EXPRESSURE

THE STRONGEST LINK. STAHL

EXPRESSURE – THE REVOLUTIONARY TECHNOLOGY FOR CABINETS

Ex d enclosure in a lightweight construction

LIGHTER, MORE COMPACT, MORE COST-EFFECTIVE

The EXpressure from R. STAHL is the first explosion-protected enclosure in the market that safely releases explosion pressure. The revolutionary enclosure technology enables cabinets to be built virtually identical to those used in non-hazardous industrial areas. The new cabinet offers added benefits while still being equipped for reliable use in Zone 1.

Here are your top 3 benefits:

Easier handling:

- **Space-saving enclosure concept** and a **reduced footprint** enable a more compact machine and system design.
- **Reduced weight** ensures easier transportation, handling and installation.
- For the same dimensions, there is **more installation space** available for installing switching and control components.

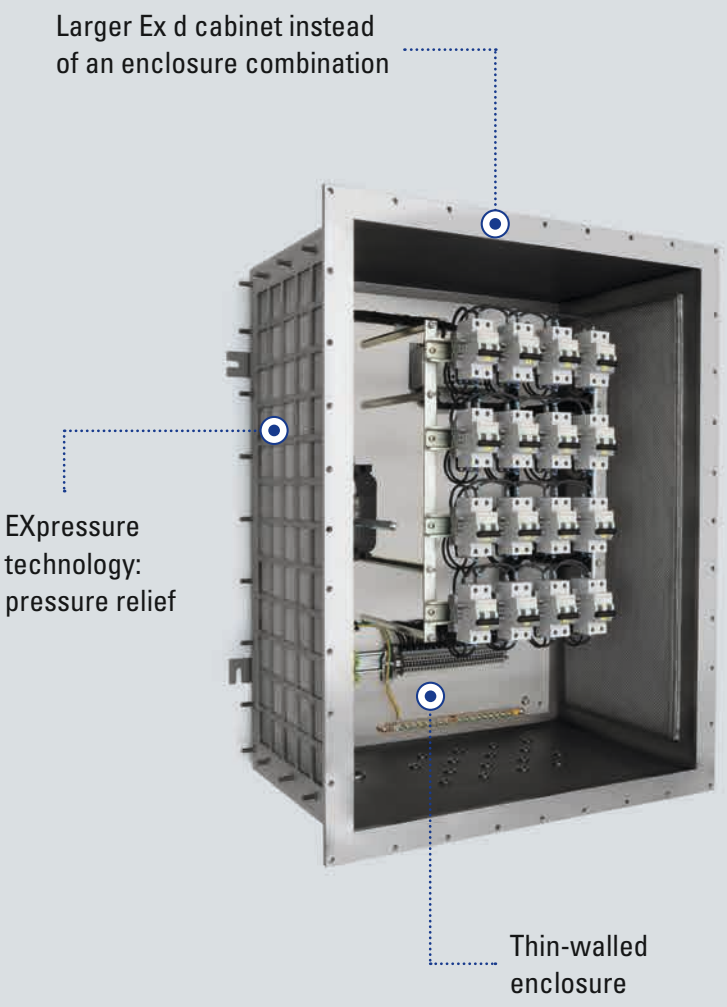
Quicker engineering:

- Significantly **shorter project turnaround time.**
- Easy project engineering of mechanical and electrical control panel.
- **High flexibility for last-minute changes.**
- **Retrofitting and upgrading** does not require significant alterations or reconfigurations.

Lower operating costs:

- Quicker, easier **access** to the control cabinet interior, coupled with a perfectly **clear** configuration and wiring.
- Accessibility is exponentially improved for inspection and maintenance.
- Higher **system availability and productivity,** thanks to reduced downtime in case of error.

ATEX ***IECEx***



Zone 1 2

Ambient temperature -40 °C +60 °C

IP66

Up to -50 % weight

Up to -25 % footprint

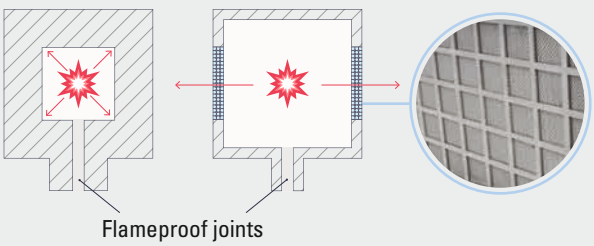
IIB

EXpressure safely dissipates explosion pressure in control boxes, power distribution boards and other enclosures outwards via flow passages in multi-layer stainless steel wire cloths. Thanks to special wire cloth elements, the controlled gas flow and heat absorption reduces the internal pressure increase that occurs after an explosion in the enclosure when compared to conventional Ex d enclosures. The maximum pressure inside an EXpressure enclosure amounts to less than 1 bar. Thus, it can provide protection with a significantly reduced wall thickness.

EXpressure is certified as an "Ex d flameproof enclosure" and is used for operation in Zone 1 and Zone 2. The technology provides a large installation volume and makes quick and easy project engineering possible. The production and installation of explosion-protected controls and distribution boards is significantly simplified. Instead of dividing the overall electrical operation between a number of enclosures, one cabinet is now sufficient for the entire control panel or distribution board.

Technology

Ex d enclosure with solid walls (left) versus the EXpressure design (centre) that features stainless steel wire cloth for pressure relief, marked in blue (right) – of the same dimensions, EXpressure offers more installation space at a lower enclosure weight. (Proportions displayed schematically and by example.)



INNOVATION WITH EXPRESSURE

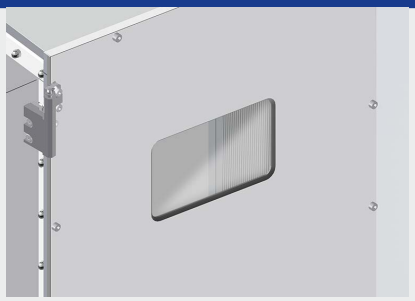
Revolutionary EXpressure technology allows enclosure designs that are significantly more compact and lightweight. As a result, EXpressure features a 30–50% reduction in weight and reduces outer dimensions by up to 25% compared to conventional Ex d solutions. Cost-intensive mechanical connections and elaborate wiring between individual enclosures are unnecessary.

Thanks to the minimal dimensions of the EXpressure cabinet, installation in narrow spaces, on drilling platforms or in escape route areas is now possible. Furthermore, equipment such as transformers or frequency converters can now be safely installed inside the cabinet.

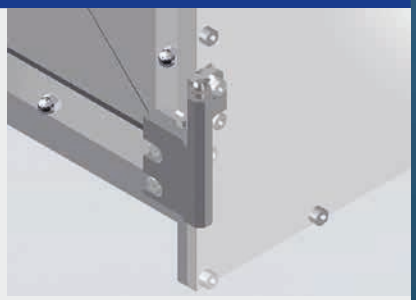
EXpressure technology allows the construction of flameproof encapsulated cabinets with all the benefits known from the industrial sector. A large variety of accessories are available to suit your requirements.

Accessories

Ex e CONNECTION CHAMBER



INSPECTION WINDOW



HINGE

ACTUATING ELEMENT

CONTROL LAMP

CABLE GLAND

ID 267489 | 2018-06 / EN | Printed in Germany

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