



PARACAÍDAS PROGRESIVO DYNATECH/  
DYNATECH PROGRESSIVE SAFETY GEAR/  
PARACHUTE À PRISE AMORTIE DYNATECH/  
BREMSFANGVORRICHTUNG DYNATECH/

**ASG-100-UD/ ASG-100**

**ASG-120-UD/ ASG-120**

**ASG-121-UD/ ASG-121**

**ASG-65-UD/ ASG-65**

INSTRUCCIONES DE USO Y MANUTENCIÓN/  
INSTRUCTIONS FOR USE AND MAINTENANCE/  
INSTRUCTIONS D'USAGE ET ENTRETIEN/  
GEBRAUCHS- UND WARTUNGSANLEITUNG/



## EU TYPE-EXAMINATION CERTIFICATE

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

|                               |  |        |
|-------------------------------|--|--------|
| Certificate number:           | ATI / PP / 010   | rev: 6 |
| Notified Body:                | TÜV SÜD ATISAE S.A.U.<br>Ronda de Poniente, 4<br>ES 28760 Tres Cantos MADRID<br>ID number: 0053.   |        |
| Product:                      | Safety Component<br>Progressive safety gear (PP) and mechanical stopping gear in the pre-triggered stopping system   |        |
| Type:                         | ASG-xxx / ASG-xxx UD   |        |
| Manufacturer:                 | DYNATECH. DYNAMICS AND TECHNOLOGY S.L.<br>P.I. PINA DE EBRO, SECTOR C PARCELA 9<br>ES 50750 ZARAGOZA   |        |
| Certificate Holder:           | DYNATECH. DYNAMICS AND TECHNOLOGY S.L.<br>P.I. PINA DE EBRO, SECTOR C PARCELA 9<br>ES 50750 ZARAGOZA   |        |
| Date of submission:           | 2025.01.10   |        |
| Date of type examination:     | 2025.01.28   |        |
| Test laboratory & report:     | Please refer to tech. annex section 2.9  |        |
| Directive:                    | Directive 2014/33/EU of 26 February 2014   |        |
| Standards of reference:       | EN 81-20:2020; EN 81-21:2022; EN 81-50:2020;   |        |
| Report number: <sup>(1)</sup> | 8105687914 (2025.01.28)  |        |
| Expiry date:                  | Indefinite. (Please refer to tech. annex section 2.11)   |        |
| Statement:                    | The safety component allows the lift on which it is installed to satisfy the health and safety requirements of the Lifts Directive when it is used within the scope, as well as under the installation conditions that are set up in the technical annex to this certificate.<br><br>This certificate has a technical annex with reference ATI / PP / 010 Rev 6.<br>This certificate is digitally signed. <b>Only the document issued in format 'pdf' with its signature is legally valid.</b> |        |

<sup>(1)</sup> other applicable reports in section 2.13 of the technical annex.

DAS/ 000751-1

Jordi Olivera  
Lifts Technical CoordinatorTÜV SÜD ATISAE S.A. (Unipersonal). Organismo Notificado 0053  
Organismo de Control acreditado por ENAC con acreditación nº C-PR/445.

EC12.04.F02-EN v. 2023-05-12

INSTRUCTIONS FOR USE AND MAINTENANCE

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## 1 GENERAL INSTRUCTIONS

Each pair of safety gears supplied is factory tared according to the required conditions of use: Total mass (P+Q) and guide rails' thickness. These features are indelibly displayed, along with the standardisation password and serial number; on the protection plates on top of the safety gear boxes (see section 2.1).

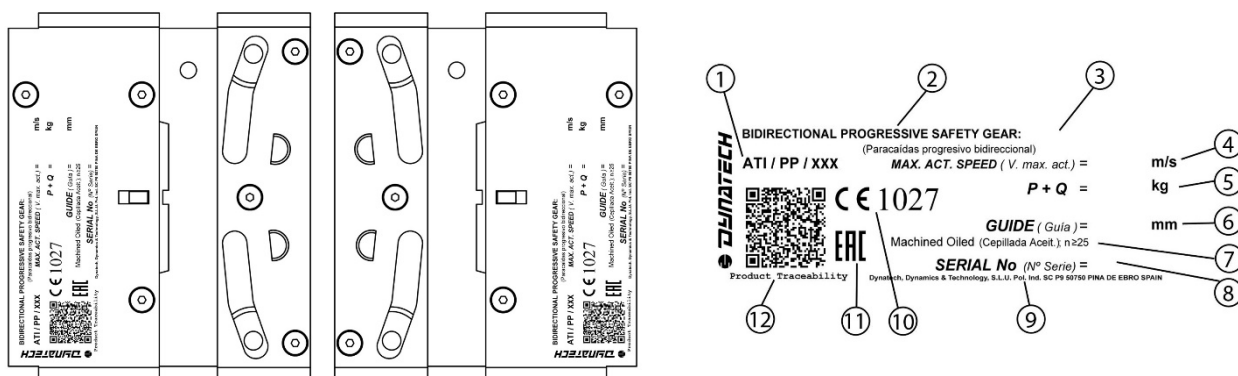
*It is strictly forbidden:*

- To combine and assemble safety gear boxes with different serial numbers.
- To use a pair of safety gears for installations with characteristics different from those indicated on that pair of safety gears' protection plates.
- To handle any of the safety gear's components.

DYNATECH DYNAMICS & TECHNOLOGY, S.L. cannot be held responsible for the damage caused due to the non-observance of any of these general instructions.

## 2 SAFETY GEAR IDENTIFICATION AND CHARACTERISATION

### 2.1 IDENTIFICATION



| SAFETY GEAR IDENTIFICATION LABEL |  |    |   |
|----------------------------------|--|----|---|
| 1                                | EU type examination certificate number     | 7  | Guide rail type   |
| 2                                | Safety gear type                           | 8  | Safety gear serial number                                       |
| 3                                | Safety gear model                          | 9  | Dynatech address  |
| 4                                | Safety gears' maximum tripping speed (m/s) | 10 | Quality assurance CE marking and notified body number           |
| 5                                | Total load (Kg)                            | 11 | Marking for market access to member states of the Customs Union |
| 6                                | Guide rail thickness (mm)                  | 12 | QR product traceability code                                    |

Figure 1: Safety gear identification

### 2.2 SAFETY GEAR'S FEATURES AND USE

- The guide rails to be used should be cold drawn and oiled for ASG-100, ASG-100 UD, ASG-65 and ASG-65 UD models, machined and oiled for ASG-120 and ASG-120 UD, and machined and dry for ASG 121 and ASG-121 UD models. Allowable tolerances for guide rail thickness should be within the limits set by the standard: ISO 7465:2007.
- There is a bidirectional ("UD") and a unidirectional version for each safety gear model.
- For lubricated guide rails, the recommended lubricating oil is the type used for machines according to ISO VG 150, although other viscosities within the margins established in ISO-VG may be accepted.
- This safety gear can be used up to a maximum tripping speed of 2.33 m/s.
- Allowable guide rail thicknesses: 7 – 16 mm.
- The guide rail braking surface should be greater than or equal to 25mm, except for the ASG-65/ASG-65 UD model, which should be equal to 20mm.

## SUMMARY TABLE

| MODEL               |                              | UNI | ASG-100    | ASG-120    | ASG-121    | ASG-221             | ASG-65     |
|---------------------|------------------------------|-----|------------|------------|------------|---------------------|------------|
|                     |                              | BID | ASG-100 UD | ASG-120 UD | ASG-121 UD | ASG-221 UD          | ASG-65 UD  |
| GUIDE RAIL          | Cold drawn                   |     | Lubricated |            |            |                     | Lubricated |
|                     | Machined                     |     |            | Lubricated | Dry        | Dry                 |            |
| FEATURES            | Minimum braking width        |     | 25mm       | 25mm       | 25mm       | 25mm                | 20mm       |
|                     | Guide rail thickness (mm)    |     | 7-16       | 7-16       | 7-16       | 7-16                | 8 (T65A)   |
|                     | Maximum tripping speed (m/s) |     | 2,33 m/s   | 2,33 m/s   | 2,33 m/s   | 3,9 m/s             | 2,33 m/s   |
|                     | Maximum nominal speed (m/s)  |     | 2 m/s      | 2 m/s      | 2 m/s      | 3,4 m/s             | 2 m/s      |
| SIMPLE              | (P+Q) Maximum [kg] (+7.5%)   |     | 2139       | 4233       | 4019       | 3284 <sup>(2)</sup> | 2214       |
|                     | (P+Q) Minimum [kg] (-7,5%)   |     | 515        | 693        | 598        | 754                 | 790        |
| TANDEM              | (P+Q) Maximum [kg] (+7,5%)   |     | 4278       | 8466       | 8038       | 6568                | 4428       |
|                     | (P+Q) Minimum [kg] (-7,5%)   |     | 1030       | 1386       | 1196       | 1508                | 1580       |
| ASSOCIATED PULL BAR |                              | UNI | T-25 v2    | T-25 v2    | T-25 v2    | T-25 v2             | T-25 v2    |
|                     |                              | BID | T-25 UD    | T-25 UD    | T-25 UD    | T-25 UD             | T-25 UD    |

<sup>(2)</sup> +7,5% is not applicable for this (P+Q).

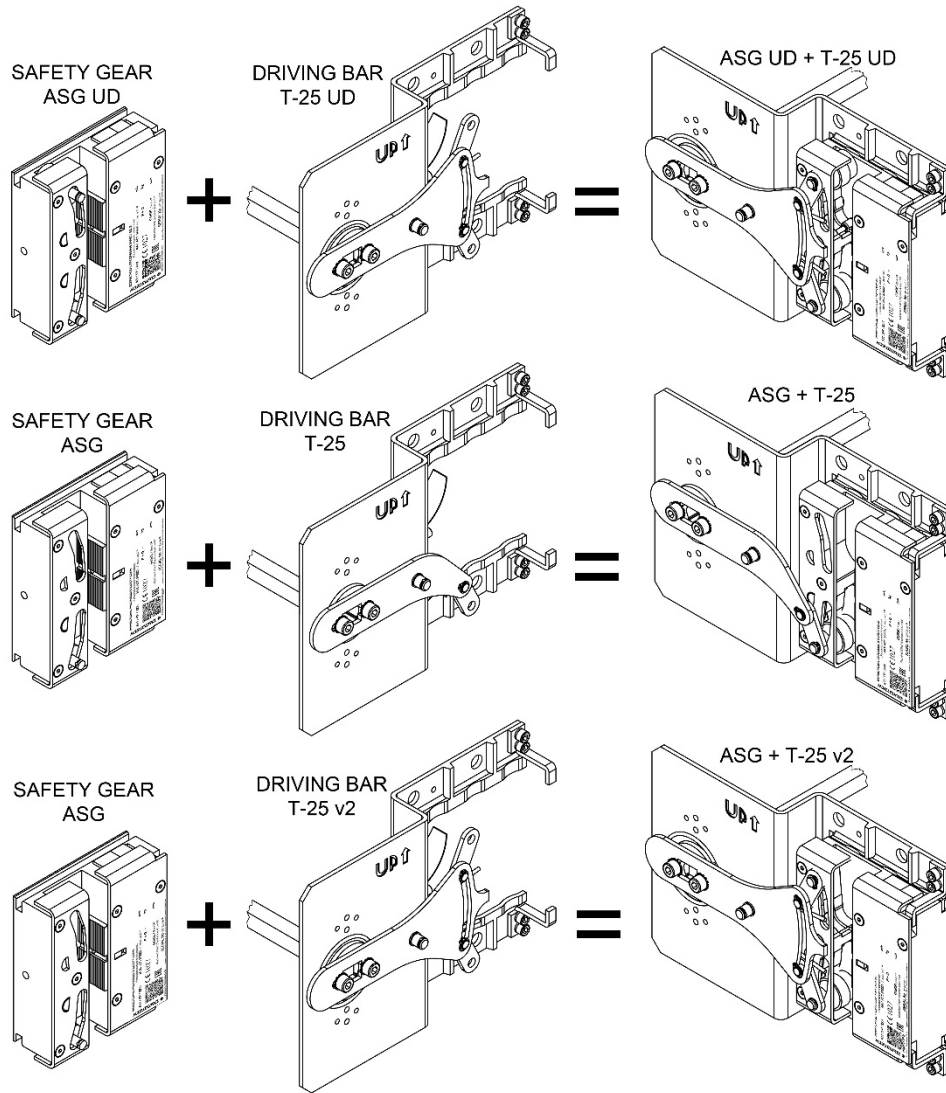
## 3 INSTALLATION AND ADJUSTMENT

### 3.1 ASSEMBLY ON FRAME WITH T-25 UD/T-25 DRIVING BAR

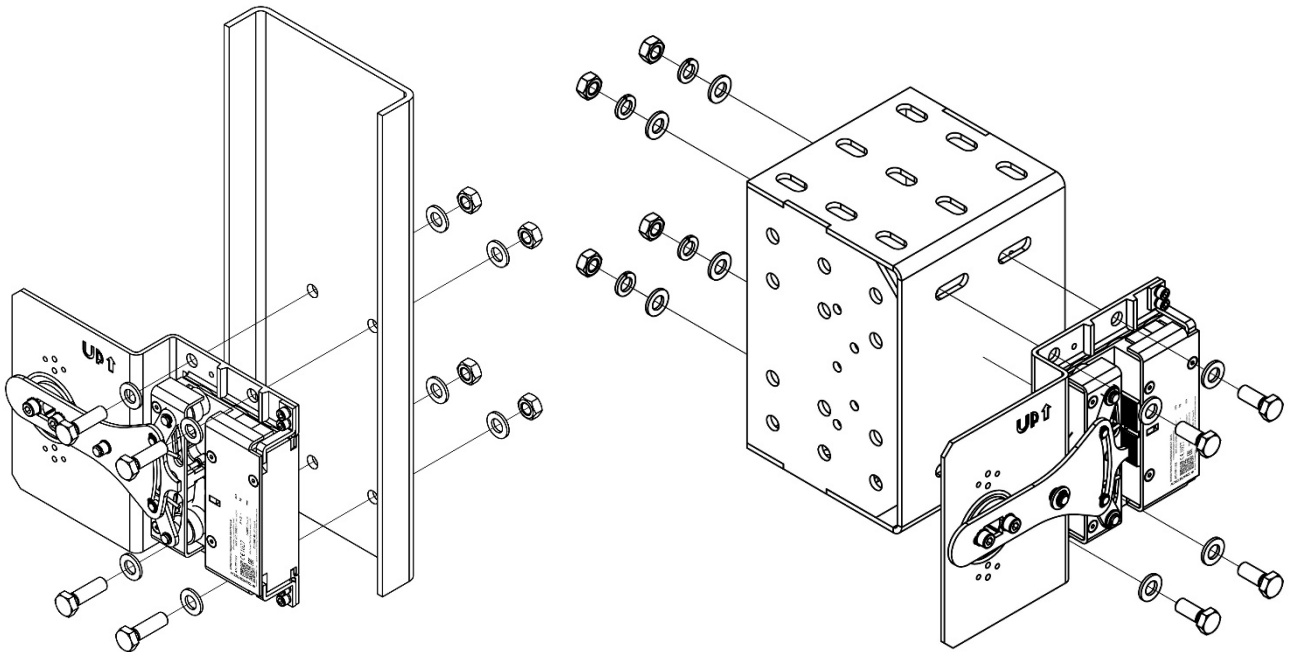
ASG UD/ASG safety gears are pre-assembled in factory with a T-25 UD/T-25 driving bar. These safety gears are attached to the frame by using T-25 UD/T-25 driving bars. This driving bar ensures that the safety gear pairs are synchronised.

The holes for attaching the driving bar should be made on the frame uprights according to the dimensions and the position displayed in the drawings included in the T-25 UD/T-25: DYN 37 – T-25 UD/T-25 driving bar assembly manual, thus ensuring that the guide rail's axis is centred with the frame.

To secure the safety gear onto the frame, we recommend a 79.09 Nm tightening torque for grade 8.8 M12 bolts, and of 111 Nm for grade 10.9 bolts.



**Figure 2: ASG UD/ASG Safety gear and T-25 UD/T-25 Driving bar**

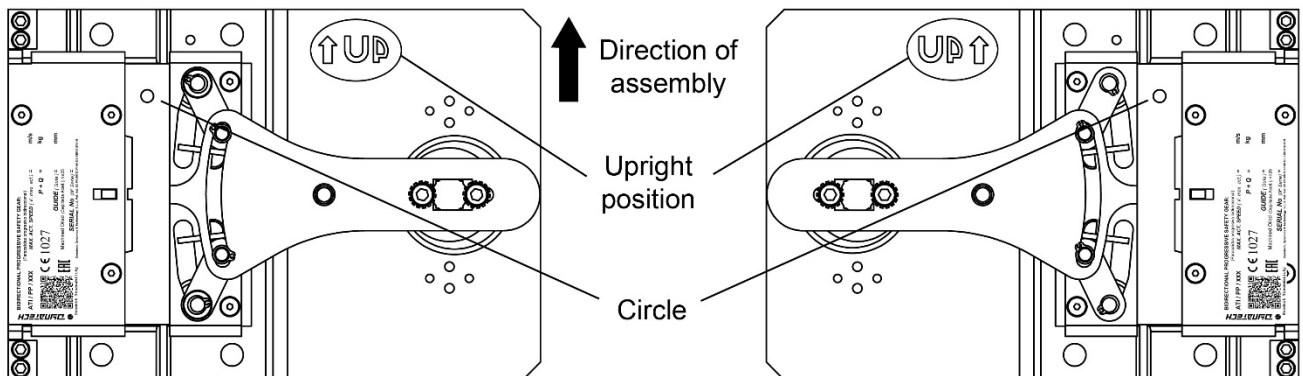


**Figure 3: Assembling the safety gear onto the frame (1)**

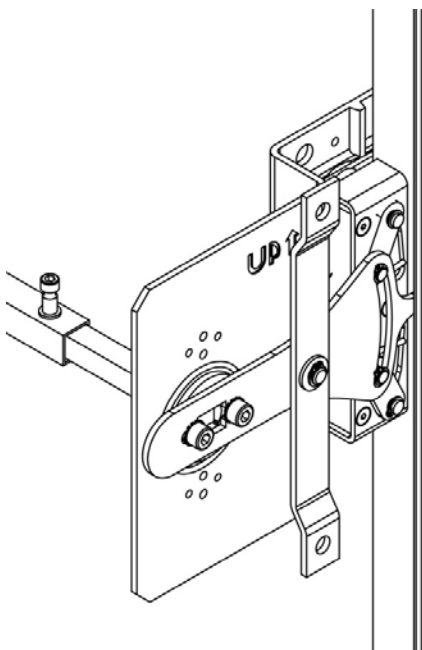
**Figure 4: Assembling the safety gear onto the frame (2)**

**⚠ Safety gear position:**

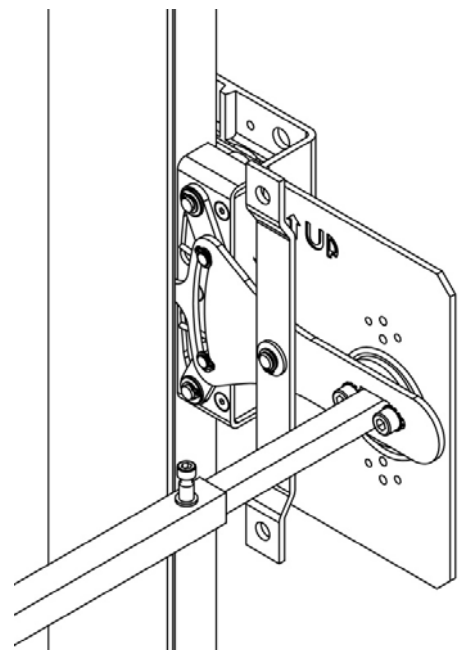
- The safety gears should be assembled in the position displayed in Figure 5
- A circle located on the safety gear's centre will indicate its upper part. This mark should always be on the upper part during the assembly.
- There should be an additional mark on the driving bar including the word "UP" and an arrow indicating the safety gears and driving bar's upright position.



**Figure 5: Direction of assembly**

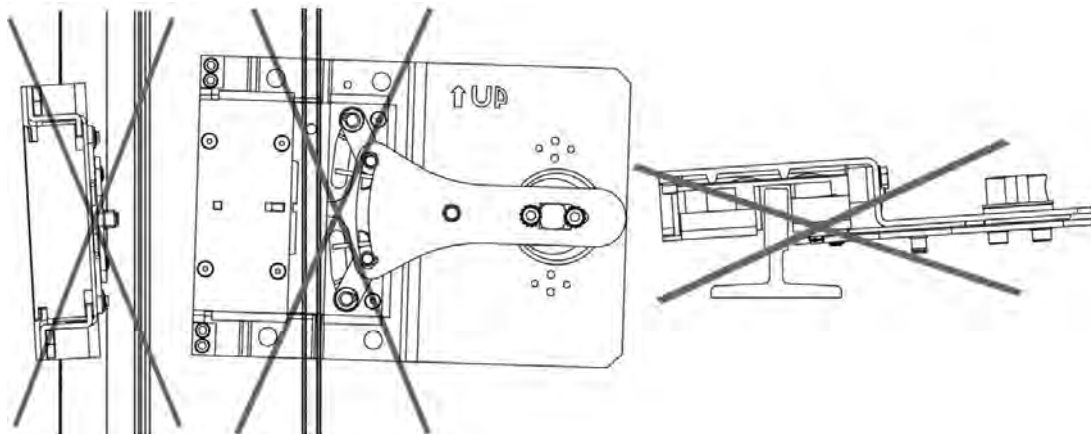


**Figure 6: Roller position**




**Figure 7: Roller position on inverted guide rails**

During assembly, the safety gear should be perfectly aligned with the guide rails, both vertically and horizontally. Improper assembly may cause the safety gear to function incorrectly.




**Figure 8: Improper assembly**


For more information concerning T-25 UD/T-25 driving bar assembly, please consult its manual: DYN 37 - T-25 UD/ T-25 Driving bar.

 It is not recommended to exceed a maximum force of 1900 N is not recommended with the governor.

### 3.2 SAFETY GEAR ADJUSTMENT

The guide rail's position in the block should be adjusted as follows: The side of the guide rail 2 mm from the brake shoe; the head of the guide rail 3 mm from the back of the groove (see drawing DYN 32.C001.02/DYN 38.C001.01).

 In order to avoid problems with the installation's normal operation, it is very important that the person carrying out the installation rigorously observes the distances mentioned in this item.

 Please make sure that the safety gear is placed so that the circle on the safety gear, the word "UP" and the arrow on the driving bar's plate are on the upper part, as displayed in section 3.1.

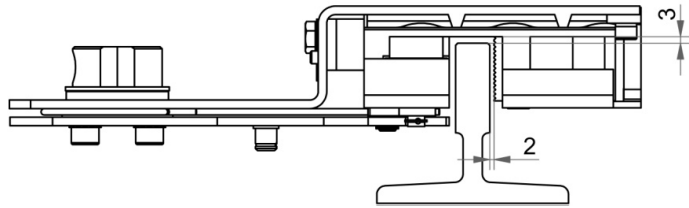


Figure 9 Safety gear adjustment in relation to the guide rail

### 3.3 SAFETY GEAR INSTALLATION WITH OTHER DRIVING BARS

It is the responsibility of the person who installs the safety gear to properly position the driving bar in relation to the safety gear, as well as to properly synchronise the safety gears controlled by that driving bar.


Please keep in mind that part of the functions of these safety gears are performed by the T-25 UD/T-25 driving bar.

If another driving bar is adapted to be used with these safety gears, please keep in mind that this driving bar:


- Should allow the safety gear to move horizontally in relation to the guide rail.
- Should allow the rollers to return to their original position.
- Is responsible for attaching the safety gears to the frame.
- As an option, the safety gears may be regulated on site.
- Should incorporate an electrical safety contact.

All these characteristics should be guaranteed and Dynatech should approve the adapted driving bar's design.

The minimum force to be generated by the overspeed governor is double the force that ensures that the performance of the safety gears is synchronised.

 The Standard demands that the installation incorporate an AC-15 or DC-13 safety contact as defined in EN 60947-5-1.

## 4 INSPECTIONS AND MAINTENANCE

 The list of provisions that Dynatech establishes for the maintenance of its installed equipment is added to the Annexes.

### 4.4 STORAGE AND SERVICE LIFE

The safety gear should be stored in a cool, dry place. It should be protected from excessive lighting. It should never be exposed to severe weather conditions.

Storage temperature: 5 - 40°C

Storage humidity: 15 - 85% without condensation.

The safety gears' packaging should be clean and dry, so that they can be clearly identified.

It is not permitted to place constant or unbalanced loads on a package, which may cause the package to be bent, or to allow products to be stacked one on top of the other. When stacking products or packages, the storage height should take into account their load and stability.

If the criteria established for proper maintenance are observed, the safety gears may have the same service life as the rest of the installation's fixed elements provided that their proper functioning is ensured and controlled. The element's service life is not affected by grease, dust or dirt due to the shaft's condition or to environmental conditions differing from those stated in this manual.

## 5 UCM

### 5.1 UCM SYSTEM'S PRELIMINARY DESIGN

According to EN 81:20 and EN 81:50, lifts should be equipped with means for stopping uncontrolled car movement (UCM). These means should detect UCM and stop the car. This stop must occur at a maximum distance below 1 m (among other requirements).

The safety gears may be used as a braking device for stopping the uncontrolled movement.

The values for the safety gear's braking distance may be calculated beforehand, but several installation parameters must be taken into account. The more information that is known about the physical elements that make up the system, the closer the theoretical value will be to the actual value.

These are theoretical values and may only be used in the system's preliminary design. The installation's compliance with the standard requirements is pending.

## 6 EN 81-21

The ASG-100, ASG-120 and ASG-121 safety gear are certified as indicated in Annex B of the EN 81-21:2022 standard. The pre-triggered stopping system can be completed by an actuation device such as the one for electromechanical activation associated with the ASG safety gear.

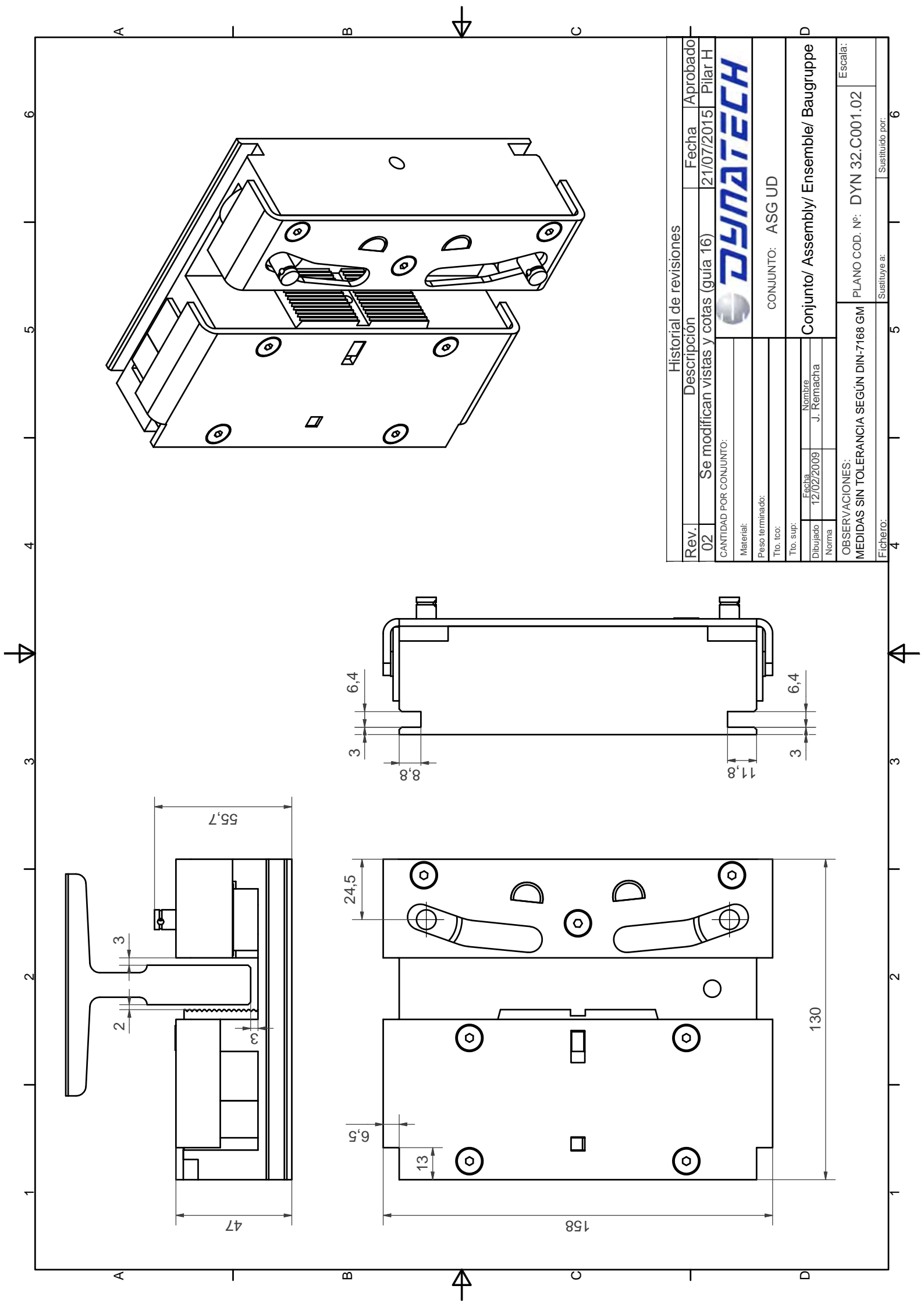
The maximum certified nominal speed is 1.6 m/s

These electromechanical activation devices and their certifications are:

| Electromechanical Activation | Only Down or Bidirectional | Certified |
|------------------------------|----------------------------|-----------|
| EVO                          | Only down                  | ATI/CA029 |
| EVO UD                       | Bidirectional              | ATI/CA030 |
| DA                           | Only down                  | ATI/CA020 |
| DA UD                        | Bidirectional              | ATI/CA021 |

NB. Triggering of the electromechanical activation device must be managed by an SIL 3 electronic overspeed governor.

## 7 GENERAL DRAWING

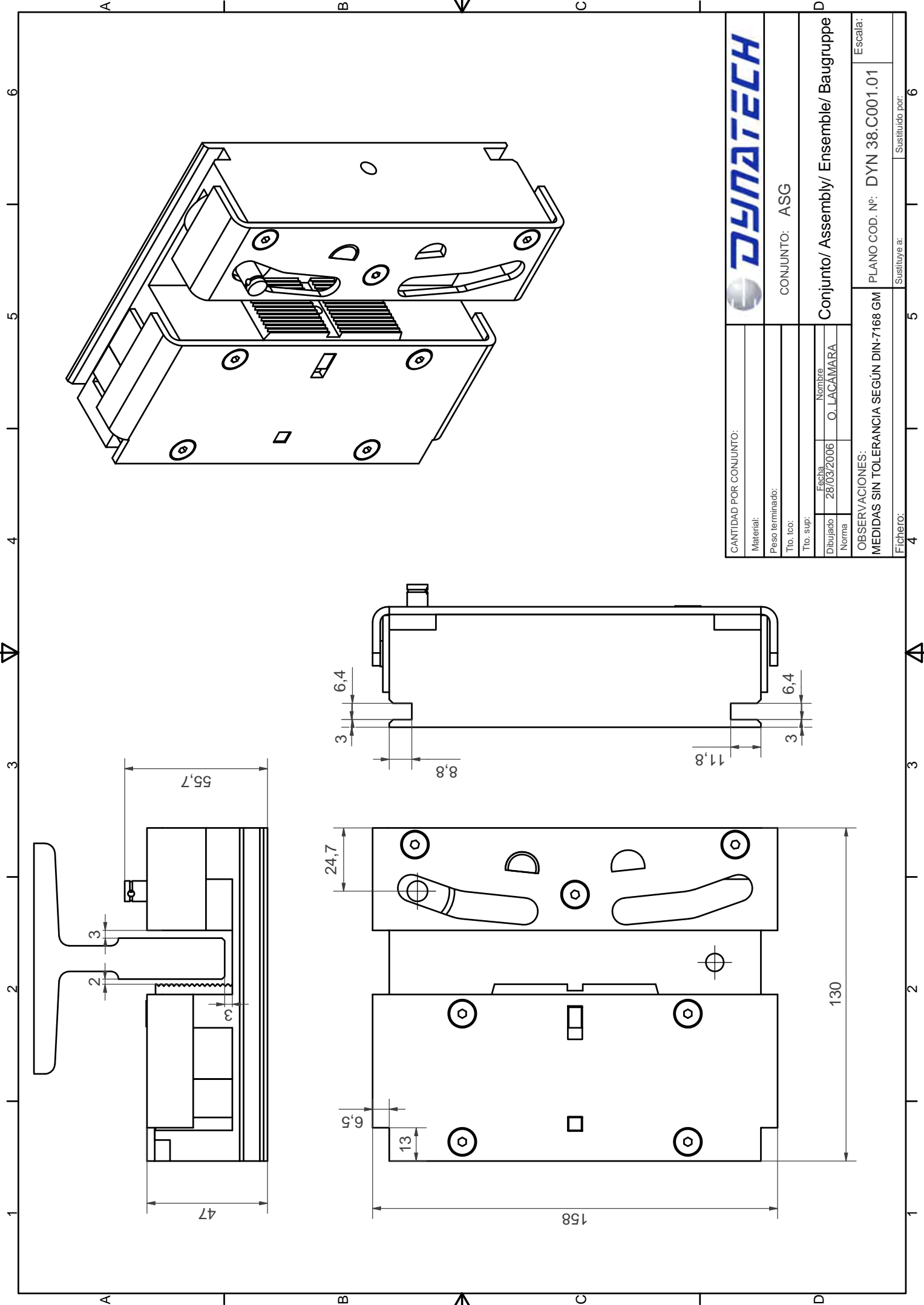


| Historial de revisiones                  |                                       |            |   |                 |
|--|---------------------------------------|------------|---|-----------------|
| Rev.                                     | Descripción                           | Fecha      | Aprobado  |                 |
| 02                                       | Se modifican vistas y cotas (guía 16) | 21/07/2015 | Pilar H   |                 |
| CANTIDAD POR CONJUNTO:                   |                                       |            |   |                 |
| Material:                                |                                       |            |   |                 |
| Peso terminado:                          |                                       |            |   |                 |
| Tto. tco:                                |                                       |            |   |                 |
| Tto. sup:                                |                                       |            |   |                 |
| Dibujado                                 | Fecha                                 | Nombre     |  |                 |
|  | 12/02/2009                            | J. Remacha |   |                 |
| Norma                                    |                                       |            |   |                 |
| OBSERVACIONES:                           |                                       |            | Escala:   |                 |
| MEDIDAS SIN TOLERANCIA SEGÚN DIN-7168 GM |                                       |            | PLANO COD. N.º: DYN 32.C001.02  |                 |
| Fichero:                                 |                                       |            | Sustituye a:  | Sustituido por: |



CONJUNTO: ASG UD

Conjunto/ Assembly/ Ensemble/ Baugruppe



CONJUNTO: ASG

Conjunto/ Assembly/ Ensemble/ Baugruppe

Escala:  
PLANO COD. N°: DYN 38.C001.01

Sustituye a:

6

CANTIDAD POR CONJUNTO:

Material:

Peso terminado:

Tto. tco:

Tto. sup:

Fecha:

28/03/2006

Nombre:

O. LACAMARA

Norma:

OBSERVACIONES:

MEDIDAS SIN TOLERANCIA SEGÚN DIN-7168 GM

Fichero:

4

3

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