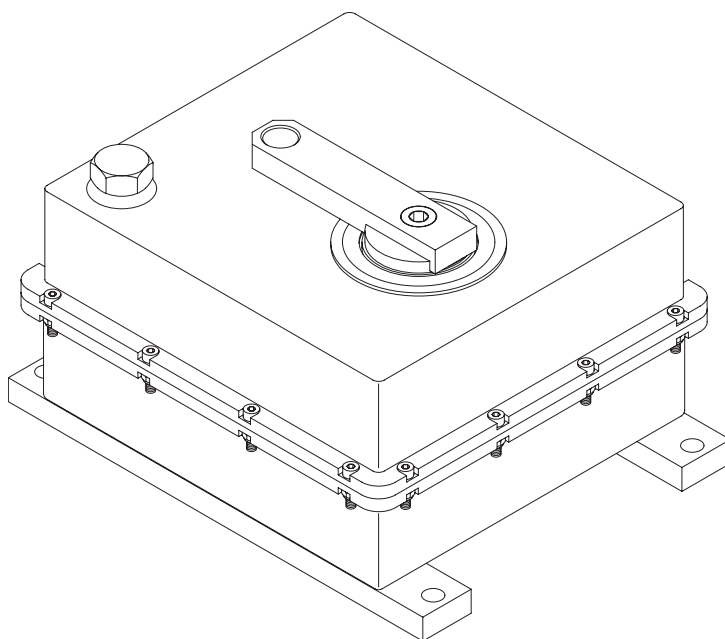


L8542110  
Rev. 02/06/02

# BENINCA®

AUTOMAZIONE PER CANCELLI A BATTENTE  
**AUTOMATION FOR HINGED GATES**  
*AUTOMATION FÜR TORE*  
**AUTOMATION POUR PORTAILS OUVRANTS**  
AUTOMATIZACIÓN PARA CANCELAS DE BATIENTE  
**AUTOMATYZACJA BRAM ROZWIERANYCH**

## ***DU.350***



Libro istruzioni e catalogo ricambi

**Operating instructions and spare parts catalogue**

*Betriebsanleitung und Ersatzteilliste*

***Livret d'instructions et catalogue des pieces de rechange***

Manual de instrucciones y catálogo de recambios

**Książeczka z instrukcjami i katalog części wymiennych**



UNIONE NAZIONALE COSTRUTTORI  
AUTOMATISMI PER CANCELLI, PORTE  
SERRANDE ED AFFINI

**Dichiarazione CE di conformità per macchine**  
**(Direttiva 98/37 CE, Allegato II, parte B)**  
**Divieto di messa in servizio**

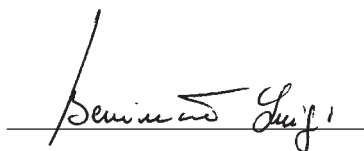
Fabbricante: **Automatismi Benincà SpA.**  
Indirizzo: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Dichiara che: l'automazione per cancelli a battente modello **DU.350.**

- è costruito per essere incorporato in una macchina o per essere assemblato con altri macchinari per costituire una macchina considerata dalla Direttiva 98/37 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 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 98/37 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.  
Sandrigo, 10/01/2006.



**Declaration by the manufacturer**  
**(Directive 98/37/EEC, Art. 4.2 and Annex II, sub B)**  
**Divieto di messa in servizio**

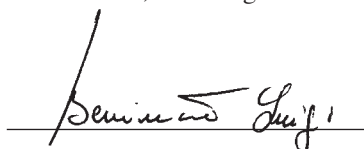
Manufacturer: **Automatismi Benincà SpA.**  
Address: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Herewith declares that: the operator for hinged gates model **DU.350.**

- is intended to be incorporated into machinery or to be assembled with other machinery to constitute machinery covered by Directive 98/37 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 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 98/37/EEC and with national implementing legislation, i.e. as a whole, including the machinery referred to in this declaration.

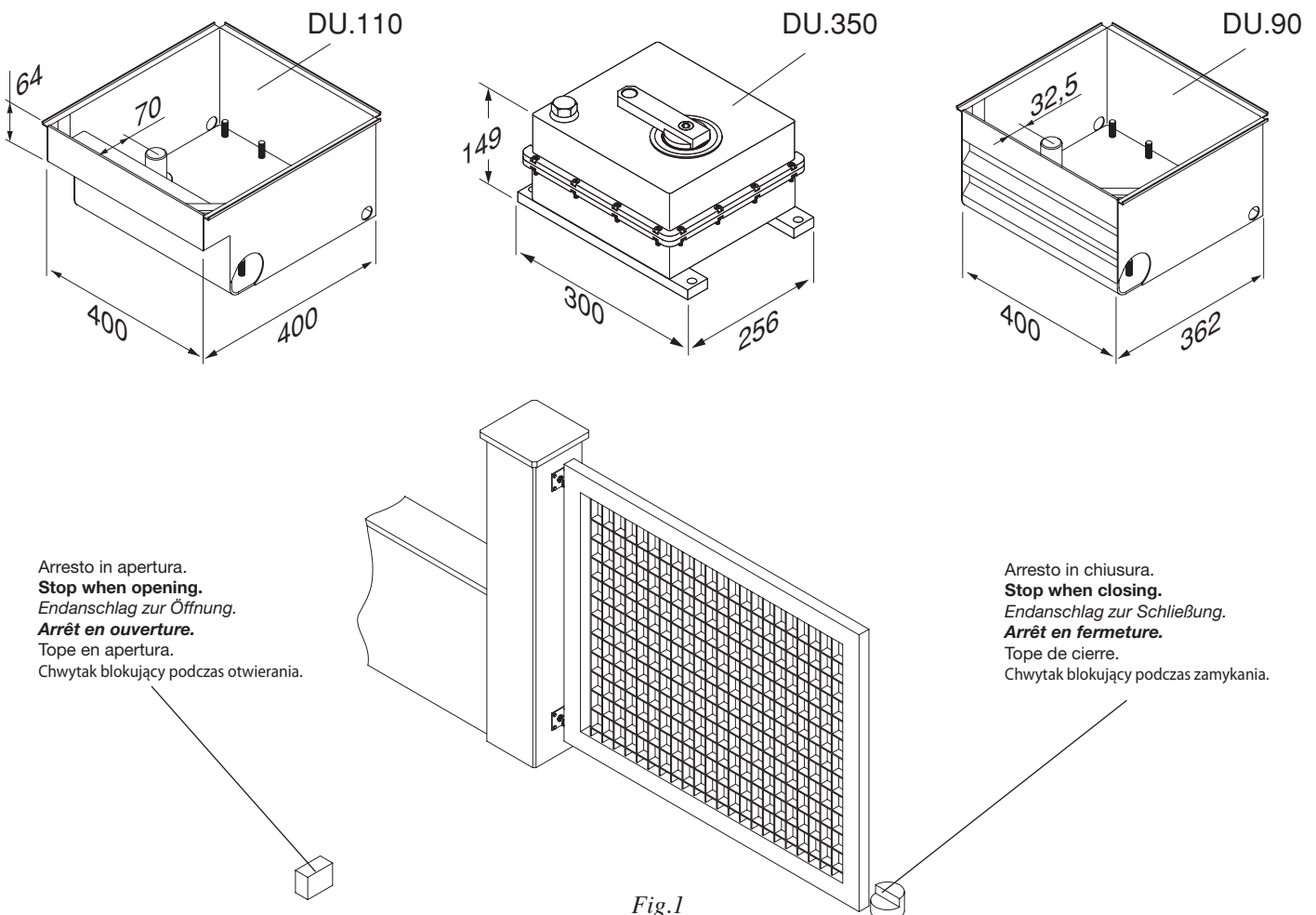
Benincà Luigi, Responsabile legale.  
Sandrigo, 10/01/2006.



Dati tecnici	Technical data	Technische Daten	Donnees technique	Datos técnicos	Dane techniczne	DU.350
Alimentazione	<b>Power supply</b>	<i>Stromversorgung</i>	<b>Alimentation</b>	Alimentación	Zasilanie	<b>230 Vac</b>
Potenza assorbita	<b>Power drawn</b>	<i>Aufgenomm. Leistung</i>	<b>Puissance absorbée</b>	Consumo de potencia	Natężenie	<b>310 W</b>
Corrente assorbita	<b>Current drawn</b>	<i>Aufgenomm. Strom</i>	<b>Courant absorbé</b>	Consumo de corriente	Pobór mocy	<b>1,4 A</b>
Coppia	<b>Torque</b>	<i>Drehmoment</i>	<b>Couple</b>	Par	Moment obrotowy	<b>450 Nm</b>
Classe isolamento mot.	<b>Motor insulation class</b>	<i>Schutzklasse des Mot.</i>	<b>Classe d'isolement</b>	Clase aislamiento mot.	Klasa izolacji silnika	<b>F</b>
Rumorosità	<b>Noise level</b>	<i>Geräusentwicklung</i>	<b>Bruit</b>	Ruido	Max. hałas	<b>&lt;70 dB</b>
Tempo man. anta (90°)	<b>Operating time at 90°</b>	<i>Betätigungszeit 90°</i>	<b>Temps manoeuvre 90°</b>	Tiempo maniobra 90°	Czas posuwu skrzydła dla kąta 90°	<b>18 s (1).</b>
Peso max. anta	<b>Door leaf max. weight</b>	<i>Max. Türflügelgewicht</i>	<b>Poids max. porte</b>	Peso máx. hoja	Ciężar max. skrzydła	<b>500 kg</b>
Lunghezza max. anta	<b>Door leaf max.</b>	<i>Max. Flügelänge</i>	<b>Longueur max. porte</b>	Longitud máx. hoja	Dł. max. skrzydła	<b>3,5 m (2)</b>
Intermittenza lavoro	<b>Jogging</b>	<i>Betriebsintervall</i>	<b>Intermittence travail</b>	Intermitencia de trabajo	Cykliczność pracy	<b>40%</b>
Lubrificazione	<b>Lubrication</b>	<i>Schmierung</i>	<b>Lubrification</b>	Lubrificación	Smarowanie	<b>AGIP Blasla 32</b>
Condensatore	<b>Capacitor</b>	<i>Kondensator</i>	<b>Condensateur</b>	Condensador	Kondensator	<b>12,5 µF</b>
Grado IP	<b>IP class</b>	<i>IP Grad</i>	<b>Degré IP</b>	Índice IP	Stopień IP	<b>IP67</b>
Peso DU.350	<b>Weight DU.350</b>	<i>Gewicht DU.350</i>	<b>Poids DU.350</b>	Peso DU.350	Ciężar DU.350	<b>20 kg</b>
Peso DU.110	<b>Weight DU.110</b>	<i>Gewicht DU.110</i>	<b>Poids DU.110</b>	Peso DU.110	Ciężar DU.110	<b>16,2 kg</b>
Peso DU.90	<b>Weight DU.90</b>	<i>Gewicht DU.90</i>	<b>Poids DU.90</b>	Peso DU.90	Ciężar DU.90	<b>15 kg</b>

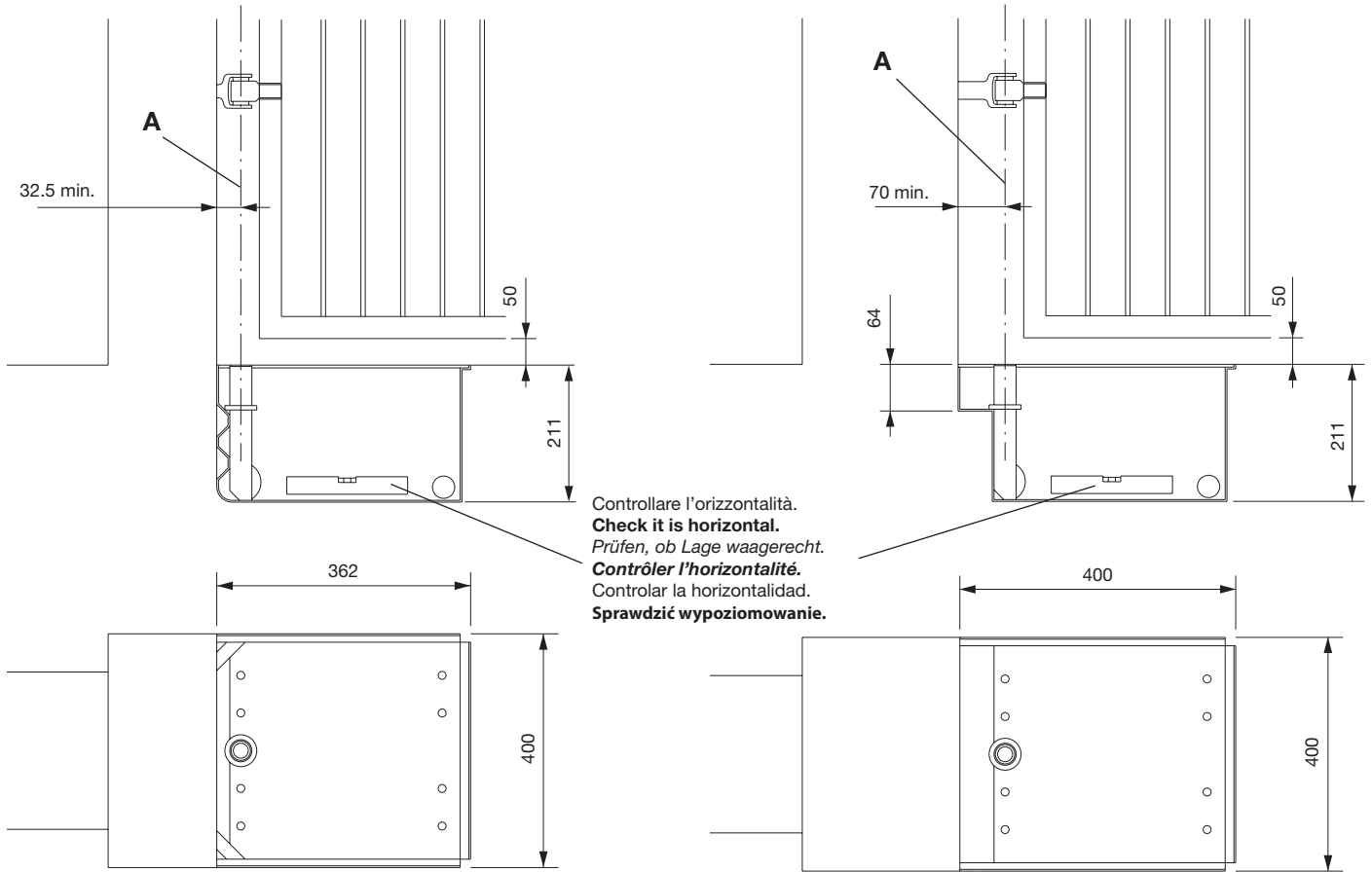
- (1) Con rallentamento disabilitato - **With braking disabled** - **Avec ralentissement désactivé**  
*Wenn Geschwindigkeitsabnahme deaktiviert* - Con ralentización inhabilitada - **Przy funkcji zwolnienia biegu wykluczonej**
- (2) È possibile automatizzare anche ante di lunghezza maggiore ma il funzionamento diventa meno dolce e regolare.  
**Automation for longer wings is also possible but running would not be so smooth and regular.**  
*Flügel mit Länge über 3.5 m können automatisiert werden aber der Betrieb wird in diesem Fall weniger leicht und regelmäßig sein.*  
**Il est possible d'automatiser des portes plus longues mais le fonctionnement sera moins aisé et moins régulier.**  
 Es posible automatizar también hojas de longitud mayor pero el funcionamiento resulta menos dulce y regular.  
**Możliwa jest automatyzacja bram o skrzydłach o większej szerokości, ale działanie będzie mniej delikatne i regularne.**

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



Ingombri cassa art. DU.90.  
**Overall dimensions box art. DU.90.**  
 Raumbedarf Kasten DU.90.  
**Dimensions caisse art. DU.90.**  
 Volumen caja art. DU.90.  
**Gabaryt skrzynki art. DU.90.**

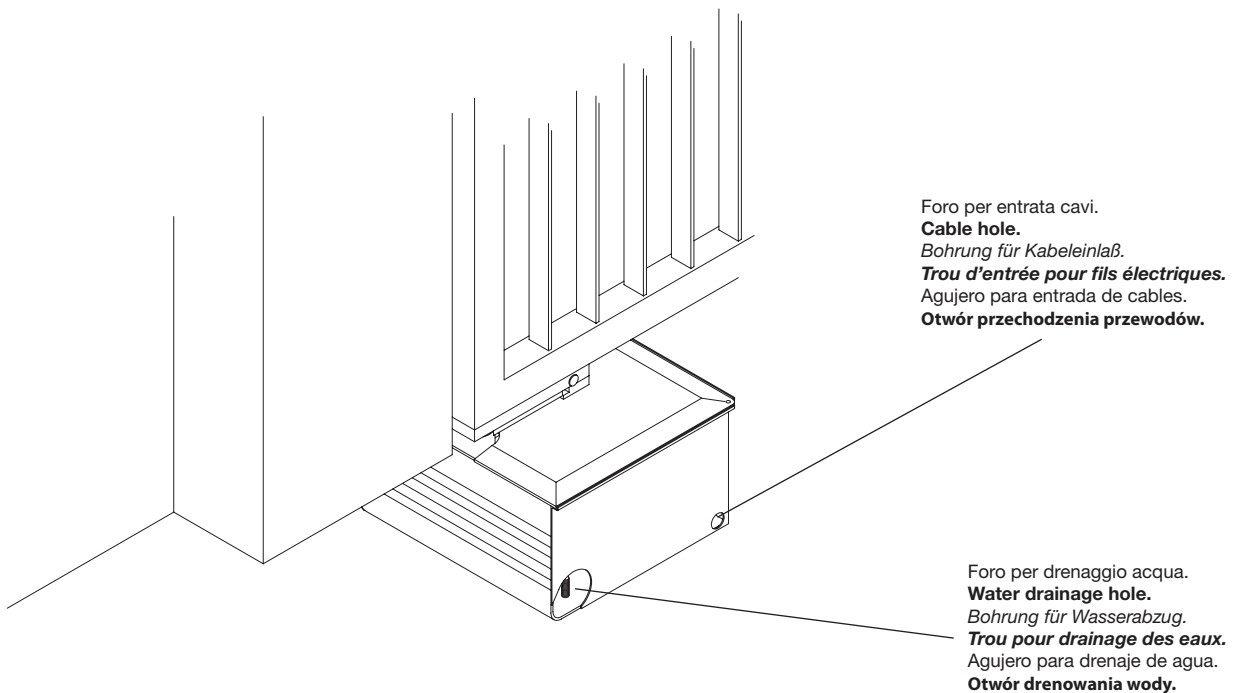
Ingombri cassa art. DU.110.  
**Overall dimensions box art. DU.110.**  
 Raumbedarf Kasten DU.110.  
**Dimensions caisse art. DU.110.**  
 Volumen caja art. DU.110.  
**Gabaryt skrzynki art. DU.110.**



Controllare l'orizzontalità.  
**Check it is horizontal.**  
 Prüfen, ob Lage waagerecht.  
**Contrôler l'horizontalité.**  
 Controlar la horizontalidad.  
**Sprawdzić wy poziomowanie.**

Controllare che l'asse A sia perfettamente a piombo.  
**Check axis A is plumb.**  
 Prüfen, ob Achse A vollkommen lotrecht.  
**Contrôler que l'axe A soit parfaitement d'aplomb.**  
 Controlar que el eje A esté perfectamente aplomado.  
**Sprawdzić czy oś A jest dokładnie w pionie.**

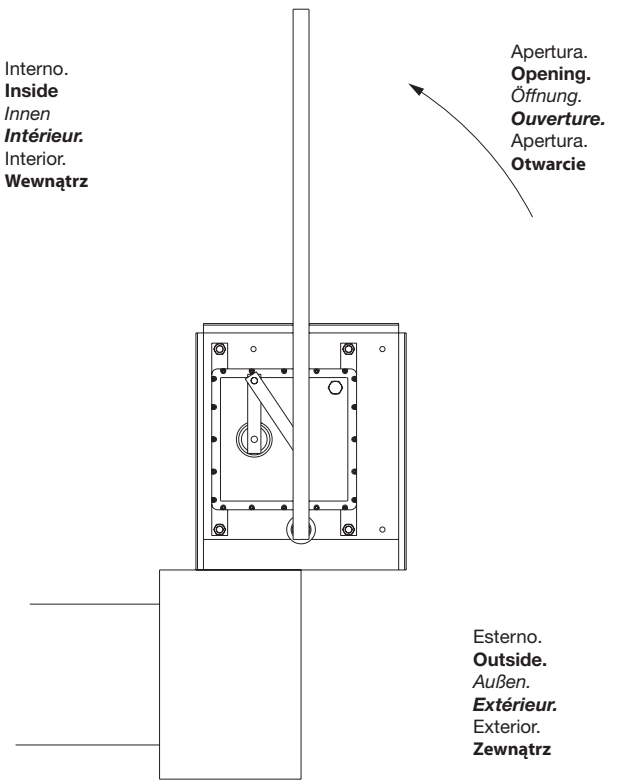
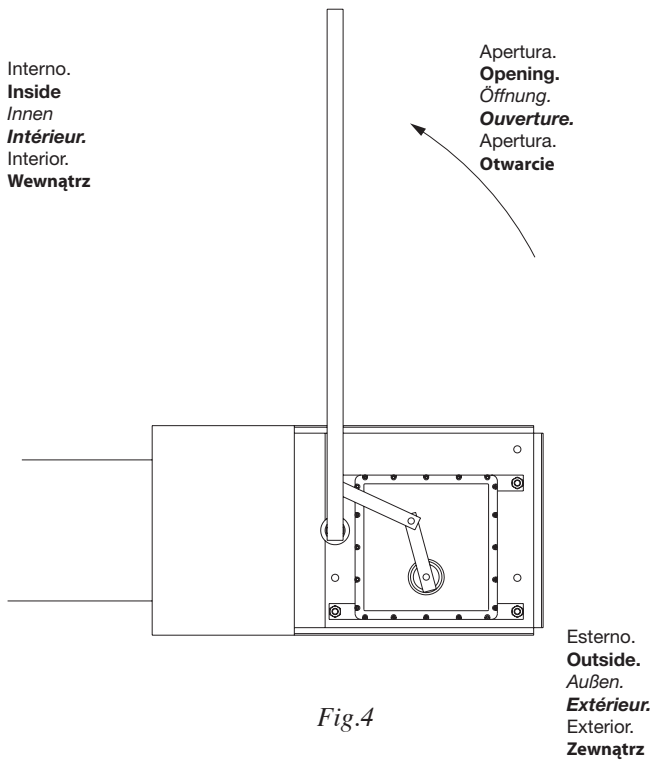
Fig.2



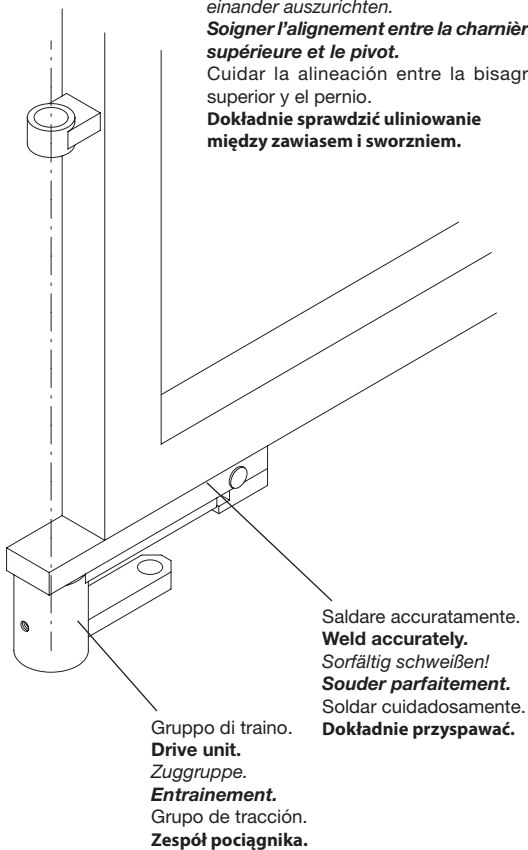
Foro per entrata cavi.  
**Cable hole.**  
 Bohrung für Kabeleinlaß.  
**Trou d'entrée pour fils électriques.**  
 Agujero para entrada de cables.  
**Otwór przechodzenia przewodów.**

Foro per drenaggio acqua.  
**Water drainage hole.**  
 Bohrung für Wasserabzug.  
**Trou pour drainage des eaux.**  
 Agujero para drenaje de agua.  
**Otwór drenowania wody.**

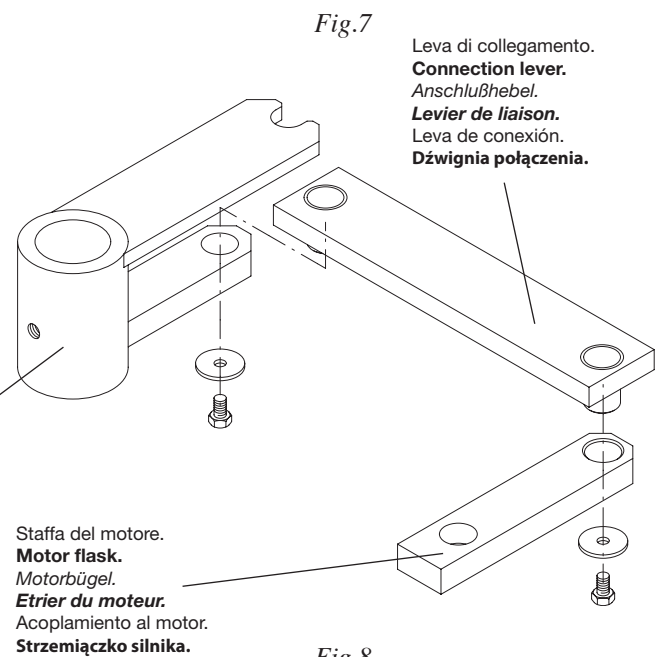
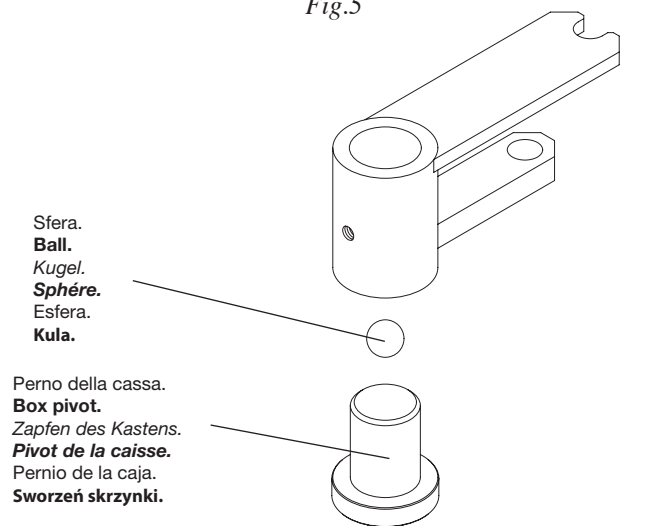
Fig.3



Curare l'allineamento tra la cerniera superiore ed il perno.  
**Align the top hinge with the pivot.**  
Oberes Scharnier und Zapfen sind aufeinander auszurichten.  
**Soigner l'alignement entre la charnière supérieure et le pivot.**  
Cuidar la alineación entre la bisagra superior y el perno.  
**Dokładnie sprawdzić ułiniowanie między zawiasem i sworzniem.**



Staffa del gruppo di traino.  
**Drive unit flask.**  
Bügel der Zuggruppe.  
**Etrier du groupe de traction.**  
Acoplamiento del grupo de tracción.  
**Strzemiączko zespołu pociągnika.**



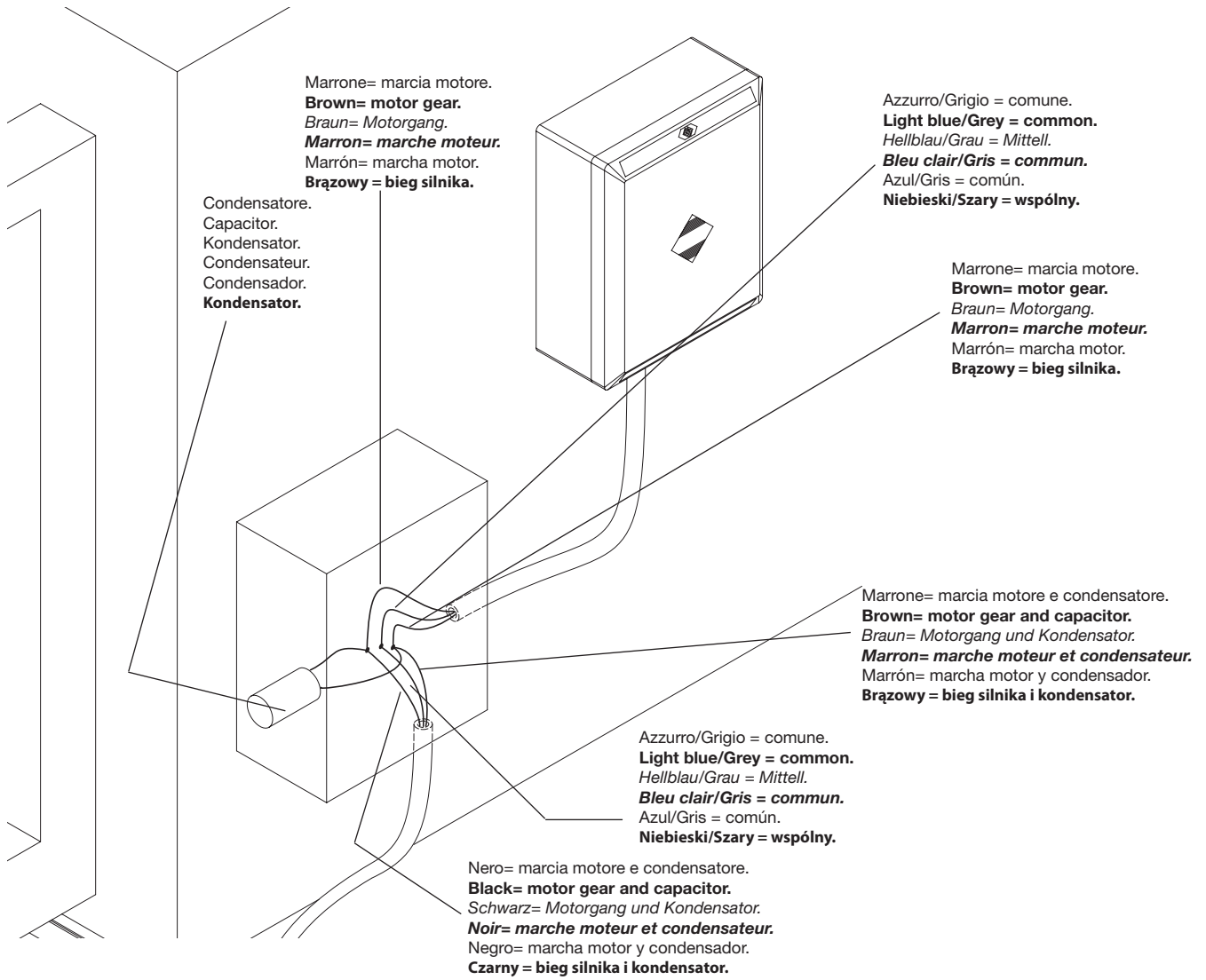
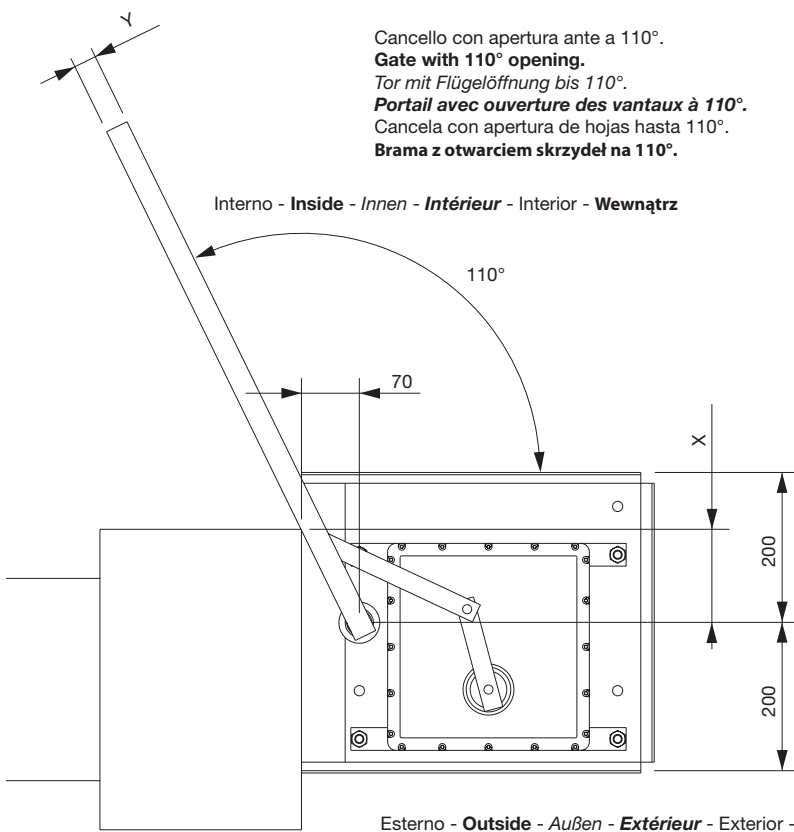


Fig.9



X	Y
130	30
115	40
100	50
85	60
70	70
55	80

In tabella si riportano alcune quote minime X in base ad alcuni spessori di portone Y.

**This table shows some min. X dimensions based on gate thickness Y.**

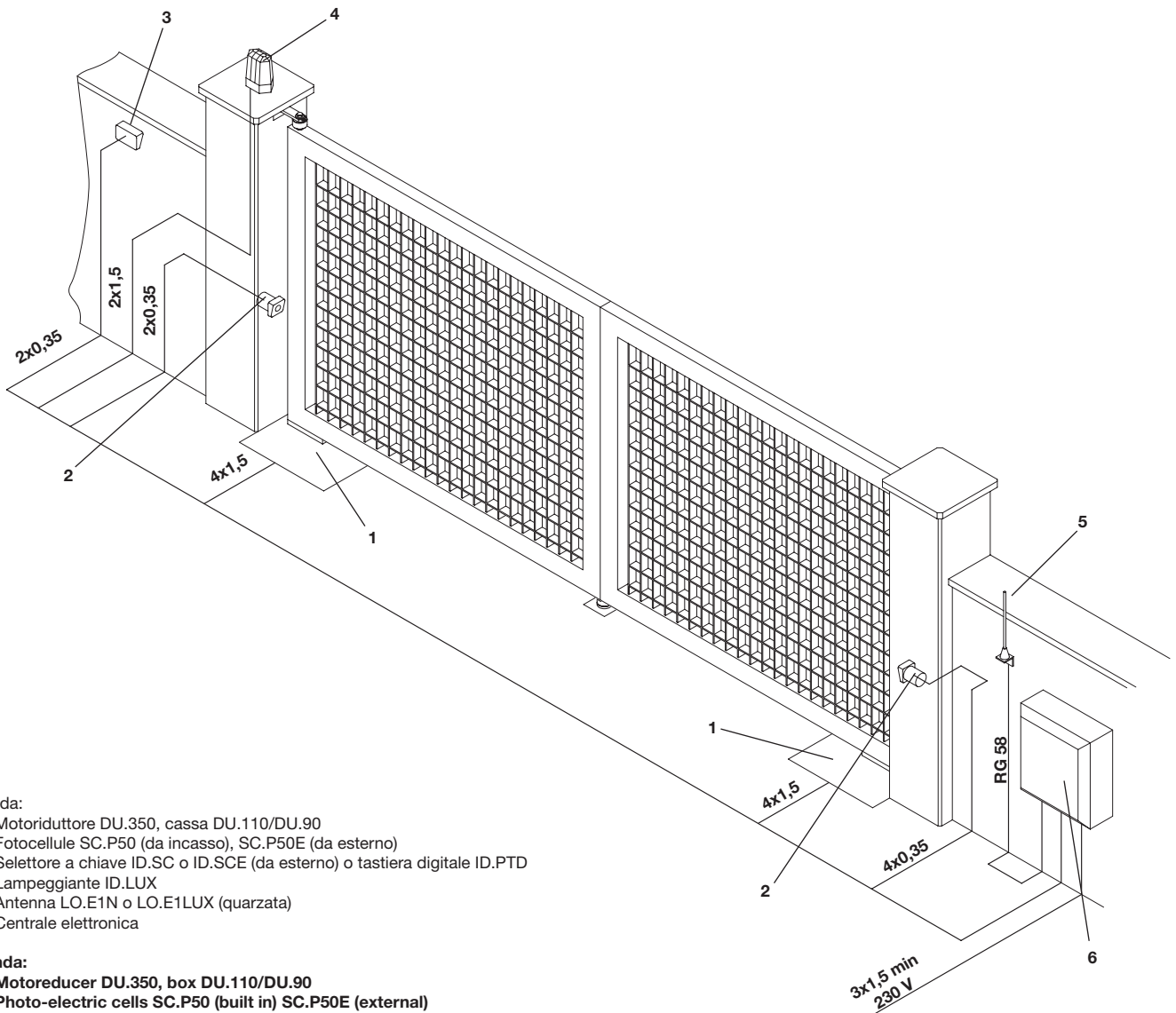
Die Tabelle enthält einige Mindestwerte X aufgrund einiger Tordicken Y.

**Dans le tableau sont indiqués quelques cotes minimales et quelques épaisseurs de porte Y.**

En la tabla se exponen algunas cotas mínimas X en base a algunos espesores del portón Y.

**W tabeli podane są niektóre minimalne odległości X w zależności od grubości bramy Y.**

Fig.10



Legenda:

- 1 Motoreduktore DU.350, cassa DU.110/DU.90
- 2 Fotocellule SC.P50 (da incasso), SC.P50E (da esterno)
- 3 Selettore a chiave ID.SC o ID.SCE (da esterno) o tastiera digitale ID.PTD
- 4 Lampeggiante ID.LUX
- 5 Antenna LO.E1N o LO.E1LUX (quarzata)
- 6 Centrale elettronica

Legenda:

- 1 Motoreducer DU.350, box DU.110/DU.90
- 2 Photo-electric cells SC.P50 (built in) SC.P50E (external)
- 3 Key selector ID.SC or ID.SCE (external) or digital keyboard ID.PTD
- 4 Flash-light ID.LUX
- 5 Antenna LO.E1N or LO.E1LUX (quartz)
- 6 Electronic gearcase

Zeichenerklärung:

- 1 Getriebemotor DU.350, Kasten DU.110/DU.90
- 2 Fozelle SC.P50 (eingelegt), SC.P50E (außenliegend)
- 3 Schlüssel-Selektor ID.SC oder ID.SCE (außenliegend) oder Digital-Tastatur ID.PTD
- 4 Blinker ID.LUX
- 5 Antenne LO.E1N oder LO.E1LUX (Quartz)
- 6 Elektroschrank

Légende:

- 1 Moteur-réducteur DU.350, caisse DU.110/DU.90
- 2 Photocellule SC.P50 (noyée) - SC.P50E (d'extérieur)
- 3 Selecteur à clé ID.SC ou ID.SCE (d'extérieur) ou clavier digital ID.PTD
- 4 Clignotant ID.LUX
- 5 Antenne LO.E1N ou LO.E1LUX (au quartz)
- 6 Centrale électronique

Legenda:

- 1 Motorreductor DU.350, caja DU.110/DU.90
- 2 Fotocélulas SC.P50 (de empotrar), SC.P50E (de superficie).
- 3 Selectores a llave ID.SC o ID.SCE (de superficie).
- 4 Relampagueador ID.LUX.
- 5 Antena LO.E1N o LO.E1LUX (cuarzada)
- 6 Central electrónica.

Legenda:

- 1 Siłownik DU.350, skrzynka DU.110/DU.90
- 2 Fotokomórki SC.P50 (wbudowane), SC.P50E (zewnątrzne)
- 3 Przełącznik kluczowy ID.SC lub ID.SCE (zewnątrzny) lub klawiatura cyfrowa ID.PTD
- 4 Lampa błyskająca ID.LUX
- 5 Antena LO.E1N lub LO.E1LUX (kwarcowana)
- 6 Centralka elektroniczna

## Introduction

Thank you for choosing our DU.350 ratiomotor.

All items in the wide Benincà production range are the result of twenty-years' experience in the automatism sector and of continuous research for new materials and advanced technologies.

We are, therefore, in the position to offer highly reliable products that due to their power, effectiveness and useful life, fully satisfy the final user's requirements.

## General information

For an efficient operation of these automatisms, the gate must have the following features:

- good stoutness and stiffness
- every wing must have one only hinge (if necessary, eliminate the others).
- all hinges must have positive clearances and permit smooth and regular manual operations.
- when wings are closed their height have to fit together.

### 1. General features

A completely built-in system that does not alter the appearance of gates.

Simple and reliable, it can be installed on any hinged gate of up to a max. 3.5 m per wing.

Movement is quiet and smooth thanks to a lever system that adjusts the speed depending on the different operation phases.

The full oil bath motor units prevents water seepage and formation of condensate which might permanently damage motor operation.

Electric locking is not required because the irreversible system ensures locking of the wings.

Installation is easy; once the box is embedded, the motor unit is fastened with stainless-steel nuts and bolts.

A special key is supplied to release it for manual manoeuvre.

The foundation boxes are in hot-galvanized sheet metal to guarantee longer life. They are available in 90° version DU.90 or 110° DU.110.

Device DU.180 offers 180° opening (for wing lengths not exceeding 2 m).

The same DU.180 can be used for the automation of special passages.

### 2. Mechanical stops (fig. 1)

The gate to automate must have an opening and closing mechanical stop as the DU.350 is not equipped with electromagnetic limit stops.

### 3. Foundation box laying

Dig as per instructions given in fig. 2 and make sure that on one of the four angles, where suitable holes have been made, a water drainage and a cable terminal have been prearranged. (fig. 3)

Cement the box and check it is horizontal with the level.

### 4. Motoreducer fixing

4.1 Fix the motoreducer with the 4 stainless steel M10 hexagon nut (part of the supply) that are fitted onto the screws projecting from the embedded box.

P.N. In the box there are 8 screws; use the ones that are suitable to the requirements as per instructions given in Fig. 5.

4.2 Weld the drive unit to the wing as per Fig. 6.

4.3 Place the wing into its seat after fitting the ball between the foundation box pivot and the drive unit.

4.4 Connect the drive unit with the motor flask through the connection lever and close the cover (Fig. 8)

4.5 Before tightening the M10 nuts check that the flasks rest in the area of the 4 screws; if not, shim where necessary always taking into consideration that the ratio-motor has to lay flat (check through a level).

### 5. Connections (fig. 9)

N.B.: Connect the filter as near as possible to the motor and in any case before the point where the motor cable runs near other cables or wires.

For connections to the electronic gear case, please refer to instructions relative to the electronic gear case itself.

### 6. 110° opening (fig. 10)

When positioning the boxes for 110° opening, Art. DU.110, calculate dimension X (between pivot and load bearing corner) so that it permits the rotation also in consideration of the gate thickness Y.

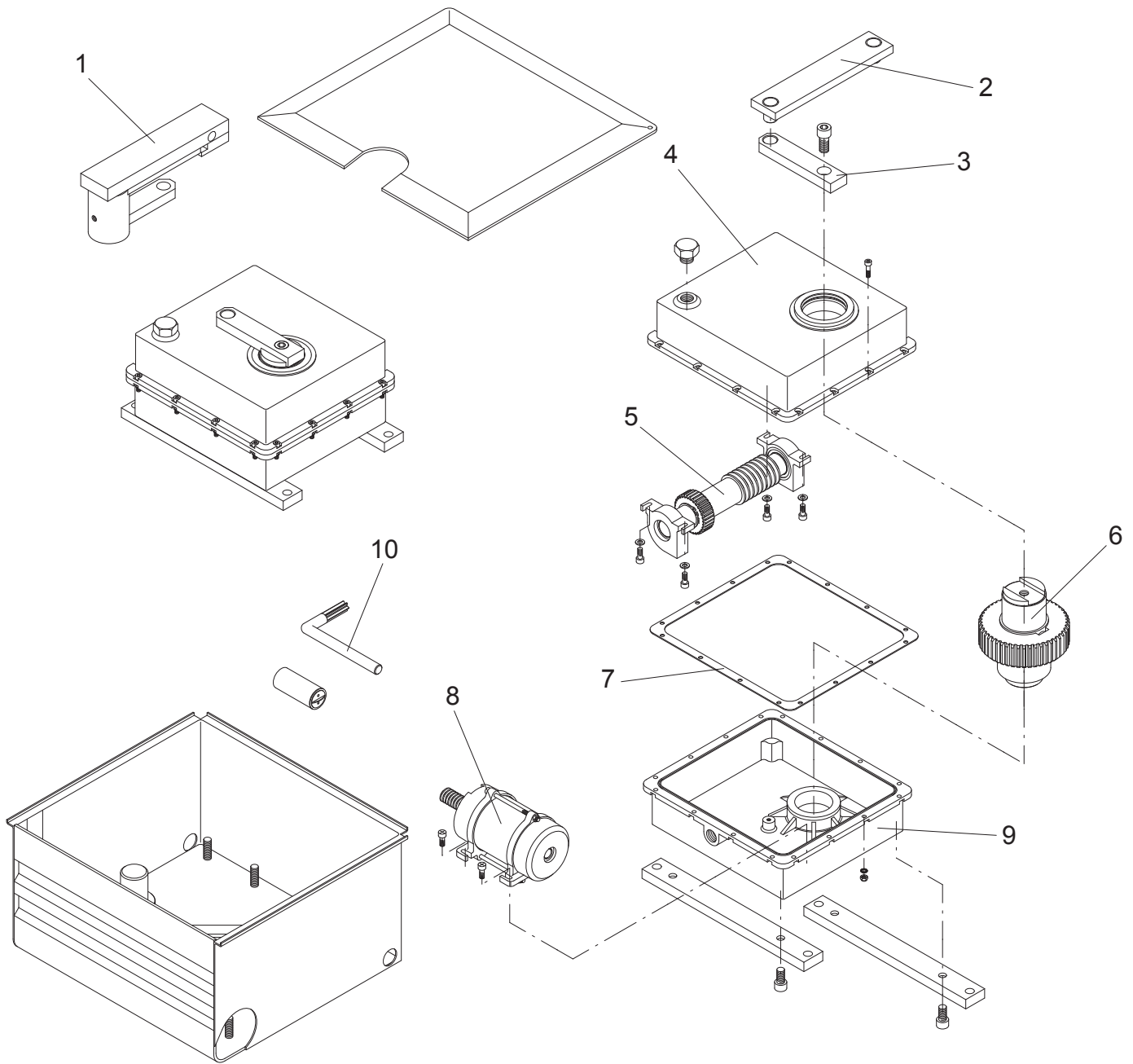
### 7. 180° opening

Device DU.180 offers 180° opening and use the DU.110 box. This option is recommended for wing length up to 2 m; it can also be used for longer lengths but in this case operation would not be smooth and regular.

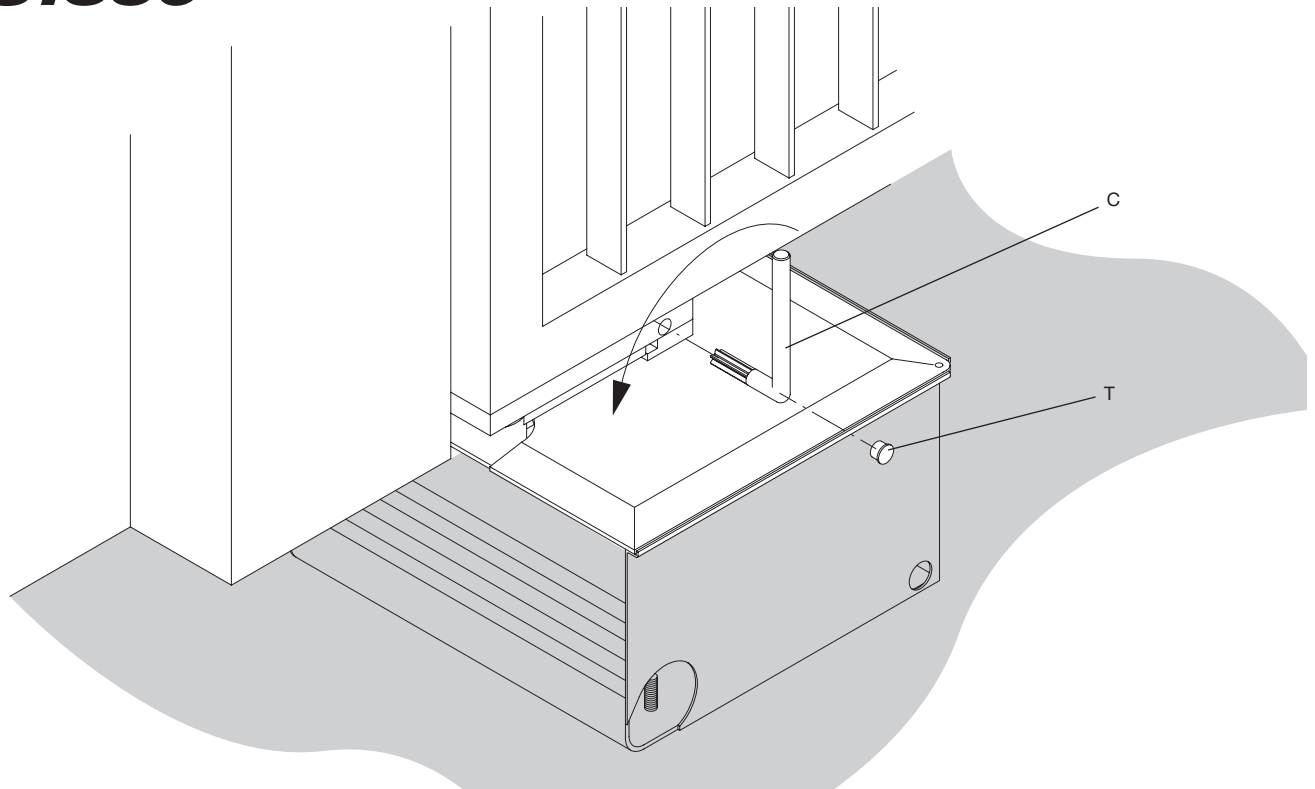
## CAUTION

All Benincà 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 Benincà parts be used.





Pos.	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie						Cod.
1	Sblocco	<b>Release</b>	<i>Entblockung</i>	<b>Débloccage</b>	Desbloqueo	Zespół odblok.	9686018
2	Leva	<b>Lever</b>	<i>Hebel</i>	<b>Levier</b>	Palanca	Dźwigienka	9686019
3	Leva	<b>Driving plate</b>	<i>Platte</i>	<b>Plaque</b>	Palanca	Dźwigienka	9686020
4	Carter superiore	<b>Upper cover</b>	<i>Gehäuse</i>	<b>Carter</b>	Cárter	Karter	9686016
5	Vite senza fine	<b>Worm screw</b>	<i>Welle</i>	<b>Vis sans fin</b>	Tornillo sin fin	Śruba dwustronna	9686015
6	Albero uscita	<b>Output shaft</b>	<i>Welle</i>	<b>Arbre</b>	Eje de salida	Wał wyjściowy	9686014
7	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Guarniture</b>	Junta	Uszczelka	9686021
8	Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	Silnik	9686013
9	Carter inferiore	<b>Lower cover</b>	<i>Gehäuse</i>	<b>Carter</b>	Cárter	Karter	9686017
10	Chiave sblocco	<b>Key</b>	<i>Schlüssel</i>	<b>Clé</b>	Llave de desbloq.	Dźwignia odrygl.	9686071



## Safety rules

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

## Manual and emergency operation

As all other Benincà automatism, the DU.350 is featured by a simple and functional release which permits the manual move in case of electricity interruption.

Proceed as follows:

- Extract the plastic plug T by levering on the edge
- Insert the key C and turn it.
- While keeping the key turned push the wing until it rotates slightly.
- Remove the key and fit the plugs again; the gate will automatically stop once back in its original position or once the motor will be started.

## 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.
- The operator is maintenance free but it is necessary to check periodically if the safety devices and the other components of the automation system work properly. Wear and tear of some components could cause dangers.

## 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 Benincà 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 Benincà parts be used.

**BENINCA<sup>®</sup>**

**AUTOMATISMI BENINCÀ** SpA - Via Capitello, 45 - 36066 Sandrigo (VI) - Tel. 0444 751030 r.a. - Fax 0444 759728

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