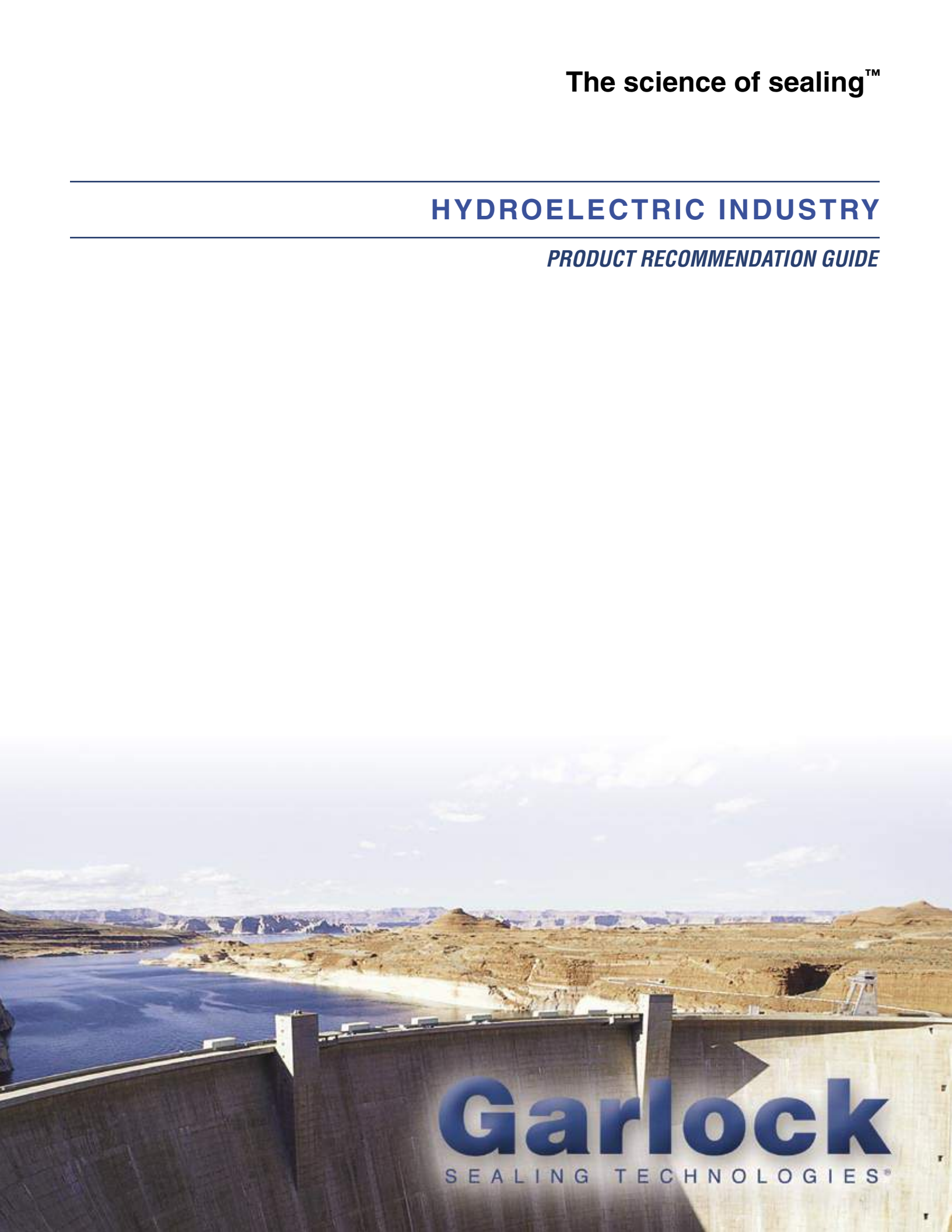


The science of sealing™

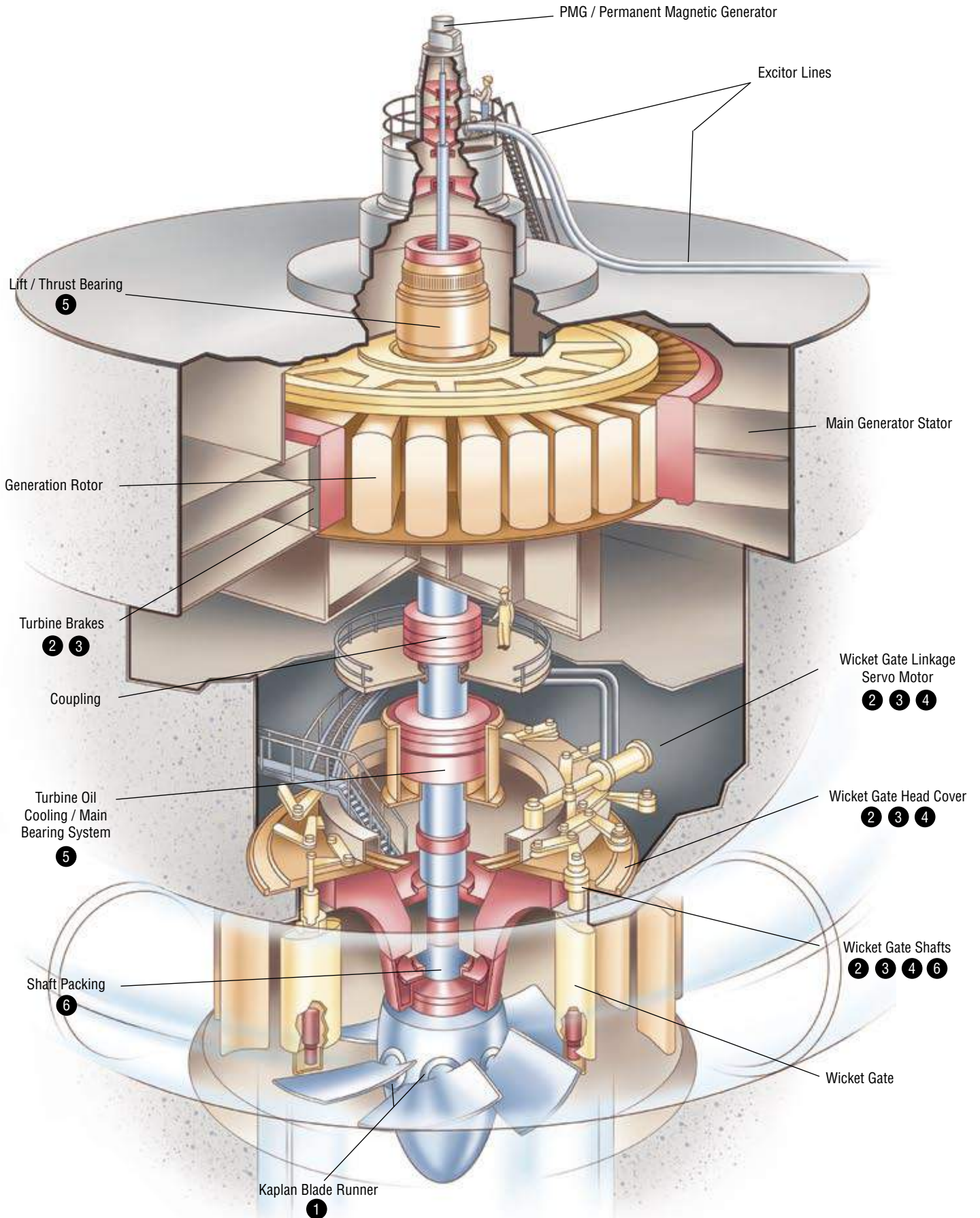
HYDROELECTRIC INDUSTRY

PRODUCT RECOMMENDATION GUIDE



Garlock
SEALING TECHNOLOGIES®

Hydroelectric Plant Product Recommendation Guide



Recommended Products

1 Hydraulic Seals

Turbine Runner Blade Packing:



Garlock's double reversed packing set is specially designed for the Turbine Runner Blade application. With more than 25 years of experience with our Turbine Blade packing design, provides the ultimate sealing solution. This packing assembly is designed to keep lubricants from entering the river water and at the same time keep the river water from entering the lubrication system.

The Turbine Blade design features the flexible style 435 vee rings manufactured with a pre-shrunk cotton fabric and nitrile elastomer combined with style 261 (rock-hard) supporting adapters. Each packing set is designed with an axial preload which eliminates the guess work during installation, ensuring a proper fit and tight seal.

2 CHEVRON® Packing:



The original automatic vee ring packing set ideally suited for the hydroelectric industry. Each packing set features multiple sealing lips that eliminate catastrophic failure and encompass a hinged design that will provide an automatic reaction to increasing/decreasing pressure.

3 GARTHANE® U-Seal:



The Garthane U-Seal is manufactured with 90 durometer clear urethane compatible with water and petroleum oils. Each U-Seal is designed with a reversed bevel lip design keeping friction to a minimum. The U-Seal design is a perfect solution for applications with packing space constraints.

4 POLY-TOP™:

The Poly-Top is a unique set configuration that has found widespread popularity due to their high sealing efficiency. The set utilizes the combination of two proven designs, Garlock CHEVRON® packing and the Garthane U-Seal.



Sheet Gasketing

5 MULTI-SWELL™ Gasketing:

Multi-Swell™ is a unique gasketing material perfect for the Hydroelectric industry. This proprietary material creates its own load when it comes into contact with oil or water.



Twice as soft as conventional gaskets, Multi-Swell™ is easy to cut and readily conformable even to irregular pitted flanges, ensuring tight seals with lower loads.

Compression Packing

6 TurbinePak 1965:



Garlock designed TurbinePak 1965 with proprietary materials that stand up to high silt environments without being abrasive to turbine shafts. These exclusive materials ensure multiple years of service and reduced equipment maintenance costs. TurbinePak 1965 handles better and is more flexible than other large cross section packings, allowing for easier installation.

While TurbinePak 1965 is our best packing for hydro-electric service, we also offer a number of other high quality compression packing products including our Genuine GFO® packing, Garlock Style 5100.

WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury.

Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

Technical Services

Training

Worldwide, Garlock customer training programs are available at your location or ours. They range in scope from public field seminars to programs that are tailored to meet the specific needs of your on-site contractors or plant maintenance personnel.

Garlock customers also benefit from the extensive factory training programs that our own sales, marketing and technical personnel must undergo. This rigorous training provides them with the product knowledge and hands on experience required to service your fluid sealing needs.

Testing Capabilities

Our testing capabilities enable us to provide Garlock customers with comprehensive performance data and ensure that the products we manufacture are not only of the finest quality, but

that they also are safe. Garlock testing facilities are the most comprehensive and most sophisticated in the industry. As a result, our products are thoroughly tested to worldwide standards such as API, DIN, JIS, ASTM, and more, and are proven for the widest range of applications, temperatures, pressures and chemicals.

Environmental Awareness

Through our global network, we stay informed of environmental standards and laws so that our sealing technologies and products will always meet or exceed your needs. We make every effort to keep our customers fully informed of changing standards and regulations.

Our products help customers remain good neighbors by conserving water and other natural resources, reducing noise pollution and increasing safety in the workplace.

Technical Support Engineering Capabilities:

Our engineering staff will work with your maintenance and technical people to design products to meet your specific application needs.

Research and Development:

Using some of the most technologically advanced equipment available, our research and development teams explore new opportunities presented by new materials, constructions and applications.

Problem-solving Assistance:

Garlock team technicians are available for problem solving when and where you need them. This includes being available to monitor or assist in the installation of products in critical applications to ensure that products are properly installed, and to offer application recommendations and trouble-shooting tips.

AUTHORIZED REPRESENTATIVE



ISO 9001:2000
Cert. #001762

WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

GARLOCK is a registered trademark for packings, seals, gaskets, and other products of Garlock.

© Garlock Inc 2006. All rights reserved worldwide.

Garlock

Sealing Technologies®

www.garlock.com

Garlock Sealing Technologies
1666 Division Street
Palmyra, New York 14522 USA
1-315-597-4811
1-800-448-6688
Fax: 1-800-543-0598
1-315-597-3173

Garlock Sealing Technologies® is an EnPro Industries company.

Other Garlock facilities are located in:

Columbia, SC, USA
Phone 1.803.783.1880
Fax 1.803.783.4279

São Paulo, Brazil
Phone 55.11.4127.9935
Fax 55.11.4343.5871

Saint-Étienne, France
Phone 33.4.7743.5100
Fax 33.4.7743.5151

Singapore
Phone 65.6285.9322
Fax 65.6284.5843

Houston, TX, USA
Phone 1.281.459.7200
Fax 1.281.458.0502

Sherbrooke, Canada
Phone 1.819.563.8080
Fax 1.819-563.5620

Neuss, Germany
Phone 49.2131.3490
Fax 49.2131.349.222

Shanghai
Phone 86.021.62789702
Fax 86.021.62787826

Sydney, Australia
Phone 61.2.9793.2511
Fax 61.2.9793.2544

W. Yorkshire, England
Phone 44.1422.313600
Fax 44.1422.313601

Mexico City, Mexico
Phone 52.555.567.7011
Fax 52.555.368.0418

Dubai, UAE
Phone 971.4.8833652
Fax 971.4.8833682