

Slide on flat (IPE or similar) and tappered (IPN or similar) beams.

For big loads: - Flatform or round electric cables.

- Hoses (pneumatic, hydraulic, etc.).

For high travelling speeds.

#### **APLICATIONS:**

- Container cranes.
- Bridge cranes.
- Gantry cranes.
- Jib cranes.
- Special cranes for steel mills, shipyards, etc.
- Mineral unloaders.
- Electric, pneumatic, hydraulic, etc. supply to machinery.

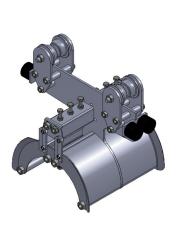
We make a complete study in order to quote the best suitable materials according to the Customer's specifications. Our quotation includes:

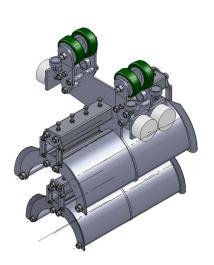
- Economic quotation.
- Delivery time.
- Shipment conditions.
- Complete set of drawings for the quoted materials.
- Cable layout with the position of the electric cables on the trolleys.
- Calculations.
- Scope of delivery.
- Mounting and maintenance instructions.
- Spare parts parts list for two years functionning.

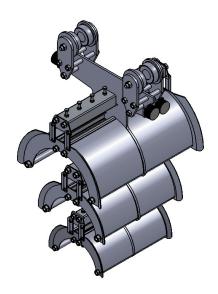
Our festoon systems are manufactured in several materials: zinc plated steel, hot galvanized steel, stainless steel, etc.

We can manufacture trolleys with one, two or three separated stages according to the quantitties of electric cables or if customer needs to separete some cables in order to avoid electromagnetic interferences. Auxiliary lateral saddles could be also mounted for the same reasons.

There are different wheels and rollers configurations according to working conditions.









#### **MATERIALS**

We use differente materials according to the ambient conditions and the working conditions for every festoon system.

The standard materials in our festoon systems for indoors working conditions are:

- Main body and wheel supports: hot galvanized steel.
- Support arms: aluminium (option in steel).
- Arm locking plates: zinc plated steel.
- Bundle locking plates: zinc plated steel .
- Cable saddles: rolled stainless steel.
- Laterals: hot galvanized steel.
- Wheels with ball bearings:
  - Flat or with flanges: tempered zinc plated steel.
  - Flat: zinc plated steel with Vulkollan covering.
- Rollers with ball bearings:
  - Antilift GB-50 ø50 mm.: tempered zinc plated steel.
  - Laterals GL-50 ø50 mm.: tempered zinc plated steel.
  - Antilift laterals GL/GB-80-VK ø80 mm.: zinc plated steel with Vulkollan covering.
- Cylindrical buffers: rubber.
- Bolts, nuts ans washers: zinc plated steel.

Another optional materials are: Epoxy-polyester coats, stainless steel, etc.

For high loads and/or high travelling speed, special bigger sized buffers could be mounted made of cellular polyurethane.

End calmps are bolted under the beam of the festoon system.

Towing clamps are bolted the towing arm from the crane. Optional towing trolleys with wheels have a window where the towing arm from the crane should be inserted.

Towing ropes are used in order to avoid any damage to the electric cables when going towards and they use to be manufactured in chain with PVC or Neoprene cover. In case of high travelling speed, pairs of elastic cords could be mounted in order to minimize the inertia forces on the festoon system.

REFERENCE	SADDLE DIAM ( mm)	MAX. CABLE BUNDLE HEIGHT (mm)	STANDAR LENGTH (mm)	FLAT WHEEL Diam (mm)	FLANGED WHEEL Diam (mm)	MAX. LOAD (Kg)
2333-PL	customized	-	customized	65-85	75-85	100
2333(260)	170	42	300	65-85	75-85	200
2333	220	42	330	65-85	75-85	250
2334	290	42	420	75-95	85-95	350
2345	350	55	540	85-120	95-120	450
2346	450	65	620	105-140	95-120	500
2348	customized	65	customized	105-140	95-120	500

<sup>(\*)</sup> Upon request another length of trolley, saddle diam, bundle height and/or materials.



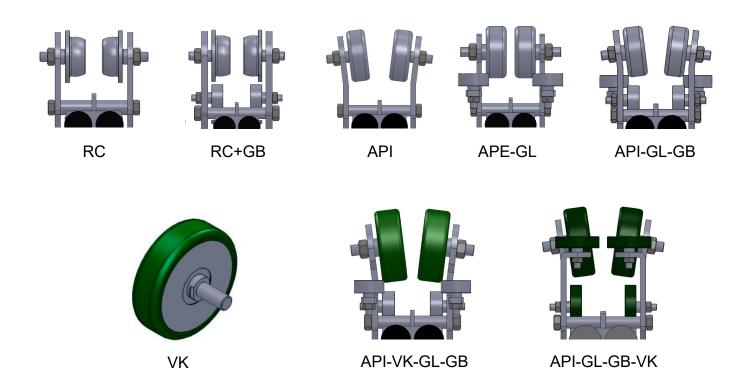
### WHEEL OPTIONS

The main wheels and the rollers used on our festoon systems includes ball bearings which do not require maintenance, they are sealed for life and do not need relubrification.

According to requirements, another dimensions and materials (stainless steel) could be supplied.

#### We can offer these options:

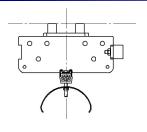
- Wheels with flanges (RC): for moderate speed and small lateral forces (due to wind, lateral movements in the festoon system, etc.).
- Wheels with flanges and antilift rollers (RC-GB): for low speed, medium lateral forces, multiple stage trolleys, towing trolleys with window, etc. where the trolleys could tip.
- Flat wheels (API APE): for indoors, low speed and small lateral forces. Small wear off for the beam. API for tappered beam and APE for beams with flat flanges.
- Flat wheels with lateral rollers (API-GL APE-GL): for moderate speed, medium lateral forces. Small wear off for the beam.
- Flat wheels with antilift rollers (API-GB APE-GB): for moderate speed, side winds, narrow beams or multiple stage trolleys.
- Flat wheels with lateral and antilift rollers (API-GL-GB ó APE-GL-GB): for moderate-high speed, side winds, narrow beams or multiple stage trolleys.
- Flat wheels with Vulkollan cover (VK): adised to avoid wear off on the beam and on the wheels. Noise level is also reduced at high speed on the crane.
- Lateral rollers with Vulkollan cover in contact with the core of the beam (GL-VK): adised to avoid wear off on the rollers. Noise level is also reduced at high speed on the crane.



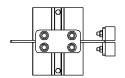


# SERIES 2333-PL

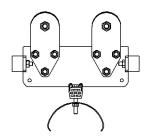
## **END CLAMP**

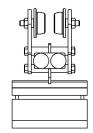




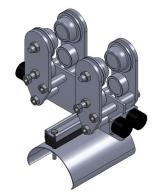


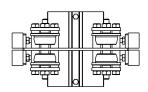
# **CABLE TROLLEY**



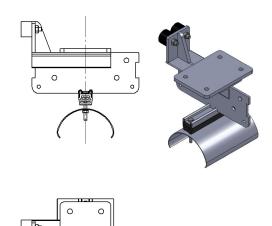


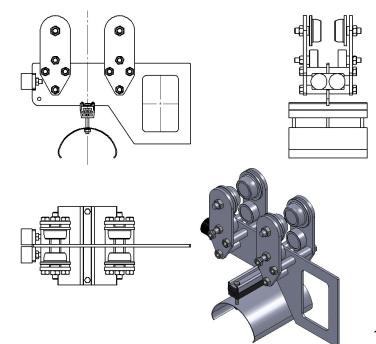






## TOWING CLAMP or TOWING TROLLEY WITH WINDOW

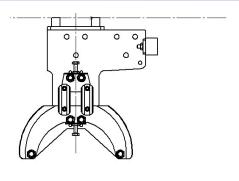


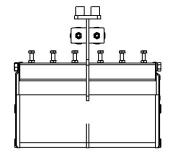


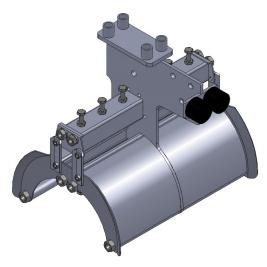


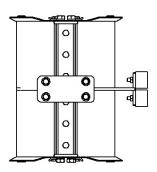
# SERIES 2333(260), 2333, 2334, 2345, 2346 and 2348

### **END CLAMP**

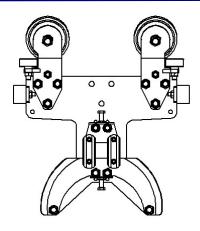


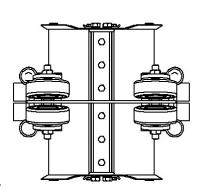


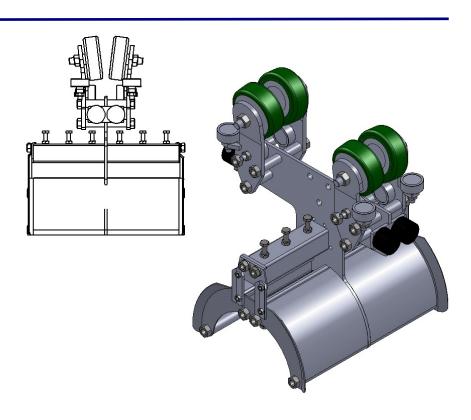




## **CABLE TROLLEY**

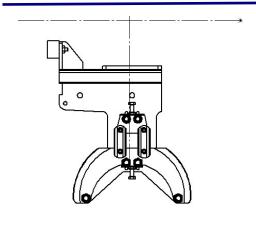


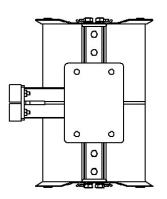


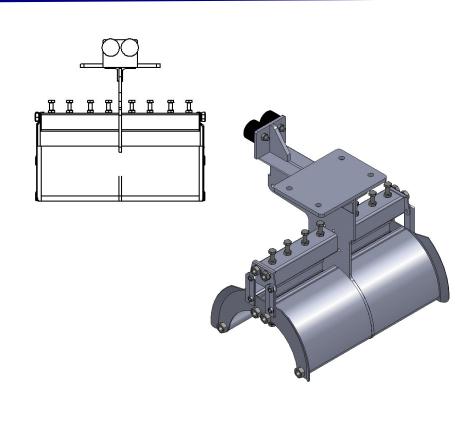




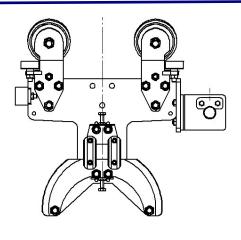
# **TOWING CLAMP**

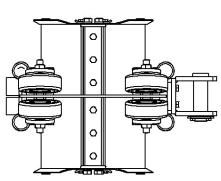


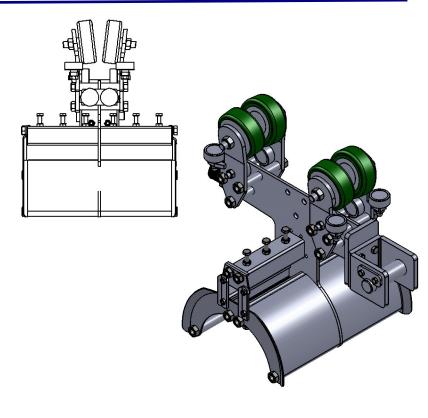




# TOWING TROLLEY WITH WHEELS









### **CUSTOMIZED DIMENSIONS**

The dimensions (trolley length, saddle diam, etc.) could be modified to be adjusted to customer's requirements.

### **OUTDOORS**

Upon request, special materials are available: zinc plated steel + polyester coat, hot galvanized steel or stainless steel.

### **ATEX**

Upon request, special materials for ATEX classified zones are available.

### **MORE STAGES**

The electric cables could be mounted on different stages or on auxiliary lateral saddles.

