L8542852
Rev. 07/04/00

BENINCÀ®

APRICANCELLO SCORREVOLE ELETTROMECCANICO

ELECTROMECHANICAL SLIDING GATE OPENER

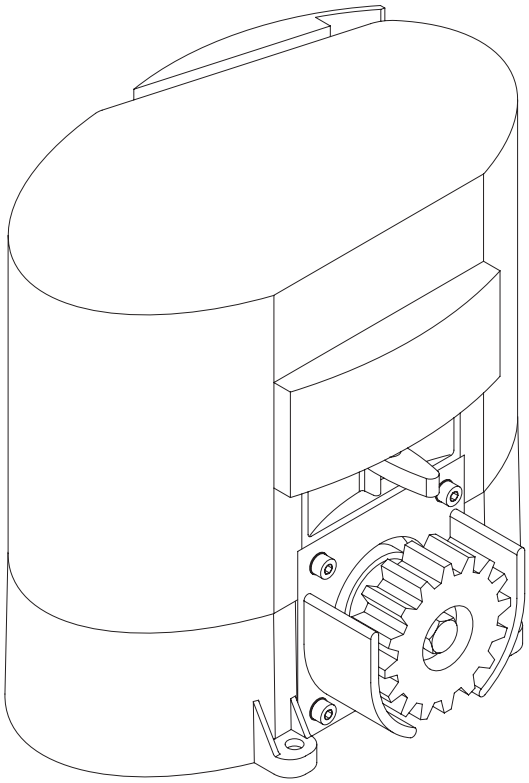
ELEKTROMECHANISCHE AUTOMATION FÜR SCHIEBEGITTER

AUTOMATISATION ÉLECTROMÉCANIQUE POUR GRILLES COULISSANTES

ABRECANCELA ELECTROMECANICO PARA CORREDERAS

ELEKTROMECHANICZNY, POSUWOWY OTWIERACZ BRAM

MS4SF



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

CE

UNAC

UNIONE NAZIONALE COSTRUTTORI AUTOMATISMI PER CANCELLI, PORTE SERRANDE ED AFFINI

Dichiarazione CE di conformità per macchine
(Direttiva 89/392 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 **MS4SF**.

- è costruita per essere incorporata in una macchina o per essere assemblata 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 55022, EN 61000-3-2, EN 61000-3-3, EN 50082-1, EN 60335-1.

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 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.
Sandrigo, 02/05/2006.

Declaration by the manufacturer
(Directive 89/392/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 **MS4SF**.

- is intended to be incorpored 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 55022, EN 61000-3-2, EN 61000-3-3, EN 50082-1, 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.
Sandrigo, 02/05/2006.

Dati tecnici	Technical data	Technische Daten	*Donnees technique*	Datos técnicos	Dane techniczne	MS4SF
Alimentazione	**Feed**	*Speisung*	***Alimentation***	Alimentación	Zasilanie	**230V**
Potenza assorbita	**Absorbed power**	*Aufgenom. Leistung*	***Puissance absorbée***	Consumo de potencia	Natężenie	**170W**
Assorbimento	**Absorption**	*Verbrauch*	***Absorption***	Absorción	Pobór mocy	**0,85A**
Coppia	**Torque**	*Kräftepaar*	***Couple***	Par	Moment obrotowy	**25Nm**
Rapp. di riduzione	**Reduction ratio**	*Untersetzungsverhältnis*	***Rapport de reduction***	Relación de reducción	Przełożenie redukcji	**0,034**
Intermittenza di lavoro	**Operating jogging**	*Betriebsintermittenz*	***Intermittence de travail***	Intermitencia de trabajo	Rodzaj pracy	**15%**
Grado di protezione	**Protection class**	*Schutzklasse*	***Degré de protection***	Grado de protección	Stopień ochrony	**IP43**
Classe di isolamento	**Insulation class**	*Isolierklasse*	***Classe d'isolement***	Clase de aislamiento	Klasa izolacji	**F**
Interv. termoprotez.	**Thermoprot. interv.**	*Eingriff Thermorelais*	***Interv. protect. therm.***	Interv. termoprotección	Interw. Termostatu	**130°C**
Temp. funzionamento	**Working temperature**	*Betriebstemperatur*	***Temp. fonctionnement***	Temp. funcionamiento	Temp. podczas pracy	**-20°C / +70°C**
Peso max. cancello	**Max. gate weight**	*Gittersgewicht max.*	***Poids max. portail***	Peso máx. de la cancela	Ciężar max. bramy	**400kg**
Velocità apertura	**Opening speed**	*Öffnungsgeschwindigkeit*	***Vitesse d'ouverture***	Velocidad de apertura	Prędkość otwieraia	**11m/min**
Condensatore	**Condenser**	*Kondensator*	***Condensateur***	Condensador	Kondensator	**9µF**
Lubrificazione	**Lubrication**	*Schmierung*	***Lubrification***	Lubrificación	Smarowanie	**Agip GR MU EP/2**
Peso	**Weight**	*Gewicht*	***Poids***	Peso	Ciężar	**10,25kg**
Dimensioni	**Dimensions**	*Masse*	***Dimensions***	Dimensiones	Wymiary	**195x270xH270mm**

Riferimento targhetta sull'azionamento
See operation plate
Siehe Schildchen auf der Motor-Gruppe

Voir la plaque sur le motoréducteur
Referencia tarjeta sobre el accionamiento
Tabliczka ze wskazaniami funkcjonowania

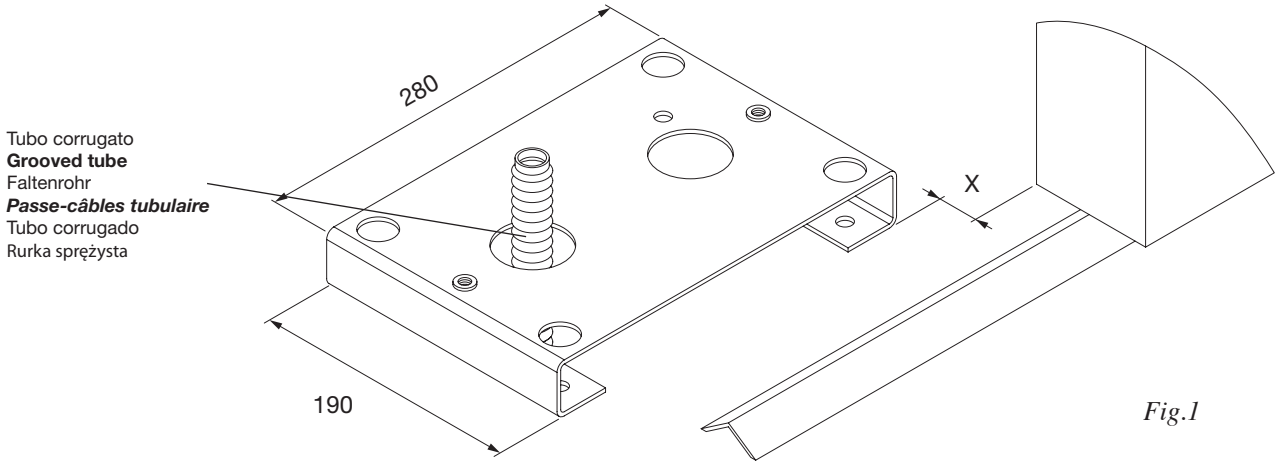


Fig.1

X≈ 45 per cremagliera in Fe 30x12
X≈ 50 per cremagliera in nylon

X≈ 45 für Zahnstange aus Stahl 30x12
X≈ 50 für Zahnstange aus Nylon

X≈ 45 para cremallera Fe 30x12
X≈ 50 para cremallera de nylon

X≈ 45 for Fe 30x12 rack
X≈ 50 for nylon rack

X≈ 45 pour cremaillére en acier 30x12
X≈ 50 pour cremaillére en nylon

X ≈ 45 dla zębatki z Fe 30x12
X ≈ 50 dla zębatki z nylonu

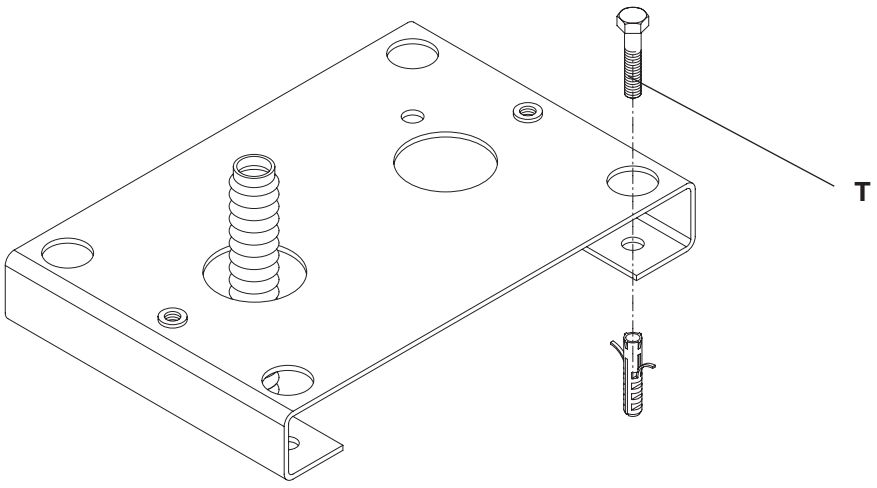
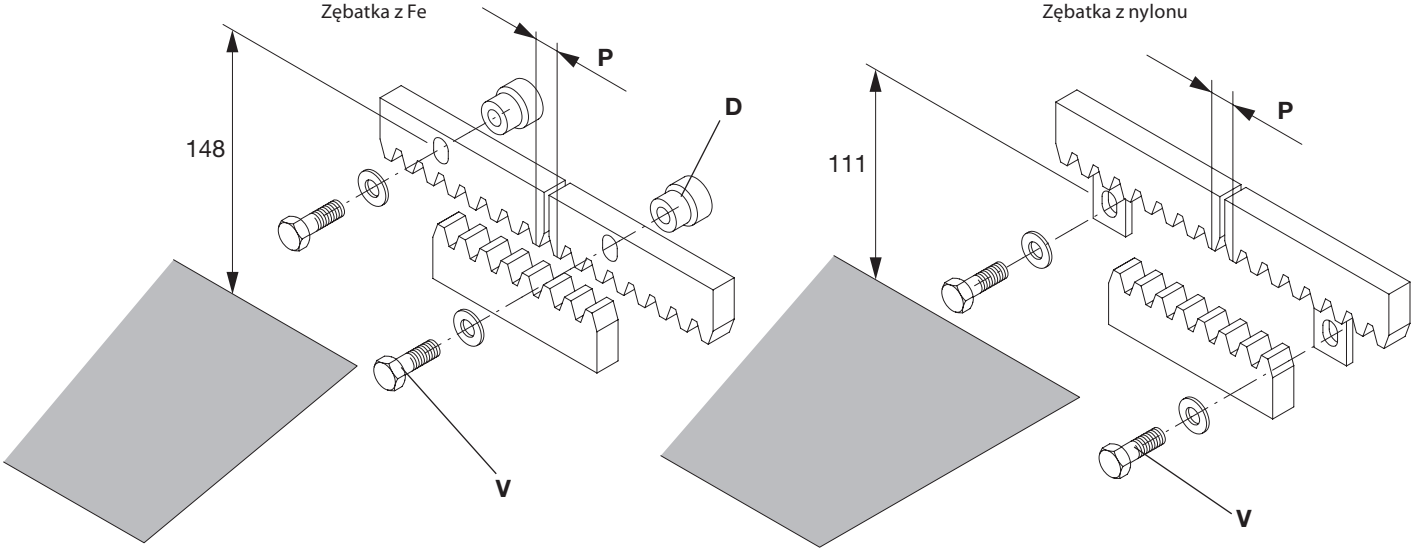


Fig.2

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

Cremagliera in nylon
Nylon rack
Zahnstange aus Nylon
Cremaillére 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

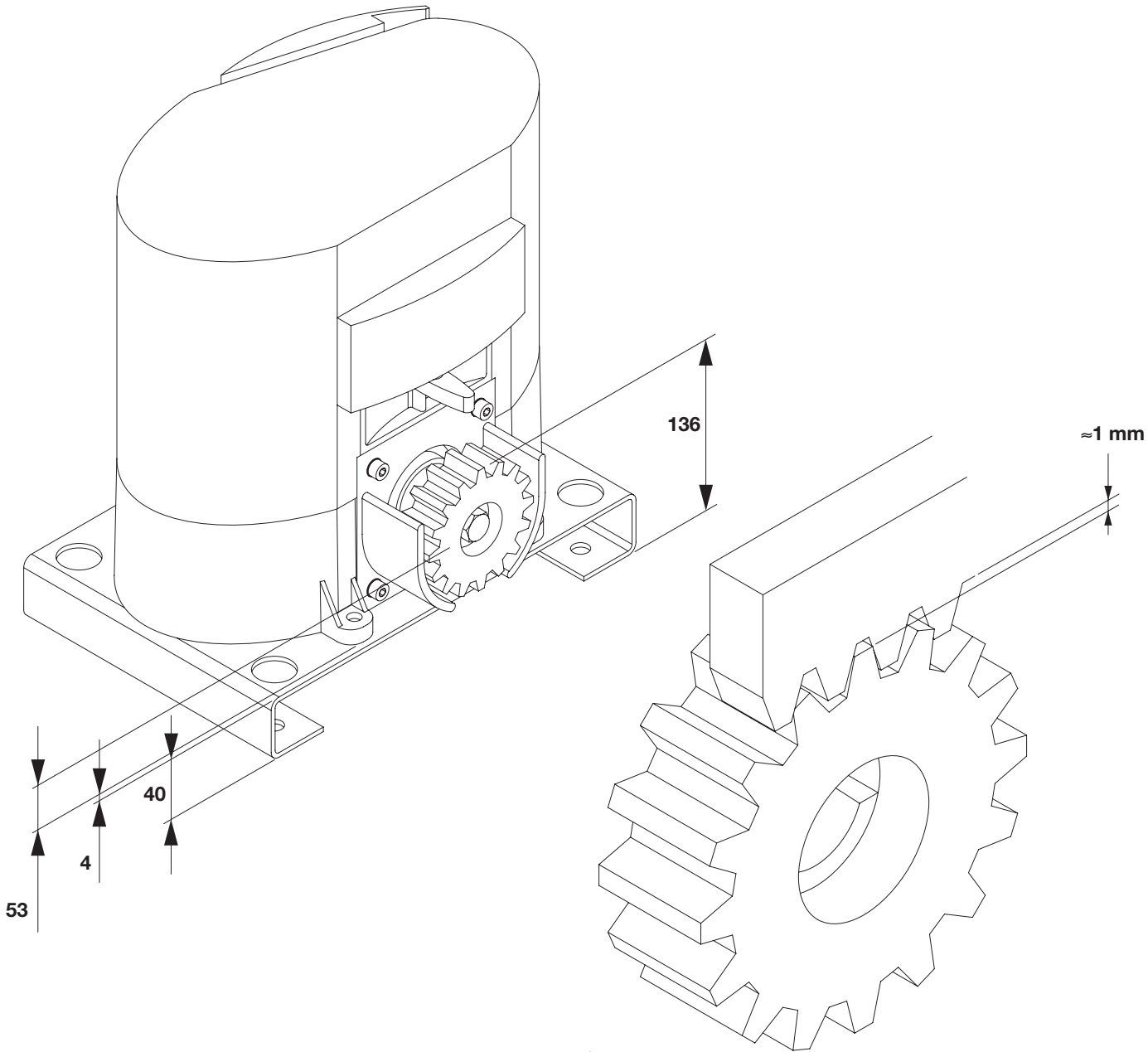
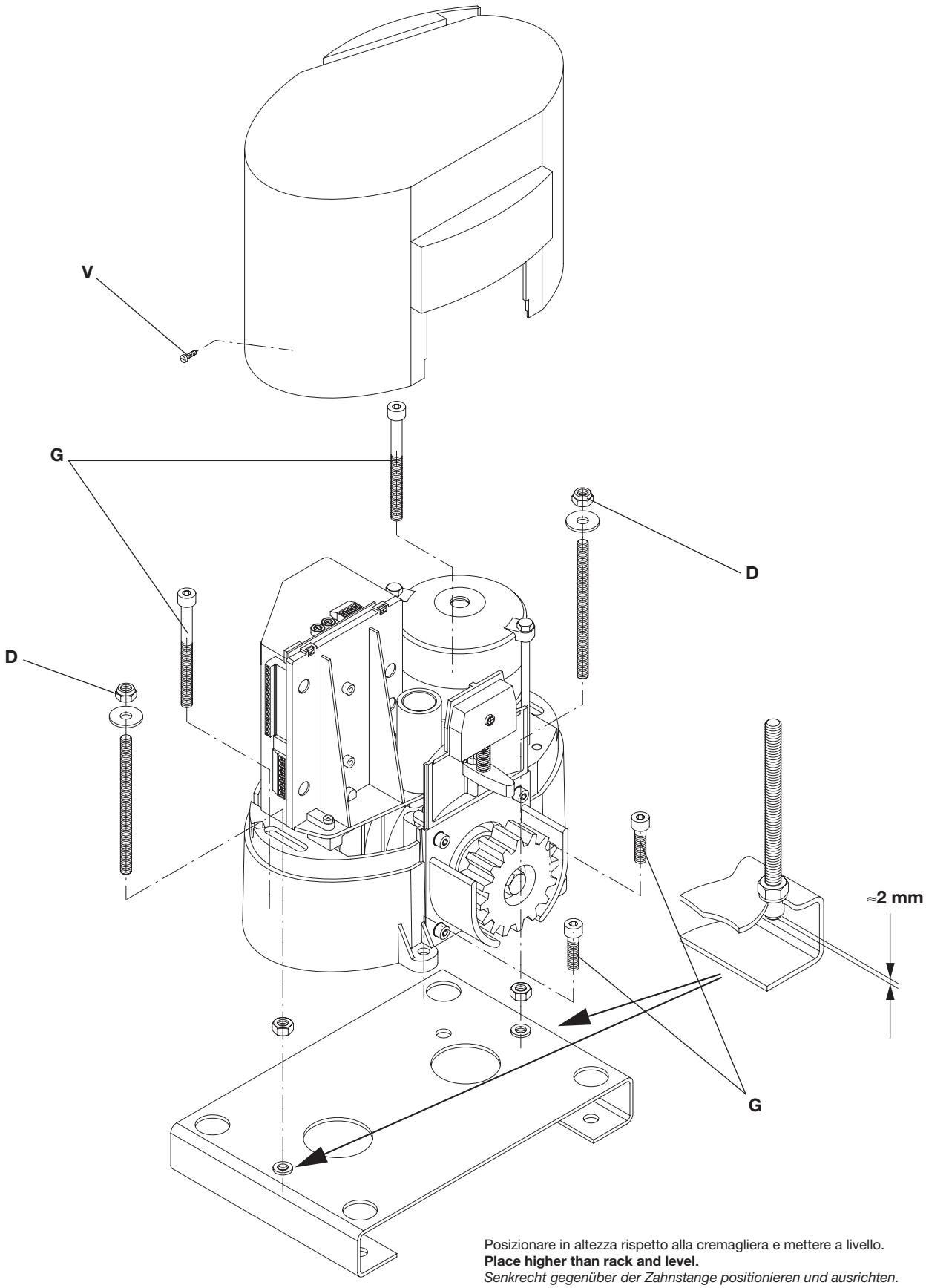
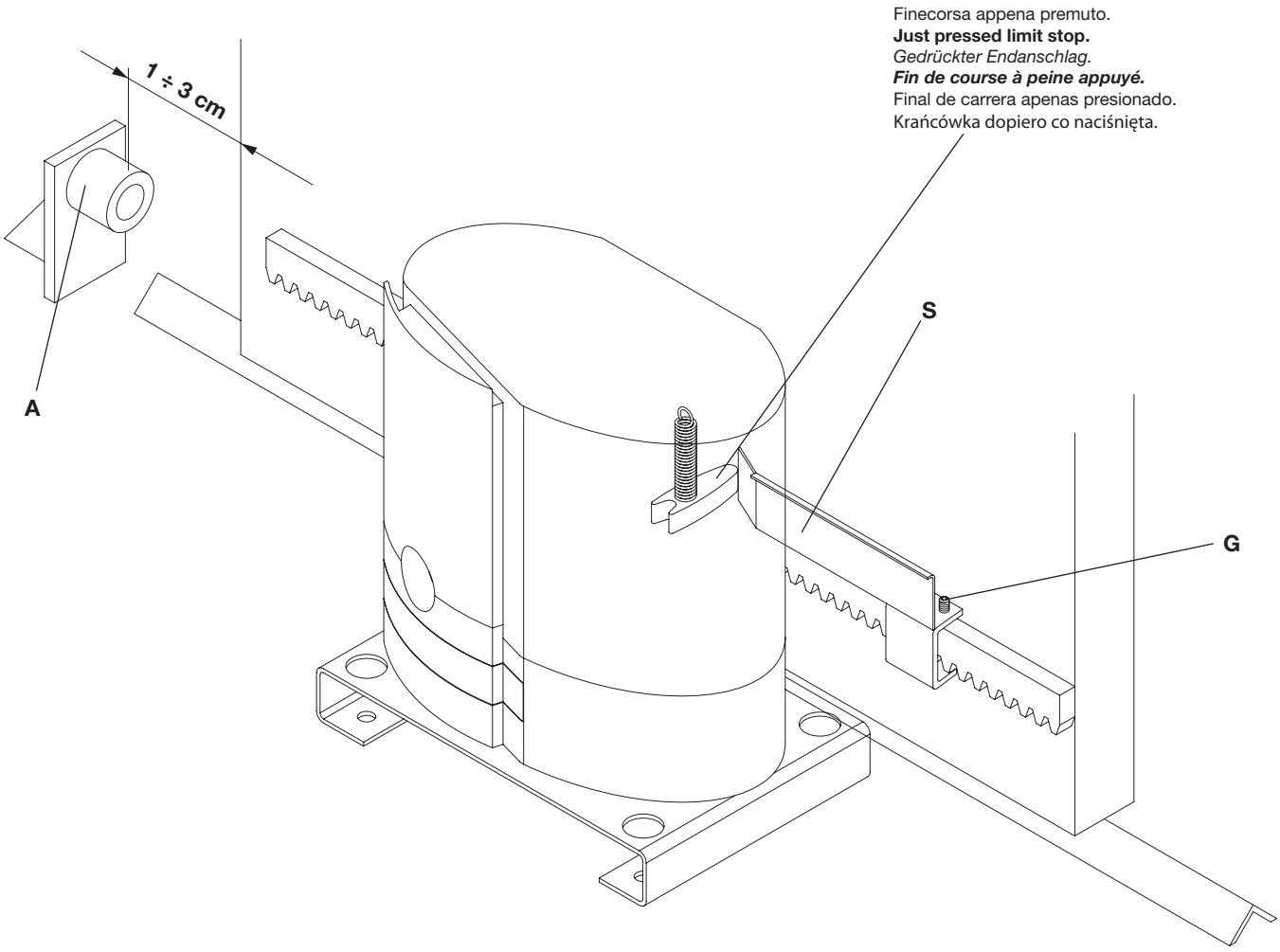


Fig.4



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 cremaillére 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



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 Endanschlagtbügel 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.

Fig.6

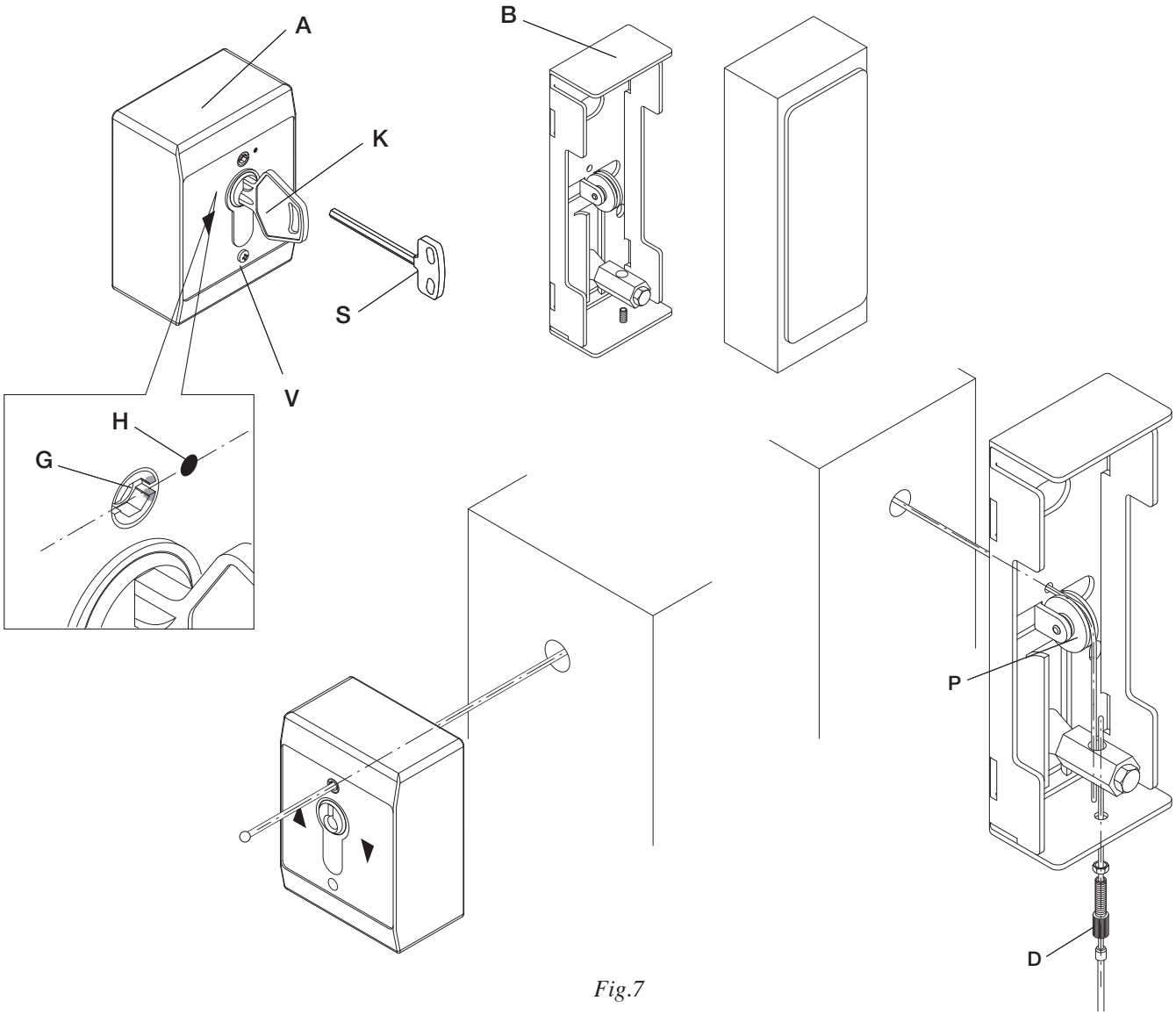
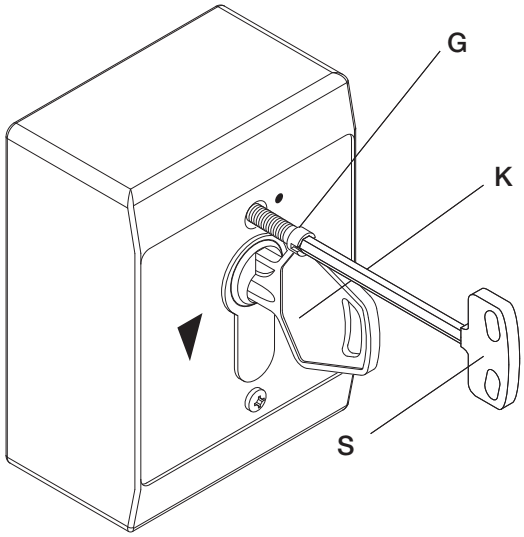


Fig.7



Svitare = Sblocco
Avvitare = Ripristino
Unscrew = Release
Screw = Reset
Aufschrauben = Entriegelung
Einschrauben = Reset

Dévisser = Déblocage
Visser = Rétablissement
Destornillar = Desbloqueo
Atornillar = Restablecimiento
Odkręcić = Odblokowanie
Dokręcić = Przywrócenie

Fig.8

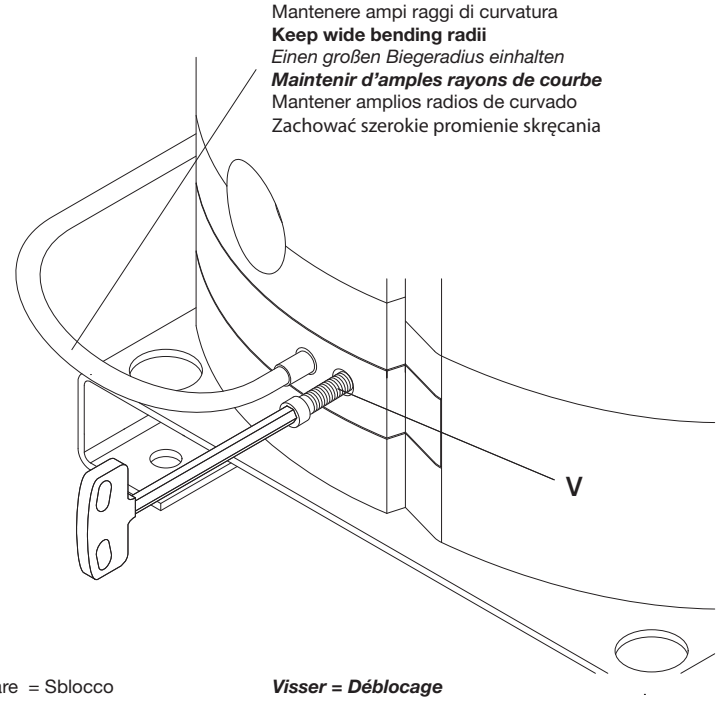


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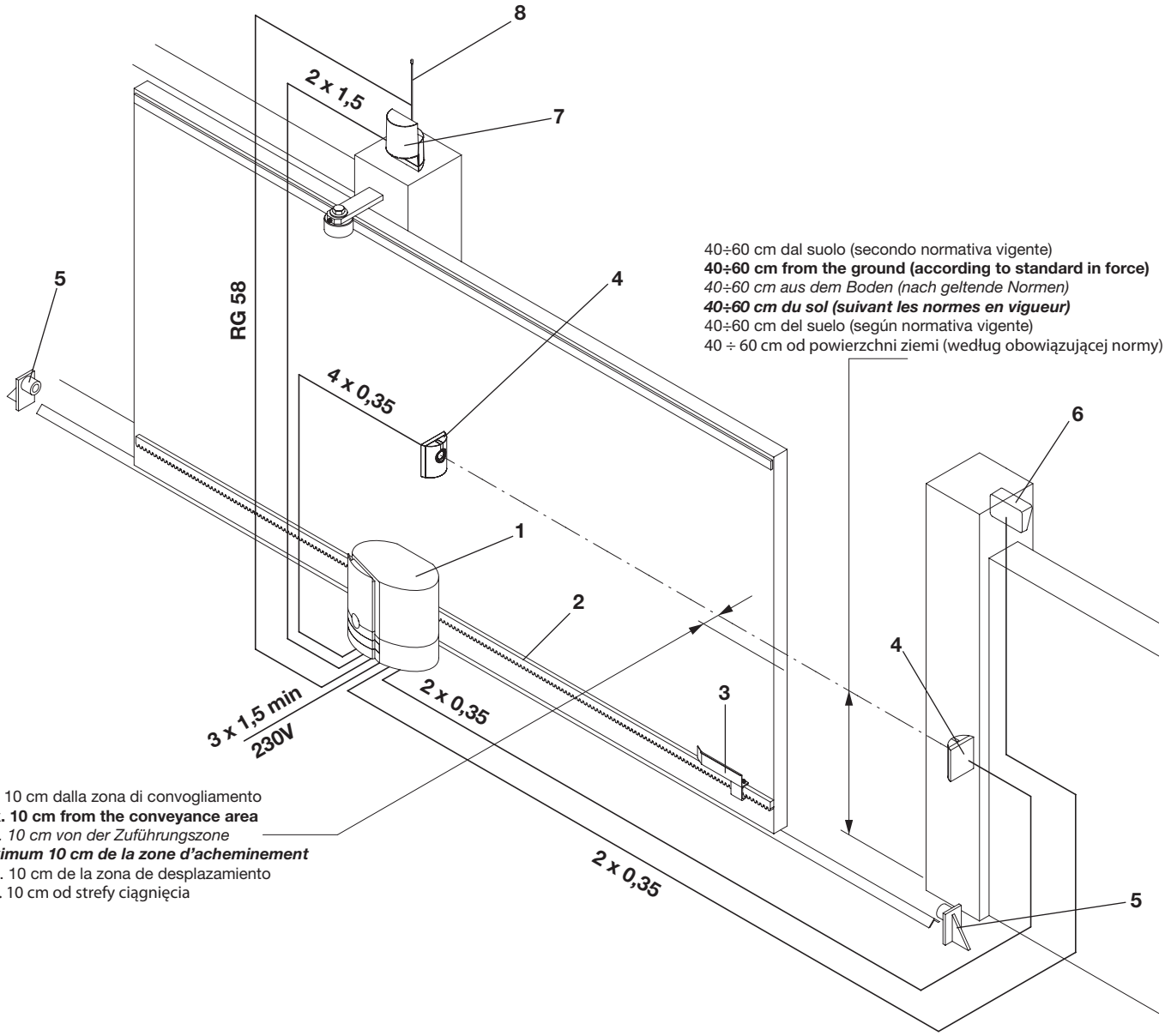
Fig.9



Legenda:
1 Motoriduttore con centralina incorporata MS4SF
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 LAMP
8 Antenna AW/AE

Legenda:
1 Ratio-motor complete with gear case MS4SF
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 LAMP
8 Antenna AW/AE

Zeichenerklärung:
1 Drehzahlminderer mit eingebauter Schaltanlage MS4SF
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 LAMP
8 Antenne AW/AE

Légende:
1 Motoréducteur avec circuit intégré MS4SF
2 Cremaillére RI.M4P
3 Etriers de fin de course
4 Photocellules FTC/FTM
5 Bûtée mécanique
6 Sélecteur à clef ou à clavier CH ou ID.SCE
7 Feu clignotant LAMP
8 Antenne AW/AE

Leyenda:
1 Motorreductor con centralita incorporada MS4SF
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 LAMP
8 Antena AW/AE

Objaśnienia:
1 Siłownik z wbudowaną centralką MS4SF
2 Zębatka RI.M4P
3 Zawieszki krańcowych wyłączników posuwu
4 Fotokomórki FTC/FTM
5 Chwytaki mechaniczne
6 Przełącznik kluczowy lub panel sterujący CH lub ID.SCE
7 Światło migające LAMP
8 Antena AW/AE

Fig.10

Introduction

Thank you for choosing our MS4SF 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 higly 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 mantained 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 MS4SF consists of an aluminium unit containing the motor and irreversible reduction unit, realized with high-grade materials. The MS4SF has a spring-operated travel-end.
The emergency release is performed using a convenient wire control with a personalised key.

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. To obtain braking, gradually decrease the operating time until the automatic system starts to move at reduced speed before the stop limit switch is triggered.
N.B.: In partial operations there will be no braking.

7. Installation of the wire release

The MS4SF is equipped for the installation of an emergency wire release composed of (fig.7):
A - Key selector, for external installation, with wire release mod. CHS.
B - Wire stretching device to be installed internally.

Install as follows, referring to fig. 7:

1 - choose the position where the external selector is to be installed, then make a hole right through the wall, with a diameter sufficient for the cable to go through.
2 - fix the key selector CHS to the outside wall (using rawlplugs or similar fixtures). The drilling distances are marked on the back of the selector. To open the selector it is necessary:
a) to insert the personalised key K and turn it in one of the two directions. The key can be inserted only if the coloured notch on the dowel G is aligned with point H.
b) to remove the dowel G using the special wrench S supplied. The dowel can be removed only if the key is inserted and turned.
c) to remove the screw V.
3 - now fix the selector to the wall (using rawlplugs or similar fixtures) and if necessary to the wiring of the N.O. contacts at the Open/Close or the Step by Step outlets of the control unit (make also the earth connection if there is mains voltage at the N.O. terminals).
4 - insert the key in the dowel and pass it through the opposite wall.
5 - fix the wire stretching device to the internal wall (using rawlplugs or similar fixtures).
6 - cut to size the sheath of the cable installed on the motor and insert it in the slot provide at the bottom of the wire stretching device.
7 - fix both ends of the cables to the terminal. The cable from the selector must pass through the drive pulley P.
8 - both cables must be tightened, using the tightening nut provided.
Check that the cable fastening terminal is fixed near the bottom of the wire stretching device so that it has sufficient play during release.
ATTENTION: When positioning the sheath always keep a wide bending radius.

8. Manual manoeuvre

To manoeuvre the gate manually in the event of a power cut or malfunction, use the release as follows:
From the outside Fig.8:

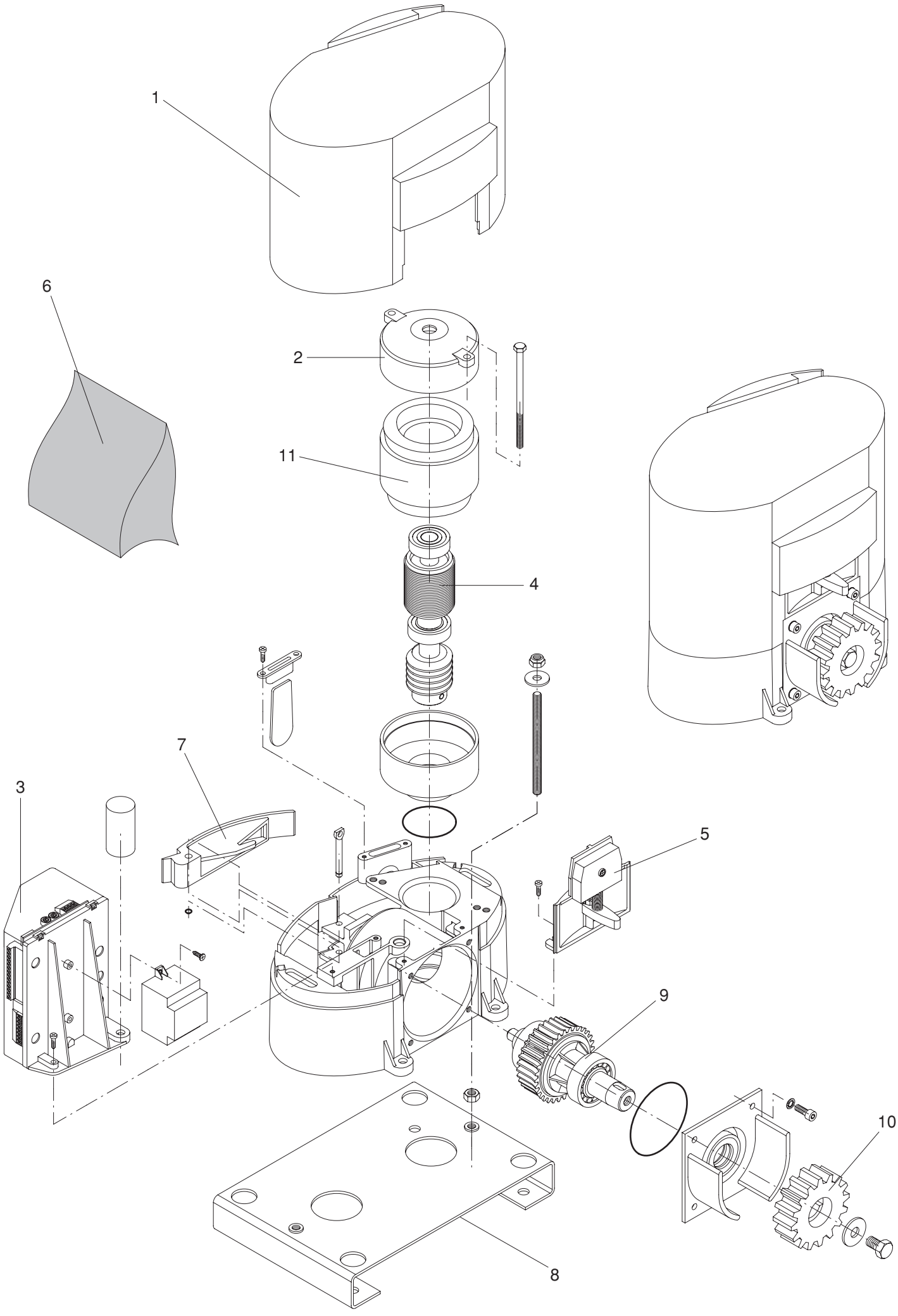
1 insert the personalised key in the selector and turn it clockwise or anticlockwise. The key can be inserted only if the coloured notch on the dowel G is aligned with point H.
2 slacken the dowel G, using the hexagonal wrench provided until it can be almost completely extracted.
3 it is now possible to move the gate manually
4 to restore motor-driven operation, tighten the dowel.

From the inside Fig.9:

1 tighten the screw V almost completely
2 it is now possible to move the gate manually
3 to restore motor-driven operation, unscrew the screw V .

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.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Pos.	Denominazione - Description - Bezeichnung - Dénomination - Denominación - Określenie						Cod.
1	Carter	**Cover**	*Deckel*	***Couvercle***	Tapa	Karter	9686900
2	Calotta motore	**Motor cup**	*Motordeckel*	***Calotte moteur***	Casquete	Kalota silnika	9686901
3	Centrale	**Electronic gear case**	*Schaltanlage*	***Centrale electronique***	Tarjeta electrónica	Centralka elektroniczna	9686902
4	Albero motore + rot.	**Driving shaft + rotor**	*Antriebswelle + Rotor*	***Arbre moteur + roteur***	Eje motor + rotor	Wał silnika z wirnikiem	9686903
5	Finecorsa	**Limit stop**	*Endschalter*	***Fin de course***	Final de carrera	Ogranicznik przesuwu	9686904
6	Blister staffe	**Blister brackets**	*Bügel-Blister*	***Blister brides***	Blister soportes	Blister	9686084
7	Leva di sblocco	**Release lever**	*Entblockungshebel*	***Levier de déblocage***	Leva de desbloqueo	Dźwignia odryglowująca	9686906
8	Piastra di fondazione	**Foundation plate**	*Fundamentplatte*	***Plaque de fondation***	Placa de fundación	Płyta podstawy	9686956
9	Albero uscita	**Output shaft**	*Antriebszapfen*	***Arbre***	Eje de salida	Wał wyjściowy	9686908
10	Ingranaggio esterno	**External gear**	*Zahnrad*	***Engrenage***	Engranaje	Koło zębate zewnętrzne	9686032
11	Statore	**Stator**	*Stator*	***Stateur***	Estator	Stojan	9686909

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