

# Installation Instructions

## Orona Chain

with device series

door control unit

TSG

**Dokumentationshistorie**

Nr.	Ver.	Stand	Bearbeiter
1	1.0	17.05.17	RAU
2	1.1	30.12.19	CSA



Get the operating instruction in **English**  
by scanning the QR code.

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# **1 Essential information**

## ***1.1 Value of assembly instructions***

The product assembly instructions are provided by the manufacturer or supplier to provide the information required by the customer or fitter to ensure proper, safe and reliable assembly. These brief assembly instructions serve to clarify the basic steps of mechanical assembly. The electrical connection, commissioning and settings of the TSG are explicitly not part of these instructions.

## ***1.2 Copyright protection***

We reserve all rights for this technical documentation. It may not be duplicated, made accessible to third parties or otherwise used in an unauthorised manner without our prior consent. Any changes require our explicit and prior written consent.

## ***1.3 Instructions in the assembly manual***

All instructions in the assembly manual must be followed without exception.

## ***1.4 Informal activities performed by the fitter***

The system fitter is personally responsible for participating in a training course. He or she must inform the manufacturer/supplier without delay of any missing or defective parts in the delivery.

## ***1.5 Requirements for assembly personnel***



Persons responsible for installation and maintenance must be instructed regarding generally applicable safety and labour health requirements. They must be familiar with Langer&Laumann products. Installation tools must be fully functional and measuring instruments must be subject to continuous monitoring.

## 2 Activity performed

Replacement of the Peignen door operator with a  **Langer & Laumann Ing. Büro GmbH TSG door operator.**

The purpose of the conversion is to replace the existing Peignen drive with a TSG drive.

## 3 Advantages

- Very economical package.
- Quick and easy replacement of the existing door operator with a TSG from  **Langer & Laumann Ing. Büro GmbH.**
- **Just a few** mechanical attachments are required.
- All necessary parts are included with delivery.
- Conversion can be performed **very quickly** and **easily**.
- The electrical wiring can also be performed by **less experienced fitters**.
- **No hand-held** terminal is required for setting parameters. All parameters can easily be adjusted on the device.
- **Measurements can be performed very easily.**
- The conversion kit is available from  **Langer & Laumann Ing. Büro GmbH** as **warehouse inventory**.

## 4 Tools required

Metal drill bits 6, 9, and 11 mm  
Fork wrenches size 8, 10, 13, 17  
Screwdriver  
Side cutter

## 5 Conversion instructions



**NOTE:**

The order of assembly listed here is simply a recommendation. There is no claim of completeness.



**NOTE:**

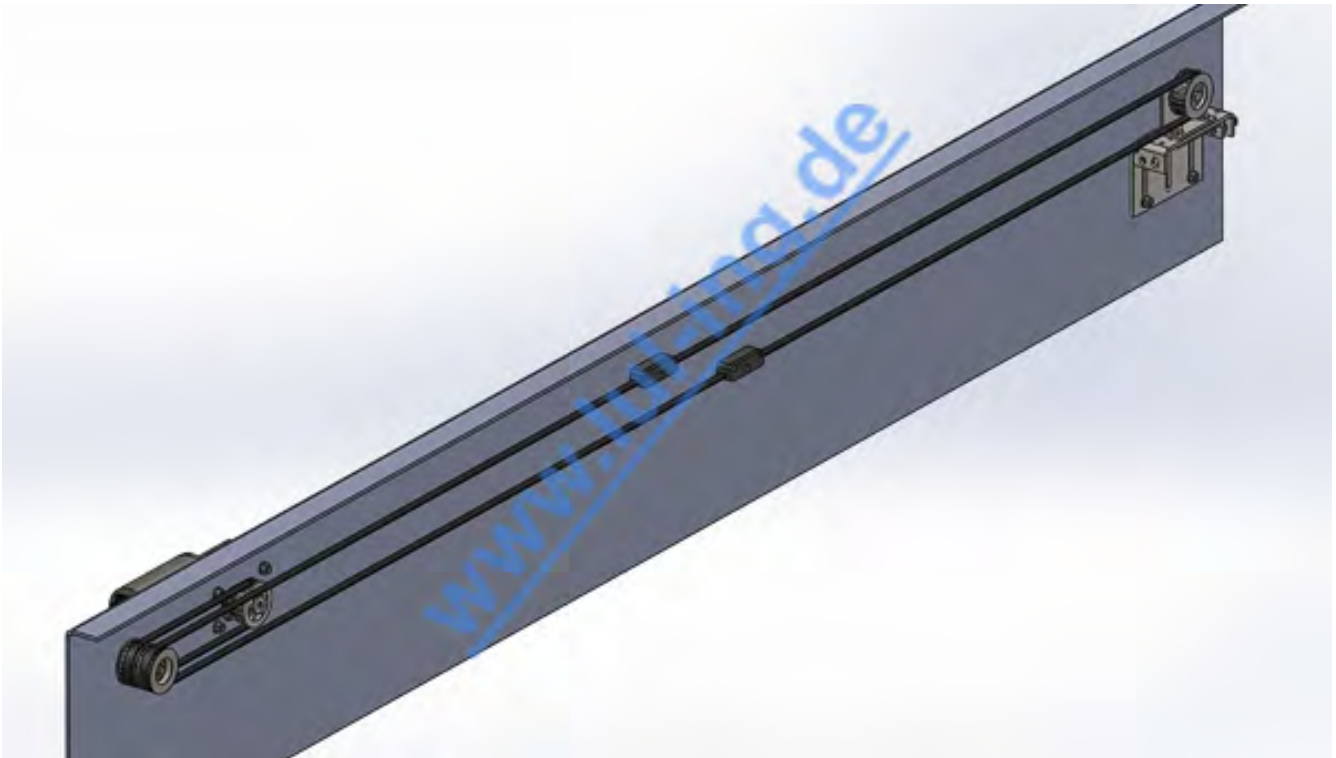
The manual describes the conversion of a center-opening door. In the case of a telescoping opening on the right or left, the material must be installed accordingly.

1. Disassembly existing Orona chain drive. The expanding skates, its actuation as well as (poss. existing) transmission from fast to slow door panels will be retained.
2. Unscrew the existing counter roller as it is replaced by the TSG counter roller (see Fig. 6: TSG installed in Orona chain - TSG counter roller / page 10).
3. Attach new axis / arbor (incl. in delivery).
4. Fit supplied double timing belt pulley to the axis and fix by driving the screw into the axis (see Fig. 3: TSG installed in Orona chain - TSG drive / page 8).
5. Screw TSG drive (excl. timing belt pulley) in tight to the adapter plate by using the clamping plate.
6. Put TSG drive through door machine and fix with screws (see Fig. 4: TSG installed in Orona chain – TSG drive / page 9).
7. Assemble TSG timing belt pulley to TSG drive axle and screw in tight.
8. Install the TSG continuous toothed belt to the double-timing belt pulley and the TSG drive. Tension the toothed belt by means of the clamping plate and tighten the screws.
9. Assemble the TSG tooth belt lock and TSG toothed belt. Attach the TSG tooth belt locks to the expanding skates.
10. Put TSG toothed belt to double timing belt pulley and tension by adjusting the counter roller (see Fig. 6: TSG installed in Orona chain - TSG counter roller / page 10).
11. Calibrate the TSG electronics. In this case, note that a fix stop in open as well as in closed position is provided. For further commissioning and electrical connection please refer to the TSG manual.

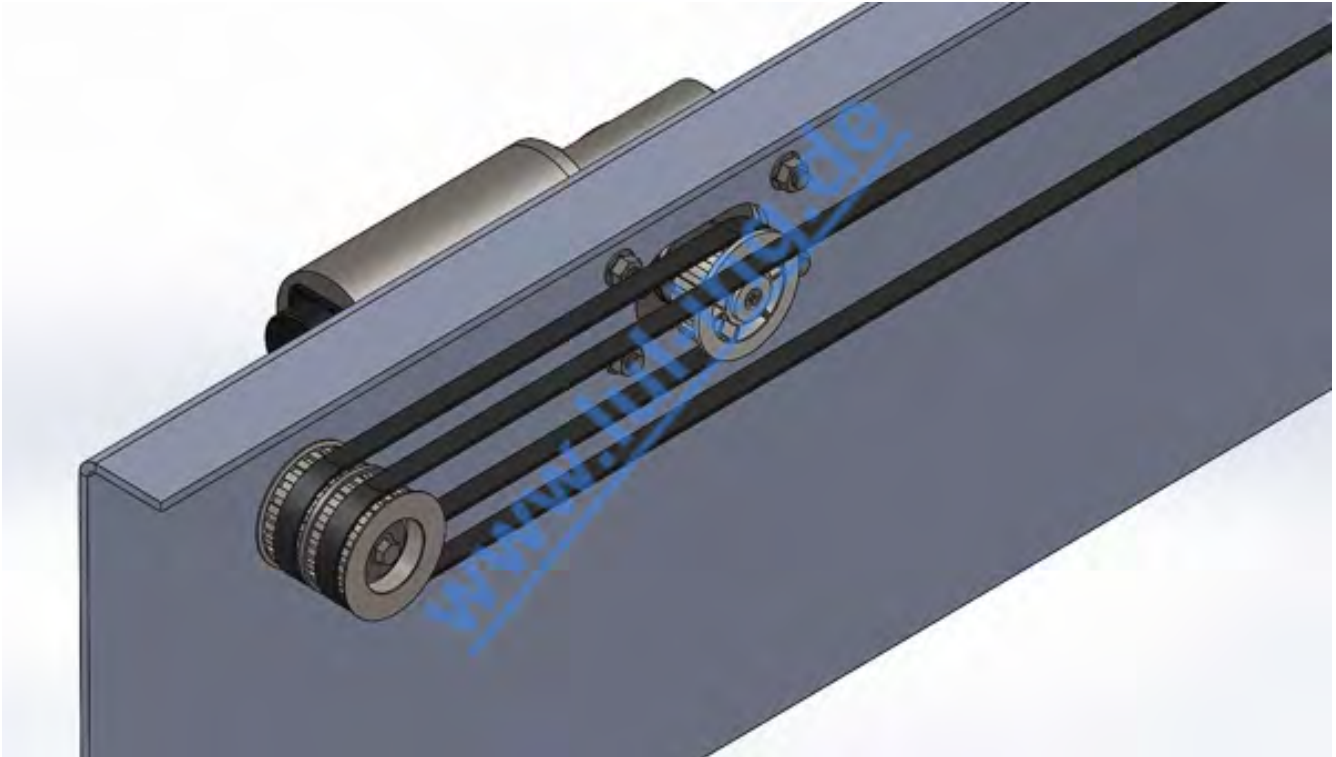
## 6 Illustrations



**Fig. 1 Orna chain original (here: center opening)**



**Fig. 2: TSG installed in Orona chain - Overview**



**Fig. 3: TSG installed in Orona chain - TSG drive**



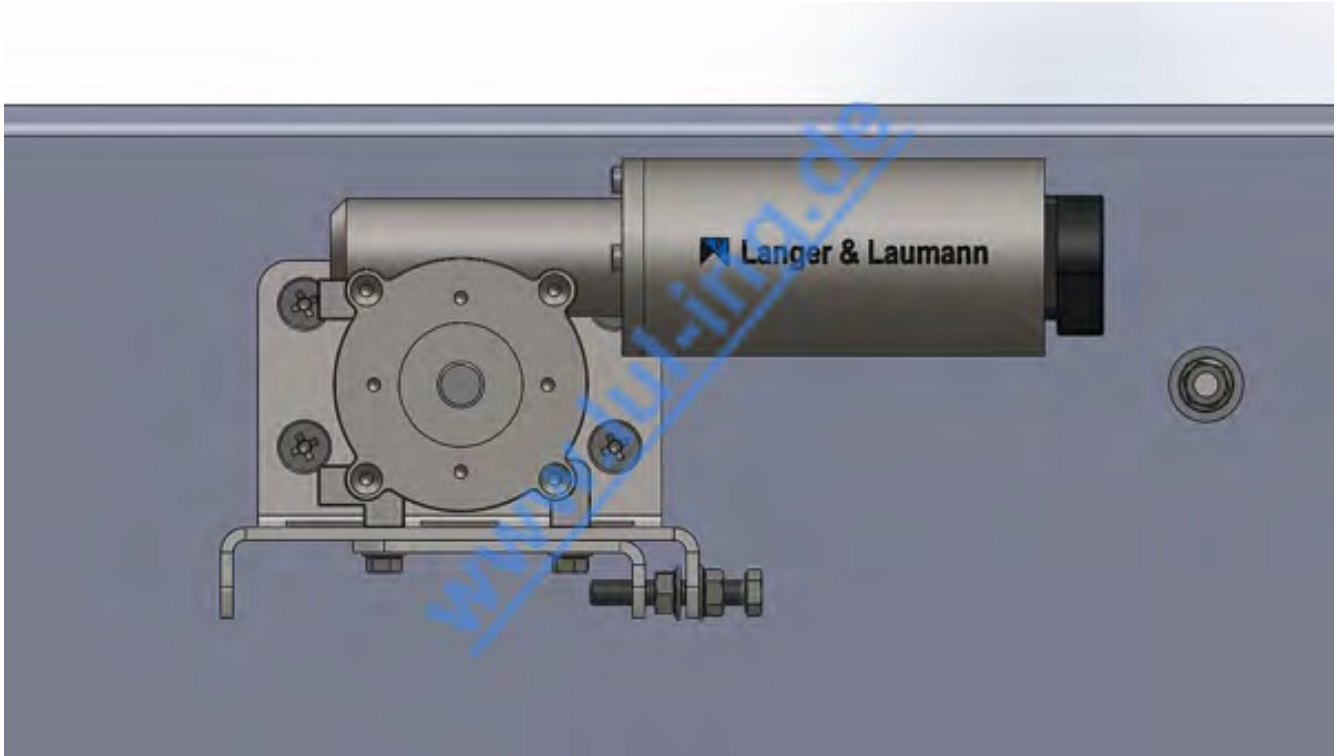


Fig. 4: TSG installed in Orona chain – TSG drive

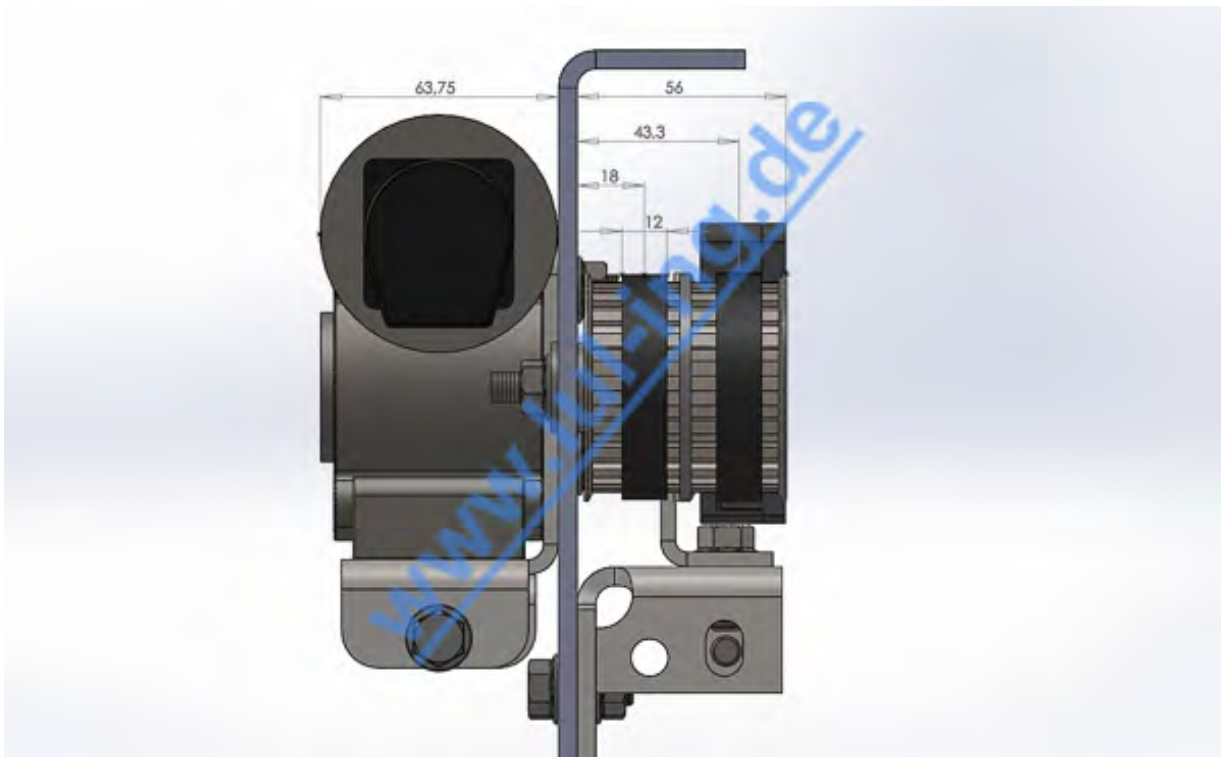


Fig. 5: TSG installed in Orona chain - side dimensions

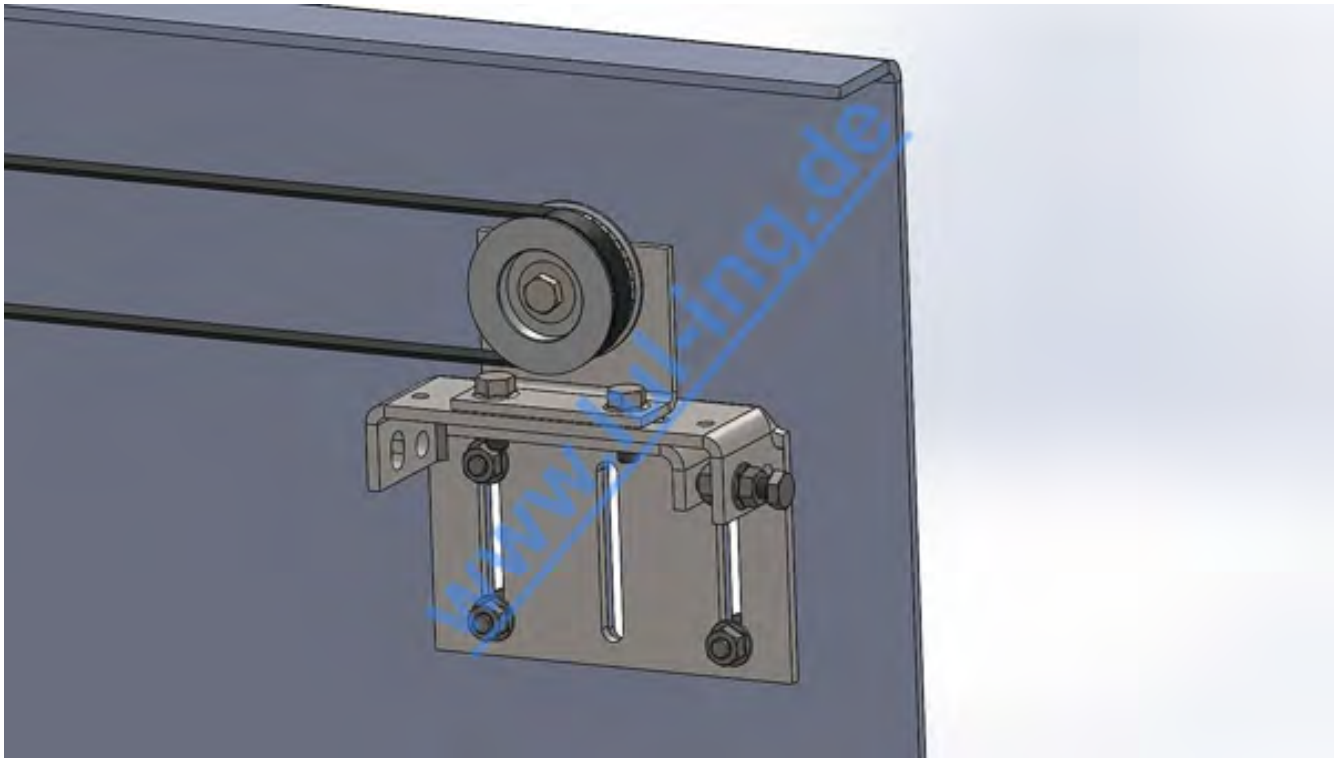


Fig. 6: TSG installed in Orona chain - TSG counter roller

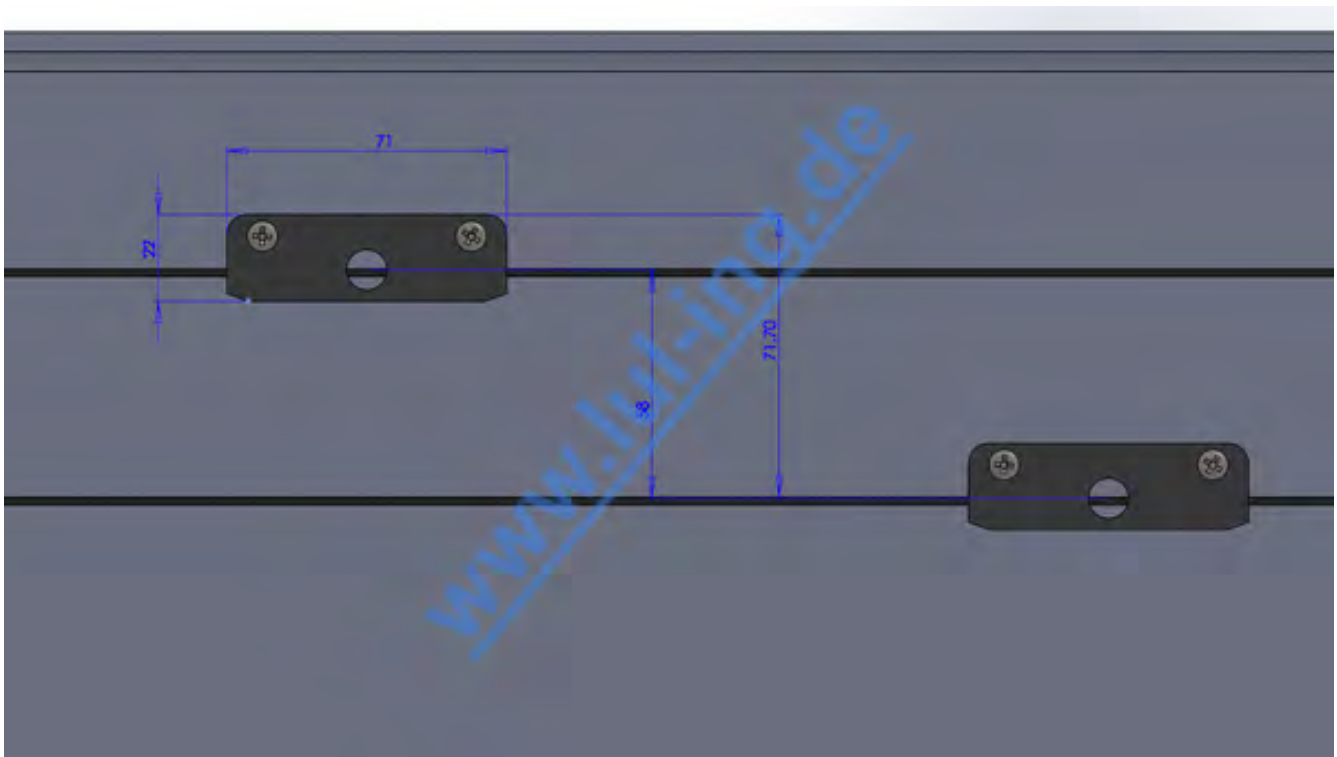


Fig. 7: TSG installed in Orona chain - toothed belt locks

## 7 Contact

If you have questions or are not certain about something, we can be reached at the following address:

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