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GAS TREATMENT SYSTEMS


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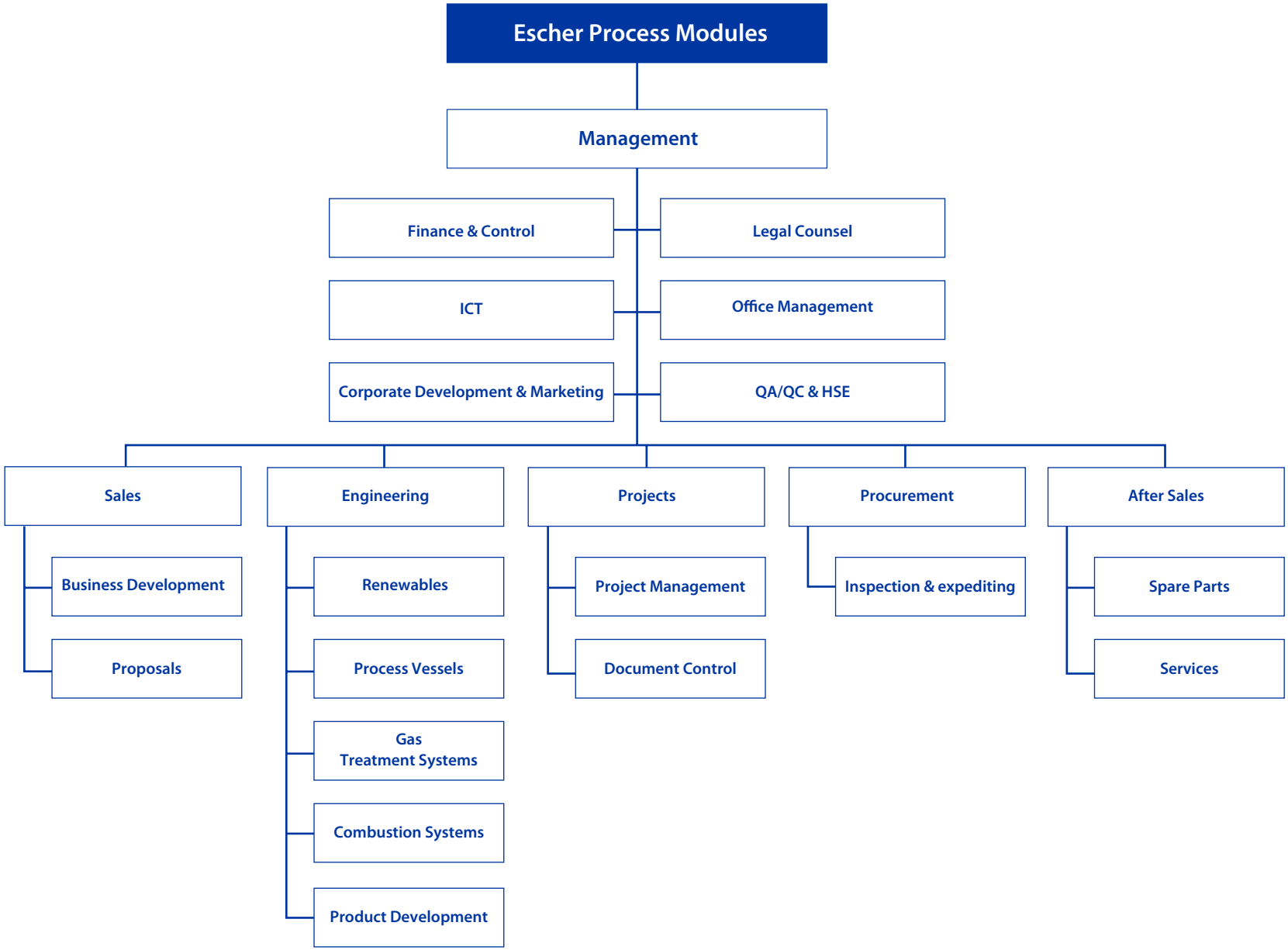
Escher Process Modules

Escher Process Modules is a leading global Process Technology House and provider of process solutions since 1925. Being part of Iv, a worldwide operating engineering company listed in the top 10 of Dutch engineering companies.

Escher has all disciplines in-house for complete project execution. Our strength is our genuine passion for technology which results in unique and specialist know-how of the markets in which we operate, and enables us to be constantly at the forefront of advanced process solutions. We design and engineer process vessels in accordance with industry design codes to meet the quality and efficiency requirements of our customers. Our product range includes:

- Renewable systems (such as Ammonia Cracking, Hydrogen Treatment, and Carbon Capture)
- Process Vessels (such as Separators and PX Crystallizers)
- Gas Treatment Systems (such as CO_2 and Gas Dehydration, and Fuel Gas Treatment)
- Combustion Systems (such as Flare and Vent systems)

Our engineers are technicians of the highest level who think outside the box and translate even the most complex issues into solutions that meet the strictest criteria of product integrity and safety. In each project we strive to exceed the expectations of our clients where possible. Escher is recognised for its adherence to SHE and QMS systems (ISO 9001 & ISO 14001), highlighting our reliability, capability and commitment to social responsibility.


Escher Process Modules
Management
Finance & Control
Legal Counsel
ICT
Office Management
Corporate Development & Marketing
QA/QC & HSE
Sales
Engineering
Projects
Procurement
After Sales
Business Development
Proposals
Renewables
Process Vessels
Gas
Treatment Systems
Combustion Systems
Product Development
Project Management
Document Control
Inspection & expediting
Spare Parts
Services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Gas Treatment Systems

The market for Gas Treatment Systems is dynamic and diverse, driven by the increasing demand for clean energy sources and stricter environmental regulations worldwide. Escher Process Modules b.v. plays a crucial role in this sector with advanced solutions for the treatment of natural gas, CO_2, and Hydrogen.

Natural gas remains the cornerstone of the energy transition, emphasizing efficient extraction and treatment technologies to minimize environmental impact. Escher's Gas Dehydration Packages ensure the optimization of this process, which is crucial for safe transportation and effective storage.

Building on the significance of natural gas, Escher also focusses on CO_2 treatment, given the role of these technologies in climate management. The treatment of CO_2 is gaining importance due to heightened focus on Carbon Capture and Storage (CCS) technologies. These technologies are essential for reducing industrial emissions and achieving climate goals.

Furthermore, hydrogen is emerging as a clean energy carrier, particularly within sectors such as transportation and heavy industry. The treatment of Hydrogen, both blue and green variants, requires specialized systems that Escher provides, focusing on safety and efficiency.

Products

- **Dew Point Control**

  This method effectively removes moisture and hydrocarbon from gas streams by using absorption or condensation, aligning with storage and transport requirements.

- **Gas Dehydration by Glycol**

  This liquid desiccant technology, effectively removes water from gas, primarily employing Triethylene Glycol (TEG) in an absorber column ('glycol contactor').

- **Solid Desiccant Technology**

  Using solid desiccants like Molecular Sieve and Silica Gel, Solid Desiccant Technology extracts water and hydrocarbons, ideal for drying natural gas, hydrogen, and CO_2.


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- **Low Temperature Seperation**

  Precise temperature management in Low Temperature Separation efficiently removes water and hydrocarbons from natural gas, optimising energy consumption for enhanced efficiency.

- **Glycol Regeneration / Recovery**

  Focused on making dehydration processes more economical, this method recovers glycols like MEG, DEG and TEG from the process stream, enhancing purity and reusability.

- **Fuel Gas Conditioning**

  Fuel Gas Conditioning, critical for applications like gas turbines, conditions fuel gas to eliminate liquids and solids, ensuring to meet operational pressure and dryness requirements.


LG-49011

Key Benefits

Advantages of Escher Gas Treatment Systems

- For the treatment of natural gas, hydrogen, and CO_2
- Fully responsible during engineering, procurement and construction
- Customised to meet customers' specifications
- Designed in accordance with international standards
- Capable of providing transport services, on-site supervision, and training

Main Components

- High Pressure Vessels
- Low Pressure Vessels
- Heat Exchangers
- Electrical Heaters
- Pumps
- Filters
- Instruments
- Valves
- Piping
- Skids


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Scope of Supply

- Detailed Design
- Engineering
- Procurement
- Construction
- Testing
- Transportation
- Installation Supervision
- Operational Support
- Maintenance Services
- Spare Parts

Operational Support

Escher provides life cycle support and around-the-clock assistance, ensuring the quick delivery of essential spare parts to minimise potential downtime. We cover everything from spare parts to support during commissioning, start-up, and normal operations. Upon request, Escher can facilitate Warehouse Services, keeping dedicated critical spares in stock, ready for your immediate needs. Our other services include inspections, maintenance support, and lifetime extension programmes for optimal performance.

For any queries or urgent needs, reach us at **aftersales@escher.nl** or **+31 88 943 3600.**

Would you like to know more about the possibilities?

Our specialists will be pleased to share ideas and thoughts about Gas Treatment Systems.

E-mail Maarten Brandenburg and/or Martijn In der Maur:
sales@escher.nl or call **+31 88 943 3600.**

Contact

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