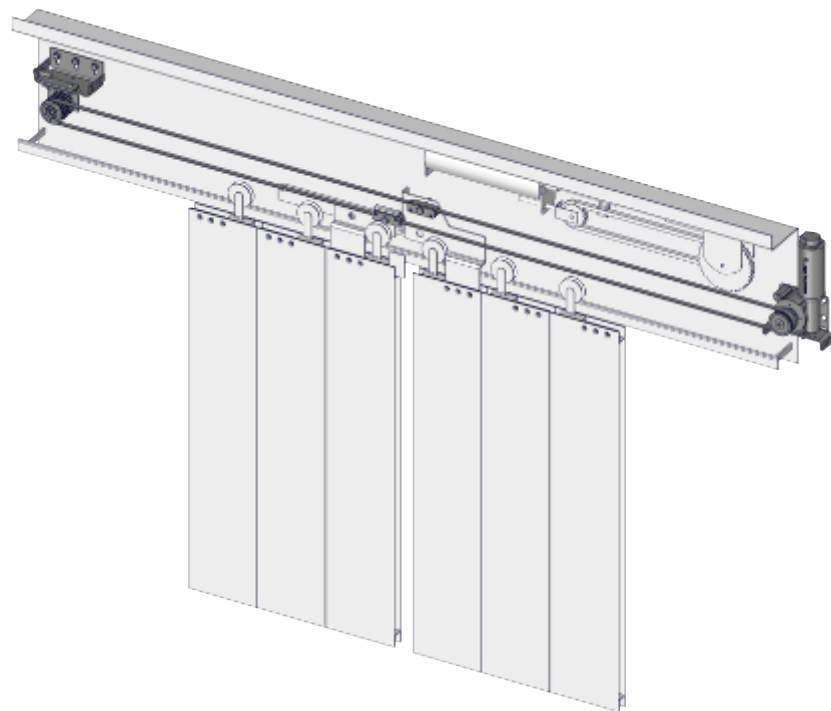




---

Conversion Instructions  
**Peignen A30 Z**  
to TSG V4

---

Shows **Z**.

## Imprint

|              |                                                      |
|--------------|------------------------------------------------------|
| Manufacturer | Langer & Laumann Ing.-Büro GmbH                      |
| Address      | Wilmsberger Weg 8<br>48565 Steinfurt<br>Germany      |
| Phone        | +49 (2552) 92791 0                                   |
| E-mail       | <a href="mailto:info@lul-ing.de">info@lul-ing.de</a> |
| Internet     | <a href="http://www.lul-ing.de">www.lul-ing.de</a>   |

Dokument **in Deutsch** durch Scannen des QR-Codes anfordern.



Obtenir le document **en français** en scannant le code QR.



# 1 About these instructions

## 1.1 Purpose

These conversion instructions contain important information and general mechanical assembly steps for the conversion of an existing system. These instructions must be observed to avoid hazards, repair costs and downtimes and increase the reliability and service life of the system.

## 1.2 Scope

These conversion instructions apply to the following conversion kit:

- Peignen A30 Z to TSG V4

## 1.3 Version information

The version number of these conversion instructions is shown on the front page and footer of each page.

Always retain and use the latest version of all documents.

Using an outdated version of this and any required and supplementary documentation can lead to incorrect assembly.

## 1.4 Contact information

See page 2.

## 1.5 Customers for whom these instructions are intended

These conversion instructions are directed at end customers of Langer & Laumann Ing.-Büro GmbH.

In addition to reading these conversion instructions, the following requirements and previous technical knowledge of the user is required for correct operation of the device:

- comprehensive technical knowledge of the existing facilities
- knowledge of the operating manuals of these facilities
- Classification as skilled personal

## 1.6 Other applicable documents

The following documents are required for work not described in these conversion instructions:

- Fitting instructions for the door control unit with information on electrical connection, fitting and commissioning
- Information on components not manufactured and supplied by Langer & Laumann

# 2 Safety

## 2.1 General safety instructions

Personnel must have carefully read and understood these conversion instructions before starting the conversion work.

The safety instructions and guidelines specified in these conversion instructions must be observed.

The accident prevention regulations applicable at the place of use and general safety regulations must be observed.

## 2.2 Personnel requirements

### 2.2.1 Personnel qualification and scope of work

The tasks described in this manual set different requirements for the qualification of the assigned personnel. Inadequately qualified employees are not able to correctly assess the risks and expose themselves and others to the risk of injuries. It is prohibited for inadequately qualified personnel to be in the working/danger zone. Persons whose ability to respond is influenced, for example, by drugs, alcohol or medication may not work on the facility.

**Skilled personnel** Work on mechanical components may only be carried out by suitably qualified skilled personnel (lift installer for defined tasks in lift construction according to DGUV 303-001).

**Electrically skilled personnel** Work on electrical components may only be carried out by electrically skilled personnel or lift installers with further training as an electrically skilled person for defined tasks in lift construction according to DGUV 303-001.

## 2.2.2 Personal protective equipment

Personal protective equipment is used to protect people against health and safety impairments during their work. The specified protective equipment must be worn.

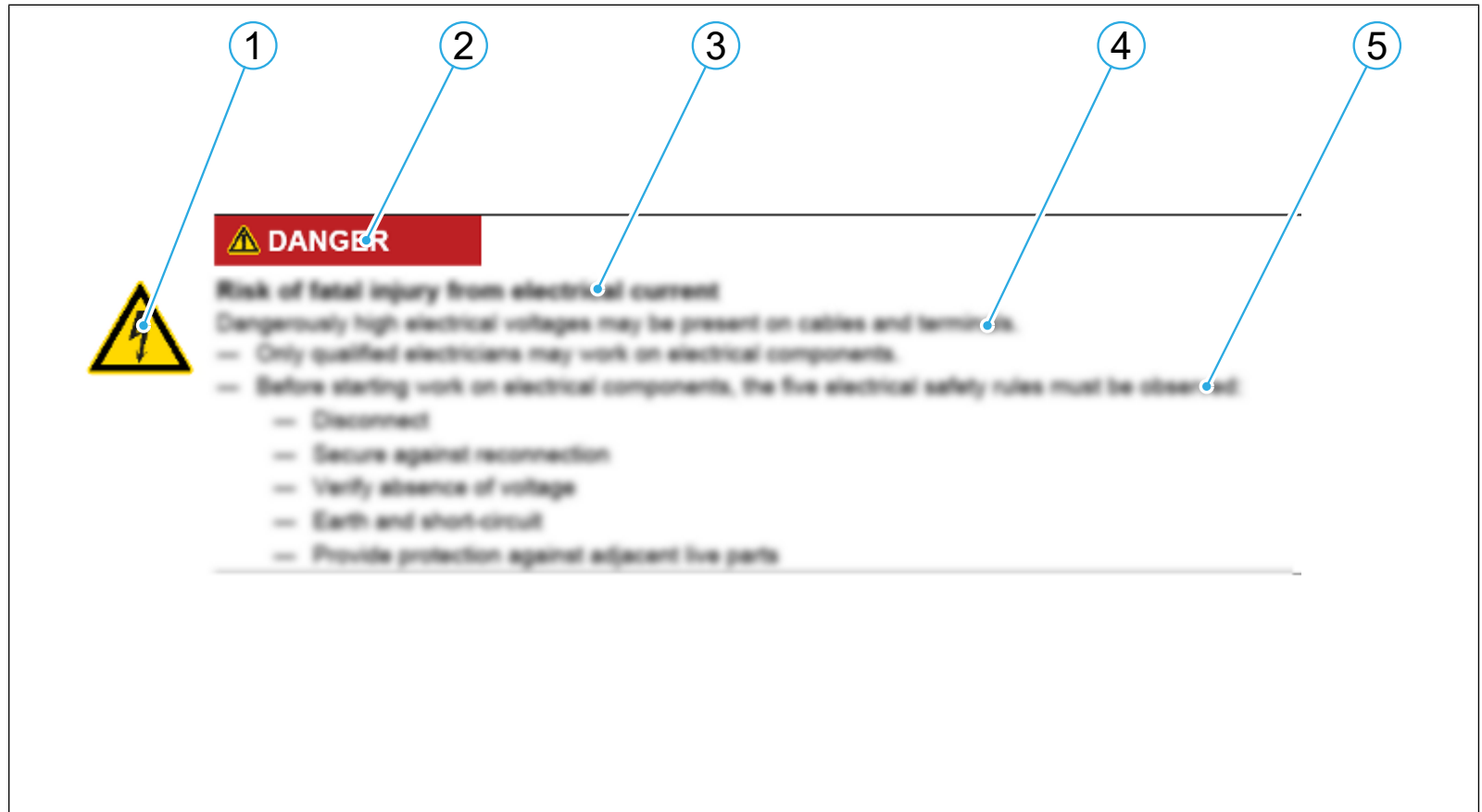
| Symbol                                                                              | Meaning                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|    | Wearing protective work clothing protects against hazards in the workplace.                  |
|    | Wearing slip-resistant safety footwear protects against injuries to the feet.                |
|    | Wearing cut and puncture-resistant protective gloves protects against injuries to the hands. |
|    | Wearing a protective cap protects against head injuries.                                     |
|    | Wearing goggles protects against eye injuries.                                               |
|   | Wearing hearing protection protects against hearing damage.                                  |
|  | Wearing a fall arrest system protects against falls.                                         |

Table 1: Personal protective equipment

## 2.3 Warnings

### 2.3.1 Structure of warning notices

All warning notices in this document are structured as follows:



|   |                                 |   |                                         |
|---|---------------------------------|---|-----------------------------------------|
| 1 | Hazard symbol                   | 2 | Signal word                             |
| 3 | Type and source of hazard       | 4 | Possible consequences of non-observance |
| 5 | Procedure for hazard prevention |   |                                         |

### 2.3.2 Meaning of signal words and symbols

The following signal words are used in this document:

| Signal word | Meaning, consequences if not prevented                                             |
|-------------|------------------------------------------------------------------------------------|
| DANGER      | Warns of an imminent hazardous situation which results in death or serious injury. |

Table 2: Meaning of signal words

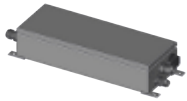
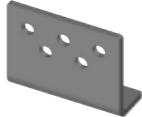
The following hazard symbols are used in this document:

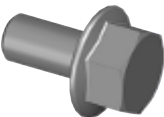
| Symbol                                                                            | Designation        |
|-----------------------------------------------------------------------------------|--------------------|
|  | Automatic start-up |
|  | Electrical hazard  |

Table 3: Meaning of hazard symbols

## 3 In the box

The conversion kit components are shown in the table. The position numbers are used in the following chapters to identify the individual components. For logistical reasons, the packaging can contain further components that are not required for actual use.

| Pos. | Illustration                                                                        | Item number   | Description      | Quantity |
|------|-------------------------------------------------------------------------------------|---------------|------------------|----------|
| P001 |    | 8.20.xxxxx.04 | TSG electronics  | 1        |
| P002 |    | 8.20.400xx.xx | TSG motor        | 1        |
| P003 |    | 8.20.60002.xx | Timing belt 8M   | 1        |
| P004 |    | 1.20.60006    | Timing belt lock | 2        |
| P005 |   | 1.20.60013    | L-shaped bracket | 1        |
| P006 |  | 1.20.60110    | L-shaped bracket | 1        |
| P007 |  | 1.20.60120    | U-shaped bracket | 1        |

| Pos. | Illustration                                                                        | Item number | Description                             | Quantity |
|------|-------------------------------------------------------------------------------------|-------------|-----------------------------------------|----------|
| P008 |    | 1.20.60173  | Timing belt pulley 8M                   | 1        |
| P009 |    | 1.20.85011  | U-shaped motor bracket                  | 1        |
| P010 |    | 1.20.92294  | Shaft D = 12 mm                         | 1        |
| P011 |    | 1.20.92300  | Double timing belt pulley D = 56 mm, 8M | 1        |
| P012 |    | 1.36.00007  | Button head screw M4 × 16 mm            | 1        |
| P013 |   | 1.36.00115  | Hexagon head screw M8 × 40 mm           | 1        |
| P014 |  | 1.36.00135  | Locking screw M6 × 12 mm                | 5        |
| P015 |  | 1.36.00380  | Countersunk screw M8 × 20 mm            | 2        |

| Pos. | Illustration                                                                      | Item number | Description                    | Quantity |
|------|-----------------------------------------------------------------------------------|-------------|--------------------------------|----------|
| P016 |  | 1.36.00451  | Washer M4                      | 1        |
| P017 |  | 1.36.00501  | Nut M8                         | 6        |
| P018 |  | 1.36.00503  | Nut M10                        | 2        |
| P019 |  | 1.36.00720  | Locking screw M8 × 20 mm       | 5        |
| P020 |  | 1.36.02112  | Hexagon head screw M10 × 45 mm | 2        |

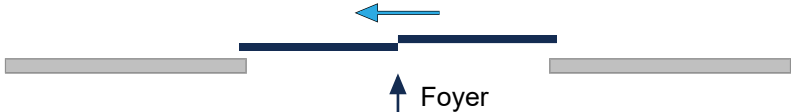
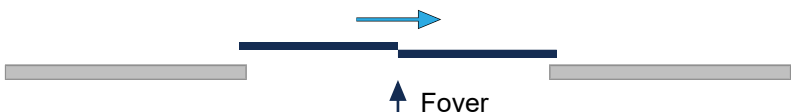
## 4 Required tools

The tools required for the conversion are shown in the table. The position numbers are used in the following chapters to identify the individual tools.

| Pos.   | Symbol                                                                              | Description                                     |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------|
| T001   |    | Soft face hammer                                |
| T002   |    | Hammer                                          |
| T003   |    | Puller for bearings and pinions                 |
| T004   |    | Pipe wrench                                     |
| T005   |    | Side cutters                                    |
| T006   |    | Circlip pliers                                  |
| T007   |    | Angle grinder                                   |
| T008   |    | Measuring tool (folding rule or measuring tape) |
| T009   |    | Slotted screwdriver                             |
| T010   |    | Phillips screwdriver                            |
| T110   |    | Combination wrench, size 10                     |
| T113   |  | Combination wrench, size 13                     |
| T115   |  | Combination spanner, size 15                    |
| T116   |  | Combination spanner, size 16                    |
| T119   |  | Combination spanner, size 19                    |
| T205.0 |  | Allen key, size 5                               |
| T608.5 |  | Drill bit, Ø 8.5 mm                             |
| T610.0 |  | Drill bit, Ø 10.5 mm                            |

## 5 Definition of door opening directions

The possible door opening directions are shown in the following table in schematic form.

|                                |                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------|
| L: Left opening                |    |
| R: Right opening               |    |
| TL: Telescopic left opening    |    |
| TR: Telescopic right opening   |    |
| Z: Center opening              |   |
| ZT: Center telescoping opening |  |
| FD: Folding door               |  |

## 6 Disassembly of existing components

### DANGER



#### **Danger to life from rotating/moving system components**

- Before starting work, switch off the system completely.
- Keep away from unsecured rotating/moving system components.

### DANGER



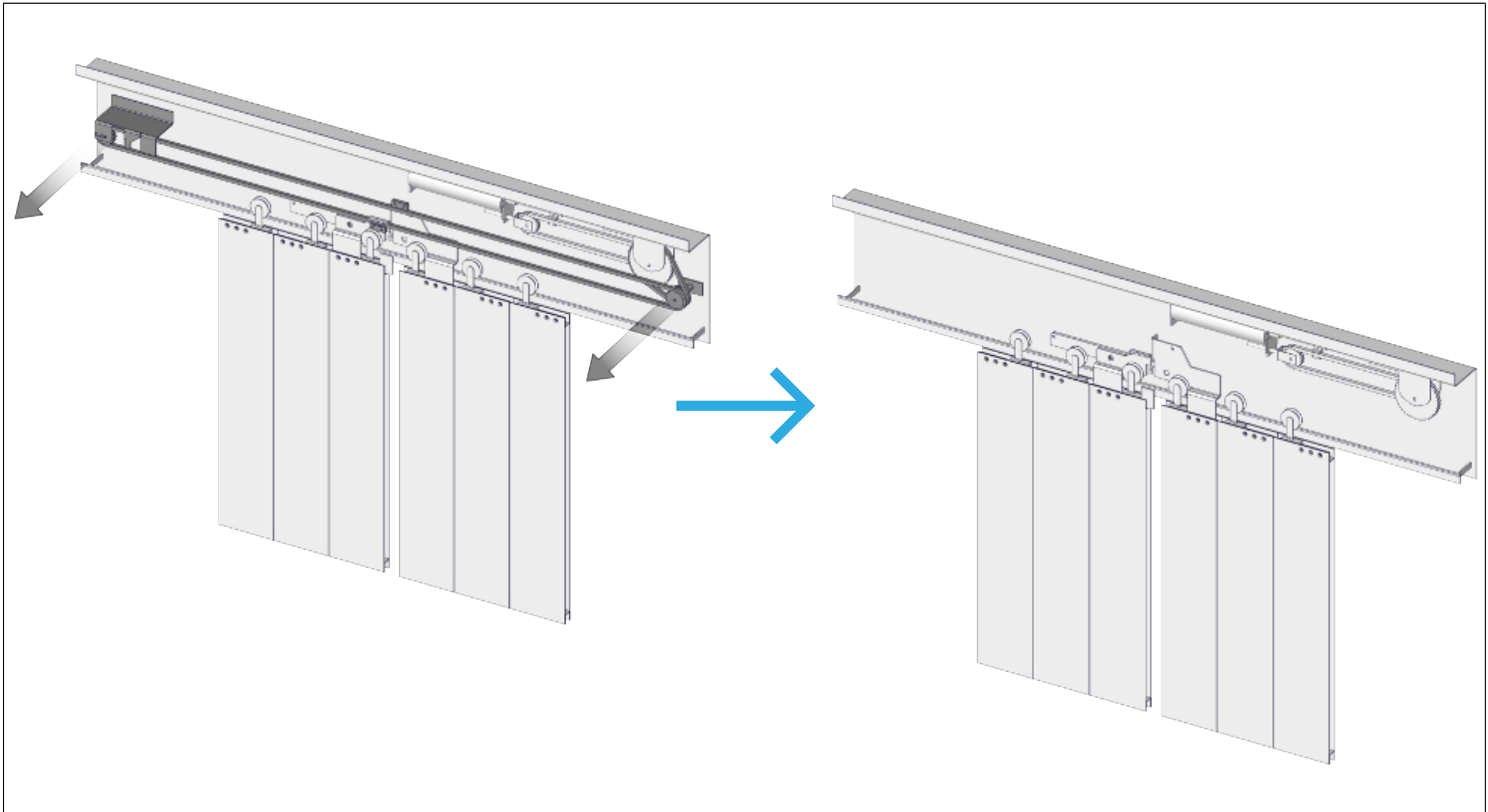
#### **Risk of fatal injury from electrical current**

Dangerously high electrical voltages may be present on cables and terminals.

- Only qualified electricians may work on electrical components.
- Before starting work on electrical components, the five electrical safety rules must be observed:
  - Disconnect
  - Secure against reconnection
  - Verify absence of voltage
  - Earth and short-circuit
  - Provide protection against adjacent live parts

### Tools

| Pos. | Symbol                                                                              | Description                     |
|------|-------------------------------------------------------------------------------------|---------------------------------|
| T002 |  | Hammer                          |
| T003 |  | Puller for bearings and pinions |
| T004 |  | Pipe wrench                     |
| T005 |  | Side cutters                    |
| T006 |  | Circlip pliers                  |
| T007 |  | Angle grinder                   |
| T1xx |  | Combination spanners, as needed |



## 7 Installation

### 7.1 Mounting the motor and bracket on the door frame

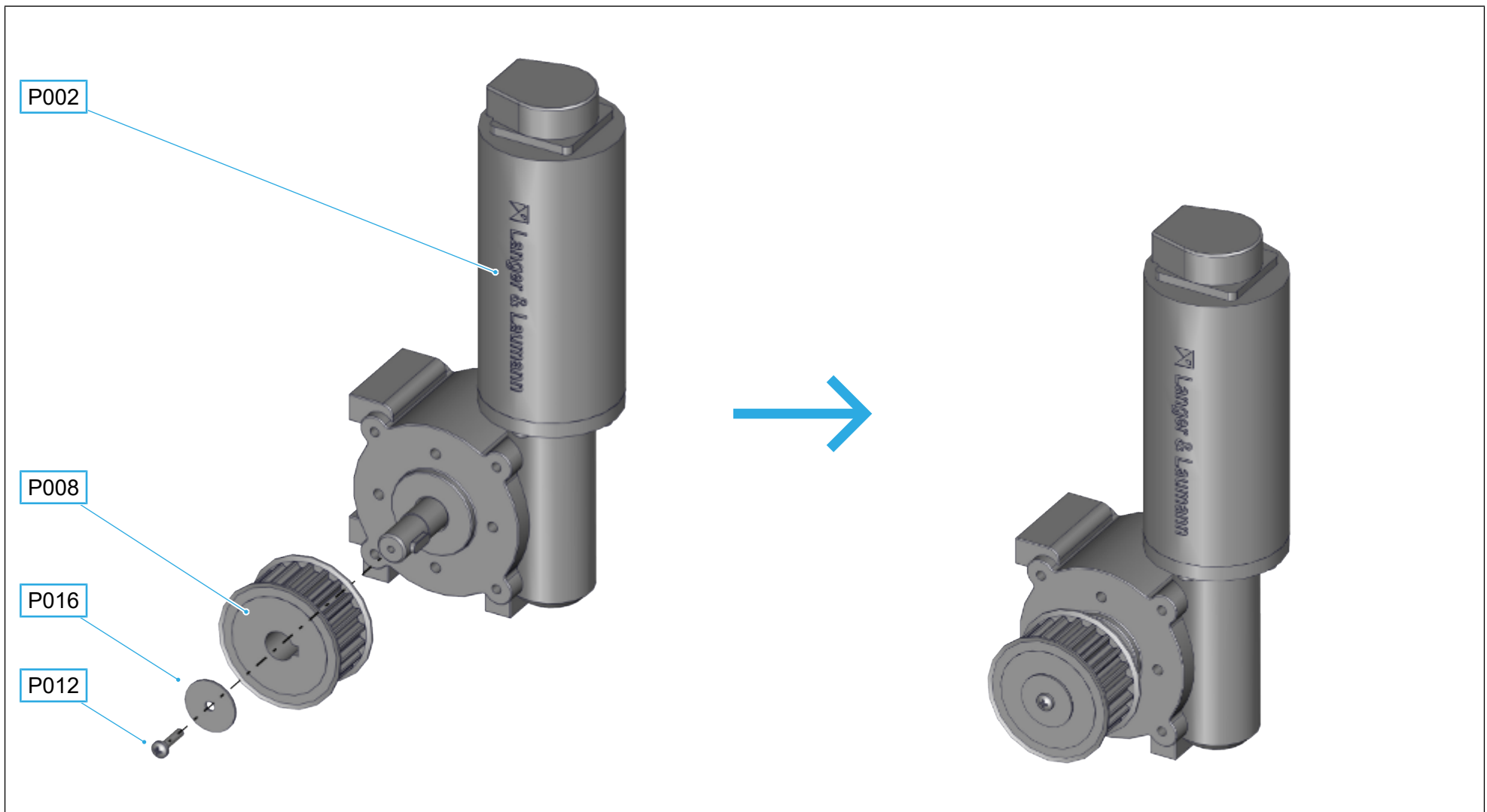
#### Components

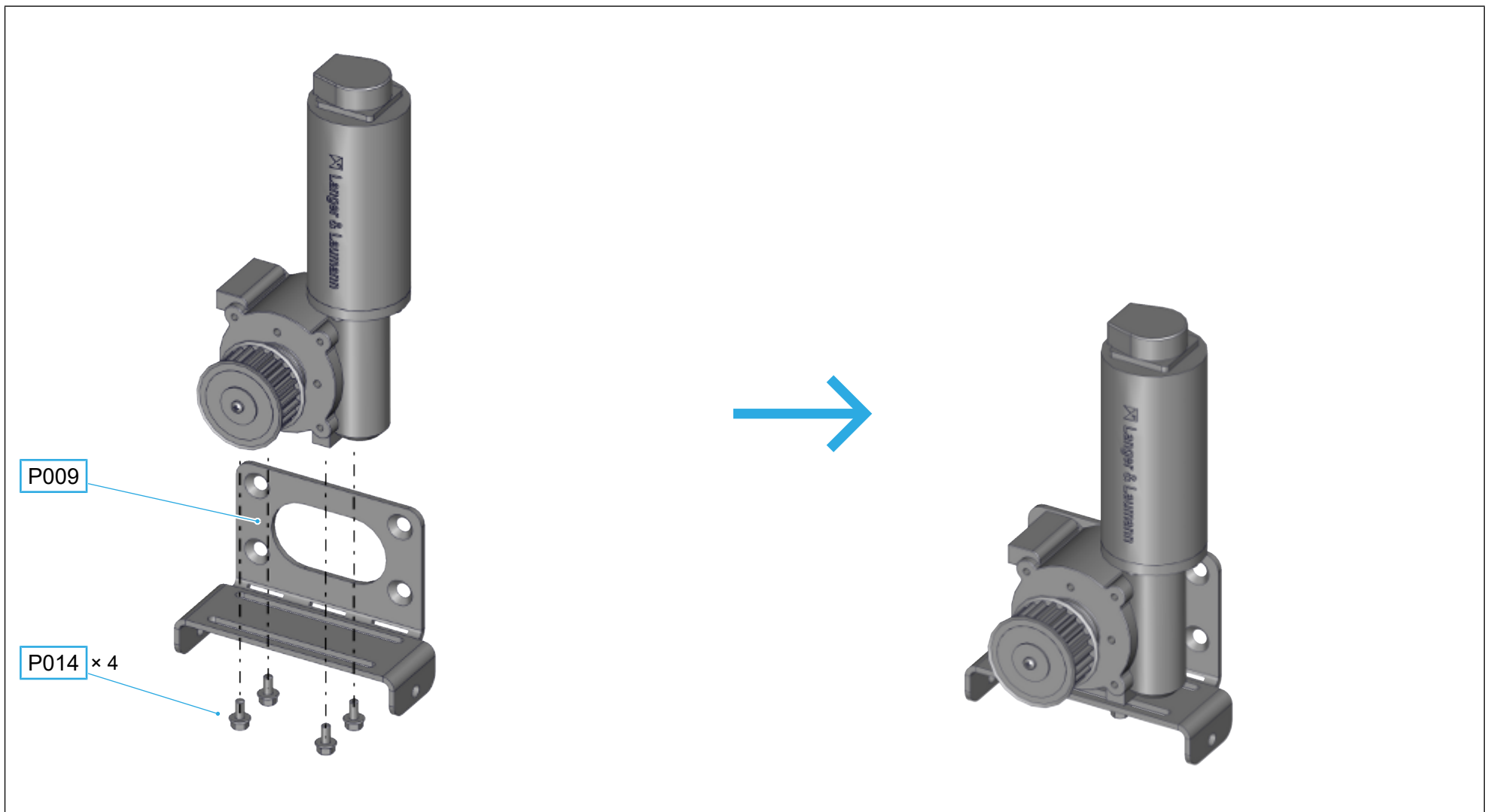
| Pos. | Illustration                                                                        | Item number   | Description                  | Quantity |
|------|-------------------------------------------------------------------------------------|---------------|------------------------------|----------|
| P002 |    | 8.20.400xx.xx | TSG motor                    | 1        |
| P008 |    | 1.20.60173    | Timing belt pulley 8M        | 1        |
| P009 |    | 1.20.85011    | U-shaped motor bracket       | 1        |
| P012 |   | 1.36.00007    | Button head screw M4 × 16 mm | 1        |
| P014 |  | 1.36.00135    | Locking screw M6 × 12 mm     | 4        |
| P015 |  | 1.36.00380    | Countersunk screw M8 × 20 mm | 2        |

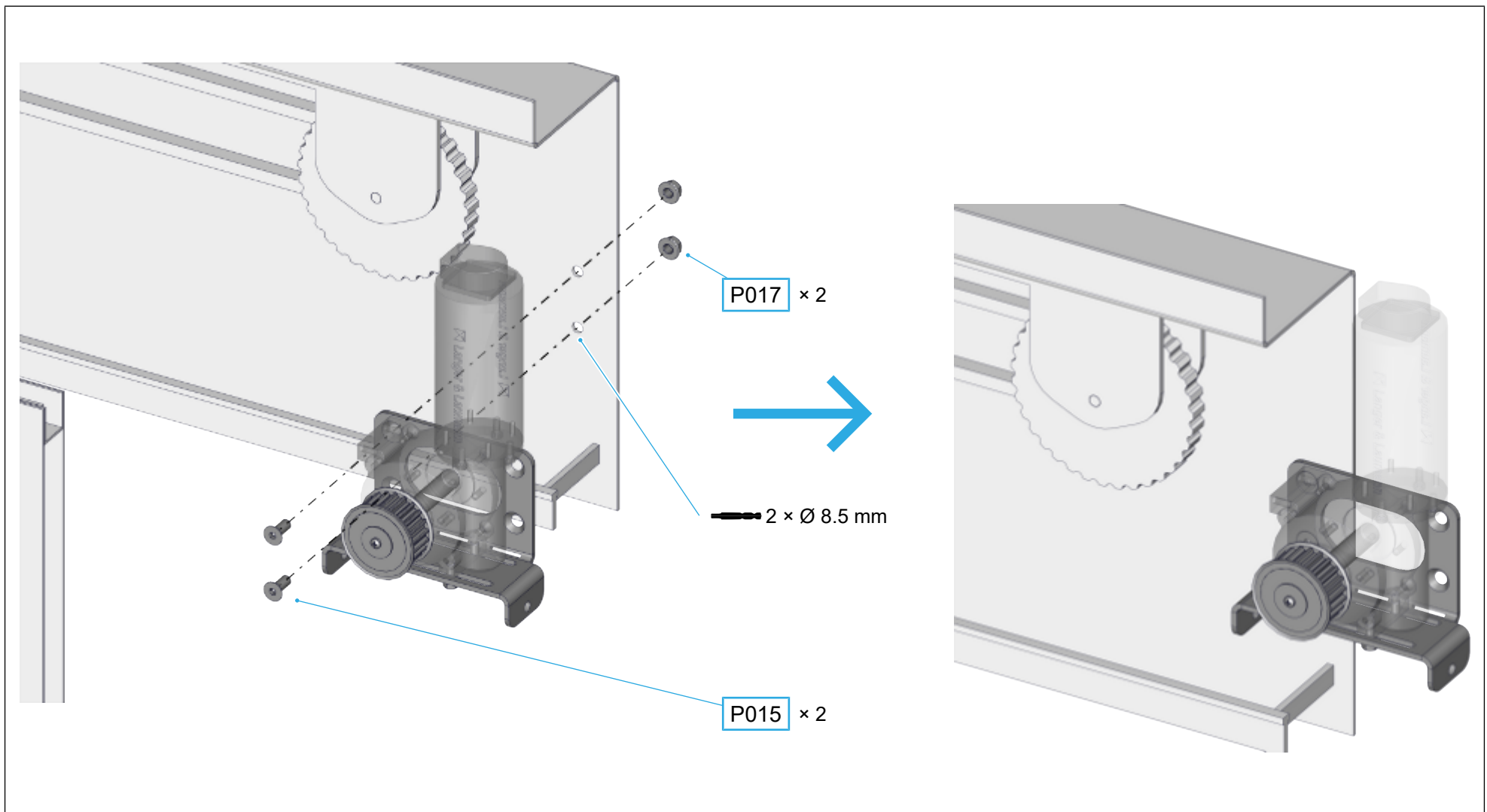
| Pos. | Illustration                                                                      | Item number | Description | Quantity |
|------|-----------------------------------------------------------------------------------|-------------|-------------|----------|
| P016 |  | 1.36.00451  | Washer M4   | 1        |
| P017 |  | 1.36.00501  | Nut M8      | 2        |

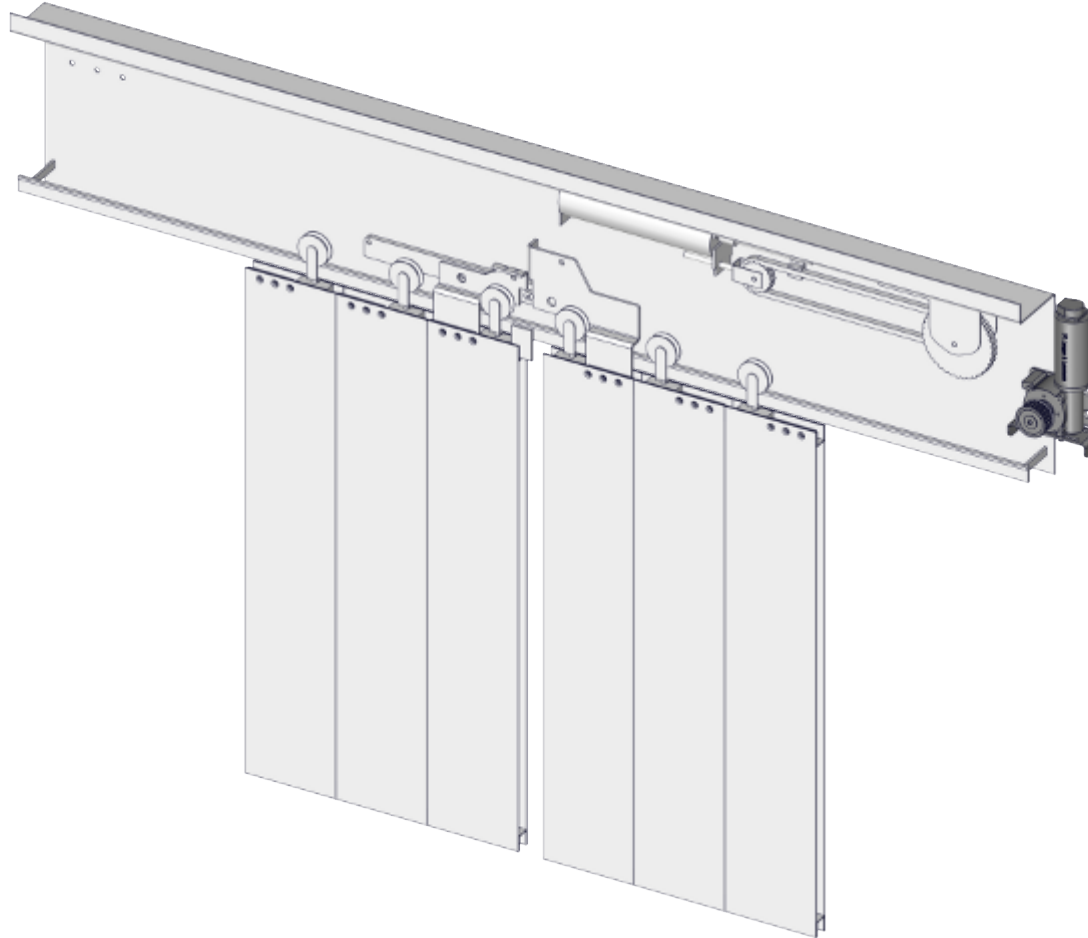
### Tools

| Pos.   | Symbol                                                                            | Description                 |
|--------|-----------------------------------------------------------------------------------|-----------------------------|
| T010   |  | Phillips screwdriver        |
| T110   |  | Combination wrench, size 10 |
| T113   |  | Combination wrench, size 13 |
| T205.0 |  | Allen key, size 5           |



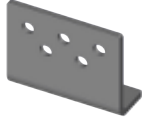


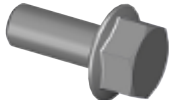




## 7.2 Mounting the deflection unit on the door frame

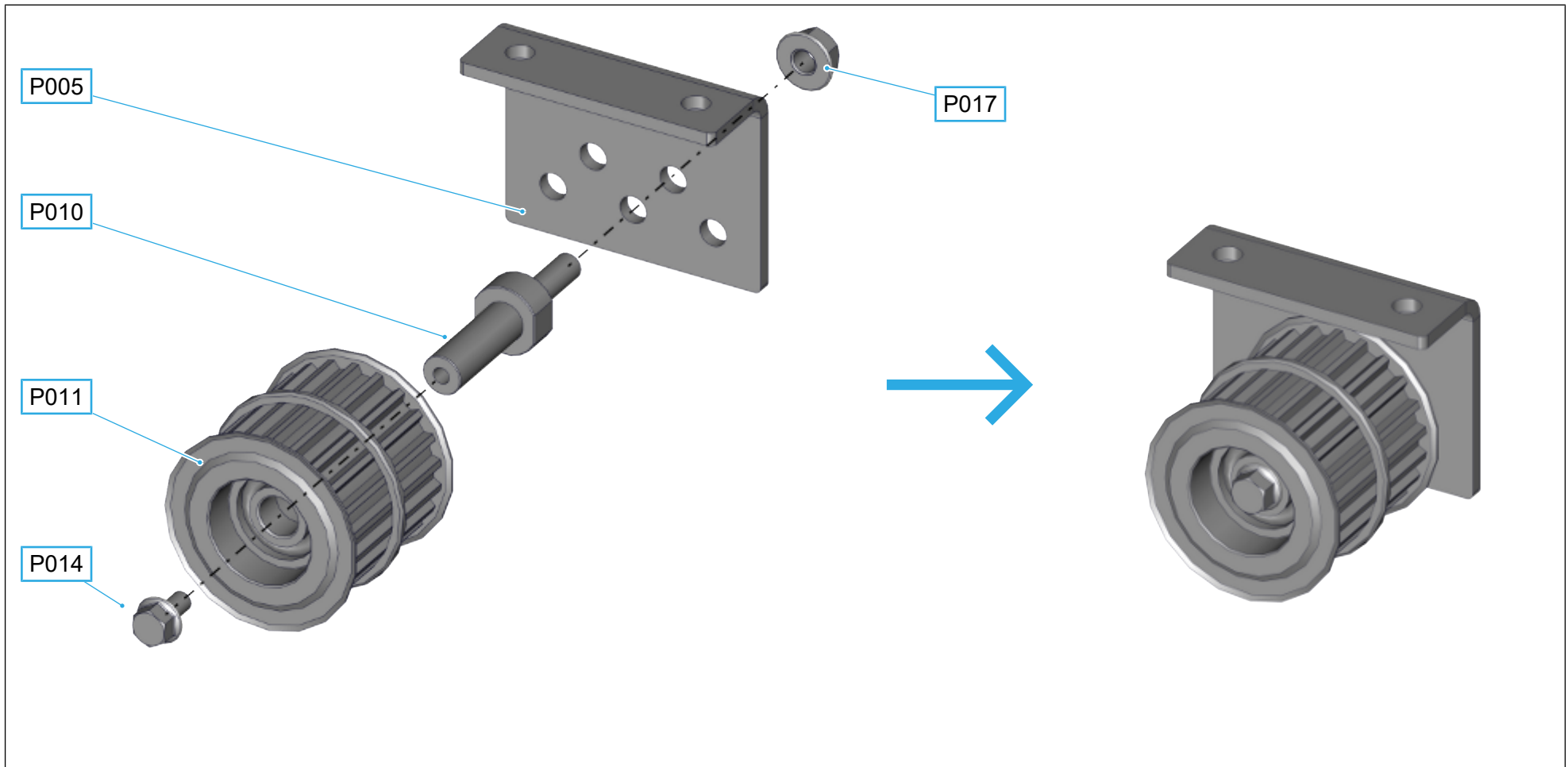
### Components

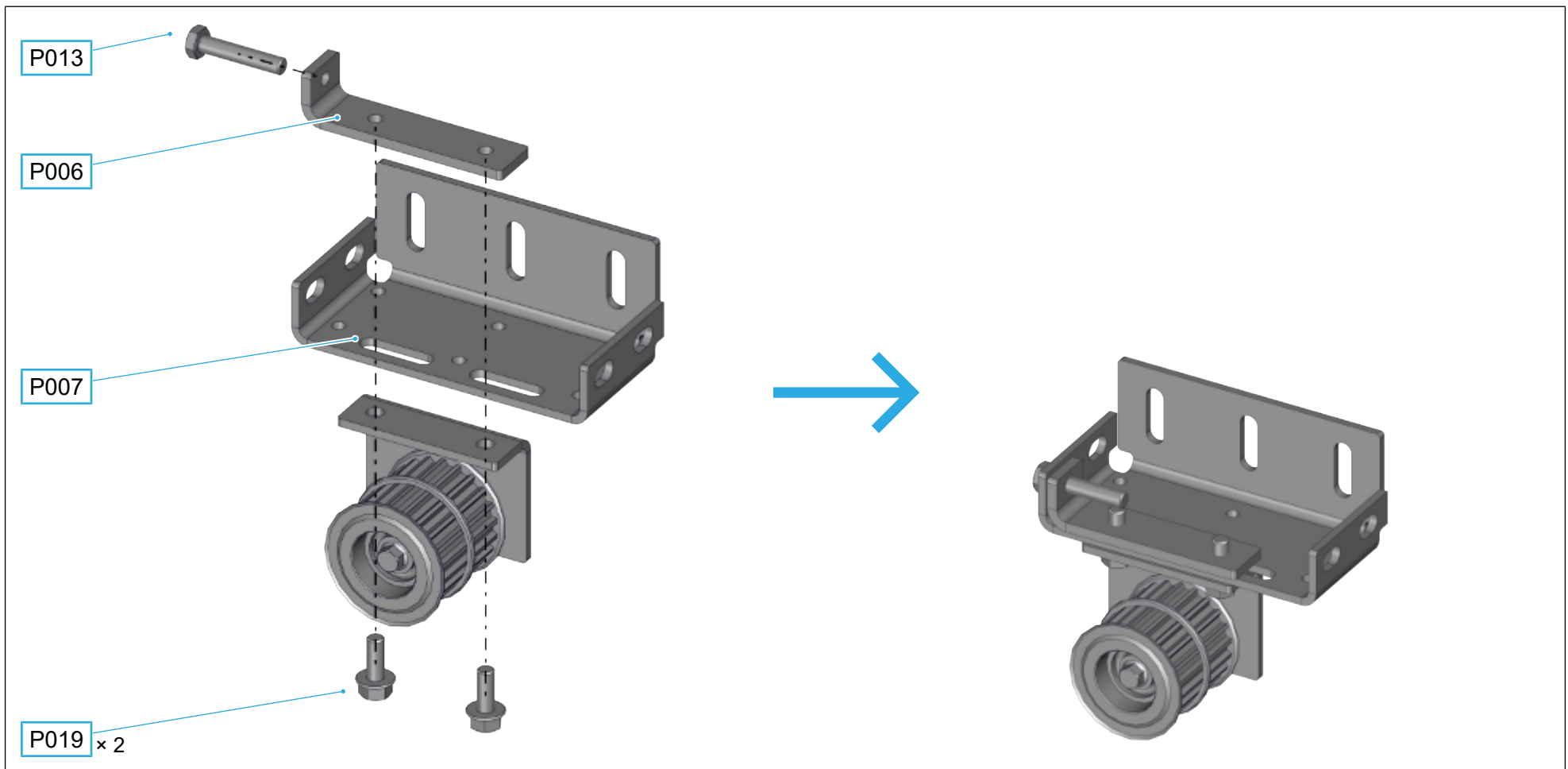
| Pos. | Illustration                                                                        | Item number | Description                             | Quantity |
|------|-------------------------------------------------------------------------------------|-------------|-----------------------------------------|----------|
| P005 |    | 1.20.60013  | L-shaped bracket                        | 1        |
| P006 |    | 1.20.60110  | L-shaped bracket                        | 1        |
| P007 |    | 1.20.60120  | U-shaped bracket                        | 1        |
| P010 |    | 1.20.92294  | Shaft D = 12 mm                         | 1        |
| P011 |   | 1.20.92300  | Double timing belt pulley D = 56 mm, 8M | 1        |
| P013 |  | 1.36.00115  | Hexagon head screw M8 × 40 mm           | 1        |
| P014 |  | 1.36.00135  | Locking screw M6 × 12 mm                | 1        |

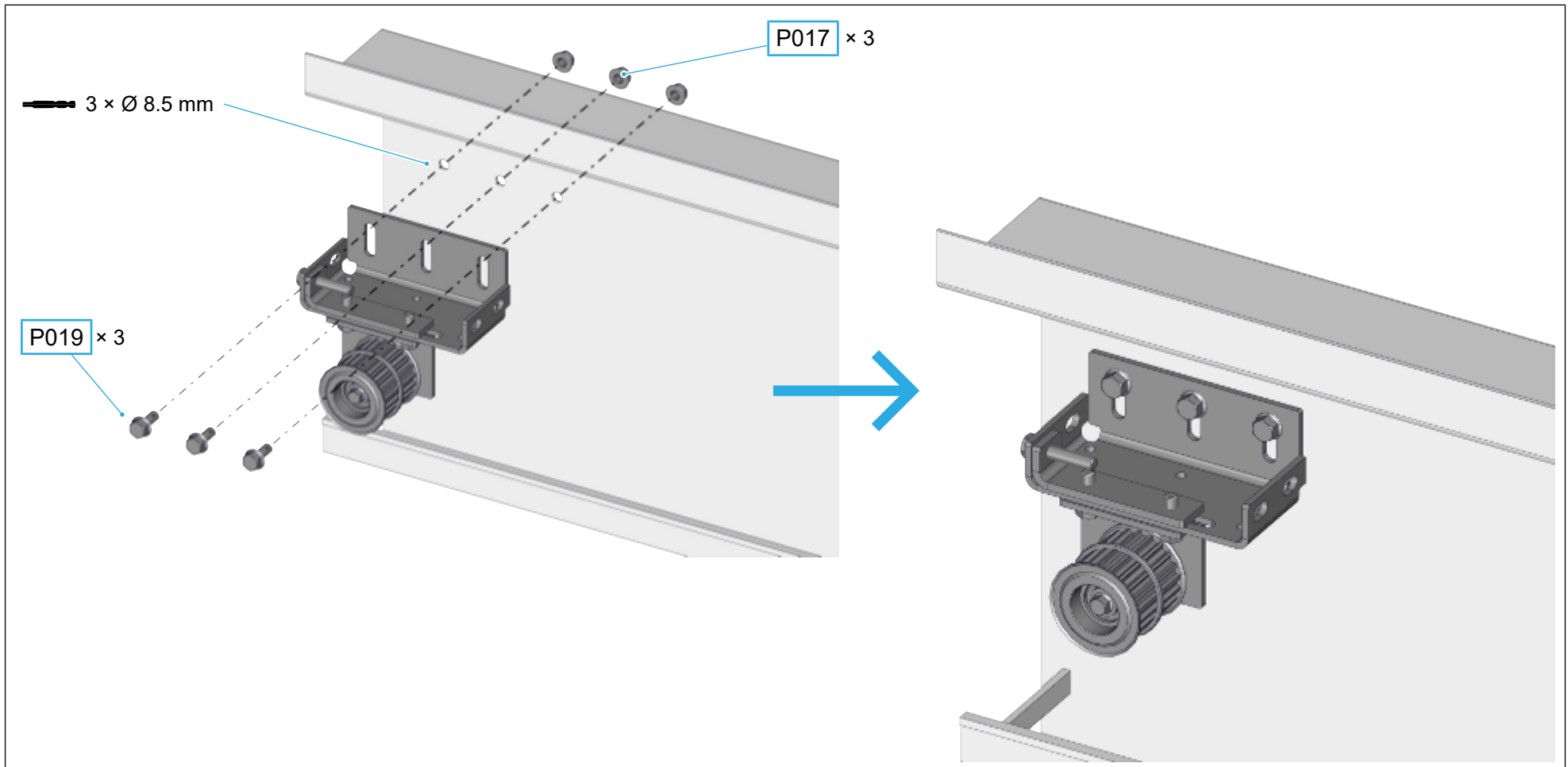
| Pos. | Illustration                                                                      | Item number | Description              | Quantity |
|------|-----------------------------------------------------------------------------------|-------------|--------------------------|----------|
| P017 |  | 1.36.00501  | Nut M8                   | 4        |
| P019 |  | 1.36.00720  | Locking screw M8 × 20 mm | 5        |

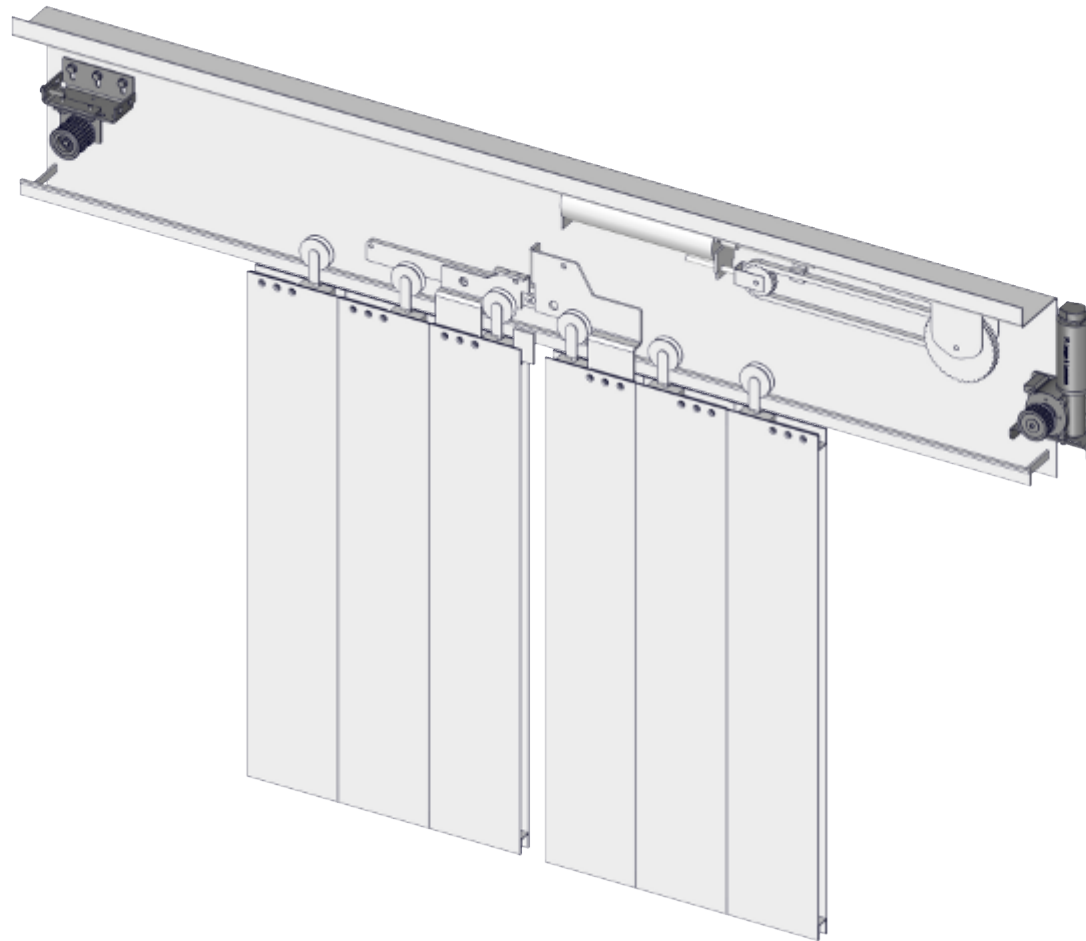
### Tools

| Pos. | Symbol                                                                            | Description                  |
|------|-----------------------------------------------------------------------------------|------------------------------|
| T110 |  | Combination wrench, size 10  |
| T113 |  | Combination wrench, size 13  |
| T119 |  | Combination spanner, size 19 |









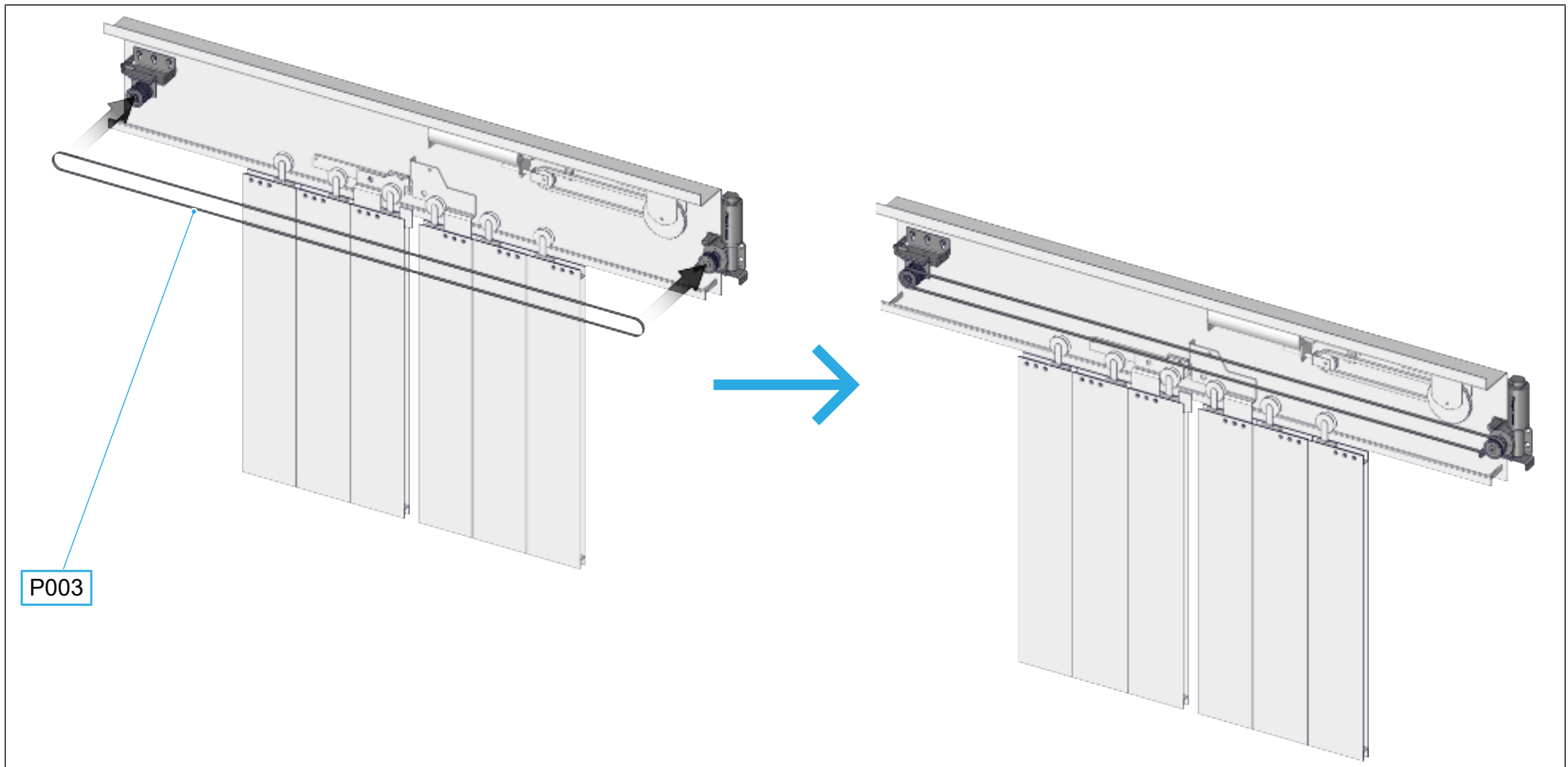
## 7.3 Mounting and tensioning the timing belt

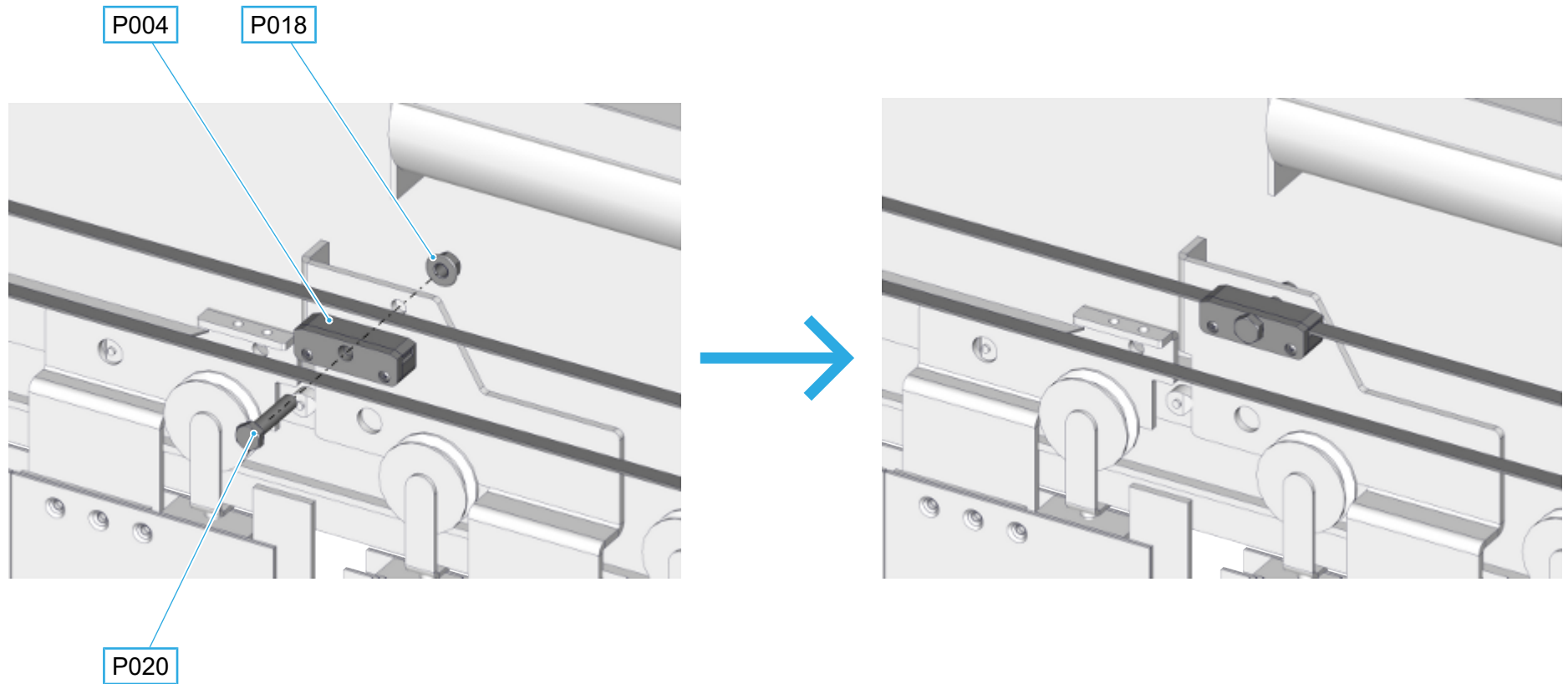
### Components

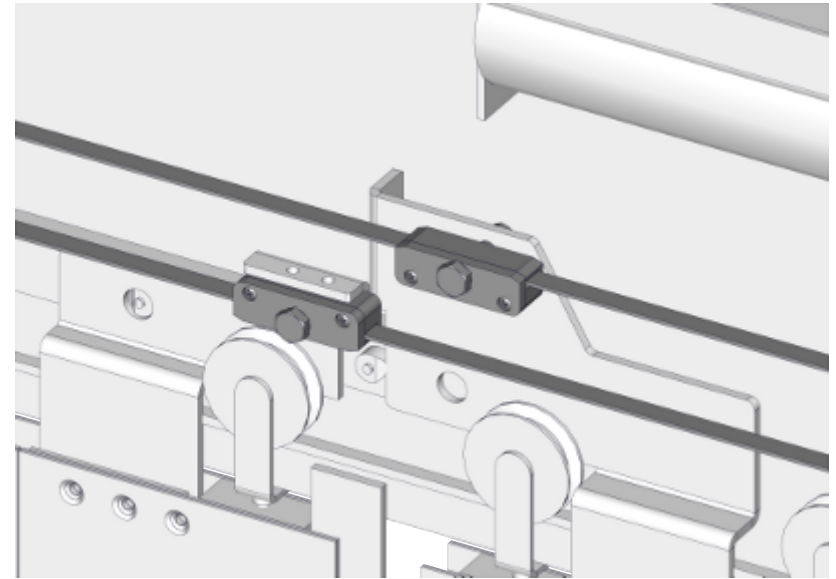
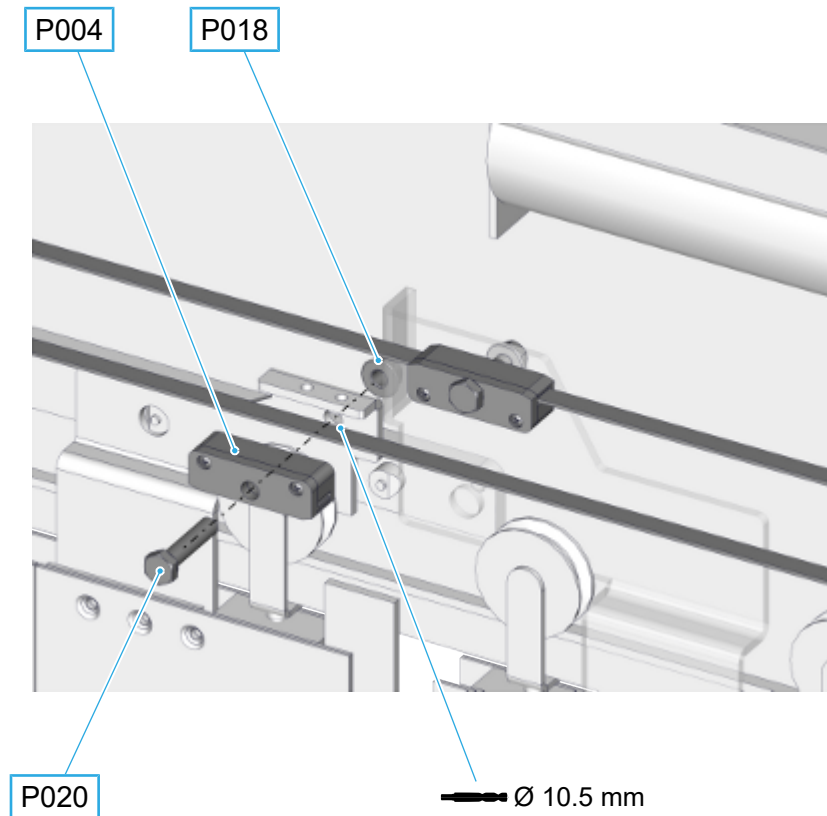
| Pos. | Illustration                                                                      | Item number   | Description                    | Quantity |
|------|-----------------------------------------------------------------------------------|---------------|--------------------------------|----------|
| P003 |  | 8.20.60002.xx | Timing belt 8M                 | 1        |
| P004 |  | 1.20.60006    | Timing belt lock               | 2        |
| P018 |  | 1.36.00503    | Nut M10                        | 2        |
| P020 |  | 1.36.02112    | Hexagon head screw M10 × 45 mm | 2        |

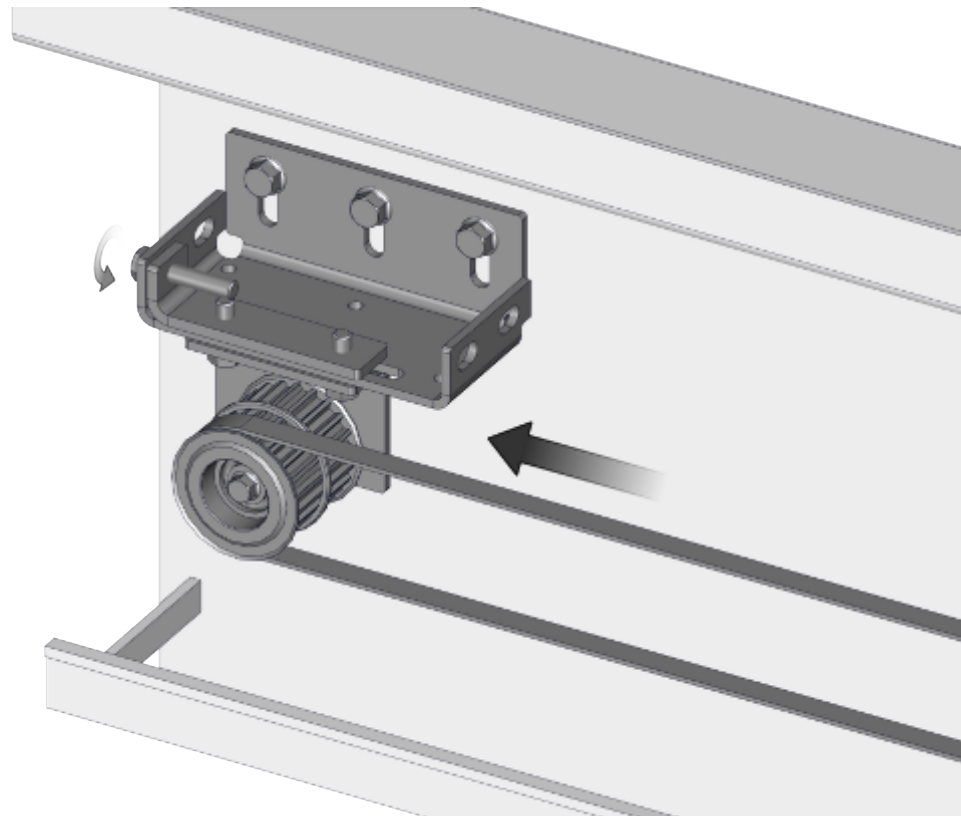
### Tools

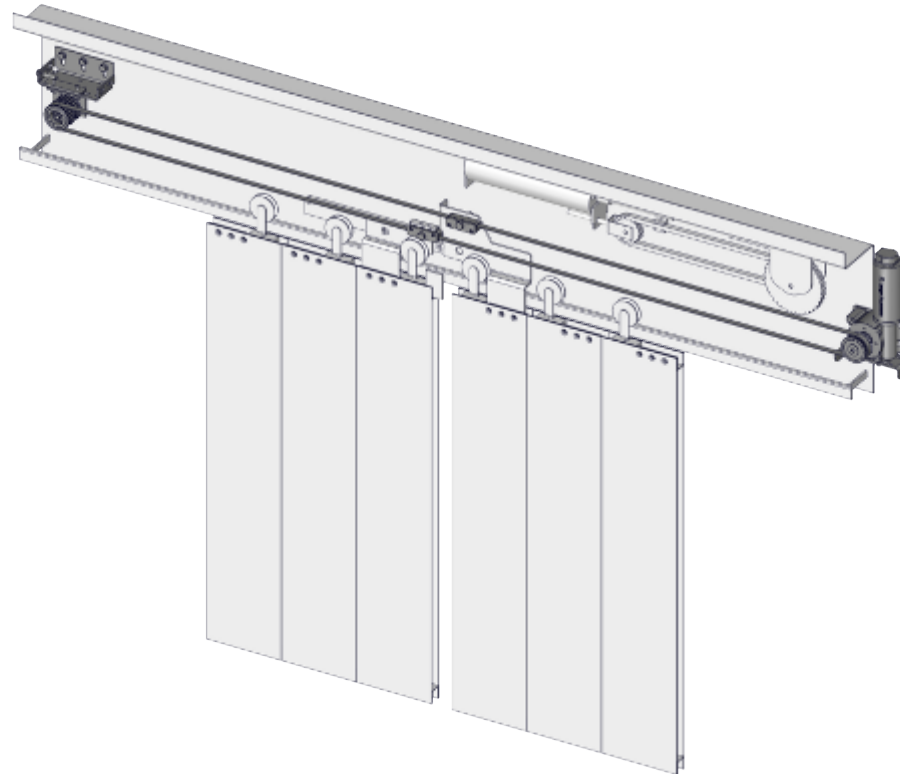
| Pos.   | Symbol                                                                              | Description                  |
|--------|-------------------------------------------------------------------------------------|------------------------------|
| T113   |  | Combination wrench, size 13  |
| T115   |  | Combination spanner, size 15 |
| T116   |  | Combination spanner, size 16 |
| T610.0 |  | Drill bit, Ø 10.5 mm         |











## 8 Fitting, connecting and commissioning the door control unit

Fitting, connecting and commissioning the door control unit are described in detail in the **assembly instructions** supplied with the door control unit.



*Innovation meets Technology*

