



# Gas lift & Gas Pumping Operations

Website: [www.btsconsultant.com](http://www.btsconsultant.com)

Email: [info@btsconsultant.com](mailto:info@btsconsultant.com)

Telephone: 00971-2-6452630

# Gas Lift & Gas Pumping Operations

## Introduction:

---

When oil or gas is being produced the reservoir pressure reduces. At a certain point in time it can happen that the pressure in the reservoir becomes too low for production and artificial lift and pumping can be required. This course covers the natural flow and artificial lift, reservoir inflow and multiphase outflow, well performance characteristics, the gas lifts system and its four major components, well deliverability and gas injection ratio, comparison of continuous flow and intermitting lift, continuous flow operation, troubleshooting and optimization, gas lift design with unlimited gas and pressure, gas lift design with limited pressure and gas availability, start-up and surveillance procedures, prioritization of wells, and gas lift and pumping optimization. This course will enhance the participants' knowledge, skills, and attitudes necessary to understand the gas lift and pumping and technologies specially the proper selection, operation and maintenance of subsurface pumps so the best economical life can be obtained.

## Who Should Attend?

---

Supervisors, Production Engineers, Technologists & Coordinators, Senior Operators, Production Personnel

## Course Objectives:

---

**By the end of this course delegates will be able to:**

- Understand the relationship between natural flow and artificial lift and pumping
- Identify the well performance characteristics
- Know the four major components of gas lifts system
- Be familiar with well deliverability and gas injection ratio
- Compare of continuous flow and intermitting lift

## Course Outline:

---

- Introduction (natural flow & artificial lift)
- Application and basic operating principles
- Gas-lift equipment
- Well evaluation
- Review of fundamentals

- Productivity index and inflow performance relationship
- Static and flowing pressure gradients
- Calculation of gas-lift production rate
- Gas-lift model
- Injection-pressure valve design
- Valve mechanics
- Graphical design and valve calculations
- Reservoir inflow & multiphase outflow
- Well Performance Characteristics
- The Gas Lift System & its four major components
- Well deliverability & gas injection ratio
- Comparison of continuous flow & intermitting lift
- Continuous flow operation “troubleshooting & optimization
- Gases lift design with unlimited gas and pressure
- Gas Lift design with limited pressure & gas availability
- Start-up & Surveillance procedure
- Prioritization of wells
- Gas lift optimization
- Operation and troubleshooting
- Unloading and optimizing production rate
- Troubleshooting tools and techniques