



case study



case study 11

## Petrochemical industry fan package

To meet stringent demands for a fan assembly to operate in the safety conscious petrochemical industry, the main contractors turned to Halifax Fan for a total solution built to rigorous standards.



*Bespoke package solution*

### Application benefits

- Designed for petrochemical Zone 1 flameproof environments
- Fan, inlet and discharge acoustic attenuators, filter, inlet vane control damper and discharge duct all included in the project
- Housed in an acoustic enclosure
- Designed for efficiency and quiet operation
- Design, manufacture and project managed

The contractors carefully researched a number of potential suppliers before deciding on Halifax Fan to supply this overall fan package. Halifax Fan is recognised worldwide as one of the foremost designers and manufacturers of high quality fans, with the established project expertise to undertake the design and provision of complex fan systems to demanding specifications.

In this case, the requirement was for a fan to feed combustion air to a burner used to heat liquid petroleum gas (LPG) to a gaseous

state before distribution to customers. In this demanding environment, requirements were rigorous and compliance with EExd flameproof Zone 1 was mandatory.

The overall package comprised a Halifax Fan No42 Chinook backward curved fan assembly incorporating a 1.07m diameter impeller. The fan is enclosed in an acoustic enclosure and incorporates inlet and outlet attenuators with integral filter housing and ancillary discharge duct.

The package included a 3000rpm, 225kW high voltage EExd motor.

The inlet vane damper was operated via an intrinsically safe position control with 4-20mA feedback. Rigorous pre-dispatch and acceptance testing, including a BS848 Part1 1980 Type C performance test, was carried out in-house.

The end result was a worry-free packaged solution which was safe, reliable, quiet and efficient and demonstrated Halifax Fan's ability to cope with demanding specifications for complete assemblies as well as stand-alone fans.

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