

TOOLLINE Total tooling system **TUNGCAP**

New Line of
Extension and Reduction
Adapters

Quick change polygon tool clamping system!



This tooling system can accelerate productivity providing optimal tool holding solutions for a diverse range of machines!

Features

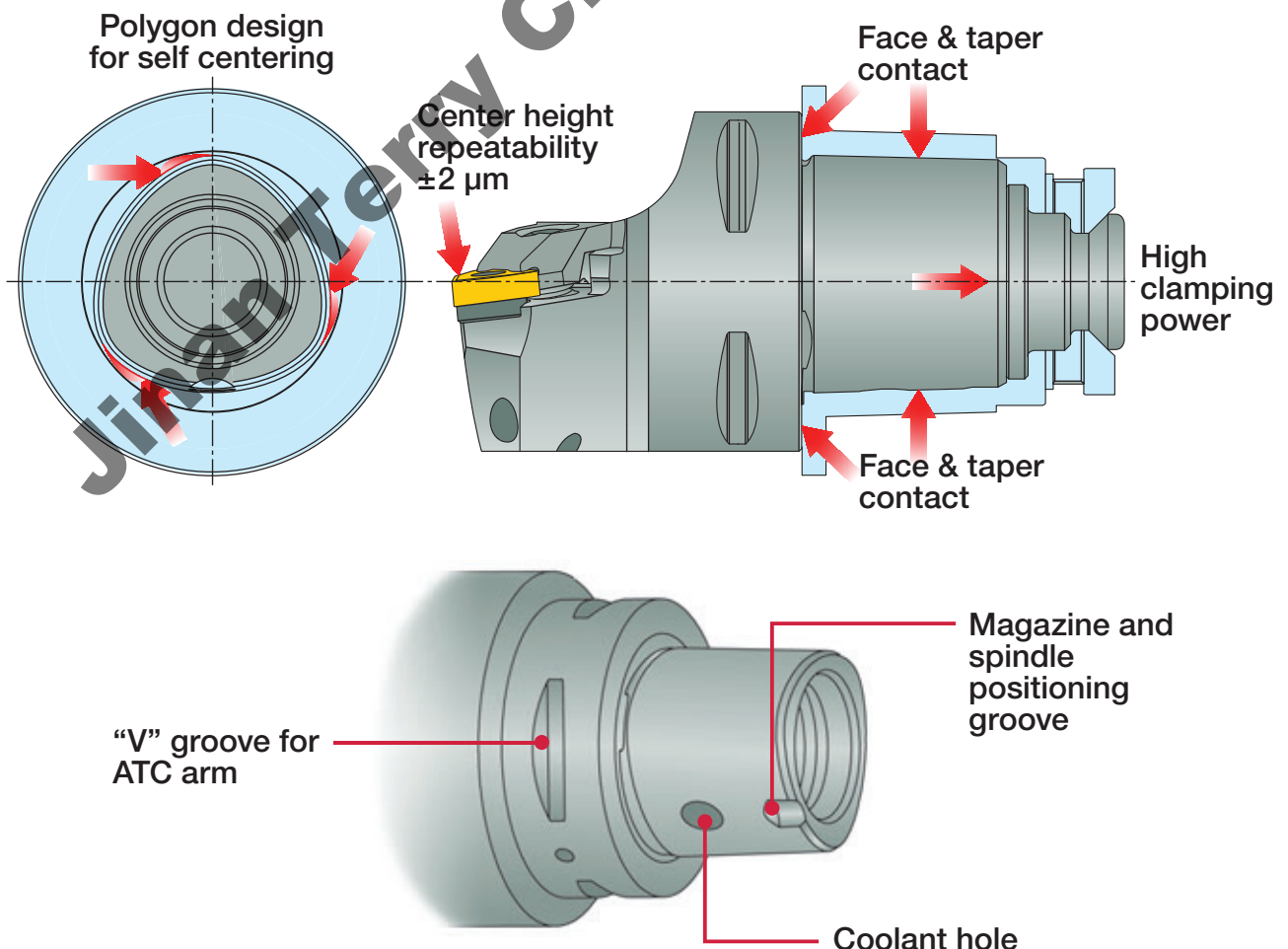
● High rigidity

The TungCap clamping mechanism is extremely rigid and resists bending forces

● Excellent accuracy

- The taper and face contact ensure high repeatability of the edge position
- The polygonal clamping design creates a self centering effect to improve accuracy

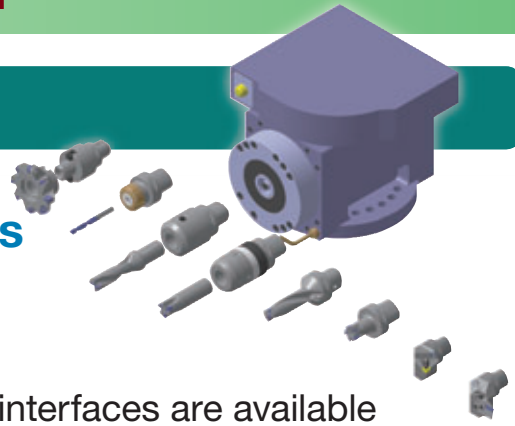
TUNGCAP Quick change system (Interchangeable with PSC standard)



● Easy tool management

■ Suitable for a variety of applications

- TungCap can be used as modular tools for a wide range of machining
- Adapters with HSK and BT with dual contact interfaces are available

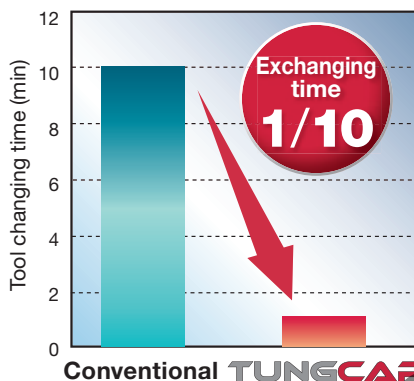


■ Ideal tooling can be applied

- Optimum overhang length can be set with extension or reduction arbors

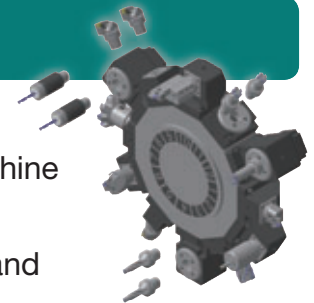


● Short tool exchanging time



- No need to index the insert on the machine
- $\pm 2 \mu\text{m}$! Highly accurate repeatability!
No test cutting required by setting-up and measuring outside of machine

Drastically reduces machine downtime

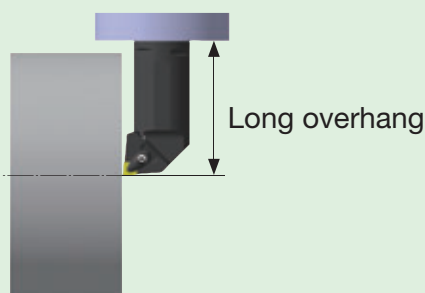


● High productivity on flexible machine tools

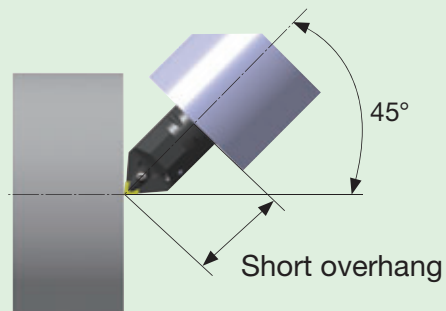
■ Slant type toolholders for external turning

- Avoids interference between work piece and toolholder with short overhang
- Reduces spindle load and chattering

Square type



Slant type



TOOLLINE Holders for milling & drilling

Interface of machine

PSC

BT

HSK-A

Adapters for BT shank with dual contact

New



BT-FC
P. 22

Adapters for HSK shank

New



HSK-A-C-T
P. 22

TUNG**REC** **ROUGHING****MILL** **DO****FEED****MINI** **TUNG****DRILL****TWISTED**



C-EPS

Available in 2014 spring



C-ELS

Available in 2014 spring



C-EXN

Available in 2014 spring



C-TDX

Available in 2014 spring

Extension

New



C-EX

P. 23

Reduction

New



C-RE

P. 23

Power chuck holders



TUNG**MAX**
C-MAXIN

P. 19

+



Side lock holders for endmill



C-EM

P. 15

+



Side lock holders for drill



C-EM-E

P. 16

+



ER collet chuck holders



C-ER

P. 17

+



Center alignment holders



TUNG**FINE**
ADJ-C

P. 19

+



Thermal shrinking holders



TUNG**SHRINK**
C-SRKIN

P. 20

+



Shell mill holders



C-SEM

P. 18

+



Slot milling holders



C-SCA

P. 21

+



Indexable modular system



TUNG**FIX**
C-ODP

P. 21

+



Tool clamp fixture for TungCap shank



TURNLINE Toolholders for turning

Interface of machine

PSC

BT

HSK-T

Adapters for BT shank
with dual contact

New



BT-FC-T
P. 22

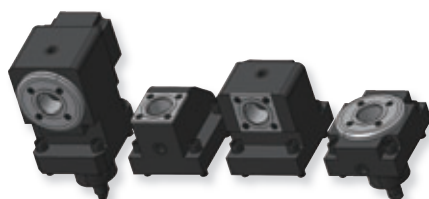
Adapters for HSK shank

New



HSK-A-C-T
P. 22

Clamping unit (special)



Extension

New



C-EX
P. 23

Reduction

New



C-RE
P. 23

Toolholders with PSC shank

TURNING



C-ACLNR
P. 6



C-ADJNR
P. 7



C-ACLNN
P. 6



C-ADNNN
P. 7



C-PCLNR
P. 6



C-PDJNR
P. 7



C-SVVCN
P. 8



C-SVJCR
P. 8

Grooving tool

TUNG



C-CHFVR
P. 9



C-CHSR
P. 10



C-TBK
P. 14

Adapters for boring bars



C-ADI
P. 14



C-ABB
P. 13

Threading

TUNGTHREAD



C-CER
P. 9

Adapters for external turning



C-ADER
P. 12



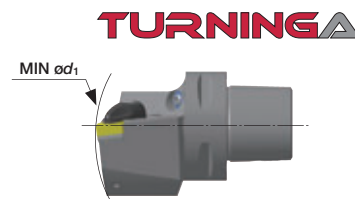
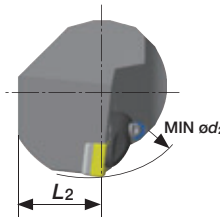
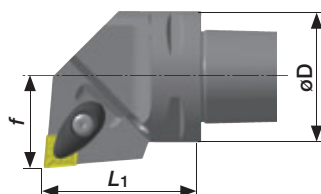
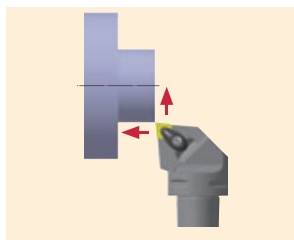
C-ASHR
P. 12



C-ADES
P. 12

Toolholders

C-ACLNR/L External Turning A type (Negative rake, Double clamping system)

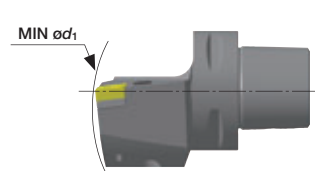
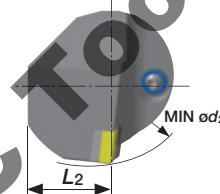
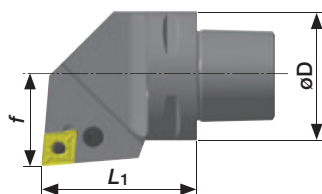
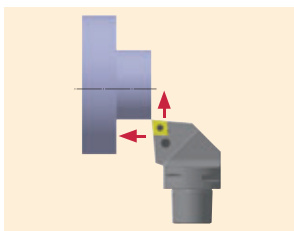


Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. Corner radius r_ϵ	Applicable inserts	Shim	Spring pin	Shim screw	Clamp	Clamping screw	Spring	Wrench	Coolant nozzle
	R	L	øD	L1	L2	f	ød1	ød2										
C4ACLNR/L27050-12N ⁽²⁾	★	★	40	50	25	27	140	110	0.8	CN** 1204**	ASC 422	SP- 2.5	CSTB -3.5	ACP 4S	ACS -5W	BP-7	T15F	(4)
C5ACLNR/L35060-12 ⁽¹⁾			50	60	32	35	-	-										(3)
C5ACLNR/L35060-12N ⁽²⁾	●	●	50	60	32	35	165	110										(4)
C6ACLNR/L45065-12 ⁽¹⁾		●	63	65	41	45	-	-										(3)
C6ACLNR/L45065-12N ⁽²⁾	●	●	63	65	41	45	190	125										(4)
C6ACLNR/L45135-12N ⁽²⁾			63	135	41	45	190	125										(4)
C6ACLNR/L45065-16N ⁽²⁾			63	65	41	45	190	125										(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ83 (4) SATZ-M10X1-M5

C-PCLNR/L External Turning P type (Negative rake, Lever-lock system)

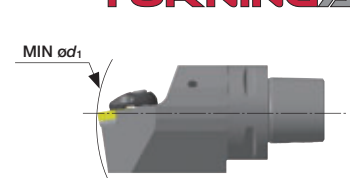
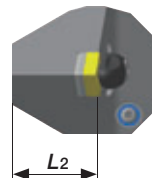
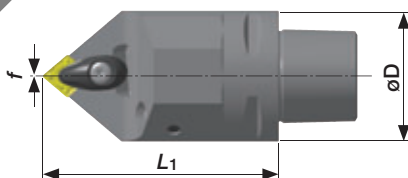
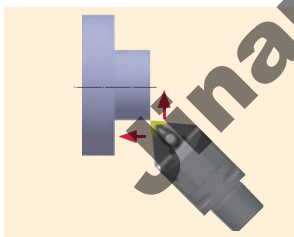


Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. Corner radius r_ϵ	Applicable inserts	Shim	Spring pin	Lever	Clamping screw	Wrench	Coolant nozzle
	R	L	øD	L1	L2	f	ød1	ød2								
C5PCLNR/L35060-12 ⁽¹⁾	●	●	50	60	32	35	-	-	0.8	CN** 1204**	LSC42	LSP4	LCL4	LCS4	P-3	(3)
C5PCLNR/L35060-12N ⁽²⁾	●	●	50	60	32	35	165	110								(4)
C6PCLNR/L45065-12 ⁽¹⁾		●	63	65	41	45	-	-								(3)
C6PCLNR/L45065-12N ⁽²⁾	●	●	63	65	41	45	190	125								(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M8X1-M3

C-ACLNN External Turning A type (Negative rake, Double clamping system)


TURNING

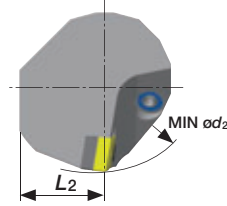
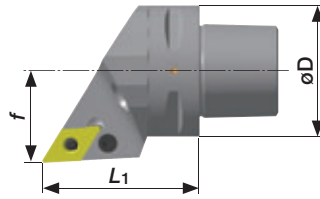
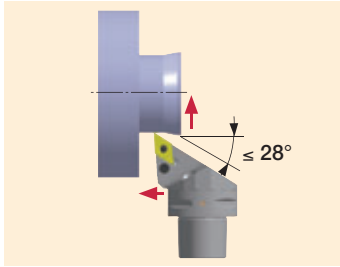
Cat. No.	Stock	Dimensions (mm)						Std. Corner radius r_ϵ	Applicable inserts	Shim	Spring pin	Shim screw	Clamp	Clamping screw	Spring	Wrench	Coolant nozzle
		øD	L1	L2	f	ød1	ød2										
C5ACLNN00090-12 ⁽¹⁾	●	50	90	32	0	-	-	0.8	CN** 1204**	ASC 422	SP- 2.5	CSTB -3.5	ACP 4S	ACS -5W	BP-7	T15F	(3)
C5ACLNN00090-12N ⁽²⁾	●	50	90	32	0	165	-										(4)
C5ACLNN00125-12 ⁽¹⁾	●	50	125	32	0	-	-										(3)
C5ACLNN00125-12N ⁽²⁾	●	50	125	32	0	165	-										(4)
C6ACLNN00100-12 ⁽¹⁾	●	63	100	37.5	0	-	-										(3)
C6ACLNN00100-12N ⁽²⁾	●	63	100	37.5	0	190	-										(4)
C6ACLNN00140-12 ⁽¹⁾	●	63	140	37.5	0	-	-										(3)
C6ACLNN00140-12N ⁽²⁾	●	63	140	37.5	0	190	-										(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ83 (4) SATZ-M8X1-M3

● : Stocked items
★ : Available in 2014

C-PDJNR/L External Turning

A type (Negative rake, Double clamping system)



TURNING

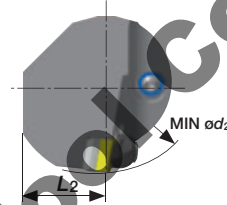
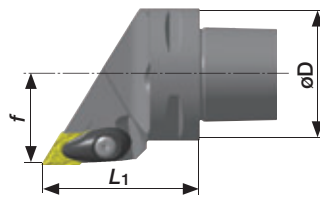
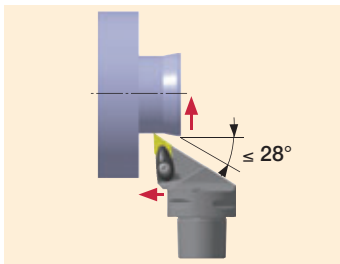
Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. Corner radius r_{ϵ}	Applicable inserts	Shim	Spring pin	Lever	Clamping screw	Wrench	Coolant nozzle
	R	L	øD	L ₁	L ₂	f	ød ₁	ød ₂								
C5PDJNR/L35060-15N ⁽²⁾	★	★	50	60	32	35	165	110	0.8	DN**1504** (DN**1506**)	ASD423(04) (ASD432(06))	LSP4(04) (LSP4S(06))	LCL4	SSH4 4-4	P-8	(4)
C6PDJNR/L45065-15N ⁽²⁾	★	★	63	65	41	45	195	95								

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ83 (4) SATZ-M10X1-M5

C-ADJNR/L External Turning

A type (Negative rake, Double clamping system)



TURNING

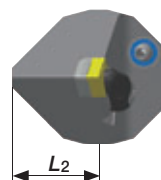
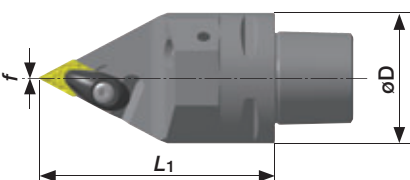
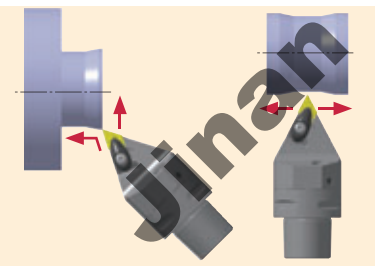
Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. Corner r _ε	Applicable inserts	Shim 	Spring pin 	Shim screw 	Clamp 	Clamping screw 	Spring 	Wrench 	Coolant nozzle
	R	L	øD	L ₁	L ₂	f	ød ₁	ød ₂										
C4ADJNR/L27050-15N ⁽²⁾	★	★	40	50	25	27	145	110	0.8	DN**1504** (DN**1506**)	ASD423(04) (ASD432(06))	SP -2.5	CSTB -3.5	ACP 4S	ACS -5W	BP-7	T15F	(4)
C5ADJNR/L35060-15 ⁽¹⁾		●	50	60	32	35	-	-										(3)
C5ADJNR/L35060-15N ⁽²⁾	●	●	50	60	32	35	165	110										(4)
C6ADJNR/L45065-15 ⁽¹⁾	●	●	63	65	41	45	-	-										(3)
C6ADJNR/L45065-15N ⁽²⁾	●	●	63	65	41	45	190	110										(4)
C6ADJNR/L45135-15N ⁽²⁾			63	135	41	45	190	110										(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M10X1-M5

C-ADNNN External Turning

A type (Negative rake, Double clamping system)

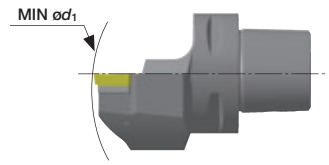
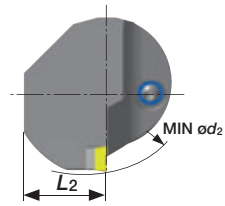
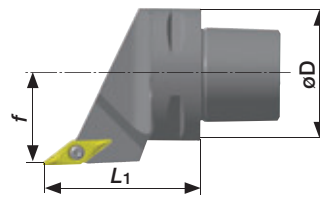
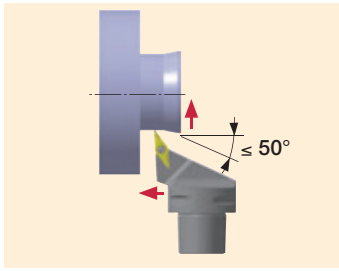


TURNING

Cat. No.	Stock	Dimensions (mm)						Std. Corner r_{ϵ}	Applicable inserts	Shim	Spring pin	Shim screw	Clamp	Clamping screw	Spring	Wrench	Coolant nozzle
		$\varnothing D$	L_1	L_2	f	$\varnothing d_1$	$\varnothing d_2$										
C5ADNNN00090-15 ⁽¹⁾	●	50	90	32	0	-	-	0.8	DN**1504** (DN**1506**)	ASD423(06) (ASD432(04))	SP-2.5	CSTB-3.5	ACP-4S	ACS-5W	BP-7	T15F	(3)
C5ADNNN00090-15N ⁽²⁾	●	50	90	32	0	165	-										(4)
C5ADNNN00125-15 ⁽¹⁾	●	50	125	32	0	-	-										(3)
C5ADNNN00125-15N ⁽²⁾	●	50	125	32	0	165	-										(4)
C6ADNNN00100-15 ⁽¹⁾	●	63	100	37.5	0	-	-										(3)
C6ADNNN00100-15N ⁽²⁾	●	63	100	37.5	0	190	-										(4)
C6ADNNN00140-15 ⁽¹⁾	●	63	140	37.5	0	-	-										(3)
C6ADNNN00140-15N ⁽²⁾	●	63	140	37.5	0	190	-										(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M10X1-M5

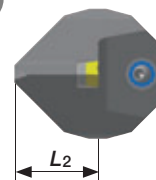
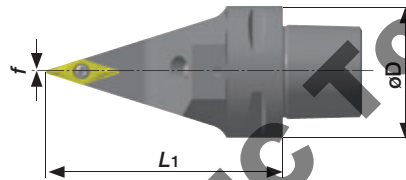
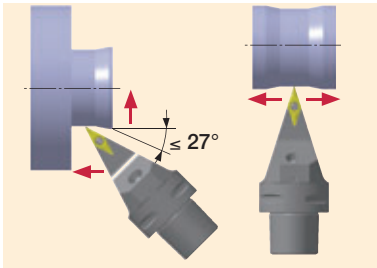
● : Stocked items
★ : Available in 2014

C-SVJCR/L
External Turning
S type (Positive rake, Screw on clamping system)


Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. Corner r_{ϵ}	Applicable inserts	Shim	Shim screw	Clamping screw	Wrench	Wrench	Coolant nozzle
	R	L	øD	L1	L2	f	ød1	ød2								
C4SVJCR/L27050-16N ⁽²⁾	★	★	40	50	25	27	140	155	0.8	VC**1604**	SSV32	DTS5-3.5	CSTB-3.5L	T-15F	P-3.5	(4)
C5SVJCR/L35060-16 ⁽¹⁾	●	●	50	60	32	35	-	-								(3)
C5SVJCR/L35060-16N ⁽²⁾	●	●	50	60	32	35	170	160								(4)
C6SVJCR/L45065-16 ⁽¹⁾	●	●	63	65	41	45	-	-								(3)
C6SVJCR/L45065-16N ⁽²⁾	●	●	63	65	41	45	170	190								(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M10X1-M5

C-SVVCN
External Turning
S type (Positive rake, Screw on clamping system)


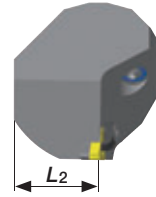
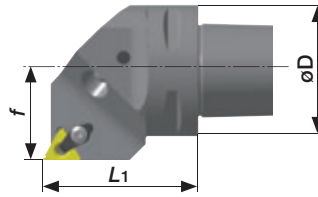
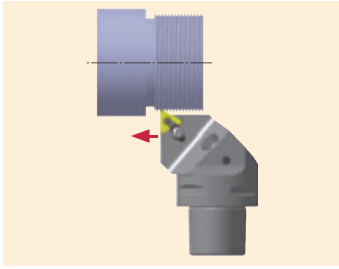
Cat. No.	Stock	Dimensions (mm)				Std. Corner r_{ϵ}	Applicable inserts	Shim	Shim screw	Clamping screw	Wrench	Wrench	Coolant nozzle
		øD	L1	L2	f								
C5SVVCN00090-16 ⁽¹⁾	●	50	90	32	0	0.8	VC**1604**	SSV32	DTS5-3.5	CSTB-3.5L	T-15F	P-3.5	(3)
C5SVVCN00090-16N ⁽²⁾	●	50	90	32	0								(4)
C5SVVCN00125-16 ⁽¹⁾	●	50	125	32	0								(3)
C5SVVCN00125-16N ⁽²⁾	●	50	125	32	0								(4)
C6SVVCN00100-16 ⁽¹⁾	●	63	100	37.5	0								(3)
C6SVVCN00100-16N ⁽²⁾	●	63	100	37.5	0								(4)
C6SVVCN00140-16 ⁽¹⁾	●	63	140	37.5	0								(3)
C6SVVCN00140-16N ⁽²⁾	●	63	140	37.5	0								(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M10X1-M5

C-CER/L

External threading

Dual method type



Right hand (R) shown

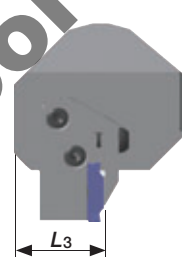
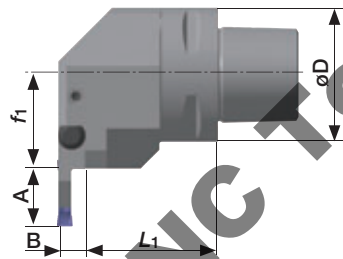
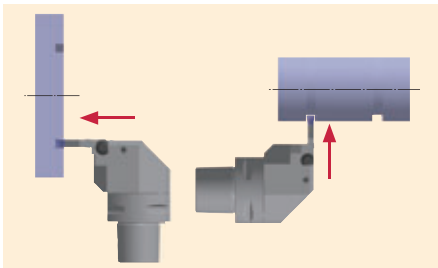
Cat. No.	Stock		Dimensions (mm)				Std. Corner r_{ϵ}	Applicable inserts	Shim	Shim screw	Clamping screw	Clamp set	Wrench	Wrench	Coolant nozzle
	R	L	øD	L ₁	L ₂	f									
C4CER/L27050-16ERN ⁽²⁾	★	★	40	50	25	27	0.8	16ER/L	A16-1DT	DTS5-3.5	CSTB-3.5ST	CSP16	T-15F	P-3.5	(4)
C5CER/L35060-16ER ⁽¹⁾	●	●	50	60	32	35									(3)
C5CER/L35060-16ERN ⁽²⁾	●	●	50	60	32	35									(4)
C6CER/L45065-16ER ⁽¹⁾	●	●	63	65	41	45									(3)
C6CER/L45065-16ERN ⁽²⁾	●	●	63	65	41	45									(4)

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) EZ104 (4) SATZ-M10X1-M5

C-CHFVR/L

Grooving

Horizontal type



Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)				Applicable inserts	Blade	Clamping screw	Wrench	Coolant nozzle	Coolant pipe
	R	L	øD	L ₁	*A	L ₃						
C4CHFVR/L27050N ⁽²⁾	★	★	40	42.5	Table 1	36	DTF, DTE, DTX DTR, DGS, DGM	CAER/L CAFR/L	CSHB-6-A	P-4	(4)	-
C5CHFVR/L35060 ⁽¹⁾		●	50	49.5		36					(3)	PNZ5
C5CHFVR/L35060N ⁽²⁾	●	●	50	49.5		36					(4)	-
C6CHFVR/L45065 ⁽¹⁾			63	54.5		41					(3)	PNZ5
C6CHFVR/L45065N ⁽²⁾	●	●	63	54.5		41					(4)	-

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) CNZ125 (4) SATZ-M10X1-M5

Combination of blade and toolholder

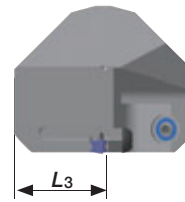
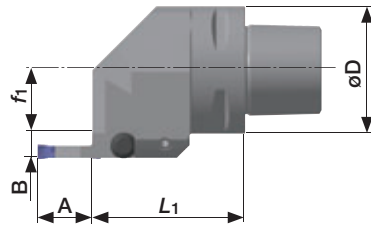
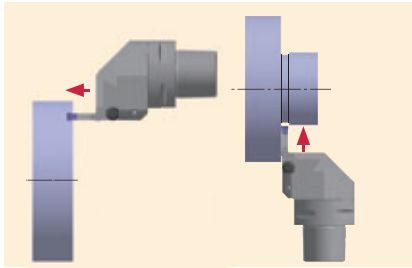
Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHFVR***		●	●	
CHFVL***	●			●

C-CHSR/L

Grooving

Vertical type

TUNGCUT



Right hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Applicable inserts	Blade	Clamping screw	Wrench	Coolant nozzle	Coolant pipe
	R	L	øD	L1	A	L3	f1	B						
C4CHSR/L27050N ⁽²⁾	★	★	40	50	Table 1	36	16.5	Table 1	DGS/SGS, DGM/SGM, DTX, DTE, DTR	CAER/L CAFR/L	CSHB-6-A	P-4	(4)	-
C5CHSR/L35060 ⁽¹⁾	●	●	50	60		36	24.5						(3)	PNZ5
C5CHSR/L35060N ⁽²⁾	●	●	50	60		36	24.5						(4)	-
C6CHSR/L45065 ⁽¹⁾			63	65		41	34.5						(3)	PNZ5
C6CHSR/L45065N ⁽²⁾	●	●	63	65		41	34.5						(4)	-

(1) Capable for normal pressure coolant (2) Capable for 7Mpa coolant pressure (3) CNZ125 (4) SATZ-M10X1-M5

Combination of blade and toolholder

Table. 1: Offset dimensions for blade

Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHSR***	●			●
CHSL***		●	●	

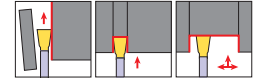
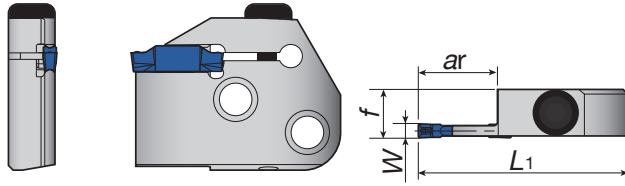
	Blades	A	B
	CAER/L-3T16	16	10.4
For external grooving	CAER/L-4T16	16	10.5
	CAER/L-5T20	20	10.5
	CAER/L-6T20	20	10.5
For face grooving	CAFR/L-3T12-*	12	10.4
	CAFR/L-4T16-*	16	10.5
	CAFR/L-5T20-*	20	10.5
	CAFR/L-6T20-*	25	10.5

Insert application

Insert	Application				
	Grooving		Parting off	Turning	
	External	Face		External	Face
DGM / SGM	●	●	●		
DGS / SGS	●	●	●		
DTE	●	●		●	●
DGF	●				
DTX	●	●	●	●	●
DTI					
DTF		●			●
DTR	●			●	
DTIU	● Undercutting				
DTA				● Al wheel machining	

● Blades (For general purpose)

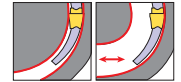
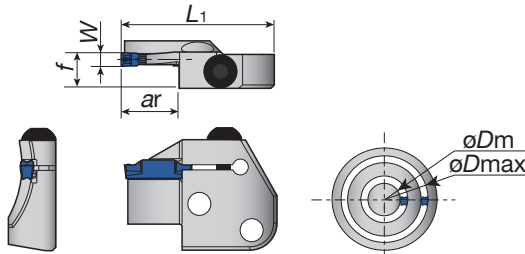
CAE R/L External grooving and turning



Right hand (R) shown

Insert seat size	Cat. No.	Stock		*Max. groove depth ar (mm)	Dimensions (mm)			Inserts	Shank	Parts	
		R	L		L ₁	f	W			Clamping screw	Wrench
3	CAER/L-3T16	●	●	16	45	10.4	3	DGS / SGS	CHFVR/L CHSR/L	BHM6-20-A	P-4
4	CAER/L-4T16	●	●	16	45	10.5	4	DGM / SGM			
5	CAER/L-5T20	●	●	20	49	10.5	5	DTX			
6	CAER/L-6T20	●	●	20	49	10.5	6	DTE DTR			

CAF R/L Face grooving and turning



Right hand (R) shown

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. dia. øDmax (mm)	Max. groove depth ar (mm)	Dimensions (mm)			Inserts ⁽³⁾	Shank	Parts	
		R	L				L ₁	f ⁽²⁾	W			Clamping screw	Wrench
3	CAFR/L-3T12-040055	●	●	40	55	12	45	10.4	3	DTF DTE DTX DGS DGM	CHFVR/L CHSR/L	BHM6-20-A	P-4
	CAFR/L-3T12-055075	●	●	55	75	12	45	10.4	3				
	CAFR/L-3T12-075100	●	●	75	100	12	45	10.4	3				
	CAFR/L-3T12-100140	●	●	100	140	12	45	10.4	3				
	CAFR/L-3T12-140200	●	●	140	200	12	45	10.4	3				
4	CAFR/L-4T16-050070	●	●	50	70	16	45	10.5	4			BHM6-20-A	P-4
	CAFR/L-4T16-070100	●	●	70	100	16	45	10.5	4				
	CAFR/L-4T16-100150	●	●	100	150	16	45	10.5	4				
	CAFR/L-4T16-150250	●	●	150	250	16	45	10.5	4				
5	CAFR/L-5T20-055080	●	●	55	80	20	49	10.5	5		CHFVR/L CHSR/L	BHM6-20-A	P-4
	CAFR/L-5T20-080120	●	●	80	120	20	49	10.5	5				
	CAFR/L-5T20-120180	●	●	120	180	20	49	10.5	5				
	CAFR/L-5T20-180300	●	●	180	300	20	49	10.5	5				
	CAFR/L-5T20-300000	●	●	300	∞	20	49	10.5	5				
6	CAFR/L-6T25-060090	●	●	60	90	25 ⁽¹⁾	55	10.5	6		CHFVR/L CHSR/L	BHM6-20-A	P-4
	CAFR/L-6T25-090150	●	●	90	150	25 ⁽¹⁾	55	10.5	6				
	CAFR/L-6T25-150250	●	●	150	250	25 ⁽¹⁾	55	10.5	6				
	CAFR/L-6T25-250400	●	●	250	400	25 ⁽¹⁾	55	10.5	6				

(1) When depth is deeper than insert length, 1 corner type is recommended.

(2) "f" value in the above table is calculated with groove width "W" shown in the table.

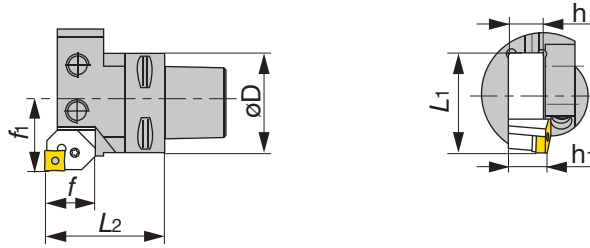
■ Caution

In DTF and DTX insert types, seat size "6" inserts are not available. When 6 size insert is required, the DTE, DGM or DGS type is recommended.

(3) Min. diameter øDm of DTE, DGS and DGM insert

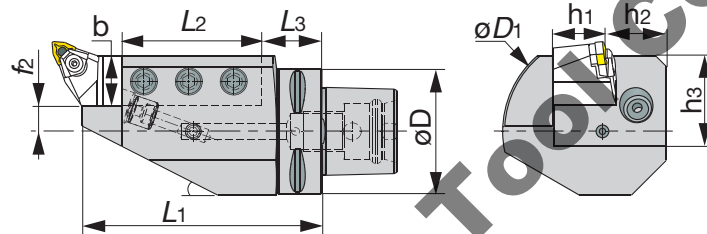
Inserts	øDm (mm)	Note
DTE 3 / DGS 3 / DGM 3	ø44	When diameter is smaller than øDm, DTF or DTX type insert is recommended.
DTE 4 / DGS 4 / DGM 4	ø42	
DTE 5 / DGS 5 / DGM 5	ø50	
DTE 6 / DGS 6 / DGM 6	ø48	

● : Stocked items

C-ADER/L Adapters for square shank toolholders


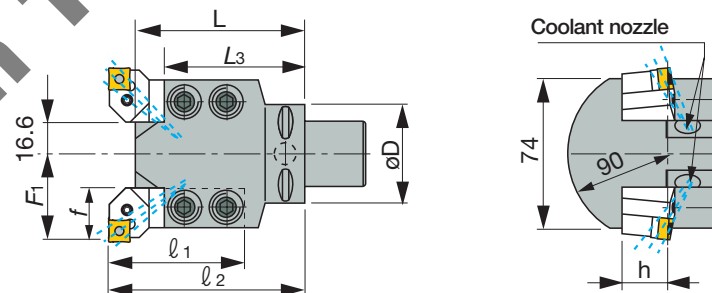
Cat. No.	Stock		Dimensions (mm)							Clamp screw
	R	L	øD	f ₁	L ₂	f	h ₁	h	L ₁	
C4ADE-20R/L	★	★	40	35	54	25	20	20	67	SRM10X20DIN912
C5ADE-20R/L	●	●	50	35	60	20	20	20	67	SRM10X16

Toolholders may be used after shortening shank length

C-ASHR/L Adapters for square shank toolholders


Cat. No.	Stock		Dimensions (mm)										Clamp screw
	R	L	øD	L ₁	L ₂	L ₃	f ₂	h ₁	b	h ₂	h ₃	øD ₁	
C5ASHR/L201	●	●	50	98	63.5	24.5	10	20	20	33	30	90	SRM10X25DIN91545H
C6ASHR/L251	●	●	63	120	70	30	13	25	25	32	38	100	SRM12X30DIN91545H
C8ASHR/L32-1			80	140	95	35	8	32	32	32	40	110	

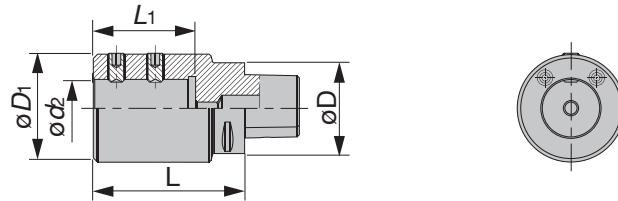
Toolholders may be used after shortening shank length

C-ADES Adapters for square shank toolholders


Cat. No.	Stock	Dimensions (mm)							
		øD	F ₁	l ₂	L	L ₃	h	f	l ₁
C4ADES-20		40	41.6	98	85	71	20	25	67
C5ADES-20		50	41.6	98	85	71	20	25	67

C-ABB

Adapters for boring bars with sleeves



Cat. No.	Stock	Dimensions (mm)					Clamp screw	
		$\varnothing D$	$\varnothing d_2$	$\varnothing D_1$	L	L_1	Used on A-type sleeves	Used on B-type sleeves
C5ABB-25-60	●	50	25	63	100	60	SRM10X20DIN915	SRM10X12DIN1835-B
C6ABB-25-60	●	63	25	63	100	60		
C6ABB-40-70	●	63	40	75	105	71	SRM12X20DIN915	SRM12X16DIN1835-B
C8ABB25-60		80	25	63	100	60	SRM10X20DIN915	SRM10X12DIN1835-B
C8ABB40-72		80	40	75	105	71	SRM12X20DIN915	SRM12X16DIN1835-B

SC

Sleeves for C-ABB adapters

Fig. A

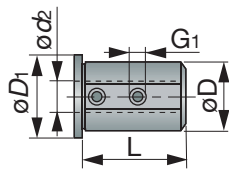
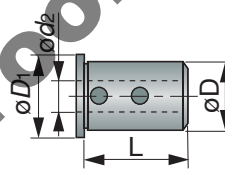
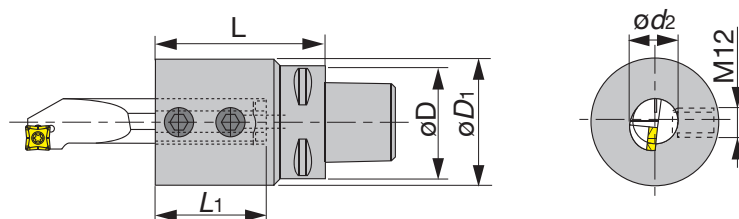


Fig. B



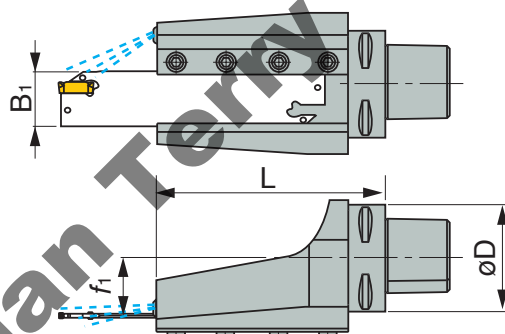
Cat. No.	Stock	Dimensions (mm)					
		$\varnothing D$	$\varnothing d_2$	$\varnothing D_1$	L	G_1	Fig.
SC25T6A	●	25	6	31	56	M6	A
SC25T8A	●	25	8	31	56	M8	A
SC25T10A	●	25	10	31	56	M8	A
SC25T12A	●	25	12	31	56	M8	A
SC25T16B	●	25	16	31	56	-	B
SC25T20B	●	25	20	31	56	-	B
SC40T6A	●	40	6	46	58	M6	A

Cat. No.	Stock	Dimensions (mm)					
		$\varnothing D$	$\varnothing d_2$	$\varnothing D_1$	L	G_1	Fig.
SC40T8A	●	40	8	46	58	M6	A
SC40T10A	●	40	10	46	58	M8	A
SC40T12A	●	40	12	46	58	M8	A
SC40T16B	●	40	16	46	58	-	B
SC40T20B	●	40	20	46	58	-	B
SC40T25B	●	40	25	46	58	-	B
SC40T32B	●	40	32	46	58	-	B

C-ADI
Adapters for boring bars


Cat. No.	Stock	Dimensions (mm)					
		øD	L	L1	ød2	øD1	G1
C4ADI10	★	40	50	20	10	36	M6
C4ADI12	★	40	50	24	12	36	M8
C4ADI16	★	40	50	32	16	36	M8
C4ADI20	★	40	70	49	20	55	M12
C4ADI25	★	40	70	45	25	54	M12
C5ADI10		50	60	26	10	36	M6
C5ADI12		50	60	26	12	36	M8
C5ADI16		50	60	32	16	36	M8
C5ADI20	●	50	75	49	20	55	M12
C5ADI25	●	50	85	60	25	60	M12
C5ADI32		50	100	76	32	68	M12
C6ADI12		60	65	36	12	36	M8
C6ADI16		60	65	36	16	36	M8

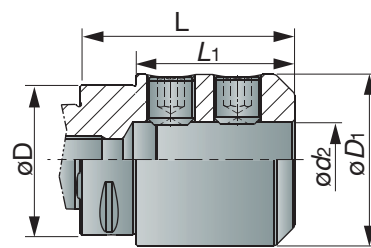
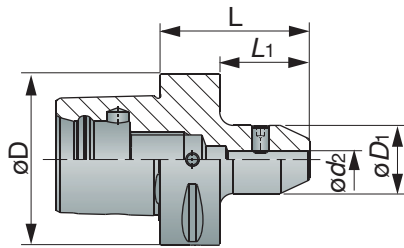
Cat. No.	Stock	Dimensions (mm)					
		øD	L	L1	ød2	øD1	G1
C6ADI20		60	65	40	20	36	M10
C6ADI25		60	76	51	25	54	M12
C6ADI32		60	100	76	32	68	M12
C6ADI40		60	100	76	40	98	M12
C6ADI50		60	115	76	50	98	M12
C8ADI12		80	70	36	12	36	M8
C8ADI16		80	70	36	16	36	M8
C8ADI20		80	70	40	20	36	M10
C8ADI25		80	80	51	25	54	M12
C8ADI32		80	110	86	32	68	M12
C8ADI40		80	115	86	40	98	M12
C8ADI50		80	115	86	50	98	M12

C-TBK-R/L
Adapters for parting and grooving blades


Cat. No.	Stock	Dimensions (mm)			
		øD	f1	L	B1
C6TBK-32L		63	32.0	138	32
C6TBK-32R		63	32.0	138	32

C-EM

Weldon endmill holders (DIN1835 Form B)



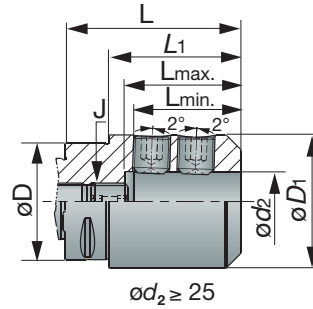
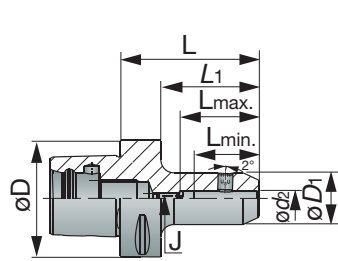
$\phi d_2 \geq 25$

Cat. No.	Stock	Dimensions (mm)				
		ϕD	ϕd_2	ϕD_1	L	L ₁
C4EM06X50		40	6	25	50	30
C4EM08X50		40	8	28	50	30
C4EM10X50		40	10	35	50	30
C4EM12X55	★	40	12	42	55	35
C4EM14X55		40	14	44	55	35
C4EM16X60	★	40	16	48	60	40
C5EM06X50		50	6	25	50	30
C5EM08X50		50	8	28	50	30
C5EM10X55		50	10	35	55	35
C5EM12X60	●	50	12	42	60	40
C5EM14X60		50	14	44	60	40
C5EM16X60	●	50	16	48	60	40
C5EM18X60	●	50	18	50	60	40
C5EM20X60	●	50	20	52	60	40
C5EM25X85	●	50	25	65	85	65
C6EM6X55		63	6	25	55	33
C6EM8X55		63	8	28	55	33
C6EM10X60		63	10	35	60	38
C6EM12X60	●	63	12	42	60	38

Cat. No.	Stock	Dimensions (mm)				
		ϕD	ϕd_2	ϕD_1	L	L ₁
C6EM14X60		63	14	44	60	38
C6EM16X65	●	63	16	48	65	43
C6EM18X65	●	63	18	50	65	43
C6EM20X65	●	63	20	52	65	43
C6EM25X80	●	63	25	65	80	58
C6EM32X90	●	63	32	72	90	68
C6EM40X100		63	40	90	100	78
C8EM06X70		80	6	25	70	40
C8EM08X70		80	8	28	70	40
C8EM10X70		80	10	35	70	40
C8EM12X70		80	12	42	70	40
C8EM14X70		80	14	44	70	40
C8EM16X70		80	16	48	70	40
C8EM18X70		80	18	50	70	40
C8EM20X70		80	20	52	70	40
C8EM25X90		80	25	65	90	60
C8EM32X95		80	32	72	95	65
C8EM40X110		80	40	90	110	80
C8EM50X120		80	50	98	120	90

C-EM-E

Drill holders (DIN1835 Form E whistle notch)

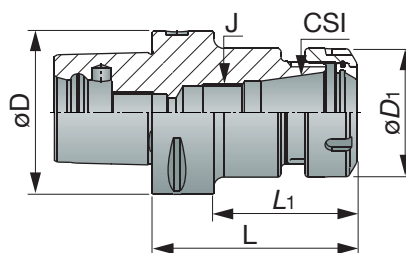


Cat. No.	Stock	Dimensions (mm)							
		øD	ød2	øD1	L	L		L1	J
						Min.	Max.		
C4EM06X70E		40	6	25	70	30	35	50	M5
C4EM08X70E		40	8	28	70	35	43	50	M6
C4EM10X70E		40	10	35	70	39	45	50	M8
C4EM12X75E		40	12	42	75	44	49	55	M10
C4EM14X75E		40	14	44	75	44	49	55	M10
C5EM06X70E		50	6	25	70	30	35	50	M5
C5EM08X70E		50	8	28	70	35	43	50	M6
C5EM10X70E		50	10	35	70	39	45	50	M8
C5EM12X75E	●	50	12	42	75	44	49	55	M10
C5EM14X75E		50	14	44	75	44	49	55	M10
C5EM16X80E	●	50	16	48	80	47	52	60	M12
C5EM18X80E		50	18	50	80	47	52	60	M12
C5EM20X85E	●	50	20	52	85	49	55	65	M16
C6EM6X75E		63	6	25	75	30	36	53	M5
C6EM8X75E		63	8	28	75	35	43	53	M6
C6EM10X75E		63	10	35	75	39	46	53	M8
C6EM12X80E	●	63	12	42	80	44	49	58	M10

Cat. No.	Stock	Dimensions (mm)							
		øD	ød2	øD1	L	L		L1	J
						Min.	Max.		
C6EM14X80E		63	14	44	80	44	49	58	M10
C6EM16X85E	●	63	16	48	85	47	52	63	M12
C6EM18X85E		63	18	50	85	47	52	63	M12
C6EM20X85E	●	63	20	52	85	49	55	63	M16
C6EM25X90E	●	63	25	65	90	54	60	68	M20
C6EM32X95E	●	63	32	72	95	58	63	73	M20
C8EM06X65E		80	6	25	65	30	36	35	M5
C8EM08X65E		80	8	28	65	35	43	35	M6
C8EM10X65E		80	10	35	65	39	46	35	M8
C8EM12X70E		80	12	42	70	44	49	40	M10
C8EM14X70E		80	14	44	70	44	49	40	M10
C8EM16X75E		80	16	48	75	47	52	45	M12
C8EM18X75E		80	18	50	75	47	52	45	M12
C8EM20X80E		80	20	52	80	49	57	50	M16
C8EM25X90E		80	25	65	90	54	60	60	M20
C8EM32X95E		80	32	72	95	58	64	65	M20

C-ER

ER collet holders (DIN6499)



Cat. No.	Stock	Range		Dimensions (mm)					
		Min.	Max.	øD	CSI	øD1	L	L1	J
C4ER16X70	★	1	10	40	ER16	28	70	50	M10
C4ER20X35	★	1	13	40	ER20	34	35	27	-
C4ER20X52	★	1	13	40	ER20	34	52	32	-
C4ER25X38	★	1	16	40	ER25	42	38	30	-
C4ER25X52	★	1	16	40	ER25	42	52	32	-
C4ER32X54	★	2	20	40	ER32	50	54	34	-
C5ER16X100	●	1	10	50	ER16	28	100	80	M10
C5ER16X130	●	1	10	50	ER16	28	130	120	M10
C5ER20X055	●	1	13	50	ER20	34	55	35	-
C5ER20X100	●	1	13	50	ER20	34	100	80	M12
C5ER20X130	●	1	13	50	ER20	34	130	120	M12
C5ER25X055	●	1	16	50	ER25	42	55	35	-
C5ER25X100	●	1	16	50	ER25	42	100	80	M16
C5ER32X057	●	2	20	50	ER32	50	57	36	-
C5ER32X100	●	2	20	50	ER32	50	100	80	M22X1.5
C6ER16X100	●	1	10	63	ER16	28	100	78	M10
C6ER16X130	●	1	10	63	ER16	28	130	108	M10
C6ER16X160	●	1	10	63	ER16	28	160	138	M10
C6ER20X060	●	1	13	63	ER20	34	60	38	-
C6ER20X100	●	1	13	63	ER20	34	100	78	M12

Wrench is not included

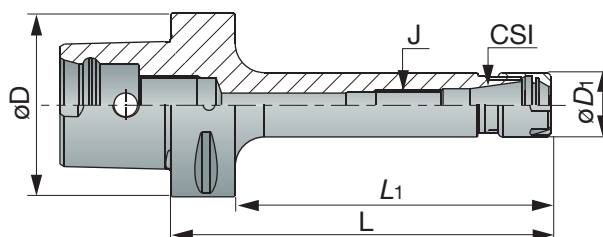
Cat. No.	Stock	Range		Dimensions (mm)					
		Min.	Max.	øD	CSI	øD1	L	L1	J
C6ER20X130	●	1	13	63	ER20	34	130	108	M12
C6ER20X160	●	1	13	63	ER20	34	160	138	M12
C6ER25X060	●	1	16	63	ER25	42	60	38	-
C6ER25X100	●	1	16	63	ER25	42	100	78	M16
C6ER25X130	●	1	16	63	ER25	42	130	108	M16
C6ER25X160	●	1	16	63	ER25	42	160	138	M16
C6ER32X060	●	2	20	63	ER32	50	60	36	-
C6ER32X100	●	2	20	63	ER32	50	100	78	M22X1.5
C6ER32X130	●	2	20	63	ER32	50	130	108	M22X1.5
C6ER32X160	●	2	20	63	ER32	50	160	138	M22X1.5
C6ER40X065		3	26	63	ER40	63	65	37	-
C6ER40X100		3	26	63	ER40	63	100	78	M28X1.5
C6ER40X130		3	26	63	ER40	63	130	108	M28X1.5
C8ER32X70		2	20	80	ER32	50	70	40	-
C8ER32X100		2	20	80	ER32	50	100	70	M22x1.5
C8ER32X160		2	20	80	ER32	50	160	130	M22x1.5
C8ER40X70		3	26	80	ER40	63	70	40	-
C8ER40X100		3	26	80	ER40	63	100	70	M28x1.5
C8ER40X160		3	26	80	ER40	63	160	130	M28x1.5

Collet P. 26

Wrench P. 27

C-ER-M

Mini ER collet chuck holders (DIN 6499)



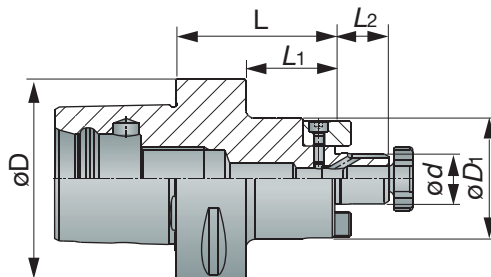
Cat. No.	Stock	Range		Dimensions (mm)					
		Min.	Max.	øD	CSI	øD1	L	L1	J
C4ER16X70M	★	0.5	10	40	ER16	22	70	50	M10
C5ER16X100M	●	0.5	10	50	ER16	22	100	80	M10
C5ER16X130M	●	0.5	10	50	ER16	22	130	120	M10
C6ER16X100M	●	0.5	10	63	ER16	22	100	78	M10
C6ER16X130M	●	0.5	10	63	ER16	22	130	108	M10
C6ER16X160M	●	0.5	10	63	ER16	22	160	138	M10

Wrench is not included

ER Collet P. 24

Wrench Preset Screw P. 25

● : Stocked items
★ : Available in 2014

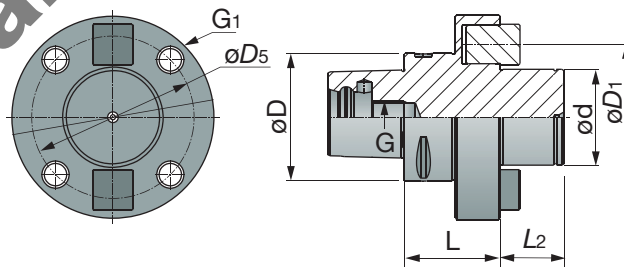
C-SEM
Shell mill holders with coolant hole


Cat. No.	Stock	Dimensions (mm)					
		øD	ød	øD1	L	L2	L1
C4SEM16X32C	★	40	16	38	32	12	17
C4SEM16X55C		40	16	38	55	35	17
C4SEM22X40C	★	40	22	47	40	20	19
C4SEM22X55C		40	22	47	55	35	19
C5SEM16X35C	●	50	16	38	35	17	15
C5SEM16X70C		50	16	38	70	17	50
C5SEM22X35C	●	50	22	47	35	19	15
C5SEM25.4X37C	●	63	25.4	50	37	22	-
C5SEM22X70C		50	22	47	70	19	50
C5SEM27X40C		50	27	58	40	21	20
C5SEM31.75X60C	●	63	31.75	64	60	30	-
C5SEM32X40C		50	32	63	40	24	20
C6SEM16X50C	●	63	16	38	50	17	28
C6SEM16X100C		63	16	38	100	17	78
C6SEM22X50C	●	63	22	47	50	19	28
C6SEM22X100C		63	22	47	100	19	78
C6SEM25.4X37C	●	63	25.4	50	37	22	-
C6SEM27X60C		63	27	58	60	21	38

Wrench is not included

Cat. No.	Stock	Dimensions (mm)					
		øD	ød	øD1	L	L2	L1
C6SEM27X100C		63	27	58	100	21	78
C6SEM31.75X60C	●	63	31.75	64	60	30	-
C6SEM32X60C		63	32	66	60	24	38
C6SEM38.1X60C	●	63	38.1	80	60	34	-
C6SEM40X60C		63	40	82	60	27	38
C8SEM16X50C		80	16	38	50	20	17
C8SEM16X100C		80	16	38	100	70	17
C8SEM22X50C		80	22	47	50	20	19
C8SEM22X100C		80	22	47	100	70	19
C8SEM25.4X50C	●	80	25.4	50	50	22	20
C8SEM27X50C		80	27	58	50	20	21
C8SEM27X100C		80	27	58	100	70	21
C8SEM31.75X50C	●	80	31.75	64	50	30	20
C8SEM32X50C		80	32	66	50	20	24
C8SEM32X100C		80	32	66	100	70	24
C8SEM38.1X50C	●	80	38.1	80	50	34	-
C8SEM40X60C		80	40	82	60	30	27

Wrench P. 25

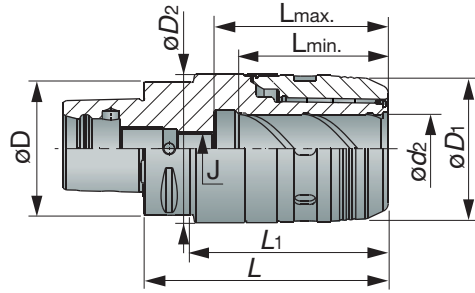
C-FM
Shell mill holders with coolant hole


Cat. No.	Stock	Dimensions (mm)							
		øD	ød	L2	L	øD1	øD5	G1	G
C8FM60X60		80	60	20	40	128	101.6	M16	M20

● : Stocked items
★ : Available in 2014

C-MAXIN

Power chuck holders



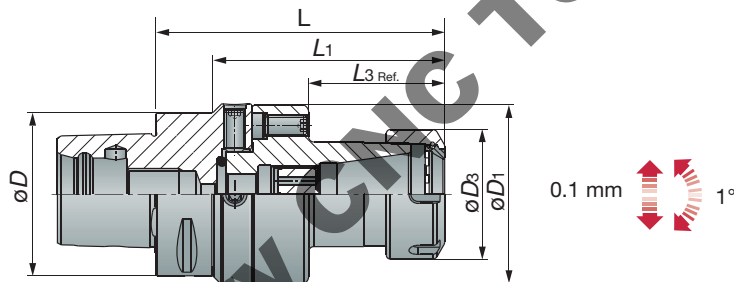
Cat. No.	Stock	Dimensions (mm)										
		øD	Range		ød ₂	øD ₁	øD ₂	L	L ₁	L		J
			Min.	Max.						Min.	Max.	
C5MAXIN20X100	●	50	6	20	20	51	53	100	75	55	67	M16
C6MAXIN20X95	●	63	6	20	20	51	53	95	73	55	67	M16
C6MAXIN32X115	●	63	6	32	32	69	70	115	93	70	82	M16
C8MAXIN20X95		80	6	20	20	51	53	95	65	55	67	M16
C8MAXIN32X115		80	6	32	32	69	70	115	85	70	82	M16

Wrench is not included

Wrench
Preset Screw P. 27

ADJ C-ER

Center alignment collet chuck holders

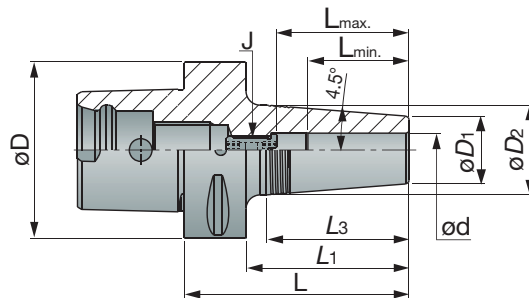


Cat. No.	Stock	Dimensions (mm)								
		øD	CSI	Range		øD1	øD3	L	L1	L3
				Min.	Max.					
ADJC5ER32		50	ER32	2	20	70	50	115.0	95.0	52.5
ADJC6ER32		63	ER32	2	20	70	50	111.5	89.5	52.5

● : Stocked items

C-SRKIN

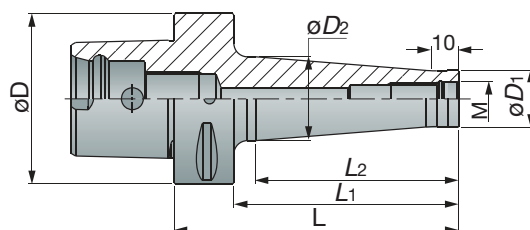
Thermal shrinking holders



Cat. No.	Stock	Dimensions (mm)									
		øD	ød	øD1	øD2	L	L1	L3	L		J
									Min.	Max.	
C4SRKIN6X75		40	6	21	27	75	55	38.1	25	36	M5
C4SRKIN8X75		40	8	21	27	75	55	38.1	25	36	M6
C4SRKIN10X75		40	10	24	32	75	55	50.8	31	42	M8
C4SRKIN12X75		40	12	24	32	75	55	50.8	36	47	M10
C4SRKIN14X80		40	14	27	34	80	60	44.5	36	47	M10
C4SRKIN16X80		40	16	27	34	80	60	44.5	39	50	M12
C4SRKIN18X80		40	18	33	42	80	60	57.2	39	50	M12
C4SRKIN20X85		40	20	33	42	85	65	57.2	41	52	M16
C5SRKIN6X75		50	6	21	27	75	55	38.1	25	36	M5
C5SRKIN8X75		50	8	21	27	75	55	38.1	25	36	M6
C5SRKIN10X75		50	10	24	32	75	55	51.3	31	42	M8
C5SRKIN12X75		50	12	24	32	75	55	51.3	36	47	M10
C5SRKIN14X80		50	14	27	34	80	60	44.5	36	47	M10
C5SRKIN16X80		50	16	27	34	80	60	44.5	39	50	M12
C5SRKIN18X80		50	18	33	42	80	60	57.2	39	50	M12
C5SRKIN20X85		50	20	33	42	85	65	57.2	41	52	M16
C5SRKIN25X90		50	25	44	53	90	70	57.2	47	58	M16
C6SRKIN6X80		63	6	21	27	80	58	38.1	25	36	M5
C6SRKIN8X80		63	8	21	27	80	58	38.1	25	36	M6
C6SRKIN10X80		63	10	24	32	80	58	50.8	31	42	M8
C6SRKIN12X80		63	12	24	32	80	58	50.8	36	47	M10
C6SRKIN14X85		63	14	27	34	85	63	44.5	36	47	M10
C6SRKIN16X85		63	16	27	34	85	63	44.5	39	50	M12
C6SRKIN18X85		63	18	33	42	85	63	57.2	39	50	M12
C6SRKIN20X85		63	20	33	42	85	63	57.2	41	52	M16
C6SRKIN25X90		63	25	44	53	90	68	57.2	47	58	M16
C6SRKIN32X95		63	32	44	53	95	73	57.2	47	58	M16

C-ODP

Indexable modular adapters with threaded connection

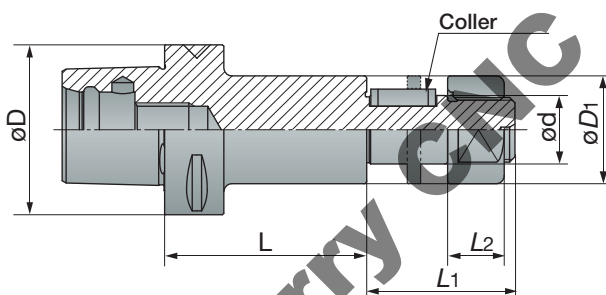


Cat. No.	Stock	Dimensions (mm)						
		M	øD	øD1	øD2	L	L1	L2
C4ODP10X53		M10	40	18	23	53	33	23
C4ODP12X53		M12	40	21	26	53	33	23
C4ODP16X53		M16	40	29	34	53	33	23
C5ODP10X53		M10	50	18	19.5	53	33	25
C5ODP10X103		M10	50	18	28	103	83	75
C5ODP12X53		M12	50	21	23.5	53	33	25
C5ODP12X103		M12	50	21	31	103	83	75
C5ODP16X53		M16	50	29	34	53	33	25
C5ODP16X103		M16	50	29	36	103	83	75

Cat. No.	Stock	Dimensions (mm)						
		M	øD	øD1	øD2	L	L1	L2
C6ODP10X55		M10	63	18	19.5	55	33	25
C6ODP10X105		M10	63	18	28	105	83	75
C6ODP10X130		M10	63	18	32	130	108	100
C6ODP12X55		M12	63	21	23.5	55	33	25
C6ODP12X105		M12	63	21	31	105	83	75
C6ODP12X130		M12	63	21	36	130	108	100
C6ODP16X55		M16	63	29	34	55	33	25
C6ODP16X105		M16	63	29	34	105	83	75
C6ODP16X130		M16	63	29	41	130	108	100

C-SCA

Slot milling holders

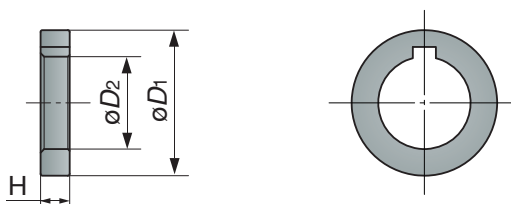


New

Cat. No.	Stock	Dimensions (mm)					
		øD	ød	L	øD1	L1	L2
C6SCA25.4-075	●	63	25.4	75	40	55	21
C6SCA31.75-075	●	63	31.75	75	46	60	26
C8SCA25.4-090	●	80	25.4	90	40	55	21
C8SCA31.75-090	●	80	31.75	90	46	60	26

SCA

Coller for slot milling holder (Option)



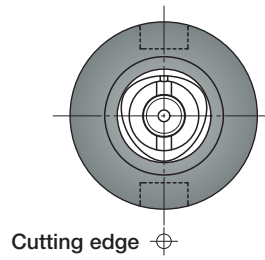
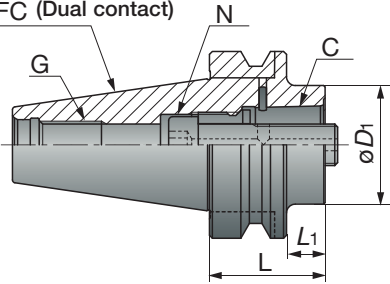
Cat. No.	Stock	Dimensions (mm)		
		øD1	øD2	H
SCA25.4-02	●	40	25.4	3, 5, 7, 8, 10, 12, 14
SCA31.75-02	●	46	31.75	3, 5, 7, 8, 10, 12, 14

● : Stocked items

BT-FC

Adapters BT shank with dual contact

BT-FC (Dual contact)



New

Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD1	L	L1	G	
BT40FC-C4-040	●	C4	40	40	13	M16	55
BT40FC-C5-050	●	C5	50	50	23	M16	95
BT40FC-C6-075	●	C6	63	75	48	M16	170
BT50FC-C4-040	●	C4	40	40	2	M24	55
BT50FC-C4-070	●	C4	40	70	32	M24	55
BT50FC-C5-040	●	C5	50	40	2	M24	95

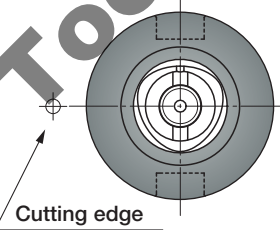
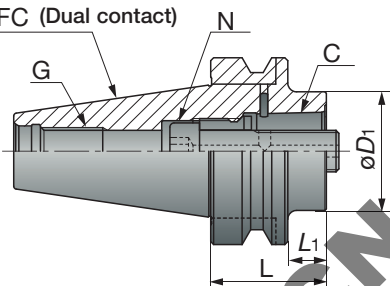
Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD1	L	L1	G	
BT50FC-C5-080	●	C5	50	80	42	M24	95
BT50FC-C6-050	●	C6	63	50	12	M24	170
BT50FC-C6-100	●	C6	63	100	62	M24	170
BT50FC-C8-070	●	C8	80	70	32	M24	170
BT50FC-C8-120	●	C8	80	120	82	M24	170

* Recommend clamping torque

BT-FC-T

Adapters BT shank with dual contact (For turning on multi task machine)

BT-FC (Dual contact)



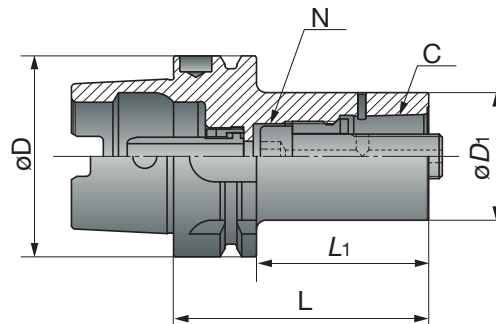
New

Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD1	L	L1	G	
BT40FC-C4-040T	●	C4	40	40	13	M16	55
BT40FC-C5-050T	●	C5	50	50	23	M16	95
BT50FC-C6-050T	●	C6	63	50	12	M24	170
BT50FC-C8-070T	●	C8	80	70	32	M24	170

* Recommend clamping torque

HSK-A-C/-T

Adapters HSK shank



New

for HSK-T shank

Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD	øD1	L	L1	
HSK63A-C4-080T	●	C4	63	40	80	54	55
HSK63A-C5-090T	●	C5	63	50	90	64	95
HSK63A-C6-110T	●	C6	63	63	110	74	170

for HSK-A shank

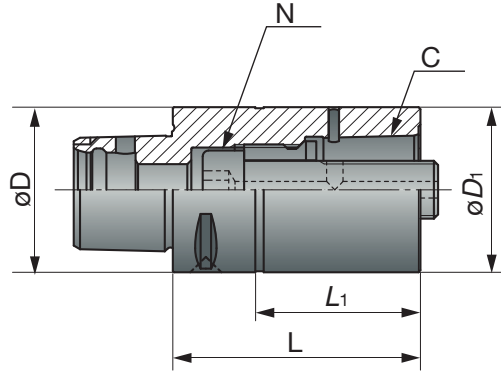
Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD	øD1	L	L1	
HSK100A-C6-110	●	C6	100	63	110	81	170
HSK100A-C8-120	●	C8	100	80	120	91	170

* Recommend clamping torque

● : Stocked items

C-EX

Extension adapters



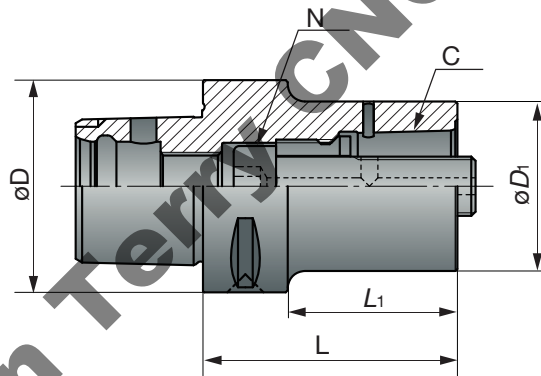
New

Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD	øD1	L	L1	
C4EX-060	●	C4	40	40	60	80	65
C4EX-080	●	C4	40	40	80	60	65
C5EX-080	●	C5	50	50	80	60	95
C5EX-100	●	C5	50	50	100	80	95
C6EX-100	●	C6	63	63	100	78	170
C6EX-140	●	C6	63	63	140	118	170
C8EX-100	●	C8	80	80	100	70	170
C8EX-160	●	C8	80	80	160	130	170

* Recommend clamping torque

C-RE

Reduction adapters



New

Cat. No.	Stock	Dimensions (mm)					N* (N·m)
		C	øD	øD1	L	L1	
C5-C4RE-060	●	C4	50	40	60	40	55
C5-C4RE-080	●	C4	50	40	80	60	55
C6-C4RE-080	●	C4	63	40	80	58	55
C6-C5RE-080	●	C5	63	50	80	58	95
C6-C5RE-120	●	C5	63	50	120	98	95
C8-C4RE-070	●	C4	80	40	70	40	55
C8-C5RE-080	●	C5	80	50	80	50	95
C8-C6RE-080	●	C6	80	63	80	50	170
C8-C6RE-120	●	C6	80	63	120	90	170

* Recommend clamping torque

ER Collet

ER 11

SPR

0.5 - 1

AA

1 Collet size	
ER11	11
ER16	16
ER20	20
ER25	25
ER32	32
ER40	40

2 Collet type	
SPR	Standard type
SEAL	Sealed type

3 Range (mm)	
0.5-1	0.5-1
1-2	1-2
⋮	⋮

4 Additional feature	
AA	Ultra precision
JET2	External coolant

ER□□SPR□-□AA

Range (mm)	Class AA					
	ER11	ER16	ER20	ER25	ER32	ER40
0.5-1	●	●				
1-2	●	●	●	●		
2-3	●	●	●	●	●	
3-4	●	●	●	●	●	
4-5	●	●	●	●	●	
5-6	●	●	●	●	●	
6-7	●	●	●	●	●	
7-8		●	●	●	●	
8-9		●	●	●	●	
9-10		●	●	●	●	
10-11			●	●	●	
11-12			●	●	●	
12-13			●	●	●	
13-14				●	●	
14-15				●	●	
15-16				●	●	
16-17					●	
17-18					●	
18-19					●	
19-20					●	
20-21					●	
21-22					●	
22-23					●	
23-24					●	
24-25					●	
25-26					●	



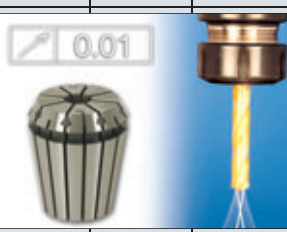
ER□□SPR□-□

Range (mm)	Class standard					
	ER11	ER16	ER20	ER25	ER32	ER40
0.5-1						
1-2						
2-3						
3-4						
4-5						
5-6						
6-7						
7-8						
8-9						
9-10						
10-11						
11-12						
12-13						
13-14						
14-15						
15-16						
16-17						
17-18						
18-19						
19-20						
20-21						
21-22						
22-23						
23-24						
24-25						
25-26						



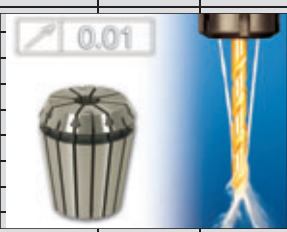
ER□□SEAL□-□

Range (mm)	Seal for internal oil hole				
	ER16	ER20	ER25	ER32	ER40
0.5-1					
1-2					
2-3					
3-4	●	●	●	●	
4-5	●	●	●	●	
5-6	●	●	●	●	
6-7	●	●	●	●	
7-8	●	●	●	●	
8-9	●	●	●	●	
9-10	●	●	●	●	
10-11		●	●	●	
11-12		●	●	●	
12-13		●	●	●	
13-14			●	●	
14-15			●	●	
15-16			●	●	
16-17				●	
17-18				●	
18-19				●	
19-20				●	
20-21				●	
21-22				●	
22-23				●	
23-24				●	
24-25				●	
25-26				●	



ER□□SEAL□-□JET2

Range (mm)	Seal JET2 for external oil hole				
	ER16	ER20	ER25	ER32	ER40
0.5-1					
1-2					
2-3					
3-4	●	●	●	●	
4-5	●	●	●	●	
5-6	●	●	●	●	
6-7	●	●	●	●	
7-8	●	●	●	●	
8-9	●	●	●	●	
9-10	●	●	●	●	
10-11		●	●	●	
11-12		●	●	●	
12-13			●	●	
13-14			●	●	
14-15			●	●	
15-16				●	
16-17				●	
17-18				●	
18-19				●	
19-20				●	
20-21				●	
21-22				●	
22-23				●	
23-24				●	
24-25				●	
25-26				●	

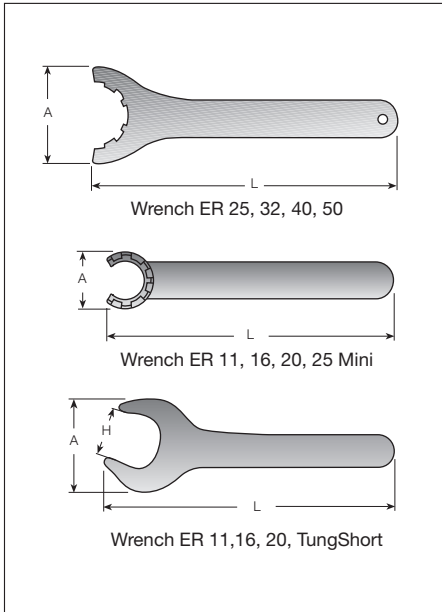


: Not available

● : Stocked items

Wrench for ER Collet Chuck

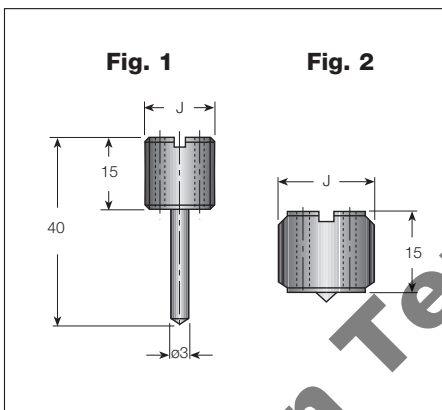
WRENCH-ER / ER DIN 6499



Cat. No.	Stock	Dimensions (mm)		
		A	H	L
WRENCHER11MINI	●	16.8	-	95
WRENCHER11	●	32	17	95
WRENCHER16MINI	●	22.5	-	117
WRENCHER16	●	42.8	25	143
WRENCHER20MINI	●	28	-	128
WRENCHER20	●	53.5	30	172
WRENCHER25MINI	●	29	-	120
WRENCHER25	●	70	-	207
WRENCHER32	●	78	-	255
WRENCHER40		95	-	285
WRENCHER50		110	-	350
WRENCHER20SHORTRING22	●	48	22	260
WRENCHER32SHORT	●	75	36	303
WRENCHER40SHORT		94	46	378

Preset screws for ER Collet Chuck

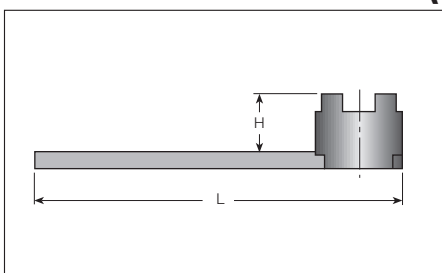
PRESET ER-JET



Cat. No.	Stock	J	Fig.
PRESETER-JET8X1		M8X1.0	2
PRESETER-JET8X1.25		M8X1.25	2
PRESETER-JET10X1.5	●	M10X1.5	2
PRESETER-JET12X1		M12X1.0	2
PRESETER-JET12X1.75L	●	M12X1.75	1
PRESETER-JET12X1.75	●	M12X1.75	2
PRESETER-JET14X1	●	M14X1.0	2
PRESETER-JET16X2	●	M16X2	2
PRESETER-JET16X2L	●	M16X2	1
PRESETER-JET18X1		M18X1.0	2
PRESETER-JET18X1.5	●	M18X1.5	2
PRESETER-JET18X1.5L	●	M18X1.5	1
PRESETER-JET22X1.5	●	M22X1.5	2
PRESETER-JET22X1.5L	●	M22X1.5	1
PRESETER-JET28X1.5		M28X1.5	2

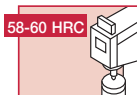
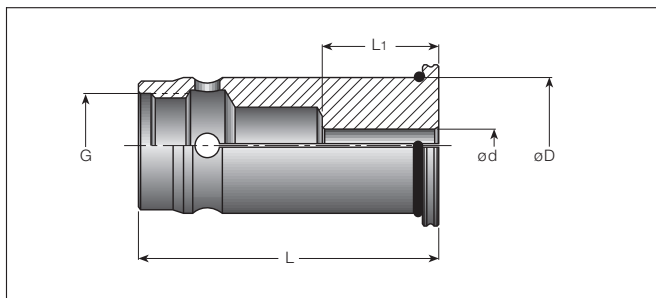
Wrench for Shell Mill Holder

WRENCH SEMC / DIN 6368 (Option)

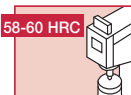
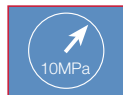
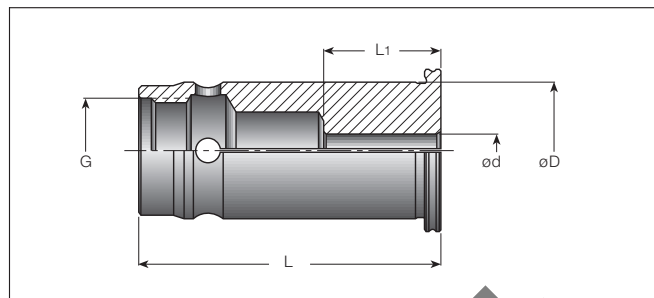


Cat. No.	Stock	Dimensions (mm)			
		Inner diameter of cutter body ø	Screw size	H	L
WRENCHM8SEMC16	●	16	M8	20	180
WRENCHM10SEMC22	●	22	M10	25	200
WRENCHM12SEMC27	●	27	M12	32	225
WRENCHM16SEMC32	●	32	M16	36	250
WRENCHM20SEMC40	●	40	M20	40	280
WRENCHM24SEMC50	●	50	M24	50	315

A SC-SEAL



B SC-SPR



A SC-SEAL SC Sealed Straight Collet - Metric

Cat. No.	Stock	Dimensions (mm)				
		ød	øD	L	L ₁	G
SC20SEAL6	●	6	20	60	28	M16
SC20SEAL8	●	8	20	60	28	M16
SC20SEAL10	●	10	20	60	35	M16
SC20SEAL12	●	12	20	60	40	M16
SC20SEAL14	●	14	20	60	40	M16
SC20SEAL15	●	15	20	60	40	M16
SC20SEAL16	●	16	20	60	39	M16
SC32SEAL6	●	6	32	72	28	M24x1.5
SC32SEAL8	●	8	32	72	28	M24x1.5
SC32SEAL10	●	10	32	72	35	M24x1.5
SC32SEAL12	●	12	32	72	40	M24x1.5
SC32SEAL14	●	14	32	72	40	M24x1.5
SC32SEAL15	●	15	32	72	40	M24x1.5
SC32SEAL16	●	16	32	72	44	M24x1.5
SC32SEAL18	●	18	32	72	44	M24x1.5
SC32SEAL19	●	19	32	72	44	M24x1.5
SC32SEAL20	●	20	32	72	46	M24x1.5
SC32SEAL24	●	24	32	72	46	M24x1.5
SC32SEAL25	●	25	32	72	51	M24x1.5

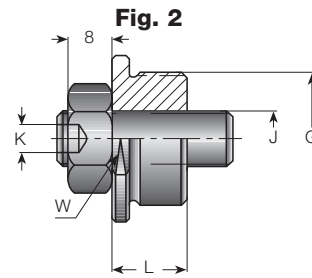
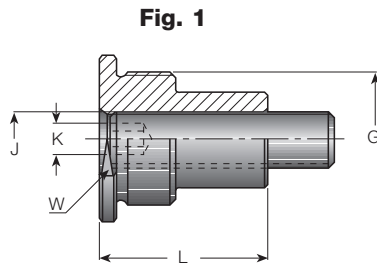
B SC-SPR SC Straight Collet - Metric

Cat. No.	Stock	Dimensions (mm)				
		ød	øD	L	L ₁	G
SC20SPR6		6	20	60	28	M16
SC20SPR8		8	20	60	28	M16
SC20SPR10		10	20	60	35	M16
SC20SPR12		12	20	60	40	M16
SC20SPR14		14	20	60	40	M16
SC20SPR15		15	20	60	40	M16
SC20SPR16		16	20	60	39	M16
SC32SPR6		6	32	72	28	M24x1.5
SC32SPR8		8	32	72	28	M24x1.5
SC32SPR10		10	32	72	35	M24x1.5
SC32SPR12		12	32	72	40	M24x1.5
SC32SPR14		14	32	72	40	M24x1.5
SC32SPR15		15	32	72	40	M24x1.5
SC32SPR16		16	32	72	44	M24x1.5
SC32SPR18		18	32	72	44	M24x1.5
SC32SPR19		19	32	72	44	M24x1.5
SC32SPR20		20	32	72	46	M24x1.5
SC32SPR24		24	32	72	45	M24x1.5
SC32SPR25		25	32	72	51	M24x1.5

TUNGMAX

Preset screw for Power Chuck

SC-SPR

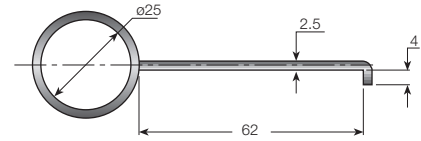
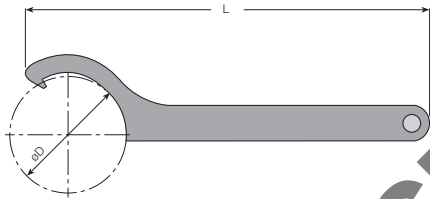


PRESET SC CAP Preset screw for SC Collets (Power Chuck)

Cat. No.	Stock	Dimensions (mm)				Fig.	Collet Range	Wrench K	Collet size
		L	W	J	G				
PRESETSCCAP8x1.25L	●	28	16	M8x25	M16	1	6-8	4	SC20
PRESETSCCAP8x1.25	●	15	16	M8x25	M16	2	10-16	4	
PRESETSCCAP10x1.5L	●	30.0	27	M10x30	M24x1.5	1	6-14	5	SC20
PRESETSCCAP10x1.5	●	13.5	27	M10x30	M24x1.5	2	16-25	5	

TUNGMAX

Wrench



Wrench for TungMax Collets

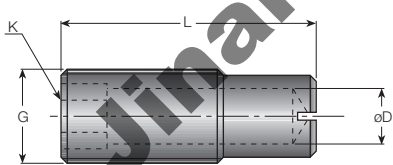
Cat. No.	Stock	Dimensions (mm)	
		øD	L
WRENCHMAXIN20HOOK	●	26	205
WRENCHMAXIN32HOOK	●	68	240

SC Collet extracting hook for TungMax

Cat. No.	Stock
EXTRACTORSCCOLLETS	●

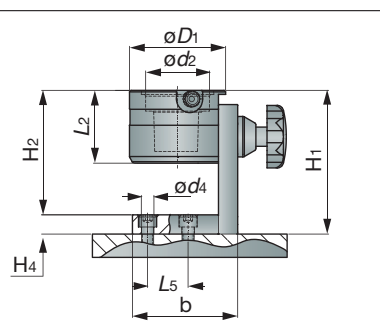
TUNGMAX

Preset screws



Cat. No.	Stock	Dimensions (mm)			
		G	L	øD	K
PRESETMAXIN16X30	●	M16	30	8	8
PRESETMAXIN16X44	●	M16	44	8	8
PRESETMAXIN20X55	●	M20	55	12	12

Clamp fixture



Cat. No.	Stock	Dimensions (mm)								
		ød2	øD1	L2	H1	H2	H4	b	L5	ød4
MULTICLAMP4		40.4	78	67	137.05	118.05	19	104	40	12.5
MULTICLAMP5		50	85	72	142	123	19	104	40	12.5
MULTICLAMP6		63	95	72	142	123	19	104	40	12.5
MULTICLAMP8		80	130	90	178	159	19	144	85	12.5



Tungaloy Corporation (Head office)

11-1 Yoshima-Kogyodanchi
Iwaki-city, Fukushima, 970-1144 Japan
Phone: +81-246-36-8501
Fax: +81-246-36-8542
www.tungaloy.co.jp

Tungaloy America, Inc.

3726 N Ventura Drive
Arlington Heights, IL 60004, U.S.A.
Phone: +1-888-554-8394
Fax: +1-888-554-8392
www.tungaloyamerica.com

Tungaloy Canada

432 Elgin St. Unit 3
Brantford, Ontario N3S 7P7, Canada
Phone: +1-519-758-5779
Fax: +1-519-758-5791
www.tungaloy.co.jp/ca

Tungaloy de Mexico S.A.

C Los Arellano 113,
Parque Industrial Siglo XXI
Aguascalientes, AGS, Mexico 20290
Phone: +52-449-929-5410
Fax: +52-449-929-5411
www.tungaloy.co.jp/mx

Tungaloy do Brasil Comércio de Ferramentas de Corte Ltda.

Rua dos Sabias N.104
13280-000 Vinhedo, São Paulo, Brazil
Phone: +55-19-38262757
Fax: +55-19-38262757
www.tungaloy.co.jp/br

Tungaloy Germany GmbH

An der Alten Ziegelei 1
D-40789 Monheim, Germany
Phone: +49-2173-90420-0
Fax: +49-2173-90420-19
www.tungaloy.de

Tungaloy France S.A.S.

ZA Courtaboef - Le Rio
1 rue de la Terre de feu
F-91952 Courtaboef Cedex, France
Phone: +33-1-6486-4300
Fax: +33-1-6907-7817
www.tungaloy.fr

Tungaloy Italia S.r.l.

Via E. Andolfato 10
I-20126 Milano, Italy
Phone: +39-02-252012-1
Fax: +39-02-252012-65
www.tungaloy.it

Tungaloy Czech s.r.o.

Turanka 115
CZ-627 00 Brno, Czech Republic
Phone: +420-532 123 391
Fax: +420-532 123 392
www.tungaloy.cz

Tungaloy Ibérica S.L.

C/Miquel Servet, 43B, Nau 7
Pol. Ind. Bufalvent
ES-08243 Manresa (BCN), Spain
Phone: +34 93 113 1360
Fax: +34 93 876 2798
www.tungaloy.es

Tungaloy Scandinavia AB

S:t Lars Väg 42A
SE-22270 Lund, Sweden
Phone: +46-462119200
Fax: +46-462119207
www.tungaloy.se

Tungaloy Rus, LLC

36-D Harkovsky Lane
308009 Belgorod, Russia
Phone: +7 4722 24 00 07
Fax: +7 4722 24 00 08
www.tungaloy.co.jp/ru

Tungaloy Polska Sp. z o.o.

ul. Genewska 24
03-963 Warszawa, Poland
Phone: +48-22-617-0890
Fax: +48-22-617-0890
www.tungaloy.co.jp/pl

Tungaloy U.K. Ltd

The Technology Centre,
Wolverhampton Science Park
Glaisher Drive, Wolverhampton
West Midlands WV10 9RU, UK
Phone: +44 121 309 0163
Fax: +44 121 270 9694
www.tungaloy.co.uk
salesinfo@tungaloyuk.co.uk

Tungaloy Hungary Kft

Erzsébet királyné útja 125
H-1142 Budapest, Hungary
Phone: +36 1 781-6846
Fax: +36 1 781-6866
www.tungaloy.co.jp/hu
info@tungaloytools.hu

Tungaloy Turkey

Dudullu Organize Sanayi Bolgesi DES
Sanayi Sitesi 1 Cadde Ticaret
Merkezi No.3/7
34779 Umraniye Istanbul, TURKEY
Phone: +90 216 540 04 67
Fax: +90 216 540 04 87
www.tungaloy.co.jp/tr
info@tungaloy.com.tr

Tungaloy Benelux b.v.

Tjalk 70
NL-2411 NZ Bodegraven, Netherlands
Phone: +31 172 630 420
Fax: +31 172 630 429
www.tungaloy-benelux.com

Tungaloy Croatia

Malinska 8
10430 Samobor, Croatia
Phone: +385 1 3326 604
Fax: +385 1 3327 683
www.tungaloy.hr

Tungaloy Cutting Tool (Shanghai) Co., Ltd.

Rm No 401 No.88 Zhabei
Jiangchang No.3 Rd
Shanghai 200436, China
Phone: +86-21-3632-1880
Fax: +86-21-3621-1918
www.tungaloy.co.jp/tcts

Tungaloy Cutting Tool (Thailand) Co., Ltd.

TCIF Tower 4th Fl.
1858/5-7 Bangna-Trad Road
km.5 Bangna, Bangkok 10260
Thailand
Phone: +66-2-751-5711
Fax: +66-2-751-5715
www.tungaloy.co.th

Tungaloy Singapore (Pte.), Ltd.

31 Kaki Bukit Road 3, #05-19 TechLink
Singapore 417818
Phone: +65-6391-1833
Fax: +65-6299-4557
www.tungaloy.co.jp/tspl

Tungaloy India Pvt. Ltd.

Unit#13, B wing, 8th floor
Kamala Mills Compound
Trade World, Lower Parel (West)
Mumbai - 4000 13, India
Phone: +91-22-6124-8804
Fax: +91-22-6124-8899
www.tungaloy.co.jp/in

Tungaloy Korea Co., Ltd

#1312, Byucksan Digital Valley 5-cha
Beotkkot-ro 244, Geumcheon-gu
153-788 Seoul, Korea
Phone: +82-2-2621-6161
Fax: +82-2-6393-8952
www.tungaloy.co.jp/kr

Tungaloy Malaysia Sdn Bhd

50 K-2, Kelana Mall, Jalan SS6/14
Kelana Jaya, 47301
Petaling Jaya, Selangor Darul Ehsan
Malaysia
Phone: +603-7805-3222
Fax: +603-7804-8563
www.tungaloy.co.jp/my

Tungaloy Australia Pty Ltd

PO Box 2332, Rowville, Victoria, Australia
Phone: +61-3-9755-8147
Fax: +61-3-9755-6070
www.tungaloy.co.jp/au

PT. Tungaloy Indonesia

Kompleks Grand Wisata Block AA-10
No.3-5 Cibitung
Bekasi 17510, Indonesia
Phone: +62-21-8261-5808
Fax: +62-21-8261-5809
www.tungaloy.co.jp/id

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