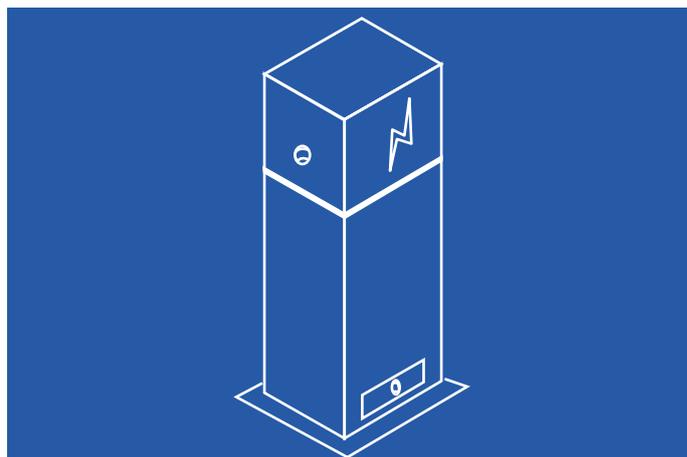


GAS CONTROL CABINET

- A user-friendly PLC system
- Easy operation via web-based interface
- Remote control and assistance
- Compatibility with up to eight networked units



The Concept

A user-friendly valve train unit designed by Air Liquide, the **GAS CONTROL CABINET** is suitable for pump-based gas injectors to control your motors and gas-dosing systems.

It easily regulates the concentration of a dissolved gas into a liquid. The required sensor sends a signal to a motor valve that supplies the proper gas quantity. In the event of a sensor failure, a fixed flow ensures continuous operation in manual mode.

The amount of gas is measured by a thermal flow meter, providing you with high accuracy thanks to its low sensitivity to pressure and temperature variations. A check valve and an air valve at the outlet are used to prevent backflow and to interrupt the gas supply when the injector pump is off or on idle. Two control loops - one on the dissolved gas concentration and one on the gas flow - provide a truly effective regulation.

All process information for operation and maintenance related to power (voltage, consumption, pump, relay status), gas (pressure, flow, dissolved concentration), and alarms (power, pressure, flow transmitters) can be sent to the operator's display via common data-transfer modes.

Applicable Industries

GAS CONTROL CABINET is ideally adapted to water treatment and process water, which are prevalent in a number of industries:

- Food and Beverage
- Pharmaceutical
- Petrochemicals and Chemicals
- Mining and Extractive Metallurgy
- Steel
- Power Generation
- Pulp and Paper
- Textile
- Municipal water stations
- And various others

Special Features

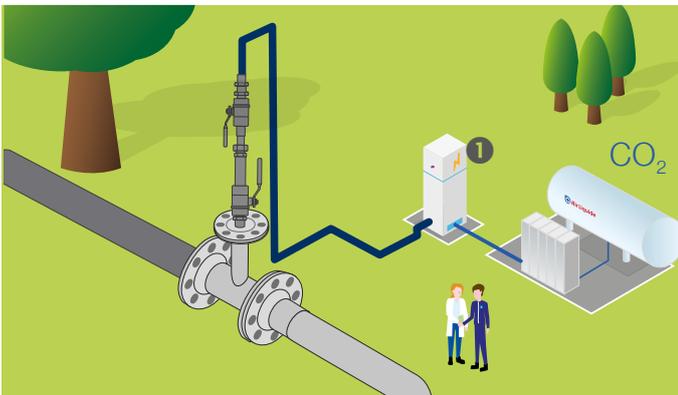
The **GAS CONTROL CABINET (1)** is well suited for feeding oxygen (O₂) and carbon dioxide (CO₂) into any of the following gas injectors or static mixers: **OXY INJECTOR-VENTOXAL** and **OXY INJECTOR-TURBOXAL**, **CO₂ INJECTOR-LANCE** or **INJECTOR-BICONE** and **CS-NOZZLE** when operated in bypass mode using a pump.



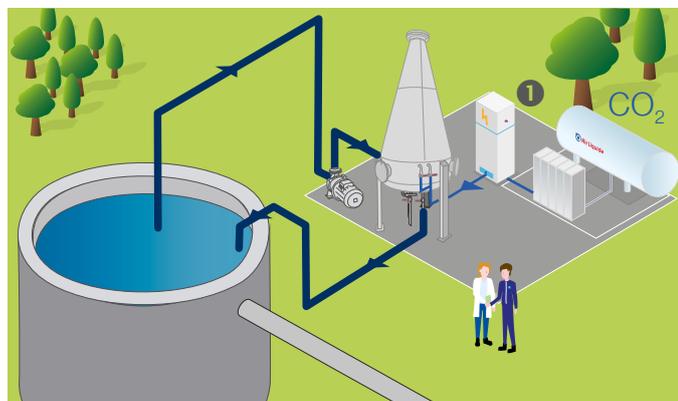
Installed with an OXY INJECTOR-VENTOXAL



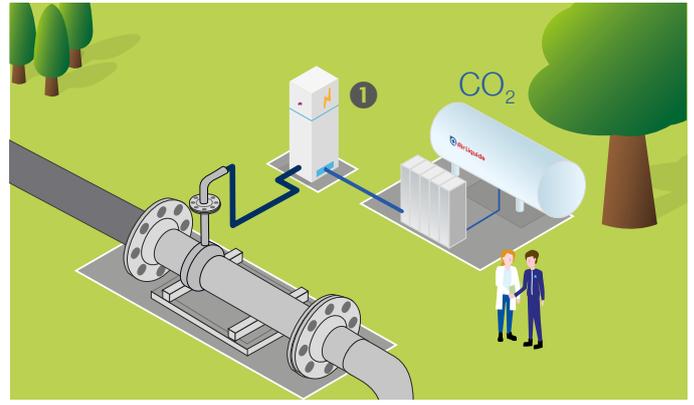
Installed with an OXY INJECTOR-TURBOXAL



Installed with a CO₂ INJECTOR-LANCE



Installed with an INJECTOR-BICONE



Installed with a CS-NOZZLE

The **GAS CONTROL CABINET** (1) offers manual, automatic and remote commands. It also carries out safety and emergency functions. The setups can be configured as a standalone or integrated solution in customer control systems. Additionally, an external start signal can be used to turn injector pumps or gas admission on and off during sequential processing steps such as with air blowers (nitrification / denitrification in biological wastewater treatment) or in batch modes (reactors).

The **GAS CONTROL CABINET** also includes a GSM router for remote assistance and access to process information. Light indicators, visible from a distance, allow you to run in manual mode at any time if needed. Furthermore, multiple wireless-interface options with smart devices give you user-friendly operation.

Model Range

One **GAS CONTROL CABINET** is connected to one gas injector system. Installing a network of up to eight units allows you to consolidate all information into a single point.

Technical Data

The **GAS CONTROL CABINET** is composed of a control cabinet and a dosing cabinet to inject up to 200 kg/h.

The control cabinet is based on a PLC unit to control electrical motors up to 22 kW / 45 A with a soft starter mode and protection against overload, heat and humidity.

- 400 V, 3-phase power supply.
- Dual PID control for gas dissolution and gas injection.
- PROFIBUS, Ethernet or Wi-Fi connection modes
- Intuitive Web-based interface

The dosing cabinet consists of the following main components:

- Thermal flow meter
- Motor valve
- Manometer
- Pneumatic valve
- Pressure transmitter
- Non return valve

Gas connections:

- Inlet DN20 / PN16
- Outlet DN25 / PN16

Stainless steel casing and piping

Its compact design (500 mm x 650 mm x 2 000 mm) makes for seamless installation.

And thanks to its low weight of just 105 kg, you can transport it easily via forklift.

Related Offer

The **GAS CONTROL CABINET** is part of our **Nexelia gas-injection** solutions, which are designed and tailored to meet your specific needs. These comprehensive offers combine the best of our gases, application technologies and expert support. As with all solutions under the **Nexelia** label, we work closely with you to pre-define a concrete set of results, and we commit to delivering them.

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