

**CONTROL**   
**TECHNIQUES**

# COMPRESSOR BOOSTS PERFORMANCE

AVELAIR COMPRESSED AIR SOLUTIONS | COMPRESSORS

**DRIVE OBSESSED**

# EFFICIENT DRIVES PROCESS AN ASTONISHING 120,000 TONNES OF MIXED WASTE AT STATE-OF-THE-ART RECYCLING PLANT

Avelair design, manufacture and offer full-service support on a range of energy-efficient oil lubricated, fixed, and variable speed air and gas compressors. The company operates in the UK and Europe, across various market sectors, including industry, manufacturing, food and beverage, medical and automotive. Avelair is a proud member of the Made in Britain campaign, which celebrates British made products.

## Overview

- Energy efficient
- Robust and reliable
- Simple to install and pair with motor
- Excellent Safe Torque Off function

## The Challenge

Imagine a state-of-the-art recycling facility that processes 120,000 tonnes of mixed waste per year, from which it produces aggregates and refuse-derived fuel. Avelair won the prestigious contract to design a full compressed air system, including four 110kW rotary screw air compressors, air treatment equipment, compressor management, and the complete pipework system, for a new recycling facility designed to do just that.

The new site deposits mixed wastes via processes that are mainly automated and consist of shredding, optical sorting, trommels, ballistic separators, magnets, and baling.

To guarantee the plant's efficiency, Avelair required a drive to power the compressors, allowing the ramp-up of the motor speed to produce the compressed air to meet onsite demand.

## The Solution

"This is one of our largest UK compressed air installations. Our team designed and manufactured four variable speed 110kW rotary screw air compressors for the recycling plant at our facility in Bury St Edmunds."

**David Wood**

Managing Director of Avelair



Control Techniques' Commander C200 and Unidrive M600 power the four units. The onsite management controller is programmed to switch lead compressors, at intervals, to share the load between the four compressors, establishing a super-efficient process.

The variable speed air compressors employ Control Techniques' inbuilt inverter technology on the main high-efficiency motor and fan motors, ensuring maximum energy savings.

## The Benefit

The winning combination of Commander C200 and Unidrive M600 delivered significant benefits to the finished product.

"As members of the Made in Britain campaign it's fantastic when we find a British manufacturer we can rely on and trust. Control Techniques has supported us in many designs over the years. For this project, it listened to what we wanted to achieve and helped us to engineer the chosen inverter into the compressor."

"The drives are robust and reliable, and so simple to install and pair with the motor. The programming equips us with advanced options, specific to the application, if we need it. The Safe Torque Off (STO) and onboard PLC are all further advantages, not to mention the compactness of the drives, which keep the installation neat and clean."

**David Wood**

Managing Director of Avelair





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