

SparkEx
The Safety Solution



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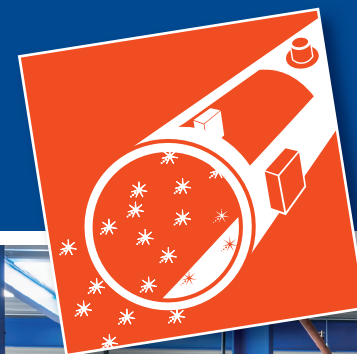
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GOTTSCHALK
Fire Protection Solutions



SparkEx
The Safety Solution



SparkEx® – Spark extinguishing system

Safety for your
production facility.





SparkEx® spark extinguishing system for the detection and extinguishing of sparks in exhaust systems to prevent fires and explosions in downstream plant areas.

Why use SparkEx® as protection for your exhaust system?

Production facilities harbour a significant risk of fire and explosion, owing to the processing of combustible materials. Particularly susceptible in this regard are dust and swarf hoppers, filter systems and production machinery.

How does the SparkEx® spark extinguishing system work?

Any sparks created will be detected immediately after formation while still within the conveyor; this is accomplished by our highly sensitive wireless detectors, whereby an alarm will then be sent to the fire-alarm system. This unit is at the core of the spark extinguishing system. It handles the triggering of the spark extinguishing system, the alarm message, the spark count, as well as machinery shut-down, if needed. This unit also contains extensive test devices, as well as an emergency power supply.

The actual extinguishing of the sparks is carried out by the spark extinguishing system. This produces a fine spray, which fills the entire cross section of the conveyor

thereby extinguishing the sparks. The amount of water required here is kept so low that it will not adhere to the transported material.

The required extinguishing water is supplied by means of a pressure booster system or connectors which link to an existing sprinkler system.

Additional systems such as pipe heating, alarm devices, a header tank and installation materials are included in the extinguishing system, depending on the design.

SparkEx® spark extinguishing system uses

The contamination of the transported material or the upstream processing machines can lead to sparks that may start a fire or explosion which could endanger lives and lead to serious damage.

Fire protection for this type of risk is implemented within pneumatic exhaust and conveyor units by means of a spark extinguishing system.

Facts

How are sparks detected?

The sparks are detected via two infrared wireless detectors placed opposite of each other.

How are the sparks extinguished?

The sparks are extinguished with a specially developed spark-extinguishing hollow-cone nozzle by building up a wall of water.

It is controlled via a solenoid valve which is controlled by the spark detectors.

How much water does the nozzle discharge?

It depends on the pressure in the pipe network.

The degree of pressure selected is always based on the available detection and extinguishing components. The greater the pressure, the shorter the distance between detection and extinguishing.

Usually the systems use 6-10 bar, which results in a discharge of approx. 30-70l per nozzle.

Does the water constantly need to be refilled?

Water supply via the sprinkler system: An available compressed-air water tank is required. This is then converted to refill water automatically.

Water supply via a pressure boost system: This can be done if no compressed-air water tank is available. The water is refilled automatically via a filling container with floating valve, which is supplied with extinguishing water from the local water connection.

Can SparkEx® be installed anywhere?

SparkEx® can currently be installed with pipe diameters up to 1260 mm. The detection area cannot have any foreign light.

Where is SparkEx® installed?

In all exhaust channels where sparks may develop as well as in all other channels where insurers require VdS.

Are there different variants of SparkEx®?

Single, double and triple versions of SparkEx® are available for different applications and pipe sizes. These include 1, 2, or 3 nozzles each, which are arranged in the pipe.