

## Job Description

<b>Job Title</b>	Senior Engineer - Control and Instrumentation
<b>Department</b>	Research and Development
<b>Reports to</b>	Principal Engineer
<b>Responsible for</b>	Control and Instrumentation

## Job Purpose

The senior engineer's role is to lead activities within their engineering discipline and provide guidance and technical authority on design and safety considerations.

They will lead the execution of complex tasks and projects within their discipline. They will also be involved in the design, testing and development of new products within the Bennamann range.

## Duties and responsibilities

### Leadership:

- Lead the design of complex systems and products within discipline, with guidance from the principal engineer
- Lead teams in the safe and effective execution of tasks, or co-ordinate multiple teams on a project with the aid of junior engineers and site supervisors

### Operational:

- Develop, build, and test prototype systems across the product range
- Produce and manage detailed designs of products, liaise with manufacturers to ensure testing and quality checks are carried out
- Prepare technical documentation to support product certification
- Prepare technical documentation for sites and products
- Organise and execute commissioning of farm and AD site projects
- Submit technical content for patent claims and protection of IP
- Follow procedures to ensure compliance with company ISO standards, aligning with responsibility and accountability for actions as documented within HR-101a MyC RACI

## Reporting and communication

- Report regularly to the principal engineer, raising any issues or concerns in a timely manner

- Communicate with work teams and understand the requirements of individuals and groups as a whole
- Share goals and deliverables clearly so that teams are fully aware of requirements and restrictions

### **Management of team**

- Effective leadership, development, and management of project team(s)
- Conscientious and caring manager, adhering to all people processes including induction, probation, and performance reviews

### **H&S**

- Apply risk assessment and reduction methods to projects and work packages through activities such as DFMEA, HAZOP, or design risk analysis
- Provide technical guidance within projects when required to ensure tasks can be carried out safely and effectively
- Adhere to site rules and safe systems of work both when on site and in the office. Encourage others to actively participate in working safely

## Role Competencies

Skillset	Desired Level*	Relevant Qualifications or experience
Technical reports and formal calculations	Skilled	Degree qualification, Previous experience of report writing in a professional setting.
Development of test procedures	Skilled	Degree qualification, Previous experience of developing and/or executing test procedures
Design risk analysis	Skilled	Participation in design studies such as: HAZOP, DFMEA, Bow Tie etc.
Technical Drawing preparation and interpretation	Qualified	Preparation or modification of electrical schematics, loop diagrams, PFD, P+ID, Single line diagrams etc.
Control of design	Skilled	Evidence of good record keeping, working within a highly process driven environment, familiarity with document control and sign off.
Electrical wiring regulations	Qualified	City and Guilds 2382-22 18 <sup>th</sup> Edition Course or similar. Experience in design of electrical systems/networks
Hazardous Area design	Qualified	CompEx Foundation or similar. Experience in calculation of hazardous areas, zone types, extent of zones, ventilation assessment etc.
Atex Equipment Installation and maintenance	Informed	Familiarity with equipment certification meanings and interpretation of protection types.
Instrument wiring techniques	Skilled	Experience with range of instrumentation such as 4-20mA, RTD, ModBus, CANBus etc.
Process Connections	Skilled	Knowledgeable of the various process connections such as compression fittings, threaded connections, flanges, thermowells etc.
PLC programming (Ladder logic, functional blocks, etc.)	Informed	Familiar with industrial programming languages and PLC wiring architecture and programming.
Practical Skills in wiring	Skilled	Previous experience in glanding, termination, labelling etc. of instrumentation loops. Familiar with IP rating significance and techniques.
Practical Skills in Pipework connections	Skilled	Gas Safe certification

		Previous experience in making up process connections such as flanges, threaded connections, compression fittings, crimp fittings etc.
<b>Qualities, knowledge &amp; skills</b> Personal skills, qualities, behavior, most of these will be essential as many of these cannot be trained	An empathy and affinity with the Bennamann company values: <ul style="list-style-type: none"> <li>• Safety</li> <li>• Curiosity</li> <li>• Integrity</li> <li>• Passion</li> <li>• Respect</li> </ul> and traits: Humility, Empathy, Creativity, Innovation, Open Minds, Transparency	In addition: <ul style="list-style-type: none"> <li>- Follows procedures to ensure compliance with company ISO standards</li> <li>- Adheres to process and policy, including PPE and uniform</li> <li>- Presentable, with the ability to be a positive representative for Bennamann in relationships with customers and suppliers, ranging from farmers to councillors and scientists</li> <li>- Excellent and proven organisation, planning and communication skills</li> <li>- Ability to lead and manage small and diverse teams in projects and key activities</li> </ul>
<b>Additional factors</b> Working conditions/hours, ability to drive, any special working conditions (eg gas handling)	Must hold valid UK drivers license Expected to attend office and occasional site visits Company vehicle provided for site work	

*\*Unaware - No knowledge of topic*

*Informed - Familiar with topic but not experienced*

*Skilled - Trained or experienced in parts but not all, can work under supervision on topic.*

*Qualified - Formally trained and knowledgeable about topic, comfortable with all common issues*

*Expert - Formally trained and highly experienced, comfortable with approach to wide range of issues beyond the typical norm.*