

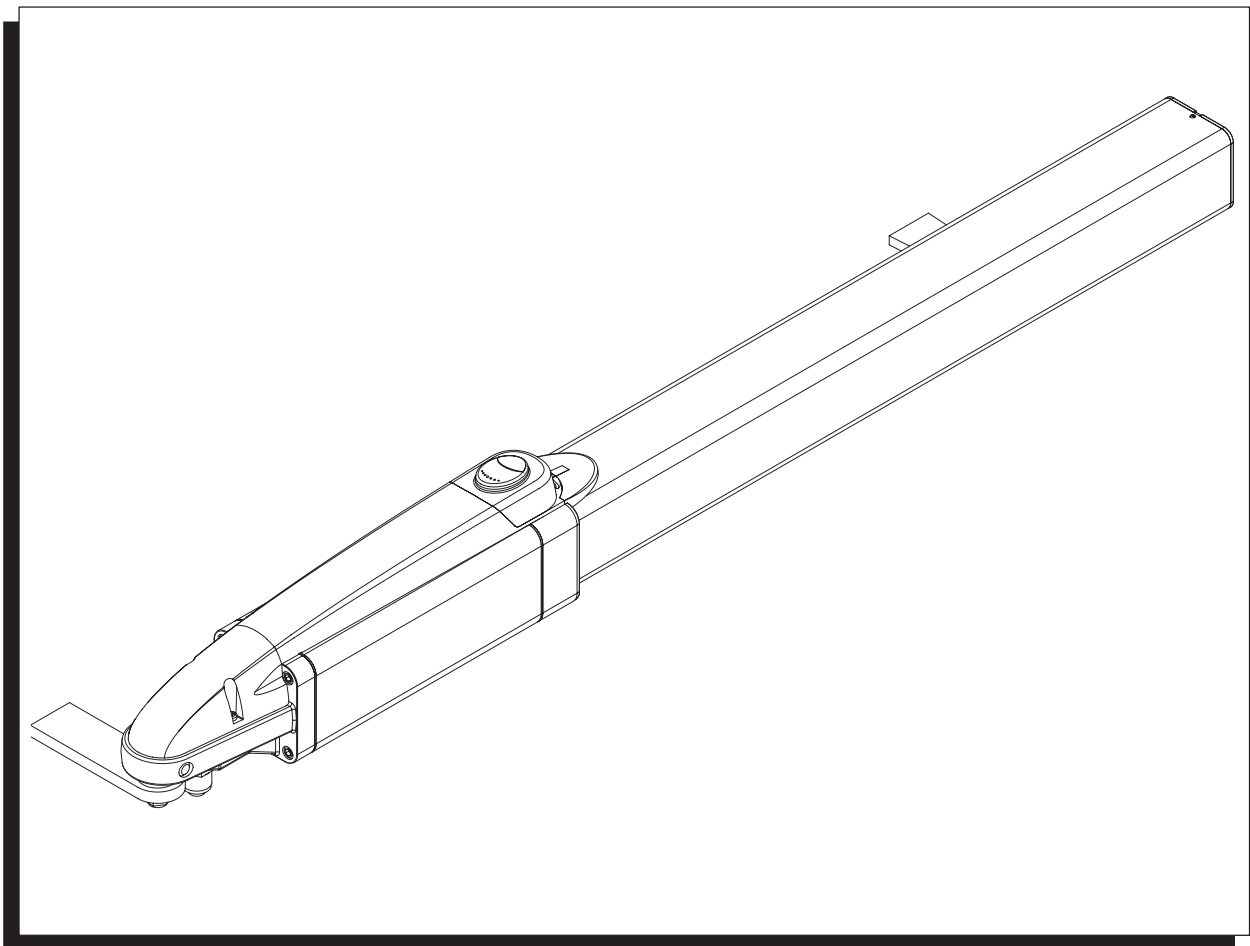
APRICANCELLO OLEDINAMICO  
HYDRAULIC GATE OPERATOR  
ÖLDYNAMISCHER TORÖFFNER  
VÉRIN HYDRAULIQUE  
ABREGANCELAS OLEODINÁMICO  
OLEODYNAMICZNY OTWIERACZ BRAM

AUTOMATISMI



# Hydro

**HD.18 AC - HD.25**  
**HD.30 - HD.30 C - HD.30 AC**



Manuale istruzioni e catalogo ricambi  
**Operating instructions and spare parts catalogue**  
*Betriebsanleitung und Ersatzteilliste*  
**Livret d'instructions et catalogue des pièces de rechange**  
Manual de instrucciones y catálogo de recambios  
**Książeczka z instrukcjami i katalog części wymiennych**



**Dichiarazione CE di conformità per macchine**  
**(Direttiva 89/392 CE, Allegato II, parte B)**  
**Divieto di messa in servizio**

Fabbricante: **Automatismi CAB S.r.l.**

Indirizzo: Via della Tecnica, 10 (z.i.) - 36010 Velo d'Astico (VI) - Italia

Dichiara che: l'automazione per cancelli a battente modello

**HD.18 AC - HD.25 - HD.30 - HD.30 C - HD.30 AC**

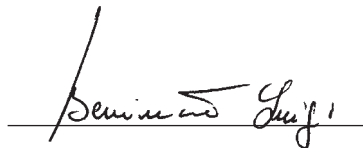
- è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costituire una macchina considerata dalla Direttiva 89/392 CE, come modificata;
- non è dunque conforme in tutti i punti alle disposizioni di questa Direttiva;
- è conforme alle condizioni delle seguenti altre Direttive CE:  
Direttiva bassa tensione 73/23/CEE, 93/68/CEE.  
Direttiva compatibilità elettromagnetica 89/336/CEE, 93/68/CEE.

e che:

- sono state applicate le seguenti (parti/clausole di) norme armonizzate:  
EN 61000-6-3, EN 61000-6-1, EN 60335-1.

e inoltre dichiara che non è consentito mettere in servizio il macchinario fino a che la macchina in cui sarà incorporato o di cui diverrà componente sia stata identificata e ne sia stata dichiarata la conformità alle condizioni della Direttiva 89/392 CE e alla legislazione nazionale che la traspone, vale a dire fino a che il macchinario di cui alla presente dichiarazione non formi un complesso unico con la macchina finale.

Benincà Luigi, Responsabile legale.  
Velo d'Astico, 01/10/2006.



**Declaration by the manufacturer**  
**(Directive 89/392/EEC, Art. 4.2 and Annex II, sub B)**  
**Divieto di messa in servizio**

Manufacturer: **Automatismi CAB S.r.l.**

Address: Via della Tecnica, 10 (z.i.) - 36010 Velo d'Astico (VI) - Italia

Herewith declares that: the operator for hinged gates model

**HD.18 AC - HD.25 - HD.30 - HD.30 C - HD.30 AC**

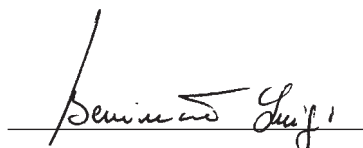
- is intended to be incorporated into machinery or to be assembled with other machinery to constitute machinery covered by Directive 89/392 EEC, as amended;
- does therefore not in every respect comply with the provisions of this Directive;
- does comply with the provisions of the following other EEC Directives:  
Direttiva bassa tensione 73/23/CEE, 93/68/CEE.  
Direttiva compatibilità elettromagnetica 89/336/CEE, 93/68/CEE.

and that:

- the following (parts/clauses of) harmonized standards have been applied:  
EN 61000-6-3, EN 61000-6-1, EN 60335-1.

and furthermore declares that it is not allowed to put the machinery into service until the machinery into which it is to be incorporated or of which it is to be a component has been found and declared to be in conformity with the provisions of Directive 89/392/EEC and with national implementing legislation, i.e. as a whole, including the machinery referred to in this declaration.

Benincà Luigi, Responsabile legale.  
Velo d'Astico, 01/10/2006.



**Tab.1 - Dati Generali - General Data - Allgemeine Daten - Données Générales - Datos Generales - Dane Ogólne**

Dati tecnici	Technical data	Technische Daten	Données technique	Datos técnicos	Dane techniczne	HD.18/25/30
Alimentazione	<b>Power supply</b>	<i>Versorgung</i>	<b>Alimentation</b>	Alimentación	Zasilanie	<b>230Vac (50Hz)</b>
Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	Silnik	<b>1400/g/min</b>
Potenza assorbita	<b>Absorbed power</b>	<i>Leistungsaufnahme</i>	<b>Puissance absorbée</b>	Potencia absorbida	Pobór mocy	<b>250 W</b>
Corrente assorbita	<b>Absorbed current</b>	<i>Stromaufnahme</i>	<b>Courant absorbé</b>	Corriente absorbida	Zużycie prądu	<b>1,2 A</b>
Spinta	<b>Thrust</b>	<i>Schub</i>	<b>Poussée</b>	Empuje	Pchnięcie	<b>3200 N (~320Kg)</b>
Pressione max	<b>Max pressure</b>	<i>Max. Druck</i>	<b>Pression max.</b>	Presión máx	Ciśnienie max	<b>30 bar</b>
Grado di protezione	<b>Protection rating</b>	<i>Schutzart</i>	<b>Indice de protection</b>	Grado de protección	Stopień ochrony	<b>IP55</b>
N° manovre consecutive	<b>N° cons.ve manoeuv.</b>	<i>N. Vorgänge hintereinan.</i>	<b>Nb de manoeuv. conséc.</b>	N° maniob. consecut.	N° kolejnych manewrów	<b>*</b>
Pompa	<b>Pump</b>	<i>Pumpe</i>	<b>Pompe</b>	Bomba	Pompa	<b>a lobi</b>
Portata pompa	<b>Pump delivery</b>	<i>Pumpenleistung</i>	<b>Débit pompe</b>	Caudal de la bomba	Natężenie przepływu pompy	<b>1 l/m</b>
Rumorosità	<b>Noise level</b>	<i>Lärm</i>	<b>Niveau sonore</b>	Nivel de ruido	Hałaśliwość	<b>&lt; 70 dB (a)</b>
Protezione termica	<b>Overload cut-out</b>	<i>Thermoschutz</i>	<b>Protection thermique</b>	Protección térmica	Ochrona termiczna	<b>150°C</b>
Temp. funzionamento	<b>Operating temp.</b>	<i>Betriebszeit</i>	<b>Temp. fonctionnement</b>	Temp. de funcion.	Temp. działania	<b>-15°C/+70°C</b>
Condensatore	<b>Condenser</b>	<i>Kondensator</i>	<b>Condensateur</b>	Condensador	Kondensator	<b>10µF</b>
Olio	<b>Oil</b>	<i>Öl</i>	<b>Huile</b>	Aceite	Olej	<b>Hydro OIL</b>

\* Uso intensivo - \* Intense use - \* Intensive Nutzung - \* Usage intensif - \* Uso intensivo - \* Użytkowanie intensywne

**Tab.2 - Scelta del modello - Model sizing - Wahl des Modells - Choix du modèle - Elección de modelo - Wybór modelu**

MODELLO MODEL MODELLS MODÈLE MODELO MODELU	Diametro stelo Ram shaft diameter Schaftdurchmesser Diamètre tige piston Diámetro del vástago Średnica trzpienia (Ø mm)	Lunghezza max anta Door leaf width Flügelänge Longueur porte Longitud hoja Dł. skrzydła (m)	Corsa utile Stroke length Nutzhub Corsa utile Carrera útil Posuw korzystny (mm)	Peso max anta Door leaf weight Türflügelgewicht Poids porte Peso hoja Ciężar skrzydła (kg)	Velocità stelo Ram speed Schaftgeschwindigkeit Vitesse tige piston Velocidad del vástago Prędkość trzpienia (cm/s)	Tipologia blocco Type of lock Verriegelungstyp Type de blocage Tipologia de bloqueo Rodzaj blokady
<b>HD.18 AC</b>	16	1,8	250	400	1,3	◁▷
<b>HD.25</b>	16	2,5	250	400	1,3	■
<b>HD.30</b>	20	3,0	270	450	1,3	■
<b>HD.30 C</b>	20	3,0*	270	450	1,3	▷
<b>HD.30 AC</b>	20	3,0*	270	450	1,3	◁▷

**Legenda - Legend - Legende - Légende - Leyenda - objaśnienia**

	Descrizione	Description	Beschreibung	Description	Descripción	Opis
■	Reversibile (Richiede elettroserratura)	Reversible (Requires electric lock)	Reversibel (Erfordert Elektroverriegelung)	Réversible (Nécessite une serrure électrique)	Reversible (Pedir electrocerradura)	Odwracalny (Wymaga zamka elektrycznego)
▷	Reversibile in apertura Irreversible in chiusura	Reversible opening One-way closing	Reversibel beim Öffnen Irreversibel beim Schließen	Réversible en ouverture Irréversible en fermeture	Reversible en apertura Irreversible en el cierre	Odwracalny w otwieraniu Nieodwracalny w zamykaniu
◁▷	Irreversible	One-way	Irreversibel	Irréversible	Irreversible	Nieodwracalny

\* N.B. Per ante di lunghezza superiore a 1,8m è comunque consigliabile l'installazione dell'elettroserratura anche nei modelli irreversibili.

\* N.B. For wings longer than 1.8m an electric lock is recommended even on one-way models.

\* NB: Für Torflügel mit einer Länge von mehr als 1,8 m empfiehlt sich auch bei irreversiblen Modellen die Installation einer Elektroverriegelung.

\* N.B. En cas de vantaux d'une longueur supérieure à 1,8 m, il est conseillé d'installer une serrure électrique également dans les modèles irréversibles.

\* N.B. En las cancelas de largo superior a 1,8 m se aconseja instalar la electrocerradura también en los modelos irreversibles.

\* Uwaga: Dla skrzydeł o długości powyżej 1,8m zaleca się instalowanie zamka elektrycznego również w modelach nieodwracalnych.

**Dimensioni d'ingombro - Overall dimensions- *Abmessungen*  
 Dimensions d'encombrement- Dimensiones exteriores- Wymiary gabarytowe**

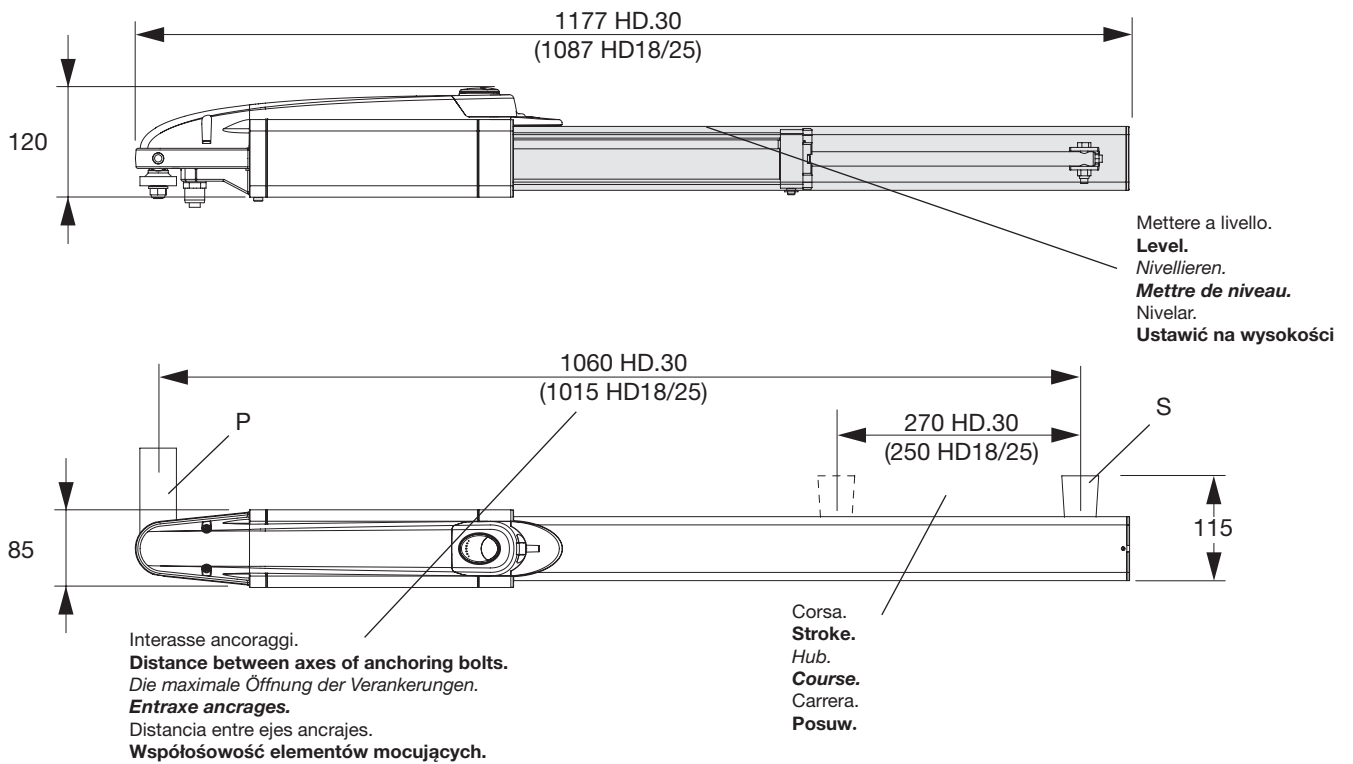


Fig.1

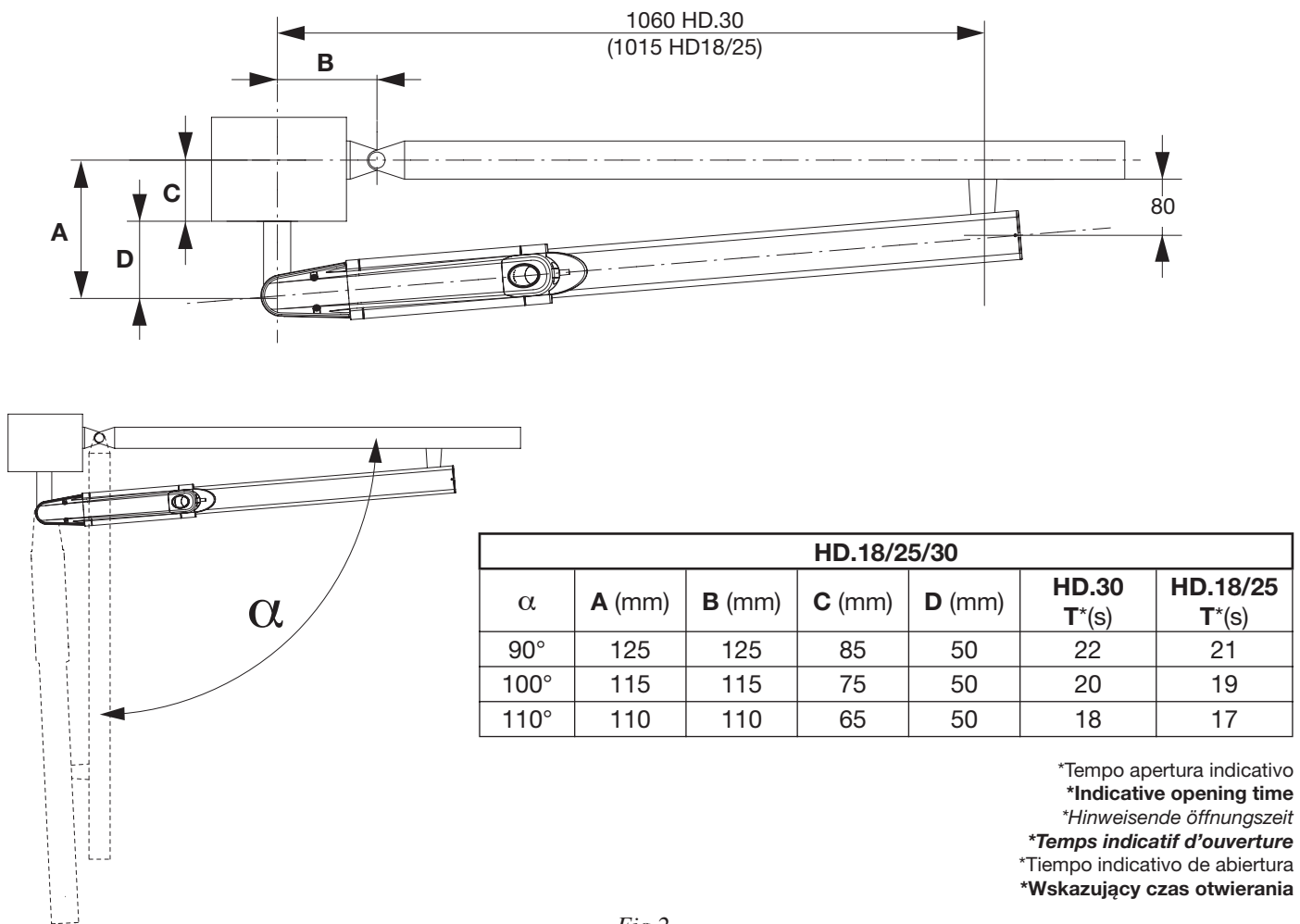
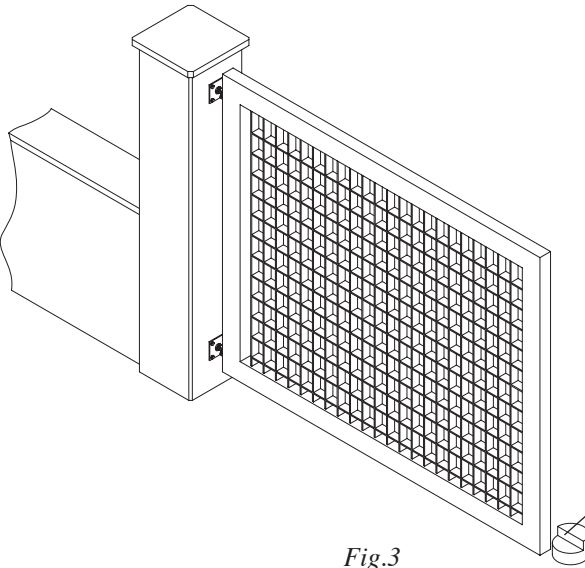


Fig.2

Arresto in apertura.  
**Stop when opening.**  
 Endanschlag zur Öffnung.  
**Arrêt en ouverture.**  
 Tope en apertura.  
**Chwytnak blokujący podczas otwierania.**



Arresto in chiusura.  
**Stop when closing.**  
 Endanschlag zur Schließung.  
**Arrêt en fermeture.**  
 Tope de cierre.  
**Chwytnak blokujący podczas zamykania.**

Fig.3

Fig.4

**IMPORTANT!** Estrarre completamente lo stelo e farlo rientrare di circa 10mm prima di fissare la staffa "S" all'anta.

**IMPORTANT!** Slide out the ram shaft completely and then back in by approx. 10mm before fastening bracket "S" to the wing.

**WICHTIG!** Den Schaft ganz ausziehen und um zirka 10 mm wieder einschieben, bevor der „S“-Bügel am Torflügel befestigt wird.

**IMPORTANT!** Extraire complètement la tige du piston et la faire rentrer d'environ 10 mm avant de fixer la patte «S» au vantail.

¡**IMPORTANTE!** Extraer completamente el vástago y volverlo a meter unos 10 mm antes de fijar el estribo "S" en la cancela.

**WAŻNE!** Wyjąć całkowicie trzpień i wpuścić go na głębokość około 10 mm jeszcze przed zamocowaniem do skrzydła zaczepu „S”.

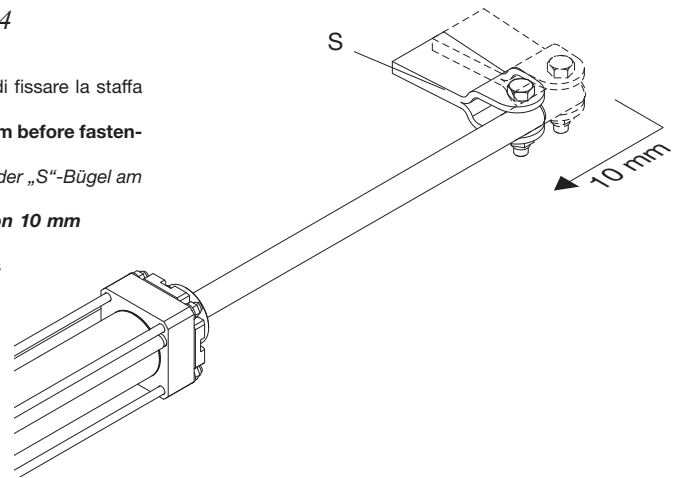
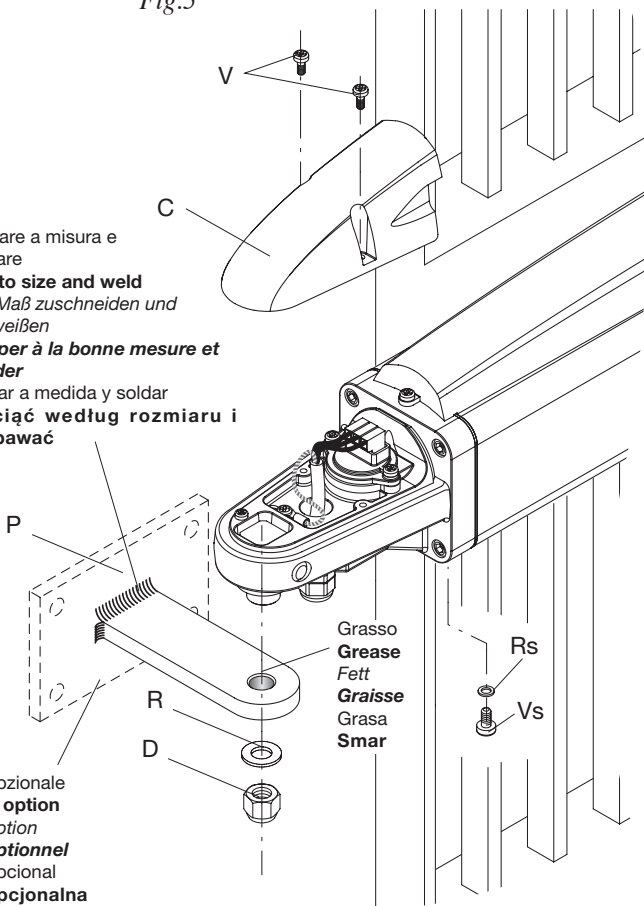


Fig.5

Tagliare a misura e saldare  
**Cut to size and weld**  
 Auf Maß zuschneiden und schweißen  
**Couper à la bonne mesure et souder**  
 Cortar a medida y soldar  
**Wyciąć według rozmiaru i zespawać**



Saldare.  
**Weld.**  
 Schweißen.  
**Souder**  
 Soldar.  
 Wkręcić  
**Zespawać.**

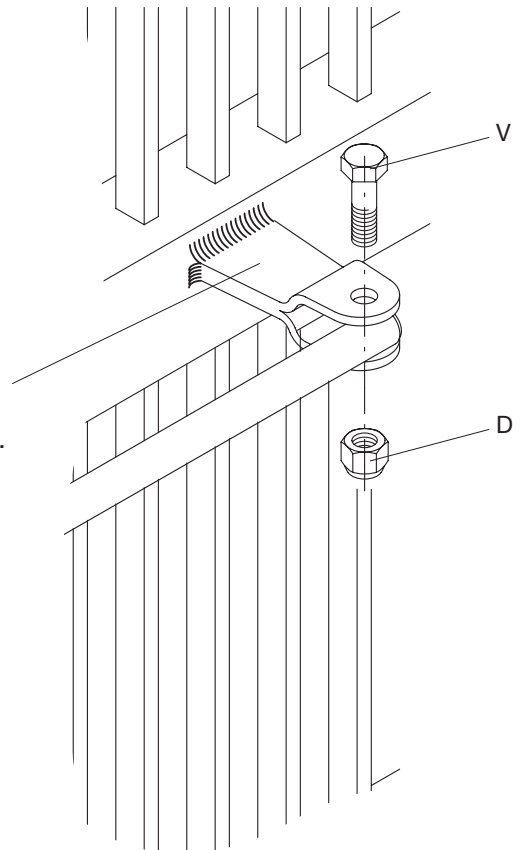


Fig.6

Aprire lo sportellino per accedere alla manopola di sblocco  
**Open the protective cover to access the release knob**  
*Die Schutzabdeckung öffnen und auf den Entriegelungsknauf zugreifen*  
**Ouvrir le couvercle pour accéder à la poignée de déblocage**  
 Abrir la puertecilla para acceder al pomo de desbloqueo  
**Otworzyć drzwiczki by mieć dostęp do pokrętła odblokowującego**

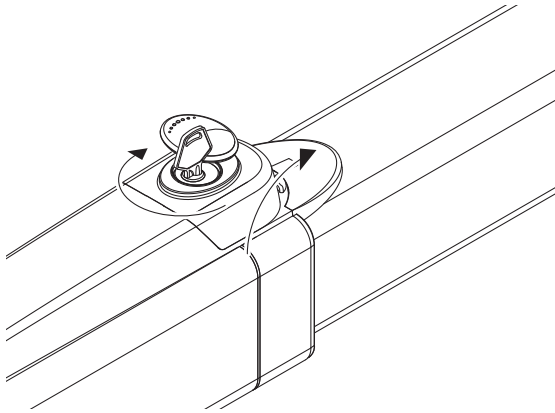


Fig.7

1: Ruotare in senso antiorario per sbloccare l'automazione e muovere manualmente l'anta  
 2: Ruotare in senso orario per ripristinare il movimento automatico  
**1: Turn anticlockwise to disengage the operator and move the wing manually**  
**2: Turn clockwise to engage the operator**  
*1: Im Gegenuhrzeigersinn drehen, um die Automatisierung zu entriegeln und das Tor von Hand zu betätigen*  
*2: Im Uhrzeigersinn drehen, um den automatischen Antrieb wieder zu aktivieren*  
**1: Tourner dans le sens inverse des aiguilles d'une montre pour débloquer l'automatisme et manœuvrer manuellement le vantail**  
**2: Tourner dans le sens des aiguilles d'une montre pour rétablir le fonctionnement automatique**  
 1: Girar en sentido contrario a las agujas del reloj para desbloquear la automatización y mover la puerta en modo manual  
 2: Girar en el sentido de las agujas del reloj para restablecer el movimiento automático  
**1: Przekręcić w kierunku antyżegarowym by odblokować automatyzm i popychać ręcznie skrzydło**  
**2: Przekręcić w kierunku zegarowym by przywrócić działanie automatyczne**

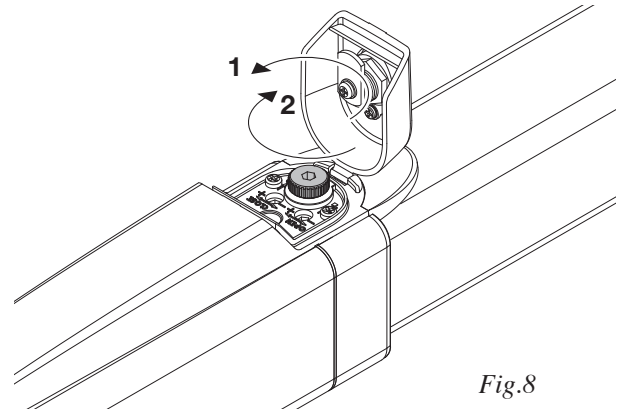


Fig.8

Regolazione forza di spinta  
**Adjustment of the thrust**  
*Einstellung der Schubkraft*  
**Réglage force de poussée**  
 Regulación de la fuerza de empuje  
**Regulacja siły popychu**

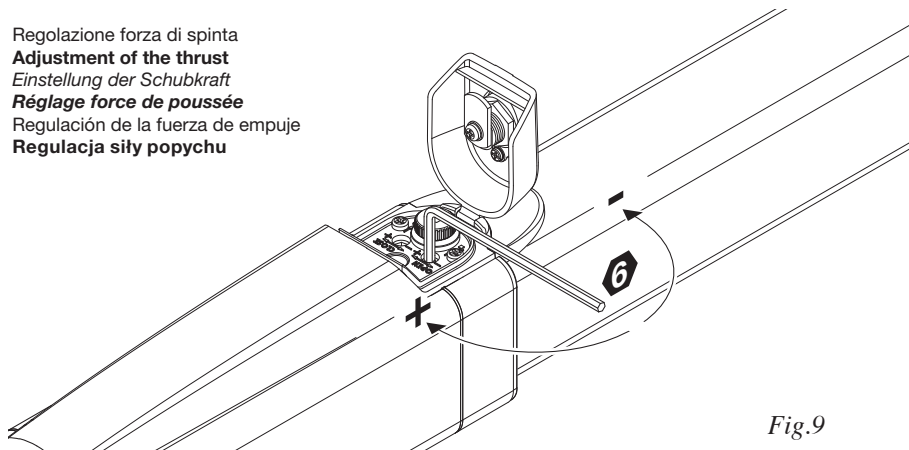
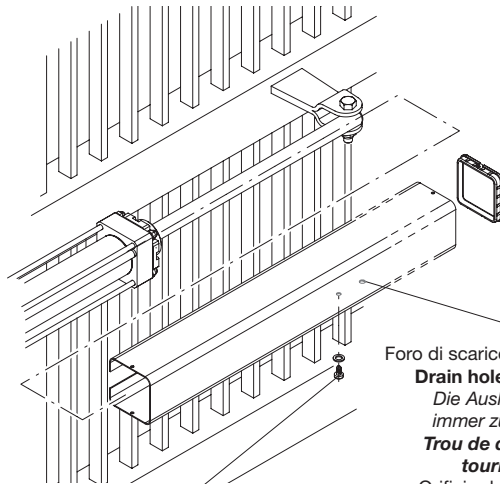


Fig.9

Anta sinistra  
**Left-hand wing**  
*Linker Flügel*  
**Vantail gauche**  
 Hoja izquierda  
**Skrzydło lewe**



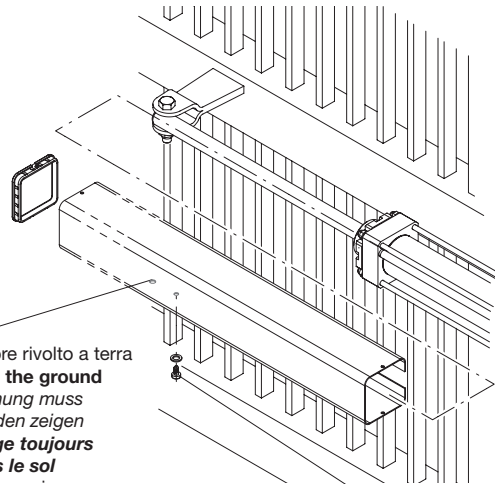
Rimuovere la vite  
**To remove the screw**  
*Die Schraube ausbauen.*  
**Enlever la vis**  
 Extraer el tornillo  
**Odkręcić śrubę**

Foro di scarico sempre rivolto a terra  
**Drain hole faces the ground**  
*Die Auslassöffnung muss immer zum Boden zeigen*  
**Trou de drainage toujours tourné vers le sol**  
 Orificio de descarga siempre orientado hacia el suelo

**Należy uważać na otwór spustowy który powinien być zawsze skierowany do ziemi.**

Fig.10

Anta destra  
**Right-hand wing**  
*Rechter Flügel*  
**Vantail droit**  
 Hoja derecha  
**Skrzydło prawe**



Rimuovere la vite  
**To remove the screw**  
*Die Schraube ausbauen*  
**Enlever la vis**  
 Extraer el tornillo  
**Odkręcić śrubę**

## Collegamenti - Connections - Kabelanschlüsse Connexions - Conexiones - Podłączenia

Marrone= marcia motore e condensatore.

**Brown= motor gear and capacitor.**

*Braun= Motorgang und Kondensator.*

**Marron= marche moteur et condensateur.**

Marrón= marcha motor y condensador.

**Brązowy = bieg silnika i praca kondensatora**

Grigio = comune.

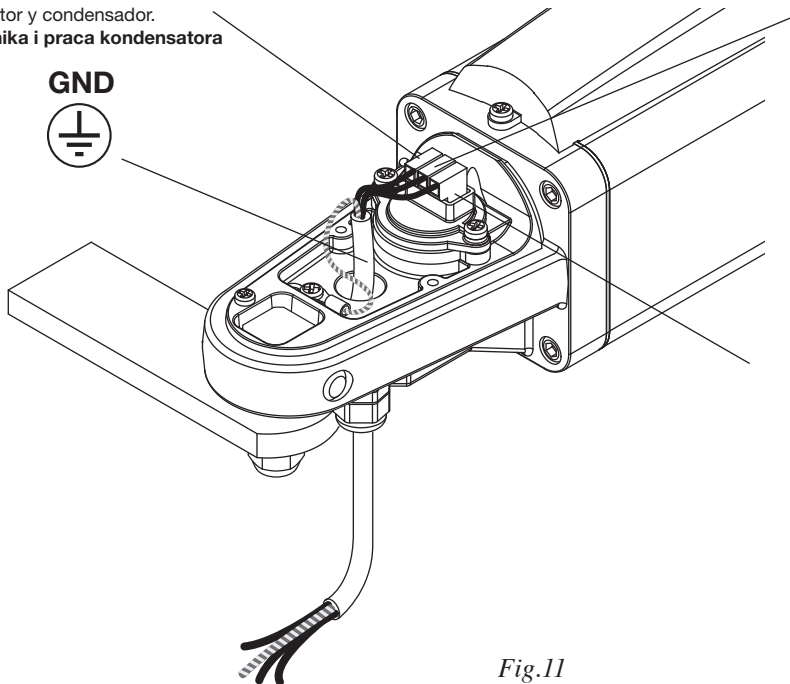
**Grey = common.**

*Grau = gemeinsamer Leiter.*

**Gris = commun.**

Gris = común.

**Szary = wspólny.**



Nero= marcia motore e condensatore.

**Black= motor gear and capacitor.**

*Schwarz= Motorgang und Kondensator.*

**Noir= marche moteur et condensateur.**

Negro= marcha motor y condensador.

**Czarny = bieg silnika i praca kondensatora**

Fig.11

## Rabbocco/sostituzione olio - Topping up/changing oil Öl auffüllen/wechseln - Remplissage/vidange huile Reposición/sustitución del aceite - Uzupełnianie/wymiana oleju

ATTENZIONE!: Prima di qualsiasi intervento togliere alimentazione di rete

**CAUTION!: Always shut-off the mains power before working on the gate**

*ACHTUNG: Vor jedem Eingriff die Netzversorgung abtrennen*

**ATTENTION!: Avant toute intervention couper l'alimentation de secteur**

¡ATENCIÓN!: Antes de cualquier intervención desconectar la alimentación de red

**UWAGA!: Przed jakąkolwiek interwencją odłączyć dopływ prądu**

Rimuovere le viti

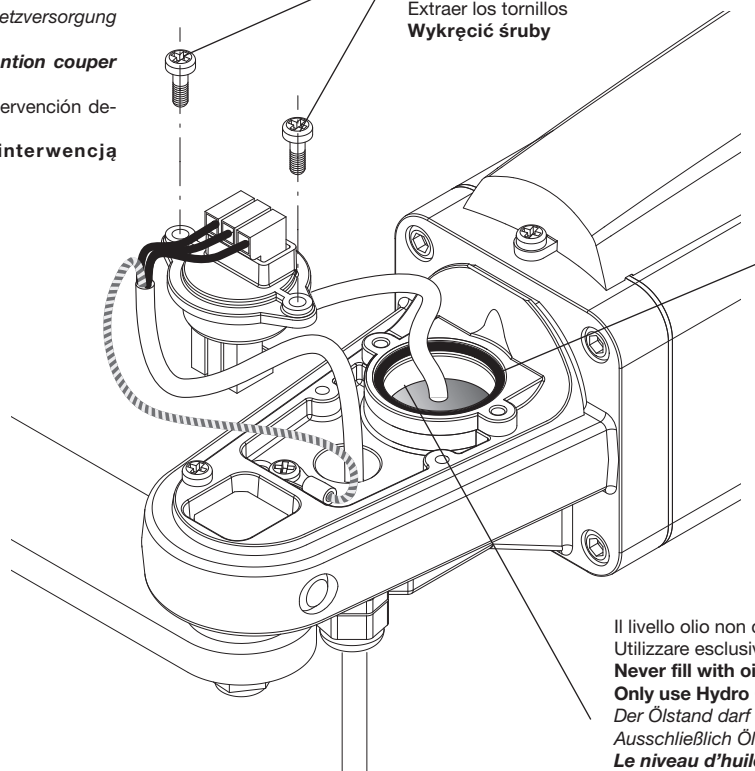
**Remove the screws**

*Die Schrauben ausbauen*

**Enlever les vis**

*Extraer los tornillos*

**Wykręcić śruby**



Verificare la tenuta della guarnizione.

**Check the gasket seal is tight.**

*Die Dichtigkeit der Dichtungen kontrollieren.*

**Vérifier que le joint assure l'étanchéité.**

Verificar la estanqueidad de la junta.

**Sprawdzić szczelność uszczelek.**

Il livello olio non deve superare questo spigolo

Utilizzare esclusivamente olio Hydro OIL

**Never fill with oil above this rim**

**Only use Hydro OIL**

*Der Ölstand darf nicht über diese Markierung hinausgehen*

*Ausschließlich Öl Hydro OIL verwenden*

**Le niveau d'huile ne doit pas dépasser cette arête**

**Utiliser exclusivement de l'huile Hydro OIL**

El nivel de aceite no superará este borde

Utilizar exclusivamente aceite Hydro OIL

**Poziom oleju nie może przekraczać powyższej krawędzi**

Fig.12



Legenda:

- 1 Motoriduttore Hydro
- 2 Fotocellule
- 3 Selettore a chiave o tastiera digitale
- 4 Lampeggiante
- 5 Antenna
- 6 Centrale di comando.
- 7 Elettroserratura

Legend:

- 1 Hydro geared motor
- 2 Photocells
- 3 Key selector or digital keyboard
- 4 Beacon
- 5 Antenna
- 6 Control unit.
- 7 Electric lock

Legende:

- 1 Hydro-Getriebemotor
- 2 Photozellen
- 3 Schlüsselwahlschalter oder Digitaltastatur
- 4 Blinkleuchte
- 5 Antenne
- 6 Steuerzentrale.
- 7 Elektroverriegelung

Légende:

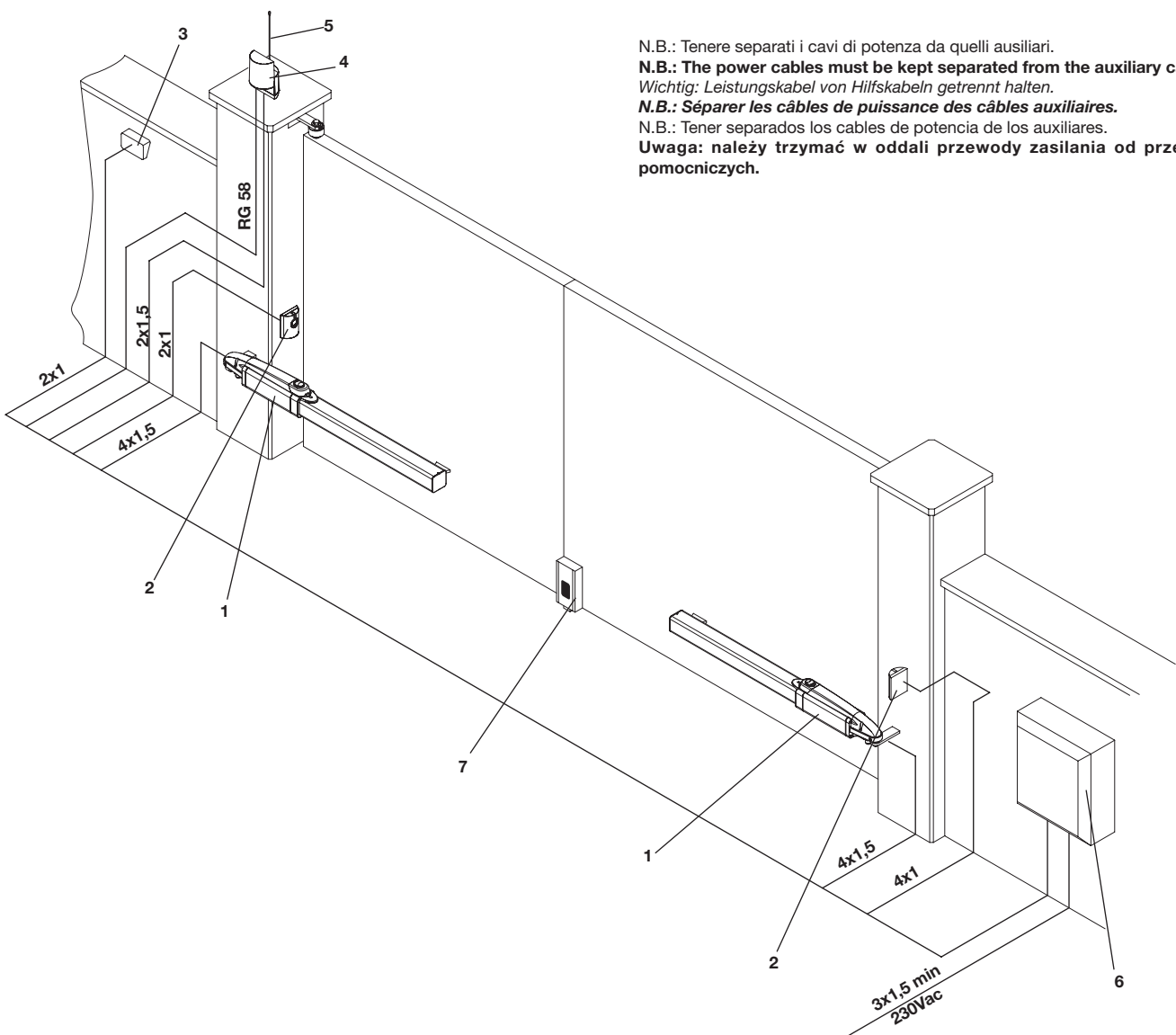
- 1 Vérin Hydro
- 2 Photocellules
- 3 Sélecteur à clé ou clavier numérique
- 4 Clignotant
- 5 Antenne
- 6 Logique de commande.
- 7 Serrure électrique

Legenda:

- 1 Motorreductor Hydro
- 2 Fotocélulas
- 3 Selector de llave o teclado digital
- 4 Lámpara destellante
- 5 Antena
- 6 Centralita de comando.
- 7 Electrocerradura

Objaśnienia:

- 1 Siłownik Hydro
- 2 Fotokomórki
- 3 Wybierak kluczowy lub klawiatura przyciskowa
- 4 Światło migające
- 5 Antena
- 6 Stacyjka napędowa.
- 7 Zamek elektryczny



N.B.: Tenere separati i cavi di potenza da quelli ausiliari.

**N.B.: The power cables must be kept separated from the auxiliary cables.**

*Wichtig: Leistungskabel von Hilfskabeln getrennt halten.*

**N.B.: Séparer les câbles de puissance des câbles auxiliaires.**

*N.B.: Tener separados los cables de potencia de los auxiliares.*

**Uwaga: należy trzymać w oddali przewody zasilania od przewodów pomocniczych.**

**IMPORTANTE:** L'installazione dell'elettroserratura è indispensabile nei modelli sprovvisti di blocco idraulico o comunque nelle ante di lunghezza superiore a ml. 1,8

**IMPORTANT:** Installation of an electric lock is essential on models without hydraulic lock or if the wing is over 1.8 m long

**WICHTIG:** Die Installation der Elektroverriegelung ist unerlässlich bei Modellen ohne hydraulische Verriegelung oder jedenfalls bei Torflügeln mit einer Länge von mehr als 1,8 m.

**IMPORTANT:** l'installation de la serrure électrique est indispensable dans les modèles dépourvus de blocage hydraulique ou dans tous les cas en présence de vantaux de plus 1,8 m de longueur

**IMPORTANTE:** Es imprescindible instalar la electrocerradura en los modelos desprovistos de bloque hidráulico o, de cualquier modo, en las hojas de más de 1,8 m de largo

**WAŻNE:** Instalacja zamka elektrycznego jest nieodzowna w modelach nie posiadających blokady hydraulicznej lub w przypadku skrzydeł o długości powyżej 1,8 m



## Important

- Before installing the operator read these instructions.
- Use of a **HYDRO** product for any application not described in this instruction manual is prohibited.
- The user must be instructed on the use of the automation system.
- The user must be consigned the instruction manual.
- All CAB products are insured against damage or injury caused by manufacturing defects under the essential condition that the operator has the CE marking and all genuine CAB components are installed.

## General Information

Hydraulic operator for swing gates, available in various versions:

- HD.18 AC/HD.30 AC** hydraulic lock on opening and closing stroke
- HD.30 C** hydraulic lock on closing stroke
- HD.25/HD.30** reversible – requires an electric lock

Models without hydraulic lock on opening stroke always require an electric lock to guarantee the wing is locked shut mechanically.

## Preliminary Checks

For the gate automation to work properly, the actual gate must have the following characteristics:

- it must be robust and rigid.
- the hinges must have only limited play and provide smooth and gentle gate movements.
- the whole height of the wings must be in contact when closed.

## Gate Stops

If they are not already provided, install gate stops on the opening and closing stroke limits (Fig.3) regardless of the type of operator being installed.

The closed stop in particular is indispensable given the special characteristics of hydraulic operators. See “maintain stop” function in the instructions for the control unit.

## Installing the automation system

1 Establish the height of the automation from the ground (preferably as close to the centre of the wing as possible and along a solid cross rail).

Remember that under the operator there is a vent hole and in certain conditions (e.g. rain or snow) it may draw liquid into the automation. For this reason it is best not to install the operator too close to the ground.

2 Weld or otherwise anchor plate P in place, see installation distances (Fig.2) and the installation diagram (Fig.5):

- remove screws V and cover C
- insert pin P in bracket P as in the figure
- lock everything in place by washer R and self-locking nut D
- **remove the vent plug VS with its gasket RS.** (see note “Vent plug”)

Observe the distances given in the tables at fig. 2, correcting the length of the plate if necessary. In some cases a recess may have to be made in the post.

**It is essential that the installation distances are respected for the operator to work correctly.**

With reference to the installation tables note that:

For the wing to open 90°:  $A+B$  must be equal to the operator stroke

For the wing to open more than 90°:  $A+B$  must be less than the operator stroke.

Keep the length differences within 40mm. Over this difference the wing movement becomes uneven. When reducing lengths A and B, increase the wing speed.

Comply with all statutory regulations.

3 Release the operator (see section “manual gate operation”)

4 Slide out the ram shaft completely and then slide back in by approx. 10 mm. Lock the operator in place.

Always leave a safety overrun of 10 mm in both the closing and opening strokes. The stroke length given in the technical data and installation tables has already been reduced by the necessary 20 mm.

5 Make sure the operator is kept perfectly level and mark the point where the bracket will be attached to on the wing. Temporarily weld or bolt the bracket in place as shown in Fig.6.

6 Release the operator and swing the gate by hand to check it moves freely to fully open and stops on the gate stop. The wing must move smoothly and evenly.

7 Anchor the bracket permanently.

NOTE: Vent plug.

Next to the vent a dead hole has been provided where the plug and gasket can be kept for future use.

On removing the plug and during the first operator manoeuvres a small quantity of oil may leak out. This is perfectly normal and should not be considered a fault.

## Manual and emergency gate operation

If there is a power failure or malfunction the wings can be moved by hand as follows:

### **Models with hydraulic lock (i.e. BC/BAC):**

- Use the special key supplied with the operator to open the protective cover of the release mechanisms (Fig.7).
- Turn the knob anticlockwise to disengage the automation. (Fig.8)
- The wing can now be opened and closed manually.
- To engage the automation turn the knob anticlockwise.
- Lock the cover shut.

### **Models without hydraulic lock (i.e. Hydro SR 20):**

Since these models are reversible, simply open the electric lock and the wing can be moved manually.

Slowly push the wing by its outer end, accompanying it all the way to the gate stop.

## Adjusting the thrust

The operator is equipped with anti-squash by-pass valve that limit the thrust on the wing when it meets an obstacle. Once the obstacle is removed the wing will continue its stroke for the work time set by the control unit.

- Open the protective cover and use a 6 mm hexagonal key to adjust the thrust (Fig.9).
- There are two adjustable valves, one governs the opening thrust (Open), the other governs the closing thrust (Close).
- Turn the valve towards + to increase the thrust on the wing and vice-versa (i.e. towards - ) to reduce the thrust.

**CAUTION! This adjustment is directly linked to the safety level of the automation.**

**Make sure that the thrust applied on the wing complies with statutory regulations.**

## The protective covers

After adjusting the slowdown the covers can be replaced (Fig.10).

Take great care in ensuring that the drain hole faces the ground.

## Wiring

The operator is supplied with the wiring cable already installed and wired (Fig.11). To connect it to the control unit see the diagram and instructions for the control unit.

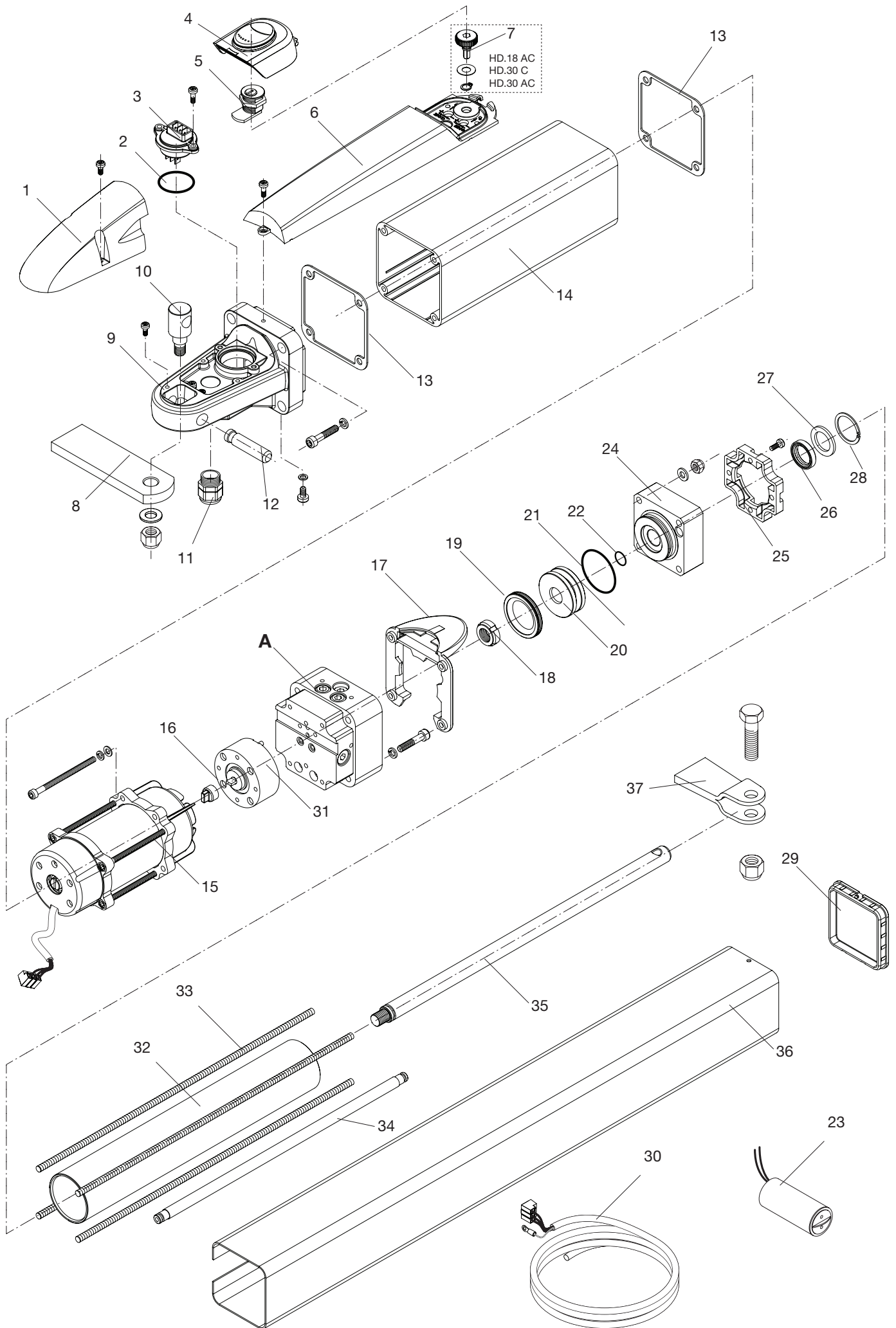
The power cable is best protected by a 12mm spiral sheath that has to be inserted in the coupling provided.

**An earth connection is compulsory.**

## Topping up/changing oil

The oil level in all hydraulic operators must be periodically checked.

To top up the oil first shut-off the mains power to the system and then remove the two screws on the terminal block, which also acts as oil cap. The level must never rise above the rim shown in Fig.12. Only use Hydro OIL.



## HD18 AC/HD25

N°	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie					Cod.	
1	Carter morsettiera	<b>Terminal housing</b>	<i>Gehäuse</i>	<b>Carter bornier</b>	Cárter terminal	Karter	<b>CF8144101</b>
2	OR 3118	<b>OR 3118</b>	<i>OR 3118</i>	<b>Joint tor. 3118</b>	OR 3118	OR 3118	<b>CF8072418</b>
3	Connettore	<b>Connector</b>	<i>Verbinder</i>	<b>Connecteur</b>	Conector	Łącznik	<b>C5243060</b>
4	Carter Mobile	<b>Cover</b>	<i>Bew. Gehäuse</i>	<b>Carter mobile</b>	Cárter móvil	Karter Ruchomy	<b>C3747000</b>
5	Serratura	<b>Lock</b>	<i>Schloss</i>	<b>Serrure</b>	Cerradura	Zamek	<b>C3765000</b>
6	Carter Fisso	<b>Housing</b>	<i>Festes Gehäuse</i>	<b>Carter fixe</b>	Cárter fijo	Karter Stały	<b>CF8144100</b>
7	Manopola Sblocco	<b>Release knob</b>	<i>Entrieg.knauf</i>	<b>Poignée déblocage</b>	Pomo desbloqueo	Pokrętko odbl.	<b>CF8621021</b>
8	Staffa posteriore	<b>Wall bracket</b>	<i>Hintere Bügel</i>	<b>Patte arrière</b>	Estribo poster.	Zaczep tylny	<b>CF8819041</b>
9	Fondello	<b>End plate</b>	<i>Bodenscheibe</i>	<b>Fond</b>	Fondo	Spód	<b>C5395001</b>
10	Snodo	<b>Pivot</b>	<i>Gelenk</i>	<b>Articulation</b>	Articulación	Przegub	<b>CF8780201</b>
11	RPG112	<b>RPG112</b>	<i>RPG112</i>	<b>RPG112</b>	RPG112	RPG112	<b>CF8516012</b>
12	Perno snodo	<b>Pivot lock pin</b>	<i>Gelenkbolzen</i>	<b>Pivot articul.</b>	Perno articul.	Sworzeń przegubu	<b>CF8621022</b>
13	Guarnizine	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504001</b>
14	Serbatoio	<b>Tank</b>	<i>Tank</i>	<b>Réservoir</b>	Depósito	Zbiornik	<b>C5667012</b>
15	Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	Silnik	<b>C3587055</b>
16	Giunto	<b>Coupling</b>	<i>Kupplung</i>	<b>Joint</b>	Junta	Łącze	<b>CF8424001</b>
17	Flangia anteriore	<b>Flange</b>	<i>Vord. Flansch</i>	<b>Bride avant</b>	Brida anterior	Kołnierz przedni	<b>CF8396201</b>
18	Ghiera	<b>Bushing</b>	<i>Zwinge</i>	<b>Bague fil.</b>	Vírola	Pierścień skurcz.	<b>CF8426100</b>
19	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504002</b>
20	Stantuffo	<b>Piston</b>	<i>Kolben</i>	<b>Piston</b>	Émbolo	Tłok	<b>CF8827002</b>
21	OR 3162	<b>OR 3162</b>	<i>OR 3162</i>	<b>Joint tor. 3162</b>	OR 3162	OR 3162	<b>CF8072470</b>
22	OR 2050	<b>OR 2050</b>	<i>OR 2050</i>	<b>Joint tor. 2050</b>	OR 2050	OR 2050	<b>CF8072050</b>
23	Condensatore 10µF	<b>Capacitor 10µF</b>	<i>Kondensator 10µF</i>	<b>Condensateur 10µF</b>	Condensador 10µF	Kondensator10µF	<b>CF8234076</b>
24	Testa	<b>Head</b>	<i>Kopf</i>	<b>Tête</b>	Cabeza	Przód	<b>C3396002</b>
25	Flangia Post	<b>Head flange</b>	<i>Hint. Flansch</i>	<b>Bride arrière</b>	Brida post	Kołnierz Tylny	<b>CF8396200</b>
26	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504063</b>
27	Rondel. 16,2x30x3	<b>Washer16,2x30x3</b>	<i>Unterl. 16,2x30x3</i>	<b>Rondel. 16,2x30x3</b>	Arand. 16,2x30x3	Podkł. 16,2x30x3	<b>CF8396013</b>
28	Seeger D30	<b>Snap ring D30</b>	<i>Seeger D30</i>	<b>Seeger D30</b>	Seeger D30	Seeger D30	<b>CF8045069</b>
29	Tappo	<b>End cap</b>	<i>Deckel</i>	<b>Bouchon</b>	Tapón	Zatyczka	<b>CF8837150</b>
30	Cavo alimentaz.	<b>Power cable</b>	<i>Stromkabel.</i>	<b>Câble alim.</b>	Cable alimen.	Przewód zasilania	<b>CF8171160</b>
31	Pompa	<b>Pump</b>	<i>Pumpe</i>	<b>Pompe</b>	Bomba	Pompa	<b>CF8634001</b>
32	Tubo	<b>Barrel</b>	<i>Rohrleitung</i>	<b>Tube</b>	Tubo	Rura	<b>CF5868006</b>
33	Barra M6	<b>M6 Bar</b>	<i>Stange M6</i>	<b>Barre M6</b>	Barra M6	Drażek M6	<b>CF8954014</b>
34	Canna	<b>Rod housing</b>	<i>Rohr</i>	<b>Canne</b>	Conducto	Tuleja	<b>CF8868004</b>
35	Stelo	<b>Ram shaft</b>	<i>Schaft</i>	<b>Tige piston</b>	Vástago	Trzpień	<b>CF8829003</b>
36	Copristelo	<b>Ram sleeve</b>	<i>Schaftdeckel</i>	<b>Carter piston</b>	Cubrevástago	Oślona trzpienia	<b>C5868010</b>
37	Staffa Anteriore	<b>Gate bracket</b>	<i>Vord. Bügel</i>	<b>Bride avant</b>	Estribo anterior	Zaczep Przedni	<b>CF8819034</b>

<b>A</b>	Distributore HD.18 AC - <b>Distributor</b> - <i>Verteiler</i> - <b>Distributeur</b> - Distribuidor - <b>Dystrybutor</b>	<b>C5396000</b>
	Distributore HD.25- <b>Distributor</b> - <i>Verteiler</i> - <b>Distributeur</b> - Distribuidor - <b>Dystrybutor</b>	<b>C5396003</b>

## HD.30/HD.30C/HD.30 AC

N°	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie					Cod.	
1	Carter morsettiera	<b>Terminal housing</b>	<i>Gehäuse</i>	<b>Carter bornier</b>	Cárter terminal	Karter	<b>CF8144101</b>
2	OR 3118	<b>OR 3118</b>	<i>OR 3118</i>	<b>Joint tor. 3118</b>	OR 3118	OR 3118	<b>CF8072418</b>
3	Connettore	<b>Connector</b>	<i>Verbinder</i>	<b>Connecteur</b>	Conector	Łącznik	<b>C5243060</b>
4	Carter Mobile	<b>Cover</b>	<i>Bew. Gehäuse</i>	<b>Carter mobile</b>	Cárter móvil	Karter Ruchomy	<b>C3747000</b>
5	Serratura	<b>Lock</b>	<i>Schloss</i>	<b>Serrure</b>	Cerradura	Zamek	<b>C3765000</b>
6	Carter Fisso	<b>Housing</b>	<i>Festes Gehäuse</i>	<b>Carter fixe</b>	Cárter fijo	Karter Stały	<b>CF8144100</b>
7	Manopola Sblocco	<b>Release knob</b>	<i>Entrieg.knauf</i>	<b>Poignée déblocage</b>	Pomo desbloqueo	Pokrętko odbl.	<b>CF8621021</b>
8	Staffa posteriore	<b>Wall bracket</b>	<i>Hintere Bügel</i>	<b>Patte arrière</b>	Estribo poster.	Zaczep tylny	<b>CF8819031</b>
9	Fondello	<b>End plate</b>	<i>Bodenscheibe</i>	<b>Fond</b>	Fondo	Spód	<b>C5395001</b>
10	Snodo	<b>Pivot</b>	<i>Gelenk</i>	<b>Articulation</b>	Articulación	Przegub	<b>CF8780200</b>
11	RPG112	<b>RPG112</b>	<i>RPG112</i>	<b>RPG112</b>	RPG112	RPG112	<b>CF8516012</b>
12	Perno snodo	<b>Pivot lock pin</b>	<i>Gelenkbolzen</i>	<b>Pivot articul.</b>	Perno articul.	Sworzeń przegubu	<b>CF8621022</b>
13	Guarnizine	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504001</b>
14	Serbatoio	<b>Tank</b>	<i>Tank</i>	<b>Réservoir</b>	Depósito	Zbiornik	<b>C5667012</b>
15	Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	Silnik	<b>C3587055</b>
16	Giunto	<b>Coupling</b>	<i>Kupplung</i>	<b>Joint</b>	Junta	Łącze	<b>CF8424001</b>
17	Flangia anteriore	<b>Flange</b>	<i>Vord. Flansch</i>	<b>Bride avant</b>	Brida anterior	Kołnierz przedni	<b>CF8396201</b>
18	Ghiera	<b>Bushing</b>	<i>Zwinge</i>	<b>Bague fil.</b>	Vírola	Pierścień skurcz.	<b>CF8426100</b>
19	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504002</b>
20	Stantuffo	<b>Piston</b>	<i>Kolben</i>	<b>Piston</b>	Émbolo	Tłok	<b>CF8827001</b>
21	OR 3162	<b>OR 3162</b>	<i>OR 3162</i>	<b>Joint tor. 3162</b>	OR 3162	OR 3162	<b>CF8072470</b>
22	OR 2050	<b>OR 2050</b>	<i>OR 2050</i>	<b>Joint tor. 2050</b>	OR 2050	OR 2050	<b>CF8072050</b>
23	Condensatore 10µF	<b>Capacitor 10µF</b>	<i>Kondensator 10µF</i>	<b>Condensateur 10µF</b>	Condensador 10µF	Kondensator10µF	<b>CF8234076</b>
24	Testa	<b>Head</b>	<i>Kopf</i>	<b>Tête</b>	Cabeza	Przód	<b>C3396003</b>
25	Flangia Post	<b>Head flange</b>	<i>Hint. Flansch</i>	<b>Bride arrière</b>	Brida post	Kołnierz Tylny	<b>CF8396200</b>
26	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Garniture</b>	Junta	Uszczelka	<b>CF8504002</b>
27	Rondel. 30x20x2,5	<b>Washer 30x20x2,5</b>	<i>Unterl. 30x20x2,5</i>	<b>Rondel. 30x20x2,5</b>	Arand. 30x20x2,5	Podkł. 30x20x2,5	<b>CF8345030</b>
28	Seeger D30	<b>Snap ring D30</b>	<i>Seeger D30</i>	<b>Seeger D30</b>	Seeger D30	Seeger D30	<b>CF8045069</b>
29	Tappo	<b>End cap</b>	<i>Deckel</i>	<b>Bouchon</b>	Tapón	Zatyczka	<b>CF8837150</b>
30	Cavo alimentaz.	<b>Power cable</b>	<i>Stromkabel.</i>	<b>Câble alim.</b>	Cable alimen.	Przewód zasilania	<b>CF8171160</b>
31	Pompa	<b>Pump</b>	<i>Pumpe</i>	<b>Pompe</b>	Bomba	Pompa	<b>CF8634001</b>
32	Tubo	<b>Barrel</b>	<i>Rohrleitung</i>	<b>Tube</b>	Tubo	Rura	<b>CF8424001</b>
33	Barra M6	<b>M6 Bar</b>	<i>Stange M6</i>	<b>Barre M6</b>	Barra M6	Drażek M6	<b>CF8954012</b>
34	Canna	<b>Rod housing</b>	<i>Rohr</i>	<b>Canne</b>	Conducto	Tuleja	<b>CF8868002</b>
35	Stelo	<b>Ram shaft</b>	<i>Schaft</i>	<b>Tige piston</b>	Vástago	Trzpień	<b>CF8829001</b>
36	Copristelo	<b>Ram sleeve</b>	<i>Schaftdeckel</i>	<b>Carter piston</b>	Cubrevástago	Oślona trzpienia	<b>C5868000</b>
37	Staffa Anteriore	<b>Gate bracket</b>	<i>Vord. Bügel</i>	<b>Bride avant</b>	Estribo anterior	Zaczep Przedni	<b>CF8819030</b>

<b>A</b>	Distributore per <b>HD.30</b> - <b>Distributor</b> - <i>Verteiler</i> - <b>Distributeur</b> - Distribuidor - <b>Dystrybutor</b>	<b>C5396003</b>
	Distributore per <b>HD.30 C</b> - <b>Distributor</b> - <i>Verteiler</i> - <b>Distributeur</b> - Distribuidor - <b>Dystrybutor</b>	<b>C5396001</b>
	Distributore per <b>HD.30 AC</b> - <b>Distributor</b> - <i>Verteiler</i> - <b>Distributeur</b> - Distribuidor - <b>Dystrybutor</b>	<b>C5396000</b>

# Hydro

## User's handbook

### Safety rules

- Do not stand in the movement area of the gate.
- Do not let children play with controls and near the gate.
- Should operating faults occur, do not attempt to repair the fault but call a qualified technician.

### Manual and emergency gate operation

If there is a power failure or malfunction the wings can be moved by hand as follows:

#### Models with hydraulic lock (HD.18 AC/HD.30 C/HD.30 AC):

- Use the special key supplied with the operator to open the protective cover of the release mechanisms (Fig.1).
- Turn the knob anticlockwise to disengage the automation. (Fig.2)
- The wing can now be opened and closed manually.
- To engage the automation turn the knob anticlockwise.
- Lock the cover shut.

#### Models without hydraulic lock (HD.25/HD.30):

Since these models are reversible, simply open the electric lock and the wing can be moved manually. Slowly push the wing by its outer end, accompanying it all the way to the gate stop.

### Maintenance

- Every month check the good operation of the emergency manual release.
- It is mandatory not to carry out extraordinary maintenance or repairs as accidents may be caused. These operations must be carried out by qualified personnel only.
- Periodically check safety components and any other parts of the system that may become hazardous if worn.

### Waste disposal

If the product must be dismantled, it must be disposed according to regulations in force regarding the differentiated waste disposal and the recycling of components (metals, plastics, electric cables, etc.). For this operation it is advisable to call your installer or a specialised company.

### Warning

All CAB products are covered by insurance policy for any possible damages to objects and persons caused by construction faults under condition that the entire system be marked CE and only CAB parts be used.

Open the protective cover to access the release knob

- 1: Turn anticlockwise to disengage the operator and move the wing manually
- 2: Turn clockwise to engage the operator

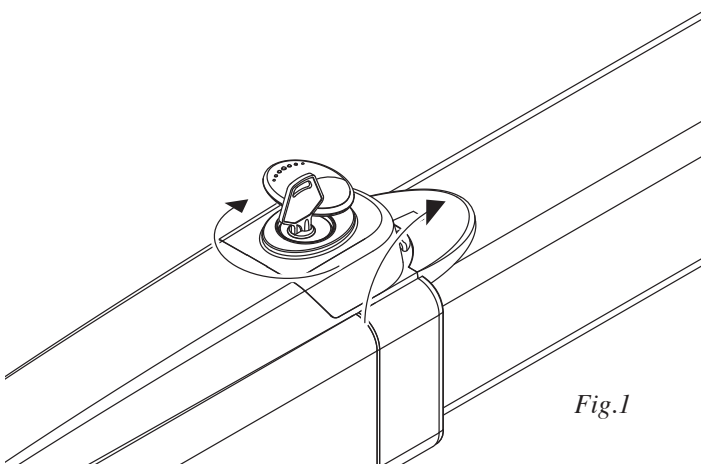


Fig.1

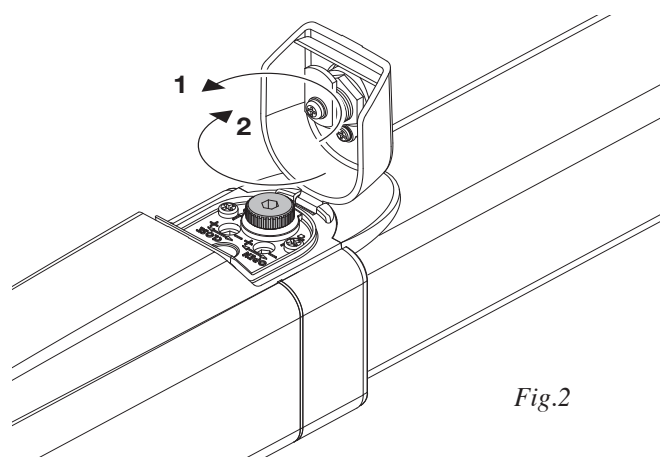


Fig.2

