Process system integrity problems result from a number of issues, including incorrect joint assembly, improper tightening methods, ineffective flange tagging systems, and the lack of a formal flange control / management system. The Halliburton flange management system can assure that all process system flanges are identified and have been mechanically completed in a controlled manner that helps minimize, and in most cases eliminates, integrity-related issues (such as leaks) at startup.

Help assure the start-up date of a process system through the use of an organized and well-implemented flange management system. A formalized flange management and control system with correct procedures can ensure asset integrity. Early adoption of a robust system enables a high degree of influence on the outcome of the construction project and has proven to be extremely cost-effective. The chart below shows that the highest influence on the outcome of a project is at the planning or engineering stage. As the project timeline progresses the amount of influence on the results diminishes.

The use of a proven flange management system can offer the following benefits:

- Helps ensure zero leaks at startup
- Improved safety and environmental performance
- Adherence to the project schedule
- Reduced project / turnaround schedules
- Reduced resource requirement and cost
- Reduced pressure / integrity testing costs
- Increased productivity
- Improved profitability

**Features of Halliburton’s Service**

The value gained from Halliburton's flange management service results from a number of industry-leading features:

- Computerized flange management control system
- Specialized flange management software package
- Integrated engineering package
- Tailored service packages delivering effective resource utilization from single-crew, joint work scopes to support facility construction or shutdown projects
- Speed and accuracy by utilizing state-of-the-art equipment
- Tensioning capability from 1 to 3.5 in. (25 to 89 mm) diameter
- Complete range of hydraulic and hand torque tools including low-profile and square drive heads
- Multidiscipline team specializing in nitrogen / helium leak testing, chemical cleaning, and bolt working
Halliburton’s flange management software package is central to the joint-integrity management of piping systems, and features the following:

- Rapid generation of job- and joint-specific equipment lists
- Production of detailed job cards for every joint
- Maintenance of joint historical data
- An electronic data bank of all joint-integrity information
- Full portability from engineering to field / site construction
- Three separate databases:
  - joint management
  - equipment control
  - personnel competence
- Controls and records all elements associated with bolted joints, including:
  - engineering calculations
  - joint assembly
  - tightening
  - testing
  - repairs
- Seamless linkage to the bolt torque / tensioning calculation engine

- Simple, easy-to-use interface providing visual display of project / joint status
- Single-source document management system

**Global Experience**

Halliburton provides flange management services to construction and maintenance projects from operational bases located in 73 countries in every oil- and gas-producing area of the world.

Halliburton’s track record of successful projects covers virtually the entire range of joint types used in the industry, including various pipe pressure ratings and diameters. Halliburton consistently achieves a high percentage of “Leak Free” joints enabling us to offer a “Leak Free Guarantee – if it leaks during the leak test, we fix it at our cost.”

**Committed to HSE and Quality Excellence**

Halliburton’s flange management and controlled bolting services are leading the construction and maintenance industries in advancing both the quality and safety of all projects undertaken. These advancements are due to a holistic approach to joint assembly and testing, reduced interfaces through cross-discipline execution, and ongoing in-house training and competency systems for all personnel.

For more information about Halliburton’s Flange Management Services, contact your local Halliburton representative or email pps@Halliburton.com

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