

# Cryogenic Valve for Liquid Natural Gas (LNG)

## Why stainless?

- Good mechanical properties at cryogenic temperatures
- Dimensional stability during thermal cycling.

## Fabrication process:

Cast body and butterfly. Stem is machined from bar.

## Grade:

For body and disk: EN: 1.4307 (ASTM: A351 CF3M).

For stem: EN: 1.4401 (ASTM: A182 F316).

## Manufacturer:

Velan SAS, France (velan.fr).



This valve operates at cryogenic temperatures, in harsh weather conditions.

Dimensional stability is required during cycles ranging from ambient temperature to liquid natural gas temperatures (usually  $-196^{\circ}\text{C}$ ) to avoid leakage. Perfect reliability is essential.

Clockwise from top right: 107 cm (42 inch) valve; valve at the LNG terminal in Bilbao, Spain; tapped valve after testing in liquid nitrogen.

Images courtesy of Velan SAS, France.

