

### Summer 2022

Summer arrived, meaning many will go on summer holidays or already have been. Traveling is possible again after a few difficult years so many will go abroad. This will bring new challenges as we see in the news with various airports here and abroad. We wish everyone a good summer holiday.

### URGENT SERVICE CALL

With main customers in the Marine, Offshore and Industry, we remain very active in the summer months, although this time of year always brings its own challenges in availability of people and products.

One of these examples was solving a crack in a large seawater filter which was significantly leaking. Due to the size of the crack and the condition of the entire filter it was obvious that the filter had to be renewed. With using Wencon products the crack was temporarily repaired to stay in operation until the new filter unit arrived. The customer awarded us with a PO for producing the new seawater filter, which had to be produced custom made. The filter unit was produced by our **RMN Service Partner, Minderhoud Techniek**, and also equipped with the well-known **Wencon 2-layer Coating system** (600 microns) for a long-term protection against bi-metallic corrosion in seawater environments.

Despite the busyness of all parties, the new produced seawater filter was delivered on time, so it could be installed upon the arrival of the container vessel in the port of Rotterdam.

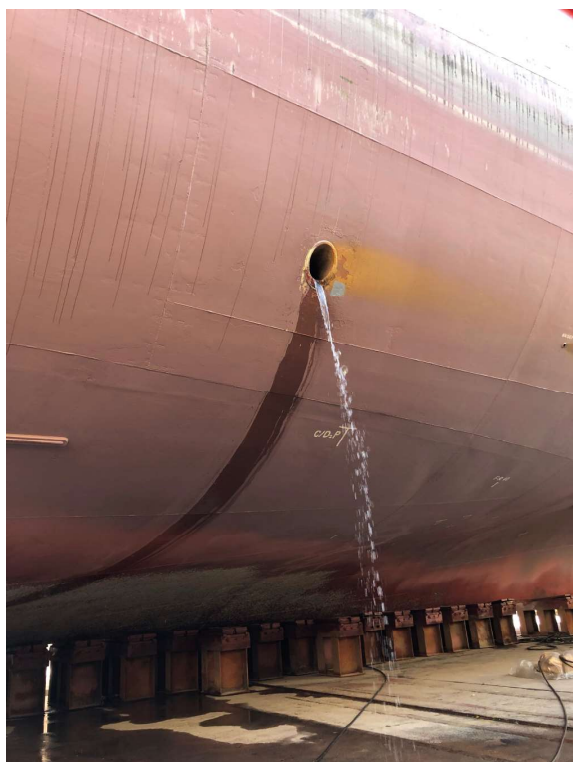


## WENCON PRODUCING NEW SEAWATER FILTER



## WENCON SCRUBBER SOLUTIONS

**Wencon and RMN** both have built up extensive experience in repairing and protecting vulnerable parts of the exhaust gas scrubbers. Common problems in these systems are **corrosion damage inside the scrubber** especially nearby the washer nozzles, so at the top of the scrubber system. The **GRE pipes** also regularly cause problems and show leaks. One of the major problems is often the last steel pipe section connected to the ship's hull below the waterline. Due to the very low Ph value of the wash water this part is subject to a lot of corrosion, which can sometimes occur very quickly. This piece of pipe can be very well protected with the **Wencon Hi-Temp** and **Wencon Ceramic**. The **Wencon UW-products** can also be used as the withstand this low Ph water. With the right surface preparation and an extra thick layer of the above products, this part of the pipe can be very well protected. These days more shipping companies and shipyards find their way to us for this treatment with Wencon products. Over the years Wencon and RMN created a good network of partners who can properly run this type of application. It is also possible to do underwater inspections or hire our diving company partners for underwater repair jobs.



## WENCON GRE REPAIR

Wencon has launched 3 pieces of **GRE Pipe Repair Sets** for GRE Ballast pipes and GRE Scrubber pipes as well. The sets are available for pipes in diameters DN250, DN500 and DN1000 and each set contains the correct amount of Wencon products to repair and protect 1 meter length of pipe in the indicated diameter.

Other diameters of pipes: we can calculate what you need.

## WENCON UW

Various diving companies now have extensive experience with the application of Wencon UW products.

This product range has been specially developed for use underwater or in circumstances where the surface to be processed is not dry enough and cannot become enough above dew point, as in ballast tanks. The Wencon UW products have a very good adhesion to the substrate and are easy to apply.

Do you have underwater repairs and you are looking for the right diving company, please contact RMN.

**Wencon products are certified by the major Classification Societies.**





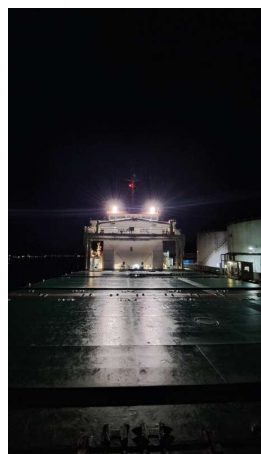
## SAVING ENERGY WITH THE NTE PM-PRO



### NTE PM-PRO LED FLOODLIGHT THE SMALL POWER CHAMPION

Our **PM-PRO LED Floodlight** is a very popular and much appreciated light fixture with an extremely good Lumen/Watt ratio of up to **194 lm/W**. High quality NTE LED 3535 **L90B10**. No power disturbing due to a power factor  $\cos > 96\%$ . Suitable for a voltage of 95 ~ 270Vac at 48 ~ 63 Hz. Certified EN 60598-2-3 / EN 55015 / EN 61547 / EN 62493 / EN 61000-3-2 / 2009/125/CE. Optional to order with a special certified Anti-Saline Coating to protect the fixture against the harsh saltwater conditions at sea. The fixture weighs only 5,4 kg and is available in many versions with light outputs **up to 36.449 lumens**. The protection is IP66 and IK08 and the housing is equipped with a breather valve which compensates the pressure in the fixture during temperature changes and thus prevent condensation build up. Available in various symmetrical optics from 10 to 160° and A-symmetrical, so that we have for every application the right light solution.

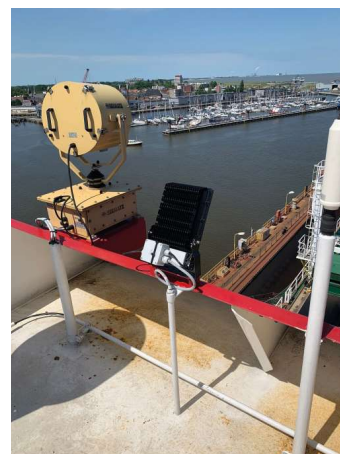
Each NTE Sistem PM-PRO comes with a manufacturer's warranty of 5-years and an estimated lifespan of **>100.000 hours**. The NTE LED Floodlights are such a great success that our customers even send us pictures of the result after installation, as here above and below.



**PM-PRO**



**PM-PRO**



## NTE PM-TITAN THE NEW GIGANT

The **NTE PM-TITAN** shows that LED Technology is still developing. This new LED Floodlight is specially developed for use in sports stadiums, harbour areas, airports, large industrial areas etc. The fixture has a Lumen/Watt ratio of up to 158 lm/W. The light output is **up to >200.000 lumen** and the fixture comes with a 5-year manufacturer's warranty and an estimated lifespan of **>100.000 hours L90B10**. Power factor  $\geq 96\%$  ( $\cos \phi \geq 0,96$ ) so no harmonic pollution on your power system. Suitable for a voltage of 95 ~ 270Vac at 48 ~ 63 Hz. Certified by IEC 61000-3-2 | EN 61000-3-3 | EN 55015. THD < 10% maximum. As with all other NTE light fixtures, the TITAN can also be supplied with the optional certified Anti-Saline Coating. The fixtures are available with 4 and 6 modules and a standard light colour of 5000K (other light colours optional). Special electronics ensure that the light is very suitable for Television recording without flicker. A special control system and bi-directional telemetry that allows the user to know in real time in what status the fixture is, switch on, switch off, regulate power or program different operating modus, so that the behavior of the luminaire adapts to any situation. It allows presence of light and movement sensors for decision making.

## PREVENTING LIGHT POLLUTION

Very often only a part of the light illuminate the right place and the rest of the light is lost and is emitted above the horizon thus illuminating the night sky and contributing to what is known as light pollution.

One of the crucial factors in preventing this is to ensure that the light is effectively directed to serve its purpose rather than scattering across the sky, which is known as 0% ULOR (Upward Light Output Ratio).

NTE Sistemas has many years of experience in the correct lighting and the prevention of light pollution.

The **NTE TITAN is unique** and ensures that **only less than 1%** of the light is lost in the night sky and thus prevents light

We as RMN have now received already the first order to replace the mast lighting for **2 Soccer Fields in Rotterdam**, whereby this soccer club is the first in the Netherlands with this high-quality lighting fixture. Besides the fact of the excellent quality of this well-known Spanish manufacturer, the newest features of the system was also a decisive point to make this choice.

The lighting can be controlled very easily, not only from the supplied control box, but the customer can also monitor and operate everything **remotely via a Smart App developed by NTE Sistemas for Smartphone or Tablet**.

More about this installation in Rotterdam will come later after installation, which is expected in the autumn of this year.



## NEW LED EX FLOODLIGHT

### NEW THE RLF 320 SERIES EX LED FLOODLIGHT

The **TEPEX RLF 320** is the latest development in Ex ATEX LED Floodlights from manufacturer TEPEX. Like all light fixtures from this manufacturer they can be used in ATEX **Zones 1, 21, 2, 22**. This light fixture has a high colour rendering index with a CRI index of 80.

The estimated lifespan is 70.000 hours at an ambient temperature of  $T_a +40^{\circ}\text{C}$ .

The light fixtures are equipped with OVP (over voltage protection), OCP (over current protection) and OTP (over temperature protection), which protects the fixture electronics in all possible ways and where an automatic reactivation follows after recovery. The housing is produced from very high-quality aluminium with a powder coating for the right protection in harsh environments. Diffuser from strong borosilicate glass with a silicone gasket to ensure the correct sealing.

Electronics are separated from the LED module for a good temperature management. All parts are replaceable. The degree of protection is IP66 and shock resistant IK08.

Apparatus category is II 2GD-markering CE0722, Explosion protection; Ex db eb op is IIC T4 Gb, Ex tb op is IIIC T100°C Db, ambient temperatures ATEX;  $-30^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C} / +50^{\circ}\text{C}$  ATEX.

Nominal voltage 90-305 Vac, 127-420 Vdc 50/60Hz, Power factor  $>0,99$ . Lumen/Watt ratio 130 lm/W.

The RLF 320 is available from 2022 as:

RLF 320 LED-1 250W - **24.500 lumen**

(RMN article number 83TEP7030)

RLF 320 LED-2 320W - **31.000 lumen**

(RMN article number 83TEP7031).

It is now possible to pre-order the RLF 320 Floodlights for delivery this autumn.



**TEPEX**  
make your work surroundings safer

### THE PLFS 50 SERIES EX LED FLOODLIGHTS

The **TEPEX PLFS 50 LED** is now a well-known Floodlight

The light fixture has almost the same specifications as the RLF 320 Series.

Category is II 2GD, Explosion protection; Ex db eb op is IIC T6 / T5 Gb, Ex tb op is IIIC T80°C / T85°C Db, ambient temperatures ATEX:  $-40^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C} / +50^{\circ}\text{C}$  ATEX,  $-50^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$  EAC, Protection IP66 category 1 and IK08 shock resistant. Nominal voltage 90-305 Vac, 127-431 Vdc 50/60Hz. It is a very versatile lighting fixture which can also be supplied with a special bracket as a duo light in a set of 2 light fixtures.

This luminaire is available in versions 35W - 4520 lm, 50W - 6460 lm and 60W - 7750 lm. Lumen/Watt ration 129 lm/W. It is a light fixture with a very pleasant price level and is widely used in Marine and Industry in potentially explosion hazardous environments.

A protective grill for the lens and a special suspension bracket for mounting the light fixture on a pipe are available as accessories.





### NEW THE TEPEX FLXL LED SERIES EX LED LINEAR LUMINAIRES

The **TEPEX FLXL Ex LED** is an addition to the well-known and successful TEPEX FLX LED, which has been also upgraded with a newer more efficient driver and LED PCB's, increasing the light output to 6.480 lumens with the same power consumption (36W version).

The new **FLXL LED for ATEX Zone 1, 21, 2, 22** is basically the same luminaire, but in 3 different wattages and lengths. The FLXL LED is available in 18W - length 362mm 2.900 lumen, 36W - length 552mm 5.980 lumen and 55W - length 682mm 9.100 lumen. The luminaire is suitable for line lighting up to 20 modules. The luminaire also has a housing made of high-quality aluminium with a special powder-coated protection layer and a strong borosilicate glass tube with silicone seals. The luminaire has standard 3 linear LED PCB's, two cable entries, one fitted with a blind plug and a wall/ceiling mounting set. Multiple mounting options are available, including a special bracket set for Marine environments. The FLXL meets all high requirements and is provided with the correct certificates.

Apparatus category is II 2GD, Explosion protection; Ex db eb op is IIC T6 Gb, Ex tb op is IIIC T80°C Db, ambient temperatures ATEX; -20°C ÷ +50°C, protection IP66 category 1 and IK08 shock resistant. Nominal power; 220-240V 50/60Hz (110V on request).

Connection and installation is quick and easy thanks to the internal cable connections. Control via DALI protocol is optional.

The FLXL is available from October 2022.

It is now possible to pre-order the FLXL Ex LED for delivery this autumn.

The well-known FLX LED is can be ordered as usual and supplied direct from stock.



#### TEPEX Installation equipment

TEPEX has a full range of products for use in potentially explosive atmospheres.

The **TEPEX RK01 junction boxes** are used very often. This product is very popular because it comes completely assembled with DIN-rail, cable terminals and cable glands. This is an enormous time saver in installing and obviously also money wise. These junction boxes are very competitively priced.

Various **switches** are available in the same quality as **series SKX SW**. All to be used in ATEX Zone 1, 21, 2, 22.



## DOUBLEPOWER!! SEA EX LED ZONE 2-22

**The very successful doublepower!! Sea LED is now also available in Ex version for Zone 2-22.**

The Sea LED luminaire has been developed for use on board ships, wind turbines, animal feed factories, agriculture farms, food factories, chemical plants etc. High efficiency characterizes this luminaire up to **177 lm/W**. Various optics and tube materials are possible. The body of the luminaire is based on 80mm diameter borosilicate glass or the highest UV stable quality polycarbonate on the market. The luminaire is available in many different performance levels. The standard supplied light colour is 4000K (optional available in 3000K, 5000K, 6500K). The SEA Ex LED is very suitable for use in harsh environments because of the used materials such as the Stainless Steel AISI 316 end caps and suspension brackets. The protection is IP68 and shock resistance is IK08-09 for glass and IK10 for the polycarbonate version. The entire luminaire is seawater resistant. A quick and easy installation is a big advantage for the user. The luminaires can be ordered complete with a (by the customer required length and type of) cable.

Optionally available as emergency version with a 1 hour or 3 hour battery back-up.

The SEA LED EX is available with 2 modules 19W - length 75,2 cm **3.477 lumen** and 4 modules 39W - length 131,2 cm **6.954 lumen**.

The factory warranty on this Zone 2-22 luminaire is 6 year and the expected lifespan is 80.000 hours (L80B10).

Doublepower!! offers complete light calculation. This is advisable for factories and warehouses to offer exactly the amount of light the customer desire.



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More management less firefighting

# RMN NIEWSLETTER



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## NEW DOUBLEPOWER SKY GENERATION 2



### The new doublepower!! factory is now fully operational.

There is a separate section for the production of the ATEX Ex luminaires. The manufacturer doublepower!! is one of the leading companies in knowledge of LED technique and invest significant in research and development. It is obvious that their own production halls and warehouse are lit with doublepower!! luminaires. Due to the height they use the **SKY Generation 2** which is a top quality LED luminaire that can be used in buildings with heights from 4 up to 30 meters. The luminaire is also available in a Ta Max version, which has specifically developed for ambient temperatures from  $-40^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ . The SKY Gen 2 in standard version can be used in ambient temperatures from  $-40^{\circ}\text{C}$  up to  $+50^{\circ}\text{C}$ . This unique luminaire has been used already for years in steel foundries where temperatures reaches even greater heights. In this specific applications the driver system of the SKY will be placed outside the high temperature area. This is an easy process due to the design of the luminaire with the driver mounted above the luminaire (see picture).

The doublepower!! SKY Gen 2 comes with a manufacturer's warranty of 8 years and the expected lifespan is L80B10  $\Rightarrow$  80.000 hours. The luminaire is extremely efficient in energy consumption of **up to 180 lm/W** for the Ta  $+50^{\circ}\text{C}$ .

The luminaire is also designed for use in extreme dusty environments which makes it very versatile. Due to the special design, the heat dissipation is as fast and effective as possible.

The doublepower!! SKY Generation 2 is available in versions from 2 modules up to 12 modules. The colour index is RA $>80$  and RA $>90$ . The luminaire is just like the other doublepower!! luminaires equipped with a Tridonic Driver with a lifespan of over 100.000 hours. The luminaire has no stroboscopic effect which is a safety must in applications with running machines. It can be supplied with DALI/DSI protocol. The IP68 connector ensures a fast and reliable connection.

Just like all other doublepower!! LED luminaires are these also developed and produced in the Czech Republic.

RMN and doublepower!! are able to make a reliable light calculation and quotation for your factory or warehouse.