



DeMaCo

cryo and vacuum technology

Thinking in solutions

Presentation DeMaCo
Technology Forum
Industry meets Academia:
Vacuum & Cryogenics

13 & 14 March 2012

Introduction DeMaCo



Introduction DeMaCo

- 70 employees
- Founded in 1960
- 90% export
- Turnover 2011: 10 million Euro
- ISO-9001:2000 certificate since 1994
- SCC ** safety certificate since 2001
- ISO 3834-2 welding certificate since 2006
- PED H/H1 qualified since 2007

- Total integrated company:
 - Design
 - Engineering
 - Manufacturing
 - PED acceptance
 - Installation
 - Project management
 - After sales service

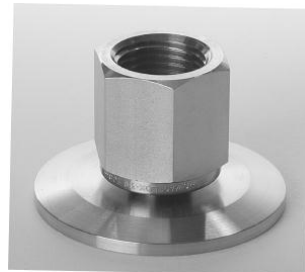
- **Vacuum technology**
 - Dirk Pootjes

- Cryogenics

Vacuum technology

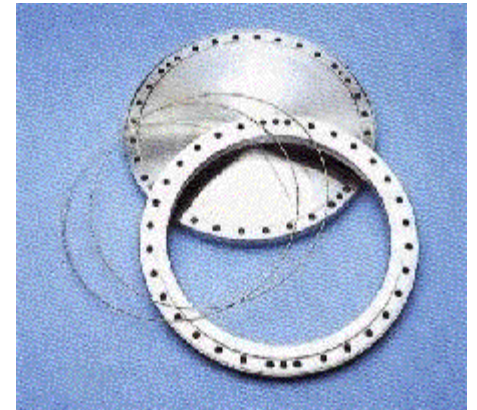
- **Vacuum components**
 - Online Catalog
- **Vacuum systems**
 - Turn Key systems

Adapter flanges



- Swagelok
- NPT / Pipe adapters
- VCR (female / male)
- Quick disconnect
- Cajon Ultratorr
- Ball socket
- Glass to metal

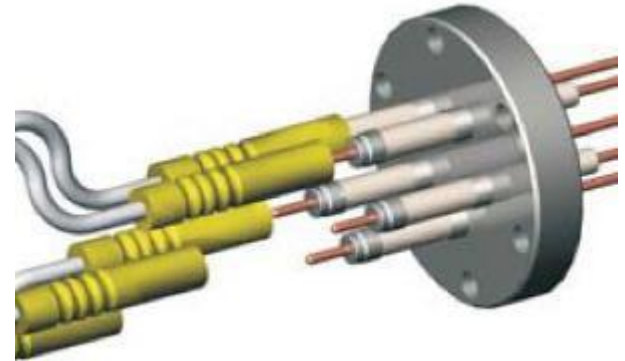
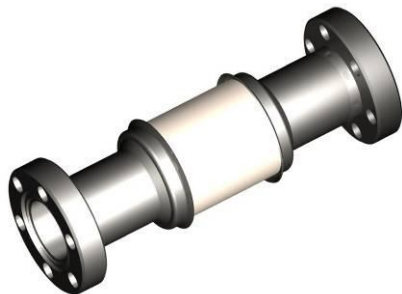
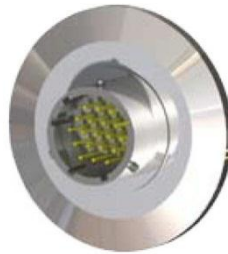
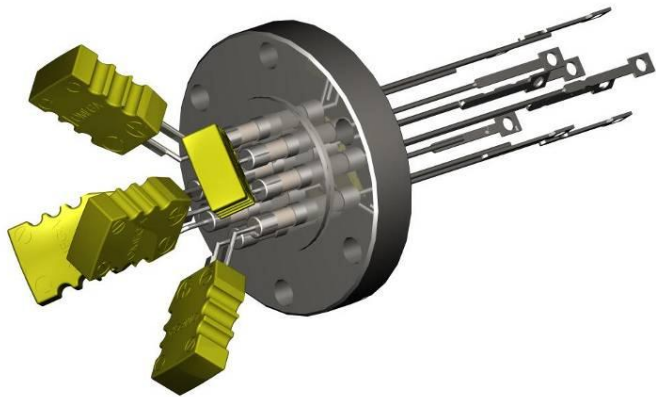
ConFlat & ISO & Wire Seal



Valves



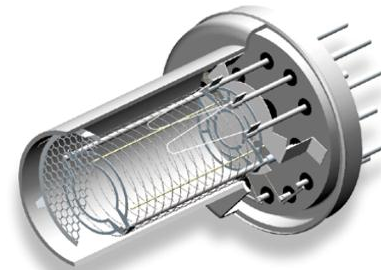
Electrical Feedthroughs



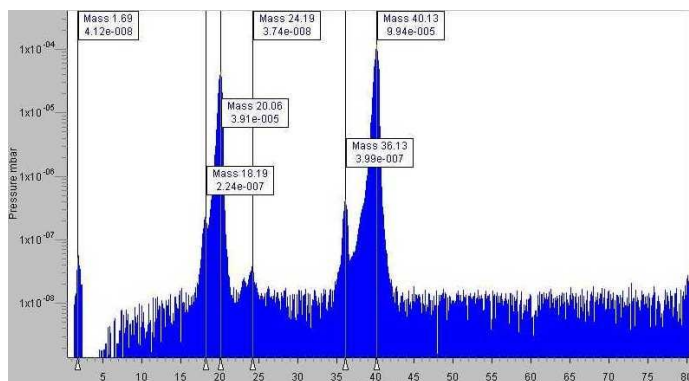
Manipulator



Vacuum Gauges



Partial Pressure Gauge (ion trap technology)



**NEW
PRODUCT**

NEW PRODUCT:

- Mass range 0-300 ame
- Easy calibration
- Ethernet control
- 3 mtr cable
- Control power 70 Watt only



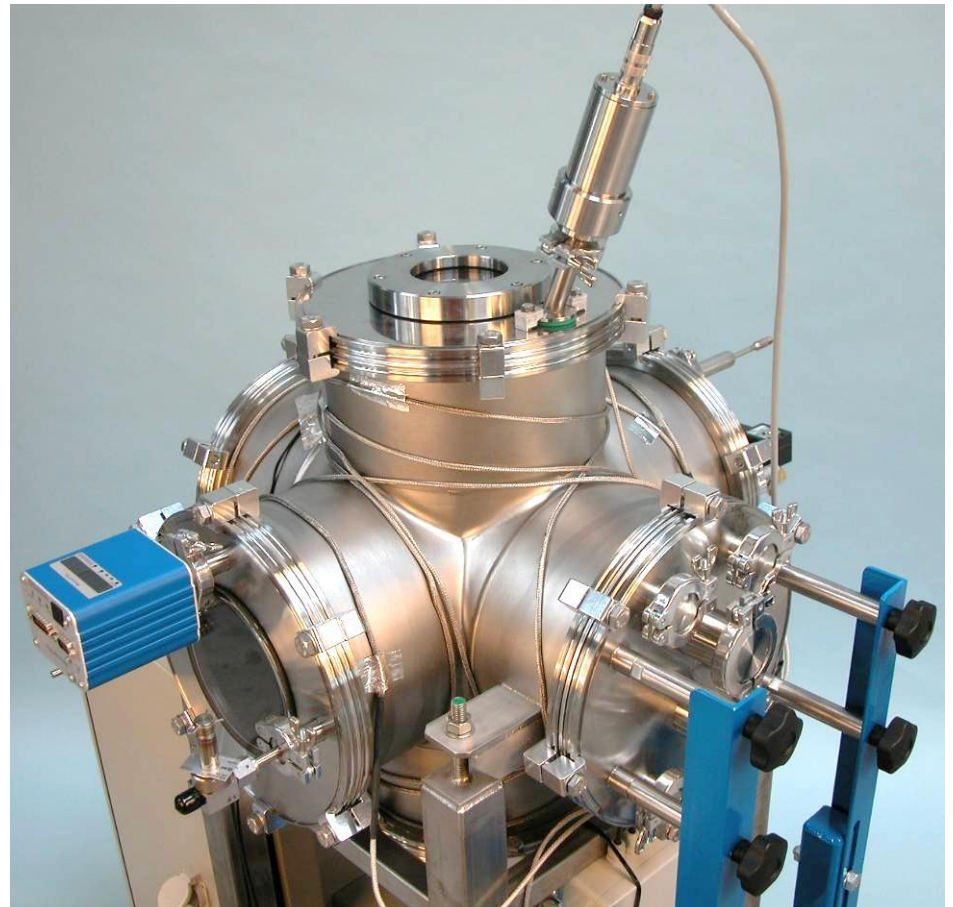
Special vacuum chambers



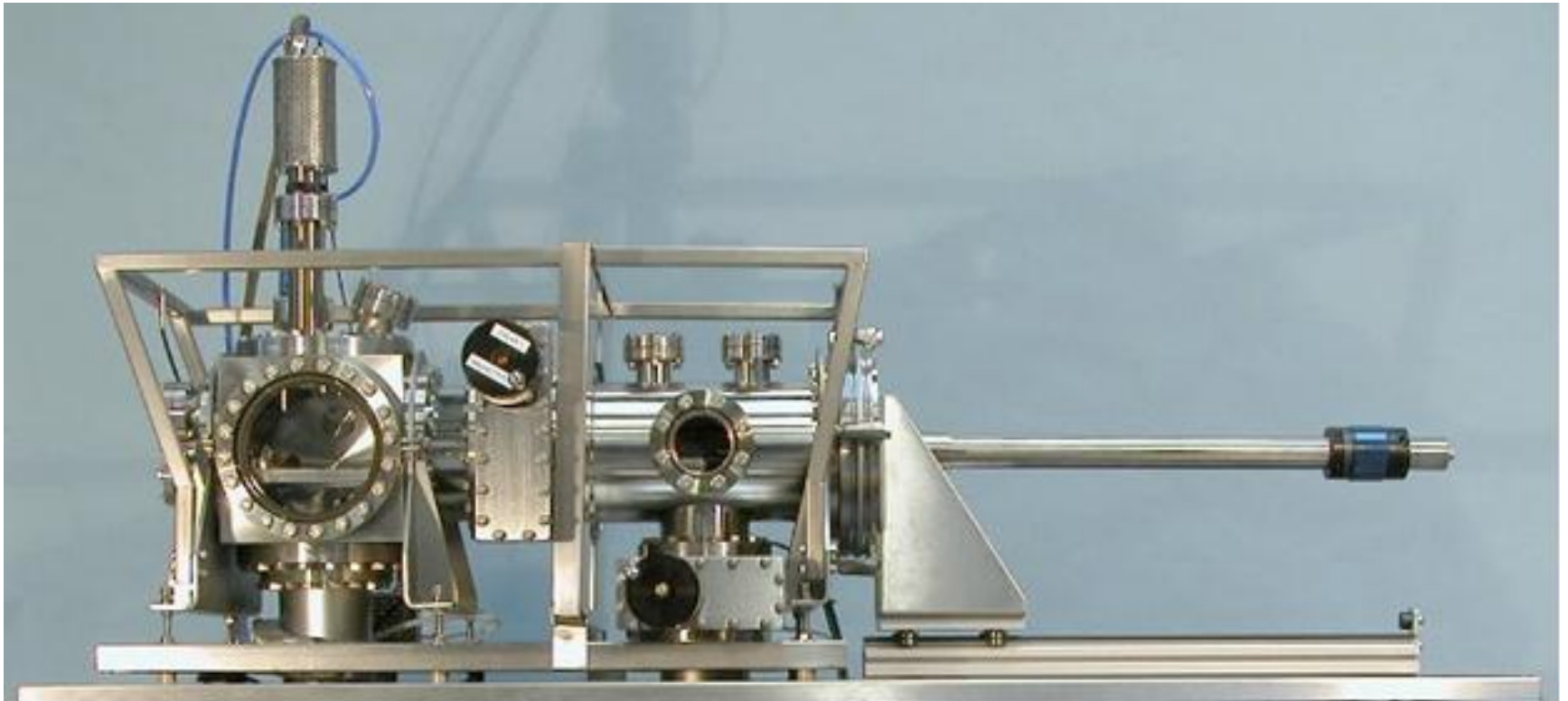
Surface finish:

- Manual polish
- Bead blast
- Electro polishing

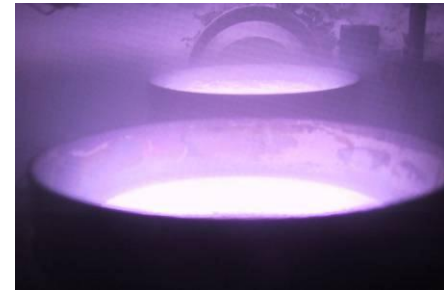
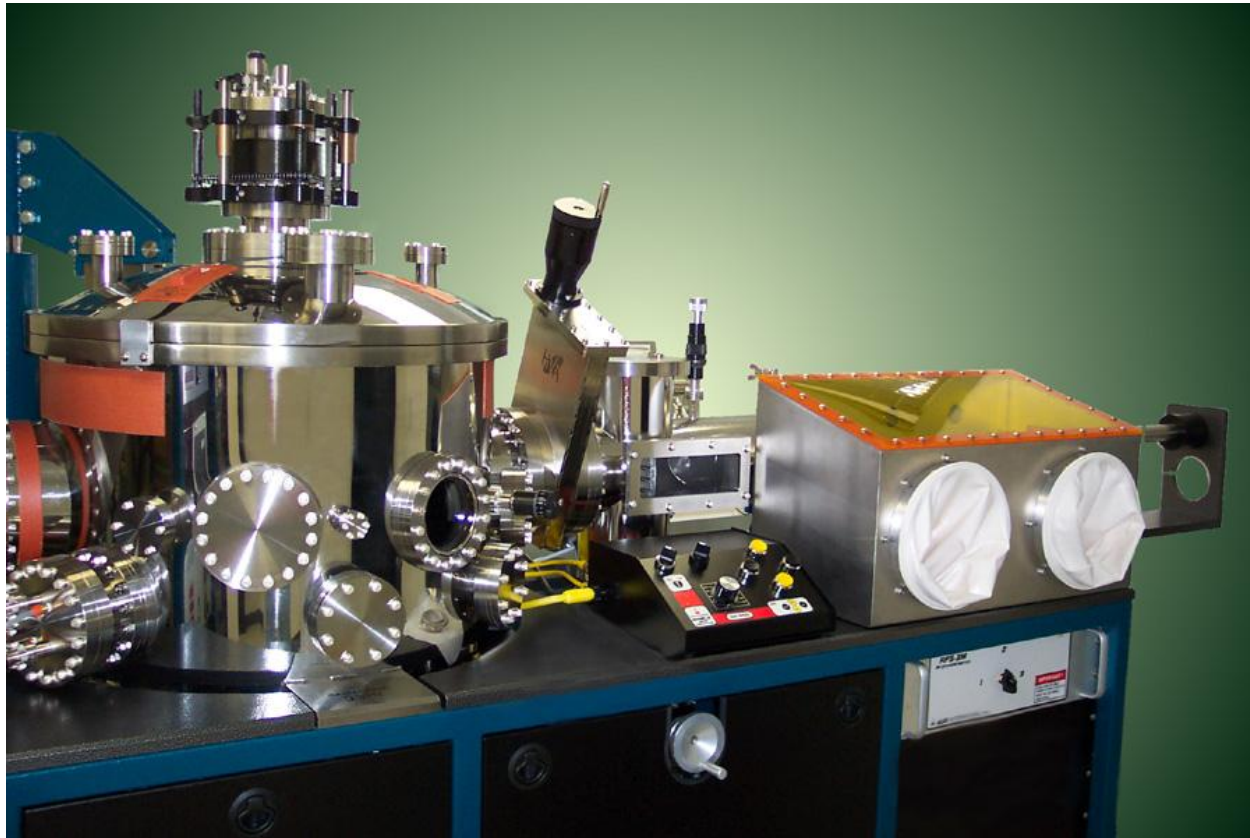
Oil Free Vacuum System



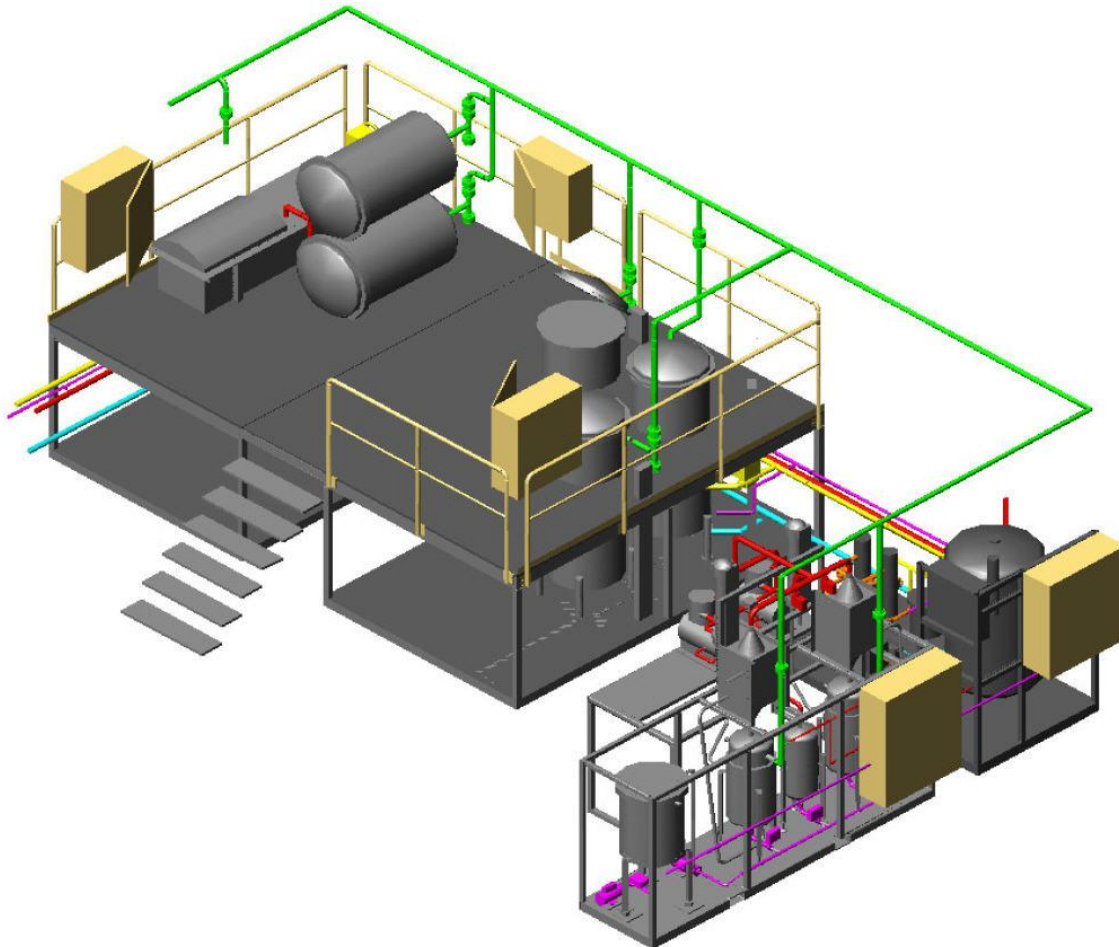
Special UHV system with load-lock



Sputtering System

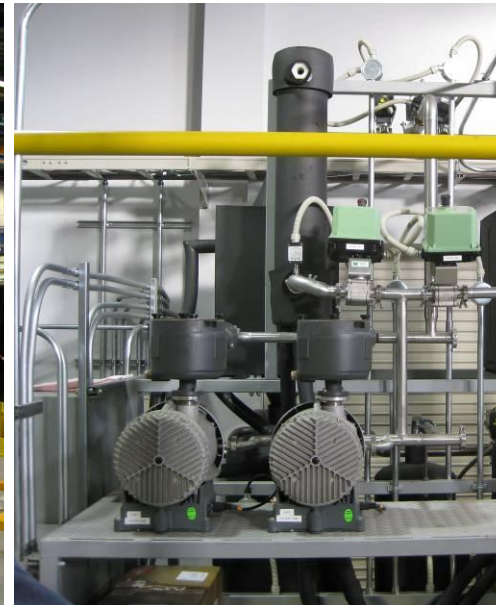


3D layout for customer acceptance



- platform dimension
- easy installation on site

In-house production and FAT



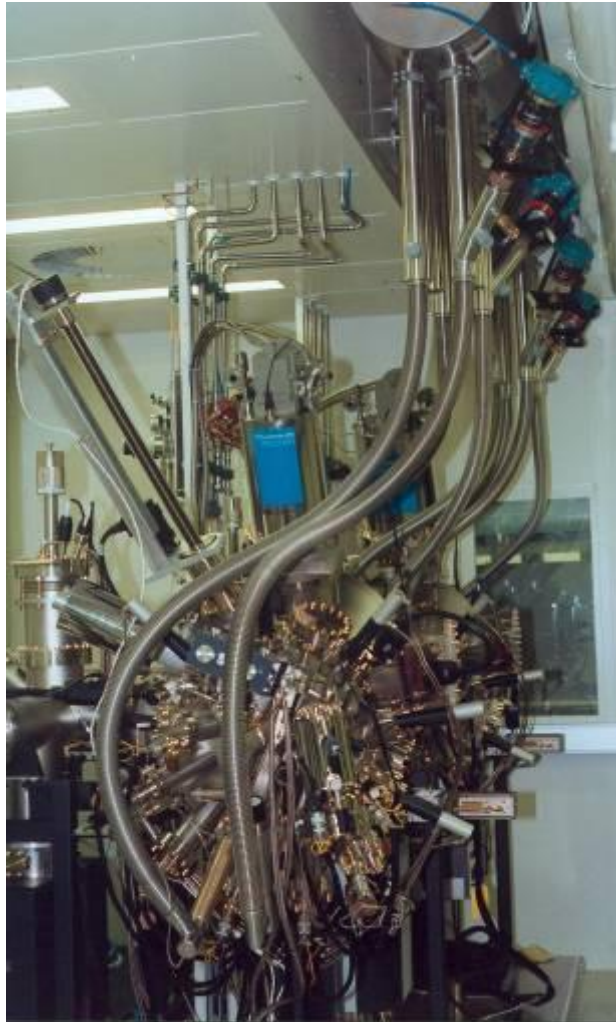
- Factory Acceptance Test
- Quick install on site
- Leaktest

- Vacuum technology
- **Cryogenics**
 - Ronald Dekker

Markets of Cryogenics

- Air separation units (ASU)
- Food
- Automotive
- Electronics / light bulb
- Medical / Pharmaceutical
- Liquefied natural gas (LNG)
- **Molecular Beam Epitaxy (MBE)**
- **Space and aviation**
- **Large scale scientific projects**

Molecular Beam Epitaxy (MBE)



Nitrogen cooling system

Space and aviation



Cryo panel

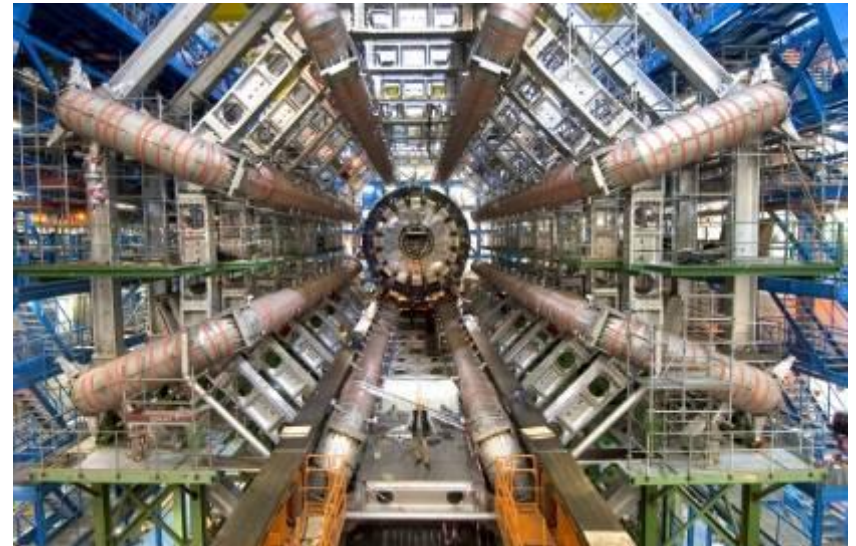


Rocket engine test bench
Hydrogen oxygen supply

Large scale scientific projects

CERN

Atlas



LHC



Products of DeMaCo

- Vacuum Insulated Piping (VIP)
- Conditioning equipment
 - Fase separators
 - Subcoolers
- **Helium Transfer Lines**
- **Valve boxes**
- Controlling system (Pressure/Temp/Flow/Level)
- **Applications**

Helium Transfer Lines





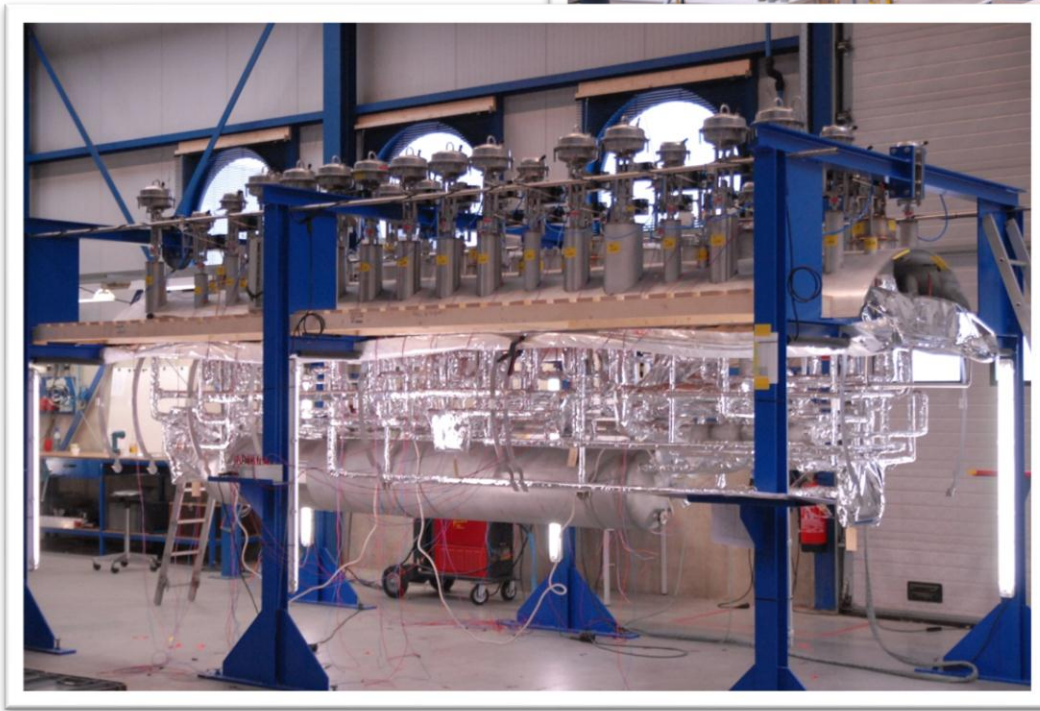
Argon valve box



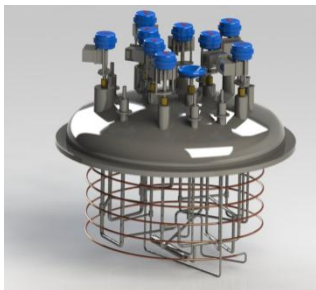
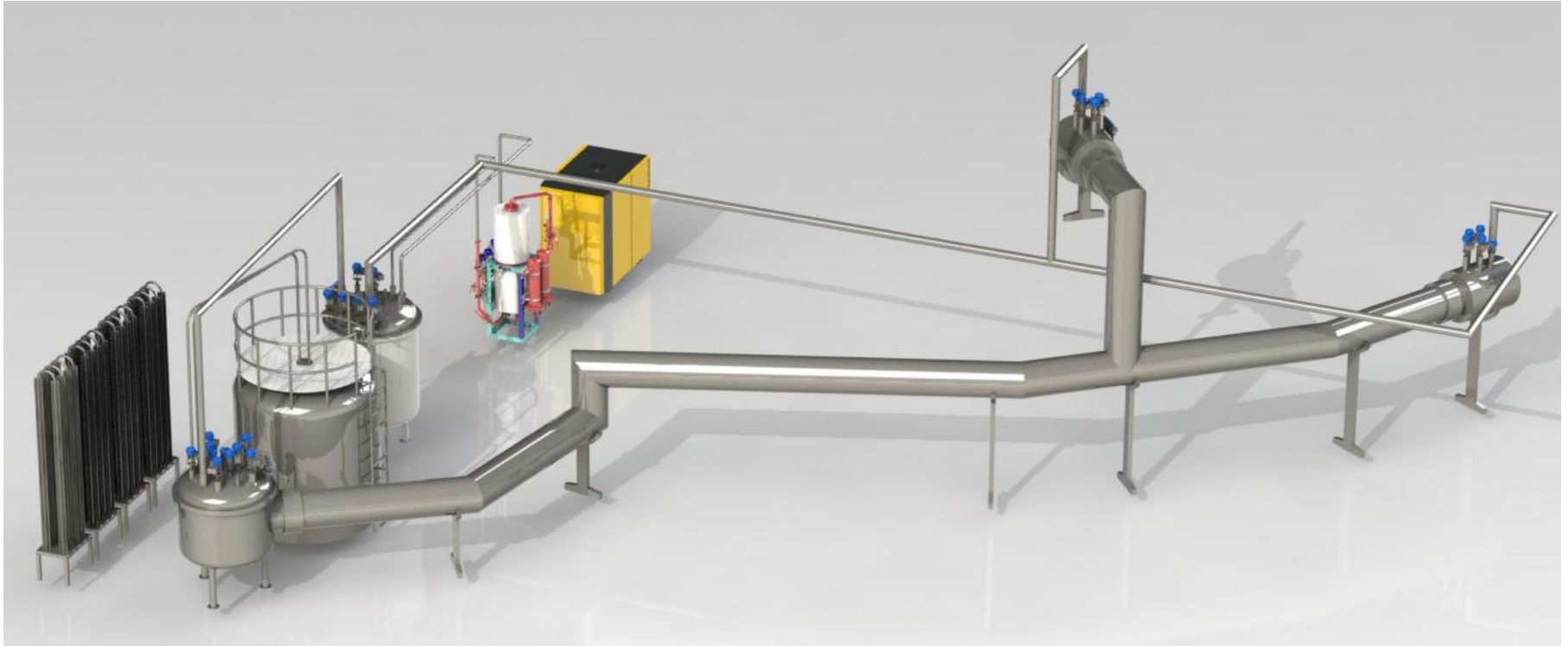
Argon valve box Dewar inside



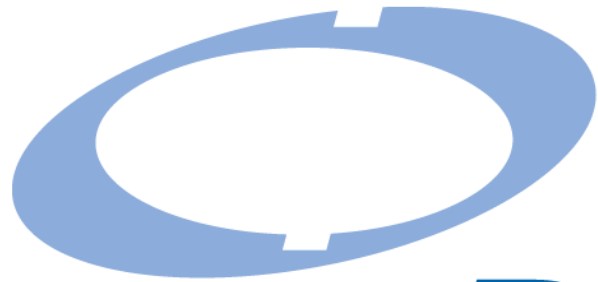
Helium distribution box



Valve Box for DESY
X-Fel



LHe-Test Facility for ITER India



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www.DeMaCo.nl

Thanks for your attention!

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