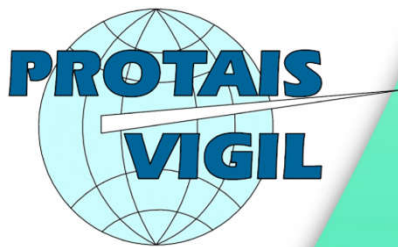
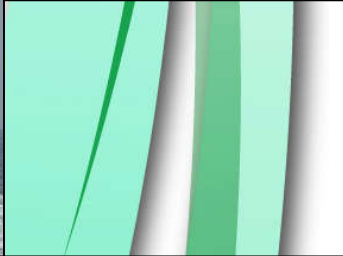


GIE POLYTECHNICS



**HYDROPNEU
TECHNOLOGIC**
PROMOTION DE TECHNIQUES AVANCEES

ICS | **Consultants**



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GIE POLYTECHNICS

Le **GIE POLYTECHNICS** regroupe 4 sociétés dont les activités sont complémentaires et qui chacune est leader dans son créneau spécifique.

Le **GIE POLYTECHNICS** met à votre disposition des techniciens compétents capables de comprendre vos problèmes et de proposer des solutions directement ou au travers de nos bureaux d'études.

Nos qualifications

Les membres du **GIE POLYTECHNICS** sont qualifiés ISO9001-2015



Nos moyens

En plus des moyens de fabrication standards, nous disposons sur chaque site de Bureaux d'études et nous possédons les moyens d'essais qui nous permettent de simuler les applications des clients ou de mettre au point des produits développés et qualifiés par nos soins:

- Banc d'étalonnage en pression et en température (sur site ou en atelier)
- Des enceintes climatiques -40...+120°C
- Des bancs de test en pression (2000bar hydrauliques, 1100bar pneumatiques)
- Spectromètre de masse hélium
- Compteur de particules
- Banc de test 15T pour tripode

Nos références

Les activités des membres de notre GIE sont particulièrement développés dans le domaine des hautes technologies tels que

- L'aéronautique
- Le spatial
- La défense
- La marine
- Le nucléaire
- L'énergie
- La fabrication de gaz industriels
- La cryogénie
- La pétrochimie
- Les grands donneurs d'ordres: SNCF, RATP, ENGIE, ELENGY, ... et leurs sous traitants



GIE POLYTECHNICS gathers 4 companies leader in their own fields which activities are complementary.

GIE POLYTECHNICS provides skilled technicians able of understanding your problems and offer solutions directly or through our design offices



Qualifications

GIE POLYTECHNICS members are ISO9001-2015 certified

Test facilities

In addition of our equipment for standard manufacture, we offer on each site a Design office and we have the test facilities that allow us to simulate client applications or adjust or qualify products we developed

- Temperature and pressure calibration bench (on site or in our laboratories)
- Climatic unit (-40+120°C)
- Pressure test bench (2000bar hydraulic max, 1100bar pneumatic max)
- Helium mass spectrometer
- Particles counter
- Strength test bench for tripod (up to 15T)

Our references

Our activities are mainly developed in the field of high technologies such as

- Aeronautic
- Spatial
- Defense
- Marine
- Nuclear
- Energy
- Industrial Gas
- Cryogeny
- Petrochemical
- Major customers (SNCF, RATP, ENGIE, ELENGY, ... and their subcontractors)





HYDROPNEU TECHNOLOGIC

PROMOTION DE TECHNIQUES AVANCEES

Fabrication et étude de matériel de régulation et de transfert de fluides:

- Filtre
- Vanne – électrovanne
- Détendeur
- Déverseur
- Clapet anti retour
- Soupape de sécurité – disques de rupture
- Tuyauteries flexibles (tout inox et inox/PTFE) et raccords
- Armoires de distribution
- Coffret de détente
- Banc d'essais suivant spécification
- Valise d'outillages pneumatique/hydraulique
- Cryogénie
- Additif HT96+ anti friction
- Limiteur de couple Dynastat



ICS | Consultants

Domaine d'activité

Étude et réalisation des contrôles commandes pour les bancs d'essais et machines spéciales pour l'industrie

Mise en place des solution d'acquisitions de données

Choix des capteur et des interfaces

Développement des logiciels de pilotage et de supervision

Automatisation des systèmes

Étude et réalisation de cartes électroniques spécifiques

Développement logiciel Labview / Labview CVI

Étude sur cahier des charges

Analyse fonctionnelle

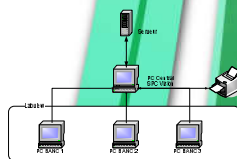
Rédaction des spécifications techniques

Aide à la définition du besoin

Maintenance et rénovation de machines obsolètes

Reprise de logiciels propriétaire dont vous avez perdu la Maîtrise

Développement sous Dos, langage C, Basic, Visual Basic



Design and manufacture of fluid regulation and transfer devices:

- Filter
- Valve – solenoid valve
- Pressure regulator (spring and dome loaded)
- Back pressure regulator (spring and dome loaded)
- Check valve
- Safety valve – bursting disc
- Flexible assemblies (stainless steel and stainless steel/PTFE) & fittings
- Distribution panel
- Regulation panel
- Test bench according to customer specifications
- Nato tool kit
- Cryogeny
- High performance lubricant additive HT96+
- Torque limiter Dynastat



Engineering: The study and implementation of technical solutions, combining computer science electronics and automation, for machine automation testing.

Design: Software development on LabVIEW or LabWindows CVI.

Services: - Operational Maintenance for systems.
- Recovery and Update of obsolete systems and software that you lost control of.
- Advice on needed changes.

ICS Consultants can support full projects implementation based on a partner companies network in hydraulic, mechanic, electronic.

Software development of special machines for laboratories and production units.

LabVIEW

LabWindows CVI

WINDEV

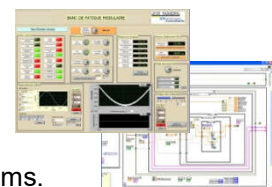
PL7, UNITY, VISILOGIC

VJEO DESIGNER

Study of acquisition systems.

Production and studing of cable boxes.

Study and production of electronic projects.





Fabrication et étude d'instrumentation de mesures et de détection de grandeurs physiques (Pression, Niveau, température, débit)

Manomètres standards et spéciaux (à aiguille et digitaux)

Manomètres et capteurs de pression différentielle

Capteurs de pression

Pressostat (mécaniques & digitaux)

Mesure de niveau

Contacteur de niveau mécanique et électronique

Thermomètre à dilution de gaz

Sonde PT100

Sonde thermocouple

Thermostat

Régulateur de température

Débitmètre à flotteur

Débitmètre massique

Contacteur de débit

Étalonnage en pression et en température



Design and manufacture of instrumentation devices (measurement and detection of physical value – pressure, level, flow, temperature)

Standard and specific pressure gauge (mechanical and digital)

Differential pressure gauge and sensor

Pressure sensor

Pressure switch (mechanical and digital)

Level measurement

Level switch (mechanical and electronic)

Gas dilution thermometer

PT100 sensor

Thermocouple sensor

Temperature switch

Temperature regulator

Variable area Flowmeter

Gas Mass flowmeter

Pressure and temperature calibration



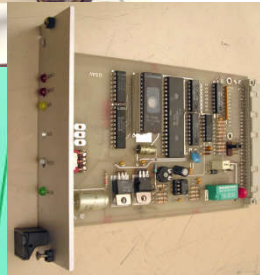
•Étude et réalisation de groupes de démarrage pour hélicoptères, avion légers et tank

Alimentation à essence ou fuel

Tension générée 24VDC-28VDC-48VDC

•Câble blindé ATEX

•Fourniture de coffret de pilotage de sirène longue portée



•Design and manufacture of ground APU for helicopter, light and tank

Gasoline or fuel engine

Tension out: 24VDC -28VDC – 48VDC


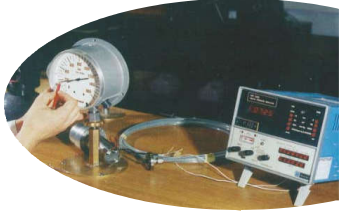


•ATEX stainless steel insulated shield cable

•Manufacture of control box for long range horn



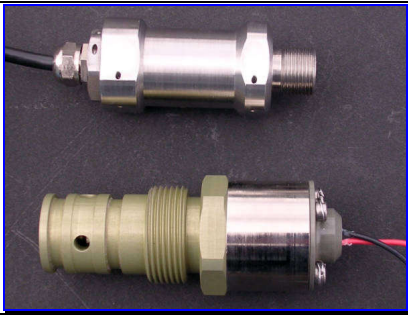
GIE POLYTECHNICS STANDARD PRODUCTS RANGE**1) Instrumentation**

	<p>Temperature</p> <p>Thermometers PT 100 Thermo couple Temperature display Thermostat (mechanical & electronic)</p>	
 	<p>Pressure</p> <p>Pressure gauges Digital pressure gauges Differential pressure gauge (mechanical & electronic) Pressure transmitters Pressure display Pressure switch (mechanical & electronic)</p> 	 
 	<p>Level</p> <p>Mechanical float level & control Capacity level Electronic level for liquids Level for cryogenic applications</p> 	
	<p>Flow</p> <p>Flowmeter with floats and controls Mass flow meter Electronic regulation flowmeter</p>	
	<p>Force</p> <p>Dynastat Torque limiter with one or two microswitches</p> <p>Load cell</p>	

	<p>Calibration (laboratory and «on site») Pressure up to 1000 bar</p>	
	<p>Pressure test on equipment on site 2000 bar hydraulic 1000 bar pneumatic</p>	

2) Components for fluid control

	<p>Filters for liquid & gas (up to 0,5 μ pressure 400 bar) Brass, stainless steel, etc... $\varnothing 3 \rightarrow \varnothing 50$ Anti moisture filter 1000 bar (1000 bar for IR system)</p>	
	<p>Manual valve DN3 to DN 50 (brass & stainless steel) Brass or stainless steel Servicing pressure up to 1000 bar</p>	
	<p>Pneumatic control valve DN3 to DN50 brass & stainless steel Servicing pressure up to 1000 bar</p>	
<p>Pyrotechnic control valve Solenoid valve 1/4 to 1/2</p> 	<p>Bursting disc DN5 to DN 150 all material - all pressure</p> 	<p>Non return valve DN6 to DN 80 made of carbon steel/brass/stainless steel</p> 



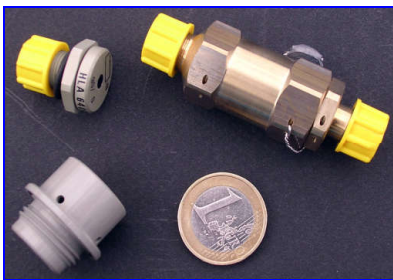
Micro solenoid valve
300 to 700 bar



Manual or dome pressure reducer/regulator DN3 to DN 50 made of brass stainless steel pressure up to 600 bar, flow up to 10000 NM3/10



Manual or dome back pressure regulator DN3 to 50 brass or stainless steel up to 250 bar



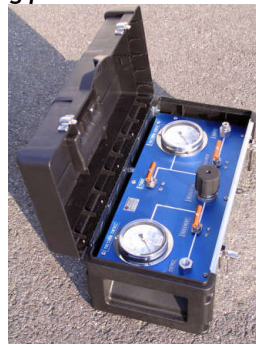
Safety valve
brass or stainless steel up to 3" pressure to up 420 bar



Distribution panel



Reducing pressure units



Gas measuring units



Cryogenic components

Double wall insulated stainless Steel hose with vacuum insulation
Cryogenic regulating valves



3) Components for hydraulic & Pneumatic

 	<p>Simple sleeve union fittings Double sleeve union fittings JIC, BSP, NPT, DIN, SAE adapters & fittings</p>	 
<p>Low pressure ducts (DN 25 to 300 mm)</p> <p>Quick disconnect coupling 1/8" to 2" steel, brass, stainless steel</p> <p>Very high pressure quick disconnect coupling (1000 bar) for gas (IR system)</p>	  	<p>Metallic bellow (stainless steel, hastelloy, monel) hydroformed or edge welded Expansion joints (rubber or stainless steel)</p> 
 	<p>Flexible hose (thermo plastic, rubber and PTFE) for liquid and high purity gas</p> <p>Very high pressure stainless steel hoses (500 bar)</p> <p>All types of fittings (aerospace/industrial: NPT, BSP, DIN, MS, SM, AS, AN, etc...)</p> <p>Internal diameter from 3 to 100mm From vacuum to 600bar Temperature from -270°C to +1000°C</p>	

4) Equipment and machine for test. Design, study and manufacture.

<p>Nitrogen or inert gas booster Up to 400bar</p> 	<p>Tightness test bench (liquid or pneumatic) manual or automatic control (ICS Consultants)</p> 	<p>Test bench for flow control (automatic or manual)</p> 
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Pressure cycling test bench



Test bench for temperature cycles



Cleaning unit for RAFALE components



Cleaning unit for space components



Pressure and temperature cycling unit (for ATEX area) Ethernet controlled (ICS CONSULTANTS)



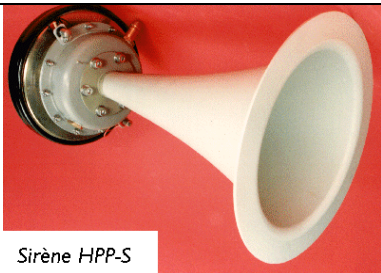
Test unit AIR /hydraulic. Nato case



Manufacturing of high pressure machined part for very demanding applications CNC units, turning, milling, Electro erosion, grinding, running.



Design and manufacture of special CC APU for light aircraft, helicopter & tank



**Manufacture of high power alarm system
Use on helicopter or to warn population around chemical or nuclear activity area**



Sirène HPP-S

Sirène HPP-O-1500



High tech lubricant HT96 +
HT96+ is a high performance lubricant additive which creates a boundary film. This film smoothes and seals metal surfaces to reduce friction and friction-related heat. The end result is improved operation and extended life of the system



Software development of special machines for laboratories and production units.

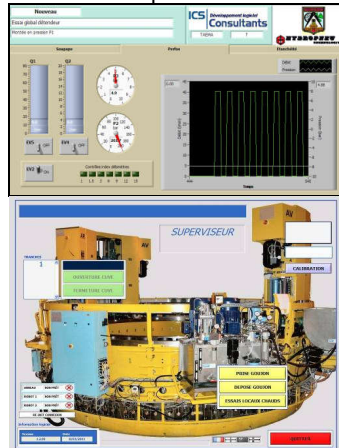
- LabVIEW
- LabWindows CVI
- WINDEV
- PL7, UNITY, VISILOGIC
- VIJEO DESIGNER

Study of acquisition system.

Production and studying of cable boxes.

Study and production of electronic projects.

Supervision software of a special machine in nuclear power station



Design: Software development on LabVIEW or LabWindows CVI.

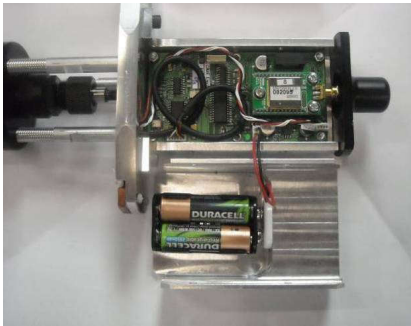
Services:

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EXAMPLES

Wireless measurement card



Aircraft tyre inflating tool



Machined fitting for ARIANE booster



Periscope pressurization case



Test on Reverse bursting disc



oxygen tightness control test



HP oxygen flexible assembly with fire sleeve



Mobile pressure test bench



PTFE/stainless steel flexible assembly with specific fitting use with highly corrosive fluid

