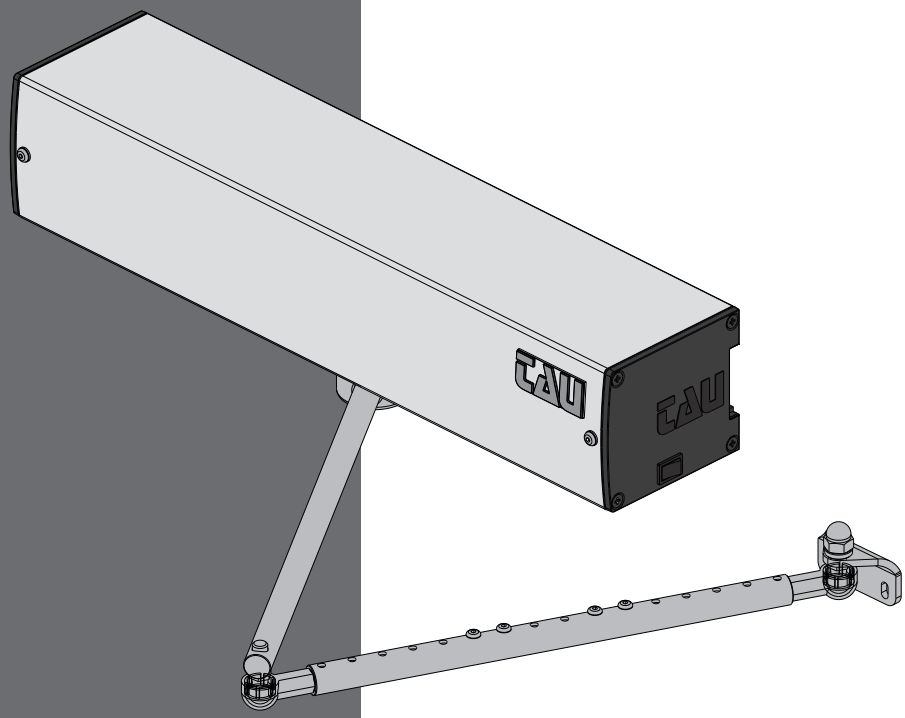
>MOVING LIFE

INSTALLATION GUIDE

T-SIDE



IT - Istruzioni originali

MADE IN ITALY

D-MNLOTSIDE 27-09-2023 - Rev.12

The data described in this handbook are purely a guide. TAU reserves the right to change them in any moment.
The manufacturer reserves the right to modify or improve products without prior notice. Any inaccuracies or errors found in this handbook will be corrected in the next edition.
When opening the packing please check that the product is intact. Please recycle materials in compliance with current regulations.
This product may only be installed by a qualified fitter. The manufacturer declines all liability for damage to property and/or personal injury deriving from the incorrect installation of the system or its non-compliance with current law (see Machinery Directive).

WARNINGS AND INSTRUCTIONS FOR FITTERS

Congratulations on choosing this Tau product. Please read this handbook carefully.
For the sake of simplicity, the instructions are listed in order of installation.
Please read these instructions carefully before installing the product as they contain important information concerning safety, installation, use and maintenance.
Anything not expressly specified in this handbook is FORBIDDEN. Contact TAU srl for information regarding any points which may not have been specified in the present manual.
Operations not indicated in these instructions may damage the product and put people, animals and/or and property at risk.
The equipment should be installed only by trained and qualified personnel.
Installation, electrical connections and adjustments must be made according to the rules of good workmanship and current standards.
Before beginning installation, make sure the product is undamaged.
Do not install the product in explosive environments.
Prior to installing the automation, make all structural modifications in order to ensure safety distances and protect and segregate areas in which people may be exposed to the risk of crushing, shearing, dragging or similar dangers. Make sure the existing structure is sufficiently sturdy and stable. Observe current legislation when adjusting maximum gearmotor torque (in Europe consult EN 12341 and EN 12635 standards).
Apart from buried models, the gearmotor must be installed above ground level in order to prevent damage deriving from flooding.
The safety devices (photocells, sensitive edges, emergency stop devices, etc.) must be installed according to current legislation and directives, the rules of good workmanship, the installation area, the operating logic of the system and the forces developed by the powered door or gate.
Choose short routes for the cables. Keep power cables separate from control cables.
Though the gearmotor is fitted with various safety devices, we strongly recommend keeping all unattended devices capable of opening the gate out of the reach of children or unable adults.
Fit the signs required by current regulations for identifying dangerous areas. Each installation must show the identification data of the automated devices in a visible place.
Before connecting to the power supply, make sure the data on the rating plate correspond to the mains power supply.
Fit a multipole switch/knife switch on the power supply network with contacts opening distance of at least 3 mm.
Make sure there is a suitable circuit breaker and overcurrent protection device (thermal-magnet breaker C6) upline from the electrical system.
Connect the automation to an efficient earth system compliant with current safety standards.
The manufacturer declines all liability if incompatible safety and components are installed. Only use original spare parts to repair or replace the product.
The fitter must provide all the information relative to the automatic, manual and emergency operation of the automated unit, and give the user the operating instructions.
Keep all the documents concerning the system inside or near the central control unit.

INDICE:

GENERAL SAFETY WARNINGS

Carefully read this instruction manual for the safe installation and operation of the automatic door.
Improper installation and incorrect use of the product could cause serious injury.
Keep the instruction manual for future reference.
The installer must provide all the information about operation and provide the system user with the user manual delivered with the product.

MEANING OF THE SYMBOLS USED IN THESE INSTRUCTIONS

DANGER: Indication of dangerous situations that could cause material damage and personal injury.

WARNING: Identifies the procedures that must be understood and followed to prevent product damage or malfunctions.

NOTE: To point out and place attention on important information.

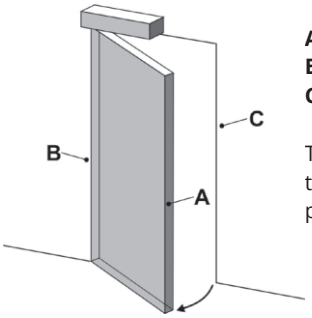
GENERAL SAFETY OBLIGATIONS

The mechanical and electric installation must be performed by specialised personnel in accordance with current directives and regulations.
The installer must make sure that the structure to be automated is stable and robust and if necessary, make it this way by making structural modifications.
Keep product and packaging materials out of children's reach, as they might be a source of danger.
Do not let the children stay or play within the range of the door.
This product was designed and built exclusively for the purpose described in this documentation. Any other use that is not specifically indicated could adversely impact the condition of the product and the safety of people.
TAU accepts no responsibility for incorrect product installation and usage, as well as for any damages caused by changes made without its prior consent.
TAU is not responsible for the construction of the fixtures to be motorised.
The IP31 degree of protection requires that the operator is installed only on the inner side of buildings.
This product cannot be installed in explosive environments or atmospheres, or in the presence of flammable gases or fumes.
Make sure that the characteristics of the electric distribution network are compatible with the technical data indicated in this manual and that upstream of the system there is an omnipolar switch with an opening distance of the contacts of at least 3mm and a residual current device.
Connect the ground conduit of the electric system.
The automatic door must be checked, started up and tested by skilled and well-prepared personnel.
A technical dossier must be prepared for every automation as required by the Machine Directive.
Disconnect the power supply before working on the automation and before opening the cover.
Maintenance is of fundamental importance for the proper operation and safety of the automation. Check the efficiency of all parts every six months.
Use only original spare parts for maintenance and when replacing product components.
Cleaning operations must be performed with the power supply disconnected, using a damp cloth. Do not deposit or let water or other liquids penetrate into the Brink operator or the accessories that are part of the system.

It is recommended to take out a maintenance contract.

Risk assessment

The automatic swinging doors must be designed and installed in a way to protect users against the risk and danger of crushing, impact and shearing between the door and adjacent parts near the door.
The person responsible for starting-up the automation must perform a risk assessment based on the place of installation and the type of users that could use the automatic door.
The Brink operator can be adjusted in order to satisfy the Low energy requirements (movement force and speed control), as indicated by standard EN16005; however, if the door will be used by the elderly, children or disabled individuals, protective devices (sensors) that comply with standard EN12978 must be installed.



A = Main closing edge
B = Secondary closing edge
C = Opposite closing edge

The dangers of crushing and shearing related to the secondary closing edge must be prevented either structurally or by supplementary protective measures (rubber covers, for example). Any residual risks must be properly signalled.

1.0 MODEL DESCRIPTION

The T-SIDE operator has an electro-mechanical motor for opening the pedestrian swing doors. Depending on the type of operator, reclosure is performed with a spring or a motor.
The electronic control equipment is located inside the operator.

A list of the operator models for T-SIDE swinging doors produced by TAU is provided below:

- **T-SIDE**
  Single leaf swing door opener, powered opening, powered closing. Max. leaf 110 kg and 1200 mm.

- **T-SIDE-S**
  Automation for single swing door max 110 kg, opening by motor, closing by spring controlled with the help of the motor.

- **T-SIDE**
  Single leaf swing door opener, powered opening, powered closing. Max. leaf 250 kg and 1500 mm.

- **T-SIDE-S**
  Automation for single swing door max 250 kg, opening by motor, closing by spring controlled with the help of the motor. Max. length of the door 1500 mm.

All T-SIDE operator models can be used with a slide, articulated or elbow arm.
The model is to be selected based on the weight and length of the door leaf, the type of reclosure (spring or motor-only) and if an emergency battery is required.
The operator must be installed in indoor environments.
All models are reversible, therefore in the case of a power failure the door can be opened manually.
Before starting with assembly check the technical drawings in paragraph 6. A drawing of the application is provided for every type of arm, with the installation dimensions and a chart that provides the weight limits based on the length of the door leaf, depending on the operator model.

2.0 TECHNICAL SPECIFICATIONS

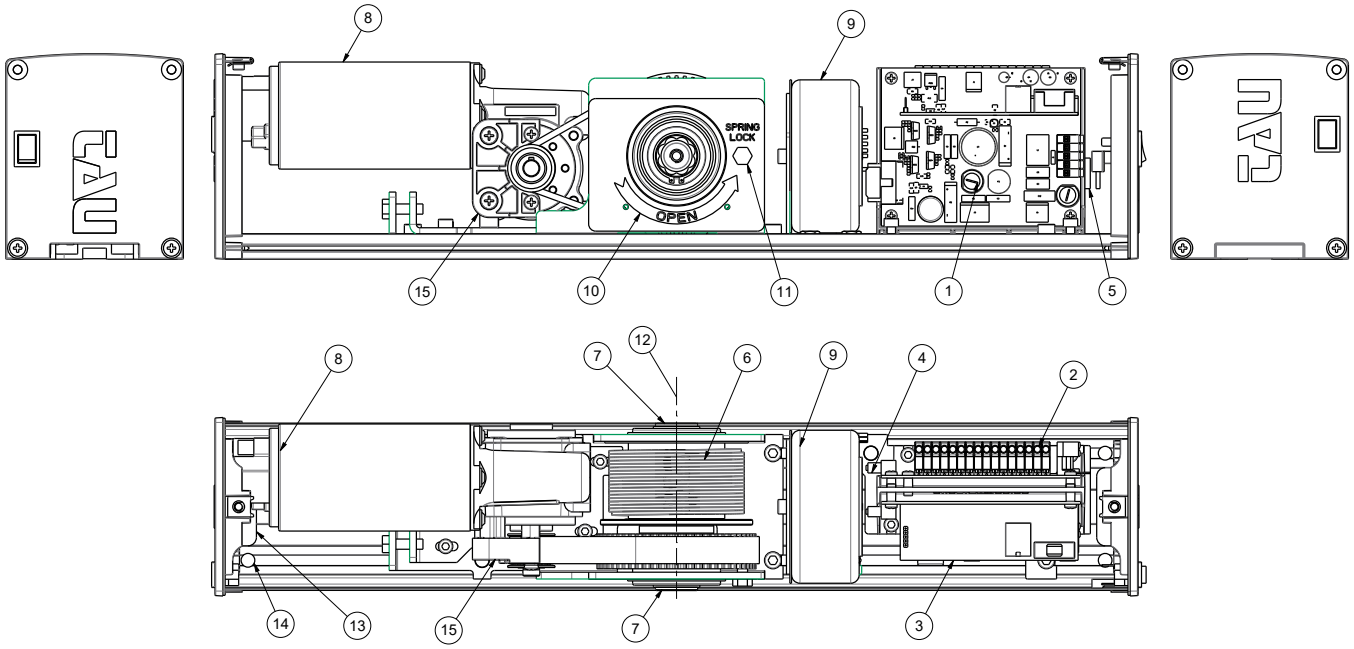
Technical features	T-SIDE / T-SIDE-S	T-SIDE-L / T-SIDE-LS
Maximum leaf length	1100 mm	1500 mm
Max. gate leaf weight	110 Kg	250 Kg
Max automation size	546 x 105.2 x121 mm	546 x 105.2 x121 mm
Automation weight	8,5 / 9 Kg	9,5 / 10 Kg
Separation from the mains	main switch in the automation	main switch in the automation
Power supply	230 V AC (50 – 60 Hz)	230 V AC (50 – 60 Hz)
Absorbed power	140 W	140 W
Motor power supply	48 V DC	48 V DC
Power supply for external accessories	24 V DC	24 V DC
Opening speed	4 ÷ 12 s	4 ÷ 12 s
Closing speed	5 ÷ 15 s	5 ÷ 15 s
Max. opening	105°	105°
Adjustable opening time	1 ÷ 30 s	1 ÷ 30 s
Automatic opening time increase	Yes (with optional display)	Yes (with optional display)
Operating temperature	-20°C ÷ +55°C	-20°C ÷ +55°C
Degree of protection	IP 31	IP 31
Duty cycle	100% continuous use	100% continuous use
Number of maneuvers	Test of 1,000,000 maneuvers	Test of 1,000,000 maneuvers
Safety test	Yes (with optional display)	Yes (with optional display)
Type of work	Residential - Public – Industrial	Residential - Public – Industrial
Control unit	DC18	DC18

*** On request 115 Vac +/- 10%, 60Hz**

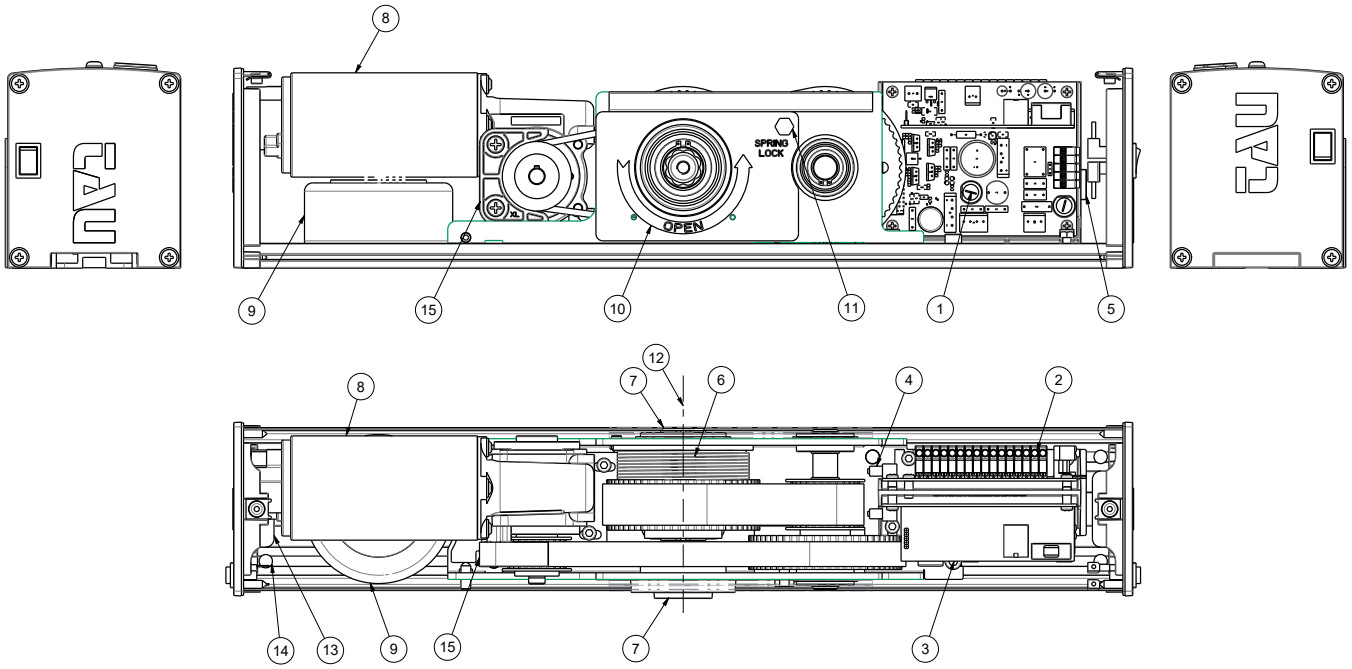
3.0 COMPONENTS OF THE T-SIDE OPERATOR AND THEIR SIZES

STANDARD OPERATOR

T-SIDE / T-SIDE-S

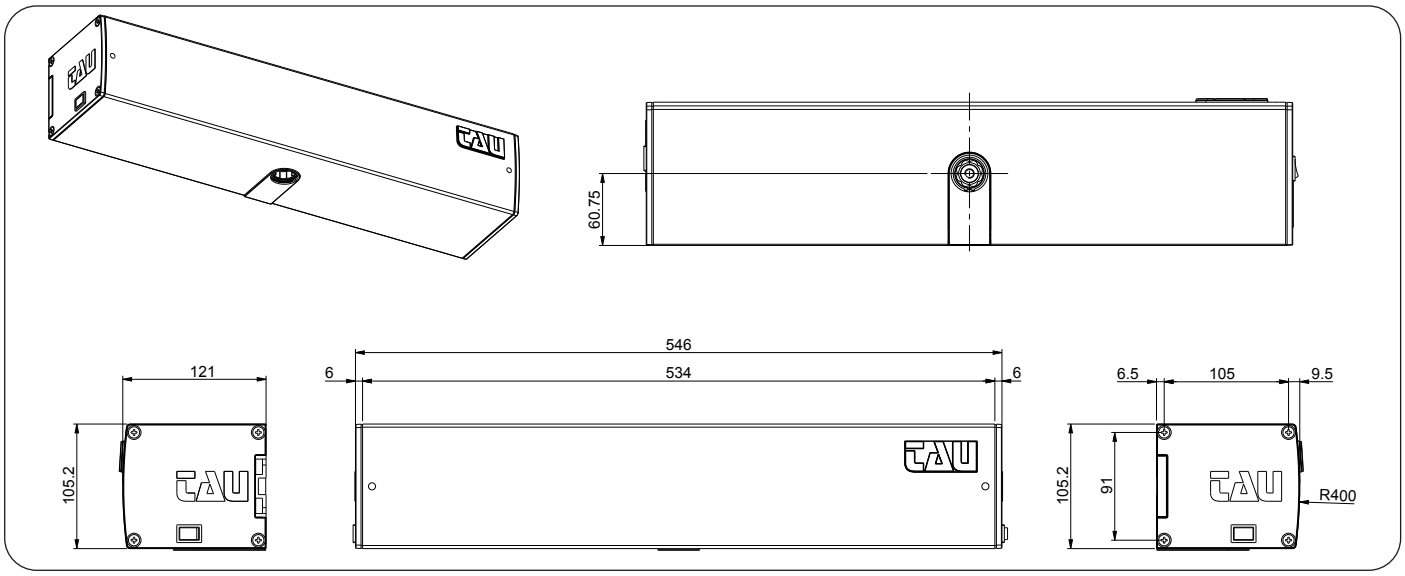


T-SIDE-L / T-SIDE-LS



LEGEND:

1) Control unit T-SIDE DC 18 M
2) Control unit T-SIDE DC 18 P
3) Battery charger module (optional)
4) Control units connection cable
5) T-WIFI module (optional)
6) Spring for reclosing the leaf **(only for T-SIDE-S / T-SIDE-LS)**
7) Output shaft
8) Gearmotor T-SIDE with encoder
9) Transformer
10) Label with opening direction
11) Spring preload locking screw **(only for T-SIDE-S / T-SIDE-LS)**
12) Spring preload reference line **(only for T-SIDE-S / T-SIDE-LS)**
13) Holes for cable entry
14) Wall fixing holes
15) Anti-hopping belt



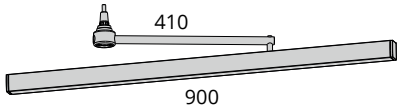
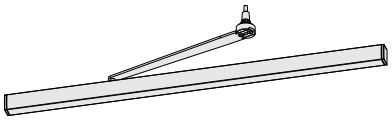
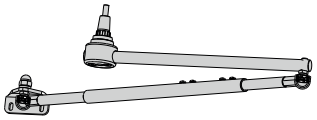
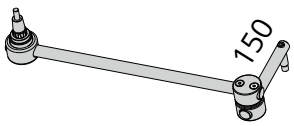
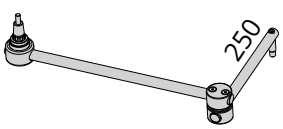
4.0 PRELIMINARY CHECKS

Before assembling the automation, make sure the following requirements have been met:

- The operator support structure must be solid and must not show any significant deformations.
- The leaf structure must be rigid and robust.
- The leaf pivots must be suitable and in a good condition.
- The lenght and weight of the leaf must lie within the operating limits of the operator (maximum recommended height 3 mt).
- The leaf must move in a regular manner without friction along its entire stroke.
- The door requires mechanical end stops consisting of a mechanical retainer in the opening position and a final stopper when closed.

The mechanical stop in the open position is not supplied with the operator.

5.0 MOVEMENT TRANSMISSION ARMS

DRAWING	MODEL	PRODUCT DESCRIPTION
	BST	Pull arm
	BSTR	Lowered slide arm for pulling
	BSS	Push arm
	BSG150	Elbow sliding arm (Y = 150 mm)
	BSG250	Elbow sliding arm (Y = 250 mm)

6.0 TAPERED PINS

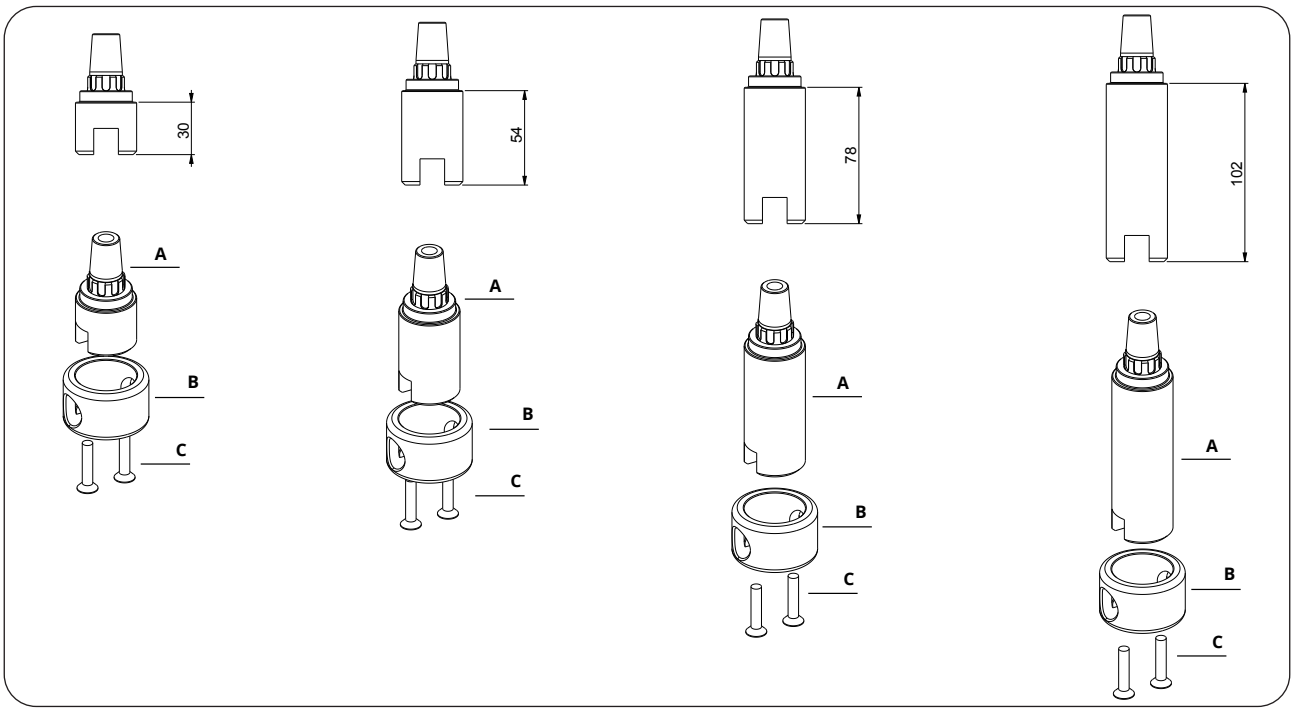
Use the tapered pin if a larger distance is required between the operator and the arm in comparison to the standard tapered pin. For the assembly dimensions follow the technical drawings in par. 7.
For the assembly, follow the steps shown in the following figures:
insert the M8 X 90 screw in the tapered pin (A), insert the arm in the closed shell (B), insert the tapered pin in the arm and tighten the two M6 X 20 screws (C).

WITH SCREW M8x90
STANDARD PIN L =30 mm
ASSEMBLY: USE QUOTE X

WITH SCREW M8x120 (OPTIONAL)
PIN L = 54 mm
ASSEMBLY:
USE QUOTE X + 24mm

WITH SCREW M8x140 (OPTIONAL)
PIN L = 78 mm
ASSEMBLY:
USE QUOTE X + 48mm

WITH SCREW M8x160 (OPTIONAL)
PIN L = 102 mm
ASSEMBLY:
USE QUOTE X + 72 mm



7.0 TECHNICAL DRAWINGS

The following illustrations represent the assembling with the hinge on the left side. To assemble with the right hinge, read the note below.

ASSEMBLING WITH RIGHT SIDE DOOR HINGE.
To assemble the operator with the hinge on the right side of the door, follow the instructions below:
- Flip the automation by 180°
- Keep the arm between the automation and the door
- Respect the installation dimensions keeping the door hinge as the point of origin.

7.1 ASSEMBLING OF THE OPERATOR SEEN FROM THE INSIDE WITH 10T-SIDEBST SLIDING ARM

INSTALLATION MEASURES FOR PULL SLIDING ARM 10T-SIDEBST:

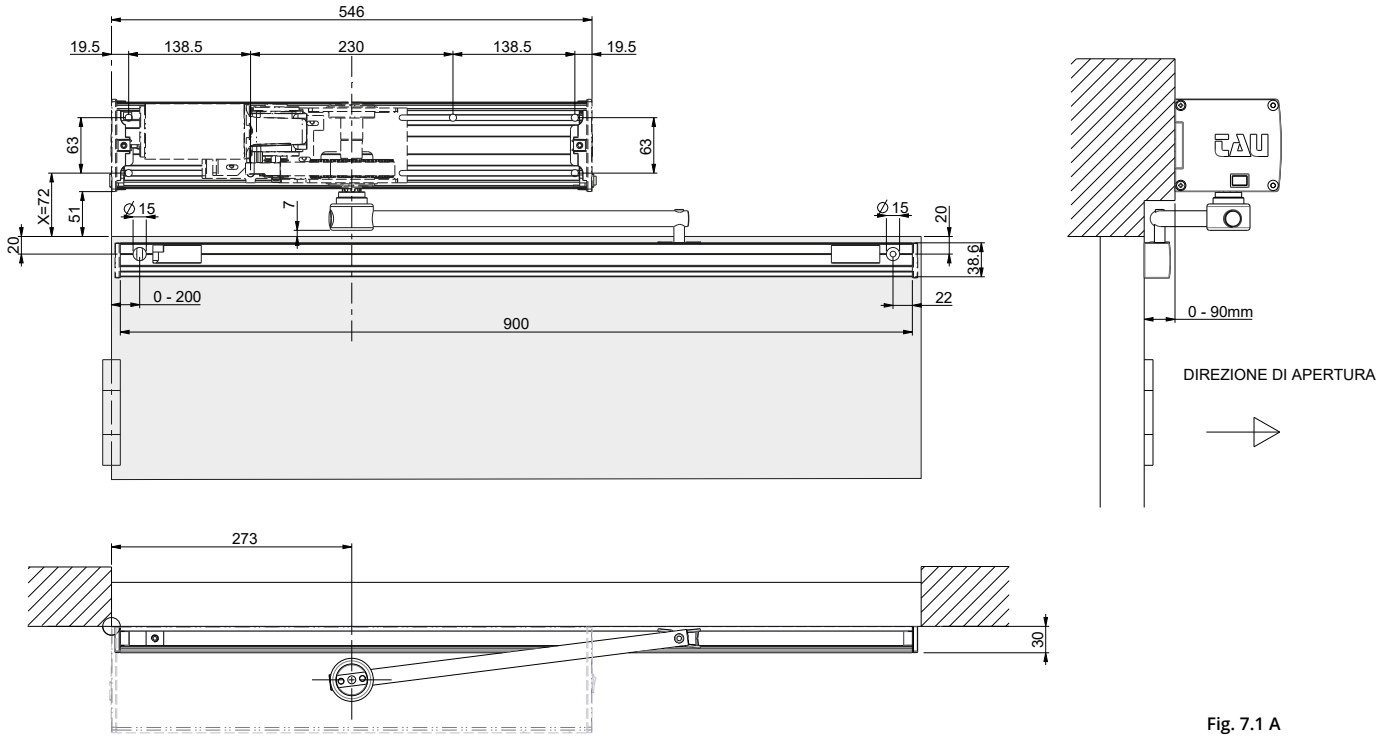


Fig. 7.1 A

INSTALLATION MEASURES FOR LOW-PULL SLIDING ARM 10T-SIDEBSTR:

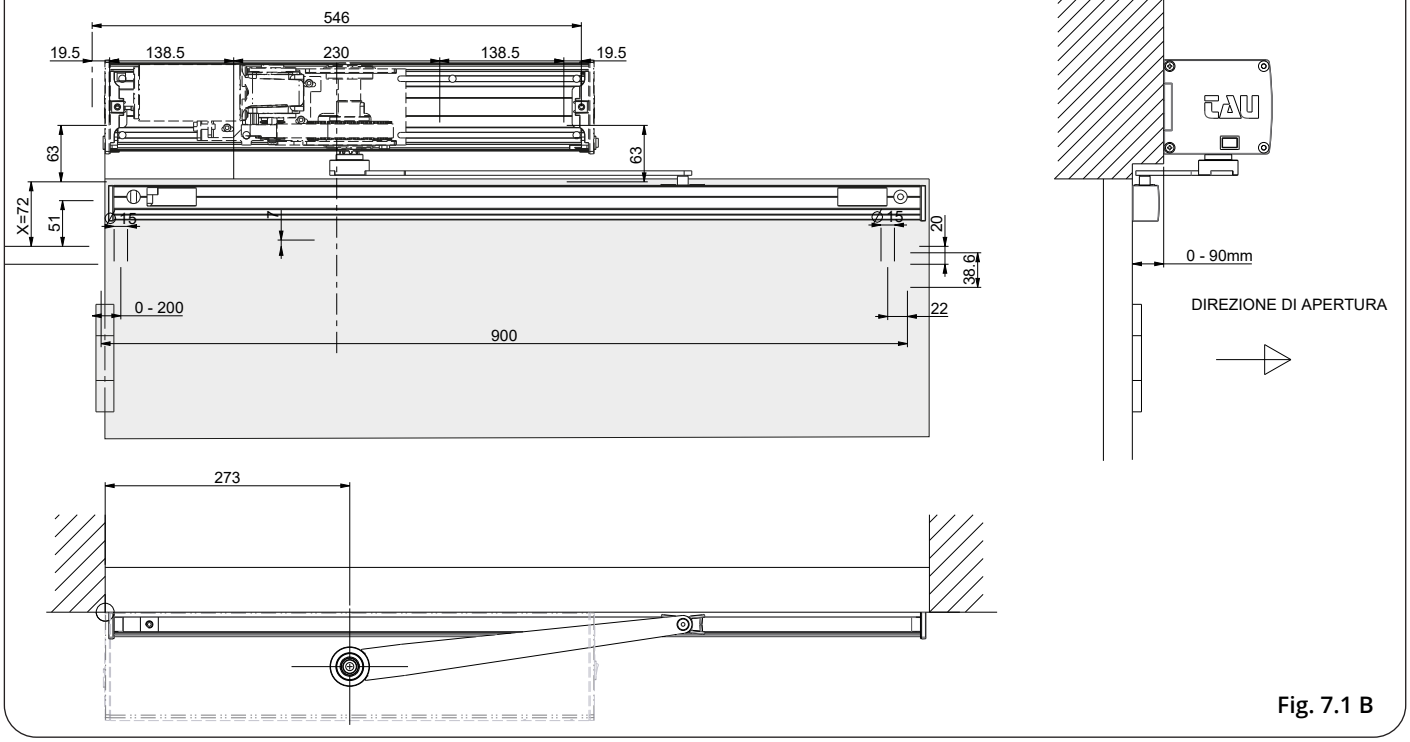


Fig. 7.1 B

INSTALLATION MEASURES FOR PUSH SLIDING ARM 10T-SIDEBST:

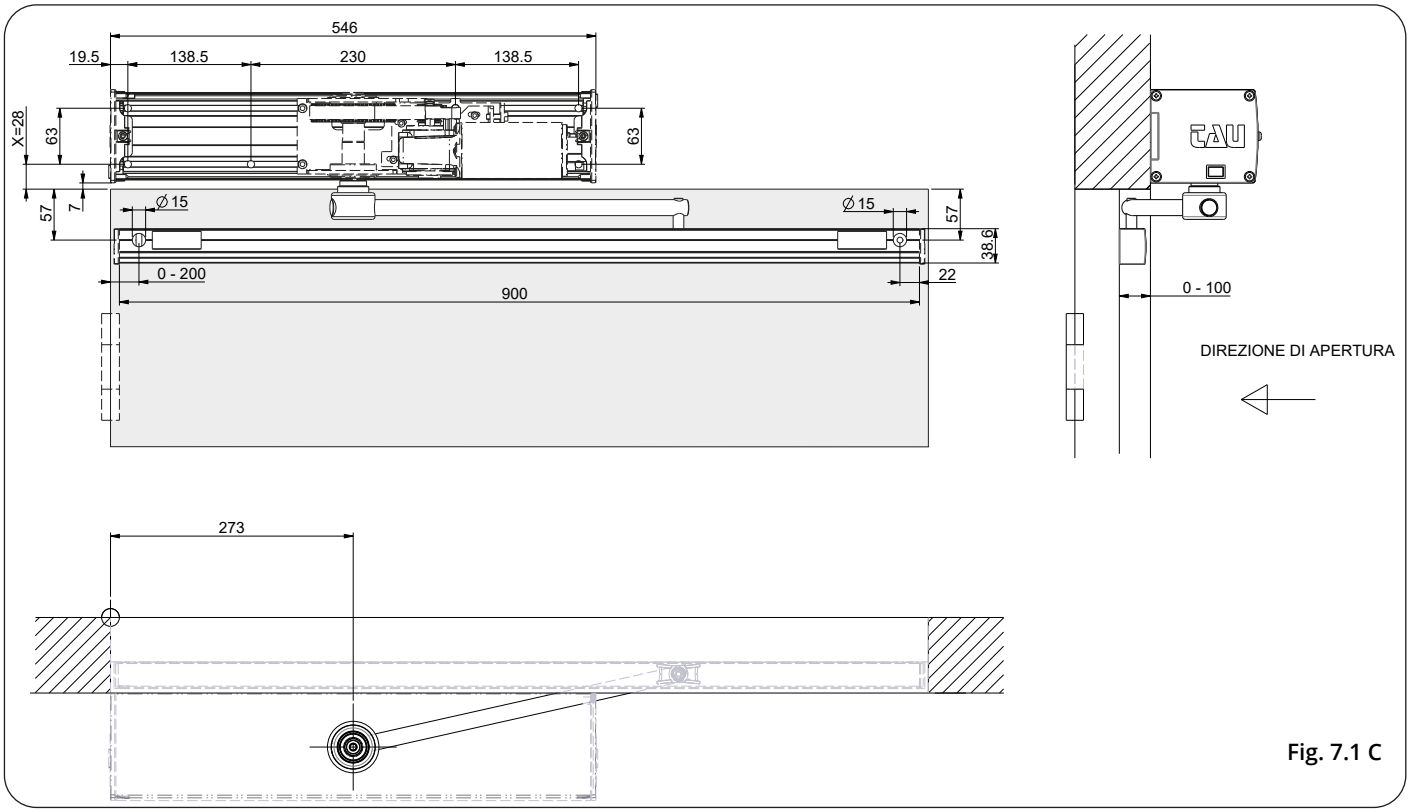


Fig. 7.1 C

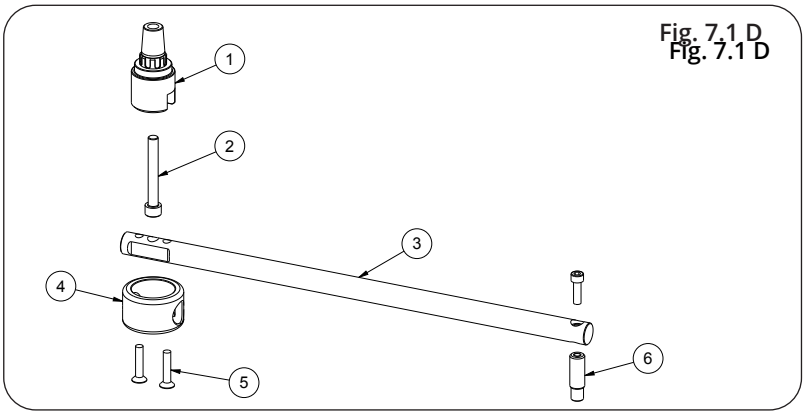


Fig. 7.1 D

Fig. 7.1 D

10T-SIDEBST SLIDE PULL ARM (FIG. 7.1D)

a) Insert the M8 x 70 screw (2) in the tapered pin (1)
b) Insert the sliding arm (3) in the closed shell (4)
c) Insert the tapered pin (1) above the sliding arm (3), through the closed shell (4)
d) Strongly tighten the M6 x 30 screws (5) to block the sliding arm (3) on the tapered pin (1)
e) For the assembly of the sliding guide, see the caption of fig. 7.1E
f) The pin (6) must be inserted in the sliding guide runner

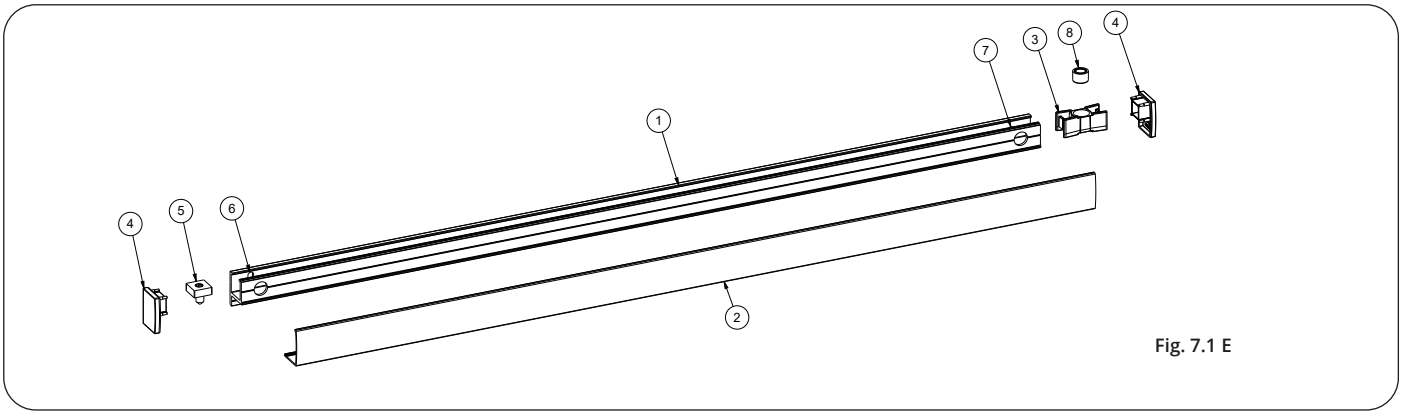


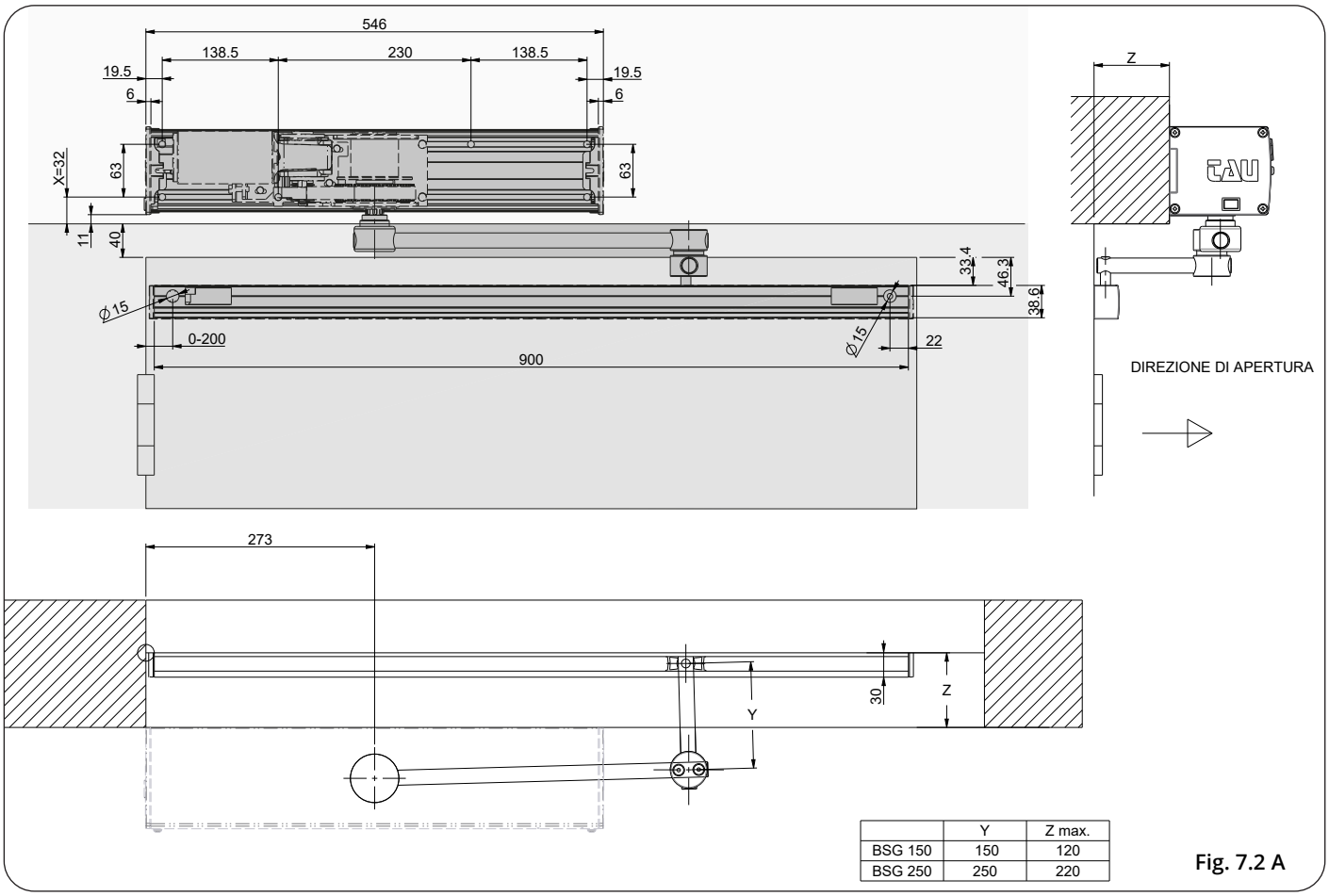
Fig. 7.1 E

SLIDING GUIDE FOR PULL ARM (FIG. 7.1 E)

a) Fix the sliding guide (1) on the leaf through the holes (6-7), following the dimensions indicated in the technical drawings (fig. 7.1 A/B/C)
b) Insert the conical joint (8) in the sliding block (3) respecting the taper
c) Insert the runner (3) for the pull arm tapered pin inside the sliding guide.
d) Insert the striker (5) inside the sliding guide and fix it in the end of stroke opening position using the dowel.
e) Position the cover casing (2) on the sliding guide (1).
f) Insert the two side panels (4) on the ends of the sliding guide

7.2 ASSEMBLING OF THE OPERATOR SEEN FROM THE INSIDE WITH ELBOW SLIDING ARM BSG150/ BSG250

INSTALLATION MEASURES FOR ELBOW PULL SLIDING ARM 10T-SIDEBSG150/ 10T-SIDEBSG250:



	Y	Z max.
BSG 150	150	120
BSG 250	250	220

Fig. 7.2 A

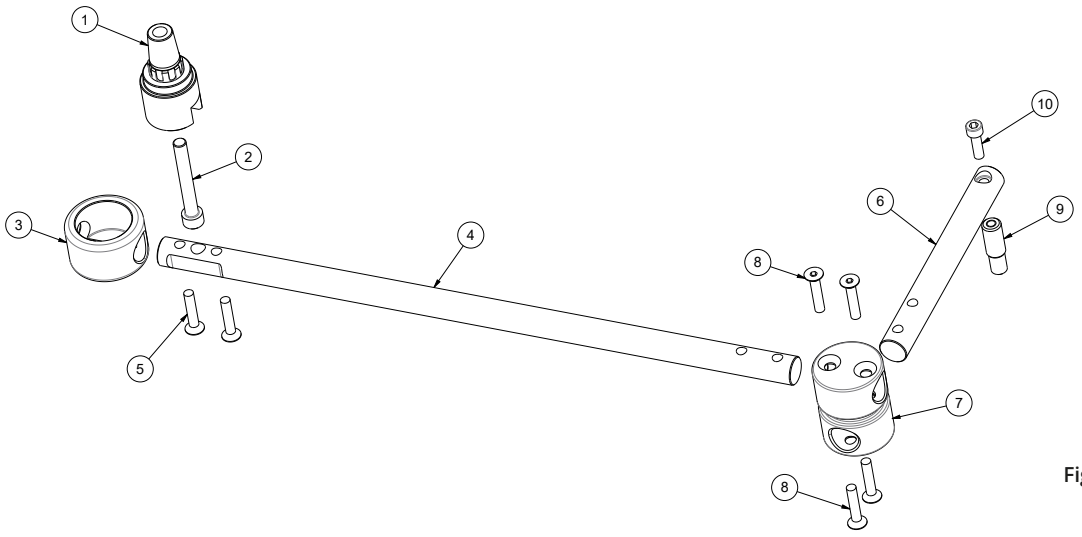


Fig. 7.2 B

BSG 150/ BSG 250 ELBOW SLIDING ARM (FIG. 7.2 B)

a) Insert the M8 x 70 screw (2) in the tapered pin (1)
b) Insert the long rod of the arm (4) in the closed shell (3)
c) Insert the tapered pin (1) above the long rod of the arm (4), through the closed shell (3)
d) Strongly tighten the screws M6 x 30 (5) to block the long rod of the arm (4) on the tapered pin (1)
e) Insert the rods, long (4) and short (6) in the bush (7) and fasten them with the M6 x 30 screws (8)
f) For the assembly of the sliding guide, csee the caption of fig. 7.1 E
g) The pin (9) must be inserted in the sliding guide runner

7.3 ASSEMBLING OF THE OPERATOR SEEN FROM INSIDE - ARTICULATED ARM 10T-SIDEBSS

INSTALLATION MEASURES FOR PUSH ARTICULATED ARM 10T-SIDEBSS:

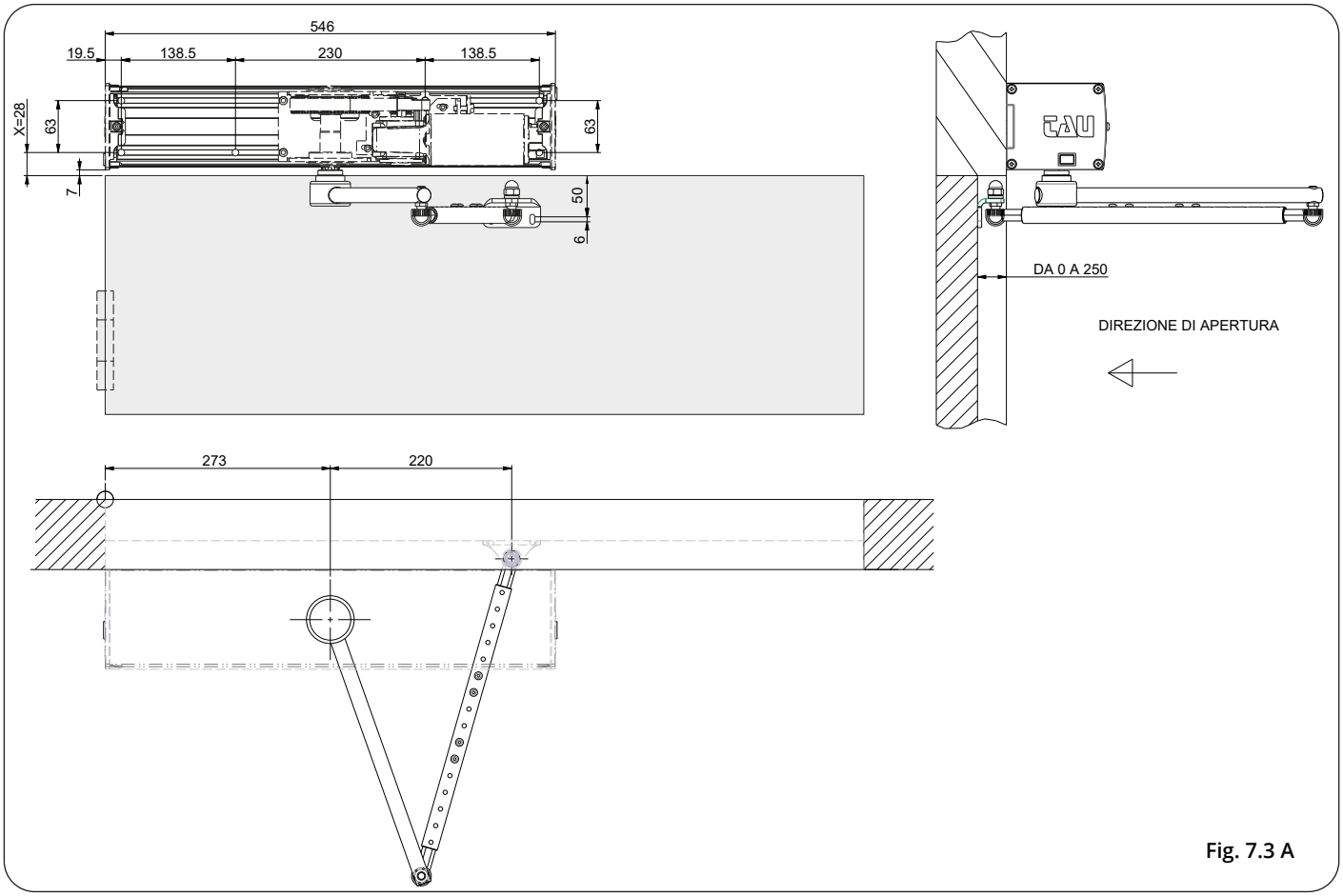


Fig. 7.3 A

INSTALLATION MEASURES FOR ARTICULATED PULL ARM 10T-SIDEBSS MOUNTED ON THE LEAF:

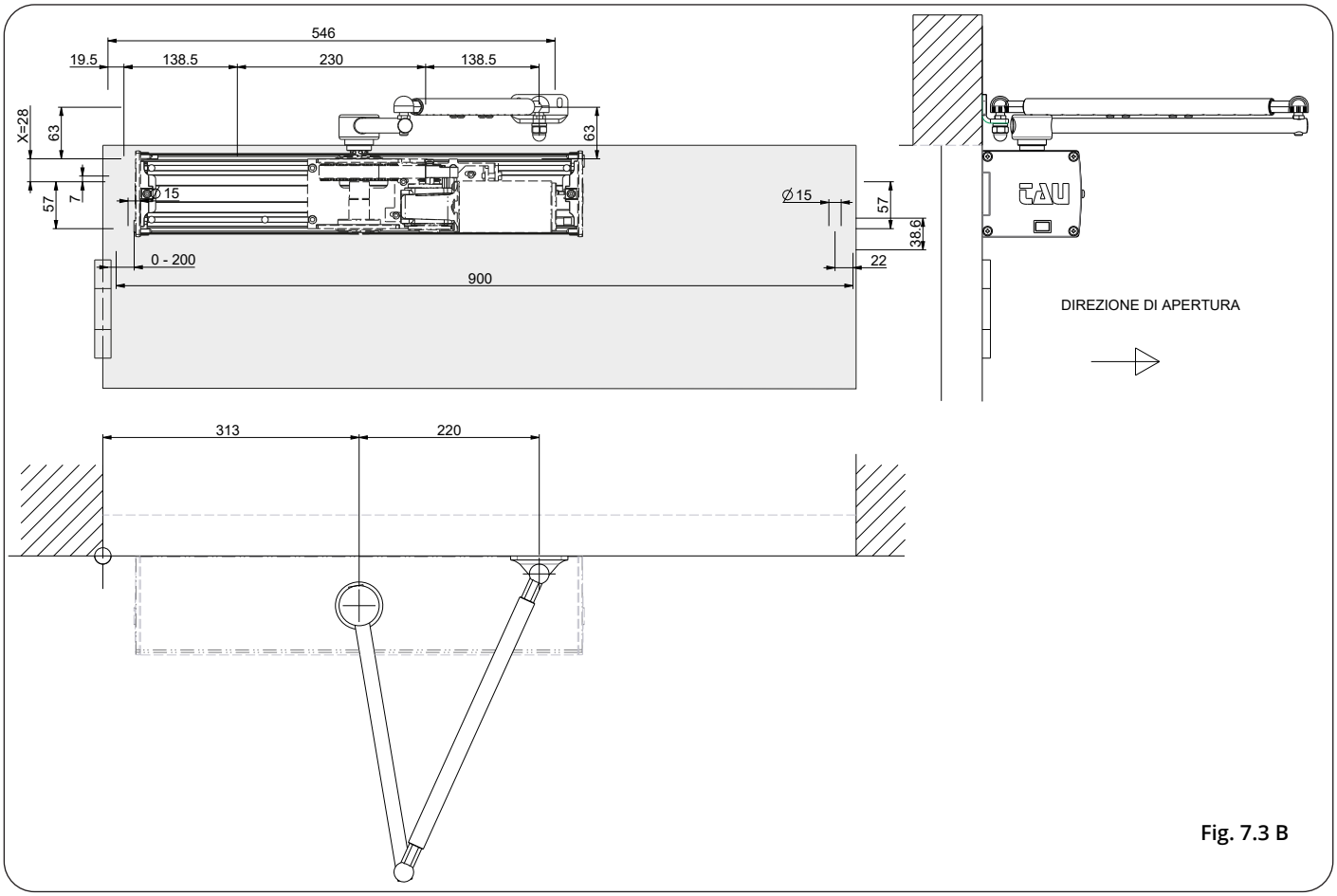


Fig. 7.3 B

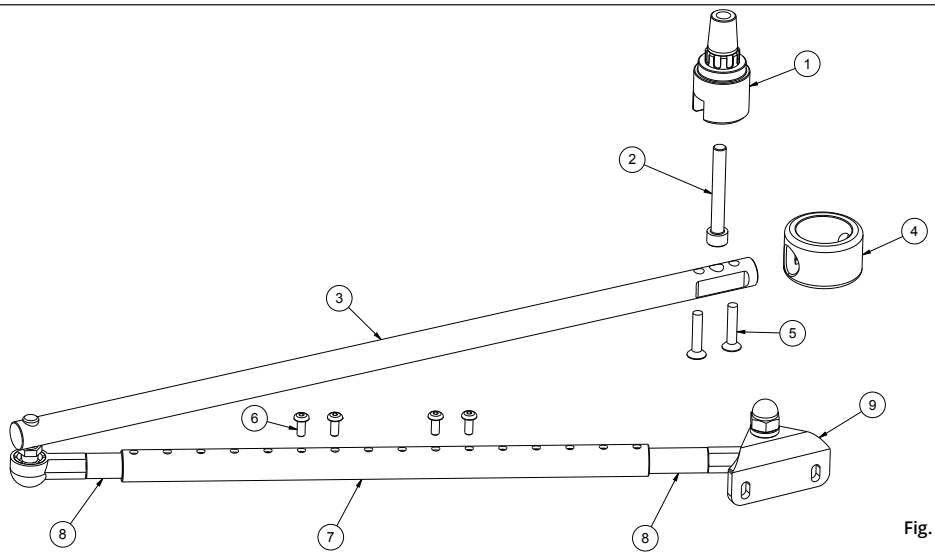


Fig. 7.3C

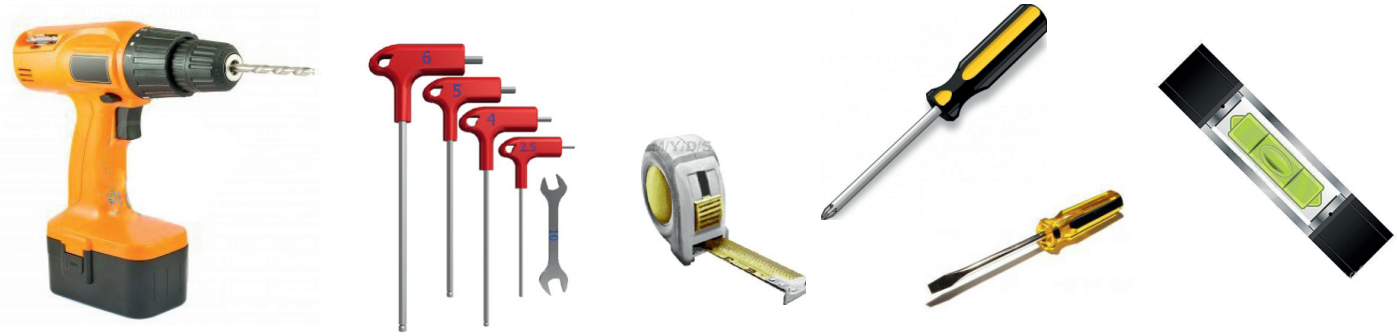
10T-SIDEBSS ARTICULATED PUSH ARM (fig. 7.3 C)

a) Insert the M8 x 70 screw (2) in the tapered pin (1)
b) Insert the lever arm (3) in the closed shell (4)
c) Insert the tapered pin (1) above the lever arm (3) through the closed shell (4)
d) Strongly tighten the M6 x 30 screws (5) to block the lever arm (3) on the tapered pin (1)
e) Fix the arm plate (9) on the leaf or on the lintel using two screws according to the dimensions indicated in the technical drawings
f) Adjust the length of the telescopic arm (7-8) and tighten the screws (6)

8. PREPARING AND ASSEMBLING THE OPERATOR

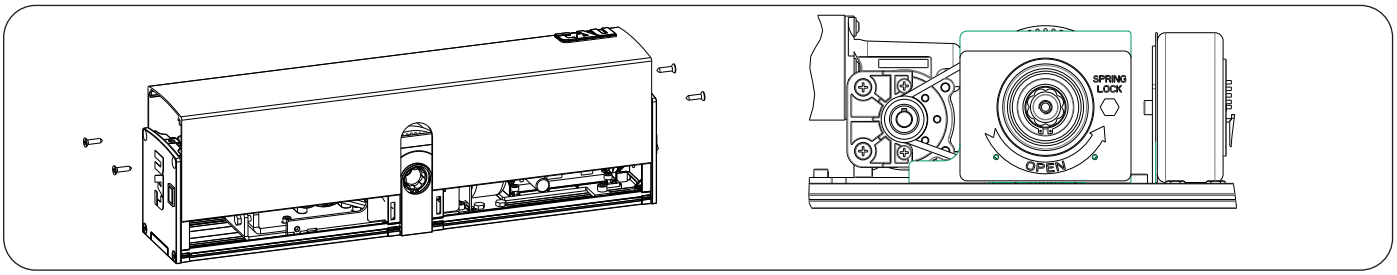
8.1 Required tools:

Tape measure, drill, level, thin flat-head screwdriver, medium-sized flat-head screwdriver, large cross-head screwdriver, Allen wrenches with handle (sizes 2.5 – 4 - 5 – 6), flat-head wrench 10.



8.2 Operator control

Remove the operator from its packaging and remove the screws retaining the cover.
Remove the aluminium cover from its seat, pulling it firmly upwards and without applying pressure on the sides, if possible.



The T-SIDE operator foresees the possibility of connecting the arm on both sides of the mechanical body and therefore makes it possible to select the opening movement direction.
The TAU located on the mechanical body at the shaft outlet indicates the opening direction.

Identify the correct side for connecting the pin, based on the type of arm used and the type of operator assembly. Carefully review the technical drawings in paragraph 7.

⚠ (only for T-SIDE-S / T-SIDE-LS operators)
Do not remove the spring preload locking screw!

Operators with a built-in spring have a spring preload locking screw that keeps the pulley locked, making it possible for the screw to remain in its preloaded position (factory setting).

Removing the spring preload locking screw would make the pulley and gears move inside the operator, representing a hazard to fingers or other body pars near the moving components.

> ☞ The spring preload locking screw must not be removed before completing installation and connecting the arm to the leaf and the operator shaft output to prevent the spring from being released. Follow the instructions to be certain to correctly perform all the assembly phases.

8.3 Operator assembly

Based on the arm to be used and the operator fixing position, refer to the relative assembly table (par. 6), which indicates where the holes must be made for the assembly of the operator and the drive arm.
For arm assembly refer to paragraph 6.

> ☞ To fix the devices use the screws and anchors suitable for the type of support.

After fixing the operator and arm, follow the next steps for connecting the arm pin to the shaft output of the T-SIDE operator.

8.4 Selecting the spring load (only for TSIDE-S / T-SIDE-LS operators)

The closing spring is pre-loaded in the factory to a standard value, indicated by the red line on the spring holder.
Select the spring reclosing force according to the following rule:

- Connect the arm to the operator output shaft with the leaf completely open to obtain a low reclosing force (minimum spring load).
- Connect the arm to the operator output shaft with the leaf in an intermediate position to obtain a medium reclosing force (medium spring load).
- Connect the arm to the operator output shaft with the leaf completely closed to obtain a high reclosing force (maximum spring load).

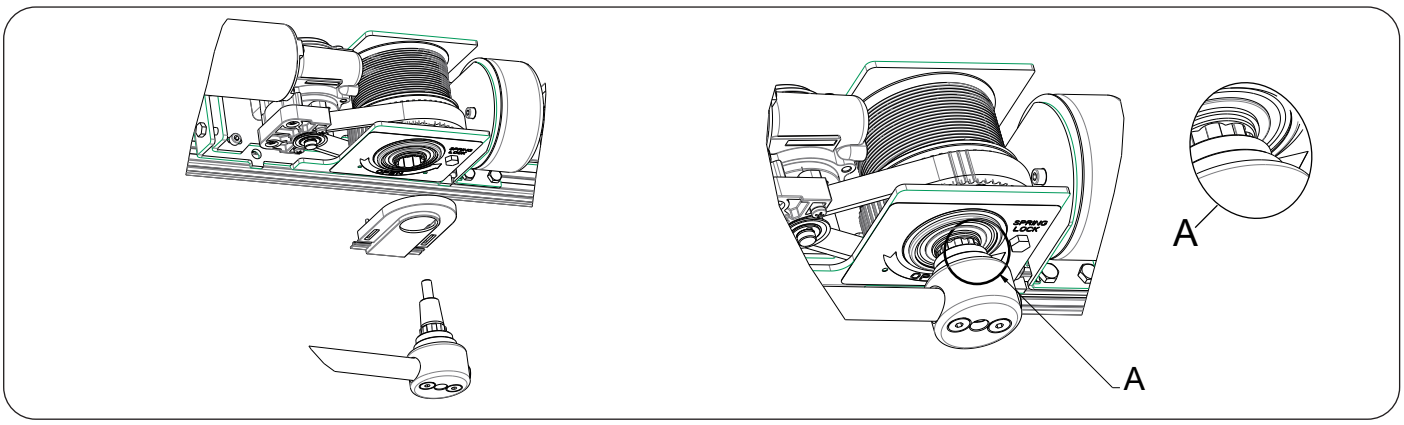
8.5 Inserting the arm's tapered pin

> ✎ Make sure that the plastic plate is inserted in the operator's mechanical body where the output shaft is located, before inserting the arm's tapered pin.

There are wedges in the arm's tapered pin that must be perfectly matched with those in the operator output shaft. These serve the purpose of making sure that the arm's tapered pin always moves together with the operator's motion transmission shaft.

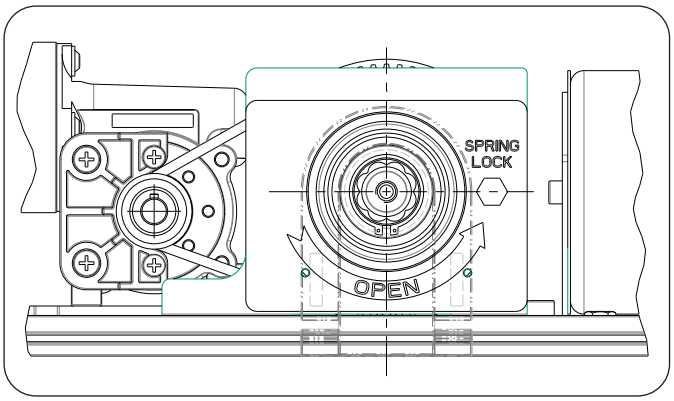
Insert the arm's tapered pin in the operator output shaft making sure that the wedges in the two parts are correctly matched and then firmly tighten the screw fixing the arm's tapered pin.

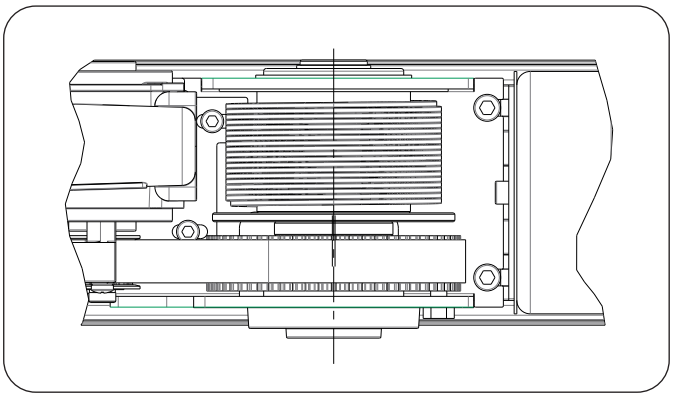
> ✎ **only for T-SIDE / T-SIDE-L operators without a spring**
> If leaf movement is regular along the entire stroke, both when opening as well as when closing, continue with the electrical connections as described in the electronic part section of the paragraph "connections to terminal board".
> **only for T-SIDE-S / T-SIDE-LS operators.** Follow the steps in the following chapter.



8.6 Releasing the spring (only for T-SIDES / T-SIDE-LS operator)

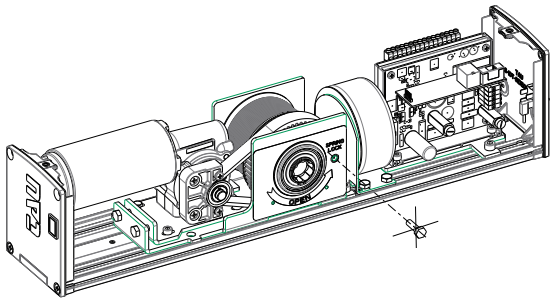
⚠ During this operation, the operator and arm pulleys can move. Keep fingers and body parts away from the moving components during this operation and keep the leaf blocked manually. Remove the locking screw.
The door leaf is free to close due to the force of the spring.
Make sure that the door closes completely even when open only a few degrees.
If leaf movement is regular along the entire stroke, both when opening as well as when closing, continue with the electrical connections as described in the electronic part section of the paragraph "connections to terminal board".
If the spring load must be increased or reduced, remove the arm from the operator. This operation is described in the following paragraph.

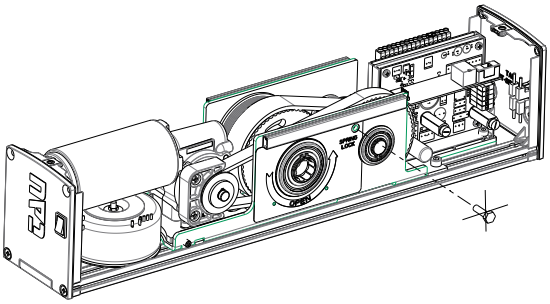




T-SIDE / T-SIDE-S

T-SIDE-L / T-SIDE-LS



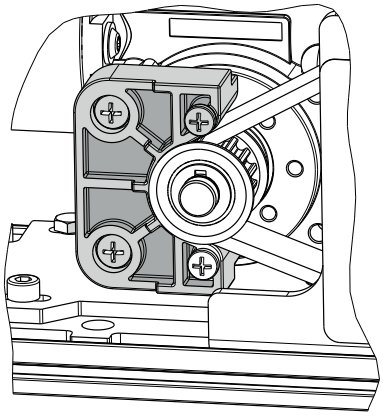


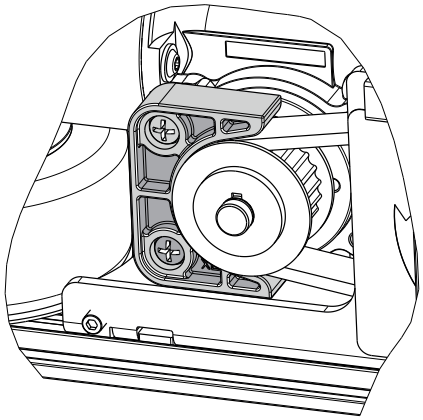
8.7 Installation of the anti-derailment bearing

Install the anti-derailment bearing close to the belt while maintaining a minimum clearance

T-SIDE / T-SIDE-S

T-SIDE-L / T-SIDE-LS





9. REMOVING THE ARM (only for T-SIDES operator)

⚠

Carefully follow the steps described below to remove the arm. In particular, unscrew the screw fixing the tapered pin only after the spring has been locked.
The removal of the tapered pin's fastening screw can cause the movement of pulleys and gears present in the automation if the closing spring has not been locked in advance.
Keep your fingers and other parts of your body clear from the moving components during this operation.

REPOSITIONING TO STANDARD PRELOAD

Before removing the arm, re-establish the standard spring load value (factory setting). To do this, manually move the leaf until the red line on the belt is aligned with the red mark on the pulley.

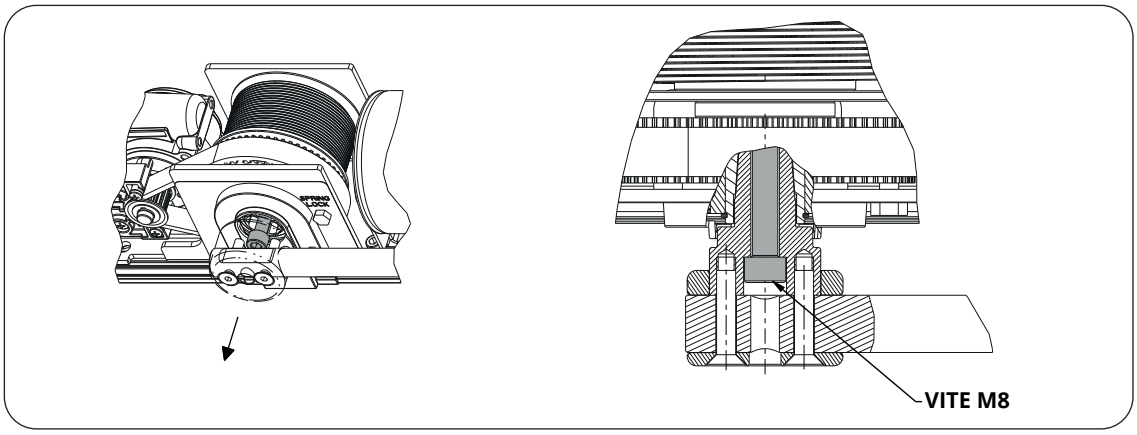
Spring locking

Move the spring preload locking screw from the free position to the locked position, making sure that the screw is inserted in the pulley

REMOVING THE TAPERED PIN

Insert the Allen key (6mm.) on the M8 screw of the conical pin without removing the arm rod.
Unscrew the screw by applying greater force in the final phase to obtain the extraction of the conical pin and the bush.

Repeat the steps described in par. 7.4, 7.5 and 7.6 to select the spring reclosure force and to connect the arm.



MANUFACTURER'S DECLARATION OF INCORPORATION
(in accordance with European Directive 2006/42/EC App. II.B)

Manufacturer:	TAU S.r.l.
Address:	Via E. Fermi, 43 - 36066 Sandrigo (Vi) - ITALY
Declares under its sole responsibility, that the product:	*Electromechanical actuator*
designed for automatic movement of:	*Pedestrian Swing Doors*
for use in a:	*Residential / Communities environment*
complete with:	*Electronic control unit*
Model:	*T-SIDE*
Type:	*T-SIDE / T-SIDE-S / T-SIDE-L / T-SIDE-LS*
Serial number:	*SEE SILVER LABEL*
Commercial name:	*AUTOMATIC SWING DOOR*

Has been produced for incorporation on an access point (*pedestrian swing door*) of for assembly with other devices used to move such an access point, to constitute a machine in accordance with the Machinery Directive 2006/42/EC.

Also declares that this product complies with the essential safety requirements of the following EEC directives:
- ***2006/95/EC Low Voltage Directive***
- ***2004/108/EC Electromagnetic Compatibility Directive***

European regulations applied:
- ***EN 13849-1***
- ***EN 13849-2 (operator in category 2, PL = d)***
- ***EN 61000-6-2***
- ***EN 61000-6-3***
- ***EN 60335-1***
- ***EN16005***

Also declares that ***it is not permitted to start up the machine*** until the machine in which it is incorporated or of which it will be a component has been identified with the relative declaration of conformity with the provisions of Directive 2006/42/EC.

The manufacturer undertakes to provide, on sufficiently motivated request by national authorities, all information pertinent to the quasi-machinery.

Sandrigo, 14/03/2016

The Legal Representative

Loris Virgilio Danieli

Name and address of person authorised to draw up all pertinent technical documentation:
Loris Virgilio Danieli - via E. Fermi, 43 - 36066 Sandrigo (Vi) Italy

>MOVING LIFE

Via Enrico Fermi, 43 - 36066 Sandrigo (VI) - Italy
Tel +39 0444 750190 - Fax +39 0444 750376
info@tauitalia.com - www.tauitalia.com

Foglietto illustrativo
CARTA - Raccolta differenziata. Segui le indicazioni del tuo comune. (N.B.: togliere i punti metallici)

Instruction leaflet
PAPER - Waste separation. Follow the instructions of your city hall. (Note: remove the staples)