

## **TOP OR SIDE ENTRY? YOUR CHOICE!**

over the years and geopolitical conflicts will likely frictionless design that ensures low maintenance and push the market to new Liquefaction facilities, increased reliability, without making a compromise carriers, LNG terminals and regasification units.

The capacity of LNG plants has significantly increased Zwick incorporates a unique third offset, creating a in leakage rates. (BS6364 and Zero leakage)

Valves are a critical component at each stage. Valve performance and reliability are vital to the whole process. The unique design, high quality manufacturing and material selection of Zwick Armaturen makes them ideal for LNG installations and other Cryogenic applications.

At the production facility in Ennepetal, Zwick is able to produce Low temperature and Cryogenic valves in different executions. With Butt welded or Flanged connection and Top or Side entry designs, that both offer access for in-line maintenance. There is a demand to produce larger size LNG control and Isolation valves in higher pressure classes. Zwick Armaturen can produce Triple Offset Valves up to 88" in pressure classes up to Class 900 and we keep a stock of LNG valves up to 24" for urgent needs.

Specific features make them ideal for different steps in LNG applications: The full metal design makes the valves intrinsically Fire Safe and suitable for LNG which is a highly flammable medium.





In the case of LNG, natural gas is taken from a pipeline or directly from a producing wel, and the CO2 and H2O are removed, typically using molecular sieves. This process is required to avoid any icing formation prior to the liquefaction process. This drying operation requires frequent cyclic service of the valves. Zwick's frictionless design in combination with High cycle bearings will ensure tight shut off after many cycles. LNG Processes like gas regeneration and regasification undergo a lot of thermal cycles as well. Zwick employs a self-centering disc that is keyed to the shaft, not pinned. This will ensure the valve to keep it's tightness while staying unaffected by temperature fluctuations during operation. Other Triple offset manufacturers permanently pin their disc to the shaft and must rely on radial compression of the seal ring and friction. This makes their designs subject to jamming due to thermal expansion.

Zwick Armaturen GmbH is the best choice in this growing market, maintaining quality and performance without compromises.

HIGH STANDARD VALVES

FOR NON-STANDARD CONDITIONS.