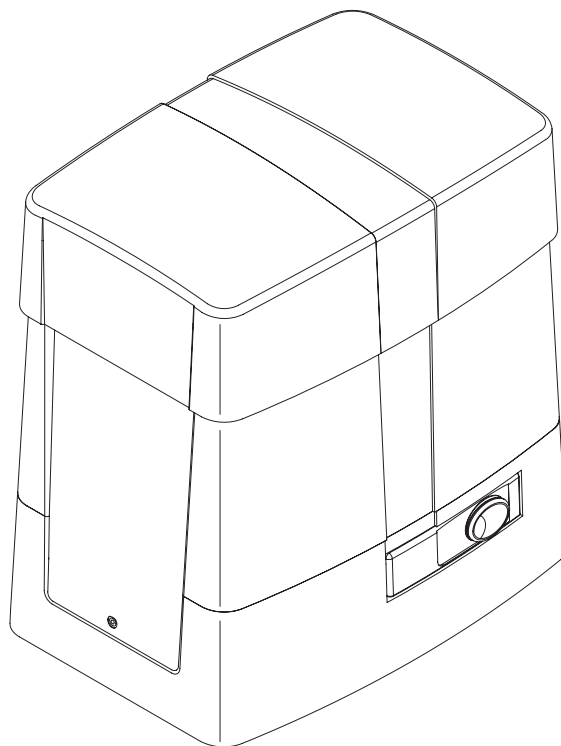


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Rev. 04/06/00

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 **10M-15M-20M**



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

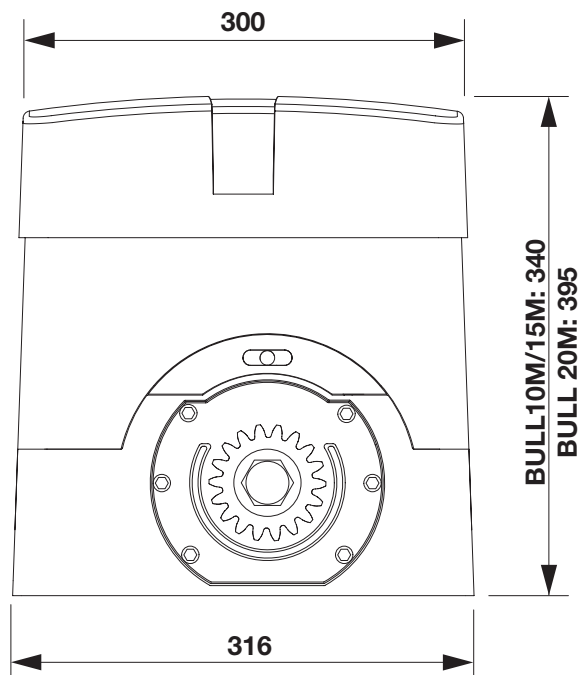
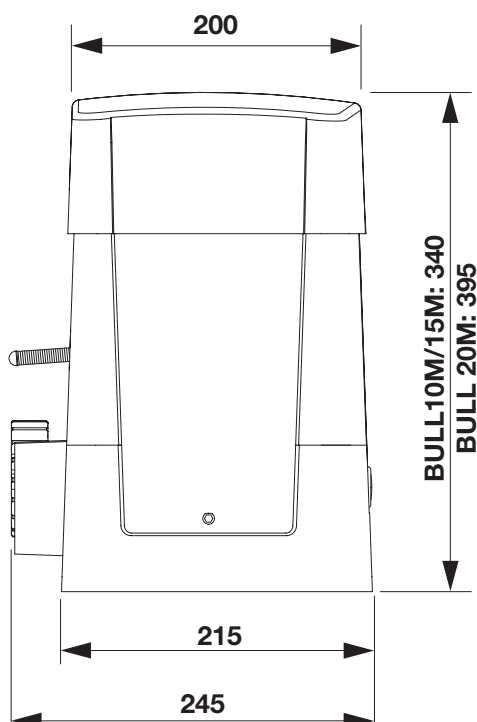


UNIONE NAZIONALE COSTRUTTORI
AUTOMATISMI PER CANCELLI, PORTE
SERRANDE ED AFFINI

Dati tecnici	Technical data	Technische Daten	BULL 10M	BULL 15M	BULL 20M
Alimentazione	Feed	<i>Speisung</i>	230Vac 50Hz	230Vac 50Hz	230Vac 50Hz
Potenza assorbita	Absorbed power	<i>Aufgenom. Leistung</i>	300 W	420 W	480 W
Assorbimento	Absorption	<i>Verbrauch</i>	2 A	2,8 A	3,5 A
Coppia	Torque	<i>Kräftepaar</i>	35 Nm	45 Nm	50 Nm
Intermittenza di lavoro	Operating jogging	<i>Betriebsintermittenz</i>	40%	40%	40%
Grado di protezione	Protection class	<i>Schutzklasse</i>	IP54	IP54	IP54
Classe di isolamento	Insulation class	<i>Isolierklasse</i>	F	F	F
Interv. termoprotez.	Thermoprot. interv.	<i>Eingriff Thermorelais</i>	150°C	150°C	150°C
Temp. funzionamento	Working temperature	<i>Betriebstemperatur</i>	-20°C / +70°C	-20°C / +70°C	-20°C / +70°C
Peso max. cancello	Max. gate weight	<i>Gittersgewicht max.</i>	1000kg	1500kg	2000kg
Modulo cremagliera	Rack modulus	<i>Modul der Zahnstange</i>	M4	M4	M4
Velocità apertura	Opening speed	<i>Öffnungsgeschwindigkeit</i>	10,5m/min	10,5m/min	10,5m/min
Condensatore	Capacitor	<i>Kondensator</i>	20 µF	25 µF	31,5 µF
Rumorosità	Noise level	<i>Geräuschentwicklung</i>	<70 dB	<70 dB	<70 dB
Lubrificazione	Lubrication	<i>Schmierung</i>	Agip GR MU EP/2	Agip GR MU EP/2	Agip GR MU EP/2
Peso	Weight	<i>Gewicht</i>	15,5 kg	16,3kg	17kg

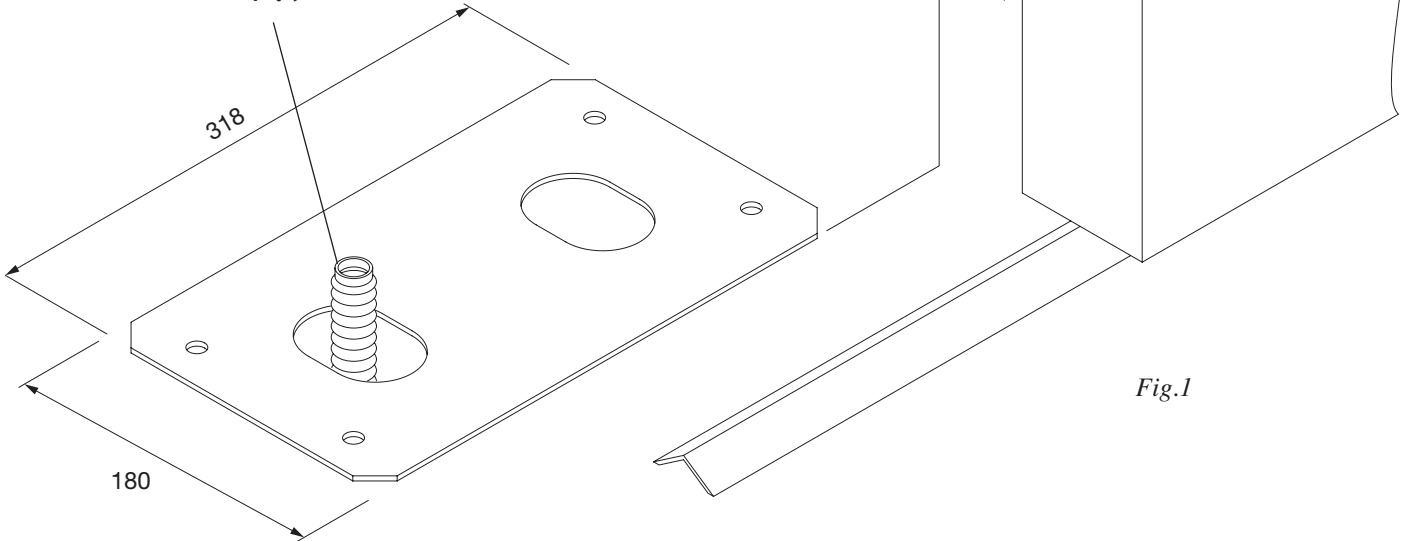
Donnees technique	Datos técnicos	Dane techniczne	BULL 10M	BULL 15M	BULL 20M
<i>Alimentation</i>	Alimentación	Zasilanie	230Vac 50Hz	230Vac 50Hz	230Vac 50Hz
<i>Puissance absorbée</i>	Consumo de potencia	Natężenie	300 W	420 W	480 W
<i>Absorption</i>	Absorción	Pobór mocy	2 A	2,8 A	3,5 A
<i>Couple</i>	Par	Moment obrotowy	35 Nm	45 Nm	50 Nm
<i>Intermittence de travail</i>	Intermitencia de trabajo	Rodzaj pracy	40%	40%	40%
<i>Degré de protection</i>	Grado de protección	Stopień ochrony	IP54	IP54	IP54
<i>Classe d'isolement</i>	Clase de aislamiento	Klasa izolacji	F	F	F
<i>Interv. protect. therm.</i>	Interv. termoprotección	Interw. Termostatu	150°C	150°C	150°C
<i>Temp. fonctionnement</i>	Temp. funcionamiento	Temp. podczas pracy	-20°C / +70°C	-20°C / +70°C	-20°C / +70°C
<i>Poids max. portail</i>	Peso máx. de la cancela	Ciężar max. bramy	1000kg	1500kg	2000kg
<i>Module de la crémaillère</i>	Módulo de cremallera	Typ listwy zębatej	M4	M4	M4
<i>Vitesse d'ouverture</i>	Velocidad de apertura	Prędkość otwieraia	10,5m/min	10,5m/min	10,5m/min
<i>Condensateur</i>	Condensador	Kondensator	20 µF	25 µF	31,5 µF
<i>Bruit</i>	Ruido	Max. halas	<70 dB	<70 dB	<70 dB
<i>Lubrification</i>	Lubrificación	Smarowanie	Agip GR MU EP/2	Agip GR MU EP/2	Agip GR MU EP/2
<i>Poids</i>	Peso	Ciężar	15,5 kg	16,3kg	17kg

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



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

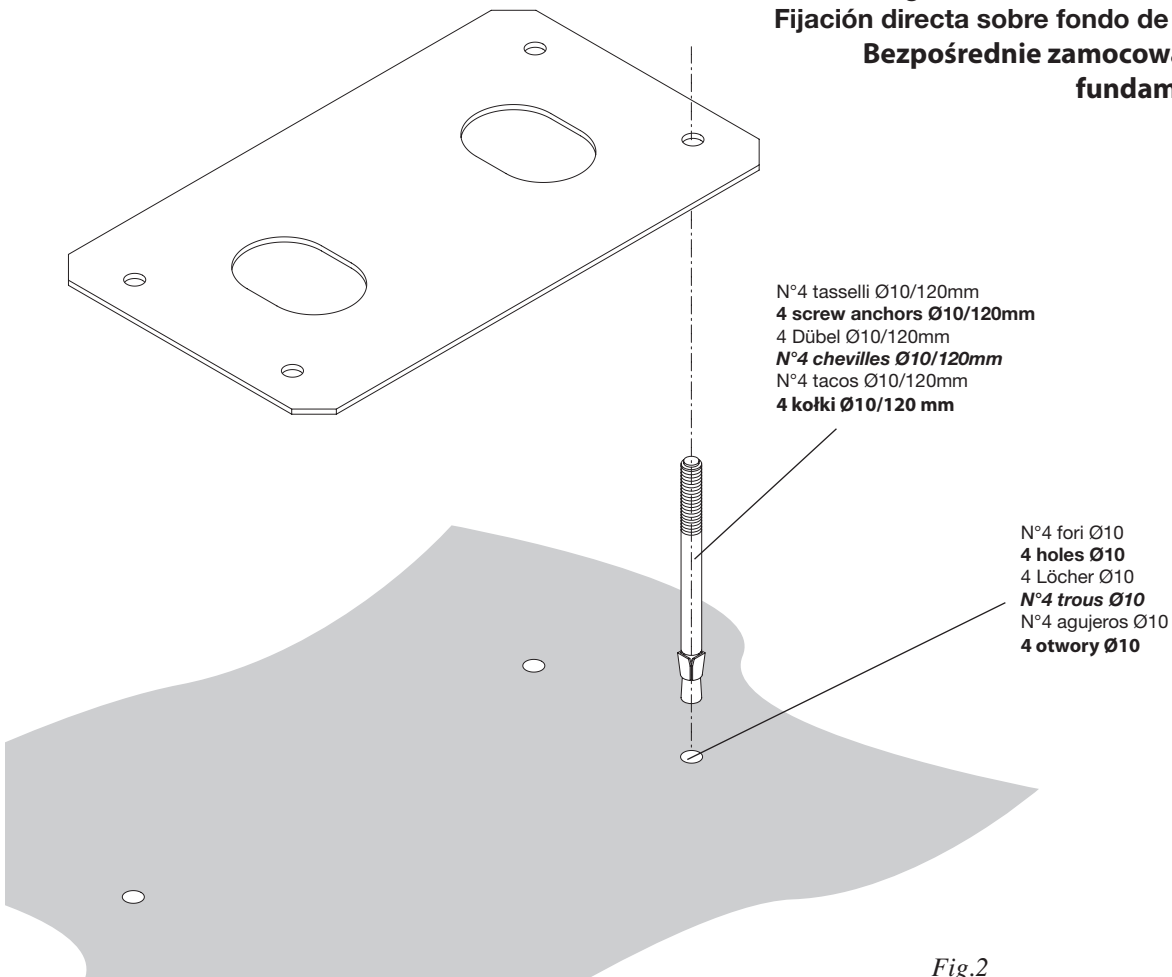


Fig.2

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 fundamentie betonowym

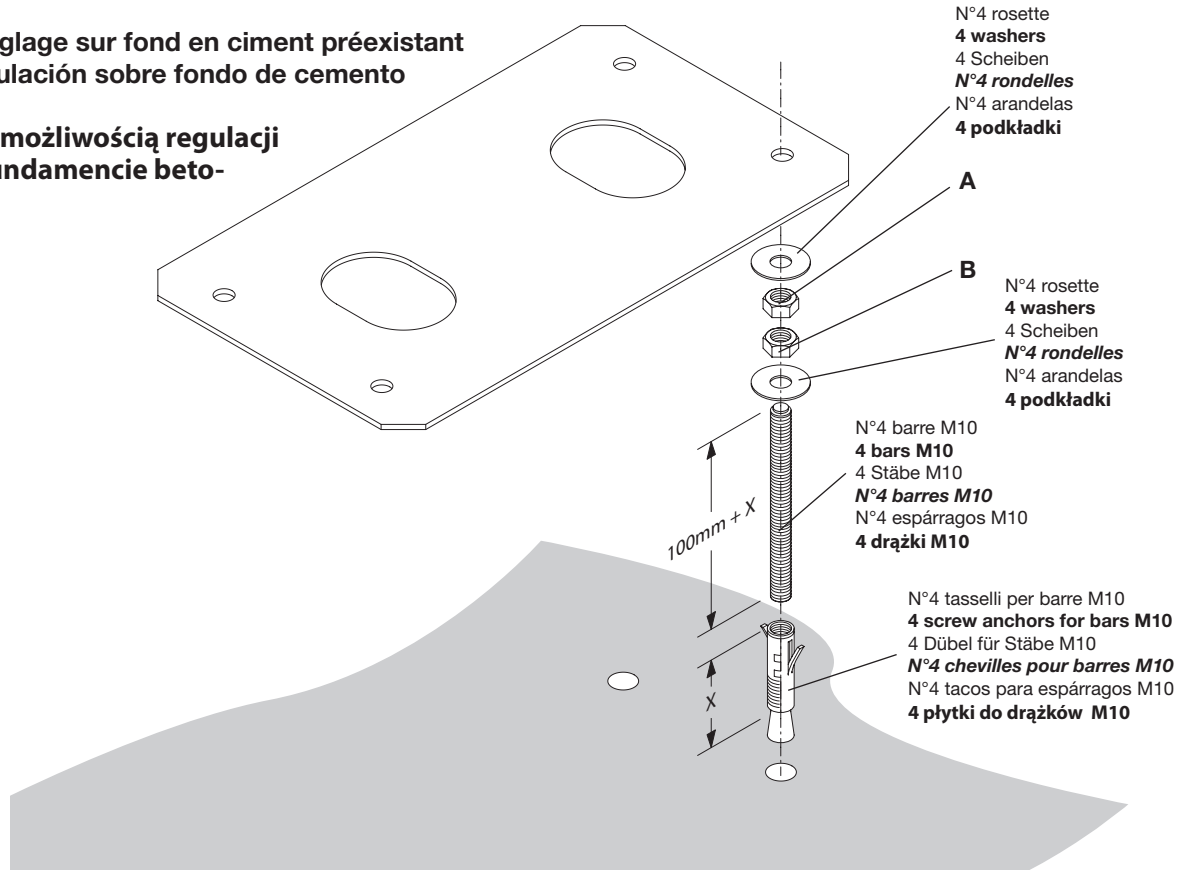


Fig.3

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 betonowej

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 odciążki 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

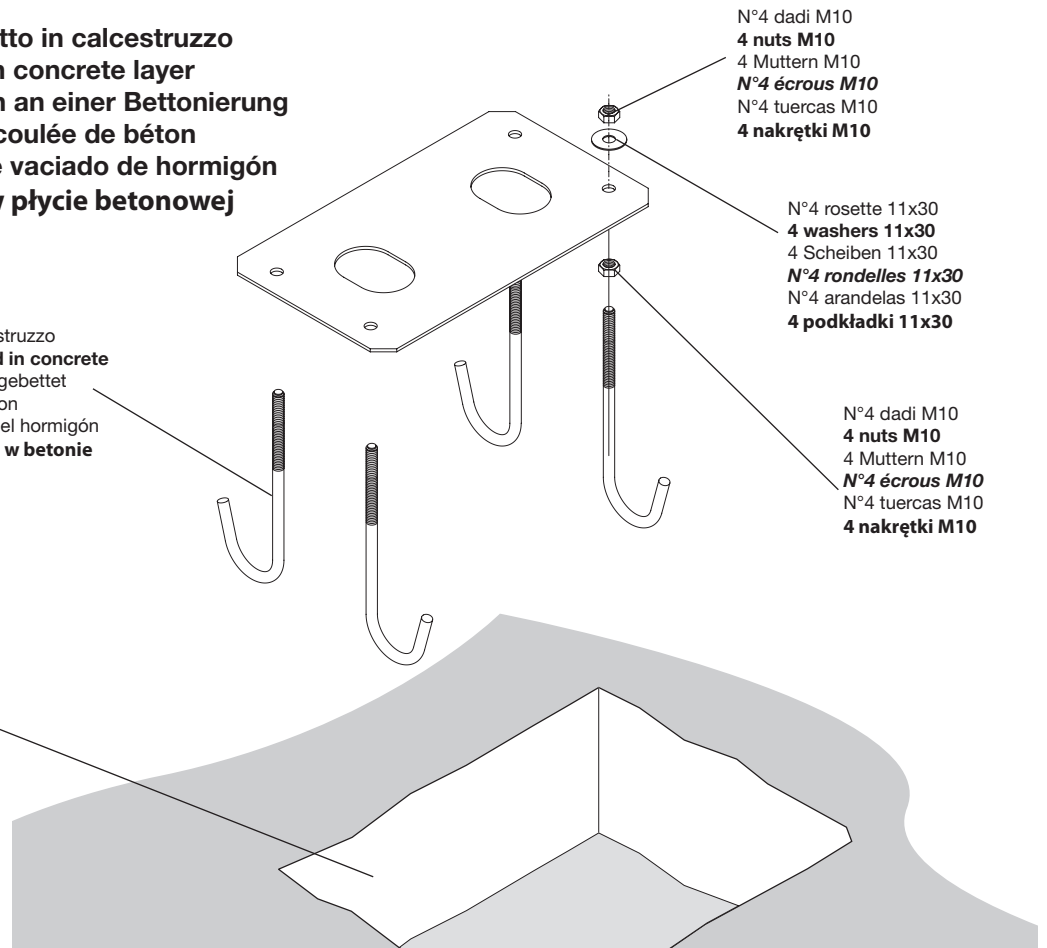


Fig.4

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, peèrtez-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.

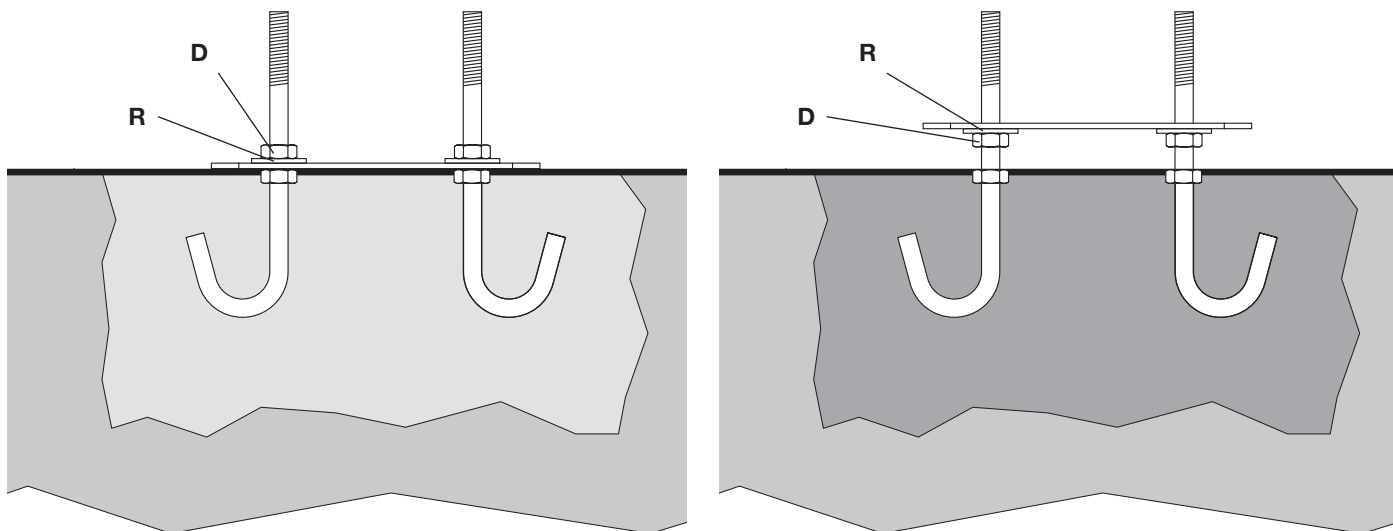
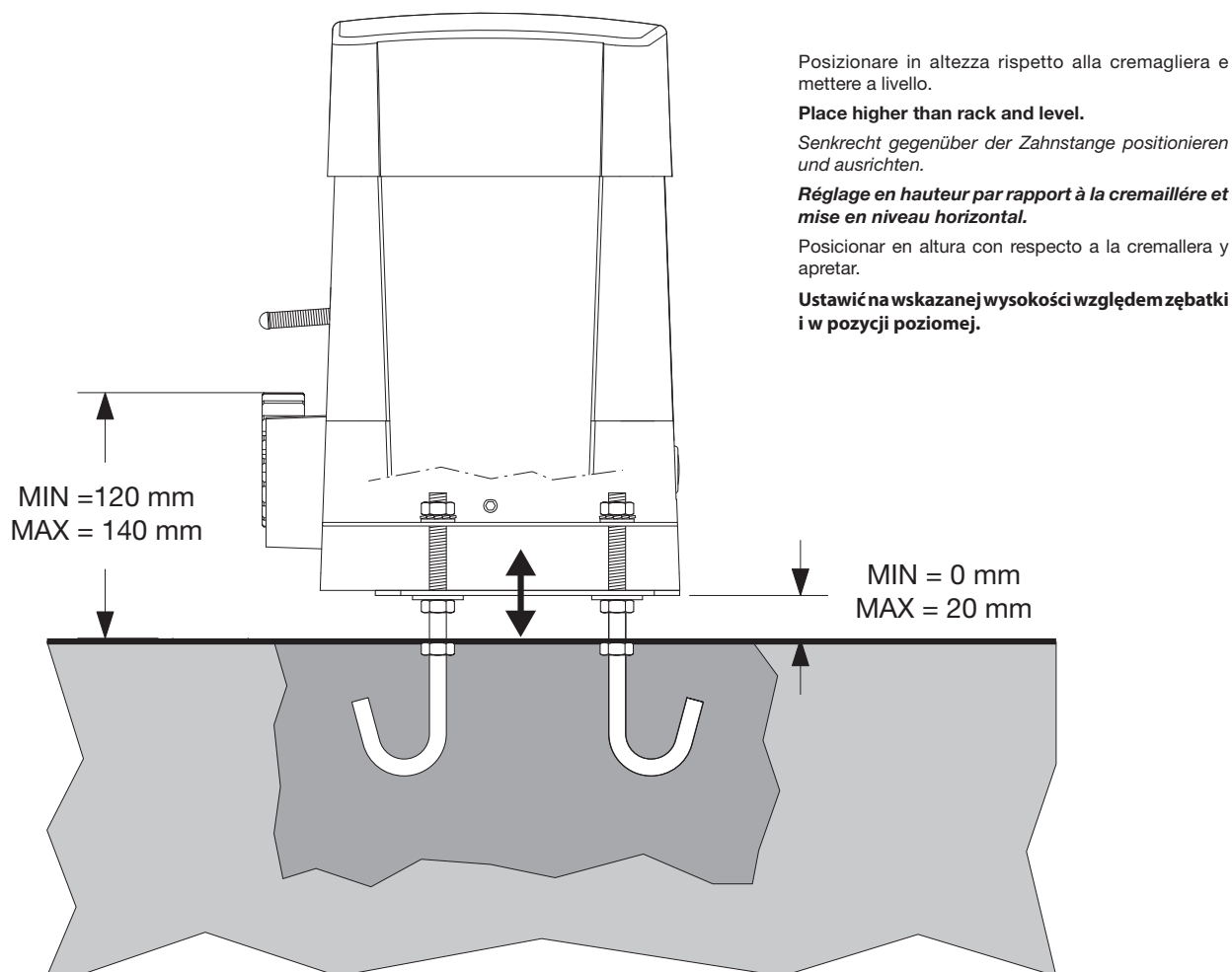


Fig.5



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

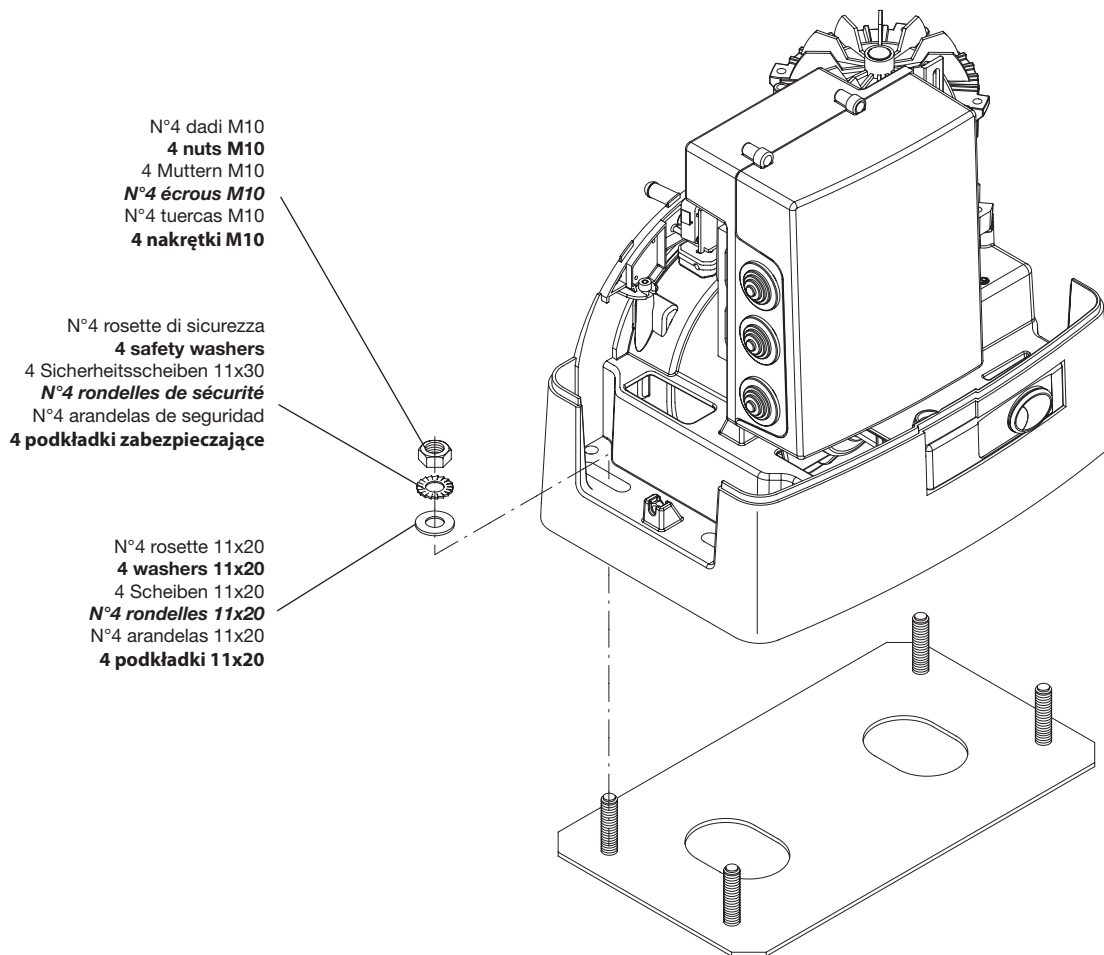
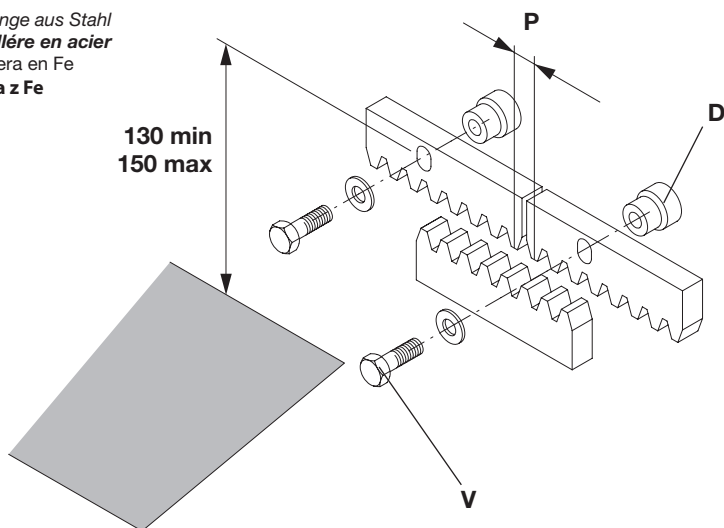


Fig.7

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

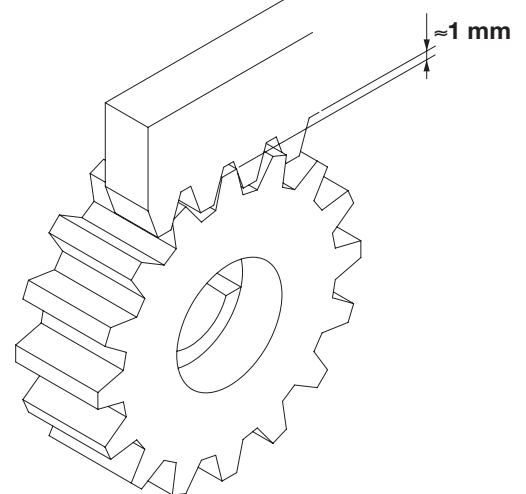
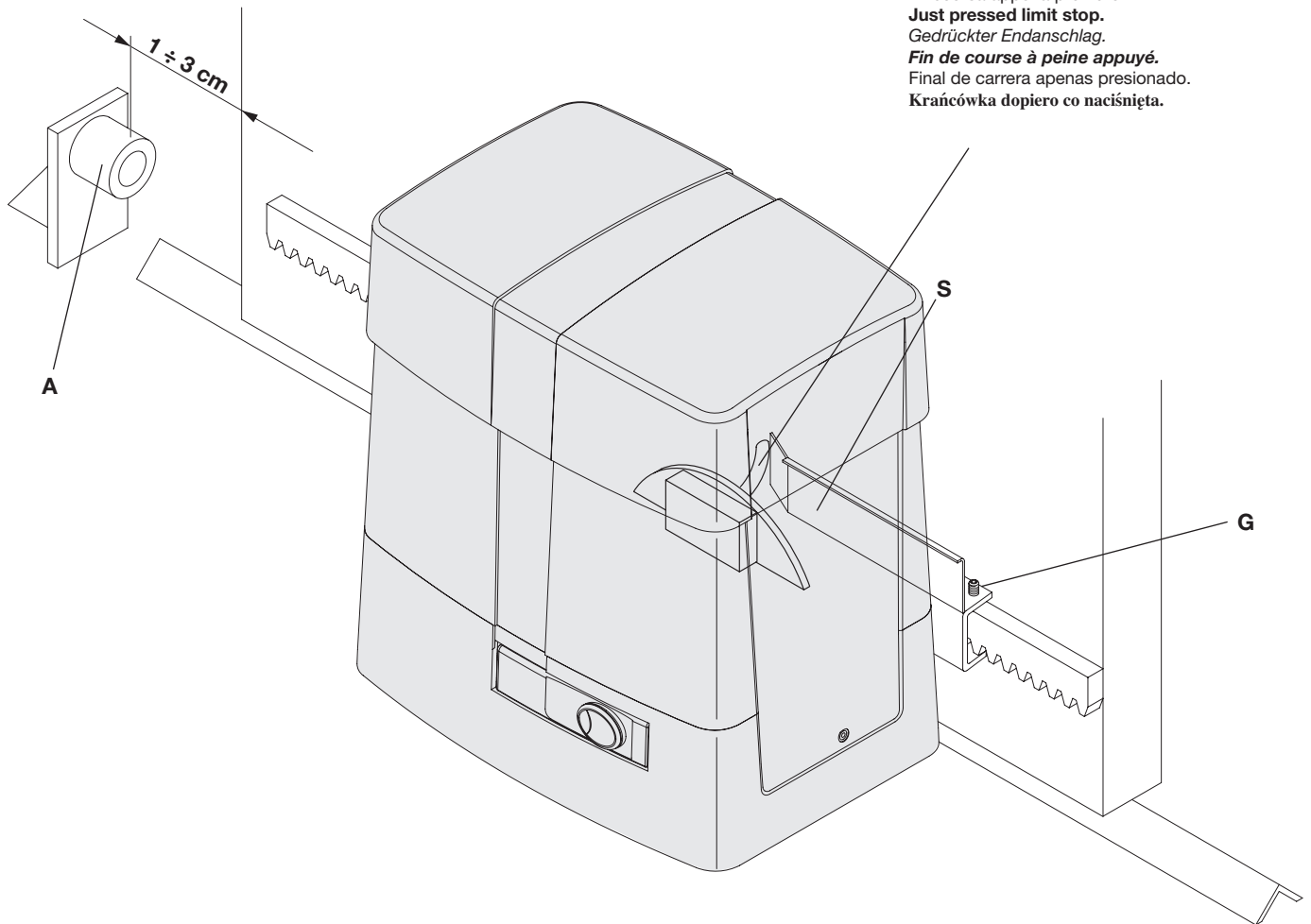


Fig.9



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 Endschlagbügel 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

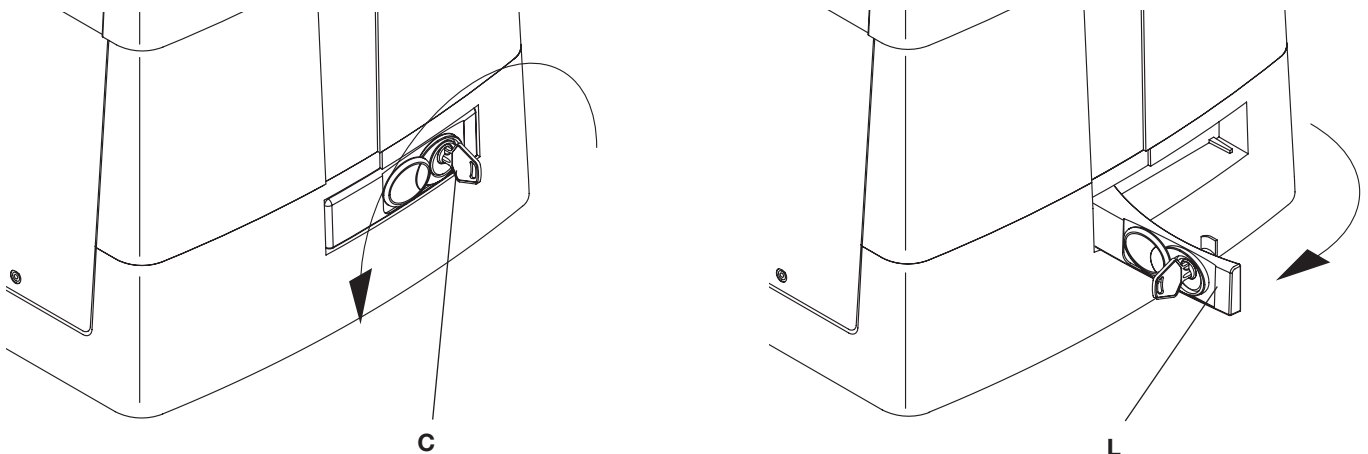
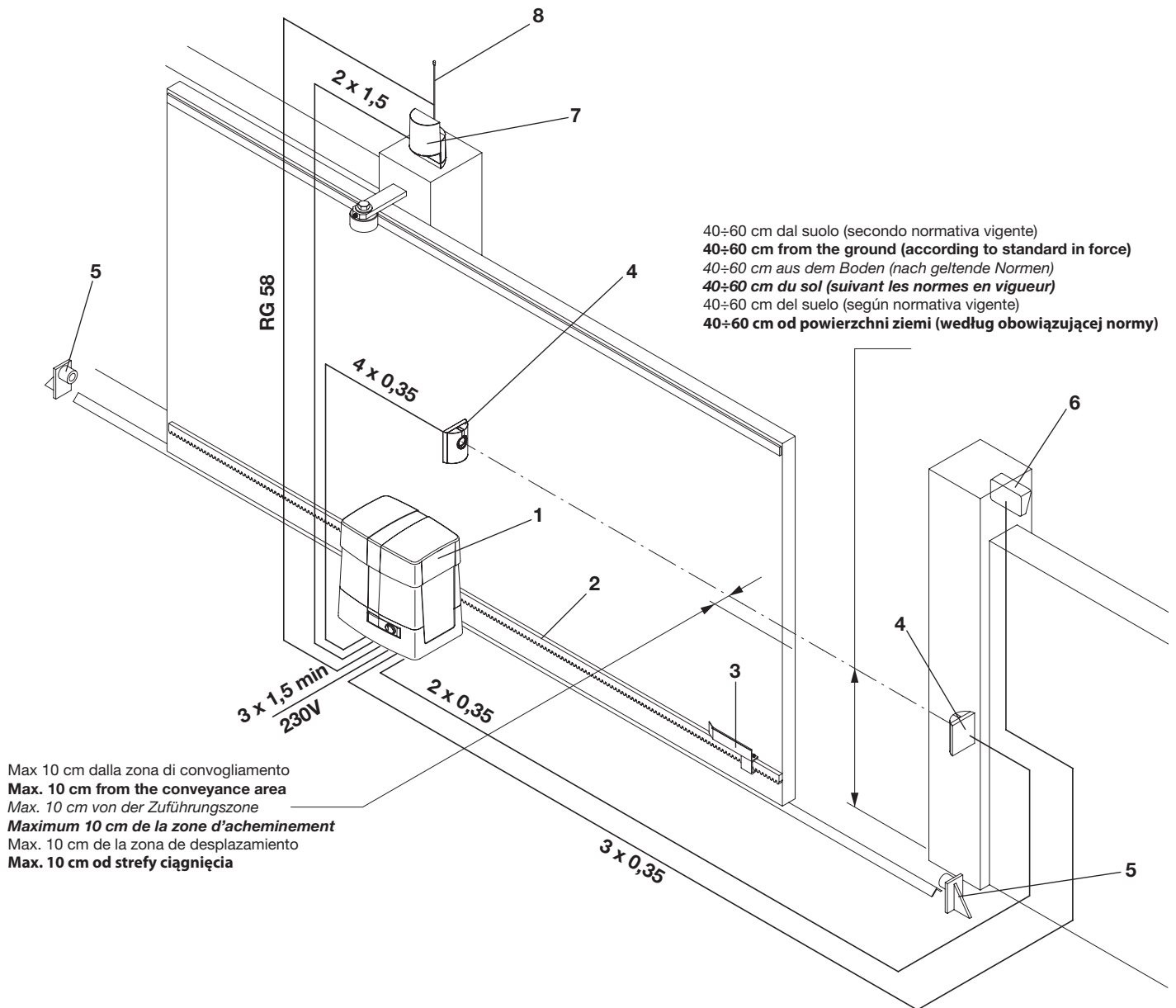


Fig.11



Legenda:

- 1 Motoriduttore con centralina incorporata BULL
- 2 Cremagliera RI.M4F/RI.M4Z
- 3 Staffe dei fincorsa
- 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 Motoréducteur avec circuit intégré BULL
- 2 Cremaillère RI.M4F/RI.M4Z
- 3 Etriers de fin de course
- 4 Photocellules
- 5 Bûtee 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

Automation with single-phase power supply for sliding gates, available in three models:

BULL 10M for gates with max weight of 1000 Kg

BULL 15M for gates with max weight of 1500 Kg

BULL 20M for gates with max weight of 2000 Kg

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 $\varnothing 10\text{mm}$, and insert the steel threaded screw anchors, $\varnothing 10 \times 120\text{mm}$, 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 $\varnothing 10\text{mm}$ 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 $1 \div 3$ cm, 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

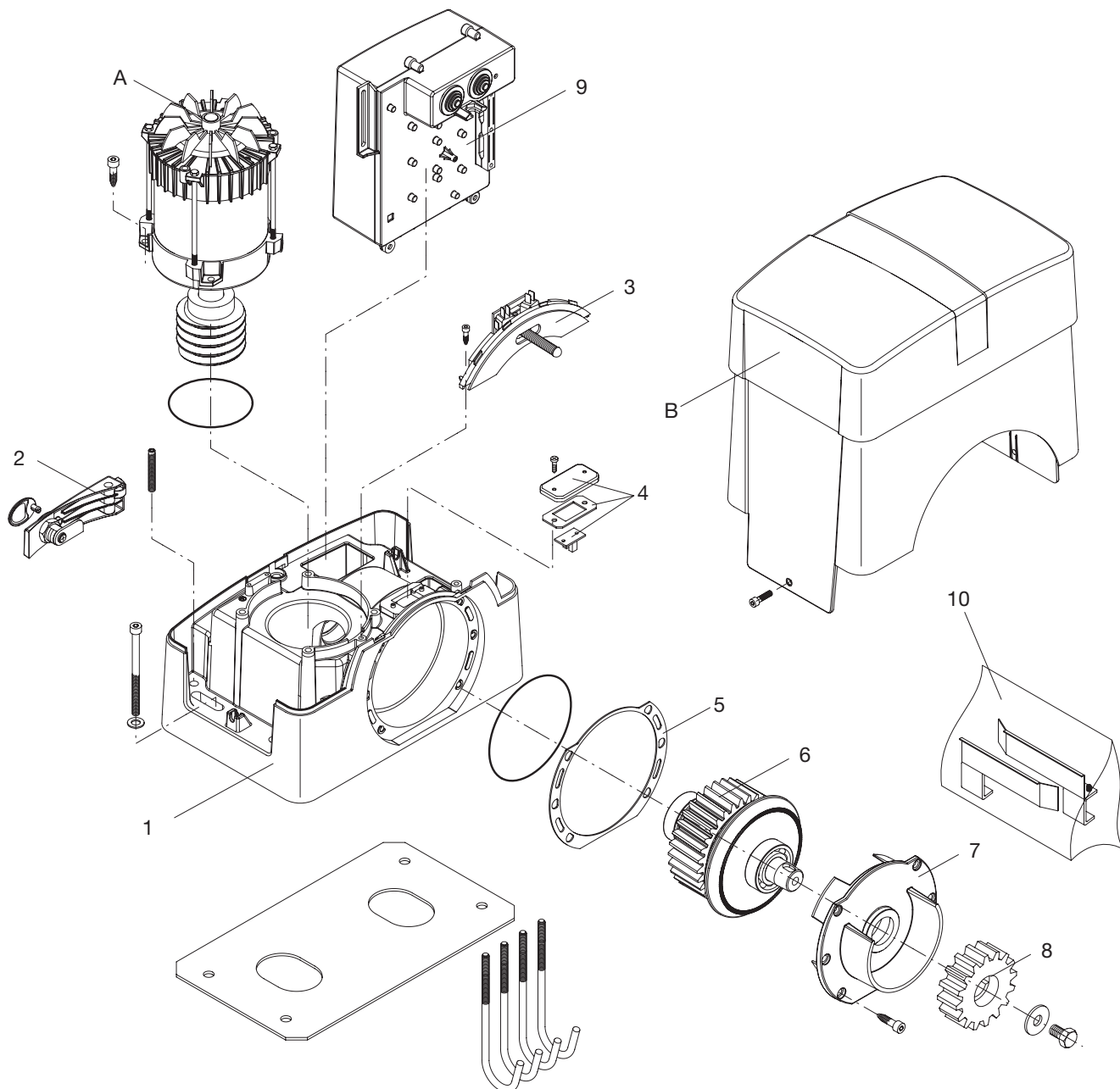
For the wire connections of the system and to adjust the operating modes, please refer to the Instruction Manual of the control unit.

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.
A	Motore BULL10M	Motor BULL 10M	<i>Motor BULL10M</i>	Moteur BULL10M	Motor BULL10M	Silnik BULL10M	9686297
	Motore BULL15M	Motor BULL15M	<i>Motor BULL15M</i>	Moteur BULL15M	Motor BULL15M	Silnik BULL15M	9686298
	Motore BULL 20M	Motor BULL20M	<i>Motor BULL20M</i>	Moteur BULL20M	Motor BULL20M	Silnik BULL 20M	9686299
B	Copertura 10/15M	Cover 10/15M	<i>Deckel 10/15M</i>	Couvercle 10/15M	Tapa 10/15M	Karter 10/15M	9686331
	Copertura 20M	Cover 20M	<i>Deckel 20M</i>	Couvercle 18M	Tapa 20M	Karter 20M	9686330
1	Carter motore	Motor cover	<i>Motor Deckel</i>	Couvercle mot.	Tapa motor	Karter silnik	9686327
2	Leva di sblocco	Release lever	<i>Hebel</i>	Levier	Pal. de desbloq.	Dźwignia odrygl.	9686328
3	Fincorsa	Limit stop	<i>Endschalter</i>	Fin de course	Final de carrera	Krańcówka	9686329
4	Encoder	Encoder	<i>Encoder</i>	Encodeur	Encoder	Enkoder	9686332
5	Guarnizione	Gasket	<i>Dichtung</i>	Guarniture	Junta	Uszczelka	9686333
6	Albero di uscita	Output shaft	<i>Antriebszapfen</i>	Arbre	Eje de salida	Wał wyjściowy	9686334
7	Flangia	Flange	<i>Flansch</i>	Flasque .	Brida	Kołnierz	9686335
8	Pignone M4	Gear M4	<i>Zahnrad M4</i>	Engrenage M4	Piñon M4	Wał napędzający M4	9686032
9	Centrale	Control Unit	<i>Schaltanlage</i>	Centrale électr.	Central	Centralka elektr.	9686336
10	Blister	Blister	<i>Blister</i>	Blister	Blister	Blister	9686337

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.

