



PROCESS AND CHEMICAL ENGINEERING

Industrial Piping and Associated Equipment

5 day course

Classroom, online or in-house

Course overview

Piping is the largest single item of equipment on most plants by length, cost and number of potential leak paths, and it is the part most often modified without engineering. This course gives a practical understanding of it. Delegates work through pipe materials, sizes, schedules and ratings, the fittings, flanges and gaskets that join them, and valve types and where each belongs. Supports, expansion and the consequences of restraining a hot line are covered, along with reading isometrics and piping and instrumentation diagrams. The course closes on inspection, common defects and the management of change that stops a temporary modification becoming permanent.

What you will learn

- Identify pipe materials, sizes, schedules and pressure ratings
- Select fittings, flanges and gaskets appropriate to a service
- Choose valve types against the duty they must perform
- Explain supports, expansion and the effect of restraining a hot line
- Read piping isometrics and piping and instrumentation diagrams
- Recognise common piping defects during inspection
- Apply management of change to a piping modification

Who should attend

- Plant operators, technicians and supervisors
- Mechanical and process engineers
- Maintenance and inspection staff
- Project engineers reviewing piping packages
- Graduate engineers new to process plant

Course outline

- 01 Pipe materials, sizes, schedules and ratings
- 02 Fittings, flanges, gaskets and bolting
- 03 Valve types and their correct application
- 04 Supports, guides, anchors and expansion
- 05 Reading isometrics and general arrangements
- 06 Piping and instrumentation diagrams
- 07 Inspection and common defects
- 08 Management of change and temporary repairs

Upcoming dates

Dates	Venue	Format	Fee per delegate
28 September to 2 October 2026	Dar es Salaam, Tanzania	Classroom	USD 1,325
2 to 6 November 2026	Kampala, Uganda	Classroom	USD 1,325
9 to 13 November 2026	Online	Online	R8,500
16 to 20 November 2026	Casablanca, Morocco	Classroom	USD 1,325



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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