VIP Plumbing, founded in 1995 in Cleveland, OH, installed the Viega ProPress for stainless system at Royal Chemical's Macedonia, OH plant. VIP Plumbing installed approximately 3,000 feet of Viega 316 stainless steel pipe for use with chemical processing equipment.

VIP Plumbing specializes in residential and commercial service, new construction and remodeling throughout northeastern Ohio. The ability to easily press stainless steel opened the door for VIP Plumbing to install new chemical transport lines for Royal Chemical. The company had worked with Royal Chemical to install plumbing for a new bathroom as well as water and gas lines at its Twinsburg location. When Royal Chemical wanted to replace existing process piping for chemical transport between its storage tanks and mixing tanks with stainless steel pipe, as well as add additional processing lines to its facility, VIP Plumbing was able to offer quick, flameless installation using Viega ProPress.

Viega ProPress uses press fittings to make water-tight and air-tight connections. The system is comprised of stainless steel pipe, valves and fittings in sizes up to 4”. It takes less than seven seconds to make a pressed connection, compared to more than an hour for some threaded and welded connections. The patented Smart Connect® feature, on all Viega ProPress systems, helps installers easily identify unpressed connections.

“If Royal Chemical had wanted welded stainless steel, we wouldn’t have been the ones to do the installation. VIP Plumbing would not have even submitted a bid on the project if it had to be welded,” said Paul Episcopo, President of VIP Plumbing. “By using pressing to join the piping, the labor was cut at least in half. Royal Chemical didn’t have to shut down its operation and it was easier to get the pressing tool into smaller spaces where welding would not have been an option.”

The process line installation at Royal Chemical was the first project where VIP Plumbing used Viega ProPress for stainless. The company had previously rented the pressing tool for various copper tubing installation projects to increase time savings or use in environments where water cannot be shut off for long periods of time.

“"For this project, purchasing the pressing tool was a good investment and it’s opened up our capabilities to include work on stainless steel systems.””

VIP Plumbing installed 2" to 2½" Viega 316 stainless steel lines for five mixing tanks and used approximately 130 fittings including tees, 90º and 45º fittings, couplings and 12 three-piece ball valves which are the newest addition to the Viega ProPress for stainless product line. The new valve features a three-piece construction with a full-port ball that is able to be removed for repair and maintenance without removing the press ends from the system. It also features an ISO pad for actuation.

“The original valve that we installed on the nitric acid line didn’t work correctly. Our Viega rep introduced us to the new three-piece ball valve that worked perfectly,” explained Rocky Iammarino, the plumber who installed Viega ProPress at Royal Chemical. “The three-piece ball valve was perfect for the corrosive chemicals, like the nitric acid. It can be locked and if any of them ever need to be fixed, the valves won’t have to be taken out.”

For the installation, VIP Plumbing used a combination of fittings with the standard EPDM sealing element and the FKM sealing element for increased resistance against corrosive chemicals.
“Because Royal Chemical transports caustic chemical through the lines, we knew that they needed fittings with highly chemical-resistant sealing elements,” explained Episcopo. “We worked with our Viega representative to make sure that the sealing elements were approved for use with the specific chemicals used on those lines.”

Viega ProPress for stainless proved to be ideal for Royal Chemical’s needs due to the chemical resistance of the materials, as well as the safety and time-savings that the flameless aspect of the system offered.

“By using Viega ProPress on this project, we kept Royal Chemical from having to shut down for long periods of time and avoided the need for hot permits that would have been required if the pipe had been installed with welding,” explained Episcopo.

During the first phase of the installation, Iammarino installed support brackets and five new lines to replace the original welded stainless steel lines as well as sagging PVC lines. In other phases of the project, approximately 12 lines were installed.

“With all of the supports in place, installing the stainless steel piping is extremely quick,” said Iammarino. “We could work around everyone at Royal Chemical and they were able to keep their facility running during the entire process. With the caustic chemicals, a welding installation was out of the question, and threading the pipe would have been much less flexible and more time-consuming.”

“Royal Chemical looked into a variety of different materials for their lines. Since the plant is composed of primarily stainless steel for its other systems, it was an easy decision to select 316-grade stainless pipe and fittings for the new lines,” Iammarino added. “Even though it was our first time using Viega ProPress on stainless pipe, we had used it on other pipe material and knew how it worked.”

“The security against leaks that the system provides is extremely important with chemical transporting,” said Iammarino. “I was alerted to a fitting that hadn’t been pressed yet with the Smart Connect feature that ensures no fitting is left unpressed, and after that fitting was pressed, we pressure tested the lines and there weren’t any leaks.”

The confidence that Viega ProPress provided, along with the fact that the system is a flameless way to join pipe, allowed VIP Plumbing to not only complete the installation of the chemical transport lines, but also established the company’s capabilities in the industrial market.

“We are looking forward to getting involved with additional commercial and industrial projects that involve stainless and may not have been in our repertoire prior to our experience with Viega ProPress for stainless,” said Episcopo.

For more information on Viega ProPress, visit www.ViegaProPress.us or call toll free: 800-976-9819.