

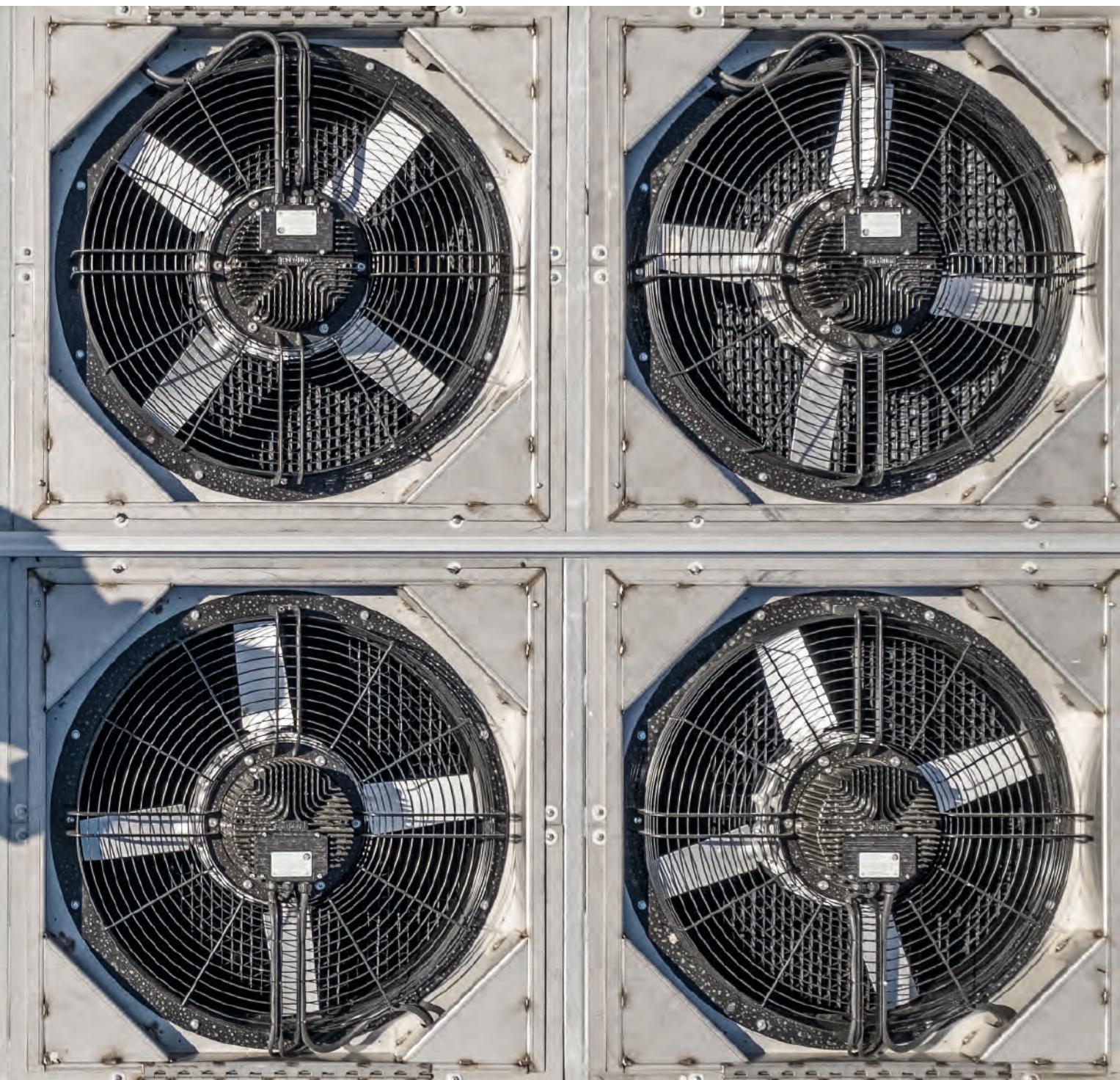
COMPANY  
Aggreko PLC

LOCATION  
Glasgow, Scotland

# Rent-a-tower



What to do when your refinery's cooling tower is undergoing maintenance?  
Right! Call Aggreko—global market leader in cooling tower rentals.





Billy Childers takes care of Aggreko's U.S. customers from his office near Oklahoma City. The biggest cooling towers are being put to use in the United States (left).

**Ready to ship:** Built as intermodal containers, the cooling towers reach customers by ship, truck or plane (right).

# A

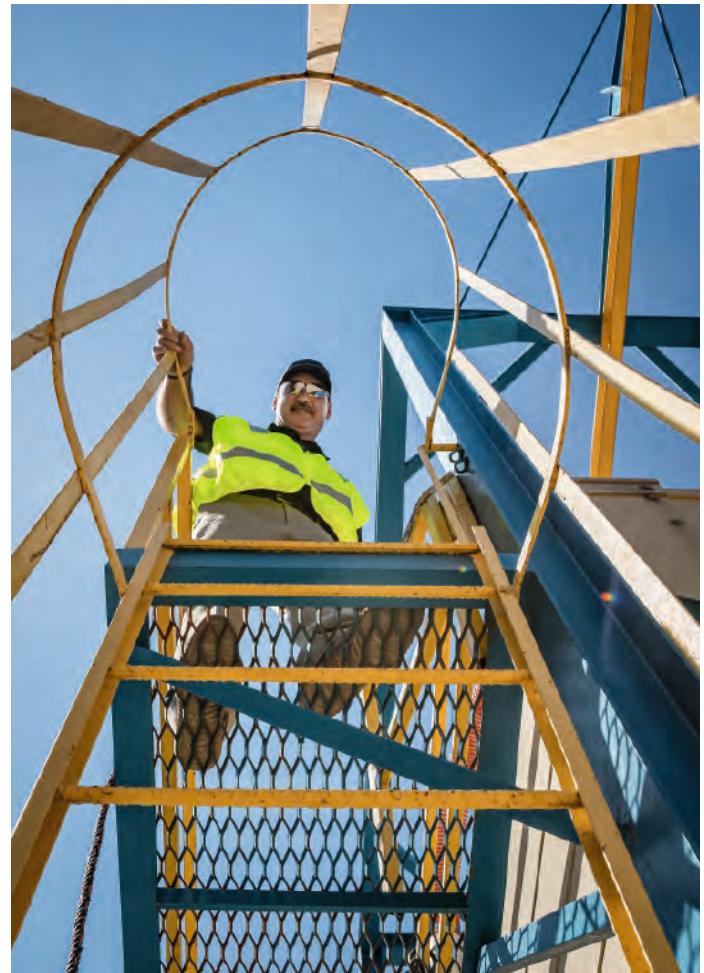
A familiar problem: It feels like 40 degrees in the shade and you are sweating in the office when suddenly the fan stops working. Luckily, replacing it is not that big of a problem. It is a different matter for the cooling towers used in industrial applications. They are often as large as a small apartment and not so easy to replace. That is where Aggreko comes into play.

## *Global rentals*

Wherever process heat is generated and customers are unable to fall back on equipment of their own, Aggreko is not far away. The company, with headquarters in Glasgow, Scotland, specializes in renting cooling towers for any duration or schedule, be it short-, medium- or long-term, among other products. "We're there when somebody needs to perform maintenance or repairs on a cooling tower, whether it's in an oil refinery, a

steel mill, a power plant, a hospital or a university," says Billy Childers, National Manager at Aggreko USA. Aggreko has its cooling towers produced by partner companies in China and the United States. They reach customers by ship, airplane or truck. Aggreko was founded in the Netherlands in 1962. After the company had been in business for more than 50 years, it became clear in 2017 that it had to reposition itself in the rental market for cooling towers.

Two factors played a major role in this decision: transporting the cooling towers, and using them. Aggreko's fleet consisted of 14 different cooling tower models, which caused problems because they were not designed for containerized transport and took up too much space on-board ships and aircraft. And of course that costs money. "Transporting a cooling tower by ship cost us about 25,000 dollars," says Billy Childers. Frequency variations from country to country also posed a



## **“Transporting a cooling tower by ship only costs us about 2,500 dollars.”**

**BILLY CHILDERS**

NATIONAL MANAGER  
AGGREKO USA

challenge to providing a standardized solution for trouble-free operation worldwide: the U.S. power grid usually operates at 60 Hz, the European and Asian grids at 50 Hz.

*New focus: keep it simple*

Aggreko initiated a project called Global Towers, reducing its fleet to two new models, both of which are designed for container transport and differ in size and capability: the GT40 and the GT20. The number stands for the container size in feet. A smaller size is planned for the future. “Now transporting a cooling tower by ship only costs us about 2,500 dollars,” says Billy Childers.

At the same time, Aggreko switched from AC fans to EC fans, which can be adjusted better to various partial load ranges and also operate more efficiently. It also wanted the ability to query performance data remotely, something only new

EC fans could do. Aggreko chose a few potential suppliers, including ebm-papst. “We received a request to produce a prototype,” recalls Daniel Yiu. As Regional Manager Sales at ebm-papst, he is responsible for southern China and Hong Kong and was in close contact with the Chinese cooling tower manufacturer. “This project was very important for us because Aggreko is such a big customer. We wanted to offer the best possible product.”

*International cooperation*

After ebm-papst Mulfingen designed and built the prototypes, Yiu arranged for measurements of the fan in a cooling tower. An intense period of discussions across multiple time zones and countries began. “We were in touch every day,” recalls Yiu, “at first with the cooling tower manufacturer and later directly with Aggreko when



## Aggreko PLC

Founded in 1962 as a rental agency for generators, Aggreko expanded their portfolio with power heating, cooling and compressed air solutions later. Today, the company owns a fleet of up to 600 cooling tower units and has more than 204 subsidiaries all around the world.

## GT-40

18 specially designed fans get to work in the GT-40. The smaller model, the GT-20, houses eight fans.



it was time to adapt the required specifications.” Such an Aggreko cooling tower has to deliver high performance—at ambient temperatures of up to +60° Celsius since many of the towers are used by customers in the Middle East. The same applies for its key components, the fans. Not only are they subjected to high temperatures, they are also exposed to constant humidity since they work with evaporative cooling. But the biggest challenge for ebm-papst was that the fan had to cope with the high back pressure resulting from the compact, container-based design.

tures as high as +80° Celsius, and it resists high back pressures. Billy Childers is satisfied, saying “Our previous AC models needed a lot of maintenance in the hot, humid environment where they are used. The failure rate was very high. We’re convinced that that will change with the products from ebm-papst.” Childers values the good international cooperation. He says, “There were lots of meetings and talks, and they weren’t always fun. But ebm-papst was always available—on the phone, in person or in some other way. Not every company can guarantee that at this global level.”

### *Impressed by the supplier*

In the end, Aggreko got a rugged fan with H2+C design; its special coatings and paints make it corrosion-resistant, it can handle operating tempera-

FIND MORE INFORMATION ABOUT AGGREKO AT:  
[mag.ebmpapst.com/aggreko](http://mag.ebmpapst.com/aggreko)