

# TSBF-CP

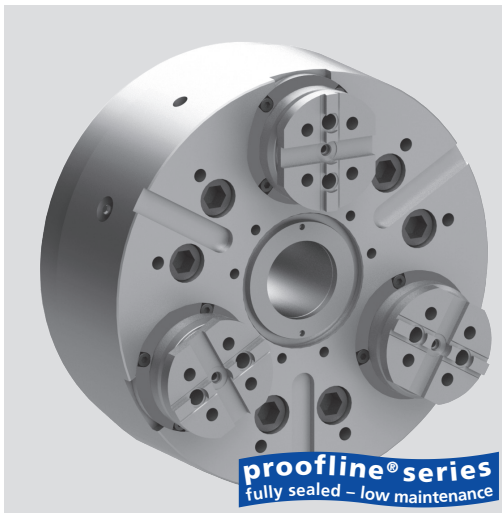
# TSBR-CP

## Compensating pull-down chucks Ø 220 - 330 mm

Compensating  
Floating jaws

Compensating  
Rigid jaws

- Active pull-down
- Tongue & groove
- Large through hole
- 3 jaws



### Application/customer benefits

- Clamping of shafts or chuck parts where the reference is not the O.D. but a center or a centering diameter
- A center point or a centering insert will center the workpieces and the jaws will clamp compensating and actively pull the workpiece down to the datum
- Through hole to insert long workpieces or for special clamping applications

**TSBF-CP:** Compensating clamping with active pull down and floating base jaws

**TSBR-CP:** Compensating clamping with active pull down and rigid base jaws

### Technical features

- Active pull-down
- Compensating clamping
- Centrifugal force compensation
- Large through hole
- TONGUE & GROOVE base jaws
- Permanent grease lubrication
- **proofline® chucks** = fully sealed – low maintenance

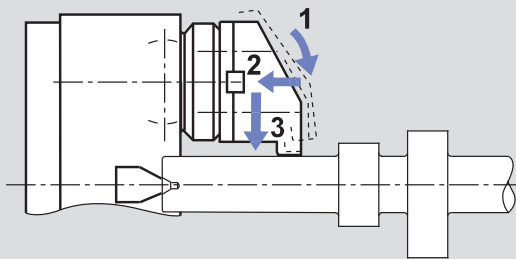
### Standard equipment

3 jaw chuck  
Mounting bolts

### Ordering example

3 jaw chuck TSBF-CP 220 / A6  
or 3 jaw chuck TSBR-CP 330 / Z300

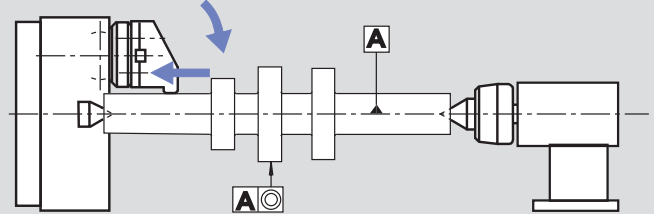
### TSBF-CP/TSBR-CP



Principle of function:

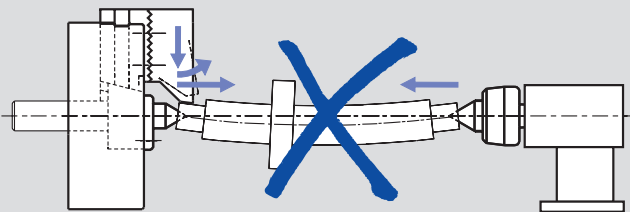
- 1 compensating pre-clamping - 2 active pull-down - 3 clamping

### TSBF-CP/TSBR-CP



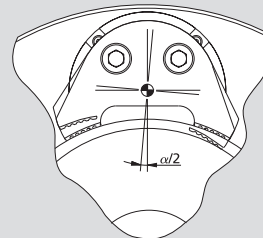
- The workpiece is actively pulled down to the center point. The tailstock just supplies the necessary force to support the workpiece. The result is an exact cylindrical and straight workpiece.

### Non active pull down compensating chuck



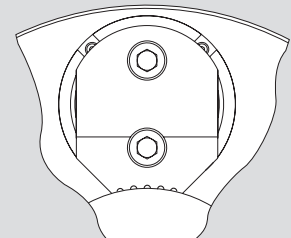
- The workpiece is lifted by the jaws from the center point. When a higher tailstock force is applied for compensation, the workpiece will be bent.

### TSBF-CP



Floating jaws

### TSBR-CP



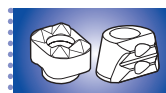
Rigid jaws

## Technical data

SMW-AUTOBLOK Type		TSBF-CP 220 TSBR-CP 220	TSBF-CP 260 TSBR-CP 260	TSBF-CP 330 TSBR-CP 330
Angular jaw stroke U°	deg.	5.2°	5.2°	5°
Radial jaw stroke at distance h	mm	5.3	6.3	7
Pull down movement (standard)	mm	0.1	0.1	0.1
Axial piston stroke	mm	21	25	25
Compensation (on the dia.) at distance h	mm	±1.5	±1.5	±2.5
Max. draw pull**	kN	18	25	40
Max. gripping force at distance h**	kN	44	60	96
Max. speed*	r.p.m.	4250	3750	3000
Weight (plain back without top jaws)	kg	25	40	67
Moment of inertia	kg·m <sup>2</sup>	0.165	0.34	0.97
Recommended actuating cylinders	Type	SIN-S 85	SIN-S 100	SIN-S 125

\* The above maximum speed is allowed with standard weight/height top jaws and applying the full draw pull only. For more informations please contact SMW-AUTOBLOK.

\*\* For internal clamping reduce the draw pull by 30%.



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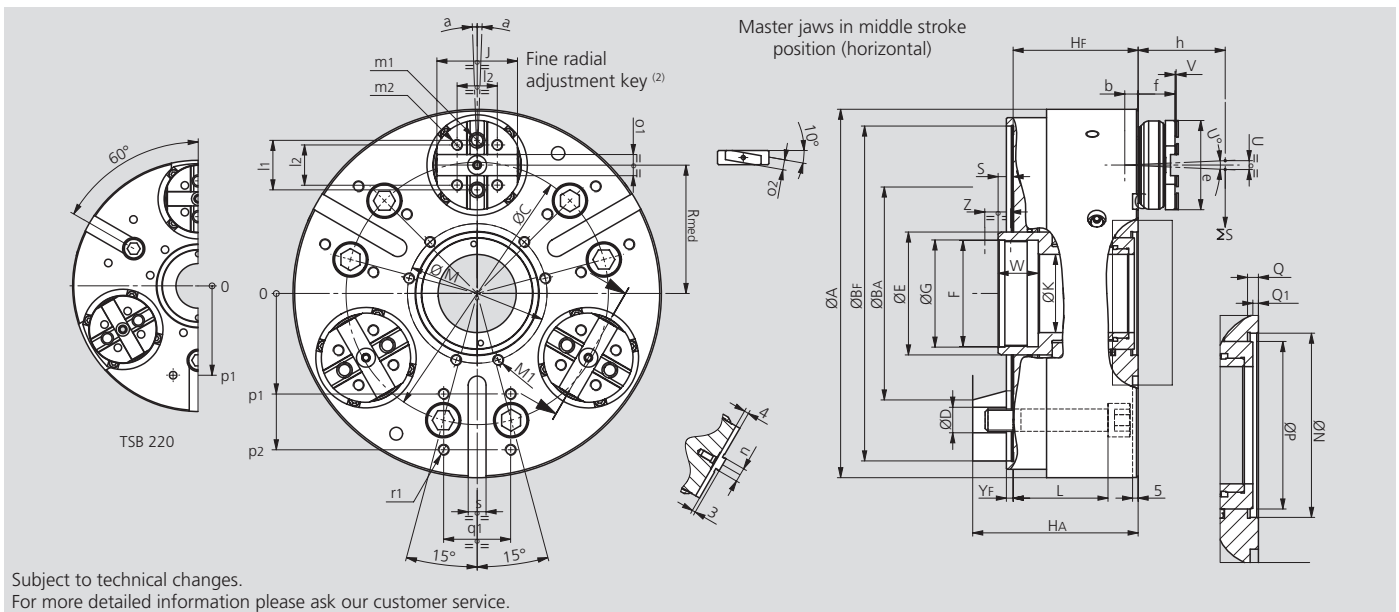
- Active pull-down
- Tongue & groove
- Large through hole
- 3 jaws

## TSBF-CP

Compensating  
Floating jaws

## TSBR-CP

Compensating  
Rigid jaws



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

SMW-AUTOBLOK Type			TSBF-CP 220 TSBR-CP 220		TSBF-CP 260 TSBR-CP 260		TSBF-CP 330 TSBR-CP 330	
Mounting			Z170	A6	Z220	A8	Z300	A11
	<b>A</b>	mm		225		265		330
	<b>BF/BA H6</b>	mm	170	106.375	220	139.719	300	196.869
	<b>C</b>	mm		133.4		171.4		235
	<b>D</b>	mm		13.5		17		21
	<b>E</b>	mm		75		85		110
	<b>F</b>	mm		M65 x 2		M75 x 2		M95 x 2
	<b>G H8</b>	mm		66		76		96
	<b>HF/HA</b>	mm	86	103	100	119	112	133
Through hole	<b>K</b>	mm		40		50		70
	<b>L</b>	mm		66		80		85
	<b>M</b>	mm		88		100		125
Thread / depth	<b>M1</b>	mm		M8 / 20		M8 / 20		M10 / 20
	<b>N H8</b>	mm		74		85		110
	<b>P</b>	mm		65		75		100
	<b>Q</b>	mm		6.5		6.5		6.5
At middle stroke	<b>Q1</b>	mm		2		1		3
At middle stroke	<b>Rmed</b>	mm		78		90		115
At middle stroke	<b>S</b>	mm		15		13		14
Radial stroke	<b>U°</b>	deg.		5.2°		5.2°		5°
Radial stroke <sup>(1)</sup>	<b>U</b>	mm		5.3		6.3		7
Pull-down s/d (opt.)	<b>V</b>	mm		0.1 (0.6)		0.1 (0.6)		0.1 (0.6)
	<b>W</b>	mm		30		34		36
Axial piston stroke	<b>Z</b>	mm		21		25		25
Only TSBF-CP max.	<b>α</b>	deg.		±2°		±2°		±1.5°
	<b>b</b>	mm		9		10		12
	<b>e</b>	mm		60		75		80
Reference height	<b>f</b>	mm		27		33		33
	<b>h</b>	mm		50		60		70
	<b>j</b>	mm		55		65		72
	<b>l1</b>	mm		32		38		44.4
	<b>l2</b>	mm		24		32		36
Thread / depth	<b>m1</b>	mm		M10 / 16		M12 / 18		M12 / 18
Thread / depth	<b>m2</b>	mm		M8 / 14		M10 / 14		M10 / 14
	<b>n h8</b>	mm		7.94		7.94		12.7
	<b>o1 H7</b>	mm		12.68		12.68		19.03
	<b>o2 h7</b>	mm		9		9		12
	<b>p1</b>	mm		80		102		90
	<b>p2</b>	mm		-		-		140
Thread / depth	<b>q1</b>	mm		45		60		60
	<b>r1</b>	mm		M8 / 15		M10 / 20		M10 / 20
	<b>s</b>	mm		16		16		16
	<b>YF</b>	mm		5		5		5

<sup>(1)</sup> Calculated at **h** distance from the chuck's face (where normally the clamping takes place).

<sup>(2)</sup> SMW-AUTOBLOK 172: General catalog.