



case study



case study 07

## Gas-tight fan assembly for the chemical industry

The hazardous and corrosive chemical environment in which this fan had to operate, required a fully compliant customised solution for this major international customer.



### Application benefits

- Fully compliant EExd Zone 1 specification
- Non-sparking case design
- Corrosion resistant nickel alloy impeller
- Fully gas-tight construction
- Bearing temperature and vibration monitoring.

### Halifax Fan assembly designed for hazardous environment

In entrusting to Halifax Fan, the design and manufacture of this critical assembly, the client demonstrated total confidence in Halifax Fans' standards of engineering excellence and project management.

The Halifax Mercury fan adopted for this custom project included a nickel alloy impeller and an EExd Zone 1 30kW motor, driving

through a Halifax designed gas tight sealed bearing unit via a Steelflex grid coupling at 3000 rpm.

Bearing temperature sensors and vibration monitoring sensors were included in the bearing/coupling design.

To prevent sparking, the case lining was fabricated from non-corrosive

GRP into which was bonded a non-sparking material. Externally, three coats of special polyurethane paint were applied to resist corrosion.

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