



LOGICHEM PROCESS

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LOGICHEM PROCESS

CAPABILITY PROFILE

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Revision date: March 2007

Note: We strive to keep this document concise. More detail on any issue of interest can be made available on request.



1. COMPANY HISTORY

Logichem Process was incorporated in 1989, with its first office located in Sandton, Gauteng Province, South Africa. A branch office was established in the Western Cape in 1995, located in Wellington. In 2001, our Gauteng office relocated to its current address in Krugersdorp

2. BUSINESS PROFILE

BUSINESS

Logichem Process is a chemical engineering company. It's business is **process design, engineering and equipment supply**.

The company is committed to the acquisition, development and implementation of state-of-the-art technology. The company has a strong conceptual design culture.

Logichem Process's business can be classified broadly into three categories as follows :

- 2.1 **Engineering Assignments** - cost estimates, feasibility studies, process design, simulation studies, technical audits, troubleshooting etc., up to complete detailed engineering and management of projects.
- 2.2 **Equipment Supply** - design and supply of specific process equipment items and systems as elaborated in Section 6.
- 2.3 **Turnkey Projects** - complete, single source responsibility, lump sum turnkey projects.

COMPETITIVE EDGE

We believe our competitive advantage lies in the calibre of **conceptual design** offered, **based on first-principles**, supported by validated **process simulation** techniques, state-of-the-art **technology**, and a **broad experience** base.

This enables us to **custom design** and **optimise the client's investment**.

3. MISSION STATEMENT

Our mission is:

- to nurture and maintain **excellence in process engineering** design
- to support a beachhead of **advanced process design capability** in South Africa
- based on the acquisition and development of **state-of-the-art technology**
- employing a **trained** and highly **motivated team** of professionals
- dedicated to finding and implementing the **most cost effective solutions** to the needs of **valued clients**
- to **ensure their continued profitability**
- thereby fostering **valuable repeat business** and a growing market share for Logichem.

4. PERSONNEL

Logichem Process currently has a permanent staff complement of 16, constituted as follows:

Gauteng Office:	Chemical Engineers:	1
	Projects Engineer/DO:	2
	Secretarial:	2
	Administration:	2
Cape Office:	Chemical Engineers:	3
	Mechanical Engineer/DO:	2
	Elec/Instr Engineer:	1
	Secretarial:	2
	Administration:	1

CV's are available on request.

5. PREMISES

Our Gauteng office building is owned by Logichem Process Properties (Pty) Ltd. The Wellington office building is owned by an associated trust.

Address and telephone details are as follows:

Cape Office : Rheeboek Close, Wellington Industrial Park, 7655
P.O. Box 262, Wellington, 7654, South Africa
Telephone : + 27 (21) 873 6499
Fax : + 27 (21) 873 1717
Contact : Schalk Pienaar, CEO
e-mail: logichem@iafrica.com

Gauteng Office : 286 Voortrekker Road, Noordheuwel, Krugersdorp, 1739
PostNet Suite #146, Private Bag X3, Paardekraal, 1752
Telephone : + 27 (11) 954 3203
Fax : + 27 (11) 954 3213
Contact : Ignatius Herbst, Managing Director
e-mail: natie@logichemprocess.com

6. TECHNOLOGY

Logichem Process has wide ranging process design capability by virtue of the diverse backgrounds and experience of its staff. Since our strengths lie in the application of unit operations, rather than serving a specific industry segment, **our technology finds applications across a broad range of industries.**

Areas of particular expertise are the following :

- **Distillation**, with particular expertise in the **potable & fuel alcohol** industries. Alcohol Distillation is a **core strength**, and Logichem is the **dominant supplier** of Alcohol technology in **Southern Africa**. Logichem designs and manufactures its **own range of tower internals** locally, including high capacity, low-fouling trays.

- **Heat Exchangers** - thermal and mechanical design and supply of shell & tube, plate, spiral, coil, corrugated tube, air cooled heat exchangers, vaporisers and condensers
- **Heating and Cooling systems**, such as air dehumidification, heat recovery, pasteurisation, thermal fluid systems, steam and condensate, evaporation, crystallisation, and drying
- **Process simulation** (HYSYS, computer based modelling of processes)
- **Gas liquefaction, storage and vaporisation** (CO₂, ammonia, sulphur dioxide, chlorine)
- **Liquid/solid separation** (filtration & centrifugation)
- **Electrolytic processes** (chlor-alkali, hydrogen generation, organic synthesis)
- **CO₂ recovery**, purification, liquefaction and storage, especially **from fermentation** processes
- **Gas purification**, absorption, scrubbing, dust collection, fume extraction
- **Paprika oleoresin extraction**, Logichem's proprietary **patented process**

In addition, Logichem has tie-ups with the following international suppliers of technology and equipment:

- **Sacome** (Spain) - corrugated tube **heat exchangers**, and food processing technology.
- **Funke** (Germany) – **plate heat exchangers**, high pressure hydraulic fluid coolers. Logichem assembles Funke plate heat exchangers under licence in South Africa.
- **ElectroCell** (Sweden) - **electro-chemical** equipment and technology.
- **Pieralisi** (Italy) – decanter and separator **centrifuges** for industrial and food processing applications.
- **Rousselet/Robatel** (France) – basket **centrifuges** and liquid/liquid separators.
- **Genencor/Danisco** (Belgium) – **enzyme technology**
- **Ethanol Technology** (USA) – **fermentation technology**

Literature on any of the above can be made available upon request.