

TSF-CP

Compensating
Floating jaws

TSR-CP

Compensating
Rigid jaws

Compensating pull-down chucks Ø 135 - 650 mm

- Active pull-down
- Tongue & groove
- 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

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

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

Technical features

- Active pull-down
- Compensating clamping
- Centrifugal force compensation
- Central bore for coolant and / or air
- TONGUE & GROOVE base jaws
- Permanent grease lubrication
- **proofline® chucks** = fully sealed - low maintenance

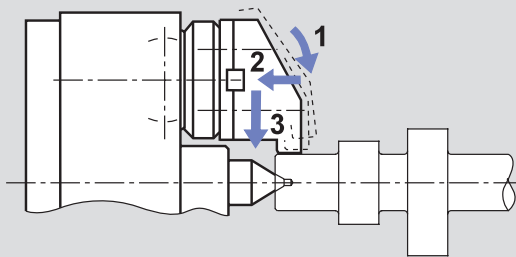
Standard equipment

3 jaw chuck
Mounting bolts

Ordering example

3 jaw chuck TSF-CP 210 / A6
or
3 jaw chuck TSR-CP 315 / Z220

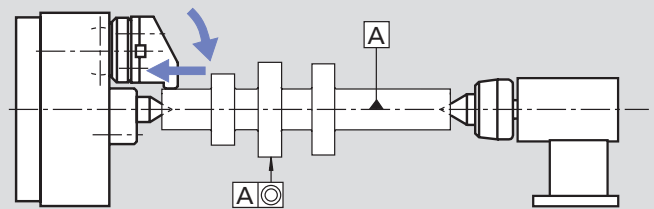
TSF-CP/TSR-CP



Principle of function:

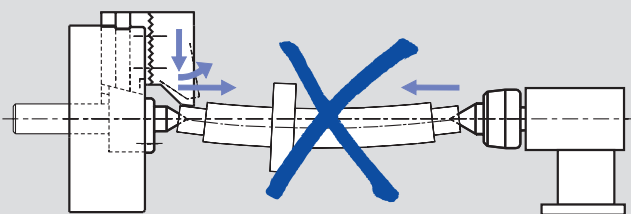
- 1 compensating pre-clamping - 2 active pull-down - 3 clamping

TSF-CP/TSR-CP



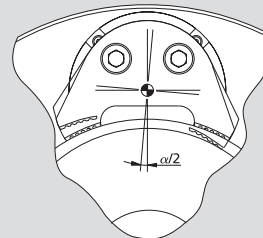
- The workpiece is actively pulled down to the center point. The tailstock just supplies the necessary force to support the workpiece. The result is an exact cylindrical and straight workpiece.

Non active pull down compensating chuck



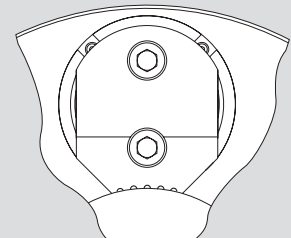
- The workpiece is lifted by the jaws from the center point. When a higher tailstock force is applied for compensation, the workpiece will be bent.

TSF-CP



Floating jaws

TSR-CP



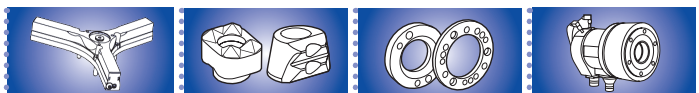
Rigid jaws

Technical data

SMW-AUTOBLOK Type		TSF-CP 135	TSF-CP 170	TSF-CP 210	TSF-CP 250	TSF-CP 315	TSF-CP 400	TSF-CP 530	TSF-CP 650
		TSR-CP 135	TSR-CP 170	TSR-CP 210	TSR-CP 250	TSR-CP 315	TSR-CP 400	TSR-CP 530	TSR-CP 650
Angular jaw stroke U°	deg.	5°	5.2°	5.2°	4.9°	4.9°	4.7°	4.7°	5°
Radial jaw stroke at distance h	mm	3.4	5.3	6.3	7	7	7.5	7.5	9.8
Pull down movement (standard)	mm	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4
Axial piston stroke	mm	16	21	25	25	25	30	30	32
Compensation (on the dia.) at distance h	mm	±0.7	±1	±1.5	±2.5	±2.5	±2.5	±2.5	±3
Max. draw pull**	kN	12	18	25	40	40	50	60	100
Max. gripping force at distance h**	kN	29	44	60	96	96	120	150	180
Max. speed*	r.p.m.	8000	5000	4500	3800	3000	2200	1800	1600
Weight (plain back without top jaws)	kg	4.5	15	27	41	66	115	196	386
Moment of inertia	kg·m ²	0.015	0.06	0.16	0.34	0.83	2.3	7	21
Recommended actuating cylinders	SIN-S	70	85	100	125	125	150	150-175	150-175-200

* 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%.



on request:
Tooling Standard
Parts Catalog

SMW-AUTOBLOK
444

SMW-AUTOBLOK
438

SMW-AUTOBLOK
297

