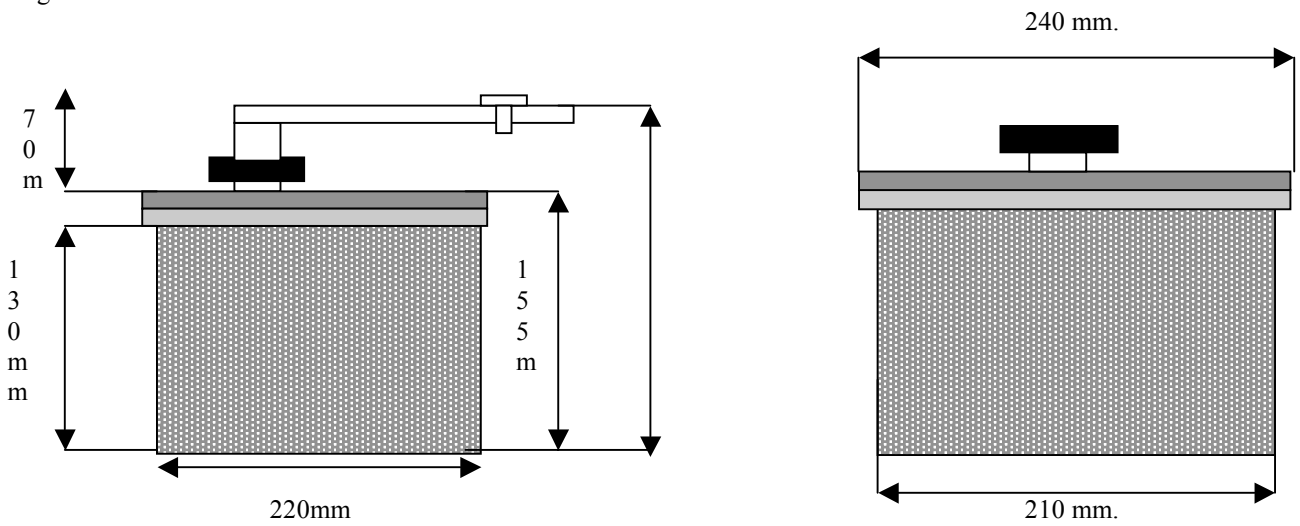
UNDERGROUND ELECTROMECHANICAL MOTOR REDUCER FOR SWING GATES
INSTALLATION MANUAL: COMPAS

The COMPAS underground motor reducer can automate all types of new or already existing single or double-leaf swing gates due to its simplicity of installation. The use of the COMPAS motor reducer does not require any modifications to the aesthetic or functional structure of the gate and is therefore highly recommended for the automation of old and historic gates.
The COMPAS motor reducer is made up of a single aluminium block containing the reduction unit and the electric motor. These constantly work in oil bath and are enclosed in an airtight container.
The COMPAS motor reducer is suitable for moving gates with a maximum weight of 500 Kg and a leaf length of 2.50 m,
The COMPAS motor reducer is available both in the reversible version and with lock. The reversible version is equipped with a multiple-disk clutch and therefore requires a closing electric lock. The lock version is equipped with a release system with a personalised key located on the transmission bracket.

TECHNICAL FEATURES

Supply voltage	230 v. 50+60 Hz
Max. Current absorbed	2.2A
Condenser	6 Mf
Motor rotation speed	1400 R/Min
Rotation time	54 sec.
Working temperature	-30°C + 80°C
Rotation angle	360°
Lubrication	HD 80W/90
Weight	15 Kg
Thermal protection	100°C

DIMENSIONS – PHOTO 1
Motor reducer
Airtight foundation box



For installation, follow the current UNI 8612 and CEI accident- prevention regulations.
In any case, provide a 6A differential switch with 0.030A threshold.
Only qualified personnel, in compliance with what provided for by the law No. 46 of March 5, 1990 and successive modifications and integration must carry out the installation.

PRELIMINARY INSTRUCTIONS

Make sure the gate has been properly installed, with the hinges on the same vertical axis. Manually operate the gate for its entire run and verify the absence of any abnormal resistance.
Make sure the opening and closing stop beats have been installed.

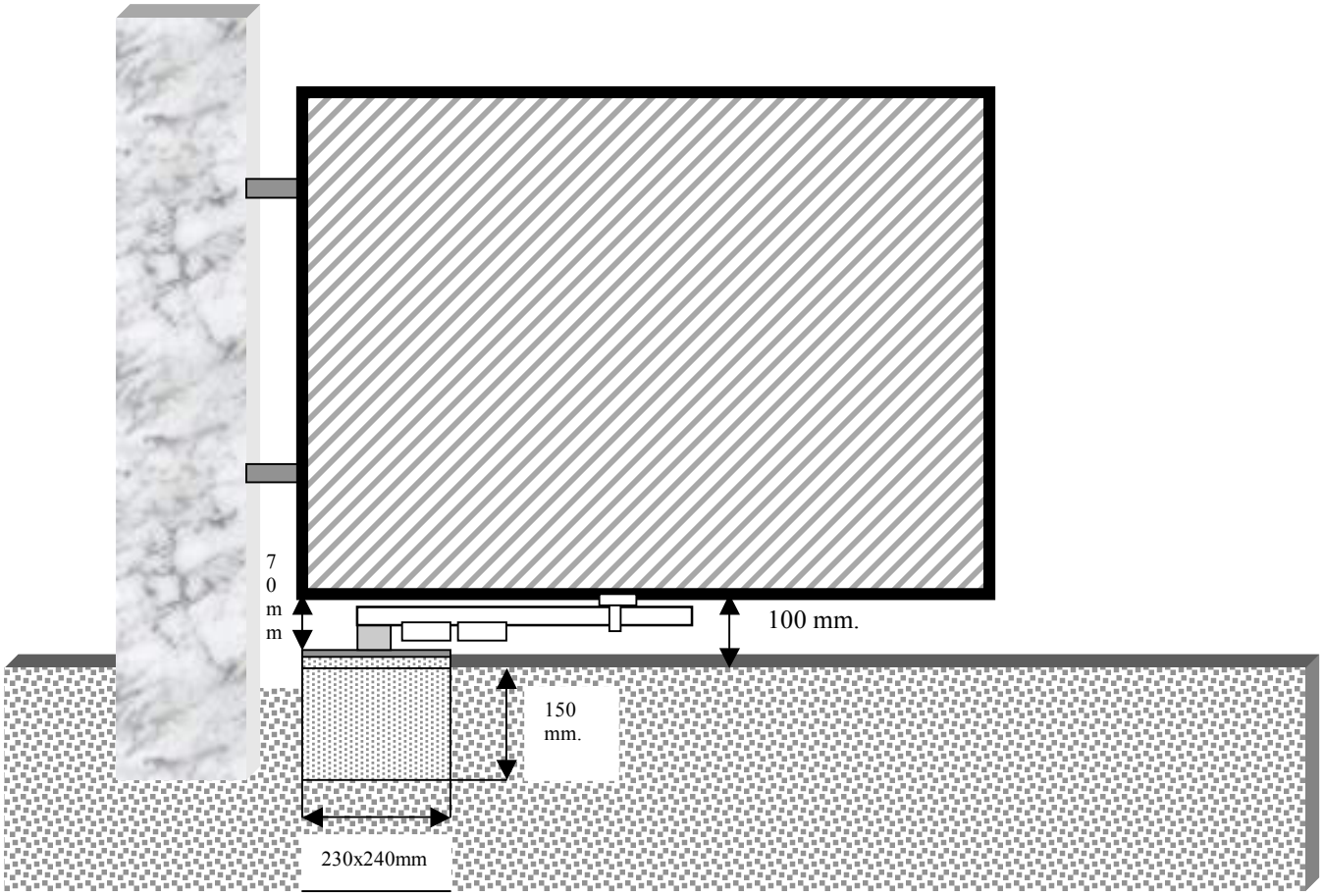
INSTALLATION

In order to properly install the COMPAS motor reducer, read with the following instructions:

1. Dig a foundation according to the measurements given in photo 1-2.

2. Build the foundation box, checking the levelling by using a level.
3. Once the foundation box has been completed, proceed with installation of the motor reducer, according to the measurements in the assembly layout (photo 2)
4. **The COMPAS motor reducer must be installed in such a way that the weight of the gate does not directly encumber the motor axis (no modifications to the original structure of the gate must be made).**

PHOTO 2



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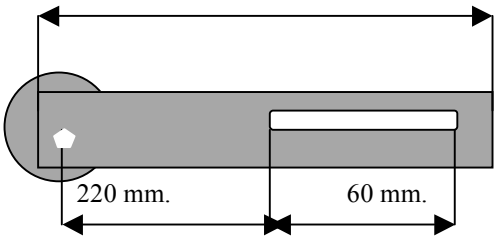
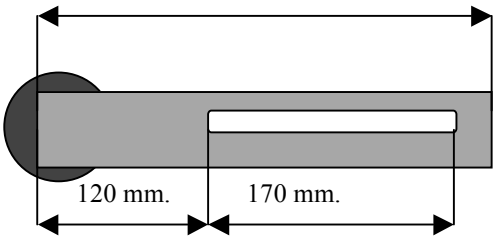
RELEASE SYSTEM

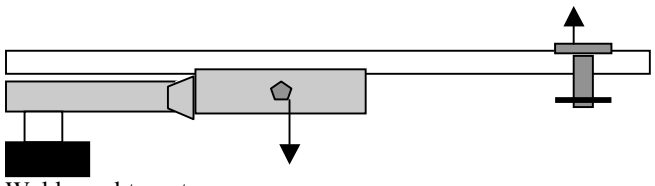
The Compas/B motor reducer with lock is equipped with a door release system placed on the transmission bracket.
In case of power failure, it is possible to release the door by operating the special personalised key supplied with the motor reducer.
The release is obtained by turning the personalised key 180°.
To lock the door again, turn the key 180° (photo 4).



Compas Irreversible Bracket



Compas Reversible Bracket



Weld pawl to gate

Rotate unblocking pin 180º to block or unblock the door

CLUTCH ADJUSTMENT

The reversible Compas motor reducer is equipped with a multiple-disk clutch.
To adjust the clutch, unscrew the cap and use a 6MM hexagonal wrench on the special screw (H) located inside.
By turning the (H) screw clockwise, the torque is decreased, whilst it is increased when turning the screw anti clockwise.
At the end of the adjustment, screw the closing cap again in order to prevent possible infiltration of water that could damage the proper working of the motor reducer.

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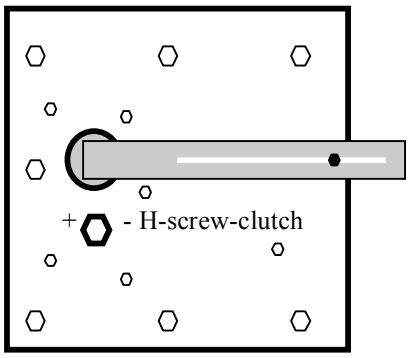

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MAINTENANCE

The Compas motor reducer does not require any special maintenance. Periodically check the safety devices and lubricate the rotation points. The average maintenance period is of 1 year.

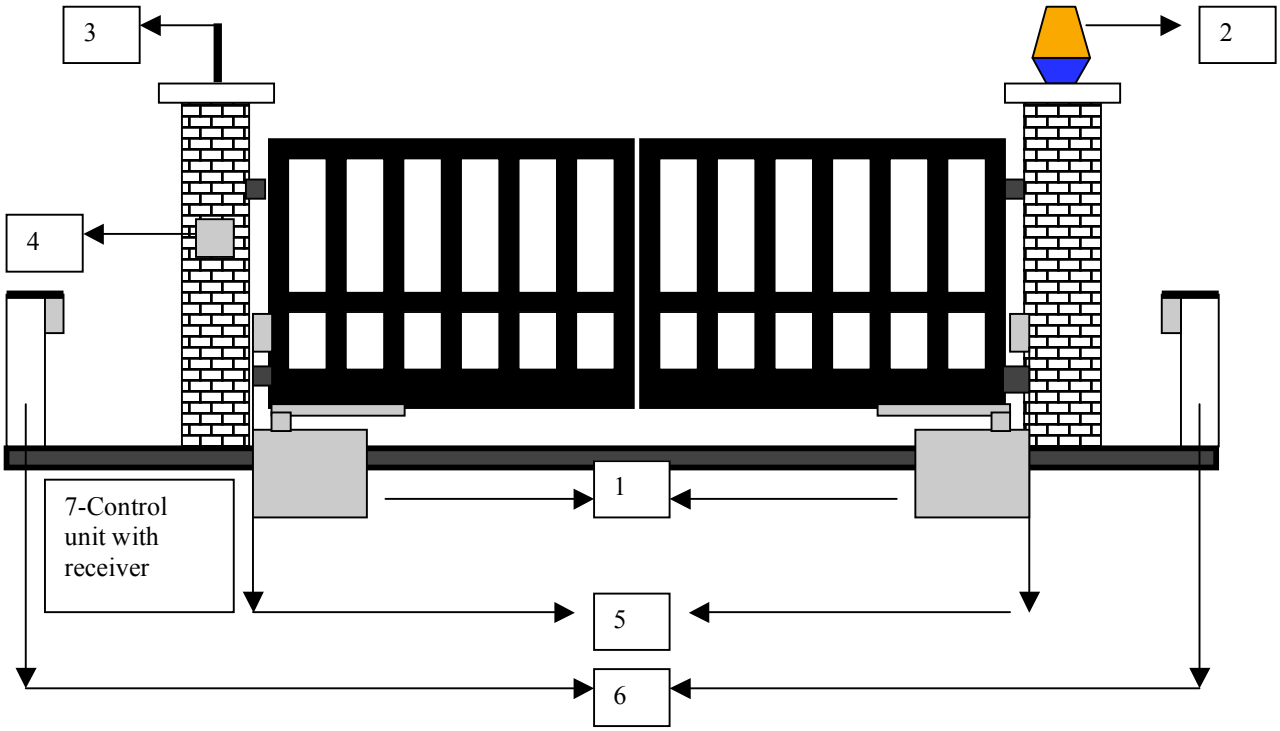
WARNINGS

Handle the motor reducer very carefully during the assembly and disassembly in order to prevent accidents to the person carrying out the assembly or other people likely to be present. The weight of the motor reducer is about 15 Kg.
In case of maintenance, disconnect the motor reducer from the power supply using the differential switch.

Do not carry out any operations and call an authorised technician.
Do not touch the motor reducer with wet hands.
Do not pull the power supply cord.
If the motor reducer has been used in an intensive way, do not touch the motor if you are not sure it has cooled down.

- **The peripheral speed of the leaf must not exceed 12m/min, in compliance with the UNI 8612 regulations.**

TROUBLESHOOTING		
PROBLEM	**POSSIBLE CAUSES**	**WHAT TO DO**
When activating an opening command, the leaf does not move and the electric motor of the motor reducer does not begin to work	Absence of power supply Defective fuses Interrupted supply cord of the motor reducer	Restore the power supply Replace the defective fuses Replace the wire and eliminate the cause of failure
When activating the open command, the motor reducer begins to work but the leaf does not move	Insufficient thrust force (electronic unit) Incorrect clutch adjustment Safety devices enter in action	Adjust the thrust Check the connections of the photocell/ frame/stop of electronic unit Adjust the torque using the mechanical clutch



ASSEMBLY LAYOUT OF THE COMPAS MOTOR REDUCER

1. Compas motor reducer
2. Indicator light
3. Antenna
4. Key selector
5. Photocells
6. Pillars with photocells
7. Electronic control unit and receiver