

# Mounting instructions

## Type AC-T...F2 with taper bush

### How to mount the taper bush

1. The outer taper of the taper bush and the bore with the inner taper of the element hub shall show bright metal and must be free of grease prior to mounting. Preservatives must be removed completely.
2. Insert the taper bush into the element hub and line up all connecting bores. Make sure that half threaded holes coincide with half plain holes (Fig. 1).
3. Screw in lightly greased or oiled assembly screws. Do not tighten the screws yet (Fig. 2).
4. Slide the element hub with inserted taper bush onto the cleaned shaft with keyway and put it into the mounting position  $L_x$  (Fig. 3).
5. Tighten the screws uniformly up to the tightening torque  $M_{A1}$  specified in table 1 using a torque wrench.
6. The screws can be retightened again by tapping against the taper bush with a hammer using an intermediate plate. Repeat, if necessary.

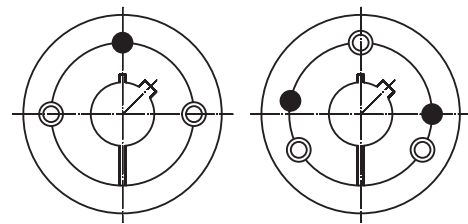


Fig. 1  
 No. 1610 2012 2517 3030  
 No. 3535 4040 4535/4545 5040



Fig. 2

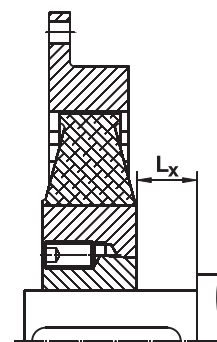
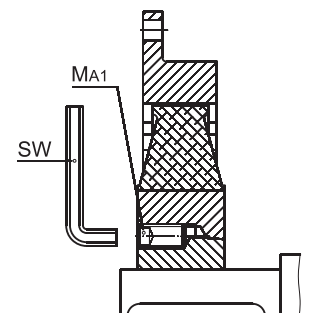


Fig. 3

### Tightening torques for mounting the taper bush

Table 1

Coupling size	AC-T 1,5	AC-T 2,3	AC-T 2,6 AC-T 2,7 AC-T 3	AC-T 4	AC-T 4,9 AC-T 5	AC-T 6	AC-T 6,5 AC-T 7 AC-T 7,5	AC-T 8 AC-T 9	
Taper bush No.	1610	2012	2517	3030	3535	4040	4535 4545	5040	
UNC screw size *)	$\frac{3}{16} \times 16$	$\frac{7}{16} \times 22$	$\frac{1}{2} \times 25$	$\frac{5}{8} \times 32$	$\frac{1}{2} \times 38$	$\frac{5}{8} \times 45$	$\frac{3}{4} \times 50$	$\frac{7}{8} - 57$	
Tightening torque $M_{A1}$	Nm	20	31	49	92	115	172	195	271
Width across flats SW	mm	5	6	6	8	10	12	14	14



\*) No. 1610/2012/2517/3030 set screw  
 No. 3535/4040/4535/4545/5040 cap screw

### How to remove the element hub with taper bush

1. Loosen and remove all screws. Depending on the taper bush size, screw either 1 or 2 greased screws into the half pulling-off thread(s) of the taper bush (Fig. 4).
2. Tighten the screws uniformly until the taper bush is loose in the element hub.
3. As soon as the taper bush is loose, the element hub can be pulled off the shaft together with the taper bush.



Fig. 4

# Tightening torques

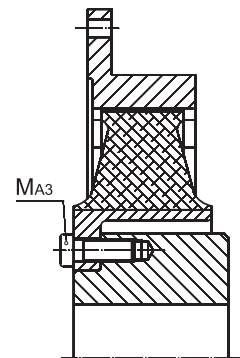
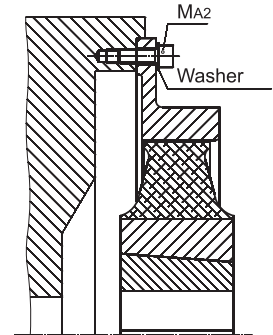
All bolts and screws must be tightened to the specified torques during assembly in order to ensure a reliable torque transmission. Prior to putting the machinery into operation, all bolts and screws of the coupling must be checked for proper fit and tightness. The indicated torques apply to an total friction factor of  $\mu = 0.14$ . For further questions please ask REICHKUPPLUNGEN.

**Table 2**

Tightening torques for the bolted flange connection to the engine flywheel (grade 8.8)

SAE flywheel flange	6½ 7½	8 10 11½	14 16	18 21	24
Metric bolts	M8	M10	M12	M16	M20
Tightening torque $M_{A2}$ [Nm]	25	50	85	210	420
Imperial size bolts	5/16 - 28	3/8 - 16	1/2 - 13	5/8 - 11	3/4 - 10
Tightening torque $M_{A2}$ [Nm]	24	42	102	203	340

**Note:** The **aluminium flanges** of the coupling sizes AC 2,3 - AC 10D have to be mounted only with **washers**. We recommend to use washers as big as possible, but minimum dimensions according to DIN 433. If needed bolts of grade 10.9 with suitable washers and the corresponding tightening torque can be used, please consult us.

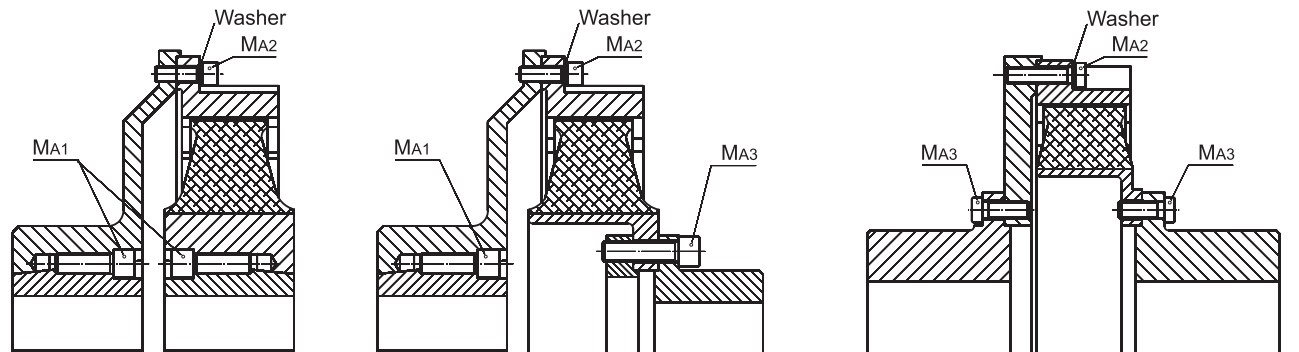


**Table 3**

Tightening torques for the bolted hub connection Types AC...F2 and AC...F2.K (grade 8.8)

Coupling size	AC 2,3	AC 2,6 AC 3 AC 4/4.1	AC 4,9 AC 5/5.1	AC 6/6.1 AC 6,5	AC 7/AC 7,5 AC 8/AC 8D AC 9/AC 9D	AC 10.2/AC 10.2D AC 11/AC 11D AC 11,7/AC 11,7D AC 11,9/AC 12	AC 12D
Bolt size	M8	M12	M16	M16	M16 M20	M20 M24	M24 (10.9)
Tightening torque $M_{A3}$ [Nm]	25	85	210	210	210 420	420 710	1000

# Shaft couplings



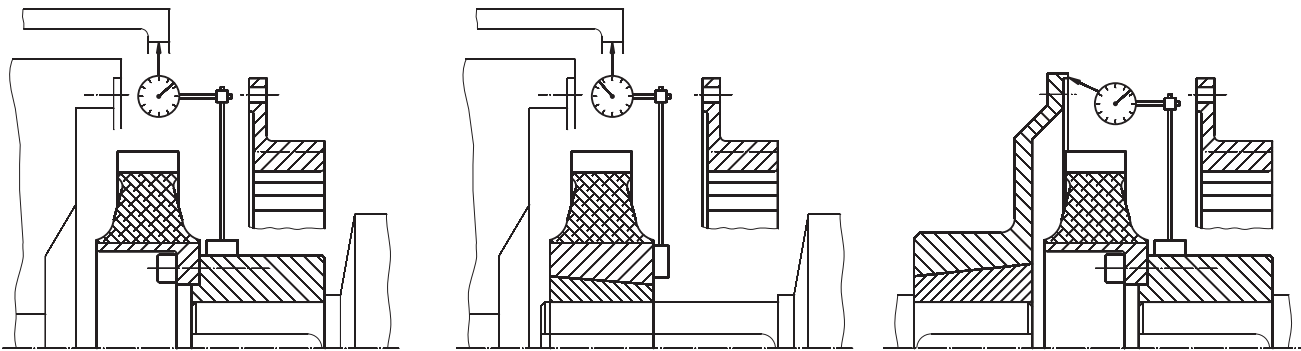
Coupling size	AC-2,3	AC 2,6 AC-3 AC 4/4.1	AC 4,9 AC 5/5.1	AC 6/6.1 AC 6,5 AC 7/AC 7,5	AC 8/AC 8D AC 9/AC 9D	AC 10.2/AC 10.2D AC 11/AC 11D AC 11,7/AC 11,7D AC 11,9/AC 12
Bolt size	M8	M10	M10	M12	M16 M20	M20 M24
Tightening torque $M_{A2}$ [Nm]	25	50	50	85	210 420	420 710

For the tightening torques MA1 see the mounting instruction for taper bushes table 1.  
For the tightening torques MA3 see table 3.

# Alignment

Careful alignment of the coupling is an essential requirement for detached, non-flanged machinery in order to ensure proper functioning of the coupling and to avoid premature wear of the rubber element.

Flywheel couplings shall be aligned from the shaft-side coupling half to either one of the machined surfaces of the engine flywheel or engine housing. Where shaft couplings are used, the angular and radial displacements between the two coupling halves are determined by applying the usual dial indicator method. The alignment requirements of the other application components have to be considered additionally.



ARCUSAFLEX flywheel coupling  
Type AC...F2

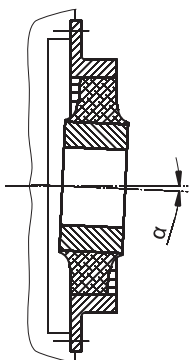
ARCUSAFLEX flywheel coupling  
Type AC-T...F2

ARCUSAFLEX shaft coupling

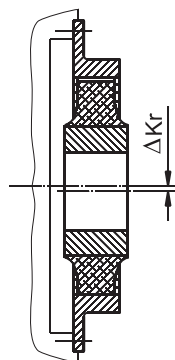
## Permissible shaft displacement

The permissibility of major shaft displacements depends on a number of factors such as coupling size, shore hardness of the rubber element, operating speed and torque load of the coupling. The following reference values refer to an operating speed of  $\approx 1500$  rpm.

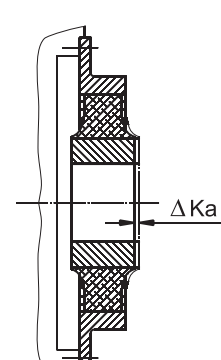
Precise alignment prevents premature wear of the rubber element.



Angular displacement



Radial displacement



Axial displacement

Coupling size	1,5	2,3	2,6	3	4 4.1	4,9	5 5.1	6 6.1	6,5	7	7,5	8 8D	9 9D	10 10D	11,7/11,7D 11/11,9 11D	12 12D
Permissible radial displacement $\Delta Kr$ [mm]	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.5	1.5
Permissible angular displacement $\alpha$ [°]	0.5°	0.5°	0.5°	0.5°	0.5°	0.5°	0.5°	0.4°	0.4°	0.4°	0.4°	0.4°	0.4°	0.3°	0.3°	0.3°
Permissible axial displacement $\Delta Ka$ [mm]*)	$\pm 2.5$	$\pm 3$	$\pm 4$	$\pm 7$	$\pm 16/-6$	$\pm 7$	$\pm 5$	$\pm 7$	$\pm 4$	$\pm 6$	$\pm 7$	$\pm 5$	$\pm 4$	$\pm 3$	$\pm 4$	$\pm 3$

Larger displacements of short duration, as may occur when starting and stopping the diesel engine, are permissible. These maximum displacements must not occur simultaneous.

\*) At types AC...F2K and AC...TK the axial fitting length LF of the coupling should always offer a plus tolerance within the possible tolerance range in order to reach max. axial movability of the dismantled coupling element.

## Safety precautions

It is the customer's and user's responsibility to observe the national and international safety rules and laws. Proper safety devices must be provided for the coupling to prevent accidental contact.

Check all bolted connections for the correct tightening torque and fit after a short running period preferably after a test run.