

## ACCESSORIES

**Our accessories are always adapted to your requirements.**

We propose the following optional accessories for each of the pumps in the Clextral range to meet your specific demands:

- Diaphragm rupture detection: detection by variation of the resistivity of the safety intermediate fluid developed specifically by Clextral for dosing of thick or viscous liquids, or by sandwich diaphragm.

Servomotors to regulate output remotely or control it with a regulator. We propose three solutions: pneumatic, electropneumatically-assisted or electrically-controlled

- Patented Clextral magnetic check valves for products containing solid particles in suspension

- Patented Clextral reversible valves suited to hazardous products

- Calibration pot for recalibration of pump performance

- Double-diaphragm shock absorber: to pump aggressive products. This unique system developed by Clextral's teams protects against abrasion and corrosion.



## OIL, GAS AND CHEMICAL INDUSTRIES SERVICES & MAINTENANCE

- On-site servicing and maintenance

- In-workshop pump repair or modification

- Spare parts

- Training of your teams

### **The skills of a manufacturer for on-site servicing and maintenance:**

To take action during scheduled or preventive maintenance downtime, or in an emergency, Clextral has a team of qualified technicians, specially trained to work on chemical and petrochemical installations.



## REPAIRS AND MODIFICATIONS TO YOUR PUMPS

To ensure the maximum reliability, longevity and efficiency of your pumps, Clextral will repair or modify them to meet new conditions (increased output, change of heads, conversion of piston to diaphragm, different type of drive mechanism).

These “revamping” operations are carried out in our workshops and you receive a test report together with a flow/pressure curve graph.

A guarantee on the replacement parts means you are fully protected against any risk of an untimely incident.

**Our expertise as a designer and manufacturer means you can obtain the best advice in the shortest possible time**, thanks to our permanent stock of your essential wearing parts:

Gaskets, tresses, check valves, ball guides, valve seats, diaphragms and pistons in various materials and of all sizes are regularly ordered so that we can always meet the most common requirements of our customers in the shortest possible time.

## TRAIN YOURSELF ON OUR PUMPS

Training sessions either on site or in our facility in Firminy are organised by our specialists to develop the skills of your operators and familiarise them with our products. The themes are adapted according to the needs of the participants.

With its twin-screw expertise, Clextral offers its clients turnkey production lines, including extruders, dryers and additional equipment. These reliable and innovative systems are benchmarks in terms of quality and excellence in its three key markets: Food & Feed, Green Industries and Powder Industries.

In parallel, Clextral supplies high-precision industrial dosing pumps, designed and manufactured according to very precise specifications. They are particularly installed in the heart of critical nuclear power plant systems. Clextral pumps are also custom-manufactured for the oil, natural gas, chemicals, paper pulp and agri-food industries. Our comprehensive range includes design and development of industrial solutions, manufacturing of pumps and connected equipment, on-site installation and comprehensive support services.

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FOR THE OIL,  
GAS AND  
CHEMICALS  
INDUSTRIES

# CLEXTRAL PUMPS

## SUPPORTING INDUSTRIAL SPECIALISTS SINCE 1958

As a specialist in the design and manufacturing of pumps and dosing, injection and transfer systems, Clextral proposes its products and skills on the chemical, petrochemical, oil, gas and nuclear markets.

By designing equipment according to API 674 and 675, sizing for use 24hrs a day and proposing appropriate equipment, we can ensure maximum system availability. Our numerous references confirm the competitiveness of our products in these demanding industries, in which the equipment has to be totally reliable.



### Aggressive environments

Clextral adapts its pumps to specific extraction site environments: marine environments, requiring paint suited to saline corrosion, possible sandstorms, requiring additional proofing and protection, and extremely cold conditions, requiring special metalwork.

### Explosive environments

All pump models can all be fitted with explosion-proof motors. The accessories, control devices and shock absorbers also meet the same requirements. The pumping heads may, when required, be fitted with explosive gas scavenging systems (e.g. for T.E.A. applications).

Furthermore, Clextral pumps meet the requirements of directive 94/9/EC (ATEX) concerning equipment used in potentially explosive atmospheres.

### PUMPS FOR THE OIL AND GAS INDUSTRIES

Applications for extraction, production and storage

- Plunger piston pumps from 0.5 l/h to 8 m3/h.
- High pressures of up to 300 bars or more, particularly for offshore extraction.
- Pumps suited to aggressive environments and explosive atmospheres.

In the case of corrosive, abrasive and toxic products, or where pumping conditions are difficult, the drive mechanisms may be fitted with diaphragm dosing heads.

Global benchmarks in major oil and gas producing countries: Russia, China, the Maghreb, the Middle East, the North Sea, Asia, Africa, etc.



### PUMPS FOR REFINING AND PETROCHEMICALS

- Diaphragm pumps from 0.3 l/h to 30 m3/h.
- Average pressures between 10 and 50 bars, and up to 70 or 100 bars.
- Pumps suited to difficult fluids and explosive atmospheres

Benchmarks with refiners in major processing countries, in Europe and particularly in Russia, but also in China or in India.

To further ensure the refiners' need for full use of the equipment at all times, a team of technicians provide a programme of scheduled maintenance agreed jointly with the customer and performed by specialists.

### Our custom solutions:

- Positive displacement transfer pumps (Super MD or GD 60-2)
- Dosing pumps (Super K or Super KL with twin diaphragms)



### PUMPS FOR THE CHEMICALS INDUSTRY

- Twin-diaphragm pumps: 0.3 l/h for dosing, up to 12 m3/h per head for positive displacement transfer
- Pumps suited to a large number of difficult and varied fluids (explosive, inflammable, toxic, radioactive, corrosive, abrasive, containing suspensions, etc.)

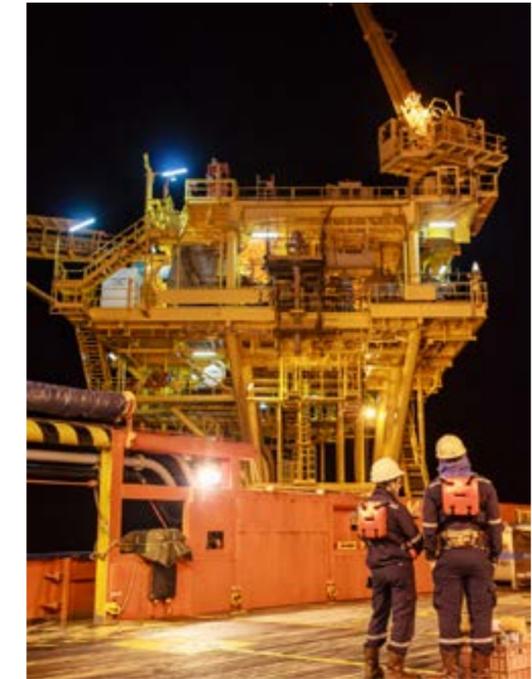
### Easy maintenance

Specific equipment and special accessories have been developed for certain markets, sometimes in collaboration or on request from chemists: check valves, diaphragms, shock absorbers, etc.



### OUR RANGE OF DOSING AND INJECTION PUMPS

API674/675 plunger piston or diaphragm positive displacement pumps.



### SUPER J

API 674/675

**positive displacement pumps**

**Output:** up to 450l/h, under 8 bars.

**Pressure:** up to 250 bars

Output adjustable from 0 to 100% while running or stopped



### SUPER K

API674/675

**positive displacement pumps**

**Output:** up to 200l/h, under 35 bars.

**Pressure:** up to 440 bars at 3l/h.

Output adjustable from 0 to 100% while running or stopped



### SUPER KL

API674/675

**positive displacement pumps**

**Output:** up to 4,000 L/h at 4 bars

**Pressure:** up to 440 bars at 14l/h.

Output adjustable from 0 to 100% while running or stopped



### SUPER MD

API 674/675

**positive displacement pumps**

**Output:** up to 8,200l/h, under 6 bars.

**Pressure:** up to 440 bars at 55l/h.

Output adjustable from 0 to 100% while running or stopped



### GD 60-2

API674/675

**positive displacement pumps**

**Output:** up to 10,500l/h per head, under 6 bars.

**Pressure:** up to 159 bars at 420l/h per head.

Output capacity doubled by dual-action head.

Output adjustable from 0 to 100 % while running or stopped



### DC 100

API674

**positive displacement pumps**

**Output:** up to 70 m³/h.

**Pressure:** up to 300 bars.

Output adjustable by frequency variation.



### DC 130

API674

**positive displacement pumps**

**Output:** up to 120 m³/h.

**Pressure:** up to 400 bars.

Output adjustable by frequency variation.

