

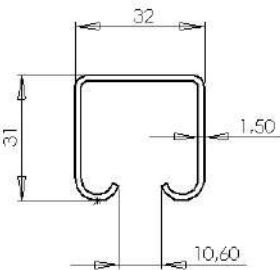



Industrias GALARZA, S.A.®

Leaders in electrical conductivity since 1958

CATALOGUE 2020



| TRACK PROFILE | MAX. LOAD PER TROLLEY | DESCRIPTION | SERIES |
|--|-----------------------|---|--|
|  | 20 KG | FESTOON SYSTEM RUNNING ON A C-PROFILE 32 X 31MM Max cable package: 58 (L) x 20 (H) mm | 2300/R  |



GENERAL SALES CONDITIONS, SUPPLY AND WARRANTY

Generalities

The supply of the products contained in this catalogue is subject to the conformity of the tariff in force at the moment and the terms contained in these General Conditions of Sale and Guarantees.

Orders and prices

All orders received by IGA will be confirmed via fax or email. If in the following 24 hours IGA does not receive any claim, they will be considered definitive. IGA reserves the right to accept or reject any order.

Codes

The codes indicated in this catalogue are the standard products of IGA.

Delivery time

If for reasons beyond our control we can not fulfill this service commitment, IGA will inform the customer of the new term within a maximum of 48 hours after the reception of the order.

The rest of references will be served in the shortest period of time possible and may make partial deliveries.

Orders received that have a delivery time less than 72 hours, will follow the procedure described above.

The breach of the previous commitment or a fractioned issue will not be grounds for compensation.

Transport

Our products are considered expired in our warehouse and the date of issue is shown on the delivery note.

The goods travels at the addressee expense and risk, even if they are sent prepaid.

In the case of lack of packages or visible damages due to transportation, the addressee must write it down on the delivery note, claim the carrier and inform the commercial department of IGA within 48 hours. Otherwise, it will be considered the conformity of the goods in quantity and condition. Claims for delays in transportation will not be accepted.

After 8 days from receipt of the goods, no claims will be accepted about the contents of the boxes.

Refunds

The products invoiced by IGA are considered a firm sale and has no right to refund.

In case of an error in the execution of the order, the following shall be taken into account:

- The change must be authorized by the commercial direction of IGA. The warehouse of IGA will not accept any product without authorization.
- The accepted material will have a 20% reduction of its value for verification expenses.
- The goods returned to IGA travel at the client's risk.

Installations

IGA is exempted from any responsibility in the installations that do not comply with the advice or with the specifications and features of each range of product.

Warranty

IGA range of products has a 2 year warranty. The acknowledgment of the responsibility in warranty corresponds only to IGA and / or to its insurance company. Any other defect caused by aging, corrosion, improper installation or improper application, will not be subject to possible claims.

Jurisdiction

IGA will try to resolve any divergence with his clients through friendly channels. Having said that, in case of litigation, the parties agree and are obliged to submit to the arbitration appointed by the Court of the Arbitration Association of Bilbao, which will be responsible for the administration of the aforementioned arbitration in accordance with its Statute and Regulations. Likewise, they are obliged from now on to comply with the arbitral report that is issued.

IGA reserves the modification of the articles without previous notice.

NOTES OF INTEREST

KIT FESTOON :

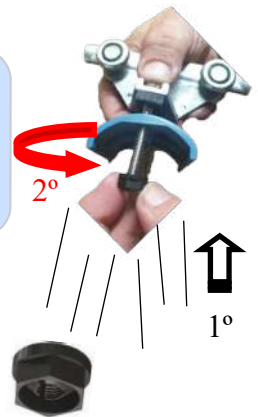
IGA offers the possibility of supplying the entire FESTOON system assembled under the customer's specifications.



KIT FESTOON

QUICK ASSEMBLY NUTS:

New QUICK polyamide nuts 6.6, that accelerate the operation of assembly of electric cables in cars; Since these nuts are inserted in the screws until almost the final tightening zone.



SQUARE NECK SCREWS:

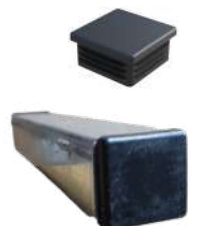
The trolleys with body of sheet steel (series 2324), have been modified for the use of fixing screws with spherical head and square neck (according to DIN 603). The square neck prevents the screw from turning during the tightening process of the hexagonal nut of the carriage, so fewer tools are necessary and the assembly time is reduced.



FINAL PLUGS FOR THE PROFILE:

The option of plastic material caps to close both ends of the rolling profile has been added to our catalogue.

NOTE: The CM brackets have these series plugs incorporated.



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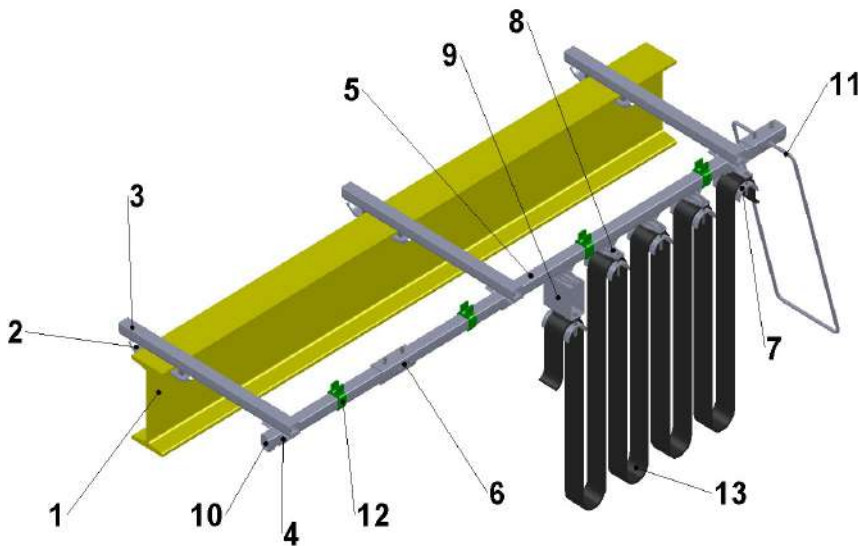
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FESTOON SYSTEM SERIES 2300R

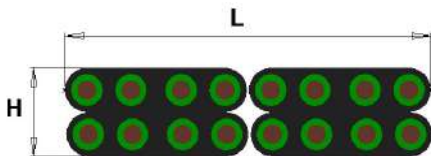
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1. Beam
2. Beam clip
3. Cross arm support
4. Track hanger
5. Track profile
6. Track joint
7. End clamp
8. Cable trolley
9. Towing trolley
10. End bumper stop
11. Protection
12. Cable clamp
13. Cable

Maximum cable package: 58 (L) X 20 (H) mm.



In aggressive indoor / outdoor conditions the metal components (bodies and cable holders) are supplied with EPOXY paint or made in stainless steel AISI 304.

TEMPERATURE RANGE: -15°C / +80°C.

MAX. LOAD CAPACITY PER TROLLEY = 20

NUMBER OF TROLLEYS REQUIRED:

$$N = (L / 2xH) - 1$$

Where: N: number of cable trolleys
L: travelling length
H: maximum loop height

REQUIRED AMBUSH LENGTH

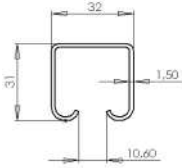
$$b = (N + 1) x m$$

Where: b: maximum ambush length
N: number of cable trolleys
m: trolley length



FESTOON SYSTEM SERIES 2300R

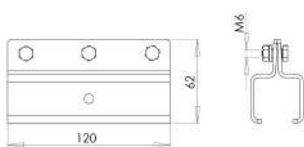
PROFILE



- Section: 1,560 cm²
 - Ix: 1,990 cm⁴
 - Wx: 1,156 cm³

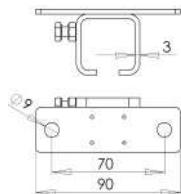
| REFERENCE | CODE | MATERIAL | LENGTH | WEIGHT |
|---------------|--------|--------------------------|---------|-----------|
| 2300/R-1 | 303001 | Galvanised Steel | 5 mts | 1,22 Kg/m |
| 2300/R-1 | 303516 | Galvanised Steel | 2,5 mts | 1,22 Kg/m |
| 2300/R-1-Inox | 303259 | Stainless Steel AISI 316 | 5 mts | 1,22 Kg/m |

TRACK JOINT



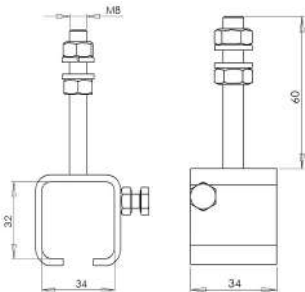
| REFERENCE | CODE | MATERIAL | | WEIGHT |
|-----------------|--------|-------------------|-------------------|----------|
| | | Laterals | Screws | |
| 2300/R-3-J | 303260 | Zinc Plated Steel | Zinc Plated Steel | 0,375 Kg |
| 2300/R-3-J-PLY | 303014 | Painted steel | Stainless Steel | 0,385 Kg |
| 2300/R-3-J-Inox | 303436 | Stainless Steel | Stainless Steel | 0,375 Kg |

HORIZONTAL TRACK HANGER BRACKET



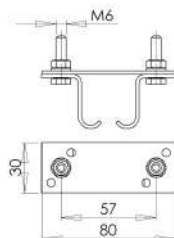
| REFERENCE | CODE | MATERIAL | | WEIGHT |
|------------------|--------|-------------------|-------------------|----------|
| | | Body | Screws | |
| 2300/R-4-H1 | 303005 | Zinc Plated Steel | Zinc Plated Steel | 0,154 Kg |
| 2300/R-4-H1-Inox | 303605 | Stainless Steel | Stainless Steel | 0,154 Kg |

CEILING TRACK HANGER BRACKET



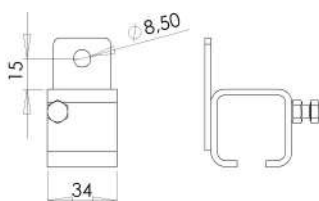
| REFERENCE | CODE | MATERIAL | | WEIGHT |
|--------------------|--------|-------------------|-------------------|----------|
| | | Body | Screws | |
| 2300/R-4-H1-R | 303378 | Zinc plated Steel | Zinc plated Steel | 0,115 Kg |
| 2300/R-4-H1-R Inox | 303611 | Stainless Steel | Stainless Steel | 0,115 Kg |

HORIZONTAL TRACK HANGER BRACKET



| REFERENCE | CODE | MATERIAL | | WEIGHT |
|------------------|--------|-------------------|-------------------|----------|
| | | Base + Laterals | Screws | |
| 2300/R-4-H2 | 303004 | Zinc Plated Steel | Zinc Plated Steel | 0,106 Kg |
| 2300/R-4-H2-PLY | 303015 | Painted Steel | Stainless Steel | 0,116 Kg |
| 2300/R-4-H2-Inox | 303437 | Stainless Steel | Stainless Steel | 0,106 Kg |

LATERAL TRACK HANGER BRACKET



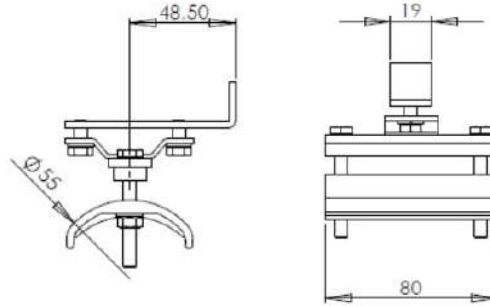
| REFERENCE | CODE | MATERIAL | | WEIGHT |
|-----------------|--------|-------------------|-------------------|----------|
| | | Body | Screws | |
| 2300/R-4-L | 303308 | Zinc Plated Steel | Zinc Plated Steel | 0,155 Kg |
| 2300/R-4-L Inox | 303607 | Stainless Steel | Stainless Steel | 0,155 Kg |



FESTOON SYSTEM SERIES 2300R

END CLAMP

Saddle $\varnothing 55\text{mm}$



SADDLES $\varnothing 85\text{mm}$ IN STEEL ARE AVAILABLE

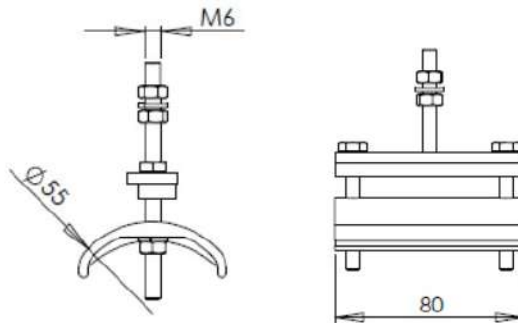
| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|------------------|--------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws | Saddle | |
| 2300/R-2 | 303002 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,170 Kg |
| 2316-2 | 303039 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | 0,315 Kg |
| 2300/R-2-PLY | 303013 | Painted Steel | Stainless Steel | Polypropylene | 0,180 Kg |
| 2316-2-PLY | 303430 | Painted Steel | Stainless Steel | Painted Steel | 0,325 Kg |
| 2300/R-2-Inox | 303582 | Stainless Steel | Stainless Steel | Polypropylene | 0,170 Kg |
| 2316-2-Inox | 303583 | Stainless Steel | Stainless Steel | Stainless Steel | 0,315 Kg |
| 2300/R-2-TR | 303614 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,170 Kg |
| 2300/R-2-PLY-TR | 303615 | Painted Steel | Stainless Steel | Polypropylene | 0,180 Kg |
| 2300/R-2-Inox-TR | 303616 | Stainless Steel | Stainless Steel | Polypropylene | 0,170 Kg |

Trolley assembled with QUICK nut



END CLAMP

Saddle $\varnothing 55\text{mm}$



SADDLES $\varnothing 85\text{mm}$ IN STEEL ARE AVAILABLE

| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|-------------------|--------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws | Saddle | |
| 2300/R-2S | 303034 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,115 Kg |
| 2316-2S | 303040 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | 0,315 Kg |
| 2300/R-2S-PLY | 303035 | Painted Steel | Stainless Steel | Polypropylene | 0,125 Kg |
| 2316-2S-PLY | 303051 | Painted Steel | Stainless Steel | Painted Steel | 0,325 Kg |
| 2300/R-2S-Inox | 303584 | Stainless Steel | Stainless Steel | Polypropylene | 0,115 Kg |
| 2316-2S-Inox | 303585 | Stainless Steel | Stainless Steel | Stainless Steel | 0,315 Kg |
| 2300/R-2S-TR | 303617 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,115 Kg |
| 2300/R-2S-PLY-TR | 303618 | Painted Steel | Stainless Steel | Polypropylene | 0,125 Kg |
| 2300/R-2S-Inox-TR | 303619 | Stainless Steel | Stainless Steel | Polypropylene | 0,115 Kg |

Trolley assembled with QUICK nut

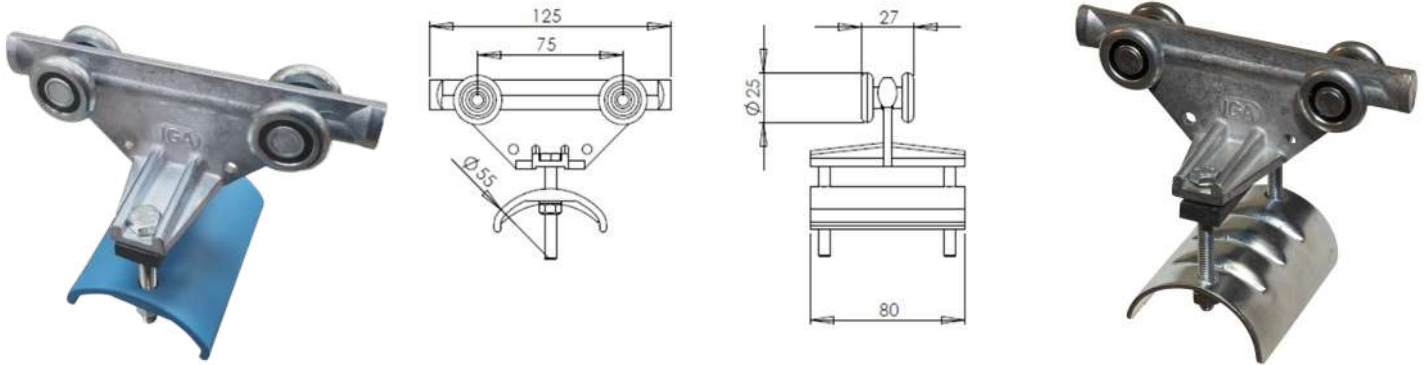




FESTOON SYSTEM SERIES 2300R

CABLE TROLLEY

Saddle ø55mm



SADDLES Ø85mm IN STEEL ARE AVAILABLE

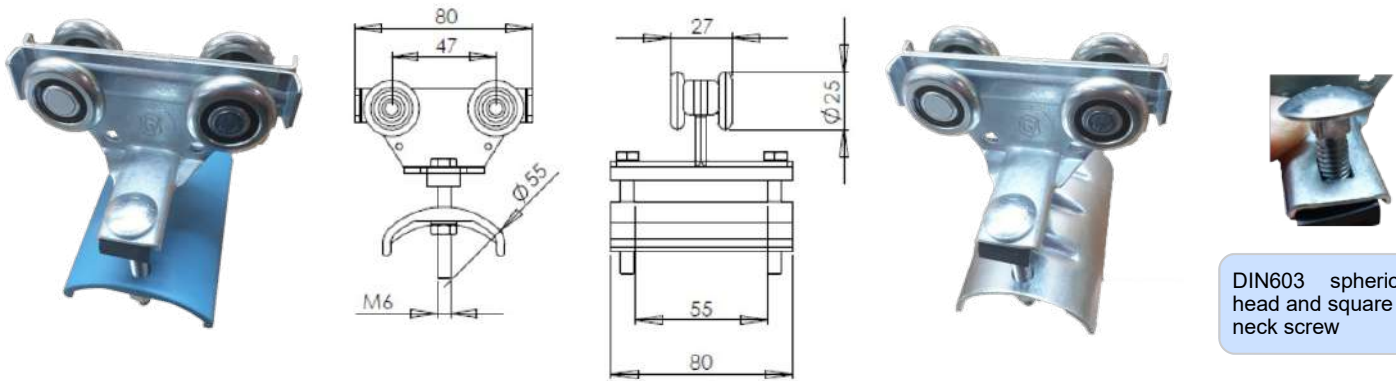
| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|-----------------|--------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws + Wheels | Saddle | |
| 2300/R-5 | 303006 | Aluminium | Zinc Plated Steel | Polypropylene | 0,230 Kg |
| 2316-5 | 303044 | Aluminium | Zinc Plated Steel | Zinc Plated Steel | 0,265 Kg |
| 2300/R-5 PLY | 303017 | Painted Aluminium | Stainless Steel | Polypropylene | 0,240 Kg |
| 2316-5-PLY | 303056 | Painted Aluminium | Stainless Steel | Painted Steel | 0,275 Kg |
| 2300/R-5-TR | 303620 | Aluminium | Zinc Plated Steel | Polypropylene | 0,230 Kg |
| 2300/R-5 PLY-TR | 303621 | Painted Aluminium | Stainless Steel | Polypropylene | 0,240 Kg |

Trolley assembled with QUICK nut



CABLE TROLLEY

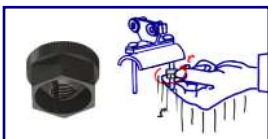
Saddle ø55mm



DIN603 spherical head and square neck screw

| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|----------------|--------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws + Wheels | Saddle | |
| 2324-5 | 303069 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,207 Kg |
| 2324-C-5 | 303075 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | 0,283 Kg |
| 2324-5 PLY | 303085 | Painted Steel | Stainless Steel | Polypropylene | 0,217 Kg |
| 2324-C-5-PLY | 303092 | Painted Steel | Stainless Steel | Painted Steel | 0,293 Kg |
| 2324-5-Inox | 303518 | Stainless Steel | Stainless Steel | Polypropylene | 0,207 Kg |
| 2324-CH-5-Inox | 303413 | Stainless Steel | Stainless Steel | Stainless Steel | 0,283 Kg |
| 2324-5-TR | 303622 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,207 Kg |
| 2324-5 PLY-TR | 303623 | Painted Steel | Stainless Steel | Polypropylene | 0,217 Kg |
| 2324-5-Inox-TR | 303624 | Stainless Steel | Stainless Steel | Polypropylene | 0,207 Kg |

Trolley assembled with QUICK nut





FESTOON SYSTEM SERIES 2300R

CABLE TROLLEY

Saddle $\varnothing 55\text{mm}$



2340-5



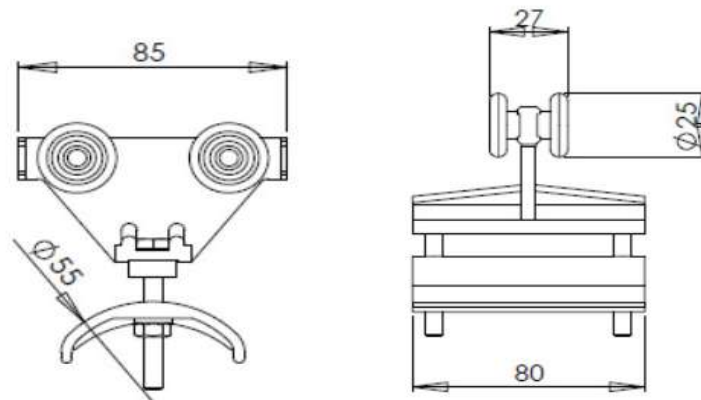
2340-C-5



2340-L-5



2340-LC-5



| REFERENCE | CODE | MATERIAL | | | | MAX. LOAD | WEIGHT |
|------------------|--------|---------------|----------------------------|-------------------|-------------------|-----------|----------|
| | | Body | Wheels | Saddle | Screws | | |
| 2340-5 | 303103 | Polypropylene | Polypropylene | Polypropylene | Zinc plated steel | 12 Kg | 0,100 Kg |
| 2340-C-5 | 303107 | Polypropylene | Polypropylene | Zinc Plated Steel | Zinc plated steel | 12 Kg | 0,160 Kg |
| 2340-L-5 | 303110 | Polypropylene | Zinc Plated Steel | Polypropylene | Zinc plated steel | 15 Kg | 0,139 Kg |
| 2340-LC-5 | 303111 | Polypropylene | Zinc Plated Steel | Zinc Plated Steel | Zinc plated steel | 15 Kg | 0,216 Kg |
| 2340-5-Inox | 303319 | Polypropylene | Polypropylene | Polypropylene | Stainless steel | 12 Kg | 0,100 Kg |
| 2340-C-5 Inox | 303586 | Polypropylene | Polypropylene | Stainless Steel | Stainless steel | 12 Kg | 0,160 Kg |
| 2340-L-5-Inox | 303511 | Polypropylene | Stainless Steel | Polypropylene | Stainless steel | 15 Kg | 0,139 Kg |
| 2340-LC-5 Inox | 303587 | Polypropylene | Stainless Steel | Stainless Steel | Stainless steel | 15 Kg | 0,216 Kg |
| 2340-5-TR | 303625 | Polypropylene | Polypropylene | Polypropylene | Zinc plated steel | 12 Kg | 0,100 Kg |
| 2340-L-5-TR | 303626 | Polypropylene | Tread Zinc plated steel | Polypropylene | Zinc plated steel | 15 Kg | 0,139 Kg |
| 2340-5-Inox-TR | 303627 | Polypropylene | Polypropylene | Polypropylene | Stainless steel | 12 Kg | 0,100 Kg |
| 2340-L-5-Inox-TR | 303628 | Polypropylene | Tread Zinc plated steel | Polypropylene | Stainless steel | 15 Kg | 0,139 Kg |

Trolley assembled with QUICK nut

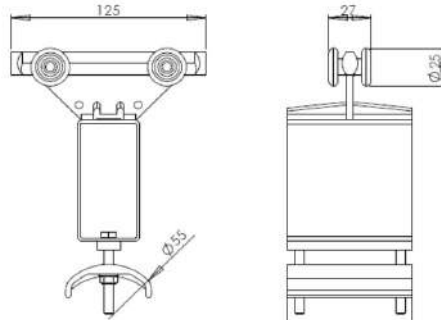




FESTOON SYSTEM SERIES 2300R

TOWING TROLLEY

Saddle $\varnothing 55\text{mm}$



SADDLES $\varnothing 85\text{mm}$ IN STEEL ARE AVAILABLE

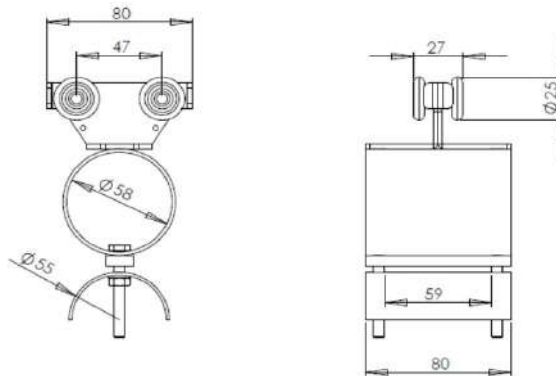
| REFERENCE | CODE | MATERIAL | | | | WEIGHT |
|-----------------|--------|-------------------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws + Wheels | Towing Attachment | Saddle | |
| 2300/R-6 | 303007 | Aluminium | Zinc Plated Steel | Polypropylene | Polypropylene | 0,265 Kg |
| 2316-6 | 303045 | Aluminium | Zinc Plated Steel | Polypropylene | Zinc Plated Steel | 0,341 Kg |
| 2300/R-6-PLY | 303018 | Painted Aluminium | Stainless Steel | Painted Steel | Polypropylene | 0,275 Kg |
| 2316-6 PLY | 303057 | Painted Aluminium | Stainless Steel | Painted Steel | Painted Steel | 0,351 Kg |
| 2300/R-6-TR | 303629 | Aluminium | Zinc Plated Steel | Polypropylene | Polypropylene | 0,265 Kg |
| 2300/R-6-PLY-TR | 303630 | Painted Aluminium | Stainless Steel | Painted Steel | Polypropylene | 0,275 Kg |

Trolley assembled with QUICK nut



TOWING TROLLEY

Saddle $\varnothing 55\text{mm}$



| REFERENCE | CODE | MATERIAL | | | | WEIGHT |
|----------------|--------|-------------------|-------------------|-------------------|-------------------|----------|
| | | Body | Screws + Wheels | Towing Attachment | Saddle | |
| 2324-6 | 303070 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,376 Kg |
| 2324-C-6 | 303076 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | 0,445 Kg |
| 2324-6-PLY | 303086 | Painted Steel | Stainless Steel | Painted Steel | Polypropylene | 0,386 Kg |
| 2324-CH-6-PLY | 303093 | Painted Steel | Stainless Steel | Painted Steel | Painted Steel | 0,455 Kg |
| 2324-6 Inox | 303503 | Stainless Steel | Stainless Steel | Stainless Steel | Polypropylene | 0,376 Kg |
| 2324-C-6-Inox | 303414 | Stainless Steel | Stainless Steel | Stainless Steel | Stainless Steel | 0,376 Kg |
| 2324-6-TR | 303631 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | 0,376 Kg |
| 2324-6-PLY-TR | 303632 | Painted Steel | Stainless Steel | Painted steel | Polypropylene | 0,386 Kg |
| 2324-6 Inox-TR | 303633 | Stainless Steel | Stainless Steel | Stainless Steel | Polypropylene | 0,376 Kg |

Trolley assembled with QUICK nut

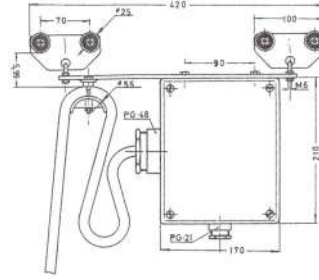




FESTOON SYSTEM SERIES 2300R

PENDANT CONTROL UNIT TROLLEY

Saddle ø55mm



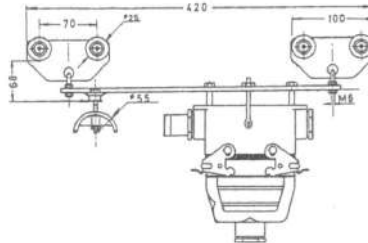
| REFERENCE | CODE | MATERIAL | | | | | WEIGHT |
|------------------|--------|-------------------|-------------------|-------------------|-------------------------|-------------|----------|
| | | Body | Screws + Wheels | Saddle | Junction box | Cable gland | |
| 2300/R-7 | 303008 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Polyester + Glass Fiber | Polyamide | 2,400 Kg |
| 2316-7 | 303046 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Polyester + Glass Fiber | Polyamide | 2,491 Kg |
| 2300/R-7-Inox | 303588 | Stainless Steel | Stainless Steel | Polypropylene | Polyester + Glass Fiber | Polyamide | 2,400 Kg |
| 2316-7-Inox | 303589 | Stainless Steel | Stainless Steel | Stainless Steel | Polyester + Glass Fiber | Polyamide | 2,491 Kg |
| 2300/R-7-TR | 303634 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Polyester + Glass Fiber | Polyamide | 2,400 Kg |
| 2300/R-7-Inox-TR | 303635 | Stainless Steel | Stainless Steel | Polypropylene | Polyester + Glass Fiber | Polyamide | 2,400 Kg |

Trolley assembled with QUICK nut



QUICK DISCONNECT PENDANT CONTROL UNIT TROLLEY

Saddle ø55mm



16 Poles Multipole Connector
(1 Cable Entry PG-21)

24 Poles Multipole Connector
(2 Cables Entry PG-21)

| REFERENCE | CODE | MATERIAL | | | | WEIGHT | |
|-----------------|--------|-------------------|-------------------|-------------------|---------------------|--------------|-------------|
| | | Body | Screws + Wheels | Saddle | Multipole Connector | | Cable Gland |
| 2300/R-7-C16 | 303334 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Formed Aluminium | Polyethylene | 2,373 Kg |
| 2316-7-C16 | 303533 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Formed Aluminium | Polyethylene | 2,468 Kg |
| 2300/R-7-C24 | 303350 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Formed Aluminium | Polyethylene | 2,779 Kg |
| 2316-7-C24 | 303590 | Zinc Plated Steel | Zinc Plated Steel | Zinc Plated Steel | Formed Aluminium | Polyethylene | 2,563 Kg |
| 2316-7-C16-Inox | 303591 | Stainless Steel | Stainless Steel | Stainless Steel | Formed Aluminium | Polyethylene | 2,468 Kg |
| 2316-7-C24-Inox | 303592 | Stainless Steel | Stainless Steel | Stainless Steel | Formed Aluminium | Polyethylene | 2,563 Kg |
| 2300/R-7-C16-TR | 303636 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Formed Aluminium | Polyethylene | 2,373 Kg |
| 2300/R-7-C24-TR | 303637 | Zinc Plated Steel | Zinc Plated Steel | Polypropylene | Formed Aluminium | Polyethylene | 2,779 Kg |

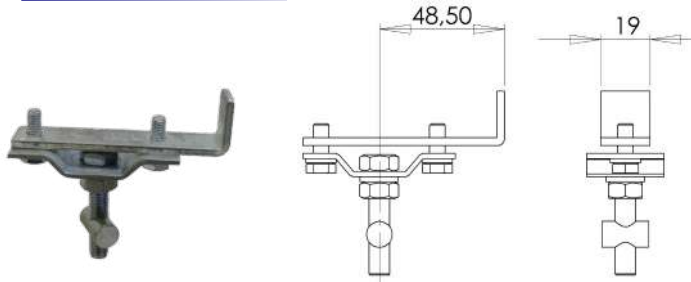
Trolley assembled with QUICK nut





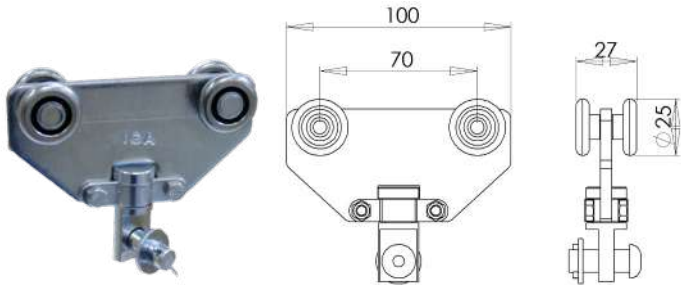
SERIES 2300R SUPPORT SADDLE FOR ROUND CABLES AND HOSES

END CLAMP



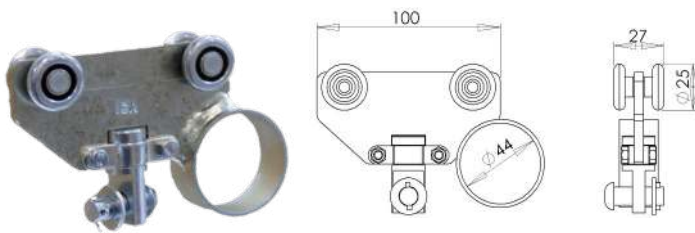
| REFERENCE | CODE | MATERIAL | MAX. LOAD | WEIGHT |
|-------------|--------|-------------------|-----------|----------|
| 2335-2 | 303270 | Zinc Plated Steel | 20 Kg | 0,136 Kg |
| 2335-2-Inox | 303593 | Stainless Steel | 20 Kg | 0,136 Kg |

CABLE TROLLEY



| REFERENCE | CODE | MATERIAL | MAX. LOAD | WEIGHT |
|-------------|--------|-------------------|-----------|----------|
| 2335-5 | 303241 | Zinc Plated Steel | 20 Kg | 0,302 Kg |
| 2335-5-Inox | 303594 | Stainless Steel | 20 Kg | 0,302 Kg |

TOWING TROLLEY



| REFERENCE | CODE | MATERIAL | MAX. LOAD | WEIGHT |
|-------------|--------|-------------------|-----------|----------|
| 2335-6 | 303271 | Zinc Plated Steel | 20 Kg | 0,350 Kg |
| 2335-6-Inox | 303595 | Stainless Steel | 20 Kg | 0,350 Kg |

CLIP "+A" for cables from \varnothing 8mm to \varnothing 15mm



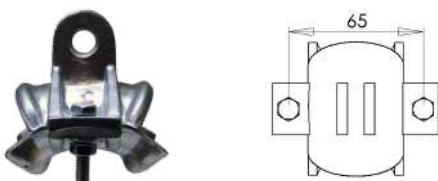
| REFERENCE | CODE | MATERIAL | SCREWS | WEIGHT |
|-----------|--------|-----------|-------------------|----------|
| +A | 303251 | Aluminium | Zinc Plated Steel | 0,104 Kg |
| +A-Inox | 303596 | Aluminium | Stainless Steel | 0,104 Kg |

CLIP "+B" for cables from \varnothing 16mm to \varnothing 24mm



| REFERENCE | CODE | MATERIAL | SCREWS | WEIGHT |
|-----------|--------|-----------|-------------------|----------|
| +B | 303252 | Aluminium | Zinc Plated Steel | 0,114 Kg |
| +B-Inox | 303597 | Aluminium | Stainless Steel | 0,114 Kg |

CLIP "+C" for cables from \varnothing 25mm to \varnothing 35mm



| REFERENCE | CODE | MATERIAL | SCREWS | WEIGHT |
|-----------|--------|-----------------|-------------------|----------|
| +C | 303253 | Stainless Steel | Zinc Plated Steel | 0,150 Kg |
| +C-Inox | 303598 | Stainless Steel | Stainless Steel | 0,150 Kg |

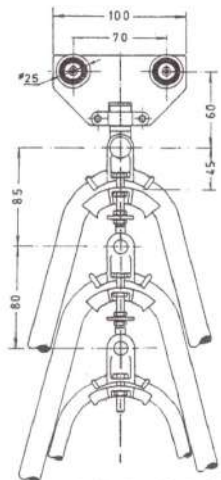
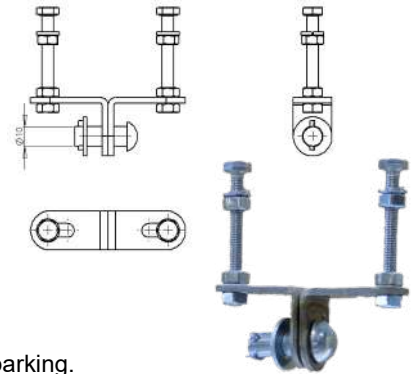


SERIES 2300R SUPPORT SADDLE FOR ROUND CABLES AND HOSES

"T" UNION



| REFERENCE | CODE | MATERIAL | SCREWS + RIVETS | WEIGHT |
|-----------|--------|-----------------|-------------------|----------|
| T | 303496 | Stainless Steel | Zinc Plated Steel | 0,107 Kg |
| T-Inox | 303599 | Stainless Steel | Stainless Steel | 0,107 Kg |



Intermedio - Ref. 2.335 + C + B + A-5

The clips makes a 90 degree turn in order to make easier the parking. When ordering, add to the reference, the necessary clips, followed by the indicative number: end clamp (-2), cable trolley (-5) or towing trolley (-6).

- Example:
- End clamp 2335+C+B-2.
 - Cable trolley 2335+B+B+A-5.
 - Towing trolley 2335+A-6.

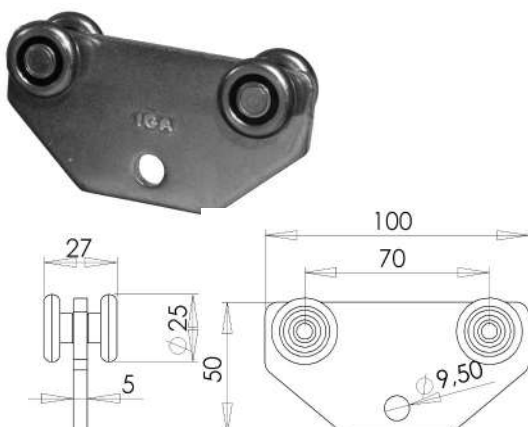
SERIES 2300R CARRYING TROLLEYS

SINGLE AXLE CARRYING TROLLEY



| REFERENCE | CODE | MATERIAL | | MAX LOAD | WEIGHT |
|-----------|--------|-------------------|-------------------|----------|----------|
| | | Body | Bearings + Shaft | | |
| 2330 | 303012 | Zinc Plated Steel | Zinc Plated Steel | 10 Kg | 0,068 Kg |
| 2330-PLY | 303023 | Painted Steel | Stainless Steel | 10 Kg | 0,078 Kg |
| 2330-Inox | 303514 | Stainless Steel | Stainless Steel | 10 Kg | 0,068 Kg |

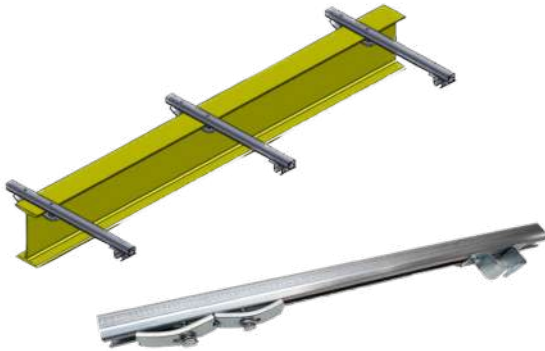
DOUBLE AXLE CARRYING TROLLEY



| REFERENCE | CODE | MATERIAL | | MAX LOAD | WEIGHT |
|-------------|--------|-------------------|-------------------|----------|----------|
| | | Body | Bearings + Shaft | | |
| 2330-D | 303011 | Zinc Plated Steel | Zinc Plated Steel | 20 Kg | 0,220 Kg |
| 2330-D-PLY | 303022 | Painted Steel | Stainless Steel | 20 Kg | 0,230 Kg |
| 2330-D-Inox | 303517 | Stainless Steel | Stainless Steel | 20 Kg | 0,220 Kg |



STANDARD BRACKET FOR SERIES 2300R



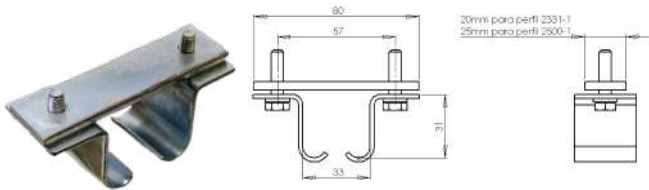
| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|-----------|------|-------------------|-------------------|------------------|--------|
| | | Track Support | Beam Claws | Support Arm | |
| CM-1 | --- | Zinc Plated Steel | Zinc Plated Steel | Galvanised steel | --- |
| CM-1-inox | --- | Stainless Steel | Stainless Steel | Stainless Steel | --- |
| CM-4 | --- | Zinc Plated Steel | Zinc Plated Steel | Galvanised Steel | --- |
| CM-4-inox | --- | Stainless Steel | Stainless Steel | Stainless Steel | --- |

Cross support arm options:
 - Profile 2331-1 (30x28mm) : CM-1.
 - Profile 2500-1 (40x35mm) : CM-4.

Once we have chosen the cross support arm, point out the total length (L) of it. Example:
 - CM-1-500.
 - CM-4-500.

Brackets formed by:
 - 1 cross support arm 2331-1 (L) or 2500-1 (L).
 - 2 beam claws.
 - 1 track holder.

TRACK HOLDER



| FOR ARM | REFERENCE | CODE | MATERIAL | WEIGHT |
|-------------------------|---------------------|--------|-------------------|----------|
| For 2331-1 profile | 2340-13-31-R1 | 309001 | Zinc Plated Steel | 0,110 Kg |
| For 2500-1 profile | 2340-13-500-R1 | 309004 | Zinc Plated Steel | 0,143 Kg |
| For 2331-1 Inox profile | 2340-13-31-R1-Inox | 309329 | Zinc Plated Steel | 0,110 Kg |
| For 2500-1 Inox profile | 2340-13-500-R1-Inox | 309347 | Stainless Steel | 0,143 Kg |

ADJUSTABLE TRACK HANGER BRACKET WITH LOCK



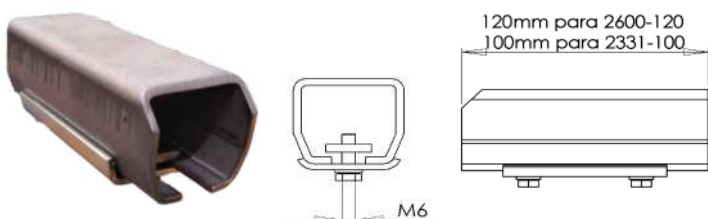
| FOR ARM | REFERENCE | CODE | MATERIAL | WEIGHT |
|-------------------------|----------------------|--------|-------------------|----------|
| For 2331-1 profile | 2300/R-4-H1-31 | 303638 | Zinc Plated Steel | 0,220 Kg |
| For 2500-1 profile | 2300/R-4-H1-500 | 303639 | Zinc Plated Steel | 0,260 Kg |
| For 2331-1 Inox profile | 2300/R-4-H1-31--Inox | 303640 | Stainless Steel | 0,220 Kg |
| For 2500-1 Inox profile | 2300/R-4-H1-500-Inox | 303641 | Stainless Steel | 0,260 Kg |

BEAM CLAWS



| FOR ARM | REFERENCE | CODE | MATERIAL | | WEIGHT |
|-------------------------|------------------|--------|-------------------|-------------------|----------|
| | | | Body | Screws | |
| For 2331-1 profile | 2340-12 | 309005 | Zinc Plated Steel | Zinc Plated Steel | 0,140 Kg |
| For 2500-1 profile | 2340-12-500 | 309006 | Zinc Plated Steel | Zinc Plated Steel | 0,156 Kg |
| For 2331-1 Inox profile | 2340-12-Inox | 309321 | Stainless Steel | Stainless Steel | 0,140 Kg |
| For 2500-1 Inox profile | 2340-12-500-Inox | 309316 | Stainless Steel | Stainless Steel | 0,156 Kg |

WELD-ON BRACKET FOR SUPPORT ARM

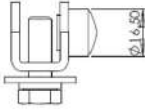
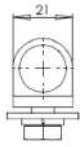


| FOR ARM | REFERENCE | CODE | MATERIAL | WEIGHT |
|---------|-----------|--------|----------|----------|
| 2331-1 | 2331-100 | 302561 | Steel | 0,370 Kg |
| 2500-1 | 2600-120 | 310011 | Steel | 0,584 Kg |



ACCESSORIES

END BUMPER STOP



| REFERENCE | CODE | MATERIAL | | | WEIGHT |
|-------------|--------|-------------------|-------------------|--------|----------|
| | | Body | Screws | Stop | |
| 2309-2 | 302118 | Zinc Plated Steel | Zinc Plated Steel | Rubber | 0,048 Kg |
| 2309-2-PLY | 303507 | Paint steel | Stainless Steel | Rubber | 0,058 Kg |
| 2309-2-Inox | 302449 | Stainless Steel | Stainless Steel | Rubber | 0,048 Kg |

JOINT + LOOP PROTECTION STOP



| REFERENCE | CODE | MATERIAL | WEIGHT |
|--------------|--------|-------------------|----------|
| 2300/R-3-J-C | 303397 | Zinc Plated Steel | 0,935 Kg |

CLAMPS FOR ROUND CABLE AND HOSES



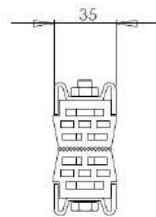
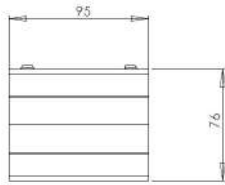
2300-SC-1



2300-SC-2

| REFERENCE | CODE | MATERIAL | | WEIGHT |
|-----------|--------|--------------------------------|-------------------|----------|
| 2300-SC-1 | 303256 | Polypropylene with glass fiber | 2xø15mm | 0,013 Kg |
| 2300-SC-2 | 303600 | Polypropylene with glass fiber | 1xø13mm y 1xø18mm | 0,009 Kg |

CLAMP B



| REFERENCE | CODE | MATERIAL | | | | WEIGHT |
|-----------|--------|-------------------|--------------------|-------|-------------------|----------|
| | | Metal Section | Tightening profile | Nuts | Bolts | |
| B-58 | 302009 | Zinc Plated Steel | Rubber | Brass | Zinc Plated Steel | 0,455 Kg |
| B-58(TI) | 303343 | Galvanized Steel | Rubber | Brass | Stainless Steel | 0,455 Kg |
| B-58-Inox | 302473 | Stainless Steel | Rubber | Brass | Stainless Steel | 0,455 Kg |

"QUICK" NUT



| REFERENCE | CODE | MATERIAL | WEIGHT | UNITS X BAG |
|-----------|--------|---------------|----------|-------------|
| TR | 303642 | Polyamide 6.6 | 0,005 kg | 50 |

END CAPS



| FOR PROFIL | REFERENCE | CODE | MATERIAL | WEIGHT |
|------------|-----------|--------|--------------------|----------|
| 2300/R-1 | 2300/R-EC | 303612 | Black polyethylene | 0,005 Kg |
| 2331-1 | 2331-EC | 302572 | Black polyethylene | 0,004 Kg |
| 2500-1 | 2500-EC | 305474 | Black polyethylene | 0,006 Kg |



ASSEMBLY INSTRUCTIONS

1) SECURITY

1.1 Advices about electricity

- Disconnect the power from the system before starting any assembly operation.
- Do not use electrical cables for higher loads than the specified voltage and current.

1.2 Operational advices

- Do not use different cables for which the festoon system is specified. Any change in number, diameter, weight, etc., may affect the normal operation of the cable system.

1.3 Maintenance advice

- The modification of the number and/or characteristics of the festoon system components cancels the warranty.

2) INSTALLATION

The support structure for the festoon system must be capable of supporting the total weight of the festoon system. Place the support along the beam through which the hoist is to be circulated. These points must be located every 2m, except in the parking area where they must be located every 1m.



STANDARD BRACKETS



BEAM WELDED JOINT BAR



BEAM WELDED SUPPORT



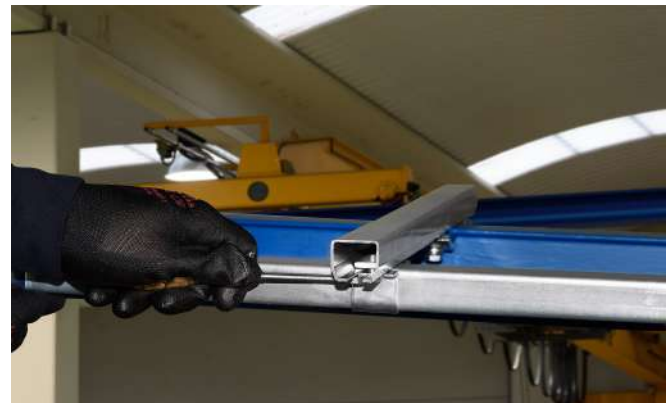
Install the first profile in the supports 2300/R-4 without tightening the screws.



Assemble the next profile section on its corresponding supports 2300/R-4 in the same way as the first.



Join these profiles using the joints 2300/R-3-J that guarantee a continuous travel between both sections. Tighten the screws once the joint has been placed in the middle of both profile sections. Repeat the same operation for the rest of the profile sections.



Once all the profiles have been assembled, we will proceed to align the path with respect to the rolling hoist on the beam, crane, etc. Once the alignment is correct, we will proceed to tighten the screws of the supports 2300/R-4.



ASSEMBLY INSTRUCTIONS



Cut the necessary length of electrical cable leaving enough length on both sides to make the electrical connections later. Make marks with white chalk on the cable in the required points, according to the height of the loop or number of trolleys to be assembled. Put the cables in the saddle (biggest cables should be mounted on top of the cable package).



Tighten the screws of the cable holders avoiding damaging the cables due to excessive tightening. The cable package should be as centered as possible on the cable holder, so that the trolley runs in a balanced way. Make sure that the smallest cables do not slip into the cable package.



Insert the festoon system into the profile, starting first with the towing trolley and then following the cable trolleys. Insert the end clamp the last. The cables must be mounted without any rotation.



Tighten the end clamp at the end of the profile. Make the connections of the cables on both sides of the system in their respective connection boxes.

3) OPERATION

3.1 Previous tests

Carry out several travels by hand to check that it moves throughout its length without problems.

Check that there is plenty of space in the ambush area.

Check that the cable loops don't get hooked in any part of the travel.

In the cable management system, check the correct height between the pushbutton pendant control station and the floor.

3.2 Final tests

Once the electric current is connected, check that the trolleys move forward and backward without problems.

Check that the device, the festoon system is powered on, works correctly.

3.3 Normal functioning

Do not exceed the maximum voltage and / or amperage specified for the electric cables.

Use the festoon system within its corresponding electrical and / or mechanical specifications.

4) MAINTENANCE

Perform periodic maintenance tasks to ensure the status of the festoon system. The maintenance operations will depend on the use given to the system.

During each inspection the following points should be checked:

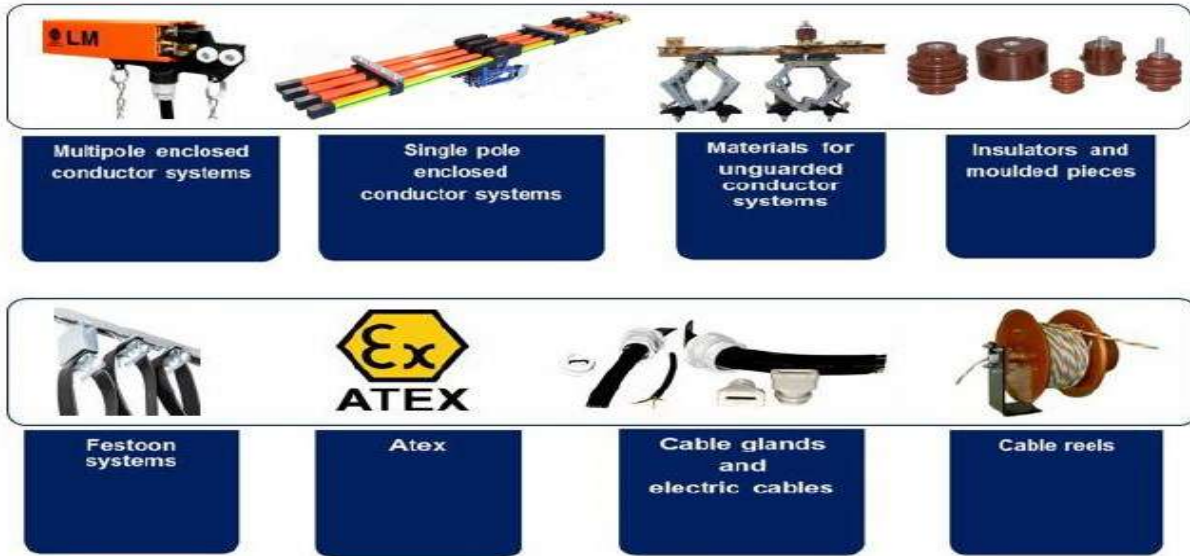
- Wear of ball bearings.
- Ensure screws are correctly tightened.
- Separation or alignment in the joints.
- Electric cables: cuts, cracks, etc...
- The profile must be clean in the running edges.



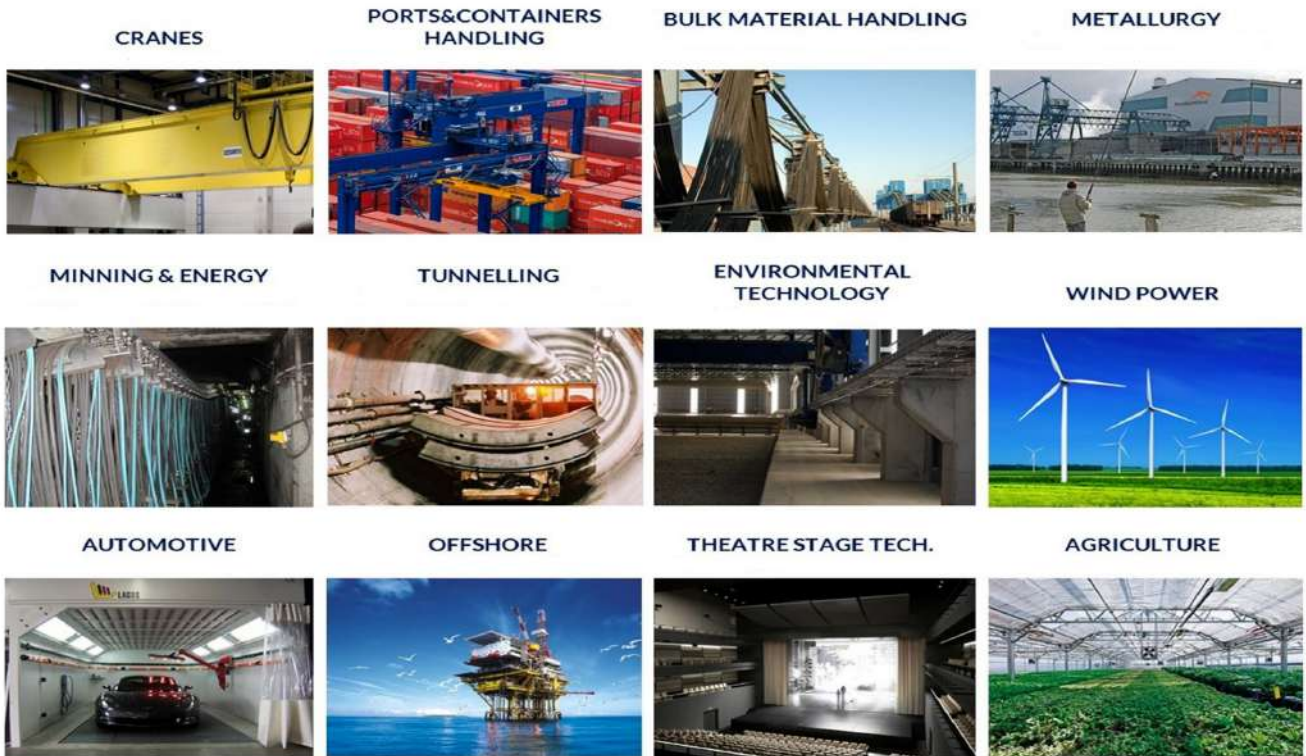
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E.mail: info@industriasgalarza.com
www.industriasgalarza.com

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