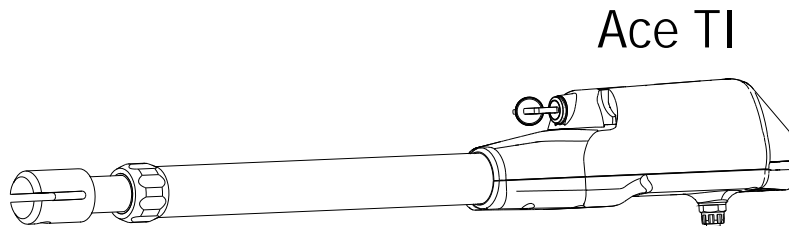
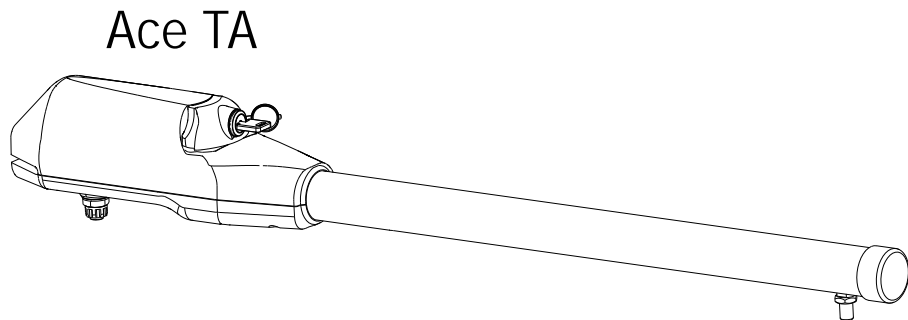


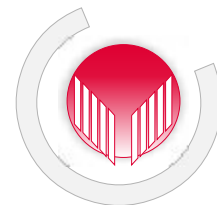
ACE

Manuale d'Installazione e d'Uso
Manuel d'Installation et Utilisation
Installation and use manual
Handbuch der Installation und des Gebrauchs
Manual de Uso e Instalación

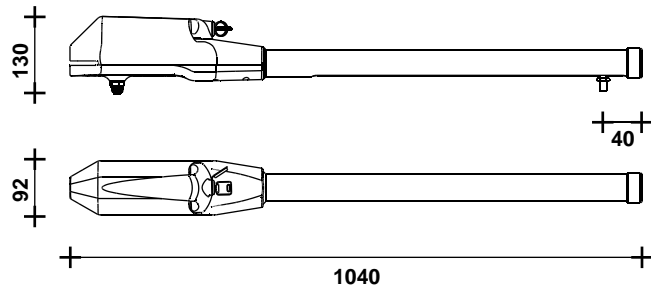
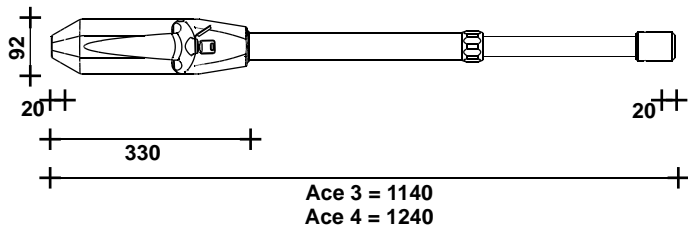
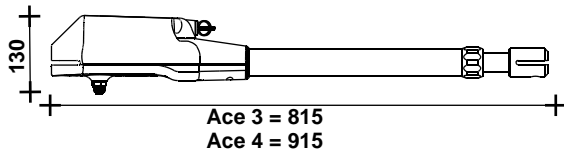
 **PROTECO**
CANCELLI AUTOMATICI
PROTECO S.r.l.
Via Neive, 77
12050 Castagnito (CN) - ITALY
Tel. +39 0173 210111 - Fax +39 0173 210199
www.proteco.net - info@proteco.net



CANCELLI A BATTENTE
PORTAILS A BATTANTS
SWING GATES
FLÜGELTÖRE
BATICIENTES



		4 TA	3 TI	4 TI	4 12 TA	3 12 TI	4 12 TI
Alimentazione - Alimentation - Power supply - Spannungsversorgung - Alimentación	V	230V ~ 50Hz			12V dc		
Potenza - Puissance moteur - Motor power - Motorleistung - Potencia del motor	W	300			80		
Assorbimento - Consommation à vide - Absorption - Leistungsaufnahme - Absorción	A	1,2 - 1,7 A			0,7 - 9,5 A		
Protezione termica - Protection thermique - Thermic protection Wärmeschutz - Protección térmica	°C	135°C					
Temperatura di esercizio - Température de fonctionnement - Working temperature Betriebstemperatur - Temperatura de trabajo	°C	-35° - +80°C					
Funzionamento Fonctionnement Operation Betrieb Funcionamiento		Attuatore elettromeccanico a vite senza fine Actionneur electromecanique à vis sans fin Electromechanical actuator with endless screw Elektromechanischer Antrieb mit Schnecken Servomotor electromecánico con tornillo sin fin					
Struttura Structure Structure Struktur Estructura		Alluminio con verniciatura a poliester Aluminium avec vernissage pilyester en polyes Aluminium with polyester paint Aluminium Körper mit Polyester-Schutzlackierung Aluminio barnizado con polvo poliéster					
Corsa consigliata - Course conseillée - Suggested stroke Kolbenweg - Recorrido aconsejado	mm	400	300	400	400	300	
Tempo corsa - Temps de course - Stroke time - Laufzeit - Tiempo del recorrido	sec.	21"	17"	21"	21"	17"	21"
Lunghezza max. Anta - Longeur maxi du vantail - Max leaf length Max. Torflügelbreite - Dimensiones max hojas	mt	3,00	2,50	3,00	2,00	1,75	2,00
Giri motore - Vitesse de rotation - Revs speed Dehnhzahl Elektromotor - Velocidad del pistón	g/min	1400					
Spinta - Poussée - Push - Treibkraft - Empujo	max N	3000			1800		
Condensatore - Condensateur - Capacitor - Motorkondensator - Condensador	µF	10					
Peso - Poids - Weight - Gewicht - Peso	Kg	4,6	4,6	4,8	4	4	4,2



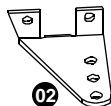
CARATTERISTICHE TECNICHE
CARACTERISTIQUES TECHNIQUES - TECHNICAL FEATURES
TECHNISCHE ANGABEN - CARACTERISTICAS TECNICAS

DIMENSIONI
DIMENSIONS - DIMENSIONS
RAUMBEDARF - DIMENSIONES

ACE TI



04



02



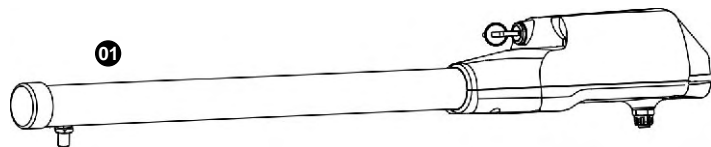
03



05

01	n°1	Attuatore / Actionneur / Actuator / Triebwerk / Dispositivo
02	n°1	S1 Staffa / Patte / Bracket / Bügel / Abrazadera
03	n°1	Kit fissaggio / Kit fijaciones / Fixing kit / Befestigungskit Equipo de fijación
04	n°1	S3 Staffa / Patte / Bracket / Bügel / Abrazadera
05	n°2	Chiave di sblocco / Clé de deblocage / Release key Freigabeschlüssel / Llave de desbloqueo
	n°1	Manuale d'Installazione e Uso Notice d'Installation et Utilisation Installation and Use Manual Montierung und Gebrauchshandbuch Manual de Uso e Instalación.
	N°1	Manuale Generalità Notice Generalités General Instructions manual Allgemeines Handbuch Manual Generalidad

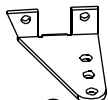
ACE TA



03



04

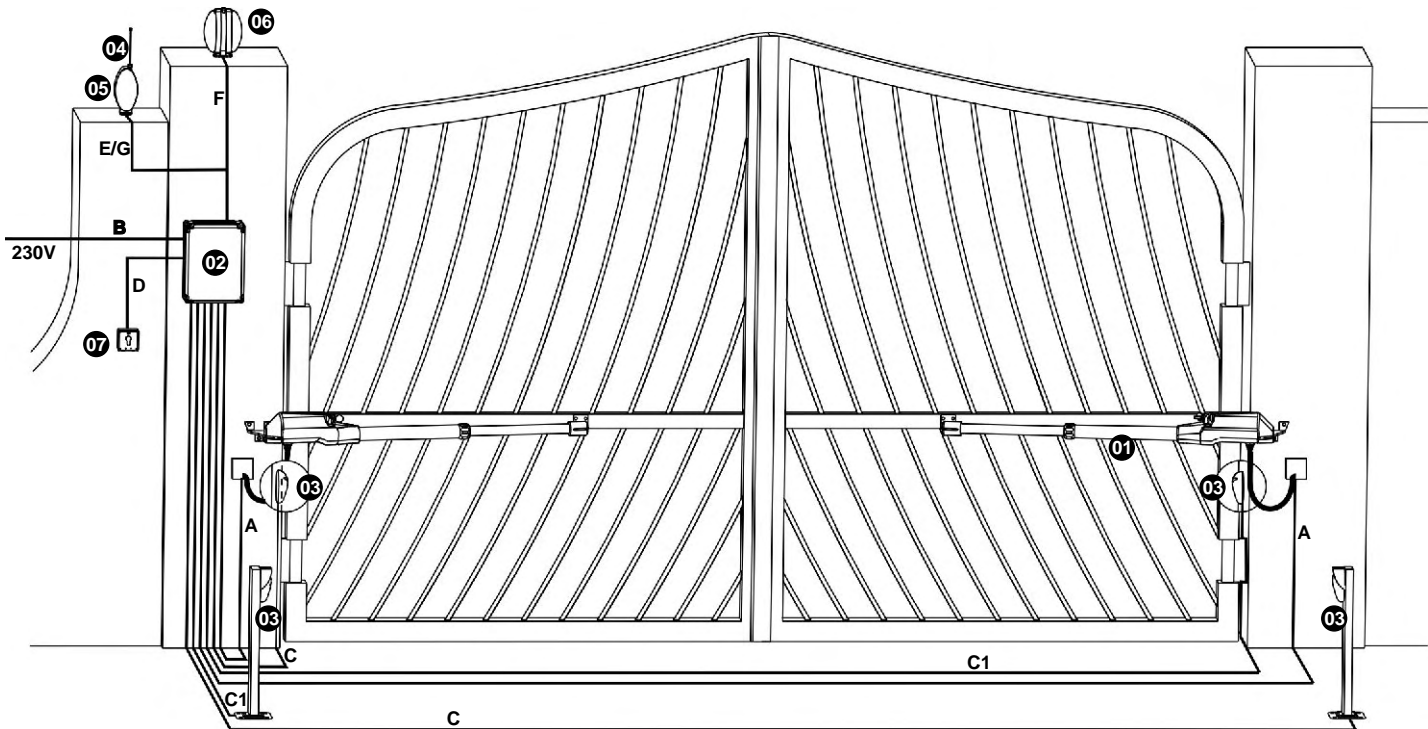


02



05

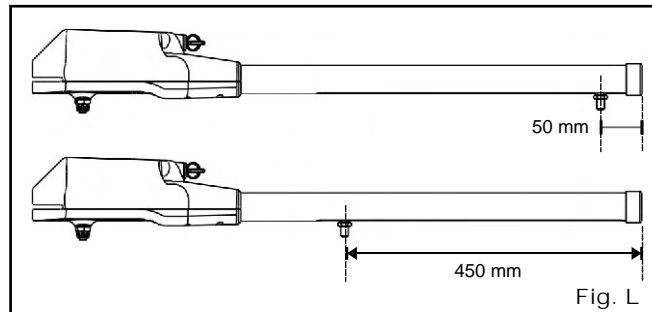
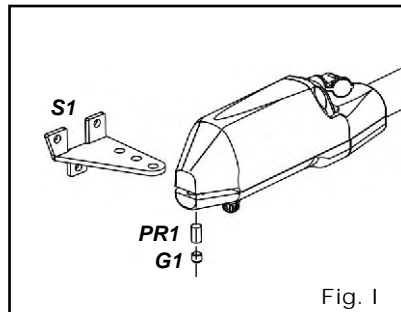
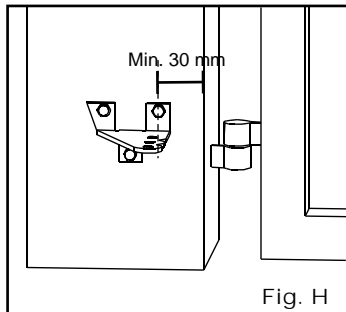
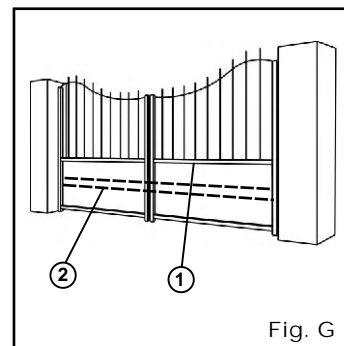
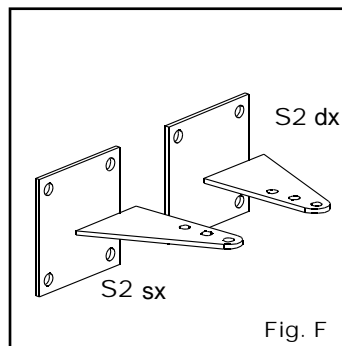
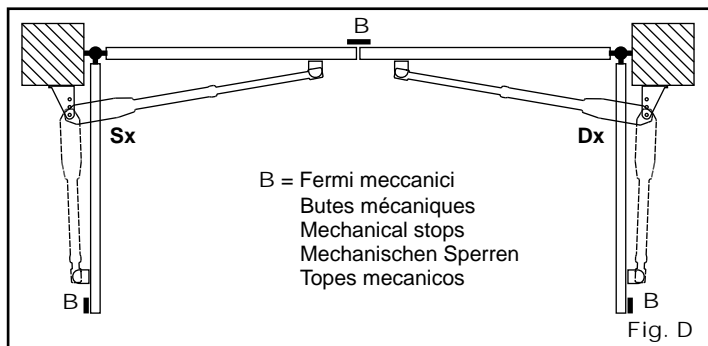
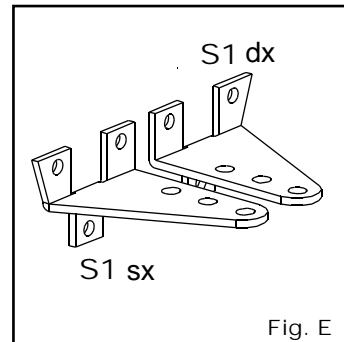
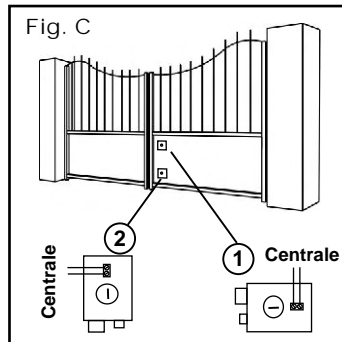
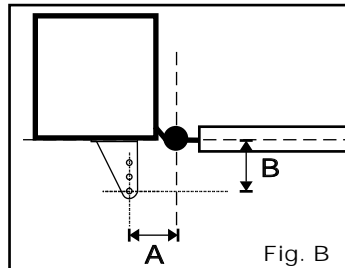
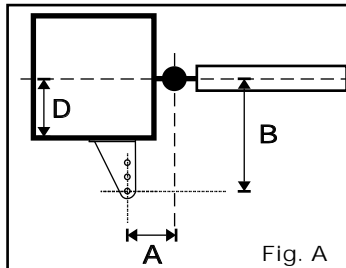
01	n°1	Attuatore / Actionneur / Actuator / Triebwerk / Dispositivo
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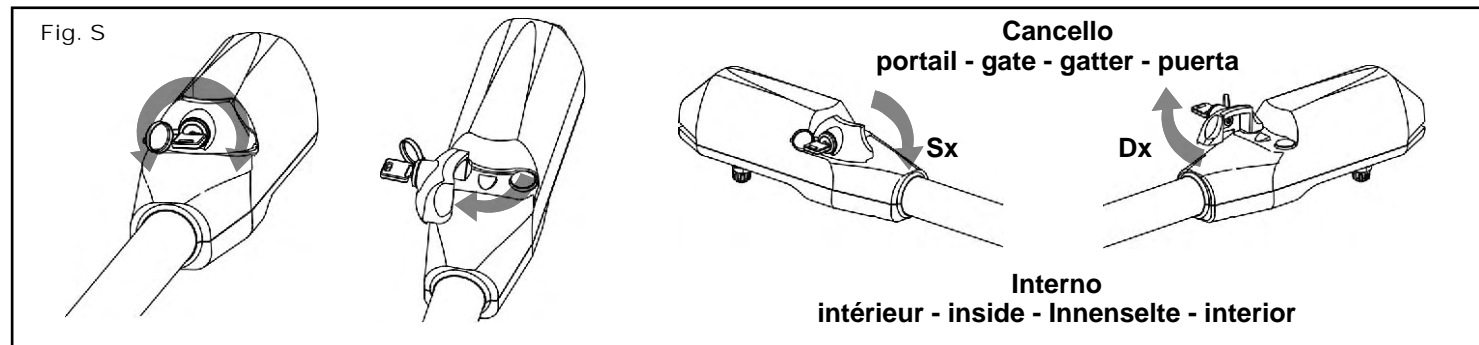
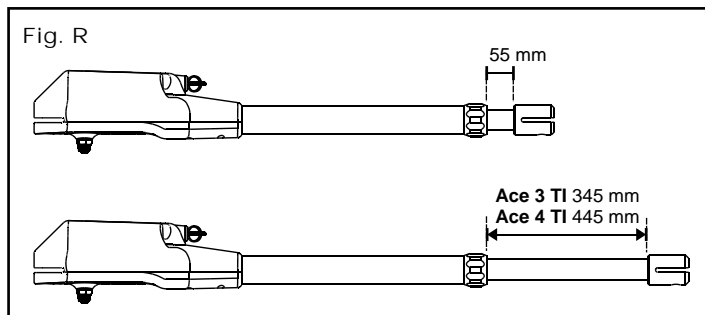
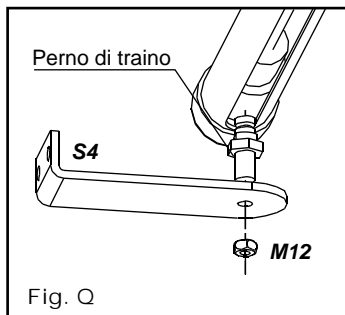
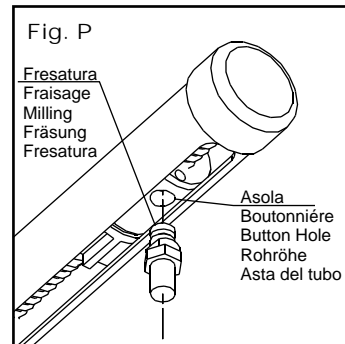
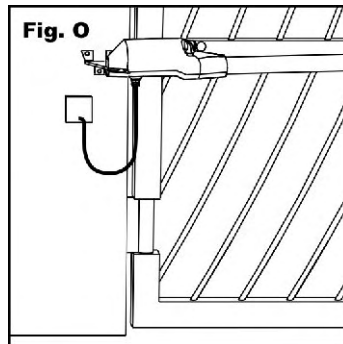
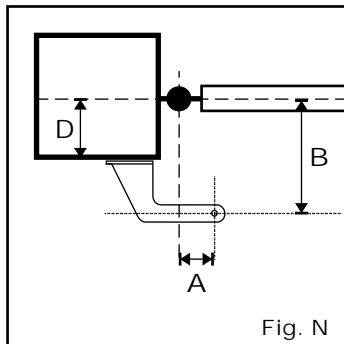
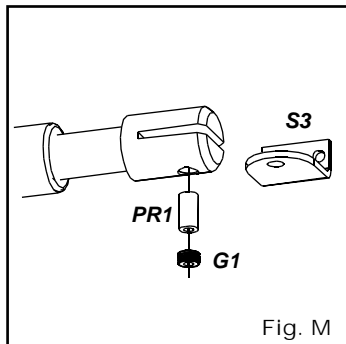


		230V	12V
①	Attuatore - Moteur - Operator - Torantriebe - Actuador	A	3 x 1,5+T
②	Centrale elettronica - Centrale électronique - Electronic control unit - Torsteuerung - Cuadro electrónico	B	2 x 1,75+T
③	Fotocellule - Photocellules - Photocells - Fotozellen - Fotocélulas	C	2 x 0,75
		C1	4 x 0,75
④	Antenna - Antenne - Aerial - Antenne - Antena	E	2 x 0,75
⑤	Ricevitore radio - Récepteur radio - Radio Receiver - Funkempfänger - Receptor radio	G	2 x 0,75
⑥	Lampeggiatore - Clignotant - Warning light - Blinkleuchte - Luz Intermitente	F	2 x 0,75
⑦	Selettore a chiave - Contacteur a clé - Key contactor - Schlüsselschalter - Selector de llave	D	2 x 0,75

ACE 3 A=145 B=145

ACE 4 A=195 B=195





SAFETY CRITERIA

- 1 Attention:** before beginning the installation it is absolutely necessary to read all this manual.
- 2 Verify that the technical features of the actuator fit your installation needs.
- 3 Moreover verify that:
 - The gate hinges are in good conditions and perfectly lubricated.
 - The gate has mechanical stops in opening and closing.

INSTALLATION ADVICE

Connections:

- See the "**Functional Scheme**" and refer to the control board scheme.
- The electric cable which exits from the actuator must not be tight, but it has to do an ample curve towards the bottom in order to avoid water reflux inside the actuator. (Fig. O)
- All connections must be done when the device has no power supply.
- You may need a omni polar breaking device (the cables must measure at least 3 mm) Always protect the power supply using a 6A automatic switch, or a 16A single-phase switch with fuses.
- The power supply lines to the motors, to the control unit and to the accessories must be separated to avoid interferences which could generate problems to the system.
- Any equipment (either of control or safety) in case connected to the control unit must be tension free.

Spare parts:

- Use original spare parts exclusively.
- Get rid of batteries putting them with industrial rubbish and not with domestic rubbish. (**Law n. 475/88**)

Installation:

- In order to correctly use the product and to exclude the possibility of injury or damage, refer to the "**General instructions**" page, which is a part of this manual.
- The use of this equipment must observe the safety standards in force in the country where it is installed, as well as the standards governing proper installation.

Warranty:

- The warranty given by the manufacturer becomes invalid in cases of: tampering, carelessness, improper use, lightning damage, power surges or use by unqualified personnel.
- The warranty will also become invalid in the following cases:
If the instructions given in the manuals supplied with the product are not respected.
The application of a part in a manner different from current legislation or the use of spare parts which are unsuitable and/or not approved by manufacturer.
- The manufacturer cannot be considered responsible for damages due to improper or unreasonable use.

INSTALLATION INSTRUCTION SEQUENCE

- 1** Before starting the installation, analyse the risks referring to the chapter "**General instructions**", which is part of this manual, fill in the technical table and eliminate the risks.
In case there are still some risks, use security systems during installation.
- 2** Verify the security laws written in the chapter "**Security Criteria**" in "**General instructions**".
- 3** Control all the components.

- 4** Identify the fixing point on the pillar and on the gate.
- 5** Verify **measure "D"**.
- 6** Adjust **brackets S1** or **S2** as needed.
- 7** Fix the actuator to the **bracket S1** o **S2**.
- 8** Release the actuator.
- 9** Fix the **brackets S3** o **S4** to the gate.
- 10** Fix the final part of the **actuator T1** (piece n. 35 in the list of parts) to the **bracket S3** or the driving pivot of the **actuator TA** to the **bracket S4**.
- 11** Stretch the cables as in the "**Functional scheme**".
- 12** Connect the control unit and all accessories.
- 13** Program the radio receiver.
- 14** Program the "**WORKING TIMES**"
In case of anomalies, see the chapter "**Anomalies and Suggestions**" in "**General instructions**"
If you do not find any solution call the nearest Assistance Centre.

BLOCKED ACTUATOR

The actuators are blocked.

The electric lock must be installed on the wing that opens first and must be connected with the terminals of the control unit.

Position of the electric lock: (Fig. C).

Position 1: Lock between the wings.

(in this case it is necessary to use the bolt RT15 on the second wing)

Position 2: Lock on the floor.

(In this case the use of the bolt is not essential)

Remember to remove the lock of the gate (or at least leave the lock in open position) and take away all the bolts.

RIGHT OR LEFT ACTUATORS (Fig. D)

The motors are supplied in one version, suitable to both left or right installation.

HOW TO DETERMINE FIXING MEASURES

Gate fixed in the middle of the pillar (Fig. A)

In this case the maximum opening angle of the gate is **90°**.

The best thing to do is to put the fixing brackets at the measures indicated in the table above picture A and B.

These quotes are calculated in order to obtain an average tangential speed that does not exceed 12 m/minute.

Gate fixed on the edge pillar (Fig. B)

In this case the gate can open with an angle superior to **90°** (max. 120°)

- The best thing to do is to put the fixing brackets at the measures indicated in the table above picture A and B.

- To make the wing open with a bigger angle, **measure A** must be superior to **measure B**.

The best solution can be obtained increasing **measure A** of the same dimension of which **measure B** must be diminished.

HEIGHT OF INSTALLATION

Calculate the height of the installation of the actuator according to the gate's shape and to the possibilities of fastening. (Fig. G)

- a) If the gate has a big structure you can put the actuator at any highness with no limits.
- b) If the structure is light it is necessary to keep the actuator the nearest possible to the middle of the gate (in height).

Position 1 Central beam of the gate

Position 2 Stiffen of the gate

FIXING OF BRACKETS S1/S2

Bolt or weld the **bracket S1** or **S2** on the gate's side pillar, keeping in mind that the **measures A** and **B** refer to the gate hinges axis and to the actuator's rotation axis.

In case of fastening by expansion bolts, use \varnothing 13 mm metal bolts and place the bolt at no less than 30÷35 mm from the pillar's corner, to avoid breaking of corner. (Fig. H)

In case of masonry pillars, use chemical or resin bolts or stone the bracket.

- Be careful in using **bracket S1** (Fig. E) which is in two versions: **bracket S1 right end** and **bracket S1 left**, they should be used with their actuator; left or right.
- Fasten the actuator to **bracket S1** as indicated in "Fig. I", please pay attention that the threaded hole of the rotating pivot **PR1** must be turned down.

BRACKETS S2 (Fig. F)

In case of particular installations it is advisable to use **brackets S2**.

Each bracket is made up of 1 a squared plate, dimensions 130x130x6 mm, with 4 holes of \varnothing 12 mm and 1 bracket 112x94x55 mm with 3 holes of \varnothing 12 mm.

How to fix brackets S2:

- Screw the plate to the pillar using strong bolts.
- Weld the bracket to the plate as indicated in Fig. F

Remember that the **measures A** and **B** refer to the gate hinges axis and the operator's rotation axis.

FIXING OF FRONT BRACKET

Ace TA operators (version with alum. tube).

Determine the position of **bracket S4** as follows:

- Close the gate's wing.
- Release the actuator.
- Move forward the front pivot of the actuator until it reaches the position of limit switch in opening.

Leave 20mm of space between the pivot and the actuator end. (Fig. L)

- Fasten **bracket S4** to the front pivot of the actuator as indicated in "Fig. M" keeping in mind that the threaded hole of the rotating pivot must be turned down and that the dragging pivot milling must be placed longitudinally to the hole. (Fig. P)
- Put the actuator on the gate's wing keeping it levelled and mark the position of **bracket S4** on the gate.
- Weld or bolt **bracket S4** to the gate.
- Control that the drag pin has been positioned with the two sides of the milling in parallel position to the button hole of the alum. tube as indicated in the "Fig. Q".

Ace Tl operators (version with inox tube).

Determine the position of **bracket S3** as follows:

- Close the gate's wing.
- Rotate anticlockwise the actuator's end, that is to say its final part (piece n.35 in the list of parts) until the end-of-stroke position of the rod (until the rod is completely out), then rotate the end of the actuator clockwise until the fixing screw of the end is down-sided. In any cases, the final part of the actuator must be rotated at least of half a turn.
- Fasten **bracket S3** to the end of the actuator as indicated in "Fig. M" keeping in mind that the threaded hole of the rotation pivot **PR1** must be turned down.
- Position the actuator on the gate's wing keeping it levelled and mark the position of **bracket S3** on the gate.
- Weld or bolt **bracket S3** to the gate.

MECHANICAL STOPS (Fig. D)

At this point you need to position the mechanical stops: first the wing's stop in closing and then in opening phase.

EXTERNAL OPENING GATE

In case of external opening gate is possible to place the actuator on the internal side.

In this case the **measure A** (distance between the axe of the hinges and the rotation axe of the actuator) has to be measured towards the centre of the gate, and it is necessary to modify the **bracket S2** to adapt it to the new fixing position. (Fig. N)

In order not to reduce the length of the passage, the actuator can be positioned in the superior part of the gate, at a height not inferior to 2 m.

You can find the position of the front bracket with the method indicated above, but with the wing of the gate open.

Due to the motor's power, all fastenings must be very strong

HOW TO RELEASE THE OPERATOR

- Insert the key (supplied in the kit) and rotate it clockwise of **90°**. (Fig. S)
- Pull the left motor's release handle towards the interior, pull the right motor's release handle towards the gate.

Rif.	CODICE	DESCRIZIONE
22 22		VITE COLLEGAMENTO VITE 6X30 DADO M6 AUTOBLOCCANTE ZINCATO
0 9	SST1460 SALBAC90	STATORE 1400g. H60 230V ALBERO BLOCCATO H60 FINITO 230V
27 28 29	SMT12AS	MOTORE 12V FINITO
12 13 14 15 16 17 18	STU3AC90A STU4AC90A	TUBO FINITO Ace TI Corsa 300 TUBO FINITO Ace TI Corsa 400 Bussola acetal Vite rullata e forata L= 400 /500/600 mm Rondella in plastica Tubo alluminio L = 420

CODICE	DESCRIZIONE
SSAAS09R	DOTAZIONI Ace TI Piastra anteriore S4 per Ace TA Grano 14x10 zincato Piastra ant. S3 zincata per Ace TI
	CONDENSATORE 10 mf

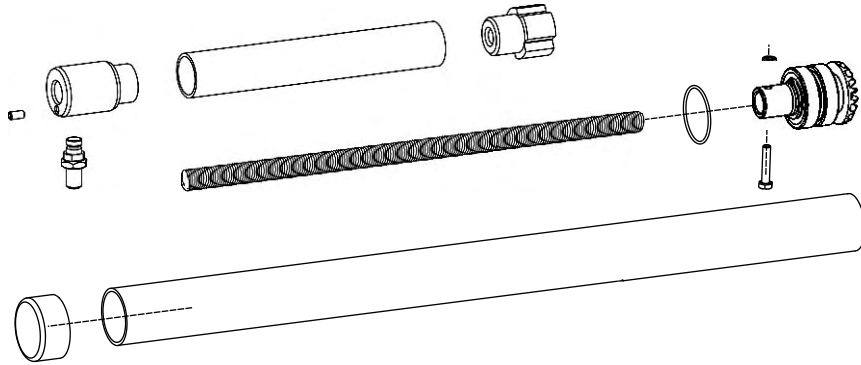
RICAMBI
PIÈCES DE RECHANGE
ERSATZTEILE - SPARE PARTS
PIEZAS DE RECAMBIO

Rif.	CODICE	DESCRIZIONE
01	MNOLD	Nottolino per serratura
02	MTP20	Tappo copri serratura
03	SLSAC50	Serratura con inserto
04	MORD17	O.R. Ø17
05	SCRACS60	Corpo riduttore superiore verniciato
06	MSE17	Seeger Ø17
07	SCRACI60	Corpo riduttore inferiore verniciato
08	SMOB904	Mozzetto finito
09	SALBAC90	Albero bloccato H60 finito
10	SST1460	Statore H60 1400g. 230V
11	STI3AS20	Tubo inox maschiato L=420
12	SBU22	Bussola acetal Ø 16 maschiata
13	SVI3AT30	Vite L= 400 rullata e forata Ø 16
14	MRO2615P	Rondella in plastica
15	STA3AC80	Tubo alluminio L= 420 forato
16	MBU08	Bussola in bisolfuro

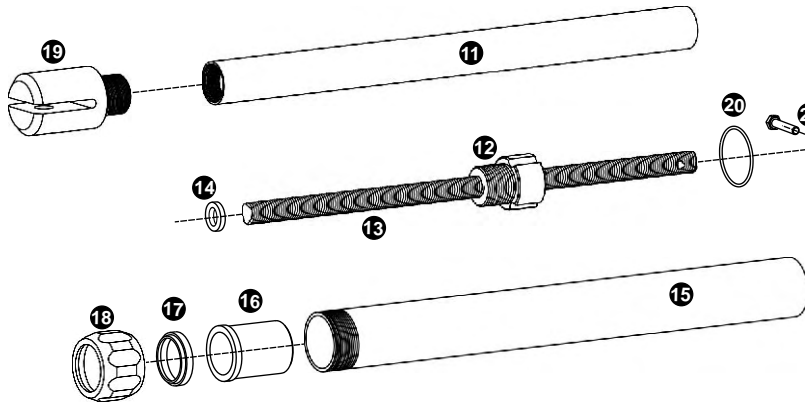
Rif.	CODICE	DESCRIZIONE
17	MRP02	Raschiapolvere
18	MBU20	Bussola terminale
19	SMAG180	Manina maschiata / forata
20	MORD40	O.R. 2162
21	SALUAC90	Albero uscita finito
22	MVIM0630	Vite coll. Vite
	MDAM06ZB	Dado
23	MVIP0625Z	Vite TCE 6x25 zinc.
24	MVIP0620Z	Vite TCE 6x20 zinc.
25	MPC04	Passacavo M16 x 1,5
26	MDS3520	Distanziale 35x20
27	SMT1201	Motore 12V battente
28	MSP0316	Spina elastica 3x16
29	MAL12AS	Prolunga rullata
30	MROD06EZ	Rondella grower Ø 6 zinc.

ESPLOSO COMPONENTI - DETAIL ECLATE
LIST OF COMPONENTS
DER DURCHSHNITT DEN BESTANDTEILEN
ESTELLADO COMPONENTES

Ace TA



Ace TI



12V

