“Smart design for your innovation”

Have you come up with a new idea, principle, process or product that will enable you to enter new markets, make great cost savings or work with far more precision? And does it need to work under extreme conditions (pressure, temperature, purity, radiation)? Then a practical and smart design is a crucial factor for its success.

ECN can help. Our multidisciplinary team has years of experience in designing processes, systems and (pilot) plants for R&D and beyond to meet the needs of your customers. We specialise in providing solutions for complex, non-standard problems.

- Specifications, design briefs (SRS)
- Process and system design (Aspen)
- Safety and risk assessments (HAZOP / FMECA)
- Compliance with EU directives (CE: Machinery directive / PED / ATEX / EMC)
- Detailed engineering (3D-CAD, ANSYS)
- Construction, assembly and testing
- Laboratory and test equipment
- Installation, commissioning and acceptance testing (FAT, SAT)
- Project management

Energy engineering, mechanical engineering and chemotronics
We specialise in energy engineering, mechanical engineering and chemotronics; process control systems for designs in the process industry. This broad base enables us to take your idea right through from initial design to turn-key installation. We work with you in close consultation to transform your concept into a design specification for your product or process, which our workshop – specialised in working with high-precision parts and exotic materials – can then realise for you. If required we can also arrange acceptance testing.

From biomass reactor to silicon casting machine
We have years of experience in a wide range of fields and sectors:
- MILENA
  Biomass gasification process comprising two integrated reactors for pyrolysis/gasification and combustion. Engineering and realisation including control and data logging by ECN.
- Loading frame ‘Laadbok’
  Frame for loading sorted nuclear waste in a transport container. Engineered and realised by ECN.
- RGS
  Process rig for casting/crystallising silicon wafers at 1410°C and negative pressure. Specifications, engineering lead and system engineering by ECN.
ECN Engineering

From concept to creation
Our engineers provide support to create technical solutions and machine designs for your concept; their broad knowledge and experience base in materials, engineering and products makes them perfectly placed to find the solution you are looking for. We then discuss the solution with you to be sure it meets your expectations and fits with your production process.

ECN Engineering has extensive expertise in:
- Process engineering
- Mechanical engineering
- Electrical engineering
- Software engineering
- HAZOP studies
- Realisation and installation
- Materials, corrosion and failure analysis