

# CASE STUDY

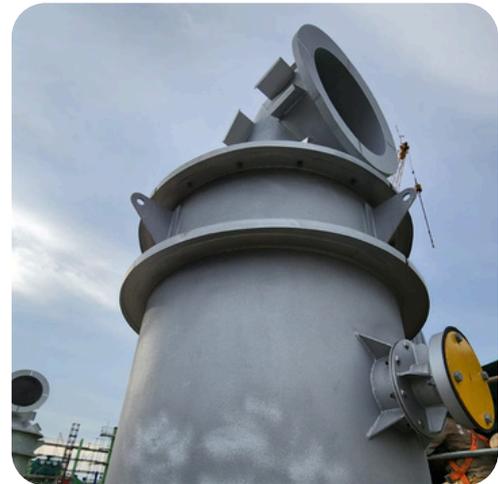
## Custom Vent Silencer for an FPSO vessel

### Customer Challenge:

The client needed a vent silencer installed on a Floating Production Storage and Offloading (FPSO) vessel. The challenge? The piping layout had already been finalized, with two vertical inlets and one side inlet. This meant we had to design the silencer to fit the existing routing without any modifications. Additionally, the offshore environment introduced complex engineering requirements, including structural checks for nozzle loads, explosion load calculations, and wave load impact assessments. The silencer would also be surrounded by walkways and insulated by the client, requiring special considerations for safety and durability.

### Solution:

Burgess-Manning collaborated closely with the client to align the design with their fixed piping configuration. Structural integrity was ensured through detailed nozzle load analysis and advanced calculations for explosion and wave loads. To protect personnel and equipment, we added an exhaust hood to safely direct steam away from nearby walkways. Given the marine environment, all internal components were fabricated from SS316L stainless steel for superior corrosion resistance. We also applied a specialized paint system suitable for use under insulation and supplied bolts and nuts with a high-performance coating, as requested by the client.



### Outcome:

The result was a fully customized silencer solution, engineered to meet the demanding conditions of an offshore vessel. The design integrated seamlessly with the existing piping, met all safety and structural requirements, and was built to withstand the harsh marine environment. The client received a robust, reliable system that ensured both operational efficiency and personnel safety.