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DECORATOR'S PROFILE

Setting the Bar to New Heights



Paul and Scott Saddler, owners of Screen Tech Designs

By Kym Conis

Have a challenge with decorating a particular part due to the finish? Perhaps the paint will not adhere or current decorating methods just aren't meeting the project's stringent requirements for scuff and abrasion resistance? If you've got a difficult part to decorate, then you need look no further than Columbus, Indiana – home to Screen Tech Designs – a contract decorator that redefines the field of decorative finishes.

With technical expertise in the sciences of silk screening, pad printing, and spray painting, Screen Tech Designs combines knowledge with a winning mix of tenacity, confidence, and a spirited sense of adventure in tackling those jobs many would dare not touch. From parts of varying sizes and complexities to individual parts or those requiring complete assemblies, Screen Tech Designs provides customized solutions that not only meet industry standards but more notably, raise those standards and set the bar to new heights – time and time again.

Open minds lead to great opportunities

Envision a company of Screen Tech's fast-paced growth and landmark success starting out in the basement of a private residence, silk screening t-shirts with a 'do-it-yourself' kit. That's exactly the story for brothers Paul and Scott Saddler, owners of Screen Tech Designs. The year was 1982 and Paul, 18, and Scott, 16, started a company called Red Baron T-shirts in the basement of their parents' home. As the name suggests, screen printing t-shirts was the company's specialty, starting first with friends in high school and soon branching out to area businesses, special event promotions, and sports teams. Within a year or two, the company expanded its business to include hats, ad specialty items, and license plates - basically anything that was brought in, Screen Tech would find a way to print.

This led to the company's incorporation in 1984, a name change, and a move out of the basement to an abandoned military barracks, affording the young entrepreneurs the space (but little else) to grow

their operation. At that time, Screen Tech operated with a few pieces of custom-built one and two-color screen printing presses, designed and built by Paul. Although they lacked in sophistication, the equipment functioned quite deftly in the production of multi-color work.

Over the next three years, Screen Tech Designs (then doing business as D.S.E., Inc.) remained on course with Paul at the helm, while Scott took some time to further his education in the U.S. and overseas. Paul moved the operations from the barracks to a 300 square foot commercial sublet in 1986. Screen Tech's first purchased piece of equipment was a used Hopkins four-color rotary press. Paul ran the business while commuting back and forth from his shop in Columbus to Bloomington, Ind., where he continued to take college courses at Indiana University.

The business truly turned the corner in 1987 when several events transpired that eventually would pave the way to Screen Tech's astronomical growth. The first of these events was a surprise visit from a representative from Metro Plastics - a local plastics fabricator looking for a company to decorate 1,000 samples of a new plastic part for RCA.

"The parts were made of polycarbonate with a high gloss finish," recalled Paul. "The challenge was to find a way not only to print on the material but also, to meet stringent abrasion standards." The door of opportunity opened and Paul didn't hesitate to push it wide open. After much trial and error, Screen Tech successfully decorated the parts utilizing specially formulated inks (which Paul helped to develop) that not only exceeded the standards but eventually, set them. Decorating t-shirts by day and plastic parts by night, it didn't take long for the plastics orders to double and triple in size. It soon became apparent where the real opportunity was for the business. Switching the day business to nights and night to days, decorating plastics became the company's primary focus and the t-shirt business gradually phased out entirely.

Along this same timeframe, Scott Saddler returned from his studies overseas, thus marking the second turning point for Screen Tech. What initially was intended to be a temporary return to the business soon became a permanent move and the two brothers began to take the industry by storm, as the company's production output rose to 15-20,000 parts per day. With Paul's technical expertise and Scott's educational background in business law and accounting, the business continued to grow with its entrance into UV screen printing in 1989 – the third key event impacting the company's road to success.



Raising the bar, once again

Screen Tech's sense of adventure truly started to take flight as it looked for a way to raise the bar, once again. "We did a lot of our own testing – deviating from the standards – to develop some proprietary inks that outperformed the solvent-based inks in abrasion and chemical resistance and adhesion," explained Paul. "Once you understand all the facets as a whole and you're willing to put in the time, all the small components add up to make a big difference." At this same time, Screen Tech took a giant leap with the installation of a Hercules Horizon five-color carousel multi-printer with five built-in UV curing units. Volume was up and, out of a necessity for quicker turnarounds, Screen Tech also began to make its own screens. Today, Screen Tech operates eight semi-automatic and manual screen printing machines of various sizes; three conveyor-type UV curing units; and four infrared drying ovens for a variety of applications. Screen Tech also has a dedicated screen making lab/dark room.



Above: decorative overlays

Upper Right: spray painted engine cover

In the 1990s, the industrial design of TV parts moved from wood grains and high gloss finishes to matte finishes (referred to as 'suede' finishes). Still doing the bulk of its business for RCA, Screen Tech began to service other plastics molders and, as the shift from shiny to matte finishes continued to take hold across the industry, Screen Tech made its move into spray painting. "We had to learn how to paint in a short amount of time and then print on the paint, which was a challenge due to the textures that were being used," explained Paul. A lot of trial and error went into the new process at first. "Once you bang your head enough times," explained Paul, "you begin to get it down!" What started as a small hand-painting operation soon grew to a high-tech painting operation that now encompasses a fully automated paint system capable of using electrostatics; a paint proportioning system with an integrated convection drying system; a fully automated chain on edge paint system with integrated drying; various paint booths for manual painting applications (seven paint booths in all); and three convection drying ovens for various applications.

Two years later, Screen Tech was approached with another 'potentially lucrative' opportunity – this time in the burgeoning cell phone industry. A molder was looking for someone to decorate display screens on cell phones for Motorola. The specs were very stringent for abrasion and chemical resistance and Screen Tech again was able to meet and exceed those standards, resulting in a business that soon grew to 6-10,000 decorated lenses a day. "The black borders on the back of the lenses were all pad printed, which is how we initially got into this area of plastics decorating," Paul stated. "Now, we run several pad printing machines of varying sizes and capabilities."

As molding began to get more creative in geometry, Screen Tech began to apply multiple processes to parts, such as silk screening and pad printing on parts for both Toshiba and Motorola. The digital satellite explosion created even more opportunity for multiple processes such as masking, two-color painting, and screen printing the front bezels of Direct TV units. From 1990 to 1995, the growth in these major markets fueled Screen Tech's tremendous growth (then up to 65 employees working three shifts per day) and was instrumental in the company's prestigious ranking in *Inc.* magazine's "Top 500" list of fastest growing privately-held companies – an award it earned in 1996 with a phenomenal 1,056 percent growth rate, ranking the company 241st in the nation. "In order to keep the business and maintain a certain level of expertise, you have to develop the processes," explained Scott. "Sometimes, it's easy to make one part in a sample situation, but can you make a million of that item with the same quality at a price the market can bear?" The answer in Screen Tech's case is yes; but that is only one key to the company's steadfast growth.

Today, in addition to silk screening, pad printing, and spray painting, Screen Tech offers assembly (from the application of pressure sensitive adhesives to complete assemblies), diecutting, EMI shielding, decorative overlays, and warehousing. Screen Tech's 50 plus employees currently work two shifts per day in a professional, clean, and safe environment, servicing the consumer electronics, medical, aerospace, appliance, and automotive industries.

Maintaining high standards through rapid growth

Achieving such rapid growth and maintaining company standards throughout that growth are often conflicting feats. For a company that prides itself on the highest levels of overall efficiency between design, scheduling, production, quality control, and on-time delivery, various procedures and quality checks must be in place, vendor partners close at hand, and the right tools, equipment, and environment provided.

In the mid 1990s, the Saddlers decided to bring in a few qualified professionals with expertise in quality management to implement total quality control procedures company-wide. "Prior to this time, our dad, who had a strong background in quality management, gave us pointers on data gathering and QC techniques," stated Paul. But with the rapid growth of the company at hand, the Saddlers felt it was time to relinquish this task into the capable hands of a few individuals whose main responsibility would be to oversee the procedures. Today, Screen Tech runs a fully equipped quality

assurance lab and is ISO9000 compliant, which helps the company to maintain its high levels of quality control.

In the early 1990s, during Screen Tech's reign of rapid growth, the company adopted a philosophy that it only wanted to do business with vendors that could provide service, technical support, and auxiliary parts and/or supplies as needed, when needed. "It doesn't matter how good the system is if we can't get people here to assist us," explained Scott. Screen Tech makes its own screens and some tooling, but for the most part, believes wholeheartedly in turnkey systems. "For example, we would expect a supplier of pad print machinery to be able to provide everything from the pads and ink to the necessary fixturing," Paul explained. "This keeps us from stretching our manpower."



Hercules Horizon five-color carousel multi-printer with five built-in UV curing units

– a place that would project the company's position on business. "We work in an image-conscious industry where a company's logo matters," Scott explained. "We show them that we take image seriously as soon as they walk through our doors."

Screen Tech wanted to control all aspects of its environment and to accomplish this, installed

a very sophisticated compressed air system, as well as temperature and humidity-control systems, so that the complete production environment is maintained with a positive airflow and a constant level of air pressure and particle/contaminant count – all at a consistent temperature. Lighting is another essential element in the new facility, which is uniformly lit to 75 lumens. "Many paint facilities have an aura of being dark, run-down, and dirty - especially the smaller companies," explained Paul. "We wanted to build a facility that makes the statement that we are serious about what we do, that we are quality conscious, and that we have the capabilities to service the larger customers."

Another strong selling point is the actual modular design of the production area – presses can be moved wherever they are needed to create customized decorating lines with the capability of applying multiple processes. Technical diversity has been key to the company's continued success over the years as Screen Tech has developed a reputation for providing decorating solutions where others have failed.

Through research and development, technical expertise, and a 'we can do that' attitude, Screen Tech continues to provide quality service to OEM's worldwide (through molders and extruders) – companies such as Motorola, Bose, Honda, Compaq, IBM, Gateway, RCA, Mitsubishi, Ford, GM, Whirlpool, and many more. These strengths, coupled with an 'open door' management style which makes both Paul and Scott Saddler accessible to customers and employees alike, add up to the perfect equation for a successful decorating operation. With all the right elements in place, it's no wonder that Screen Tech Designs continues to set the decorating bar to new heights. The question remains, just how far will they go? ■



Above: examples of pad printed parts

Upper Left: pad printing

Lower Left: automated spray paint line



Also during this time, Screen Tech began to devise plans to house all of its operations, from design and production to administration, in one, state-of-the-art facility. Prior to the building of its brand

new 18,000 square foot facility in 1995, Screen Tech occupied two locations totaling approximately 10,000 square feet. But the Saddlers wanted more control over their environment – a facility that would be designed and built to their specifications with room for expansion



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