

Cargill is an international producer and marketer of food, agricultural, financial and industrial products and services. Founded in 1865, the privately held company employs 131,000 people in 66 countries. The site in Mainz processes rapeseed to vegetable oil and coarse rape meal. The plant consists of two areas, namely an oil mill and a refinery where 45 employees work.

## CaseStudy

# Cargill

### Communication and illumination in difficult conditions

**Problem:**

Naturally explosive atmospheres such as dust and gas occur in the oil mill and refinery sectors. This production environment demands devices that are not only gas-Ex and dust-Ex certified, but devices that are also sturdy enough to cope with the everyday activities. Another challenge is posed by the noise level generated by the various machines in the plant. This requires ear protection that provides effective sound insulation, but still enables optimum communication.



Dispatch area

**Solution:**

Optimum illumination is of significant importance for zero checks in the production department and in the dispatch area. A flashlight that exhibits the highest safety level and which permits hours of work in the brightest light is required here. The Lite-Ex PL 30 intrinsically safe flashlight and its state of the art LED technology can be used in Ex-zone 0 and 20. The innovative, non-contact and wear-resistant ring switch can even be operated easily while wearing gloves.

Gas- and dust-approved mobile phones from ecom are used on the premises for safe and trouble-free communication. The Handy 06 model and the mobile phones from the X.com 60x series, which are used here, are approved for zone 1 and 21. These are not only impressive due to their Ex-protection, but

are also unbeatable in terms of volume and their quick-change battery.

Corresponding hearing protection systems are required to complete the communication network in these noisy



The Lite-Ex PL 30 with its extremely high brightness level thanks to state of the art LED technology

## InfoBOX

**Company:**

Cargill

**Application:**

Communication Portable lighting technology

**Area of application:**

Oil mill & refinery

**Product:**

Flashlight: Lite-Ex PL 30

Bluetooth headset: Ex-TRA BT

environments. A requirement specified here was that anyone wearing the hearing protection system also has to be aware of possible alarms under all circumstances and that communication is guaranteed. The result: A hearing protection system with integrated headset, complete with Ex-protection. Headsets with a sound insulation value of 32 dB were the starting basis. The Ex-TRA BT system from ecom provides the solution. This is an intrinsically safe headset which can be paired with all modern mobile phones via its Bluetooth interface. Even voice-over-IP solutions can be realised in combination with the correct hardware. An ideal addition to the Ex-mobile phones currently in use. The entire chain of communication in the Ex-area has thereby been ensured.

**Benefit:**

„Safe and secure communication throughout the plant is now possible thanks to the use of intrinsically safe mobile phones and the Ex-TRA BT Bluetooth headset from ecom. The devices are not only approved for use in all Ex-areas, but they are also unbeatable in terms of volume and their quick-change battery.“

Mr. Sperling, an industrial electrician at Cargill GmbH in Mainz, is delighted the long-awaited solution has been successfully established at the plant. A rugged construction, noise protection, gas- and dust-Ex approval, as well as excellent illumination were all required here for a safer and more efficient working environment.

Mr. Sperling continues: „This saves us a considerable amount of time. Fast and

reliable communication is essential, particularly in the event of an accident or breakdown. Decisions can be made quickly and easily during operation.“



Thomas Sperling, industrial electrician at Cargill



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