

OPEN 4000
6000

EN Automatic boom gate - mechanical installation
Installation and use instructions and warnings



1. General warnings

1.1 - Safety warnings



- This manual contains important safety instructions and warnings. Incorrect installation could lead to serious injury. Before starting, please read all sections of the manual carefully. If you are unsure about something, stop installation immediately and contact KING-gates Customer Service for assistance.

- Important: please retain this manual for future maintenance work and product disposal.

1.2 - Installation warnings

• Before beginning the installation procedure, check that this product is suitable for its intended use. If unsuitable, do NOT proceed with installation.

The contents of this manual refer to an installation like the one shown in **fig. 2**.

• Considering the risk situations that may arise during installation phases and use of the product, the automation must be installed in observance of the following warnings:

- Ensure there is a system device which is a means of disconnection from the supply mains. This device must have a contact separation in all poles which ensures full disconnection under overvoltage category III conditions.

- All installation and maintenance operations must be carried out with the automation system switched off and the power supply disconnected. If the disconnection device is not visible from where the automation system has been installed, a sign must be attached to it before attempting any work. The sign should read: "WARNING! MAINTENANCE IN PROGRESS".

- The product must be connected to a power supply line equipped with safety grounding system.

- Take care not to crush, bang, drop or spill any kind of liquid on the automation system during installation. Do not keep the product close to sources of heat or open flames. Doing so may damage it, corrupt it or lead to hazardous situations. If this were to happen, stop installation immediately and contact KING-gates Customer Service.

- Do not make alterations to the product in any way. Improper use can only lead to malfunctions. The manufacturer declines all liability for damage caused by arbitrary modifications to the product.

- This product is not intended for use by people (including children) with reduced physical, sensory or mental capabilities or who lack experience and knowledge, unless they have been given supervision or instruction concerning the use of the product by a person responsible for their safety.

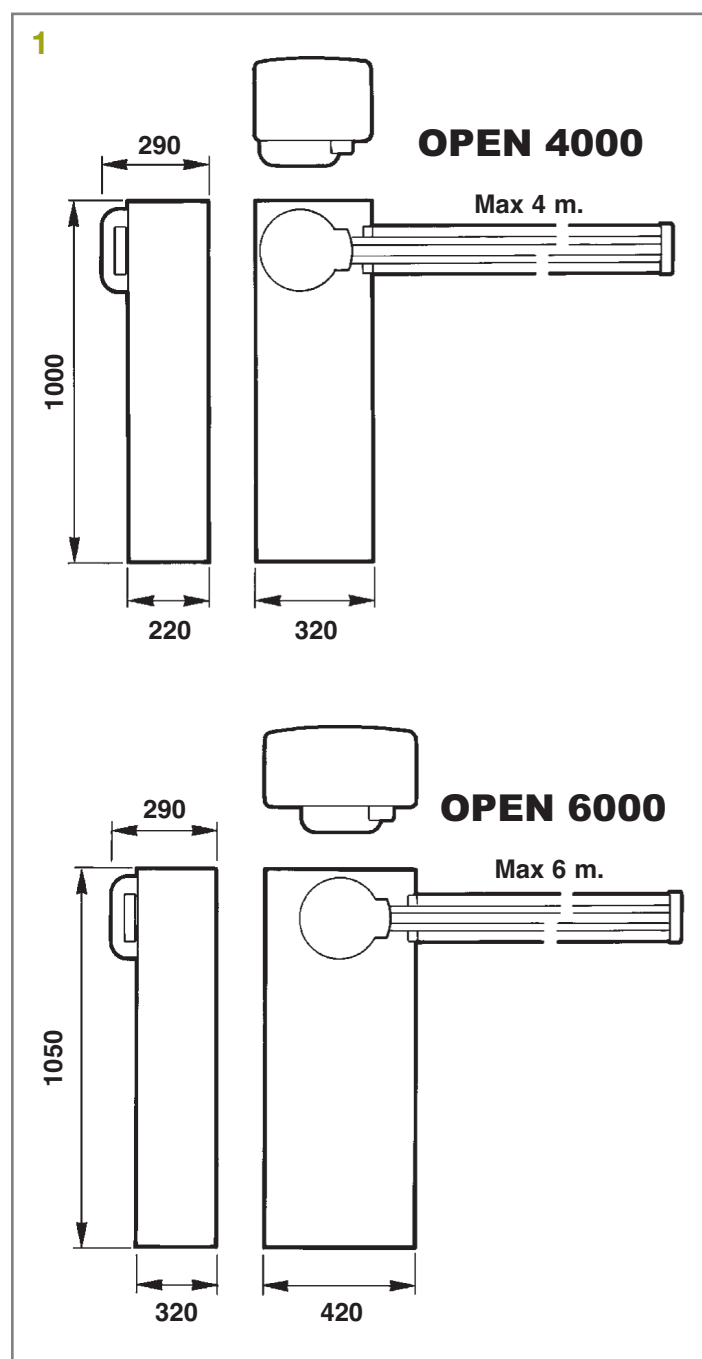
- The product is not intended as an intruder protection system. If an efficient protection system is required, the automation must be integrated with other devices.

- Do not allow children to play with the fixed control devices. Keep remote control devices out of their reach as well.

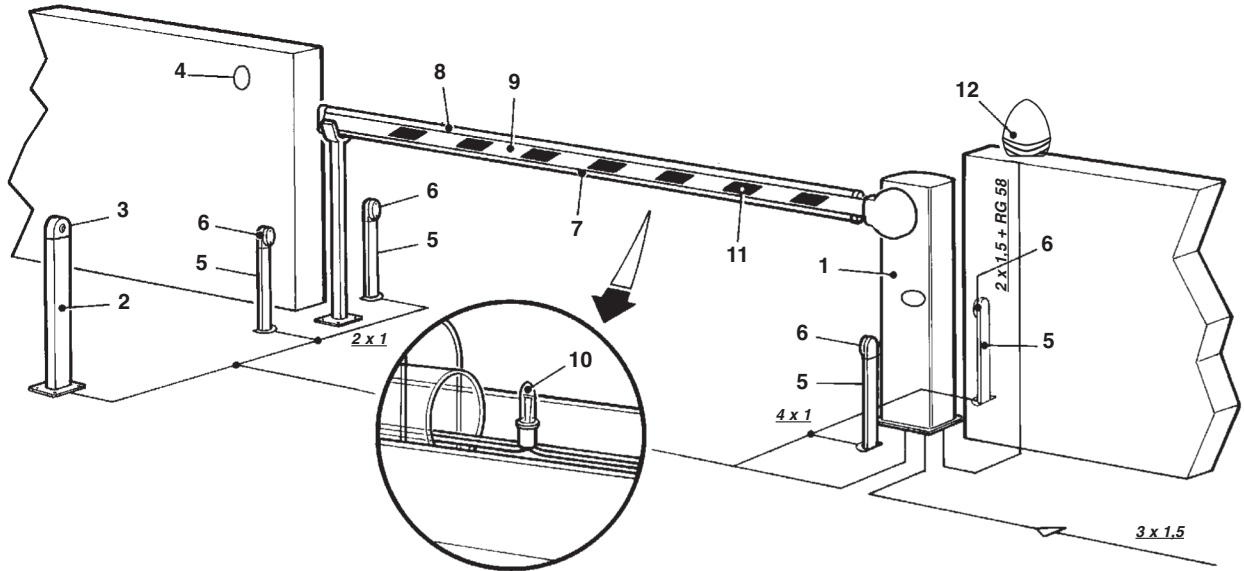
- The packing materials of the product must be disposed of in compliance with local regulations.

2. Description of the product

Table 1	
Model	Description
OPEN 4000	Automatic boom gate in galvanised, painted steel with an opening time of 3 to 5 seconds; maximum net opening is 4 metres.
OPEN 6000	Automatic boom gate in galvanised, painted steel with an opening time of 5 to 8 seconds; maximum net opening is 6 metres.
Note: OPEN4000 The standard supply includes	A - Cubicle with 24 V DC gearmotor B - Electronic control unit C - Connection for bar D - Anchorage base with fish-tail clamps

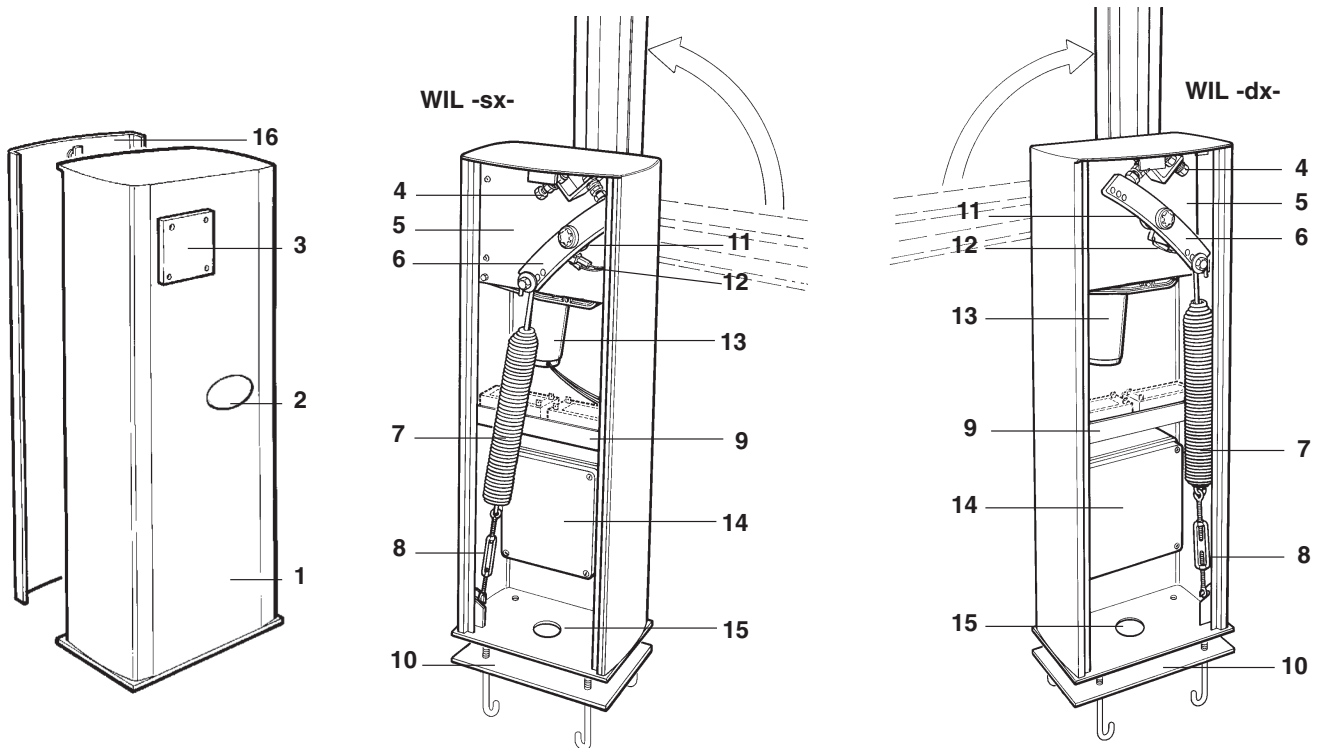


2



- | | | |
|-------------------------------|---------------------------------|-------------------------|
| 1 OPEN 4000 | 5 Column for the photocell | 9 Aluminium bar |
| 2 Column for the key selector | 6 Photocell | 10 Flashing lights |
| 3 Key selector | 7 Pneumatic edge or red rubber | 11 Red reflector strips |
| 4 Digital keypad | 8 Protective red rubber profile | 12 Flashing light |

3



- | | |
|-----------------------------------|--|
| 1 Cubicle | 9 Housing for 2 batteries, 12 V - 6 Ah |
| 2 Unlock device | 10 Anchorage base with fish-tail clamps |
| 3 Bar connecting flange | 11 Eccentrics for adjusting the slowing down point |
| 4 Shock absorber with safety stop | 12 Slowing down limit switch |
| 5 Gearmotor | 13 24 V motor |
| 6 Gearmotor external lever | 14 Control unit |
| 7 Balancing spring | 15 Cable input hole |
| 8 Spring adjustment tie-rod | 16 Cover |

⚠ CAUTION! - The key to the cover is ONLY for the operator and is different from the one for unlocking which is for the USER. The USER must not access the adjustment devices or control panel.

3. Installation

1.1 - Operating limits

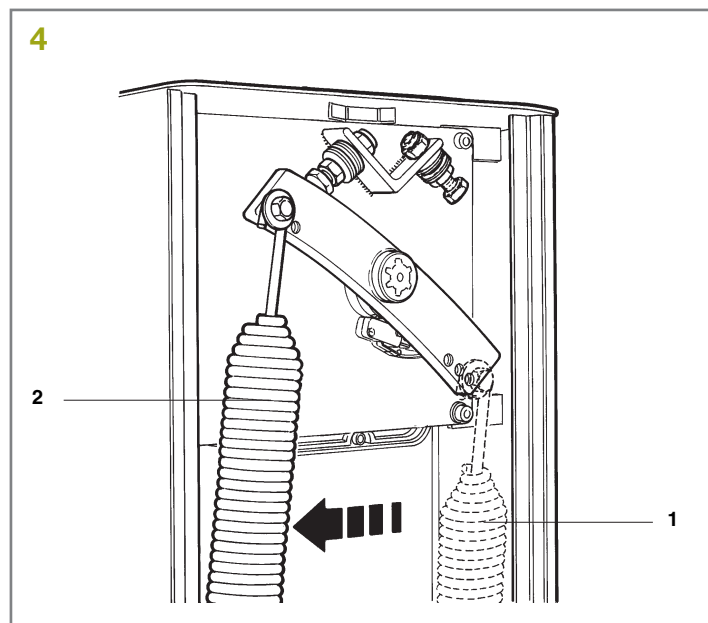
IMPORTANT! - When fitting accessory equipment to the boom, observe a maximum length of 5m for OPEN 6000 and 3.5 m for OPEN 4000.

1.2 - Changing the boom from right to left

By right-hand boom gate we mean with the cubicle positioned on the right looking from behind the gate. By left-hand boom gate we mean with the cubicle positioned on the left looking from behind the gate. **The boom is supplied as a right hand unit.**

If you need to change it to the left proceed as follows:

01. Disengage the balancing spring (step 1 - **fig. 4**).
02. Hook the balancing spring onto the bottom left (step 2 **fig. 4**).
03. Reverse the slowing down limit switch connector and that of the motor on the control unit (see enclosed controller instructions).
04. Tighten the bar connecting flange in the functioning position.
05. Adjust by hand the two slowing down eccentrics (see par. 1.6).



1.3 - Installing the boom gate

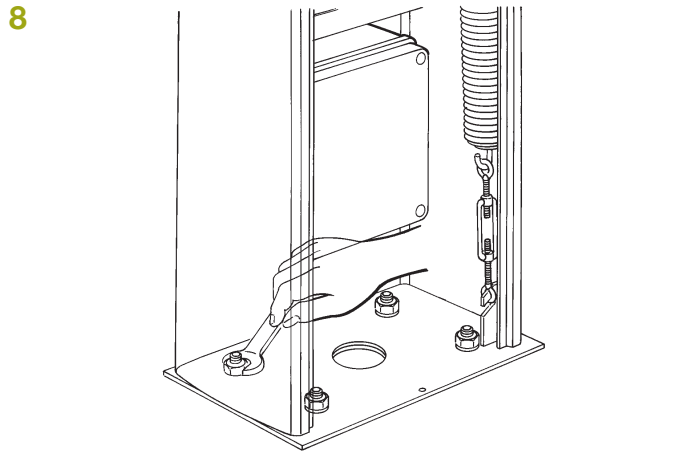
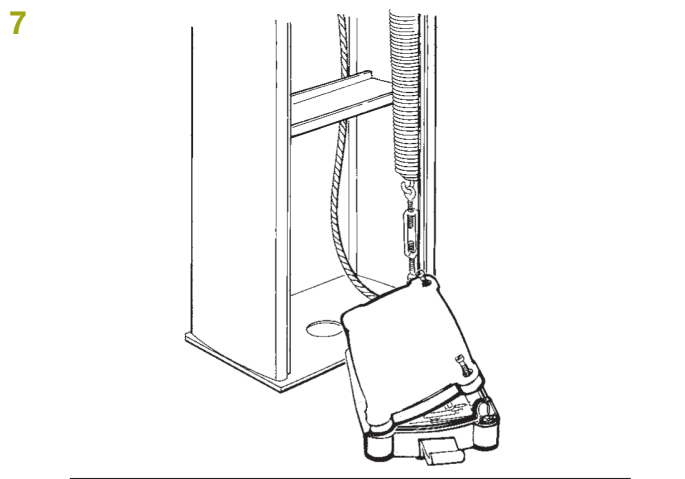
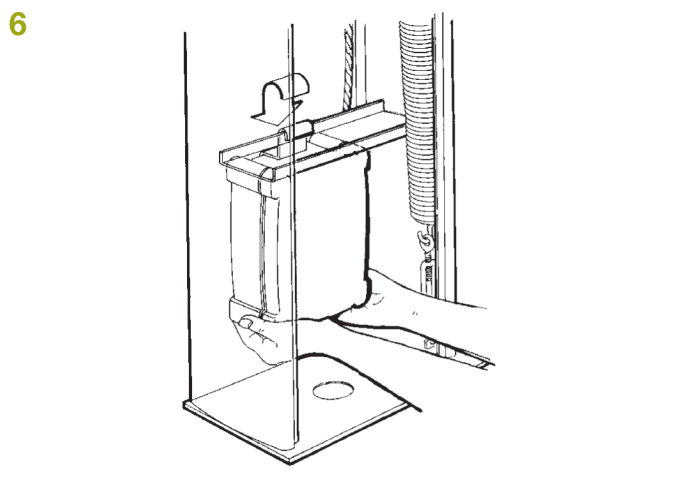
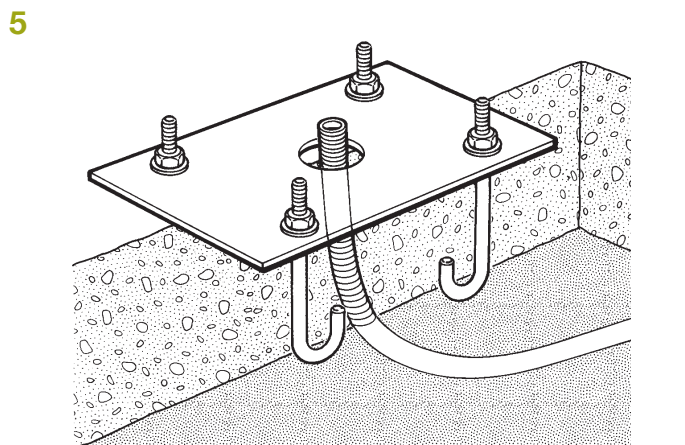
01. Bury the supplied base (**fig. 5**) in a concrete foundation. This anchorage of base must be flush with the foundation and perfectly level; also make one or more passageways for electric cables. Then proceed as shown in **fig. 7** and **8**.

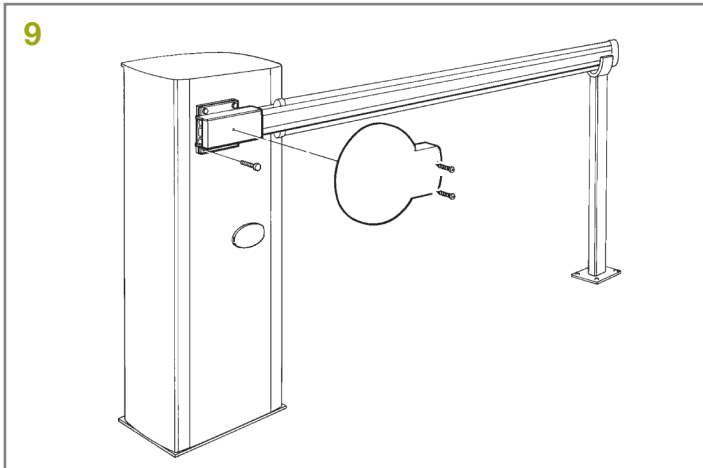
02. Stand the cubicle on the already installed base and anchor it with the screws and washers provided (**fig. 8**).

03. Mount the bar using the connection provided and lock it with the 4 screws (**fig. 9**). Cut any excess bar off.

The vertical and horizontal precision of the bar when it is open or closed can be adjusted via the shock absorbers with stop (see par. 1.6).

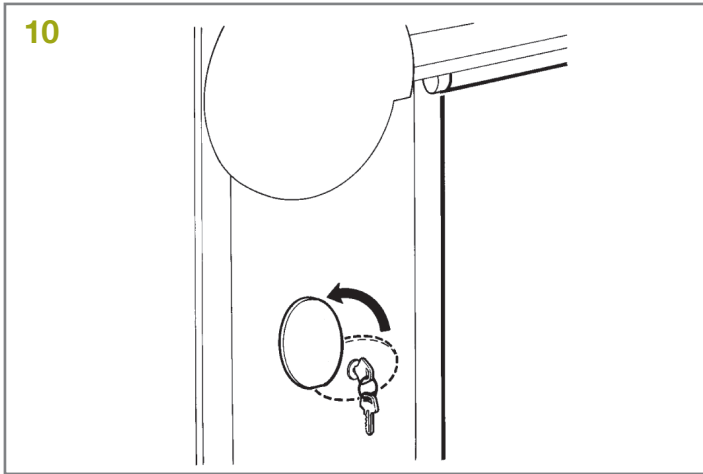
Nota - Standard bars guarantee a net opening of 4 meters and 6 metres; we recommend using a support for the bar, especially when the distance is greater than 4 metres.





1.4 - Manual release

- 01. Raise the lock cover.
- 02. Insert the key and turn it clockwise (fig. 10).

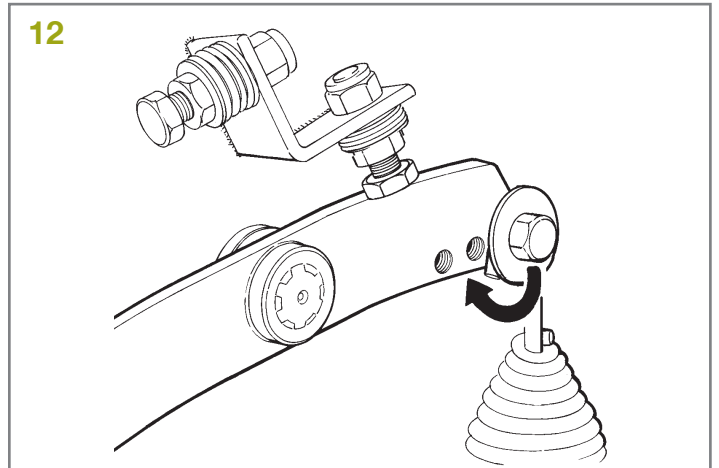
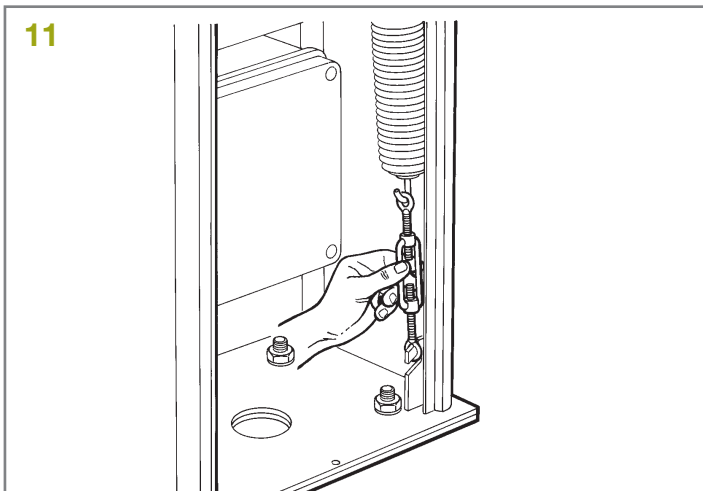


1.5 - Balancing

Correct balancing is essential if the boom gate is going to work properly.

Rectify balancing only when the bar is mounted and with all the accessories installed (if any).

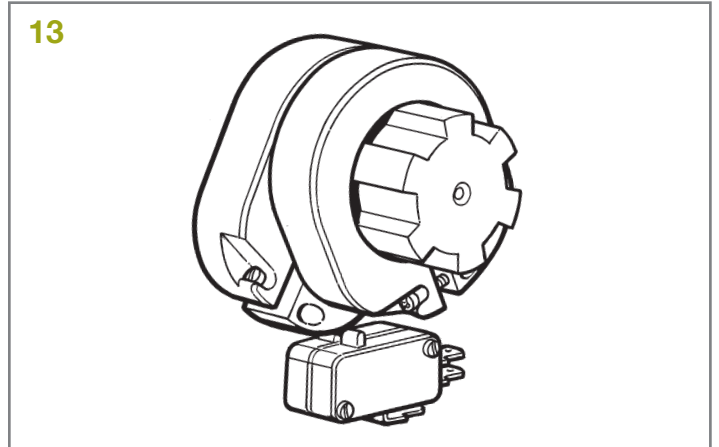
Manually release the boom (fig. 9 - 10) and adjust the spring tie-rod (fig. 11). The boom is properly balanced when it stays at an angle of 45° without falling or rising. If you are using a very short bar without any accessories, the power of the spring will be far too strong; in this case connect the spring to the 2nd hole of the gearmotor output lever, fig. 12.



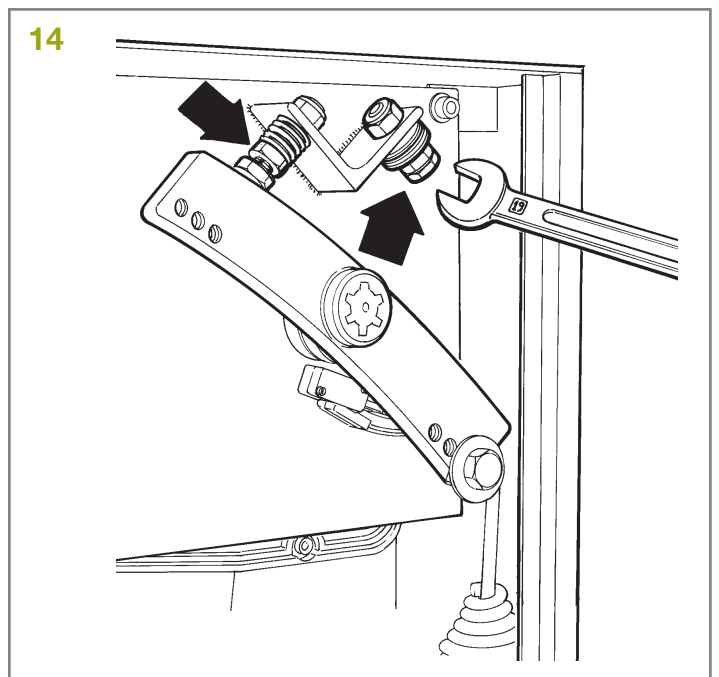
1.6 - Adjustments

Slowing down is electronically carried out on the control unit (see instructions enclosed).

The point at which the bar starts slowing down can be adjusted separately in opening and closing via the two eccentrics (fig. 13).



For optimal slowing down, adjust the two stop shock absorbers with a 19 mm wrench (fig. 14).



IT - Caratteristiche tecniche	Unità di misura	OPEN 4000	OPEN 6000
Alimentazione	Vac 50 Hz	230	230
	Vdc	24	24
Potenza assorbita	W	180	100
Assorbimento di linea	A	1	0.5
Assorbimento motore	A	8	5
Rapporto di riduzione		1 / 456	
Coppia	Nm	150	220
Tempo di apertura	s.	3.5	7
Temperatura di esercizio	°C (Min./Max.)	-20° ÷ +70°	
Ciclo di lavoro	%	100	
Peso motore	kg	46	54

EN - Technical specifications	Unit of measure	OPEN 4000	OPEN 6000
Power supply	V AC 50 Hz	230	230
	V DC	24	24
Absorbed power	W	180	100
Line input	A	1	0.5
Motor absorption	A	8	5
Reduction ratio		1 / 456	
Torque	Nm	150	220
Opening time	s.	3.5	7
Working temperature	°C (Min./Max.)	-20° ÷ +70°	
Working cycle	%	100	
Motor weight	kg	46	54

FR - Caractéristiques techniques	Unité de mesure	OPEN 4000	OPEN 6000
Alimentation	Vac 50 Hz	230	230
	Vdc	24	24
Puissance absorbée	W	180	100
Absorption de ligne	A	1	0.5
Absorption moteur	A	8	5
Rapport de réduction		1 / 456	
Couple	Nm	150	220
Temps d'ouverture	s.	3.5	7
Température de service	°C (Min./Max.)	-20° ÷ +70°	
Cycle de travail	%	100	
Poids moteur	kg	46	54

ES - Características técnicas	Unidad de medida	OPEN 4000	OPEN 6000
Alimentación	Vca 50 Hz	230	230
	Vcc	24	24
Potencia absorbida	W	180	100
Absorción de la línea	A	1	0.5
Absorción del motor	A	8	5
Relación de reducción		1 / 456	
Par	Nm	150	220
Tiempo de apertura	s.	3.5	7
Temperatura de servicio	°C (Mín./Máx.)	-20° ÷ +70°	
Ciclo de trabajo	%	100	
Peso del motor	kg	46	54

Dati dell'installatore / *Installer details*

Azienda / *Company* _____

Timbro / *Stamp*

Località / *Address* _____

Provincia / *Province* _____

Recapito telefonico / *Tel.* _____

Referente / *Contact person* _____

Dati del costruttore / *Manufacturer's details*

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