Analyser & Sampling Systems

Training Analyser Housings

The 7 module (online) training that focuses on engineering considerations for analyser cabinets, shelters and houses

With our roots going back to 1974, 360°KAS has a long history in providing packaged analyser solutions for various industrial production processes worldwide. We share this 45 years of experience via a training that focusses on the various considerations encountered when engineering analyser cabinets, shelters and houses.

The objective of this training is to guide the participant through the variety of decisions to be taken to come to a solid design of an analyser housing. Each 1-hour module can be followed online or combined into a 1 day (in-company) course. This training is open for anyone interested or working in the field of engineering, oil & gas and/or system integration.

Module 1.1 Introduction & Applicable Standards	Module 1.2 Location in the Field	Module 2 Construction and Dimensions
On-line process analysers are frequently grouped together and installed in analyser housings. Most companies have their own specifications for the design of these analyser housings used in combination with International Standards. This module explains why we use analyser housings and highlights the requirements laid down in the most common industrial standards IEC, ISO and API.	When determining the location of the analyser house or shelter in the field, an optimum between the prevailing area classification, distance to sample take off points, distance to utility interface points, the available space and foundation quality have to be found. This module focusses on the engineering considerations relative to these topics.	This module focusses on the engineering considerations relative to the type of construction and required dimensions versus cost and required analysis. Design factors related to the location in the field, the geographical environment where the equipment will be located, and the required analysis determine the dimensions and selected construction.

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Module 3.1
Utility Headers

This module focusses on design (inside vs. outside) of the required utility headers, such as flare, atmospheric vent, drain, instrument air, plant nitrogen, steam, nitrogen, sample lines and potable water.

Module 3.2
Calibration & Validation Facilities

Validation is the verification of an analyser against a known standard, recording the deviation of the analyser result with the standard value. When the analyser result is outside the agreed deviation limits, the analyser needs to be adjusted to provide the proper result called Calibration. This module focusses on the methods used and the considerations when engineering the facilities required.

Module 4
Gas & Liquid Recovery Systems

The recovery of gas and liquids contributes to a zero-pollution philosophy and saves costs on wastewater treatment and the potential loss of product. This module focusses on the most common solutions used for gas and liquid recovery used throughout the industry.

Module 5
Power Distribution & Signals

This module encompasses the engineering of electrical materials in and outside the analyser house, i.e. lighting, wall sockets, earth bars, power distribution panels, junction boxes, cabling and safety switches.

Module 6
Safeguarding Systems

Analyser houses located in hazardous areas measuring toxic and explosive gases are usually provided with a Safeguarding System. This module focusses on the commonly used components of a Safeguarding System and the required warning and trip functions per client of project specific requirements.

Module 7
Heating, Ventilation & AC

The purpose of a Heating Ventilation & Air Conditioning system is to create a safe and acceptable working environment for personnel and equipment. This module focusses on the climatologic and technical aspects associated with the selection of a HVAC unit.

360°KAS is an independent system integrator that serves industrial production processes worldwide with high-end pilot plants, analysing, sampling and full system integration solutions. We take care of the whole process from basic and detailed design, through procurement and final system integration on site.

If results are valuable to your business and standard solutions do not work, 360°KAS is your partner. You should be able to rely on your systems; 360°KAS is driven to be the quality leader in our field of expertise. Our portfolio encompasses:

- **Analyser & Sampling Systems**
  From sample take-off, sample preparation, sample storage up to actual analyser measurement we are able to provide you with a fit for purpose and trustworthy solution.
- **Pilot Plants**
  R&D Test Units for continuous, semi-continuous and batch, dedicated and multi-purpose, fixed/ fluidized bed, liquid, gas and multi-phase reactor applications.
- **LNG Sampling Systems**
  Serving the Liquid Natural Gas (LNG) value chain with a variety of smart solutions to sample LNG from a cryogenic flow.
- **Spares, Service & Maintenance**
  All services necessary to maintain and operate your systems safely and accurate from initial start-up till controlled end of life cycle.
- **Instrument Sales**
  Our portfolio of distributed products.