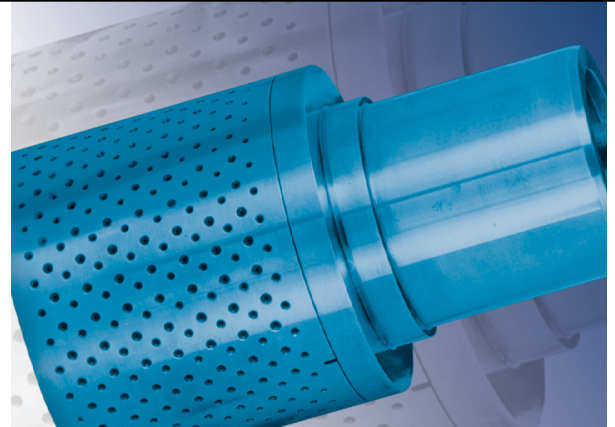


# Noise and Vibration Eliminated in Gas Condensate Export Valve Using Fisher™ Whisper Trim™ III

## RESULTS

- Severe noise and vibration caused by the original valve were eliminated with Whisper Trim III technology
- Outlet pressure swings caused by plug oscillation were eliminated
- Leakage of natural gas through the stem packing was minimized



## APPLICATION

Gas condensate export valve

## CUSTOMER

Gas platform in Malaysia

## CHALLENGE

Natural gas that is destined for export is typically transmitted at high pressure through export pipelines. The function of the gas condensate export valve is to maintain the transmission pressure while delivering the required flow of natural gas. The proper functioning of the valve is vital to the process in order to maintain constant pressure and flow downstream. The valve typically handles large flow rates and high pressure drops.

In this application, platform personnel were experiencing a noise and vibration problem in the gas condensate export valve, which was causing scouring marks on the trim and damage to the seal ring. As a result, the valve experienced higher sliding friction and stiction causing natural gas pressure and flow at the valve outlet to fluctuate. Prolonged vibration was also damaging the stem packing, allowing the natural gas to leak past the packing.

*Fisher Whisper Trim III cages provide effective attenuation of aerodynamic noise in vapor, gas, or steam applications.*

### SOLUTION

Platform personnel contacted their local Emerson sales office in Malaysia for a solution to the valve issues.

Emerson engineers closely examined the application and damage to the valve trim. They recommended a Fisher NPS 14 EHT control valve with Whisper Trim III in a flow-up configuration be used to eliminate the problems caused by noise-induced vibration. Whisper Trim III uses specially designed holes to reduce the noise generated from the control valve and subsequent vibration. Fisher ENVIRO-SEAL™ packing, which has exceptional sealing capabilities, was recommended to address the problem of the process fluid leaking through the valve stem.

The Fisher valve eliminated the noise and vibration experienced in the original valve. Data trending of pressure and flow through the valve revealed that the gas outlet pressure and flow rates were stable. ENVIRO-SEAL packing enhanced the stem sealing and helped platform personnel manage environmental emissions.

### RESOURCES

#### Fisher Whisper Trim III Product Webpage

<https://www.emerson.com/en-us/catalog/fisher-whisper-trim-iii>



<http://www.Facebook.com/FisherValves>



<http://www.YouTube.com/user/FisherControlValve>



<http://www.Twitter.com/FisherValves>



<http://www.Linkedin.com/groups/Fisher-3941826>

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