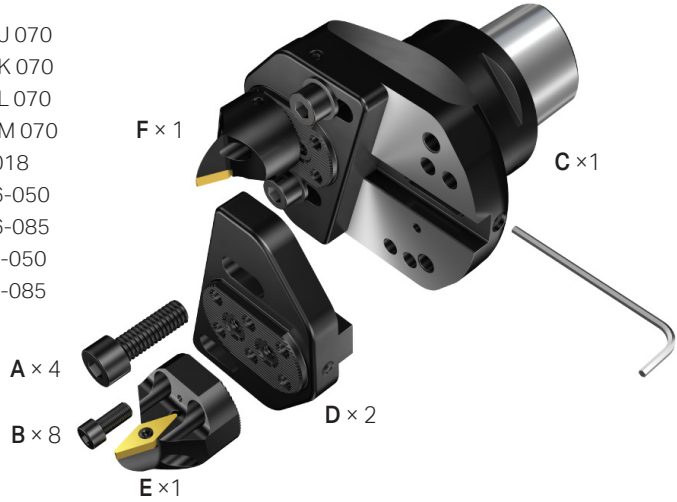
Position 1 Position 2

					Position 1		Position 2	
	Adaptateur	Taille	DCONMS	LF	DCN	DCX	DCN	DCX
Élément 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



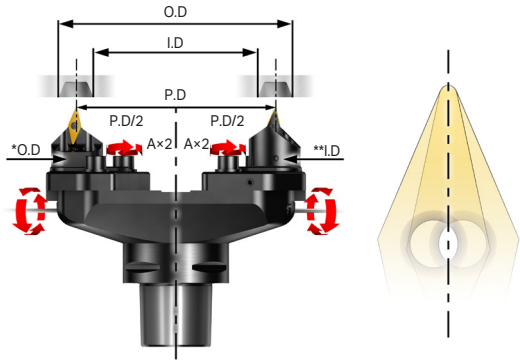
Pré-réglage

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Étape 1

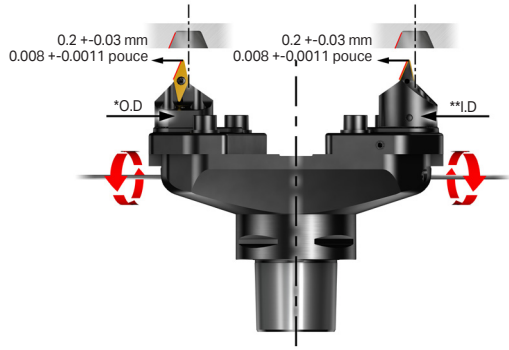
Desserrer les quatre vis (A). Régler l'outil au diamètre de la gorge.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

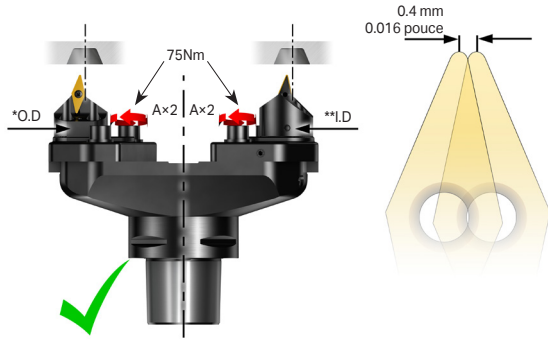
Étape 2

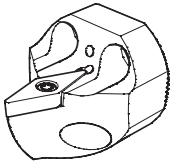
Décaler les têtes de coupe SL de 0.2 mm (0.008 pouce) latéralement. Ceci permet d'éviter que la plaquette extérieure ne touche la paroi intérieure de la gorge et que la plaquette intérieure ne touche la paroi extérieure.



Étape 3

Serrer les coulisseaux avec les quatre vis (A) et vérifier le bon réglage des plaquettes.





Réglage manuel :

Utiliser le méplat de référence de la tête de coupe. La distance par rapport au centre du rayon de la plaquette est de 19 mm (0.748").

Mode d'emploi

- Le décalage de chacune des têtes de coupe doit être de 0.2 mm (0.008") afin éviter que la plaquette extérieure ne touche la paroi intérieure de la gorge et que la plaquette intérieure ne touche la paroi extérieure. Les cotes de la gorge seront correctes. Le générateur de code compense, en effet, le décalage.

Profondeur de gorge maximum recommandée

- Profondeur inférieure ou égale à l'arête de coupe des plaquettes.
- Dans les gorges préalablement plaquées, il peut être possible de couper à une profondeur supérieure à la longueur de l'arête de coupe

Matière à usiner

- Aciers, plusieurs sortes d'aciers inoxydables et Inconel
- L'Inconel 625 est très difficile à usiner

Limites des machines

- Lors de l'usinage de gorges dans l'Inconel et dans les aciers inoxydables difficiles, la vitesse doit être considérablement réduite. Le couple de la machine peut être insuffisant pour cela.
- Si l'état de surface n'est pas assez bon, cela peut être dû aux réglages de la machine. Utiliser une fonction de prévision ou similaire.

Recommandations de départ

- Aciers = PF - GC4325 - v_c 250 – 350 épaisseur maximum des copeaux : 0.15 – 0.18 - Avance dernier tour 40 – 50 mm/min – Pas/tr 2.0 – 2.5 mm, en fonction de la matière.
- Aciers inoxydables = MM - GC2025, GC1115 - v_c 100-150 - épaisseur maximum des copeaux : 0.12 – 0.16 – Avance dernier tour 30 – 40 mm/min Pas/tr 0.5 – 1.5 mm, en fonction de la matière.
- CRA (matières résistantes à la corrosion) = XM, XF GC15 (inco625) ou MM,MF GC1105/GC1115 (inco718) v_c 30 – 50 - épaisseur maximum des copeaux : 0.10 – 0.12. - Pas/tr 0.4 – 1.0 mm, en fonction de la matière. Avance dernier tour Utiliser la même avance mm/min que pour l'ébauche
- Une avance particulière est nécessaire pour la finition car le dernier tour crée l'état de surface final de la gorge. Cas général :
- Petits diamètres de gorges : utiliser la partie supérieure de la plage d'avances pour la finition
- Grands diamètres de gorges : utiliser la partie basse de la plage d'avances pour la finition

Réglages fins

- La déflexion est parfois plus importante sur le bord intérieur des gorges en raison de l'action de coupe et la largeur des gorges est insuffisante.
  - Usiner la gorge et arrêter à 1 mm de la profondeur prévue. Ceci est surtout utile dans les matières difficiles qui provoquent plus de déflexion.
  - Vérifier le diamètre de la gorge en mesurant les bords extérieurs et intérieurs puis calculer la différence entre la dimension réelle et nominale.
  - Régler une des têtes de coupe de manière à ce que la différence soit égale. La tête à régler est celle qui a le plus grand écart.
  - Utiliser la compensation de la machine pour régler la largeur de la gorge, puis continuer l'usinage.

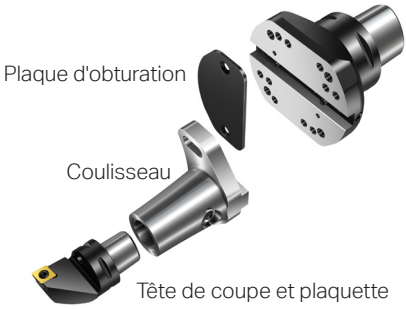
Résumé :

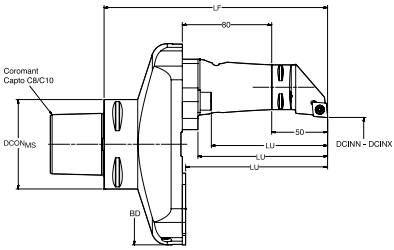
- Mauvais diamètre de gorge : Régler la tête de coupe extérieure et/ou intérieure. Utiliser le centre théorique de la gorge comme référence.
- Mauvaise largeur de gorge : Régler la compensation de l'usure de la machine et/ou la profondeur

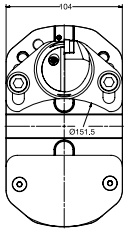
CoroBore® XL

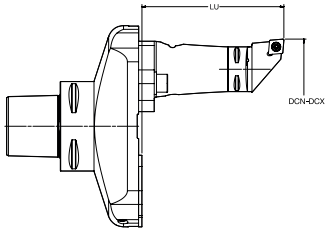
Tournage par interpolation

Le tournage par interpolation est une méthode de tournage flexible développée pour les centres d'usinage avancés et les machines multifonctions avec axe B.

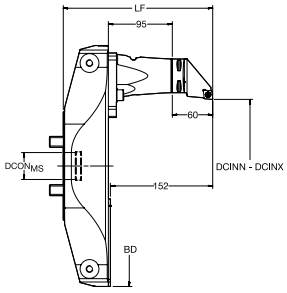


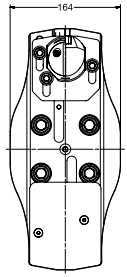


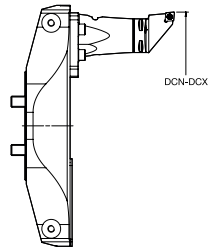




Diamètres de coupe des têtes de coupe C4 standard avec WF = 27 mm (1.063 pouce) et LF = 50 mm (1.968 pouce)											
Élément 3	**Adaptateur**	**Taille**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			

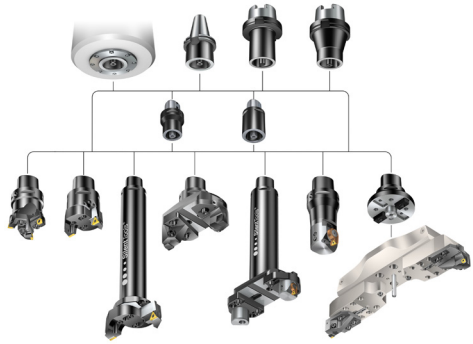






Diamètres de coupe des têtes de coupe C5 standard avec WF = 35 mm (1.378 pouce) et LF = 60 mm (2.362 pouce)											
Élément 3	**Adaptateur**	**Taille**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Alésage – outillage modulaire



La résistance à la flexion et la transmission du couple sont les deux paramètres les plus importants pour le choix d'un porte-outil pour les opérations d'alésage. Pour obtenir la meilleure stabilité et la meilleure qualité de trou, utiliser des adaptateurs d'interface machine Coromant Capto en combinaison avec des outils d'alésage modulaires.

Utiliser le système Coromant Capto comme interface modulaire pour les adaptateurs, les allonges et les adaptateurs d'interface machine afin de profiter de la meilleure flexibilité possible.

– Réduction des stocks d'outils et des coûts d'investissement outillage

– Adaptateurs d'allonge et de réduction permettant d'optimiser la longueur

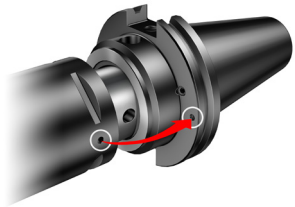
– La précision et la stabilité permettent d'augmenter les conditions de coupe

Trucs & Astuces

- Pour obtenir une stabilité maximum, choisir la plus grande taille d'attachement et le plus petit porte-à-faux possibles.
- Augmenter la rigidité dynamique en utilisant un mécanisme antivibratoire
- Pour les grands porte-à-faux (>4 x diamètre de l'accouplement), utiliser des outils spécifiques (Silent Tools)
- Si des réductions sont nécessaires, utiliser une version conique si possible
- Des adaptateurs de réduction et d'allonge Coromant Capto sont disponibles pour optimiser les assemblés et obtenir une très bonne stabilité
- Pour les grands porte-à-faux, les interfaces machine avec contact au niveau de la collerette donnent les meilleures performances, par ex. Coromant Capto, HSK et Big-Plus
- Pour éviter les bourrages de copeaux, veiller à ce que ceux-ci soient évacués avec efficacité

Assemblage et entretien des outils

- Toujours s'assurer que les marques sont alignées.
- Utiliser le dispositif de montage prévu
- Toujours utiliser une clé dynamométrique et respecter le couple indiqué pour le serrage des plaquettes et des éléments de l'outil
- Vérifier le faux-rond, l'usure et la force de serrage de la broche machine
- Remplacer les rondelles, vis et ressorts Belleville usés ou endommagés.



Outils antivibratoires

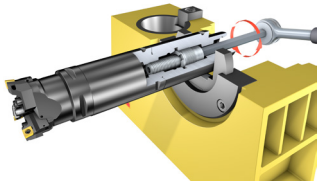
- Outils antivibratoires : ne jamais les serrer au niveau du dispositif antivibratoire

Nettoyage

- Nettoyer tous les éléments de l'assemblé avant de les monter
- Contrôler les plaquettes et les logements de plaquettes régulièrement ; ils doivent être exempts de poussière et en bon état
- Lubrifier tous les éléments de l'assemblé avec de l'huile au moins une fois par an
- Nettoyer et lubrifier à l'huile les têtes d'alésage micrométrique (825, 826) et les têtes pour gorges frontales (825SL) :

  Utilisation permanente : une fois par mois

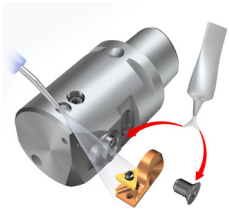
  Au minimum : une fois par an



Type d'huile : huile machine légère non acide

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94

Pour les vis, utiliser la Molykote



Taille Coromant Capto	Nm	ft/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Diamètre				Coulisseau	
mm	pouces	ISO	ANSI	Nm	ft/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

Diamètre				Coulisseau	
mm	pouces	ISO	ANSI	Nm	ft/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 pouces)	Nm	ft/lbs
Coulisseau	60	44
Cartouche	60	44
Vis de plaquette CoroTurn RC	6.4	4.7
Vis de plaquette CoroTurn 107 et CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 pouces)	Nm	ft/lbs
Bras	200	148
Allonge de bras	100	74
Coulisseau	60	44
Cartouche	60	44
Vis de plaquette CoroTurn 107	3.0	2.2
Bridage des plaquettes CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 inch)
826: Ø 148–300 mm (5.866–11.810 inch)

	Nm	ft/lbs
Coulisseau	60	44
Masse d'équilibrage	60	44
Tête d'alésage micrométrique	16	12
Vis de blocage (tête d'alésage micrométrique)	6.0	4.4
Vis de cartouche	6.0	4.4
Vis de plaquette TC11/TP11 (TP22/TC22)	0.9	0.7
Vis de plaquette CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 pouces)
826: Ø 298–1260 mm (11.732–49.606 pouces)

	Nm	ft/lbs
Bras	200	148
Allonge de bras	100	74
Coulisseau	60	44
Masse d'équilibrage	60	44
Tête d'alésage micrométrique	16	12
Vis de blocage (tête d'alésage micrométrique)	6	4.4
Vis de cartouche	6	4.4
Vis de plaquette TC11/TP11 (TP22/TC22)	0.9	0.7
Vis de plaquette CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Vis de cartouche

Ø mm (pouces)	Nm	ft/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Vis de blocage

Ø mm (pouces)	Nm	ft/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Vis de plaquette

ISO	ANSI	Nm	ft/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 pouces)

	Nm	ft/lbs
Têtes pour gorges frontales (S20)	16	12
Vis de blocage	8	6
Masse d'équilibrage	8	6
Lame	9	6.6

Ø 150–1275 mm (5.905–50.197 pouces)

	Nm	ft/lbs
Têtes pour gorges frontales (A34)	16	12
Vis de blocage	8	6
Lame	9	6.6

CoroBore 826 HP

Vis de cartouche

Ø mm (pouces)	Nm	ft/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

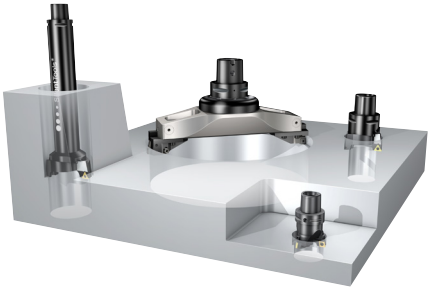
Vis de blocage

Ø mm (pouces)	Nm	ft/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Vis de plaquette

ISO	ANSI	Nm	ft/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Schruppen



Produktives Aufbohren

Stufen-bearbeitung*

Einschneiden-Bearbeitung*

*Zubehör ist gesondert zu bestellen.

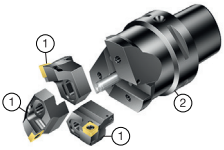
Halter für CoroBore XL

Separat zu bestellen. Mehr Informationen siehe Katalog Rotierende Werkzeuge. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore Baugruppen-Satz – mitgelieferte Teile

Erforderliche Schlüssel werden bei jedem Werkzeugsatz mitgeliefert.

CoroBore 820

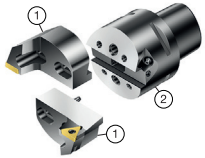


Ø 35–167 mm (1.378–6.57 Zoll)

1. Schneidenträger (3 St.)
2. Halter (1 St.)

Falls kein Voreinstellgerät vorhanden, erfolgt die Durchmesserverstellung von CoroBore 820, indem der Abstand vom Stift zur Wendeplatte gemessen und von diesem Wert der halbe Stiftdurchmesser abgezogen wird. Dieser Wert ist mit 2 zu multiplizieren, um den effektiven Aufbohrdurchmesser zu erhalten.

DuoBore 821



Ø 25–150 mm (0.984–5.906 Zoll)

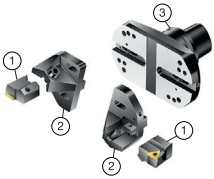
1. Schneidenträger (2 St.)
2. Halter (1 St.)

DuoBore 821D

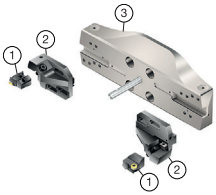
Ø 25–150 mm (0.984–5.906 Zoll)

1. Schneidenträger (2 St.)
2. Schwingungsgdämpfter Halter (1 St.)

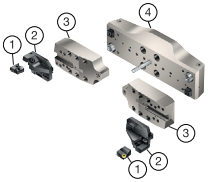
CoroBore 820 XL



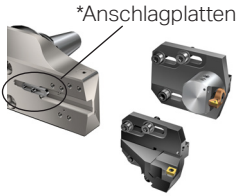
Ø 148–300 mm (5.827–11.811 Zoll)
1. Schneidenträger (2 St.)
2. Schieberkörper (2 St.)
3. Adapter/Schwingungsgedämpfter Adapter (1 Stück)

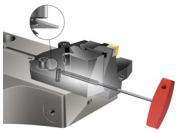


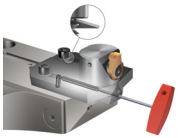
Ø 298–540 mm (11.732–21.259 Zoll)
1. Schneidenträger (2 St.)
2. Schieberkörper (2 St.)
3. Brücke (1 St.)

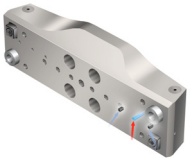


Ø 538–1260 mm (21.181–49.606 Zoll)
1. Schneidenträger (2 St.)
2. Schieberkörper (2 St.)
3. Brückenverlängerung (2 St.)
4. Brücke (1 St.)

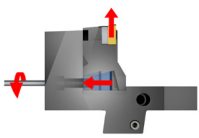


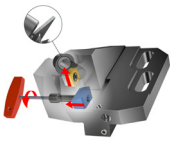




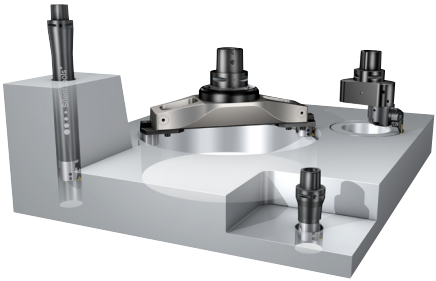


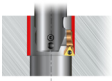
- Gleiche Brücke/Brückenverlängerung zum Schruppen und Schlichten verwenden (zum Schlichten ist ein Ausgleichsgewicht erforderlich).
- Einfacher Wechsel der Anwendung, Beibehaltung des gleichen Durchmessers mittels Anschlagplattensatz. (*separate Bestellung)
- Zur Radialverstellung der Schneidenträger Schrauben leicht anziehen und Durchmesser mit dem Schlüssel verstellen.
- Zur Einstellung der Kühlschmierstoffzufuhr an die Schneidkante Kühlschmierstoffschrauben in die entsprechende Position einsetzen.
- Einbauhalter können zur Stufenbearbeitung in axialer Richtung eingestellt werden.





Schlichten





Herkömmliches Aufbohren

Rückwärts-aufbohren*

Außenbearbeitung

*Zubehör auf separate Bestellung.

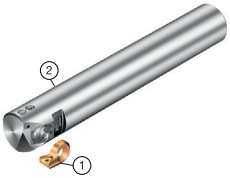
Halter für CoroBore XL

Separat zu bestellen. Mehr Informationen siehe Katalog Rotierende Werkzeuge. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore Baugruppen-Satz – mitgelieferte Teile

Erforderliche Schlüssel sind in jedem Werkzeugsatz enthalten.

CoroBore 825, Zylinderschaft



Ø 19–36 mm (0.748–1.42 Zoll)
1. Einbauhalter (1 St.)
2. Feinaufbohrwerkzeug mit Zylinderschaft (1 St.)

CoroBore 825, integrierter Coromant Capto Adapter

Ø 19–167 mm (0.748–6.57 Zoll)
1. Einbauhalter (1 St.)
2. Halter (1 St.)

CoroBore 826 HP

Ø 36–91 mm
(1.418–3.583 Zoll)

Ø 92–154 mm
(3.622–6.063 Zoll)

Ø 36–91 mm (1.418–3.583 Zoll)
1. Einbauhalter (1 St.)
2. Adapter (1 St.)

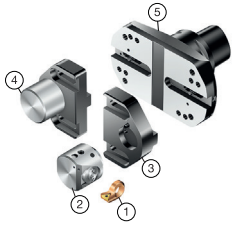
Ø 92–154 mm (3.622–6.063 Zoll)
1. Einbauhalter (1 St.)
2. Feinaufbohrkopf (1 St.)
3. Adapter (1 St.)

CoroBore 825D, Coromant Capto schwingungsgedämpft

Ø 23–167 mm (0.906–6.57 Zoll)

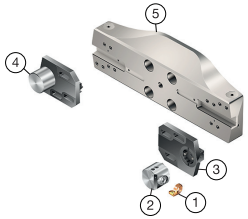
1. Einbauhalter (1 St.)
2. Schwingungsgdämpfter Halter (1 St.)

CoroBore 825 XL, CoroBore 826 XL



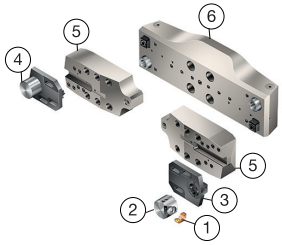
825: Ø 148–315 mm (5.709–12.402 Zoll)
826: Ø 148–300 mm (5.709–11.811 Zoll)

1. Einbauhalter (1 St.)
2. Feinaufbohrkopf 825/826 (1 St.)
3. Schieberkörper (1 St.)
4. Ausgleichsgewicht (1 St.)
5. Halter (1 St.)



825: Ø 298–555 mm (11.732–21.850 Zoll)
826: Ø 298–540 mm (11.732–21.259 Zoll)

1. Einbauhalter (1 St.)
2. Feinaufbohrkopf 825/826 (1 St.)
3. Schieberkörper (1 St.)
4. Ausgleichsgewicht (1 St.)
5. Brücke (1 St.)



825: Ø 538–1275 mm (21.181–50.196 Zoll)
826: Ø 538–1260 mm (21.181–49.606 Zoll)

1. Einbauhalter (1 St.)
2. Feinaufbohrkopf 825/826 (1 St.)
3. Schieberkörper (1 St.)
4. Ausgleichsgewicht (1 St.)
5. Brückenverlängerung (2 St.)
6. Brücke (1 St.)

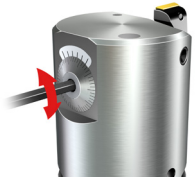
Mehr Informationen über CoroBore XL, siehe Seite 58.

Verstellung des Durchmessers:

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Schneidenträger und Wendeplatte mit korrektem Drehmoment anziehen, Seite 74

2. Feststellschraube vor Verstellen des Durchmessers lösen



3. Einstellungen stets vom min. zu max. Wert durchführen, um Umkehrspiel zu vermeiden. Max. Werte dürfen nicht überschritten werden!
   Zur Einstellung von 825 und 826, Seite 62

4. Abbildung zeigt Feststellschraube

5. Stellschraube mit korrektem Drehmoment festziehen, Seite 73–74

6. Zum Schmieren des Werkzeuges Schmiernippel eindrücken und Öl einfüllen, Seite 72

Einstellskala

CoroBore 825/825D/825 XL/825 SL

Blaue Skalenlinie = Bezugslinie

Startposition

Eingestellte Position

Drehen der Skalenscheibe im Uhrzeigersinn bis die Skalenlinie (rot) auf der zweiten Linie (grün) der Feineinstellung steht.
Blaue Skalenlinie = Bezugspunkt, da diese mit einer Linie auf der Skalenscheibe in der Startposition fluchtet.

CoroBore HP 826, CoroBore 826 XL

Blaue Skalenlinie = Bezugslinie

Startposition

Eingestellte Position

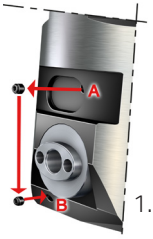
Mit jedem Klick wird der Durchmesser um 0,002 mm (0,00008 Zoll) verstellt.
Eine 360° Umdrehung ändert den Durchmesser um 0.1 mm (0.00394 Zoll).

Verstellbereich:
Verstellbereich: CB826B-Einbauhalter (36-55 mm (1.417 - 3.583 Zoll)):
Nenndurchmesser: + / - 0.55 mm (0.022 Zoll)
CB826C-Einbauhalter (56-91 mm (3.662 - 6.063 Zoll)):
Nenndurchmesser: + / - 0.65 mm (0.026 Zoll)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Rückwärtsaufbohren

CoroBore 825/825D/825 XL

(nicht für CoroBore 826 und 825 SL)



1.

2.

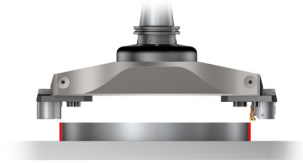
1. Gewindestift aus dem Kühlschmierstoffkanal A entfernen und in den Kanal B einschrauben
2. X + Y + Z mit korrektem Drehmoment anziehen

Rückwärtsaufbohren
Beim Rückwärtsaufbohren mit Schneidenträgerverlängerung verändert sich der Durchmesserbereich, Ø 19–1275 mm (0.748–50.20 Zoll) = Rückwärtsaufbohren Ø 25–1284.6 mm (0.984–50.57 Zoll). Zum Rückwärtsausbohren ist die Spindelrichtung gegen den Uhrzeigersinn einzustellen (M04).

Außenbearbeitung

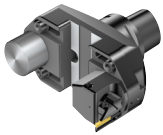
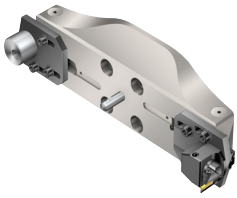
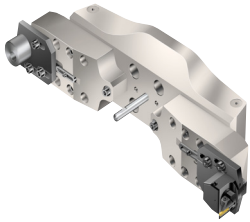
CoroBore 825 XL, CoroBore 826 XL

Durchmesserbereich ändert sich beim Außenaufbohren:
CB825XL - Ø23-1150 mm (0.906-45.275 Zoll)
CB826XL - Ø38-1150 mm (1.496-45.275 Zoll)



Axialeinstechen

CoroBore 825 SL

Kassetten-ausführung	Wendeschneid-plattentyp	Geometrie erster Wahl	Ø, mm (Zoll)
SL32 Form-A Linksausführung 570- 32R/ L123xxxBxxxA LF=18	CoroCut 1-2 Schneiden-system	-CM Eckenradius <0,2 -TF Eckenradius >0,2 Vorschubempfehlung: 0.15 mm/U (0.0059 Zoll/U) Wenn engere Toleranzen gefordert sind, ist –GF zu wählen. Empfohlener Vorschubbereich: 0.10 mm/U (0.0039 Zoll/U)	47–150 (1.85–5.90)
			148–1275 (5.82–50.19)

Empfehlungen zu Kassetten und Wendeplatten siehe Katalog Rotierende Werkzeuge

Halter für CoroBore XL Durchmesser > 148mm (5.827 Zoll)

Separat zu bestellen. Mehr Informationen siehe Katalog Rotierende Werkzeuge. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, Durchmesser 47–150 mm (1.850-5.905 Zoll)
Verstellung des Durchmessers: Seite 65

CoroBore 825 SL, Durchmesser 148–1275 mm (5.827-50.196 Zoll)
Verstellung des Durchmessers: Seite 61–62

Verstellung des Durchmessers: Durchm. 47–150 mm (1.850-5.905 Zoll)

CoroBore 825 SL

Beispiel: Werkzeug auf 70 mm (2.76 Zoll) einstellen

1. Position je nach gewähltem Durchmesser, 70 mm (2.76 Zoll) festlegen = Position 2
   Schraube des Ausgleichsgewichts lösen.

2. Innenliegendes Ausgleichsgewicht mit der entsprechenden Werkzeugpositionsnummer, hier Pos. 2, einstellen.

3. Schraube des Ausgleichsgewichts mit entsprechendem Drehmoment anziehen: 8 Nm (6 Fuß/Pfund)

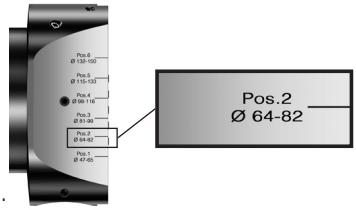
4. Richtigen Kühlschmierstoffkanal mit der entsprechenden Nummer der Durchmesserposition öffnen. (Bei Lieferung sind 5 Kühlschmierstoffkanäle geschlossen)

5. Aufbohrkopf in richtiger Position auf den Adapter montieren (Position 2) und die Schraube mit dem korrekten Drehmoment anziehen: 16 Nm (365.76 cm/lbs).

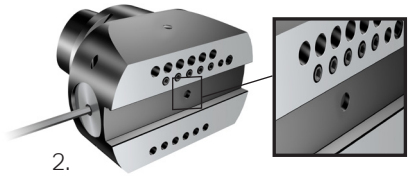
6. Korrekten Schneidkopf (Typ A, Linksausführung) entsprechend dem Durchmesserbereich wählen, siehe Katalog Rotierende Werkzeuge.

7. Adapter zum Axialeinstechen im gleichen Prinzip wie bei CoroBore 825 feineinstellen, Seite 61–62.

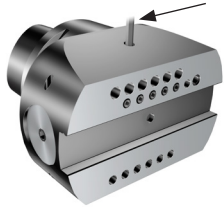
1.



2.



3.



4.

5.

SpiroGrooving™ mit CoroBore® XL

Lösung zur Bearbeitung von API-Nuten für Dichtungsringe

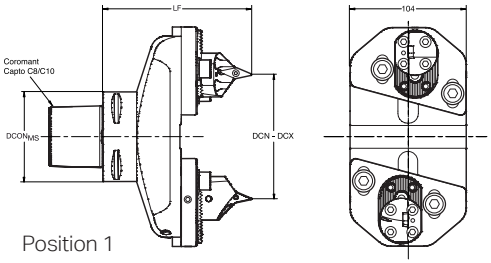
Einsatzbereich

- Alle 23 Grad R-RX und BX Nuten
- Nicht zu verwenden für 45 Grad Fase an der Außenflanke von BX-Nuten.
- Durchmesserbereich 50-294 mm (2-11,5")

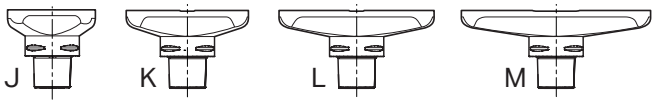
Bestellung

- Bestellung eines Kits (eine Bestellnummer – alle Komponenten), das für den zu bearbeitenden Durchmesserbereich geeignet ist.
- Die SpiroGrooving Kits sind mit C8 Kupplung erhältlich. Der Einsatz einer C6 & C10 Kupplung ist bis zu einem Durchmesser von 239.6 mm möglich. Alle Komponenten müssen dann separat bestellt werden. Wenden Sie sich bitte an Ihren Ansprechpartner vor Ort.
- Die SpiroGrooving™ Software ist erforderlich. Einfach Durchmesser, Schnittdaten usw. in die Eingabefelder eintragen und auf die "Export G-Code" Taste drücken. Die Programmierung der Größen für Tiefe & Durchmesser auf Toleranzmitte wird empfohlen. Übertragen Sie den erzeugten NC-Code an die Maschinensteuerung. Bestellen Sie das Programm auf www.sandvik.coromant.com/spirogrooving

Überblick über verfügbare Adapter und Durchmesserbereiche

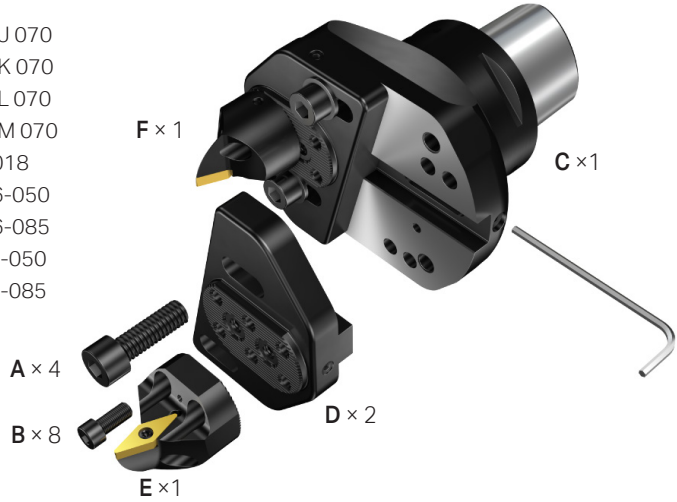


					Position 1		Position 2	
	Adapter	Größe	DCONMS	LF	DCN	DCX	DCN	DCX
Artikel 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



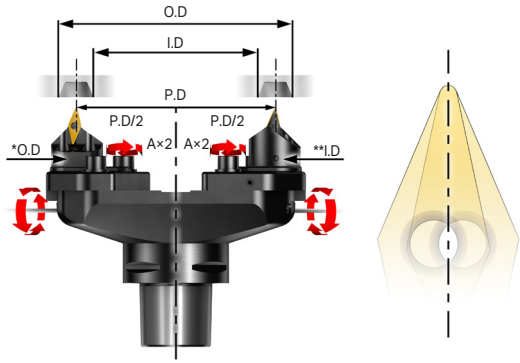
Voreinstellung

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Schritt 1

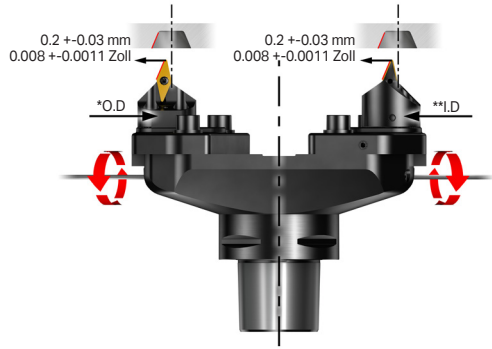
Die vier Schrauben lösen (A). Das Werkzeug passend zum Nutdurchmesser einstellen.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

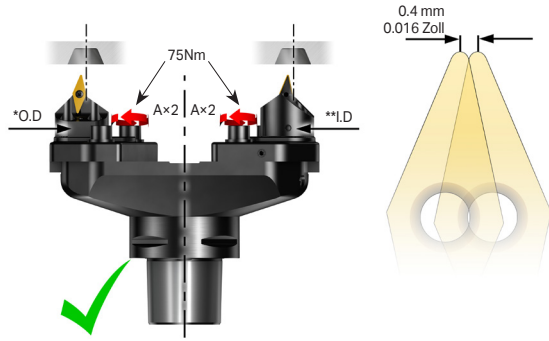
Schritt 2

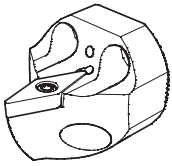
Den SL-Schneidkopf 0.2 mm (0.008 Zoll) seitlich versetzen. Dadurch wird sichergestellt, dass die äußere Wendeschneidplatte die innere Wand der Nut nicht berührt und dass die Zentrumsplatte die äußere Wand der Nut nicht berührt.



Schritt 3

Schneidenträger mit den vier Schrauben (A) anziehen und Wendeschneidplatten auf korrekte Position überprüfen.





Für manuelle Einstellung:

Verwenden Sie die Bezugsfläche auf dem Schneidkopf. Das Maß beträgt 19 mm (0.748") zur Mitte des Eckenradius.

Anwendung

- Der Versatz muss 0.2 mm (0.008") pro Schneidkopf betragen, um sicherzustellen, dass die äußere Wendeschneidplatte die innere Wand der Nut nicht berührt und dass die Zentrumsplatte die äußere Wand der Nut nicht berührt. Das Maß der Bahn wird korrekt sein. Der Programmgenerator wird dies automatisch ausgleichen.

Empfohlene maximale Nuttiefe

- Nicht tiefer als die Schneidkante der Wendeschneidplatte.
- Nuten in aufgepanzerten Werkstoffen können mit Schnitttiefen bearbeitet werden, die höher als die Schneidkantenlänge sind.

Zu zerspanender Werkstoff

- Stahl, verschiedene rostfreie Stähle und Inconel
- Inconel 625 ist sehr schwierig zu bearbeiten

Begrenzungen - Maschinentypen

- Bei Nuten in Inconel oder verschiedenen rostfreien Stählen muss die Schnittgeschwindigkeit stark reduziert werden. Das Drehmoment könnte dann eine Begrenzung in der Maschine darstellen.
- Bei unzureichender Oberflächengüte kann eine inkorrekte Parametereinstellung in der Maschine die Ursache sein. Verwenden Sie Look-Ahead-Funktion oder ähnliches.

Startempfehlungen

- Stahl = PF - GC4325 - v_c 250 – 350, max. Spandicke: 0.15 – 0.18 - Vorschub der letzten Umdrehung. 40 – 50 mm/min – Steigung/U 2.0 – 2.5 mm, je nach Material.
- Rostfreier Stahl = MM - GC2025, GC1115 - v_c 100-150 - max. Spandicke: 0.12 – 0.16 - Vorschub der letzten Umdrehung. 30 – 40 mm/min Steigung/U 0.5 – 1.5 mm, je nach Material.
- Korrosionsbeständiges Material = XM, XF GC15 (Inco625) alternativ MM,MF GC1105/GC1115 Inco) v_c 30 – 50 - max. Spandicke: 0.10 – 0.12. - Steigung/U 0.4 – 1.0 mm, je nach Material. Vorschub der letzten Umdrehung wie bei der Schruppoperation. Denselben Vorschub, mm/min, verwenden wie bei der Schruppoperation
- Zum Schlichten ist ein separater Vorschub erforderlich, da mit der letzten Umdrehung das Schlichten der Nut erfolgt und deshalb ein individueller Vorschub erforderlich ist. Im Allgemeinen gilt:
- Kleine Nutdurchmesser: Verwendung eines höheren Vorschubbereiches zum Schlichten
- Größere Nutdurchmesser: Verwendung eines niedrigeren Vorschubbereiches zum Schlichten

Feineinstellung

- Die Abdrängung ist aufgrund der Schneidwirkung an der Innenflanke manchmal größer und die Nutbreite ein wenig geringer als erwartet.
  - Fahren Sie eine Nut und stoppen Sie z. B. 1 mm vor der vollen Tiefe. Insbesondere hilfreich bei unterschiedlichem Material mit höheren Abdrängungstendenzen.
  - Überprüfen Sie den Nutdurchmesser durch Messen der Außen- und Innenflanke und berechnen Sie den Unterschied zwischen Soll- und Nennmaß.
  - Verstellen Sie einen der Schneidköpfe entsprechend, um den Unterschied auszugleichen. Welcher Schneidkopf zu verstellen ist, hängt von der Höhe der Maßabweichung ab.
  - Verwenden Sie die Kompensation der Maschine, um die Nutbreite entsprechend einzustellen und fahren Sie die Nut noch einmal.

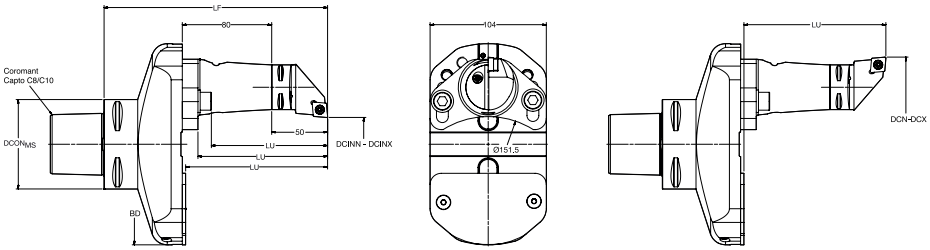
Zusammenfassung:

- Falscher Nutdurchmesser: Stellen Sie die Position des AD- oder/und ID-Schneidkopfes vom Werkzeug ein . Verwenden Sie die theoretische Nutmitte als Bezugspunkt.
- Falsche Nutbreite: Passen Sie die Verschleißkompensation in der Maschine an oder/und korrigieren Sie die Tiefe.

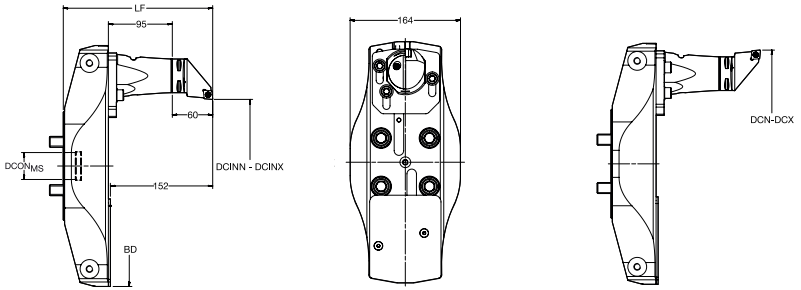
CoroBore® XL

Interpolationsdrehen

Interpolationsdrehen ist ein neues flexibles Drehverfahren für moderne Bearbeitungszentren und Multitask-Maschinen mit B-Achse.

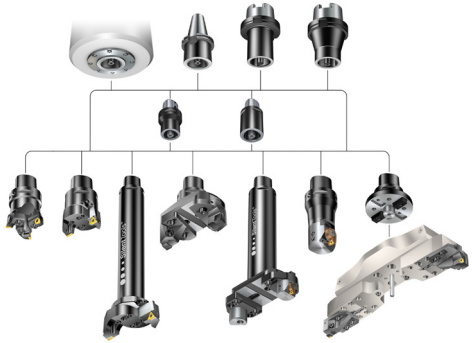


Durchmesser für C4 Standard-Schneidköpfe mit WF = 27 mm (1.063 Zoll) und LF = 50 mm (1.968 Zoll)											
	Adapter	**Größe**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Artikel 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Durchmesser für C5 Standard-Schneidköpfe mit WF = 35 mm (1.378 Zoll) und LF = 60 mm (2.362 Zoll)											
	Adapter	**Größe**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Artikel 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Aufbohren – modulare Werkzeuge



Bei der Auswahl eines Werkzeughalters zum Aufbohren sind Biegesteifigkeit und Drehmomentübertragung die ausschlaggebenden Faktoren. Für beste Stabilität und Bohrungsqualität sollten deshalb die Coromant Kupplung oder CoroChuck 930 Hydraulikfutter verwendet werden.

Verwenden Sie das Coromant Capto System als modulare Schnittstelle zur Kombination von Adaptern und Verlängerungen mit der maschinenseitigen Schnittstelle, um eine höhere Flexibilität zu erzielen.

– Reduzierung von Lagerbestand und der Werkzeugkosten

– Für optimierte Werkzeuglängen Verlängerungen und Reduzierungen wählen

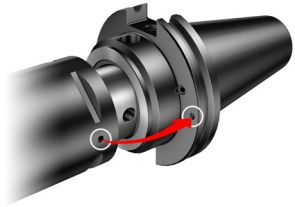
– Optimale Präzision und Stabilität erlaubt höhere Schnittdaten

Tipps & Hinweise

- Für maximale Stabilität größtmögliche Kupplungsgröße und kürzestmöglichen Überhang arbeiten.
- Dynamische Steifigkeit durch zusätzlichen Dämpfungsmechanismus erhöhen.
- Bei großen Überhängen (>4 x Kupplungsdurchmesser) sind einsatzspezifische Werkzeuge zu verwenden (Silent Tools)
- Falls Reduzierungen erforderlich werden, sind nach Möglichkeit konische Ausführungen zu verwenden
- Coromant Capto Tailor Made Reduzierungs- und Verlängerungsadapter in optimierter Ausführung für höchste Stabilität sind ebenfalls lieferbar
- Bei großem Überhang bietet eine Maschine mit direkter Aufnahme am Flansch die besten Ergebnisse, z. B. Coromant Capto Kupplung, HSK, Big-Plus
- Zur Vermeidung von Spanstau ist nach Möglichkeit eine entsprechende Spanabfuhr sicherzustellen

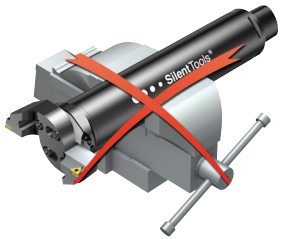
Montage & Wartung

- Stets sicherstellen, dass die Markierungen zueinander fluchten.
- Montagevorrichtung verwenden
- Stets einen Drehmomentschlüssel verwenden und das entsprechende Drehmoment für Wendeplattenschraube und Werkzeugmontage verwenden
- Prüfung von Maschinenspindel, Rundlauf, Verschleiß und Spannkraft
- Verschlissene Schrauben, Zwischenlagen und Tellerfedern sind auszutauschen



Schwingungsgedämpfte Werkzeuge

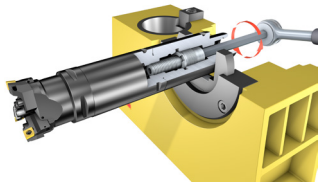
- Schwingungsgedämpfte Werkzeuge – nie direkt auf dem gedämpften Halter spannen



Reinigung

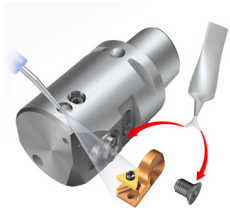
- Sämtliche Teile sind vor der Montage zu reinigen
- Wendeplatten und Plattensitze sind regelmäßig auf Verschmutzung & Beschädigung zu prüfen
- Alle Montageteile sind mindestens 1x jährlich mit Öl einzufetten
- Feinaufbohrköpfe (825, 826) und Schneidköpfe zum Axialeinstechen (825SL) sind mit Öl einzufetten:

  Dauereinsatz: Einmal monatlich
  Minimum: Einmal jährlich



Ölart: säurefreies Leichtöl

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94



Schrauben sind mit Molykote einzufetten

Coromant Capto Größe	Nm	ft/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Durchmesser mm	Durchmesser Zoll	ISO	ANSI	Schieberkörper Nm	Schieberkörper ft/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

Durchmesser mm	Durchmesser Zoll	ISO	ANSI	Schieberkörper Nm	Schieberkörper ft/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 Zoll)	Nm	ft/lbs
Schieberkörper	60	44
Schneidenträger	60	44
Wendeplattenschraube – CoroTurn RC	6.4	4.7
Wendeplattenschraube für CoroTurn 107 und CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 Zoll)	Nm	ft/lbs
Brücke	200	148
Brückenverlängerung	100	74
Schieberkörper	60	44
Schneidenträger	60	44
Wendeplattenschraube für CoroTurn 107	3.0	2.2
Wendeplattenschraube – CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 Zoll)
826: Ø 148–300 mm (5.866–11.810 Zoll)

	Nm	ft/lbs
Schieberkörper	60	44
Ausgleichsgewicht	60	44
Feinaufbohrkopf	16	12
Stellschraube (Feinaufbohrkopf)	6.0	4.4
Schraube für Schneidenträger	6.0	4.4
Wendeplattenschraube für TC11/TP11 (TP22/TC22)	0.9	0.7
Wendeplattenschraube für CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 Zoll)
826: Ø 298–1260 mm (11.732–49.606 Zoll)

	Nm	ft/lbs
Brücke	200	148
Brückenverlängerung	100	74
Schieberkörper	60	44
Ausgleichsgewicht	60	44
Feinaufbohrkopf	16	12
Stellschraube (Feinaufbohrkopf)	6	4.4
Schraube für Schneidenträger	6	4.4
Wendeplattenschraube für TC11/TP11 (TP22/TC22)	0.9	0.7
Wendeplattenschraube für CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Schraube für Schneidenträger

Ø mm (Zoll)	Nm	ft/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Feststellschraube

Ø mm (Zoll)	Nm	ft/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Wendeplattenschraube

ISO	ANSI	Nm	ft/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 Zoll)

	Nm	ft/lbs
Feinaufbohrkopf zum Axialeinstechen (S20)	16	12
Feststellschraube	8	6
Ausgleichsgewicht	8	6
Schneidkopf	9	6.6

Ø 150–1275 mm (5.905–50.197 Zoll)

	Nm	ft/lbs
Feinaufbohrkopf zum Axialeinstechen (A34)	16	12
Feststellschraube	8	6
Schneidkopf	9	6.6

CoroBore 826 HP

Schraube für Schneidenträger

Ø mm (Zoll)	Nm	ft/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

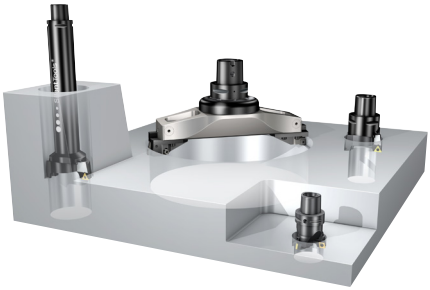
Feststellschraube

Ø mm (Zoll)	Nm	ft/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Wendeplattenschraube

ISO	ANSI	Nm	ft/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Sgrossatura



Sgrossatura

Barenatura a gradini*

Barenatura a un tagliente*

*Gli accessori richiesti devono essere ordinati separatamente.

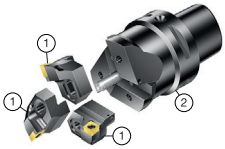
Portautensili per CoroBore XL

Da acquistare separatamente. Consultare il catalogo generale per maggiori informazioni.
C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kit di montaggio CoroBore – parti incluse

Le chiavi necessarie sono incluse in ogni kit di utensili

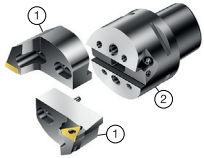
CoroBore 820



Ø 35–167 mm (1.378–6.57 pollici)
1. Slitta (3 pezzi)
2. Adattatore (1 pezzo)

Se non si dispone di un pre-setter, regolare il diametro CoroBore 820 misurando la distanza dal perno all'inserto e sottraendo la metà del diametro del perno. Moltiplicare per due per ottenere il diametro effettivo di barenatura.

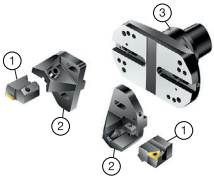
DuoBore 821



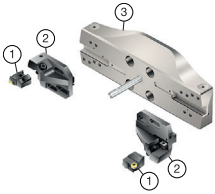
Ø 25–150 mm (0.984–5.906 pollici)
1. Slitta (2 pezzi)
2. Adattatore (1 pezzo)

DuoBore 821D

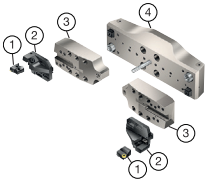
Ø 25–150 mm (0.984–5.906 pollici)
1. Slitta (2 pezzi)
2. Adattatore antivibrante (1 pezzo)



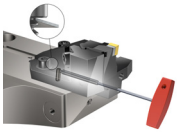
Ø 148–300 mm (5.827–11.811 pollici)
1. Cartuccia (2 pezzi)
2. Slitta (2 pezzi)
3. Adattatore/adattatore antivibrante (1 pz.)

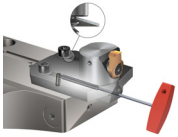


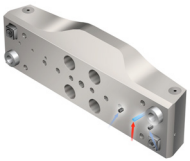
Ø 298–540 mm (11.732–21.259 pollici)
1. Cartuccia (2 pezzi)
2. Slitta (2 pezzi)
3. Ponte (1 pezzo)



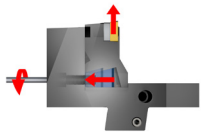
Ø 538–1260 mm (21.181–49.606 pollici)
1. Cartuccia (2 pezzi)
2. Slitta (2 pezzi)
3. Estensione ponte (2 pezzi)
4. Ponte (1 pezzo)

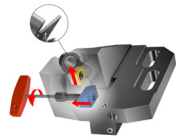




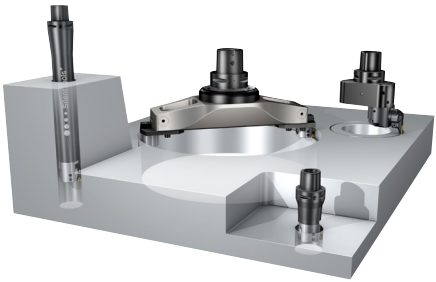


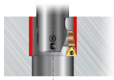
- Usare lo stesso ponte/estensione ponte per sgrossatura e finitura (il contrappeso è necessario per la finitura)
- Facile cambio di applicazione, mantenendo lo stesso diametro con il set di piastrine di arresto* (*da ordinare separatamente)
- Per una facile regolazione radiale delle slitte, serrare leggermente le viti e regolare il diametro con la chiave
- Per l'adduzione interna di fluido da taglio diretta al tagliente, regolare le viti del refrigerante alla posizione corretta
- E' possibile regolare le cartucce in direzione assiale per la barenatura a gradini





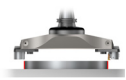
Finitura





Barenatura tradizionale

Barenatura in tirata*



Barenatura esterna

*Gli accessori richiesti devono essere ordinati separatamente.

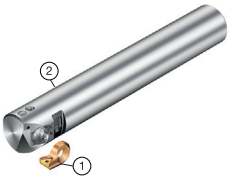
Portautensili per CoroBore XL

Da acquistare separatamente. Consultare il catalogo generale per maggiori informazioni.
C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kit di montaggio CoroBore – parti incluse

Le chiavi necessarie sono incluse in ogni kit di utensili

CoroBore 825, stelo cilindrico



Ø 19–36 mm (0.748–1.42 pollici)
1. Cartuccia (1 pezzo)
2. Bareno per lavorazione di precisione con stelo cilindrico (1 pezzo)

CoroBore 825, adattatore integrato Coromant Capto

Ø 19–167 mm (0.748–6.57 pollici)
1. Cartuccia (1 pezzo)
2. Adattatore (1 pezzo)

CoroBore 826 HP

Ø 36–91 mm (1.418–3.583 poll.)

Ø 92–154 mm (3.622–6.063 poll.)

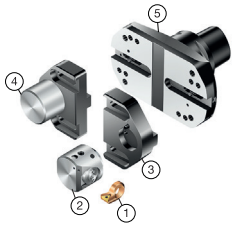
Ø 36–91 mm (1.418–3.583 poll.)
1. Cartuccia (1 pezzo)
2. Adattatore (1 pezzo)

Ø 92–154 mm (3.622–6.063 poll.)
1. Cartuccia (1 pezzo)
2. Testina microregistrabile (1 pezzo)
3. Adattatore (1 pezzo)

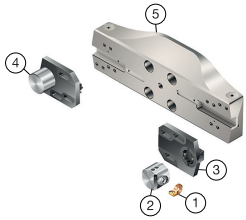
CoroBore 825D, Coromant Capto antivibrante

Ø 23–167 mm (0.906–6.57 pollici)
1. Cartuccia (1 pezzo)
2. Adattatore antivibrante (1 pezzo)

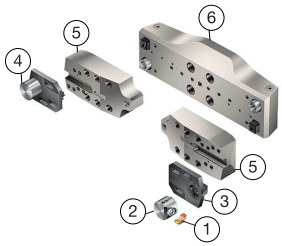
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 mm (5.709–12.402 pollici)
826: Ø 148–300 mm (5.709–11.811 pollici)
1. Cartuccia (1 pezzo)
2. Testina microregistrabile 825/826 (1 pezzo)
3. Slitta (1 pezzo)
4. Contrappeso (1 pezzo)
5. Adattatore (1 pezzo)



825: Ø 298–555 mm (11.732–21.850 pollici)
826: Ø 298–540 mm (11.732–21.259 pollici)
1. Cartuccia (1 pezzo)
2. Testina microregistrabile 825/826 (1 pezzo)
3. Slitta (1 pezzo)
4. Contrappeso (1 pezzo)
5. Ponte (1 pezzo)



825: Ø 538–1275 mm (21.181–50.196 pollici)
826: Ø 538–1260 mm (21.181–49.606 pollici)
1. Cartuccia (1 pezzo)
2. Testina microregistrabile 825/826 (1 pezzo)
3. Slitta (1 pezzo)
4. Contrappeso (1 pezzo)
5. Estensione ponte (2 pezzi)
6. Ponte (1 pezzo)

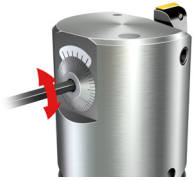
Per saperne di più su CoroBore XL, vedere a pagina 76.

Regolazione del diametro

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Bloccare la cartuccia e l'inserto secondo il valore di coppia corretto, pagina 92

2. Svitare la vite di bloccaggio prima di regolare il diametro



3. Durante la regolazione, passare sempre da diametri più piccoli a diametri più grandi per evitare giochi. Non superare i limiti massimi!
   Per l'impostazione di Corobore 825 e 826, vedere pagina 80

4. Assicurarsi che la vite di bloccaggio sia posizionata come da foto a lato

5. Stringere la vite di bloccaggio alla coppia di serraggio corretta, pagine 91-92

6. Per lubrificare l'utensile, premere il centro e riempire con olio, pagina 90

Regolazione della scala

CoroBore 825/825D/825 XL/825 SL

Linea blu = riferimento

Posizione di partenza

Posizione regolata

Il disco scala viene girato in senso orario finché la linea rossa si allinea con la linea verde sul calibro a corsoio. Diametro incrementato 0.002 mm (0.00008 poll.).
Linea blu = riferimento in quanto allineata con una linea sul calibro a corsoio nella posizione di partenza.

CoroBore HP 826, CoroBore 826 XL

Linea blu = riferimento

Posizione iniziale

Posizione dopo la registrazione

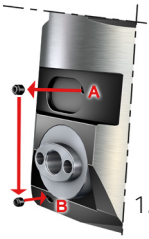
Ogni linea corrisponde a una regolazione del diametro di 0.002 mm (0.00008 poll.).
Un giro di 360° cambia il diametro di 0.1 mm (0.00394 poll.).

Estensione della regolazione:
cartuccia-CB826B (36–55 mm (1.417–3.583 poll.)):
Diametro nominale +/- 0.55 mm (0.022 poll.)
cartuccia-CB826C (56–91 mm (3.662–6.063 poll.)):
Diametro nominale +/- 0.65 mm (0.026 poll.)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Barenatura in tirata

CoroBore 825/825D/825 XL

(non per CoroBore 826 e 825 SL)



1.

2.

1. Rimuovere la vite senza testa dal condotto del refrigerante A e avvitarla nel condotto del refrigerante B
2. Bloccare X + Y + Z con la coppia di serraggio corretta

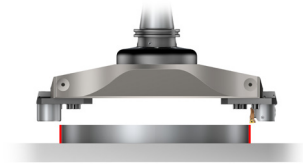
Barenatura in tirata

Per la barenatura in tirata la gamma di diametri viene variata usando l'estensione della slitta, Ø 19–1275 mm (0.748–50.20 pollici) = barenatura in tirata Ø 25–1284.6 mm (0.984–50.57 pollici). Per questa applicazione occorre cambiare anche la direzione del mandrino in senso antiorario (M04).

Barenatura esterna

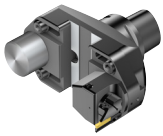
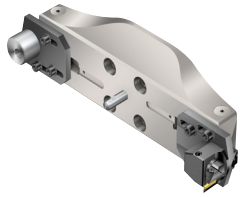
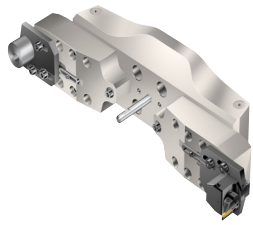
CoroBore 825 XL, CoroBore 826 XL

La gamma dei diametri cambia nella barenatura esterna:
CB825XL - Ø23-1150 mm (0.906-45.275 poll.)
CB826XL - Ø38-1150 mm (1.496-45.275 poll.)



Scanalatura assiale frontale

CoroBore 825 SL

Tipo di lama	Tipo di inserto	Geometria di scelta prioritaria	Ø, mm (pollici)
SL32 Curvatura -A Sinistra 570- 32R/ L123xxxBxxxA LF=18	Sistema di inserti CoroCut 1–2	-CM raggio di punta <0,2 -TF raggio di punta >0,2 Avanzamento raccomandato: 0.15 mm/giro (0.0059 poll./giro) Se è richiesta una tolleranza stretta, scegliere –GF. Avanzamento raccomandato: 0.10 mm/giro (0.0039 poll./giro)	47–150 (1.85–5.90)
			148–1275 (5.82–50.19)

Consultare il catalogo generale per le raccomandazioni su lame e inserti

Attacchi per CoroBore XL, diametro > 148 mm (5.827 poll.)

Da acquistare separatamente. Consultare il catalogo generale per maggiori informazioni.
C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, diametro 47–150 mm (1.850-5.905 poll.)
Regolazione del diametro: pagina 83

CoroBore 825 SL, diametro 148–1275 mm (5.827-50.196 poll.)
Regolazione del diametro: pagine 79–80

Regolazione diametro: Diam. 47–150 mm (1.850-5.905 poll.)

CoroBore 825 SL

Esempio: impostare l'utensile sul diametro 70 mm (2.76 pollici)

1. Definire la posizione a seconda del diametro scelto, 70 mm (2.76 pollici) = posizione 2
   Svitare la vite di bloccaggio del contrappeso.

2. Impostare il contrappeso interno sul numero corrispondente alla posizione del diametro, posizione 2

3. Avvitare la vite di bloccaggio del contrappeso alla coppia corretta: 8 Nm (6 piedi-libbre)

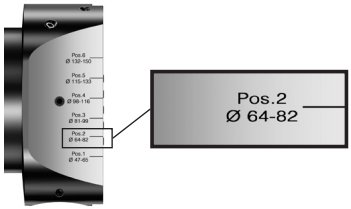
4. Aprire il corretto condotto del refrigerante con il numero che corrispondeva alla posizione del diametro. (L'utensile è fornito con cinque condotti chiusi)

5. Montare la testina sull'adattatore nella sua posizione a destra (posizione 2), e stringere la vite con la corretta coppia: 16 Nm (12 piedi/libbra)

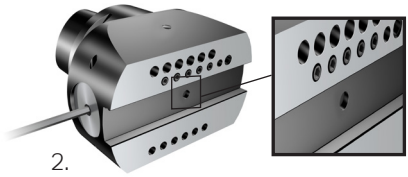
6. Scegliere la lama corretta (tipo A, sinistra), in modo che corrisponda ai diametri, consultare il catalogo generale

7. Regolare con precisione la testina di scanalatura frontale secondo gli stessi criteri adottati per la testina micro-registrabile CoroBore 825, pagine 79–80

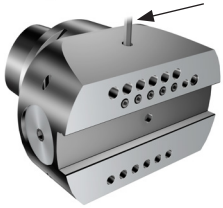
1.



2.



3.



4.

5.

SpiroGrooving™ con CoroBore® XL

Soluzione di lavorazione delle scanalature per gli anelli di tenuta API

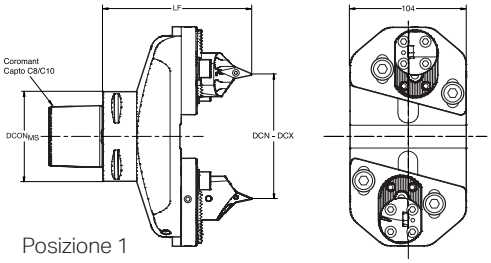
Area di impiego

- Tutte le scanalature 23°, R-RX e BX
- Non utilizzare per smussi a 45° sul fianco esterno di scanalature BX.
- Gamma diametri 50-294 mm (2-11,5")

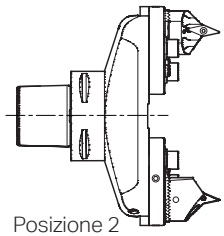
Modalità di ordinazione

- Ordinare un kit completo (un codice unico – tutti i componenti) adatto alla gamma di diametri da lavorare.
- I kit per SpiroGrooving sono disponibili con accoppiamento C8. È possibile lavorare con C6 e C10 fino a un diametro di 239.6 mm. Tutti i componenti devono essere acquistati separatamente. Contattare il tecnico di vendita di riferimento.
- È richiesto il software SpiroGrooving™. È sufficiente inserire i dati come diametro, dati di taglio, ecc. nei relativi campi e fare clic sul pulsante "export G-code". Si consiglia di programmare misure con "tolleranze intermedie" per profondità e diametro. Trasferire il codice NC generato sul controllo numerico della macchina. Ordinare il programma sul sito www.sandvik.coromant.com/spirogrooving.

Panoramica degli adattatori e delle gamme diametri disponibili

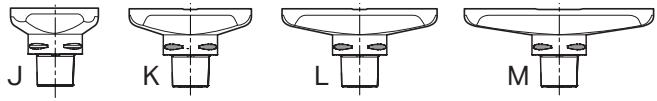


Posizione 1



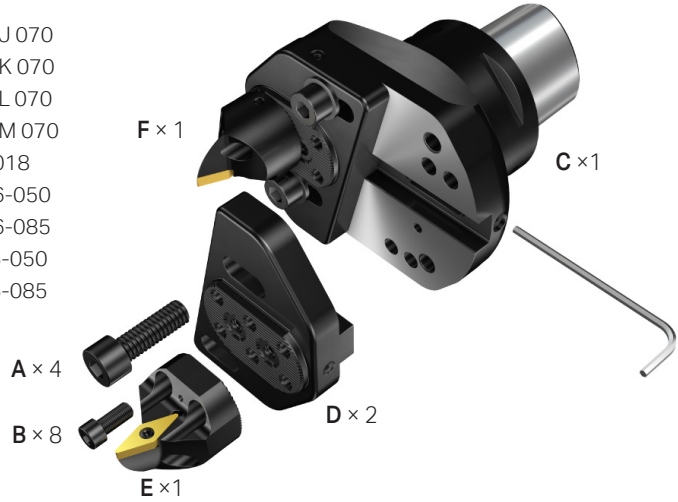
Posizione 2

					Posizione 1		Posizione 2	
	Adattatore	Dim.	DCONMS	LF	DCN	DCX	DCN	DCX
Art. 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



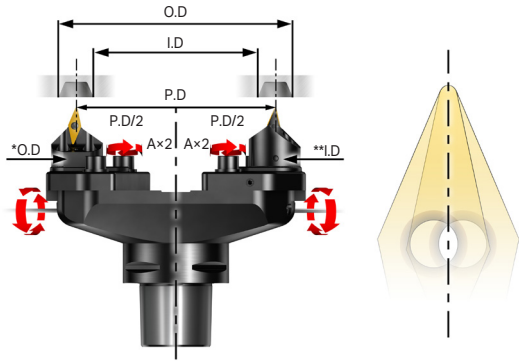
Metodo di esecuzione del preset

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Fase 1

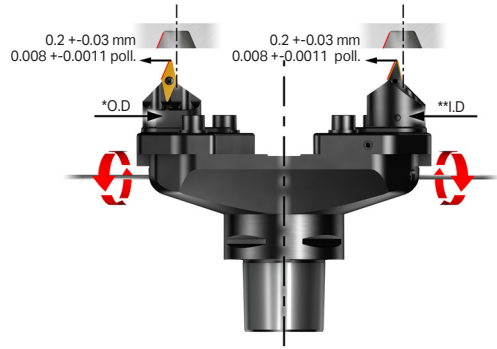
Svitare le quattro viti (A). Impostare l'utensile in base al diametro della scanalatura.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

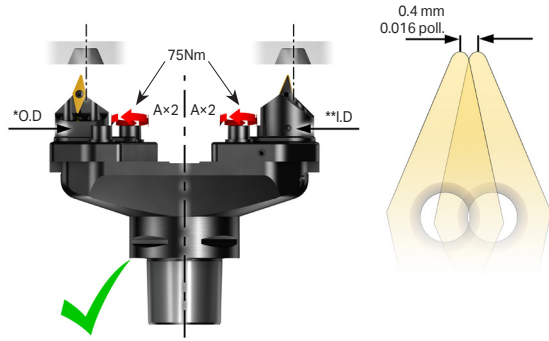
Fase 2

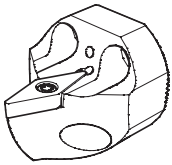
Impostare la testina di taglio SL a 0.2 mm (0.008 poll.) verso il lato. In questo modo si avrà la certezza che l'inserto esterno non tocchi la parete interna della scanalatura e che l'inserto interno non tocchi la parete esterna della scanalatura.



Fase 3

Serrare le slitte con le quattro viti (A) e controllare che gli inserti siano impostati correttamente.





Per l'impostazione manuale:

Utilizzare il piano di riferimento sulla testina. La dimensione è 19 mm (0.748") al centro del raggio dell'inserto.

Modo di impiego

- L'offset deve essere di 0,2 mm (0,008") per testina per avere la certezza che l'inserto esterno non tocchi la parete interna della scanalatura e che l'inserto interno non tocchi la parete esterna della scanalatura. La misura del percorso sarà corretta. Il generatore del programma eseguirà una compensazione automatica in relazione a questo dato.

Profondità massima consigliata per una scanalatura

- Profondità non maggiore del tagliente dell'inserto.
- Le scanalature prerivestite possono essere una buona soluzione per lavorare a profondità maggiori della lunghezza dell'inserto

Materiale da lavorare

- Acciaio, acciaio inossidabile ed Inconel

Limitazioni - Tipi di macchine

- Scanalature in inconel o acciaio inossidabile: occorre ridurre drasticamente la velocità di taglio. La coppia potrebbe essere una limitazione dovuta alla macchina.
- Se la finitura superficiale non è sufficientemente buona, ciò può essere dovuto all'impostazione dei parametri sulla macchina. Utilizzare la funzione "Look Ahead" o simile.

Valori iniziali raccomandati

- Acciaio ISO P = geometria PF - qualità GC4325 - v_C 250-350 spessore max. del truciolo: 0,15 – 0,18 - avanzamento ultimo giro 40-50 mm/min
- Acciaio inossidabile ISO M = geometria MM - qualità GC2025 GC1115 - v_C 100-150 - spessore max. del truciolo: 0,12 – 0,16 - avanzamento ultimo giro 30-40 mm/min
- C.R.A. (Corrosion Resistant Material) ISO S = geometria XM, XF, qualità GC15 (inco625), alternativa MM,MF GC1105/ GC1115 (inco718) 30-50 spessore max. del truciolo: 0,10 – 0,12
- Si dovrà impostare un avanzamento diverso per la finitura, poiché l'ultimo giro determina la finitura della scanalatura, pertanto richiede un avanzamento diverso. In generale:
- Scanalature con piccoli diametri: utilizzare gamme di avanzamenti più elevate per la finitura
- Scanalature con diametri più grandi: utilizzare gamme di avanzamenti più basse per la finitura

Regolazione fine

- Talvolta la flessione risulta maggiore sul fianco interno a causa dell'azione di taglio, e la larghezza della scanalatura risulta essere inferiore a quanto previsto.
  - Avviare la lavorazione della scanalatura e fermarsi ad esempio 1 mm prima del raggiungimento della profondità completa. Particolarmente utile con materiali difficili con maggiore tendenza alla flessione.
  - Verificare il diametro della scanalatura misurando il fianco esterno ed il fianco interno e calcolare la differenza tra la dimensione effettiva e quella nominale.
  - Regolare una delle testine in modo che la differenza sia pari. La scelta della testina dipende dall'entità della differenza.
  - Utilizzare la compensazione sulla macchina per regolare la larghezza della scanalatura e ripetere la lavorazione della scanalatura.

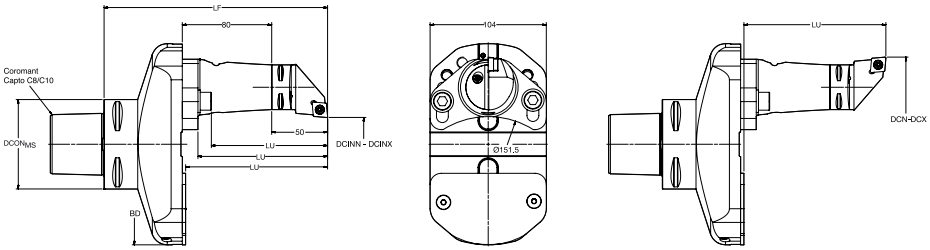
Riepilogando:

- Diametro errato della scanalatura: regolare la posizione DE-testina e/o DI-testina dell'utensile. Utilizzare il centro teorico della scanalatura come riferimento.
- Larghezza errata: regolare la compensazione dell'usura sulla macchina e/o regolare la profondità

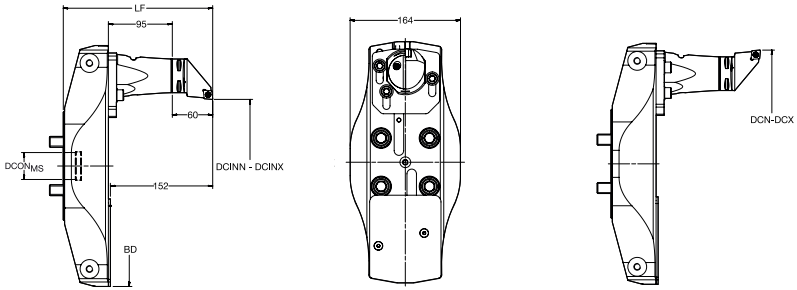
CoroBore® XL

Tornitura ad interpolazione

La tornitura ad interpolazione è un metodo di tornitura flessibile, sviluppato per centri di lavoro e macchine multi-task con asse B all'avanguardia.

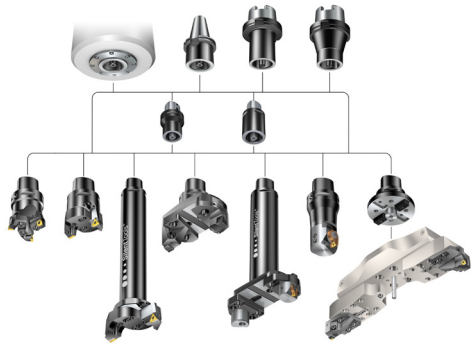


Diametri di taglio per testine di taglio standard C4 con WF = 27 mm (1.063 poll.) e LF = 50 mm (1.968 poll.)											
	Adattatore	**Dim.**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Art. 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Diametri di taglio per testine di taglio standard C5 con WF = 35 mm (1.378 poll.) e LF = 60 mm (2.362 poll.)											
	Adattatore	**Dim.**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Art. 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Barenatura – attrezzamento modulare



La rigidezza alla flessione e la trasmissione della coppia sono i fattori più importanti nella scelta di un portautensile per le operazioni di barenatura. Per ottenere la migliore stabilità e qualità del foro, come soluzione di attrezzamento modulare usare gli adattatori di interfaccia macchina Coromant Capto in combinazione con gli utensili per barenatura.

Utilizzare il sistema modulare Coromant Capto per assemblare adattatori, estensioni e adattatori di interfaccia macchina al fine di ottenere una maggiore flessibilità.

– Ridurre i costi delle scorte e degli investimenti in utensili

– Usare gli adattatori di estensione e di riduzione per ottimizzare la lunghezza

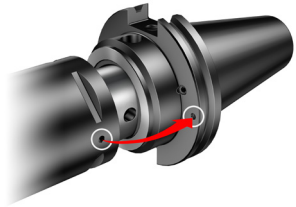
– Precisione e stabilità consentono dati di taglio più elevati

Consigli & suggerimenti

- Per la massima stabilità, scegliere la dimensione di accoppiamento più grande possibile e la sporgenza più piccola possibile
- Aumentare la rigidità dinamica aggiungendo un meccanismo smorzatore di vibrazioni
- Per sporgenze (> 4 x il diametro dell'accoppiamento), utilizzare gli utensili dedicati (Silent tools)
- Quando è necessario ricorrere a riduzioni, utilizzare la versione rastremata se possibile
- Sono disponibili adattatori di riduzione/estensione Coromant Capto Tailor Made per ottimizzare il design e di conseguenza ottenere la massima stabilità
- Per sporgenze elevate, una macchina utensile con un accoppiamento di interfaccia macchina con flangia a contatto con il mandrino fornisce migliori prestazioni, es.: accoppiamento Coromant Capto, HSK, Big-Plus
- Per evitare l'intasamento dei trucioli, accertarsi che i trucioli siano adeguatamente evacuati dal componente

Montaggio & manutenzione degli utensili

- Assicurarsi sempre che i punti di riferimento siano allineati.
- Utilizzare un'attrezzatura di montaggio adatta
- Utilizzare sempre una chiave dinamometrica per applicare la coppia raccomandata sia sulle viti degli inserti sia sull'utensile
- Controllare il mandrino della macchina, il run-out, l'usura e la forza di bloccaggio
- Sostituire le viti, le rondelle e le molle a tazza usurate o esauste.



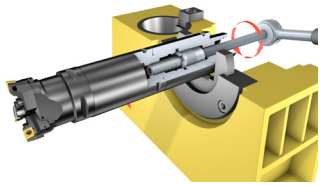
Utensili antivibranti

- Utensili antivibranti, non bloccare mai direttamente sopra il corpo adattatore

Pulizia

- Pulire tutti gli elementi dell'utensile prima del montaggio
- Controllare regolarmente gli inserti e le sedi inserto per assicurarsi che siano privi di polvere o che non siano danneggiati
- Lubrificare tutti gli elementi dell'utensile con olio almeno una volta all'anno
- Pulire e lubrificare con olio le testine microregistrabili (825, 826) e le testine per scanalatura frontale (825SL),

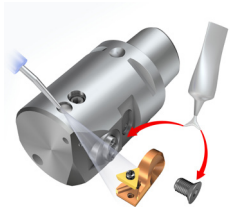
  uso permanente:
  una volta al mese
  uso minimo:
  una volta all'anno



Tipo di olio: olio per macchine leggero, senza acido

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94

Usare Molykote per le viti



Misura Coromant Capto	Nm	Piedi/libbra
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Diametro				Slitta	
mm	pollici	ISO	ANSI	Nm	Piedi/libbra
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

Diametro				Slitta	
mm	pollici	ISO	ANSI	Nm	Piedi/libbra
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 pollici)	Nm	Piedi/libbra
Slitta	60	44
Cartuccia	60	44
Vite per inserto CoroTurn RC	6.4	4.7
Vite per inserto CoroTurn 107 e CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 pollici)	Nm	Piedi/libbra
Ponte	200	148
Estensione ponte	100	74
Slitta	60	44
Cartuccia	60	44
Vite per inserto CoroTurn 107	3.0	2.2
Bloccaggio dell'inserto CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 pollici)
826: Ø 148–300 mm (5.866–11.810 pollici)

	Nm	Piedi/libbra
Slitta	60	44
Contrappeso	60	44
Testina microregistrabile	16	12
Vite di bloccaggio (testina microregistrabile)	6.0	4.4
Vite per cartuccia	6.0	4.4
Vite per inserto TC11/TP11 (TP22/TC22)	0.9	0.7
Vite per inserto CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 pollici)
826: Ø 298–1260 mm (11.732–49.606 pollici)

	Nm	Piedi/libbra
Ponte	200	148
Estensione ponte	100	74
Slitta	60	44
Contrappeso	60	44
Testina microregistrabile	16	12
Vite di bloccaggio (testina microregistrabile)	6	4.4
Vite per cartuccia	6	4.4
Vite per inserto TC11/TP11 (TP22/TC22)	0.9	0.7
Vite per inserto CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Vite per cartuccia

Ø mm (pollici)	Nm	Piedi/libbra
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Vite di bloccaggio

Ø mm (pollici)	Nm	Piedi/libbra
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Vite per inserto

ISO	ANSI	Nm	Piedi/libbra
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 pollici)

	Nm	Piedi/libbra
Testina per scanalatura frontale (S20)	16	12
Vite di bloccaggio	8	6
Contrappeso	8	6
Lama	9	6.6

Ø 150–1275 mm (5.905–50.197 pollici)

	Nm	Piedi/libbra
Testina per scanalatura frontale (A34)	16	12
Vite di bloccaggio	8	6
Lama	9	6.6

CoroBore 826 HP

Vite per cartuccia

Ø mm (pollici)	Nm	Piedi/libbra
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

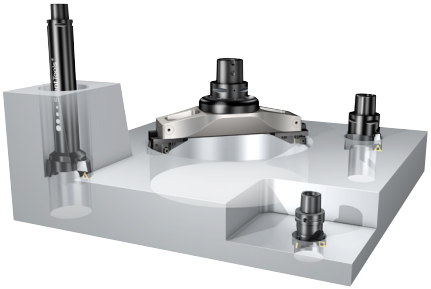
Vite di bloccaggio

Ø mm (pollici)	Nm	Piedi/libbra
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Vite per inserto

ISO	ANSI	Nm	Piedi/libbra
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

荒加工



高能率
ボーリング

ステップ
ボーリング*

シングルエッジ
ボーリング*

*別途注文品のオプション部品が必要です。

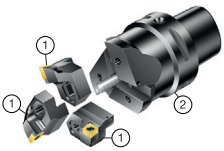
コロボアXL用ホルダ

別途注文品。C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50に関しての詳細はカタログをご参照ください。

コロボアセット-セット内容

レンチは工具セットに含まれています。

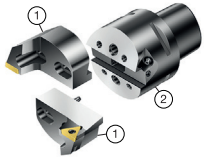
コロボア820



Ø 35–167 mm (1.378–6.57 inch)
1. スライド(3個)
2. アダプタ(1個)

プリセッタがない場合、コロボア820の径調整は次の様に行ってください。
刃先からピンまでの寸法を測りピンの半径を引いてください。次にこの値を2倍するとボーリング径となります。

デュオボア821

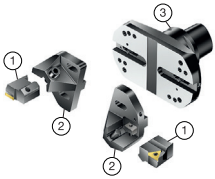


Ø 25–150 mm (0.984–5.906 inch)
1. スライド(2個)
2. アダプタ(1個)

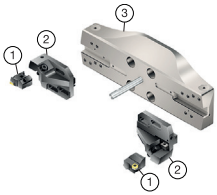
デュオボア821D

Ø 25–150 mm (0.984–5.906 inch)
1. スライド(2個)
2. 防振アダプタ(1個)

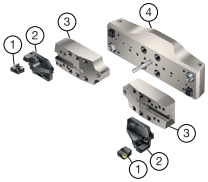
コロボア820 XL



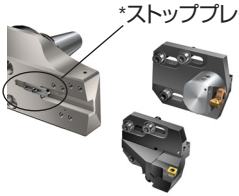
Ø 148-300 mm (5.827-11.811 inch)
1. カートリッジ(2個)
2. スライド(2個)
3. アダプタ/防振アダプタ(1個)

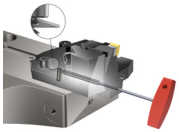


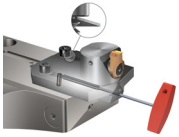
Ø 298-540 mm (11.732-21.259 inch)
1. カートリッジ(2個)
2. スライド(2個)
3. ブリッジ(1個)

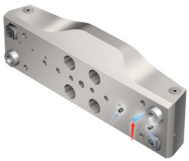


Ø 538-1260 mm (21.181-49.606 inch)
1. カートリッジ(2個)
2. スライド(2個)
3. ブリッジエクステンション(2個)
4. ブリッジ(1個)

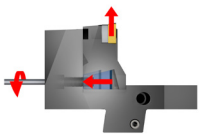


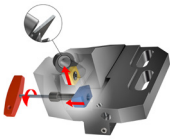




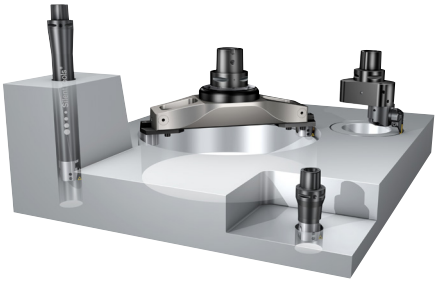


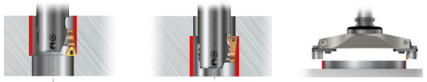
- 荒加工、仕上げ加工とも同じブリッジ/ブリッジエクステンションを使ってください。（カウンターウェイトは仕上げ加工に必要です）
- 簡単な組み換えの為、ストッププレート*を使うことで、同じボーリング径を保持できます。(*別途注文品)
- 簡単なスライドの径調整をするために、わずかにスクリューを締め、レンチで径を調整してください。
- クーラントが刃先にかかる様、クーラントスクリューをそれぞれの位置に調節してください。
- カートリッジはステップボーリングを行うため、軸方向にも調整可能です。





仕上げ加工





通常ボーリング　バックボーリング*　外径ボーリング

*別途注文品のオプション部品が必要です。

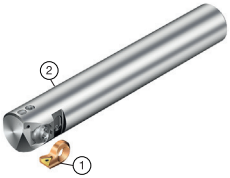
コロボアXL用ホルダ

別途注文品。C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50の詳細はカタログをご参照ください。

コロボアセット-セット内容

レンチは工具セットに含まれています。

コロボア825、円筒シャンク



Ø 19–36 mm (0.748–1.42 inch)
1. カートリッジ(1個)
2. ファインボーリング用円筒シャンク(1個)

コロボア825、コロマントキャプトアダプタ

Ø 36–91 mm (1.418–3.583 inch)
1. カートリッジ(1個)
2. アダプタ(1個)

コロボア826 HP

Ø 36–91 mm
(1.418–3.583 inch)

Ø 92–154 mm
(3.622–6.063 inch)

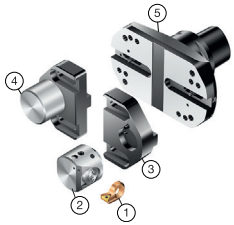
Ø 36–91 mm (1.418–3.583 inch)
1. カートリッジ(1個)
2. アダプタ(1個)

Ø 92–154 mm (3.622–6.063 inch)
1. カートリッジ(1個)
2. ファインボーリングヘッド(1個)
3. アダプタ(1個)

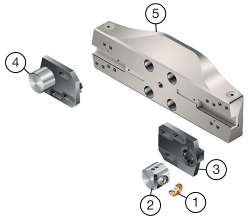
コロボア825D、コロマントキャプトアダプタ

Ø 23–167 mm (0.906–6.57 inch)
1. カートリッジ(1個)
2. 防振アダプタ(1個)

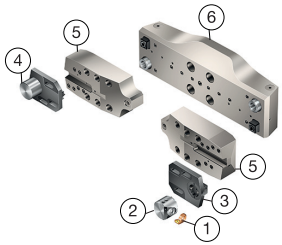
コロボア825 XL, コロボア826 XL



825: Ø 148–315 mm (5.709–12.402 inch)
826: Ø 148–300 mm (5.709–11.811 inch)
1. カートリッジ(1個)
2. ファインボーリングヘッド825/826(1個)
3. スライド(1個)
4. カウンターウェイト(1個)
5. アダプタ(1個)



825: Ø 298–555 mm (11.732–21.850 inch)
826: Ø 298–540 mm (11.732–21.259 inch)
1. カートリッジ(1個)
2. ファインボーリングヘッド825/826(1個)
3. スライド(1個)
4. カウンターウェイト(1個)
5. ブリッジ(1個)



825: Ø 538–1275 mm (21.181–50.196 inch)
826: Ø 538–1260 mm (21.181–49.606 inch)
1. カートリッジ(1個)
2. ファインボーリングヘッド825/826(1個)
3. スライド(1個)
4. カウンターウェイト(1個)
5. ブリッジエクステンション(2個)
6. ブリッジ(1個)

コロボアXLに関しては94ページを参照ください。

径の調整

コロボア825/825D/825 XL/825 SL、コロボア826HP/826 XL

1. カートリッジおよびチップを推奨トルク（110ページ参照）でクランプします。

2. 径調整の前にロッキングスクリューを緩めます。

3. バックラッシュを避けるために、常に小径から大径へ調整します。 最大値を超えないようにしてください!
コロボア825および826の設定は、98ページを参照。

4. ロッキングスクリューの先端が図で示した状態であることを確認します。

5. ロッキングスクリューを推奨トルク（109-110ページ参照）で締め付けます。

6. 潤滑のため、ボールを押し下げ給油を行います。（潤滑油は108ページ参照）

スケールディスクの調整

コロボア825/825D/825 XL/825 SL

青線 = 基準

開始位置

調整後の位置

青線=バーニヤ(副尺)の目盛上でスタートラインを示します。
赤線がバーニヤ(副尺)の緑線に重なるまでスケールディスクの目盛を右に回します。
径は0.002mm(0.00008インチ) 大きくなります。

コロボア HP 826, コロボア 826 XL

青線 = 基準

開始位置

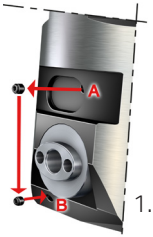
調整後の位置

クリックごとに径を 0.002 mm (0.00008 inch) 単位で調整します。
ダイヤル1回転で直径は 0.1 mm (0.00394 inch) 変化します。

調整範囲
CB826Bカートリッジ (36–55 mm (1.417–3.583 inch)): 公称径 +/- 0.55 mm (0.022 inch)
CB826Cカートリッジ (56–91 mm (3.662–6.063 inch)): 公称径 +/- 0.65 mm (0.026 inch)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

バックボーリング

コロボア825/825D/825 XL
（コロボア826および825SLは除く）



1.

2.

1. クーラントダクトAから止めネジを外し
   クーラントダクトBに取付けます。
2. X,Y,Zを推奨トルクで締め付けます。

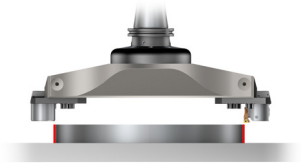
バックボーリング

スライドエクステンションを使用するバックボーリングの径範囲は変わります。
Ø 19-1275mm (0.748-50.20inch)=バックボーリングØ 25-1284.6mm (0.984-50.57inch)。バックボーリング加工では 主軸回転を反時計まわり（M04）にします。

外径ボーリング

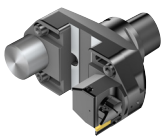
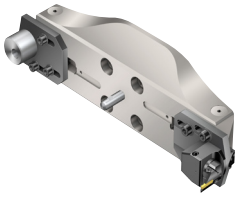
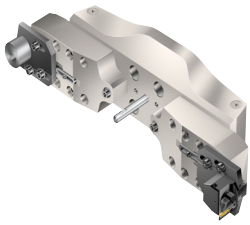
コロボア825 XL, コロボア826 XL

外径ボーリングでは径範囲が変わります。
CB825XL - Ø23-1150 mm (0.906-45.275 inch)
CB826XL - Ø38-1150 mm (1.496-45.275 inch)



端面溝入れ

コロボア825 SL

ブレードタイプ	チップタイプ	第一推奨チップブレーカ	Ø, mm (inch)
SL32 Aカーブ 左勝手 570- 32R/ L123xxxBxxxA LF=18	コロカット1・2 チップ	-CMノーズR<0.2 -TFノーズR>0.2 推奨送り:0.15 mm/rev (0.0059 inch/rev)	47–150 (1.85–5.90)
		厳しい公差が必要な場合は-GFを使用。 推奨送り:0.10 mm/rev (0.0039 inch/rev)	148–1275 (5.82–50.19)

推奨チップ、推奨ブレードはカタログをご参照ください。

コロボアXL用ホルダ、径148 mm (5.827 inch) 以上

別途注文品。C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50の詳細はカタログをご参照ください。

コロボア825 SL、径47–150 mm (1.850-5.905 inch)
径調整:101ページ

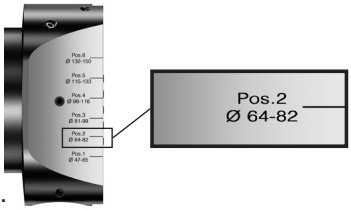
コロボア825 SL、径148–1275 mm (5.827-50.196 inch)
径調整:97-98ページ

工具径調整:径47–150 mm (1.850-5.905 inch)

コロボア825 SL

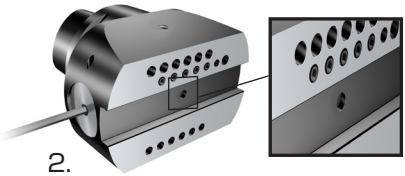
例:設定径Ø70㎜

1. 設定径から対応するポジションを選びます。(Φ70mmの場合、ポジション2)。
カウンターウェイトのロックを緩めます。



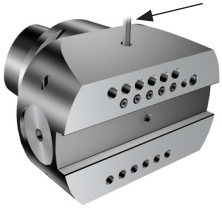
1.

2. 内蔵カウンターウェイトを設定径に対応するポジション(ポジション2)にセットします。



2.

3. カウンターウェイトのクランプスクリューを適切なトルク:8 Nm (6 ft/lbs)で締め付けてください。



3.

4. 設定径のポジションに対応した正しいクーラントチャンネルをオープンします。(納入時はクーラントチャンネルのうち5個は閉じています。)

4.

5. ヘッドをアダプタの正しいポジション(ポジション2)に取付けます。
スクリューを推奨トルク16Nmで締めうちけます。

6. 加工径に応じた正しいブレード(Aカーブ、左勝手)を選択します。
カタログ参照。

7. コロボア825ボーリングヘッドと同様の要領で(97-98ページ)、端面溝入れヘッドの微調整を行います。

5.

コロボアXLによるスパイロ溝入れ

APIシールリング溝入れ加工のソリューション

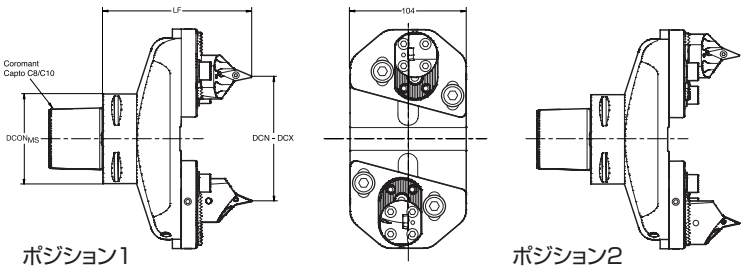
適用範囲

- 角度23度のすべてのR-RXおよびBX溝
- BX溝の外側の45度面取りには使用できません。
- 径範囲 50-294 mm (2-11.5 inch)

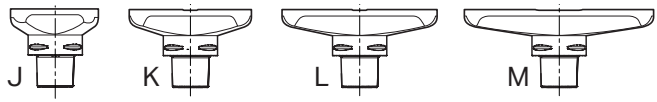
注文方法

- 加工径範囲に合わせて、キット(1つの型番ですべての部品を含む)を注文します。
- スパイロ溝入れ用キットは、C8カップリングに対応可能です。径239.6 mm以下の場合は、C6およびC10カップリングが使用できます。これらの部品はすべて個別でも購入できますので、その際は、お近くの営業所にご連絡ください。
- スパイロ溝入れソフトウェアが必要です。径、切削条件などのデータを入力し、「export G-code」ボタンをクリックするだけでNCプログラムが生成されます。ソフトウェア購入の際は、お近くの営業所にご連絡ください。

対応アダプタおよび径範囲の一覧

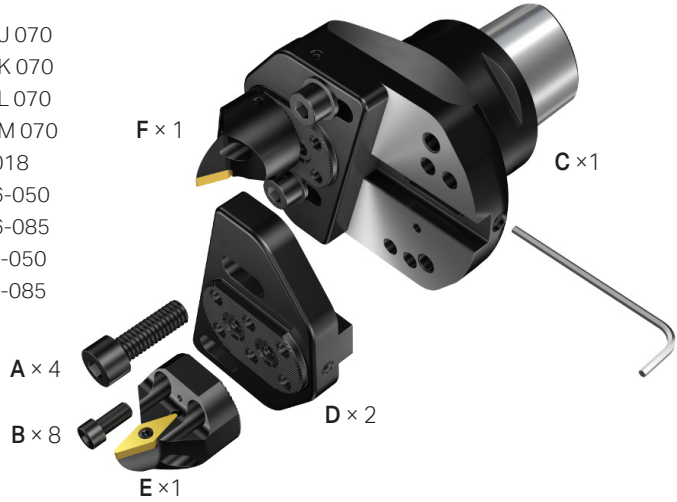


					ポジション1		ポジション2	
	アダプタ	サイズ	DCONMS	LF	DCN	DCX	DCN	DCX
製品アイテム	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



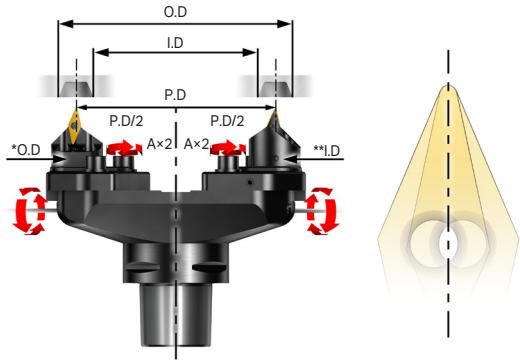
プリセット方法

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



ステップ1

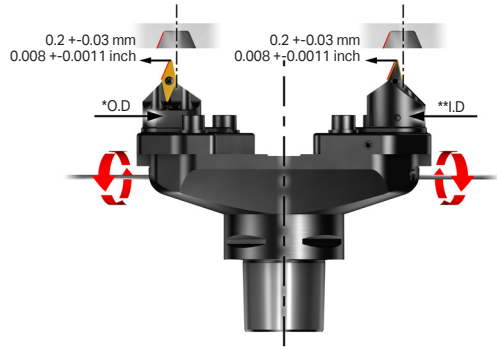
4本のスクリュー (A) を緩めます。
溝径に合う工具をセットします。



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

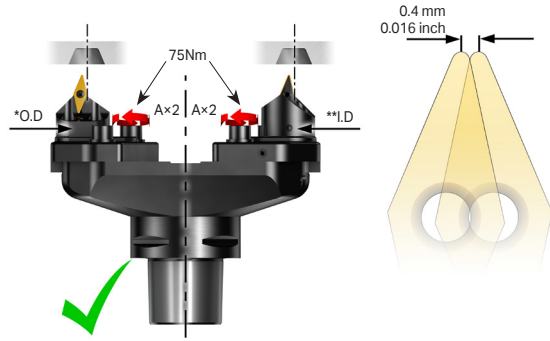
ステップ2

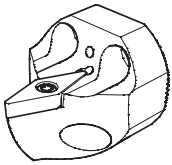
SLカッティングヘッドを それぞれ0.2 mm (0.008 inch) 側方にセットします。これにより、外側のチップは内側の溝壁に接触せず、内側のチップは外側の溝壁に接触しないことを確実なものにします。



ステップ3

4本のスクリュー (A) でスライドを締め付けてチップが適切にセットされていることを確認します。





手動設定:

ヘッドの基準面(研磨面)を使用します。設定寸法はチップ径の中心へ19 mm (0.748 inch) です。

使用方法

- オフセット量はヘッド当たり0.2 mm (0.008inch) にしてください。これにより、外側のチップは内側の溝壁に接触せず、内側のチップは外側の溝壁に接触しないことを確実なものにします。トラック(軌道)は、プログラムにて自動的に補正されます。プログラムジェネレータが自動的に補正を行います。

溝の最大深さを推奨

- チップの刃先よりも深くならないようにしてください。
- 異種材接合前処理の溝加工では、深さがチップの刃先を超えてもよい場合があります。

加工する被削材

- 鋼、様々なステンレス鋼およびインコネル
- インコネル625は加工が非常に難しい被削材です。

制限事項 - 機械のタイプ

- インコネルや加工の難しいステンレス鋼の溝加工では、切削速度を大幅に下げる必要があります。したがって、トルクは機械で設定された制限値となります。
- 加工面品質が不十分な場合は、機械のパラメータ設定に問題があることがあります。先読み機能や同等の機能を使用してください。

初期設定の推奨事項

- 鋼 = PF - GC4325 - v_C 250-350 最大切りくず厚さ:0.15 – 0.18 - 最終回転での送り40-50 mm/min – ピッチ/回転数 2.0-2.5 mm 被削材によって異なる。
- ステンレス鋼 = MM - GC202 、GC1115 - v_C 100-150 - 最大切りくず厚さ:0.12 – 0.16 - 最終回転での送り30-40 mm/min ピッチ/回転数 0.5-1.5 mm 被削材によって異なる。
- CRA(耐食性材料)= XM、XF GC15 (インコネル625) またはMM、MF GC1105/GC1115(インコネル718) v_C 30-50 - 最大切りくず厚さ:0.10 – 0.12 - ピッチ/回転数 0.4-1.0 mm 被削材によって異なる。荒加工と同じ送り mm/min を使用してください。
- 仕上げ加工では、最終回転で溝の仕上げが行われるため、送りは個別に設定してください。一般推奨事項:
- 小径溝の場合:仕上げ加工では高送りを使用します
- 大径溝の場合:仕上げ加工では、推奨の低い送り範囲を使用します

精密旋削加工

- 切削アクションの影響で、内側のたわみがより大きくなることがあります。この場合、溝幅は期待値よりも少し小さくなります。
  - 溝加工を行い、例えば、設定深さに達する1 mm前で止めます。びびりの傾向がより大きい難削材の加工では、特に有効です。
  - 外側および内側から測定を行って溝径を確認し、実際の寸法と基準寸法との差を計算します。
  - この差がなくなるように、ヘッドの1つを調整します。どのヘッドを調整するかは、差の大きさによって決まります。
  - 機械の補正機能を使って溝幅を調整し、再び溝加工を行います。

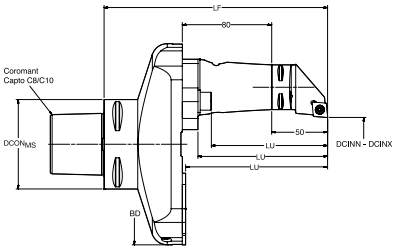
まとめ:

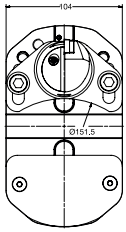
- 溝径が正しくない場合:工具の外径加工用ヘッド、または内径加工用ヘッドの位置を調整します。理論上の溝の中心線を基準としてください。
- 溝幅が正しくない場合:機械の摩耗補正を行う、あるいは(および)溝深さを調整します。

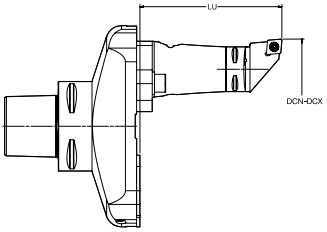
コロボアXL

補間旋削加工

補間旋削加工は、最新のマシニングセンタとB軸複合加工機用に開発された柔軟な旋削加工方法です。

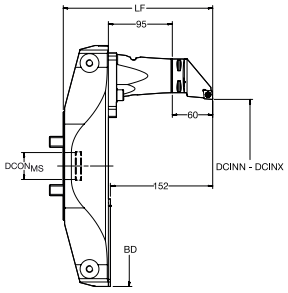


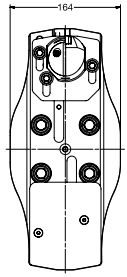


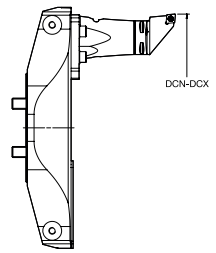


WF = 27 mm (1.063") 、LF = 50 mm (1.968") のC4標準カッティングヘッド用の切削径

	アダプタ	サイズ	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
製品アイテム	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



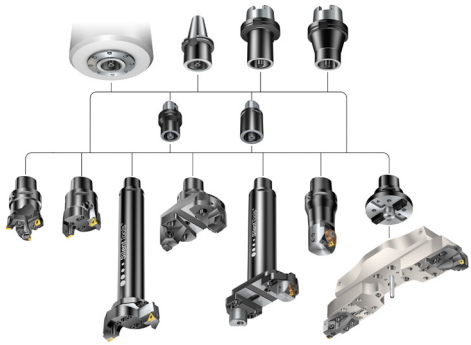




WF = 35 mm (1.378")、LF = 60 mm (2.362") のC5標準カッティングヘッド用の切削径

	アダプタ	サイズ	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
製品アイテム	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

ボーリング-モジュラーツーリング



曲げ剛性及びトルク伝達はボーリング加工で工具ホルダを選択する際に最も重要なファクターです。最良の安定性と高い加工穴の品質を得るために、コロマントキャプトタイプのボーリング工具をモジュラーツーリングシステムとしてお使いください。

コロマントキャプトアダプタ、エクステンションをモジュラーツーリングシステムとして使用することで、高い柔軟性が得られます。

-工具在庫および投資コストの削減

-最適工具長を得るためエクステンションおよびリダクションを使用してください。

-高い精度と安定性により切削条件を上げることが可能です。

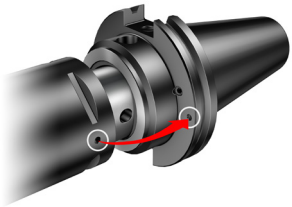
ヒント

• 工具剛性を最大にするために、可能な限り大きなカップリングサイズを選択し、突出し量は最小限にしてください。

- びびりやすい加工には防振アダプタをお使いください。
- 突出し量が大きい場合(>4xカップリング径)には防振工具をご使用ください。
- リダクションを使う場合には可能であればテーパータイプをご使用ください。
- コロマントキャプトカスタマイズプラスにより最適な寸法のリダクション、エクステンションができ、剛性を最大にすることができます。
- 突出しが長い場合には2面拘束のカップリング(コロマントキャプト、HSK、ビッグプラス)を持った機械が適しています。
- 切りくず詰まりを避けるため、切りくずが確実にワークから排出されるようにしてください。

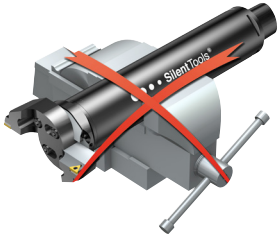
組付けとメンテナンス

- 必ずマークが合っていることを確認してください。
- 組み付け治具を使用してください。
- 必ずトルクレンチを使用しチップと工具の推奨トルクで締め付けてください。
- 機械スピンドルの振れ、摩耗、クランプ力を確認してください。
- 摩耗、損傷したスクリュー、ワッシャ、カップスプリングは交換してください。



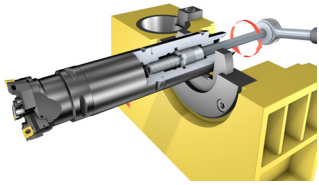
防振工具

- 防振工具;本体を直接クランプすることはしないでください。



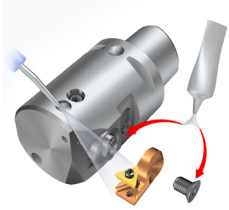
クリーニング

- 組付け前に全ての部品を清掃してください。
- 定期的にチップやチップシートの汚れおよび損傷が無い事か確認してください。
- すべての部品に少なくとも年一回は潤滑油を塗布してください。
- ファインボーリングヘッド(825,826)および端面溝入れ用ヘッド(825SL)の清掃と給油は月1回(最低でも年1回)行ってください。



油のタイプ:非酸性機械油

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94



スクリューにはモリコートを使用してください。

コロマントキャプト サイズ	Nm	ft/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

コロボア820

径 mm	inch	ISO	ANSI	スライド Nm	スライド ft/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

デュオボア821 & デュオボア821D

径 mm	inch	ISO	ANSI	スライド Nm	スライド ft/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

コロボアXL

コロボア820 XL
Ø 148–300 mm (5.512–11.811 inch)

	Nm	ft/lbs
スライド	60	44
カートリッジ	60	44
チップスクリュー　コロターンRC	6.4	4.7
チップスクリュー　コロターン107およびスーパーUドリル	3.0	2.2

コロボア820 XL
Ø 298–1260 mm (11.732–49.606 inch)

	Nm	ft/lbs
ブリッジ	200	148
ブリッジエクステンション	100	74
スライド	60	44
カートリッジ	60	44
チップスクリュー　コロターン107	3.0	2.2
チップクランプ　コロターンRC	6.4	4.7

コロボア825 XL/826 XL & 825D XL/826D XL
825: Ø 148–315 mm (5.866–12.402 inch)
826: Ø 148–300 mm (5.866–11.810 inch)

	Nm	ft/lbs
スライド	60	44
カウンターウェイト	60	44
ファインボーリング	16	12
ロッキングスクリュー(ファインボーリングヘッド)	6.0	4.4
カートリッジスクリュー	6.0	4.4
チップスクリューTC11/TP11 (TP22/TC22)	0.9	0.7
チップスクリューCC09 (CC3(2.5))	3.0	2.2

コロボア825 XL/826 XL
825: Ø 298–1275 mm (11.732–50.197 inch)
826: Ø 298–1260 mm (11.732–49.606 inch)

	Nm	ft/lbs
ブリッジ	200	148
ブリッジエクステンション	100	74
スライド	60	44
カウンターウェイト	60	44
ファインボーリング	16	12
ロッキングスクリュー(ファインボーリングヘッド)	6	4.4
カートリッジスクリュー	6	4.4
チップスクリューTC11/TP11 (TP22/TC22)	0.9	0.7
チップスクリューCC09 (CC3(2.5))	3.0	2.2

コロボア825/825D

カートリッジスクリュー

Ø mm (inch)	Nm	ft/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

ロッキングスクリュー

Ø mm (inch)	Nm	ft/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

チップスクリュー

ISO	ANSI	Nm	ft/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

コロボア825 SL

Ø 47–150 mm (1.850–5.905 inch)

	Nm	ft/lbs
端面溝入れヘッド(S20)	16	12
ロッキングスクリュー	8	6
カウンターウェイト	8	6
ブレード	9	6.6

Ø 150–1275 mm (5.905–50.197 inch)

	Nm	ft/lbs
端面溝入れヘッド(A34)	16	12
ロッキングスクリュー	8	6
ブレード	9	6.6

コロボア826 HP

カートリッジスクリュー

Ø mm (inch)	Nm	ft/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

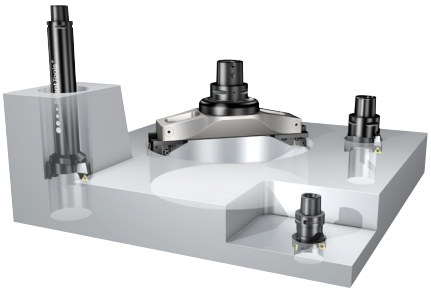
ロッキングスクリュー

Ø mm (inch)	Nm	ft/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

チップスクリュー

ISO	ANSI	Nm	ft/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Desbaste



Mandrilamento produtivo

Mandrilamento escalonado*

Mandrilamento de aresta única*

*Acessórios necessários, pedidos separadamente.

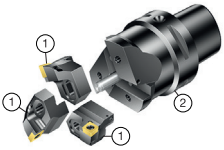
Suportes para CoroBore XL

Deve ser comprado separadamente. Veja o catálogo principal para mais informações.
C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kits de montagem CoroBore – partes inclusas

Chaves necessárias estão incluídas em cada kit

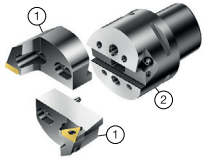
CoroBore 820



Ø 35–167 mm (1.378–6.57 pol.)
1. Cassete (3 pçs.)
2. Adaptador (1 peça)

Se não houver um pressete disponível, ajuste o diâmetro do CoroBore 820 medindo a distância do pino até a ponta da pastilha e subtraia a metade do diâmetro do pino. Multiplique por dois para obter o diâmetro efetivo de mandrilamento.

DuoBore 821

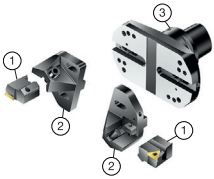


Ø 25–150 mm (0.984–5.906 pol.)
1. Cassete (2 pçs.)
2. Adaptador (1 peça)

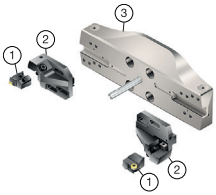
DuoBore 821D

Ø 25–150 mm (0.984–5.906 pol.)
1. Cassete (2 pçs.)
2. Adaptador antivibratório (1 peça)

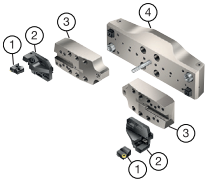
CoroBore 820 XL



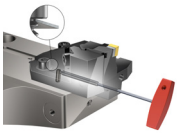
Ø 148–300 mm (5.827–11.811 pol.)
1. Cápsula (2 pçs.)
2. Cassete (2 pçs.)
3. Adaptador/adaptador antivibratório (1 peça)

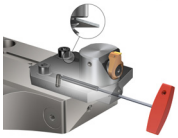


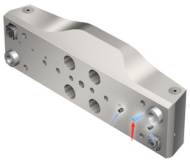
Ø 298–540 mm (11.732–21.259 pol.)
1. Cápsula (2 pçs.)
2. Cassete (2 pçs.)
3. Braço (1 peça)



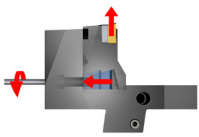
Ø 538–1260 mm (21.181–49.606 pol.)
1. Cápsula (2 pçs.)
2. Cassete (2 pçs.)
3. Extensão do braço (2 pçs.)
4. Braço (1 peça)

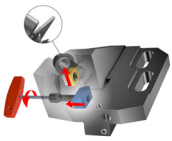




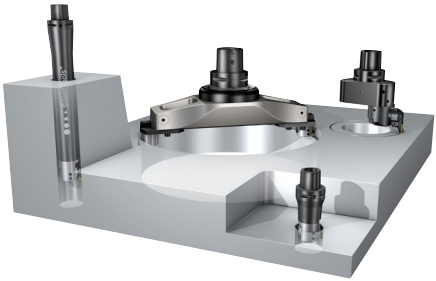


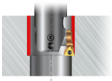
- Use o mesmo braço/extensão do braço para desbaste e acabamento (para acabamento é necessário um contrapeso)
- Fácil mudança de aplicação, mantendo o mesmo diâmetro com o uso do jogo de placas para travamento* (*pedido em separado)
- Para um fácil ajuste radial dos cassetes, aperte os parafusos suavemente e ajuste o diâmetro com uma chave
- Para refrigeração interna até a aresta de corte, ajuste os parafusos de refrigeração para a posição pertinente
- As cápsulas permitem ajuste na direção axial, para mandrilamento escalonado





Acabamento





Mandrilamento convencional

Mandrilamento reverso*

Mandrilamento externo

*Acessórios necessários, pedidos separadamente.

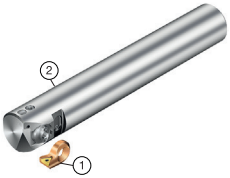
Suportes para CoroBore XL

Devem ser comprados separadamente. Veja o catálogo principal para mais informações. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Kits de montagem CoroBore – partes inclusas

Chaves necessárias estão incluídas em cada kit

CoroBore 825, haste cilíndrica



Ø 19–36 mm (0.748–1.42 pol.)
1. Cápsula (1 peça)
2. Ferramenta para mandrilamento de precisão com haste cilíndrica (1 peça)

CoroBore 825, adaptador com Coromant Capto integrado

Ø 19–167 mm (0.748–6.57 pol.)
1. Cápsula (1 peça)
2. Adaptador (1 peça)

CoroBore 826 HP

Ø 36-91 mm (1,418-3,583 pol.)

Ø 92-154 mm (3,622-6,063 pol.)

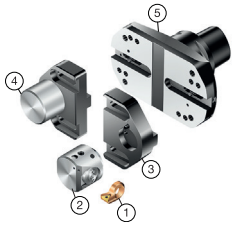
Ø 36-91 mm (1,418-3,583 pol.)
1. Cápsula (1 peça)
2. Adaptador (1 peça)

Ø 92-154 mm (3,622-6,063 pol.)
1. Cápsula (1 peça)
2. Cabeça para mandrilamento de precisão (1 peça)
3. Adaptador (1 peça)

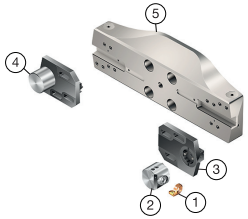
CoroBore 825D, Coromant Capto antivibratório

Ø 23–167 mm (0.906–6.57 pol.)
1. Cápsula (1 peça)
2. Adaptador antivibratório (1 peça)

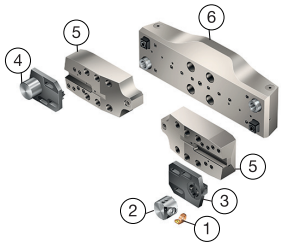
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 mm (5.709–12.402 pol.)
826: Ø 148–300 mm (5.709–11.811 pol.)
1. Cápsula (1 peça)
2. Cabeça para mandrilamento de precisão 825/826 (1 peça)
3. Extensão (1 peça)
4. Contrapeso (1 peça)
5. Adaptador (1 peça)



825: Ø 298–555 mm (11.732–21.850 pol.)
826: Ø 298–540 mm (11.732–21.259 pol.)
1. Cápsula (1 peça)
2. Cabeça para mandrilamento de precisão 825/826 (1 peça)
3. Extensão (1 peça)
4. Contrapeso (1 peça)
5. Braço (1 peça)



825: Ø 538–1275 mm (21.181–50.196 pol.)
826: Ø 538–1260 mm (21.181–49.606 pol.)
1. Cápsula (1 peça)
2. Cabeça para mandrilamento de precisão 825/826 (1 peça)
3. Extensão (1 peça)
4. Contrapeso (1 peça)
5. Extensão do braço (2 pçs.)
6. Braço (1 peça)

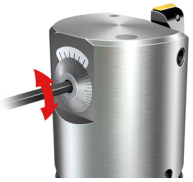
Para mais informações sobre CoroBore XL, veja página 112.

Ajuste do diâmetro

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Trave a cápsula e a pastilha com o valor correto de torque, página 128

2. Solte o parafuso de trava antes de ajustar o diâmetro



3. Sempre ajuste do menor para o maior diâmetro, para evitar folga. Não exceda os limites máximos!
   Para ajustar 825 e 826, página 116

4. Certifique-se que o parafuso de trava esteja posicionado como na figura

5. Aperte o parafuso de trava com o torque correto, página 127–128

6. Para lubrificar a ferramenta, pressione o centro e preencha com óleo, página 126

Ajuste da escala

CoroBore 825/825D/825 XL/825 SL

Linha azul = referência

Posição inicial

Posição ajustada

Gire o anel graduado no sentido horário até que a linha vermelha fique alinhada com a verde no nônio. Aumento do diâmetro em 0.002 mm (0.00008 pol.).
Linha azul = referência desde que esteja alinhada a uma linha na escala do nônio e na posição inicial.

CoroBore HP 826, CoroBore 826 XL

Linha azul = referência

Posição inicial

Posição ajustada

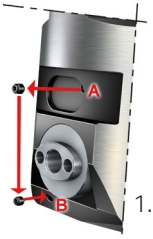
Cada clique ajusta o diâmetro em 0.002 mm (0.00008 pol.).
Um giro de 360° altera o diâmetro em 0.1 mm (0.00394 pol.).

Faixa de ajuste:
Cápsula CB826B (36–55 mm (1.417–3.583 pol.)):
Diâmetro nominal +/- 0.55 mm (0.022 pol.)
Cápsula CB826C (56–91 mm (3.662–6.063 pol.)):
Diâmetro nominal +/- 0.65 mm (0.026 pol.)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Mandrilamento reverso

CoroBore 825/825D/825 XL

(exceto CoroBore 826 e 825 SL)



1.

2.

1. Remova o parafuso sem cabeça da saída de refrigeração A e parafuse-o na saída B
2. Monte X + Y + Z com o torque correto

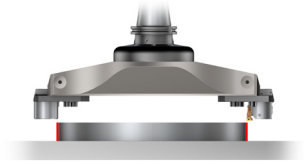
Mandrilamento reverso

A faixa de diâmetro mudará para o mandrilamento reverso devido ao uso do cassete de extensão, Ø 19–1275 mm (0.748–50.20 pol.) = mandrilamento reverso Ø 25–1284.6 mm (0.984–50.57 pol.). Para o mandrilamento reverso altere a rotação do fuso para o sentido anti-horário (M04).

Mandrilamento externo

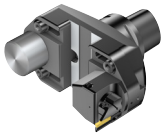
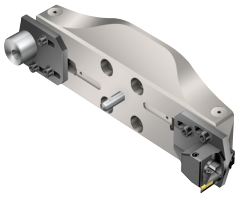
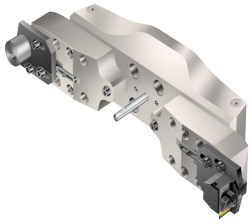
CoroBore 825 XL, CoroBore 826 XL

A faixa de diâmetros muda para mandrilamento externo:
CB825XL - Ø23-1150 mm (0.906-45.275 inch)
CB826XL - Ø38-1150 mm (1.496-45.275 inch)



Abertura de canal frontal

CoroBore 825 SL

Tipo da lâmina	Tipo da pastilha	Geometria de primeira escolha	Ø, mm (pol.)
SL32 Curvatura -A Versão esquerda 570- 32R/ L123xxxBxxxA LF=18	Pastilhas CoroCut 1–2	-CM c/raio de canto <0,2 -TF c/ raio de canto >0,2 Avanço recomendado: 0,15 mm/rot (0,0059 pol./rot.) Se houver exigência por tolerância apertada, escolha –GF. Avanço recomendado: 0,10 mm/rot. (0,0039 pol./rot.)	47–150 (1.85–5.90) 148–1275 (5.82–50.19)

Veja o catálogo principal para recomendações de lâminas e pastilhas

Suportes para CoroBore XL, diâmetro > 148 mm (5,827 pol.)

Deve ser comprado separadamente. Veja o catálogo principal para mais informações.
C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, diâmetro 47–150 mm (1,850-5,905 pol.)
Ajuste de diâmetro: página 119

CoroBore 825 SL, diâmetro 148-1275 mm (5,827-50,196 pol.)
Ajuste de diâmetro: páginas 115–116

Ajuste de diâmetro: Diâm. 47-150 mm (1,850-5,905 pol.)

CoroBore 825 SL

Exemplo: Ajuste da ferramenta para diâmetro 70 mm (2.76 pol.)

1. Defina a posição de acordo com o diâmetro escolhido, 70 mm (2.76 pol.) = posição 2
   Solte o parafuso de trava do contrapeso.

2. Ajuste o contrapeso interno com a posição correspondente ao diâmetro, posição 2

3. Aperte o parafuso do contrapeso com o torque apropriado: 8 Nm (6 pés/lbs)

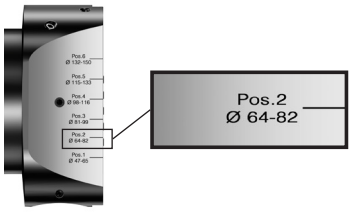
4. Abra o canal de refrigeração correto de acordo com o número de posição do diâmetro. (Cinco deles estão fechados quando a ferramenta é fornecida)

5. Monte a cabeça no adaptador em sua posição correta (Posição 2), e aperte o parafuso com o torque correto: 16 Nm (12 pés/lbs)

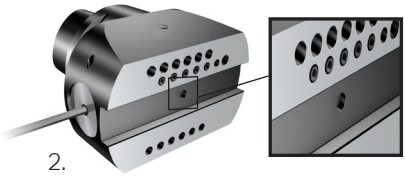
6. Escolha a lâmina correta (tipo A, versão esquerda), correspondente à faixa de diâmetro, veja o catálogo principal

7. Faça o ajuste fino da cabeça para canal frontal com os mesmos princípios do CoroBore 825 para mandrilamento de precisão, páginas 115–116

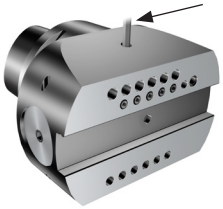
1.



2.



3.



4.

5.

SpiroGrooving™ com CoroBore® XL

Solução para canais de anéis de vedação API

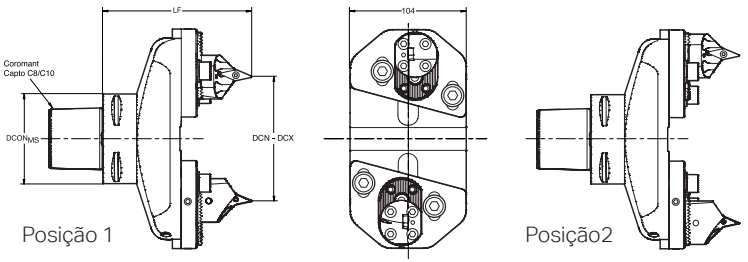
Área de uso

- Todos com 23 graus, canais R-RX e BX
- Não deve ser usado para chanfros de 45 graus no flanco externo nos canais BX.
- Faixa de diâmetro 50-294 mm (2-11,5")

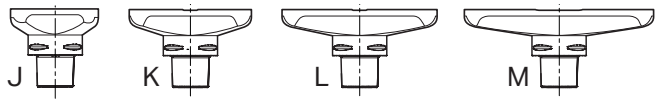
Como pedir

- Peça um kit completo (um código - todos os componentes) que se adequa à faixa de diâmetro a ser usinada.
- Os kits SpiroGrooving estão disponíveis com o acoplamento C8. É possível usinar com um C6 e C10 até o diâmetro de 239,6 mm. Todas as peças precisam ser compradas separadamente. Entre em contato com seu representante de vendas local.
- O software SpiroGrooving™ é necessário. Basta preencher os campos de entrada sobre diâmetro, dados de corte etc. e clique no botão "Exportar código G". Recomenda-se programar as tolerâncias "médias" para profundidade e diâmetro. Transfira o código NC gerado para o comando da máquina. Peça o programa em www.sandvik.coromant.com/spirogrooving

Visão geral dos adaptadores e faixas de diâmetros disponíveis

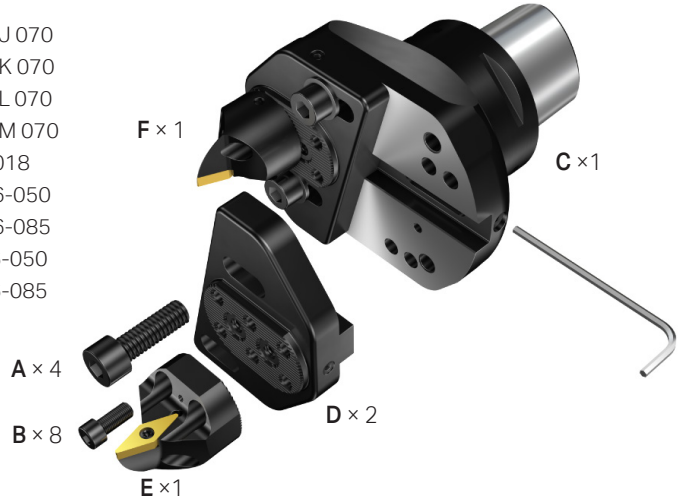


					Posição1		Posição 2	
	Adaptador	Tamanho	DCONMS	LF	DCN	DCX	DCN	DCX
Item 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



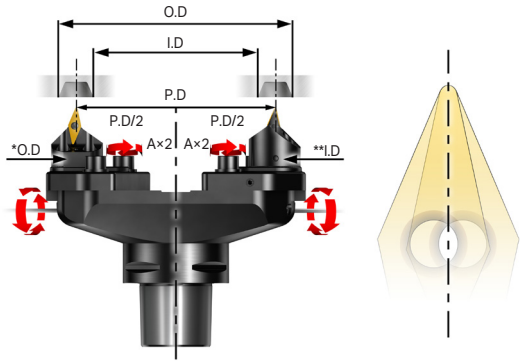
Como fazer o ajuste

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Fase 1

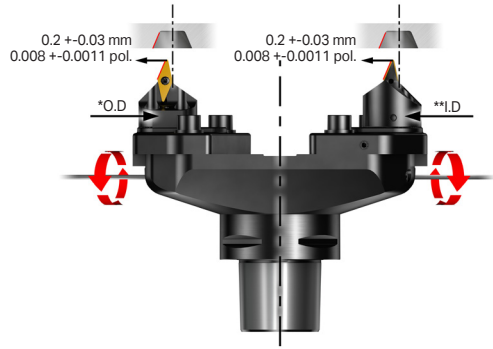
Solte os quatro parafusos (A). Ajuste a ferramenta para corresponder ao diâmetro do canal.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

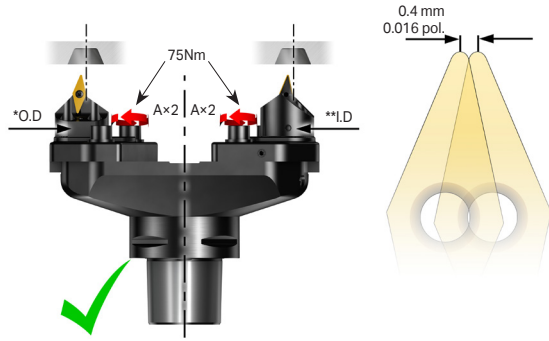
Fase 2

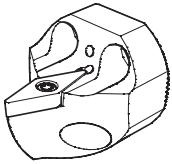
Ajuste a cabeça de corte SL em 0,2 mm (0,008 pol.) para o lado. Isso garante que a pastilha externa não toque na parede interna do canal e que a pastilha interna não toque na parede externa do canal.



Fase 3

Aperte os cassetes com os quatro parafusos (A) e verifique se as pastilhas estão devidamente ajustadas.





Para ajuste manual:

Use o plano de referência na cabeça. A dimensão é 19 mm (0.748") até o centro do raio da pastilha.

Como usar

- O offset deve ser de 0.2 mm (0.008") por cabeça para assegurar que a pastilha externa não toque na parede interna do canal e que a pastilha interna não toque na parede externa do canal. A medição do percurso será corrigida. O gerador do programa compensará isso automaticamente.

Profundidade máxima recomendada de um canal

- Não pode ser mais profundo que a aresta de corte da pastilha.
- Canais pré-revestidos podem ser ok para cortes mais profundos que o comprimento da aresta da pastilha

Material a ser usinado

- Aços, diferentes tipos de aços inoxidáveis e inconel
- Inconel 625 é muito difícil de usinar

Limitações - tipos de máquinas

- Canais em inconel ou aços inoxidáveis, a velocidade de corte deve ser reduzida radicalmente. O torque pode ser uma limitação da máquina.
- Se o acabamento superficial não for bom suficiente, corrija o ajuste dos parâmetros na máquina. Use função "look-ahead" ou semelhante.

Recomendações iniciais

- Aços = PF - GC4325 - v_c 250 – 350 espessura máx. dos cavacos: 0.15 – 0.18 - avanço última rot. 40 – 50 mm/min – Passo/rot 2.0 – 2.5 mm dependendo do material.
- Aços inoxidáveis = MM - GC2025, GC1115 - v_c 100 – 150 - espessura máx. dos cavacos: 0.12 – 0.16 - avanço última rot. 30 – 40 mm/min – Passo/rot 0.5 – 1.5 mm dependendo do material.
- CRA (material resistente à corrosão) = XM, XF GC15 (inco625) alt MM,MF GC1105/GC1115 (inco718) v_c 30 – 50 - espessura máx. dos cavacos: 0.10 – 0.12. - Passo/rot. 0.4 – 1.0 mm dependendo do material. Avanço última rot. Use o mesmo avanço mm/min que na operação de desbaste
- Um avanço separado é necessário para acabamento porque a última rotação cria o acabamento do canal e requer um avanço separado. Em geral:
- Diâmetros de canais pequenos: use uma faixa de avanço maior para acabamento
- Diâmetros maiores dos canais: use uma faixa de avanço menor para acabamento

Ajuste fino

- Algumas vezes, a deflexão é maior no flanco interno devido à ação de corte e a largura do canal é um pouco menor que o esperado.
  - Usine um canal e pare, por exemplo, 1 mm antes da profundidade final. Especialmente útil em materiais difíceis com maior tendência à flexão.
  - Verifique o diâmetro do canal ao medir o flanco externo e o flanco interno e calcule a diferença entre a dimensão real e a nominal.
  - Ajuste uma das cabeças para eliminar a diferença, pois a diferença é igual para ambas. Ajuste aquela que se refere à diferença medida.
  - Use a compensação na máquina para ajustar a largura do canal e usine o canal novamente.

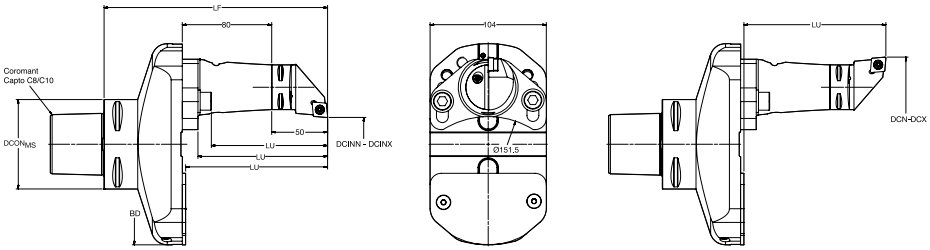
Resumindo:

- Diâmetro incorreto do canal: Ajuste a posição da cabeça OD e/ou ID da ferramenta. Use a linha de centro teórica do canal como referência.
- Largura incorreta: Ajuste a compensação do desgaste na máquina e/ou ajuste a profundidade

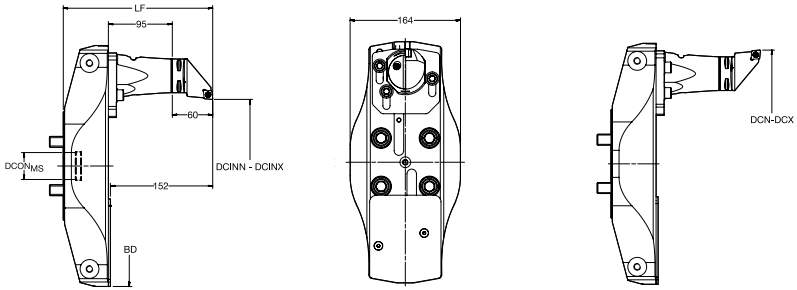
CoroBore® XL

Torneamento por interpolação

O torneamento por interpolação é um método de usinagem desenvolvido para centros de usinagem avançados e máquinas multitarefas com eixo B.

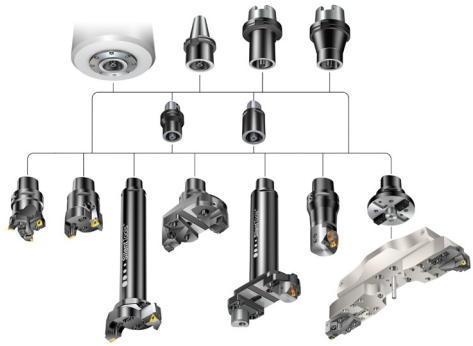


Diâmetros de corte para cabeças de corte C4 standard com WF = 27 mm (1,063 pol.) e LF = 50 mm (1,968 pol.)											
	Adaptador	**Tamanho**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Item 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Diâmetros de corte para cabeças de corte C5 standard com WF = 35 mm (1,378 pol.) e LF = 60 mm (2,362 pol.)											
	Adaptador	**Tamanho**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Item 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Mandrilamento – ferramentas modulares



Resistência à deflexão e transmissão de torque são os fatores principais quando se escolhe uma barra para mandrilamento. Para melhor estabilidade e qualidade do furo use adaptadores com interface de máquina com Coromant Capto combinados com ferramentas de mandrilar como uma solução de ferramental modular.

Use o sistema Coromant Capto como interface modular para combinar adaptadores, extensões e adaptadores com interface de máquina para maior flexibilidade.

– Reduza o inventário e custos com investimento em ferramental

– Use adaptadores de extensão e redução para otimizar o comprimento

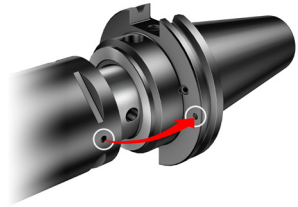
– Precisão e estabilidade permitem dados de corte mais altos

Dicas & sugestões

- Para máxima estabilidade, escolha o maior tamanho de acoplamento possível e o menor balanço possível
- Aumente a resistência dinâmica adicionando um mecanismo antivibratório
- Para longos balanços (>4 x diâmetro do acoplamento), use ferramentas dedicadas (Silent Tools)
- Se for necessário o uso de reduções, use as versões cônicas se possível
- Adaptadores Coromant Capto de extensão/redução estão disponíveis como Tailor Made para otimização e maior estabilidade
- Para longos balanços, uma máquina com fuso com contato de flange oferece o melhor desempenho, ou seja, acoplamento Coromant Capto, HSK, Big-Plus
- Para evitar o entupimento de cavacos, tente assegurar que os cavacos sejam escoados adequadamente da peça

Montagem de ferramentas & manutenção

- Sempre se certifique de que as marcas estejam alinhadas
- Use dispositivo para montagem de ferramentas
- Sempre utilize um torquímetro e aplique o torque recomendado nos parafusos das pastilhas e das montagens de ferramentas
- Verifique o fuso da máquina, batimento radial, desgaste e a força de fixação
- Substitua parafusos desgastados ou com fadiga, arruelas e molas



Ferramentas antivibratórias

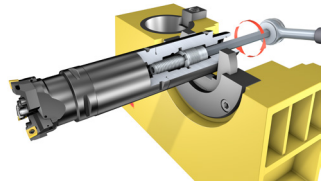
- Ferramentas antivibratórias; nunca fixe direto sobre o corpo do adaptador

Limpeza

- Limpe todas as partes de acoplamento antes da montagem
- Verifique as pastilhas e os assentos das pastilhas regularmente para que fiquem livres de sujeira e não sejam danificados
- Lubrifique todas as partes de acoplamento com óleo pelo menos uma vez ao ano
- Limpe e lubrifique com óleo as cabeças de mandrilamento de precisão (825, 826) e a cabeças para canais frontais (825SL):

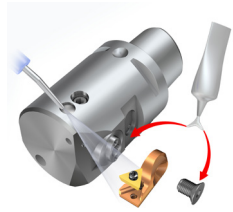
  Uso permanente: Uma vez por mês

  Mínimo: Uma vez ao ano



Tipo de óleo: óleo de máquina livre de ácido

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94



Use Molykote nos parafusos

Tamanho Coromant Capto

	Nm	pés/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Diâmetro				Cassete	
mm	pol.	ISO	ANSI	Nm	pés/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 & DuoBore 821D

Diâmetro				Cassete	
mm	pol.	ISO	ANSI	Nm	pés/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 pol.)	Nm	pés/lbs
Cassete	60	44
Cápsula	60	44
Parafuso da pastilha CoroTurn RC	6.4	4.7
Parafuso da pastilha CoroTurn 107 e CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 pol.)	Nm	pés/lbs
Braço	200	148
Extensão do braço	100	74
Cassete	60	44
Cápsula	60	44
Parafuso da pastilha CoroTurn 107	3.0	2.2
Fixação da pastilha CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL & 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 pol.)
826: Ø 148–300 mm (5.866–11.810 pol.)

	Nm	pés/lbs
Cassete	60	44
Contrapeso	60	44
Cabeça de mandrilamento de precisão	16	12
Parafuso de trava (cabeça de mandrilamento de precisão)	6.0	4.4
Parafuso da cápsula	6.0	4.4
Parafuso da pastilha TC11/TP11 (TP22/TC22)	0.9	0.7
Parafuso da pastilha CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 pol.)
826: Ø 298–1260 mm (11.732–49.606 pol.)

	Nm	pés/lbs
Braço	200	148
Extensão do braço	100	74
Cassete	60	44
Contrapeso	60	44
Cabeça de mandrilamento de precisão	16	12
Parafuso de trava (cabeça de mandrilamento de precisão)	6	4.4
Parafuso da cápsula	6	4.4
Parafuso da pastilha TC11/TP11 (TP22/TC22)	0.9	0.7
Parafuso da pastilha CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Parafuso da cápsula

Ø mm (pol.)	Nm	pés/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Parafuso de trava

Ø mm (pol.)	Nm	pés/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Parafuso da pastilha

ISO	ANSI	Nm	pés/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 pol.)

	Nm	pés/lbs
Cabeça para canal frontal (S20)	16	12
Parafuso de trava	8	6
Contrapeso	8	6
Lâmina	9	6.6

Ø 150–1275 mm (5.905–50.197 pol.)

	Nm	pés/lbs
Cabeça para canal frontal (A34)	16	12
Parafuso de trava	8	6
Lâmina	9	6.6

CoroBore 826 HP

Parafuso da cápsula

Ø mm (pol.)	Nm	pés/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

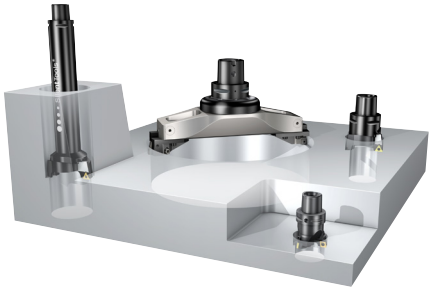
Parafuso de trava

Ø mm (pol.)	Nm	pés/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Parafuso da pastilha

ISO	ANSI	Nm	pés/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Черновая обработка



Многолезвийное растачивание

Ступенчатое растачивание*

Однолезвийное растачивание*

*Требуются принадлежности, которые заказываются отдельно.

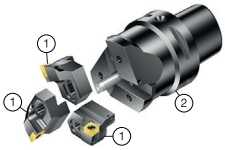
Адаптеры для CoroBore XL

Заказываются отдельно. Более подробная информация представлена в Основном каталоге. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Сборки CoroBore – Комплектующие, поставляемые при заказе корпуса

Необходимые ключи входят в комплект при заказе корпуса

CoroBore 820

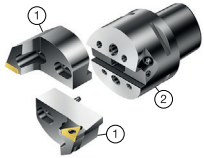


Ø 35–167 мм (1.378–6.57")

1. Ползун-резцовая вставка (3 шт.)
2. Корпус (1 шт.)

В случае, когда устройства предварительной регулировки инструмента нет в наличии, для настройки инструмента CoroBore 820 на диаметр необходимо измерить расстояние от установочного штифта до режущей кромки пластины и вычесть половину диаметра штифта. Умножив полученное значение на два, вы вычислите диаметр растачивания.

DuoBore 821



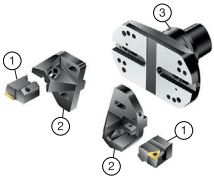
Ø 25–150 мм (0.984–5.906")

1. Ползун-резцовая вставка (2 шт.)
2. Корпус (1 шт.)

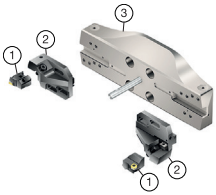
DuoBore 821D

Ø 25–150 мм (0.984–5.906")

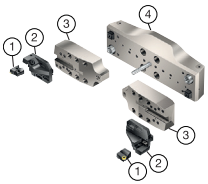
1. Ползун-резцовая вставка (2 шт.)
2. Антивибрационный корпус (1 шт.)



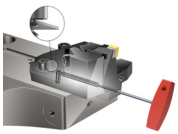
Ø 148–300 мм (5.827–11.811")
1. Резцовая вставка (2 шт.)
2. Ползун (2 шт.)
3. Корпус / антивибрационный корпус (1 шт.)

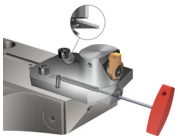


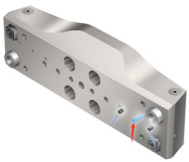
Ø 298–540 мм (11.732–21.259")
1. Резцовая вставка (2 шт.)
2. Ползун (2 шт.)
3. Корпус без адаптера (1 шт.)



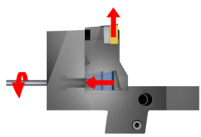
Ø 538–1260 мм (21.181–49.606")
1. Резцовая вставка (2 шт.)
2. Ползун (2 шт.)
3. Удлинитель корпуса (2 шт.)
4. Корпус без адаптера (1 шт.)

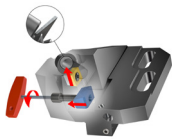




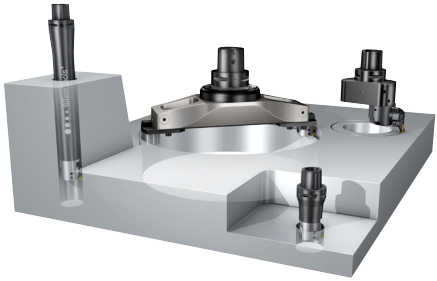


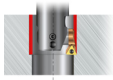
- Применяйте одинаковый корпус/ удлинитель корпуса для черновой и чистовой обработки (для чистовой обработки необходим противовес)
- Для быстрой замены ползунов и сохранения настроенного диаметра применяется упорная пластина* (*заказывается отдельно)
- Для радиальной регулировки ползунов слегка затяните винты и настройте диаметр с помощью ключа
- Для внутреннего подвода СОЖ к режущей кромке настройте винты для СОЖ на требуемую позицию
- Положение резцовых вставок может регулироваться в осевом направлении для ступенчатого растачивания



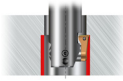


Чистовая обработка

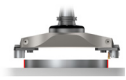




Обычное растачивание



Обратное растачивание*



Наружная обработка

* Требуются принадлежности, которые заказываются отдельно.

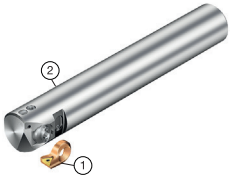
Адаптеры для CoroBore XL

Заказываются отдельно. Более подробная информация представлена в Основном каталоге. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Сборки CoroBore – Комплектующие, поставляемые при заказе корпуса

Необходимые ключи входят в комплект при заказе корпуса

CoroBore 825 с цилиндрическим хвостовиком



Ø 19–36 мм (0.748–1.42")

1. Резцовая вставка (1 шт.)
2. Инструмент для чистового растачивания с цилиндрическим хвостовиком (1 шт.)

CoroBore 825 с хвостовиком Coromant Capto

Ø 19–167 мм (0.748–6.57")

1. Резцовая вставка (1 шт.)
2. Корпус (1 шт.)

CoroBore 826 HP

Ø 36–91 мм (1.418–3.583")

Ø 92–154 мм (3.622–6.063")

Ø 36–91 мм (1.418–3.583")

1. Резцовая вставка (1 шт.)
2. Корпус (1 шт.)

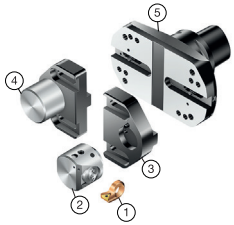
Ø 92–154 мм (3.622–6.063")

1. Резцовая вставка (1 шт.)
2. Чистовая расточная головка (1 шт.)
3. Корпус (1 шт.)

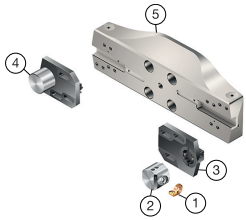
CoroBore 825D с хвостовиком Coromant Capto, антивибрационный

Ø 23–167 мм (0.906–6.57")
1. Резцовая вставка (1 шт.)
2. Антивибрационный адаптер (1 шт.)

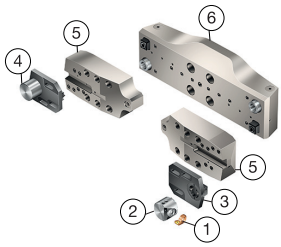
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 мм (5.709–12.402")
826: Ø 148–300 мм (5.709–11.811")
1. Резцовая вставка (1 шт.)
2. Чистовая расточная головка 825/826 (1 шт.)
3. Ползун (1 шт.)
4. Противовес (1 шт.)
5. Корпус (1 шт.)



825: Ø 298–555 мм (11.732–21.850")
826: Ø 298–540 мм (11.732–21.259")
1. Резцовая вставка (1 шт.)
2. Чистовая расточная головка 825/826 (1 шт.)
3. Ползун (1 шт.)
4. Противовес (1 шт.)
5. Корпус без адаптера (1 шт.)



825: Ø 538–1275 мм (21.181–50.196")
826: Ø 538–1260 мм (21.181–49.606")
1. Резцовая вставка (1 шт.)
2. Чистовая расточная головка 825/826 (1 шт.)
3. Ползун (1 шт.)
4. Противовес (1 шт.)
5. Удлинитель корпуса (2 шт.)
6. Корпус без адаптера (1 шт.)

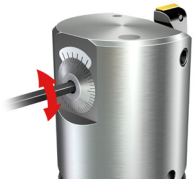
Более подробная информация о CoroBore XL на стр. 130.

Настройка диаметра

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Закрепите резцовую вставку и режущую пластину с рекомендуемым моментом затяжки, значения которого приведены на стр. 146

2. Ослабьте стопорный винт перед регулировкой диаметра



3. Настройте расточную систему на требуемый размер и проверьте заданное значение. Не превышайте допустимых пределов регулировки. Настройка 825 и 826 на стр.134

4. Убедитесь, что стопорный винт расположен так, как показано на рисунке

5. Затяните стопорный винт с рекомендуемым моментом затяжки, значения которого приведены на стр. 145–146

6. Для смазки инструмента используйте отверстие с подпружиненным шариком, см. стр. 144

Регулировка диаметра

CoroBore 825/825D/825 XL/825 SL

Синяя линия = исходное положение перед регулировкой

Начальная позиция **Позиция после регулировка**

Вращайте лимб по часовой стрелке, пока риска лимба (красная линия) не совпадет с риской нониуса (зеленая линия). Это соответствует увеличению диаметра на 0,002 мм (0,00008").
Синяя линия = исходное положение перед регулировкой, в начальный момент она совпадает с первой риской нониуса.

CoroBore HP 826, CoroBore 826 XL

Синяя линия = исходное положение перед регулировкой

Начальная позиция **Позиция после регулировки**

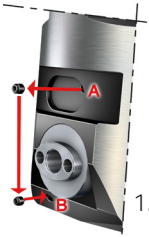
Каждый щелчок соответствует изменению диаметра на 0,002 мм (0,00008”).
Поворот лимба на 360° соответствует изменению диаметра на 0,1 мм (0,00394").

Диапазон регулировки диаметра:
Резцовая вставка CB826B (36–55 мм (1.417–3.583")):
ном. диаметр +/- 0.55 мм (0.022")
Резцовая вставка CB826C (56–91 мм (3.662–6.063")):
ном. диаметр +/- 0.65 мм (0.026")
91.35-112.65 мм - 826-112TC11-C6HP
112.35-133.65 мм - 826-133TC11-C6HP
133.35-154.65 мм - 826-154TC11-C6HP

Обратное растачивание

CoroBore 825/825D/825 XL

(не применимо для CoroBore 826 и 825 SL)



1.

2.

1. Извлеките установочный винт из верхнего отверстия для СОЖ (A) и установите его в нижнее отверстие для СОЖ (B)
2. Закрепите детали X + Y + Z с рекомендуемым крутящим моментом

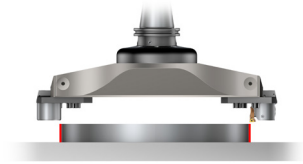
Обратное растачивание

При обратном растачивании с использованием увеличительной проставки изменится диапазон диаметров: Ø 19–1275 мм (0,748–50,20") = обратное растачивание с Ø 25–1284,6 мм (0,984–50,57"). Также при обратном растачивании необходимо поменять направление вращения шпинделя (M04 – против часовой стрелки).

Наружная обработка

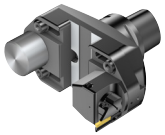
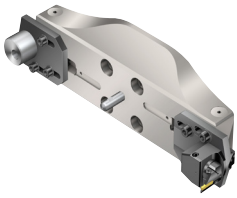
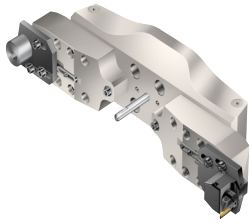
CoroBore 825 XL, CoroBore 826 XL

При наружной обработке диапазон диаметров изменится:
CB825XL - Ø23-1150 мм (0.906-45.275")
CB826XL - Ø38-1150 мм (1.496-45.275")



Обработка торцевых канавок

CoroBore 825 SL

Тип резцовой головки	Тип режущей пластины	Геометрия пластины первого выбора	Ø, мм (дюйм)
SL32 Тип A Левое исполнение 570- 32R/ L123xxxBxxxA LF=18	Пластины системы CoroCut 1–2	-CM с радиусом при вершине <0,2 -TF с радиусом при вершине >0,2 Рекомендуемая подача: 0,15 мм/об (0,0059 дюйма/об.) Выбирайте – GF для обеспечения более жестких допусков. Рекомендуемая подача: 0,10 мм/об (0,0039 дюйма/об.)	47–150 (1.85–5.90)
			148–1275 (5.82–50.19)

Информацию о резцовых головках и режущих пластинах см. в Основном каталоге.

Адаптеры для CoroBore XL, диаметр > 148 мм (5.827")

Заказываются отдельно. Более подробная информация представлена в Основном каталоге. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, диапазон диаметров 47–150 мм (1.850-5.905")
Регулировка диаметра: см. стр. 137

CoroBore 825 SL, диапазон диаметров 148–1275 мм (5.827-50.196")
Регулировка диаметра: см. стр. 133–134

Регулировка диаметра: диаметр 47–150 мм (1.850-5.905")

CoroBore 825 SL

Пример: Настроить инструмент на диаметр 70 мм (2,76”)

1. Определите позицию в зависимости от выбранного диаметра, 70 мм (2,76”) = позиция 2
   Открутите стопорный винт противовеса.

2. Установите внутренний противовес с соответствующим номером в выбранной позиции (позиция 2)

3. Закрепите винт противовеса с рекомендуемым моментом затяжки: 8 Нм (6 фут-фунт)

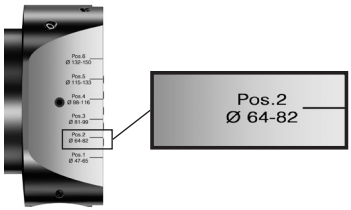
4. Откройте канал для подачи СОЖ с номером, соответствующим позиции диаметра. (Инструмент поставляется с пятью заглушенными каналами)

5. Установите расточную головку на адаптер в соответствующей позиции (позиция 2), и закрепите винт с рекомендуемым моментом затяжки: 16 Нм (12 фут-фунт)

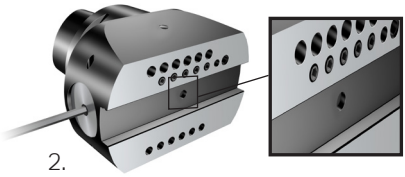
6. Выберите резцовую головку (тип A, левого исполнения), соответствующую заданному диапазону диаметров, см. Основной каталог

7. Отрегулируйте чистовую расточную головку для обработки торцевых канавок, используя тот же метод, что для чистовой расточной головки CoroBore 825, см. стр. 133–134

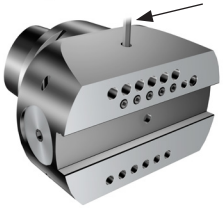
1.



2.



3.



4.

5.

SpiroGrooving™ с системой CoroBore® XL

Решение для обработки канавок под уплотнительные кольца API

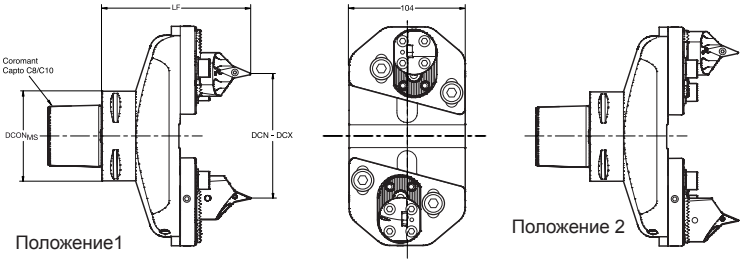
Область применения

- Все 23-град. канавки, R-RX и BX
- Не используется для 45-град. фаски с внешней стороны на канавках BX.
- Диапазон диаметров 50–294 мм

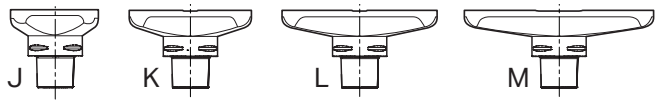
Как заказать

- Закажите инструмент (один код – все комплектующие), подходящий к диапазону обрабатываемых диаметров.
- Инструмент SpiroGrooving доступен с соединением C8. Инструменты диаметром до 239,6 мм доступны с соединением C6 и C10. Все комплектующие приобретаются отдельно. Обратитесь к региональному представителю в вашем регионе.
- Требуется ПО SpiroGrooving™. Просто заполните поля — введите диаметр, параметры резания и пр. и нажмите кнопку «Экспорт G-кода». Для глубины и диаметра рекомендуется запрограммировать «средние допустимые отклонения». Перенесите сгенерированный код на стойку станка с ЧПУ.
  За дополнительной информацией обращайтесь в региональное представительство Sandvik Coromant, а также посетите сайт www.sandvik.coromant.com/spirogrooving

Обзор предлагаемых адаптеров и диаметров

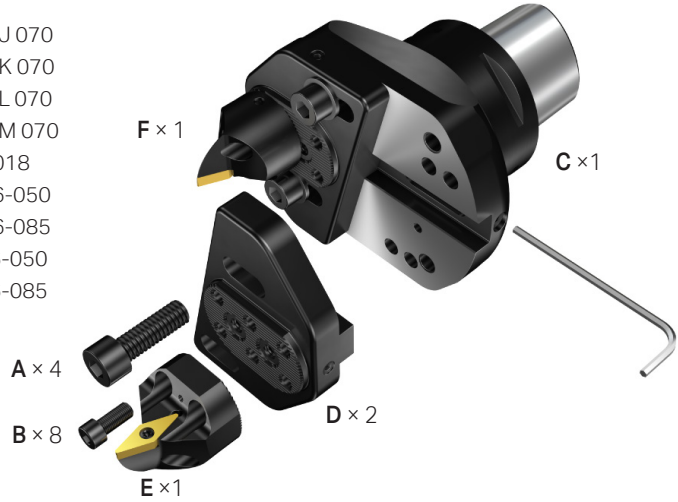


					Положение 1		Положение 2	
	Адаптер	Размер	DCONMS	LF	DCN	DCX	DCN	DCX
Элемент 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



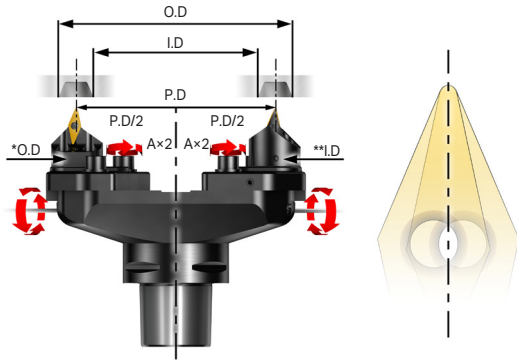
Как выполняется настройка

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Шаг 1

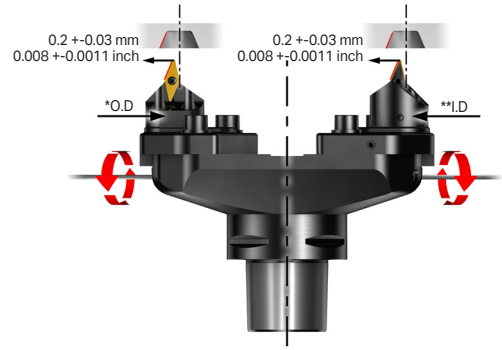
Открутите четыре винта (A). Настройте инструмент на средний диаметр канавки.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

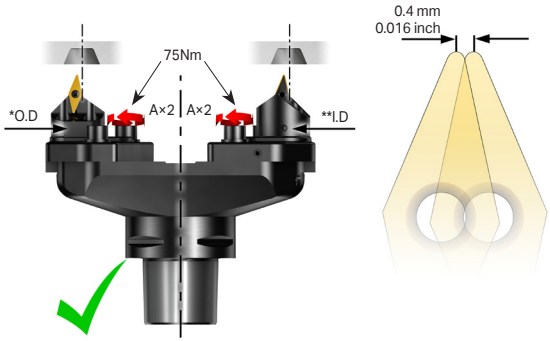
Шаг 2

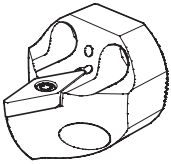
Установите резцовую головку SL со смещением 0.2 мм (0.008") от центра. Благодаря этому наружная режущая пластина не соприкасается с внутренней стенкой канавки, а внутренняя режущая пластина не соприкасается с внешней стенкой канавки.



Шаг 3

Затяните ползуны четырьмя винтами (A) и убедитесь, что режущие пластины установлены правильно.





Для ручной настройки:

Используйте базовую плоскость на головке. Размер составляет 19 мм (0.748”) до центра радиуса режущей пластины.

Как использовать

- Смещение должно составлять 0.2 мм (0.008") на головку, чтобы наружная режущая пластина не соприкасалась с внутренней стенкой канавки, а внутренняя режущая пластина не соприкасалась с внешней стенкой канавки. При этом размер канавки будет корректным. Генератор программы будет автоматически делать необходимую коррекцию.

Рекомендуемая максимальная глубина канавки

- Не глубже, чем на длину режущей кромки пластины
- Канавки с покрытием могут обрабатываться с большей глубиной, чем длина режущей кромки пластины

Обрабатываемый материал

- Сталь, нержавеющие стали и жаропрочные сплавы
- Сплав Inconel 625 очень сложен в обработке

Ограничения — типы станков

- При обработке канавок в инконеле или труднообрабатываемой нержавеющей стали необходимо сильно снижать скорость резания. В этом случае ограничением на станке может быть крутящий момент.
- Если качество поверхности недостаточно хорошее, причиной может быть настройка параметров на станке. Используйте функцию предварительного просмотра или её аналог.

Рекомендации по начальным значениям

- Сталь = PF - GC4325 - v_c 250 – 350, max толщина стружки: 0.15 – 0.18 - подача, последний оборот 40 – 50 мм/мин – шаг на оборот 2.0 – 2.5 мм в зависимости от материала
- Нержавеющая сталь = MM - GC2025, GC1115 - v_c 100 – 150 - max толщина стружки: 0.12 – 0.16 - подача, последний оборот 30 – 40 мм/мин – шаг на оборот 0.5-1.5 мм в зависимости от материала
- CRA (стойкий к коррозии материал) = XM, XF GC15 (инконель 625), альт. MM,MF GC1105/GC1115 (инконель 718) v_c 30 – 50 - max толщина стружки: 0.10 – 0.12. - Шаг на оборот 0.4 – 1.0 мм в зависимости от материала. Используйте ту же подачу (мм/мин), что и при черновой обработке
- Для чистовой обработки требуется изменение подачи, так как на последнем обороте выполняется окончательная обработка Общие рекомендации:
- Небольшой диаметр канавок: для чистовой обработки используйте более высокие подачи
- Большой диаметр канавок: для чистовой обработки используйте более низкие подачи

Точная настройка

- Иногда из-за сил резания на внутренней задней поверхности отклонение оказывается больше, а ширина канавки — чуть меньше ожидаемой.
  - Обработайте канавку и остановитесь в 1 мм до достижения полной глубины. Особенно полезно при резании труднообрабатываемых материалов с выраженной тенденцией к отжатию инструмента.
  - Проверьте диаметр канавки, измерив внешнюю и внутреннюю боковые поверхности и вычислите разность между фактическим и заданным размерами.
  - Отрегулируйте одну из головок, чтобы уравнять разность. Какую из головок регулировать, зависит от величины этой разности.
  - Используйте компенсацию на станке для коррекции ширины канавки и снова обработайте канавку.

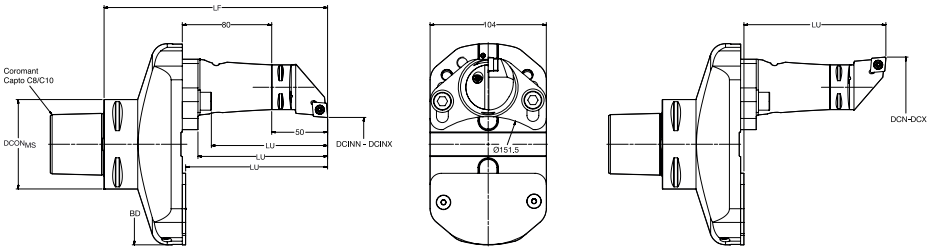
Резюме:

- Некорректный диаметр канавки: Отрегулируйте положение головок для обработки внутреннего и внешнего диаметра. В качестве базы используйте теоретическую среднюю линию канавки.
- Некорректная ширина: Отрегулируйте коррекцию на износ на станке и/или глубину резания

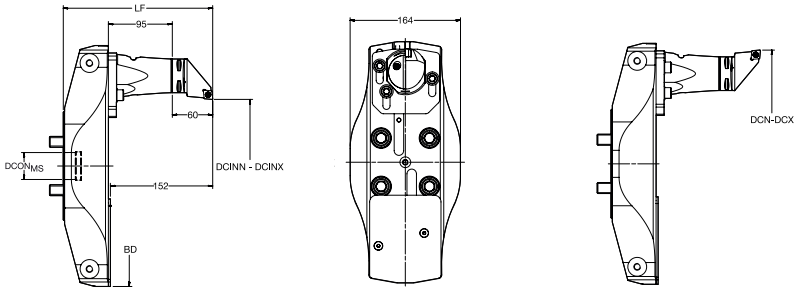
CoroBore® XL

Интерполяционное точение

Интерполяционное точение — это универсальный способ точения, разработанный для обрабатывающих центров последнего поколения и многоцелевых станков с осью B.

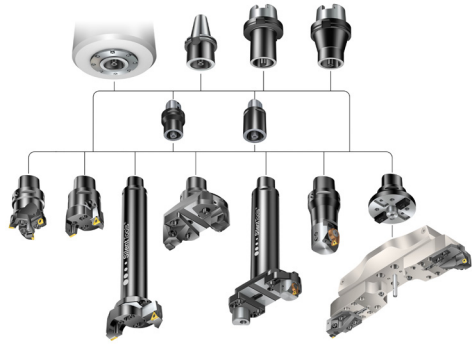


Диаметр резания для стандартных резцовых головок C4 с WF = 27 мм (1.063") и LF = 50 мм (1.968")											
Элемент 3	Адаптер	Размер	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Диаметр резания для стандартных резцовых головок C5 с WF = 35 мм (1.378") и LF = 60 мм (2.362")											
Элемент 3	Адаптер	Размер	DCONMS	LF	BD	DCINN	DCINX	LU (DCINN	DCN	DCX	LU (DCN)
	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Растачивание – модульная инструментальная оснастка



Жесткость на изгиб и кручение являются основными факторами при выборе системы крепления инструмента для расточных операций. Чтобы обеспечить высокую стабильность обработки и качество получаемого отверстия, рекомендуется применять модульное решение – адаптеры/держатели с соединением Coromant Capto в комбинации с расточным инструментом.

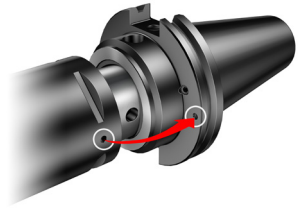
Модульная система крепления Coromant Capto включает адаптеры, удлинители и держатели, что обеспечивает высокую гибкость инструментальной оснастки и позволяет:
– Сократить номенклатуру применяемого инструмента и затраты на инструмент
– Применять удлинители и переходники на меньший размер соединения для получения оптимального вылета инструмента
– Повысить режимы резания за счет высокой точности и стабильности системы

Рекомендации

- Для обеспечения высокой жесткости системы выбирайте инструмент с максимально возможным размером соединения и минимально возможным вылетом
- Применение инструмента с демпфером позволит повысить динамическую жесткость системы
- При работе с большим вылетом (>4 x D) применяйте специализированный антивибрационный инструмент (Silent tools)
- Если требуется переходник на меньший размер соединения, по возможности применяйте адаптер конического исполнения
- Сервис Tailor Made позволяет изготовить переходники и удлинители Coromant Capto оптимизированной конструкции с повышенной жесткостью
- При обработке инструментом с большим вылетом рекомендуется применять соединения, обеспечивающие контакт по торцу, например, Coromant Capto, HSK, Big-Plus
- Во избежание пакетирования стружки необходимо обеспечить ее эффективную эвакуацию из зоны резания

Сборка и обслуживание инструмента

- Убедитесь, что отметки совмещены
- Применяйте специальное сборочное приспособление
- Для закрепления винтов пластин и элементов сборки используйте динамометрический ключ и следуйте рекомендациям по моменту затяжки
- Проверьте состояние шпинделя станка: биение, износ, усилие закрепления
- Заменяйте изношенные винты и шайбы



Антивибрационный инструмент

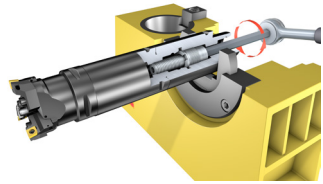
- Никогда не закрепляйте антивибрационный инструмент непосредственно за корпус

Очистка

- Очищайте все комплектующие перед сборкой инструмента
- Регулярно проверяйте пластины и посадочные поверхности на отсутствие загрязнений и повреждений
- Смазывайте все элементы сборки по крайней мере раз в год
- Очищайте и смазывайте маслом чистовые расточные головки (825, 826) и расточные головки для обработки торцевых канавок (825 SL):

  Рекомендуется: раз в месяц

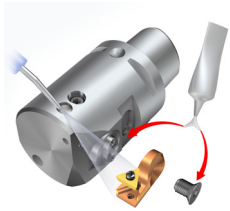
  Минимум: раз в год



Тип масла: бескислотное машинное масло

- Mobil Vectra Oil Nr. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94

Для смазывания винтов применяйте смазку Molykote



Размер соединения Coromant Capto	Нм	фут-фунт
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Диаметр мм	дюйм	ISO	ANSI	Ползун-резцовая вставка Нм	фут-фунт
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 и DuoBore 821D

Диаметр мм	дюйм	ISO	ANSI	Ползун-резцовая вставка Нм	фут-фунт
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL
Ø 148–300 мм (5.512–11.811")

	Нм	фут-фунт
Ползун	60	44
Резцовая вставка	60	44
Винт пластины CoroTurn RC	6.4	4.7
Винт пластины CoroTurn 107 и CoroDrill 880	3.0	2.2

CoroBore 820 XL
Ø 298–1260 мм (11.732–49.606")

	Нм	фут-фунт
Корпус без адаптера	200	148
Удлинитель корпуса	100	74
Ползун	60	44
Резцовая вставка	60	44
Винт пластины CoroTurn 107	3.0	2.2
Крепление пластины CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL и 825D XL/826D XL
825: Ø 148–315 мм (5.866–12.402")
826: Ø 148–300 мм (5.866–11.810")

	Нм	фут-фунт
Ползун	60	44
Противовес	60	44
Чистовая расточная головка	16	12
Стопорный винт (чистовой расточной головки)	6.0	4.4
Винт резцовой вставки	6.0	4.4
Винт пластины TC11/TP11 (TP22/TC22)	0.9	0.7
Винт пластины CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL
825: Ø 298–1275 мм (11.732–50.197")
826: Ø 298–1260 мм (11.732–49.606")

	Нм	фут-фунт
Корпус без адаптера	200	148
Удлинитель корпуса	100	74
Ползун	60	44
Противовес	60	44
Чистовая расточная головка	16	12
Стопорный винт (чистовой расточной головки)	6	4.4
Винт резцовой вставки	6	4.4
Винт пластины TC11/TP11 (TP22/TC22)	0.9	0.7
Винт пластины CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Винт резцовой вставки

Ø мм (дюйм)	Нм	фут-фунт
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Стопорный винт

Ø мм (дюйм)	Нм	фут-фунт
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Винт пластины

ISO	ANSI	Нм	фут-фунт
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 мм (1.850–5.905")

	Нм	фут-фунт
Расточная головка для обработки торцевых канавок (S20)	16	12
Стопорный винт	8	6
Противовес	8	6
Резцовая головка	9	6.6

Ø 150–1275 мм (5.905–50.197")

	Нм	фут-фунт
Расточная головка для обработки торцевых канавок (A34)	16	12
Стопорный винт	8	6
Резцовая головка	9	6.6

CoroBore 826 HP

Винт резцовой вставки

Ø мм (дюйм)	Нм	фут-фунт
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

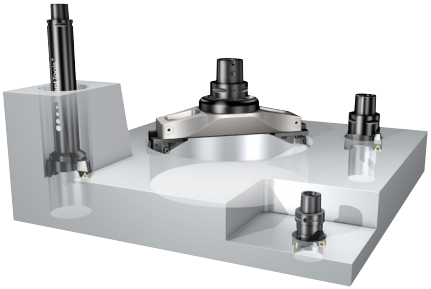
Стопорный винт

Ø мм (дюйм)	Нм	фут-фунт
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Винт пластины

ISO	ANSI	Нм	фут-фунт
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

Desbaste



Mandrinado productivo

Mandrinado escalonado*

Mandrinado de un solo filo*

* Los accesorios necesarios deben pedirse por separado.

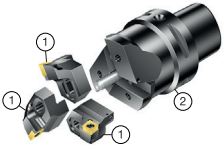
Portaherramientas para CoroBore XL

Deben comprarse por separado. Para obtener más información, consulte el catálogo principal. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Conjuntos de montaje de CoroBore – piezas incluidas

Las llaves necesarias están incluidas en cada conjunto de montaje

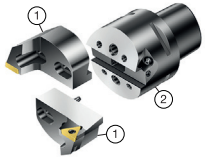
CoroBore 820



Ø 35–167 mm (1.378–6.57 pulg.)
1. Corredera (3 pzs)
2. Adaptador (1 pieza)

Si no hay una máquina de pre-reglaje disponible, para ajustar el diámetro de CoroBore 820, mida la distancia del pasador a la plaquita y réstele la mitad del diámetro del pasador. Multiplique esta cifra por dos para obtener el diámetro de mandrinado efectivo.

DuoBore 821

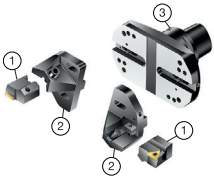


Ø 25–150 mm (0.984–5.906 pulg.)
1. Corredera (2 pzs)
2. Adaptador (1 pieza)

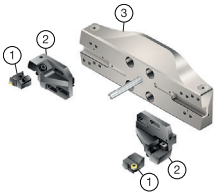
DuoBore 821D

Ø 25–150 mm (0.984–5.906 pulg.)
1. Corredera (2 pzs)
2. Adaptador antivibratorio (1 pieza)

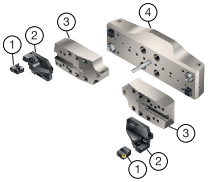
CoroBore 820 XL



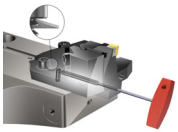
Ø 148–300 mm (5.827–11.811 pulg.)
1. Cartucho (2 pzs)
2. Corredera (2 pzs)
3. Adaptador/Adaptador antivibratorio (1 pieza)

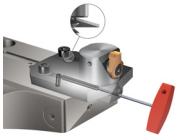


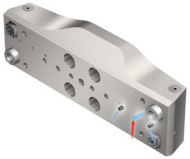
Ø 298–540 mm (11.732–21.259 pulg.)
1. Cartucho (2 pzs)
2. Corredera (2 pzs)
3. Puente (1 pieza)



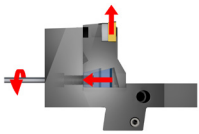
Ø 538–1260 mm (21.181–49.606 pulg.)
1. Cartucho (2 pzs)
2. Corredera (2 pzs)
3. Extensión del puente (2 pzs)
4. Puente (1 pieza)

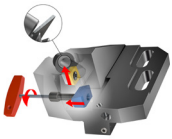




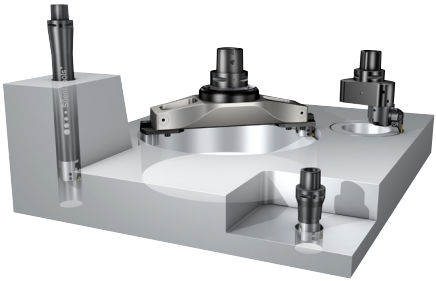


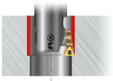
- Utilice el mismo puente/extensión del puente para desbaste y para acabado (para las operaciones de acabado es necesario un contrapeso)
- Cambio rápido de aplicación, manteniendo el mismo diámetro a través del conjunto de placas tope* (*debe pedirse por separado)
- Para un ajuste radial sencillo de las correderas, apriete ligeramente los tornillos y ajuste el diámetro con la llave
- Para el suministro interior de refrigerante al filo de corte, ajuste los tornillos de refrigerante a la posición correspondiente
- Los cartuchos se pueden ajustar en dirección axial para las operaciones de mandrinado escalonado



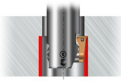


Acabado





Mandrinado convencional



Mandrinado a tracción*

Mandrinado exterior

*Los accesorios necesarios deben pedirse por separado

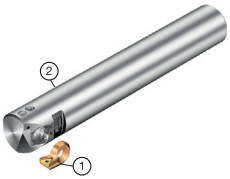
Portaherramientas para CoroBore XL

Deben comprarse por separado. Para obtener más información, consulte el catálogo principal. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

Conjuntos de montaje de CoroBore – piezas incluidas

Las llaves necesarias están incluidas en cada conjunto de montaje

CoroBore 825, mango cilíndrico



Ø 19–36 mm (0.748–1.42 pulg.)
1. Cartucho (1 pieza)
2. Herramienta de mandrinado de precisión con mango cilíndrico (1 pieza)

CoroBore 825, adaptador integrado Coromant Capto

Ø 19–167 mm (0.748–6.57 pulg.)
1. Cartucho (1 pieza)
2. Adaptador (1 pieza)

CoroBore 826 HP

Ø 36–91 mm (1.418–3.583 pulg.)

Ø 92–154 mm (3.622–6.063 pulg.)

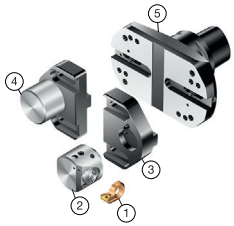
Ø 36–91 mm (1.418–3.583 pulg.)
1. Cartucho (1 pieza)
2. Adaptador (1 pieza)

Ø 92–154 mm (3.622–6.063 pulg.)
1. Cartucho (1 pieza)
2. Cabeza para mandrinado de precisión (1 pieza)
3. Adaptador (1 pieza)

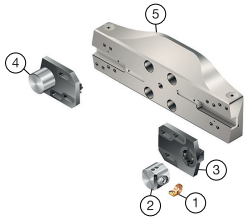
CoroBore 825D, Coromant Capto antivibratorio

Ø 23–167 mm (0.906–6.57 pulg.)
1. Cartucho (1 pieza)
2. Adaptador antivibratorio (1 pieza)

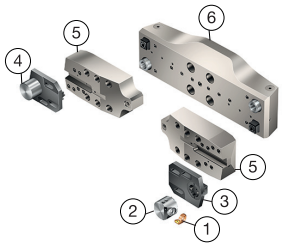
CoroBore 825 XL, CoroBore 826 XL



825: Ø 148–315 mm (5.709–12.402 pulg.)
826: Ø 148–300 mm (5.709–11.811 pulg.)
1. Cartucho (1 pieza)
2. Cabeza de mandrinado de precisión 825/826 (1 pieza)
3. Corredera (1 pieza)
4. Contrapeso (1 pieza)
5. Adaptador (1 pieza)



825: Ø 298–555 mm (11.732–21.850 pulg.)
826: Ø 298–540 mm (11.732–21.259 pulg.)
1. Cartucho (1 pieza)
2. Cabeza de mandrinado de precisión 825/826 (1 pieza)
3. Corredera (1 pieza)
4. Contrapeso (1 pieza)
5. Puente (1 pieza)



825: Ø 538–1275 mm (21.181–50.196 pulg.)
826: Ø 538–1260 mm (21.181–49.606 pulg.)
1. Cartucho (1 pieza)
2. Cabeza de mandrinado de precisión 825/826 (1 pieza)
3. Corredera (1 pieza)
4. Contrapeso (1 pieza)
5. Extensión del puente (2 pzs)
6. Puente (1 pieza)

Para obtener más información sobre CoroBore XL, consulte la página 148.

Ajuste del diámetro

CoroBore 825/825D/825 XL/825 SL, CoroBore 826 HP/826 XL

1. Apriete la plaquita y el cartucho al par correcto, página 164

2. Desbloquee el tornillo de bloqueo antes de ajustar el diámetro

3. Ajuste siempre de menor a mayor para evitar holguras. ¡No sobrepase los límites máximos!
   Para el reglaje de 825 y 826, página 152

4. Asegúrese de que el tornillo de bloqueo está posicionado como en la imagen

5. Apriete el tornillo de bloqueo al par correcto, páginas 163 y 164

6. Para lubricar la herramienta, presione el centro y rellénelo de aceite, página 162

Ajuste de la escala

CoroBore 825/825D/825 XL/825 SL

Línea azul = referencia

Posición inicial

Posición ajustada

Gire la escala del disco en el sentido de las agujas del reloj hasta la que linea roja esté alineada con la línea verde en el nonius. El diámetro se incrementará 0.002mm (0.00008 pulgadas).
Línea azul= referencia desde la que se ha alineado con el nonius en la posición inicial.

CoroBore HP 826, CoroBore 826 XL

Línea azul = referencia

Posición inicial

Posición ajustada

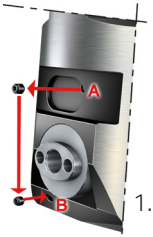
Cada click, ajusta el diámetro 0.002 mm (0.00008 pulgadas)
Un giro de 360º, cambia el diámetro 0.1 mm(0. 00394 pulgadas)

Rango de ajuste:
Cartucho CB826B (36-55 mm (1.417-3.583 pulgadas)):
Diámetro nominal +/- 0.55 mm (0.022 pulgadas)
Cartucho CB826C (56–91 mm (3.662–6.063 pulgadas)):
Diámetro Nominal +/- 0.65 mm (0.026 pulgadas)
91.35-112.65 mm - 826-112TC11-C6HP
112.35-133.65 mm - 826-133TC11-C6HP
133.35-154.65 mm - 826-154TC11-C6HP

Mandrinado a tracción

CoroBore 825/825D/825 XL

(no válido para CoroBore 826 y 825 SL)



1.

2.

1. Retire el tornillo sin cabeza del conducto de refrigerante A y atorníllelo en el conducto de refrigerante B
2. Apriete X + Y + Z al par correcto

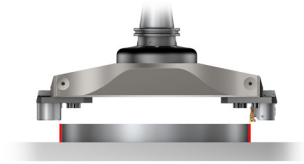
Mandrinado a tracción

La gama de diámetro para las operaciones de mandrinado a tracción con corredera de extensión será diferente, Ø 19–1275 mm (0.748–50.20 pulg.) = mandrinado a tracción Ø 25–1284.6 mm (0.984–50.57 pulg.). Para el mandrinado a tracción, cambie la dirección del husillo a la dirección contraria a las agujas del reloj (M04).

Mandrinado exterior

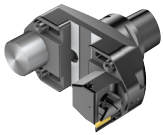
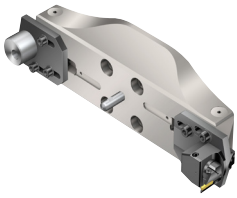
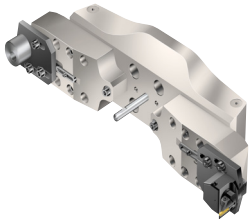
CoroBore 825 XL, CoroBore 826 XL

El rango de diámetro cambiará para el mandrinado exterior:
CB825XL - Ø23-1150 mm (0.906-45.275 inch)
CB826XL - Ø38-1150 mm (1.496-45.275 inch)



Ranurado frontal axial

CoroBore 825 SL

Tipo de lama	Tipo de plaquita	Geometría de primera elección	Ø, mm (pulg.)
SL32 Lama convexa A izquierda 570- 32R/ L123xxxBxxxA LF = 18	Sistema de plaquitas CoroCut de 1 y 2 filos	-CM radio de punta <0,2 -TF radio de punta >0,2 Avance recomendado: 0.15 mm/rev (0.0059 pulg./rev) Si requiere una tolerancia más estrecha, elija -GF. Avance recomendado: 0.10 mm/rev (0.0039 pulg./rev)	47–150 (1.85–5.90) 148–1275 (5.82–50.19)

Consulte el catálogo principal para ver recomendaciones sobre lamas y plaquitas

Portaherramientas para diámetros de CoroBore XL > 148 mm (5.827 pulg.)

Deben comprarse por separado. Para obtener más información, consulte el catálogo principal. C8, C10, HSK-A 100, HSK-A 125, CAT-V 50, ISO 7388/1, MAS BT 50

CoroBore 825 SL, 47–150 mm (1.850-5.905 pulg.) de diámetro
Ajuste del diámetro: página 155

CoroBore 825 SL, 148–1275 mm (5.827-50.196 pulg.) de diámetro
Ajuste del diámetro: páginas 151 y 152

Ajuste del diámetro: Diám. 47–150 mm (1.850-5.905 pulg.)

CoroBore 825 SL

Ejemplo: reglaje de la herramienta a 70 mm (2.76 pulg.)

1. Defina la posición en función del diámetro seleccionado, 70 mm (2.76 pulg.) = posición Desbloquee el tornillo de bloqueo del contrapeso.

2. Fije el contrapeso interior con el número correspondiente a la posición del diámetro, posición 2

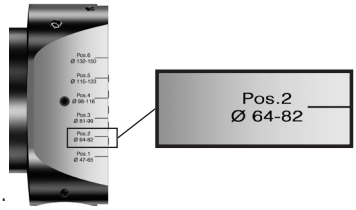
3. Apriete el tornillo de bloqueo del contrapeso al par correspondiente: 8 Nm (6 pies/lbs)

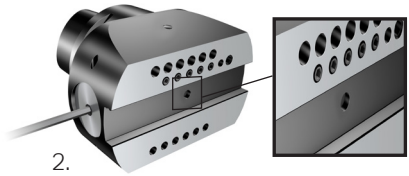
4. Abra el conducto de refrigerante correcto con el número correspondiente a la posición del diámetro. (Cinco de ellos están cerrados cuando se entrega la herramienta)

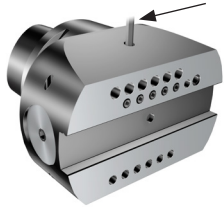
5. Monte la cabeza en el adaptador, en la posición correcta (Posición 2), y apriete el tornillo al par indicado: 16 Nm (12 pies/lbs)

6. Escoja la lama correcta (tipo A, a izquierda), correspondiente a la gama de diámetro. Consulte el catálogo principal

7. Realice el ajuste de precisión de la cabeza de ranurado frontal con los mismos principios que los correspondientes a la cabeza de mandrinado de precisión CoroBore 825, páginas 151 y 152

1.


2.


3.


4.


5.


SpiroGrooving™ con CoroBore® XL

Solución para Ranuras de Anillos de Sellado API

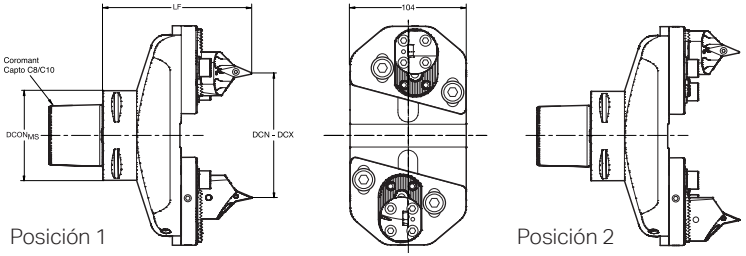
Área de aplicación

- Todas las ranuras de 23 grados, R-RX y BX
- No aplicable a chaflanes de 45º en el flanco exterior de las ranuras BX.
- Gama de diámetros 50-294 mm (2-11,5")

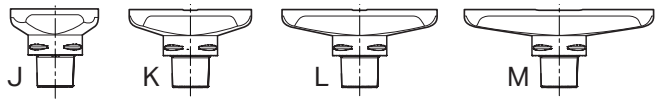
Pedidos

- Pida el kit completo (un código: todos los componentes) que se ajuste a la gama de diámetros que desea mecanizar.
- Los kits SpiroGrooving están disponibles con acoplamiento C8. Pueden utilizarse con un acoplamiento C6 y C10 de hasta 239.6 mm de diámetro. Todos los componentes deben adquirirse por separado. Por favor, póngase en contacto con su representante de ventas local.
- Es necesario disponer del software SpiroGrooving™. Simplemente, rellene los campos relativos al diámetro, datos de corte, etc. y haga clic en el botón «exportar código G». Es recomendable programar tamaños de «tolerancia intermedia» para la profundidad y el diámetro. Transfiera el código de CN generado al controlador de la máquina. Pida el programa en www.sandvik.coromant.com/spirogrooving

Información general sobre adaptadores y gamas de diámetro disponibles

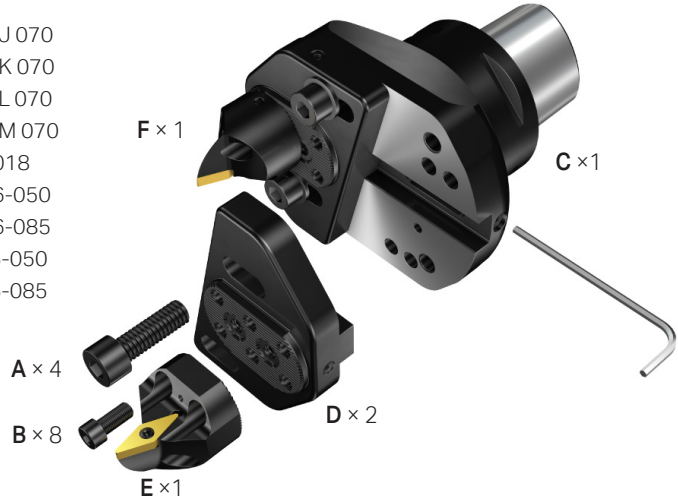


					Posición 1		Posición 2	
	Adaptador	Tamaño	DCONMS	LF	DCN	DCX	DCN	DCX
Elemento 4	C8-R822XLS17-AJ 070	J	80	133	48	100	87.6	139.6
	C10-R822XLS17-AJ 076		100	139				
	C8-R822XLS17-AK 070	K	80	133	98	150	137.6	189.6
	C10-R822XLS17-AK 076		100	139				
	C8-R822XLS17-AL 070	L	80	133	148	200	187.6	239.6
	C10-R822XLS17-AL 076		100	139				
	C8-R822XLS17-AM 070	M	80	133	198	250	237.6	289.6



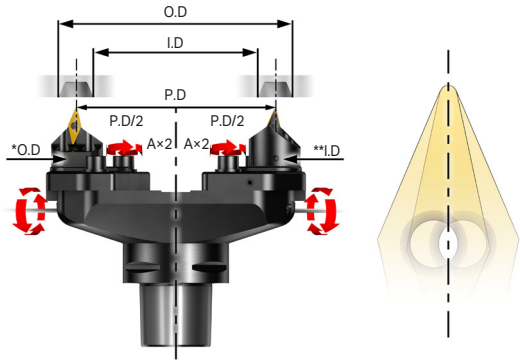
Cómo pre-reglar

A = M10
B = M6
C = C8-R822XLS17 AJ 070
C8-R822XLS17 AK 070
C8-R822XLS17 AL 070
C8-R822XLS17 AM 070
D = S17-820XL-40A-018
E = SL-SVXBR-40A-16-050
SL-SVXBR-40A-16-085
F = SL-SVXBL-40A-16-050
SL-SVXBL-40A-16-085



Paso 1

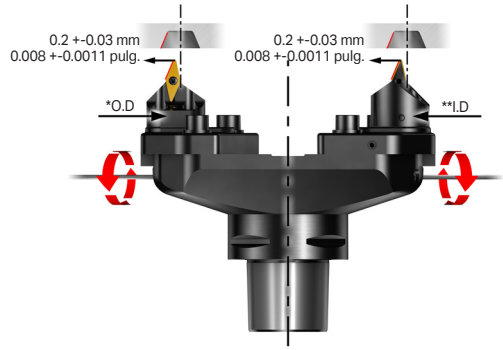
Afloje los cuatro tornillos (A). Regle la herramienta a la medida del diámetro de la ranura.



*SL-SVXBR-40A-16-050 = O.D
*SL-SVXBR-40A-16-085 = O.D
**SL-SVXBL-40A-16-050 = I.D
**SL-SVXBL-40A-16-085 = I.D

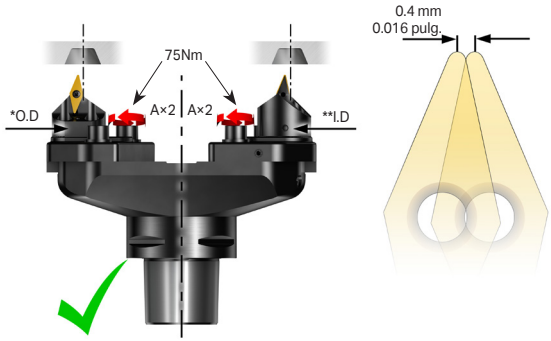
Paso 2

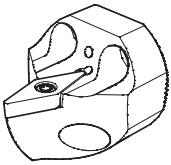
Regle la cabeza de corte SL 0.2 mm (0.008 pulg.) hacia el lateral. Esto garantiza que la plaquita exterior no toca la pared de la ranura interior y que la plaquita interior no toca la pared de la ranura exterior.



Paso 3

Ajuste las correderas con los cuatro tornillos (A) y asegúrese de que las plaquitas están bien regladas.





Para el reglaje manual:

Utilice el plano de referencia situado en la cabeza. La dimensión es de 19 mm (0.748") al centro del radio de la plaquita.

Uso

- La desviación debe ser de 0.2 mm (0.008") por cabeza para garantizar que la plaquita exterior no entra en contacto con la pared de la ranura interior y que la plaquita interior no entra en contacto con la pared de la ranura exterior. El recorrido de la máquina será el correcto. El generador del programa realizará la compensación automáticamente.

Máxima profundidad recomendada para una ranura

- La profundidad no debe ser superior al filo de la plaquita.
- En las ranuras con revestimiento previo, es posible que el corte supere la longitud del filo de la plaquita

Limitaciones - tipos de máquinas

- Acero, diferentes aceros inoxidables e inconel
- El inconel 625 es muy difícil de mecanizar

Limitaciones - tipos de máquinas

- En ranuras de inconel o aceros inoxidables complejos, la velocidad de corte debe reducirse drásticamente. El par podría por tanto ser una limitación para la máquina.
- Si el acabado superficial no es lo suficientemente bueno, puede deberse a algún parámetro de reglaje de la máquina. Use la función «look ahead» o una similar.

Recomendaciones iniciales

- Acero = PF - GC4325 - v_c 250 – 350 máx. grosor de la viruta: 0.15 – 0.18 - avance última rev. 40 – 50 mm/min – Paso/rev 2.0 – 2.5 mm según el material.
- Acero inoxidable = MM - GC2025, GC1115 - v_c 100 – 150 - máx. grosor de viruta: 0.12 – 0.16 - avance última rev. 30 – 40 mm/min – Paso/rev 0.5 – 1.5 mm según el material.
- CRA (Material Resistente a la Corrosión) = XM, XF GC15 (inco625) como alt. MM, MF GC1105/GC1115 (inco718) v_c 30 – 50 - máx. grosor de la viruta: 0.10 – 0.12. - Paso/rev 0.4 – 1.0 mm según el material. Avance última rev.: Use el mismo avance mm/min que en la operación de desbaste
- El acabado requiere un avance independiente porque el acabado de la ranura se genera en la última revolución y, por tanto, necesita un avance independiente. Generalmente:
  - Ranuras de menor diámetro: use una mayor gama de avance para el acabado
  - Ranuras de mayor diámetro: use una menor gama de avance para el acabado

Reglaje de precisión

- En ocasiones, la flexión es superior en el flanco interior debido a la acción de corte y la anchura de la ranura es un poco inferior a lo esperado.
  - Genere una ranura y deténgase p. ej. 1 mm antes de la profundidad total. Esto es especialmente útil en materiales difíciles con mayor tendencia a la flexión.
  - Verifique el diámetro de la ranura midiendo el flanco exterior e interior y calcule la diferencia entre la dimensión real y nominal.
  - Ajuste la cabeza de la que depende la diferencia para igualarla.
  - Use la compensación en la máquina para ajustar la anchura de la ranura y vuelva a generar la ranura.

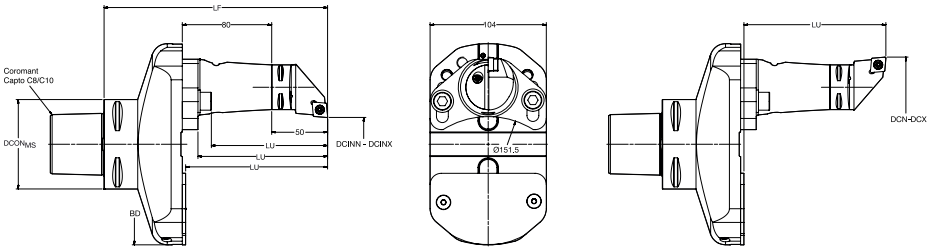
Resumen:

- Diámetro de ranura erróneo: Ajuste la posición del diámetro exterior de la cabeza y/o del diámetro interior de la cabeza de la herramienta. Use la línea central teórica como referencia.
- Anchura errónea: Ajuste la compensación del desgaste en la máquina y/o ajuste la profundidad

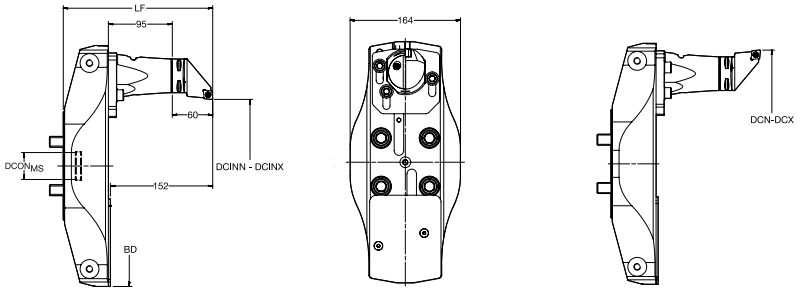
CoroBore® XL

Torneado con interpolación

El torneado con interpolación es un método de torneado flexible desarrollado para centros de mecanizado avanzados y máquinas multitarea con eje B.

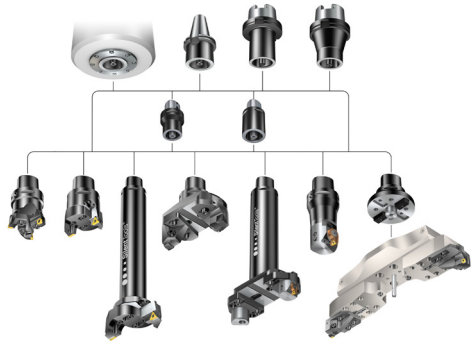


Diámetros de corte para cabezas de corte estándar C4 con WF = 27 mm (1.063 pulg.) y LF = 50 mm (1.968 pulg.)											
	Adaptador	**Tamaño**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Elemento 3	C8-R822XLS17-AJ 070	J	80	200	130	23	50	126	131	158	
	C10-R822XLS17-AJ 076		100	206							
	C8-R822XLS17-AK 070	K	80	200	180	48	100	126	156	181	126
	C10-R822XLS17-AK 076		100	206					181	208	
	C8-R822XLS17-AL 070	L	80	200	230	48	150	126	156	231	126
	C10-R822XLS17-AL 076		100	206					231	258	
	C8-R822XLS17-AM 070	M	80	200	280	98	150	126	206	281	126
						150	180	115	281	308	
						180	200	103			



Diámetros de corte para cabezas de corte estándar C5 con WF = 35 mm (1.378 pulg.) y LF = 60 mm (2.362 pulg.)											
	Adaptador	**Tamaño**	**DCONMS**	**LF**	**BD**	**DCINN**	**DCINX**	**LU (DCINN**	**DCN**	**DCX**	**LU (DCN)**
Elemento 3	A40-RXLS24-AM2 062	M	40X	217	278	118	200	131	258	279	152
									279	340	
	A40-RXLS24-AN2 067	N	40X	222	358	198	280	131	338	359	152
									359	420	
	A40-RXLS24-AO2 072	O	40X	227	438	360	360	131	418	439	152
									439	500	

Mandrinado – herramientas modulares



La resistencia a la flexión y la transmisión del par son dos factores fundamentales a la hora de elegir un portaherramientas para las operaciones de mandrinado. Para obtener una máxima estabilidad y calidad del agujero, como solución de herramientas modular, utilice un adaptador de máquina Coromant Capto en combinación con herramientas de mandrinado.

Utilice el sistema Coromant Capto como un sistema modular para combinar adaptadores, extensiones y adaptadores de máquina para conseguir una mayor flexibilidad.

– Reduzca el inventario y los costes de inversión en herramientas

– Utilice adaptadores de extensión y reducción para optimizar la longitud

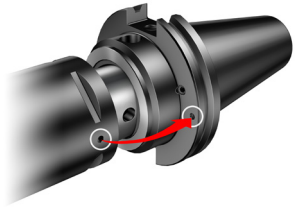
– La precisión y la estabilidad le permiten utilizar mayores datos de corte

Trucos y consejos

- Para una máxima estabilidad, elija el tamaño de acoplamiento más grande posible y el voladizo más corto posible
- Incremente la resistencia dinámica incorporando un mecanismo antivibratorio
- Para grandes voladizos (>4 x diámetro del acoplamiento), utilice herramientas especiales (Silent tools)
- En caso de requerir reductores, si es posible, utilice la versión cónica
- Los adaptadores de reducción/extensión Tailor Made de Coromant Capto están disponibles para conseguir un diseño optimizado y, por tanto, una máxima estabilidad
- Para grandes voladizos, una máquina-herramienta con adaptador de máquina de contacto de brida ofrece el máximo rendimiento, p. ej., acoplamiento Coromant Capto, HSK, Big-Plus
- Para evitar atascos de viruta, asegúrese de que las virutas se evacuan adecuadamente de la pieza

Montaje y mantenimiento de la herramienta

- Asegúrese de que las marcas están alineadas en todo momento.
- Utilice los dispositivos de montaje del conjunto
- Utilice siempre una llave dinamométrica y aplique el par recomendado en los tornillos de la plaquita y del montaje de la herramienta
- Compruebe el husillo, la excentricidad, el desgaste y la fuerza de sujeción de la máquina
- Sustituya los tornillos, las arandelas y los muelles acopados desgastados o dañados



Herramientas antivibratorias

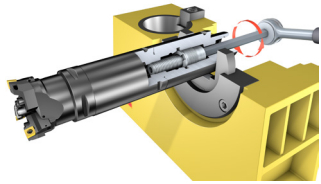
- Herramientas antivibratorias; no aplique nunca la sujeción directamente en el cuerpo del adaptador

Limpieza

- Limpie todos los elementos de montaje antes del montaje
- Compruebe, con regularidad, que las plaquitas y los alojamientos de las mismas están limpios y no están dañados
- Lubrique los elementos de montaje con aceite por lo menos una vez al año
- Limpie y lubrique con aceite las cabezas de mandrinado de precisión (825, 826) y la cabeza de ranurado frontal (825SL):

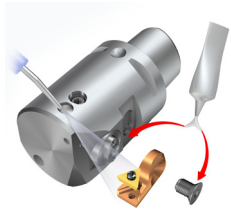
  Uso permanente: una vez al mes

  Mínimo: una vez al año



Tipo de aceite: aceite de máquina ligero sin ácido

- Aceite Mobil Vectra Núm. 2
- BP Energol HLP-D32
- Klueber Isoflex PDP 94



Utilice Molykote para los tornillos

Tamaño de Coromant Capto	Nm	pies/lbs
C3	40– 50	30– 37
C4	50– 60	37– 44
C5	90–100	67– 74
C6–C8	160–180	118–133
C10	380	283

CoroBore 820

Diámetro				Corredera	
mm	pulg.	ISO	ANSI	Nm	pies/lbs
35– 45	1.378– 1.772	CC06	CC2(1.5)	4.8	3.5
44– 56	1.732– 2.205	CC06	CC2(1.5)	9.0	6.6
55– 87	2.165– 3.425	CC09	CC3(2.5)	16.0	11.8
55– 87	2.165– 3.425	SC09	SC3(2.5)	16.0	11.8
86–107	3.386– 4.213	CC12	CC43	38.0	28.0
86–107	3.386– 4.213	SC12	SC43	38.0	28.0
106–167	4.173– 6.575	CC12	CC43	75.0	55.3
106–167	4.173– 6.575	SC12	SC43	75.0	55.3
106–167	4.173– 6.575	CN12	CN43	75.0	55.3
106–167	4.173– 6.575	SN12	SN43	75.0	55.3
166–191	6.535– 7.520	CC12	CC43	75.0	55.3
166–191	6.535– 7.520	SC12	SC43	75.0	55.3
166–191	6.535– 7.520	CN16	CN54	120.0	88.5
166–191	6.535– 7.520	SN15	SN54	120.0	88.5
189–214	7.441– 8.425	CC12	CC43	75.0	55.3
189–214	7.441– 8.425	SC12	SC43	75.0	55.3
189–214	7.441– 8.425	CN16	CN54	120.0	88.5
189–214	7.441– 8.425	SN15	SN54	120.0	88.5
212–237	8.346– 9.331	CC12	CC43	75.0	55.3
212–237	8.346– 9.331	SC12	SC43	75.0	55.3
212–237	8.346– 9.331	CN16	CN54	120.0	88.5
212–237	8.346– 9.331	SN15	SN54	120.0	88.5
235–260	9.252–10.236	CC12	CC43	75.0	55.3
235–260	9.252–10.236	SC12	SC43	75.0	55.3
235–260	9.252–10.236	CN16	CN54	120.0	88.5
235–260	9.252–10.236	SN15	SN54	120.0	88.5
258–283	10.157–11.142	CC12	CC43	75.0	55.3
258–283	10.157–11.142	SC12	SC43	75.0	55.3
258–283	10.157–11.142	CN16	CN54	120.0	88.5
258–283	10.157–11.142	SN15	SN54	120.0	88.5
281–306	11.063–12.047	CC12	CC43	75.0	55.3
281–306	11.063–12.047	SC12	SC43	75.0	55.3
281–306	11.063–12.047	CN16	CN54	120.0	88.5
281–306	11.063–12.047	SN15	SN54	120.0	88.5

DuoBore 821 y DuoBore 821D

Diámetro				Corredera	
mm	pulg.	ISO	ANSI	Nm	pies/lbs
25– 47	0.984–1.850	CC06	CC2(1.5)	4.8	3.5
25– 47	0.984–1.850	TC11	TP22	4.8	3.5
46– 56	1.811–2.205	TC16	TC3(2.5)	9.0	6.6
46– 56	1.811–2.205	SC09	SC3(2.5)	9.0	6.6
55– 70	2.165–2.756	TC16	TC3(2.5)	16.0	11.8
55– 70	2.165–2.756	SC09	SC3(2.5)	16.0	11.8
69– 84	2.717–3.307	TC16	TC3(2.5)	16.0	11.8
69– 84	2.717–3.307	SC12	SC43	16.0	11.8
69– 84	2.717–3.307	CN12	CN43	75.0	55.0
69– 84	2.717–3.307	SN12	SN43	75.0	55.0
83–101	3.268–3.976	TC16	TC3(2.5)	16.0	11.8
83–101	3.268–3.976	TC22	TC43	16.0	11.8
83–101	3.268–3.976	SC12	SC43	16.0	11.8
83–101	3.268–3.976	CN12	CN43	75.0	55.0
83–101	3.268–3.976	SN12	SN43	75.0	55.0
99–125	3.898–4.921	TC16	TC3(2.5)	38.0	28.0
99–125	3.898–4.921	TC22	TC43	38.0	28.0
99–125	3.898–4.921	SC12	SC43	38.0	28.0
99–125	3.898–4.921	CN12	CN43	120.0	85.5
99–125	3.898–4.921	CN16	CN54	120.0	85.5
99–125	3.898–4.921	SN12	SN43	120.0	85.5
99–125	3.898–4.921	SN15	SN54	120.0	85.5
123–150	4.834–5.906	TC16	TC3(2.5)	38.0	28.0
123–150	4.834–5.906	TC22	TC43	38.0	28.0

CoroBore XL

CoroBore 820 XL

Ø 148–300 mm (5.512–11.811 pulg.)	Nm	pies/lbs
Corredera	60	44
Cartucho	60	44
Tornillo de plaquita CoroTurn RC	6.4	4.7
Tornillo de plaquita CoroTurn 107 y CoroDrill 880	3.0	2.2

CoroBore 820 XL

Ø 298–1260 mm (11.732–49.606 pulg.)	Nm	pies/lbs
Puente	200	148
Extensión del puente	100	74
Corredera	60	44
Cartucho	60	44
Tornillo de plaquita CoroTurn 107	3.0	2.2
Sujeción de plaquita CoroTurn RC	6.4	4.7

CoroBore 825 XL/826 XL y 825D XL/826D XL

825: Ø 148–315 mm (5.866–12.402 pulg.)
826: Ø 148–300 mm (5.866–11.810 pulg.)

	Nm	pies/lbs
Corredera	60	44
Contrapeso	60	44
Cabeza de mandrinado de precisión	16	12
Tornillo de bloqueo (cabeza de mandrinado de precisión)	6.0	4.4
Tornillo de cartucho	6.0	4.4
Tornillo de plaquita TC11/TP11 (TP22/TC22)	0.9	0.7
Tornillo de plaquita CC09 (CC3(2.5))	3.0	2.2

CoroBore 825 XL/826 XL

825: Ø 298–1275 mm (11.732–50.197 pulg.)
826: Ø 298–1260 mm (11.732–49.606 pulg.)

	Nm	pies/lbs
Puente	200	148
Extensión del puente	100	74
Corredera	60	44
Contrapeso	60	44
Cabeza de mandrinado de precisión	16	12
Tornillo de bloqueo (cabeza de mandrinado de precisión)	6	4.4
Tornillo de cartucho	6	4.4
Tornillo de plaquita TC11/TP11 (TP22/TC22)	0.9	0.7
Tornillo de plaquita CC09 (CC3(2.5))	3.0	2.2

CoroBore 825/825D

Tornillo de cartucho

Ø mm (pulg.)	Nm	pies/lbs
19–36 (0.748–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Tornillo de bloqueo

Ø mm (pulg.)	Nm	pies/lbs
19–29 (0.748–1.142)	0.9	0.7
28–36 (1.102–1.417)	1.2	0.9
35–56 (1.378–2.205)	3.0	2.3
55–167 (2.165–6.575)	6.0	4.3

Tornillo de plaquita

ISO	ANSI	Nm	pies/lbs
TC06	TC1.2(1.2)	0.6	0.4
TC09	TC1.8(1.5)	0.8	0.6
TC11	TP22	0.9	0.7
CC09	CC3(2.5)	3.0	2.2

CoroBore 825 SL

Ø 47–150 mm (1.850–5.905 pulg.)

	Nm	pies/lbs
Cabeza de ranurado frontal (S20)	16	12
Tornillo de bloqueo	8	6
Contrapeso	8	6
Lama	9	6.6

Ø 150–1275 mm (5.905–50.197 pulg.)

	Nm	pies/lbs
Cabeza de ranurado frontal (A34)	16	12
Tornillo de bloqueo	8	6
Lama	9	6.6

CoroBore 826 HP

Tornillo de cartucho

Ø mm (pulg.)	Nm	pies/lbs
36–55 (1.417–2.165)	3.0	2.3
56–154 (2.205–6.063)	6.0	4.3

Tornillo de bloqueo

Ø mm (pulg.)	Nm	pies/lbs
36–55 (1.417–2.165)	4.0	2.3
56–154 (2.205–6.063)	8.0	4.3

Tornillo de plaquita

ISO	ANSI	Nm	pies/lbs
TC09	TC1.8(1.5)	0.8	0.6
TC11	TC22	0.9	0.7

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