



**Industrias
GALARZA, S.A.[®]**

Leaders in electrical conductivity since 1958

CATALOGUE 2020



WIRE ROPE

**MAX. LOAD
ALLOWABLE**

DESCRIPTION

SERIES



5 KG

**CATENARY WIRE
FESTOON SYSTEMS
FOR Ø6 AND Ø8MM**

**2301
2337**



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



Twitter
@indgalarza



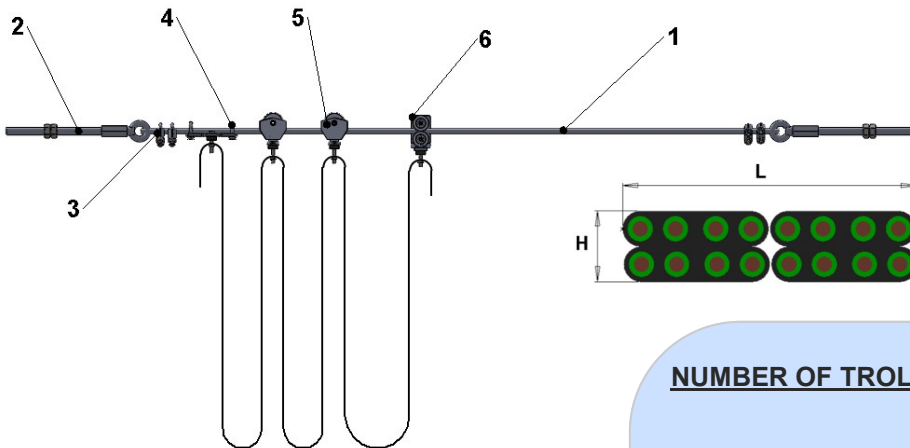
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1. Steel wire rope
2. Strainer AT-12
3. Wire rope clamp
4. End clamp
5. Cable trolley
6. Towing trolley

NUMBER OF TROLLEYS REQUIRED:

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

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

REQUIRED AMBUSH LENGTH:

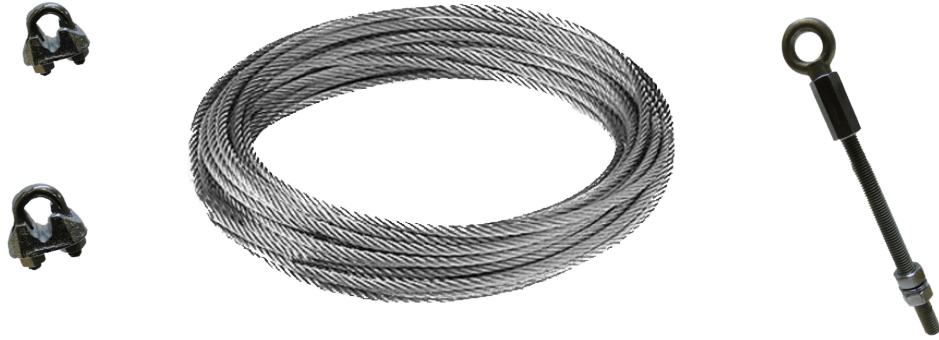
$$b = (N + 1) \times m$$

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

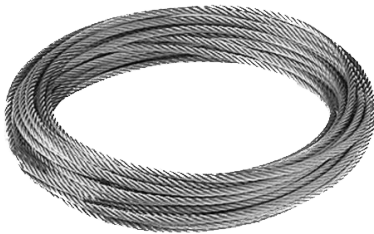
- In **aggressive** conditions, the metal parts (bodies and cable holders) are supplied made in stainless steel.
- For other wire rope diameters and trolley dimensions, contact our technical department.



CATENARY WIRE FESTOON SYSTEM

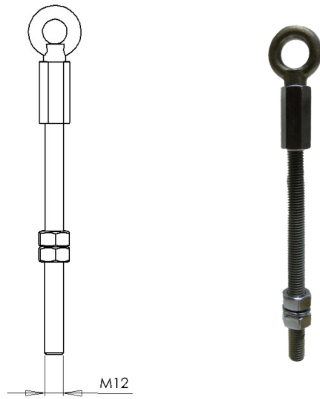


STEEL WIRE ROPE



CODE	MATERIAL	MAX. WIRE LENGTH	Ø	WEIGHT
301086	Zinc plated steel	15 Mts	6	0,125 Kg/m
301070	Zinc plated steel	20 Mts	8	0,221 Kg/m

STRAINER



REFERENCE	CODE	MATERIAL	WEIGHT
AT-12	301009	Zinc plated steel	0,420 Kg

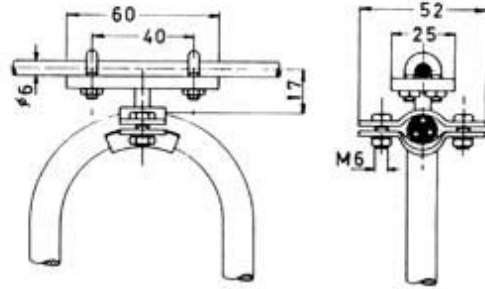
WIRE ROPE CLAMP Ref. 1/4" y 5/16"



REFERENCE	CODE	MATERIAL	WEIGHT
1/4"	301010	Zinc plated steel	0,035 Kg
5/16"	301011	Zinc plated steel	0,064 Kg

END CLAMP

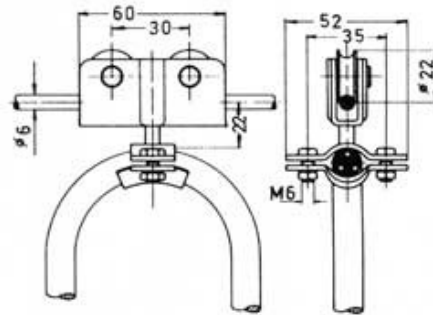
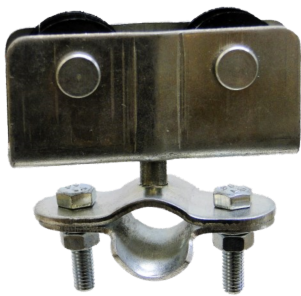
SADDLE Ø8-15mm



REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Screws	Saddle		
2301-A-2	301001	Zinc plated steel	Zinc plated steel	5 Kg	0,198 Kg

CABLE TROLLEY

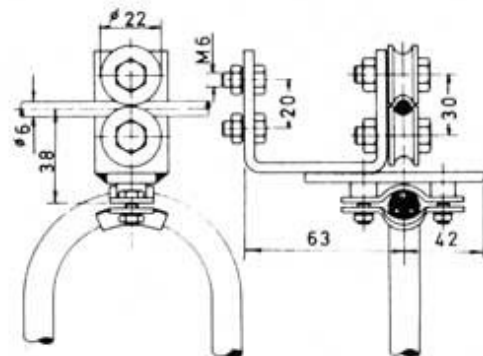
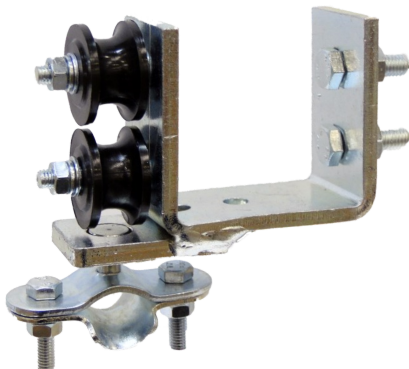
SADDLE Ø8-15mm



REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Wheels	Saddle		
2301-A-5	301002	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,227 Kg

TOWING TROLLEY

SADDLE Ø8-15mm

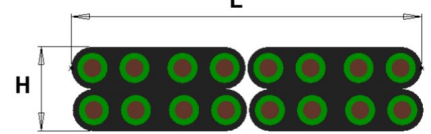


REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Wheels	Saddle		
2301-A-6	301003	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,285 Kg

RUN OVER STEEL WIRE ROPE Ø6mm

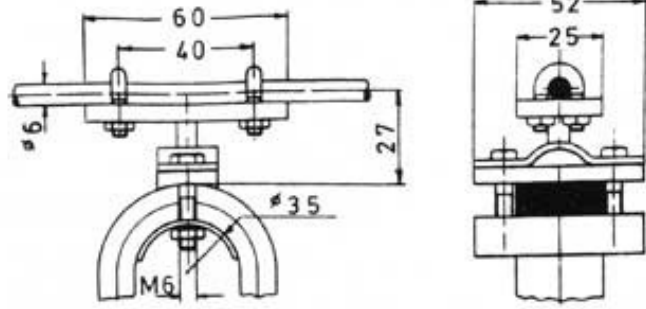
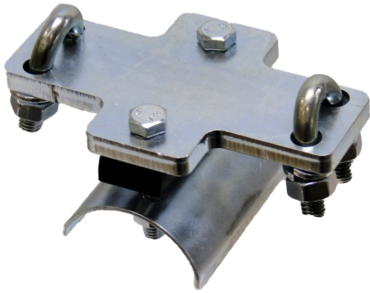


SERIES 2301-P FLAT CABLE



END CLAMP

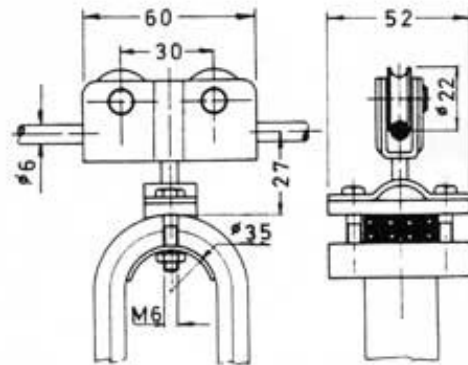
Maximum cable package: 29 (L) x 8 (H) mm



REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Saddle			
2301-P-2	301004	Zinc plated steel	Zinc plated steel		5 Kg	0,163 Kg

CABLE TROLLEY

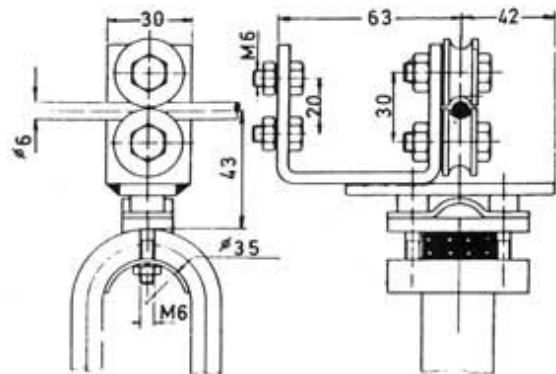
Maximum cable package: 29 (L) x 8 (H) mm



REFERENCE	CODE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2301-P-5	301005	Zinc plated steel	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,163 Kg

TOWING TROLLEY

Maximum cable package: 29 (L) x 8 (H) mm



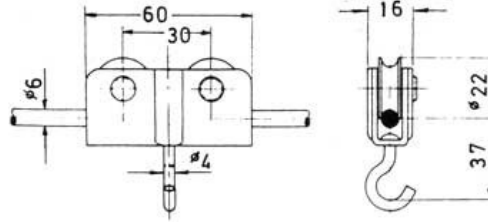
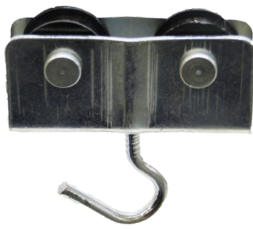
REFERENCE	CODE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2301-P-6	301006	Zinc plated steel	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,261 Kg

RUN OVER STEEL WIRE ROPE Ø6mm



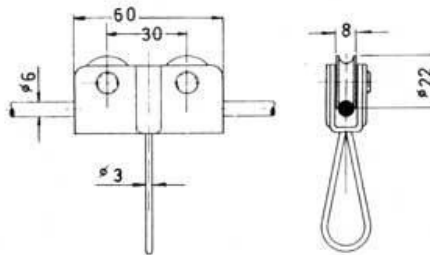
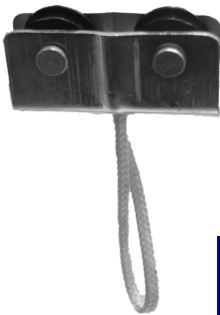
SERIES 2301 FOR SUSPENDING LIGHT TOOLS

DOUBLE WHEEL TROLLEY FOR HOOK



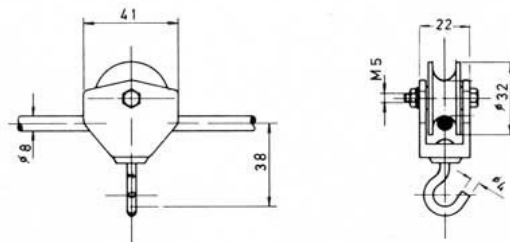
REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Screws	Hook		
2301-G	301007	Zind plated steel	Zinc plated steel	5 Kg	0,062 Kg

DOUBLE WHEEL TROLLEY FOR CORD



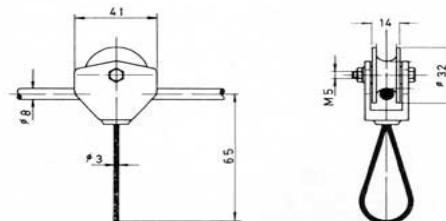
REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Screws	Cord		
2301-NY	301008	Zinc plated steel	Nylon	5 Kg	0,057 Kg

SINGLE WHEEL TROLLEY FOR HOOK



REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Wheel	Hook		
2337-G	301018	Plastic	Zinc plated steel	5 Kg	0,031 Kg

DOUBLE WHEEL TROLLEY FOR CORD



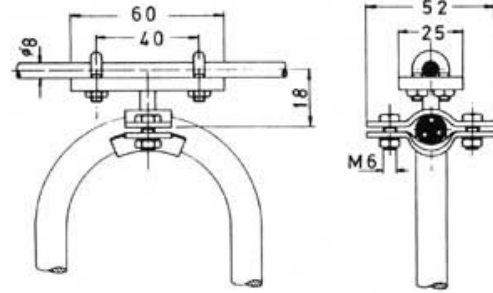
REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Wheel	Cord		
2337-NY	301019	Plastic	Nylon	5 Kg	0,025 Kg

RUN OVER STEEL WIRE ROPE Ø6mm

RUN OVER STEEL WIRE ROPE Ø8mm

END CLAMP

SADDLE Ø8-15mm

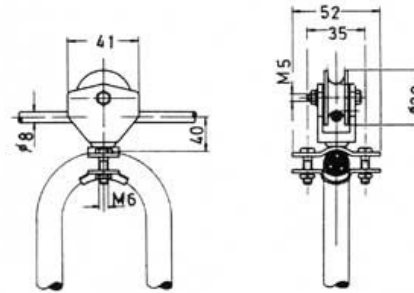


REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Saddle			
2337-C-2	301012	Zinc plated steel	Zinc plated steel		5 Kg	0,140 Kg

CABLE TROLLEY

SADDLE Ø8-15mm

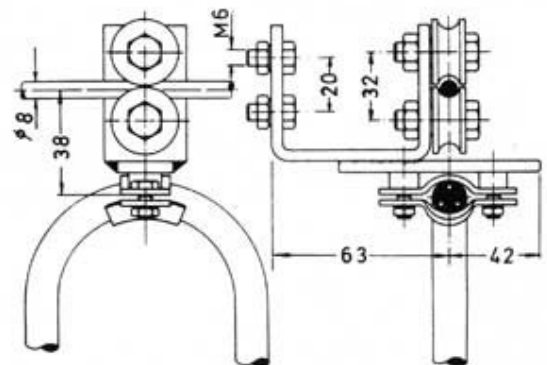
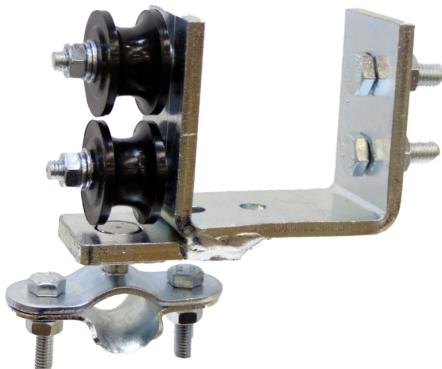
RUN OVER STEEL WIRE Ø8mm



REFERENCE	CODE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2337-C-5	301013	Polypropylene	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,062 Kg

TOWING TROLLEY

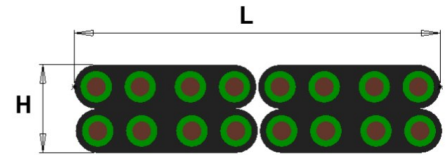
SADDLE Ø8-15mm



REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Wheels	Saddle		
2337-C-6	301014	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,224 Kg

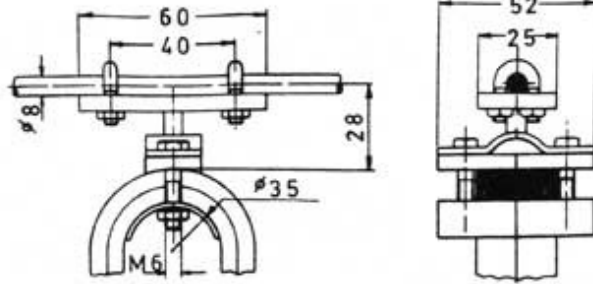
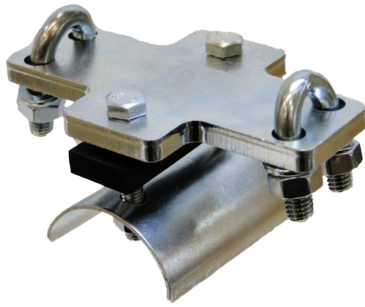


SERIES 2337-P FLAT CABLE



END CLAMP

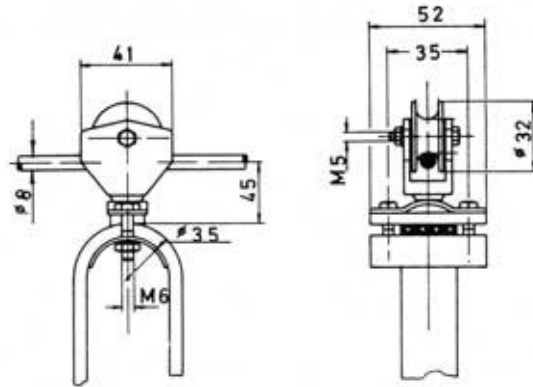
Maximum cable package: 29 (L) x 8 (H) mm



REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Screws	Saddle		
2337-P-2	301015	Zinc plated steel	Zinc plated steel	5 Kg	0,163 Kg

CABLE TROLLEY

Maximum cable package: 29 (L) x 8 (H) mm

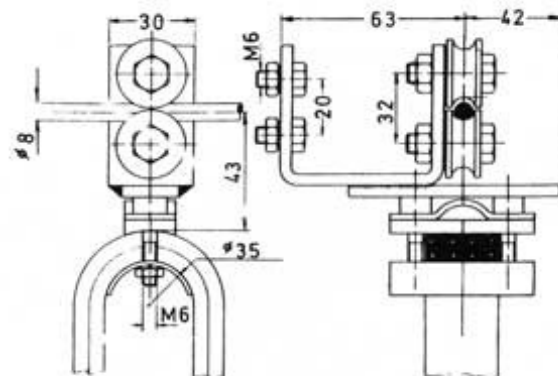


REFERENCE	CODE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2337-P-5	301016	Plastic	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,076 Kg

RUN OVER STEEL WIRE ROPE $\varnothing 8\text{mm}$

TOWING TROLLEY

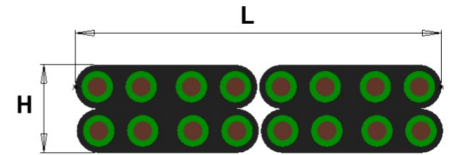
Maximum cable package: 29 (L) x 8 (H) mm



REFERENCE	CÓDE	MATERIAL			MAX LOAD	WEIGHT	
		Body	Screws	Wheels			
2337-P-6	301017	Zinc plated steel	Zinc plated steel	Plastic	Zinc plated steel	5 Kg	0,237 Kg

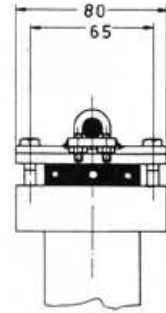
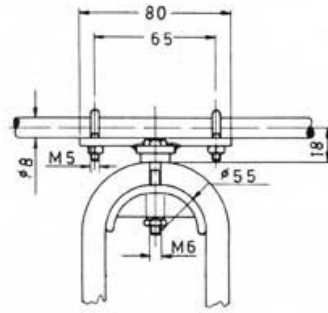
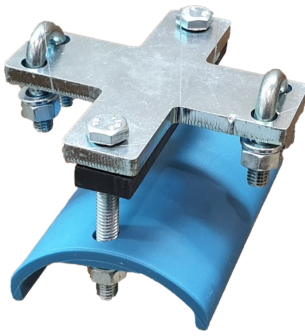


SERIES 2337-R FLAT CABLE



END CLAMP

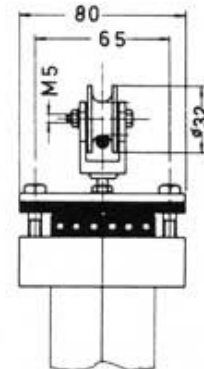
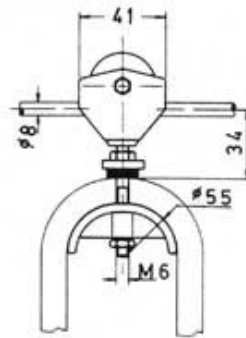
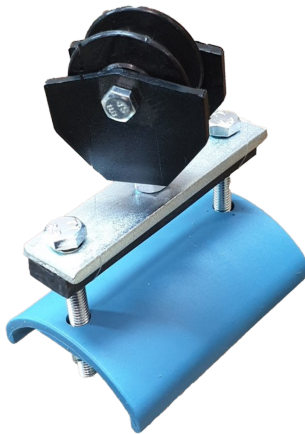
Maximum cable package: 58 (L) x 20 (H) mm



REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT
		Body + Screws	Saddle			
2337-R-2	301020	Zinc plated steel	Polypropylene		5 Kg	0,198 Kg

CABLE TROLLEY

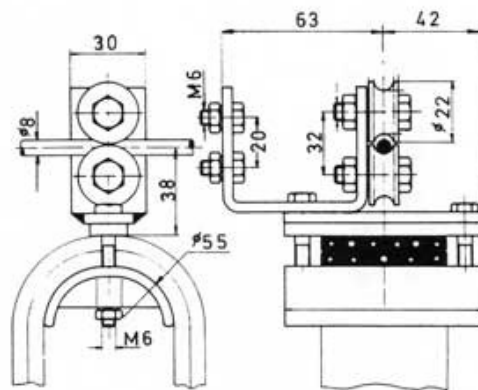
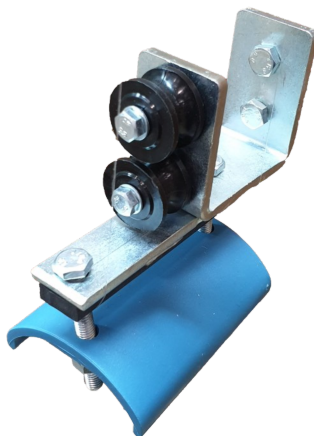
Maximum cable package: 58 (L) x 20 (H) mm



REFERENCE	CÓDE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2337-R-5	301021	Zinc plated steel	Zinc plated steel	Plastic	Polypropylene	5 Kg	0,136 Kg

TOWING TROLLEY

Maximum cable package: 58 (L) x 20 (H) mm

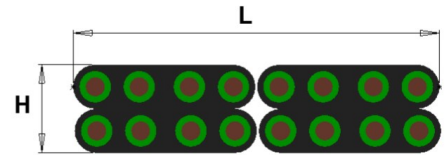


REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT	
		Body	Screws	Wheels			Saddle
2337-R-6	301022	Zind plated steel	Zinc plated steel	Plastic	Polypropylene	5 Kg	0,285 Kg

RUN OVER STEEL WIRE ROPE Ø8mm

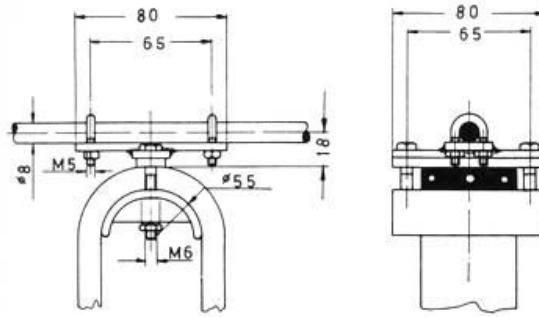
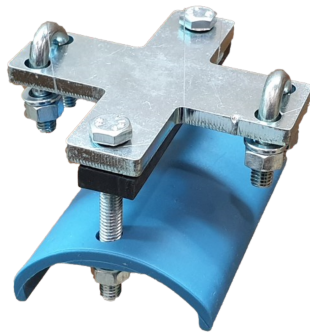


SERIES 2337-2R FLAT CABLE



END CLAMP

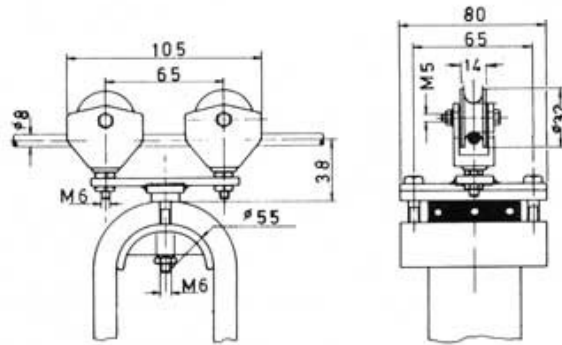
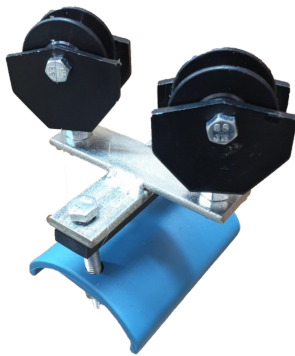
Maximum cable package: 58 (L) x 20 (H) mm



REFERENCE	CODE	MATERIAL		MAX LOAD	WEIGHT
		Body + Screws	Saddle		
2337-2R-2	301023	Zinc plated steel	Polypropylene	10 Kg	0,198 Kg

CABLE TROLLEY

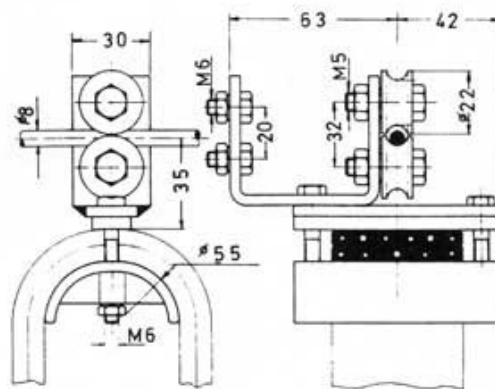
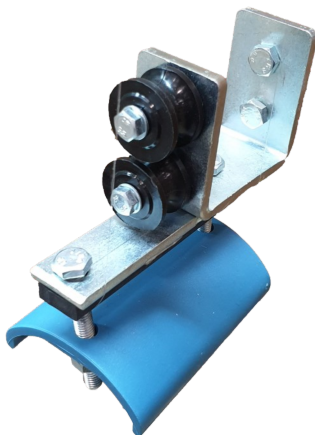
Maximum cable package: 58 (L) x 20 (H) mm



REFERENCE	CODE	MATERIAL				MAX LOAD	WEIGHT
		Body	Screws	Wheels	Saddle		
2337-2R-5	301024	Zinc plated steel	Zinc plated steel	Plastic	Polypropylene	10 Kg	0,227 Kg

TOWING TROLLEY

Maximum cable package: 58 (L) x 20 (H) mm



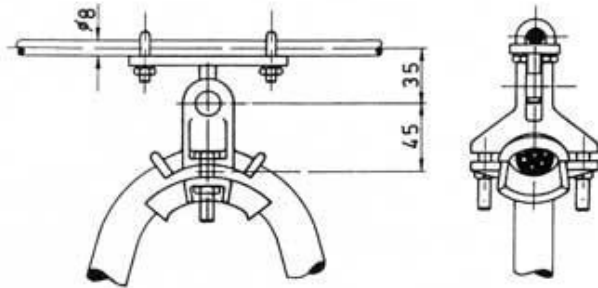
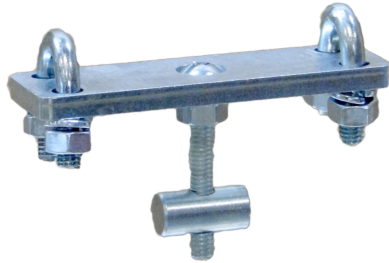
REFERENCE	CODE	MATERIAL			MAX LOAD	WEIGHT	
		Body	Screws	Wheels			
2337-2R-6	301025	Zinc plated steel	Zinc plated steel	Plastic	Polypropylene	10 Kg	0,285 Kg

RUN OVER STEEL WIRE ROPE $\varnothing 8\text{mm}$

Add to the reference of this serie, the clips A, B or C depending on the needs.

Clips A: From Ø8 to 15mm. Clips B : From Ø16 to 24mm. Clips C: From Ø25 to 35mm.

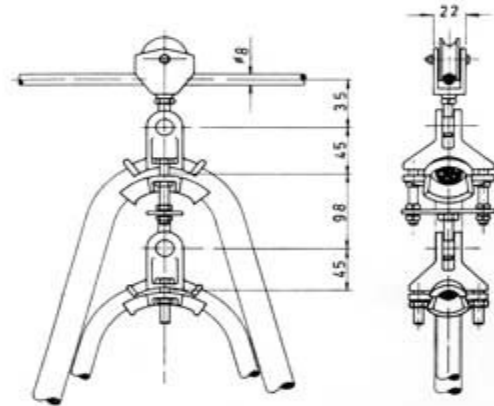
END CLAMP



REFERENCE	CODE	MATERIAL	MAX	WEIGHT
		Body + Screws	LOAD	
2337/2	301127	Zinc plated steel	5 Kg	0,427 Kg

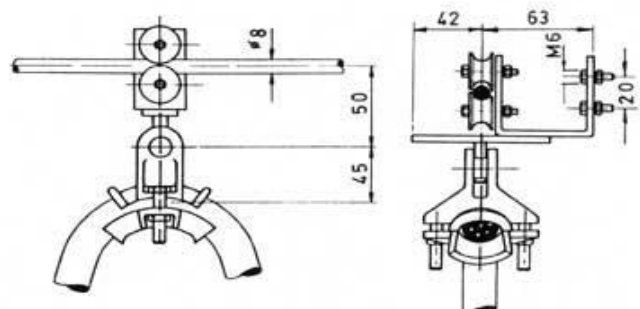
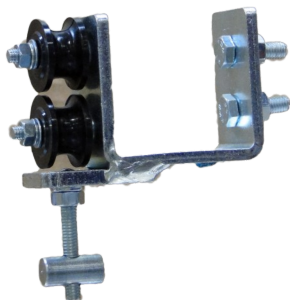
CABLE TROLLEY

RUN OVER STEEL WIRE ROPE Ø8mm



REFERENCE	CODE	MATERIAL	MAX	WEIGHT		
		Body	Screws	Wheels	LOAD	
2337/5	301128	Plastic	Zinc plated steel	Plastic	5 Kg	0,351 Kg

TOWING TROLLEY

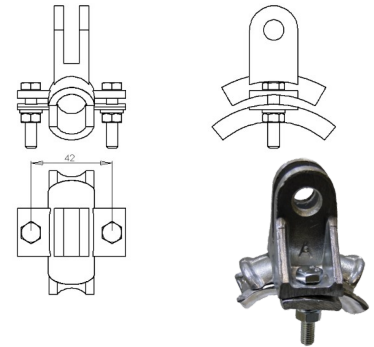


REFERENCE	CODE	MATERIAL	MAX	WEIGHT	
		Body + Screws	Wheels	LOAD	
2337/6	301129	Zinc plated steel	Plastic	5 Kg	0,540 Kg



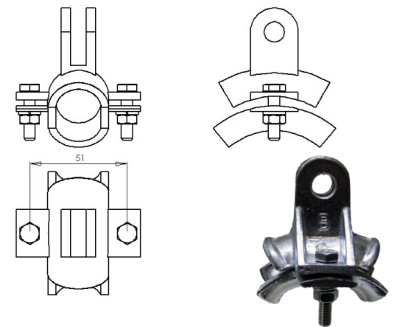
CLIP "+A" for cables from $\varnothing 8\text{mm}$ to $\varnothing 15\text{mm}$

REFERENCE	CODE	MATERIAL	SCREWS	WEIGHT
+A	303251	Aluminium	Zinc plated steel	0,104 Kg



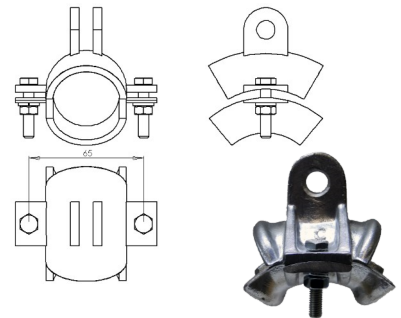
CLIP "+B" for cables from $\varnothing 16\text{mm}$ to $\varnothing 24\text{mm}$

REFERENCE	CODE	MATERIAL	SCREWS	WEIGHT
+B	303252	Aluminium	Zinc plated steel	0,114 Kg



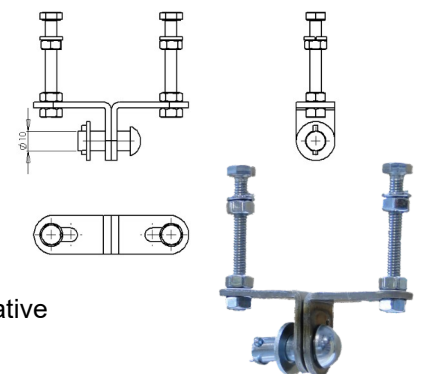
CLIP "+C" for cables from $\varnothing 25\text{mm}$ to $\varnothing 35\text{mm}$

REFERENCE	CÓDE	MATERIAL	SCREWS	WEIGHT
+C	303253	Aluminium	Zinc plated steel	0,150 Kg



"T" UNION

REFERENCE	CÓDE	MATERIAL	SCREWS + RIVET	WEIGHT
T	303496	Stainless steel	Zinc plated steel	0,107 Kg



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

Examples:

- End clamp Ref. 2337/C+B-2.
- Cable trolley Ref. 2337/A-5.
- Towing trolley ref. 2337/B+A-6.



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 advices

- 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. It also has to be strong enough to support the steel wire rope tensión while the trolleys are running on.

2.1 Assembling the strainers AT-12

Mount the strainers AT-12 at both edges of the beam for the hoist where anchorage plates/angles were previously welded on.

2.2 Assembling the steel wire rope at one edge of the travelling

Insert the steel wire rope across the eye of the strainer AT-12. Fasten the edge of the steel wire rope using one or two wire rope clamps.

2.3 Assembling the electric cable on the trolleys

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 smaller cables do not slip into the cable package.

2.4 Assembling the trolleys on the steel wire rope

Insert the festoon system on the steel wire rope. Towing trolley should be mounted first and the cable trolleys should be the last ones.

Repeat operation 2.2 for the another edge of the steel wire rope.

Mount the end clamp on this edge of the steel wire rope.

The cables must be assembled without any rotation.

2.5 Towing trolley

This mentioned trolleys has to be bolted to the towing arm.

2.6 Electrical connections

Make the connections of the cables on both sides of the system in their respective connection boxes.



ASSEMBLY INSTRUCTIONS

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 control festoon 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 powering 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 catenary wire 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 the wheels of the trolleys.
- Ensure screws are correctly tightened.
- Electric cables: cuts, cracks, etc...
- The wire rope must be clean in the running area. Ensure that no broken filament is in the catenary wire that can clog the cable trolleys.





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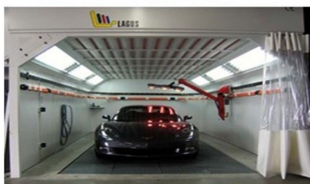
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