

High Precision Pull-Down Chucks

TSF-C: Floating jaws to clamp rough components and easily deformed parts

TSR-C: Rigid jaws to clamp on pre-machined diameters with highest precision

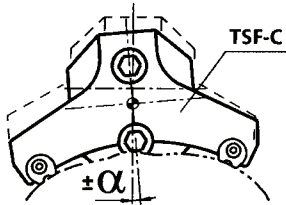
From middle size to very big production batches of parts requiring close squareness and parallelism tolerances. Used in first and second operation to clamp easily deformed parts. Long life with minimal maintenance, reducing the machine down time.

Features

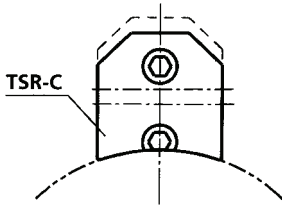
- Case hardened body and internal parts constantly grease-lubricated to assure greatest precision and long chuck life
- Swarf and coolant-proof, prevents contamination of the internal mechanism
- Unique clamping mechanism design
- Tongue and groove master jaws equipped with specially designed top jaws
- Minimum maintenance, very low wear, constant accuracy over a long period of time, constant clamping force
- Constant grease-lubrication of the clamping mechanism
- Compensation of centrifugal force
- Suitable for High-Low clamping

Standard Equipment:

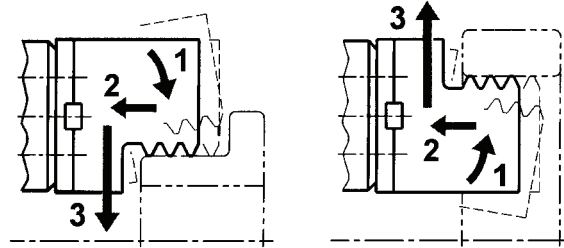
- 3-Jaw chuck
- 1 set fine adjustment keys
- Mounting bolts



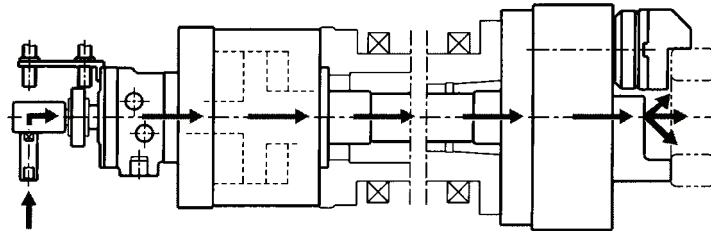
Floating jaws to clamp on rough dia. and easily deformed components on 6 points of contact. Used in both 1st and 2nd operation.



Rigid jaws to clamp pre-machined diameter of not easily deformed parts, with highest centering repeatability.



- Active pull down effect = the jaws slide on the part
- Clamping movement:
1 centering - 2 pull-down - 3 gripping
- Internal and external clamping on the same chuck



TSF-C and TSR-C chucks actuated by SIN-S cylinder with central bore for coolant or air to flush away chips or to automatically control the correct position of the workpiece on the axial supports (PEL system).

SMW-AutoBlok – Model No.		TSF-C170	TSR-C170	TSF-C210	TSR-C210	TSF-C250	TSR-C250	TSF-C315	TSR-C315	TSF-C400	TSR-C400
Angular jaw stroke	deg.		5.2°		5.2°		4.9°		4.9°	4.7°	
Radial jaw stroke (at distance h)	mm	5.3	6.3	7	7	6.7					
Pull down movement (standard)	mm	0.6	0.6	0.6	0.6	0.8					
Wedge Stroke	mm	21	25	25	25	30					
Max. draw-pull	kN	18	25	40	40	50					
Max. gripping force (at distance h)	kN	44	60	96	96	120					
Max. speed	rpm	5000	4500	3800	3000	2200					
Mass (plain black w/out top jaw)	kg	15	27	41	66	115					
Moment of inertia (m r ²)	kgm ²	0.06	0.16	0.34	0.83	2.3					
Recommended cylinders		SIN-S 85	SIN-S 100	SIN-S 125	SIN-S 125	SIN-S 150					
ORDERING INFORMATION											
Code No.		485005	485007	485010	485012	485015	485017	485020	485022	485025	485027
Price \$		14,967.08	14,967.08	16,238.20	16,238.20	18,559.64	18,559.64	22,664.28	22,664.28	31,729.07	31,729.07