

Centco 4

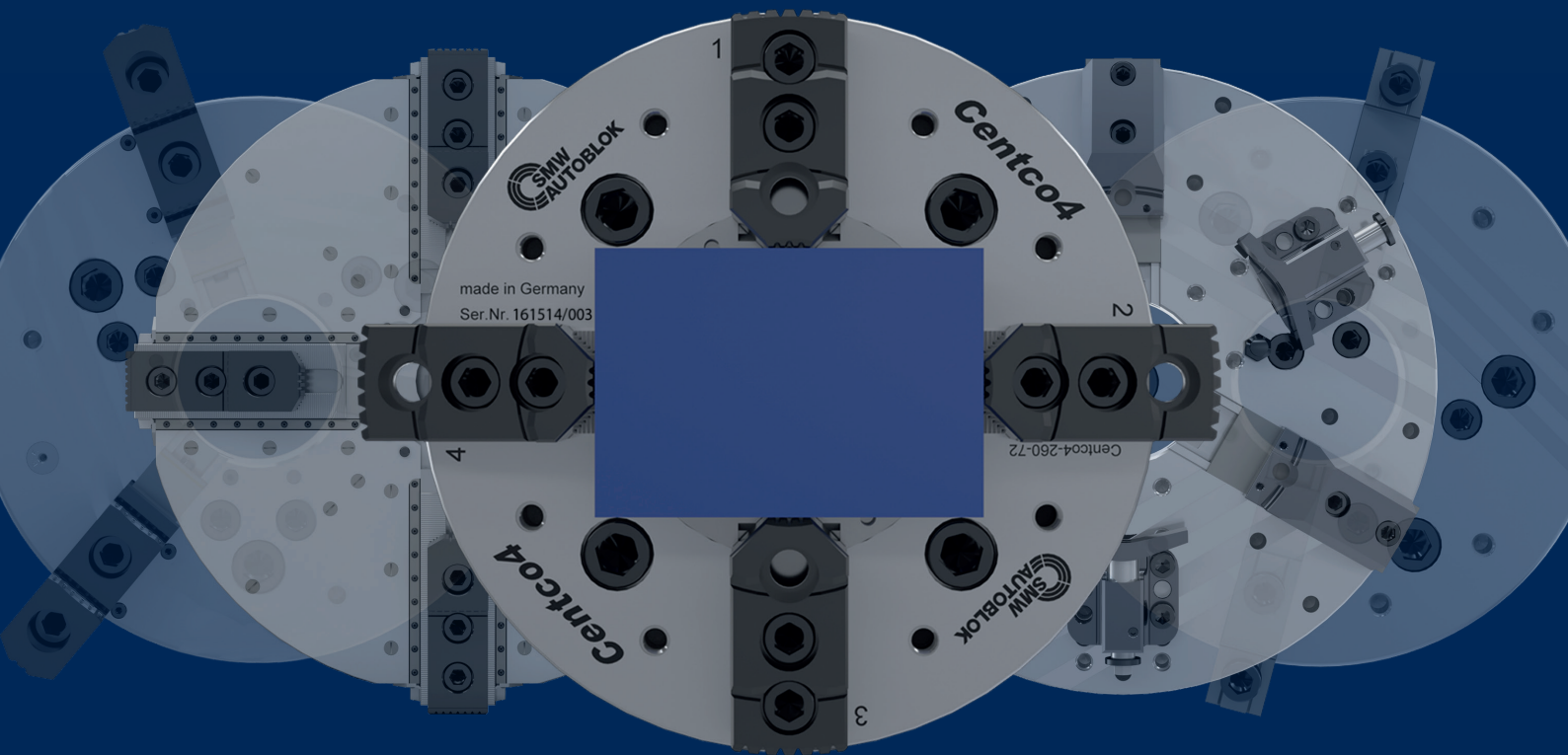
...good reasons to buy one

APPLICATION

PRODUCT BENEFITS

COST SAVINGS

Centco4 „all in one“



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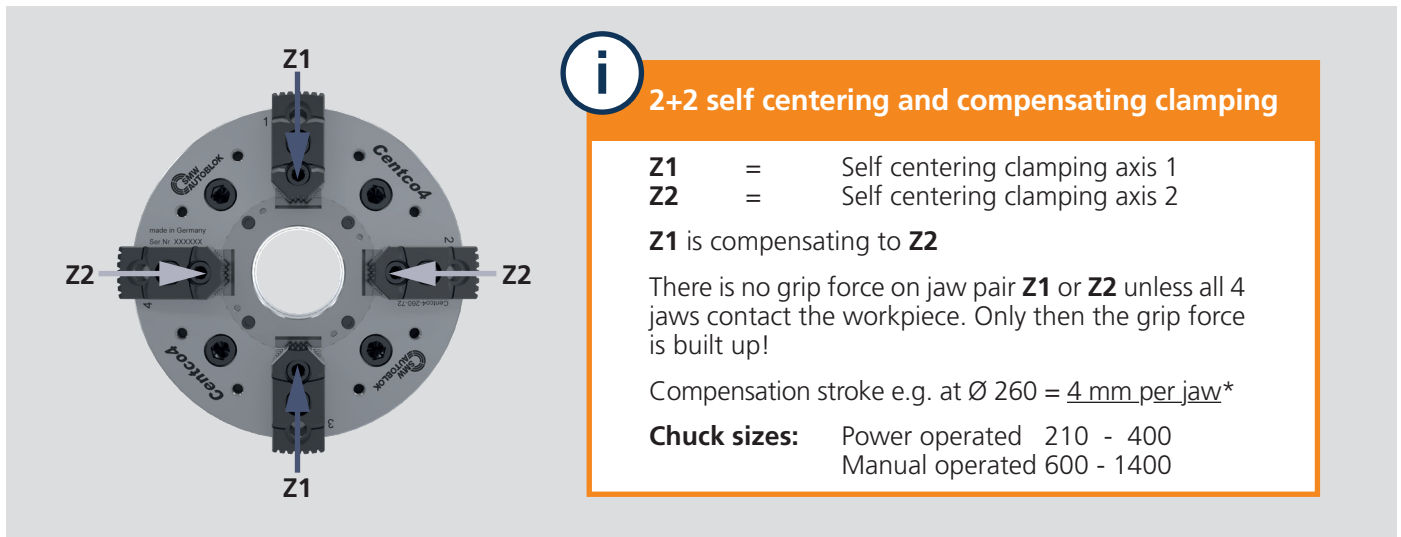
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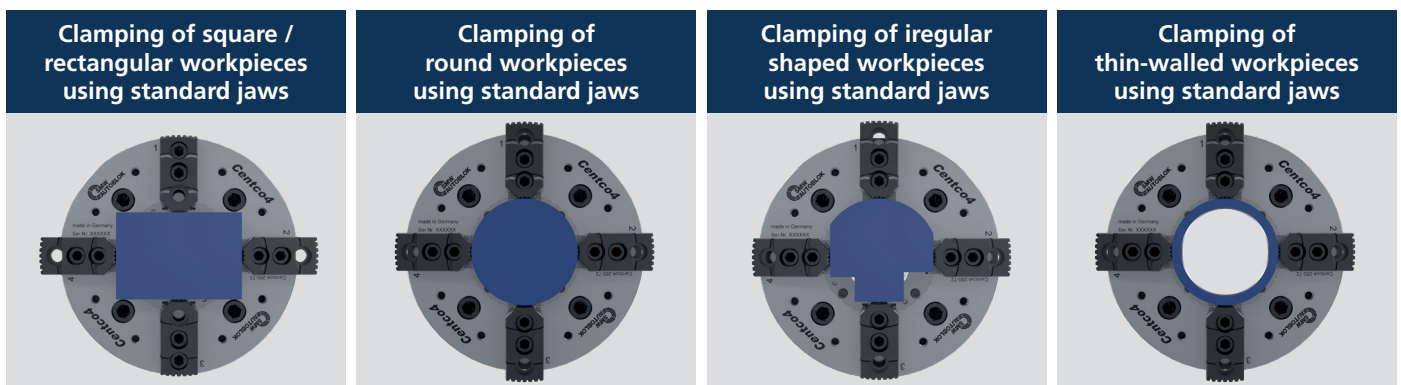
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Centco4 4-jaw chuck

Principle of function - Central actuation via one standard cylinder



Clamping options



Application examples



* The actuation is done via one central piston using a standard cylinder.

Product benefits of the *Centco4*

- No retooling of the machine needed
- Jaws for new workpieces are available quickly since standard jaws can usually be used
- Higher workpiece quality
- Constant clamping forces due to centrifugal force compensation
- *Centco4* available as power and manual chuck
- Large compensation stroke (2+2 clamping) to cover large tolerances on rough parts
- High concentricity at OP20
- The actuation is done via one central piston using a standard cylinder

Possible cost savings / calculation example

3-jaw standard chuck		<i>Centco4</i> 2+2 self centering and compensating	
	€/set		€/set
 Special jaws 1 set for each workpiece size	1.500,-€	 Standard jaws 1 set for all workpiece sizes	500,-€
 Standard jaws	375,-€	 Standard jaws 1 set for all workpiece sizes	500,-€
 Special jaws 1 set for each workpiece size	1.750,-€	 Standard jaws 1 set for all workpiece sizes	500,-€
 Special pendulum jaws 1 set for approx. 50 mm clamping range	2.000,-€	 Standard jaws 1 set for all workpiece sizes	500,-€
Total at 1 set of jaws respectively	5.625,-€	Total at 1 set of jaws respectively	2.000,-€
Cost savings at 1 set of jaws		3.625,-€	
Total at 2 sets of jaws respectively	11.250,-€	Total at 2 sets of jaws respectively	4.000,-€
Cost savings at 2 sets of jaws		7.250,-€	

4-jaw chuck

- 2+2 self centering
- Independent self centering clamping in 2 axis
- Centrifugal force compensation

Application/customer benefits

- Independent self centering clamping in 2 axis via 1 central actuating mechanism
- Mechanical centering of the workpiece
- Standard cylinder can be used for actuating
- Clamping of every workpiece geometry possible
- Centrifugal force compensation for maximum speed
- Less workpiece deformation compared to 3-jaw chucks
- Long lifetime due to case hardened parts
- Large range of standard top jaws

Technical features

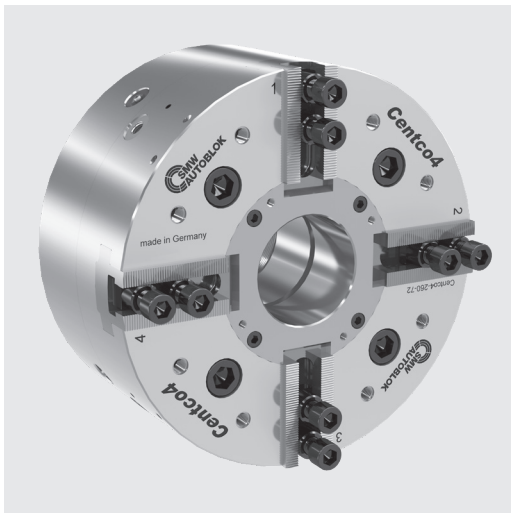
- Centrifugal force compensation
- Optimized lubrication system
- Large through hole
- Jaw interface 1/16" x 90°

Standard equipment

4-jaw chuck,
8 pieces T-nuts and bolts

Ordering example

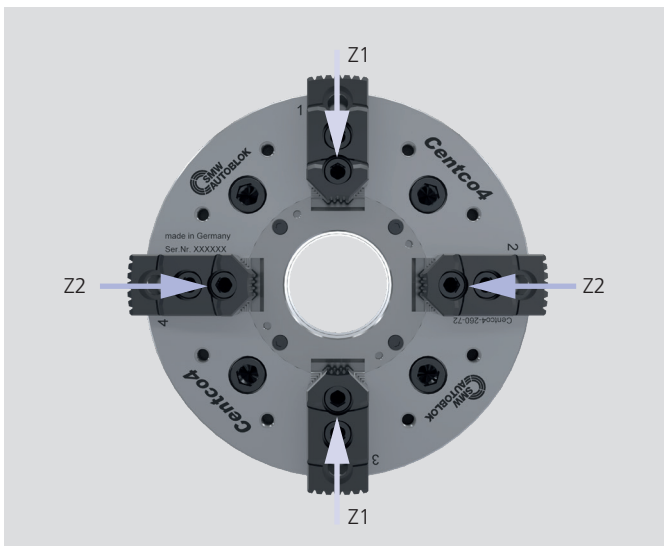
4-jaw chuck
Centco4-260-7-Z-220



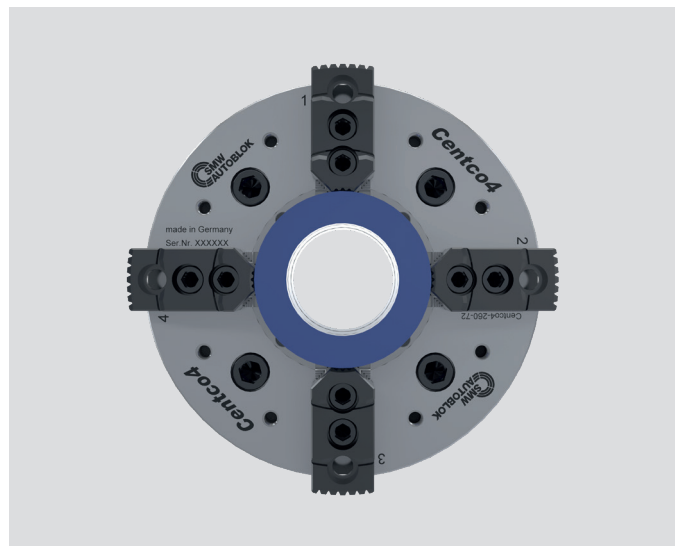
Function / Application examples

2+2 self centering and compensating clamping*

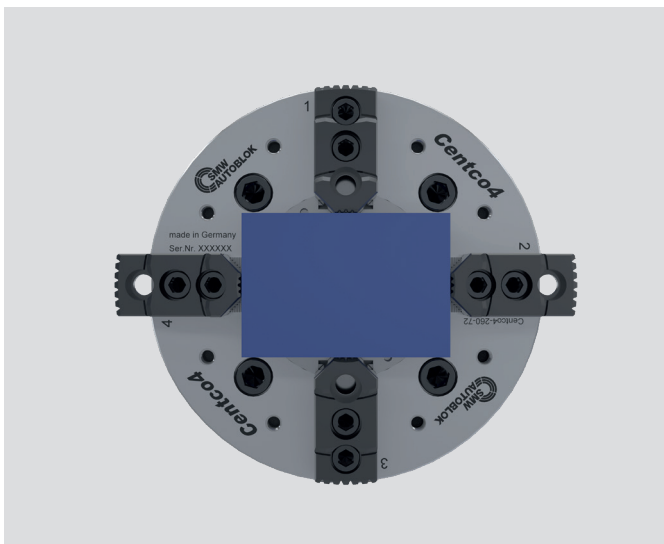
There is no grip force on jaw pair Z1 or Z2 unless all 4 jaws contact the workpiece. Only then the grip force is built up!



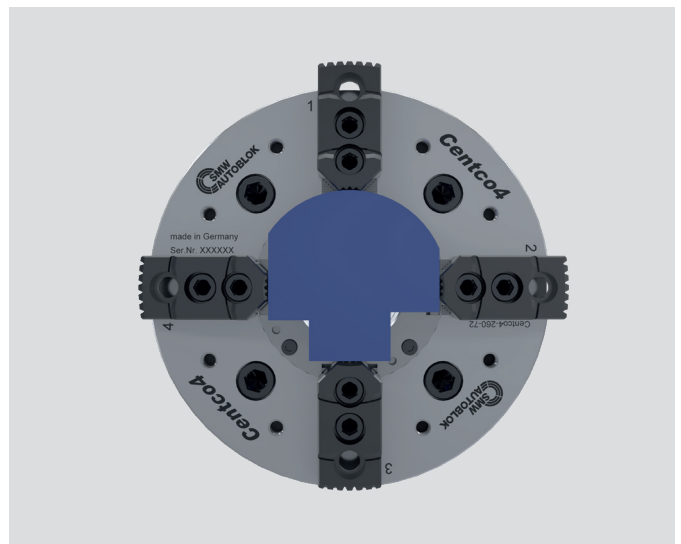
2+2 self centering clamping of round or thinwalled workpieces



2+2 self centering and compensating clamping of rectangular or square workpieces



2+2 self centering and compensating clamping of unshaped workpieces



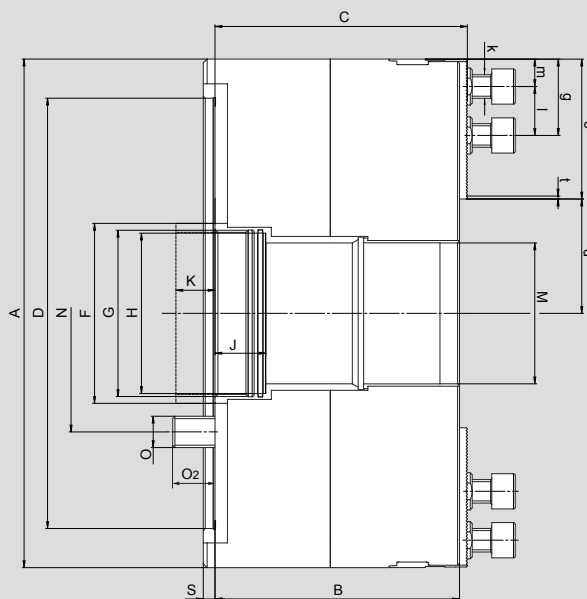
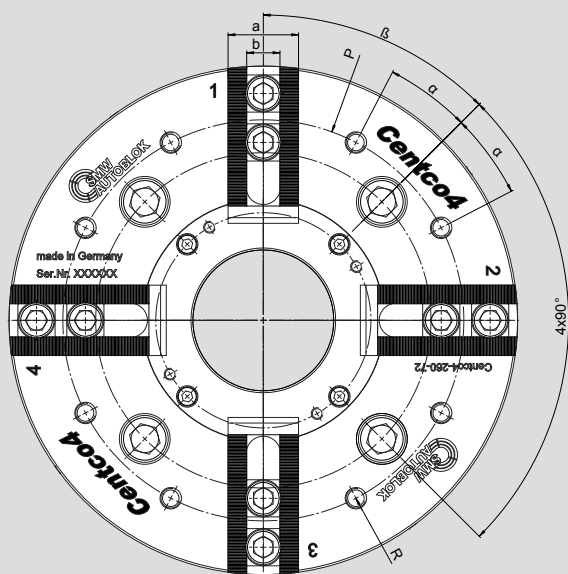
* Z1: Self centering clamping axis 1 / Z2: self centering clamping axis 2.
Z1 is compensating to Z2.

4-jaw chuck

- 2+2 self centering
- Independent self centering clamping in 2 axis
- Centrifugal force compensation

Centco4

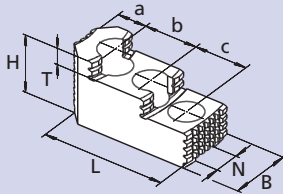
INCH
SERRATION



Subject to technical changes.
For more detailed information please ask our customer service.

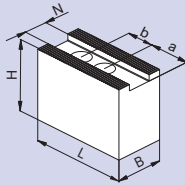
SMW-AUTOBLOK Type <i>Centco4</i>		210-52	260-72	315-92	400-112	400-112
Mounting		Z170	Z220	Z300	Z300	Z380
Id. No.		163120	162780	163140	163175	163160
Outside diameter	A	210	260	315	400	400
	B	108.5	125	134	146	146
	C	110.5	129	138	150	150
Diameter Mounting	D H6	170	220	300	300	380
	F	68	92	115	142	142
Piston thread / depth	G	M60 x 2 / 20	M85 x 2 / 20	M105 x 2 / 20	M125 x 2 / 28	M125 x 2 / 28
Centering draw tube	H H7	57	82	102	122	122
Face contact draw tube	J	30	30	30	38	38
Piston stroke	K	17	20	23	25	25
Through hole	M H7	52	72	92	112	112
Bolt circle	N	133.4	171.4	235.0	235.0	330.2
Fixing bolt	O	M12	M16	M20	M20	M24
	O2	19.5	22	29	25	29
	P	170	205	260	280	280
Thread / depth	R	M8 / 12	M10 / 21	M10 / 21	M10 / 21	M10 / 21
	S	5	6	6	6	6
Jaw width	a	35	36	40	45	45
Groove width	b H7	14	17	17	21	21
	c	60	71.5	91	117.5	117.5
Max.	d	45	58.5	66.5	82.5	82.5
Max. / min.	g	47 / 22	58 / 25	78 / 25	104 / 35	104 / 35
Bolt ISO 4762 12.9	k	M10	M12	M12	M16	M16
Min.	l	16	19	19	25	25
Min.	m	6	6	6	10	10
Inch serration	t	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
	α°	27.5	27.5	27.5	27.5	27.5
	β°	35	35	35	35	35
Stroke per jaw	mm	4.5	5.25	6	6.5	6.5
Equalising per jaw	mm	3.4	4	5	5	5
Max. actuating force	kN	40	50	60	85	85
Max. total gripping force	kN	100	125	150	210	210
Max. speed	min-1	5000	4500	4000	3500	3500
Weight (without jaws)	kg	24.5	42	66	121.5	121.5
Moment of inertia	kgm²	0.15	0.4	0.92	2.7	2.7
Recommended actuating cylinder		SIN-S 100 / 125	SIN-S 125 / 150	SIN-S 125 / 150	SIN-S 150 / 175	SIN-S 150 / 175
Recommended actuating cylinder		VNK-T2 130-52	VNK-T2 170-77	VNK-T2 225-95	VNK-T2 250-110	VNK-T2 250-110

MHB-D (INCH SERRATION) Hard, reversible stepped top jaws



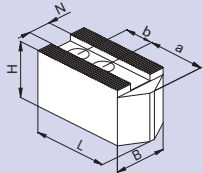
Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Jaw type	MHB-D 160	MHB-D 200	MHB-D 200	MHB-D 251
Id. No.	12081638	12082038	12082038	12083038
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	34	40	40	45
H	39	45	45	56
L	65.2	82	82	106.2
T	10	10.5	10.5	13.5
N	14	17	17	21
a	18	19	19	26
b	16.5	23	23	30
c	16.5	23	23	30
kg / set	0.9	2.3	2.3	2.9

MWB-D (INCH SERRATION) Soft top jaws Tall version



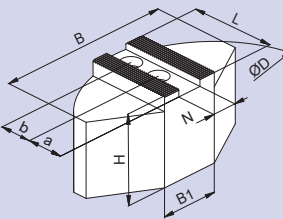
Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Jaw type	MWB-D 165	MWB-D 200	MWB-D 200	MWB-D 250
Id. No.	5318607	5318837	5318837	5319680
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	35	40	40	50
H	60	60	60	80
L	70	90	90	120
N	14	17	17	21
a	33	43	43	62
b	16.5	22	22	28
kg / set	2.8	4.1	4.1	9.2

AWB-D (INCH SERRATION) Soft top jaws Low / pointed version



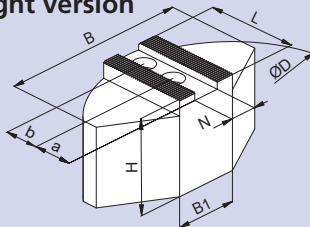
Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Jaw type	AWB-D 165	AWB-D 200	AWB-D 200	AWB-D 250
Id. No.	5318608	5318838	5318838	5319681
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	40	40	40	50
H	40	40	40	50
L	80	90	90	120
N	14	17	17	21
a	43	53	53	70
b	22	22	22	28
kg / set	2.4	2.7	2.7	5.4

SBS-D (INCH SERRATION) Soft pie jaws



Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Jaw type	SBS-D 165	SBS-D 200	SBS-D 200	SBS-D 200
Id. No.	5318610	5318839	5318839	5319684
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	120	140	140	180
B1	40	64	64	50
D	165	200	200	250
H	60	60	60	70
L	60	70	70	80
N	14	17	17	21
a	25	35	35	30
b	22	22	22	29
kg / set	7.1	10.3	10.3	18.3

SBA-D (INCH SERRATION) Soft pie jaws aluminium light version

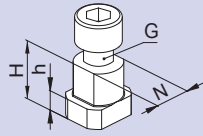


Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Jaw type	SBA-D 165	SBA-D 200	SBA-D 200	SBA-D 250
Id. No.	5318609	5318840	5318840	5319685
Serration	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
B	110	120	120	160
B1	40	40	40	50
D	165	200	200	250
H	58	58	58	78
L	58	72.5	72.5	87.5
N	14	17	17	21
a	25	35	35	40
b	20	22	22	29
kg / set	2.4	3.7	3.7	7.2

* SMW-AUTOBLOK is recommending not to clamp any diameters, that are larger than the chuck O.D.

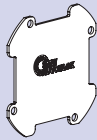
■ T-Nuts

NST T-nuts suitable for Centco4



Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
T-nut type	NST	NST	NST	NST
Id. No.	163134	016021	016021	014788
N	14	17	17	21
H	20	23	23	27
h	7.5	9	9	10
G				
Cyl.-screw ISO 4762-12.9	M10 x 25	M12 x 30	M12 x 30	M16 x 35
Torque Md max. (Nm)	50	70	70	150

cover for through-hole



Chuck	Centco4-210-52	Centco4-260-72	Centco4-315-92	Centco4-400-112
Id.No.	163135	163136	163137	163138

**Important for maintenance and safe operation,
to be ordered with the chuck**

Grease K67

Special grease for
manual and power chucks



Cartridge 14 Oz. (DIN 1284)
Grease content 500g
Id. No. 10731223

Can 1000 g
Id.No. 10731224

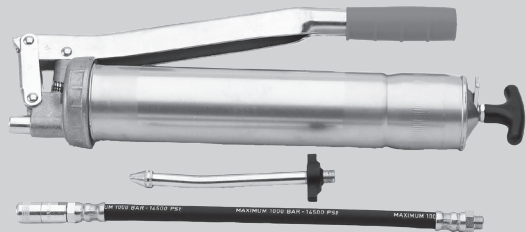


- High adhesion
- High resistance against coolant
- High load bearing capacity
- Low friction coefficient
- High gripping force
- Avoids tribocorrosion

Grease gun

Grease gun (DIN 1283) for
cartridges 14 Oz. (DIN 1284)

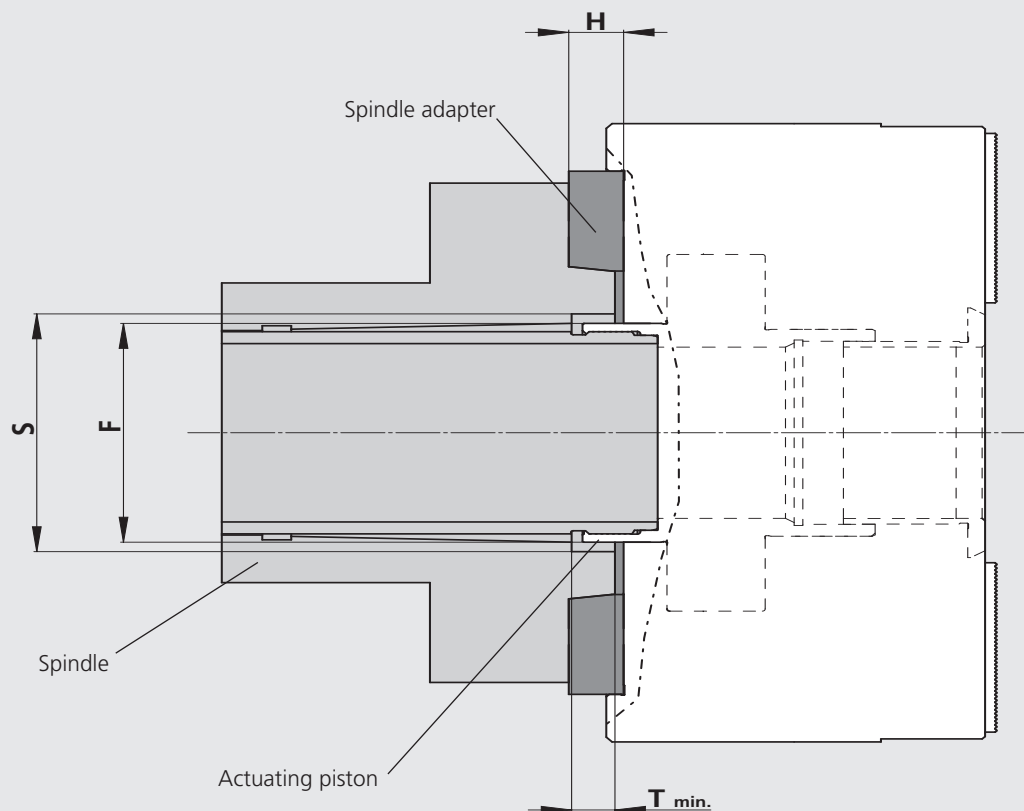
■ Also refillable from grease can 1000 g



Lubrication set Id. No. 083726

Supply range

- Grease gun
- 1 Adapter flexible for high pressure grease nipple
- 1 Adapter for cone grease nipple



Chuck type Centco4	Spindle mounting	Actuating piston dia. F (mm)	Clearance dia. S (mm)	Clearance - depth T min. (mm)*	Id. No. Spindle adapter	Spindle adapter height H (mm)
210-52-Z170	A06	68	> 68	14	24162000	17
			< 68	-	24162110	40
260-72-Z220	A06	92	< 92	-	24182500	50
	A08	92	> 92	17	24182520	19
			> 92	9	24162532	40
315-92-Z300	A08	115	> 115	10	24183100	30
			< 115	-	24184000	40
	A11	115	> 115	20	24113100	21
			> 115	11	24113110	30
			< 115	-	2704390	44
400-112-Z300	A11	142	< 142	-	2704390	44
400-112-Z380	A11	142	> 142	2	24115000	40
			< 142	-	2704391	44
	A15	142	> 142	23	24125000	23
			< 142	-	2704392	47

* to clear the axial stroke of the actuating piston (see „technical details piston stroke“ K)

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