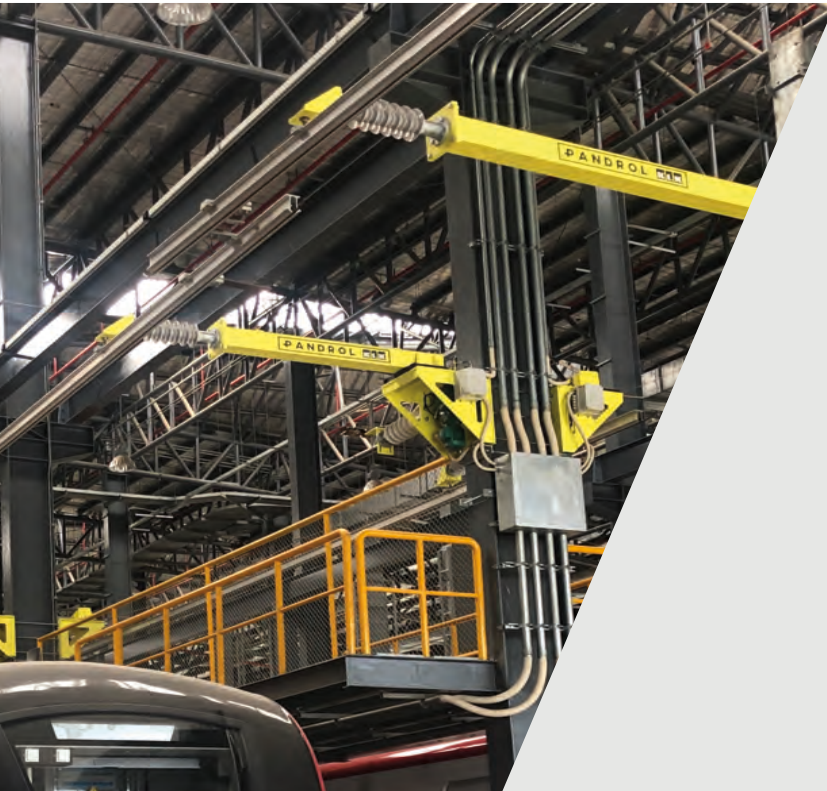


# Retractable Catenary

Electrification



Pandrol's Retractable Catenary is a clever removable rigid catenary system designed to ease and secure maintenance operations on rolling stocks.

The option to retract the overhead catenary system allows for safe maintenance and free access to the vehicle roof, creating space and allowing the train to be lifted for bogie inspection and maintenance.

Designed for any rolling stock equipped with pantograph, our safe system interlocks with a range of existing maintenance depot equipment, including disconnectors, walkways, bridge-cranes, doors, signalling equipment and lifting platforms.

## → TECHNICAL FEATURES

### **Aluminium bars and plates**

The rigid catenary is made up of aluminium bars, assembled with junction clamps (splices).

### **Swivelling arms**

The swivelling arms enable the simple and safe retraction of the catenary. In the standard version, the steel arms are available in lengths of up to 6m and installed maximum every 12m. Motorised and mechanical options are available.

### **Fully retractable**

The catenary can be retracted to create a safe, free space above the vehicle. This enables the vehicle to be lifted, facilitating bogie maintenance or safe access to the roof.

### **Control panel**

The system is operated using a control panel with three user levels, a touch panel, buttons, and installation, operation/maintenance indicators.

### **Compatibility with existing equipment**

The retractable system interlocks with existing equipment such as disconnectors, walkways, bridge-cranes, doors, signalling equipment and lifting platforms.

### **Safety features**

Pandrol's Retractable Catenary comes equipped with a range of safety features, including an access code, emergency stop, alarm, maximum time for usage and sensors.

## → ADVANTAGES

- Unlike traditional rigid catenary, Pandrol's Retractable Catenary allows free access to the train roof, enabling a full range of maintenance operations.
- The system is extremely safe to use thanks to safety features such as an emergency stop, alarm and maximum usage controls.
- The easy-to-use control panel enables the quick, efficient retraction of the catenary, saving time and labour costs by increasing ease of maintenance.
- The aluminium and steel components and simplicity of Pandrol's Retractable Catenary make it easy to maintain.
- Solutions can be tailor made for each depot and cost-effectiveness is increased by adaptability with flexible catenary and compatibility with existing equipment.
- The Retractable Catenary system is supported by Pandrol's full range of services, including design and engineering, testing, on-site training, on-site supervision and maintenance. This makes it a complete, straightforward solution for rolling stock workshop maintenance.



## → COMPONENTS

1. Rigid catenary made of aluminium
2. Motorised swivelling arm (a mechanical option is also available)
3. Rotating crown
4. Voltage up to 25kV

## → DISPLAY

In the control panel display supplied by Pandrol there are different types of actions depending on the type of user:

### Administrator (Workshop manager):

- You can modify the system parameters.
- You can modify the access codes of other users.

### Users (Workshop operators):

- It can trigger the movement of the system.
- You are allowed to see the alarms.

### Operator (Catenary maintenance operators):

- It can trigger the movement of the system.
- You are allowed to see the alarms.
- Found the breakdown, you can enable or disable the rotating bars for synchronization.



## → LEARN MORE

