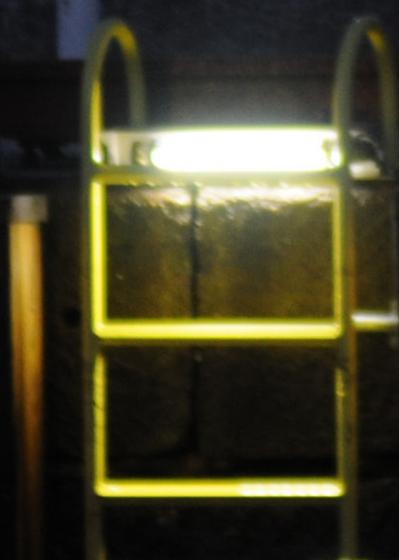


# ILLUMINATION FOR RESCUE LADDERS

- Can Save Lives



TRANBERG

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THE STRONGEST LINK.

Rescue ladders illuminated by R. STAHL TRANBERG are created in cooperation with The Port of Stavanger, Rogaland Fire and Rescue, and Rønning Electro. We are grateful to be a part of such a meaningful project. Being involved and helping to save lives is one of the most meaningful business models one can have.

# ILLUMINATION FOR RESCUE LADDERS

- By R. STAHL TRANBERG Can Save Lives

Along the Norwegian coast, there are several wharves with too few rescue ladders. For many years this has been a problem for people who have fallen into the sea, and unfortunately made a negative contribution to the drowning statistics.

The Port of Stavanger is surrounded by restaurants and pubs, with a bustling life along the wharves in the evening and at night all year round. Sadly there have also been tragic drowning accidents here in recent years.

The Port of Stavanger wanted to do something about this and therefore invited Rogaland Fire and Rescue, Rønning Elektro and R. STAHL TRANBERG to a brainstorming session to improve the conditions.



## The Challenges

The Port of Stavanger has little difference between high and low tide. Still, there are challenges with the inner wharves being flooded when storm surges occur. For example, some ladders with lighting would come under water when the water level rises. In addition, one must consider that large ships sometimes squeeze the fenders flat and then also hit the ladders that are mounted between the fenders. Vandalism of the installations was also a factor that had to be taken into account.

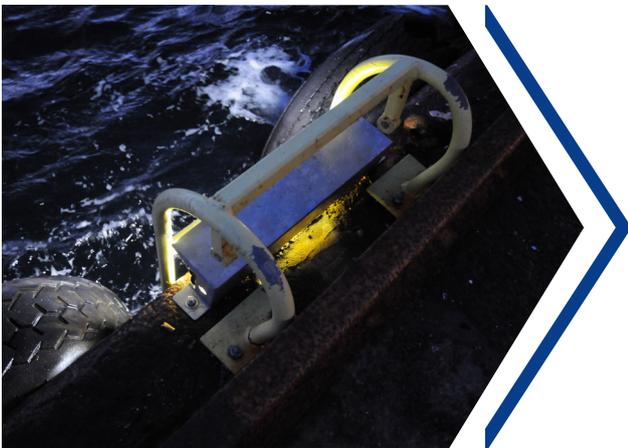
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## The Process

R. STAHL TRANBERG's good relationship with the Port of Stavanger and Rønning Elektro brought us together to test a special type of lighting in January 2021 – in rain and wind. We then tested which colours gave the best lighting on the ladders, which were painted with yellow RAL 1016 paint. It was important that the lighting could be under water for a few hours. The light should not dazzle the navigators on ships calling at the harbour. They should also shine about 2 meters out into the sea so that you could perceive the bright spots at the wharf ladders if you were in the sea.

Rogaland Fire and Rescue has been involved in testing which colours gave the best results based on the above criteria.



### *Some facts on the LED lighting from R. STAHL TRANBERG:*

- *Mounted in a protective housing of AISI 316L.*
- *Highly corrosive resistant.*
- *Robust construction to endure harsh weather conditions.*
- *Ingress Protection 66/68.*
- *Low start up current.*
- *Life expectancy approx. 100 000 hours.*

## The Result

Eventually, it was concluded that LED lights with a colour temperature of 4000 kelvin gave the best result. The LED lighting from R. STAHL TRANBERG was chosen with an IP degree of IP66 / 68, with pre-assembled cable lengths of 25 and 50 meters from the factory. This is an entirely tight Ex version with an LED insert in a tube mounted in a protective cap in stainless steel, SS316L. The cables are laid in pipes cast into the wharf to the nearest electrical cabinet. As shown in the pictures, the lighting is mounted between the ladder beams on top of the quay so that ships cannot squeeze the flat ones, nor are they exposed to vandalism. Life expectancy is about 100,000 hours, and they have now been in operation for half a year. They have been underwater through the winter storm surge.



*The image shows an illuminated ladder in the Port of Stavanger. Before the luminaire was installed it was almost impossible for a person who had fallen into the sea to notice the ladder in the darkness. Today it is literally spoken "A light in the dark" for the person who is in the water.*

## **An Impactful Solution**

For us at R. STAHL TRANBERG, this has been a meaningful project to be part of.

We have also received countless new requests from various ports along the coast. There is clearly a need here, which we have hopefully found a very good solution for.

Being involved and helping to save lives is one of the most meaningful business models one can have.



**TRANBERG**

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