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CompAir

by Gardner Denver

Efficient heat recovery systems for air compressors

Innovative Energy Management Solutions

CompAir

Reduce your carbon footprint and save money

Use the excess heat to your advantage

Approximately 10% of all electricity used in industry is accounted for by compressed air systems.

It is a thermodynamic fact that around 95% of this energy is converted to heat and is wasted to the atmosphere through heat dissipated by the motor and cooling system, with the majority lost via the oil cooler. By re-directing the hot oil to a high efficiency oil to water heat exchanger, the heat can be transferred to water, raising the temperature to a required level for a multitude of applications.

Nice to have or... must have?

The heat generated during compression is paid for as part of the process, then paid for again during removal by way of cooling fans. Instead of simply removing the heat, it can be used to generate hot water, heating systems and application processes in other areas of the installation.

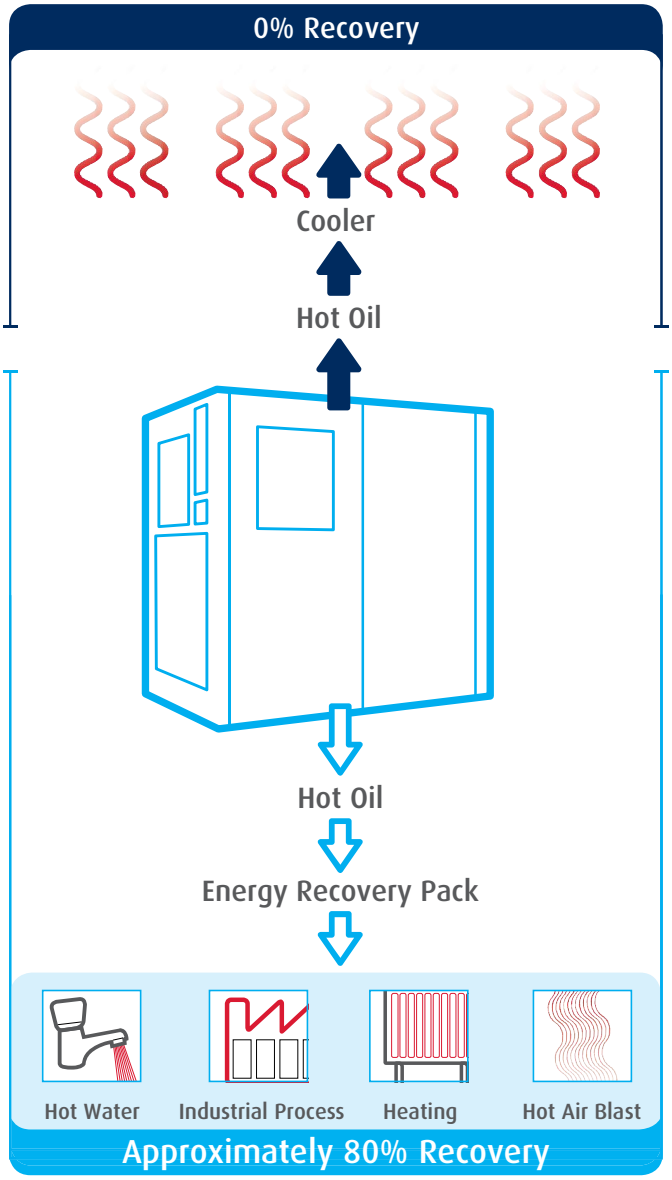
CompAir's innovative heat recovery systems delivers the opportunity to save money, energy and help to protect the environment.

Upgrade your compressed air system

- Significant cost savings
- Lower CO_2 emissions
- Factory fitted integrated system
- Retrofit kits for installed systems including all pipework and fittings
- Low investment costs

High efficiency heat exchanger

> Up to 94% of the waste heat can be recovered for re-use.



The heat recovery principal

The basic principle lies in the transferral of heat into a medium and then transporting it to where it can be utilised.

The hot cooling air of a closed air cooled compressor can be diverted to an enclosed area via ducting for heating.

If water was to be heated, the oil in the oil cooler is chosen as the transfer medium, this will provide approximately 72% of the overall power consumption for water heating.

Maximum efficiency

Every degree of water temperature costs money. If the water supply is already 60° Celsius higher than the standard water supply temperature, that's 60° of heating that doesn't need to be paid for.

Pre-heating water for heating systems, hot water supply or for use in industrial processes such as steam generation, can provide significant savings and pay for itself rapidly.

Scan QR code to watch heat recovery video and access the energy savings calculation tool.

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Performance data

The data is based on an inlet temperature of 25°C.

Model		L15		L18		L22		L23		L26		L29		L30		L37		L45	
Water flow rate	litre/hr	531	235	648	287	760	335	695	278	786	314	854	340	1218	486	1518	607	1770	708
Outlet temperature	°C	45	70	45	70	45	70	45	75	45	75	45	75	45	75	45	75	45	75
Energy saving	kW	12.3	12.3	15.0	15.0	17.5	17.5	16.1	16.1	18.2	18.2	19.7	19.7	28.2	28.2	35.2	35.2	41.0	41.0

Model		L55		L75		L90		L110		L132		L160		L200		L250		L290	
Water flow rate	litre/hr	2064	822	2796	1116	3499	1410	4266	1704	4782	1914	6029	2430	7539	3038	8195	3303	9423	3798
Outlet temperature	°C	45	75	45	75	45	75	45	75	45	75	45	75	45	75	45	75	45	75
Energy saving	kW	47.8	47.8	64.8	64.8	80.6	80.6	98.5	98.5	110.8	110.8	138.9	138.9	173.7	173.7	188.8	188.8	217.1	217.1

Further ranges and models are available upon request.

The above table is dependent on site conditions and shows examples of kW savings at stated water temperature rises. CompAir's energy recovery system offers savings on a wide range of inlet and outlet temperatures. For alternative temperatures please contact your local CompAir representative.

CompAir slices energy costs at bakery

Compressed air is used throughout the production process, 24 hours per day, to help produce over two million bread products every week. Just three months after installing two fixed-speed L110 and one regulated-speed L132RS compressor, along with a heat recovery system from CompAir, a leading supplier of bread products is on target to achieve annual energy savings in the region of £188,000, with a payback on investment in less than two years.

Scan QR code for more details.

CompAir for your industry

CompAir is a brand of Gardner Denver, a global manufacturer of compressors, pumps, blowers and other fluid transfer equipment. CompAir offers compressed air and gas solutions, providing high performance and low operating cost compressors including rotary screw, oil-free, centrifugal, piston and portable units, as well as ancillary products, for a broad range of industries. With a network of sales companies and distributors across all continents, the company offers global expertise with a local service capability.

CompAir policy is one of continuous improvement and we therefore reserve the right to alter specifications and prices without prior notice. All products are sold subject to the company's conditions of sale.

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