

Injection moulding

Case study: Bumpers, BPO, Turkey

Application

- Moulding

ABB Products

- IRB 6600

- IRB 5400



Turkey's BPO produces automobile parts for the nation's biggest manufacturer of passenger cars.

On the outskirts of the Turkish industrial city of Bursa, the company BPO B Plas Plastic Omnium Otomotiv Plastik ve Metal Yan Sanayi a.s. (BPO) is manufacturing automobile exterior bumpers, fuel tanks and plastic and metal parts for Oyak Renault Otomobil Fabrikalari a.s., Turkey's biggest car maker. bpo is the sole supplier of bumpers, fuel tanks and other plastic products for Oyak Renault. BPO does business with no other motor vehicle manufacturers, and Oyak Renault, which operates a giant assembly plant nearby, produces various Renault models, ranging from Clio and Megane station wagons, to hatchbacks and sedans. "BPO has no rivals. It once had a competitor but that company could not produce high quality goods, and it folded," says Can Özpehlivan, assistant general manager of BPO.

Joint venture

With 2007 sales of 40 million euros and employing 273 persons, BPO produces the parts for around 350,000 Renault vehicles a year. BPO has no direct exports, but 80 percent of the cars manufactured by Oyak Renault are exported. BPO was founded in 1994 as a 50-50 joint venture between Turkey's B Plas and Groupe Plastic Omnium, a large automotive parts manufacturer based in Lyon, France. B Plas is owned by Mehmet Memduh Gökçen, 76, one of Turkey's leading industrialists and businessmen, and members of his family. Gökçen, who has interests in cement manufacturing, steel products, shopping plazas, silk trade, textiles and health Spas, still serves as the general manager of BPO, despite his age.

The ABB logo, consisting of the letters 'ABB' in a bold, red, sans-serif font.

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Increased quality

Inside the BPO plant, two ABB IRB 6600 robots for injection moulding and nine IRB 5400 robots for painting work feverishly turning out new products and spraying paint on finished automobile parts. "Our quality levels have increased considerably since we began using ABB robots in 2007 and our paint process has achieved continuity. Our cycle times have also been reduced. Manual production was much slower," says Alphan Erdemir, engineering paint chief of BPO, as he displays a new set of automobile bumpers during a tour of the factory.

Healthier environment

But the greatest benefit achieved, he stresses, has been on the health and safety of the company's workers. "Our painters work with solvents. Wearing masks and being covered from head to toe with protective wear for eight hours a day while spraying paint wasn't good on the emotional stability of our workers," says M. Demir, a mechanical engineer who has been with BPO since 2000. "Many of these persons have been moved over to other jobs in the factory since we began using robots."

The company is expanding its operations and may acquire more paint robots to replace workers still used for spraying paint and solvents. "The automotive industry is growing in Turkey and we are increasing output to meet production targets," Erdemir says. AB Rotech, an ABB partner, helped prepare the software programs used and installed the robots at the factory.

>FACTS

About BPO

- Founded: in 1994 as a 50-50 joint venture between Turkey's B Plas and Groupe Plastic Omnium of Lyon, France
- Number of Employees: 273
- Products: bumpers, fuel tanks, plastic and metal parts for Renault passenger cars. It has no direct exports, but 80 percent of the Renault vehicles that use its parts are exported
- 2007 turnover: EUR 40 million

Benefits of using ABB Robots

- Production quality levels have increased
- Production cycle times have been reduced
- A healthier environment for workers has been established