

## TIMMER Safety Brakes



**Ta0-RD/XS, TA0-RD/XS, TA0-RD/ZS**



**TA1-2-RD bis TA6-RD**

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### 1. Purpose

Timmer safety brakes and anti-roll devices have a certificate of conformity in accordance with EN 13241-1.

**Timmer safety brakes are intended for use with doors, gates and roller shutters in compliance with the specific conformity test certificate for any one specified application.** Non-typical applications require a special kind of approved, TÜV-type technical inspection!

### 2. Installation

**Please note that the installation and maintenance of a safety brake / anti-roll device must only be performed by a specialist in accordance with the standard DIN EN 12604.**

The installation of the safety brake / anti-roll device can be compared to installing a normal bearing. A separate bearing need not be installed when using a safety brake / anti-roll device. Fastening screws with a minimum grade of 8.8 are recommended. The screw diameter is determined by the oblong holes or fastening holes present in the anti-roll devices. Select the maximum diameter. The consoles or protective caps should be designed such that they are able to withstand the maximum torque of the anti-roll device.

**General guidelines for installation:**

The safety brake / anti-roll device should:

- always be installed on the opposite side of the drive (bearing side)
- be installed vertically. The location of the torque chamber is marked by the word "Top" on the anti-roll device.
- be installed such that the arrow points in the rolling direction; applies only to TA1/2-RD to TA6-RD.
- be easy to push onto the shaft journal.

The shaft journals must be welded centrally to the support tube (winding tube) because the safety brake / anti-roll device immediately responds through a tumbling motion of the support axis.

The drive chain must be kept taut to avoid a jerky start, which can also lead to activation of the safety brake / anti-roll device.

Clean, lateral armour guides and smooth locking of the individual armour profiles are also highly important.



**---- Never ---- use force to install parts! !**

**The attached limit switch must be connected electrically such that upon actuation of the switch the gate drive is safely deactivated (see wiring diagrams on the last page).**

### 3. Testing regulations for TIMMER safety brakes / anti-roll devices

According to ASR A1.7, power-operated doors, windows and gates must be tested before initial putting into service and as required, but at least once a year. A torque test need not be carried out for safety brakes with approved design.

However, the following must be observed when testing a Timmer safety brake / anti-roll device:

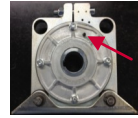
#### 3.1 Visual inspection

During visual inspection, check that the 4 fastening screws on the housing covers are in place and firmly tightened.

In addition, check that the 2 or 4 fastening screws on the anti-roll device are in place and firmly tightened. Also check for significant changes on the exterior due to corrosion in the static area.



The spring-loaded pressure pad on the anti-roll devices TA1/2-RD to TA6-RD with a slot or a hexagon socket in the upper part of the cover must not be moved under any circumstances!



Check that the incorporated safety switch (NC) is fastened with 2 fastening pins and that its function is ensured when the safety brake / anti-roll device is activated.

The clamping screw for the built-in damping is secured with a lock nut that is tightened to a specified torque. In addition, the adjusted lock nut set is sealed in red. During the visual inspection, check that the seal is intact.

### 3.2 Functional testing

A distinct clicking sound of the locking elements (balls or barrels) should be audible during movement in both directions (forwards and backwards). This test to ascertain roller noise as shutters fall can be carried out after installation!

### 3.3 Maintenance

The safety brakes are maintenance-free thanks to the use of corrosion-resistant materials and the installation of ball bearings lubricated for life.



**Safety brakes must not be oiled under any circumstances!!!**



### 3.4 Adjusting the anti-roll device after successful damping

An anti-roll device must only be reset or replaced by a specialist in accordance with DIN EN 12604

If not properly aligned, the RD type of anti-roll device or safety brake (friction-damping) regulates itself automatically by blocking in both directions. Upon triggering of the anti-roll device, the drive is switched off by the operation of the limit switch attached to the anti-roll device. In this case, the side-mounted clamping screw must be released and the cover be turned back so that the cast "TOP" mark is on the top. **Then make sure that the 4 screws with which the cover is fastened are exactly vertical and horizontal!** After that, tighten the clamping screw with a torque wrench. Products that have been first delivered by Timmer or that have been reserved at the request of the customer are provided with sealing wax on the clamping screw.

**Tightening torques of the clamping screw:**

TA 0-RD/X (blue + yellow)	15 Nm
TA 0-RD/Z	8 Nm
TA 0-RD/F	12 Nm
TA 0-RD	10 Nm
TA 1/2-RD	20 Nm
TA 2/3-RD	37 Nm
TA 3-RD	50 Nm
TA 4-RD	80 Nm
TA 5-RD	140 Nm
TA 6-RD	240 Nm

Then the safety brake with damping function is fully operational again.

### 4. Wiring diagram of the safety switch

According to DIN EN 12604, restarting of the motor must be prevented after torque has been actuated. Therefore, any safety brake / anti-roll device must be fitted with an electrical disconnecter (safety switch).

#### 4.1 Connecting to the gate control

In the drive controls the safety switch must be connected to the safety circuit (emergency stop circuit) of the control in order to permanently interrupt the control current of the drive in the torque position.

