

COLLET CHUCK

DEAD-LENGTH COLLET SYSTEM

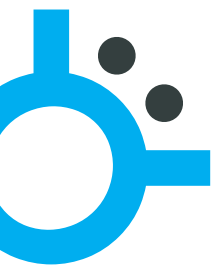


UNILÖCK COLLET-CHUCK FOR C.N.C. LATHES

03

UNILÖCK
clamping solutions

THE ACCURACY OF MECHANICS,
THE HUMAN TOUCH.



SMS - COLLET-CHUCK

DEAD-LENGTH COLLET SYSTEM



With this system the collet remains stationary coupled to the spindle clamping nut while the rear tapered cylinder advances for tightening. The collet is changed quickly by simply loosening the front clamping nut. The collet closes parallel to the bar without interfering on its position.

Main uses

Applied to the lathe counter-spindle, tighten the piece without loading the spindle axis and do not trigger the alarm of the C.N.C. Suitable for bar and secondary machining, with excellent tightening repeatability.

Available in following models:

SMS 45 - bar passage \varnothing 45 mm

SMS 56 - bar passage \varnothing 56 mm

SMS 65 - bar passage \varnothing 65 mm

SMS 80 - bar passage \varnothing 80 mm

SMS 95 - bar passage \varnothing 95 mm

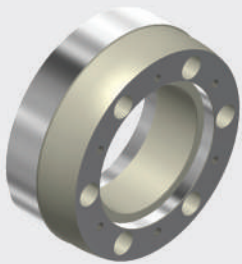
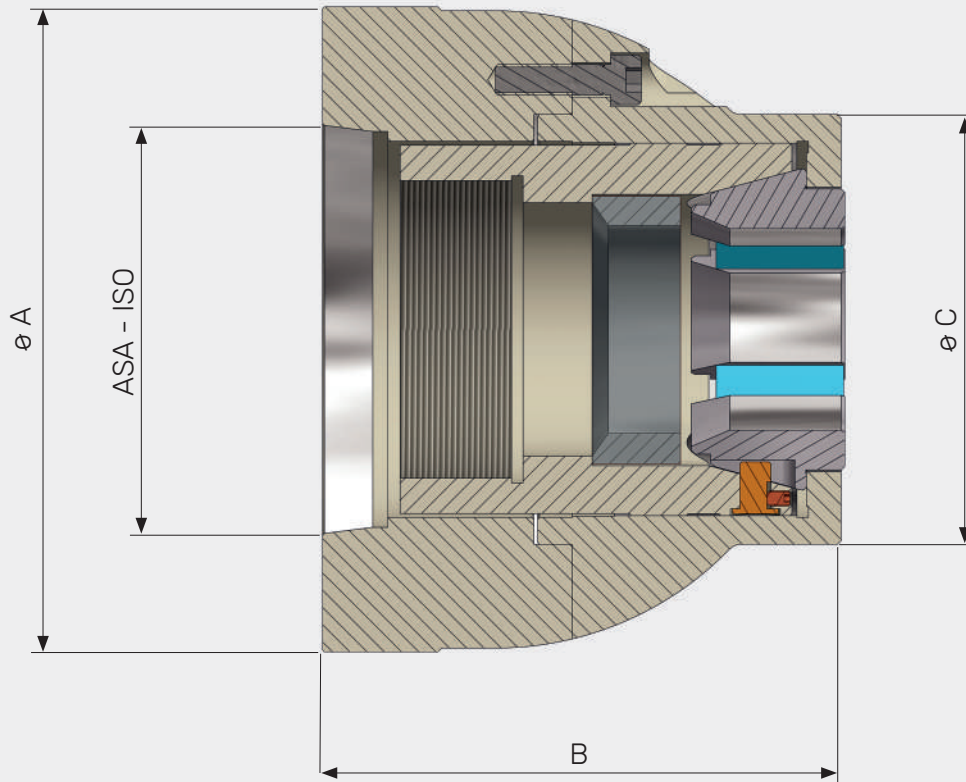
All models are **COMPATIBLE** with
FB, BA and DIN 6343 collects.

ADVANTAGES

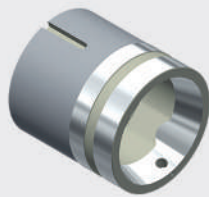
- Minimum clearance
- Quick change clamping nut
- Bar clamping with stationary collet
- Does not mark the surface of the piece
- Fewer machine downtimes
- Machining tolerance lower than DIN tables
- Range of machining: -1.0 mm
- Clamping of raw pieces (rolled, forged, castings)

SMS - COLLET-CHUCK

DEAD-LENGTH COLLET SYSTEM



Base ASA or ISO



Master sleeve



Bush



Collet



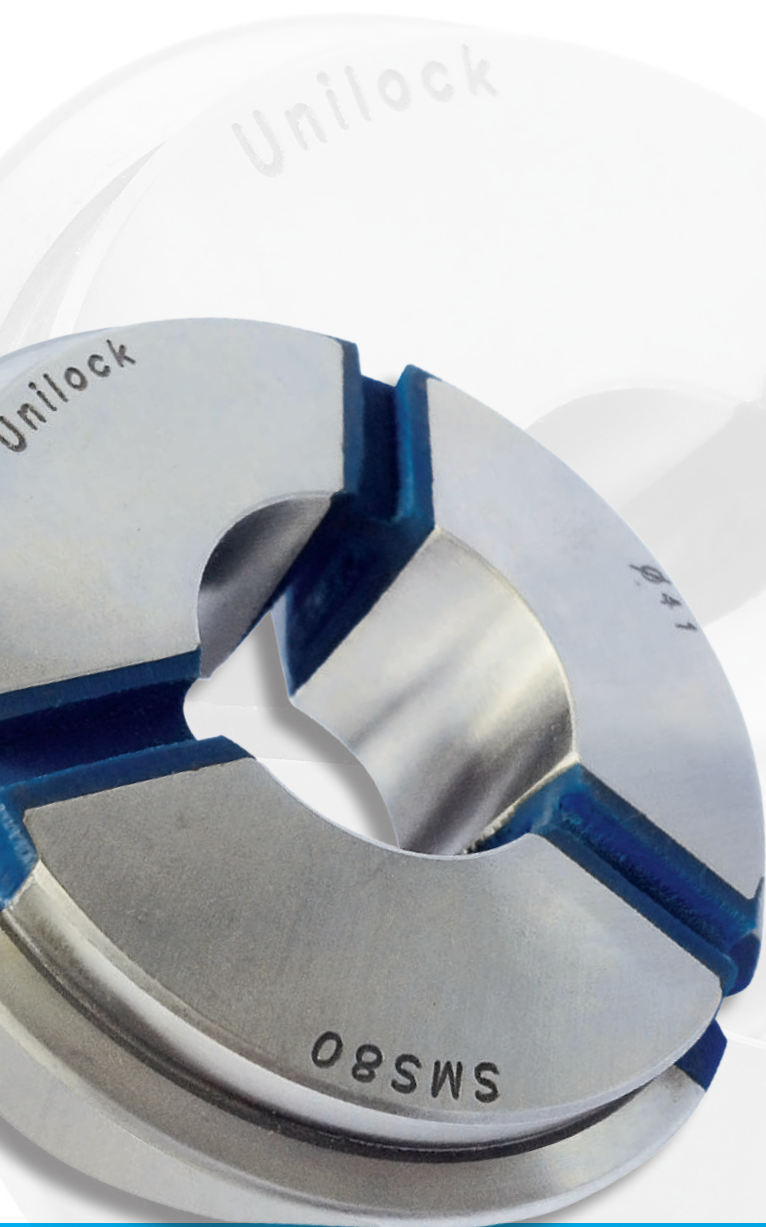
Quick change clamping nut

ITEM N.	ASA	ISO	A	B	C	●	⬡
SMS 45	5	115 - 120	$\varnothing 135$	127	$\varnothing 88$	$\varnothing 45$	ch 39
SMS 56	5 - 6	120 - 170	$\varnothing 168$	135	$\varnothing 112$	$\varnothing 56$	ch 48
SMS 65	5 - 6	120 - 170	$\varnothing 168$	135	$\varnothing 112$	$\varnothing 65$	ch 56
SMS 80	6 - 8	170	$\varnothing 208$	145	$\varnothing 132$	$\varnothing 80$	ch 69
SMS 95	8 - 11	-	$\varnothing 198$	164	$\varnothing 178$	$\varnothing 95$	ch 82



SMS - CLAMPING COLLETS

DEAD-LENGTH COLLET SYSTEM



SMS clamping collets are made up from metal inserts, units of vulcanised rubber. This allows the collet to close radially in a perfect manner, blocking the piece along the entire length of the hole and eliminates the intrusion of shavings to pass inside the spindle.

Applied to the lathe main spindle it is suitable for bar machining. Moreover, the construction flexibility of the system allows easy specific solutions (drawn bars, rectified items, rolled items, pipes).

All the **UNILOCK SMS COLLETT**S are **COMPATIBLE** with FB, BA and DIN 6343.

ADVANTAGES

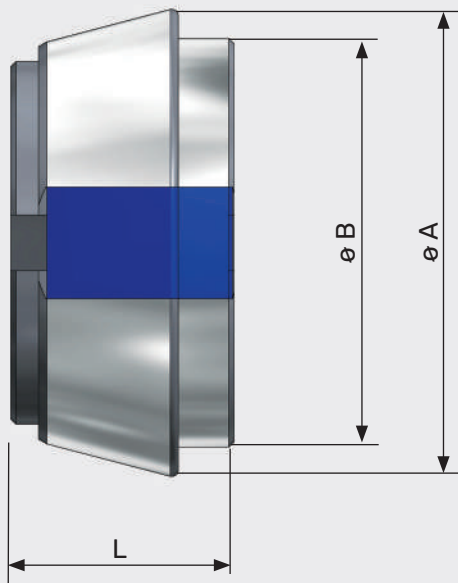
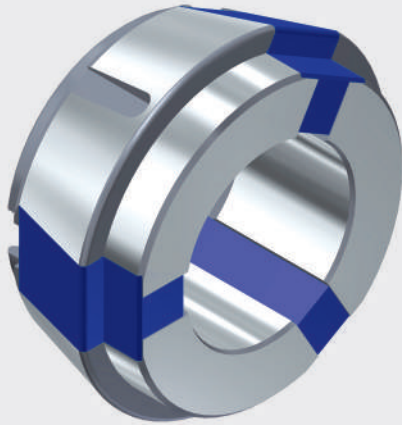
- **UNILOCK SMS COLLETS** close with tapered coupling.

This feature allows a bar clamping over the entire length of the collet hole with a force from 5 to 10 times greater than conventional collets.

- Bar clamping with stationary collet
- Excellent elasticity
- Reduction of vibrations
- Less tool wear
- No wear on the collet
- Does not mark the surface of the piece
- Fewer machine downtimes

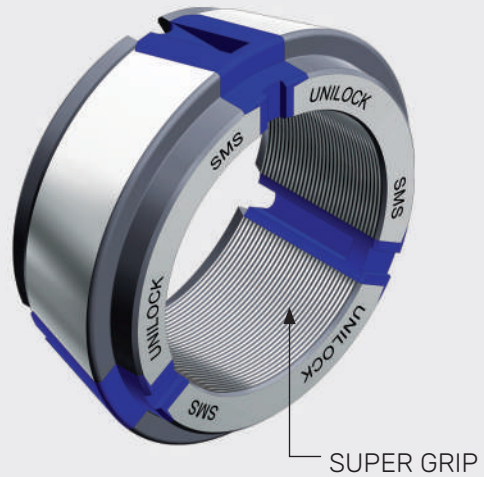
SMS - CLAMPING COLLETS

DEAD-LENGTH COLLET SYSTEM



SUPER GRIP

High friction coefficient

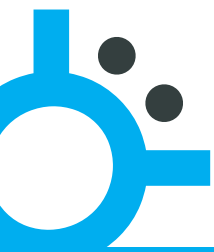


SUPER GRIP COLLETS as well as maintaining the basic features, it presents an high friction coefficient obtained by a special machining process, which increases the clamping force even further.

The **“dynamic friction coefficient”** is determined on the basis of the roughness present inside the collet and must be considered according to the type of material to be machined (e.g. stainless steel, steel, brass).

MATERIAL	DYNAMIC FRICTION COEFFICIENT
STAINLESS STEEL	0,42
STEEL	0,48
BRASS	0,55
NO COATING	0,18

ITEM N.	COMPATIBLE CODE			A	B	L	●	⬡
	TYPE F	E - DIN 6343	BA					
SMS 32	F 35	163 E	BA 30	ø 48	ø 38	31,5	ø 32	ch 27
SMS 38	F 42	171 E	BA 36	ø 55	ø 42	32	ø 38	ch 33
SMS 45	F 48	173 E	BA 42	ø 60	ø 50	31	ø 45	ch 39
SMS 56	F 58	177 E	BA 52	ø 70	ø 60	35	ø 56	ch 48
SMS 65	F 66	185 E	BA 60	ø 84	ø 73	40	ø 65	ch 56
SMS 75	-	-	BA 70	ø 98	ø 85	48	ø 75	ch 65
SMS 80	-	-	-	ø 104	ø 91	44	ø 80	ch 69
SMS 95	-	-	-	ø 118	ø 99	49	ø 95	ch 82



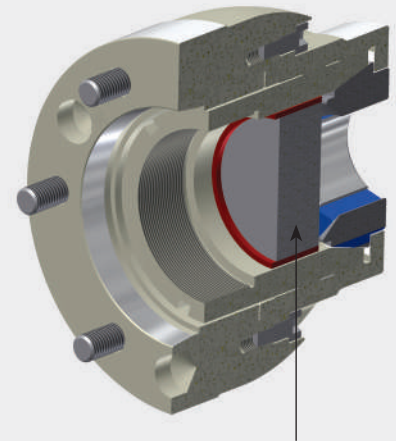
COLLET-CHUCK

DEAD-LENGTH COLLET SYSTEM

TECHNICAL FEATURES

SECONDARY MACHINING

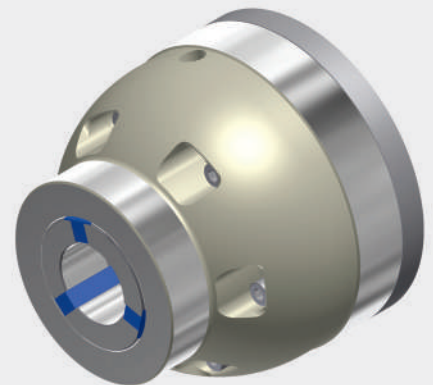
A seat for a retainer with adjustable tip to use in secondary machining has been realised inside the collet sleeve.



Adjustable retainer

QUICK CHANGE CLAMPING NUT

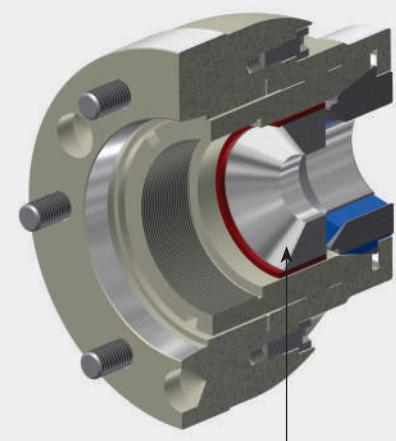
Just loosen the clamping nut to remove it and change the collet.



Quick change clamping nut

BAR MACHINING

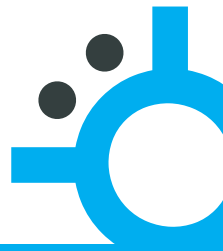
A seat for a bar orientation bush has been realised inside the collet sleeve. Via the automatic loader, the bush allows the orientation with the closing collet, in the loading phase.
Ideal for hexagonal, square or profile bars.



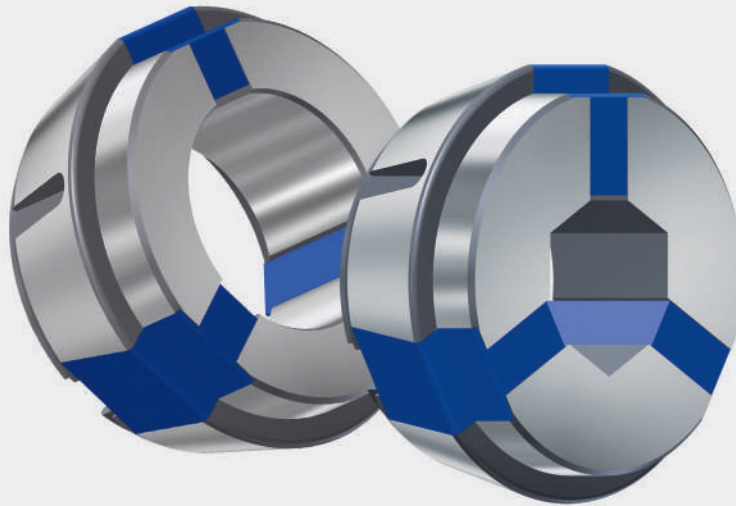
Bar orientation bush

SMS - CLAMPING COLLETS

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TECHNICAL FEATURES



TAPERED COUPLING CLOSURE

This feature allows each individual sector of the collet to close radially, thus clamping the piece along the entire length of the hole and developing a clamping force from 5 to 10 times greater with respect to “traditional mono-cone” collets, which only close on the front edge. They replace the double cone collets.

BAR CLAMPING WITH STATIONARY COLLET

The Unilock collet closes parallel to the bar axis without interfering in movement of the same. In this way, it does not load the lathe counter-spindle axis.

EXCELLENT ELASTICITY

Thanks to its high elasticity, the Unilock collet is adaptable to the imperfections of the bar to be clamped. **Suitable for machining rolled, forged and cast elements.**

REDUCTION OF THE VIBRATIONS

The strong clamping force of the Unilock collet greatly reduces vibrations and resonances.

DOES NOT MARK THE SURFACE OF THE PIECE

During the clamping phase, thanks to the use of a fixed collet closing system (as jaws of self-centering) the bar or the piece is not scratched or marked by the collet.

FEWER MACHINE DOWNTIMES

Le pinze Unilock sono prive di tagli. Questa caratteristica rende quasi impossibile la formazione di sporcizia all'interno del mandrino.

clamping solutions

2021 edition



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UNILÖCK
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