

Standardization aids gas compression

Midstream companies traditionally build a few compressor stations in a year, with periodic upgrades to implement new instrumentation technology, increase compression horsepower or improve control systems. With the boom in the natural gas industry, however, companies now need multiple compressor stations to match increased gas supply.

With growing demand for new compressor stations, it is no longer economically feasible to provide an individual design for each new station. Schedules are shorter, and consistent quality sometimes has been sacrificed due to a lack of qualified construction crews.

As construction schedules are extended, and as experienced and qualified contractors become busier, the development of complete, high-quality compressor station design packages that are critical for consistent quality compressor station installations have become more difficult to achieve.

As a result of these constraints, standardization is becoming the new norm in the midstream industry, and for a good reason: It adds value. Specifically, it creates value in three ways:

- Capital expense reduction, mainly due to repeat engineering, volume contracts with preferred suppliers, discounts for material, and services and integration efficiency
- Standardization enables project engineers to use proven designs, resulting in reduced front-end engineering design effort requirements, fewer mistakes and increased productivity; this, in turn, results in reduced cycle time, helping accelerate cashflow from operations
- Value is created through reduced operating expenses for subsequent projects, mainly due to increased startup efficiency, improved uptime, and commonality of equipment and training (FIG. 1).

Engineers at CDI Corp. have developed a comprehensive standardization package for Access Midstream Partners for natural gas compressor stations in Louisiana, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia and Wyoming. The package is designed to minimize the engineering required for each compressor facility, shorten construction time, ensure consistent project quality and safety, reduce materials costs and improve inventory processes.

As with any standardization project, a few key goals were established at the outset:

- **Quick preparation of construction bid packages.** Process and instrumentation drawings, piping standards, equipment packages, layout drawings, foundation details, control panel hookups, automation and electrical loops, and bill of materials should be prepared and preapproved, resulting in a minimum of preparation time from the initial bid package to the commissioning of the system.
- **Timely proposal responses from qualified construction companies.** Layout and construction schedules

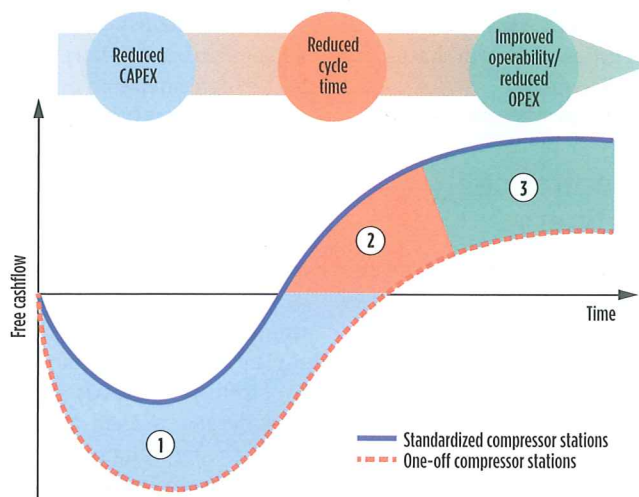
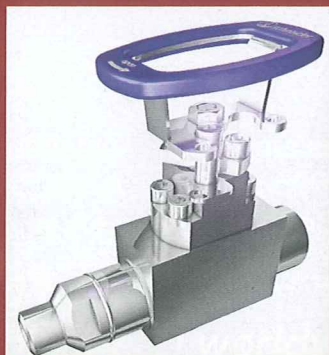


FIG. 1. Standardization adds value to gas compression operations.

Patent registered for metal-seated ball valve



Extreme operating conditions with temperatures up to 450°C and pressures up to 420 bar require special sealing technology in ball valves. Standard soft-seated ball valves are not optimal to meet these requirements; their plastic seals would fail. Metal-seated ball valves overcome this problem.

AS-Schneider has entered the metal seated ball valve arena with its new KM Series. The ball valve features zero leakage, even under extreme operating conditions, with respect to working pressure and temperature, and a smooth operation is provided.

These features are possible due to the "Dissolution" ball valve design registered for patent protection. The design offers an optimized distribution of forces and loads, so they are only present where absolutely needed.

Select 5 at www.HydrocarbonProcessing.com/RS