

## About the Authors

The father and son team, Carl, Steve, and Phil Sommer, own and operate Reliable EDM in Houston, Texas. They specialize in all types of electrical discharge machining (EDM): wire EDM, ram EDM (also known as plunge, and sinker EDM), and small hole EDM. They are the largest wire EDM job shop in North America. They also have an EDM job shop in Broussard, La.



**Carl Sommer Early Years**

Carl Sommer, president, has witnessed firsthand the dramatic changes in the machining field. In 1949, he started working in a machine shop in Brooklyn, NY. It was not long before Carl began working as an apprentice tool and die maker where he learned to make dies with hand files and a filing machine.

The Korean War was going on, so in 1951, Sommer was drafted into the Marine Corp. After being honorably discharged, he went back to his trade as a tool and die maker. Then he found a job in precision tool and die shop. The owner of the precision tool and die shop sold it, and in the new company Carl gained broad and valuable experience in virtually all areas of the machining field—precision tools and dies, fixtures, and short run production from such companies as IBM, Gyrodyne, Thikol, Fairchild Stratus, Remington, and Sikorsky Helicopter. He operated all machines, worked in the inspection department, and made precision dies where parts were ground to within .0001 (.0025 mm). (That's less than 1/25th the thickness of a human hair.) Then Carl became a foreman for a tool and die and stamping company.

Carl decided to become a New York City high school teacher. So for most of the 1970s, he worked as a high school teacher in the industrial arts department. During this time he also conducted extensive research into the problems facing America's educational institutions. This research, as well as proposed solutions, culminated in him writing the book, *Schools in Crisis: Training for Success Or Failure?*

Carl moved to Houston, Texas in 1978. The pay was so poor for teachers that he re-entered the machine tool industry—first as a tool and die maker, then as a tool designer for one of Houston's largest tool and die and stamping

shops. After six months Carl advanced to the position of Operations Manager, and for 5 1/2 years managed the entire company. At this shop, the stamping dies were milled or ground. When the company purchased a wire EDM machine, it revolutionized their tool and die making. Now the most difficult shapes could be machined accurately into hardened tool steel.

### **Beginning of Reliable EDM**

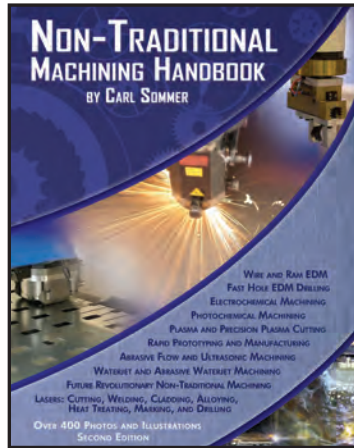
In 1986, Sommer started Reliable EDM with his two sons. One of the major needs he saw was that individuals needed to be educated concerning the benefits of wire EDM, so he sent information to companies describing the process and the capabilities of wire EDM. Within four years, they became the largest wire EDM job shop in Texas; within nine years, they became the largest wire EDM job shop west of the Mississippi River. Today, they are the largest wire EDM job shop in North America.



**One of Reliable's Wire EDM Departments**



**Part of Reliable's Ram/Sinker EDM Departments**



In the beginning, Carl operated the EDM equipment, and with his machining background built all sorts of fixtures for the EDM shop to make the company more productive. Carl has also written the book, *Non-Traditional Machining Handbook* covering wire, ram, small hole EDM, electrochemical machining, photochemical machining, plasma cutting, rapid prototyping, abrasive flow and ultrasonic machining, waterjet machining, lasers: cutting, welding, cladding, alloying, heat treating, marking, and drilling. The book is sold to colleges and trade schools.

With his company being profitable, Carl used the profits to follow his dream of writing children's books that would teach children the principles on how they can become successful. He has written 42 children's books that have won over 65 prestigious national awards. He is also writing three large literacy programs, *Reading Success*, a phonics literature-based reading program for adults, *Phonics Adventure*, a phonics literature-based reading program for children, and *Number Success*, a practical math program from addition to trigonometry. For more information go to SommerLearning.com.

Steve Sommer M.E., Vice President, received his mechanical engineering degree from the University of Houston. When Steve graduated from college, the oil crisis hit Houston and he couldn't find a job as an engineer. While going to school, he worked as a machinist, so with his machinist background he found a job working as a tool and die maker. While working as a tool and die maker, he was asked to run the EDM department. His experience in engineering, machining, tool and die making, and EDMing continues to be a

valuable asset for Reliable EDM. Steve has a thorough knowledge of the machining trade, computer programming, and the EDM process. He has worked over 30 years in programming and operating EDM equipment.

Phil Sommer, Vice President of operations, has a degree in business administration and heads the EDM operations. He also has extensive EDM experience. Phil has 30 years experience in running an EDM shop and dealing with customers.

Andy Sommer, MMET, graduated from Texas A&M University in Manufacturing and Mechanical Engineering Technology. Andy is Steve's son.



Left to Right: Steve, Carl, Phil, Andy



The family team built their business on following the Golden Rule of doing to others what one would like being done to them. Following the Golden Rule and the exceptional experiences of this father-and-son team are the major reasons for Reliable's remarkable growth and success.

### **Modified Wire EDM**

With both Carl, being a former tool and die maker, tool designer, and operations manager, and Steve his son, being a former tool and die maker and a mechanical engineer, they have with their combined machining experience modified EDM machines where they can EDM parts 64" (1626 mm) tall.



**Modified Wire EDM Machine Split Large Tube  
Diameter 27 Inches, Length 16.5 Feet.**



**Test Specimens for Blowout Preventer: 40 inches (1016mm)**

Reliable EDM does various kinds of work for aerospace, defense, petroleum, plastics, electronics, medical, and many other industries.



**Wire EDM**



**Ram/Sinker EDM**



**Small Hole EDM**

**Reliable EDM: Specialists in Wire, Ram, and Small Hole EDM**

## Free Training Videos (ReliableEDM.com)

At our website, there are numerous free training videos describing wire, ram/sinker, small hole EDM, tool and die making, and other videos. One video is particularly for engineers. Once you describe the capabilities of EDM to engineers, they come up with all kinds of ideas that would be otherwise impossible to machine.

### Advanced EDM Techniques for Engineers (9:43)



### About Reliable EDM (3:11)

