

# *Ingersoll Rand*

*Energy Recovery System*



# Benefitting the environment and saving energy costs



Production requires power, and power costs money. Consider that the average price for oil, natural gas, and coal have all increased significantly in recent times and will likely continue to do so. These increases — as well as the global focus on preserving the environment — have driven many businesses to look into new ways to conserve energy.

One of the largest areas of energy consumption within a plant is its compressed air system. Compressor energy costs can account for 10 percent or more of a company's total electricity costs and make up approximately 80 percent of a compressor's total cost of ownership.

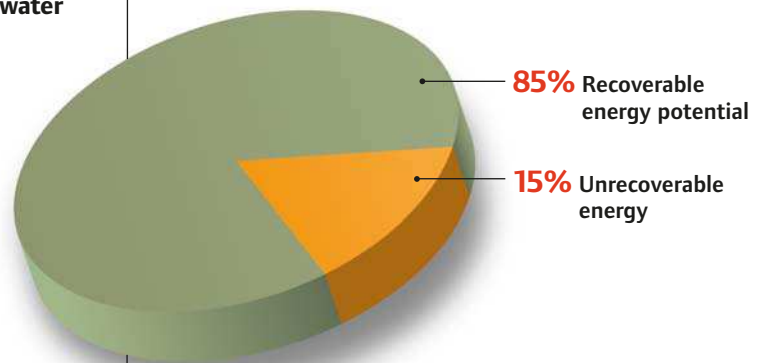
The overwhelming majority of the energy used to run a compressor is converted into heat through the compression process, and this heat is normally left to absorb into the cooling cycle.

The Ingersoll Rand Energy Recovery System (ERS) provides a cost-effective way to reduce your energy bills and benefit the environment by capturing this heat and putting it to work. The Ingersoll Rand ERS coolant-to-water heat exchanger utilizes the thermal energy captured in the compressor coolant to heat water up to 70°C (160°F).

This hot water can be used in a variety of applications, including:

- ▶ **Pre-heated boiler feed water**
- ▶ **Process water**
- ▶ **Wash-downs**
- ▶ **Showers**
- ▶ **Tap water**
- ▶ **Space heating with hot water heaters**
- ▶ **Many other applications that call for warm or hot water**

**Energy flow in typical air-cooled, contact-cooled compressor**



By supplementing your current water heating system with recovered heat, the Ingersoll Rand ERS allows you to significantly reduce your total energy consumption without the addition of any further losses and without compromising compressor reliability in any way.

Contact your local Ingersoll Rand representative for more information on sizing and specifications for the Ingersoll Rand ERS so that you can begin enjoying the associated savings today.

An Ingersoll Rand ERS can be factory-installed or easily mounted in the field



### Potential Annual Savings from Reduction in Total Energy Consumption<sup>†</sup>

#### Electric Water Heater

| Rating kW | hp  | 1 Shift (48 hrs/wk) | 2 Shifts (96 hrs/wk) | Full Time (168 hrs/wk) |
|-----------|-----|---------------------|----------------------|------------------------|
| 90        | 125 | €9,949              | €19,898              | €34,822                |
| 110       | 150 | €12,160             | €24,320              | €42,560                |
| 132       | 175 | €14,592             | €29,184              | €51,072                |
| 150       | 200 | €16,582             | €33,164              | €58,037                |
| 160       | 215 | €17,687             | €35,375              | €61,906                |

#### Natural Gas Water Heater

| Rating kW | hp  | 1 Shift (48 hrs/wk) | 2 Shifts (96 hrs/wk) | Full Time (168 hrs/wk) |
|-----------|-----|---------------------|----------------------|------------------------|
| 90        | 125 | €6,301              | €12,602              | €22,054                |
| 110       | 150 | €7,701              | €15,403              | €26,955                |
| 132       | 175 | €9,242              | €18,483              | €32,346                |
| 150       | 200 | €10,502             | €21,004              | €36,757                |
| 160       | 215 | €11,202             | €22,404              | €39,207                |

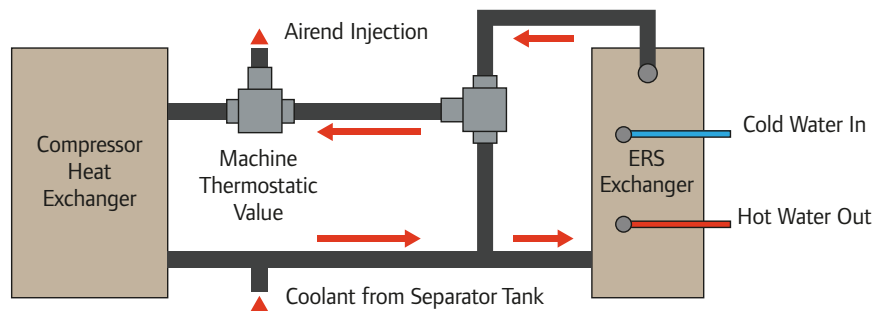
\*Electricity at €0.05 per kWh

†Potential savings calculated by multiplying available heat, compressor run time, and fuel cost, and dividing by water heater efficiency.

\*Natural gas at €0.03 per kWh

#### System configuration

Internally mounted



#### Going green is easier

The Ingersoll Rand global network of more than 1,000 authorised customer centres and distributors is committed to helping you maximise your economic and environmental progress. Our worldwide network of more than 5,000 certified, factory-trained Ingersoll Rand technicians and engineers is constantly looking to support you with innovative and cost-effective solutions that will keep your plant, your profitability, and our environment running at peak performance.

Progress is *greener* with Ingersoll Rand



Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

[air.ingersollrand.com](http://air.ingersollrand.com)

Ingersoll Rand Industrial Technologies  
Swan Lane, Hindley Green  
Wigan WN2 4EZ, UK  
Tel: +44 (0) 1942 257171  
Fax: +44 (0) 1942 254162  
Email: [asgesawebleads@irco.com](mailto:asgesawebleads@irco.com)



Ingersoll Rand compressors are not designed, intended or approved for breathing air applications. Ingersoll Rand does not approve specialised equipment for breathing air applications and assumes no responsibility or liability for compressors used for breathing air service.

Nothing contained on these pages is intended to extend any warranty or representation, expressed or implied, regarding the product described herein. Any such warranties or other terms and conditions of sale of product shall be in accordance with Ingersoll Rand's standard terms and conditions of sale for such products, which are available upon request.

Product improvement is a continuing goal at Ingersoll Rand. Designs and specifications are subject to change without notice or obligation.