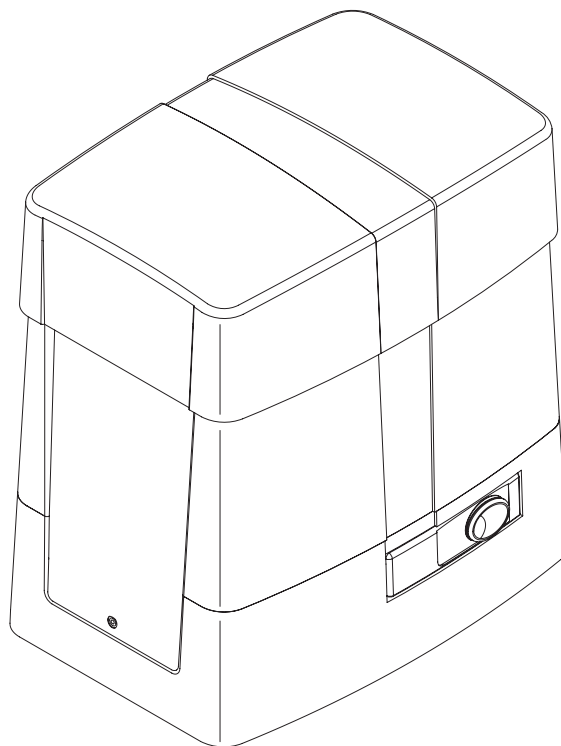


# BENINCA®

APRICANCELLO SCORREVOLE ELETTROMECCANICO  
**ELECTROMECHANICAL SLIDING GATE OPENER**  
*ELEKTROMECHANISCHE AUTOMATION FÜR SCHIEBEGITTER*  
**AUTOMATISATION ÉLECTROMÉCANIQUE POUR GRILLES COULISSANTES**  
ABRECANCELA ELECTROMECHANICO PARA CORREDERAS  
**ELEKTROMECHANICZNY, POSUWOWY OTWIERACZ BRAM**

## **BULL** **1024 ESA - 1024A ESA**



Libro istruzioni e catalogo ricambi

**Operating instructions and spare parts catalogue**

*Betriebsanleitung und Ersatzteilliste*

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

Libro 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**

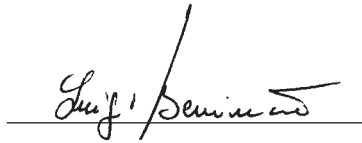
Fabbricante: **Automatismi Benincà SpA.**  
Indirizzo: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Dichiara che: l'automazione per cancelli scorrevoli modello **BULL 1024 ESA - BULL 1024A ESA.**

- è costruita per essere incorporata in una macchina o per essere assemblata 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 inoltre dichiara che non è consentito mettere in servizio il macchinario fino a che la macchina in cui sarà incorporata 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, 05/10/2005.



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

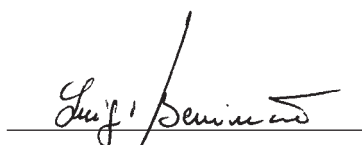
Manufacturer: **Automatismi Benincà SpA.**  
Address: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Herewith declares that: the operator for sliding gates model **BULL 1024 ESA - BULL 1024A ESA.**

- 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, 05/10/2005.

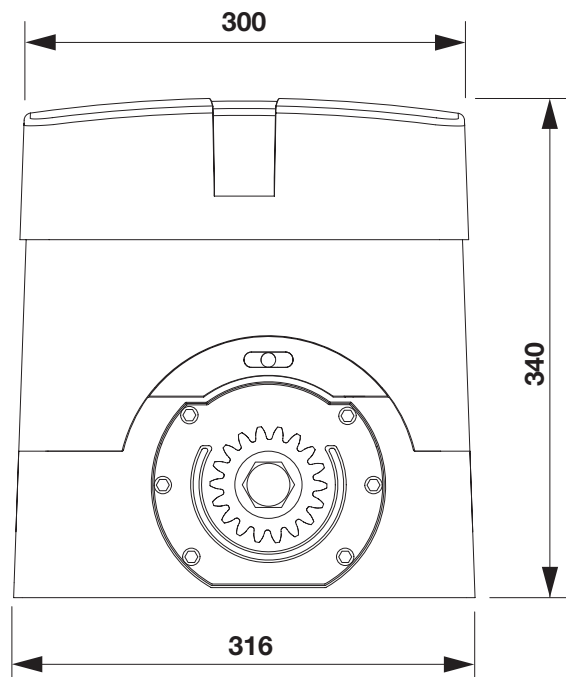
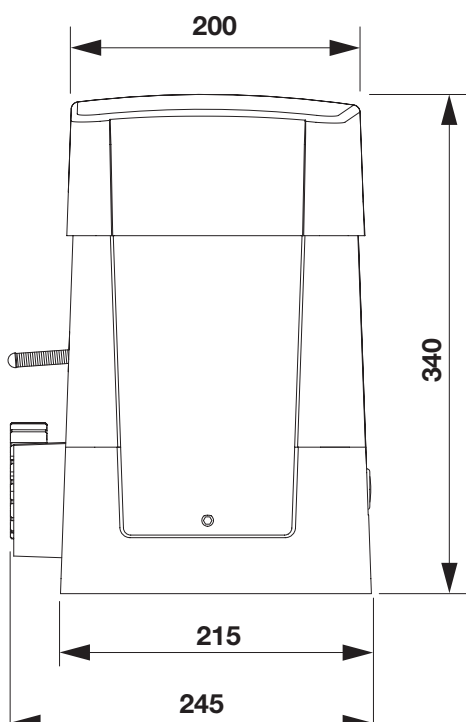


Dati tecnici	Technical data	Technische Daten	BULL 1024 ESA	BULL 1024A ESA
Alimentazione	Feed	Speisung	230 Vac 50/60Hz	115 Vac 50/60Hz
Assorbimento	Absorption	Verbrauch	1,7 A	3,4 A
Coppia	Torque	Kräftepaar	34 Nm	34 Nm
Intermittenza di lavoro	Operating jogging	Betriebsintermittenz	*	*
Grado di protezione	Thermoprot. interv.	Eingriff Thermorelais	IP44	IP44
Temp. funzionamento	Working temperature	Betriebstemperatur	-20°C / +50°C	-20°C / +50°C
Peso max. cancello	Max. gate weight	Gittersgewicht max.	1000kg	1000kg
Modulo cremagliera	Rack modulus	Modul der Zahnstange	M4	M4
Velocità apertura	Opening speed	Öffnungsgeschwindigkeit	11,7m/min	11,7m/min
Rumorosità	Noise level	Geräusentwicklung	<70 dB	<70 dB
Lubrificazione	Lubrication	Schmierung	Agip GR MU EP/2	Agip GR MU EP/2
Peso	Weight	Gewicht	18,7 kg	18,7 kg

Donnees technique	Datos técnicos	Dane techniczne	BULL 1024 ESA	BULL 1024A ESA
Alimentation	Alimentación	Zasilanie	230 Vac 50/60Hz	115 Vac 50/60Hz
Absorption	Absorción	Pobór mocy	1,7 A	3,4 A
Couple	Par	Moment obrotowy	34 Nm	34 Nm
Intermittence de travail	Intermitencia de trabajo	Rodzaj pracy	*	*
Degré de protection	Grado de protección	Stopień ochrony	IP44	IP44
Temp. fonctionnement	Temp. funcionamiento	Temp. podczas pracy	-20°C / +50°C	-20°C / +50°C
Poids max. portail	Peso máx. de la cancela	Ciężar max. bramy	1000kg	1000kg
Module de la crémaillère	Módulo de cremallera	Typ listwy zębatej	M4	M4
Vitesse d'ouverture	Velocidad de apertura	Prędkość otwieraia	11,7m/min	11,7m/min
Bruit	Ruido	Max. halas	<70 dB	<70 dB
Lubrification	Lubrificación	Smarowanie	Agip GR MU EP/2	Agip GR MU EP/2
Poids	Peso	Ciężar	18,7 kg	18,7 kg

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

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



**IMPORTANTE: Rispettare questa quota!**  
**IMPORTANT NOTE: Keep to this dimension!**  
**WICHTIG: Dieses Maß beachten!**  
**IMPORTANT: Respectez ce quota!**  
**IMPORTANTE: ¡Respetar esta cota!**  
**WAŻNE: Zachować ten wymiar!**

Tubo corrugato  
**Grooved tube**  
 Faltenrohr  
**Passe-câbles tubulaire**  
 Tubo corrugado  
**Rurka sprężysta**

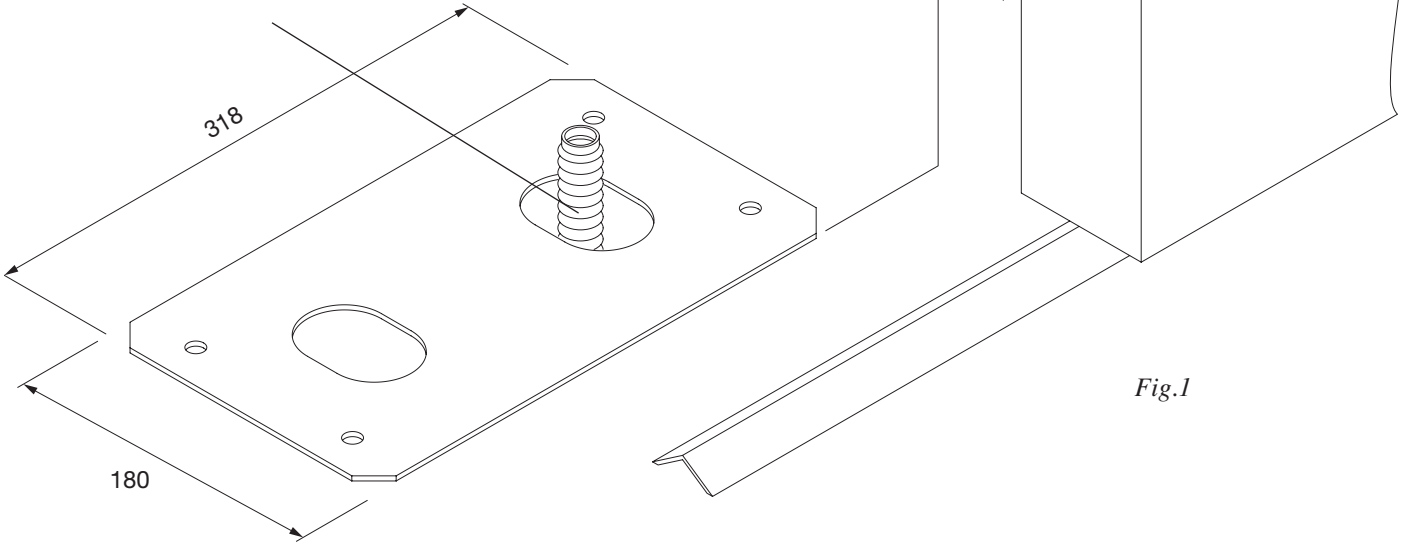
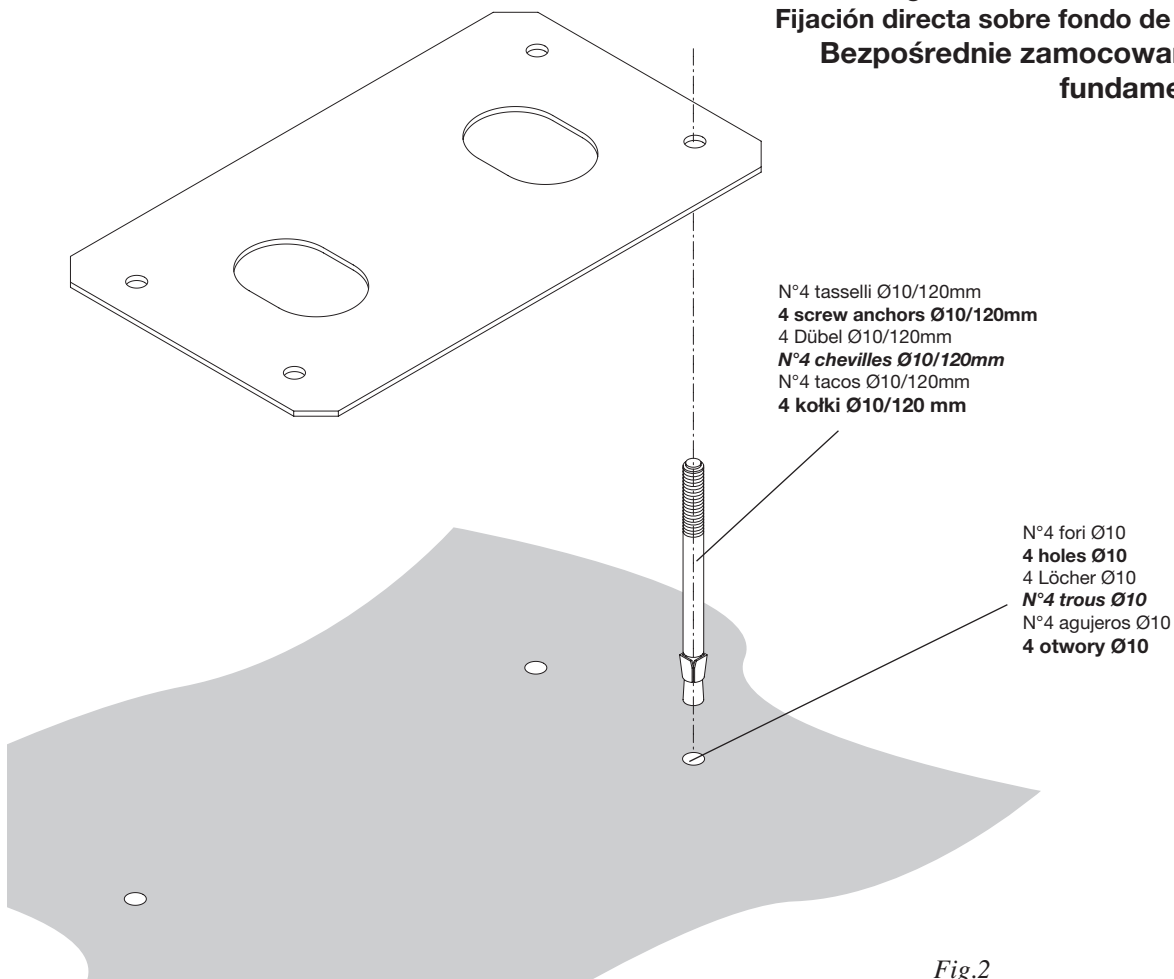


Fig.1

**Fissaggio diretto su fondo in cemento esistente**  
**Direct fitting on the already existing base in concrete**  
**Direkte Befestigung an einem vorhandenen Betonuntergrund**  
**Ancrage direct sur fond en ciment préexistant**  
**Fijación directa sobre fondo de cemento existente**  
**Bezpośrednie zamocowanie w istniejącym fundamencie betonowym**



N°4 tasselli Ø10/120mm  
**4 screw anchors Ø10/120mm**  
 4 Dübel Ø10/120mm  
**N°4 chevilles Ø10/120mm**  
 N°4 tacos Ø10/120mm  
**4 kołki Ø10/120 mm**

N°4 fori Ø10  
**4 holes Ø10**  
 4 Löcher Ø10  
**N°4 trous Ø10**  
 N°4 agujeros Ø10  
**4 otwory Ø10**

Fig.2

**Fissaggio con regolazione su fondo in cemento esistente**  
**Fitting with adjustment on the already existing base in concrete**  
**Befestigung an einem vorhandenen Betonuntergrund**  
**und Einstellung**

**Ancrage avec réglage sur fond en ciment préexistant**  
**Fijación con regulación sobre fondo de cemento**  
**existente**

**Zamocowanie z możliwością regulacji**  
**w istniejącym fundamencie beto-**  
**nowym**

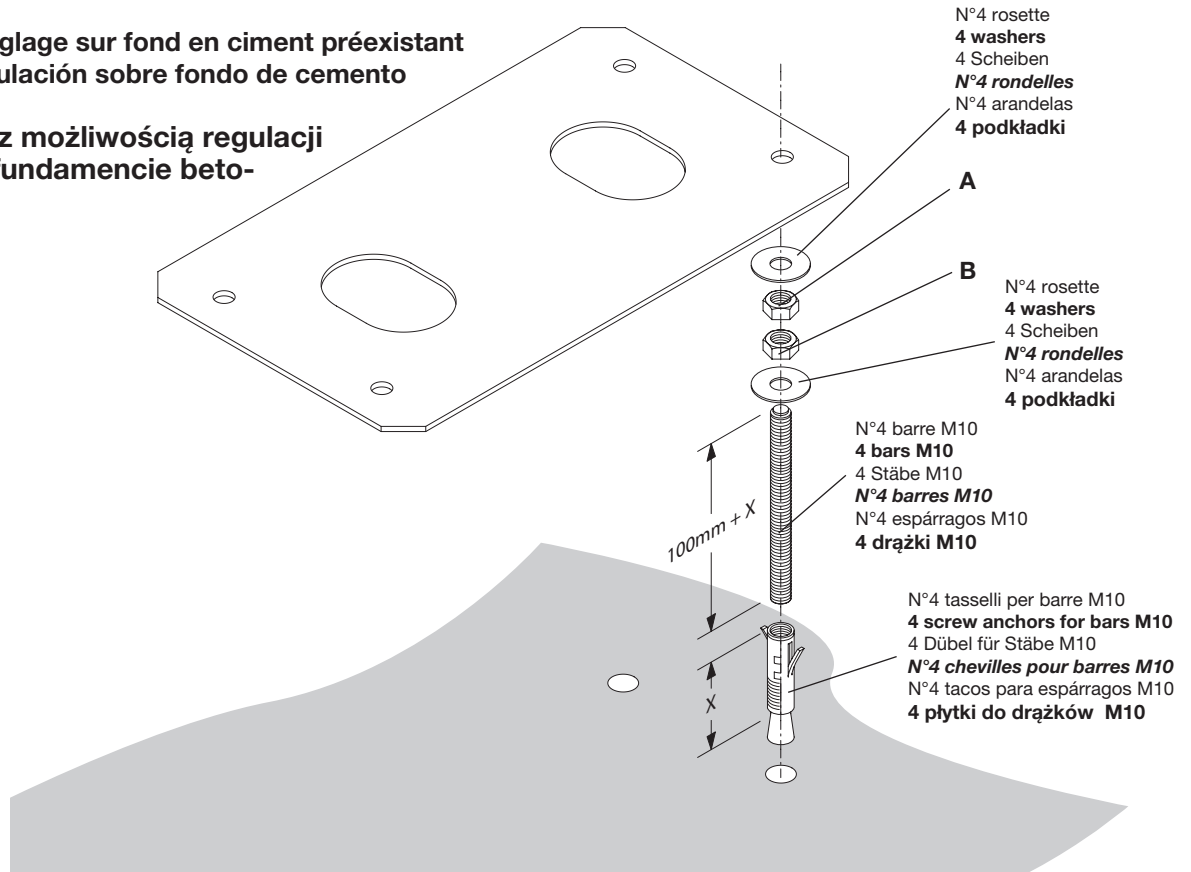


Fig.3

**Fissaggio con tirafondi su getto in calcestruzzo**  
**Fitting with stretcher bolts on concrete layer**  
**Befestigung durch Zugbolzen an einer Betonierung**  
**Ancrage avec tire-fonds sur coulée de béton**  
**Fijación con tirafondos sobre vaciado de hormigón**  
**Zamocowanie z odciążeniem w płycie beto-**  
**nowej**

N°4 tirafondi filettati M10 annegati nel calcestruzzo  
**4 M10 threaded stretcher bolts immersed in concrete**  
 4 Zugbolzen mit Gewinde M10 im Beton eingebettet  
 N°4 tire-fonds filetés M10 noyés dans le béton  
 N°4 tirafondos con rosca M10 ahogados en el hormigón  
**4 odciążi gwintowane M10 zakotwiczone w betonie**

Scavo per getto di calcestruzzo  
**Hole for concrete layer**  
 Baugrube für Betonierung  
 Cavage pour coulée de béton  
 Excavación para vaciado de hormigón  
**Wykopy do wylania betonu**

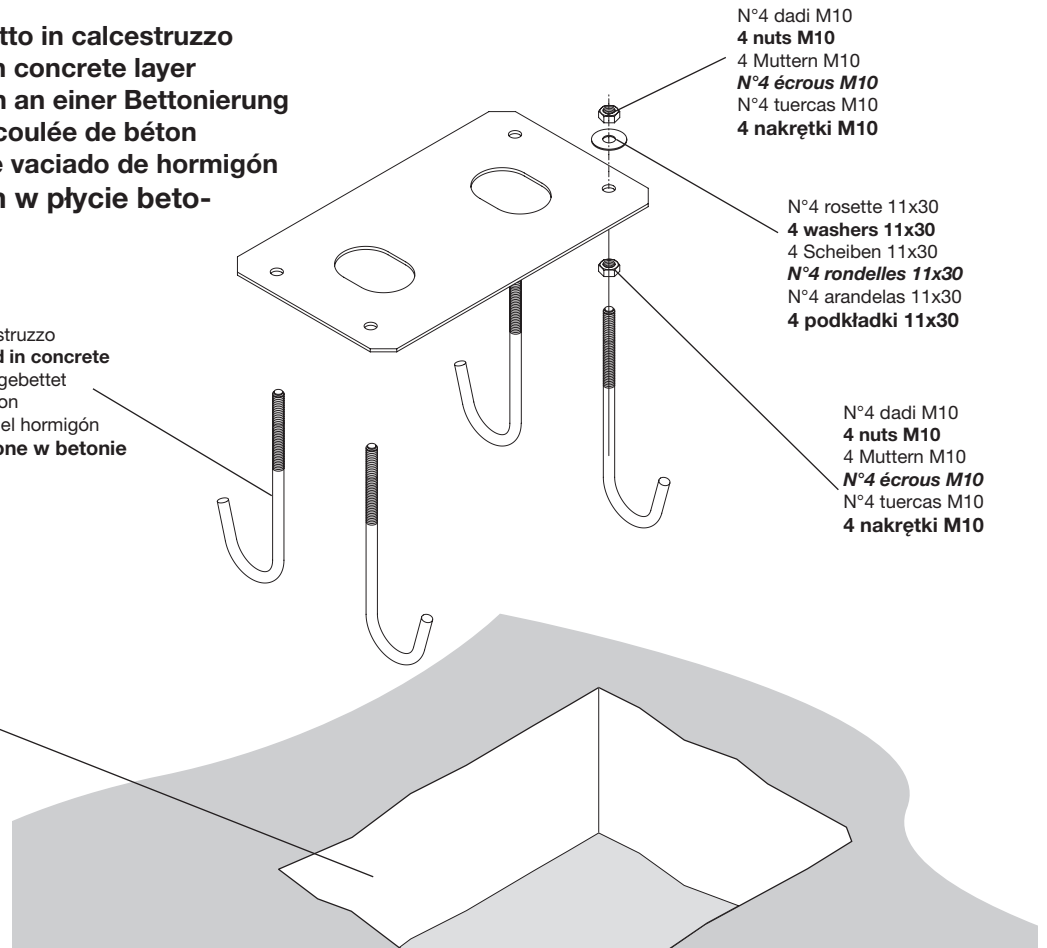


Fig.4

Attendere il consolidamento del getto di calcestruzzo, quindi rimuovere i dadi "D" e le rondelle "R" fascia larga 11x30 e portarli sotto la piastra per consentire le regolazioni in altezza dell'attuatore.

**Wait for hardening of the concrete layer, then remove the nuts "D" and the 11x30 large band washers "R", move them under the plate to allow for the actuator adjustment in height.**

Abwarten bis der Beton ausgehärtet ist, dann die Muttern „D“ und die breiten Scheiben „R“ 11x30 abnehmen und unter die Platte bringen, um die Höhe des Aktuators einstellen zu können.

**Attendez le durcissement de la coulée de béton et retirez les écrous "D" et les rondelles "R" bande large 11x30, pèortez-les sous la plaque pour permettre les réglages en hauteur de l'actuateur.**

Esperar que se consolide el vaciado de hormigón, seguidamente quitar las tuercas "D" y las arandelas "R" faja larga 11x30 y ponerlas debajo de la placa para consentir las regulaciones de altura del actuador.

**Odczekać na utwardzenie wylewu betonowego, a następnie odmontować nakrętki „D” oraz podkładki „R” szerokopasmowe 11x30 i umieścić je pod płytą w celu umożliwienia regulacji wysokości siłownika.**

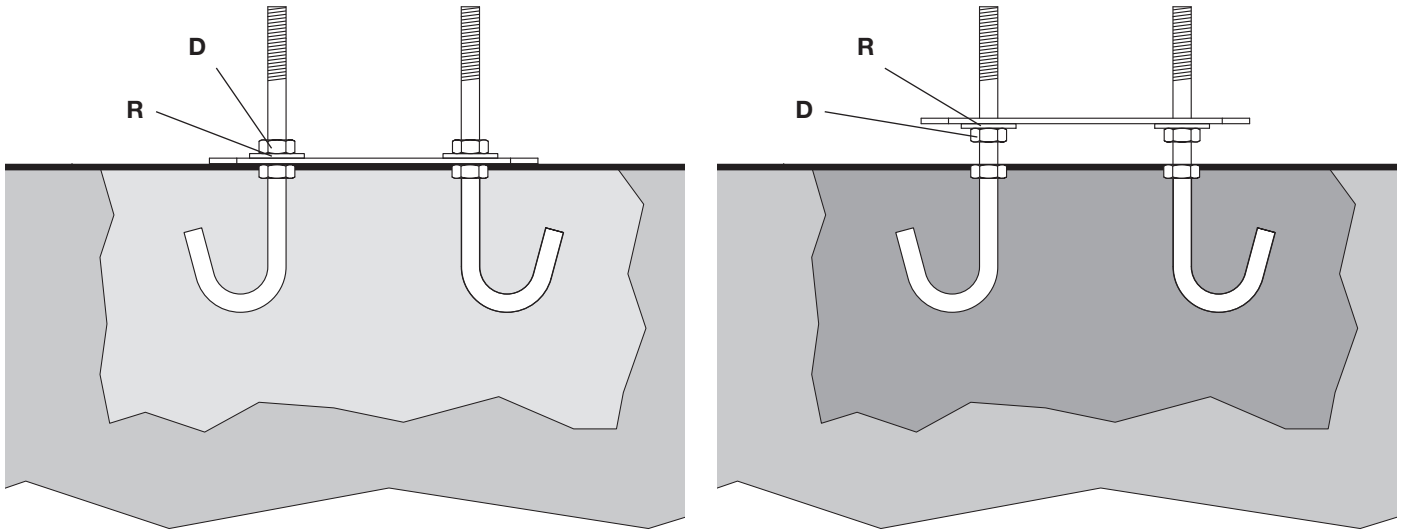
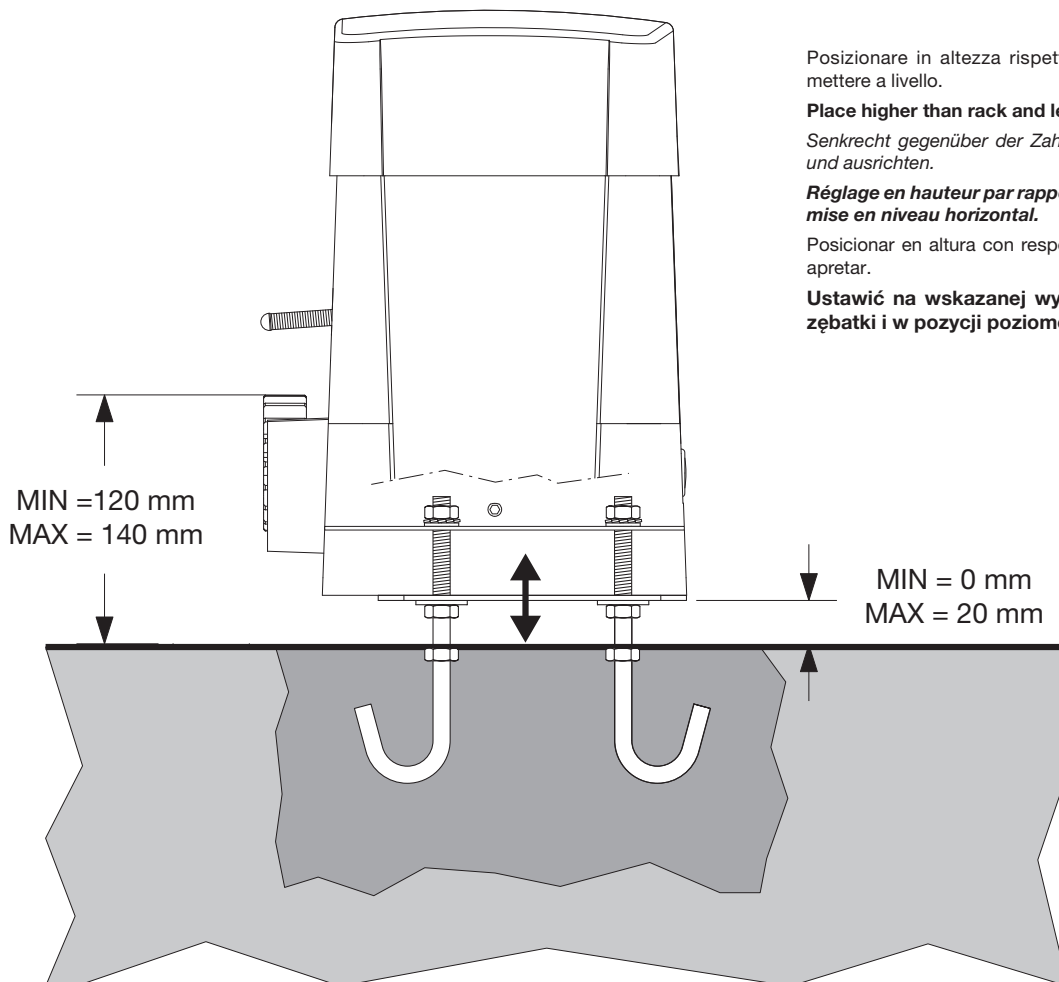


Fig.5



Posizionare in altezza rispetto alla cremagliera e mettere a livello.

**Place higher than rack and level.**

Senkrecht gegenüber der Zahnstange positionieren und ausrichten.

**Réglage en hauteur par rapport à la crémaillère et mise en niveau horizontal.**

Posicionar en altura con respecto a la cremallera y apretar.

**Ustawić na wskazanej wysokości względem zębatki i w pozycji poziomej.**

Fig.6

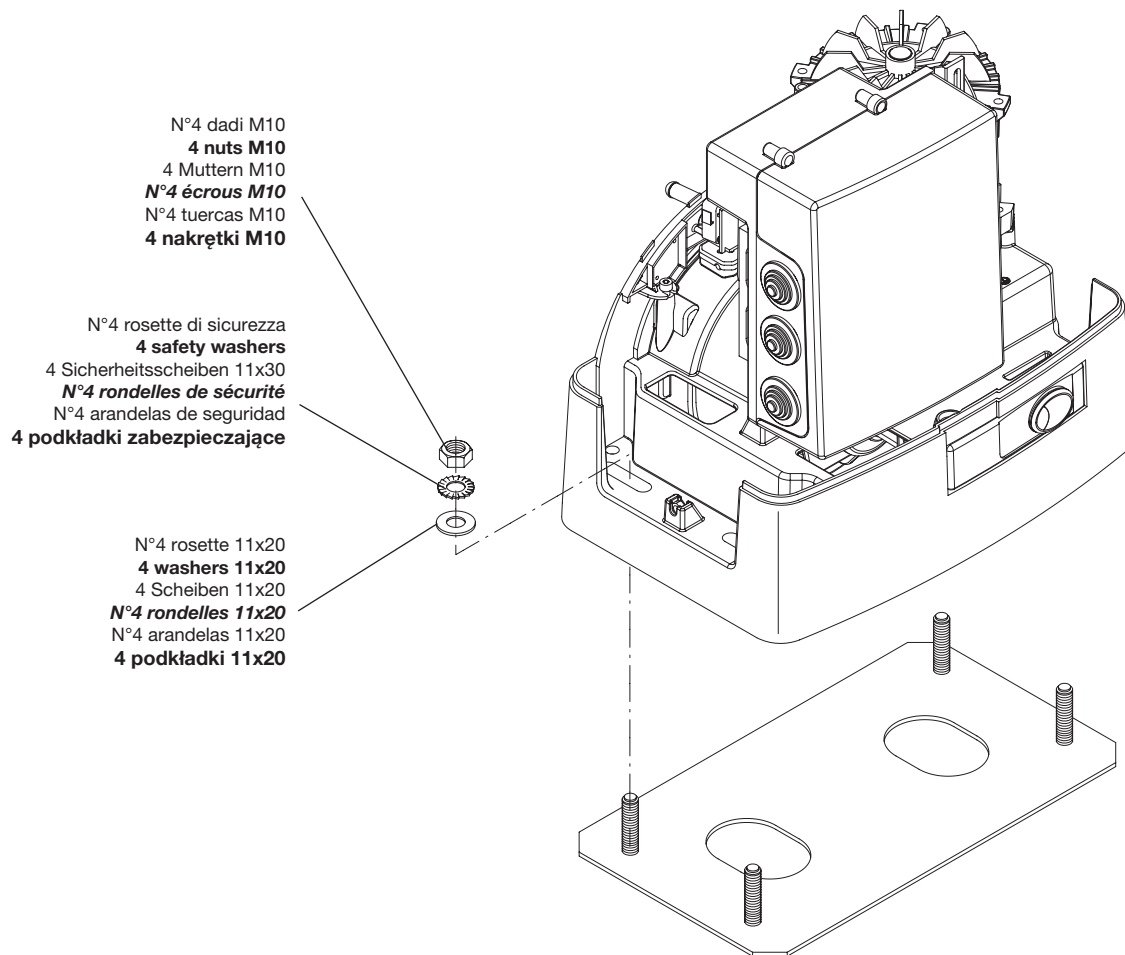
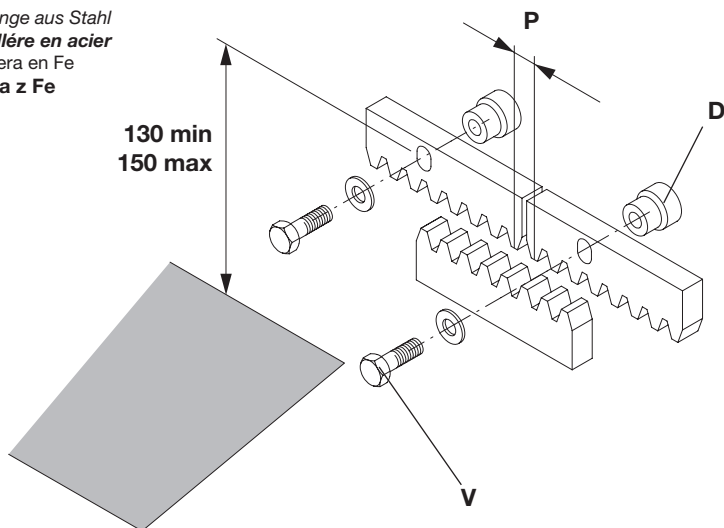


Fig.7

Cremagliera in Fe  
**Fe rack**  
 Zahnstange aus Stahl  
**Cremaillère en acier**  
 Cremallera en Fe  
 Zębatka z Fe



N.B.: Rispettare il passo  
**Important: Keep the pitch**  
 Wichtig: Zahnteilung einhalten

Fig.8

**Important: Respecter le pas**  
 NOTA: Respetar el paso  
**Uwaga: przestrzegać posuwu**

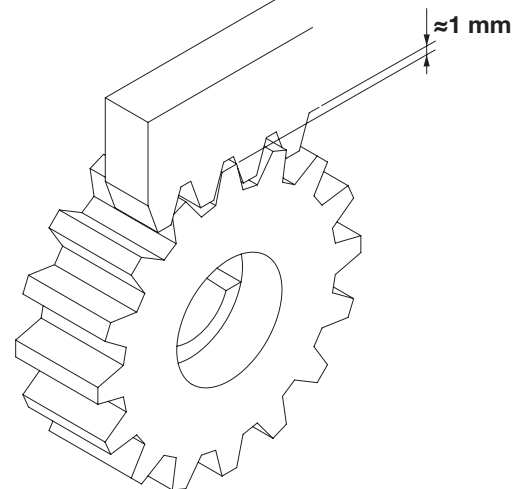
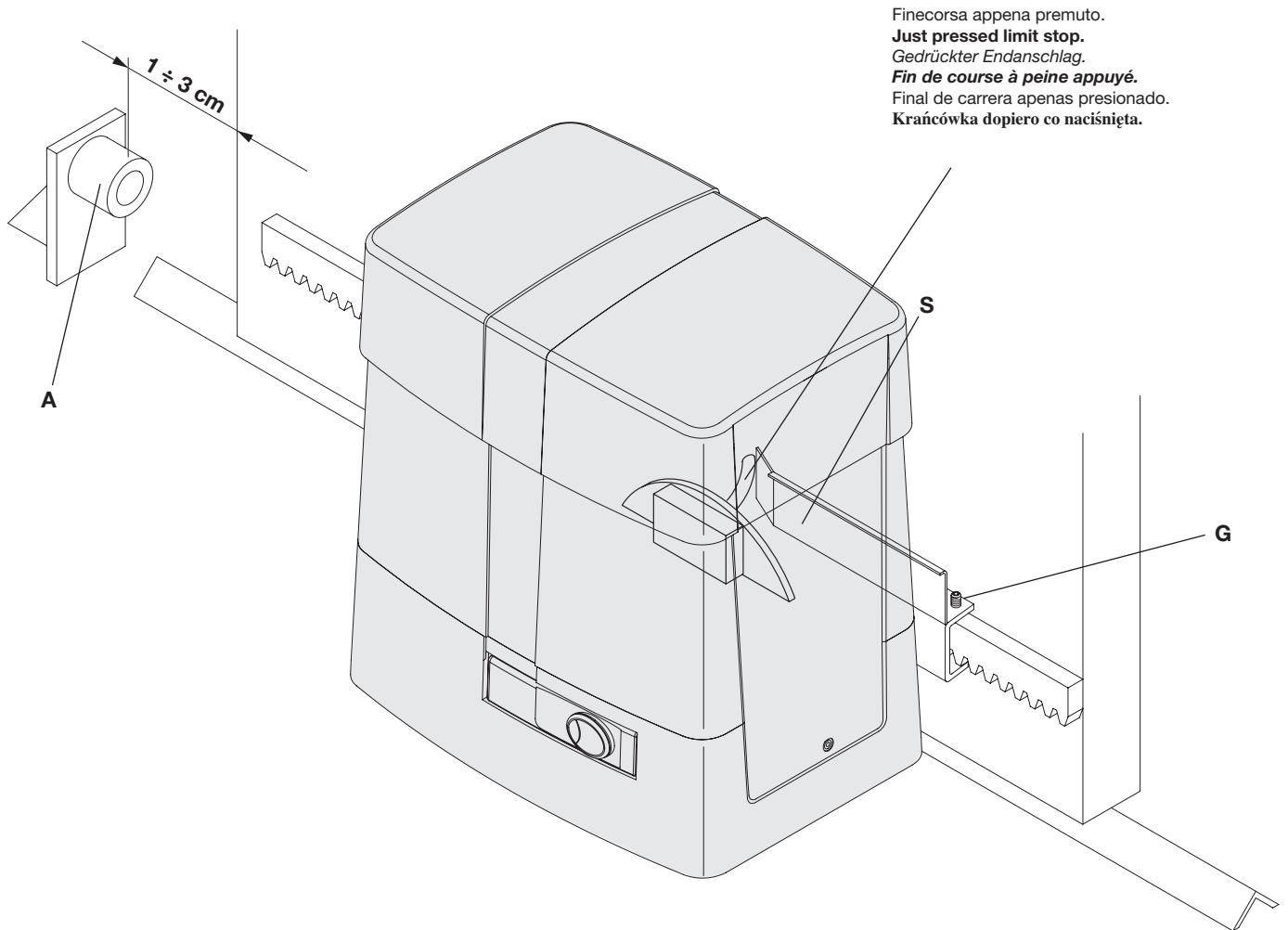


Fig.9



Finecorsa appena premuto.  
**Just pressed limit stop.**  
 Gedrückter Endanschlag.  
**Fin de course à peine appuyé.**  
 Final de carrera apenas presionado.  
 Krańcówka dopiero co naciśnięta.

N.B.: La staffa del finecorsa deve essere posizionata in modo tale da permettere l'arresto del cancello senza che questo vada a sbattere contro l'arresto meccanico  
**N.b. The limit stop flask must be positioned to ensure that the gate stops without knocking against the mechanical stop.**

*Der Endanschlagbügel muß so positioniert werden, daß die Sperre des Gitters ohne das Flattern des Schiebegitters gegen den Endscharter A erfolgen kann.*

**N.B. L'étrier de fin de course doit être positionné de façon à pouvoir arrêter le**

**portail, sans qu'il aille bûter sur le fin de course mécanique.**

NOTA: La pletina del final de carrera debe ser colocada de tal forma que permita la parada de la cancela sin que ésta vaya a tocar con el tope mecánico.

**Uwaga: Zaczep krańcówki musi być w pozycji takiej by możliwe było zatrzymanie bramy niedopuszczając do jej zderzenia z zaporą mechaniczną.**

Fig.10

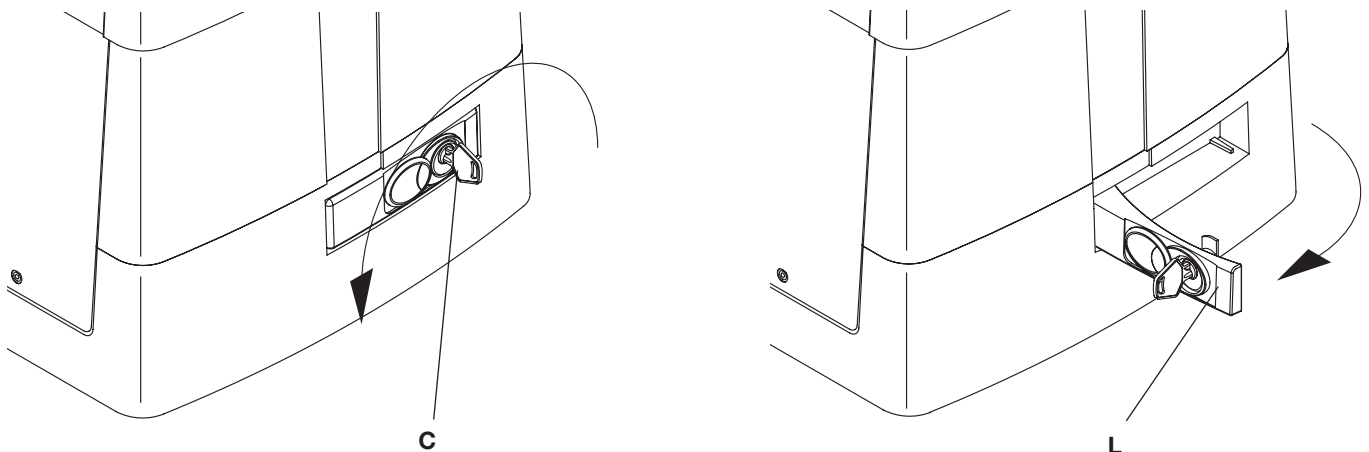
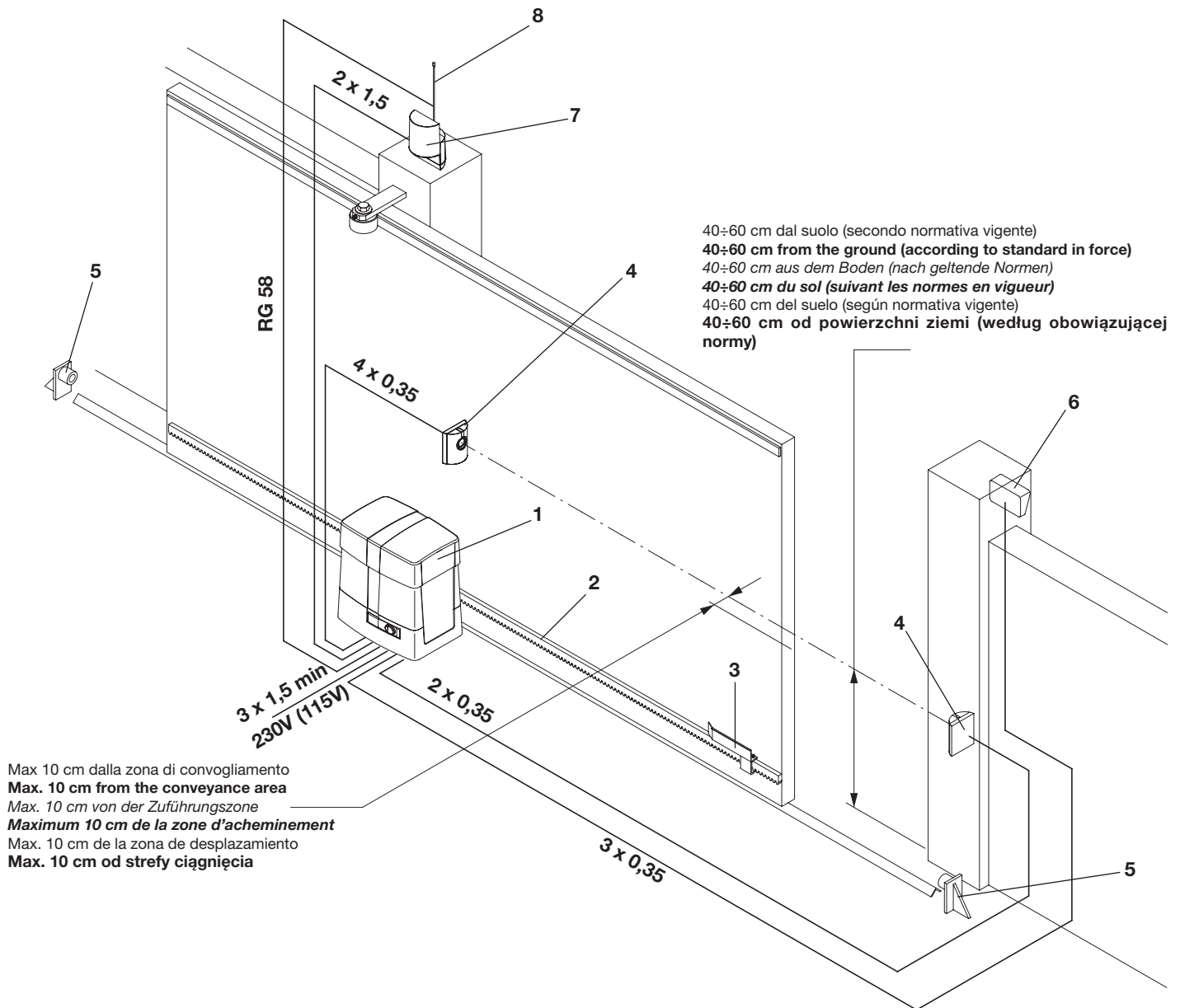


Fig.11





**Legenda:**

- 1 Motoriduttore con centralina incorporata BULL
- 2 Cremagliera RI.M4F/RI.M4Z
- 3 Staffe dei finecorsa
- 4 Fotocellule
- 5 Fermi meccanici
- 6 Selettore a chiave o tastiera digitale
- 7 Lampeggiante
- 8 Antenna

**Legenda:**

- 1 Ratio-motor complete with gear case BULL
- 2 Rack RI.M4F/RI.M4Z
- 3 Limit stop flasks
- 4 Photo-electric cells
- 5 Mechanical stop
- 6 Key or digital keyboard selector
- 7 Blinker
- 8 Antenna

**Zeichenerklärung:**

- 1 Drehzahlminderer mit eingebauter Schaltanlage BULL
- 2 Zahnstange RI.M4F/RI.M4Z
- 3 Endschlagbügel
- 4 Fotozelle
- 5 Mech. Endanschlag
- 6 Schlüssel-Selektor oder Digital-Tastatur
- 7 Blinklicht
- 8 Antenne

**Légende:**

- 1 Motorréducteur avec circuit intégré BULL
- 2 Cremallière RI.M4F/RI.M4Z
- 3 Etriers de fin de course
- 4 Photocellules
- 5 Bûte mécanique
- 6 Sélecteur à clef ou à clavier
- 7 Feu clignotant
- 8 Antenne

**Leyenda:**

- 1 Motorreductor con centralita incorporada BULL
- 2 Cremallera RI.M4F/RI.M4Z
- 3 Pletinas de los finales de carrera
- 4 Fotocélulas
- 5 Topes mecánicos
- 6 Selector a llave o teclado digital
- 7 Relampagueador
- 8 Antena

**Objaśnienia:**

- 1 Siłownik z wbudowaną centralką BULL
- 2 Zębatka RI.M4F/RI.M4Z
- 3 Zawieszki krańcowych wyłączników posuwu
- 4 Fotokomórki
- 5 Chwyty mechaniczne
- 6 Przełącznik kluczowy lub panel sterujący
- 7 Światło migające
- 8 Antena

Fig.12

## Introduction

Thank you for choosing our **BULL** 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.

All our products are manufactured to the existing standard and are covered by warranty.

Possible injury to people or accidents caused by defects in construction are covered by a civil liability policy drawn up with one of the major insurance companies.

### 1. General information

For an efficient operation of the sliding automatic mechanism, the gate must have the following features:

- The guide rail and its wheels must be suitable in size and maintained to prevent gate from excessive sliding friction.
- When running, gate must not rock excessively.
- Opening and closing stroke must be regulated by a mechanical limit stop (to safety standard in force).

### 2. General features

The small and elegant design enbloc BULL consists of an aluminium unit containing the motor and irreversible reduction unit, realized with high-grade materials.

The BULL has a spring-operated limit-switch.

A personalized key emergency release enables manual gate operation in the event of power failure.

Anti-crash safety is ensured by an electronic device (encoder), which detects the presence of any obstacle.

### 3. Installation of the foundation plate

Dimensions of the foundation plate are shown in Fig. 1.

It is essential to keep the distance from the rack, in order to position and remove the actuator once the rack is fitted to the gate leaf.

The types of fittings of the foundation plate are mainly the following:

#### 1 Installation without adjustment in height on the already existing base in concrete (Fig.2).

By using the plate as drilling template, drill 4 holes Ø10mm, and insert the steel threaded screw anchors, Ø10x120mm, similar to those shown in Fig. 2.

Lock the actuator directly to floor, as indicated in Fig.7.

#### 2 Installation with adjustment in height on the already existing base in concrete (Fig.3).

By using the plate as drilling template, drill 4 holes, and insert the Ø 10mm steel screw anchors for threaded bars.

Tighten the 4 threaded bars, M10/120mm, and anchor the screw anchors by tightening the nuts "B" to floor with the corresponding washers.

With reference to Fig. 3, position the foundation plate by means of the adjustment nuts "A". After carrying out the required regulations, position the motor as shown in Fig.6, and lock it, as indicated in Fig.7.

#### 3 Installation with adjustment in height on concrete base.

With reference to Fig. 4, fit the stretcher bolts on the foundation plate and provide for a hole of adequate size.

Immerse the stretcher bolts in concrete, then remove the nuts "D" and the 11x30, large band washers "R". Move them under the plate to allow for regulations in height of the actuator (Fig. 5).

Carry out the regulations shown in Fig. 6 and lock the motor as indicated in Fig.7.

**CAUTION:** apart from the fitting modality used, carefully check that the actuator is steadily positioned and the materials are suited to the intended use.

### 4. Rack fixing

#### Iron rack, 12x30mm.

Position the spacers D by welding or fit them to the gate with screws at 130/150mm height from the centre line of the slot used for fitting to the base on which the foundation plate is to be fixed.

Keep the pitch of teeth between the two parts of the rack; the joining with another piece of rack would make it easier to achieve (see Fig.8)

Secure the rack with the screws V making sure, once the actuator has been installed, that between rack and

the drive gear there is always approx. 1mm clearance (see Fig.9); to get this clearance use the slots on the rack.

### **5. Limit stop flask positioning (see Fig.10)**

Open manually the gate and leave approximately of 1÷3cm, depending on gate weight, between gate and positive mechanical stop A; tighten the limit stop flask S with the grains G to press the limit stop micro. Repeat the sequence with closing gate.

### **6. Manual operation (see Fig.11)**

In the event of power failure or malfunction, to manually operate the gate proceed as follows:

- After inserting the customized key C, turn it anti-clockwise and pull the lever L.
- The geared motor is unlocked and the gate can be moved by hand.
- To return to the normal operating mode, close the lever L again and manually activate the gate until it is geared.

### **7. Wire diagram**

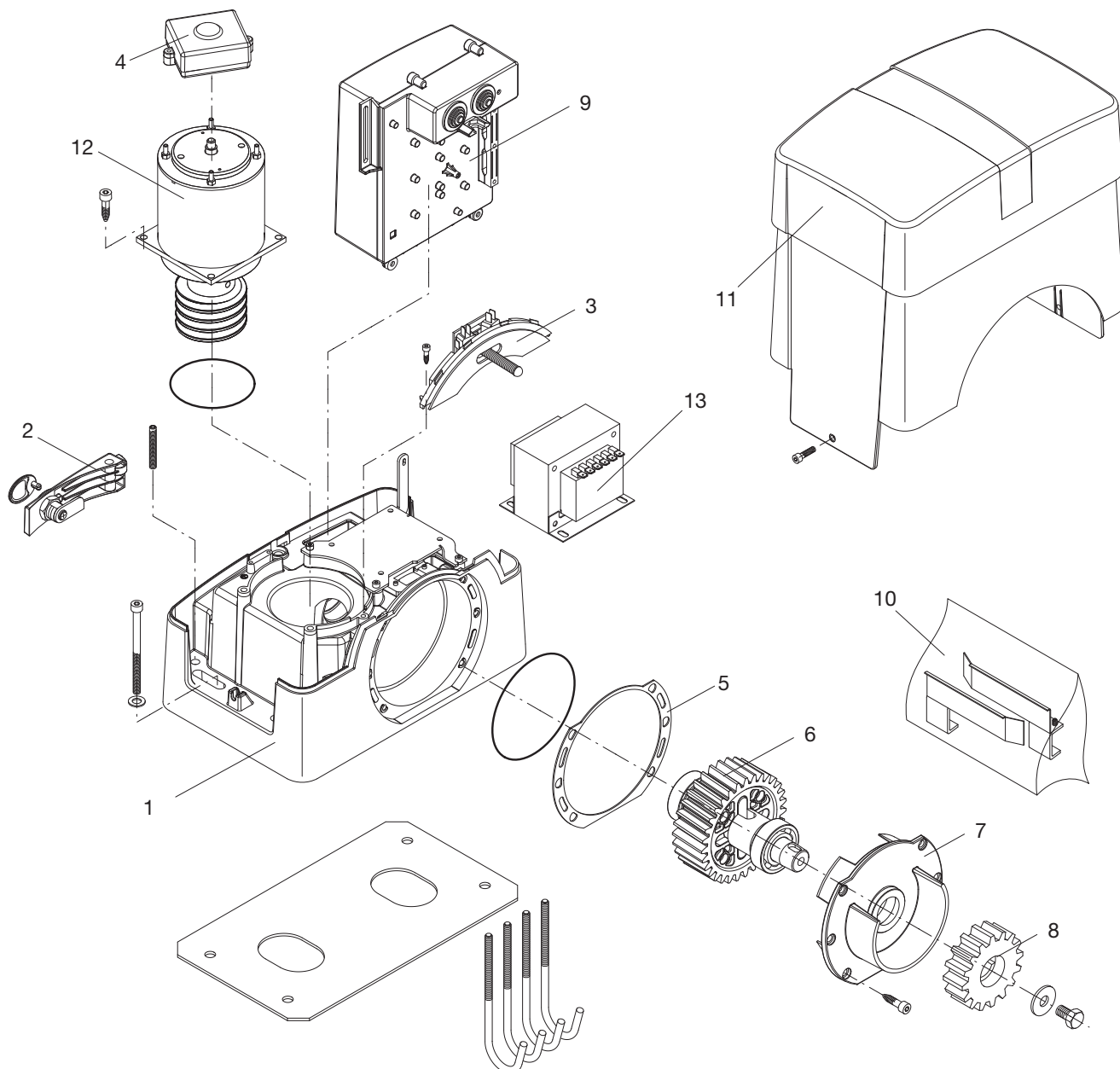
For the wire connections of the system and to adjust the operating modes, please refer to the Instruction Manual of the control unit.

**In particular, the anti-crash device (encoder) should be adjusted according to regulations in force.**

Please remember that the device **should be earthed** by means of the appropriate terminal.

### **CAUTION**

The civil liability policy, which covers possible injuries to people or accidents caused by defects in construction, requires the system to be to existing standard and to use original Benincà accessories.



Pos.	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie						Cod.
1	Carter motore	<b>Motor cover</b>	<i>Motor Deckel</i>	<b>Couvercle mot.</b>	Tapa motor	<b>Karter silnik</b>	9686327
2	Leva di sblocco	<b>Release lever</b>	<i>Hebel</i>	<b>Levier</b>	Pal. de desbloq.	<b>Dźwignia odrygl.</b>	9686328
3	Finecorsa	<b>Limit stop</b>	<i>Endschalter</i>	<b>Fin de course</b>	Final de carrera	<b>Krańcówka</b>	9686329
4	MAG.E	<b>MAG.E</b>	<i>MAG.E</i>	<b>MAG.E</b>	MAG.E	<b>MAG.E</b>	9760021
5	Guarnizione	<b>Gasket</b>	<i>Dichtung</i>	<b>Guarniture</b>	Junta	<b>Uszczelka</b>	9686333
6	Albero di uscita	<b>Output shaft</b>	<i>Antriebszapfen</i>	<b>Arbre</b>	Eje de salida	<b>Wał wyjściowy</b>	9686341
7	Flangia	<b>Flange</b>	<i>Flansch</i>	<b>Flasque .</b>	Brida	<b>Kołnierz</b>	9686335
8	Pignone M4	<b>Gear M4</b>	<i>Zahnrad M4</i>	<b>Engrenage M4</b>	Piñon M4	<b>Wał napędzający M4</b>	9686032
9a	CP.B24 ESA	<b>CP.B24 ESA</b>	<i>CP.B24 ESA</i>	<b>CP.B24 ESA</b>	CP.B24 ESA	<b>CP.B24 ESA</b>	9688079
9b	CP.B24 ESA 115	<b>CP.B24 ESA 115</b>	<i>CP.B24 ESA 115</i>	<b>CP.B24 ESA 115</b>	CP.B24 ESA 115	<b>CP.B24 ESA 115</b>	9688084
10	Blister	<b>Blister</b>	<i>Blister</i>	<b>Blister</b>	Blister	<b>Blister</b>	9686337
11	Copertura	<b>Cover</b>	<i>Deckel</i>	<b>Couvercle</b>	Tapa	<b>Karter</b>	9686331
12	Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	<b>Silnik</b>	9688080
13a	Trasformatore 230	<b>Transformer 230</b>	<i>Transformator 230</i>	<b>Trasformateur 230</b>	Trasformador 230	<b>Transformator 230</b>	9688085
13b	Trasformatore 115	<b>Transformer 115</b>	<i>Transformator 115</i>	<b>Trasformateur 115</b>	Trasformador 115	<b>Transformator 115</b>	9688086

# BULL

## User's handbook

### Safety measures

- Do not stand within the gate movement area.
- Children must not play with controls and near the gate.
- In the event of malfunctions, do not attempt to repair the failure but contact the specialised personnel.

### Manual and emergency manoeuvre

In the event of power failure or malfunction, to manually operate the gate proceed as follows:

- After inserting the customized key C, turn it anti-clockwise and pull the lever L.
- The geared motor is unlocked and the gate can be moved by hand.
- To return to the normal operating mode, close the lever L again and manually activate the gate until it is geared.

### 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 Benincá 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 Benincá parts be used.

