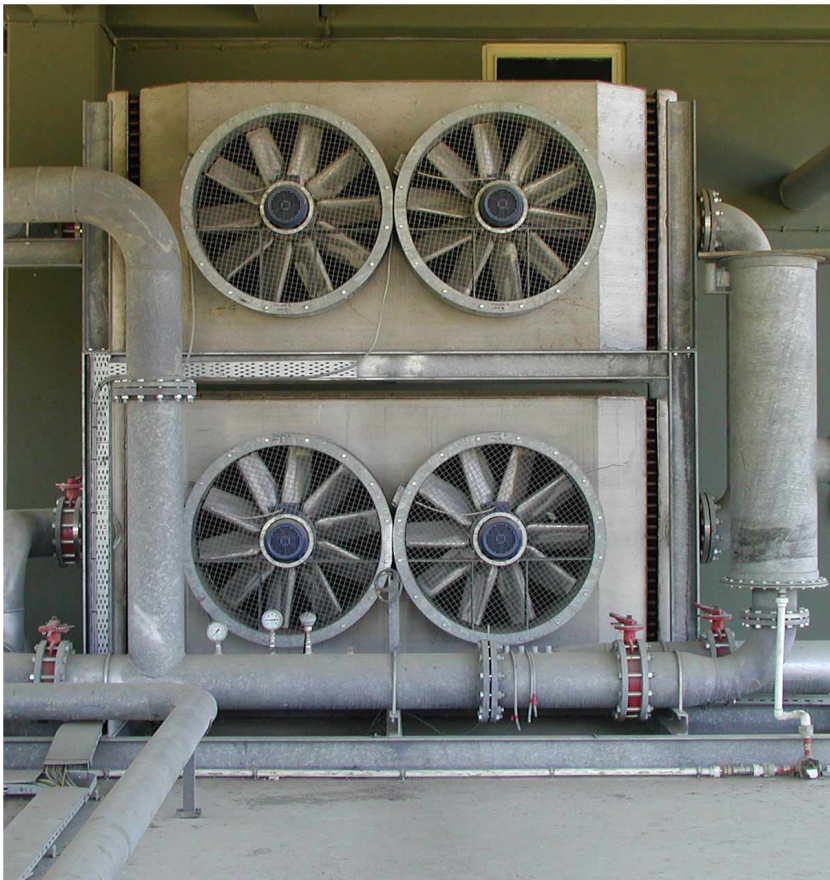




AMBIENT-AIR LINE COOLERS

Ambient-air line coolers are employed to cool gas and liquid streams. After compression the temperature of a gas stream will be increased. Where the gases pass into a polyethylene pipeline, for example, the maximum temperature must not exceed 70°C. At this temperature, whilst acceptable, the working life of the pipeline will be significantly reduced. Ideally, the temperature should not exceed a figure of approximately 40°C. For this duty an ambient-air line cooler is ideally suited.

Line coolers may either accept the passage of the fluid to be cooled through the air-cooled tubes or through a heat-exchanger that is cooled by a service fluid, such as oil or water, which in turn is cooled with ambient-air. The decision on how to structure cooling circuits is generally a function of size and cost. A cooler that operates with gas-to-air will have a larger overall area than one which employs a service fluid. On the other hand, the service fluid will itself require cooling, leading to an increase in cost.



KEY FEATURES

ONE-OFF UNITS DESIGNED FOR SPECIFIC, NON-STANDARD APPLICATIONS

STAINLESS STEEL HEADERS AND TUBES AS A STANDARD

MINIMUM AIR-COOLED TEMPERATURE: AMBIENT PLUS 5°C

EXPLOSION-BONDED, EXOTIC MATERIALS AVAILABLE FOR AGGRESSIVE FLUID DUTIES

IN-LINE OR SERVICE-FLUID COOLERS

HIGH-PRESSURE, HIGH-TEMPERATURE UNITS AVAILABLE TO LLOYDS AND ASME STANDARDS

PACKAGED UNITS AVAILABLE, INCLUDING FINE FILTRATION AND MOISTURE REMOVAL FACILITIES

AUTOMATED CONTROL AND PROTECTION SYSTEMS

UNITS SUITABLE FOR USE IN HAZARDOUS AREAS



SPECIFICATION DATA

Flow rates available:

50 to 20,000 cubic metres per hour

Pressure ranges:

Units may operate from under a vacuum to a standard maximum pressure of 6 bar g. Higher pressures are available as special-builds.

Temperature ranges:

Maximum cooling available is approximately ambient air temperature plus 5°C

Materials:

Stainless steel headers and tubes as standard. Explosion-bonded headers and tubes for heavy duties available as an option.

Chemicals required

Corrosion inhibitor for cooling water

Pre-treatment requirements

Demisting and filtration recommended

Organics does not mass produce standard air coolers. Air coolers manufactured by Organics are generally for non-standard applications where commonly available units will not be suitable.

Typical applications include the following:

- corrosive gas coolers
- corrosive liquid coolers
- difficult-access coolers requiring special features
- packaged units including filtration and gas movement equipment
- high-pressure units
- deep-vacuum units
- or a combination of any of the above.

Where duty assessment may be required prior to specification, Organics is able to assist with advisory services, either charged on an as-delivered basis or as part of an overall turnkey package.

Units designed for use in hazardous areas may also be provided.

Such units may be either located within such an area, where potentially explosive gases may be present, or be designed to carry potentially explosive gases, such as methane or hydrogen.

Electrical control systems for such units are built to the requirements of standards for the use of electrical equipment in hazardous areas, such as BS5345. Control panels may also be built to requirements of ASME and carry a UL stamp.

The UL stamp is also available for units designed to operate at high-pressure.

For further information on such applications, please contact our Technical Sales Department.

Offices are located in Coventry, UK, Bangkok, Thailand and New Hampshire, USA.



Organics Limited

The Barclay Centre
University of Warwick Science Park
Coventry CV4 7EZ,
United Kingdom
T: +44 (0)2476 692141
F: +44 (0)2476 692238
E: comms@organics.com
W: www.organics.com

