



Design

# Engineering and Design



General Chemicals



Fine Chemicals



Petrochemicals



Plastics and Polymers



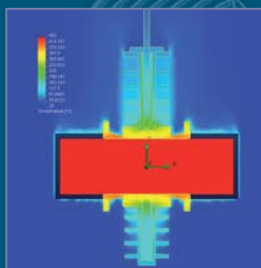
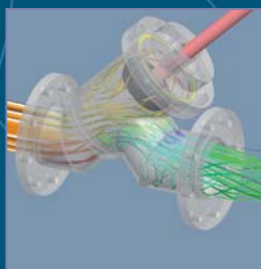
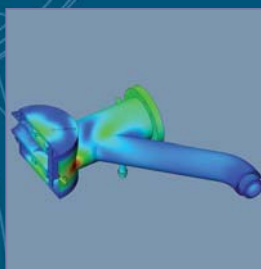
Nuclear and Navy



Cryogenic Service

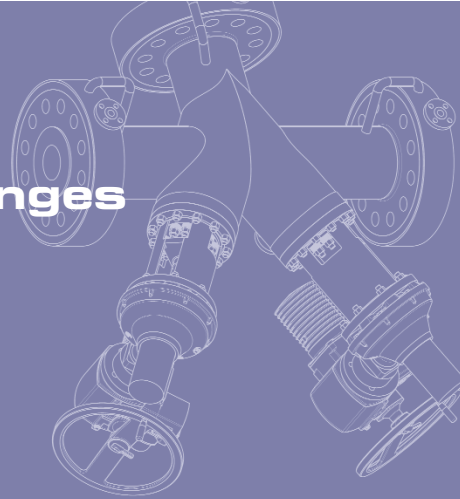


Other applications





# Your technical challenges



## Fields of applications

### Mechanical Strength Analysis

- Meet the requirements of the Pressure Equipment Directive (PED)
- Check the impact strength
- Check the resistance to external stress (piping, supporting, external loads...)
- Projection of distortions

### Flow simulations (monophasic and biphasic flow)

- Kv/Cv calculation
- Flow rate, speed gradient and pressure gradient calculations
- Detection of retention areas
- Flow regulation

### Thermal studies

- Temperature calculations at the shell surface (skin) or around the operating device
- Thermal resistance/tightness of the stuffing-box
- Temperature loss calculation
- Optimization of temperature distribution for a heating jacket

## Calculation Codes used

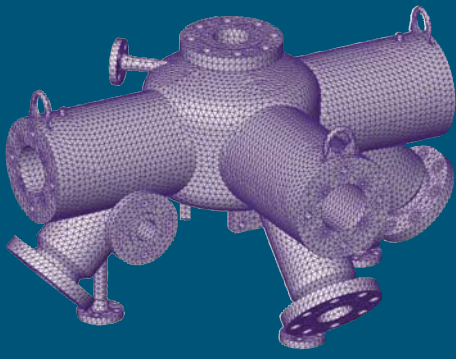
- **CODAP**
- **RCC-M**
- **ASME VIII**
- **AD-2000 Merkblatt**
- **Others.**

## Technical means

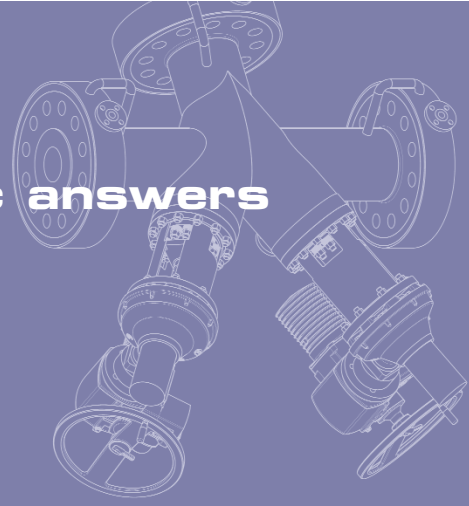
### Our design Team

- 10 Engineers and Technicians
- Cumulating 122 years of experience in fluids mechanics
- In permanent contact with manufacturing engineering and the on-site production staff

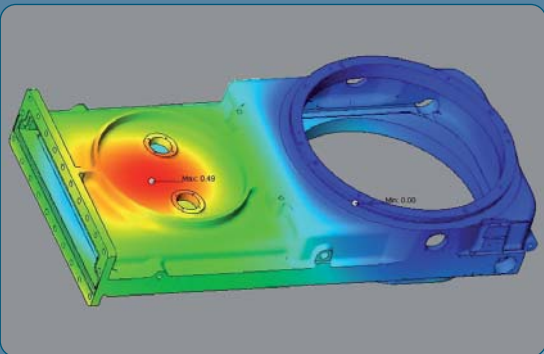




## Our specific answers and tools

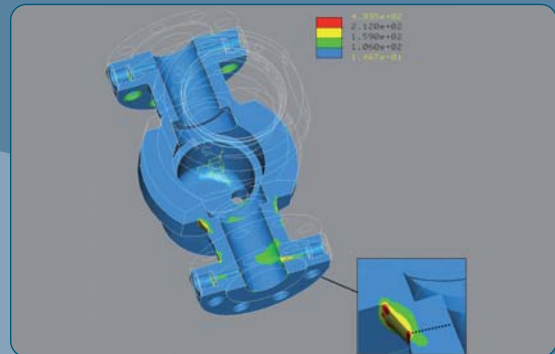


### Solutions



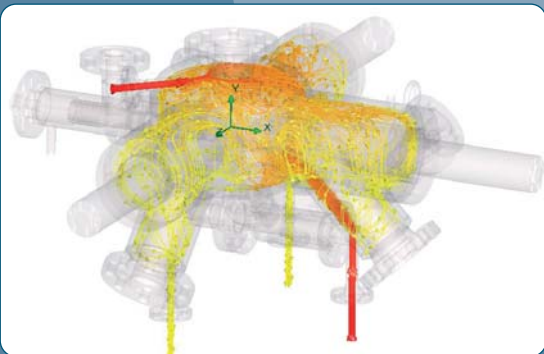
Mechanical calculations by finite elements analysis (F.E.A.)

Cosmos Design Star / Pro-Mechanica



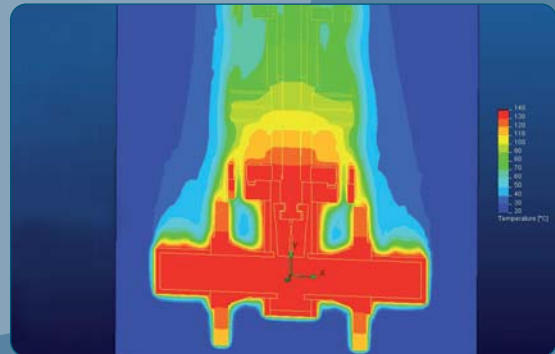
Impact strength calculation

Pro-Mechanica / Cosmos Design Star



Flow simulations

FloEFD / SC Tetra



Thermal studies

SC Tetra / FloEFD

### Cooperations and Partnerships

- AFIAP
- AXELERA
- CERG GRENOBLE
- CETIM
- PROFLUID

### Competitive advantages

- Company established in 1921: 90 years of reliability
- Design office directly linked with in-house production shop
- Comprehensive knowledge and experience in any industrial valves technology.

## Agreements and Quality Management

### ISO 14001

Environmental Management certified to ISO 14001: 2004 standards by Lloyd's Register Quality Assurance.

### ISO 9001

ISO 9001 certified since 1991. Notified Body for ISO 9001: 2008: L.R.Q.A.

### PED 97/23/EC

Compliance with the European Pressure Equipment Directive. Guichon Valves is certified according to Appendix III Module H of Directive 97/23/EC.

### Welding

Welding procedures qualified as per ASME, RCC-M and EN standards.



*Experienced and qualified welders*



*Machining shop equipped for in-house production*



*Design department: the company's heart*



*New production plant*

## Leading Valves Manufacturer

The Guichon Company was created in **1921**. It started making products for the Aix les Bains spa resort then quickly moved on to the production of valves for critical applications in the chemical and petrochemical industries. During this period, the Guichon Company started offering design services.

Since then, the Company addresses nuclear markets and has adopted advanced softwares, allowing it to sell calculations and studies in fluids mechanics to end users, engineering companies or other valves manufacturers.

Today, the Guichon Company is ranking amongst the leading European designers and suppliers of speciality valves.

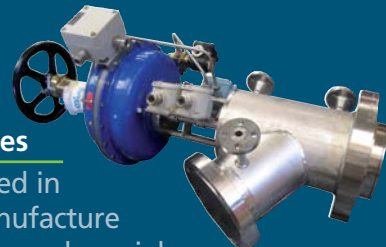
The Company has full control, in one site, over the design, manufacturing and testing of its products.

The know-how in manufacturing high performance valves, added to its engineering expertise, have ensured constant progresses in the development of innovative, safe and durable solutions for customers around the world.

## GUICHON Valves

is also specialized in design and manufacture of custom-made and special valves for the petrochemical, chemical, power and nuclear industries with a complete range in welded, cast or solid construction including:

- Piston, disc, ball, multiways, tank bottom, sampling, injection and control valves
- Slide, gate, disc valves, with full or reduced bore
- Check valves, sight glasses, strainers & accessories featuring a large choice of options (heating jackets, etc.) and made in various grades of stainless steels and special alloys.



## Some of our worldwide clients

**ABB/ CB&I**  
**ALSTOM**  
**ARKEMA**  
**AXENS-IFP**  
**BASF**  
**BP CHEMICALS**  
**CEA**  
**DCNS**  
**DOW CHEMICALS**  
**EDF**  
**ENGINEERS INDIA LIMITED**  
**FORMOSA PLASTICS**  
**FOSTER WHEELER**  
**MECA-INOX**  
**SAIPEM**  
**SAMSON**  
**SAMSUNG**  
**SANOFI-AVENTIS**  
**SHELL**  
**SINOPEC**  
**SOLVAY**  
**TECHNIP**  
**TOTAL**  
**TYCO**  
**UHDE INVENTA-FISCHER**

**Expertise and Safety, Synchronized with Customer Needs**



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