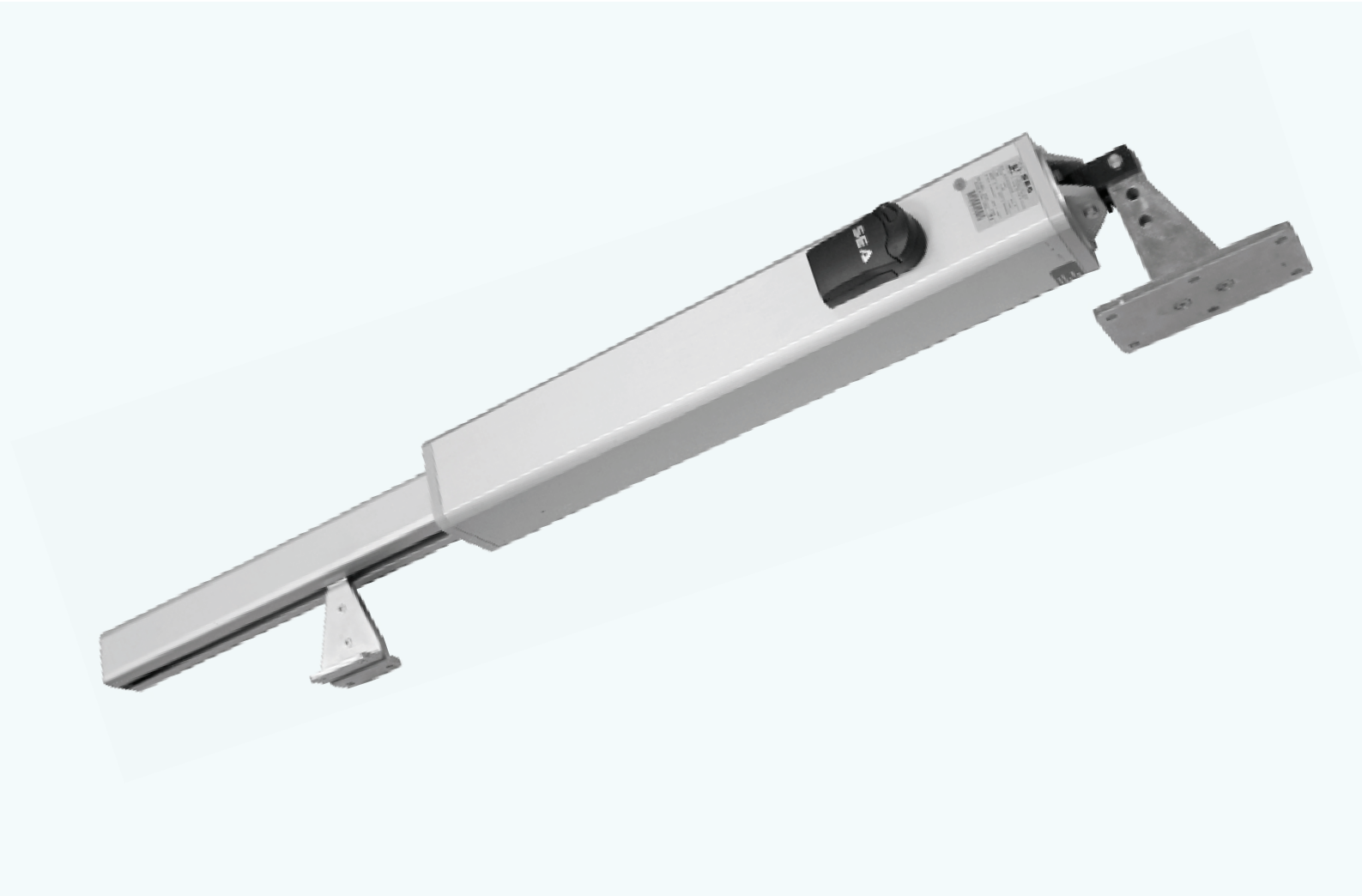
Automatic Gate Openers

International registered trademark n. 804888

ITALIANO
ENGLISH
FRANÇAIS

# SUPER FULL TANK

## OPERATORE OLEODINAMICO PER CANCELLI A BATTENTE
## HYDRAULIC OPERATOR FOR SWING GATES
## OPERATEUR HYDRAULIQUE POUR PORTAILS A BATTANTS




**SEA S.p.A.**

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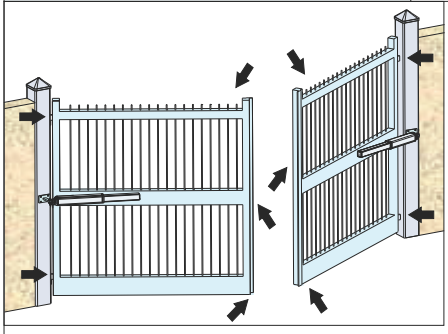
67411850 REV. 09 - 04/2023

# PARTE DEDICATA SIA ALL'UTENTE CHE ALL'INSTALLATORE

## AVVERTENZE GENERALI



**ESAME DEI RISCHI:** I punti indicati con le freccette sono potenzialmente pericolosi. L'installatore deve effettuare un'esame approfondito dei rischi per prevenire schiacciamenti, trascinamenti, tagli, agganciamenti, intrappolamenti e garantire una installazione sicura per uomini, animali e cose. In caso di malintesi che potrebbero sorgere, si consiglia di consultare il distributore di zona oppure di chiamarci. Queste istruzioni sono parte integrale del dispositivo e devono essere conservate in un posto ben conosciuto. L'installatore deve attenersi rigorosamente alle instruzioni. I prodotti della SEA S.p.A. devono essere usati esclusivamente per l'automazione di porte, cancelli ed ante. Qualsiasi iniziativa presa senza esplicita autorizzazione della SEA S.p.A. distoglie quest'ultima da qualsiasi responsabilità. L'installatore deve fornire note d'avvertimento per ulteriori rischi non valutabili. La SEA S.p.A. nel suo continuo scopo di migliorare i prodotti, ha diritto di effettuare qualsiasi modifica senza obbligo di avvisare i propri clienti. Ciò non obbliga la SEA S.p.A. a migliorare la produzione passata. La SEA S.p.A. non può essere ritenuta responsabile per qualsiasi danno o incidente causato da prodotti rotti, se si tratta di danni o incidenti dovuti alla non osservanza di quanto riportato nelle presenti istruzioni. La garanzia non è valida e la respon-sabilità del fabbricante si annulla se sono stati usati pezzi di ricambio non originali della SEA S.p.A. L'installazione elettrica deve essere effettuata da un tecnico professionista che rilascerà la relativa documentazione, come richiesto dalle leggi in vigore. Tenere lontano dalla portata dei bambini il materiale d'imballo come buste di plastica, polistirolo, chiodi etc., essendo potenziali fonti di pericolo.

**COLLAUDO INIZIALE E MESSA IN SERVIZIO:** Dopo aver completato le operazioni necessarie per una corretta installazione dei prodotti, come descritto nel presente manuale e, dopo aver valutato tutti i rischi residui che possono insorgere in qualsiasi installazione, **è necessario collaudare le automazioni per garantire la massima sicurezza** ed in particolare garantire il rispetto di quanto previsto da Leggi e Norme del settore. In particolare il collaudo deve essere eseguito seguendo la **norma EN12445** che stabilisce i metodi di prova per la verifica degli automatismi per cancelli nel rispetto dei limiti imposti dalla **norma EN 12453**.

**AVVERTENZE**: L'installazione elettrica e la scelta della logica di funzionamento devono essere in accordo con le normative vigenti. Prevedere in ogni caso un interruttore differenziale da 16A e soglia 0,030A. Tenere separati i cavi di potenza (motori, alimentazione) da quelli di comando (pulsanti, fotocellule, telecomandi ecc.). Per evitare interferenze è preferibile prevedere ed utilizzare due guaine separate.

**DESTINAZIONE D'USO:** Il Prodotto è stato progettato per essere utilizzato unicamente per l'automazione di cancelli a battente

**RICAMBI:** Le richieste di ricambi devono pervenire a: ***SEA S.p.A. - 64100 - Teramo - ITALIA - www.seateam.com***

**SICUREZZA E COMPATIBILITÀ AMBIENTALE**: Non disperdere nell'ambiente i materiali di imballaggio del prodotto e/o circuiti

**IMMAGAZZINAMENTO**: T = -30°C/+60°C ; Umidità = min. 5% / max. 90% (senza condensa); Il prodotto deve essere imballato accuratamente e maneggiato con cura. La movimentazione del prodotto deve essere seguita con mezzi idonei

**GARANZIA**: Per la garanzia vedere le Condizioni di vendita riportate nel Listino ufficiale SEA

**MESSA FUORI SERVIZIO E MANUTENZIONE:** La disinstallazione e/o messa fuori servizio e/o manutenzione del prodotto deve essere eseguita solo ed esclusivamente da personale autorizzato ed esperto.

***NOTA: IL COSTRUTTORE NON PUÒ CONSIDERARSI RESPONSABILE PER EVENTUALI DANNI CAUSATI DA USI IMPROPRI, ERRONEI ED IRRAGIONEVOLI.***

*La SEA si riserva il diritto di apportare le modifiche o variazioni che ritenesse opportune ai propri prodotti e/o al presente manuale senza alcun obbligo di preavviso.*

**1.** Leggere attentamente le Istruzioni di Montaggio e le Avvertenze Generali prima di iniziare l'installazione del prodotto. Conservare la documentazione per consultazioni future

**2.** Non disperdere nell' ambiente i materiali di imballaggio del prodotto e/o circuiti

**3.** Questo prodotto è stato progettato e costruito esclusivamente per l'utilizzo indicato in questa documentazione. Qualsiasi altro utilizzo non espressamente indicato potrebbe pregiudicare l'integrità del prodotto o rappresentare fonte di pericolo. L'uso improprio è anche causa di cessazione della garanzia. La SEA S.p.A. declina qualsiasi responsabilità derivata dall'uso improprio o diverso da quello per cui l'automatismo è destinato

**4.** I prodotti SEA sono conformi alle Direttive: Macchine (2006/42/CE e successive modifiche), Bassa Tensione (2006/95/CE e successive modifiche), Compatibilità Elettromagnetica (2004/108/CE e successive modifiche). L'installazione deve essere effettuata nell'osservanza delle norme EN 12453 e EN 12445

**5.** Non installare l'apparecchio in atmosfera esplosiva

**6.** SEA S.p.A. non è responsabile dell'inosservanza della Buona Tecnica nella costruzione delle chiusure da motorizzare, nonché delle deformazioni che dovessero verificarsi durante l'uso

**7.** Prima di effettuare qualsiasi intervento sull'impianto, togliere l'alimentazione elettrica e scollegare le batterie. Verificare che l'impianto di terra sia realizzato a regola d'arte e collegarvi le parti metalliche della chiusura.

**8.** Per ogni impianto SEA S.p.A. consiglia l'utilizzo di almeno una segnalazione luminosa nonché di un cartello di segnalazione fissato adeguatamente sulla struttura dell'infisso

**9.** SEA S.p.A. declina ogni responsabilità ai fini della sicurezza e del buon funzionamento della automazione, in caso vengano utilizzati componenti di altri produttori

**10.** Per la manutenzione utilizzare esclusivamente parti originali SEA

**11.** Non eseguire alcuna modifica sui componenti dell'automazione

**12.** L'installatore deve fornire tutte le informazioni relative al funzionamento manuale del sistema in caso di emergenza e consegnare all'Utente utilizzatore dell'impianto il libretto d'avvertenze allegato al prodotto

**13.** Non permettere ai bambini o persone di sostare nelle vicinanze del prodotto durante il funzionamento. L'applicazione non può essere utilizzata da bambini, da persone con ridotte capacità fisiche, mentali, sensoriali o da persone prive di esperienza o del necessario addestramento. Tenere inoltre fuori dalla portata dei bambini radiocomandi o qualsiasi altro datore di impulso, per evitare che l'automazione possa essere azionata involontariamente

**14.** Il transito tra le ante deve avvenire solo a cancello completamente aperto

**15.** Tutti gli interventi di manutenzione, riparazione o verifiche periodiche devono essere eseguiti da personale professionalmente qualificato. L'utente deve astenersi da qualsiasi tentativo di riparazione o d'intervento e deve rivolgersi esclusivamente a personale qualificato SEA. L'utente può eseguire solo la manovra manuale

**16.** La lunghezza massima dei cavi di alimentazione fra centrale e motori non deve essere superiore a 10m. Utilizzare cavi con sezione 2.5 $mm^2$. Utilizzare cablaggi con cavi in doppio isolamento (cavi con guaina) nelle immediate vicinanze dei morsetti specie per il cavo di alimentazione (230V). Inoltre è necessario mantenere adeguatamente lontani (almeno 2.5 mm in aria) i conduttori in bassa tensione (230V) dai conduttori in bassissima tensione di sicurezza (SELV) oppure utilizzare un'adeguata guaina che fornisca un isolamento supplementare avente uno spessore di almeno 1 mm

## FEATURES

**SUPER FULL TANK** is a high quality hydraulic operator for condominium or industrial use and for gates with leaf length up to max. 9 m (SFT 500) or 12 m (SFT 1000). Available in the following versions:

**AC** *(with lock in opening and closing position)*

**SB** *(without lock)* *

The Super Full Tank is supplied with by-pass valves for the power regulation in both opening and closing

The slowdown is hydraulic only in closing.

* In case of leaves longer than 4 meters or installations in windy places or in case of closed paneled gates, SEA recommends the use of the electric lock on operators without block (SB); moreover, the exclusion of the electronic slowdown is recommended in case of operators with hydraulic slowdown

## COMPONENTS

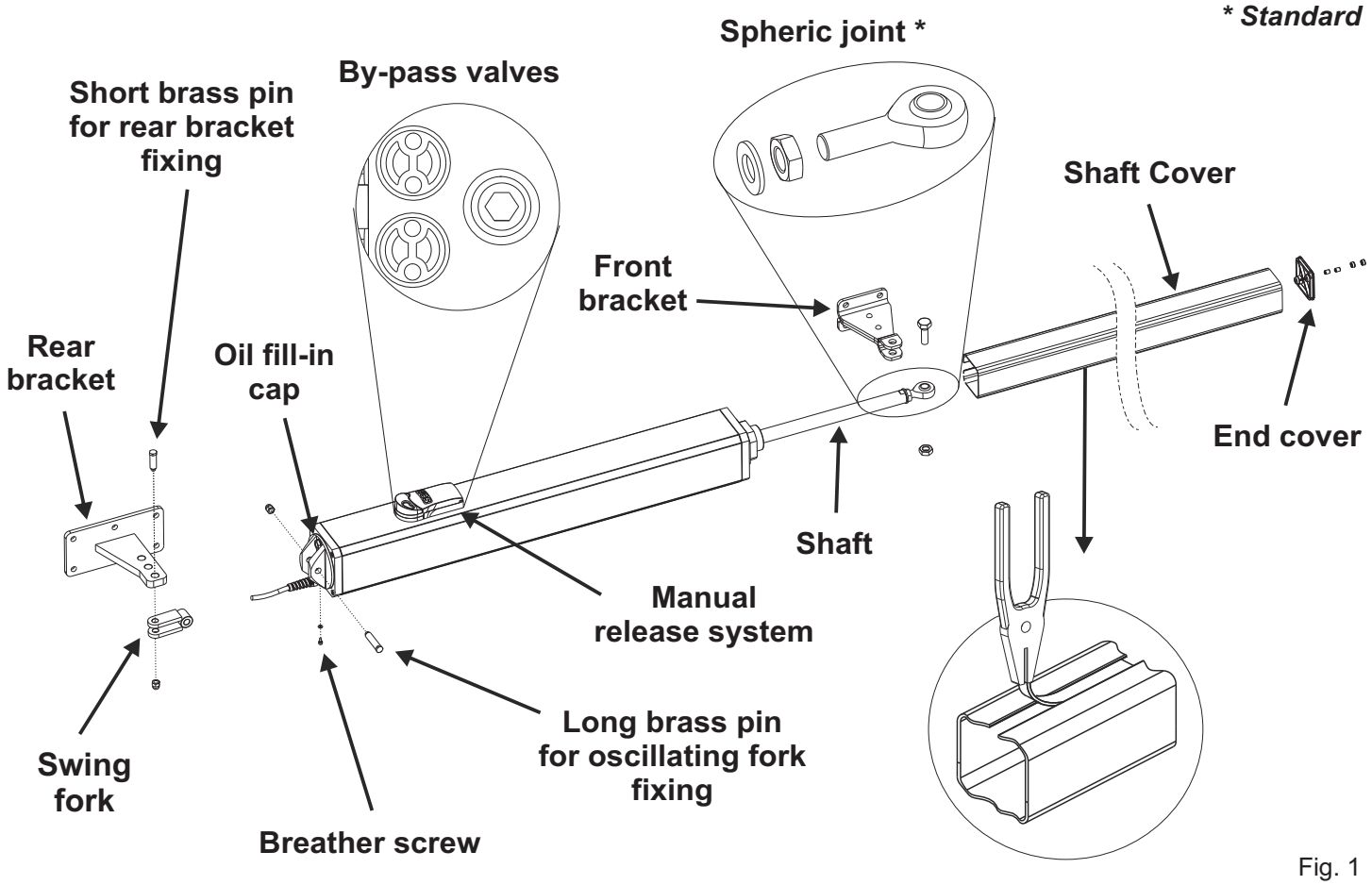



Fig. 1

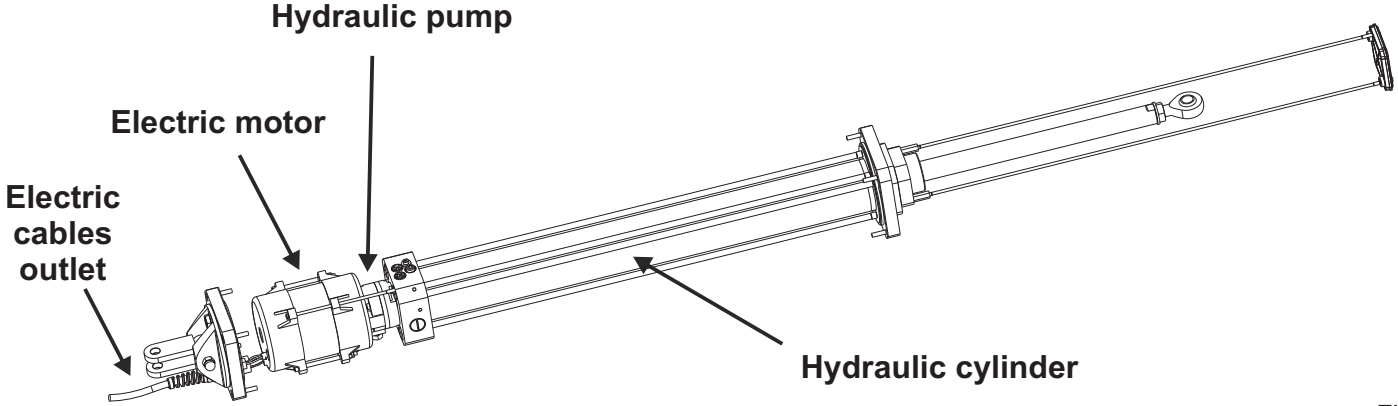
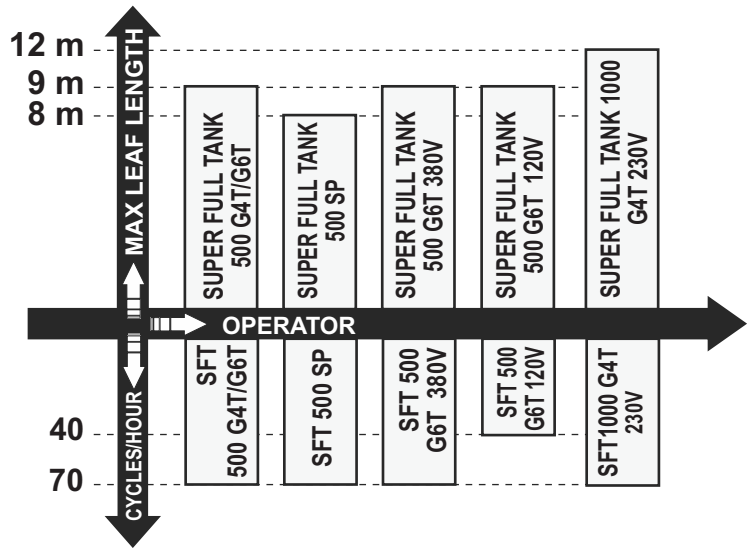
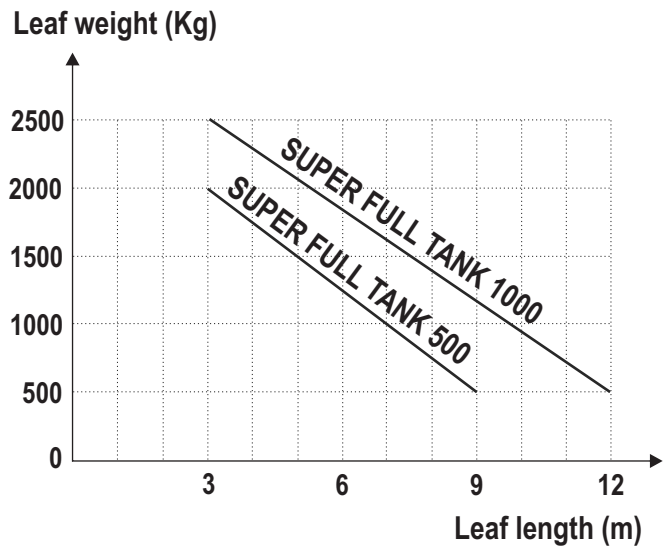



Fig. 2

## APPLICATION CHARTS




## DIMENSIONS

*millimeters*

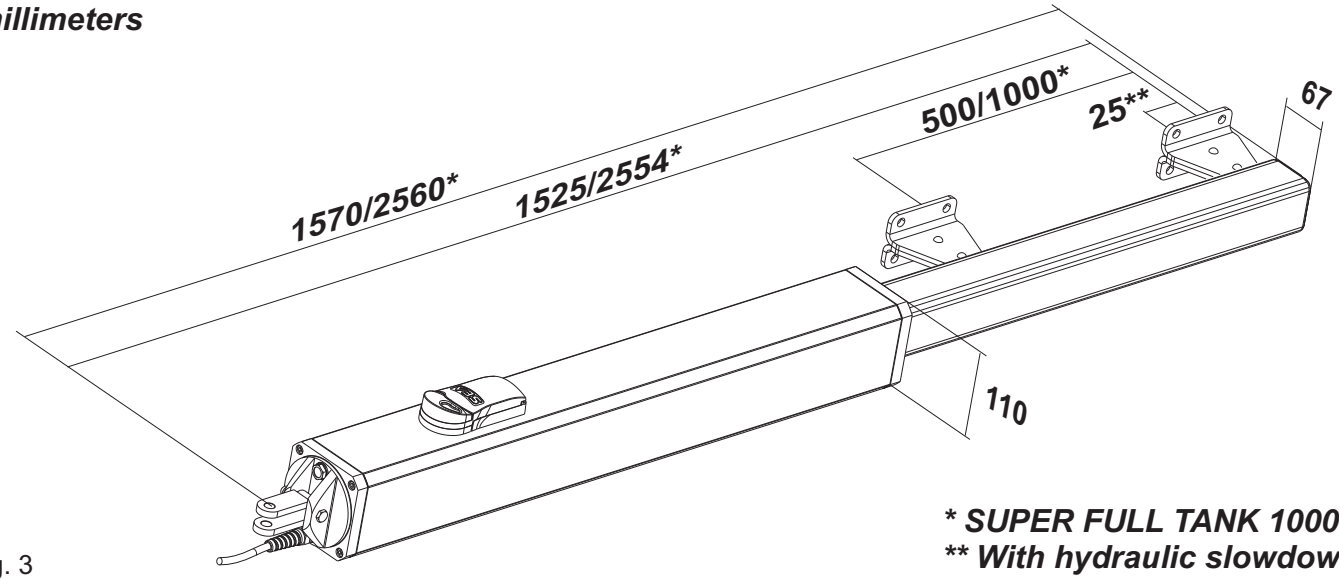
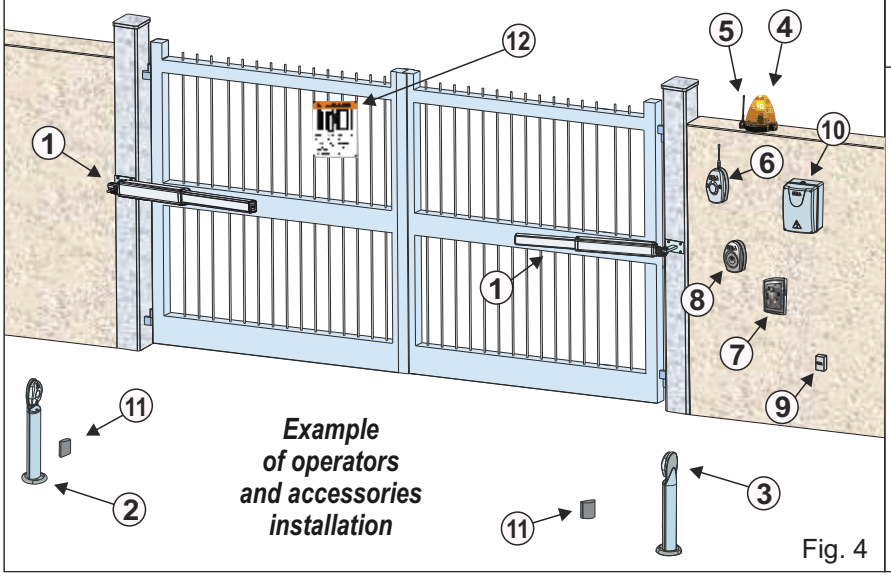



Fig. 3

** SUPER FULL TANK 1000*
*** With hydraulic slowdown*

## ELECTRIC WIRINGS




*Example of operators and accessories installation*

Fig. 4

**RECOMMENDED CABLES NUMBER AND SECTION FOR WIRINGS ON CONTROL UNIT**

| | |
|---|---|
| 1) OPERATORS | 4 x 1,5 |
| 2) PHOTOCELL TX | 2 x 0,5 |
| 3) PHOTOCELL RX | 4 x 0,5 |
| 4) FLASHING LAMP | 2 x 0,5 |
| 5) ANTENNA | 1 x RG58 |
| 6) EXTERNAL RECEIVER | 4 x 0,5 |
| 7) KEYPAD | 4 x 0,5 |
| 8) KEY-BUTTON | 4 x 0,5 |
| 9) DIFFERENTIAL 16A/30MA | 3 x 1,5* |
| 10) CONTROL UNIT BOX | |
| 11) MECHANICAL STOPS | |
| 12) WARNING SIGNS | |

** Increase the cable section in case of high distance from the control unit*

| TECHNICAL FEATURES | SUPER FULL TANK 500 G4T | SUPER FULL TANK 500 G6T | SUPER FULL TANK 500 SP * |
|---|---|---|---|
| POWER SUPPLY | THREE PHASE 230V (±5%) 50/60 Hz | | - |
| POWER | 500 W | | - |
| ABSORBED CURRENT | 2,6 A | | - |
| STROKE | 500 mm | | |
| SHAFT SPEED | 2,4 cm/s | 3,4 cm/s | 2,4 cm/s |
| CYCLES PER HOUR *(T = 20°C)* | 70 | | |
| MAX WORKING PRESSURE | 120 bar | 90 bar | 80 bar |
| OPERATING TEMPERATURES | -20°C +60°C | | |
| THERMAL PROTECTION | 130°C | | |
| MAX THRUST | 3300 daN | 2500 daN | 2200 daN |
| OPERATOR WEIGHT | 18 Kg | | 13 Kg |
| PROTECTION CLASS | IP55 | | |
| MAX LEAF LENGTH | 9 m | | 8 m |
| LEAF OPENING DEGREES | 90° / 125° | | |

** In combination with the hydraulic unit code 12001055*

| TECHNICAL FEATURES | SUPER FULL TANK 500 G6T 380V | SUPER FULL TANK 500 G6T 120V | SUPER FULL TANK 1000 G4T 230V |
|---|---|---|---|
| POWER SUPPLY | 400V (±5%) 50/60 Hz THREE PHASE | 120V (±5%) 50/60 Hz THREE PHASE | 230V (±5%) 50/60 Hz THREE PHASE |
| POWER | 500 W | 540W | 500 W |
| ABSORBED CURRENT | 1,5 A | 5 A | 2,6 A |
| STROKE | 500 mm | | 1000 mm |
| SHAFT SPEED | 3,4 cm/s | 3,6 cm/s | 2,4 cm/s |
| CYCLES PER HOUR *(T = 20°C)* | 70 | 40 | 70 |
| MAX WORKING PRESSURE | 100 bar | 70 bar | 120 bar |
| OPERATING TEMPERATURES | -20°C +60°C | | |
| THERMAL PROTECTION | 130°C | | |
| MAX THRUST | 2800 daN | 2000 daN | 3300 daN |
| CAPACITOR | - | 60 µF | - |
| OPERATOR WEIGHT | 18 Kg | | 31 Kg |
| PROTECTION CLASS | Ip55 | | |
| MAX LEAF LENGTH | 9 m | | 12 m |
| LEAF OPENING DEGREES | 90° / 125° | | |

➡ *The frequency of use is valid only for the first operating hour and 20°C room temperature*

➡ *If the operating logic is «non-automatic», use operators without lock*

# INWARD INSTALLATION

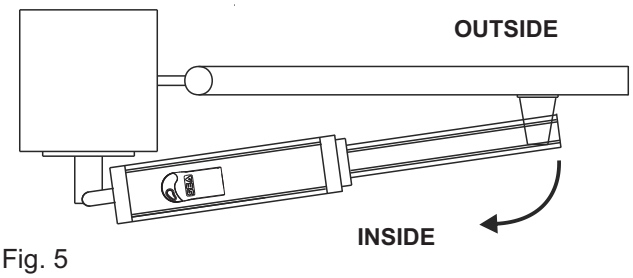



Fig. 5

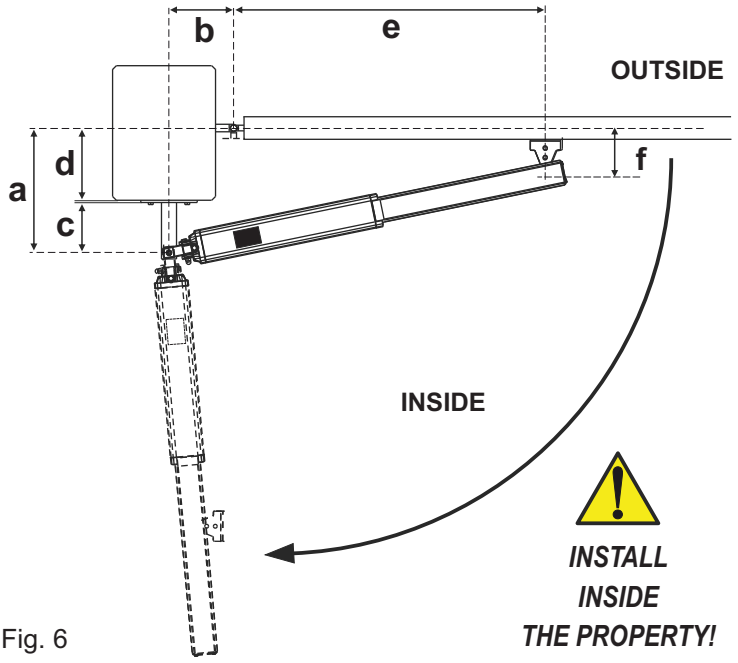



Fig. 6

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

** The «c» dimension refers to the position of the rear bracket intermediate hole. The other two holes are placed respectively at the «$c_1$» and «$c_2$» quotas: 83 mm and 143 mm

*** The «c» dimension refers to the position of a hole of the rear bracket. The other three holes are placed respectively at the «$c_1$», «$c_2$» and «$c_3$» quotas: 73 mm, 133 mm e 163 mm

**SUPER FULL TANK 500**

TOTAL STROKE 500 mm - MAX. RECOMMENDED STROKE 480 mm

| a (mm) | b (mm) | c ** (mm) | d max (mm) | e (mm) | f * (mm) | MAX. OPENING ANGLE | MAX. STROKE (mm) | MAX. STROKE FOR 90° (mm) |
|---|---|---|---|---|---|---|---|---|
| 220 | 205 | 113 | 107 | 1319 | 161 | 110° | 480 | 425 |
| 260 | 215 | 113 | 147 | 1307 | 161 | 90° | 480 | 480 |
| 225 | 200 | 113 | 112 | 1324 | 161 | 110° | 480 | 425 |
| 265 | 210 | 113 | 152 | 1312 | 161 | 90° | 480 | 480 |
| 240 | 195 | 113 | 127 | 1328 | 161 | 105° | 480 | 435 |
| 280 | 195 | 113 | 167 | 1325 | 161 | 90° | 480 | 480 |
| 285 | 190 | 113 | 172 | 1330 | 161 | 90° | 480 | 480 |
| 260 | 185 | 113 | 147 | 1337 | 161 | 102° | 480 | 450 |
| 300 | 170 | 113 | 187 | 1348 | 161 | 90° | 480 | 480 |
| 265 | 180 | 113 | 152 | 1341 | 161 | 102° | 480 | 450 |
| 305 | 165 | 113 | 192 | 1353 | 161 | 90° | 480 | 480 |
| 310 | 160 | 113 | 197 | 1358 | 161 | 90° | 480 | 480 |
| 280 | 170 | 113 | 167 | 1350 | 161 | 100° | 480 | 455 |
| 320 | 150 | 113 | 207 | 1367 | 161 | 90° | 480 | 480 |
| 330 | 140 | 113 | 217 | 1375 | 161 | 90° | 480 | 480 |
| 340 | 130 | 113 | 227 | 1384 | 161 | 90° | 480 | 480 |

**SUPER FULL TANK 1000**

TOTAL STROKE 1000 mm - MAX. RECOMMENDED STROKE 980 mm

| a (mm) | b (mm) | c *** (mm) | d max (mm) | e (mm) | f * (mm) | MAX. OPENING ANGLE | MAX. STROKE (mm) | MAX. STROKE FOR 90° (mm) |
|---|---|---|---|---|---|---|---|---|
| 553 | 160 | 103 | 450 | 2364 | 161 | 95° | 756 | 745 |
| 553 | 190 | 103 | 450 | 2334 | 161 | 95° | 788 | 773 |
| 553 | 210 | 103 | 450 | 2314 | 161 | 95° | 810 | 793 |
| 403 | 240 | 103 | 300 | 2303 | 161 | 100° | 690 | 653 |
| 403 | 270 | 103 | 300 | 2273 | 161 | 110° | 752 | 682 |
| 403 | 300 | 103 | 300 | 2243 | 161 | 115° | 803 | 710 |
| 353 | 300 | 103 | 250 | 2247 | 161 | 115° | 754 | 655 |
| 353 | 330 | 103 | 250 | 2217 | 161 | 120° | 807 | 683 |
| 353 | 360 | 103 | 250 | 2187 | 161 | 120° | 853 | 710 |
| 303 | 360 | 103 | 200 | 2191 | 161 | 125° | 818 | 657 |

## INSTALLATION ON MASONRY PILLARS, BY MAKING A RECESS

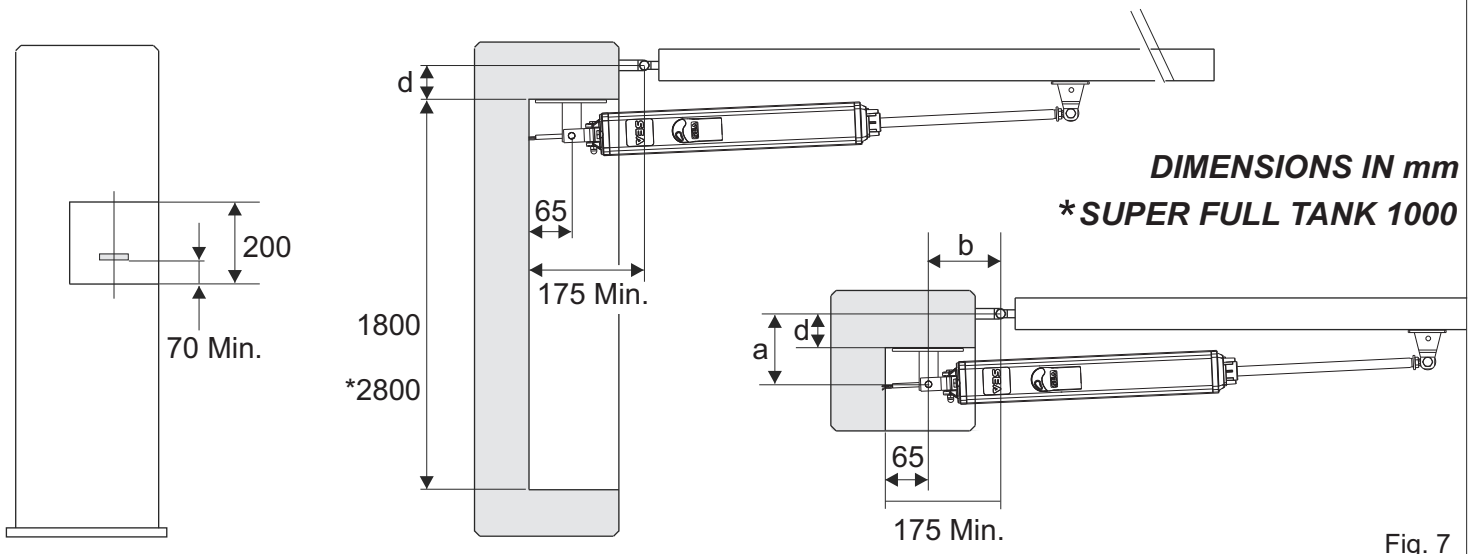



Fig. 7

➡ ***In case you need to make a recess, observe the shown dimensions***

➡ ***Make sure that the connection cable do not tangle in the recess during installation***

## SUPER FULL TANK SP - VERSION WITH SEPARATE HYDRAULIC UNIT

***DIMENSIONS IN mm***

**** SUPER FULL TANK 1000***

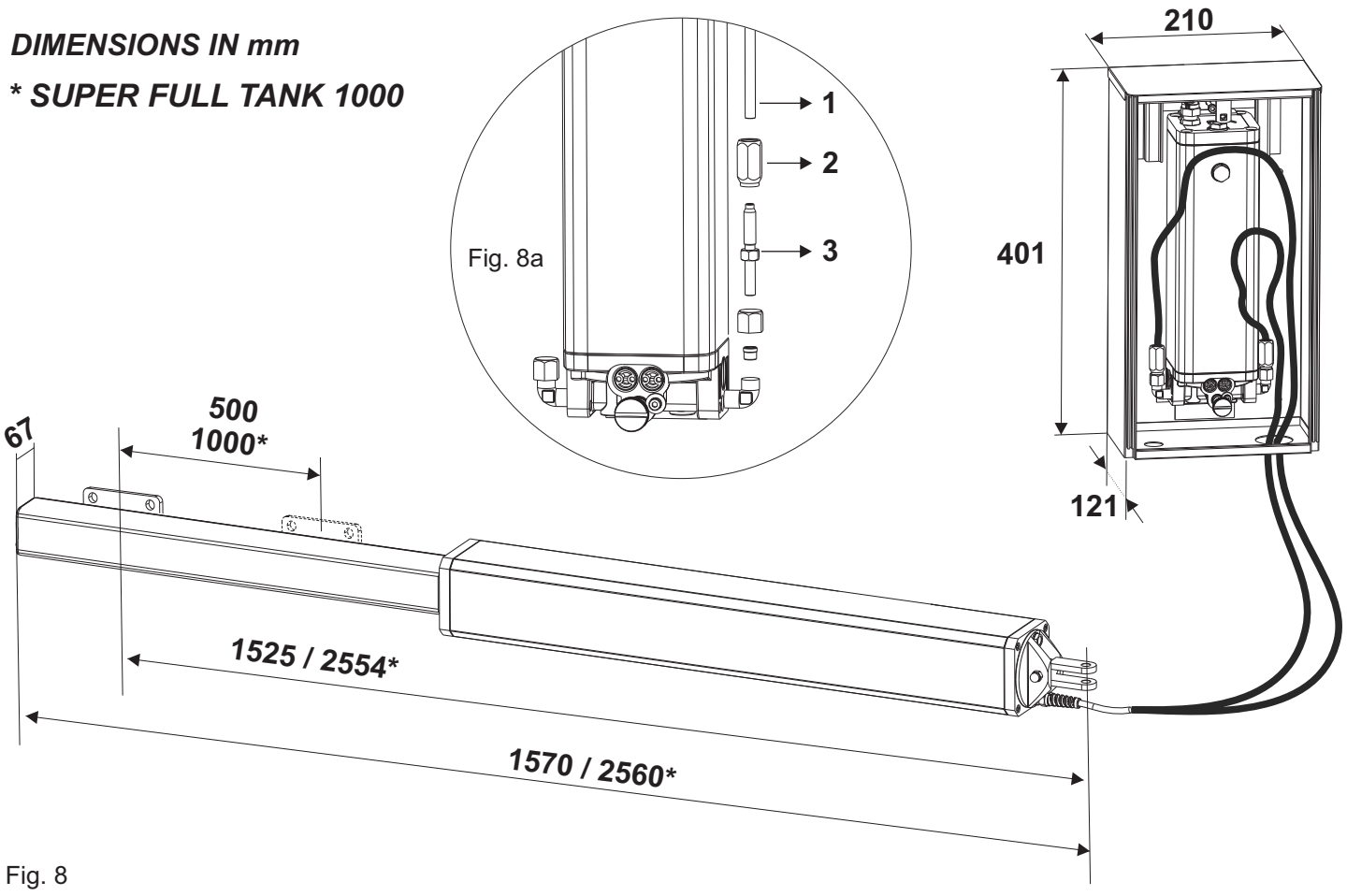



Fig. 8

## ASSEMBLY OF THE CONNECTOR ON THE FLEXIBLE PIPE (Fig. 8a)

- Cut the flexible pipe **(1)** to the desired size
- Screw the item **(2)** on the flexible pipe **(1)**
- Insert the item **(3)** and screw it on the items **(1)** and **(2)**

## INSTALLATION - PRELIMINARY NOTES

- Open the package carefully, making sure to not loose the parts listed in Fig. 1
- For a proper operation, it is important to place as the operator as the front and rear brackets in a perfectly horizontal position with the help of a level, as shown in Fig. 9

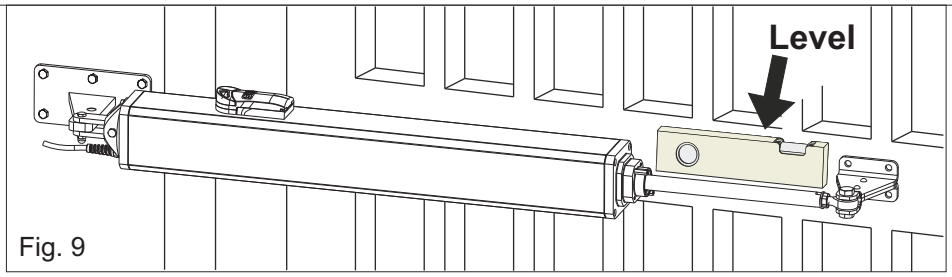


Fig. 9

## REAR BRACKET INSTALLATION

- Cut the bracket according to the « **a** » dimension shown on ***page 16***
- Place the bracket on the gate so that the operator is perfectly horizontal, then screw and weld to the gate as shown in Fig. 10

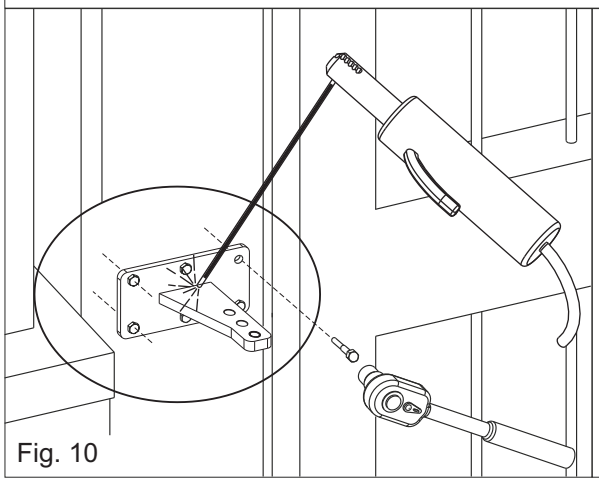


Fig. 10

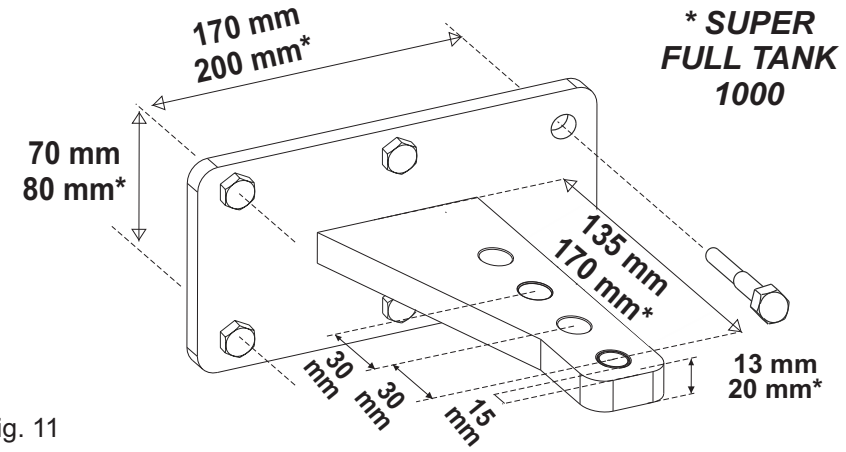


Fig. 11

## INSTALLATION OF THE SWING FORK ON THE REAR BRACKET

- Place the swing fork on the rear bracket as shown in Fig. 12;
- Insert the short brass pin between the fork and the bracket using only manual pressure (Fig. 12)
- Secure the pin with the nut (Fig. 12)

***KEEP THE OPERATOR IN A HORIZONTAL POSITION DURING THE OPERATION.***
***DO NOT TILT THE OPERATOR TO AVOID THE RISK OF BREAKING THE SWING FORK!***

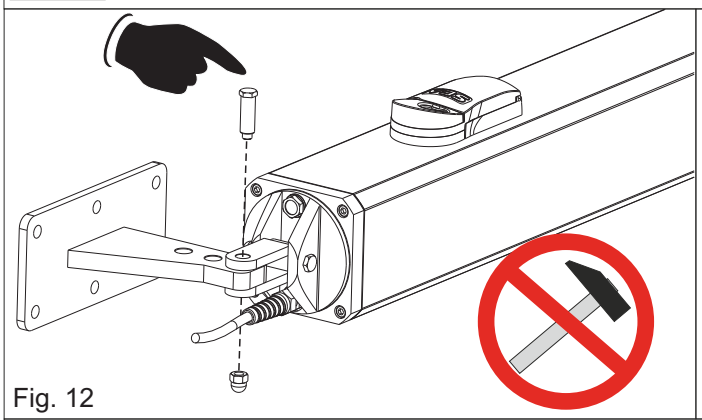


Fig. 12

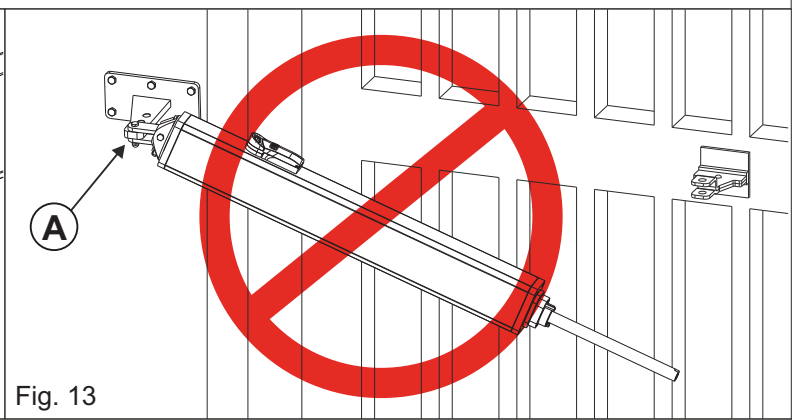


Fig. 13

***DO NOT tilt the operator further than the swing fork allowed angle «A» (Fig. 13)***
***DO NOT use the hammer to insert the short brass pin***

## FRONT BRACKET INSTALLATION

Once the operator has been fixed on the rear bracket, **close the leaf** and proceed as follows:

- Unlock the operator (release procedure on Fig. 32 and Fig. 33)
- Pull out completely the chrome shaft, **then bring it back about 1 cm**
- Place the front bracket on the gate and place the shaft in the housing (Fig. 14)
- With the help of a level (Fig. 14), **make sure that the operator is in a perfectly horizontal position** then mark the front bracket and the holes position (Fig. 15)

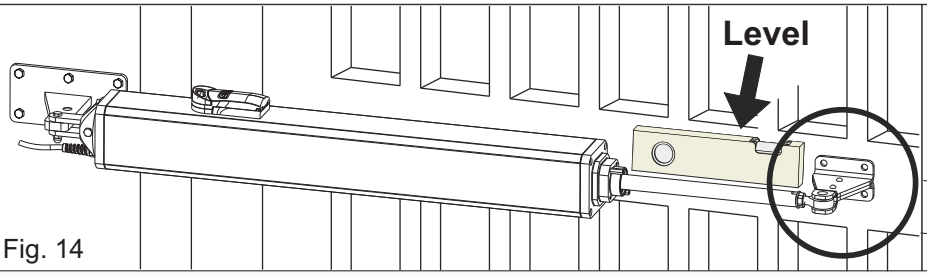


Fig. 14

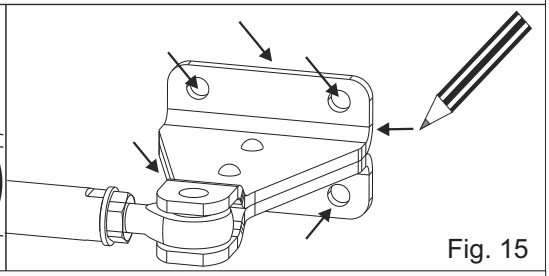


Fig. 15

**DEPENDING ON THE GATE MATERIAL (WOOD, IRON O ALUMINUM)**
**THE FRONT BRACKET CAN BE SCREWED OR WELDED**

### SCREWED FRONT BRACKET

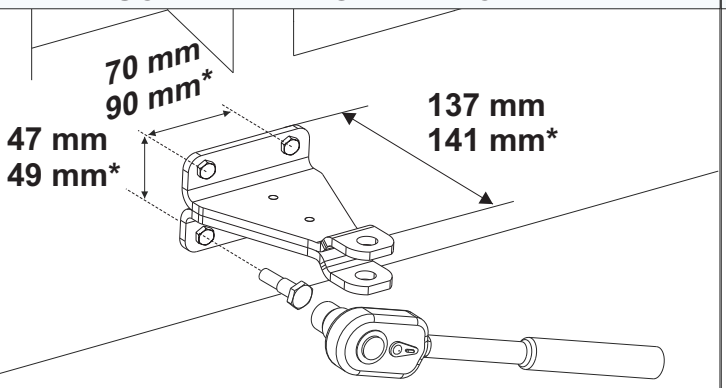


Fig. 16

*** SUPER FULL TANK 1000**

### WELDED FRONT BRACKET

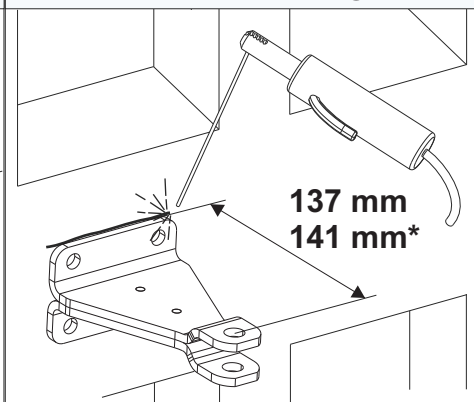


Fig. 17

**DO NOT WELD WITH THE SHAFT ALREADY INSERTED!**

*** SUPER FULL TANK 1000**

## INSTALLATION OF THE OPERATOR ON THE FRONT BRACKET

- Place the operator shaft in the housing of the front bracket (Fig. 18)
- Secure the shaft to the front bracket by tightening the screw (Fig. 19)

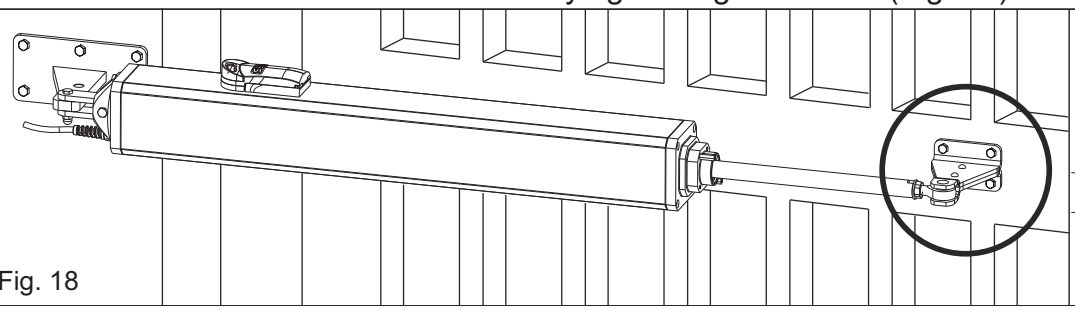


Fig. 18

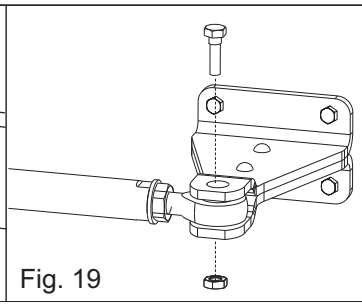


Fig. 19

## INSTALLATION OF THE CHROME PLATED SHAFT COVER

**INSERT THE SHAFT COVER AFTER THE INSTALLATION ON THE GATE**

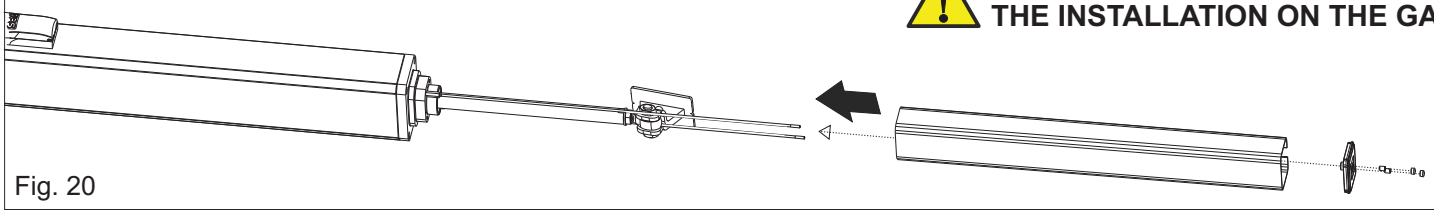
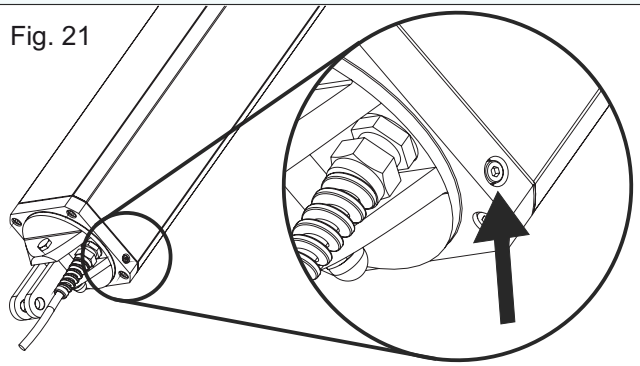


Fig. 20

## BREATHER SCREW REMOVAL

Fig. 21



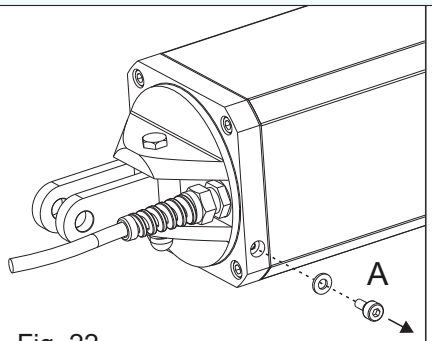



Fig. 22

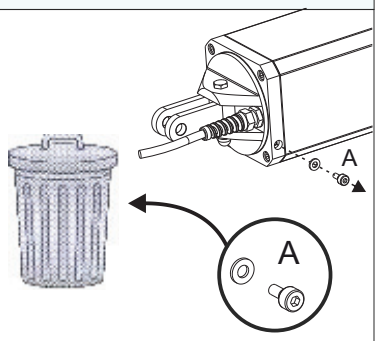



Fig. 23

- Unscrew the **«A»** screw as shown in Fig. 22 and throw it away (Fig. 23)

***IT IS MANDATORY to remove the breather screw at the end of the installation!***

## TORQUE ADJUSTMENT THROUGH THE BY-PASS VALVES

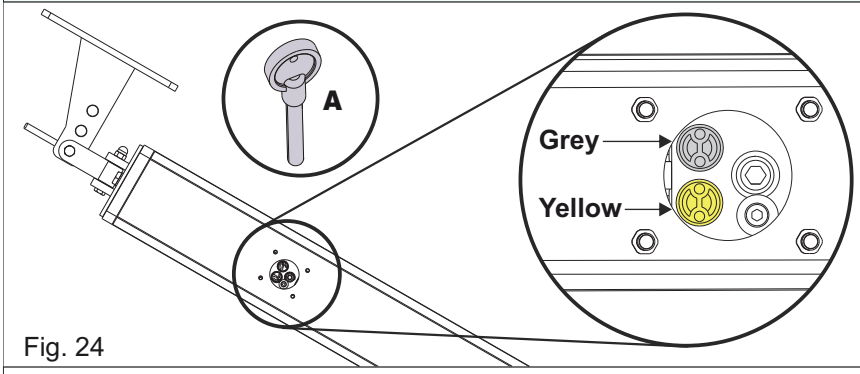



Fig. 24

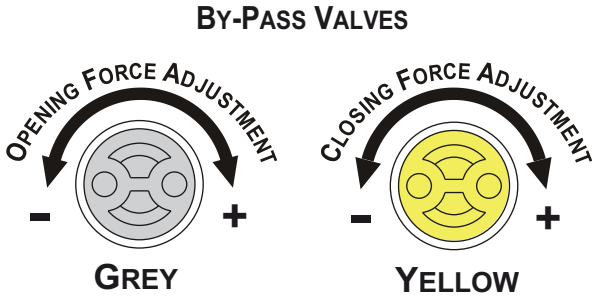



Fig. 25

- Adjust the gate opening and closing force in order to respect the force diagram as per EN12453; however, the thrust force must never exceed 15 KgF
- The valves must be adjusted in parallel; calibration differences between opening and closing valves can cause malfunctions. ***(i.e. if you adjust the grey valve by half a turn, then the yellow valve must be adjusted in the same way)***

## MANUAL RELEASE SYSTEM

Fig. 26

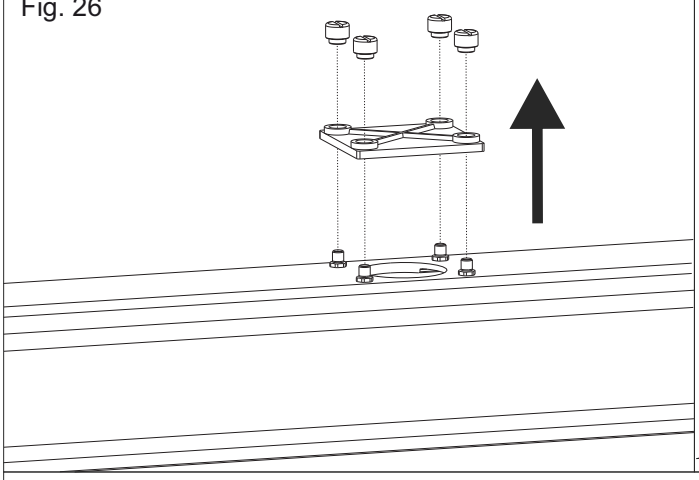
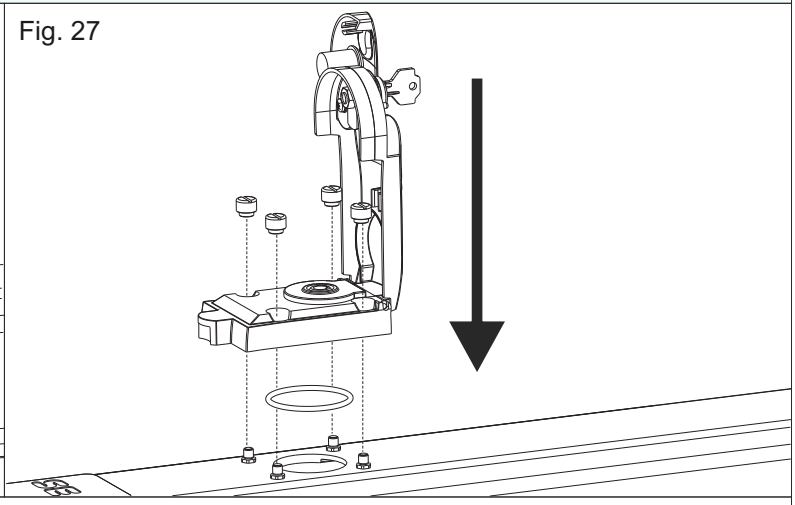


Fig. 27



- Unscrew and remove the protective plate (Fig. 26)
- Mount the release system as shown in Fig. 27

## OIL LEVEL CHECKING AND REFILL

Fig. 28

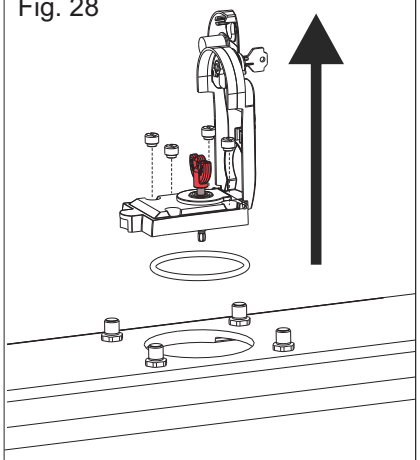


Fig. 29

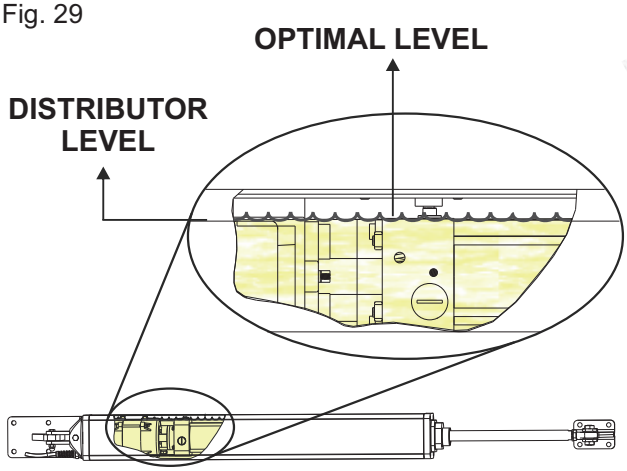
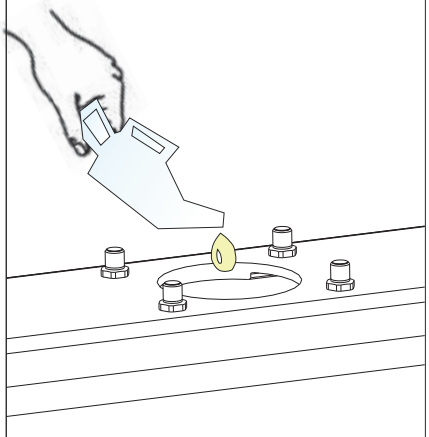



Fig. 30



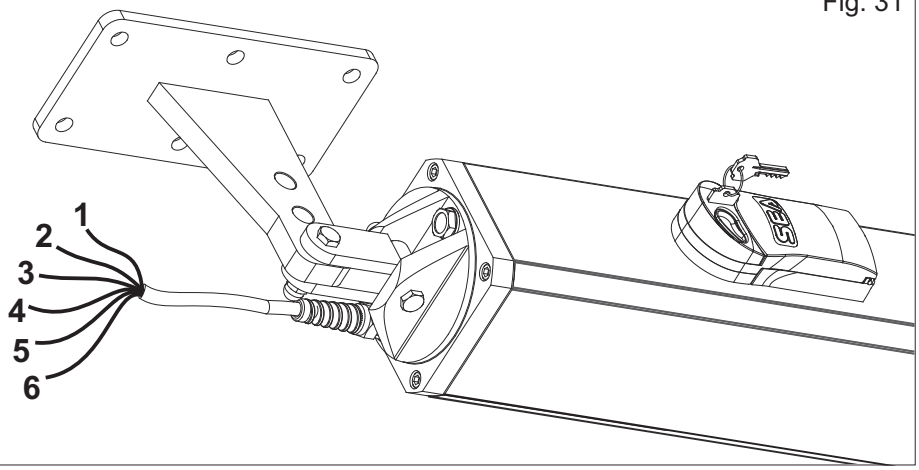
- Unscrew and lift the release system (Fig. 28)
- Check the oil level; the oil level is optimal when it coincides with the inside distributor level (Fig. 29)
- If the oil level is below the distributor surface, refill the oil (Fig. 30)

***Be sure that the operator is in <u>horizontal position</u> and that <u>the shaft is fully inserted</u> before the oil check or the refill***

## SUPER FULL TANK THREE PHASE - THREE PHASE CABLE CONNECTIONS

**1 = PHASE 1 (U)**
**2 = PHASE 2 (V)**
**3 = PHASE 3 (W)**
**4 = MOTOR HEATING DETECTOR CONTACT (NC)**
**5 = MOTOR HEATING DETECTOR CONTACT (NC)**
**6 = GROUND - *YELLOW/GREEN* (GV)**

Fig. 31



# PART FOR BOTH INSTALLER AND END-USER

## RELEASE SYSTEM

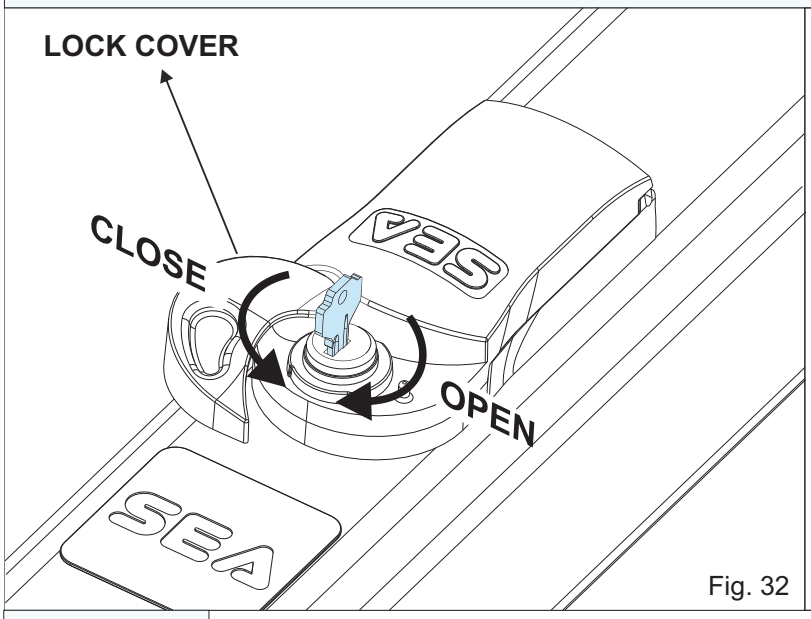


Fig. 32

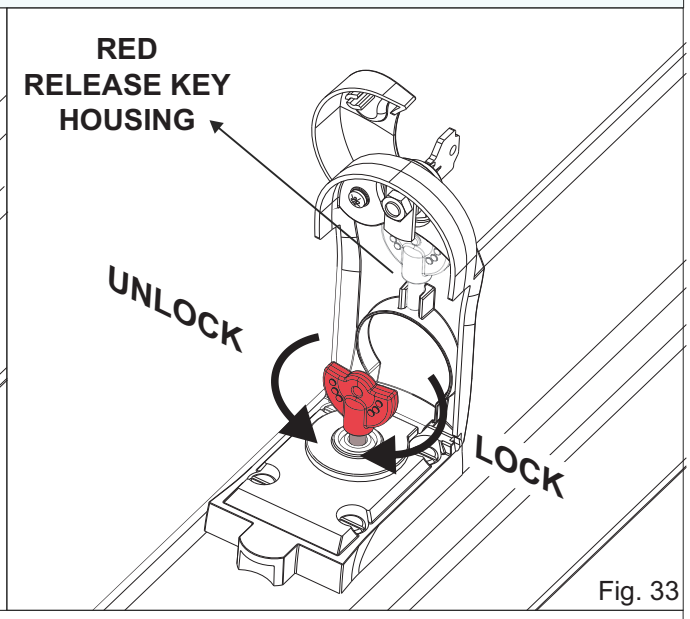


Fig. 33

### TO UNLOCK

- Open the lock cover, insert the key and turn about 90° clockwise (Fig. 32)
- Open the lid and keep the red key in the special housing under the lid
- Insert the red release key and turn about 90° anti-clockwise (Fig. 33)

### TO LOCK

- Turn the red key clockwise until it stops, remove and pull it in the housing under the lid (Fig. 33)
- Close the lid and turn the lock key anti-clockwise *(do not force!)*
- Remove the lock key and close the lock cover

***CAUTION! SWITCH-OFF THE POWER SUPPLY BEFORE TO LOCK OR UNLOCK THE OPERATOR!***
***IN CASE OF MALFUNCTION, ALWAYS CONTACT AN AUTHORIZED INSTALLER!***

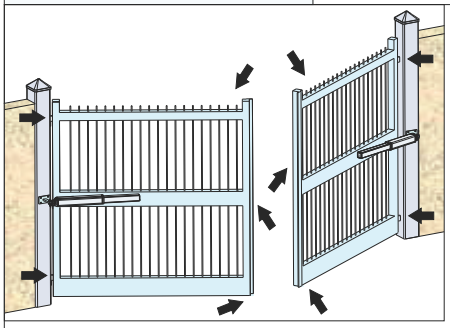
### PERIODIC MAINTENANCE

| | |
|---|---|
| Check the robustness and the stability of the gate, particularly the leaning and the rotation points of the gate (hinges) | **ANNUAL** |
| Check the oil level | **ANNUAL** |
| Replace the hydraulic oil with the oil recommended by the producer | **4 YEARS** |
| Check the correct operation of the release system | **ANNUAL** |
| Check the correct operation of the by-pass valves | **ANNUAL** |
| Check and grease the fixation pivots | **ANNUAL** |
| Check the integrity of the electric cables | **ANNUAL** |
| Check the correct operation and the conditions of the parts subject to strain *(rear and front brackets, swing fork)* | **ANNUAL** |
| Check the correct operation and the conditions of all accessories, especially the safety devices | **ANNUAL** |
| Lubricate the shaft with SEA grease ***(GREASE GL 00 code 65000009)*** | **ANNUAL** |
| *After the maintenance, it is necessary to repeat the automation testing and commissioning* | |

***ALL OPERATIONS MUST BE CARRIED OUT EXCLUSIVELY BY AN AUTHORIZED INSTALLER!***

# PART FOR BOTH INSTALLER AND END-USER

## GENERAL NOTICE



**RISK EXAMINATION:** The points pointed by arrows are potentially dangerous. The installer must take a thorough risk examination to prevent crushing, conveying, cutting, grappling, trapping so as to guarantee a safe installation for people, things and animals (Re. Laws in force in the Country where installation has been made). As for misunderstandings that may arise refer to your 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 products must only be used to automate doors, gates and wings. Any initiative taken without SEA explicit authorization will preserve the manufacturer from whatsoever responsibility. The installer shall provide warning notices on not assessable further risks. SEA in its relentless aim to improve the products, is allowed to make whatsoever adjustment without giving notice. This doesn't oblige SEA to upgrade the past production. SEA can not be deemed responsible for any damage or accident caused by product breaking, being damages or accidents due to a failure to comply with the instructions herein. The guarantee will be void and the manufacturer responsibility will be nullified if SEA original spare parts are not being used. The electrical 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 TEST AND STARTING OF THE AUTOMATION:** After having completed the necessary operations for a correct installation of the product and after having evaluated all the risks which could arise in any installation, **it is necessary to test the automation to guarantee the maximum safety and to guarantee that the Laws in force are fully respected**. The first Start must be executed according to the rule **EN 12445** which establishes the methods of tests for checking the gate automation respecting the limits established by the rule **EN 12453**

**SAFETY PRECAUTIONS:** All electrical works should comply with the current regulations. A 16A/0,030 differential switch must be used. Separate the source cables (operators, power supply) and command cables (photocells, push-buttons, etc). Be sure the entire system is properly grounded. Always run cables in separate ducts to prevent interferences

**INTENDED USE:** The operator has been designed to be used for the automation of swing gates only

**SPARE PARTS:** Send request for spare parts to: ***SEA S.p.A. - Teramo - ITALY - www.seateam.com***

**SAFETY AND ENVIRONMENTAL COMPATIBILITY:** Don't waste product packing materials and/or circuits

**STORAGE:** T = -30°C/+60°C ; Humidity = min. 5% / max. 90% (without condensation); Materials must be properly packaged, handled with care and with appropriate vehicles

**WARRANTY LIMITS** - see the sales conditions

**MAINTENANCE AND DECOMMISSION:** must only be carried out by specialized and authorized personnel

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

*SEA S.p.A. reserves the right to make any required modification or change to the products and/or to this manual without any advanced notice obligation.*

**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 comply with Directives: Machine Regulation 2006/42/CE and following adjustments, Low Tension (2006/95/CE), Electromagnetic Consistency (2004/108/CE); Installation must respect Directives: EN12453 and EN12445.

**5.** Do not install the equipment in an explosive atmosphere.

**6.** SEA 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 grounding system is perfectly constructed, and connect to it the metal parts of the gate

**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 declines all liability concerning the automated system safety and efficiency, if components used are not produced by SEA

**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 the system 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. The 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 safety low voltage (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm