### Case Sarem Makina Building reliable and dependable extrusion machines





For Sarem Makina as one of the largest extruder manufacturer in Turkey, machine quality and performance are critical.



Since 2003, Sarem Makina has grown from a small company with only 5 employees to over 80.

# Building a successful and rapidly growing company with a strong partnership

Customer benefits	
Global service	If there ever are problems with the drives, motors or PLCs, ABB service is always close by.
Engineering support	ABB developed a PLC temperature control program to meet the Sarem's specific needs.
Reliablity	ABB products deliver the reliability expected by Sarem.

Sarem Makina is an extruder manufacturer in Istanbul, Turkey. It was founded in 2003 with 5 people and now, 11 years later, it comprises a team of 80 professionals producing a turnover of USD 15 million. Here Mr. Sarikus, the chairman of the board of directors of Sarem Makina talks about the background of how his small, clear idea turned into a big and growing company which is today exporting to 35 countries around the world.

#### Top priority: No unplanned downtime

As the absolute top priority Mr. Sarikus made high machine reliability and uptime the founding principle of the new company. Sarem's machines must never stop unexpectedly, he decided. Using this as the starting point, Mr. Sarikus began sketching the new equipment design and also started looking for leading partners to supply key components with the highest possible reliability.

"From experience," he says, "I know how important reliability is in a plastic extruder. Downtime kills your production, and your profits. So we were determined from the start to only use highest-quality components from the best companies to avoid any failures or problems. And one of those suppliers was ABB."

ABB components have been used in the machinery from the start. Sarem first began with ABB low voltage drives, and as the company has developed, so has the range of ABB components in the extruders. Now Sarem uses an evergrowing number of ABB components like PLCs, HMIs and motors.

## Superior line control a key competitive advantage

Besides the reliability, Mr. Sarikus points out that superior control is another strong advantage that ABB components provide to the extruders. "There is tough competition in the pipe market and everyone is focusing on low costs, low energy consumption, low maintenance requirements and fast production. All of these performance factors, which ultimately determine profitability, are closely related to very precise control of the machine and the process. There are numerous critical steps in pipe extrusion, as we are melting the plastic raw material pellets which can cause a real mess or even a fire if the control is substandard. Therefore the whole line, and all process steps, must be very well synchronized and harmonized with each other."

## Accurate temperature control for extrusion with PLCs

In Extruder business, temperature control plays a critical part. As Mr. Sarikus says: "Torque control and



Temperature control in the extrusion process is critical. It requires precise calculations, so ABB developed a temperature control program for the PLCs used by Sarem.



Sarem installs ABB's drives, motors, operator panels, PLCs and low voltage products in their machines.

temperature control are the most critical parameters when dealing with molten material. Poor torque or temperature control gives bad pipe quality, which can hurt your reputation."

Temperature control in the extruder requires precise calculations, so ABB's automation engineers in Turkey developed an extruder temperature control program for the company's line of PLCs that Sarem is using. "If a pipe is poorly made, it will have an undulated or rippled inner surface which in turn will raise the resistance to the fluid flow through the pipe," says Mr. Sarikus.

### A good reputation is your best sales tool

"Today, as we have done from the start, we continue to use top-quality components from ABB to give our customers the best torque and temperature control all through the production line," continues Mr. Sarikus.

"It is all part of our total focus on getting the highest uptime, to produce the best pipes with the lowest resource inputs. That in turn gives us the excellent reputation that we have in the market and has allowed us to grow on a global scale. A strong reputation is truly the best asset you can have to sell your products."

"Frankly, the main reason our customers choose us is that they know they get high-quality machines that make highquality piping very efficiently and reliably." Mr. Sarikus says, "I can honestly say that any customer buying equipment from us doesn't leave us. We have dozens of repeat customers, with them all placing high value on the nearly zero downtime we have proven."

#### Global support, if it's ever needed

With a global reach today having grown to 35 countries, the question of worldwide support comes up. When problems do arise how is the required support supplied? Mr. Sarikus laughs as he answers the question.

"First of all, there must be a problem in order for there to be a requirement for support. We generally don't have problems and therefore there is very little need for support. But if service requests do arise, we can, in conjunction with ABB's strong global support services, address them very professionally and rapidly."



#### Fast facts about Sarem Makina

- Founded in 2003 in Istanbul Turkey
- Making high quality, high reliability plastic pipe extruding machines
- Started with 5 people and now employing 80
- Sales today around USD 15 million with exports to 35 countries globally



Emin Sarikus, The Chairman of the Board of Directors of Sarem Makina

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