

A climate of consistency

Uth invests in solar array for Fulda, Germany, site

By Andrew Schunk
Rubber News Staff

FULDA, Germany—Sunlight may be the best disinfectant to aid transparency, but it also has proven to be the cleanest and most abundant source of power for rubber machinery manufacturer Uth GmbH.

With an eye toward “gentle and clean” processing of rubber and silicone, Uth has prioritized intelligent technologies in the construction of its fine-mesh straining and precise extrusion equipment.

The 100-employee, family-owned company is doing so once again with a \$106,000 investment in a new solar array, which is

fitted to the roof of a 107,600-sq.-ft. assembly center in Fulda, in the Muensterfeld area.

The system has been in operation since mid-February, while the assembly center was completed “at a seven-digit cost” in 2017.

“For us, environmentally conscious action is not just a corporate responsibility, it is also reflected in the company’s success,” Julia Uth, head of design and research and development at Uth, told *Rubber News*. “Efficient use of energy, water and raw materials leads to lower costs. And both customers and employees nowadays expect a credible anchoring of the concept of sustainability in the mission statement.”



Environmental responsibility is part of company culture at Uth GmbH, according to Julia Uth, head of design and research and development.



Uth GmbH, in the Muensterfeld region of Fulda, Germany, recently added a solar array to the roof of its 107,600-sq.-ft. assembly center. The photovoltaic system generates energy both for the company and the community of Fulda.

The new photovoltaic system comprises 267 modules installed over approximately 6,000 square feet, providing an output of 100 kilowatt-peak (kWp).

“In order to ensure the full potential of the system, the modules have been positioned to capture both the sun from the south and the east-west directions,” Peter Uth, managing director of the company, said in a recent news release.

The energy created by the solar array will provide power, in part, for the production plant, as well as for nearby energy grids in Fulda.

The solar cells are expected to reduce Uth’s greenhouse gas

footprint by about 50 tons of CO₂ per year, according to Julia Uth, and will contribute about 30 percent of the energy needed to run the manufacturing facility.

“Exact data will be shown by computation at end of the year,” she said.

When production is not humming at full capacity on the Fulda campus, excess energy generated by the solar array will be routed to the community of Fulda’s public power grid via an energy meter and associated data log system that collects and stores energy.

“Of course, this does not mean that the production will only operate when the sun is shining,” Peter Uth said.

Julia Uth said the company had the foresight to commission the array before the silicone supply line chokes hit last year. Silicone currently is one of the most difficult materials to obtain, and remains an essential part of photovoltaic systems.

“Fortunately, we commissioned the project in good time last year,” Julia Uth said. “The situation (silicon bottleneck) was not so (acute) at that time and the supplier we were working with still had (photovoltaic) modules in stock.

“But the time was quite tight, because after that, the delivery problems soon arose. Today, the situation would be very different.”

The climate and 70,000-person city in central Germany will not be the only entities to benefit from Uth’s green investments.

The relatively new assembly building contains modern LED lighting and “daylight domes,” and a heat pump for hot water generation also is advertised as “environmentally and climate-friendly.”

“As a business owner, you have a special responsibility, especially in today’s world,” Peter Uth said. “Continually improving the ecological footprint, keeping a close eye on possible CO₂ reductions—this is an ongoing process that we will continue to actively shape.”

Julia Uth said sustainable thinking is reflected in Uth’s investments, its products and the manufacturing processes.

“We try to reduce emissions and waste wherever possible,” she told *Rubber News*. “This means purchasing from regional suppliers to

shorten delivery (times), optimizing heating control and lighting systems in the halls as well as avoiding rejects in production.

“A lot of ideas come from the work force, and especially from the younger employees.”

Among other climate-friendly ideas, trainees at Uth recently initiated a tree planting campaign.

“Our customers pay attention to the energy efficiency of our machines, the space requirements and resource-saving handling of the material,” Julia Uth said. “A few years ago, we developed a system that enables the efficient processing of returned materials (known as “Rework”) in the tire industry. Around 98 percent of the process-related waste can be fed back into the manufacturing process.”

A bit of Uth history

Peter Uth and his brother-in-law, Winfried Schutz, founded Uth Machinery GmbH in Fulda in 1985.

Schutz now owns rubber machinery maker Deguma-Schutz GmbH.

Uth began by rebuilding and refurbishing older equipment with modern controls and systems. The company branched out into specialized equipment that wasn’t available in the open market, such as the fine-mesh straining and counter-rotating gear pumps for which it has become known.

And that’s where the company stands 37 years after its founding, providing machinery for “gentle and clean processing of rubber and silicone,” as well as adding new capabilities that widen its appeal to potential customers.

Uth’s capital equipment can function in serial production, system solutions or custom-made machinery. Applications can be found in tire manufacturing, automotive parts/other mechanical rubber goods, silicone compounding, threads for wire and cable goods, and adhesives and sealants.

“We (recently) adapted a new product especially for the adhesive market,” Julia Uth said, adding the component is a “polymer-dosing system which allows the continuous and stable dosing

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In spite of hurdles, people are first at French Oil

By Andrew Schunk
Rubber News Staff

PIQUA, Ohio—Ostensibly, the French Oil Mill Machinery Co. in southwest Ohio is a machinery manufacturing business that has grown to see a majority of its sales come on the rubber side of the industry.

But as its employees might testify, French Oil is a people-first business—enriching the lives of those who work there and the businesses of downstream rubber processors who purchase French Oil's premium quality hydraulic presses, rubber mixers and molding machines.

And it is in this capacity that many machinery manufacturers have struggled, through supply chain delays and the absence of skilled labor, microchip shortages and regulatory hurdles.

But with planning, the 75-employee French Oil has been able

to thwart some—not all, but some—of those issues to maintain its strong professional reputation.

"We are very fortunate that our growth has continued over the last seven years," said Douglas Smith, sales engineer for the hydraulic press division. "But we are having to do a lot of things that we have not had to do before."

As the company "works proactively" to address market issues, it has designed its workflow and production processes to reflect greater automation and customization, Smith said.

Some of that is due to the loose labor market.

"From an automation and design aspect, we are more focused now on flow paths, a function of the lack of skill sets in the labor market," Smith said.

Smith added that the privately owned company invested between \$4 million and \$5 million

on the manufacturing and machining side several years ago, adding programmability into its manufacturing.

"This increased quality and our capacity," Smith said.

According to the Dayton Region Manufacturers Association, work force challenges remain the top challenge for Dayton-area manufacturers, as has been the case over the last nine annual surveys.

"The need for highly skilled and trained professionals in the workplace is the top issue for DRMA's manufacturer company members," French Oil stated in response to the most recent survey. "Manufacturers are drastically understaffed. This is, in part, due to COVID-19, causing an increase in pay and employee-leave regulations, along with other mandates.

"At French, we are doing as much as we can to help combat these issues for the benefit of our industry and customers."

Lead times also have been difficult issues to overcome, espe-

cially for machinery equipment providers, Smith said.

"This has hit everyone," he said. "Capital equipment takes months to get through ... often three to 12 months to get approved."

"We have always had a validity period for proposals, a 30-day window that is now very difficult to adhere to."

On very few occasions since the company began producing rubber manufacturing machinery in the 1950s has French Oil had to enforce this "validity window," Smith said.

"We have had customers ask us (far outside of this validity period) if we could hold a certain price," Smith said. "And in some cases this has become an outrageous request."

As rubber processors change materials and priorities "week by week," machinery manufacturers are forced to keep up—while holding on to their own priorities, fixed data and business benchmarks.

In addition, the hydraulic press-

es and mixers themselves have their own parts and components—like microchips—that are subject to their own lead times and supply chains.

"We are doing more things in piecemeal now," Smith said. "Can we get a portion done while we get into a vendor's queue for something we need?"

Again, with planning, French Oil has seen success on this front.

"Last year, we were fortunate as the microchip shortage had no direct impact," he said. "We were aware—through our suppliers—that this was going to happen, and happen very soon. But the (problem) cases were limited and they still were readily available."

"This year, we have looked at our forecasts and started placing orders early to get something moving in the supply chain."

And because of that, French Oil's backlogs "have remained healthy," Smith said.

"Getting these orders in did a lot of good things to help us," he said. "This was a very good business decision to make."



French Oil Mill Machinery Co. manufactures this 150-ton hot and cool dual press system.

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of polymers of different viscosity into a continuous mixer."

"The system allows us to feed liquid, low-viscosity polymers as well as high-viscosity rubber bales, such as butyl," she said.

In addition, Uth is developing a new product for the silicone market which enables a continuous mixing of silicone compounds with a shortened cycle time, allowing for greater energy and time savings.

About half of Uth's business comes from customers installing new mixing lines and facilities, with the remainder resulting from retrofits into existing mixing lines.

Because its components are located between the standard components of a mixing line, the fine-mesh strainer can be added as an upgrade.

Uth also offers straining systems for silicone compounding, which has processing steps that differ from traditional rubber compounds.

Europe is Uth's main base, with all manufacturing and engineer-

ing conducted in Fulda. The company has subsidiaries in Japan, China and India, along with a global sales and service network.

Uth has been able to gain a greater market share in the U.S. in recent years, Julia Uth said.

"So far, our main business in the U.S. has been in the technical rubber and extrusion industry, (and) in the last couple of years our U.S. business has grown, especially with our two-roll plasticizer system for the ... tire industry, as well as our gear-pump extruders for mixing lines," she said. "Due to that, we have greatly expanded our services in the U.S. market."

Like so many other businesses in the rubber industry, electrical components have been causing delivery issues.

But with the same foresight that Uth had in commissioning its solar array, the company has been able to keep parts in stock to build its essential rubber processing equipment.

"We have spare parts in stock and can commission our machines and then send them off to bridge the time until the missing components arrive," Julia Uth said.



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