

Project Report



CUSTOMER

Regency Glass is a leading UK supplier of high-quality glazing units. The company has recently moved premises to a site in Leigh, Greater Manchester which is three times larger than its previous facility.

PROJECT

Supply and install a completely new compressed air system for a larger facility requiring increased capacity.

BOGE PRODUCTS IN USE

- Two SLF 101-3 oil-flooded rotary screw compressors
- A 2,000-litre air receiver tank
- A fridge drier and filters
- An oil-water separator
- EasiFit pipework



Trouble-free compressed air system installation for Regency Glass

For glazing unit manufacturer Regency Glass, being without compressed air for even an hour is simply not an option. When switching production to a new and much larger site, the company had to be sure of a reliable and uninterrupted supply.

Thanks to equipment from BOGE Compressors, installed by BOGE Platinum Partner Airflow Compressors and Pneumatics, the transfer went smoothly. The system, shaped around Regency's glazing machines, is not only trouble-free but has increased productivity and lowered energy costs.

Regency Glass

This family business, based in Leigh, Greater Manchester, is a leading UK supplier of high-quality glazing units. Its sealed products are used in a wide variety of windows, doors and other glazed constructions.

Machinery throughout Regency's factory is powered by compressed air. It starts with the cutting tables, where glass sheets are suspended on a bed of air to avoid scratching. Sharp edges on cut pieces are rounded off by an air-powered 'arrising' machine. The site's biggest compressed air consumer is its toughening plant. Here, glass is heated to 650-700°C and then blasted with cold air. The rapid cooling process turns it into safety glass.

From its previous premises, measuring 3,250 m² (35,000 sq ft), Regency has moved to a site with 9,290 m² (100,000 sq ft) of space – including 7,700 m² (83,000 sq ft) of production area. Its entirely new compressed air system, costing around £100,000, is maintained and serviced by Airflow Compressors and Pneumatics, another successful Leigh-based family business.

PROJECT INFORMATION

> THE CHALLENGE

With a move to new premises, Regency Glass needed a cost effective, energy efficient compressed air system that could operate 24/7 with no downtime. With compressed air used to prevent scratching, round off sharp edges and toughen the glass, if the system was to ever fail the business would stop.

> THE BOGE SOLUTION

Airflow Compressors and Pneumatics specified two Boge compressors running side-by-side to be used in rotation so that there was no servicing downtime or risk to the business if one of the machines needed to be stopped at any time.

> THE RESULT

Estimated annual energy savings of £17,000, low energy tax allowance and better performance and productivity with no downtime from a trusted supplier.



Air challenges

“Our machinery runs 24 hours per day for, five days a week, starting from Sunday at 10.00 pm,” says Regency’s Facilities Manager Bradley Beazant. “If the compressed air failed, our business would stop. Our biggest priority is to have a foolproof air system that won’t let us down. We had no problems with the old factory’s BOGE equipment, but for the new premises we needed greater capacity.”

He adds: “Energy efficiency is also a big consideration today. If there’s a cost-effective package that meets our operational needs while at the same time reducing our carbon footprint and lowering energy bills, we’ll always go for it.”

An additional challenge was to install the compressed air system and position air drops for each manufacturing machine while that machinery was being delivered. This required a high degree of flexibility and co-ordination.

The solution

Adrian Sims, Airflow’s Sales Director, explains how the solution was achieved. “The old set-up consisted of two factories on one site. Regency wanted to bring everything together in one larger building. We started by datalogging the two systems’ air demands, adding them together and including some extra capacity for expansion.”

He continues: “We specified two BOGE oil-flooded rotary screw compressors, side by side. These are used in rotation – each one running on alternate weeks and providing back-up on the weeks in between. Servicing requires no downtime and there’s no risk of being left without air in the event of a breakdown.”

The BOGE SLF 101-3 compressors each deliver up to 492 CFM of compressed air at 8 bar pressure. Their energy-saving advances include variable speed control – matching performance optimally with the system’s changing needs – and direct coupling of the air end and IE4 drive motors – the most energy-efficient category available today.





A 2,000-litre BOGE air receiver tank provides a large reservoir of compressed air, which ensures air pressure is maintained during peak demand and optimises efficiency. From there, the air passes through a BOGE fridge drier and filters to remove moisture and contaminants. Condensate is purified with the aid of a BOGE oil-water separator.

Air is distributed via energy-efficient BOGE EasiFit pipework. Regency requested two ring mains with different pipe diameters: 63 mm for areas with highest demand and 40 mm for the rest. The lightweight aluminium EasiFit pipes have push-fit connections and require no welding. Their easy installation and adjustment was particularly welcome when the machine positions were being decided.



Work was spread over three months, to co-ordinate with the arrival and positioning of Regency's manufacturing machines. "Airflow's installation team for this project – David Brett, Andy McFarland and Ethan McFarland – deserve a special mention," Adrian adds. "They did a superb job, from start to finish, responding flexibly whenever the customer needed them – whatever time of day."

Results in brief

- Seamless transition to new system
- Predicted annual energy saving around 35% (£17,000)
- Low-energy tax allowance against IE4 motor investment
- Higher performance from latest technology
- Higher productivity
- No downtime

Customer satisfaction

The new BOGE system came with a 10-year/42,000-hour manufacturer's warranty, but for Regency Glass the trusted relationship with Airflow Compressors and Pneumatics is even more reassuring.

Bradley Beazant explains: "We've relied on BOGE technology and on Airflow for years. They always come quickly, whenever we call, and they were a massive help when we were getting the new factory together. The relocation project took up a lot of our time and it was great that we could leave the details of something as vital as our BOGE compressed air system specification and installation to someone we could really trust."