

CONJUNTO UCM/

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## **SD-BOX + QUASAR T25 A3 + ASG UD**

INSTRUCCIONES DE USO Y MANUTENCIÓN/

INSTRUCTIONS FOR USE AND MAINTENANCE/

INSTRUCTIONS D'USAGE ET ENTRETIEN/

GEBRAUCHS- UND WARTUNGSANLEITUNG/

# CERTIFICADO

## CERTIFICATE

**Examen UE de tipo para componentes de seguridad**

*EU type-Examination of safety components*

**Según el anexo IV parte A de la Directiva 2014/33/UE**

*According annex IV part A of Directive 2014/33/EU*

**Certificado Nº.: TRI/DAS.IV-A/001352/20**

*Certificate-No.:*

**Organismo Notificado**

*Notified Body*

**TÜV Rheinland Ibérica Inspection, Certification & Testing, S.A.**

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**Propietario del Certificado**

*Certificate holder*

**DYNATECH DYNAMICS & TECHNOLOGY S.L.U**

Pol. Ind. Pina de Ebro, Sector C, P-9

50750 - Zaragoza

España (Spain)

**Fabricante del ejemplo ensayado**

*Manufacturer of the test sample*

**Fabricante autorizado**

*Authorized manufacturer*

**DYNATECH DYNAMICS & TECHNOLOGY S.L.U**

Pol. Ind. Pina de Ebro, Sector C, P-9

50750 - Zaragoza

España (Spain)

**Tipo**

*Type*

**SD-BOX + QUASAR T25 + ASG**

**Descripción**

*Description*

**Sistema de Protección contra movimientos incontrolados de la cabina.**

*Protection against unintended car movement.*

**Componentes**

*Components*

**Módulo de control SD-BOX**

*Control system SD-BOX*

**Dispositivo de Activación QUASAR + T-25**

*Activation device QUASAR + T25*

**Paracaídas Progresivo modelo ASG**

*Progressive Safety Gear ASG model*

**Informe**

*Report*

**33245420 (18.03.2013)**

**33432391 (10.05.2016)**

**92570408 (30.03.2020)**

**Normas de Referencia**

*Standards*

**EN 81-20:2014**

**EN 81-50:2014**

**Fecha emisión certificado**

*Date of issue*

**06.04.2020**


**Este certificado consta de esta portada, y el anexo técnico (2 hojas). Su reproducción carece de validez si no se realiza totalmente.**  
*This certificate consists of this main page, and technical annex (2 pages). It shall be reproduced with all its pages to be considered valid.*

**Nota:** Este sistema de protección contra movimientos incontrolados de la cabina puede usarse como parte del sistema de pre accionamiento de parada para el cumplimiento de la Norma EN 81-21, cumpliendo con los requisitos de seguridad y/o medidas de protección descritos en dicha norma.

**Note:** *This protection system against unintended car movements can be used as a part of pre-activation system to stop the car, in order to comply with the EN 81-21 Standard and its described safety requirements and/or protection measures.*

**Este certificado perderá su validez debido a cambios de diseño, procedimiento, cambios en la legislación o en la normativa aplicable. El fabricante deberá poner en conocimiento de este Organismo Notificado cualquier cambio de diseño previsto**  
*This certificate would lose its validity in case of design or procedure modifications, changes in the applicable law or standards. Manufacturer must communicate to this Notified Body any foreseeable change in the design*



  
**Javier Mediavilla / Armand Hernandez**  
*(Director Servicios Industriales) / (Director Técnico Elevadores)*  
Organismo Notificado Nº 1027  
Notified Body, ID-No

## INSTRUCTIONS FOR USE AND MAINTENANCE

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# 1 INTRODUCTION

## 1.1 DESCRIPTION

This system is made up of a SD-BOX signal control box, QUASAR T25 A3 overspeed governor and ASG-UD progressive safety gear, everything manufactured by Dynatech. This system operates as a complete system of protection against car uncontrolled movements with the door open, also known as UCM.

This unit complies with the EN 81-20:2014 and EN 81-50:2014 standard by using the SD-BOX as a signal management system, the governor as a UCM detection component and the safety gears as braking components. The entire system stops the car when a UCM occurs at a distance lower than 1 metre in accordance with the standard requirements.

This protection system is certified as detection and braking device in the scope of protection against car uncontrolled movements with door open. Furthermore, each component making up the system has also been individually certified for this purpose; obviously, without negatively affecting its certification as overspeed governor and progressive safety gears when descending and braking component against overspeed when ascending.



UCM certification also includes the combinations between the different versions of these component models.

COMPONENT	CERTIFICATE
SD-BOX + QUASAR T25 A3+ ASG UD	TRI/DAS.IV-A/001352/20
SD-BOX	TRI/DAS.IV-A/001315/20
QUASAR T25 A3	ATI/LV/007
ASG UD	ATI/PP/010

The assembly of this safety package in an installation exempts the installation itself from requiring the UCM certificate but not from checking that the unit is in compliance with the standard's requirements. The installer must be held responsible for fitting the system in the installation and checking its correct working order.

## 2 RISKS AND SECURITY WARNINGS

### 2.1 RISKS

	Electrical hazard	Do not handle or open the box with its terminals connected to the SD-BOX'S electrical power supply.
	Electrical hazard	Never handle the QUASAR + T25 overspeed governor's interlocking coil.

### 2.2 SECURITY WARNINGS

- Reference to the manuals for use and maintenance of the different components making up the unit is recommended.
- The SD-BOX + QUASAR T25 A3 + ASG UD unit is valid for installations where the P/Q ratio is above 0.7.
- When a UCM occurs, a qualified technician is required for the installation to be operative again. Once the problem causing the UCM has been solved, the reset button must be pressed in order to restore the safety series and for the system to be operative again.

- SD-BOX'S input signals are typical of the installation controller. As a result, response times of the controller components are inherent to it even though the total response times of the SD-BOX + QUASAR T25 A3 + ASG UD unit are considered as standard.
- In the case of checking the installation or carrying out a manual rescue, it must be checked that the SD-BOX is set at the correct operation mode for each of these situations so as to prevent unwanted jamming in the safety wears.
- The parking or anti-creep system incorporated in the QUASAR T25 A3 governor to detect uncontrolled movements, must always include a 24V coil in order to operate correctly along with the SD-BOX.

### **3 DESCRIPTION OF THE UNIT**

#### **3.1 COMPONENTS OF THE SYSTEM**

The components making up the system are:

- CONTROL SYSTEM

The SD-BOX operates as a control systemSD-BOX'S SD-BOX.

SD-BOX'S GOVERNOR– SAFETY GEAR – DRIVING BAR

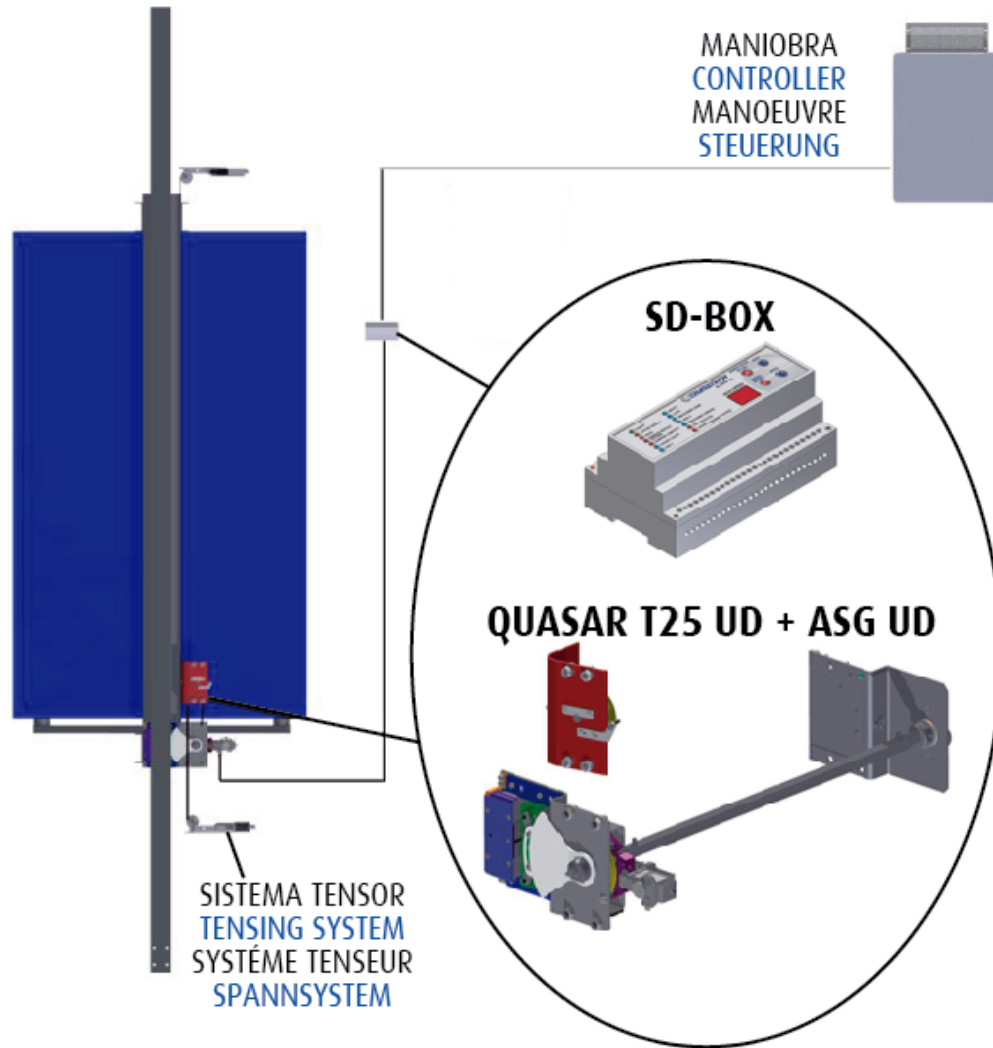
The QUASAR T25 A3 model two-way governor, operates as a UCM actuator.

SD-BOXFinally, the two-way safety gear, ASG UD model by Dynatech incorporated in the QUASAR T25 A3, will operate as a braking device.

#### **3.2 OPERATION AS A UNIT**

As can be seen in FIGURE 2, the SD-BOX electronic device is connected to the installation controller and the QUASAR T25 A3 governor's parking system. SD-BOX connection is described in the SD-BOX'S manual for use and maintenance.

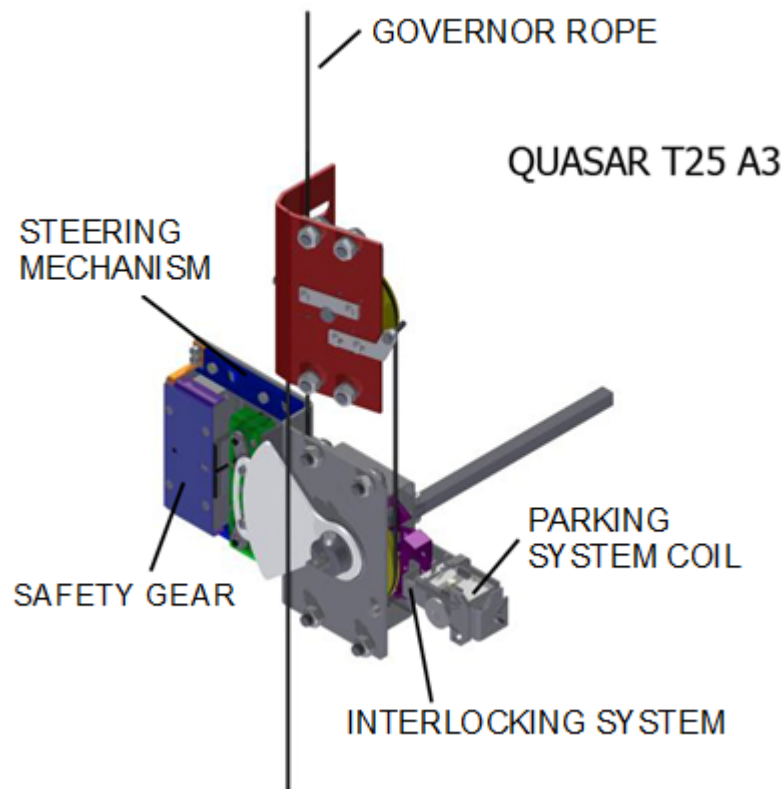
The governor in the Quasar-T25 assembly is of the "on-board" type. This means that the governor moves along with the car. The assembly is anchored to the frame's upright by four screws. The return part will be anchored to the upright at the height determined by the installer.



**FIGURE 2: Components of the system**

The rope runs along the governor and the diverter pulley's grooves. The rope is in an open circuit, both ends being tensed by spring-tensioning devices. This way, when the car reaches the tripping speed, the movement concerning the governor rope will cause it to lock and operate the safety gears.

FIGURE 3 displays the QUASAR T25 A3 governor's parking system. It is mainly made up of a coil, which operates the governor's interlocking system in case of UCM, and a micro-switch, which indicates the interlocking system's positioning to the SD-BOX.



**FIGURE 3: QUASAR T25 A3 Governor**

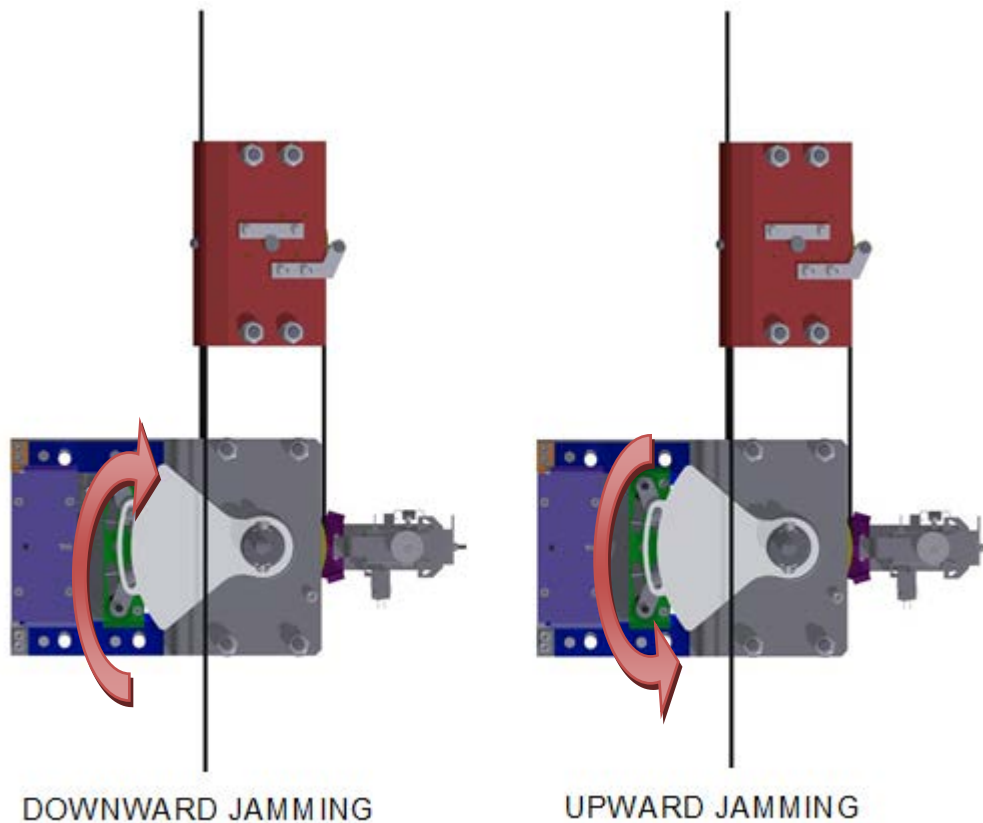
The protection of this system against UCM is as follows: The SD-BOX electronic system compares, at all times, the status of the car doors and the floor level via input signals from the installation. These signals are:

- Doors closed.
- Floor level or unlocking zone.
- Motor contactor

*N.B.: Please check the electrical characteristics in the SD-BOX manual in order to verify the voltage of the signals to be entered, as well as their nature.*

By using these inputs, if the SD-BOX detects that the car leaves door level with doors open, the contactor in the safety line is activated, which causes the QUASAR T25 A3 governor's parking system coil to de-energise. This will make the parking system interlocking system operate on the governor's centrifugal systems, thus causing the governor to interlock.

Since the movement of the interlocking system is linked to the operating driving bar, when the governor interlocks, the driving bar will operate on the safety gears thus causing them to jam and the car to brake.



**FIGURE 4: ASG UD Mechanism Operation**

Under normal conditions, where no UCM is detected, the governor's parking system 24V coil is energised, thus preventing the parking system from interlocking the QUASAR T25 A3 governor. Therefore, the system operates in positive safety.

## 5 ASSEMBLY AND MAINTENANCE

### 5.1 ASSEMBLY

- SD-BOX:

Only specialised and duly trained staff must carry out the assembly, electrical wiring and start-up. For further information on assembly, the characteristics of the electrical wiring and wiring diagrams, please refer to the SD-BOX'S manual for use and maintenance.

- QUASAR T25 A3 + ASG UD:

The QUASAR T25 A3 Beta governor will be assembled and adjusted in accordance with the QUASAR T25 overspeed governor's manual for use and maintenance.

Please check that the governor rope is correctly positioned and that the parking system is correctly operating, by checking that the 24V coil is energised in normal operation.

### 5.2 MAINTENANCE

Please check the distance from the safety gear brake shoe to the guide rail. Please also check that the governor rope is correctly secured and operating onto the T-25 steering mechanism's handle.



Please check periodically that no damage has occurred, which may put the normal use of the lift at a risk. The safety gear's friction components can be replaced. Visual inspection is enough.