



Mr. LARRY W. BUTZ
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PROFESSIONAL SUMMARY

Highly respected technical expert on global environmental issues and technologies of the HVAC, energy and building industries. Demonstrated capability at managing technologies globally and customizing locally for profitable early entry into diverse global markets. Invited speaker to executive management of major multi-national corporations, industry groups, governments and scientific groups throughout the world. Demonstrated success in multi-cultural projects with thorough understanding of different cultures, value systems and peoples of the world. Experience includes:

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| ➤ <i>Technology Transfer</i> | ➤ <i>HVAC Industry Associations</i> | ➤ <i>Technology Assessment</i> |
| ➤ <i>Product Development</i> | ➤ <i>Environmental Issues</i> | ➤ <i>ISO 9001 and 14001</i> |
| ➤ <i>Global Marketing</i> | ➤ <i>Coaching & Mentoring</i> | ➤ <i>Technical Writing</i> |
| ➤ <i>Public Speaking</i> | ➤ <i>Profit & Loss Accountability</i> | ➤ <i>Multiple Languages</i> |
| ➤ <i>International Management</i> | ➤ <i>Internet & Computers</i> | ➤ <i>Reengineering</i> |
| ➤ <i>Business Development</i> | | ➤ <i>Demand Flow™ Technology</i> |

PROFESSIONAL EXPERIENCE

Engineering Consultant

2002 to present

President and founder of Global Engineering Associates, a 25 engineer consulting group with offices in Australia, China, Europe and the United States. (www.gea-consulting.com)

Trane International – A division of American Standard Companies – 2005 Sales \$10.3B USD - 1982-2002 ***Director Environmental Technologies* (1997-2002)**

- Corporate spokesman and technical expert on environmental sciences, energy and air conditioning technologies.
- Directed global efforts to find, evaluate and develop alternate refrigerants and technologies possessing lower cost and reduced environmental impact.
- Effective communicator using multiple vehicles (presentations, technical papers, e-newsletters, Internet, meetings, television and video).
- Authored highly regarded *Environmental Update* e-newsletter read by government organizations, scientific bodies, major corporations, and global network of corporate environmental champions.
- Invited presenter to executive management for *Future Outlook* presentations at Sony, FujiFilm, SGS Thomson, Panasonic, Epson, Aggreko, Matsushita, Daikin, Fujitsu and others.
- Created and implemented Total Environmental Impact (TEI) concept (*ASHRAE Conference KL, Malaysia, 1997*), a key strategy in doubling of centrifugal chiller market share in 5 years.

Technology Director, Trane International

(1994-1996)

- Responsible for all Technology and Product Development outside of North America.
- Environmental and technical spokesman for Trane International.
- Headed International Service organization for over a year. Initiated reengineering of Service Organization to provide 24/7 service to customer needs.
- Successfully completed technology transfer and factory startup of large chiller (centrifugal and screw) manufacturing plant in China.
- Established global program of product/technology development, brand naming, acquisition and JVs to provide full range of unitary products to meet diverse requirements in world markets.

Director of Alternative Refrigerant Services, Trane International

(1992-1994)

- Created and implemented highly successful global program to provide services and products to meet the diverse and evolving needs from environmental threats and regulations.
- Proactive program based on technological leadership and effective clear communication became industry benchmark for environmental leadership.
- Company technical and environmental spokesman for the “CFC issue”. Created and headed global Refrigerants Technology Team.

Director Technology Exchange (1990-1992)

- Responsible for technology exchange between North America and Europe/Middle East/Africa.
- Formed global team to redesign European built CFC-12 air-cooled and water-cooled centrifugal chillers for ozone friendly R-134a.
- Developed “soft-optimized” R-134a screw and scroll chillers for early entry into unique European market requirements.
- Created and implemented engineer exchange program to accelerate use of US technologies in Europe and vice versa.

Engineering Manager, Trane Europe/Middle East/Africa (1985-1990)

- Led engineering division of 77 people located in Epinal, France HQ.
- Responsible for product development, engineering, design department, materials and equipment/component test laboratories.
- Introduced screw chiller technologies to European air conditioning industry
- Expanded test laboratory to become “best in industry” in Europe with capabilities to test 3 to 300 tons
- Developed in-house technical and test capabilities for unique European requirements (reversible heat pump chillers, low noise products, BMS/BAS and unit mounted control systems)
- Introduced CAD/CAM for cost reduction. Achieved productivity increases by converting lab technicians and CAD/CAM personnel to two-shift operation in challenging Socialist environment.

Engineering Team Leader for China Project I (1982-1984)

- Led 20-person engineering/drafting team that designed optimized products for China market and for manufacturing in China.
- Successfully completed technology transfer, training and factory start-up of two China factories to build hermetic reciprocating compressors and split system cooling only and heat pump unitary product lines.

EDUCATION

- B.S.M.E. and M.S.M.E. from University of Wisconsin - Madison. Masters thesis *Solar Heating and Cooling for Residences*. Designed first solar heated and cooled home in U.S. (Fort Collins, CO)
- 20+ credits of graduate level Business Administration and International Management courses.
- Significant ongoing technical and business training, both remote and on-site.
- Registered Professional Engineer in the State of Wisconsin.
- Member ASHRAE
- LEED Accredited Professional

PUBLICATIONS AND PRESENTATIONS

- 35+ papers and articles published around the world.
- Presentations in more than 45 countries.
- Distinguished speaker awards from Taiwan ASHRAE and ITRI, China CCAA, Singapore ASHRAE and Institute of Engineers, Vietnam's Ozone Protection Office, India's ACREX and ASHRAE, Australia's ACR and RRA.