
Our experience in the cylinders filling stations market

TECNOCRYO works since over 30 years in the construction of cylinder filling plants. In the beginning, our company has developed the technology of manual filling pressure, until the early years 1990s. Following the requests of customers as SOL / Linde / Messer / Air Liquide / Praxair / Air Products / Arabian Gas / Gulf Cryo etc .. , TECNOCRYO has developed the technology of weight filling. It was later introduced the correction at the end of filling with parameters of cylinder temperature and ambient temperature.

Very often customers do not have the same specifications.

Examples:

- Lines of stainless steel, monel, copper, tungum
- Valves standard BAM or CTE
- Flexible hoses in teflon + stainless steel, stainless steel + Kevlar

The continuous mixtures of various gases have led us to investigate, for each individual application of mixtures, o-rings with analysis of materials compatibility

In the early 2000 we created a line of valves PN 420 gas for liquid to be fully independent and have a range of specific products that on the market, at that time, were missing. Initially, the valves were made of stainless steel and bronze, but then we created the whole line in monel for the cryogenic valves and, subsequently, for all the check valves. All the valves are produced without PTFE in accordance with the regulations for the food industry and medical applications that many customers now require. We then moved to realize filling systems with manifolds balanced so that the customer could have uniformity in the production lots.

Our filling systems were then implemented with a system known as "cold filling system" which limits the adiabatic compression of the cylinders. This system allows to eliminate partially or totally the end of filling buffer.

For the connections to the cylinders we studied different solutions, often together with our customers. We are currently in contact with Linde Germany for a whole new set of connectors to be used throughout Europe (Mr. Thomas Wischniewski).

Tecnocryo undergone a certification process for cleaning and degreasing for Oxygen use inspection by Linde. As a result Tecnocryo was certified S1 by Linde.

As of today we have created about 450 filling stations worldwide.

Our production is currently complete, starting from the pump and coming up to the cylinder connectors.

In 2008 we introduced the whole design 3d and we are therefore able to show the customer how will the plant look at the end of the installation, even before starting the work.