

Introduction

This document details the range of engineering studies provided by KELTON® recognising the importance of ensuring that the proposed metering system is fit for purpose. The scope of service encompasses the following:

Front End Engineering Design (FEED)

KELTON® can undertake studies to establish broad outline system specifications, nominal system sizing calculations, design measurement uncertainties and budget cost estimates. FEED studies naturally lead to preparation of the measurement and/or allocation requirements of engineering Statements of Requirements (SOR's). A KELTON® proposal defines the purpose, application, scope of work and detailed activities of a FEED study.

Specification or BOD

The specification or Basis of Design (BOD) Study is well within the capability of KELTON® and anticipate preparing a BOD in collaboration with the customer engineering staff or representatives. All KELTON® proposals define the purpose, application, definitions and detailed activities of a BOD.

Detailed Engineering Design

Individual measurement consultants or engineers are available to project teams to provide measurement expertise as input to detailed engineering design. In this environment, KELTON® anticipate working to the customers or design contractor engineering procedures.

Understanding Customer Requirements

As a result of the wealth of experience in operational engineering and maintenance environments, KELTON® are able to fully understand our customers' requirements. The experience is used to perform engineering studies from the customers' point of view, with the customers' interest in mind. If required, KELTON® can perform all the necessary interfaces with the regulatory bodies and third parties.

Capabilities

The KELTON® experience is in the specialised field of oil and gas measurement, covering design, project engineering, commissioning, documentation operations and training providing a high quality technical product.

Many KELTON® measurement consultants and engineers have excellent reputations within the industry giving our engineering study work a high degree of credibility. Thus customers can be confident that the end product will entirely satisfy their requirements. All KELTON® personnel possess report writing skills which is a further attribute of engineering studies service.

About KELTON®

KELTON® is an independent and accredited company specialising in flow measurement consultancy, auditing, training and the provision of specialist software. Founded in 1991, the company employs more than 50 people with 30 consultants who have over 500 man years of experience in the management, operation and maintenance of flow measurement systems. KELTON® has an outstanding reputation in the industry. Services include:

- Audit and Certification
- Uncertainty Calculations & Models
- Measurement Training
- Engineering Studies
- Metering System Documentation & Support
- Software Applications

Currently service is provided worldwide for; major oil & gas operating companies, gas transmission & distribution companies, LNG terminal operators and system integrators. Presently, service is offered from three strategic locations: UK, Qatar and Abu Dhabi.

If additional information is required on KELTON® flow consultancy services or software applications visit:

www.kelton.co.uk



Deliverables

During the interim discussions with the customer, the required deliverables will be agreed as part of the study objectives as will a realistic timeline.

Reports

Generally, the main engineering study will be a report and can be in a format desired by the customer or from a KELTON[®] formatted procedure and this is likely to be one of the following;

- Conceptual Study Report
- FEED Study Report
- Basis of Design
- System Specification
- Detailed Engineering Design

Quality Control

KELTON[®] operate an Integrated Management System (IMS) that conforms to ISO 9001:2008, ISO 14001 & OHSAS 18001. The scope of the system is holistic and addresses all the services offered and part of the KELTON[®] quality policy is to 'produce a service which is consistently fit for purpose and on time' and as such;

- Deliverables are subject to a document action control procedure
- Inspection of deliverables is controlled by an inspection and testing procedure (ITP)
- Controlled documents are subject to periodic review and amendment

