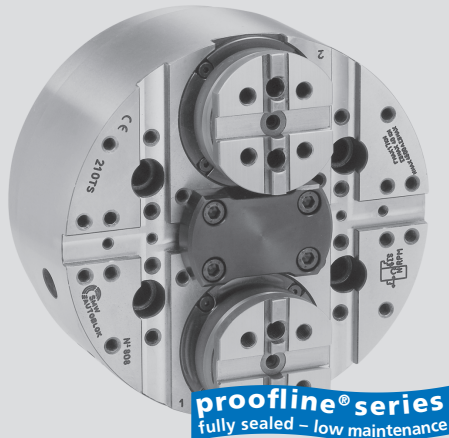


TSF-C

Self centering
Floating jaws

High precision pull-down chuck \varnothing 170 - 315 mm

- Active pull-down
- Tongue & groove
- 2 jaws



Application/customer benefits

- Clamping of workpieces with highest demand for **parallelism**
- Clamping of prismatic or asymmetrical parts with two jaws
- **Highest productivity** with long maintenance intervals
- Constant gripping force and long lifetime ensure **constant quality of workpieces**

Technical features

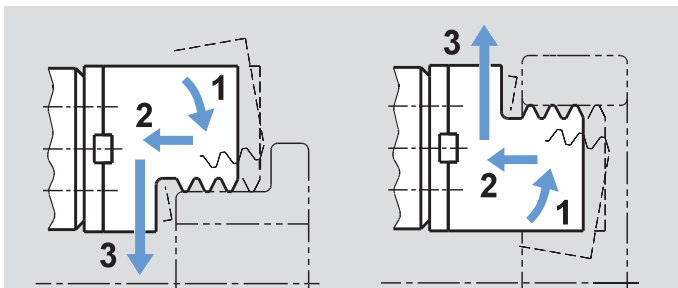
- 2-jaw design
- Active pull-down
- Floating base jaws for 4 point contact
- Centrifugal force compensation
- TONGUE & GROOVE base jaws
- Central bore for coolant and / or air
- Permanent grease lubrication
- **proofline® chucks** = fully sealed - low maintenance

Standard equipment

2-jaw chuck
Mounting bolts

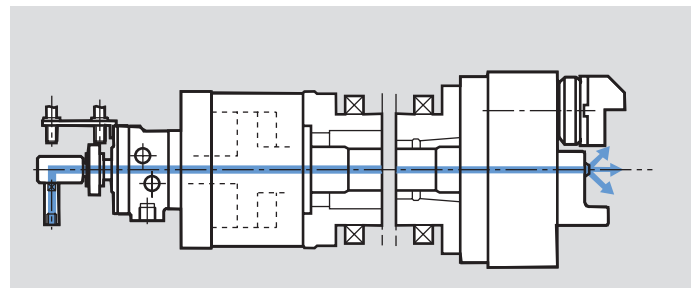
Ordering example

2-jaw chuck TSF-C 210 / A6



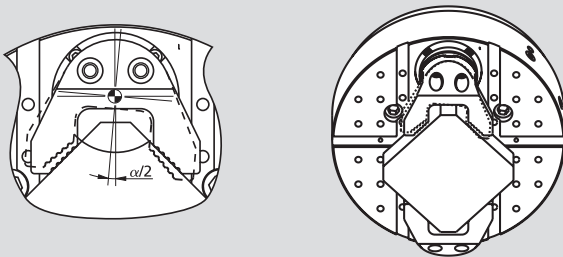
Principle of function:

- 1 pre-clamping - 2 active pull-down - 3 clamping
- For O.D. and I.D. clamping.



- TSF-C chucks operated with a SIN-S cylinder with central bore for air sensing and / or coolant flush.

TSF-C



TSF-C: **Floating jaws** for clamping raw / asymmetric workpieces with 4-point-contact.

Technical data

SMW-AUTOBLOK Type		TSF-C 170	TSF-C 210	TSF-C 250	TSF-C 315
Angular jaw stroke U°	deg.	5.2°	5.2°	4.9°	4.9°
Radial jaw stroke at distance h	mm	5.3	6.3	7	7
Pull down movement (standard)	mm	0.1	0.1	0.1	0.1
Axial piston stroke	mm	21	25	25	25
Max. draw pull**	kN	12	17	27	27
Max. gripping force at distance h**	kN	30	40	64	64
Max. speed*	r.p.m.	5000	4500	3800	3000
Weight (plain back without top jaws)	kg	15	27	41	66
Moment of inertia	kg·m ²	0.06	0.16	0.34	0.83
Recommended actuating cylinders	Type	SIN-S 70	SIN-S 85	SIN-S 100	SIN-S 100
Id. No. TSF-C (center mounting)		77190117	77190121	77190125	77190131

* 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%.



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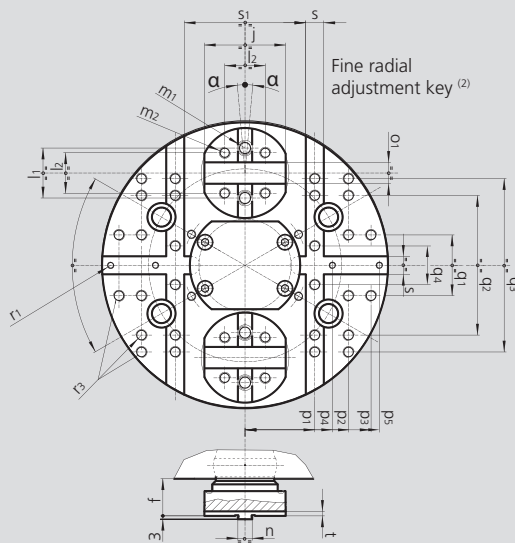
SMW-AUTOBLOK
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High precision pull-down chuck Ø 170 - 315 mm

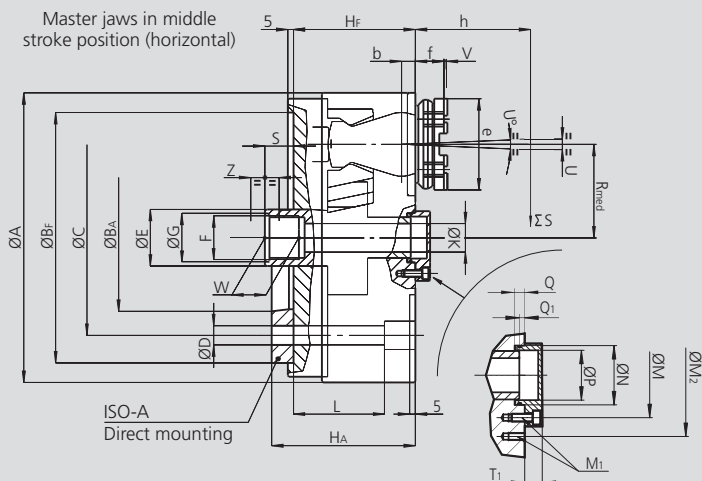
TSF-C

- Active pull-down
- Tongue & groove
- 2 jaws

Self centering
Floating jaws



Master jaws in middle stroke position (horizontal)



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

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SMW-AUTOBLOK Type			TSF-C 170		TSF-C 210		TSF-C 250		TSF-C 315	
Mounting			Z140	A5	Z170	A6	Z220	A8	Z220	A8
	A	mm	173		212		254		315	
	BF/BA H6	mm	140	82.563	170	106.375	220	139.719	220	139.719
	C	mm	104.8		133.4		171.4		171.4	
	D	mm	11.5		13.5		17		17	
	E	mm	36		38		48		48	
	F	mm	M28 x 1.5		M32 x 1.5		M38 x 1.5		M38 x 1.5	
	G H8	mm	29		33		39		39	
	HF/HA	mm	83	98	100	117	107	126	107	126
Through-hole	K	mm	14		18		25		25	
	L	mm	56		82		80		80	
	M	mm	54		63		82		82	
Thread / depth	M1	mm	M8 / 16		M8 / 16		M8 / 16		M8 / 16	
	M2	mm	-		90		110		110	
	N H5	mm	35		42		70		70	
	P	mm	30.2		36.5		56		56	
At middle stroke	Q	mm	6		7.5		7.5		7.5	
At middle stroke	Q1	mm	3.2		2.5		4.5		4.5	
At middle stroke	Rmed	mm	55		64		82		107	
	S	mm	18.2		20.5		25.5		25.5	
Radial stroke	T1	mm	11.5		14.5		14		14	
Radial stroke at distance h ⁽¹⁾	U°	deg.	5.2°		5.2°		4.9°		4.9°	
Pull-down s/d (option)	U	mm	5.3		6.3		7		7	
	V	mm	0.1		0.1		0.1		0.1	
Axial piston stroke	W	mm	25		25		30		30	
	Z	mm	21		25		25		25	
	α	deg.	±2°		±2°		±1.5°		±1.5°	
	b	mm	9		10		12		12	
	e	mm	60		75		80		80	
Reference height	f	mm	27		33		33		33	
	h	mm	50		60		70		70	
	j	mm	55		65		72		72	
	l1	mm	32		38		44.4		44.4	
	l2	mm	24		32		36		36	
Thread / depth	m1	mm	M10 / 16		M12 / 18		M12 / 18		M12 / 18	
Thread / depth	m2	mm	M8 / 14		M10 / 14		M10 / 14		M10 / 14	
	n h8	mm	7.94		7.94		12.7		12.7	
	o1 H7	mm	12.68		12.68		19.03		19.03	
	p1	mm	50		55		62		62	
	p2	mm	66		80		92		92	
	p3	mm	78		95		112		122	
	p4	mm	60		55		62		62	
	p5	mm	80		80		92		92	
	q1	mm	30		30		54		54	
	q2	mm	84		110		128		128	
	q3	mm	-		-		-		202	
	q4	mm	20		30		54		54	
Thread / depth	r1	mm	M6 / 14		M6 / 14		M6 / 14		M6 / 14	
Thread / depth	r3	mm	M8 / 16		M8 / 17		M10 / 18		M10 / 18	
	s H6	mm	16		16		16		16	
	s1 k5	mm	84		94		108		108	
	t	mm	4		4		4		4	

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

⁽²⁾ SMW-AUTOBLOK 192: General catalog.