

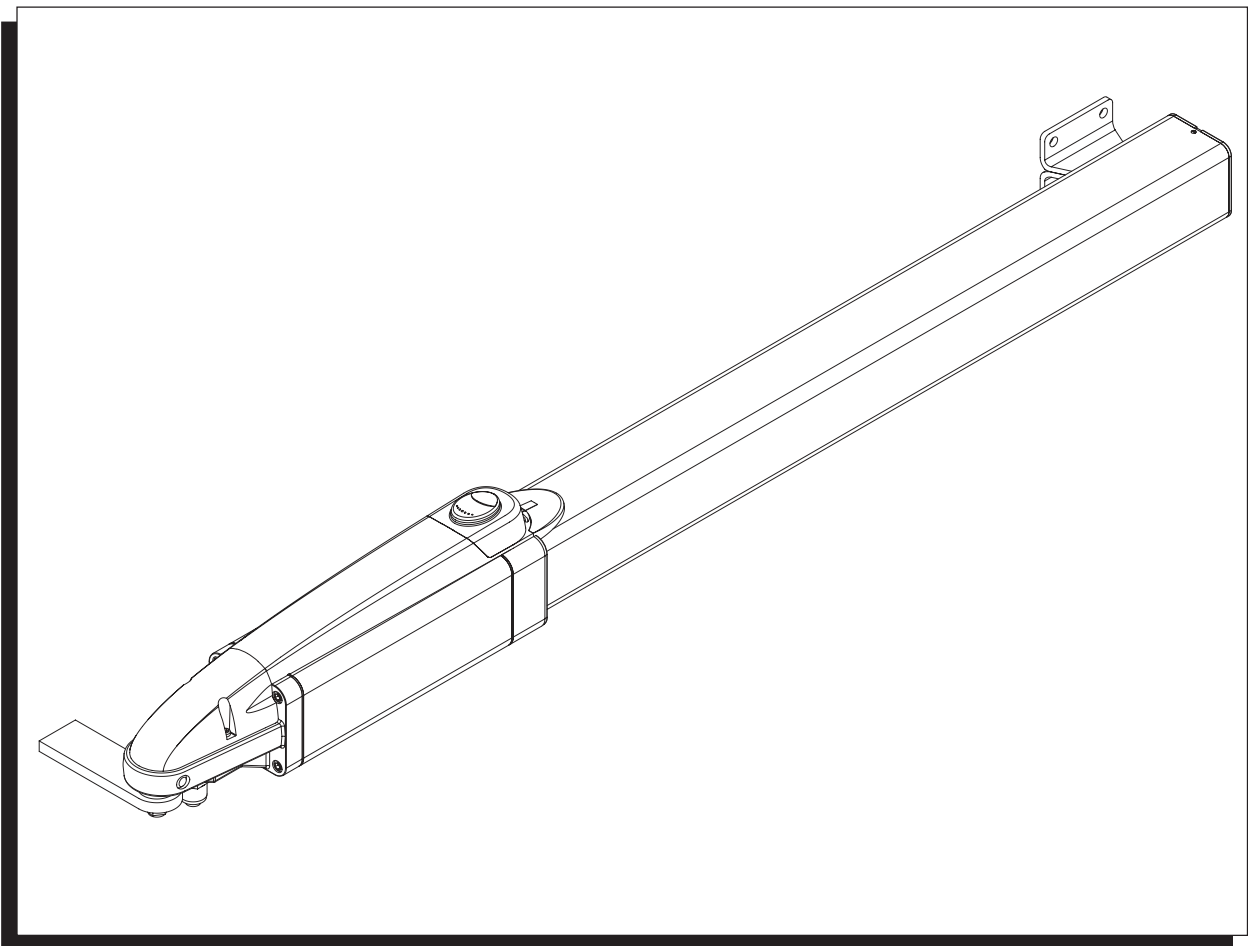
APRICANCELLO OLEODINAMICO
HYDRAULIC GATE OPERATOR
ÖLDYNAMISCHER TORÖFFNER
VÉRIN HYDRAULIQUE
ABRECANCELAS OLEODINÁMICO
OLEODYNAMICZNY OTWIERACZ BRAM

AUTOMATISMI



Hydro

HD.35 - HD.35 C - HD.35 AC
HD.45 - HD.50 - HD.50 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.35 - HD.35 C - HD.35 AC - HD.45 - HD.50 - HD.50 AC

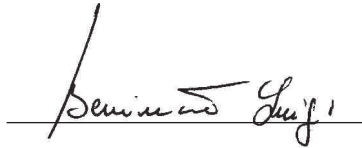
- è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costituire una macchina considerata dalla Direttiva 89/392 CE, come modificata;
- non è dunque conforme in tutti i punti alle disposizioni di questa Direttiva;
- è conforme alle condizioni delle seguenti 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, 10/11/2006.



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.35 - HD.35 C - HD.35 AC - HD.45 - HD.50 - HD.50 AC

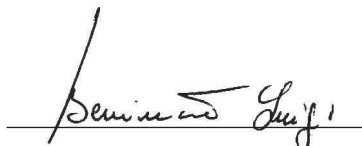
- is intended to be incorporated into machinery or to be assembled with other machinery to constitute machinery covered by Directive 89/392 EEC, as amended;
- does therefore not in every respect comply with the provisions of this Directive;
- does comply with the provisions of the following other EEC 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, 10/11/2006.



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.35/45/50
Alimentazione	Power supply	Versorgung	Alimentation	Alimentación	Zasilanie	230Vac (50Hz)
Motore	Motor	Motor	Moteur	Motor	Silnik	1400/g/min
Potenza assorbita	Absorbed power	Leistungsaufnahme	Puissance absorbée	Potencia absorbida	Pobór mocy	250 W
Corrente assorbita	Absorbed current	Stromaufnahme	Courant absorbé	Corriente absorbida	Zużycie prądu	1,2 A
Spinta	Thrust	Schub	Poussée	Empuje	Pchnięcie	4200 N (~420Kg)
Pressione max	Max pressure	Max. Druck	Pression max.	Presión máx	Ciśnienie max	30 bar
Grado di protezione	Protection rating	Schutzart	Indice de protection	Grado de protección	Stopień ochrony	IP55
N° manovre consecutive	N° cons.ve manoeuv.	N. Vorgänge hintereinan.	Nb de manoeuv. conséq.	N° maniob. consecut.	N° kolejnych manewrów	*
Pompa	Pump	Pumpe	Pompe	Bomba	Pompa	a lobi
Diametro stelo	Ram shaft diameter	Schaftdurchmesser	Diamètre tige piston	Diámetro del vástago	średnica trzpienia	Ø 20mm
Rumorosità	Noise level	Lärm	Niveau sonore	Nivel de ruido	Hałaśliwość	< 70 dB (a)
Protezione termica	Overload cut-out	Thermoschutz	Protection thermique	Protección térmica	Ochrona termiczna	150°C
Temp. funzionamento	Operating temp.	Betriebszeit	Temp. fonctionnement	Temp. de funcion.	Temp. działania	-20°C/+70°C
Condensatore	Condenser	Kondensator	Condensateur	Condensador	Kondensator	10µF
Olio	Oil	Öl	Huile	Aceite	Olej	BIO OIL

* 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	Peso max anta Door leaf weight Türflügelgewicht Poids porte Peso hoja Ciężar skrzydła (kg)	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)	Portata pompa Pump delivery Pumpenleistung Débit pompe Caudal de la bomba Nateżenie przepływu pompy (l/min)	Velocità stelo Ram speed Schaftgeschwindigkeit Vitesse tige piston Velocidad del vástago Prędkość trzpienia (cm/s)	Tipologia blocco Type of lock Verrieglungstyp Type de blocage Typologia de bloqueo Rodzaj blokady
HD.35	500	3,5	270	1	1,3	■
HD.35 C	500	3,5*	270	1	1,3	▷
HD.35 AC	500	3,5*	270	1	1,3	◁▷
HD.45	500	4,5	270	0,75	1	■
HD.50	500	5	390	0,75	1	■
HD.50 AC	500	5*	390	0,75	1	◁▷

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)
◁	Irreversibile in apertura Reversibile in chiusura (Richiede elettroserratura)	One-way opening Reversible closing (Requires electric lock)	Irreversibel beim Öffnen Reversibel beim Schließen (Erfordert Elektroverriegelung)	Irréversible en ouverture Réversible en fermeture (Nécessite une serrure électrique)	Irreversible en apertura Reversible en el cierre (Pedir electrocerradura)	Nieodwracalny w otwieraniu Odwracalny w zamykaniu (Wymaga zamka elektrycznego)
▷	Reversibile in apertura Irreversibile 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
◁▷	Irreversibile	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. Il rallentamento in chiusura è di serie su tutti i modelli.

***N.B. For wings longer than 1.8m an electric lock is recommended even on one-way models. Slowdown in the closing stroke is standard on all models.**

*NB: Für Torflügel mit einer Länge von mehr als 1,8 m empfiehlt sich auch bei irreversiblen Modellen die Installation einer Elektroverriegelung. Die Verlangsamung beim Schließen ist bei allen Modellen serienmäßig.

***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.**

Le ralentissement en fermeture est de série sur tous les modèles.

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

La deceleración en el cierre es de serie en todos los modelos.

*Uwaga: Dla skrzydeł o długości powyżej 1,8m zaleca się instalowanie zamka elektrycznego również w modelach nieodwracalnych. Zwalnianie w zamykaniu jest seryjne we wszystkich modelach.

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

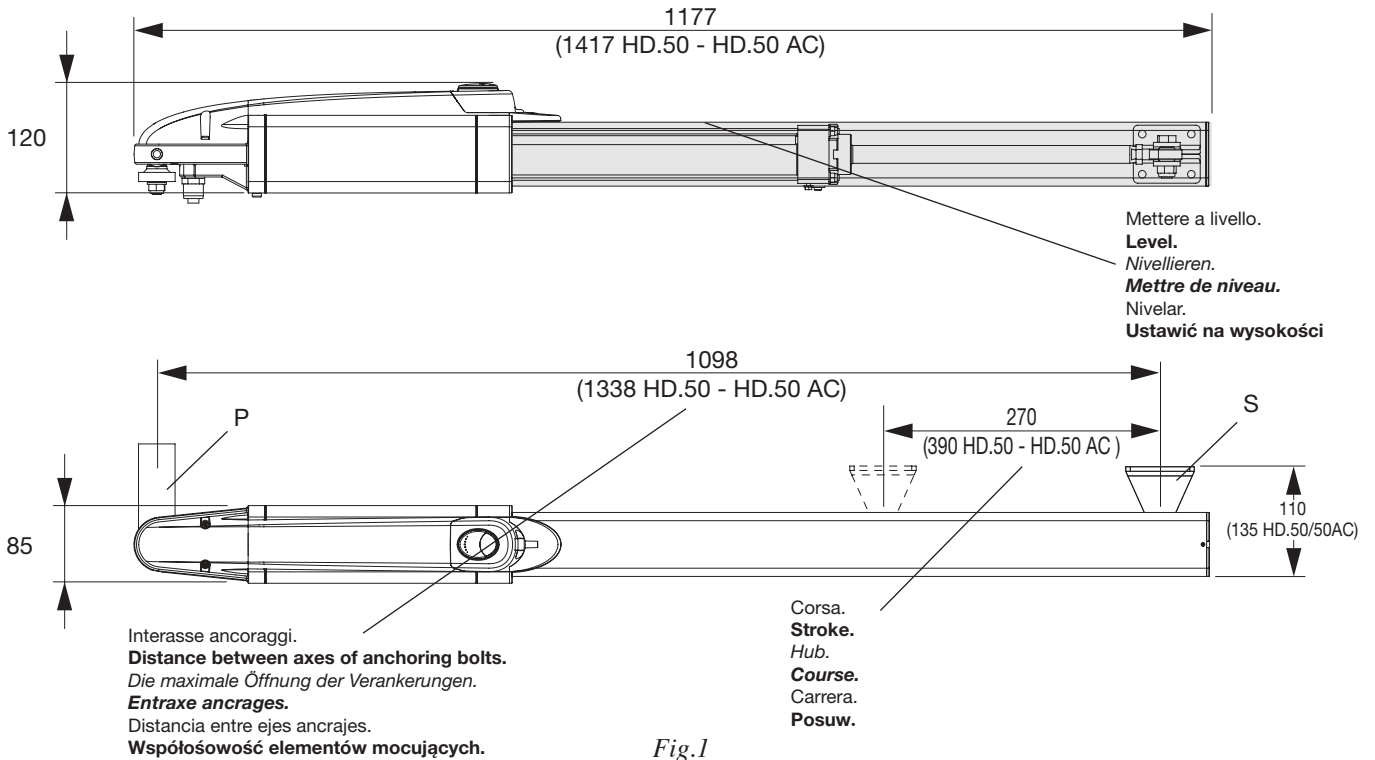


Fig.1

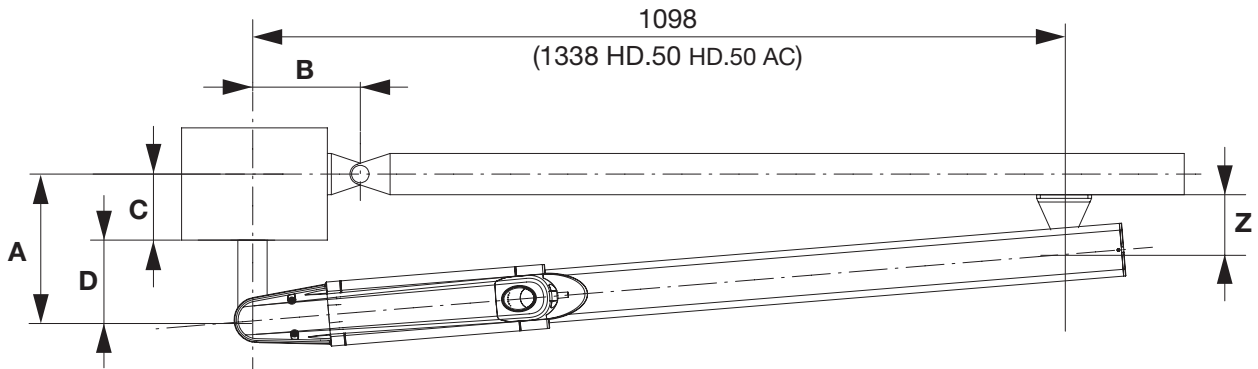
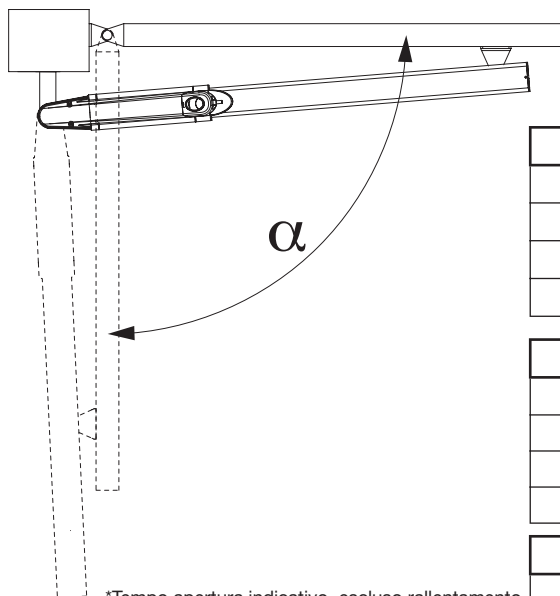


Fig.2



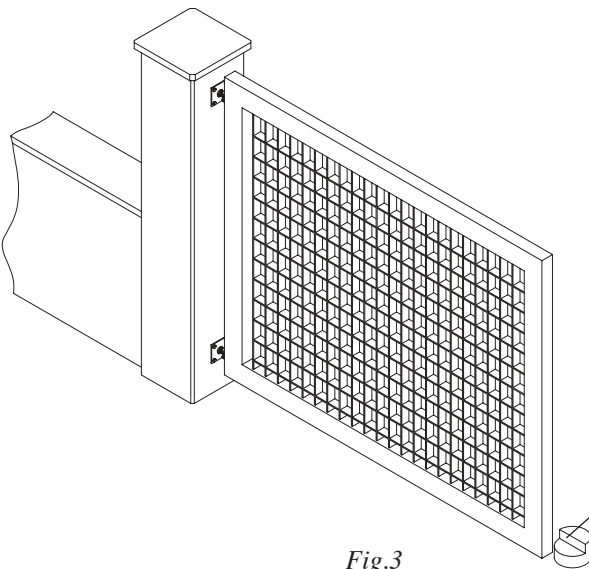
HD.35 / HD.35 C / HD.35 AC						
α	A (mm)	B (mm)	C (mm)	D (mm)	Z (mm)	T* (s)
90°	135	135	85	50	75	22
100°	125	125	75	50	75	20
110°	115	115	65	50	75	18

HD.45						
α	A (mm)	B (mm)	C (mm)	D (mm)	Z (mm)	T* (s)
90°	135	135	85	50	75	28
100°	125	125	75	50	75	25
110°	115	115	65	50	75	23

HD.50 HD.50 AC						
α	A (mm)	B (mm)	C (mm)	D (mm)	Z (mm)	T* (s)
90°	195	195	145	50	100	40
100°	180	180	145	50	100	36
110°	130	170	120	50	100	30

*Tempo apertura indicativo, escluso rallentamento
***Indicative opening time, excluded slowdown**
 *Hinweisende öffnungszeit, ausschließliches Verlangsamen
***Temps indicatif d'ouverture, ralentissement exclu**
 *Tiempo indicativo de abertura, deceleración excluido
***Wskazujący czas otwierania, wyłączony zwalnianie**

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



Arresto in chiusura.
Stop when closing.
 Endanschlag zur Schließung.
Arrêt en fermeture.
 Tope de cierre.
Chwytek 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.

¡IMPORTANT! 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”.

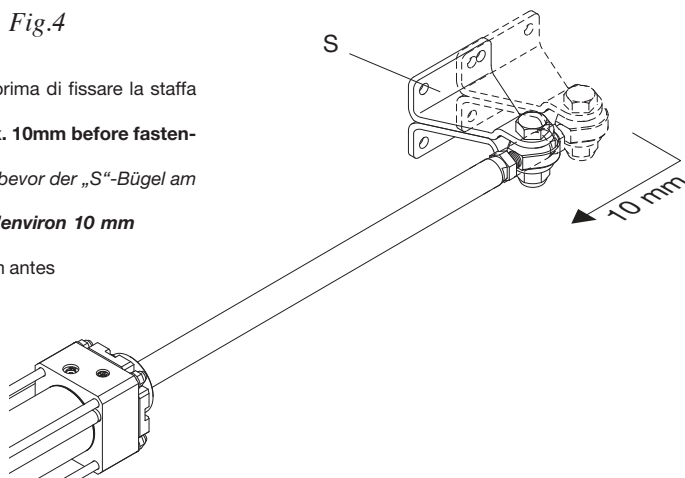
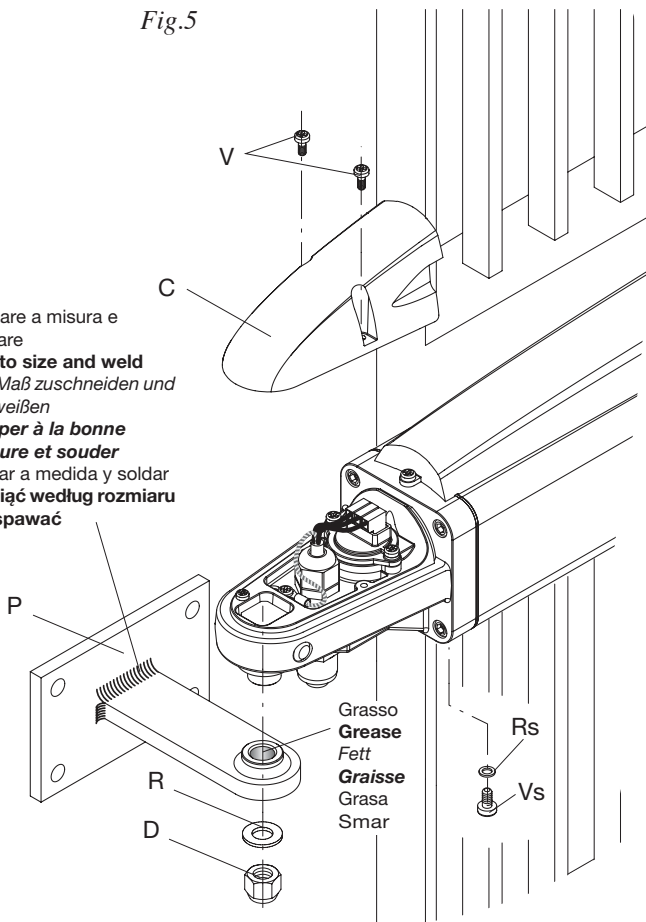


Fig.5

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



Avvitare o saldare.
Bolt or weld.
 Einschrauben oder schweißen.
Visser ou souder
 Atornillar o soldar.
Wkręcić lub zespawać.

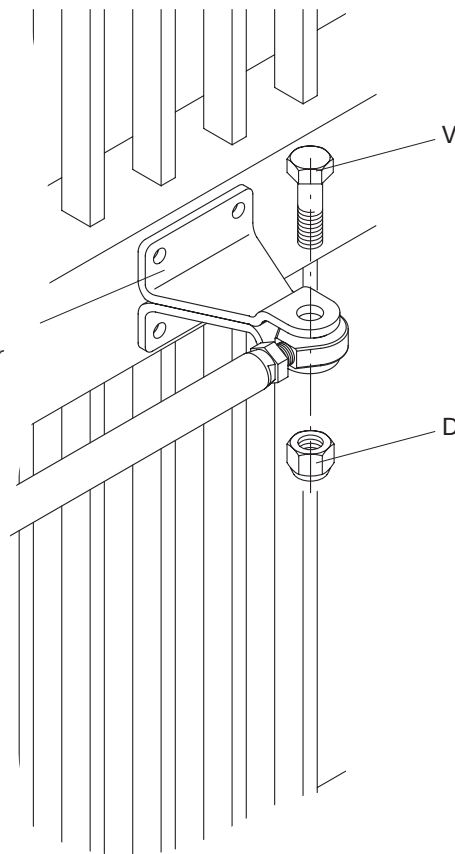


Fig.6

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

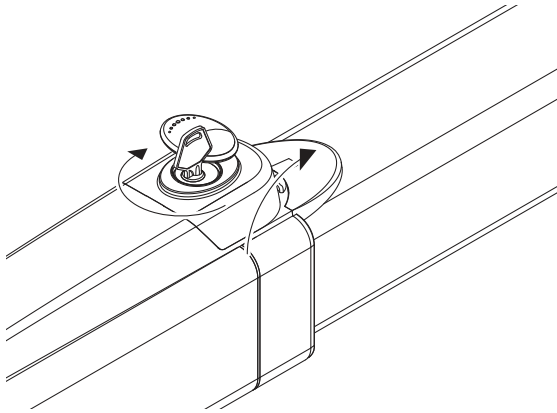


Fig.7

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 débloquent 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

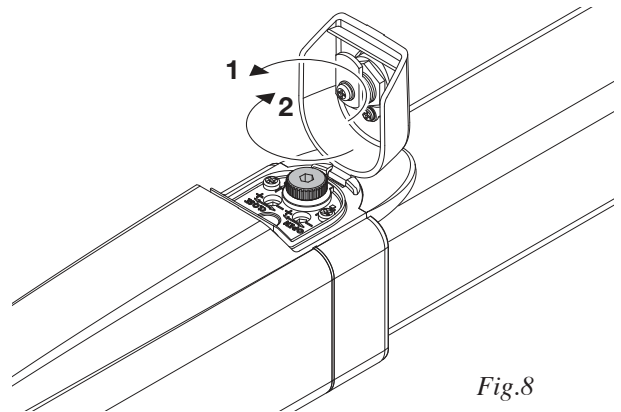


Fig.8

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

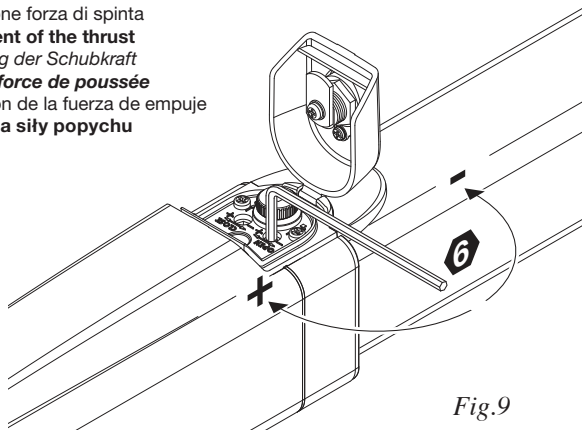


Fig.9

Regolazione rallentamento in chiusura
Adjustment of the slowdown in closing
Einstellung der Verlangsamung beim Schließen
Réglage ralentissement en fermeture
 Regulación de la deceleración en el cierre
Regulacja zwalniania w zamykaniu

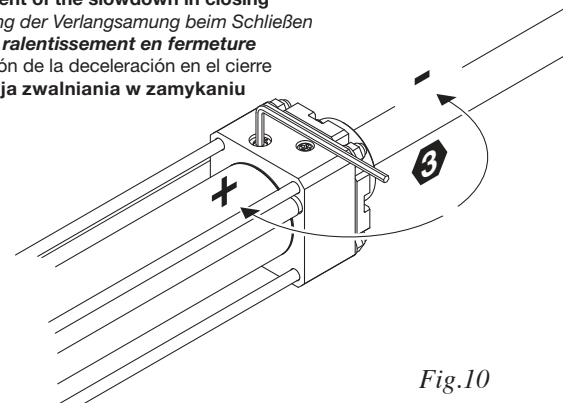
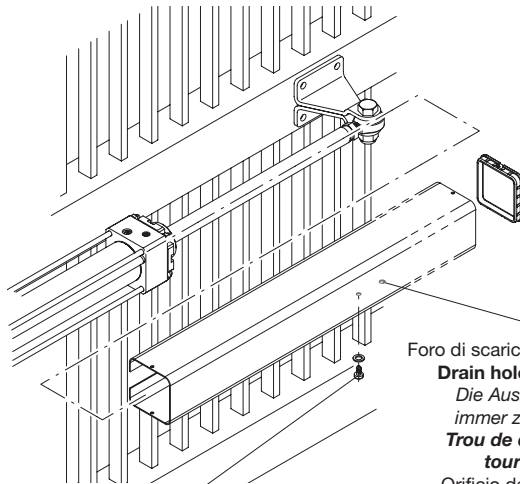


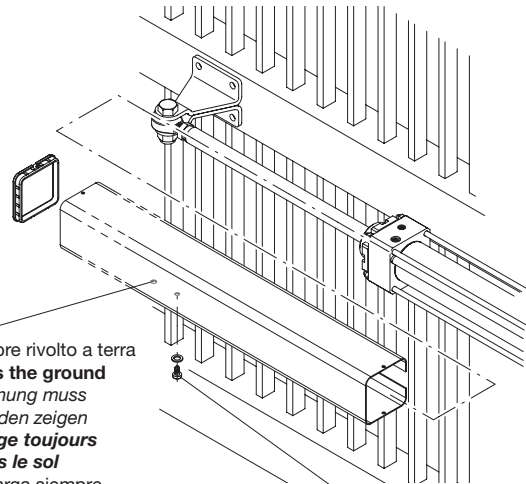
Fig.10

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

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
Odkr ci rub

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.11

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.

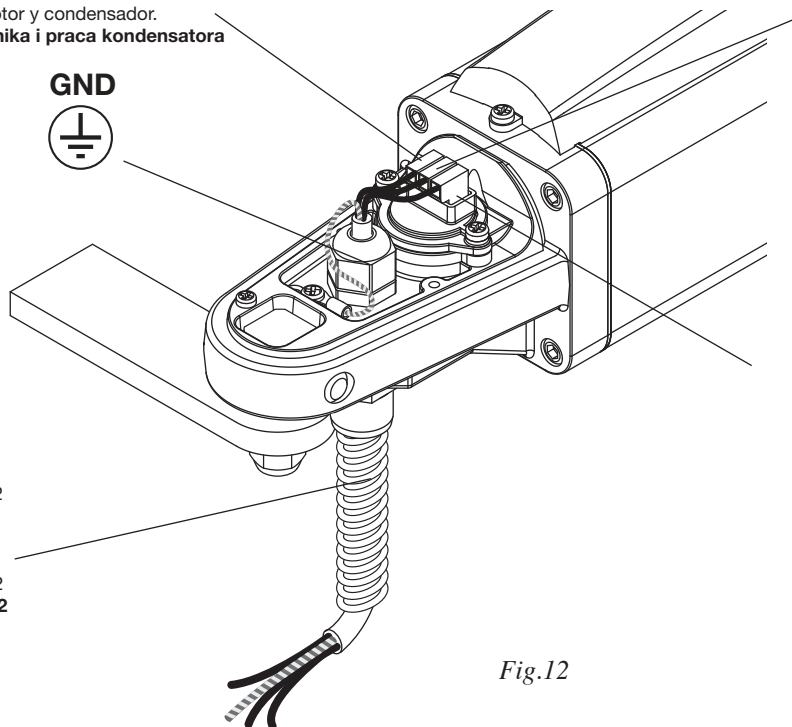
Grey = common.

Grau = gemeinsamer Leiter.

Gris = commun.

Gris = común.

Szary = wspólny.



Guaina spiralata ø12

ø12 spiral sheath

Spiralmantel ø12

Gaine spiralée ø12

Vaina corrugada ø12

Oslona spiralna ø12

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.12

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

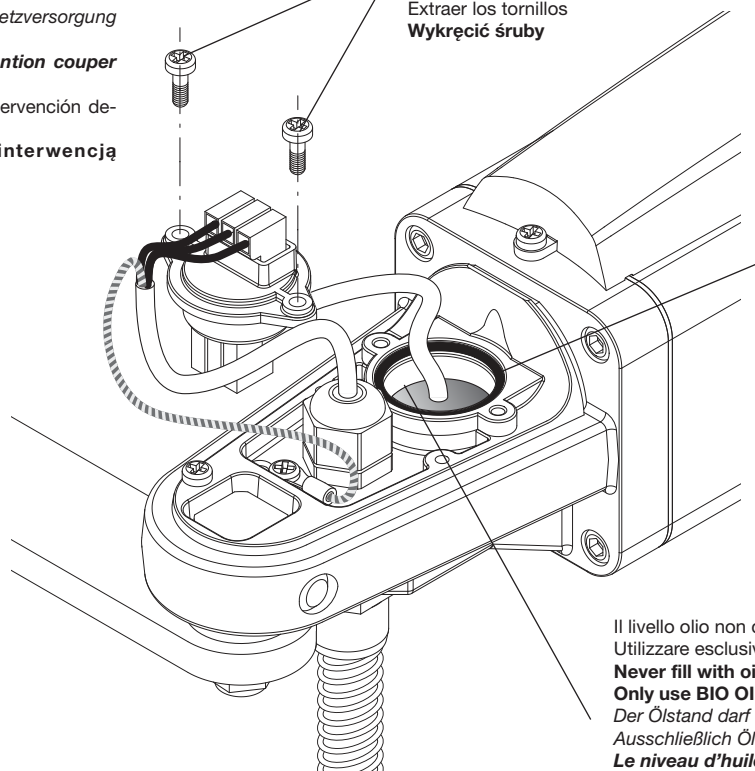
Remove the screws

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 BIO OIL

Never fill with oil above this rim

Only use BIO OIL

Der Ölstand darf nicht über diese Markierung hinausgehen

Ausschließlich Öl BIO OIL verwenden

Le niveau d'huile ne doit pas dépasser cette arête

Utiliser exclusivement de l'huile BIO OIL

El nivel de aceite no superará este borde

Utilizar exclusivamente aceite BIO OIL

Poziom oleju nie może przekraczać powyższej krawędzi

Stosować wyłącznie olej BIO OIL

Fig.13

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:

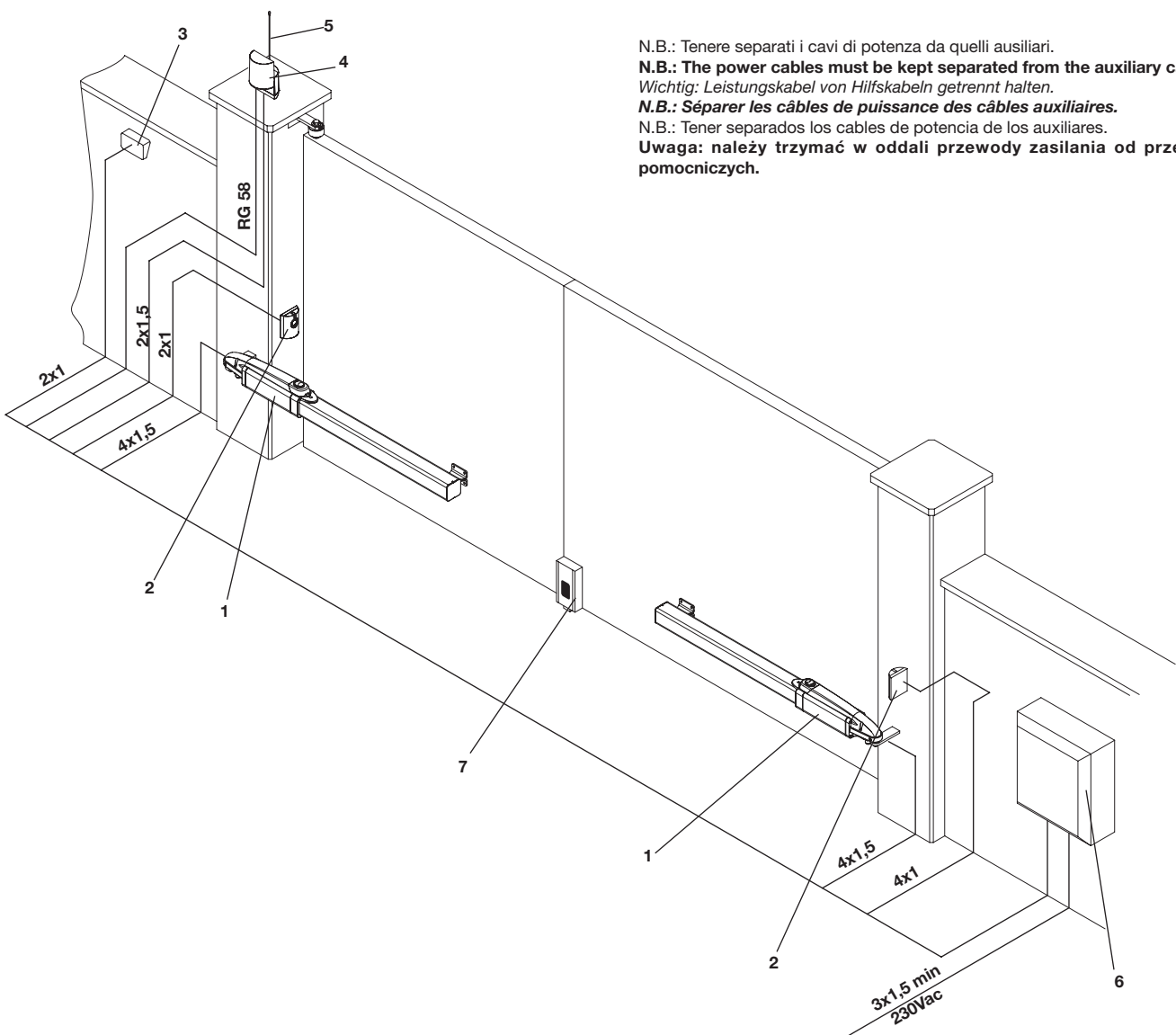
- 1 Vérin Hydro
- 2 Photocellules
- 3 Sélecteur à clé ou clavier numérique
- 4 Clignotant
- 5 Antenne
- 6 Logique de commande.
- 7 Serrure électrique

Legenda:

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

Objasnienia:

- 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.35** reversible – requires an electric lock
- HD.35 C** hydraulic lock on closing stroke
- HD.35 AC** hydraulic lock on opening and closing stroke
- HD.45** slow version – requires an electric lock
- HD.50** slow version with extended stroke – requires an electric lock.
- HD.50 AC** slow version with extended stroke – hydraulic lock on opening and closing stroke.

“HD.35 C”, “HD.35 AC” and “HD.50 AC” models are equipped with hydraulic lock on the opening stroke and do not require an electric lock* since the operator locks the wing shut when the motor is not in running.

Models without hydraulic lock on opening stroke (i.e. HD.35 - HD.45 - HD.50) always require an electric lock to guarantee the wing is locked shut mechanically.

All models are equipped with adjustable hydraulic slowdown on the closing stroke.

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

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. HD.35 C -HD.35 AC - HD.50 AC):

- 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. HD.35 - HD.45 - HD.50):

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. The movement may be made easier by slackening the release knob.

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.

Adjusting the closing slowdown

All models are equipped with slowdown in the closing stroke, so that the wing reduces speed during the last few seconds of its stroke.

The slowdown is adjusted by a valve (Fig.10).

Use a 3mm hexagonal key:

- open (i.e. turn anticlockwise) the valve to increase the slowdown speed.
- close (i.e. turn clockwise) the valve to reduce the slowdown speed.

To bypass the slowdown function fully unscrew the valve.

Never force the adjustment valve.

The protective covers

After adjusting the slowdown the covers can be replaced (Fig.11).

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.12). To connect it to the control unit see the diagram and instructions for the control unit.

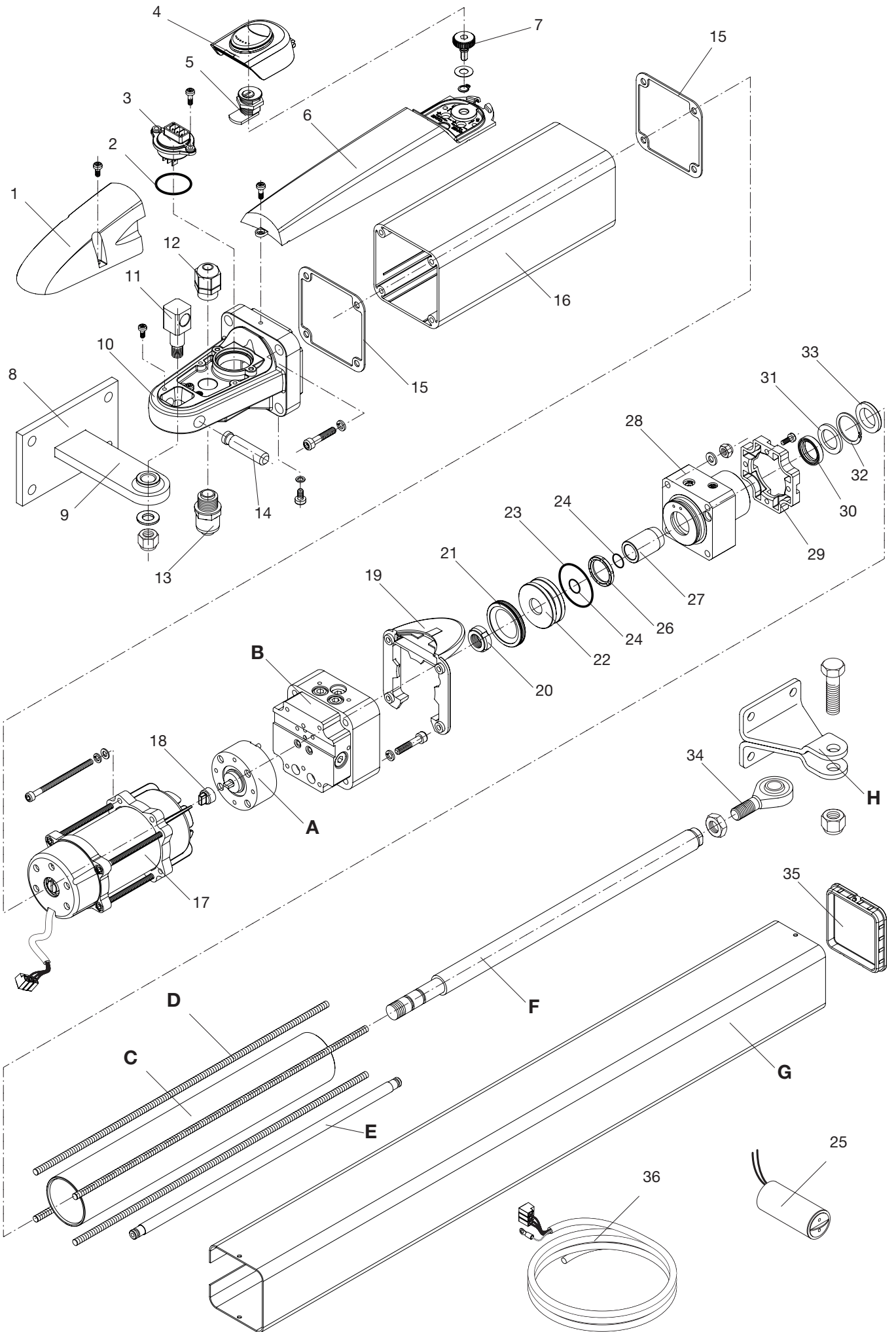
The power cable is best protected by a 12mm spiral sheath that has to be inserted in the coupling provided.

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.13. Only use BIO OIL.



HYDRO

N°	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie						Cod.
1	Carter morsettiera	Terminal housing	Gehäuse	Carter bornier	Cárter terminal	Karter	CF8144101
2	OR 3118	OR 3118	OR 3118	Joint tor. 3118	OR 3118	OR 3118	CF8072418
3	Connettore	Connector	Verbinder	Connecteur	Conector	Łącznik	C5243060
4	Carter Mobile	Cover	Bew. Gehäuse	Carter mobile	Cárter móvil	Karter Ruchomy	C3747000
5	Serratura	Lock	Schloss	Serrure	Cerradura	Zamek	C3765000
6	Carter Fisso	Housing	Festes Gehäuse	Carter fixe	Cárter fijo	Karter Stały	CF8144100
7	Manopola Sblocco	Release knob	Entrieg.knauf	Poignée déblocage	Pomo desbloqueo	Pokrętko odbl.	CF8621021
8	Piastra muro	Wall plate	Wandplatte	Platine mur	Placa de muro	Płyta ścienna	CF8819032
9	Staffa posteriore	Wall bracket	Hintere Bügel	Patte arrière	Estribo poster.	Zaczep tylny	CF8819031
10	Fondello	End plate	Bodenscheibe	Fond	Fondo	Spód	C5395001
11	Snodo	Pivot	Gelenk	Articulation	Articulación	Przegub	CF8780200
12	PG11	PG11	PG11	PG11	PG11	PG11	CF8646011
13	RPG112	RPG112	RPG112	RPG112	RPG112	RPG112	CF8516012
14	Perno snodo	Pivot lock pin	Gelenkbolzen	Pivot articul.	Perno articul.	Sworzeń przegubu	CF8621022
15	Guarnizine	Gasket	Dichtung	Garniture	Junta	Uszczelka	CF8504001
16	Serbatoio	Tank	Tank	Réservoir	Depósito	Zbiornik	C5667010
17	Motore	Motor	Motor	Moteur	Motor	Silnik	C3587070
18	Giunto	Coupling	Kupplung	Joint	Junta	Łącze	CF8424001
19	Flangia anteriore	Flange	Vord. Flansch	Bride avant	Brida anterior	Kołnierz przedni	CF8396201
20	Ghiera	Bushing	Zwinge	Bague fil.	Vírola	Pierścień skurcz.	CF8426100
21	Guarnizione	Gasket	Dichtung	Garniture	Junta	Uszczelka	CF8504002
22	Stantuffo	Piston	Kolben	Piston	Émbolo	Tłok	CF8827001
23	OR 3162	OR 3162	OR 3162	Joint tor. 3162	OR 3162	OR 3162	CF8072470
24	OR 114	OR 114	OR 114	Joint tor. 114	OR 114	OR 114	CF8072100
25	Condensatore 10µF	Capacitor 10µF	Kondensator 10µF	Condensateur 10µF	Condensador 10µF	Kondensator10µF	CF8234076
26	Guarnizione	Gasket	Dichtung	Garniture	Junta	Uszczelka	CF8504060
27	Tampone	Bush sleeve	Puffer	Tampon	Tampón	Zatyczka	CF8836001
28	Testa rallentam.	Slowdown head	Kopf Verlang.	Tête ralentiss.	Cabeza decel.	Przód zwalniania	C3396001
29	Flangia Post	Head flange	Hint. Flansch	Bride arrière	Brida post	Kołnierz Tylny	CF8396200
30	Guarnizione	Gasket	Dichtung	Garniture	Junta	Uszczelka	CF8500461
31	Rondel. 30x20x2,5	Washer 30x20x2,5	Unterl. 30x20x2,5	Rondel. 30x20x2,5	Arand. 30x20x2,5	Podkł. 30x20x2,5	CF8345030
32	Seeger D30	Snap ring D30	Seeger D30	Seeger D30	Seeger D30	Seeger D30	CF8045069
33	Raschiatore	Piston ring	Abstreifer	Segm. racleur	Rascador	Skrobak	CF8504062
34	Testa snodo	Pivot head	Gelenkkopf	Tête articul.	Cabeza articul.	Przód przegubu	CF8780010
35	Tappo	End cap	Deckel	Bouchon	Tapón	Zatyczka	CF8837150
36	Cavo alimentaz.	Power cable	Stromkabel.	Câble alim.	Cable alimen.	Przewód zasilania	CF8171160

A	Pompa per HD.35/HD.35 C/HD.35 AC - Pump - Pumpe - Pompe - Bomba- Pompa	(1l/min)	CF8634001
	Pompa per HD.45/HD.50/HD.50AC - Pump - Pumpe - Pompe - Bomba- Pompa	(0,75l/min)	CF8634002

B	Distributore per HD.35/HD.45/HD.50 - Distributor - Verteiler - Distributeur - Distribuidor - Dystrybutor	C5396003
	Distributore per HD.35 C - Distributor - Verteiler - Distributeur - Distribuidor - Dystrybutor	C5396001
	Distributore per HD.35 AC/HD.50 AC - Distributor - Verteiler - Distributeur - Distribuidor - Dystrybutor	C5396000

C	Tubo per HD.35/HD.35 C/HD.35 AC/HD.45 - Barrel - Rohrleitung - Tube - Tubo - Rura	CF8424001
	Tubo per HD.50/HD.50 AC - Barrel - Rohrleitung - Tube - Tubo - Rura	CF8424002

D	Barra M6 per HD.35/HD.35 C/HD.35 AC/HD.45 - M6 rod- Stange M6- Barre M6- Barra M6- Drażek M6	CF8954012
	Barra M6 per HD.50/HD.50 AC - M6 rod- Stange M6 - Barre M6- Barra M6- Drażek M6	CF8954013

E	Canna per HD.35/HD.35 C/HD.35 AC/HD.45 - Rod housing- Rohr - Canne- Conducto - Tuleja	CF8868002
	Canna per HD.50/HD.50 AC - Rod housing- Rohr - Canne- Conducto - Tuleja	CF8868003

F	Stelo per HD.35/HD.35 C/HD.35 AC/HD.45 - Ram shaft - Schaft - Tige piston- Vástago - Trzpień	CF8829001
	Stelo per HD.50/HD.50 AC - Ram shaft - Schaft - Tige piston- Vástago - Trzpień	CF8868002

G	Copristelo per HD.35/HD.35 C/HD.35 AC/HD.45 - Ram sleeve - Schaftdeckel - Carter piston - Cubrevástago- Osłona trzpienia	C5868000
	Copristelo per HD.50/HD.50 AC - Ram sleeve - Schaftdeckel - Carter piston - Cubrevástago- Osłona trzpienia	C5868005

H	Staffa Anteriore per HD.35/HD.35 C/HD.35 AC/HD.45 - Gate bracket - Vord. Bügel - Bride avant - Estribo anterior - Zaczep Przedni	CF8819030
	Staffa Anteriore per HD.50/HD.50 AC - Gate bracket - Vord. Bügel - Bride avant - Estribo anterior - Zaczep Przedni	CF8819033

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

(i.e. HD.35 C -HD.35 AC- HD.50 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

(i.e. HD.35 - HD.45 - HD.50):

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. The movement may be made easier by slackening the release knob.

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

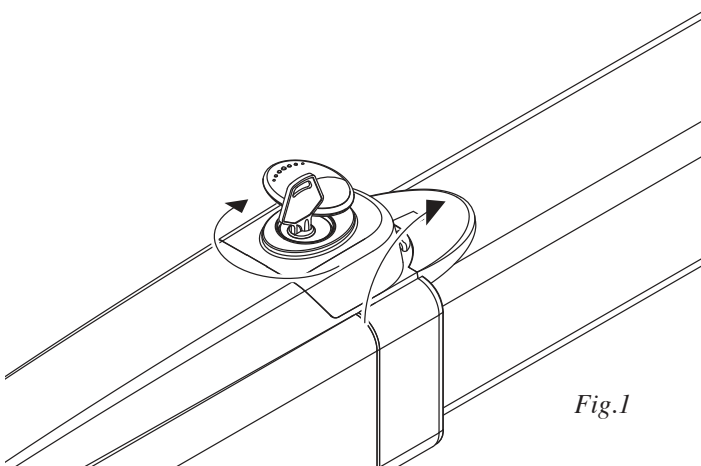


Fig.1

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

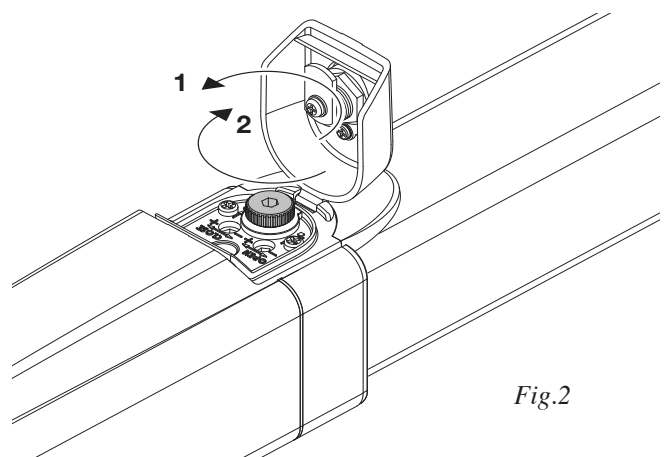


Fig.2

