

DEMCON Group - Introduction

- Founded 1993 as spin-off of University of Twente (Enschede, NL)
- Directors of company are the two founders / owners
- Offices in the Netherlands, Germany, Singapore, Japan
- Focus on contract R&D with 1100 employees
- ISO 9001 and ISO 13485 (medical devices)

DEMCON founders and owners:
P. Rutgers (CTO), D. Schipper (CEO)



DEMCON develops technologies and products for a wide range of applications:

HIGH-TECH
SYSTEMS
& MATERIALS



LIFE SCIENCES
& HEALTH



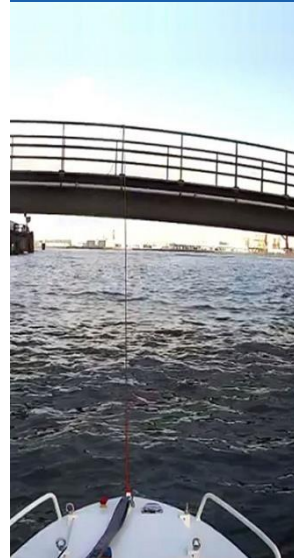
ENERGY



SMART
INDUSTRY



WATER
& MARITIME



AGRI
& FOOD



AEROSPACE



DEFENSE
& SECURITY



Energy transition:
Fast growth of contract R&D for new energy applications

DEMCON offers to startups and established companies

Contract R&D services

- for specific market sector
- specialized expertise



**DEVELOPMENT SERVICES
ENGINEERING &
APPLIED RESEARCH**



PRODUCTION SERVICES

Contract manufacturing

- mostly products developed by DEMCON
- all of own products

Support of technology startups

- venture building
- incubator facilities



INVESTMENT



OWN PRODUCTS

High-tech & medical devices

- sold by dedicated DEMCON company
- developed and produced within DEMCON group

DEMCON in-house engineering competences

Mechatronics

- System architecture
- System design
- Motion control
- Thermal control
- Fluidics control
- Actuator & sensor development

QA / RA

- ISO 9001 & 13485 certified processes
- Safety and Risk Management
- FDA, CE submission
- Regulatory and standards
- Design history file

Chemical

- Reactor design
- Balance of Plant (BoP)
- Process technology
- Materials & energy flow
- Polymer Science

Manufacturing

- ISO 6 Cleanroom assembly
- Proto-type assembly
- Series assembly

System engineering

- System requirements & concept
- V-model development & verification
- Risk-reducing project phases
- Feasibility & proof-of-concept tests

Electrolyzer demonstrator built in 2023



Mechanical

- Construction principles
- Precision mechanics
- Vacuum technology

Industrial design

- Look & Feel
- Usability

Electrical & electronics

- Microcontrollers & FPGA
- PCB Design
- Cabinet and Cabling
- (power) electronics
- EMC

Software

- Real-time
- Embedded
- PLC
- Windows

Optics & Vision

- Design of optical systems & components
- Assembly of optomechatronics modules
- Optical system simulation
- Machine vision

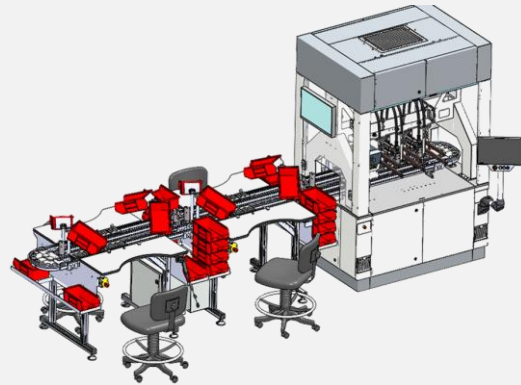
Data

- Data Science
- Machine learning
- Synthetic Data

Analysis

- Thermal
- Dynamics
- FEM
- Tolerancing
- FMEA

Developing technology for startups and established companies



Automated manufacturing solutions.
Example: Precision assembling station for IVD test cards

Startup Carbyon:
Development of
prototype system for
direct air capture of
CO₂ with nano-
structured surfaces



Carbyon's direct air capture process
minimizing energy consumption



Startup Cellcius: Salt hydrate based heat battery to use
industrial waste heat for residential heating

Chemical process
engineering expertise:
Pilot plant for conversion
of biomass to biofuel
developed and built by
DEMCON Suster for a
customer

