

ITT Engineered Valves Solutions: BioPharm Industry

Valve solution for flu vaccine production

Situation

New flu strain poses pandemic threat

From 2003 to 2006, the threat of a flu pandemic prompted the United States government to increase funding for vaccine production and construction of U.S.-based pharmaceutical plants. By 2009, a new flu strain known as H1N1 (swine flu) spread globally and was declared a pandemic in early June. After devising an expedited construction plan, one North Carolina vaccine facility needed to be fully operational in less than a year to ensure preparedness in the event of a national outbreak.

To comply with government demands, plant personnel decided to advance all installation orders—including a number of bioreactors, fermentation skids and other bioprocessing equipment. The plant contracted several original equipment manufacturers (OEMs) and contractors for the project. In order to construct and complete the skids, the OEMs needed more than 1,000 diaphragm valves before plant construction was complete—a sizable order to be produced in a condensed time frame.

In searching for a global valve manufacturer with the bandwidth to complete the project and the expertise in hygienic valve design, plant operators selected ITT Engineered Valves to fulfill the order.

The ITT Solution

With ITT Engineered Valves, the plant received its order in almost half the time—allowing for a timely completion of site construction and the ability to produce vaccines in the event of a flu pandemic.

Project Overview

Application: BioPharm

Valve type: Pure-Flo hygienic diaphragm valves

Standard installations: Two-way valves

Custom installations: Zero-static point-of-use valves, multi-valve block body configurations

Product Specs: 316L SS, SFV6 polish (25Ra mechanical with Electro-polished ID), TM17 diaphragms, Advantage actuators, 963 manual bonnets

Product features: Hygienic diaphragm valves used to manufacture vaccines

ITT Solution

A consultative approach for guaranteed efficiency

Members of ITT Engineered Valves’ leadership team sat down with end-user personnel, the engineering firm, distributors and multiple OEMs to prioritize the order and provide a quality customer experience. ITT Engineered Valves worked closely with the entire team to ensure the valves had the correct orientation and specifications necessary for each piece of equipment. For one critical process skid, with little time to spare on design and review, the specialists at ITT Engineered Valves sat down with the team and condensed a month-long process into just one day.

In addition to the valves supplied for the skid, ITT Engineered Valves manufactured installations for the facility’s bulk building, fill finish and central utilities building. To meet the substantial demand, ITT Engineered Valves solicited the help of its European and North American locations, hosting daily meetings between sales and operations to keep the process running smoothly.

The ITT family of industrial brands includes:



Managers and engineers from all locations worked tirelessly day and night to make sure the entire order was accurately filled. Due to the high volume of shipments, ITT Engineered Valves also sent a project manager to assist the plant with maintenance and logistical operations through the duration of the project.

Local ITT Engineered Valves sales representatives were also on site at all times to train the plant's staff.



ITT Engineered Valves continues to devise more streamlined processes for plant optimization by improving original designs.

Results

Value delivered through product and process expertise

ITT Engineered Valves' quick delivery and attention to detail helped expedite the order without sacrificing quality. Specialists at ITT Engineered Valves were able to customize the unique valve orders to meet the customer's needs and uphold the appropriate hygienic standards. With the accelerated process—and the teamwork provided by all ITT Engineered Valves locations—the plant was able to maintain a steady construction schedule, and the ITT team installed most of the plant's inventory in almost half the time.

By partnering with ITT Engineered Valves, the North Carolina-based plant now has the capacity to produce more than 150 million doses of influenza vaccine within six months of a pandemic declaration. To date, the plant has received 1,121 valves from ITT Engineered Valves for the project.

Since the original site construction, ITT Engineered Valves continues to work with the plant on MRO and optimization projects.

ITT's Role Today

Future plans for international growth

Because of ITT's performance in North Carolina, the ITT Engineered Valves team was asked to help open and stock the company's newest Meningitis B vaccine plant in Brazil. Although the project required a specialized approach and involved working with a new set of OEMs and distributors, the company was confident in ITT Engineered Valves' ability to display the same level of expertise exhibited in North Carolina at an international level.

Over the course of the project in Brazil, ITT Engineered Valves used its already proven project approach to support the design, manufacturing, and documentation requirements of the OEMs. Employing a modular construction method to accommodate the shipment overseas, ITT has provided additional support to the firm responsible for building the modules. ITT's support has also included the creation of custom installation and operation manuals written in Portuguese to assist the commissioning, operation and maintenance of the plant.

Since the project's inception, ITT Engineered Valves has supplied more than 500 valves to support the initiative. The plant remains under construction and the company plans to continue its partnership.

The Pharmaceutical Plant At-a-Glance

Challenge

A government subsidized plant requests a large diaphragm valve order be fulfilled in a short time frame.

Solution

ITT Engineered Valves determines customer's immediate priority up front to ensure timeliness.

Results

The ITT Engineered Valves team delivers full order in half the time to meet the customer's needs.

About ITT Engineered Valves

ITT's Engineered Valves brand offers solutions for abrasive, corrosive, hygienic and critical containment applications within many industries. The ITT Engineered Valves team provides a premier customer experience, sustained by its operational excellence, high quality products and valve expertise. Supported by a global network of partners, ITT Engineered Valves includes the Cam-Line, Cam-Tite, Dia-Flo, Fabri-Valve, Pure-Flo and Skotch product lines.