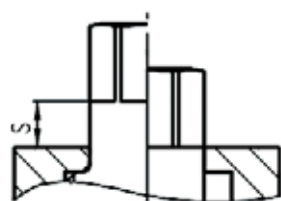
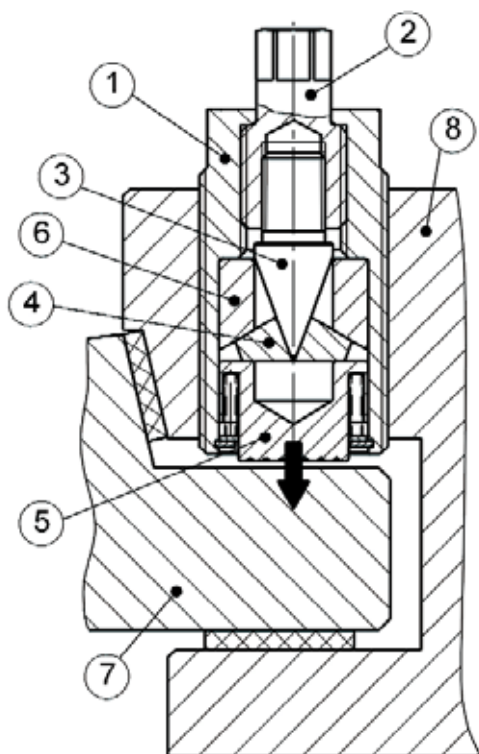


- wedge mechanism as force booster
- high clamping force 40 - 120 kN
- low tightening torque - simple manual operation

The clamping screws of series SC are equipped with a patented wedge clamping system as a force amplifier. This newly developed system enables highest clamping forces with low tightening torques, simple manual operation and high operating safety. The clamping screws series SC have various application possibilities, mainly in presses, punches and machine tools, as well as in jigs, fixtures and similar devices.



Release position	max. clamping position
Fig. A1	Fig. A2

Function _____

The wedge clamping system of the SC clamping screw is self-locking in each clamping position, due to its geometry, and offers a clamping stroke of up to 2,5 mm. This way, dependent on tightening torque, very high clamping forces up to the nominal clamping force can be achieved

Clamping Procedure _____

The infeed of the clamping screw down to a solid contact with the part to be clamped (7) is the first step, done by manually turning the housing (1) clockwise. Only then the hexagon of the actuation spindle (2) should be turned clockwise, thus moving the forced-in key (3) in axial direction and pressing the slide gores (4) in radial direction. The latter motion results in the axial stroke of the thrust piece (5) against the part to be clamped (7). The clamping force is lead over the gore bedding (6) through the housing (1) into the yoke of the clamping device (8).

After approximately two turns of the actuation hexagon the travel of the thrust piece will be blocked by an internal positive stop and the torque wrench will disengage although the required clamping force has not been generated; the clamping operation has to be repeated. The clamping travel "s" is indicated as optional clamping motion control. The maximal clamping position is reached when the lower cylindrical portion of the actuation hexagon is even with the top of the housing (Fig. A2).

Release _____

The release procedure is carried out in reverse order. By turning the operating hexagon to the left up to the fixed back stop (Fig. A1), the wedge slide moves back and the clamping mechanism is released.

Coil springs push the pressure piece and the wedges back into the starting position.

Note:

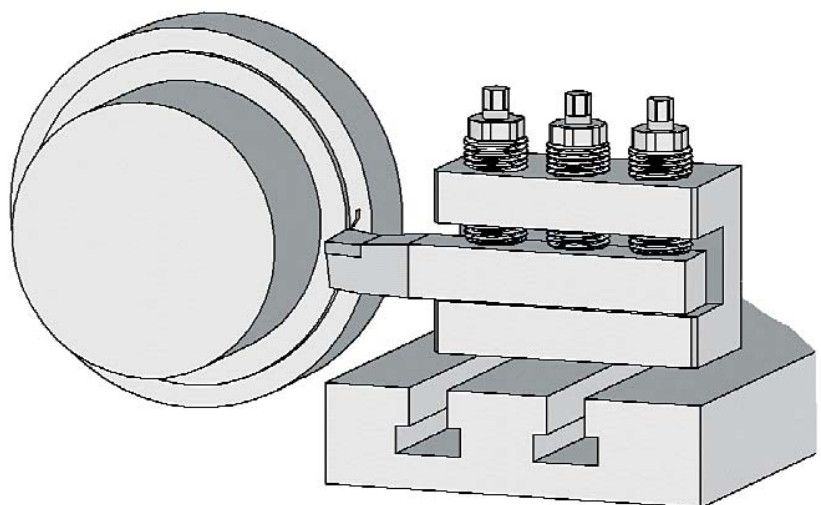
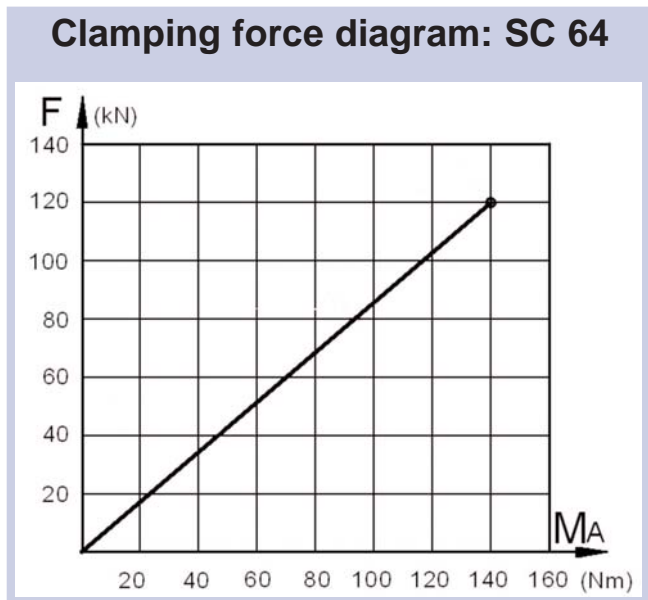
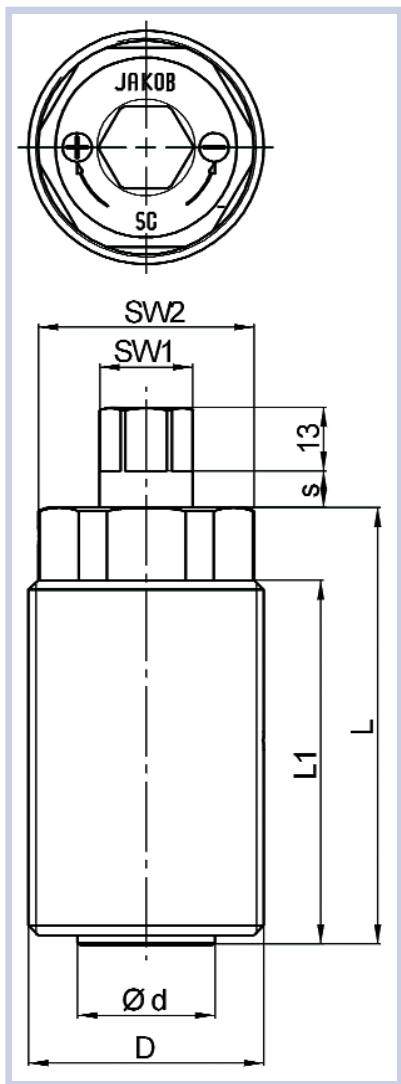
To reliably ensure the required clamping force on the one hand, and on the other hand to protect the drive or clamping mechanism against damages through excess tightening torque, we recommend the use of a torque wrench for applying the actuation torque.

With certain preconditions clamping is also acceptable with the usual ring or socket spanner. The clamping screws are lubricated for life and maintenance free under normal operating conditions.

Technical data and Dimensions: (mm) length dimensions according to DIN ISO 2768 mH

SC Size	nominal clamping force [kN]	max. tightening torque "SW1" [Nm]	max. clamping stroke [mm]	max. static load [kN]	operation path "s" [mm]	thread D *	Ø d [mm]	L1 [mm]	L [mm]	SW1 [mm]	SW2 [mm]
36	40	45	1,5	80	5	M 36x3	19	62	73	13	30
48	80	90	2,2	160	7,5	M 48x3	28	75	90	17	41
64	120	140	2,5	240	8,5	M 64x4	39	90	110	19	55
80	160	160	2,5	320	8,5	M 80x4	39	100	160	19	65
100	250	130	3	400	17	TR 100x6	60	205	230	17**	65

* Further sizes and threads (inch threads) on request.
 ** hexagon socket



Application example:
 clamping screw SC

Ordering example: SC 48