

ROBOTICS

ABB robots are indispensable for Turkish axle manufacturer



Ege Endüstri has been designing and building axle housing units and axle components for the automotive industry for over 40 years. The company has two plants near the Aegean Sea in Izmir, Turkey and employs 565 staff.

It is one of six companies within the giant Bayraktar Group, a major automotive, component and parts distributor for brands including Citroën, Subaru, Infiniti and Yokohama Tires. Ege Fren, another of the six Bayraktar Group companies produces brake components.

“We have a great deal of experience with research and development as well as with design,” says Salih Kesen, Ege Endüstri’s Head of Operations. “This has enabled us to improve the quality and durability of our parts and reduce the weight and cost of the heavy trucks and buses that our axles are used in, therefore helping us to remain competitive.”

Robotic automation has been part of the company’s organizational strategy for a long time. Robots help Ege Endüstri reduce manufacturing cycle times and thereby improve efficiency and profitability. Ege Endüstri was the first company in Turkey to use robots on its manufacturing lines and some of the oldest models, such as the ABB S2s, are still in use.

When Ege Endüstri began using robots, it naturally turned to ABB Robotics, the leading worldwide supplier of industrial robots, modular manufacturing systems and technologically innovative solutions. “Ege Endüstri has used many ABB Robotics products,

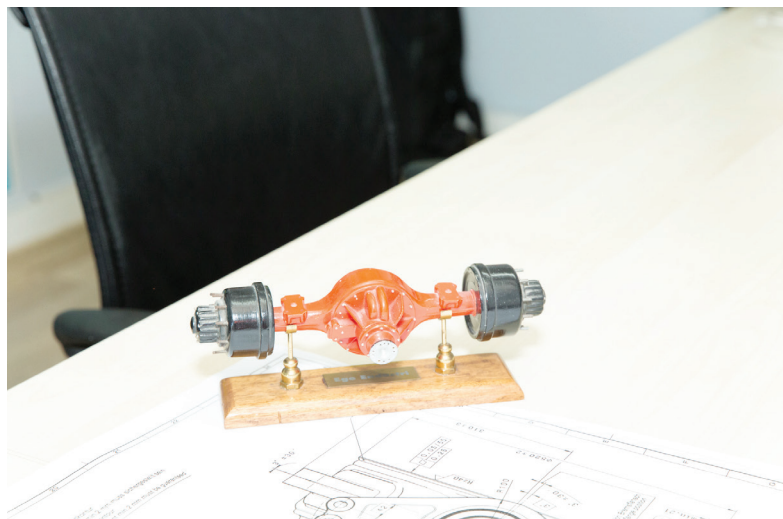
including industrial robots, electrical instruments, AC drive motors and transformers,” says Kesen.

“We use ABB products because of their durability and the service support provided by ABB Robotics. Ease of use and maintenance are also important considerations.”

“We mostly use welding robots in our production lines because they enable us to weld heavy and thicker parts made of steel and steel alloys,” Kesen continues. “We’ve favored the ABB S2 Robot for producing axle house components with arc welding applications. We’ve also used the IRB1600 ID IRC 5 robots because they are coordinated with the IRBK 600 positioner. Together, those models help us to perform arc welding for axle housing.”

Over the years, the solutions provided by ABB Robotics have helped Ege Endüstri cost effectively increase its productivity, while reducing waste and operator injury.

“Increasing production while keeping costs down by reducing waste is the key to market success for us,” says Kesen. “It gives us the flexibility to compete with high-tech manufacturers in high-cost countries.”



When Ege Endüstri began operations in 1974 it only had a few local customers. It now exports parts to the US, Mexico, Europe, South America, China, India and Australia.

In 2009, the company was nominated for the Trucnology Supplier of the Year Award by German company Man Truck & Bus. In 2011, it was recognized as the Research & Development Center of the year by the Turkish Ministry of Industry and Trade. And in 2014 it came second out of 300 automotive supplier companies in the patent category of the Turkish Supplier Union TAYSAD Industry Award. In 2015, the company was nominated along with 100 other suppliers in the category key supplier at the Daimler Supplier Award.

Kesen says that the use of robotics has provided the company with key advantages that have been essential to maintaining continued growth. And with robotics having always been such an important part of Ege Endüstri's manufacturing success, robotic technology is expected to remain an essential part of the company's growth.

"Robots have become indispensable instruments for our efficient production processes," says Kesen. "So part of our future plans will include investing in more robots."

Ege Endüstri is now investing in state of the art production lines that will increase its manufacturing capacity and capability, with production due to start in October 2016. And the company plans to use robots more broadly and integrate them into the entire production process, not only as welding robots but also as material handling robots. The robots will continue to help the company with precise and fast welding and also enable a significant reduction in manufacturing cycle times with greater flexibility than manual operations.

"The robotic technology that we use holds many advantages for our manufacturing and production areas. Indeed, in the competitive world, robotic technology has become essential to future profitability," says Kesen.