

**Assembly Instructions**

**Identification**

The DETAN tension rods are supplied with an identification tag displaying the product identification and the component allocation.

**1 System assembly**

All rod systems up to  $\varnothing d_s 2 \frac{3}{8}$ " (60 mm) are delivered pre-assembled.

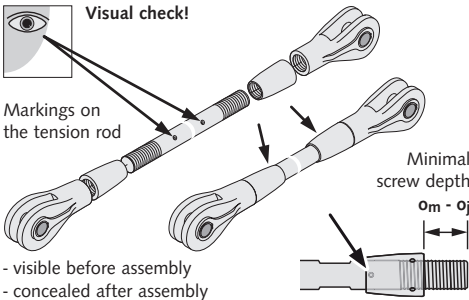
The DETAN Rod systems are factory pre-assembled to the system length L minus the installation tolerance  $o_j$ . The fork-heads are pre-fitted to the minimum screw-in depth of  $(o_m - o_j)$ . This makes it possible to adjust the rod to the required system-length simply by turning the fork-heads towards the rod middle. An adjustment range of  $2 \times o_j$  is possible. Both fork-heads are turned at the same rate until the required system length has been reached.

- first set the correct system-length for installation
- remove the circlip using circlip pliers
- swing the rod into place
- insert the pin through the fork-head and the connecting flange; do not use force (i.e. a hammer)
- secure the pin with the circlip
- tension the system by turning the rod
- use a counter-nut to secure

**Ensure minimal screw-in depth  $(o_m - o_j)$ .** Minimal screw-in depth is correct if the markings on the rod are covered by the counter-nuts (see 2).

The rods of the sleeve system are delivered partially assembled; final assembly is on-site. Follow the installation instruction step 3 "Pre-assembly" to prepare individual rods for installation.

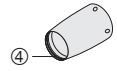
**2 Markings to ensure minimal screw-in depth**



**3 Pre-assembly**

**DETAN Fork connectors** are always supplied with a color coded end plug, which allows easy identification: blue = left-hand thread, yellow = right-hand thread

**DETAN Locking nuts** with left-hand threads are identified by a circular groove, visible in the end towards the tension rod. Counter-nuts with right-hand threads are not marked.

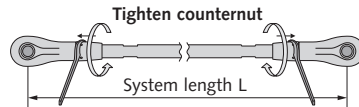
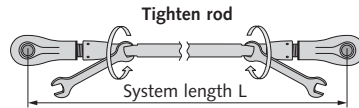
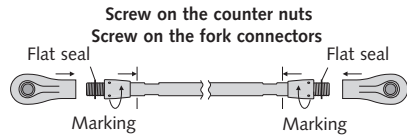
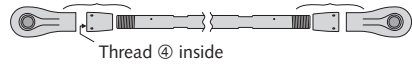


**Pre-assembly of systems  $\varnothing d_s 3$ " (76 mm),  $3 \frac{3}{8}$ " (85 mm) and  $3 \frac{3}{4}$ " (95 mm)**

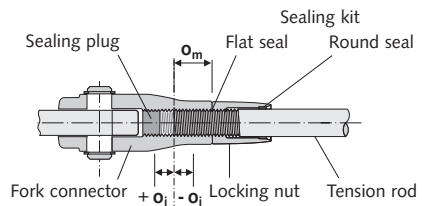
- screw the counter-nuts on to the rod until the markings are just covered (see 2)
- push the flat seal on to the rod
- screw the fork-head on to the rod up to the counter-nut; this ensures the minimal screw-in depth  $(o_m - o_j)$  (2)
- insert the pin through the hole in the fork-head
- secure with a circlip at both ends using circlip pliers

The system is now pre-assembled; installation is as described in 1.

Blue=left-hand thread      Yellow=right-hand thread



**5 Screw-in depths and sealings**



**The DETAN Sealing system** provides additional protection for the threads from dirt and moisture. The round seal is inserted into the counter-nut at the factory.

Check the seals for correct fit in the screw-sleeve before inserting the DETAN Rod.

For sizes < M16 the outer joints of the counter-nuts must be sealed with a permanent elastic weather resistant silicone.

⑥ Wrench size, screw-in depth $o_m$ and length adjustment $o_j$																				
Rod- $\varnothing$ $d_s$	mm	6	8	10	12	16	20	24	27	30	36	42	48	52	56	60	76	85	95	
	inch	1/4	5/16	3/8	1/2	5/8	13/16	15/16	1 1/16	1 3/16	1 7/16	1 5/8	1 7/8	2 1/16	2 3/16	2 3/8	3	3 3/8	3 3/4	
Wrench type mm		standard wrench															peg wrench			
Wrench size		5	6	8	10	14	18	21	24	27	32	36	41	46	50	55	90/6	90/6	155/6	
Screw-in depth $o_m$	mm	10.5	12.5	15.0	18.5	22.5	27.0	34.0	37.5	42.5	51.0	55.0	62.5	70.5	77.5	85.0	115	130	155	
	inch	7/16	1/2	9/16	3/4	7/8	1 1/16	1 5/16	1 1/2	1 11/16	2	2 3/16	2 7/16	2 3/4	3 1/16	3 3/8	4 1/2	5 1/8	6 1/8	
length adjustment $o_j$	mm	4.5	4.5	5.0	6.5	7.5	8.0	11.0	12.5	12.5	14.0	15.0	17.5	20.0	22.5	25.0	39	45	60	
	inch	3/16	3/16	3/16	1/4	5/16	5/16	7/16	1/2	1/2	9/16	9/16	1 1/16	1 3/16	7/8	1	1 9/16	1 3/4	2 3/8	



Prior to installation all components of the rod system must be checked for damage. Damaged components must not be used.

Arrangement of connection plates

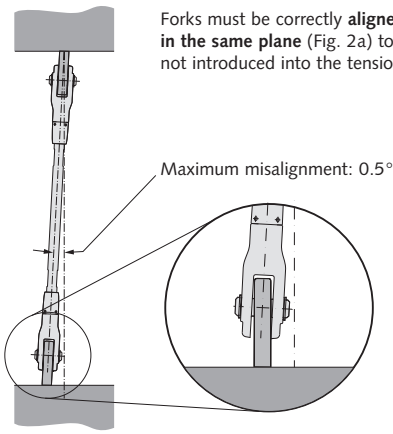


Fig. 1

Forks must be correctly **aligned** (Fig. 1) and positioned **in the same plane** (Fig. 2a) to ensure that bending is not introduced into the tension system.

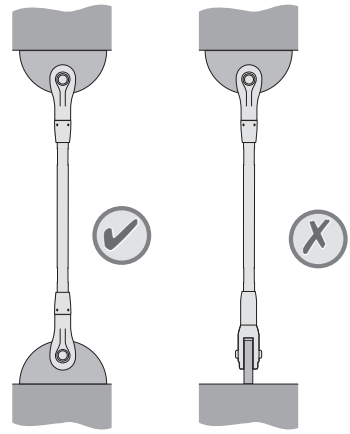


Fig. 2a

Fig. 2b

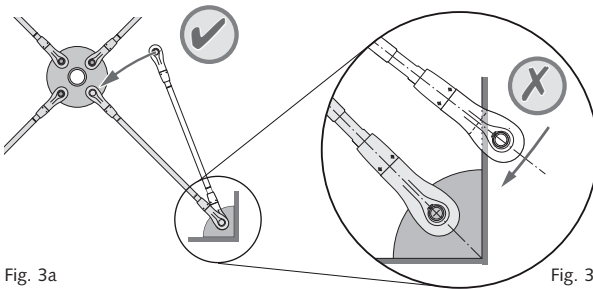


Fig. 3a

Fig. 3b

To ensure the rod can be installed, one end of the rod **must be able to swing into place**; this is not always possible (see figure 3b). An **anchor disk** must be used in this case; this allows correct installation (see figure 3a).



**ATTENTION!**

Any **impact during assembly** (e.g. by hammer) is not permitted as the surface and therefore the corrosion protection may be damaged.

When assembling the **DETAN-E Rod system** (made from Stainless steel) please only use suitable stainless steel tools (Wrench, peg wrench and circlip pliers).

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