



**ACO TRAM drainage system**

*PATENTED SYSTEM*



## For better shared use of urban spaces

*All major towns and cities want to ensure there is a sustainable balance between the mobility requirements of inhabitants and the protection of their environment and their health. The recent re-discovery of trams fits in perfectly with this approach. Trams offer a sustainable, reliable, environmentally friendly and economical alternative to cars.*

ACO Produits Polymères, a leading company in the field of urban facilities has supported the development of tram systems from the outset, offering special roadbed platform drainage systems.

### Advantages

- High hydraulic capacity channels, effective width: 200 mm
- A sliding sleeve provides continuity of the water flow beneath the rails
- Installation of the sleeve beneath the rails from inside the channels
- Rubber seals make the ACO TRAM cross section channels totally watertight
- Gratings fixed centrally (1 point)
- The neoprene chute provides electrical and mechanical insulation (no transmission of vibrations)



Bordeaux tramway

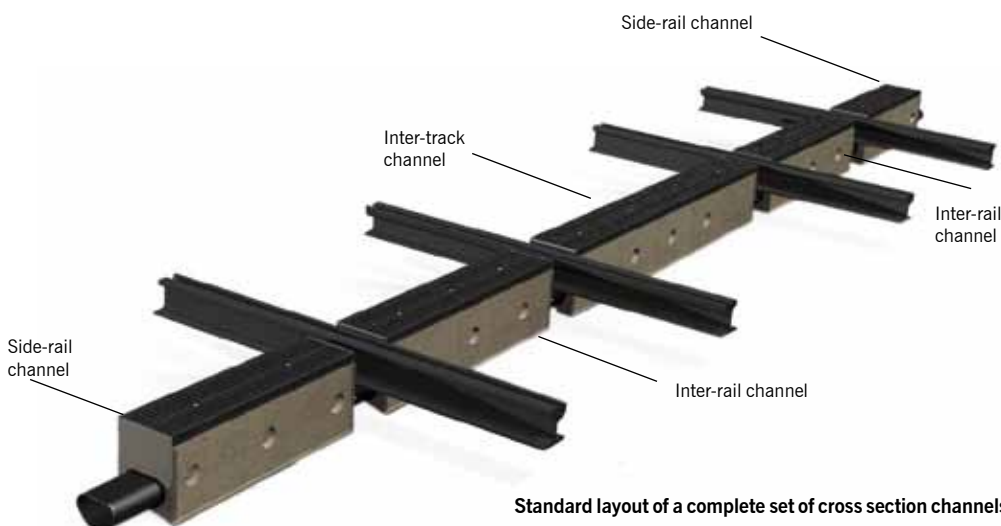
### ACO TRAM cross section channels

The drainage system for a standard two-track roadbed platform comprises two inter-rail channels, one inter-track channel and two variable length side-rail channels.

ACO TRAM cross section channels collect water from the roadbed platform and the rails and seepage water in grassed areas. The cross section channels thus help to make these public areas viable: pedestrians and shop windows will not be splashed when trams run on tracks.

All of these parts are connected to one another beneath the rails. A special sleeve ensures the continuity of the water flow and maintains the hydraulic capacity of the channels.

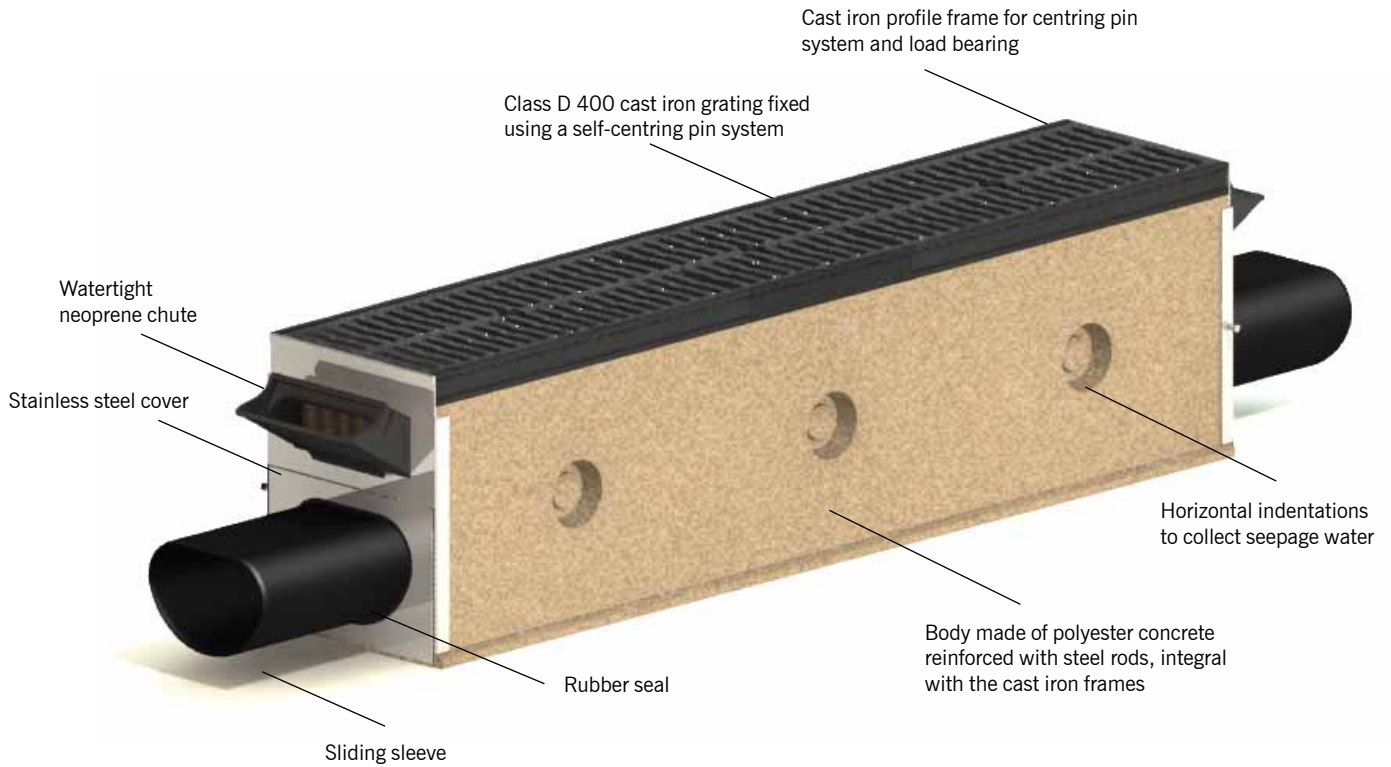
These class D400 channels comply with standard EN 1433.



Standard layout of a complete set of cross section channels

## ACO TRAM channels

The ACO TRAM channels have been developed with engineering consulting firms and specialist installation companies. They incorporate all our expertise and our many years' experience on this market.



Length of inter-rail channels: 1265 mm for "standard" gauge tracks  
840 mm for metric gauge tracks

Lengths of side-rail channels and inter-track channels:  
- Variable depending on the site  
- These parts are generally custom made



## ACO Tram 165 shallow inter-rail channel

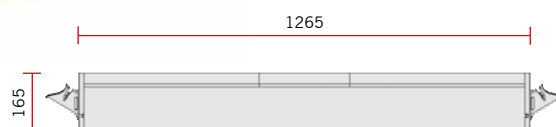
Consists of a channel body made of polyester concrete reinforced with cast iron frames.

**Length: 1265 mm**

It has keyed class D400 cast iron gratings and a stainless steel cover

with neoprene chute at each end. The water is drained via the base of the channel.

It is used when crossing bridges or when the track slab is made automatically.



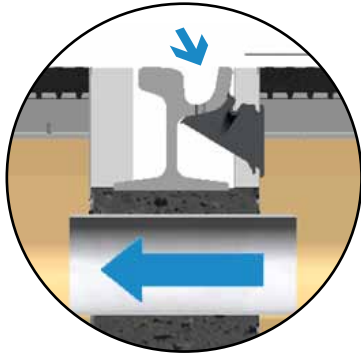
## Water gully



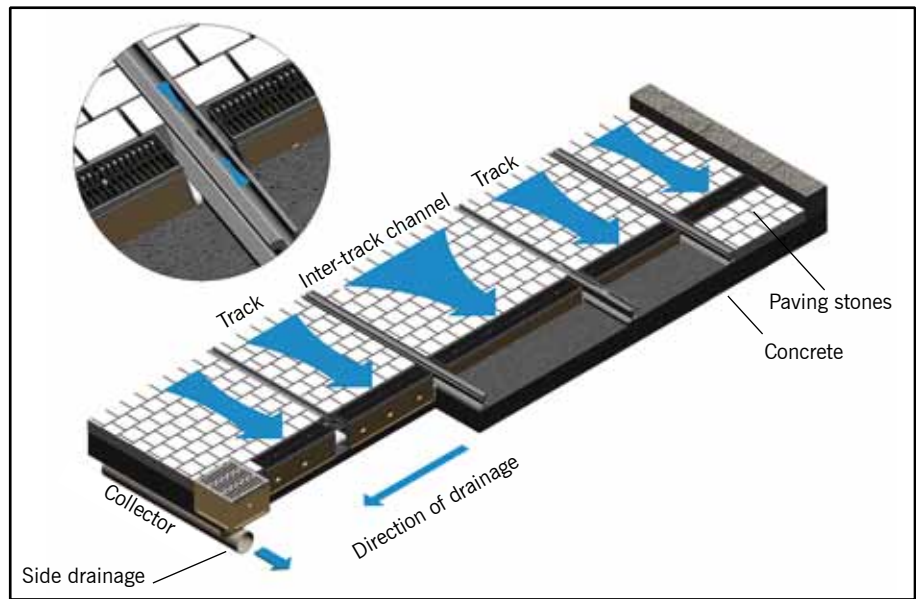
This is made of cast iron and drains the water from the rail in grassed areas.



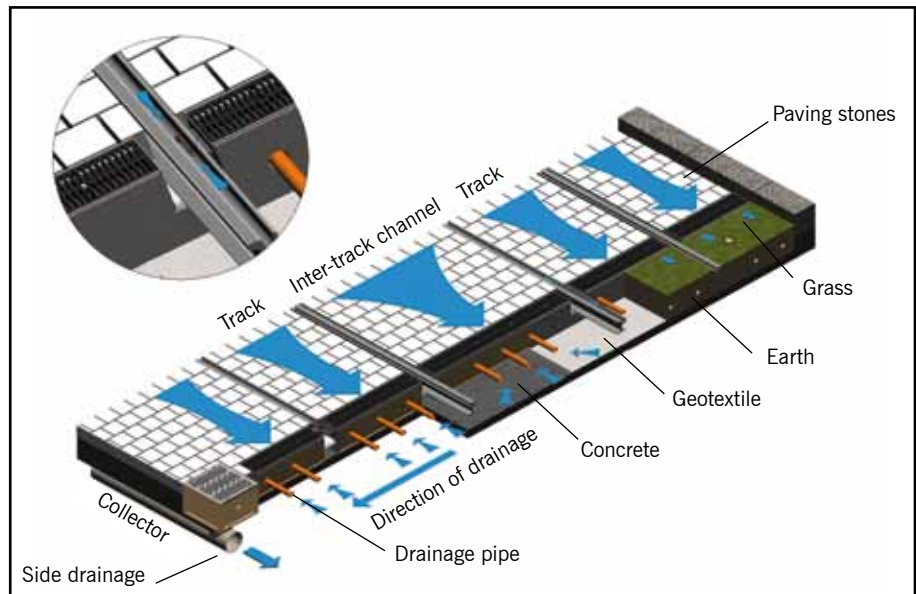
# Installation principles



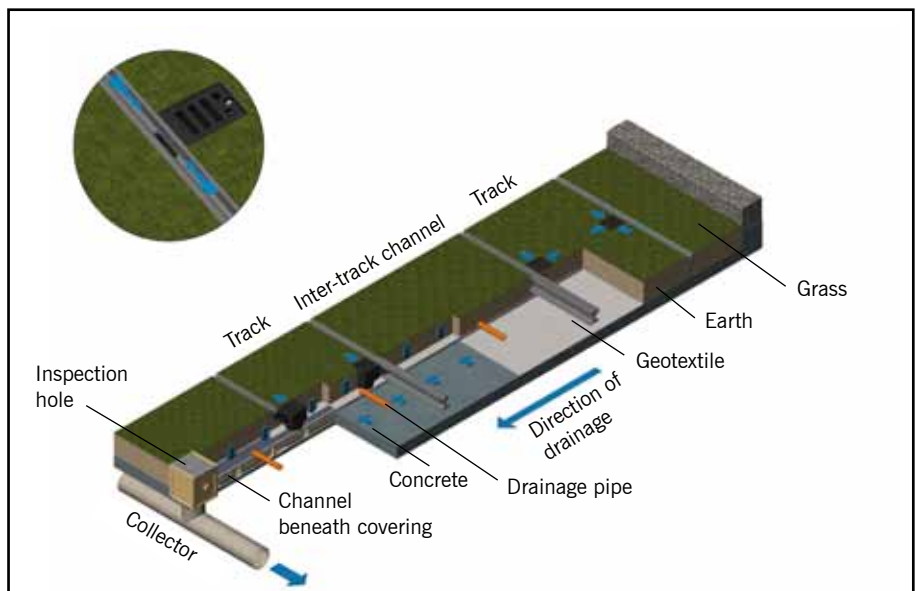
Removal of water from the rail and continuity of the water flow beneath the rails



In concrete areas



Inspection hole



## Examples of installations



Orleans tramway

### In paved or flagged areas

The ACO TRAM system drains surface water and that contained in the rail groove, thus preventing pedestrians and shop windows being splashed when the tram runs.

### In concrete and grassed areas

In grassed areas, the water gullies drain the water contained in the rail groove.

Water seeping through the grass is collected via drainage pipes which then discharge into the ACO TRAM channels.



A roundabout at Le Mans

### Our references

- Bordeaux
- Brest
- Grenoble
- Le Mans
- Lyon LEA
- Lyon T4
- Marseilles
- Montpellier
- Nantes
- Angers
- Nice
- Orleans
- Paris TMS and T2
- Rouen
- Strasbourg
- Reims
- Rabat
- Alger
- Toulouse
- Oran
- Saragossa



The Bordeaux tramway in a grassed area

## Other ACO product ranges

- Drainage systems for roads
- Cast iron equipment for roads
- Water pre-treatment
- Renovation of sewers
- Fitting out of stadia
- Landscaping: terraces, gardens, swimming pools, etc.

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