



De-Icing

Grinsty Rail's innovative De-icing system provides the rail operator with the ability to accurately dispense anti-icing fluid such as 'Magic Ice' and 'Kilfrost' or de-icing using diluted Ethylene Glycol onto conductor rails. Using an intelligent laser track detector, the dispenser can auto change and apply to the correct rail, to save cost and improve efficiency, while being environmentally friendly. The system eliminates the problems associated with ice formation on the surface of current collection equipment and helps to ensure a more reliable service during difficult winter conditions.

The underbody mounted tank is custom designed to fit a specific class of vehicle and is subject to full stress analysis. This allows the rail vehicle to carry a large volume of anti-icing fluid to reduce the need for regular top up. The tank and components are manufactured from stainless-steel to provide excellent durability.

Features

- Laser track detector
- Large custom designed stainless-steel tank
- Fully baffled
- All stainless-steel components
- Mechanical fluid level gauge
- Electronic fluid level measurement sensor
- Flow rate is auto adjusted to the speed of the train via internal control system
- Fast Re-fill; capability to transfer 425 ltr/ min
- Auto shut-off once the tank has been filled
- Low fluid level reporting
- Fluid dispensing via spray nozzles or collector shoes

SPECIFICATION

Power Supply	24Vdc, 110Vdc, -52Vdc
Power Consumption	300W max. (Twin pump version)
Typical Tank Size	450 Litres, 900 Litres, other sizes available on request
Fluid	Kilfrost, Magic Ice, Ethylene Glycol
Inputs	2 x Laser track detection 1 x Tank level sensor 1 x Manual test push button
Outputs	2 x Laser heater supply 1 x De-Icing active relay
TCMS Connection	RS485 or Ethernet
TCMS Interface Messages	De-Icing active Train speed Train in tunnel Train in depot Tank fluid level (Litres)
Dispensing	Spray nozzle or collector shoe
Dispensing Flow Rate	1.2 ml/metre per nozzle, other flow rate available on request
Tank Fill Rate	425 Litres/min
Min. Operating Temperature	-25°C
Standards	EN50155, EN50121-3-2
Typical Weight	300Kg empty (450 litre tank)
Typical Dimensions (W x H x D)	1500mm x 420mm x 2500mm (Dependant upon tank)



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Specification subject to change
without prior notification.