



The Schulz Group of Companies: Growing against the trend

In January 2009 the Schulz team moved to a new office building at their headquarters in Krefeld in Germany.

At a time when many companies, as well as the global market for piping materials, are consolidating, the Schulz Group of Companies is expanding its production capacity and investing in new areas of business. After opening two plants in Brazil, one for BW fittings, the other for welded pipes in 2007 and 2008 respectively, the Schulz Group decided it was the right moment to move to new headquarters in Krefeld – bigger, equipped with high-tech facilities and better prepared for the working sphere of the future. At the same time these German stainless steel experts made further moves in their activities in the USA. In the summer of 2009 a new building with a larger stock capacity was opened in Houston, Texas where Schulz U.S.A. Inc. has already been running a fast-growing stock- and service centre for more than twenty-five years. Further, Schulz entered a new market field by building a 2000t hot forming press for the production of hot-formed large tees and headers at the Krefeld plant in Germany. “Now we are on the threshold of making the biggest investment in our sixty-five-year company history,” says Vice-President Joachim Wickenkamp “In March work started with the ground breaking of our new state-of-the-art seamless pipe mill in Tunica, Mississippi, U.S.A.” Mr. Wickenkamp and CFO Rainer Floeth took time out to provide Stainless Steel World with an inside view of these exciting new Schulz developments.

By John Butterfield

Two manufacturing plants in Brazil

In 2007 the Schulz Group of Companies commissioned a plant for the production of seamless and welded BW pipe fittings in a large variety of stainless and higher alloyed steels, Schulz Bacia de Campos. The fittings are cold-formed up to 24" SCH160 in a production building of 8,600 square metres with 1,200 square meters office space and are sold mainly to the

South American market but also all over the world.

The second factory, Schulz Tubos Soldados is a joint venture of the Schulz Group of Companies with Erndtebrücker Eisenwerk GmbH + Co. KG and Heinz Gothe GmbH und Co. KG and was opened in 2008. The project was planned with an eye to the future since the site offers space for future expansion. This mill produces large diameter,

longitudinally welded, stainless and high alloyed pipes from 8" NB up to 60" O.D. up to 2" wall.

The fitting and the pipe plant were constructed next to each other. “One important advantage of having these two plants is that we can now offer packages of fittings plus welded pipes from our own production. Furthermore, processing welded pipes as our own starting material for fitting production makes us more

independent and allows us to be even more flexible to the increasing demands of our customers in connection with product quality and delivery time," explains Mr. Wickenkamp.

New headquarters for the Schulz Group

A modern organization, working with the finest state-of-the-art techniques, also needs a home which suits it. In January 2009 Schulz moved to a new building at their headquarters in Krefeld, Germany. The new location provides 3,000 square meter of high-tech equipped offices and meeting rooms, which enables the highly skilled team of sales staff and technical engineers to cope up with the demands of the industrial world in the 21st century.

New facilities in Houston, Texas

In addition to high quality products, the company is well-known for its excellent services. "Most important is our short delivery time based on our unique cold-forming processing technique. This technique enables us to produce fittings 1:1 from the same pipe used as straight pipe in the project. No special diameters, wall thicknesses or mechanical characteristics are needed. If there is a shutdown somewhere in the world we can supply customers with the missing product on a short-term basis, which means within a few weeks or even a few days", continues Mr. Wickenkamp.



Schulz USA got their new facilities just in time to celebrate their twenty-fifth anniversary.

A further advantage is that the Schulz Group of Companies runs several large warehouses scattered around the world, which enables it to keep distances and delivery times short – thereby enhancing intensive partnerships on a daily basis.

"We are constantly increasing our presence in markets where Schulz is not yet active," Mr. Wickenkamp explains. The company is already established in countries such as Brazil, Canada, China, India, Malaysia, Oman, Russia, Saudi Arabia, Singapore, UAE and USA. "We're where the action is," he adds. In total the company has over seventeen sites worldwide.

In Houston, Texas, where the name Schulz U.S.A. Inc. has been well known

for over twenty-five years Schulz recently opened a new facility just in time for this anniversary. Here, in a warehouse and offices of around 7,500 square meters and a pipe yard of approximately 16,000 square meters, Schulz U.S.A. Inc. keeps stocks of pipes, fittings and flanges in 304/L, 316/L, 317/L, 321/H, 347/H, duplex and super duplex. Welded pipes starting from 8" up to 24" O.D. that come from the Schulz plant in Brazil are one of the key items on stock.

The Schulz teams in Houston and Calgary serve a whole range of customers working in the oil & gas, chemical and petrochemical, water treatment, nuclear, and many other industries in Canada, Mexico and the US.



With the new, hot forming press Schulz is able to produce seamless extruded headers and tees up to 48" in size.



Luca Schulz, Vice-President; Wolfgang Schulz, Chairman and CEO; Governor Haley Barbour and Lyn Arnold, CEO of Tunica Chamber of Commerce at the ground breaking for the new plant.



SXP will produce seamless stainless, high-alloyed and SX-clad pipes from 8" to 24" starting from 1st quarter of 2011.

Entering new fields

Header pipes are a new product in the Schulz product portfolio. "We are able to produce headers with seamless full-length extruded outlets up to 48" O.D. and a maximum wall thickness of 100 mm by cold- and hot-forming. Our production method enables us to produce them with several outlets in one line or with different angles to each other, and with outlets on opposite sites. We produce headers in all kinds of stainless, carbon and alloy steels," says Mr. Wickenkamp. Schulz has developed and set up a new 2000t hot-forming press in 2009 especially for the seamless extruded

headers and tees. What is the aim of these investments? "That's obvious," states Mr. Wickenkamp: "We want to be equipped for the ever-increasing future project demands that require our products. For example, power generation is one of the fastest growing sectors at the moment, with the nuclear energy market, in particular, going through a period of renaissance in many countries. In the US there is a huge potential for our products. There are more than a hundred coal-fired power plants which need to be upgraded in the coming years. Moreover, President Obama has announced that he will invest in new power projects.

Components for nuclear power stations are a specialty of the Schulz Group of Companies. In the nineteen seventies and eighties all German nuclear power stations received fittings produced by Schulz," Mr. Wickenkamp reflects. Since then the company has also been certified by the American Society of Mechanical Engineers (ASME), and nowadays Schulz delivers products for nuclear projects to countries like China, France, Finland, South Korea and USA. With the new hot-forming press for headers and large diameter tees, Schulz is able to offer an even larger package of 'own' products to the power-gen industry.

Facts and Figures

- Name:** Schulz Group of Companies
- Products:** Welded and seamless pipes, pipe fittings, forged fittings
- Materials:** standard stainless steels, special stainless steels, high nickel alloys, duplex and super duplex steels, 6 MO grades, super austenitics, titanium alloys, clad steels, CuNi grades, low alloys and carbon steels
- Industries:** Water treatment, desalination, oil and gas, nuclear, chemical, petrochemical
- Employees:** Approximately 500 employees worldwide
- Internet:** www.wschulz.com

Tunica Mississippi – Schulz' biggest ever investment

A milestone in the company's forward thinking strategy was the decision to build a new manufacturing plant in Tunica, Mississippi, USA. Schulz Xtruded Products (SXP) will produce large diameter seamless pipes in a wide variety of stainless, higher alloyed and metallurgical bonded clad steels in a state-of-the-art production mill on a site of 400.000 square meters. The project is

split into two phases. When finishing the first phase, Schulz Xtruded Products will be able to produce seamless pipes from 8" up to 24" and a maximum total length of 16 m. The capacity is planned for 20,000 tons a year and the plant will be operational within the first quarter of 2011.

"In the second phase, we will be able to produce pipes up to at least 32"," says Mr. Floeth. Within the Schulz organization he is responsible for the USA project. "Perhaps even larger diameters will be produced there. The second phase will be completed in 2015".

The ground breaking was done in March 2010 by the Governor of the State of Mississippi, Mr. Haley Barbour, who emphasized the importance of the plant for the region.

"We are aware of the fact that this is a tight schedule but we are already involved in qualification and certification procedures for future projects," explains Mr. Floeth "so there won't be any holdup after having commissioned the first part of the plant."

In total, the Schulz Group of Companies is investing 300 million US dollars in Mississippi and the plant will employ around 500 people. A plant like SXP Tunica has not been built for the last twenty-five years and it is the biggest one built by the Schulz Group.

Being a global player, it is interesting to look at why the Schulz Group of Companies has chosen a site in the USA as opposed to setting up a plant in a low-cost country. "The planning of this project took us nearly ten years. Firstly, we act in high-end markets for which we need highly skilled engineers. In Tunica we will use technologies which are second-to-none and which have not been applied in such a way before. Secondly, when we

decided to build the plant we looked at various sites in different locations around the world. However, the response from the USA was most encouraging. After considering various options Tunica was the most suitable choice in view of the location, situation, people and environment. It was an easy decision for us at the end to select Tunica, Mississippi" explains Mr. Floeth.

By combining our metallurgical know-how with the experience of multi-national oil and gas companies the Schulz Group has built up a sound reputation for new technical solutions and second-to-none technologies.

"Brazil-based Petrobras has launched a huge investment program to modernize their old refineries and to build several new ones. Therefore, we executed some R&D orders for them and specified the demands of their refineries," relates Mr. Wickenkamp. "In the newly discovered deepwater oil & gas fields, the oil and gas are often hidden thousands of meters under the sea where pressures are extremely high and the crude is very sour."

"For these projects our customers benefit from our metallurgical know-how. We have developed special seamless bi-metal clad pipes, SX-Clad, which are metallurgical bonded. We will also have and produce material combinations which have never been produced before. SX-Clad pipes are perfectly suitable for all different applications as for example in the offshore and refinery sector", adds Mr. Floeth (see the SX-Clad box).

More capacity and knowledge, more service and sales power: all in all, the Schulz Group of Companies is ready to meet the needs of a whole range of highly demanding international projects, and to face the challenges of the coming years with verve.

Cold forming

"There are not many companies in the world that can cold form products with walls up to six inches thick at room temperature," Mr. Wickenkamp explains. "This technique enables us to produce fittings 1:1 from the same pipe used as straight pipe in the project. No special diameters, wall thicknesses or mechanical characteristics are needed. Consequently the delivery time can be kept short in cases of emergency. Replacement can be done in a few weeks or even days. Another great advantage of cold forming is that the result is continually reproducible, thus making it possible to produce consistent quality." As it is hardly subjected to heat, the consistency of the formed materials barely alters – it is at best minimal. In turn, this guarantees the quality of the cold form products and makes them particularly suitable for safety-related applications.

SX-Clad

Pipelines and process piping are being exposed to increasingly severe corrosive environments as the new reserves of oil and gas discovered are in deeper and deeper locations. This increased depth results in higher temperatures and pressures which add to the aggressiveness of the corrosion encountered. Methods to combat this situation include the introduction of inhibitor systems and the use of more costly piping materials such as duplex, super duplex and nickel base alloys. For these challenging applications the Schulz Group of Companies has developed a special process, metallurgical bonded clad, which guarantees the highest quality at attractive pricing. "Our Corrosion Resistant Alloy (CRA) Clad Pipe and Fittings are composite products, combining the best properties of different metals: the high mechanical strength and economical advantages of carbon steel and the proven corrosion resistance of the NiCr family of alloys," says Mr. Wickenkamp". The advantage is a solid-state diffusion reaction between the carbon steel carrier pipe and the CRA metal cladding that does not require the addition of a low-melting compound at the interface to promote diffusion. "Lately, we have even managed to process Inconel Alloy 625 for bi-metal compositions, which was really challenging. In addition to the pipes, we also supply a whole range of Schulz cold-formed BW pipe fittings in all clad combinations running from 8" NPS through to 14" seamless, up to schedule 160 made from this pipe."



Schulz offers a full range of seamless metallurgical bonded clad pipes and fittings up to 14".