POLEA TENSORA COMPACT 200

COMPACT 200 TENSING PULLEY

POULIE DE TENSION COMPACT 200

SPANROLLE COMPACT 200

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

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TYPE EXAMINATION CERTIFICATE

ELEVATOR COMPONENT / SYSTEM

Document number:	**ATI / CA004** **rev: 1**
Certification Body:	**TÜV SÜD ATISAE S.A.U.** Ronda de Poniente, 4 ES 28760 Tres Cantos MADRID
Product:	**Tensioning system for overspeed governor**
Type:	**COMPACT 200**
Manufacturer:	**DYNATECH. DYNAMICS AND TECHNOLOGY S.L.** **P.I. PINA DE EBRO, SECTOR C PARCELA 9** **ES 50750 ZARAGOZA.**
Certificate Holder:	**DYNATECH. DYNAMICS AND TECHNOLOGY S.L.** **P.I. PINA DE EBRO, SECTOR C PARCELA 9** **ES 50750 ZARAGOZA.**
Date of submission:	**09.06.2022**
Issuing date:	**09.20.2022**
Standards of reference: (1)	**EN 81-20:2020; [5.6.2.2.1.3.d)]**
Report number: (2)	**8103622462 (09.20.2022)**
Expiry date:	**indefinite (please refer to tech. annex section 2.7)**

Statement: The tensioning system for overspeed governor COMPACT 200 assessed in this certificate can be used in connection with an appropriate overspeed governor within the scope of this type-examination. The solution for the tensioning system deviates from clause [5.6.2.2.1.3.d)] EN 81-20. This certificate can be mentioned as an annex in the certificate of the overspeed governor allowed to use it.

For legal reasons, and since this system is not a safety component according to annex III of Lifts Directive 2014/33/EU, this agency cannot issue an EU type-examination certificate.

This certificate can be used as justification of the features and scope of the system, to be assembled in the overspeed governor.

(1) Only for the clauses mentioned in the technical annex.
(2) For other applicable reports please refer to section 2.9 of the technical annex.

This certificate has a technical annex with reference ATI / CA004 R1.
This certificate is digitally signed. Only the document issued in format 'pdf' with its signature is valid.

TÜV SÜD ATISAE S.A.U.

DAS / 000274-1

Jordi Olivera
LCC Technical Director

	Installation recommendation and rope tensioner changed	

INSTRUCTIONS FOR USE AND MAINTENANCE

1 INTRODUCTION

Compact tensing pulley is a product designed to provide the governor's rope with the tension required. It is a compact and perfect design to be used in installations with reduced space.

To design the Compact tensing pulley all its dimensions were reduced to the maximum.

This tensing pulley is a Dynatech product that is supplied pre-assembled. This allows the installer to save time when assembling it in the installation.

2 INSTRUCTIONS FOR USE AND MAINTENANCE

The key points to be taken into account are as follows:

i. The assembly instructions for each tensing pulley are to be observed.
ii. Compact tensing pulley is to be used with governors of a standard nature, with a governor's rope forming a closed loop.
iii. The overspeed governor groove should be hardened, especially with long journey or high speed lifts. The Compact tensioner applies more tension than normal, so the overspeed governor groove can wear more quickly.
iv. Its use is acceptable for overspeed governor ropes with the following features:
    a. The overspeed governor rope must comply with the EN 12385-5 requirements.
    b. Composition: 6x19 and 8x19 for rope diameters 6 and 6.5 mm.
    c. The core should be metallic.
v. The Compact tensing pulley is to be properly located so that the rope going past the governor's and tensing pulleys flows correctly and, therefore, avoids decreasing the lifespan of both the rope and the governor's pulley groove, thus ensuring that the tensing pulley operates correctly.
vi. Prevent bumps or dents.

Note: The Compact tensioner is designed to work with Dynatech overspeed governors. Dynatech is not responsible for the performance of the tensioner when used with overspeed governors from other manufacturers.

2.1 OMPONENTS

2.2 ASSEMBLE THE INSTALLATION

First, before finally securing the Compact tensing pulley in the installation, it is essential to correctly position it so that the rope is suitably assembled and thus ensuring its correct operation in the future.

To do so, fit it in such a way that the governor's rope (12), either the branch coming from the governor or the one going to the driving bar's governor attachment (13), exactly coincides with the pulley's groove .That is to say, both branches of the governor's rope must form a 90º angle with the upper cover of the Compact tensing pulley.

Once it is ensured that the governor's rope branches perfectly coincide with the pulley's groove, fix the Compact tensing pulley to the installation's floor via two M12 screws at the anchoring points (11) arranged for this purpose. See Figure 3.

Drawing DYN 66.C001.01 displays the distances between the anchoring points.

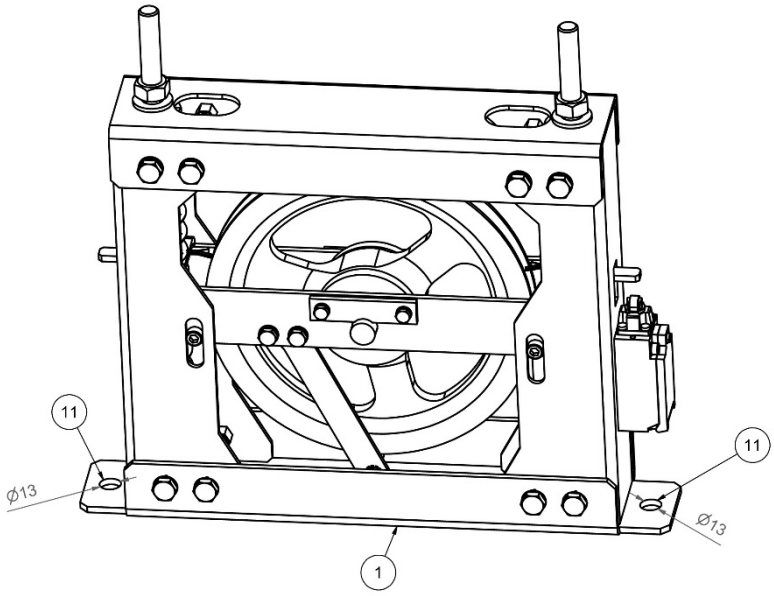


Figure 3: Compact tensing pulley's anchoring points

2.2.1 COMPACT GUIDE RAIL ADAPTER

The Compact tensing pulley may also be fixed to the guide rail by assembling an adapter.

2.3 ASSEMBLE THE GOVERNOR'S ROPE

Once the Compact tensing pulley has been fixed, assemble the governor's rope onto the tensing pulley.

Turn the lower guard (16) for easier rope installation. To do so, unscrew the bolt (16.a) and loosen the bolt (16.b).

Insert the free end of one of the rope's branches into the holes on the upper bracket (7). Pass the rope's end between the pulley's groove (2) and the release-prevention device (8), surrounding the pulley (2), continuing up to the other release-prevention device (8) and going out at the hole opposite the one it was inserted.

Once the rope has passed through the Compact tensioner, place the lower guard (16) in its initial position and refit the bolt (16.a) and tighten (16.b).

Then, pass the free end of the rope previously passed through the tensing pulley through the driving bar's governor attachment (13). It is important to apply some tension on the rope's end (12), , when assembling the cable clip (14) fixing the rope to driving bar's governor attachment (13) .

The cable tensioner should be assembled between the Compact tensioner and the driving bar anchoring. Figure 16.

2.4 ROPE TIGHTENING

Before tightening the rope, please make sure that the cable-clips are correctly assembled.

To tighten the rope, unthread the spring-compressing nuts (5). To do so, it is recommended to unthread both nuts almost at the same time. That is to say, alternate the unthreading process of each nut so that both rope-tensing springs (3) become released at the same time, the pulley (2) uniformly lowers and the rope (12) becomes tightened.

As the nuts (5) are being unthreaded, the governor's rope (12) becomes tightened. Unthread the nuts (5) until the springs are completely released. It is recommended to assemble these nuts (5) at the end of the spring-compressing rods (4) as displayed in Figure 19

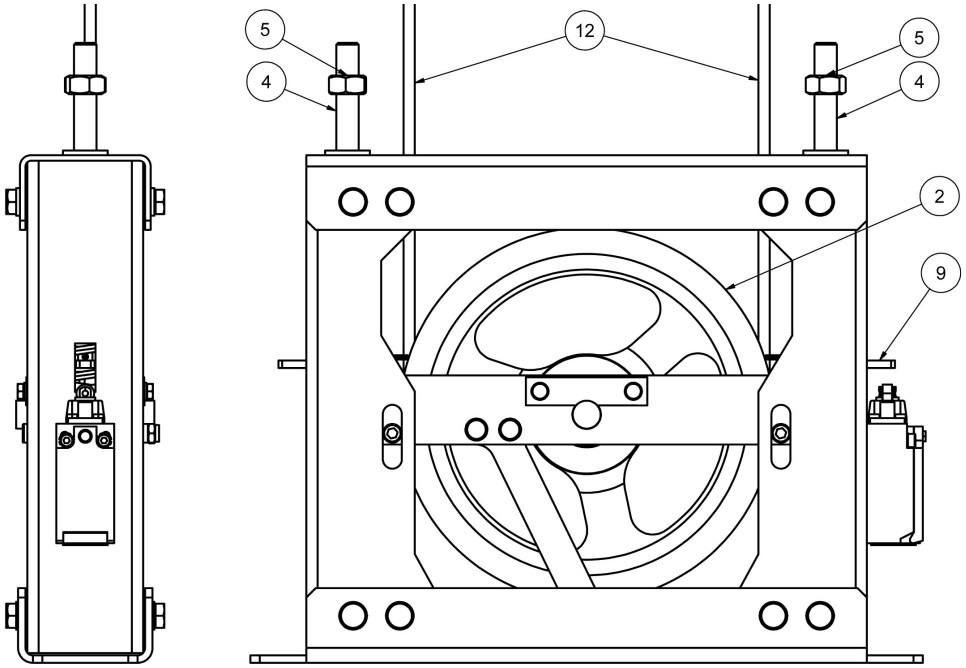


Figure 19: Position after tightening the rope

If, after completely unthreading the nuts, it is detected that the de-tensing contact actuator (9) is in contact or about to contact the de-tensing contact (10) (See Figure 20), release the rope (13) from the cable-clips (14), and pre-tighten the free end of the rope again .

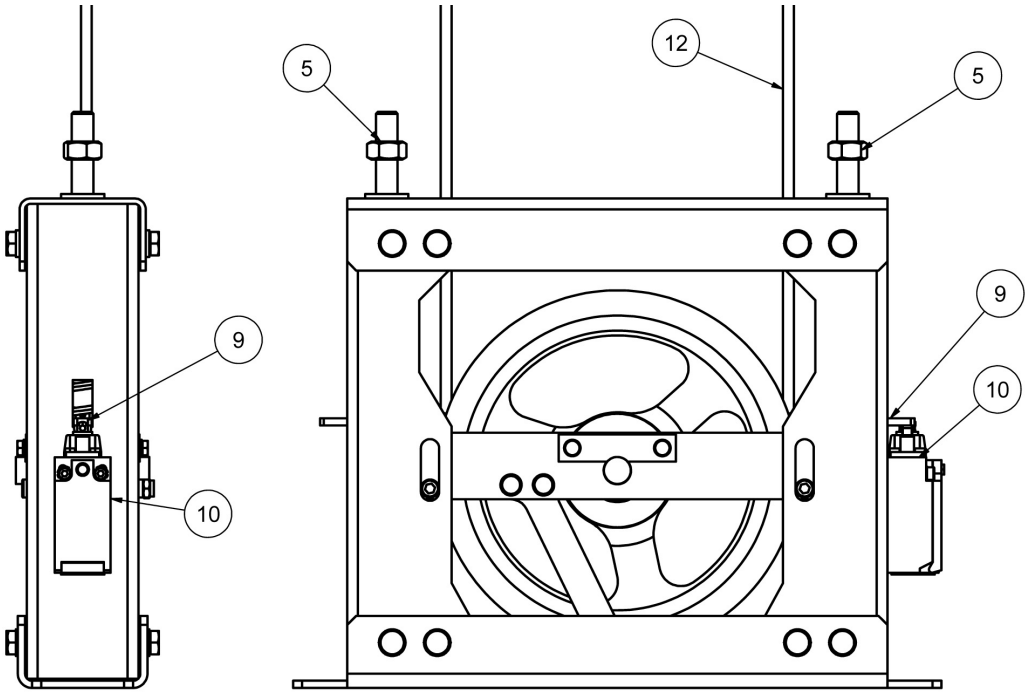


Figure 20: Rope without the correct tension

NB. Two nuts are supplied with the tensioner to act like a locknut, to ensure the tensioner does not unscrew once the rope has been tightened.

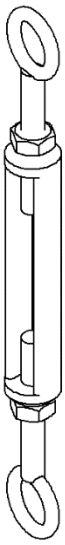


Figure 21: Tensioner with locknut

2.5 DE-TENSING CONTACT

Due to the normal elongation of the rope, untightening may occur.

To detect rope untightening or even breakage, Compact tensing pulley incorporates an electrical contact (10). This contact (10) is to be connected to the installation's safety line.

In case of rope untightening or breakage, the contact (9) will be activated by the de-tensing contact Actuator (9), (see Figure 22), thus ensuring the drive machine stop.

Note: Compact tensing pulley allows assembling the contact (9) both in the right and left vertical brackets.

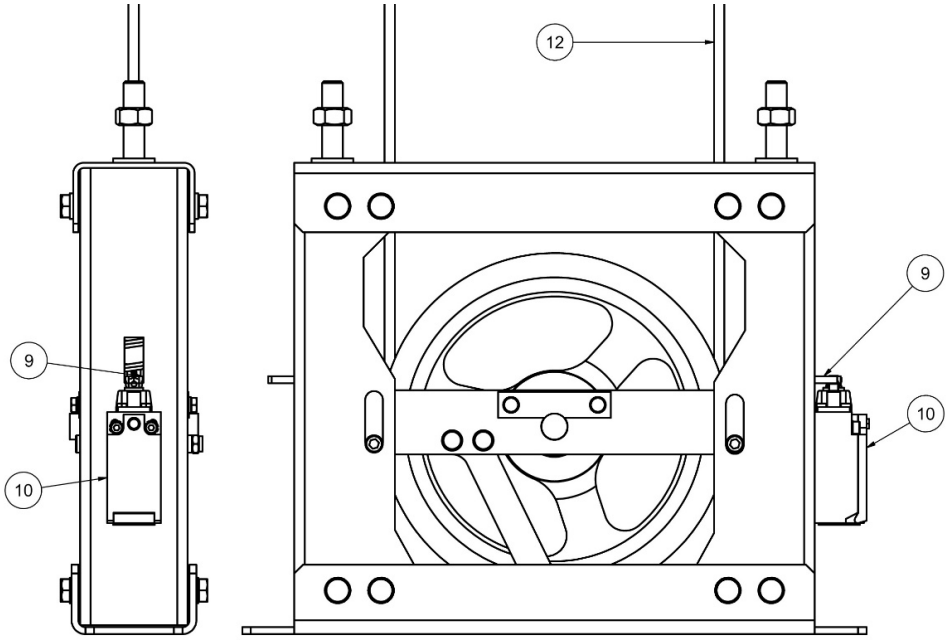


Figure 222: Rope untightening

2.6 ROPE RE-TIGHTENING

In case of rope untightening, the rope is to be re-tightened.

In case of not having the rope tensioner option (15) (DIN 1480 M10), tighten the spring-compressing nuts (5) until the de-tensing contact actuator reaches its maximum position. Please remember to tighten the nuts (5) alternatively.

Once the tension in the governor's rope has been released, remove the cable-clips (14) anchoring the rope to the driving bar's governor attachment (13). Then, repeat the process to apply tension onto the rope's free end .

After that, secure the rope via cable-clips . Finally, unthread the nuts (5) as explained in section 2.4.

3 UNIDIRECTIONAL COMPACT 200

The Compact 200 tensing pulley is available in an only-downwards version, with less tension (minimum tension 280 N and maximum tension 500 N).

Except for being 20 mm higher, the only down tensing pulley is the same size as its bidirectional version: See drawing DYN 66.C001.

4 TIPS

- Position the Compact tensing pulley in the installation in such a way as it forms a 90º angle with the upper cover (7). .
- Apply enough tension to the governor's rope before securing it with the cable-clip to the driving bar's governor attachment (13). .

5 ROPE SAFETY COEFFICIENT

Rope safety coefficient is calculated using the following equation:

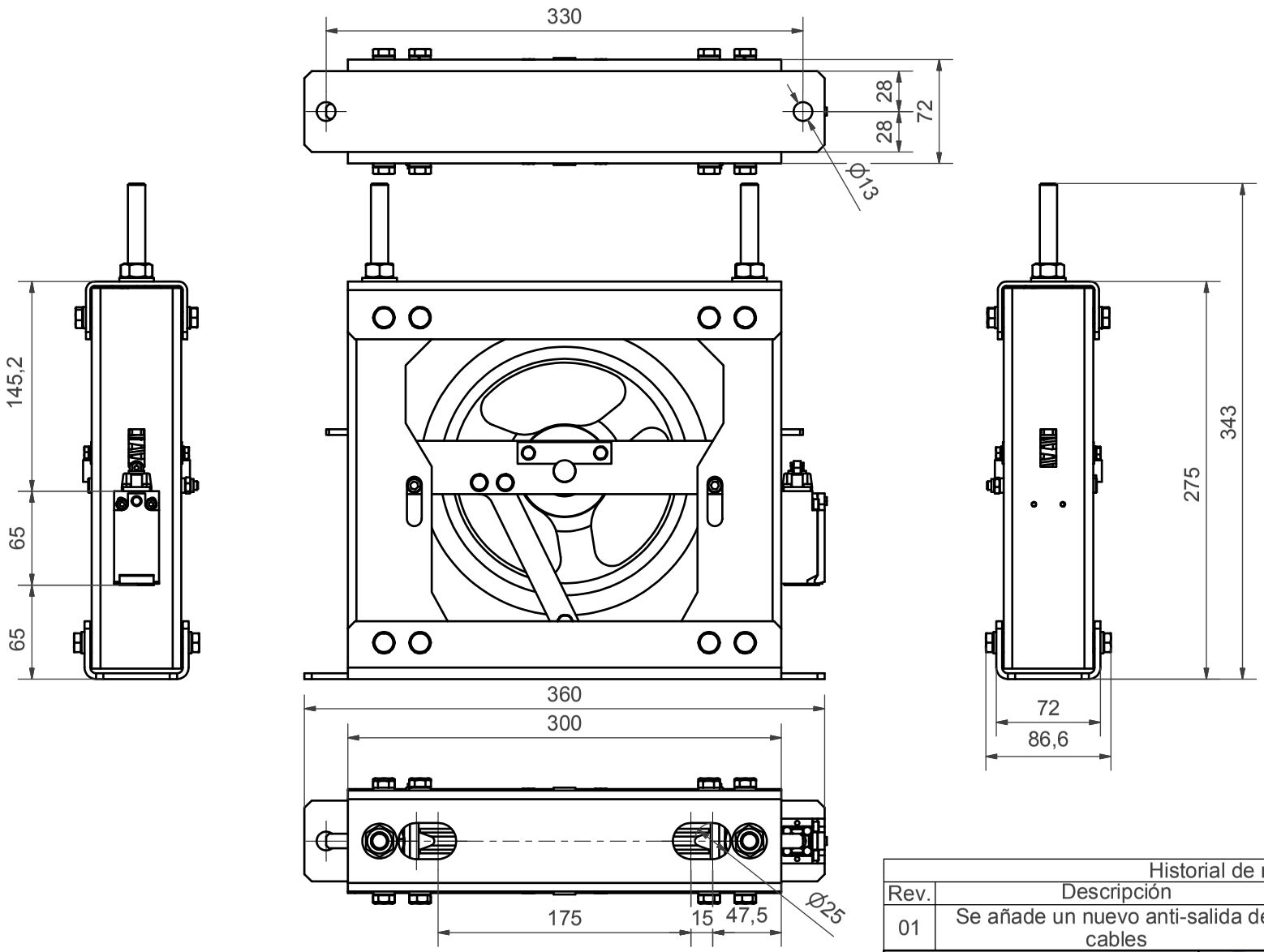
$$FoS = \frac{MBL}{(T_i \cdot 0.92 + \rho \cdot L) \cdot e^{f\alpha}}$$

- MBL= Minimum rope breaking load
- Ti = 625 N (Maximum tension supplied by the Compact 200)

6 ASSEMBLY'S DRAWINGS

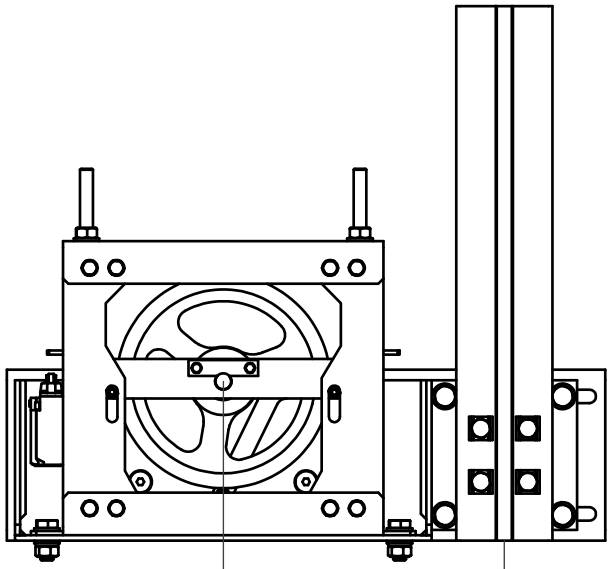
Please find attached the following drawings:

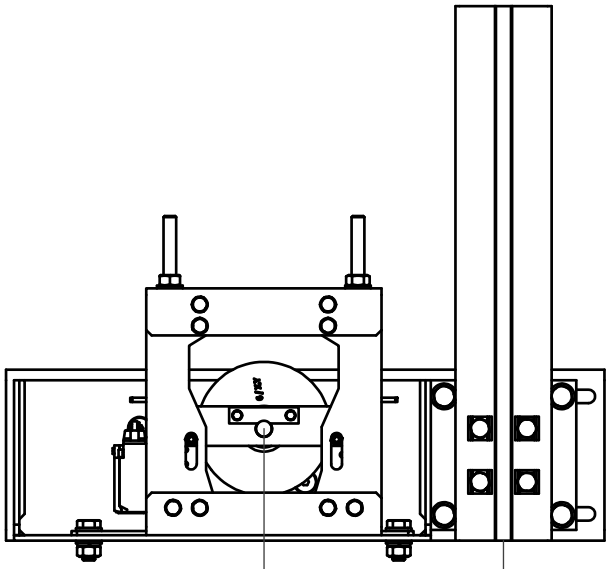
- DYN 66.C001.01
- DYN 66/1.C001.00
- DYN 66/1.C002.00

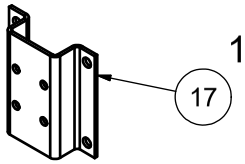


Historial de revisiones				
Rev.	Descripción	Fecha	Dibujado	Aprobado
01	Se añade un nuevo anti-salida de cables	13/06/2016	Pilar H	J. Marco

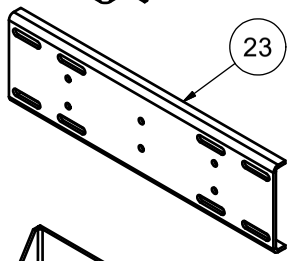
CANTIDAD POR CONJUNTO:	DYNATECH	
Material:		
Peso terminado:	CONJUNTO:	
Tto. tco:		
Tto. sup:	POLEA TENSORA COMPACT 200 COMPACT 200 TENSING PULLEY POULIE DE TENSION COMPACT 200 SPANNROLLE COMPACT 200	
Fecha / Nombre		
Dibujado		
Norma		
OBSERVACIONES: MEDIDAS SIN TOLERANCIA SEGÚN DIN-7168 GM	PLANO COD. Nº: DYN 66.C001.01	Escala:
Fichero:	Sustituye a:	Sustituido por:



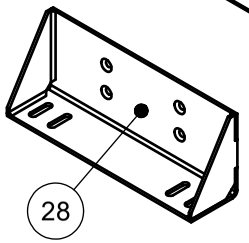




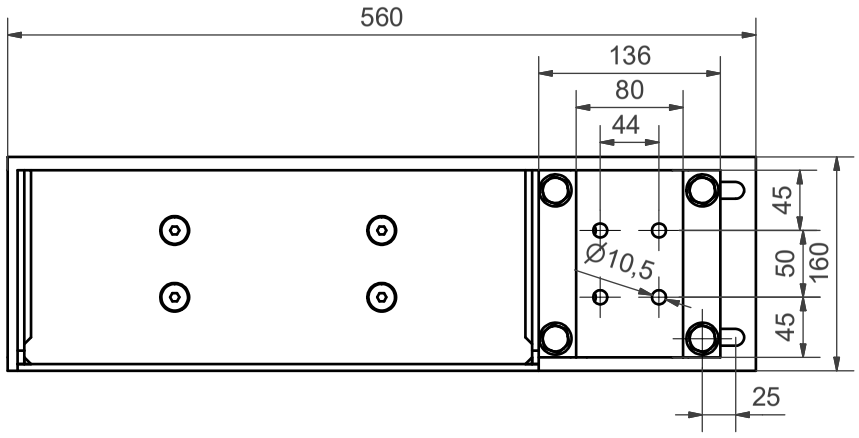
1x Omega unión a guía
Omega profile guide rail attachment
Omega union au guide
Omega-Führungsverbindungsteil

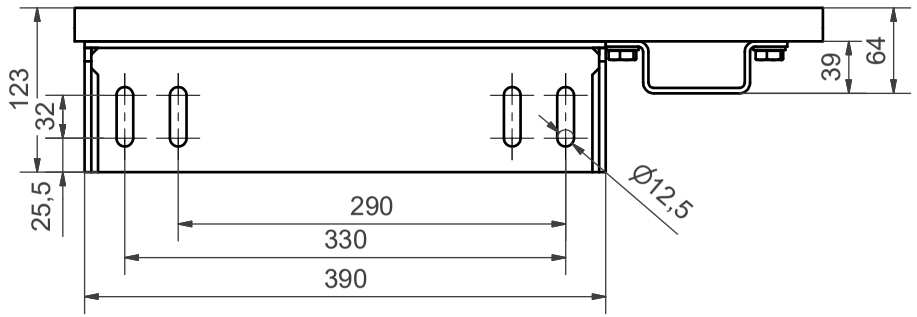


1x Sujeción a guía Compact
Compact guide rail attachment
Fixation au guide Compact
Compact-Führungsbefestigungsteil



1x Conjunto soporte a guía Compact
Compact guide rail Support Unit
Ensemble Support au guide Compact
Compact-Führungshalterung





Parts List		
ITEM	QTY	DESCRIPTION
18	4	DIN 933 - M10 x 30
19	4	DIN 434 - M10
20	8	DIN 125 - M10
21	8	DIN 127 - M10
22	8	DIN 934 - M10
24	8	DIN 933 - M12 x 30
25	16	DIN 125 - M12
26	8	DIN 127 - M12
27	8	DIN 934 - M12
29	4	DIN 7991 - M10x25

Historial de revisiones			
Rev.	Descripción	Fecha	Aprobado
1	Se añaden vistas superiores y nuevas cotas	05/06/2018	J. Suelves

CANTIDAD POR CONJUNTO:
Material:
Peso terminado: 10 Kg
Tto. tco:
Tto. sup:

	Fecha	Nombre
Dibujado	21/03/2014	J. Marco
Norma		

DYNATECH

CONJUNTO: COMPACT

ADAPTADORES A GUÍA COMPACT
COMPACT GUIDE RAIL ADAPTER
ADAPTEURS À GUIDE COMPACT
ADAPTER FÜR DIE COMPACT-FÜHRUNG

OBSERVACIONES:
MEDIDAS SIN TOLERANCIA SEGÚN DIN-7168 GM

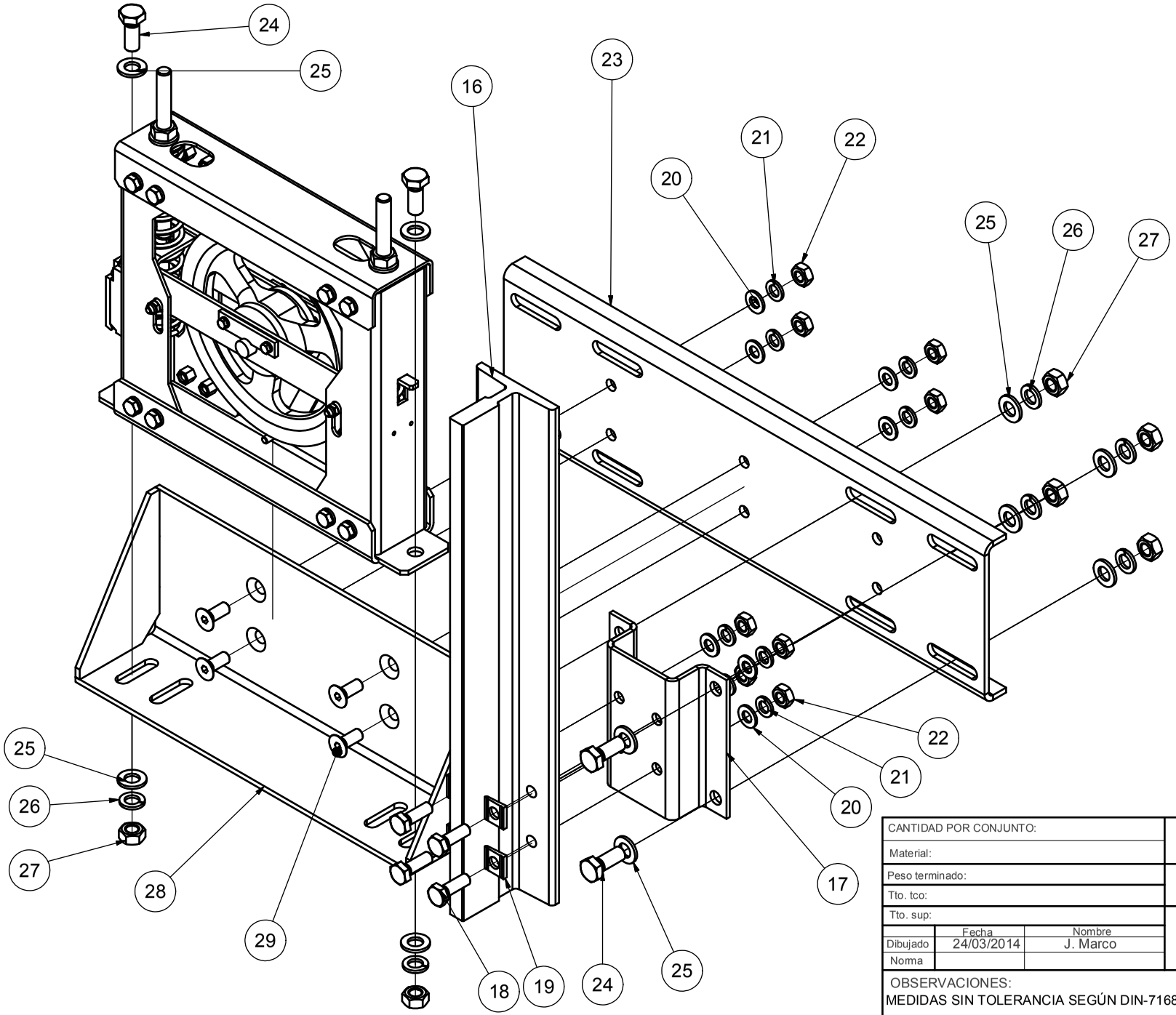
PLANO COD. Nº: DYN 66/1.C001.01

Escala:

Fichero:

Sustituye a:

Sustituido por:



Parts List		
ITEM	QTY	DESCRIPTION
18	4	DIN 933 - M10 x 30
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20	8	DIN 125 - M10
21	8	DIN 127 - M10
22	8	DIN 934 - M10
24	6	DIN 933 - M12 x 30
25	12	DIN 125 - M12
26	6	DIN 127 - M12
27	6	DIN 934 - M12
29	4	DIN 7991 - M10x25

CANTIDAD POR CONJUNTO:

Material:

Peso terminado:

Tto. tco:

Tto. sup:

	Fecha	Nombre
Dibujado	24/03/2014	J. Marco
Norma		

DYNATECH

CONJUNTO: COMPACT

ADAPTADORES A GUÍA COMPACT 200
COMPACT 200 GUIDE RAIL ADAPTER
ADAPTEURS À GUIDE COMPACT 200
ADAPTER FÜR DIE COMPACT 200-FÜHRUNG

OBSERVACIONES:
MEDIDAS SIN TOLERANCIA SEGÚN DIN-7168 GM

PLANO COD. Nº: DYN 66/1.C002.00

Escala:

Fichero:

Sustituye a:

Sustituido por: