Pipework Integrity
Are you in control?
Did you know that about 40% of all major plant losses are attributed to piping?

Do you have concerns with the condition of your ageing piping systems?

How can you reduce the life cycle costs of new plant and modifications?

ABB Engineering Services supplies a range of consulting services in manufacturing operations and engineering, including project implementation and management, to customers in the chemical, petrochemical, oil and gas, pharmaceutical and consumer industries worldwide.

Many process industry assets are approaching their original life expectancy. Economic drivers for extending plant life, coupled with increased outsourcing in an already fragmented asset life cycle, compound the problem. Despite the implementation of pressure systems legislation, aimed at improving the integrity of assets, piping failures continue to occur, some resulting in major incidents.

**ABB’s approach to pipework integrity**

[Diagram of pipework integrity process]

Overview to Identify Specific Problem Areas

Risk Assessment

- Organisational Issues
  - Procedures
  - Standards
  - Training

- Vulnerable Equipment
  - Bellows
  - Small bore branches
  - Underground pipework

- Significant Deterioration Mechanisms
  - Corrosion under insulation
  - Fatigue
  - Creep

Detailed Assessment of Specific Assets & Asset Care Practices

Options for Remediation

Long Term Needs

- Equipment
  - Specification
  - Design

- Policies & Practices
  - Life extension
  - Maintenance
  - Inspection
  - Operations

Short Term Needs

Asset Strategy
ABB Engineering Services supplies a range of consulting services in manufacturing operations and engineering, including project implementation and management, to customers in the chemical, petrochemical, oil and gas, pharmaceutical and consumer industries worldwide.

Did you know that about 40% of all major plant losses are attributed to piping?

Do you have concerns with the condition of your ageing piping systems?

How can you reduce the life cycle costs of new plant and modifications?

Pipework Integrity

Many process industry assets are approaching their original life expectancy. Economic drivers for extending plant life, coupled with increased outsourcing in an already fragmented asset life cycle, compound the problem. Despite the implementation of pressure systems legislation, aimed at improving the integrity of assets, piping failures continue to occur, some resulting in major incidents.

Why ABB Engineering Services?

ABB Engineering Services has extensive knowledge and experience of all aspects of the ‘Piping Life Cycle’ and can deliver practical, cost effective solutions to difficult and challenging problems across a wide range of industries.

Our flexible approach ensures the solutions offered are tailored to suit your requirements. We have a broad team of specialists able to provide technical solutions and help you to sustain improvements by developing your own capabilities.
The services we offer

- Piping specification & design
- Repair specification
- Independent design review
- Fitness for purpose assessment
- Critical defect analysis
- Finite Element Analysis (FEA)
- Materials engineering consultancy
- Asset life plans
- Risk Based Inspection
- UKAS accredited inspection service
- Auditing & gap analysis PSSR, PUWER
- Review of inspection policy, schemes of examination & inspection findings
- Pipework failure investigation

Our capabilities cover pipework and all associated items such as:

- Valves
- Safety valves & rupture discs
- Bellows expansion joints
- Flexible hoses
- Gaskets
- Steam trapping
- Pipe supporting

ABB Engineering Services is part of ABB’s Automation Technologies division serving customers in the chemicals, consumer, life sciences, manufacturing, metals, paper, petroleum and utility industries.

UK locations
Warrington
Teeside
East Kilbride
Derby

International locations
Americas
Asia
Europe
Middle East