# *Dennis W. Cobb, P.E.*

Email: Dennis@DennisCobb.com

---

## *Summary:*

***Cross functional technical expertise, with both ME and EE education and experience. Significant background designing complex automated capital equipment and products***

## *Professional Experience:*

### DENNIS COBB CONSULTANCY

**Owner** (April 2013 to Present)

Designed a centrifugal clutch to replace an expiring patent, assisted in the organization of the technical team for a startup.

### ARC MACHINES, INC

**Director of Engineering** (December 2009 to March 2013)

As the head of the technical team I was required to contribute to the designs of both welding power supplies and robotic weldheads. I generated architecture and concepts that were fleshed out and detailed by the department. I was also specifically involved in the following activities:

- Reduced **COGS** of the best-selling power supply by 15%
- Solved a power supply reliability problem that had plagued the Engineering Department for 25 years
- Brought 4 new products to the portfolio, adding a potential $10M to sales
- Developed and maintained capital and operating budgets for the department
- Responsible for corporate IP
- Mentored newly-graduated ME's and EE's to become effective performers (i.e. real world vs. academics)
- Created and implemented the NPD process for **ISO** approval
- Designed, supported the build and installation of (among others):
    - A large turbine shaft welder for GE ($1.8M project)
    - A pressure vessel repair welder for Bechtel (nuclear Navy application)
    - A very special weldhead for Doosan Babcock in England
    - A new welding power supply for the US Navy at Pearl Harbor

### TAMARACK, INC

**Program Manager – Laser Ablation Equipment** (May 2005 to August 2009)

Organization and direction of the engineering, manufacturing, assembly and test activities required for the design and build of custom automated high speed equipment for laser ablation of medical, and other, devices and photolithography. Managed ten capital projects simultaneously with an aggregate value over $20M.

- Brought six simultaneous major capital equipment projects to completion on schedule
- Developed and reported status of project schedule and budget
- Surveyed the market and selected an outsourced vendor to design and build reel to reel handling equipment for PET web, and managed the contract to completion and delivery
- Responsible for reporting project status to both customers and the Board of Directors
- Provided pharmaceutical customers with data per FDA requirements
- Prepared and submitted documentation to FDA CDRH
- Worked with outside consultants to obtain CE approval

### CYMER, INC—EUV R&D/EMERGING TECHNOLOGIES BUSINESS GROUP

**System Engineer – DPF and LPP EUV Light Sources** (June 2002 to January 2005)

Worked with physicists to develop and document the requirements and concepts for a 13.5 nm EUV light source required for the next generation of semiconductor lithography.

- Established the system architecture and created block diagrams and state diagrams
- Wrote pseudocode to define the automated operation of the system
- extracted requirements; wrote and maintained specifications for the overall system and all subsystems
- Managed the outsourced detail design and build of component subsystems based on these specifications.

**DELTA DESIGN—A DIVISION OF COHU, INC**
**Program Manager – Castle Lx, Mx, and EC Handler Product Line** (November 1999 to May 2002)
In a position described as "Mini-CEO" that reported to the CEO, I had complete responsibility for the development and customer satisfaction for the company's primary product line

- Responsible for oversight of a worldwide network of customers, Field Service Engineers, and Sales organizations
- Managed a cross-functional team with Purchasing, Accounting, Manufacturing Engineering, Engineering, Sales and Marketing
- Through successful cost reduction efforts and improvements in customer satisfaction, both the sales and gross-margin of this product line improved to add over $2M/yr directly to the bottom line
- Managed the design project to replace the control system with an in-house design

**STRASBAUGH, INC**
**Director of Engineering – CMP Equipment** (March 1997 to October 1999)
This position included the engineering responsibility for all of the products in Stasbaugh's line of CMP equipment, with focus on the completion and marketing of a next-generation product, which had been stalled in development for over a year.

- In less than six months the MTBF (reliability figure of merit) of said equipment rose from less than one hour to over 100 hours
- Restructured the software department to take over the new development project from an outside vendor, including a new software manager

**THERMCO SYSTEMS DIVISION, SVG, INC.**
**Director—AVP Engineering** (March 1991 to March 1997)
In this position I was responsible for the creation and leadership of a team of engineers tasked with the completion of the product introduction of a new line of vertical furnaces. This team contributed to the system performance improvements required to market the equipment to customers.

- In under six months, we reduced the build cost of the equipment by 35%, which contributed $6M to the bottom line the first year
- Reported directly to the Chairman of the Board
- Built the **most effective technical team** in the company, starting with a stack of requisitions

## *Education:*

***Bachelor of Science,* Mechanical Engineering**—California State University Long Beach

***Master of Science*, Electrical Engineering**—California State University Northridge

## *Other:*

Licensed California Professional Engineer (EE)

Classwork in preparation for the PMP exam

Patent for a tin delivery system, part of the EUV photolithography light source

Authored technical papers and magazine articles

Classes in Accounting and Finance at California State University at Fullerton

Training in TQM, 6-Sigma, SSQA, and ISO requirements

## *Software Utilized:*

SolidWorks, AutoCad and AutoCad Inventor, Microsoft Office: including Excel, Word, PowerPoint, Access, Visio, and Project. A variety of MRP and ERP systems.