Retractable Grounding Reel for Floating Roof Tanks

Model: RGR ATEX IECEx

The “Retractable Grounding Reel” (RGR for short) is designed to reduce the risk of lightning damage and fire by creating a low-impedance bond between the floating roof and tank shell. The lightning current and bound charge will be effectively and rapidly dissipated to earth upon a lightning strike. Compared with the conventional bypass conductor, it will effectively decrease the possibility of a lightning-induced fire, and make it more reliable and safe.

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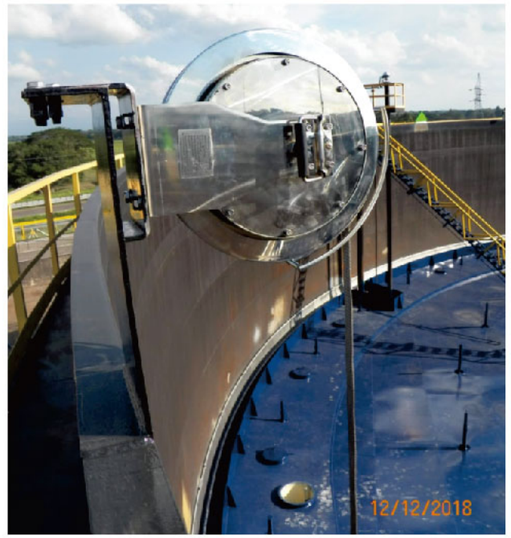
Features & Benefits

- Waterproof.
- 316L stainless steel housing for corrosion resistance.
- Pre-Tensioned: The RGR is pretensioned at the factory, so no on-site tensioning is required.
- Double braided cable. The inside copper cable is protected by the SS cable outside, durable and corrosion resistance.
- China Patent No.: ZL 2016 2 1012793.X
- Applicable Directive: 2014/34/EU and IECEX

Materials	
Housing	316L stainless steel
Spring	301 stainless steel
Cable	Double braided cable 2880/34 Tinned braided copper cable (Inside layer) Braided 304 SS cable (Outside layer) Cross-sectional area 50²mm
Cable Length	18m (24.4m is available)
Total Resistance	＜0.03Ω

Weight & Dimensions	
Net Weight	37.0 kg
Shipping Plywood Case	8.0 kg
Total Weight	45.0 kg
Overall Dimensions	58*55*40 cm

Tank Circumference, meters	Tank Diameter, meters	Quantity of Required RGR’s
≤60	≤19.10	2
≤90	≤28.65	3
≤120	≤38.20	4
≤150	≤47.75	5
≤180	≤57.30	6
≤210	≤66.84	7
≤240	≤76.39	8
≤270	≤85.94	9
≤300	≤95.49	10
≤330	≤105.04	11
≤360	≤114.59	12
≤390	≤124.14	13
≤420	≤133.69	14
≤450	≤143.24	15
≤480	≤152.79	16
≤510	≤162.34	17
≤540	≤171.89	18
≤570	≤181.44	19
≤600	≤190.99	20



Reference

API Recommended Practice 545 First Edition, October 2009
Item 4.2.1.2.2 Number, Length and Electrical Resistance
The tank floating roof shall be bonded to the tank shell by direct electrical connection through an appropriate number of bypass conductors. Each conductor, including connections, shall have a maximum end-to-end electrical resistance of 0.03Ω. The bypass conductors shall be of the minimum length necessary to permit full movement of the floating roof. Bypass conductors should be evenly spaced not more than every 30 m (100 ft) around the tank circumference with a minimum of two.