

TSBF-C

Self centering
Floating jaws

TSBR-C

Self centering
Rigid jaws

High precision pull-down chucks \varnothing 220 - 330 mm

- active pull-down
- tongue & groove
- LARGE THROUGH HOLE
- 3 jaws



Application/customer benefits

- Clamping of workpieces with highest demand for **parallelism**
- **Highest productivity** with long maintenance intervals
- Constant grip force and long lifetime ensure **constant quality of workpieces**
- Through hole to insert long workpieces or for special clamping applications

TSBF-C: Floating base jaws to clamp raw and easy deformed workpieces (6-point-contact)

TSBR-C: Rigid base jaws for precise clamping on pre machined diameters

Technical features

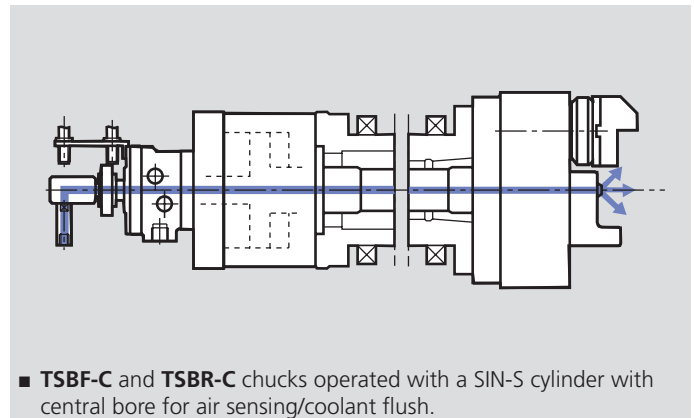
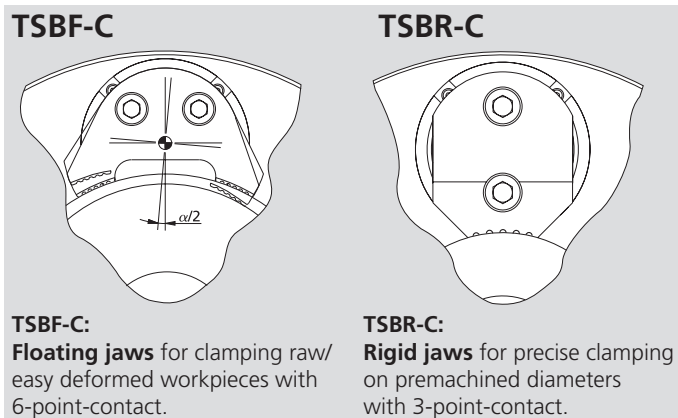
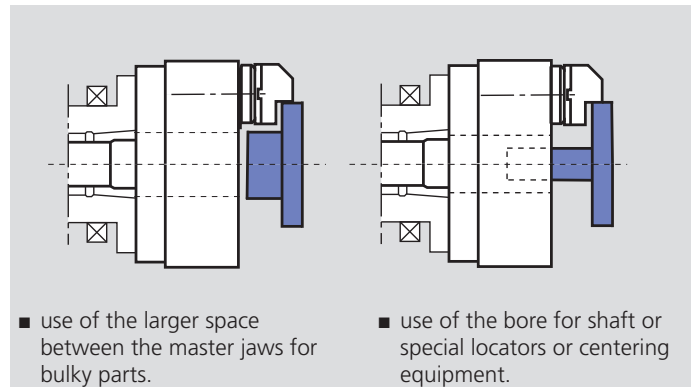
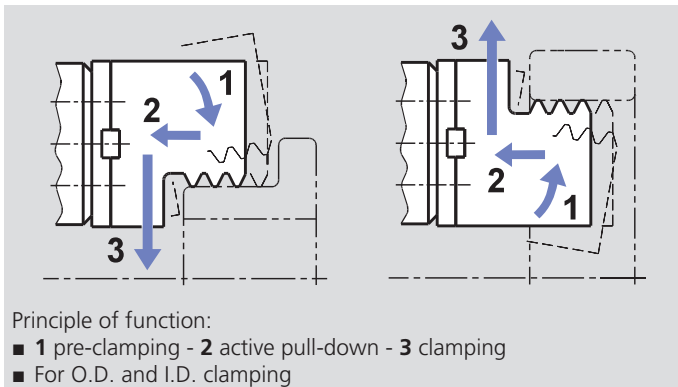
- active pull-down
- centrifugal force compensation
- tongue & groove base jaws
- **proofline® chucks** = fully sealed – low maintenance
- permanent grease lubrication
- large through hole

Standard equipment

3 jaw chuck
mounting bolts and grease gun

Ordering example

TSBF-C 220/A6
or TSBR-C 330/Z300

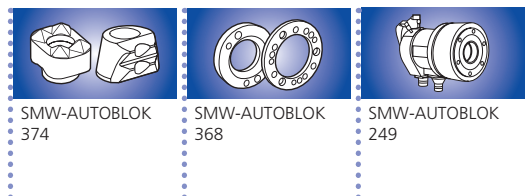


Technical data

SMW-AUTOBLOK Type		TSBF-C 220 TSBR-C 220	TSBF-C 260 TSBR-C 260	TSBF-C 330 TSBR-C 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
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 (without top jaws)	kg	25	40	67
Moment of inertia	kg·m ²	0.165	0.32	0.75
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 %.



High precision pull-down chucks \varnothing 220 - 330 mm

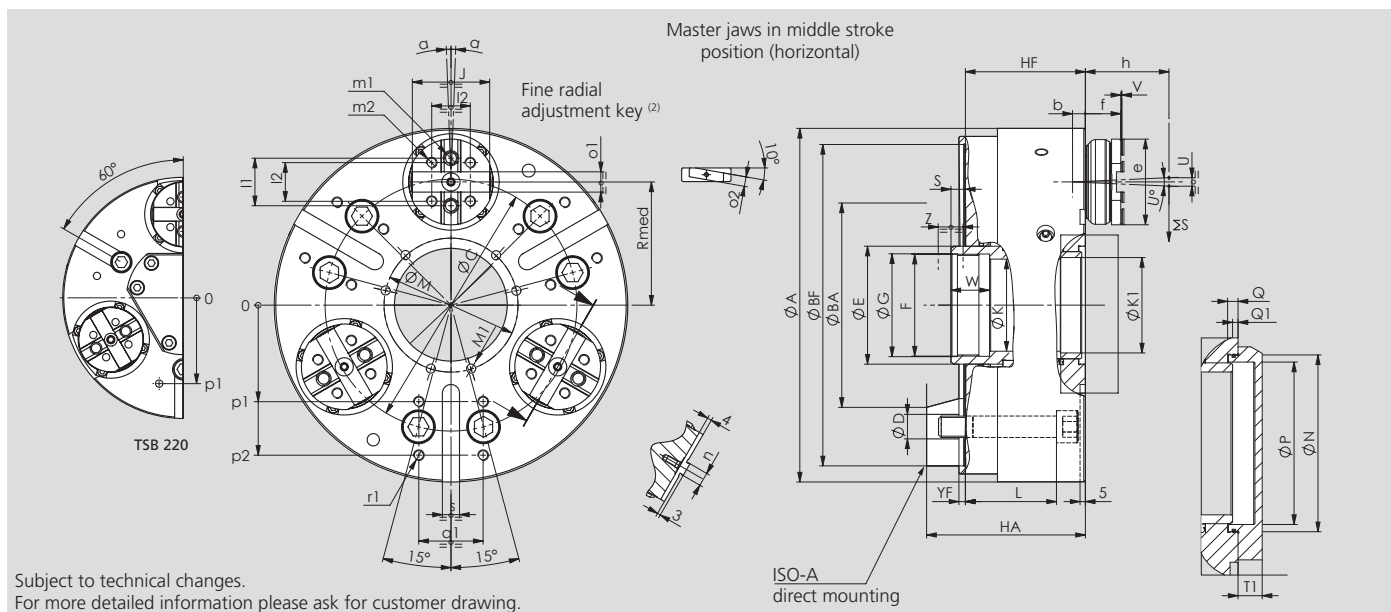
- active pull-down
- tongue & groove
- LARGE THROUGH HOLE
- 3 jaws

TSBF-C

Self centering
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TSBR-C

Self centering
Rigid jaws



Subject to technical changes.
For more detailed information please ask for customer drawing.

SMW-AUTOBLOK Type			TSBF-C 220 TSBR-C 220		TSBF-C 260 TSBR-C 260		TSBF-C 330 TSBR-C 330	
Mounting			Z170	A6	Z220	A8	Z300	A11
	A	mm		225		265		330
	BF/BA H6	mm	170		220		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		100		112	133
Through-hole	K	mm		55		62		86
	K1	mm		-		65		89
	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
	T1	mm		13		16		15
Radial stroke	U°	deg.		5.2°		5.2°		5°
Radial stroke ⁽¹⁾	U	mm		5.3		6.3		7
Pull-down s/d (option)	V	mm		0.1 (0.6)		0.1 (0.6)		0.1 (0.6)
	W	mm		30		34		36
Axial wedge stroke	Z	mm		21		25		25
Only TSBF-C max.	α	deg.		±2°		±2°		±1.5°
	b	mm		9		10		12
	e	mm		60		75		80
Reference height	f	mm		27		33		33
	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⁾ Only TSBF-C max. SMW-AUTOBLOK 156: General catalog

TSBF-CP

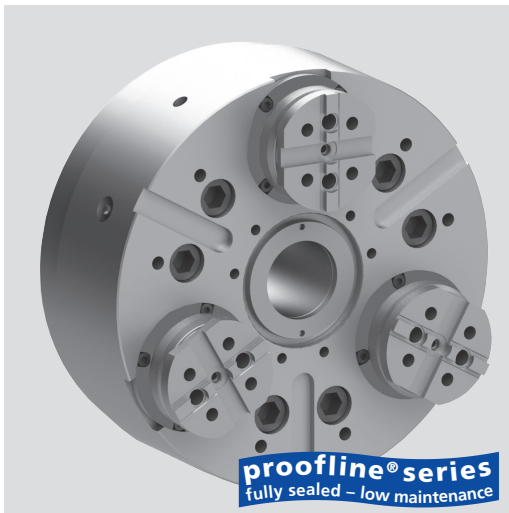
TSBR-CP

Compensating
Floating jaws

Compensating
Rigid jaws

Compensating pull-down chucks 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 dia.
- 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

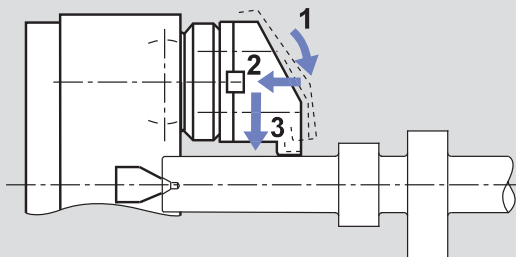
Standard equipment

3-jaw-chuck
mounting bolts and grease gun

Ordering example

TSBF-CP 220/A6
or TSBR-CP-330/Z300

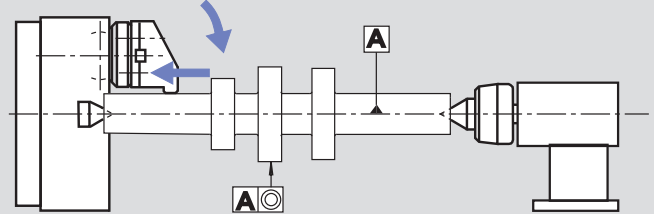
TSBF-CP/TSBR-CP



Principle of function:

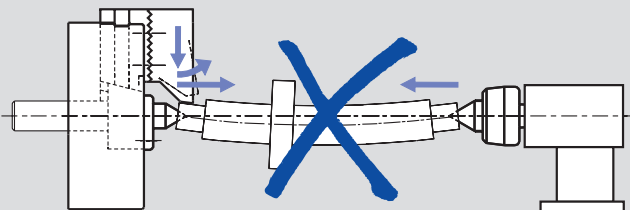
- 1 compensating pre-clamping - 2 active pull-down - 3 clamping

TSBF-CP/TSBR-CP



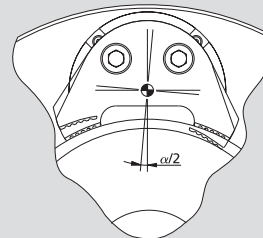
- The workpiece is actively pulled down to the center point. The tailstock just supplies the necessary force to support the workpiece. The result is an exact cylindrical and straight workpiece.

Non active pull down compensating chuck



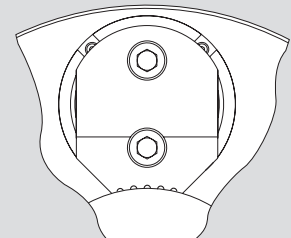
- The workpiece is lifted by the jaws from the center point. When a higher tailstock force is applied for compensation, the workpiece will be bent.

TSBF-CP



floating jaws

TSBR-CP



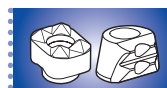
rigid jaws

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 ²	0.165	0.32	0.75
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 %.



SMW-AUTOBLOK
374



SMW-AUTOBLOK
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SMW-AUTOBLOK
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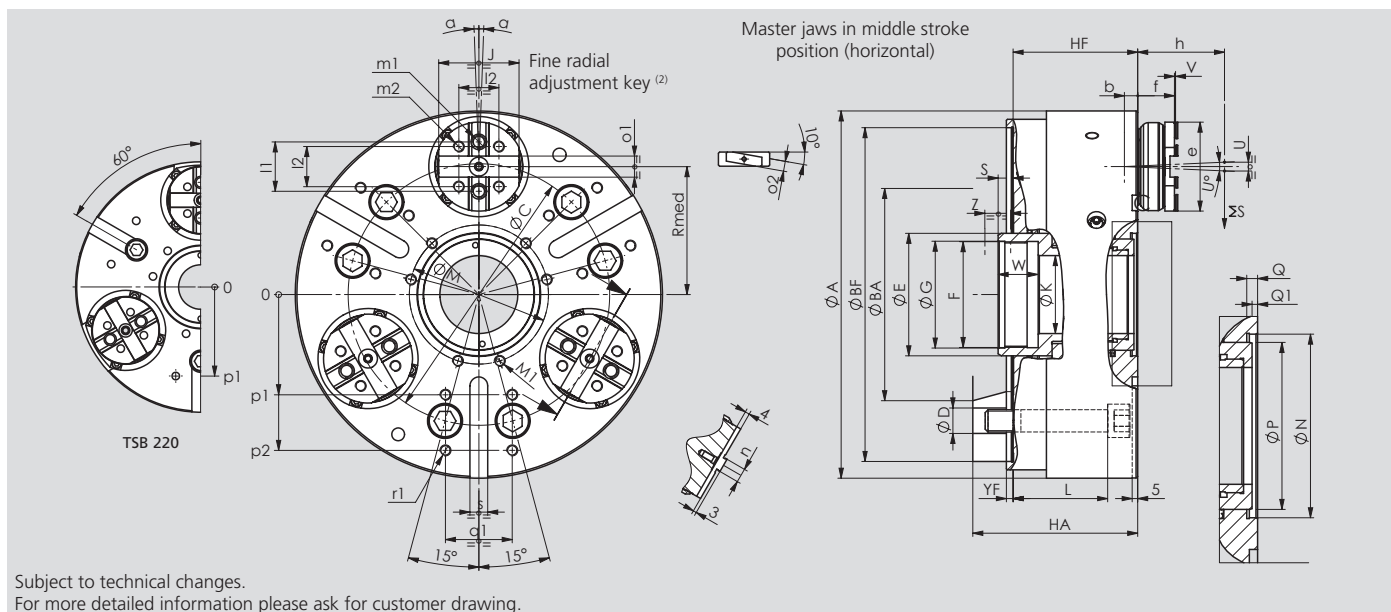
Compensating pull-down chucks \varnothing 220 - 330 mm

- active pull-down
- tongue & groove
- LARGE THROUGH HOLE
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TSBF-CP TSBR-CP

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For more detailed information please ask for customer drawing.

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 156: General catalog