



SEA[®]



Automatic Gate Openers

International registered trademark n. 804888

HALF TANK - MINI TANK

HYDRAULIC OPERATORS FOR SWING GATES

HALF TANK



MINI TANK



INSTALLATION MANUAL and Security Information

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FEATURES AND SPECIFICATIONS

The **HALF TANK 270**, **HALF TANK 390** and **MINI TANK** are high quality hydraulic operators for residential and condominium use with leaf length up to respectively 6 m, 7 m and 3 m. Available in the following versions:

AC (with lock in opening and closing position)

SC (with lock only in closing position)

SA (with lock only in opening position)

SB (without lock)

Hydraulic locking is guaranteed on gates with length up to 1.80 m with Half Tank 270 and Mini Tank and with length up to 2.20 m with Half Tank 390. Both are equipped with by-pass valves for the power regulation in both opening and closing. Electronic adjustable slow-down in opening and closing through control unit (*the exclusion of electronic slow-down is recommended in case of operators with hydraulic slowdown*). The European laws in force strongly recommend to use the POSITION GATE (linear encoder) to read the gate position, and reverse in case of obstacle.

⚠ In case of leaf lengths greater than 1.80 m or 2.20 m (see above) or in the case of installations in windy places or in case of closed paneled gates, the use of an electric lock is mandatory on all versions, moreover, the exclusion of the electronic deceleration is recommended or the use of operators with hydraulic deceleration (on request) is recommended.

For SB versions, the use of the electric lock is always mandatory

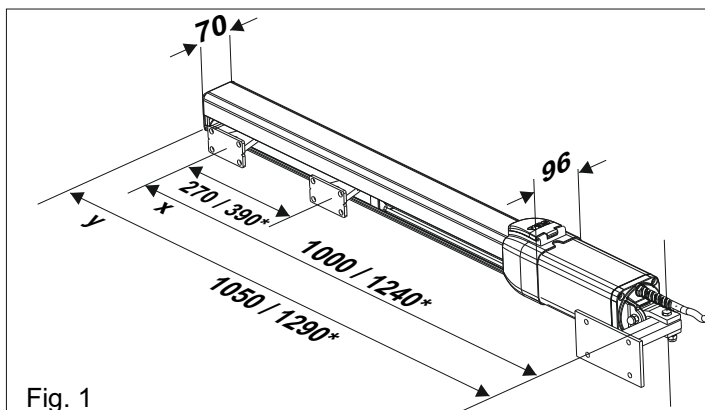


Fig. 1

Note:

Version with brake in closing + 25 mm in **x** and **y**

Version with brake in opening and closing + 50 mm in **x** and **y**

Dimensions (mm)
Half Tank 270
(*) Half Tank 390

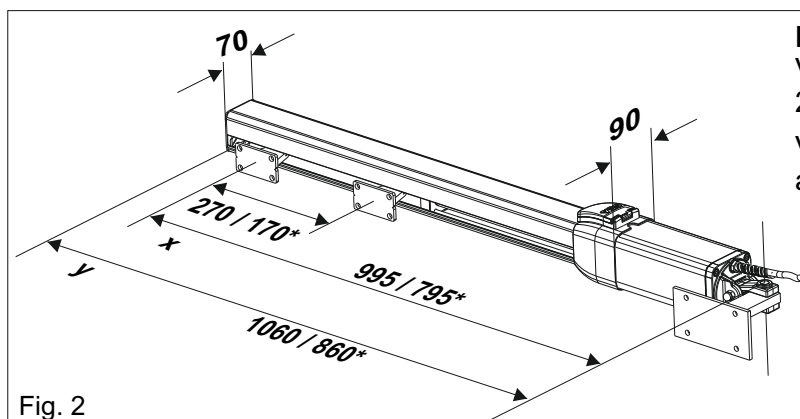


Fig. 2

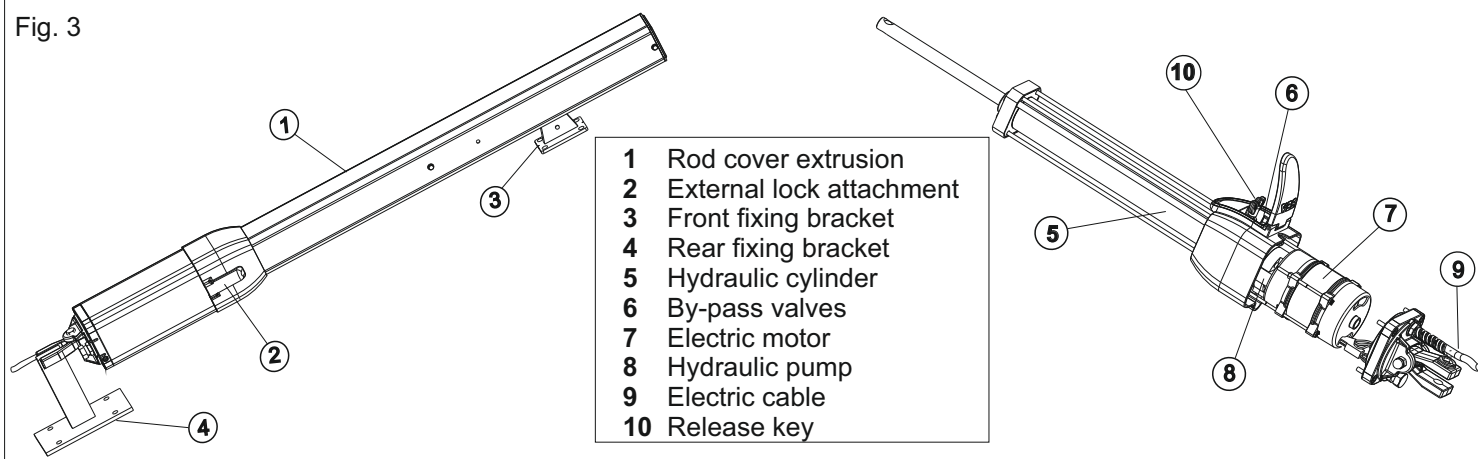
Note:

Version with brake in closing + 25 mm in **x** and **y**

Version with brake in opening and closing + 50 mm in **x** and **y**

Dimensions (mm)
Mini Tank
(*) Mini Tank PEDESTRIAN

Fig. 3



| TECHNICAL FEATURES | HALF TANK 270 (230V) | HALF TANK 390 (230V) | HALF TANK 270 (120V) | HALF TANK 390 (120V) |
|----------------------------|----------------------|----------------------|----------------------|----------------------|
| Power supply | 230 V (±5%) 50/60 Hz | | 120 V (±5%) 50/60 Hz | |
| Power | 220 W | | | |
| Absorbed current | 1 A | | 2 A | |
| Stroke | 270 mm | 390 mm | 270 mm | 390 mm |
| Rod speed | 1 cm/s | 1,5 cm/s | 1,2 cm/s | 1,7 cm/s |
| Cycles hour (at 20°C) | 55 | | | |
| Max working pressure | 40bar | 30bar | 40bar | 30bar |
| Operating temperatures | -40°C↕+60°C ↕ | | | |
| Thermal protection | 130°C | | | |
| Max Thrust | 640 daN | | | |
| Capacitor | 12,5µF | | 60µF | |
| Weight | 11,4 kg | 13,6 kg | 11,4 kg | 13,6 kg |
| Protection class | Ip55 | | | |
| Max leaf lenght | 6 m | 7 m | 6 m | 7 m |
| Opening degree of the leaf | 90° - 125° | | | |

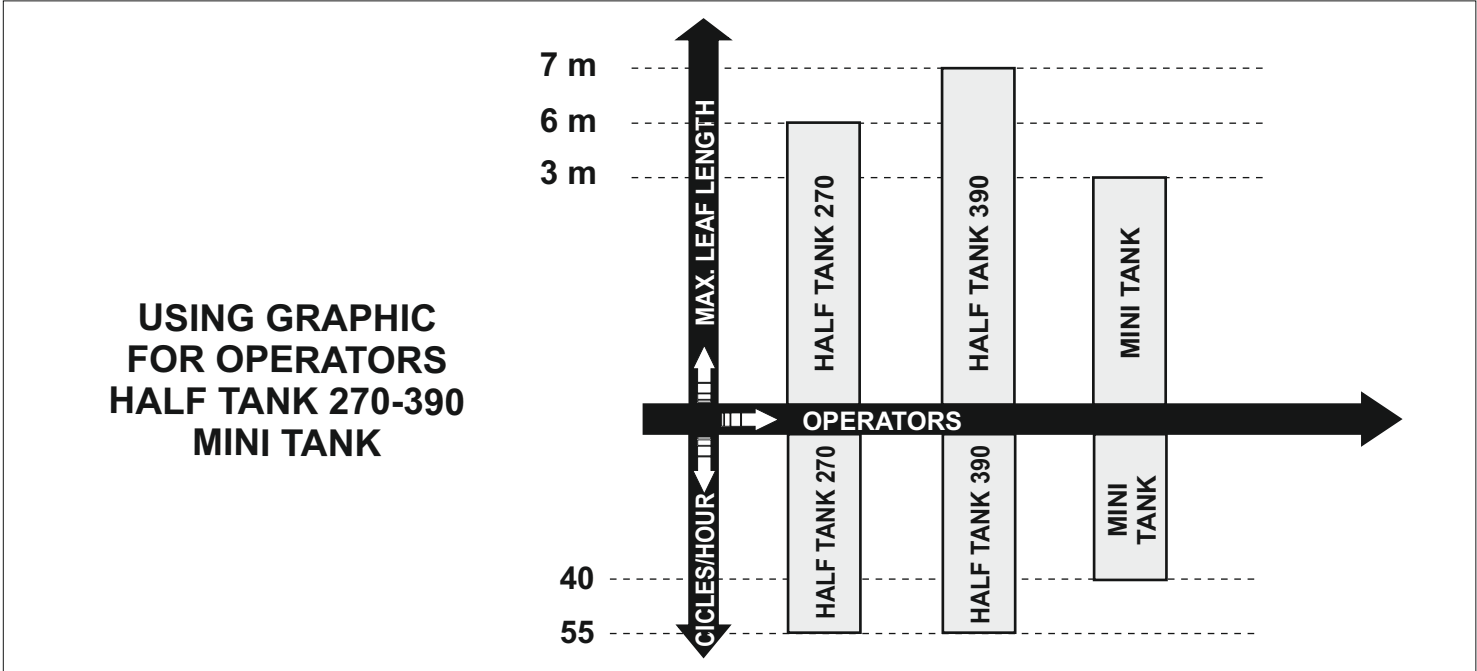
Note: The frequency of use is valid only for the first hour at 20°C room temperature.

Note: in non-automatic logic, use operators without lock.

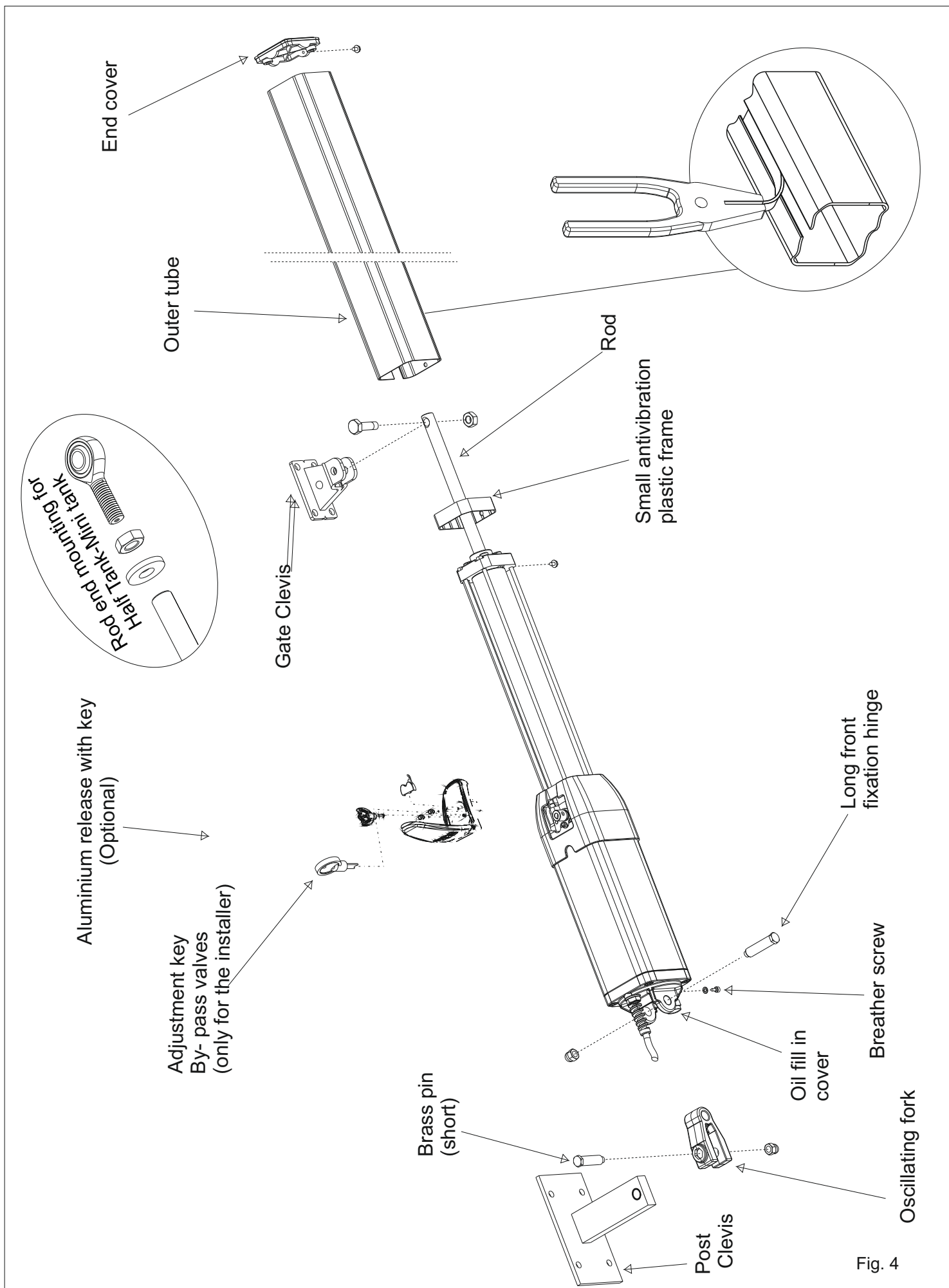
| TECHNICAL FEATURES | MINI TANK (230V) | MINI TANK (120V) | MINI TANK WITH JOINT |
|----------------------------|---------------------|---------------------|----------------------|
| Power supply | 230V (±5%) 50/60 Hz | 120V (±5%) 50/60 Hz | 230V (±5%) 50/60 Hz |
| Power | 180 W | 240 W | 180 W |
| Absorbed current | 1 A | 2.45 A | 1 A |
| Stroke | 270 mm | | |
| Rod speed | 1,5 cm/s | 1,7 cm/s | 1 cm/s |
| Cycles hour (at 20°C) | 40 | | |
| Max working pressure | 30 bar | | |
| Operating temperatures | -40°C / +60°C | | |
| Thermal protection | 130°C | | |
| Max Thrust | 250 daN | | |
| Capacitor | 6,3 µF | 60 µF | 6,3 µF |
| Weight | 10 kg | | |
| Protection class | Ip55 | | |
| Max leaf lenght | 3 m | | |
| Opening degree of the leaf | 90° - 110° | | |

Note: The frequency of use is valid only for the first hour at 20°C room temperature.

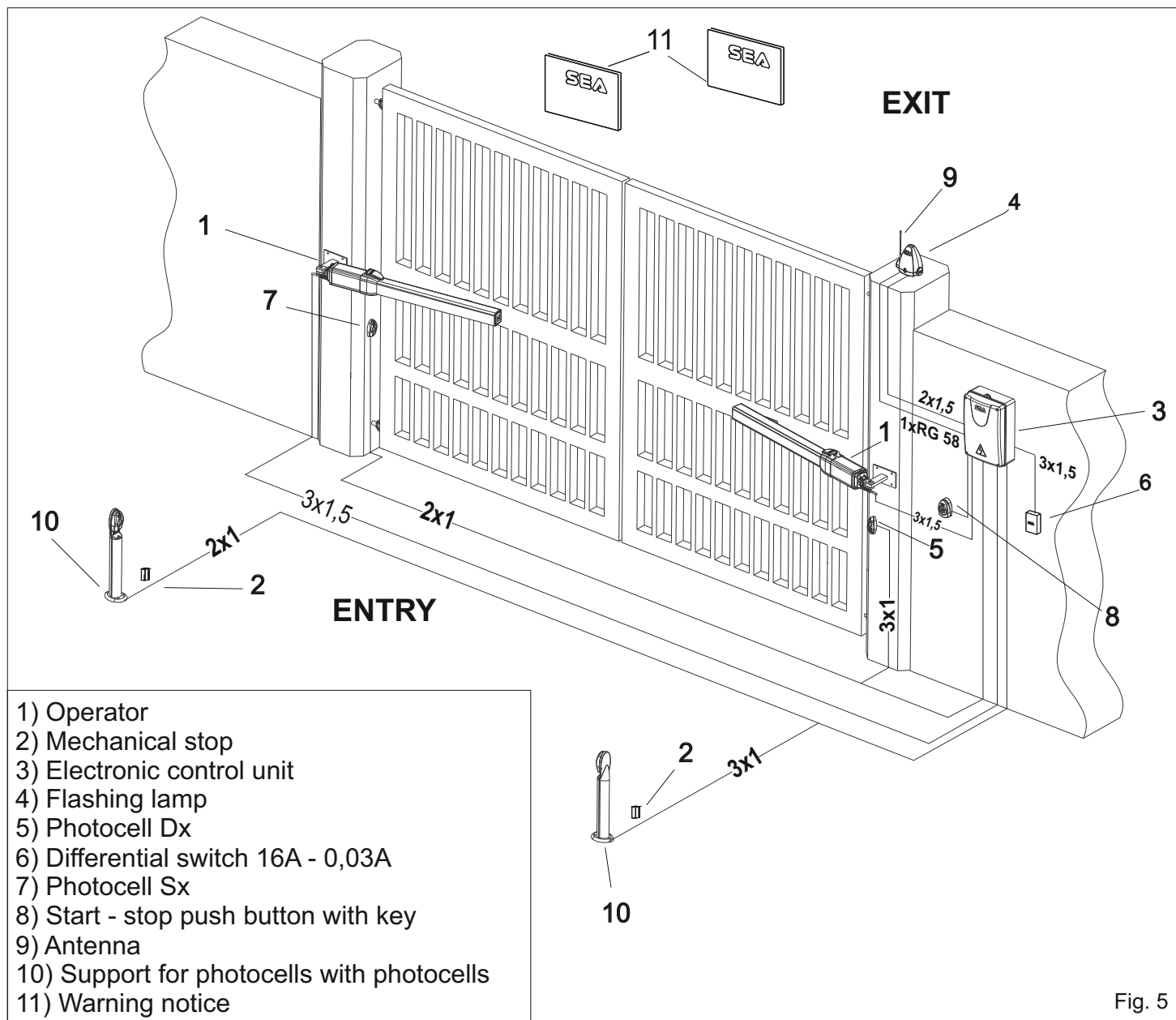
Note: in non-automatic logic, use operators without lock.



HALF TANK - MINI TANK

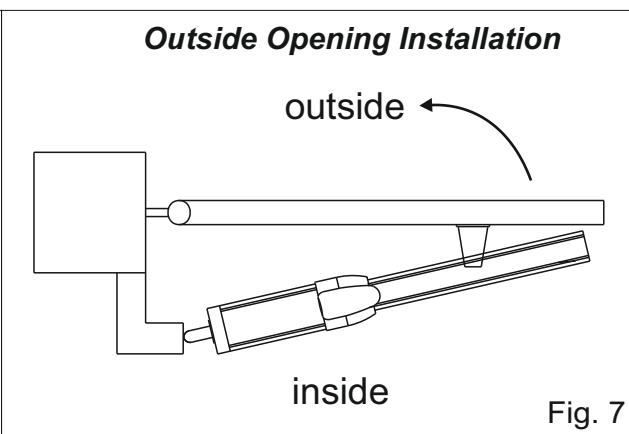
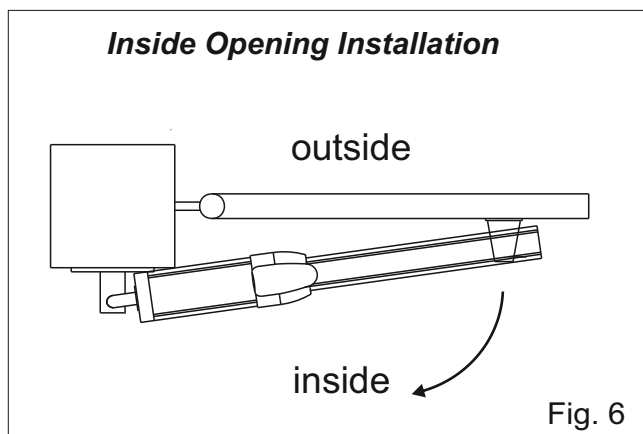


STANDARD INSTALLATION



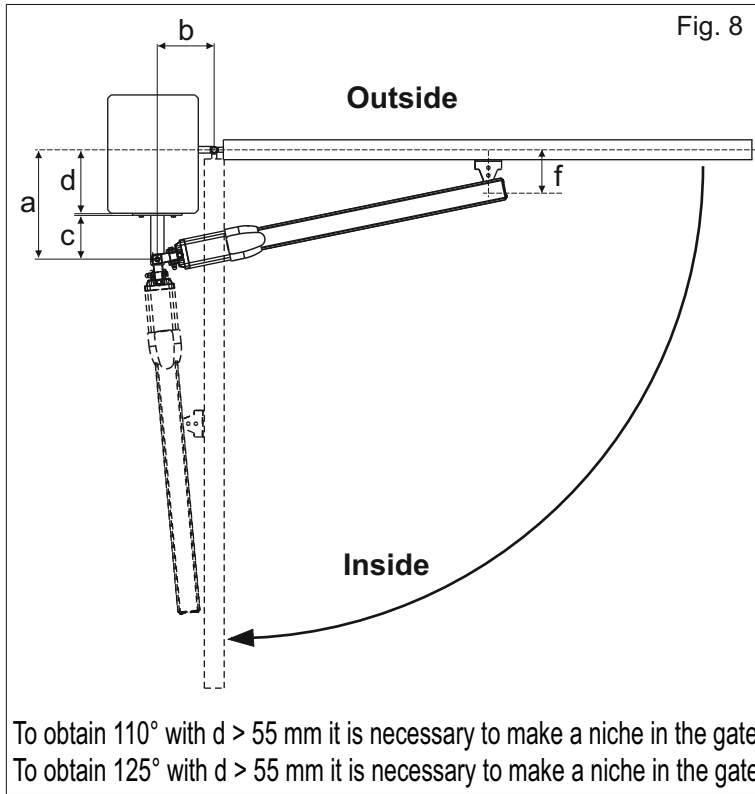
INSTALLATION TYPE

It is possible to install the operators with the opening towards the inside (Fig. 6) or towards the outside (Fig. 7)



Install the operator always on the inside of the property

INSIDE OPENING INSTALLATION



HALF TANK 270

Total stroke 270 mm - max suggested stroke 250 mm

| a (mm) | b (mm) | d _{max} (mm) | f * (mm) | Max opening angle | Stroke for 90° (mm) | Max stroke (mm) |
|-----------|-----------|--------------------------|-------------|-------------------------|---------------------------|-----------------------|
| 100 | 115 | 50 | 96 | 110° | 250 | 215 |
| 100 | 150 | 50 | 96 | 90° | 250 | |
| 105 | 110 | 55 | 96 | 110° | 245 | 215 |
| 105 | 145 | 55 | 96 | 90° | 250 | |
| 120 | 105 | 70 | 96 | 106° | 250 | 225 |
| 120 | 130 | 70 | 96 | 90° | 250 | |
| 125 | 125 | 75 | 96 | 90° | 250 | |
| 140 | 95 | 90 | 96 | 100° | 250 | 235 |
| 140 | 110 | 90 | 96 | 90° | 250 | |
| 145 | 95 | 95 | 96 | 100° | 255 | 242 |
| 145 | 105 | 95 | 96 | 90° | 250 | |
| 150 | 100 | 100 | 96 | 90° | 250 | |
| 155 | 85 | 105 | 96 | 96° | 250 | 242 |
| 160 | 90 | 110 | 96 | 90° | 253 | |
| 170 | 75 | 120 | 96 | 92° | 250 | |
| 180 | 65 | 130 | 96 | 92° | 250 | |

HALF TANK 390

Total stroke 390 mm - max. recommended stroke 370 mm

| a (mm) | b (mm) | d _{max} (mm) | f * (mm) | Max opening angle | Stroke for 90° (mm) | Max stroke (mm) |
|-----------|-----------|--------------------------|-------------|-------------------------|---------------------------|-----------------------|
| 125 | 170 | 75 | 123 | 125° | 368 | 295 |
| 130 | 170 | 80 | 123 | 125° | 372 | 300 |
| 140 | 235 | 90 | 123 | 90° | 370 | |
| 145 | 165 | 95 | 123 | 120° | 372 | 310 |
| 145 | 230 | 95 | 123 | 90° | 370 | |
| 160 | 210 | 110 | 123 | 90° | 370 | |
| 175 | 195 | 120 | 123 | 90° | 370 | |
| 185 | 145 | 130 | 123 | 110° | 370 | 330 |
| 185 | 190 | 130 | 123 | 90° | 370 | |
| 195 | 140 | 140 | 123 | 110° | 371 | 355 |
| 195 | 175 | 140 | 123 | 90° | 370 | |
| 240 | 110 | 185 | 123 | 100° | 370 | 355 |
| 240 | 125 | 185 | 123 | 90° | 370 | |
| 250 | 105 | 195 | 123 | 95° | 370 | 360 |
| 250 | 115 | 195 | 123 | 90° | 370 | |
| 260 | 95 | 205 | 123 | 95° | 369 | 365 |
| 260 | 100 | 205 | 123 | 90° | 370 | |
| 270 | 90 | 215 | 123 | 90° | 370 | |
| 280 | 80 | 230 | 123 | 90° | 370 | |
| 295 | 65 | 245 | 123 | 90° | 369 | |

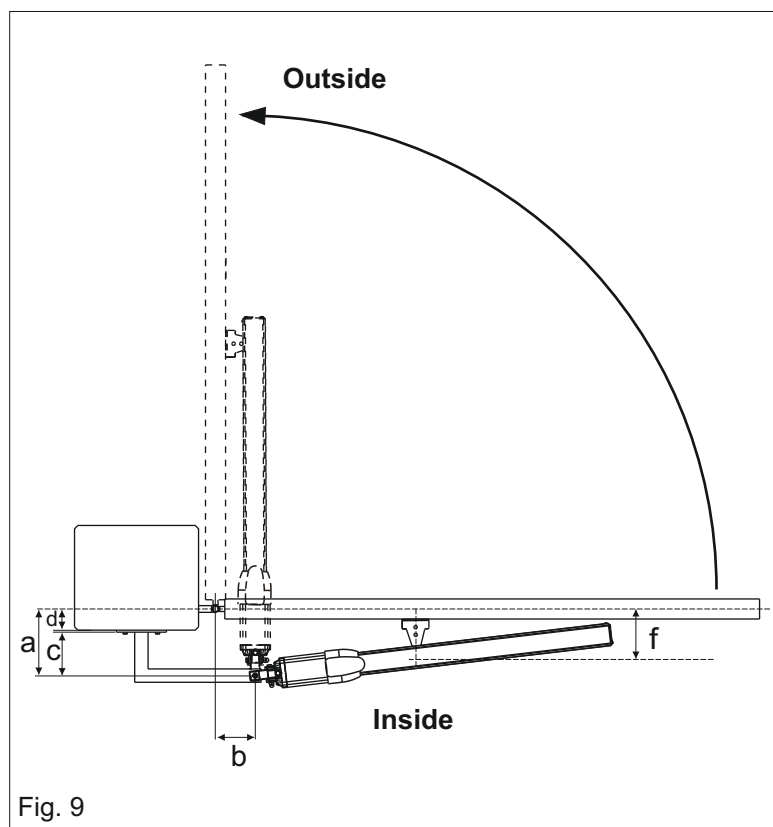
MINI TANK

Total stroke 270 mm - max suggested stroke 250 mm

| a (mm) | b (mm) | d _{max} (mm) | f * (mm) | Max opening angle | Stroke for 90° (mm) | Max stroke (mm) |
|-----------|-----------|--------------------------|-------------|-------------------------|---------------------------|-----------------------|
| 100 | 115 | 50 | 96 | 110° | 250 | 215 |
| 100 | 150 | 50 | 96 | 90° | 250 | |
| 105 | 110 | 55 | 96 | 110° | 246 | 215 |
| 105 | 145 | 55 | 96 | 90° | 250 | |
| 120 | 105 | 70 | 96 | 105° | 249 | 225 |
| 120 | 130 | 70 | 96 | 90° | 250 | |
| 125 | 125 | 75 | 96 | 90° | 250 | |
| 140 | 95 | 90 | 96 | 100° | 250 | 235 |
| 140 | 110 | 90 | 96 | 90° | 250 | |
| 145 | 95 | 95 | 96 | 100° | 255 | 240 |
| 145 | 105 | 95 | 96 | 90° | 250 | |
| 150 | 100 | 100 | 96 | 90° | 250 | |
| 155 | 85 | 105 | 96 | 95° | 249 | 240 |
| 160 | 90 | 110 | 96 | 90° | 250 | |
| 170 | 75 | 120 | 96 | 90° | 248 | |
| 180 | 65 | 130 | 96 | 90° | 247 | |

* The « f » dimension has been calculated for a 40 mm thick gate

OUTSIDE OPENING INSTALLATION



* The « f » dimension has been calculated for a 40 mm thick gate

HALF TANK 270 - MINI TANK

Total stroke 270 mm - max suggested stroke 250 mm

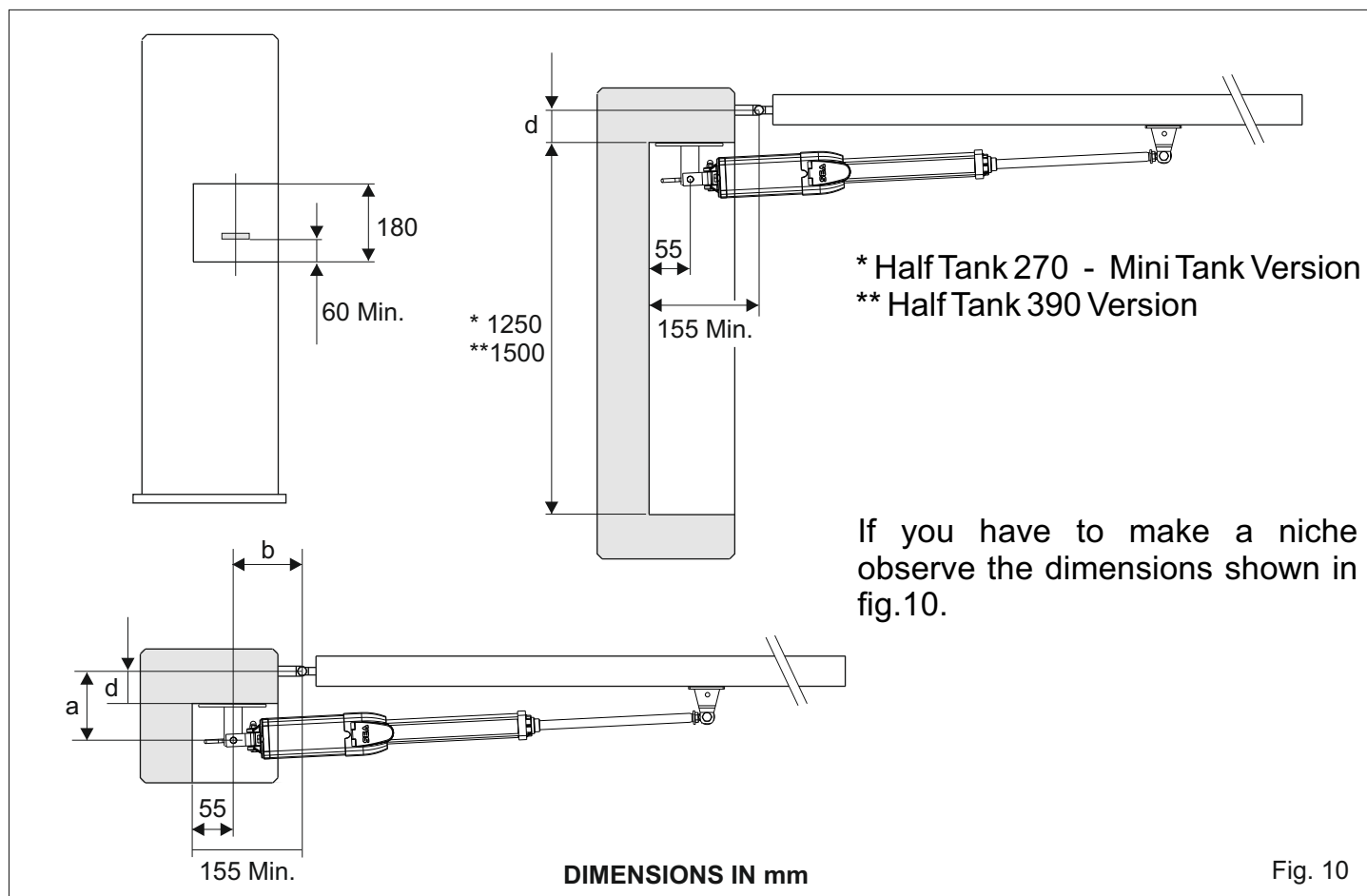
| a (mm) | b (mm) | f * (mm) | Max opening angle | Stroke for 90° (mm) | Max stroke (mm) |
|-----------|-----------|-------------|-------------------------|---------------------------|-----------------------|
| 150 | 90 | 96 | 95° | 250 | 240 |
| 160 | 90 | 96 | 90° | 250 | |
| 165 | 80 | 96 | 95° | 249 | 243 |
| 175 | 80 | 96 | 90° | 250 | |
| 180 | 70 | 96 | 90° | 250 | |
| 180 | 65 | 96 | 90° | 241 | |

HALF TANK 390

Total stroke 390 mm - max. recommended stroke 370 mm

| a (mm) | b (mm) | f * (mm) | Max opening angle | Stroke for 90° (mm) | Max stroke (mm) |
|-----------|-----------|-------------|-------------------------|---------------------------|-----------------------|
| 250 | 100 | 123 | 100° | 356 | 342 |
| 255 | 95 | 123 | 95° | 345 | 336 |
| 265 | 95 | 123 | 95° | 342 | 335 |
| 270 | 90 | 123 | 90° | 330 | |
| 275 | 90 | 123 | 90° | 325 | |
| 275 | 90 | 123 | 90° | 319 | |

INSTALLATION ON MASONRY PILLARS, MAKING A NICHE



OSCILLATING FORK INSTALLATION

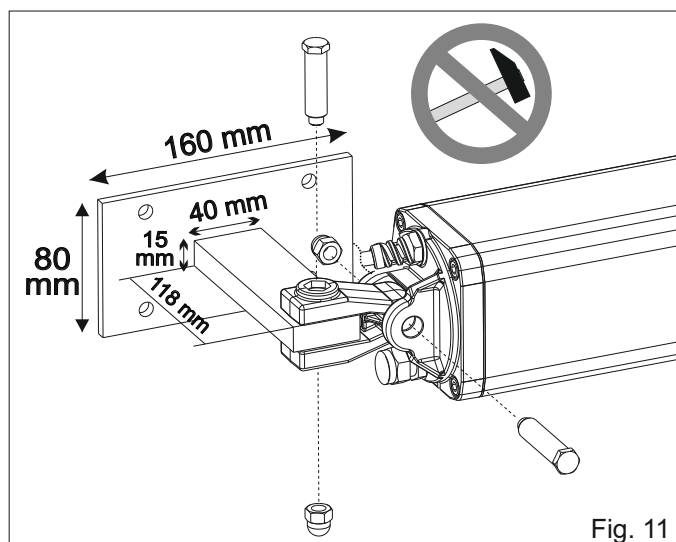


Fig. 11

Attention

Do not incline the hydraulic operator further then the allowed angle from the oscillating fork (1), could cause the braking of it (1).

PRELIMINARY

- Open the package carefully, paying attention to not lose the parts reported in fig.4
- Fix the oscillating fork as in fig.11.

Attention: do not use the hammer to insert the short brass pivot; the insertion of the pivot into the fork and bracket must be made simply by hand pressure.

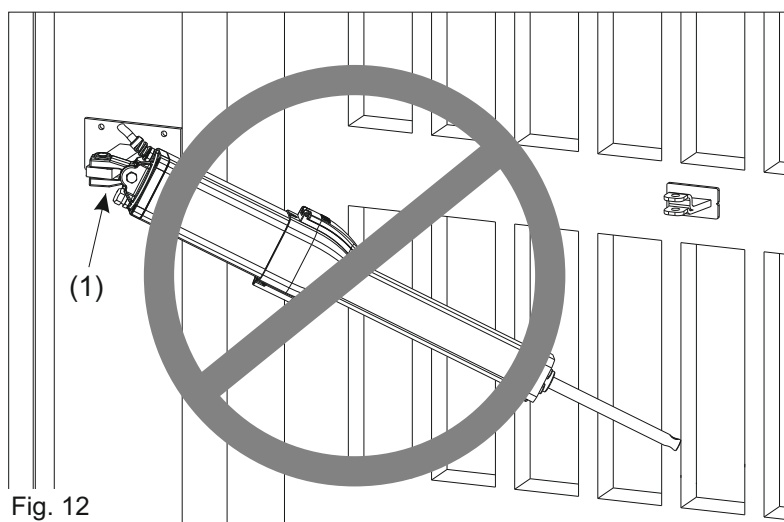


Fig. 12

BACK FIXATION MOUNTING

According to the chosen opening type (inside or outside) and according to the chosen max. rotation of the leaf (see page 21-22) the bracket must be first cut respecting the mesurment "a" on pag. 21-22 and than welded as in fig.14.

The support must be positioned so that the operator is in perfect horizontal position (Fig. 14, Fig.15).

Adjustable back fixation (with screw)
(Accessories on request)

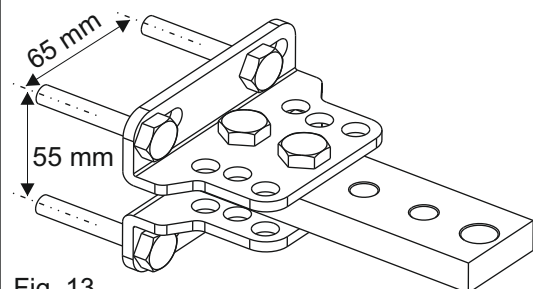


Fig. 13

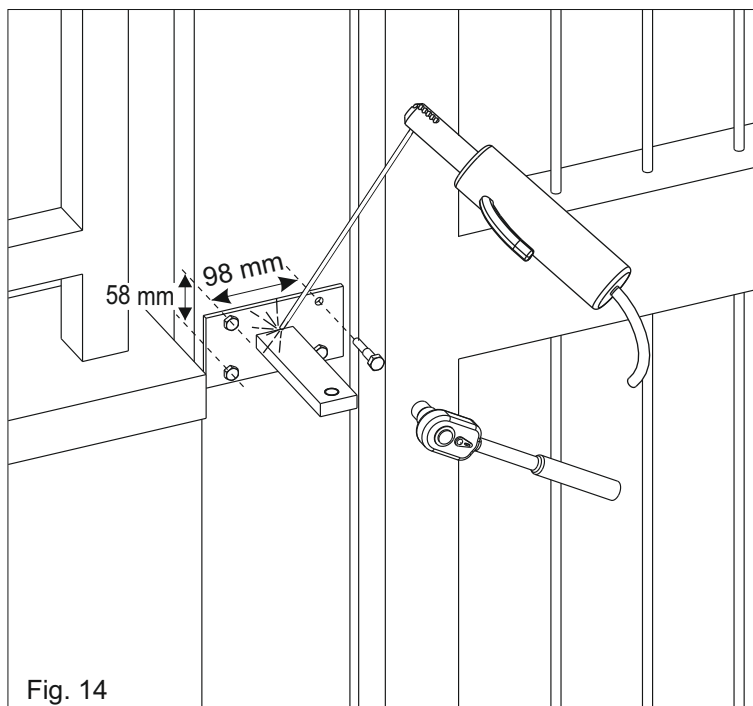


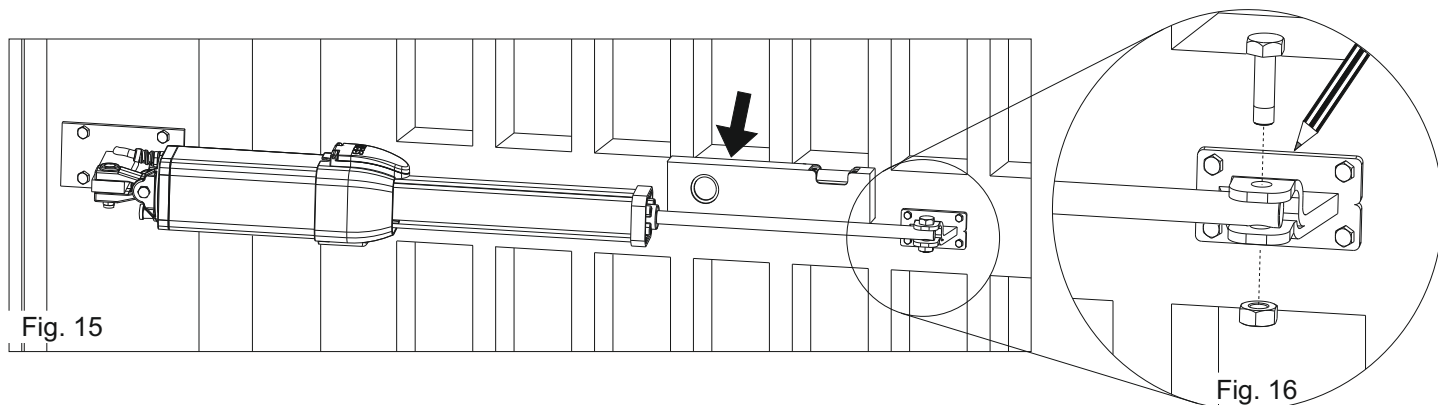
Fig. 14

POSITIONING OF THE FRONT FIXATION

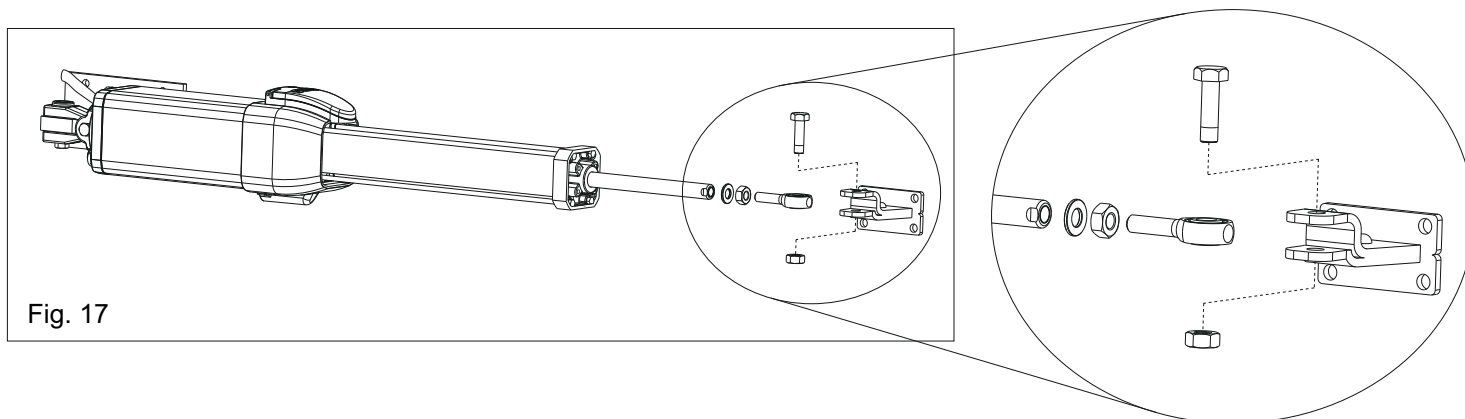
Once the operator has been mounted on the back fixation close the leaf and do as follows:

- 1) Release the operator (as in Fig. 38).
- 2) Pull out completely the chromium plated rod, **afterwards bring it back about 1 cm.**
- 3) Fix the rod on the front fixation (Fig. 16).
- 4) Position the operator perfectly horizontal and mark the position of the front fixation (Fig. 15).

Attention: Avoid the welding of the front fixation to the rod of the hydraulic operator already fixed as the welding residual (squirt) could ruin the chromium -plating of the rod.



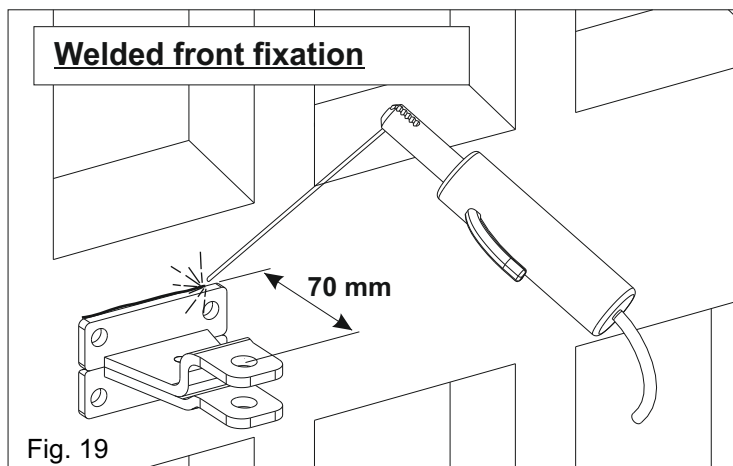
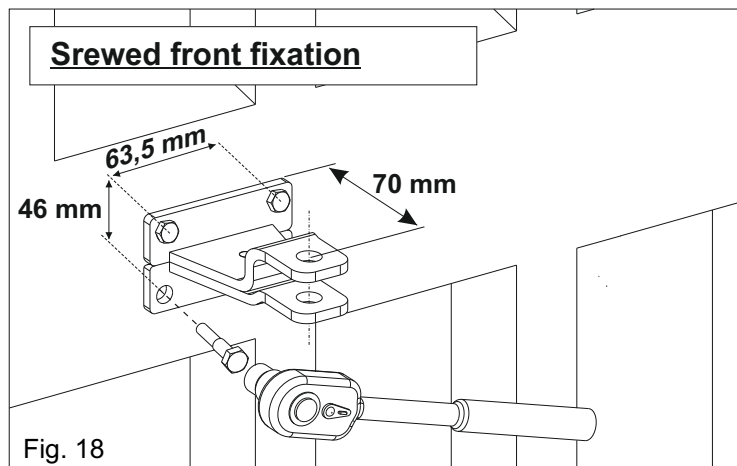
ASSEMBLING OF FRONT FIXING MINI TANK VERSION WITH JOINT (TOP)



WELDING OF THE FRONT FIXATION TO THE GATE

Mount the front fixation so that it guarantees the perfectly horizontal position of the operator.

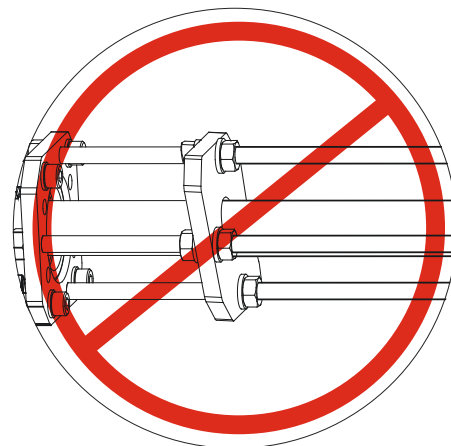
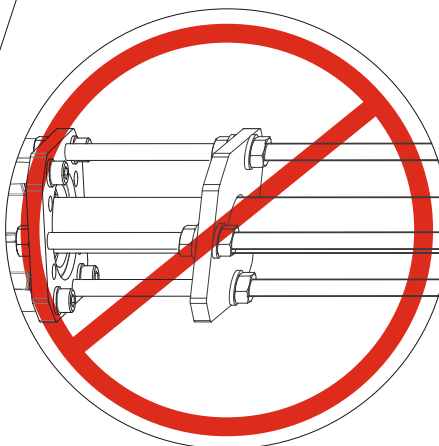
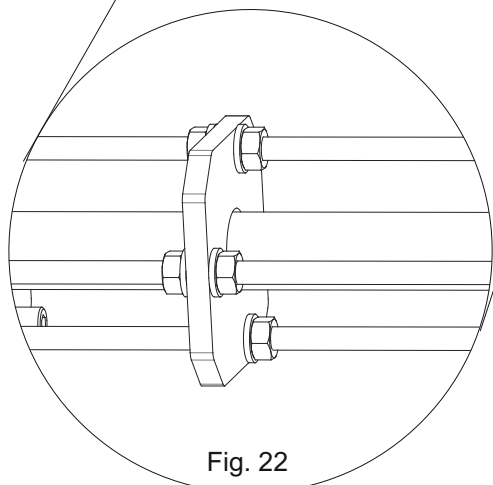
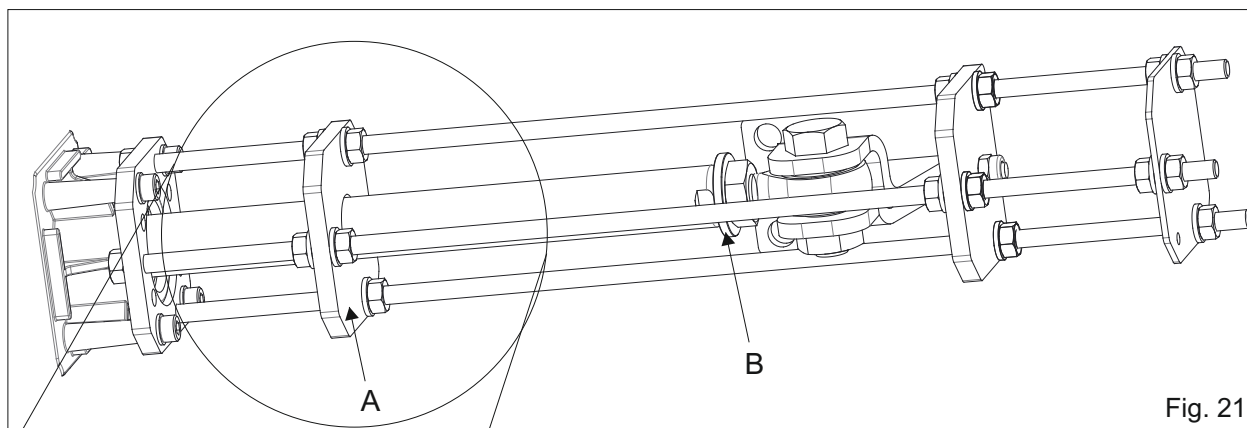
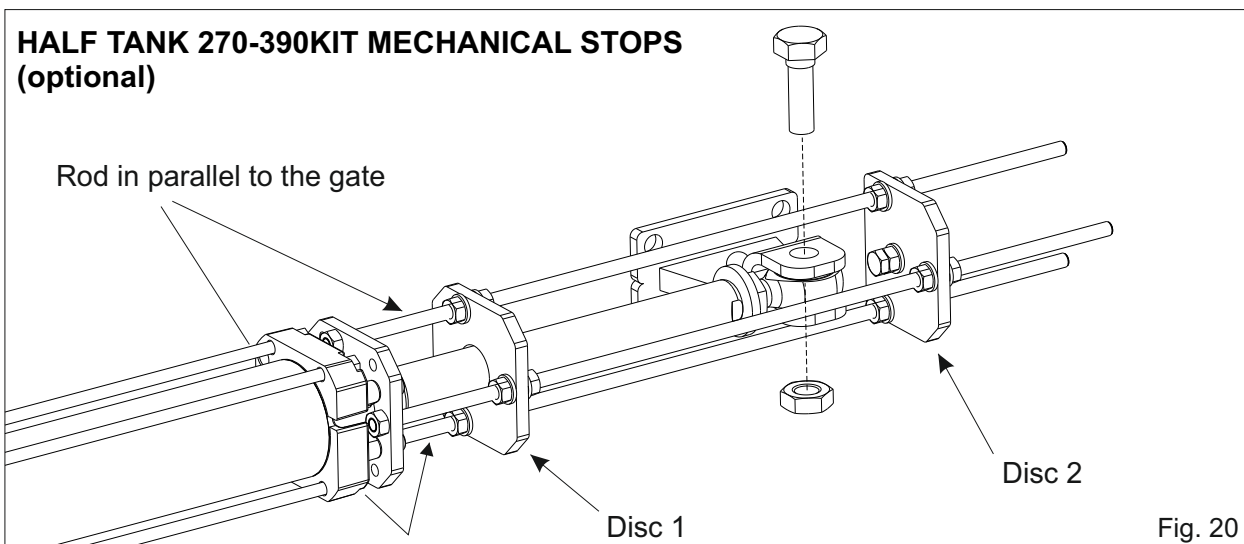
Depending on the type of the gate (wood, iron, aluminium) the front fixation can be welded or screwed.



INSTALLATION OF THE HALF TANK 270-390 (on request) **MECHANICAL LIMIT SWITCH STOPS**

- 1) Release the unit (as in Fig. 38)
- 2) Let the rod come out about 3/4 of its run
- 3) Put the limit switch stops on the front flange of the unit with the two rods (of the three which are present on the stop) which are in parallel to the gate (Fig. 20)
- 4) Fix the stop with the two included screws .
- At this point hook the rod on the front fixation
- 5) To adjust the stop in opening act on disc, and in closing on disc 2.

Attention : the mounting of the mechanical stop does not cause the reduction of the stroke



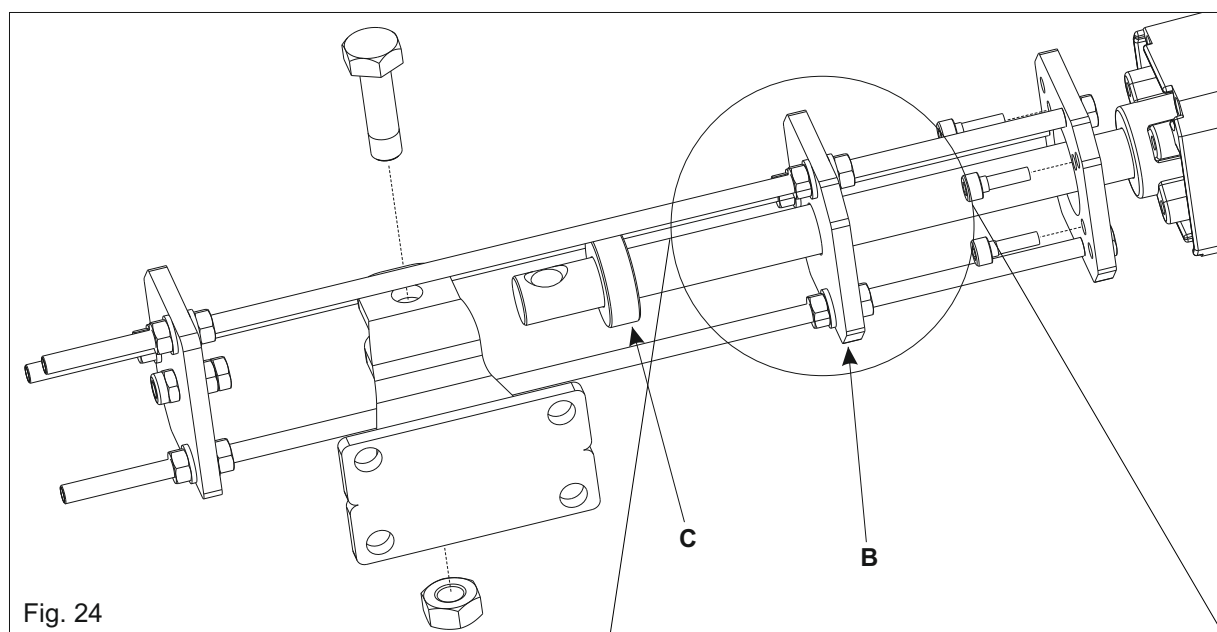
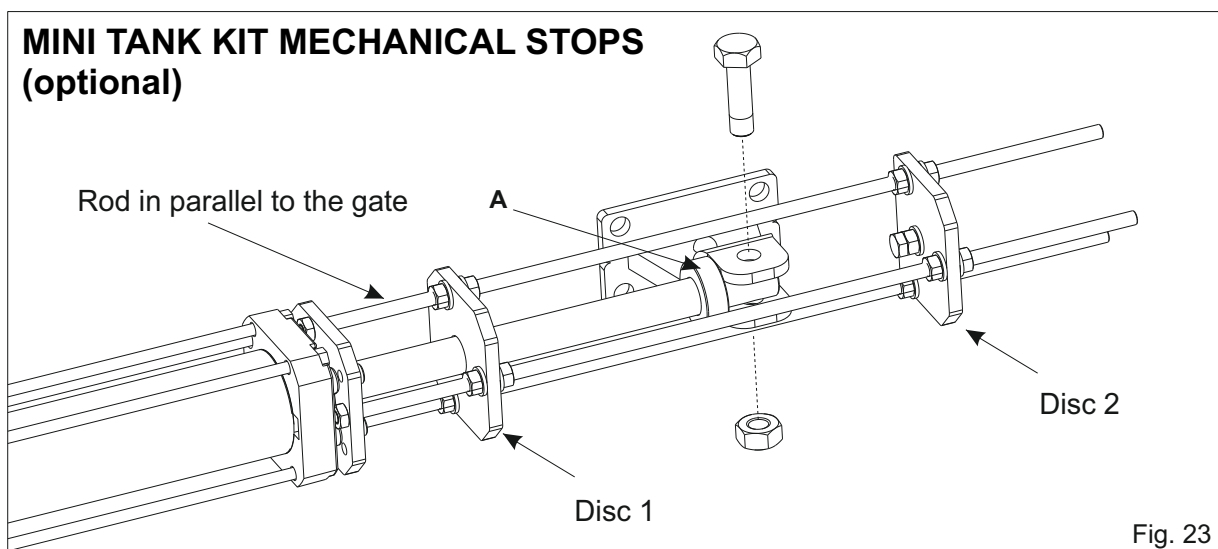
NOTE: Make sure that the two discs A and B perfectly fit in opening phase

INSTALLATION OF THE MINI TANK MECHANICAL LIMIT SWITCH STOPS

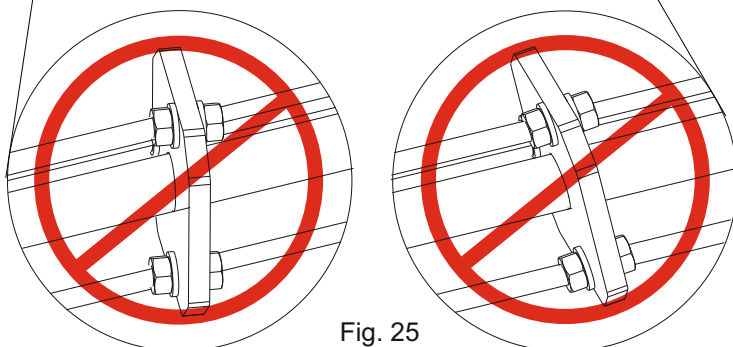
(Accessories on request)

- Release the unit (as in Fig. 38).
- Let the rod come out about 3/4 of its run.
- Put the limit switch stops on the front flange of the unit with the two rods (of the three which are present on the stop) which are in parallel to the gate (Fig. 23).
- Fix the stop with the two included screws.
- Put the provided bush (A) into the rod.
- At this point hook the rod on the front fixation.
- To adjust the stop in opening act on disc, and in closing on disc 2.

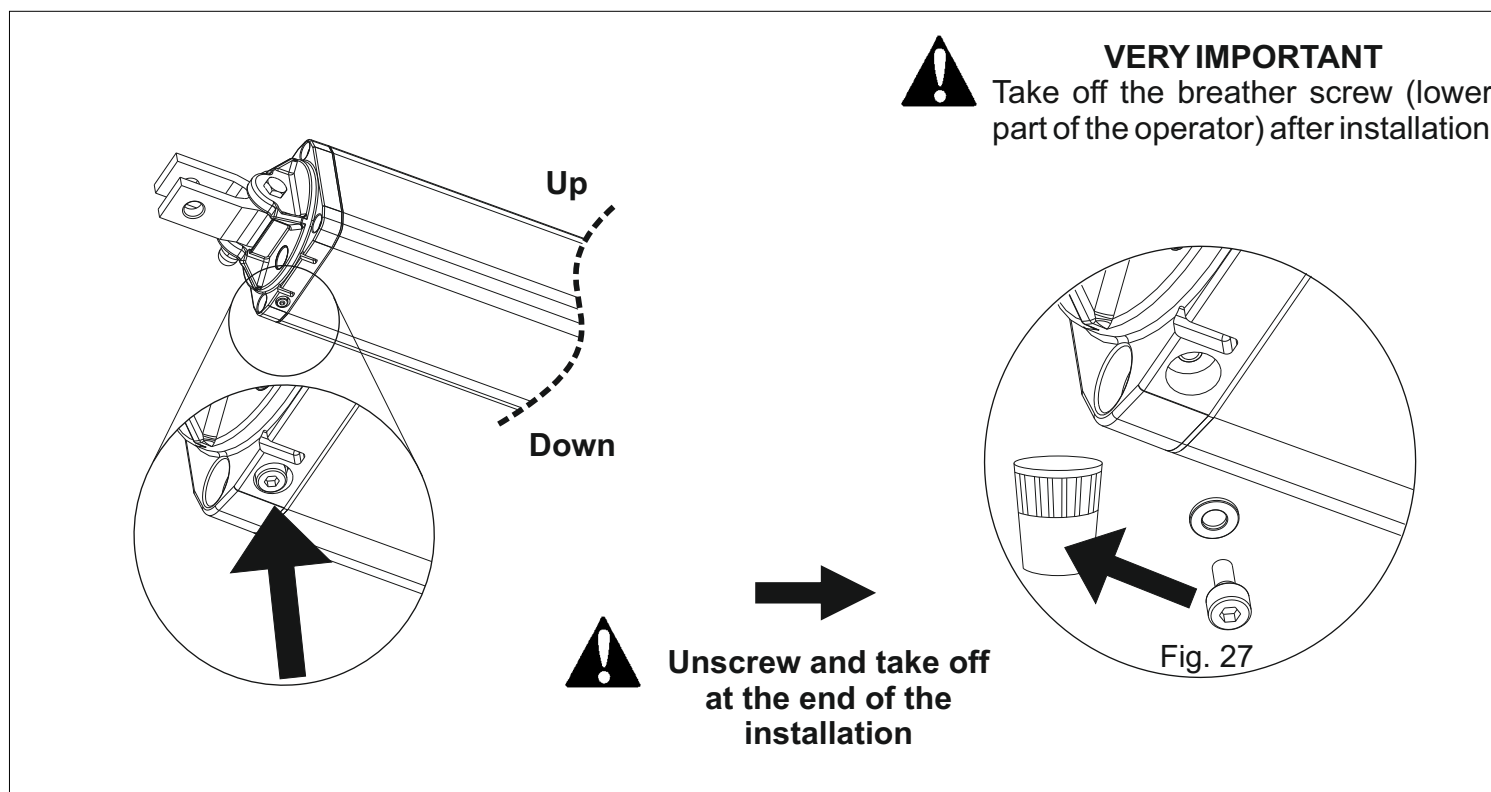
Attention: the mounting of the mechanical stop does not cause the reduction of the stroke.



NOTE: Make sure that the two discs B and C perfectly fit in opening phase

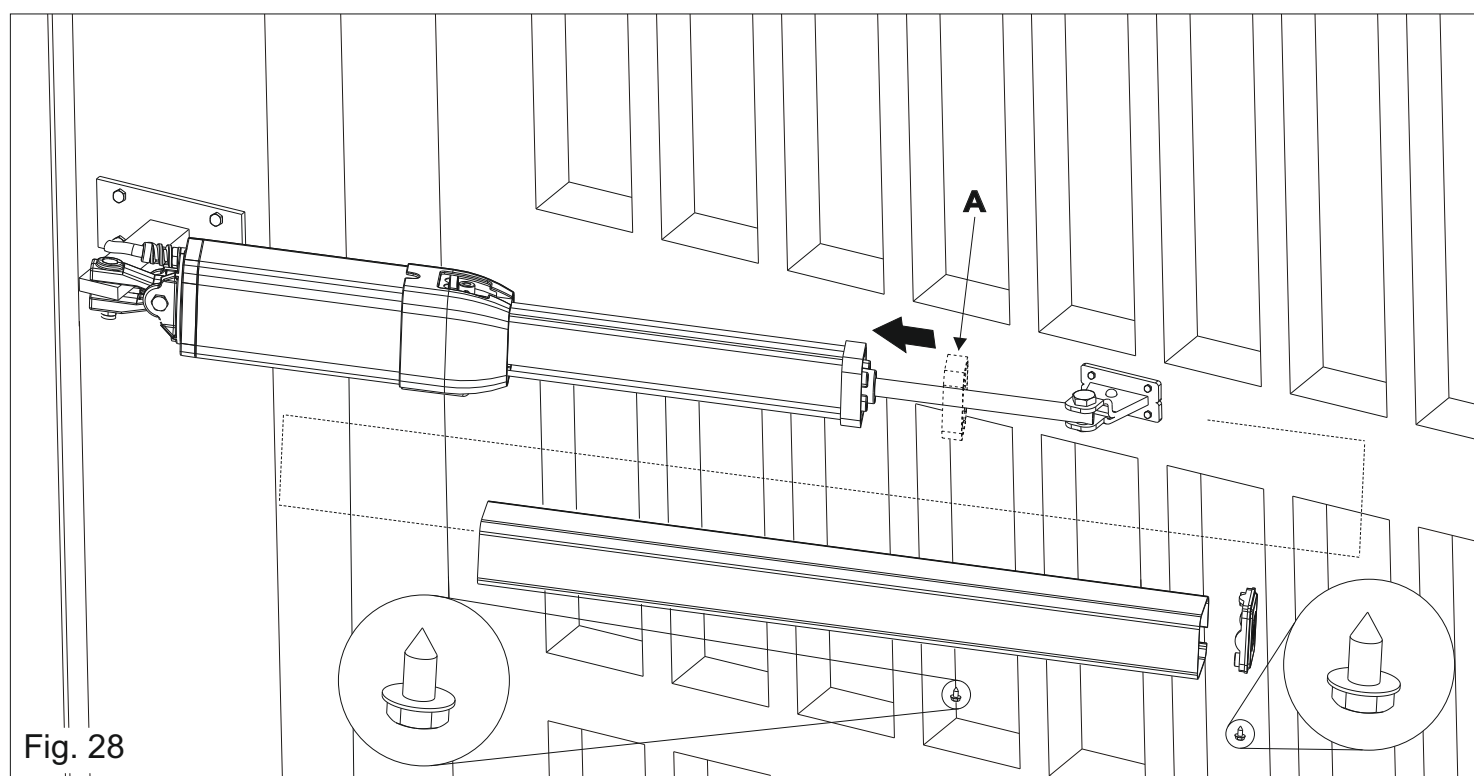


BREATHER SCREW HALF TANK - MINI TANK



INSTALLATION OF THE CHROMIUM-PLATED ROD PROTECTION

Make sure to have inserted the antivibration plastic frame (A) before inserting the rod cover extrusion, as shown in Fig. 28



TORQUE ADJUSTMENT (By-Pass Valves)

At the first installation the cover of the release and the cover of the by pass valves are not yet mounted, so after adjustments, both covers must be mounted as shown in Fig. 32 or 33 according to the type of release. All the successive by-pass valves adjustments (eg. periodical maintenance) should be made taking off the screw which locks the by-pass cover (fig. 30), taking off the by-pass cover and adjusting the pressure of the by-pass valves with the special key (installer equipment) (Fig. 31).

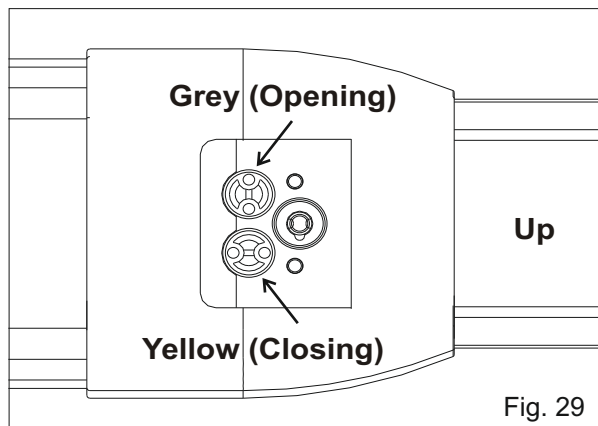


Fig. 29

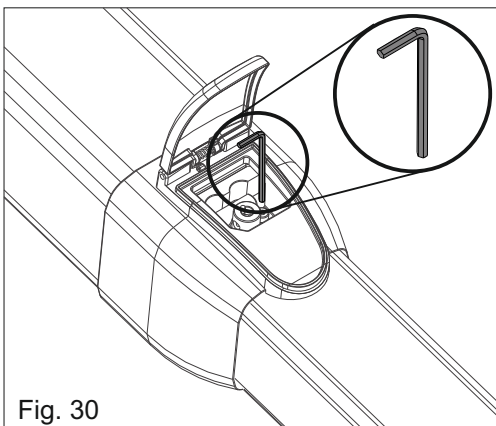


Fig. 30

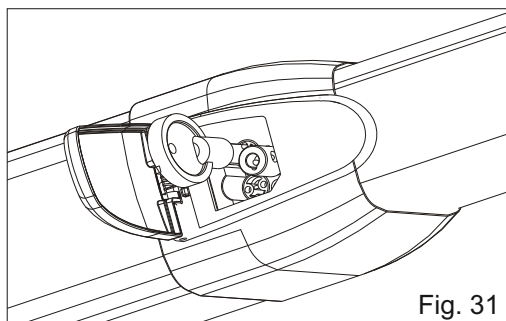
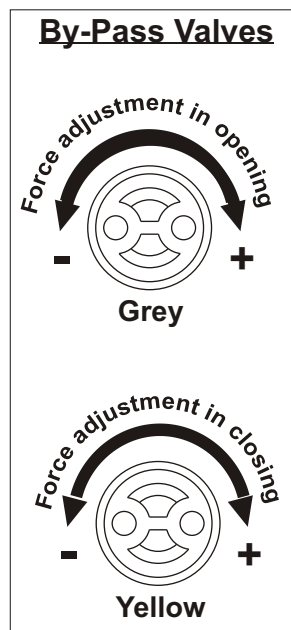


Fig. 31

Regulate the opening and closing forces of the gate respecting the force diagram (as per the EN12453 Law); the thrust force however must not be superior than 15 KgF

ATTENTION: The valves must be adjusted in parallel, there must be no calibration differences between them (ie. between opening and closing). *Example: if you adjust the gray valve by half a turn, then the yellow valve must also be adjusted in the same way*



NEW PLASTIC RELEASE FOR HALF TANK MOUNTING

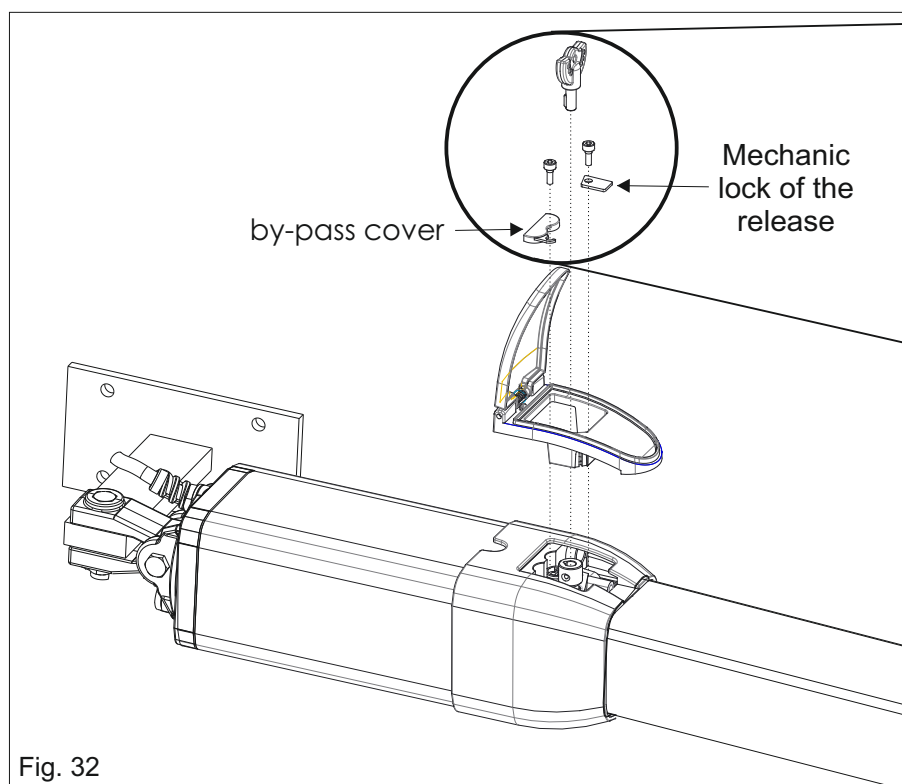


Fig. 32

! the mounting of the plastic release must be done as shown in Fig. 32 **exclusively** after having finished the installation, the mounting of the rod cover and the calibration of the by-pass valves

ATTENTION: The mechanic lock of the release must necessarily be mounted as shown in Fig. 32

ALUMINIUM RELEASE WITH KEY MOUNTING HALF TANK 390

(accessory on request)

ATTENTION: The mounting of the aluminium release must be executed as shown in figure 33 only and exclusively after having finished all installation operations, the rod cover mounting and the calibration of the by pass valves. **The release key is kept in the inside of the aluminium release cover (see fig. 34).**

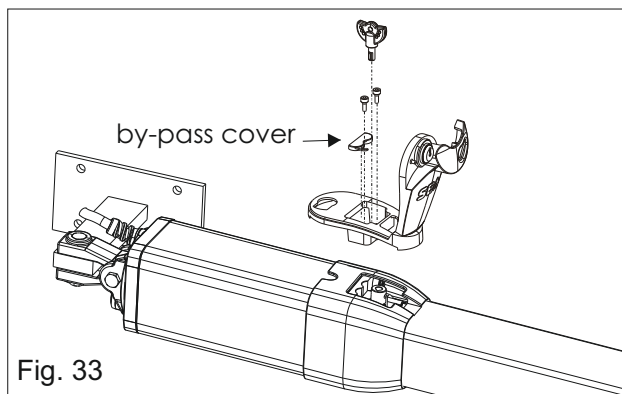


Fig. 33

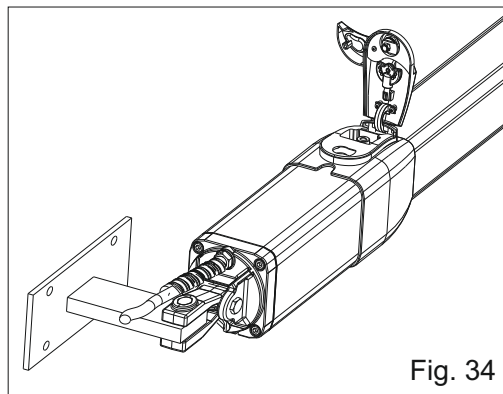


Fig. 34

PLASTIC RELEASE WITH KEY MOUNTING MINI TANK

(accessory on request)

ATTENTION: The mounting of the plastic release must be executed as shown in figure 35 only and exclusively after having finished all installation operations, the rod cover mounting and the calibration of the by pass valves.

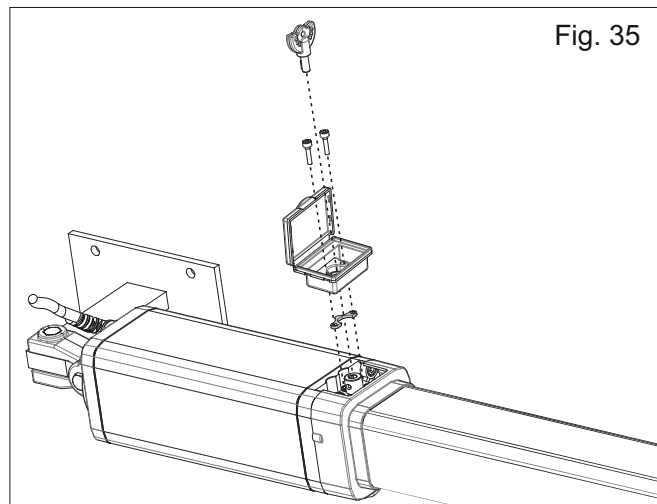


Fig. 35

EXTERNAL RELEASE MOUNTING **(accessory on request)**

ATTENTION: The mounting of the external release must be executed as shown in the figures 36 and 37. For more details refer to the mounting instructions in the external release mounting Kit.

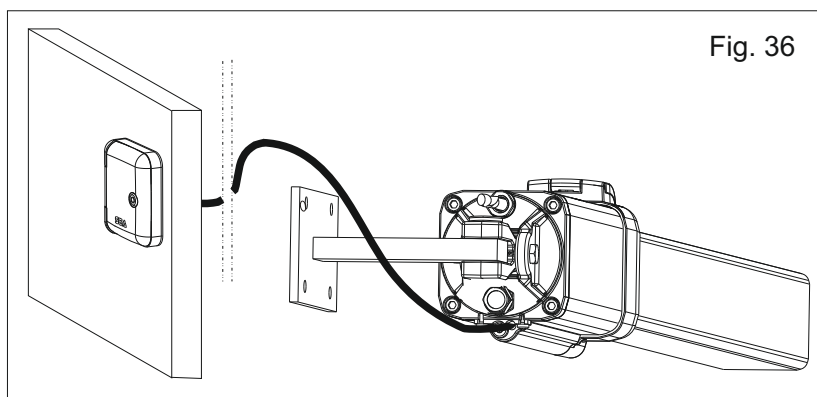


Fig. 36

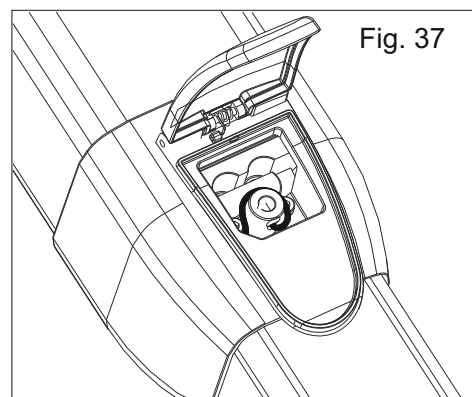
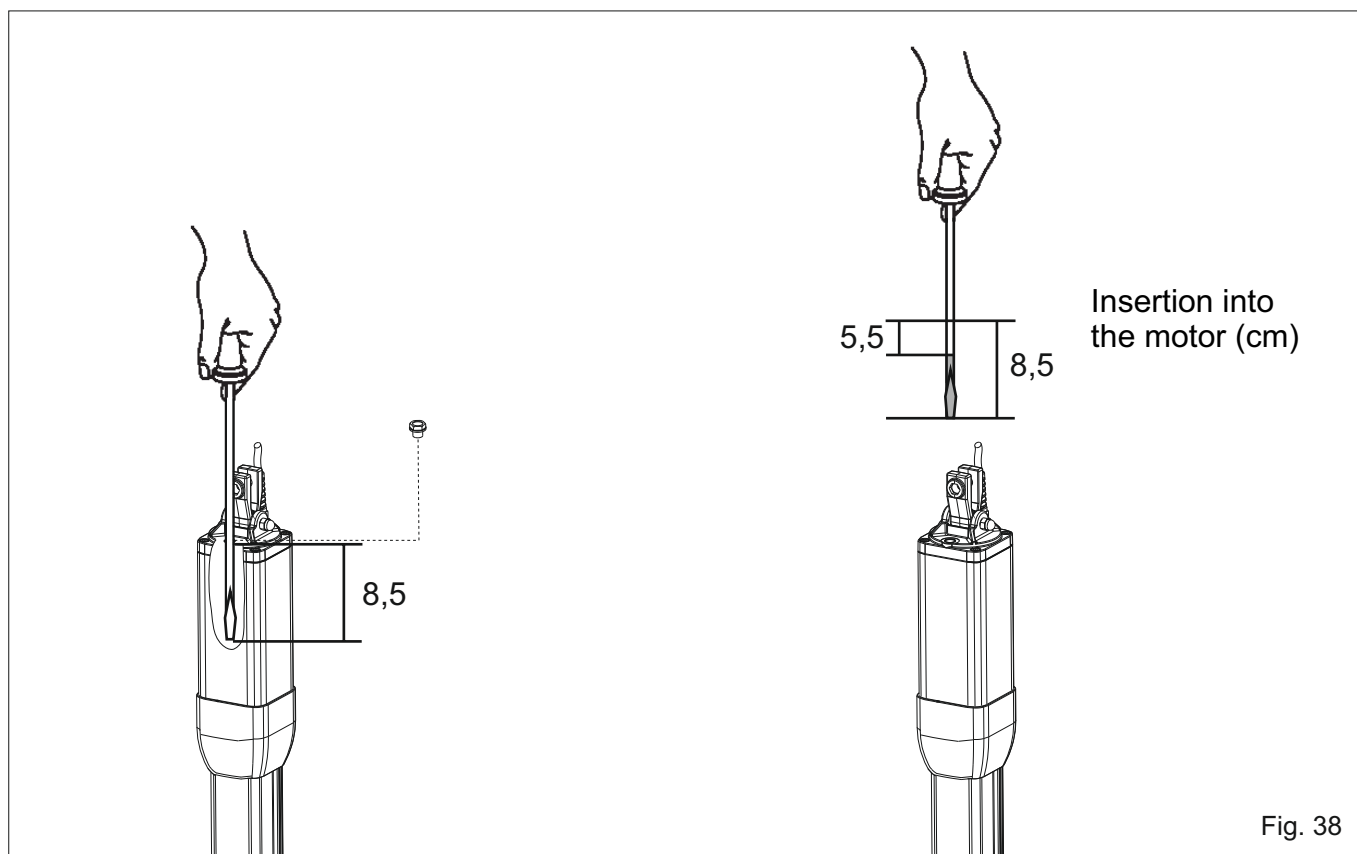


Fig. 37

OIL LEVEL MEASUREMENT



ACCESSORIES FOR HALF TANK AND MINI TANK

KEY SWITCH



PHOTOCELLS



RADIO RECEIVER



KIT EXTERNAL LOCK



TRANSMITTER



ELECTRIC LOCK



EXTERNAL LOOP DETECTOR



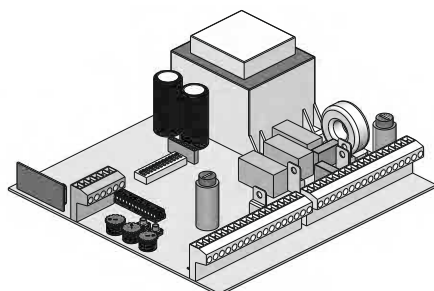
FLASHING LAMP



SUPPORTS FOR PHOTOCELLS



CONTROL UNIT



MECHANICAL STOPS



ELECTRONIC STOPS



To the attention of users and technicians

RELEASE SYSTEM

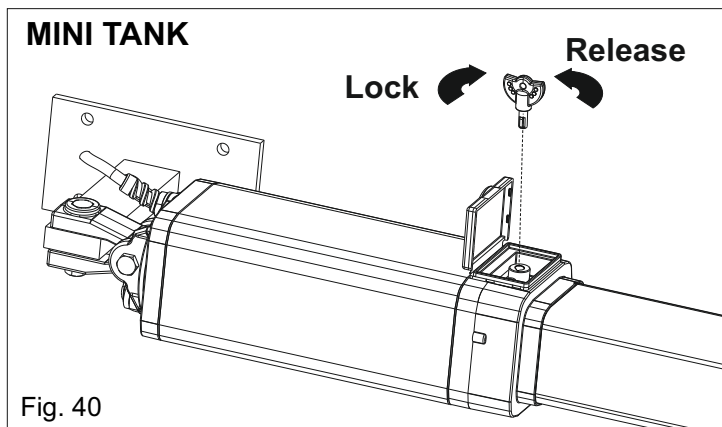
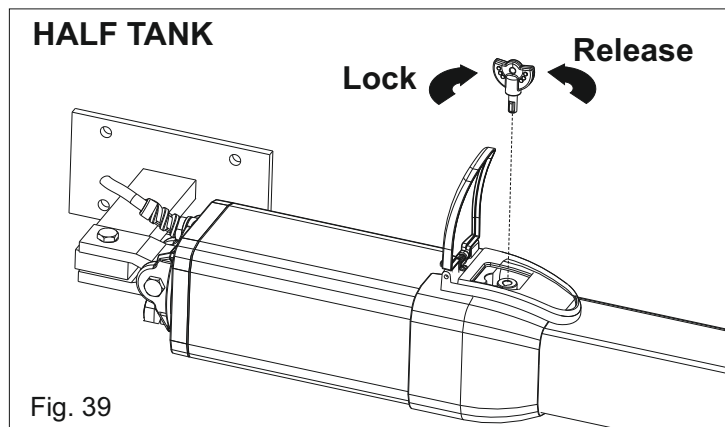
To release operate as follows:

-Insert the key and turn it about 180° anti-clockwise (Fig.39 - Fig.40).

To relock the operator do as follows:

-Insert the key and turn it clockwise until it stops (Fig.39 - Fig.40).

Attention: To release cut current supply



PERIODICAL MAINTENANCE

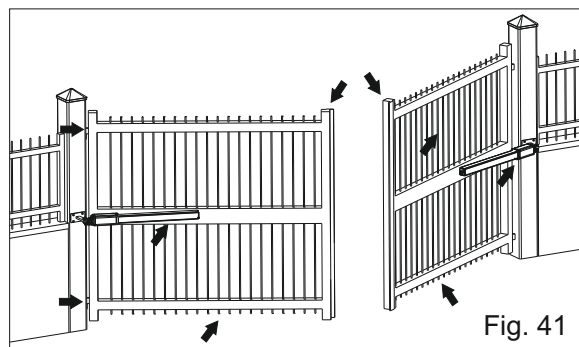
| | |
|--|----------------|
| 1) Check the robustness and the stability of the gate; particularly the leaning and/or rotation points of the gate (hinges) | Annual |
| 2) Check the oil level in the hydraulic/in oil bath operators (cap on the back cover of the operator) | Annual |
| 3) Replace the hydraulic oil with the oil recommended by the producer | 4 Years |
| 4) Check the function of the release | Annual |
| 5) Check the function of the by-pass valves | Annual |
| 6) Check and grease the fixation pivots | Annual |
| 7) Check the integrity of the connecting cables | Annual |
| 8) Check the function and the conditions of the limit switch stops in opening and closing (where the mechanical stop accessory is present) | Annual |
| 9) Check the good status of all the apparatus which are subject to efforts (back fixation, oscillating fork, and front fixation) | Annual |
| 10) Check the functionality of all the accessories especially the function of all security devices and of the Linear Encoder | Annual |
| 11) Lubricate the rod (see page 19) with SEAgrease (GREASE GL 00 Cod.65000009) | Annual |
| After having executed the periodical maintenance it is necessary to repeat the test and to reactivate the automation | |

All the above mentioned operations must be executed by an authorised installer only

To the attention of users and technicians

RISK EXAMINATION

The points indicated by arrows in Fig. 41 are potentially dangerous. The installer must take a thorough risk examination to prevent crushing, conveying, cutting, grasping, trapping so as to guarantee a safe installation for people, animals and things. As for misunderstandings that may arise refer to area distributor or call our help desk. These instructions are part of the device and must be kept in a well known place. The installer shall follow the provided instructions thoroughly. SEA S.p.A. products must only be used for the automation of doors, gates and wings. Any initiative taken without SEA S.p.A. explicit authorization will preserve the manufacture from whatsoever responsibility. The installer shall provide warning notices on not assessable further risks. SEA S.p.A. in its relentless aim to improve the production, is allowed to make whatsoever adjustment without giving notice. This does not oblige SEA S.p.A. to up-grade the past productions. SEA S.p.A. can not be deemed responsible for any damage or accident caused by product breaking, being damages or accident due to a failure to comply with the instructions herein. The guarantee will be void and the manufacturer responsibility will be nullified if SEA S.p.A. original spare parts are not being used. The electric installation shall be carried out by a professional technician who will release documentation as



requested by the laws in force. Packaging materials such as plastic bags, foam polystyrene, nails etc. must be kept out of children's reach as dangers may arise.

INITIAL CHECK AND PUTTING IN SERVICE

After having completed all necessary operations, for the correct installation of the products, described in the present manual and after having valued all resting risks which could arise in whatever installation is necessary to test the automations to guarantee the max. security and in particular way to guarantee the respect of what foreseen by the law and the normatives in force. In particular the test must be executed following the **EN12445** ruel which establishes the testing methods for the testing of the gate operators respecting the established limits by the **EN 12453** law.

POSITION GATE

For a correct and safe installation it is strongly recommended to install the **POSITION GATE**, which allows the fulfilment of the force diagram included in the **EN 12453** ruel and the testing of the putting in service and of the whole installation.

NOTE: In case of installations as shown in the figure on the right it is possible to use the **POSITION GATE** with a straight rod, solving the dimensions problem of the arm.

SAFETY PRECAUTIONS All electrical installation work should conform to current regulations. A 16A - 0,030A differential switch must be incorporated into the source of the gate main electrical supply and the entire system must be properly earth bonded. Remember to separate mains (230/120V) carrying cables from low voltage control cables.

INTENDED USE The Half Tank and Mini Tank in all their versions have been planned to be used exclusively for the automation of swing gates

SPARE PARTS To obtain spare parts contact: **SEA S.p.A. ZONA Ind.le, 64020 S.ATTO Teramo Italia**

SAFETY AND ENVIRONMENTAL COMPATIBILITY Please dispose of the product and circuit packing materials in a responsible and appropriate way. When being transported this product must be properly packaged and handled with care.

MAINTENANCE AND DECOMMISSION The decommission and maintenance of these unities must be carried out by specialised and authorised personnel only.

LIMIT OF GUARANTEE For the guarantee see the sales conditions on the official SEA price list.

NOTE: THE MANUFACTURER CAN NOT BE DEEMED RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY IMPROPER USE OF THIS PRODUCT.

SEA reserves the right to do changes or variations that may be necessary to its products with no obligation to notice

TERMS OF SALES

EFFICACY OF THE FOLLOWING TERMS OF SALE: the following general terms of sale shall be applied to all orders sent to SEA S.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

GENERAL NOTICE The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

1) PROPOSED ORDER The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

2) PERIOD OF THE OFFER The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

3) PRICING The prices in the proposed order are quoted from the Price List which is valid on the date the order was issued. The discounts granted by the branch sales department of SEA shall apply only prior to acceptance on the part of SEA. The prices are for merchandise delivered ex-works from the SEA establishment in Teramo, not including VAT and special packaging. SEA reserves the right to change at any time this price list, providing timely notice to the sales network. The special sales conditions with extra discount on quantity basis (Qx, Qx1, Qx2, Qx3 formula) is reserved to official distributors under SEA management written agreement.

4) PAYMENTS The accepted forms of payment are each time notified or approved by SEA. The interest rate on delay in payment shall be 1.5% every month but anyway shall not be higher than the max. interest rate legally permitted.

5) DELIVERY Delivery shall take place, approximately and not peremptorily, within 30 working days from the date of receipt of the order, unless otherwise notified. Transport of the goods sold shall be at Buyer's cost and risk. SEA shall not bear the costs of delivery giving the goods to the carrier, as chosen either by SEA or by the Buyer. Any loss and/or damage of the goods during transport, are at Buyer's cost.

6) COMPLAINTS Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

7) SUPPLY The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

8) WARRANTY The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

SILVER: The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

GOLD: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

PLATINUM: The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly, or if the label affixed by the manufacturer has been removed including the SEA registered trademark No. 804888. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods. The repair of products under warranty and out of warranty is subject to compliance with the procedures notified by SEA.

9) RESERVED DOMAIN A clause of reserved domain applies to the sold goods; SEA shall decide autonomously whether to make use of it or not, whereby the Buyer purchases propriety of the goods only after full payment of the latter.

10) COMPETENT COURT OF LAW In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes.

Industrial ownership rights: once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand num.804888 affixed on product labels and / or on manuals and / or on any other documentation, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

In accomplishment with art. 1341 of the Italian Civil Law it will be approved expressly clauses under numbers:

4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW

English GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. Read carefully these **Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger. SEA S.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromgnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEA S.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEA S.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEAS.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm² section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.

Dichiarazione di conformità
Declaration of Conformity

La SEA S.p.A. dichiara sotto la propria responsabilità e, se applicabile, del suo rappresentante autorizzato che, con l'installazione degli adeguati dispositivi di sicurezza e di filtraggio disturbi, i prodotti:

SEA S.p.A. declares under its proper responsibility and, if applicable, under the responsibility of its authorised representative that, by installing the appropriate safety equipment and noise filtering, the products:

| Descrizione / Description | Modello / Model | Marca / Trademark |
|--|------------------------|--------------------------|
| HALF TANK 270 AC (e tutti i suoi derivati / <i>and all its by-products</i>) | 10401026 | SEA |
| HALF TANK 390 AC (e tutti i suoi derivati / <i>and all its by-products</i>) | 10501036 | SEA |
| MINI TANK 270 AC (e tutti i suoi derivati / <i>and all its by-products</i>) | 10103505 | SEA |

sono costruiti per essere incorporati in una macchina o per essere assemblati con altri macchinari per costruire una macchina ai sensi della Direttiva 2006/42/CE

are built to be integrated into a machine or to be assembled with other machinery to create a machine under the provisions of Directive 2006/42/CE

sono conformi ai requisiti essenziali di sicurezza relativi ai prodotti entro il campo di applicabilità delle Direttive Comunitarie 2014/35/UE e 2014/30/UE

are conforming to the essential safety requirements related to the products within the field of applicability of the Community Directives 2014/35/UE and 2014/30/UE

COSTRUTTORE o RAPPRESENTANTE AUTORIZZATO:
MANUFACTURER or AUTHORISED REPRESENTATIVE:

SEA S.p.A.
DIREZIONE E STABILIMENTO:
Zona industriale 64020 S.ATTO Teramo - (ITALY)
Tel. +39 0861 588341 r.a. Fax +39 0861 588344
[Http://www.seateam.com](http://www.seateam.com)

Luogo, data di emissione
Place, date of issue
Teramo, 11/10/2018

L'Amministratore
The Administrator
Ennio Di Saverio




Automatic Gate Openers

Questo articolo è stato prodotto seguendo rigide procedure di lavorazione ed è stato testato singolarmente al fine di garantire i più alti livelli qualitativi e la vostra soddisfazione. Vi ringraziamo per aver scelto SEA.

This item has been produced following strict production procedures and has been singularly tested for the highest quality levels and for your complete satisfaction.
Thanks for choosing SEA.

Cet article a été produit suivant des procédures d'usinage strictes et il a singulièrement été testé afin de garantir les plus hauts niveaux de qualité pour votre satisfaction.
Nous vous remercions d'avoir choisi SEA.

Este artículo ha sido producido siguiendo rigidos procedimientos de elaboracion y ha sido probando singolarmente a fin de garantizar los mas altos niveles de calidad y vuestra satisfaccion.
Le agradecemos por haber escogito SEA.

CERTIFICATO DI ESTENSIONE GARANZIA

CERTIFICATE OF WARRANTY EXTENTION

n. _____

PRODOTTO/ PRODUCT

- Modello/Model _____
- Matricola n. /Serial Number _____
- Data di acquisto/Date of order _____
- Data di installazione/Date of installation _____

| | | | |
|------------------------------------|------------------------------|--------------|--------------------------|
| Centrale/Control unit | SEA <input type="checkbox"/> | Altri/Others | <input type="checkbox"/> |
| Fotocellule/Photocells | SEA <input type="checkbox"/> | Altri/Others | <input type="checkbox"/> |
| RX - TX | SEA <input type="checkbox"/> | Altri/Others | <input type="checkbox"/> |
| Altri accessori /Other accessories | SEA <input type="checkbox"/> | Altri/Others | <input type="checkbox"/> |

UTENTE/Customer

Nome e Cognome _____
First Name and Family Name _____
Indirizzo/Address _____

INSTALLATORE/Installer

Ragione sociale/Company Name _____
Nome e Cognome/First and Family Name _____
Indirizzo/Address _____

INSTALLATORE/INSTALLER

Firma per il trattamento dei dati personali ai sensi del Regolamento UE 679/2016
Agreement to the GDPR EU Regulation No. 679/2016

Copia da restituire
Copy to be returned

Firma e Timbro

Sign and Stamp _____

N.B: L'estensione della garanzia legale di 12 mesi a 24 mesi e 36 mesi è valida solo se il presente modulo viene rispedito per posta o fax a SEA S.p.A. entro 15gg dalla data di acquisto. Allegare relativa fattura d'acquisto.

Note: The extension of the legal standard warranty of 12 months to 24 months and to 36 months, is valid only if the present form is returned by mail or fax to SEA S.p.A within 15days from the date of purchase. Attach customer invoice.



SEA®
Sistemi Elettronici
di Apertura Porte e Cancelli
International registered trademark n. 804888

SEA S.p.A. - Zona Industriale San Atto- 64020 Teramo (Italy)
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www.seateam.com - info@seateam.com

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Automatic Gate Openers

International registered trademark n. 804888



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