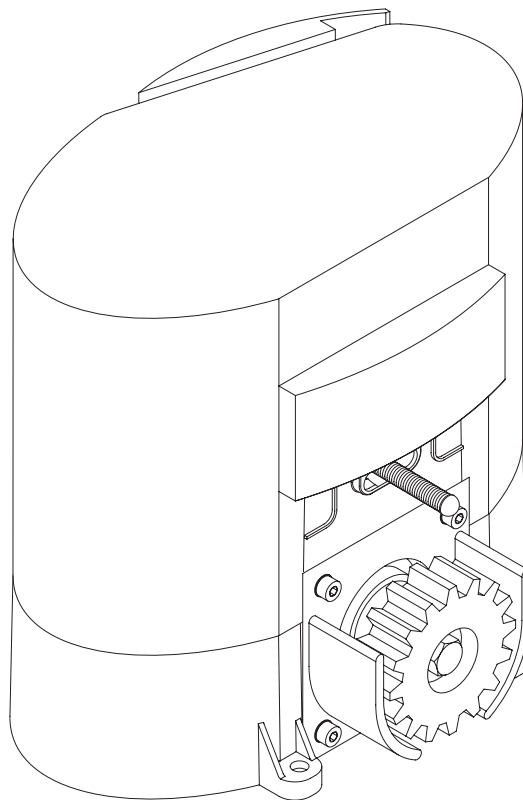


L8542329  
Rev. 10/06/00

# 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**

## MS424



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**

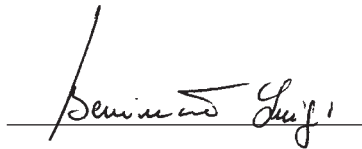
Fabbricante: **Automatismi Benincà SpA.**  
Indirizzo: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Dichiara che: l'automazione per cancelli scorrevoli modello **MS424**.

- 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, 06/09/2006.



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

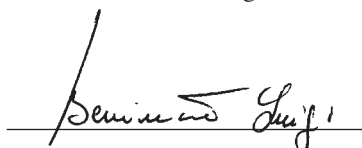
Manufacturer: **Automatismi Benincà SpA.**  
Address: Via Capitello, 45 - 36066 Sandrigo (VI) - Italia

Herewith declares that: the operator for sliding gates model **MS424**.

- 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, 06/09/2006.

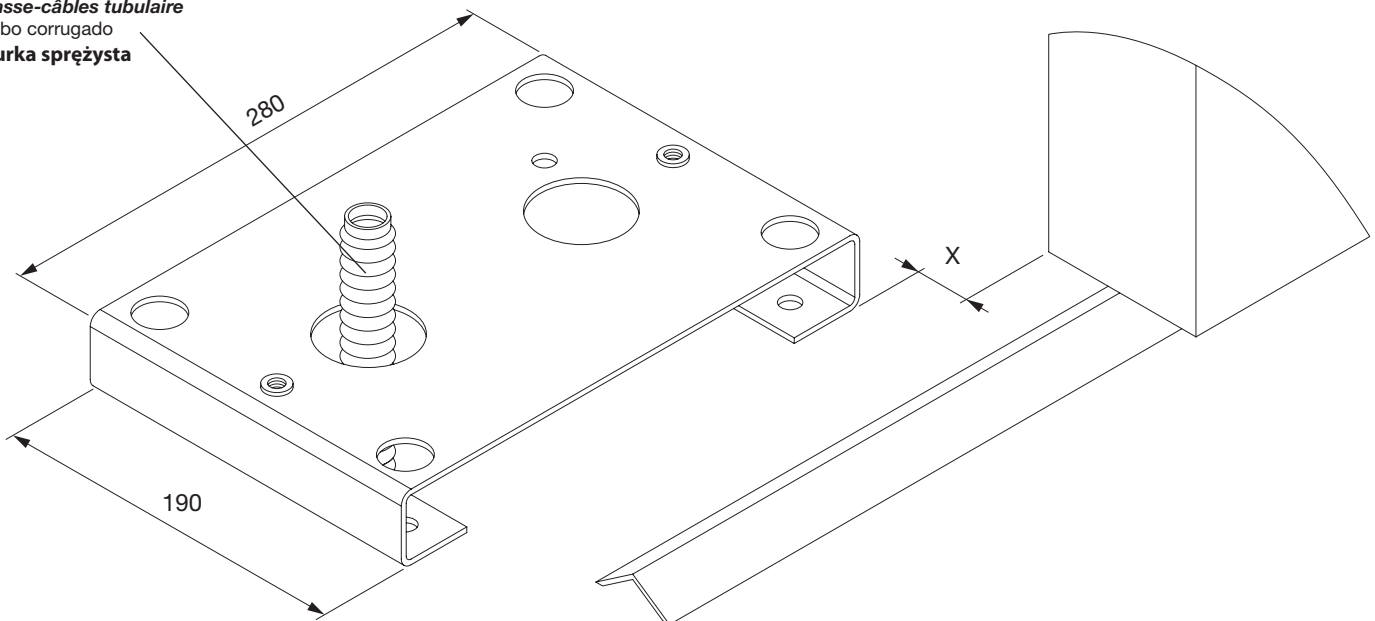


Dati tecnici	Technical data	Technische Daten	Donnees technique	Datos técnicos	Dane techniczne	MS424
Alimentazione	<b>Feed</b>	Speisung	<b>Alimentation</b>	Alimentación	Zasilanie	<b>230 Vac</b>
Alimentazione motore	<b>Motor feed</b>	Motorspeisung	<b>Alimentation moteur</b>	Alimentación del motor	Zasilanie silnika	<b>24 Vdc</b>
Potenza assorbita	<b>Absorbed power</b>	Aufgenom. Leistung	<b>Puissance absorbée</b>	Consumo de potencia	Natężenie	<b>100 W</b>
Assorbimento rete	<b>Mains absorption</b>	Netzstromaufnahme	<b>Absorption de réseau</b>	Absorción de red	Pobór mocy prądu	<b>0,5 A</b>
Assorbimento motore	<b>Motor consumption</b>	Motorstromaufnahme	<b>Absorption moteur</b>	Absorción motor	Pobór mocy silnika	<b>4 A</b>
Coppia	<b>Torque</b>	Kräftepaar	<b>Couple</b>	Par	Moment obrotowy	<b>25 Nm</b>
Intermittenza di lavoro	<b>Operating jogging</b>	Betriebsintermittenz	<b>Intermittence de travail</b>	Intermencia de trabajo	Rodzaj pracy	<b>80% (1)</b>
Grado di protezione	<b>Protection class</b>	Schutzklasse	<b>Degré de protection</b>	Grado de protección	Stopień ochrony	<b>IP54</b>
Classe di isolamento	<b>Insulation class</b>	Isolierklasse	<b>Classe d'isolement</b>	Clase de aislamiento	Klasa izolacji	<b>Y</b>
Temp. funzionamento	<b>Working temperature</b>	Betriebstemperatur	<b>Temp. fonctionnement</b>	Temp. funcionamiento	Temp. podczas pracy	<b>-20°C / +70°C</b>
Rumorosità	<b>Noise level</b>	Geräusentwicklung	<b>Bruit</b>	Ruido	Max. hałas	<b>&lt;70 dB</b>
Peso max. cancello	<b>Max. gate weight</b>	Gittersgewicht max.	<b>Poids max. portail</b>	Peso máx. de la cancela	Ciężar max. bramy	<b>400kg</b>
Velocità apertura	<b>Opening speed</b>	Öffnungsgeschwindigkeit	<b>Vitesse d'ouverture</b>	Velocidad de apertura	Prędkość otwierania	<b>13÷17m/min</b>
Lubrificazione	<b>Lubrication</b>	Schmierung	<b>Lubrification</b>	Lubrificación	Smarowanie	<b>Agip GR MU EP/2</b>
Peso	<b>Weight</b>	Gewicht	<b>Poids</b>	Peso	Ciężar	<b>10,25kg</b>
Dimensioni	<b>Dimensions</b>	Masse	<b>Dimensions</b>	Dimensiones	Wymiary	<b>195x270xH270mm</b>
Sblocco	<b>Built-in release</b>	Interne Entsicherung	<b>Déverrouillage inter.</b>	Desbloqueo interior	Mech. odblokowujący:	<b>(2)</b>

(1) *Usa intensivo - Intensive use - Intensive Nutzung - Usage intensif - Uso intensivo - Użytkowanie intensywne*

(2) *Chiave personalizzata - Customized key - Spezial Schlüssel - Clé personnalisée - Llave personalizada - Klucz osobisty*

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



X≈ 45 per cremagliera in Fe 30x12

X≈ 50 per cremagliera in nylon

**X≈ 45 for Fe 30x12 rack**

**X≈ 50 for nylon rack**

X≈ 45 für Zahnstange aus Stahl 30x12

X≈ 50 für Zahnstange aus Nylon

**X≈ 45 pour crémaillère en acier 30x12**

**X≈ 50 pour crémaillère en nylon**

X≈ 45 para cremallera Fe 30x12

X≈ 50 para cremallera de nylon

**X ≈ 45 dla zębatki z Fe 30x12**

**X ≈ 50 dla zębatki z nylonu**

Fig.1

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

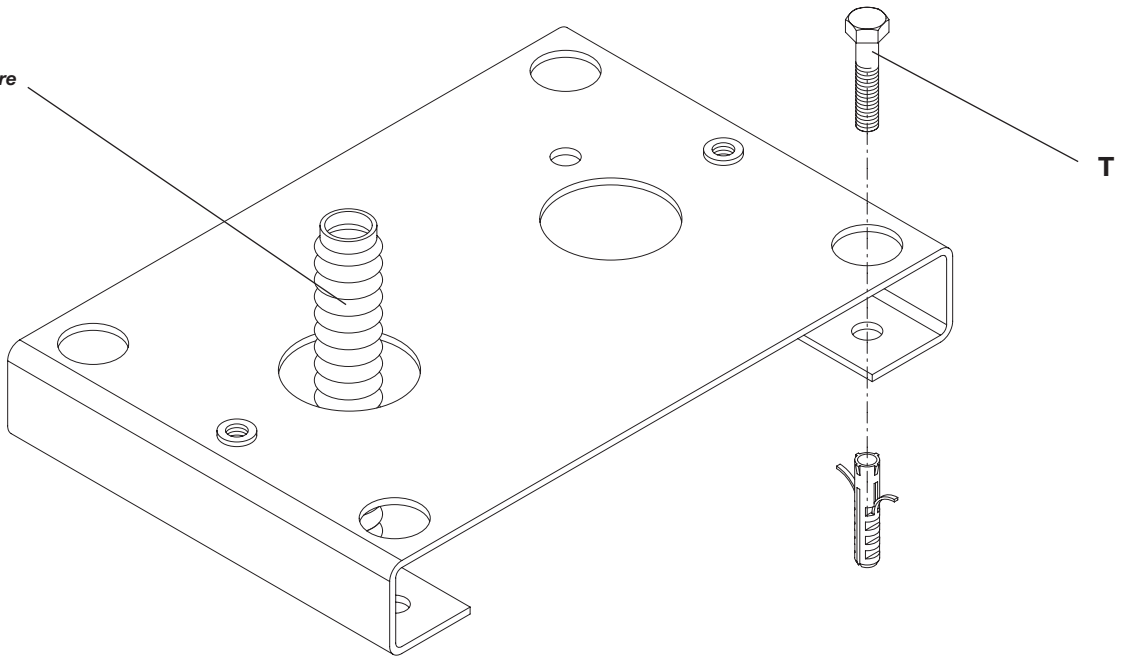
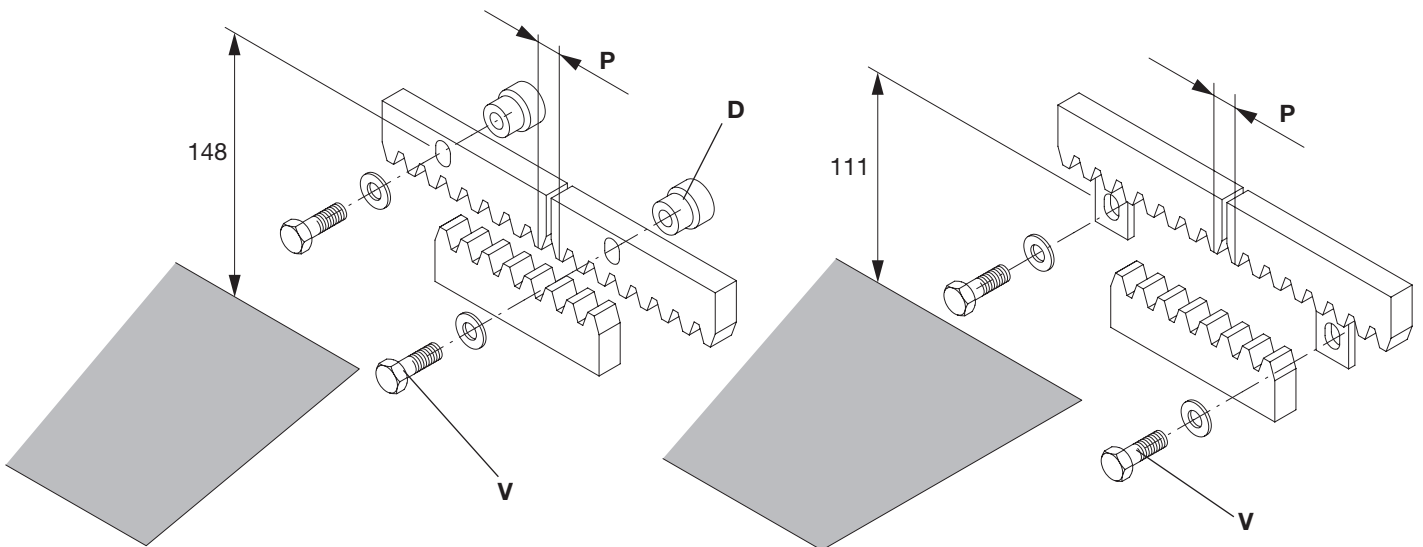


Fig.2

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

Cremagliera in nylon  
**Nylon rack**  
 Zahnstange aus Nylon  
**Cremaillère en nylon**  
 Cremallera en nylon  
**Zębatka z nylonu**



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

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

Fig.3

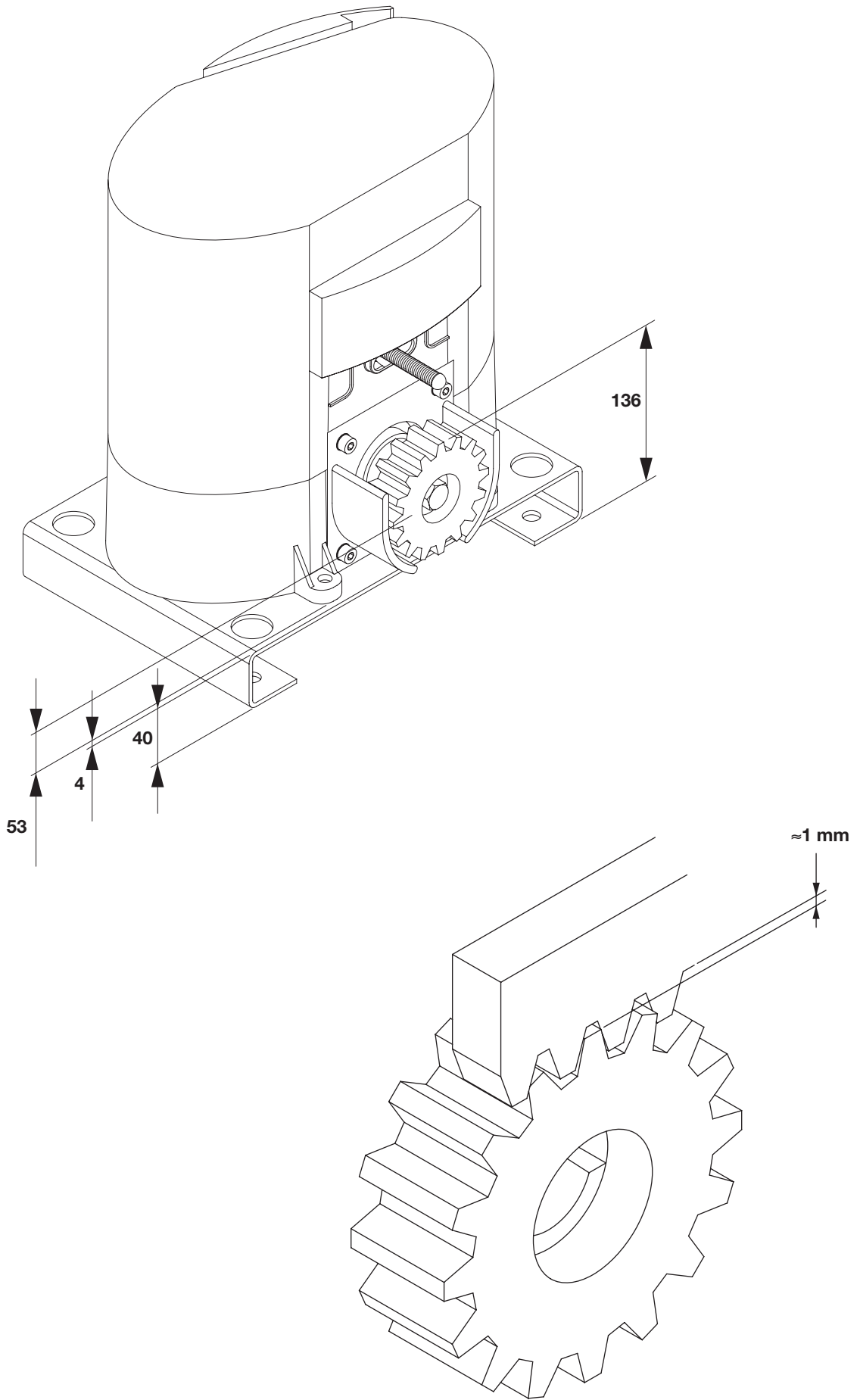
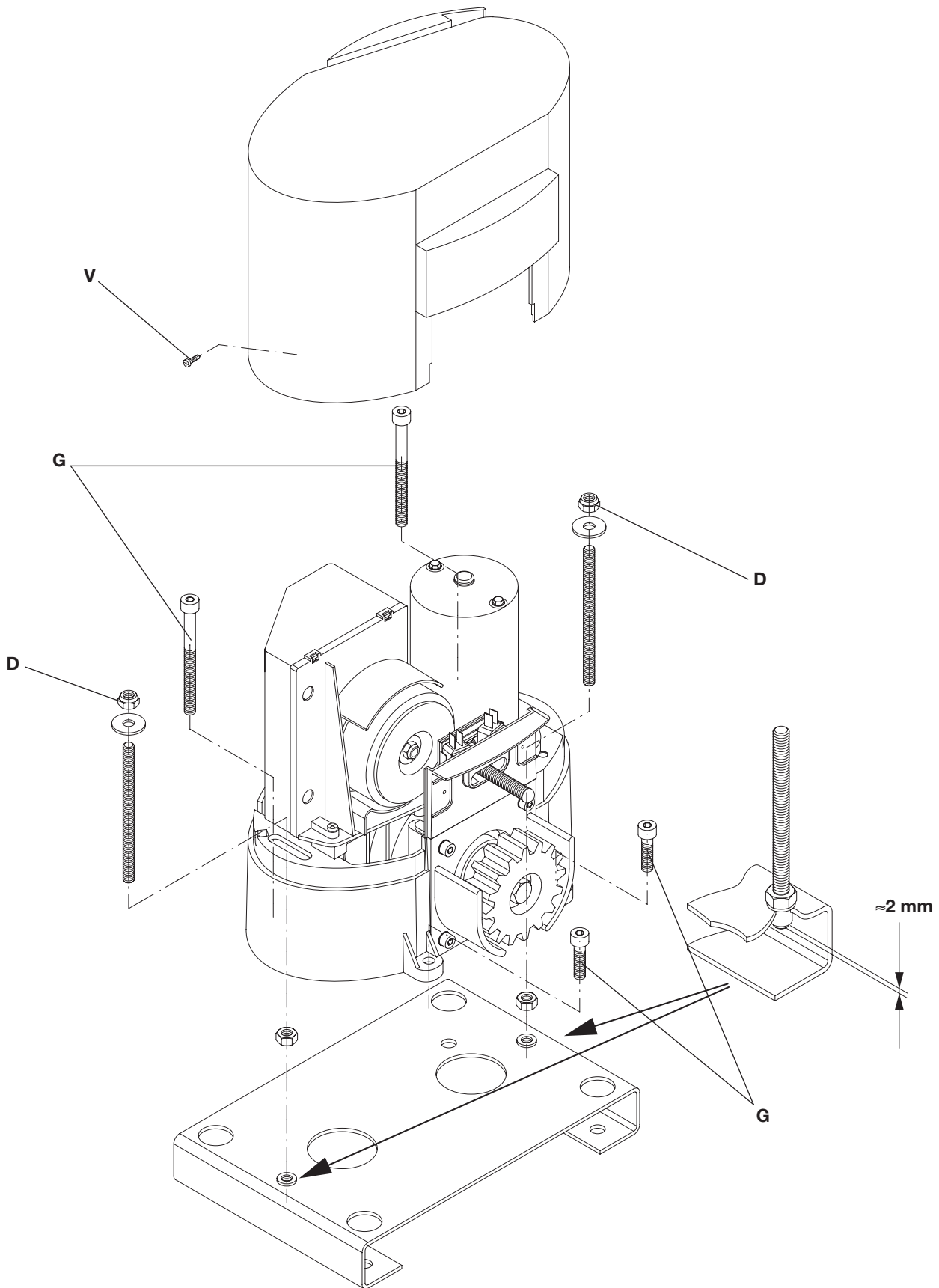
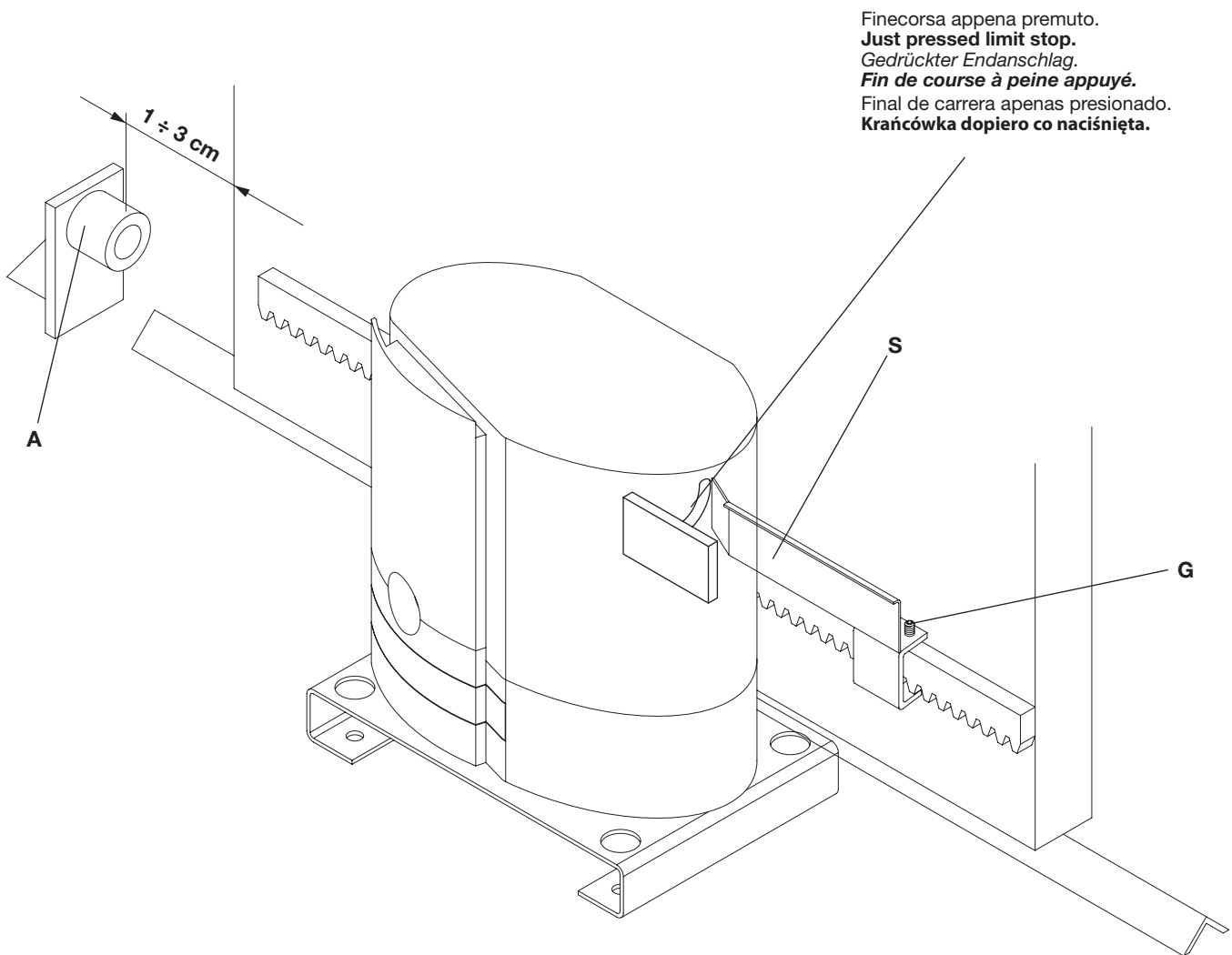


Fig.4



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.5



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

Fig.6

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

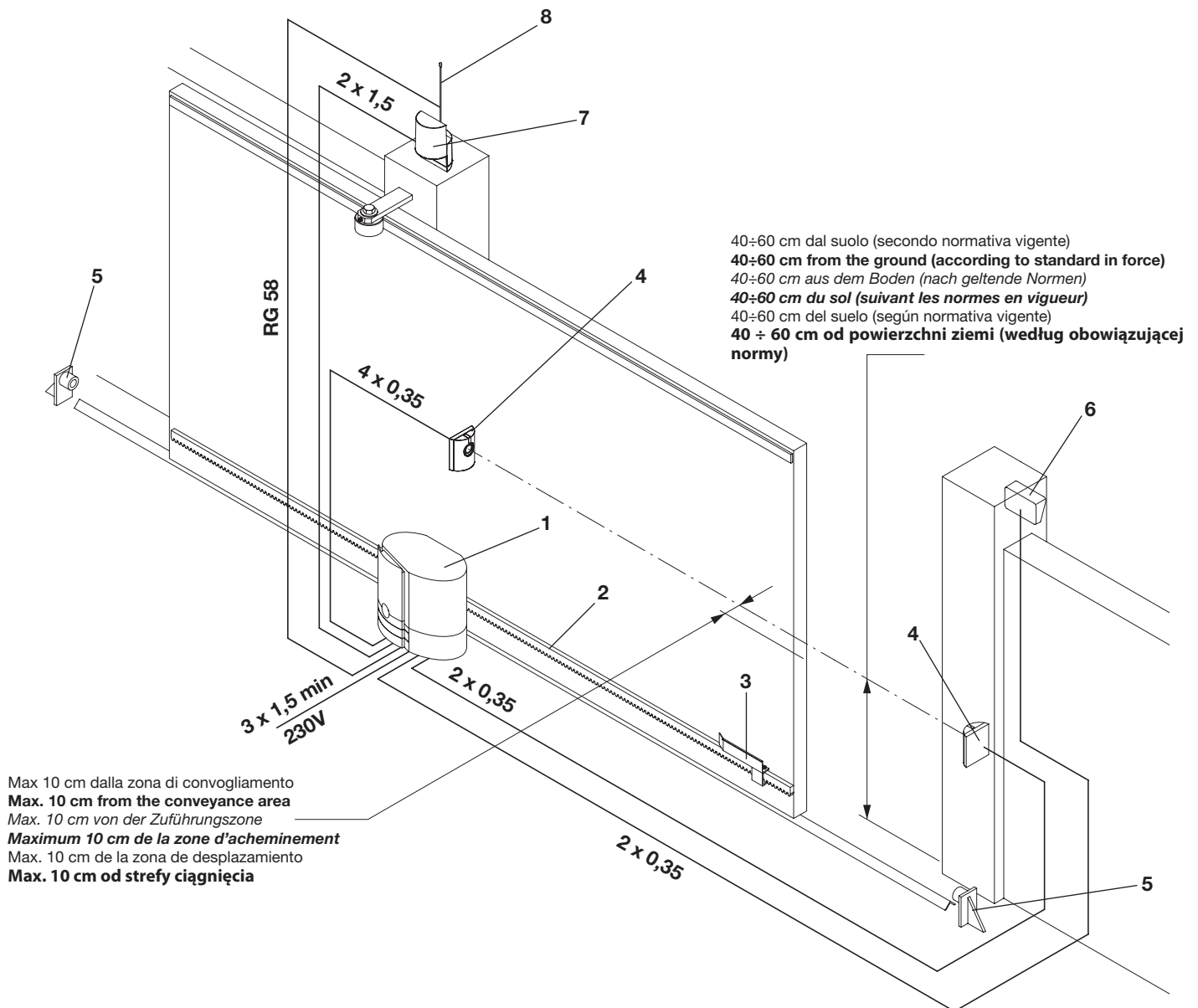
**N.b. The limit stop flask must be positioned to ensure that the gate stops without knocking against the mechanical stop.**

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



**Legenda:**

- 1 Motoriduttore con centralina incorporata MS424
- 2 Cremagliera RI.M4P
- 3 Staffe dei finecorsa
- 4 Fotocellule FTC/FTM
- 5 Fermi meccanici
- 6 Selettore a chiave o tastiera digitale CH o ID.SCE
- 7 Lampeggiante LAMP24
- 8 Antenna AW/AE

**Legenda:**

- 1 Ratio-motor complete with gear case MS424
- 2 Rack RI.M4P
- 3 Limit stop flasks
- 4 Photo-electric cells FTC/FTM
- 5 Mechanical stop
- 6 Key or digital keyboard selector CH or ID.SCE
- 7 Blinker LAMP24
- 8 Antenna AW/AE

**Zeichenerklärung:**

- 1 Drehzahlminderer mit eingebauter Schaltanlage MS424
- 2 Zahnstange RI.M4P
- 3 Endschlagbügel
- 4 Fotozelle FTC/FTM
- 5 Mech. Endanschlag
- 6 Schlüssel-Selektor oder Digital-Tastatur CH oder ID.SCE
- 7 Blinklicht LAMP24
- 8 Antenne AW/AE

**Légende:**

- 1 Motoréducteur avec circuit intégré MS424
- 2 Cremallière RI.M4P
- 3 Etriers de fin de course
- 4 Photocellules FTC/FTM
- 5 Bûtee mécanique
- 6 Sélecteur à clef ou à clavier CH ou ID.SCE
- 7 Feu clignotant LAMP24
- 8 Antenne AW/AE

**Leyenda:**

- 1 Motorreductor con centralita incorporada MS424
- 2 Cremallera RI.M4P
- 3 Pletinas de los finales de carrera
- 4 Fotocélulas FTC/FTM
- 5 Topes mecánicos
- 6 Selector a llave o teclado digital CH o ID.SCE
- 7 Relampagueador LAMP24
- 8 Antena AW/AE

**Objasnienia:**

- 1 Siłownik z wbudowaną centralką MS424
- 2 Zębarka RI.M4P
- 3 Zawieszki krańcowych wyłączników posuwu
- 4 Fotokomórki FTC/FTM
- 5 Chwytyki mechaniczne
- 6 Przełącznik kluczowy lub panel sterujący CH lub ID.SCE
- 7 Światło migające LAMP24
- 8 Antena AW/AE

Fig.7



## Introduction

Thank you for choosing our MS424 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 for private use sliding gates (max. gate weight 400Kg).

The small and elegant design enbloc MS424 consists of an aluminium unit containing the motor and irreversible reduction unit, realized with high-grade materials. The MS424 has a spring-operated travel-end. A personalized key emergency release enables manual gate operation in the event of power failure.

### 3. Laying of the foundation plate

Fit the foundation plate onto the floor according to dimensions given in fig.1, by using 4 steel T screw anchors (in any case the plate should be perfectly anchored to the floor). Provide for a tube to house the supply cables.

### 4. Rack fixing

#### 4.1 Nylon rack

Place the rack at a height of 111mm from the centre line of the fitting slot to which the foundation plate is to be fitted. Drill and thread (M6) the gate in that point. Fix the rack according to points 4.3 and 4.4.

#### 4.2 Iron rack, 12x30mm.

Position the spacers D by welding or fit them to the gate with screws at 148mm height from the centre line of the slot used for fitting to the base on which the foundation plate is to be fixed. Fix the rack according to points 4.3 and 4.4.

**4.3** 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.3)

**4.4** 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.4); to get this clearance use the slots on the rack.

### 5. Actuator positioning and fixing (see Fig.5)

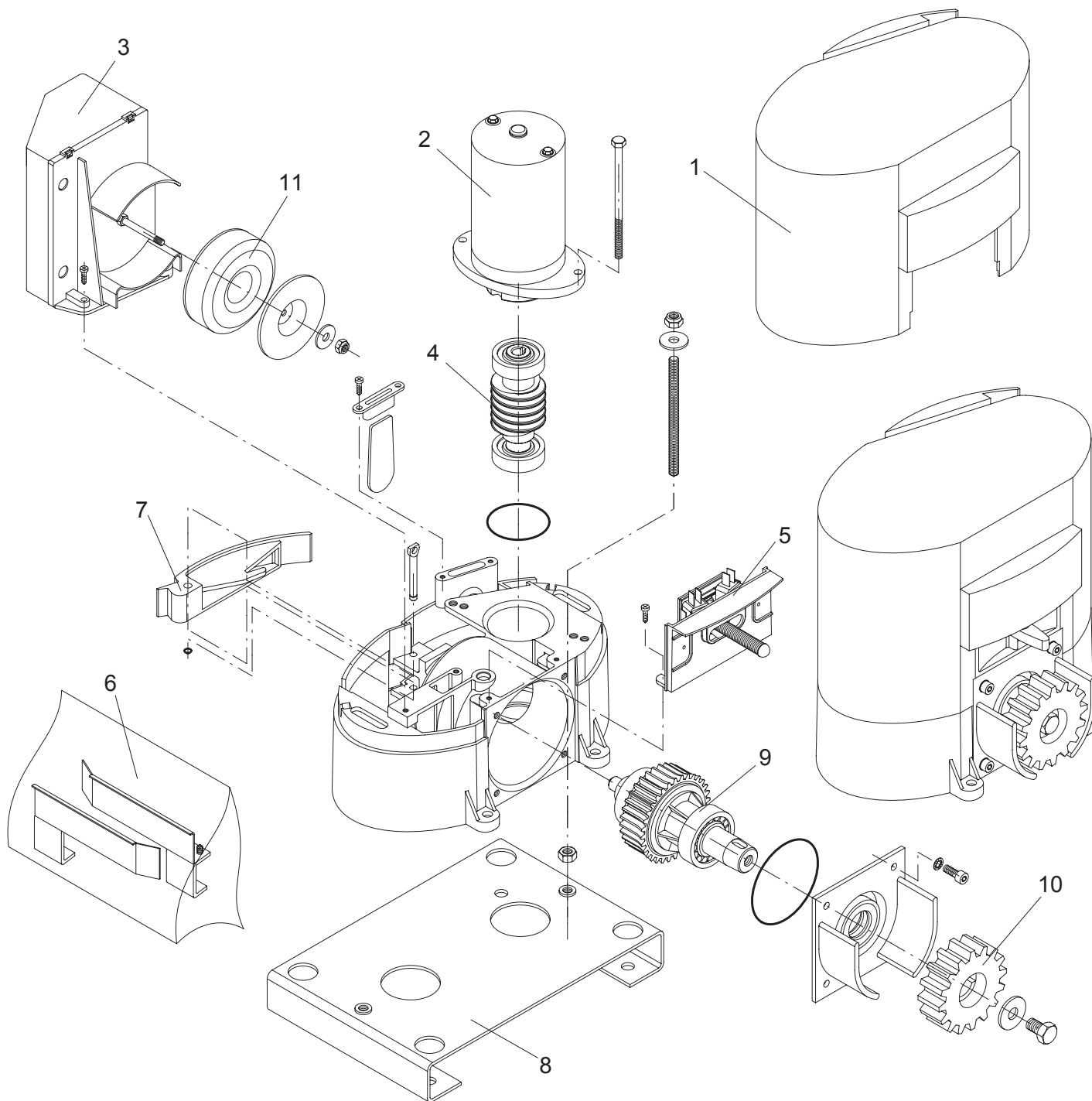
Remove the case by untightening the screws V. The group should be positioned with the gear centred with respect to the rack, level it by using the screws G and, if necessary, adjust the clearance between rack and gears (according to Fig.4). Now tighten the nuts D.

### 6. Limit stop flask positioning (see Fig.6)

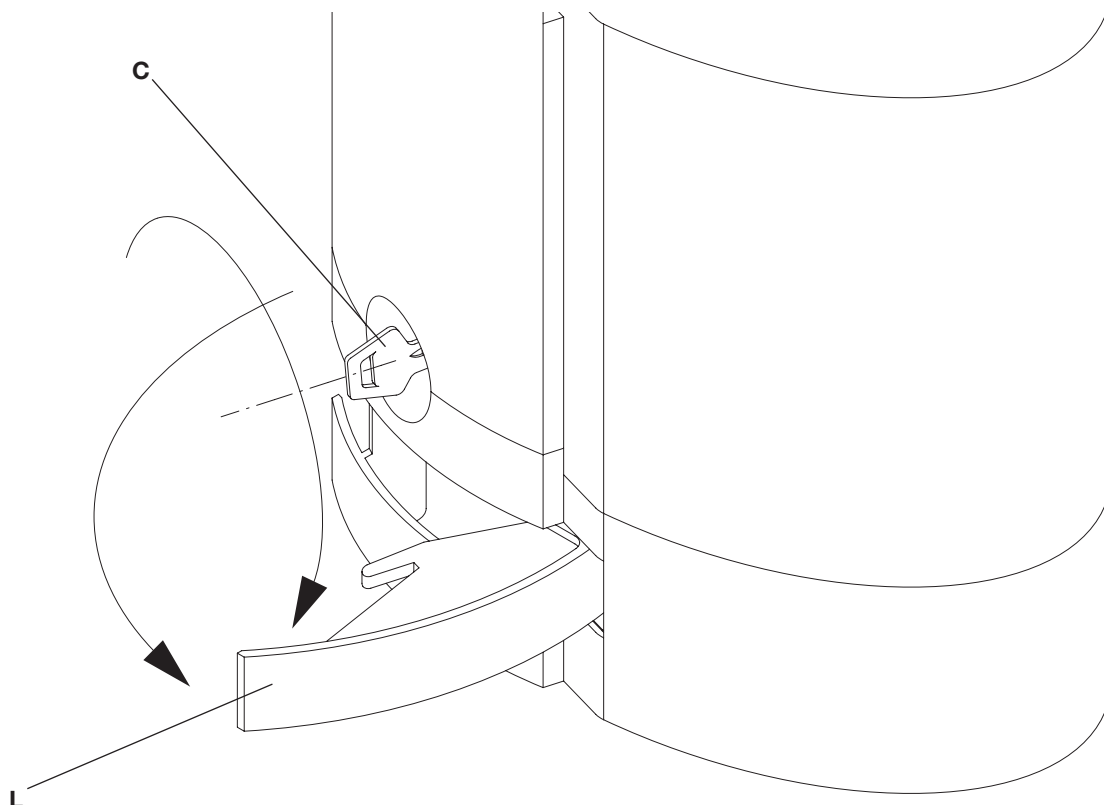
Open manually the gate and leave approximately of 1÷3cm, depending on gate weight, between gate and positive mechanical stop A; tighten the limit stop flask S with the grains G to press the limit stop micro. Repeat the sequence with closing gate.

## 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	<b>Cover</b>	<i>Deckel</i>	<b>Couvercle</b>	Tapa	Karter	9686900
2	Motore	<b>Motor</b>	<i>Motor</i>	<b>Moteur</b>	Motor	Silnika	9686359
3	Centrale	<b>Elect. gearcase</b>	<i>Schaltanlage</i>	<b>Centrale électr.</b>	Central	Centralka elektr.	9686350
4	Vite senza fine	<b>Screw</b>	<i>Schraube</i>	<b>Vis sans fin</b>	Tornillo sisen fin	Śruba dwustronna	9686353
5	Finecorsa	<b>Limit stop</b>	<i>Endschalter</i>	<b>Fin de course</b>	Final de carrera	Ogr. przesuwu	9686904
6	Blister	<b>Blister</b>	<i>Blister</i>	<b>Blister</b>	Blister	Blister	9686083
7	Leva di sblocco	<b>Release lever</b>	<i>Hebel</i>	<b>Levier</b>	Pal. de desbloq.	Dźwignia odrygl.	9686906
8	Piastra fondaz.	<b>Foundat. plate</b>	<i>Fundamentplatte</i>	<b>Plaque fondat.</b>	Placa de fundac.	Płyta podstawy	9686956
9	Albero uscita	<b>Output shaft</b>	<i>Antriebszapfen</i>	<b>Arbre</b>	Eje de salida	Wał wyjściowy	9686351
10	Ingranaggio	<b>Gear</b>	<i>Zahnrad</i>	<b>Engrenage</b>	Piñon	Koło zębate	9686032
11	Trasformatore	<b>Transformer</b>	<i>Transformator</i>	<b>Trasformateur</b>	Trasformador	Transformator	9686352



## 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

To operate the gate manually, use the release as follows:

- once inserted the personalized key C, turn it clockwise and pull the lever L.
- to reset the standard operation running, close the lever L and operate the gate manually, until engagement.

## 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.

**BENINCA<sup>®</sup>**

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

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