

SMS TORK is a well-known name in Turkey for manufacturing solenoid valves, actuators and distributing flow control equipment under its brand name TORK. The company also is very active in other markets such as Europe, Russia, Asia, America and the Middle East.

*By Lucien Joppen*



## SMS TORK: Turkish with a

**Ö**mer Kaya, mechatronic engineer and sales/marketing manager at SMS TORK, is an exponent of the second generation of Kayas at the company. “My father founded SMS TORK in the beginning of the eighties. Initially he acted as an importer and distributor of technical products, valves, actuators and so on. Gradually, my father received more requests for domestically manufactured equipment which would be able to compete in price with western goods. In 1985 he decided to manufacture his first pneumatic actuator for a Turkish chocolate company. This opened doors to other Turkish manufacturers that were willing to acquire domestic equipment. Gradually he expanded his portfolio to solenoid valves, dust collectors for filter systems and pneumatic operated angle seat valves. He also expanded his distribution business for western suppliers of flow control equipment and temperature/pressure

sensors. In general, our customers prefer to deal with one contact for a great part of their equipment.”

### **Dominant in manufacturing industry**

Fast forward more than 30 years and SMS TORK has cornered roughly 50 per cent of the control valves’ market in Turkey and has become a household name for solenoid valves and actuators (both electric and pneumatic) in its home market. According to Mr. Kaya, the company’s success has been attributable to its market approach. “Of course we have competitors in Turkey but these companies are predominantly focussed on valves and actuators for HVAC, water and domestic use. Our markets are mainly in manufacturing: chemicals, food and beverage, paints and coatings and so on. With the acquisition of Varnasan, a producer of ball valves, we also want to move into oil and gas.”



## global reach

As Mr. Kaya states, SMS TORK is difficult to ignore in its home market, especially in the industrial and OEM sectors. However, on the export market, the Turkish company has many foreign competitors.

### Quality and reliability

“True”, says Mr. Kaya, “nevertheless we have ventured with success in these markets. We are exporting to 87 countries. Europe, representing roughly 50 per cent of our export value, is important for us. In Germany, for example, we have established our own office in order to serve our customers better with people on the ground, so to speak. Russia is also a very good market for us. It speaks for itself that the Middle East, due to our proximity to this market, is doing well. We expect more business to come out of this region because of our move into oil and gas.”

Quality, reliability and fast delivery times are main selling points for SMS TORK in the export market (and of course also in Turkey, ed.), Mr. Kaya explains. “We are able to deliver quality against competitive price levels. Of course we are not the only company claiming this, but we have been operating by this maxim for 30 years and apparently our customers are satisfied with our performance.”

### Testing before delivery

Mr. Kaya mentions a customer satisfaction of over 95 per cent. This is an impressive figure but he also a bit wary about this percentage. “Some customers don’t take sufficient time in filling in questionnaires. They just want the product and to use it without problems. That’s why the number of customer complaints is more telling. Throughout the years I have been working for SMS TORK, there have been two or three complaints, on average, each year. From the 250,000 pieces coils we manufacture, on average two to three pieces are being returned. This statistic is more important because it shows we can deliver quality. Testing before delivery is a key asset of our company as we conduct various checks, leakage, coils et cetera. We also communicate to our customers how to install and employ our products. This procedure also contributes to a longer life span and problem-free use.”

### Predictive maintenance

Besides being able to compete on price/quality, SMS TORK is also investing in product and process innovation (see box Turbo solenoid for one example). Automation/digitalisation is also high on the agenda of the company. “We have launched a smart switch box device which is able to measure and communicate parameters such as temperature, inner pressure, cycle time,



*Ömer Kaya: We are exporting to 87 countries. Europe, representing roughly 50 per cent of our export value, is important for us. In Germany, for example, we have established our own office in order to serve our customers better with people on the ground, so to speak.”*

partial stroke test within the actuator. It also enables controlling the actuator from a distance via a hand-held device such as a laptop or a mobile phone. The role of data management in the processing industry will only increase as it facilitates concepts such as predictive maintenance which ideally leads to less downtime. At the moment, there are products/solutions on the market but these are quite expensive. We want to make our solutions accessible/affordable for companies that don’t have enormous budgets for automation.”

### Future is electric

With the advent of digitalisation, SMS TORK also expects that electric actuation

### Quality made in Turkey

On its website, SMS TORK says it is the first producer of solenoid valves, pneumatic actuators, pneumatic actuated angle seat valves, pulse valves and electric actuators in Turkey. The company, which is situated in Istanbul, has an impressive manufacturing facility spanning 4000 square meters. SMS TORK prides itself on developing and manufacturing 100 per cent Turkish equipment and parts for its TORK-brand.

“‘Quality made in Turkey’ is our motto”, Mr. Kaya says. “Many of our Turkish competitors source cheaper parts from abroad. We stay clear of these practices as our production and products need to be certified against the latest standards (bsi ISO9001: 2008, bsi CE, UL, SIL3, NSF, ATEX, bsi TS 16949, bsi OHSAS180001, bsi ISO140001, Rosh, GOST(EAC), UKSERPO, TSE).”

will be a driving force behind the global actuation market. Pneumatic actuation will not disappear as there will always be a need for this, for example when fast response times (one or two seconds to shut down, ed.) are needed or when cost is an overriding factor. Electric actuators, on the other hand, can be operated and monitored with greater precision and generate zero emissions, which is not the case with pneumatic actuators.

“We are working hard now to improve our quarter-turn electrical actuators and will do the same in the near future with our multi-turn actuators. We see sufficient room for improvement in the mechanical design of the actuator and some of its individual parts such as the gears. Other aspects which we will be improving are the reliability of the electronics and energy consumption (see box Turbo solenoid).”

### Inventory management

Process optimisation is also a big issue for SMS TORK, Mr. Kaya says. The company is working to streamline its supply chain, which is, according to Mr. Kaya, quite a challenge for a Turkish company.

“The culture in Turkey is that goods are ordered on Sunday and delivered the next week. In other words, every order is important in the eyes of the company. However, we also need to manage our inventory responsibly. If we can reduce our inventory to 50 per cent, we can use these funds for our R&D. Since 2014 we have adopted IFS, ERP-type software which enables us to tackle this issue. Of course we don’t want to abandon our service levels. We are in business to bring solutions to the market in a timely fashion, not to ruthlessly cut into our stocks.”



*SMS TORK prides itself on developing and manufacturing 100 per cent Turkish equipment and parts for its TORK-brand.*

### Continuous improvement

When asked about the near future for SMS TORK, Mr. Kaya says the company intends to further build and strengthen its core

brand on the world stage. “My father wanted to establish a Turkish company with a global reach. As a son of a miner he created SMS TORK out of nothing so I





“Quality made in Turkey’ is our motto”, Mr. Kaya says. “Many of our Turkish competitors source cheaper parts from abroad. We stay clear of these practices as our production and products need to be certified against the latest standards.”

have great respect and admiration for him. SMS TORK has thrived throughout almost three and a half decades and has expanded its business from Turkey to the world. However, it is not our nature to rest upon our laurels but to continuously improve our products and manufacturing practices. We also see a more active role in the after

sales trajectory in which we can assist our customers. Communication with end users is important to maintain the quality of our products in operation and subsequently reduce additional costs. We will also engage in maintenance with our team in Turkey next year. If this initiative goes well, we could transfer this concept to other markets.”

### Family business

SMS TORK is truly a family business. As mentioned before in this article, Mr. Kaya’s father founded the company. At the moment, his father, himself and his two siblings are all active in SMS TORK. “We complement each other. My father (see image) is an engineer at heart but not necessarily proficient in economics, however,



See boxtext 2

my brother is an economics graduate, and he deals with the financial organization of the company. My background is in engineering but in SMS TORK I have been active in sales/marketing for our export markets. The family aspect is important but we have grown in size over the years. Now we employ over 140 people - of course, not all family”, Mr. Kaya smiles. “For our family it is important that the company is bigger than just the family and that we should ensure the continuity of SMS TORK for the future.”

### Innovation

Mr. Kaya states that SMS TORK’s R&D department has developed a whole range of new products in 2017: turbo solenoid, cryogenic solenoid valves, NSF certificated solenoid valves for drinking water, refrigeration solenoid valves, proportional solenoid valves and scotch yoke pneumatic rotary actuators.

Given its dominant position in solenoids, the company has developed a so-called turbo solenoid valve. “Solenoids are used in a variety of industrial and domestic applications. In such a wide range two issues have gained importance: energy efficiency and self-sufficiency. In the industry, hundreds of solenoids may be used in one plant alone, mostly out of sight and out of mind. In this situation energy transfer and failure notices of these out of sight valves are the main problems of the users.”

SMS TORK has developed and tested a turbine which generates electricity to control the solenoid valve. A battery system ensures a continuous supply of energy in the event the turbine is not generating sufficient power. “In short, this system is designed to make solenoids more reliable and decrease the use of energy. A win-win situation.”