



RB211 Acoustic Packages for the Medgaz Pipeline Project

Land Based 25MW Gas Pipeline Compressor Station

Cullum and Rolls-Royce worked together to supply gas turbine compressor units for a pipeline project connecting Algeria to Spain. The MEDGAZ project pumps natural gas from Hassi R'mel field in central Algeria to Almeria in Spain via a deep water pipeline.

The site was subject to a particularly restrictive noise requirement at the boundary. The equipment had to meet a sound pressure level of 45dB(A) at 100m. This is the equivalent of background noise in a library. Cullum designed off-skid enclosures to attenuate both the gas turbine driver and the compressor and an enhanced combustion exhaust silencer to reduce the noise to the required levels across the acoustic spectrum. In addition, the equipment had to be of sufficiently high quality and integrity to satisfy the most exacting standards of the Oil and Gas industry.

Cullum provided three sets of acoustic equipment for the RB211 GT61 gas turbines and for the compressors at the Beni Saf terminal in Algeria.

The enclosure was designed in panel sections for ease of transportation, built at Cullum's facility in the UK and shipped to the Rolls-Royce packaging plant.

Cullum scope included:

- **Off-skid A0 fire-rated Gas Turbine Enclosure and Ventilation System**
- **Combustion Intake Silencer, Plenum and Ductwork**
- **Combustion Exhaust Silencer and Ductwork**
- **Off-skid A0 fire-rated Compressor Enclosure and Ventilation System**
- **Mechanical Handling Equipment for the Gas Turbine and Compressor Units**
- **Support Steelwork Structure**
- **Access Ladders and Platforms for Maintenance**
- **Site Installation Supervision**