

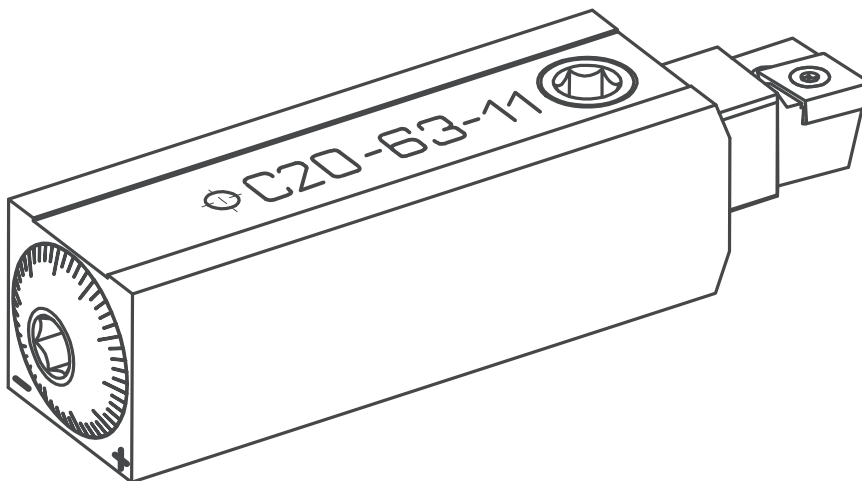
CENTOBOHR

Precision Adjustable Finishing Tool

KOYEMANN

**For spindling of precision bores
with backlash-free adjustment
in steps of 0.01 mm**

- for bores from \varnothing 32 mm until \varnothing 700 mm
- for regular machining and reverse boring
- for through bores
- for shoulder bores and blind holes
- For the use on machining centers, boring mills and milling machines



Easy adjustment of the Centobohr tool by simply using the adjusting scale drum

High accuracy through backlash-free adjustment of the Centobohr tool

Wide working range by displacing the entire Centobohr cartridge within the boring bar

Low tool costs, as the Centobohr tool can be mounted into the standard square holder attachments of any boring bar or boring head

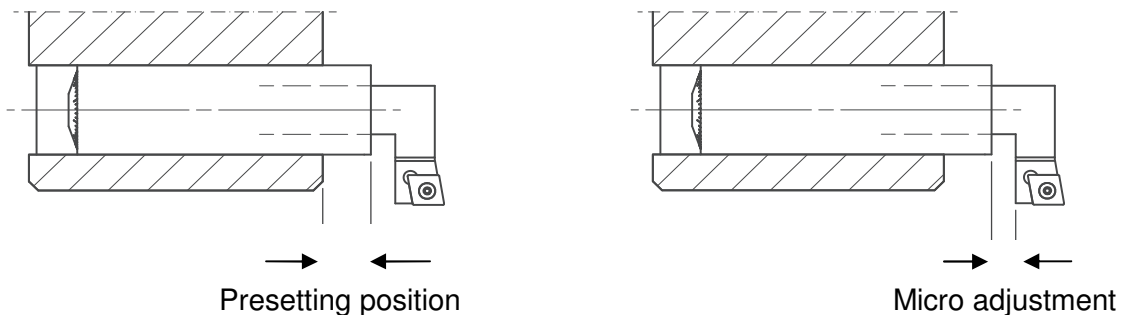
Versatile use for precision bores for regular machining, canted for blind hole machining and for reverse boring

CENTOBOHR Operating Instructions



The Centobohr precision boring tools are mounted into square holder attachments (slots) of boring bars. Tools with the insert holders CGC, CGM, CGT, CVC, CVM and CVT are suitable for boring bars with rectangular slots and tools with CSM, CSC und CST for those with inclined slots.

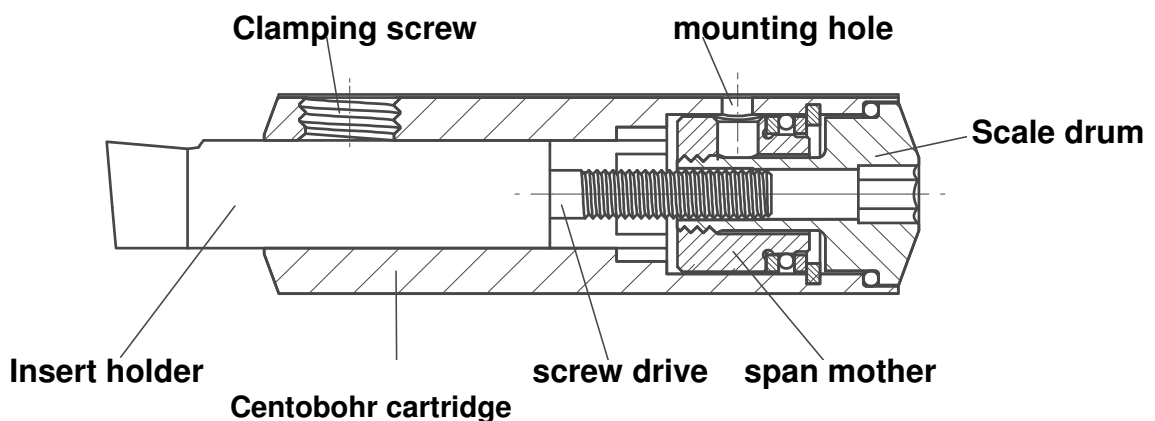
Method of adjusting



For presetting, mount the complete Centobohr tool into the slot of the boring bar in such a position that the finishing diameter can be set by adjusting the insert holder between Z min and Z max (see table). Please ensure that you **do not clamp the Centobohr cartridge in the boring bar by scale drum**.

Micro adjustment

By turning the scale drum to the left-hand side with an allen key, the insert holder is moved forward out of the Centobohr cartridge. The adjustment is always to be effected from the smaller to the bigger diameter. During the course of this, the clamping screw should always remain slightly fixed so that the move forward or backward of the insert holder always is performed against a small resistance. Loosening of the clamping screw before the adjustment and tightening afterwards is not recommended because this could change the finishing diameter. One tick on the scale gives a change of diameter of **0,02 mm**.



CENTOBOHR Operating Instructions

Replacement of insert holders

Turn the scale drum to the left in order to push the screw drive with the worn insert holder out of the Centoboehr cartridge.

Lubricate the screw drive of the new insert holder with oil. Then insert the new insert holder with its screw drive into the Centoboehr cartridge and pull into place by turning the scale drum to the right-hand side.

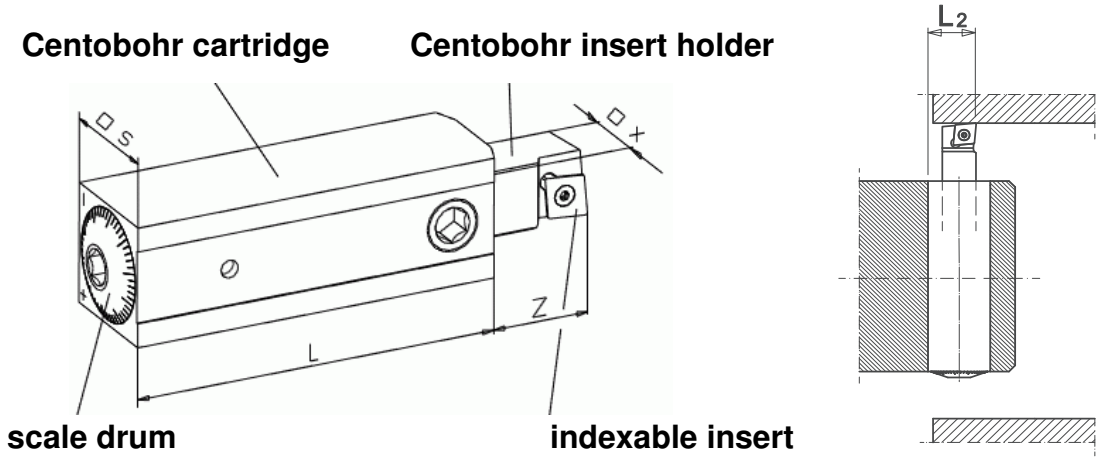
Elimination of backlash

To avoid eventual backlash when changing the direction of adjusting the Centoboehr tool, correct the presetting of the span mother. For this purpose the mounting hole of the span mother and the mounting hole of the cartridge have to be aligned and blocked by putting a pin into them. Then by cautious turning of the scale drum, the game thread of the screw drive can be adjusted.

Turning to the right-hand side results in a lower game thread (avoid force).

Turning to the left-hand side results in a higher game thread.

CENTOBOHR precision boring tools
 Type **C** with insert holders **CGM, CGC, CGT**
 for **through** bores
 in any boring bar with a **rectangular** tool slot



Working diameter from to mm	Tool slot $s \times s$ mm x mm	Diameter of boring bar mm	Centobohr cartridge without insert holder	Centobohr Insert holder	Indexable insert	L_2 mm	Z		
			Order code $s \quad L \quad x$	Order code $L \quad x$			min mm	max mm	
32 – 40	12 x 12	25	C12- 25- 6	CGM 25- 6	EP..0402..	9	3,5	8,5	
40 – 55 54 – 80		40	C12- 32- 6 C12- 40- 6 C12- 60- 6 C12- 100- 6	CGM 32- 6 CGM 40- 6 CGM 60- 6 CGM 100- 6			4,5	9,5	
54 – 80 75 – 95 90 – 115		40 50 50	C16- 40- 9 C16- 50- 9 C16- 63- 9	CGC 40- 9 CGC 50- 9 CGC 63- 9			12,5	5	15,5 15,5 17,5
90 – 115 105 – 145 125 – 180	20 x 20	63	C20- 63-11 C20- 80-11 C20-100-11	CGC 63-11 CGC 80-11 CGC100-11	CC..0602..	15,5	6,5	18,5	
105 – 145 125 – 180	25 x 25	80	C25- 80-11 C25-100-11	CGC 80-11 CGC100-11			18	7,5	25
140 – 210 160 – 220 190 – 240	32 x 32	100 125 125	C32-100-18 C32-125-18 C32-160-18	CGT100-18 CGT125-18 CGT160-18	TC..16T3..	25	15	43	
195 – 240 240 – 300 300 – 360	40 x 40	160 200 250	C40-160-24 C40-200-24 C40-250-24	CGT160-24 CGT200-24 CGT250-24			32	21	56
360 – 480 480 – 600 600 – 720		300 400 500	C40-160-24 C40-200-24 C40-250-24	CGT160-24 CGT200-24 CGT250-24					

Centobohr cartridge, Centobohr tool holders and indexable inserts (pack size 10 pieces) to be ordered separately.

Please choose the suitable indexable inserts from our catalogue of indexable inserts.

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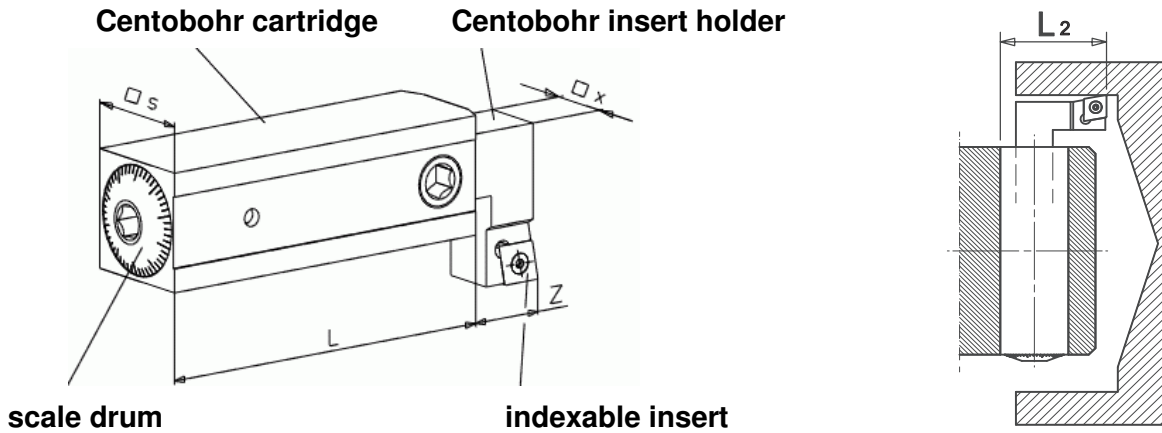
CENTOBOHR precision boring tools

Type **C** with insert holders **CVM, CVC, CVT**

cutting **in front** of the boring bar

for **through** bores, **shoulder** bores and **blind** holes

in any boring bar with a **rectangular** tool slot



Working diameter from to mm	Tool slot s x s mm x mm	Diameter of boring bar mm	Centobohr cartridge without insert holder			Centobohr Insert holder			Indexable insert	L ₂ mm	Z	
			Order code			Order code					min	max
			□s	L	□x	L	□x	mm			mm	
41 – 50 48 – 59 56 – 75	12 x 12	25 32 40	C12- 25- 6 C12- 32- 6 C12- 40- 6 C12- 60- 6 C12- 100- 6	CVM 25- 6 CVM 32- 6 CVM 40- 6 CVM 60- 6 CVM 100- 6	EP..0402..	18,5	9	14				
61 – 88 71 – 98 85 – 120	16 x 16	40 50 50	C16- 40- 9 C16- 50- 9 C16- 63- 9	CVC 40- 9 CVC 50- 9 CVC 63- 9	CC..0602..	24,5	10,5	21				
86 – 130 102 – 150 135 – 190	20 x 20	63	C20- 63-11 C20- 80-11 C20-100-11	CVC 63-11 CVC 80-11 CVC100-11		31		24				
102 – 150 130 – 195	25 x 25	80	C25- 80-11 C25-100-11	CVC 80-11 CVC100-11		33,5						
142 – 225 170 – 250 202 – 285	32 x 32	100 125 125	C32-100-18 C32-125-18 C32-160-18	CVT100-18 CVT125-18 CVT160-18	TC..16T3..	49	21	51				
210 – 300 260 – 350 320 – 420	40 x 40	160 200 250	C40-160-24 C40-200-24 C40-250-24	CVT160-24 CVT200-24 CVT250-24		56		53				
380 – 500 480 – 620 600 – 760		300 400 500	C40-160-24 C40-200-24 C40-250-24	CVT160-24 CVT200-24 CVT250-24								

Centobohr cartridge, Centobohr tool holders and indexable inserts (pack size 10 pieces) to be ordered separately.

Please choose the suitable indexable inserts from our catalogue of indexable inserts.

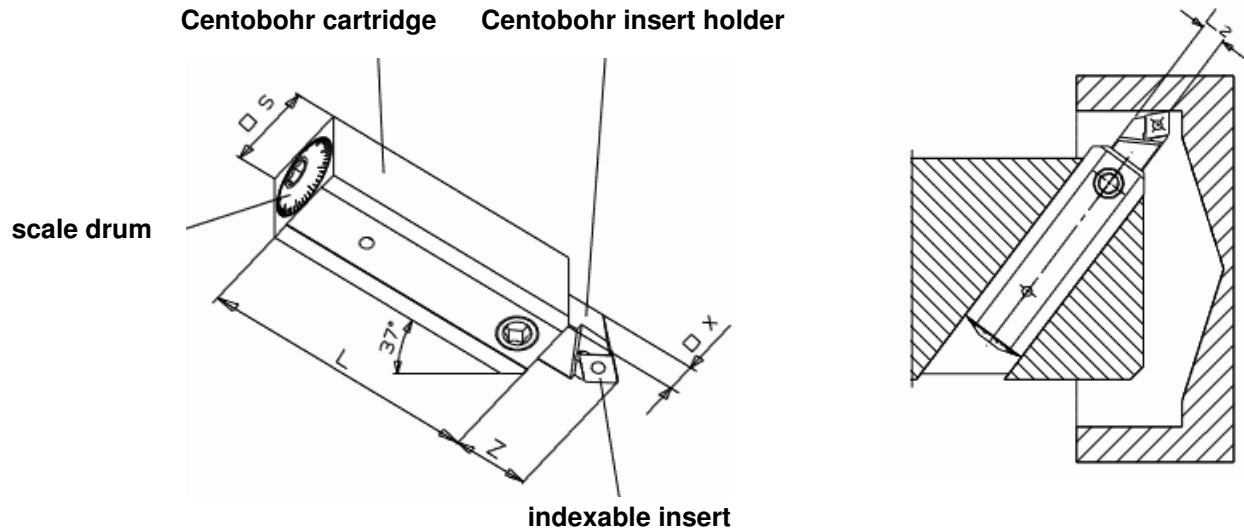
CENTOBOHR precision boring tools

Type **CS** with **CSM, CSC, CST**

for boring bars with **inclined** slots

for **through** bores, **shoulder** bores and **blind** holes

cutting **in front** of the boring bar



Working diameter from to mm	Tool slot s x s mm x mm	Diameter of boring bar mm	Centoboehr cartridge without insert holder		Centoboehr Insert holder		Indexable insert	Z	
			Order code	Order code	L	x		L ₂ mm	min mm
30 – 40 40 – 46 46 – 55	12 x 12	25	CS12- 25- 6	CSC 25- 6	EP..0402..	5,8	2,5	7,5	
		32	CS12- 32- 6	CSC 32- 6					
		32	CS12- 40- 6	CSC 40- 6					
			60	CS12- 60- 6					CSC 60- 6
			100	CS12-100- 6					CSC100- 6
50 – 65 54 – 80 65 – 80 75 – 95	16 x 16	40	CS16- 40- 9	CSC 40- 9	CC..0602..	8,3	5	15,5	
		40	CS16- 50- 9	CSC 50- 9					
		50	CS16- 63- 9	CSC 63- 9					
80 – 100 90 – 115	20 x 20	63	CS20- 63- 11	CSC 63-11					11,3
		80	CS20- 80- 11	CSC 80-11					
95 – 120 105 – 145 115 – 150	25 x 25	80	CS25- 80-11	CSC 80-11	13,8	10	23		
		100	CS25-100-11	CSC100-11					
115 – 150 140 – 210 200 - 240	32 x 32	100	CS32-100-18	CST100-18	TC..16T3..	14,6	11	39	
			CS32-125-18	CST125-18					
			CS32-160-18	CST160-18					

Centoboehr cartridge, Centoboehr tool holders and indexable inserts (pack size 10 pieces) to be ordered separately.

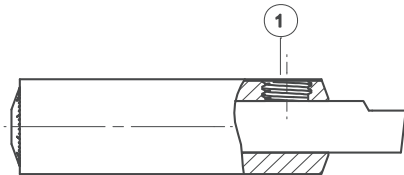
Please choose the suitable indexable inserts from our catalogue of indexable inserts.

CENTOBOHR precision boring tools
Type C with CGM, CGC, CGT,
CVM, CVC, CVT

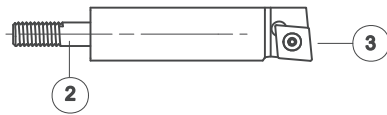


Spare Parts

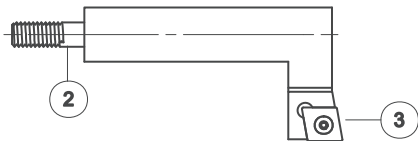
Centobohr cartridge



Insert holder CG. ...



Insert holder CV. ...



Centobohr cartridge	Clamping screw ①	Allen key
Order code	Order code	Order code
□S L □X		
C12 - 25 - 6	30320	54000
C12 - 32 - 6		
C12 - 40 - 6		
C16 - 40 - 9	30330	54020
C16 - 50 - 9		
C16 - 63 - 9		
C20 - 63 - 11	30350	54030
C20 - 80 - 11		
C20 - 100 - 11		
C25 - 80 - 11	30360	
C25 - 100 - 11		
C32 - 100 - 18	30370	54050
C32 - 125 - 18		
C32 - 160 - 18		
C40 - 160 - 24		
C40 - 200 - 24		
C40 - 250 - 24		

Insert holder	Screw driver ②	Clamping screw ③	Screw driver
Order code L □X	Order code	Order code	Order code
CGM 25- 6	37110	37300	54210
CGM 32- 6	37120		
CGM 40- 6	37070		
CGC 40- 9	37040	37470	54260
CGC 50- 9	37140		
CGC 63- 9	37150		
CGC 63-11	37160		
CGC 80-11	37180		
CGC100-11	37200		
CGT100-18	37210	37330	54250
CGT125-18	37210		
CGT160-18	37220		
CGT160-24	37280		
CGT200-24	37230		
CGT250-24	37240		

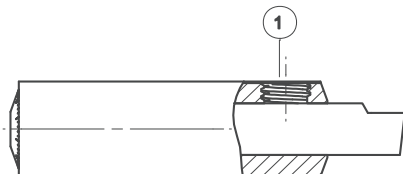
Insert holder	Screw driver ②	Clamping screw ③	Screw driver
Order code L □X	Order code	Order code	Order code
CVM 25- 6	37110	37300	54210
CVM 32- 6	37120		
CVM 40- 6	37070		
CVC 40- 9	37040	37470	54260
CVC 50- 9	37140		
CVC 63- 9	37150		
CVC 63-11	37160		
CVC 80-11	37180		
CVC100-11	37200		
CVT100-18	37210	37330	54250
CVT125-18	37280		
CVT160-18	37230		
CVT160-24	37280		
CVT200-24	37230		
CVT250-24	37240		

CENTOBOHR precision boring tools Type CS with CSM, CSC, CST

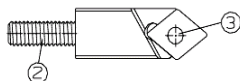


Spare Parts

Centoboehr cartridge



Insert holder CS. ...



Centoboehr cartridge	Clamping screw ①	Allen key
Order code	Order code	Order code
□S L □X		
CS12 - 25 - 6	30320	54000
CS12 - 32 - 6		
CS12 - 40 - 6		
CS16 - 40 - 9	30330	54020
CS16 - 50 - 9		
CS16 - 63 - 9		
CS20 - 63 - 11	30350	54030
CS20 - 80 - 11		
CS25 - 80 - 11	30360	
CS25 - 100 - 11		
CS32 - 100 - 18	30370	54050
CS32 - 125 - 18		
CS32 - 160 - 18		

Insert holder	Screw driver ②	Clamping screw ③	Screw driver
Order code	Order code	Order code	Order code
L □X			
CSM 25- 6	37110	37300	54210
CSM 32- 6	37120		
CSM 40- 6	37270		
CSC 40- 9	37040	37470	54260
CSC 50- 9	37140		
CSC 63- 9	37150		
CSC 63-11	37160		
CSC 80-11	37180	37330	54250
CSC100-11	37200		
CST100-18	37210		
CST125-18	37280		
CST160-18	37230		