

- 10.1989 – 06.1993 Ph.D. Engineering (Dr.-Ing.), University of Federal Armed Forces
Hamburg Institute of Thermodynamics (as civilian) Germany
- Main Subjects: Thermodynamics, Heat and Mass Transfer, Chemical Engineering, Energy Transformation, Process Engineering
 - Optional Subjects: Piston Engines, Measuring Techniques
 - Dissertation Thesis: Mass transfer phenomena (Gas Diffusion Coefficients in Electrolyte Solutions)
 - Design and development of computer software: simulation/calculation
 - Distinction: Dissertation was selected for publishing by the VDI-Verlag (Association of German Engineers-Publishing House), Germany
 - Completed doctoral thesis in 3 ½ years (instead of the usual 5 to 6 years)
- 10.1982 – 10.1989 M.Sc. Physics (Dipl.-Pys.), State University Hamburg Germany
- Award: VDI-Prize for physics thesis (VDI=Association of German Engineers)
 - Main subject: Physics
 - Optional subject: Molecular Biology
- 07.1981 – 10.1982 Mandatory Military Service - Radar Air Defence Corps Germany
- 1977 – 1981 (Abitur) College – Gymnasium Farmsen Hamburg, Germany
- 1975 – 1977 Metallurgical Engineering College Eisenmarkt, Romania
- Placed on the Honour Roll for best performance as a student

Languages: English, German, Spanish

Seminars / Courses / Training

TQM (total quality management), ISO 9001, Quality Planning (APQP, FMEA, CP)
Team Value Management (TVM) / Cost-Reduction (Ford); Plant Vehicle Team (PVT) (Ford);
WERS Ford Motor Company (World Wide Engineering Releasing System);
Business Administration for Engineers (through employer)
EDI (Electronic Data Interchange) IT-Logistics: EDI-Converter, EDI-Composer, EDI-Mat, EDI-
Workflow Designer, EDIFACT, VDA, ANSI X12, etc.

Electronics (TV and Radio troubleshooting and problem solving (1977))

Information Technology (design/development of computer software, application)
FORTRAN, PASCAL, C, COMPUTER SIMULATION (Molecular Dynamics)
MS-DOS, UNIX, ACCESS, EXCEL, WORD, CATIA (basic), ACAD
ERP-System: MFG/PRO (QAD Product); SAP (user: time management)
IT-Logistics: EDI (Electronic Data Interchange): EDI-Converter, EDI-Composer, EDI-Mat, EDI-
Workflow Designer, EDIFACT, VDA, etc.; B2B
Preparation of an E-Change-Management (high-performance purchasing organisation)

„Even if you are new to a field, you are not necessarily starting from scratch“

Professional Experience:

03.2004 – 03.2005 Albatros Corporation Madrid, Spain
(www.Albatros-sl.es)
Office in Berlin, Germany

Sales Manager for Germany, Austria and Switzerland / Consultant on contract (freelancer)

Expanding Albatros' business with railway car builders and end-user clients by accessing new markets in Germany, Austria and Switzerland

Albatros products: design, manufacture, maintenance and installation of

- Information, control and advertising systems
- Interior design- and Toilet systems
- Heating , ventilation and air-conditioning systems (HVAC)
- Diagnosing equipment and Display-cases
- Converters, Battery chargers

Activities:

- opening doors
- contacting top decision makers and introducing Albatros products and services
- once a bid was underway continuing in a liaison role to ensure that dead-lines as well as commercial and technical requirements were met to the mutual satisfaction of all parties
- recommendation of actions toward the optimization of Albatros services
- preparing monthly intelligence reports for the Sales and the Corporate Development Directors

List of clients: Bombardier, Siemens, Alstom, Deutsche Bahn AG (German Rail), Stadler

03.2002 – 03.2004 Bertrandt Engineering Cologne, Germany
(www.bertrandt.com)

Sales of Engineering Services, and Project Management

Introducing company to new markets and fields. Leading to new business opportunities and projects

1. For FORD: Development of Hydrogen (H2) – Internal Combustion Engine (ICE) vehicles
 - project execution in-house at Bertrandt
 - organisation of/and brainstorming Bertrandt/FORD e.g. for the definition of the specifications / guidelines
 - documentation
 - data management
 - engineering (concept development) for the integration of the hydrogen system into the vehicles
 - engineering concept implementation (also ordering of the materials and components)
 - electric/electronics engineering work (concept development and implementation) of the H2-Safety system based on sensor signals as well as on further safety-relevant measures e.g. explosion-proof electrical motors
 - comparison and evaluation of various hydrogen engine, fuel storage and fuel supply systems
 - package investigations of the existing H2-ICE modules into the vehicle
 - communication project-specific hydrogen topics to the development departments (engineering and electric/electronics)

2. For Delphi Automotive and DaimlerChrysler: Prototype – cockpit (cross car beams) Cost - reduction Project for the M-Serie
 - project execution in-house at the customer
 - facilitating communication and data transfer between Sales, Marketing, Purchasing and Engineering Departments; Delphi and suppliers (Europe and North America)
 - co-ordination between suppliers, Delphi and customers
 - supply chain analysis and optimisation
 - supplier-quotation cost breakdown and analysis
 - facilitating supplier change / transition
 - development of time schedules for prototype purchasing
 - reducing units/cost of prototypes for internal testing
 - development of component history, and the cost calculation of tool and component changes

Sample list of sales topics:

1. For BMW: Support in strategic planning for series and future powertrain technologies (e.g. H2)
2. Design/Development/Optimization: Equipment and Technology for Wafer Processing, Photovoltaics and Environmental (for Equipment, Applications, Technology and services Provider for Microelectronics, Semiconductor, Photovoltaics and Environmental Technology)
3. Design/Development/Optimization: Engine and Body (for TOYOTA Motorsport)
4. Design / Development / Optimization: Domestic Fuel Cell Heating System (for leading manufacturer of domestic heating and hot water systems)
5. Innovation management, system support, system realization, technology monitoring, realization of new products (for a leading European engineering center in transportation)
6. Design / Development / Optimization: Components and Vacuum technology/Vacuum Pumps (for a global leader in vacuum technology and application / Leybold Vacuum)
7. Simulation/Optimization: fuel supply system, injection (for BMW Formula 1)
8. Development / Construction / Optimization: Optical Systems and Electronics Cooling (for leading international manufacture of electronics / SONY)
9. Optimization / Development: train and automotive HVAC Module (for Tier 1)
10. Optimisation Fuel Cell Technologies: Gas Diffusion Layer; H2-Reformation from Diesel/ Methanol/ Gasoline; Microreactors (e.g., Micro Heat exchanger) (for DaimlerChrysler and Tier 1)
11. Optimisation: glass process/technology (for Pilkington)

01.2001 – 11.2001 Scientific Consulting Dr.Schulte-Hillen GmbH Cologne, Germany
(www.scientificconsulting.com)

Sales of Technology Consulting Services and Project management

Creating new business opportunities: Water Treatment Technologies:

- Optimisation/Innovation of Environmental/Water Treatment Technologies (application of microscale principles to surface phenomena as electrochemical reactions and heat and mass transfer processes, e.g., closed Micro Channels Reactors)
- Sample list of companies: Ciba Specialty Chemicals, BASF, HOECHST, BAYER, Thames Water

08.1999 – 01.2001 Webasto Informationssysteme GmbH Munich, Germany
(www.webasto.com)

IT Logistics Consultant

In the data communication field EDI (Electronic Data Interchange) responsible for:

- Communication with the Webasto partners (customers and suppliers) regarding Set-up/Changes of EDI
- Partner Set-up in logistics applications and in NT-environment
- Development of new Mapping-tables and modification of existing ones, for the conversion of In-house definitions to Standard definitions (VDA, EDIFACT, ANSI-X12 or ODETTE)
- Error analysis / trouble-shooting of not transmitted or incorrectly transmitted data as well as problem solving / resolution
- ERP System: MFG/PRO
- Sample list of companies: DaimlerChrysler, BMW, Porsche, VW, Audi, GM, Bosch

1993 – 1999 Canada 5 years, Mexico 1 year: Independent Consultant (freelancer)

Sales:

- Getting the projects

Project Management

- Most of the tasks had been previously assigned to large corporations and engineering services/consulting companies without success

Sample list of Companies and Projects:

- ATP International / Gruppo Protexa Monterrey, Mexico
 Engineering: development/innovation; provided support in membrane separation processes for water and waste water treatment; facilitating patenting process for the company
- Siemens Energy and Automation Division Vancouver BC Canada
- Hydroxyl Systems Inc. Victoria BC Canada
 Optimisation / Development: of a new approach to water disinfection process (it does not follow any of the chemical or ultraviolet treatments) and designed/built a working prototype; designed/developed /built gas-injection and aeration systems
- Ocean Point Resort Victoria BC, Canada
 Improved HVAC (heat ventilation air conditioning) Computer Control System via troubleshooting and solving. Contributing to resort's reputation for high quality environment and so customer satisfaction
- ATP Manufacturing Winnipeg MN, Canada
 Developed/designed concept of a main multi-control valve for water treatment systems, which was then patented and put into production, increasing profitability through cost reduction.
- Microsep International (of US Filter) Vancouver BC, Canada
 Developed Flocculation scale-up model for mixing systems, facilitating business expansion.
- Willis Cunliffe & Company Victoria BC, Canada
 Wastewater Reclamation Study.
- Hoel Engineering Victoria BC, Canada
 Collaboratively developed a wet scrubbing system to reduce SO₂ and NO_x emissions from power plants and smelters. Updated Aero-Mod Wastewater Treatment System

08.1993 – 10.1993 FLS Industry/FLS Aerospace Germany / Denmark
(Plant in Germany closed)

Product and Presales Engineer

- Designed/Calculated compact plate heat exchanger (vacuum soldered)
- Provided technical support for the marketing and sales force

10.1989 – 07.1993 University of Federal Armed Forces Hamburg, Institute of
Thermodynamics, Mechanical Engineering Department
(as civilian) Hamburg Germany

Assistant Professor:

- Thermodynamics, Heat and Mass Transfer, Energy Transformation, Process Engineering, Computer Simulation
- Software development (engineering and scientific) and computer simulation for private enterprise in collaboration with the university
- Presented my research work at several national and international conferences
- Gave accompanying lectures and exercises for students of chemical/mechanical engineering in different courses on thermodynamics, mass and heat transfer engineering
- Prepared experiments for students and advised them during their theoretical and experimental work

10.1985 – 10.1989 University of Federal Armed Forces Hamburg, Institute for Gears and
Mechanics Engineering, Mechanical Engineering Department,
Hamburg Germany

Research's Assistant:

- Developed computer software for drive gears geometry calculation