

# SUCCESS STORY



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# WE-EF and Böllhoff light up Bielefeld!

The logo for WE-EF, featuring the lowercase letters 'we-ef' in a bold, white, sans-serif font against a solid black rectangular background.

## WE-EF is the leading specialist in exterior lighting

As a trusted manufacturer of high-performance luminaires, WE-EF combines state-of-the-art lamps and control technology with advanced optical systems and superior mechanical engineering. The Group, established over 60 years ago and located in Bispingen, comprises today of seven companies in eight different locations worldwide.

WE-EF, a pioneer in LED exterior lighting, has actively participated in its development from the beginning. The company's technical development competence is always proven by constructive, optical and electronic innovations.

As a manufacturer, WE-EF also provides design engineers for special applications, supporting the technical light qualities of buildings and their atmospheric effects.

For instance, WE-EF lights up Terminal 5 of the JFK International Airport (New York, USA), the Manchester City Stadium (Manchester, UK), the park Gardens by the Bay (Singapore) and the Sydney Opera House (Sydney, Australia)...

... and now Bielefeld as well.



*Street lights made by WE-EF*

## Initial situation

LED mast luminaires of WE-EF are installed in different climate zones around the world. Prevailing external influences like weather conditions, winds, saline air or sand drifts considerably affect the lamps' life expectancy and functionality. A reliable protection against corrosion or vibration has to be guaranteed for an optimal performance of the lamps. For corrosion-resistance, WE-EF applies the 5CE technology; so for all products a recycled aluminium alloy with a low copper content is used. In order to resist high vibrations, several shake tests were performed. Conventional screw joints in the lamps' housing did not pass these tests and became loose. To meet the important demand of screw locking, the WE-EF Group uses the HELICOIL® screwlock thread inserts.

## The solution HELICOIL®

HELICOIL® screwlock thread inserts have an additional screw-locking area. One or several polygonal-shaped threads clamp the flanks of the installed screw. The elastically resilient frictional locking results in prevailing torques similar to the specifications of ISO 2320.

By using a corresponding installation tool, the thread inserts are screwed manually into the aluminium housing of the different lamps.



*Small image: Bielefeld, Rabenecksheide, light situation before conversion*

*Large image: Bielefeld, Rabenecksheide, light situation after conversion to WE-EF VFL540-LED street lights*

### Bielefeld benefits!

Due to the conversion of a total of 14,800 lamps in the public street lighting sector, the city of Bielefeld could cut down their electric power consumption by 5 million kWh annually. This was made possible through subsidies of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety within climate protection projects of the Federal Republic of Germany. CO<sub>2</sub> emissions could be also reduced of about 42 % respectively 7,100 t per annum. For instance, the LED mast luminaries made by WE-EF in residential streets feature a nominal power consumption of 21 W – compared to the previously used opal glass lamps with 89 W. By means of the WE-EF OLC® (one LED Concept) lense technique, the light will be focused effectively and controlled onto the surface to be illuminated. Consequently, the energy use and pollution caused by scattered light have been reduced.

### 60 years of HELICOIL®

1954 – a very important year. In Germany, Böllhoff started the HELICOIL® production and thereby created product history. Today, the 60th anniversary of the HELICOIL® thread inserts is celebrated. These thread inserts create high-strength fastenings in metal materials of low shear strengths. The newest generation of the HELICOIL® plus technology allows a simplified installation due to easy handling. For more than 60 years, the HELICOIL® has been an accredited construction element. There is hardly any requirement regarding the thread technology that could not be solved.

## Customer benefits

- Securing device
- Increased quality and value

## Product characteristics

- Corrosion and temperature resistant
- Resilient
- Screw-locking area
- Wear-resistant



**60** YEARS  
**HELICOIL®**  
 made by **BÖLLHOFF**

**Böllhoff International with companies in:**

Argentina	Korea
Austria	Mexico
Brazil	Poland
Canada	Romania
China	Russia
Czech Republic	Slovakia
France	Spain
Germany	Switzerland
Hungary	Turkey
India	United Kingdom
Italy	USA
Japan	

Apart from these 23 countries, Böllhoff supports its international customers in other important industrial markets in close partnership with agents and dealers.



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