

1. General:

The assembling of servo motors to WATT gear boxes (series H., F., A., S., K., C.) happens with a motor adapter (SA...servo adapter) with an adapter shaft (6). The backlash free connection between the motor shaft and the adapter shaft (6) is solved by a clamping connection. Servo motors with smooth shaft (= *force locking connection*) as well as motors with key (= *form locking connection*) can be fitted to these modular adapters.

If motors with **key** are used, the necessary gap for the motor assembling, is reduced to 0, if the screw on the adapter input is fixed. According to the motor shaft diameter a suitable adapter shaft (6) is used.

For motors with **smooth motor shaft** the necessary circular force between the motor and the adapter shaft (6), which transmits the motor torque, is generated by a clamping ring (3). The assembling of different motor shaft diameters is made by slotted clamping bushes (5).

Normal shaft run- out and concentricity according to DIN 42955 for motor shafts and flanges are sufficient. The centering diameter of the motor flanges according to DIN EN 50347, the motor shaft according to DIN 748.

2. Assembling of the motor:

- Clean the motor shaft, it has to be absolutely grease - free.
- Remove the plastic plug (1) out of the mounting hole of the adapter housing (2).
- Align the adapter shaft (6) respectively the clamping ring (3), the extension of the torque spanner has to click into place in the clamping screw (4).
- Fix the motor to the adapter housing (2). Prefer the *vertical assembling*. **Attention:** Don't tilt the motor shaft !
- Screw the motor in place.
- Tighten the clamping screw (4) with the torque spanner, tightening torque M_a table 1.
- Close the mounting hole of the adapter housing with the plastic plug (1).

table 1: tightening torque M_a for the clamping screw of the WATT servo adapter with key and with smooth shaft:

Clamping screw	„s“	M_a [Nm]
M6	5	9,5
M8	6	20
M10	8	48
M12	10	94

Attention: The motor disassembling can only be done in one rotor position!

Fig. 1: sectional view servo adapter with **key**:

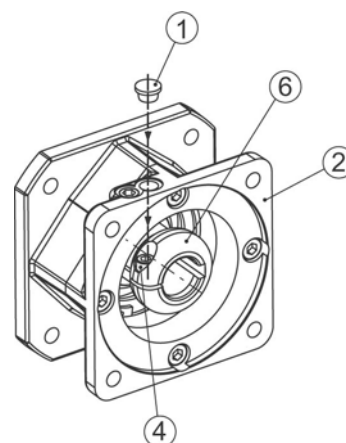


Fig. 2: sectional view servo adapter with **smooth shaft**:

