

TSBF-CP

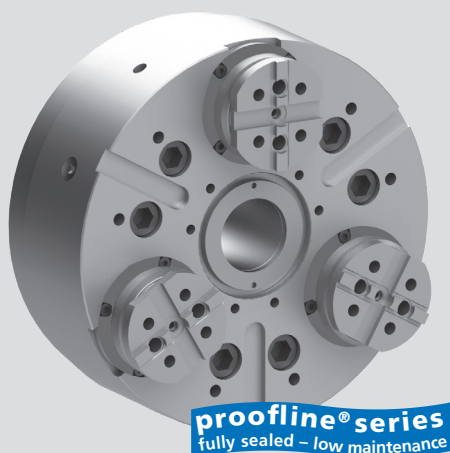
Compensating
Floating jaws

TSBR-CP

Compensating
Rigid jaws

Compensating pull-down chuck Ø 220 - 330 mm

- 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

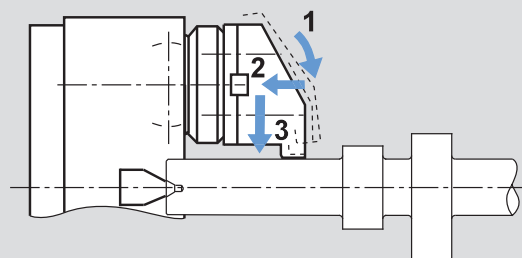
Standard equipment

3-jaw chuck
Mounting bolts

Ordering example

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

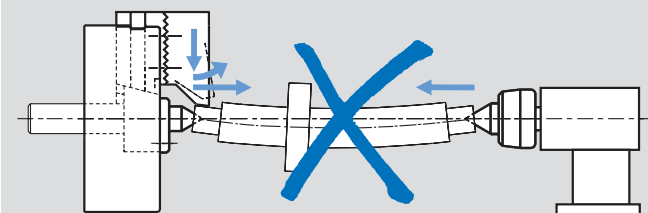
TSBF-CP/TSBR-CP



Principle of function:

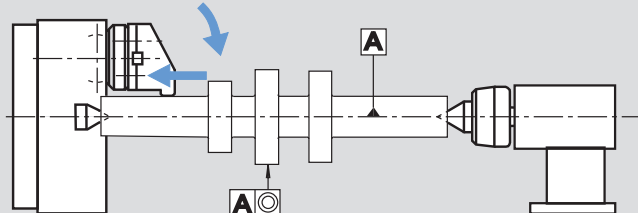
- 1 compensating pre-clamping - 2 active pull-down - 3 clamping

Non active pull down compensating chuck



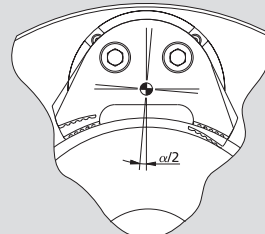
- The workpiece is lifted by the jaws from the center point. When a higher tailstock force is applied for compensation, the workpiece will be bent.

TSBF-CP/TSBR-CP



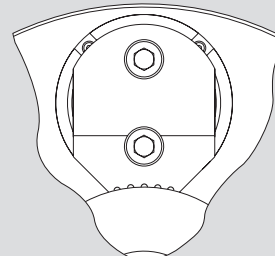
- The workpiece is actively pulled down to the center point. The tailstock just supplies the necessary force to support the workpiece. The result is an exact cylindrical and straight workpiece.

TSBF-CP



Floating jaws

TSBR-CP



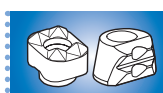
Rigid jaws

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·m²	0.165	0.34	0.97
Recommended actuating cylinders	Type	SIN-S 85	SIN-S 100	SIN-S 125
Id.No. TSBF-CP (center mounting)		77198322	77198326	77198333
Id.No. TSBR-CP (center mounting)		77198522	77198526	77198533

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

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



SMW-AUTOBLOK
472



SMW-AUTOBLOK
466



SMW-AUTOBLOK
327

Compensating pull-down chuck Ø 220 - 330 mm

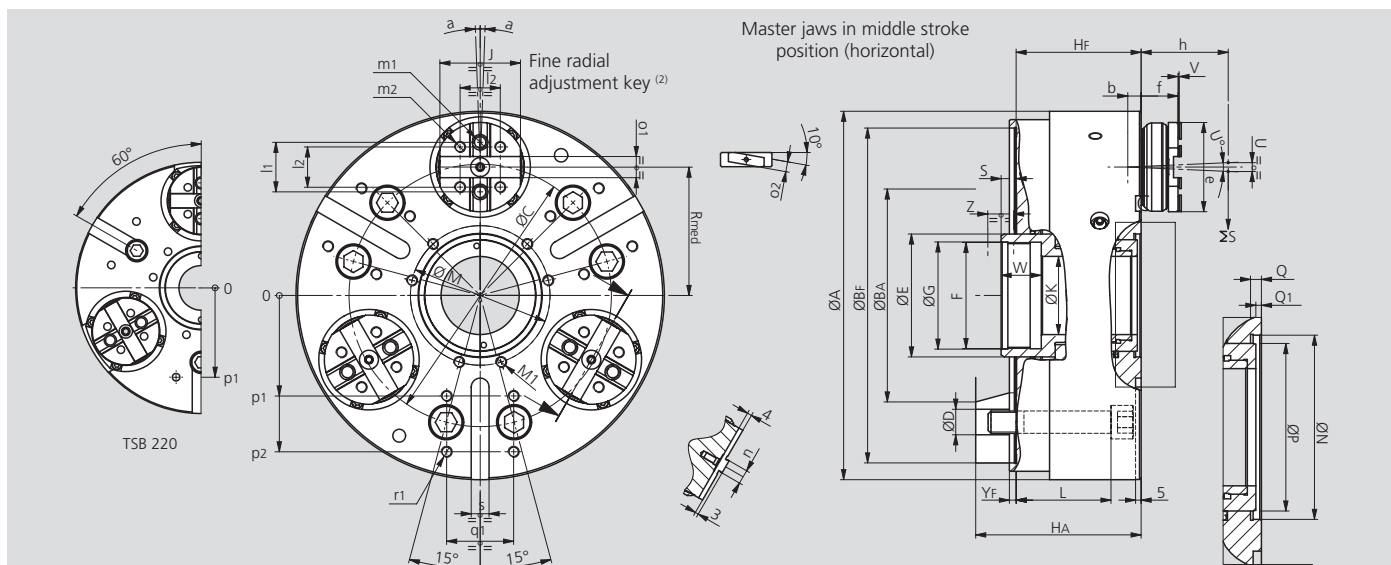
- Active pull-down
- Tongue & groove
- Large through-hole
- 3 jaws

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

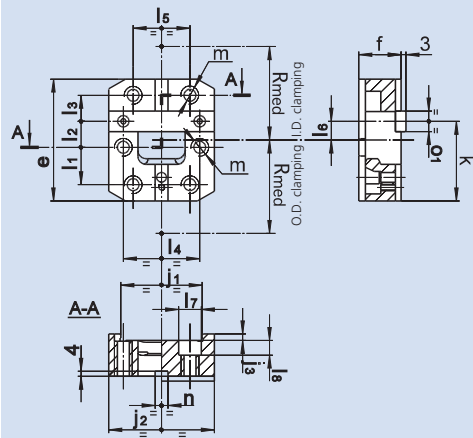
⁽¹⁾ Calculated at **h** distance from the chuck's face (where normally the clamping takes place).

⁽²⁾ SMW-AUTOBLOK 192: General catalog.

Accessories for TS chucks

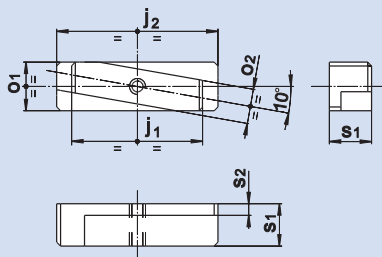
- Quick jaw change pallets
- Cross keys for top jaws fine adjustment

Quick change pallets for TSF-RM and TSR-RM chucks



Chuck type		TSF-RM 170 TSR-RM 170	TSF-RM 210 TSR-RM 210	TSF-RM 250 TSR-RM 250	TSF-RM 315 TSR-RM 315	TSF-RM 400 / 530 TSR-RM 400 / 530
Id. No.		19701716	19702116	19702516	19702516	19704016
e	mm	60	75	80	80	105
f	mm	21.5	26	28	28	34
j1	mm	44	50	55	55	80
j2	mm	55	65	72	72	100
j3	mm	3.5	4	4	4	4
k	mm	39.5	49	51	51	66.5
l1	mm	19	23	22	22	28
l2	mm	12.5	16	19	19	25
l3	mm	12.5	16	19	19	25
l4	mm	42	47	52	52	74
l5	mm	32	35	40	40	62
l6	mm	9.5	11.5	11	11	14
l7	mm	11	14	14	14	17
l8	mm	7	9	9	9	11
m	mm	M8	M10	M10	M10	M12
n (H7)	mm	7.94	7.94	12.7	12.7	12.7
o1 (h7)	mm	12.68	12.68	19.03	19.03	19.03
Rmed	mm	55	64	82	107	130

Cross keys for jaw radial fine adjustment



- Inclined key for radial fine adjustment of the top jaws, used when high concentricity for second operations is required.
- Used in second operation and sometimes in first or unique operations.

Chuck Ø		170	210	250	315	400 / 530 / 650
Id. No.		15711633	15712133	15712533	15712533	15714033
j1	mm	24	32	38	38	46
j2	mm	38	46	56	56	70
o1 (h7)	mm	12.68	12.68	19.03	19.03	19.03
o2 (h7)	mm	9	9	12	12	12
s1	mm	11	11	11	11	14.5
s2	mm	3	3	3	3	4.5