Michael W. Volk, P.E. 3062 Arizona St. Oakland, CA 94602 (510) 482-8655 www.volkassociates.com mike@volkassociates.com

EDUCATION

Master of Science - Management Science
University of Southern California - Los Angeles
Graduate School of Business Administration

Master of Science - Mechanical Engineering
University of Southern California - Los Angeles
Graduate School of Engineering

Bachelor of Science - Mechanical Engineering

Bachelor of Science - Mechanical Engineering
University of Illinois - Champaign/Urbana, IL
Summa cum laude

PROFESSIONAL LICENSES

Registered Professional Engineer, California # 17571 Registered Professional Engineer, Washington # 16328

PROFESSIONAL EXPERIENCE

Volk & Associates, Inc., Oakland, CA President

1982 - present

Consult on technical projects related to pumps and pump systems, including oversight of system design and optimization, troubleshooting, field testing, inspection of manufacturers' shop tests, and expert witness for pump-related litigation.

Teach short courses on pumps and related machinery through university continuing engineering education programs, in each of the past 12 years at the Pump User's Symposium, public courses taught each year at various venues in the U.S. and abroad, and many in-house custom-designed courses.

Represent Engineered Software, Lacey, WA, with their PIPE-FLO piping design and analysis software program.

Consult on marketing issues for equipment manufacturers, including market studies, strategic planning, channel analysis, and merger/acquisition assistance and brokerage.

Michael W. Volk, P.E.

Goulds Pumps, Inc. - Houston Pump Repair Center, Houston, TX 1980 - 1982 Facility Manager

Started up and managed a grass-roots facility to repair industrial pumps of all types. Supervised 20 employees in the areas of sales, engineering, administration, and operations. With full P & L responsibility, achieved sales and profits well exceeding budget in first year.

Goulds Pumps, Inc. - Vertical Pump Division, City of Industry, CA 1975 - 1980 Manager of Marketing

Responsible for engineering and marketing activities at this \$30 million division. Managed 25 employees in departments responsible for application engineering, order administration, and customer service. Marketing responsibilities included initiating new product development, field sales support, pricing, and promotion.

Bechtel Corporation - L.A. Power Division, Norwalk, CA
Mechanical Engineer

1973 - 1975

Designed mechanical systems for power plants, sized and optimized equipment, prepared design and purchase specifications, and coordinated vendor equipment contracts.

Texaco, Inc. - Lawrenceville Oil Refinery, Lawrenceville, IL Student Engineer 1972 - 1973

Performed and checked calculations, and oversaw operation of refinery equipment at this 50,000 barrel per day refinery.

PUBLICATIONS

"Gaining a Clear Picture of Pump Operation", Power Engineering, PennWell, August, 2007

Pump Characteristics and Applications 2nd Edition, Revised and Expanded (500 pages) August, 2005, published by CRC Press and Taylor & Francis

"Ten Ways to Prevent Low-Flow Damage in Pumps", Flow Control Magazine, Witter Publishing, December, 2002

Pump Selection and Sizing", Chemical Processing Magazine, Putnam Publishing, Fluid Flow Annual, 1996, 1997, and 1998

Handbook of Fluid Dynamics & Fluid Machinery, Sect. 27.7, Centrifugal Pumps, published by John Wiley, New York, NY, 1996

Pump Characteristics and Applications, published by Marcel Dekker, New York, NY, January, 1996

"Procedures for Successful Pump Startups", Plant Engineering Magazine, October, 1988