

Ingersoll-Rand plc  
Form 10-K  
February 13, 2017  
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2016

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  
1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 001-34400

INGERSOLL-RAND PUBLIC LIMITED COMPANY

(Exact name of registrant as specified in its charter)

Ireland

98-0626632

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer  
Identification No.)

170/175 Lakeview Dr.

Airside Business Park

Swords, Co. Dublin

Ireland

(Address of principal executive offices)

Registrant's telephone number, including area code: +(353) (0) 18707400

Securities registered pursuant to Section 12(b) of the Act:

Title of each class                      Name of each exchange on which registered

Ordinary Shares,                      New York Stock Exchange

Par Value \$1.00 per Share

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES  NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES  NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

[ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting

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company” in Rule 12b-2 of the Exchange Act.:

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES

NO

The aggregate market value of ordinary shares held by nonaffiliates on June 30, 2016 was approximately \$16.4 billion based on the closing price of such stock on the New York Stock Exchange.

The number of ordinary shares outstanding as of February 1, 2017 was 259,508,972.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant’s proxy statement to be filed within 120 days of the close of the registrant’s fiscal year in connection with the registrant’s Annual General Meeting of Shareholders to be held June 8, 2017 are incorporated by reference into Part II and Part III of this Form 10-K.

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INGERSOLL-RAND PLC

Form 10-K

For the Fiscal Year Ended December 31, 2016

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CAUTIONARY STATEMENT FOR FORWARD LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “forecast,” “outlook,” “intend,” “strategy,” “plan,” “may,” “could,” “would,” “will be,” “will continue,” “will likely result,” or the negative thereof or variations thereon or similar terminology generally intended to identify forward-looking statements.

Forward-looking statements may relate to such matters as projections of revenue, margins, expenses, tax provisions, earnings, cash flows, benefit obligations, share or debt repurchases or other financial items; any statements of the plans, strategies and objectives of management for future operations, including those relating to any statements concerning expected development, performance or market share relating to our products and services; any statements regarding future economic conditions or our performance; any statements regarding pending investigations, claims or disputes; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue reliance on our forward-looking statements. You are advised to review any further disclosures we make on related subjects in materials we file with or furnish to the SEC. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties - many of which are beyond our control - as well as potentially inaccurate assumptions, that could cause actual results to differ materially from our expectations and projections. We do not undertake to update any forward-looking statements.

Factors that might affect our forward-looking statements include, among other things:

- overall economic, political and business conditions in the markets in which we operate;
- the demand for our products and services;
- competitive factors in the industries in which we compete;
- changes in tax requirements (including tax rate changes, new tax laws and revised tax law interpretations);
- the outcome of any litigation, governmental investigations, claims or proceedings;
- the outcome of any income tax audits or settlements;
- interest rate fluctuations and other changes in borrowing costs;
- other capital market conditions, including availability of funding sources;
- currency exchange rate fluctuations, exchange controls and currency devaluations;
- availability of and fluctuations in the prices of key commodities and the impact of higher energy prices;
- impairment of our goodwill, indefinite-lived intangible assets and/or our long-lived assets;
- climate change, changes in weather patterns and seasonal fluctuations;
- the impact of potential information technology or data security breaches;
- the strategic acquisition of businesses, product lines and joint ventures;
- and

the possible effects on us of future tax and other legislation (including legislation that may limit or eliminate potential tax benefits resulting from our incorporation in a non-U.S. jurisdiction, such as Ireland).

Some of the significant risks and uncertainties that could cause actual results to differ materially from our expectations and projections are described more fully in Part I, Item 1A “Risk Factors.” You should read that information in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of this report and our Consolidated Financial Statements and related notes in Part II, Item 8 “Financial Statements and Supplementary Data” of this report. We note such information for investors as permitted by the Private Securities Litigation Reform Act of 1995.



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PART I

Item 1. BUSINESS

Overview

Ingersoll-Rand plc (Plc or Parent Company), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality, energy efficiency and comfort of air in homes and buildings, transport and protect food and perishables and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, Thermo King®, American Standard®, ARO®, and Club Car®.

To achieve our mission of being a world leader in creating comfortable, sustainable and efficient environments, we continue to focus on growth by increasing our recurring revenue stream from parts, service, controls, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Business Segments

Our business segments provide products, services and solutions used to increase the efficiency and productivity of both industrial and commercial operations and homes, as well as improve the health and comfort of people around the world.

Our business segments are as follows:

Climate

Our Climate segment globally delivers energy-efficient products and innovative energy services. It includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; energy services and building automation through Trane Building Advantage and Nexia; and Thermo King® transport temperature control solutions. This segment had 2016 net revenues of \$10.5 billion.

Industrial

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes compressed air and gas systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and consumer low-speed vehicles. This segment had 2016 net revenues of \$3.0 billion.

Segment Revenue and profit information and additional financial data and commentary on recent financial results for operating segments are provided in the Results of Operations section in Part II, Item 7. “Management's Discussion and Analysis of Financial Condition and Results of Operations” and in Note 18 to the Consolidated Financial Statements in Part II, Item 8 “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K.

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Products and Services

Our principal products and services by business segment include the following:

Climate

Aftermarket and OEM parts and supplies	Hybrid and non-diesel transport refrigeration solutions
Air conditioners	Indoor air quality
Air exchangers	Industrial refrigeration
Air handlers	Installation contracting
Airside and terminal devices	Large commercial unitary
Auxiliary power units	Light commercial unitary
Building management systems	Motor replacements
Bus and rail HVAC systems	Package heating and cooling systems
Chillers	Performance contracting
Coils and condensers	Rail refrigeration systems
Container refrigeration systems and gensets	Refrigerant reclamation
Control systems	Repair and maintenance services
Cryogenic refrigeration systems	Rental services
Diesel-powered refrigeration systems	Self-powered truck refrigeration systems
Ductless systems	Service agreements
Energy management services	Temporary heating and cooling systems
Facility management services	Thermostats/controls
Furnaces	Trailer refrigeration systems
Geothermal systems	Transport heater products
Heat pumps	Unitary systems (light and large)
Home automation	Vehicle-powered truck refrigeration systems
Humidifiers	Water source heat pumps

Industrial

Compressors (centrifugal, reciprocating, and rotary)	Fluid power components
Air treatment and air separation systems	Installation contracting
Aftermarket controls, parts, accessories and consumables	Power tools (air, cordless and electric)
Airends	Precision fastening systems
Blowers	Pumps (diaphragm and piston)
Dryers	Rental services
Engine starting systems	Rough terrain (AWD) vehicles
Ergonomic material handling systems	Service agreements
Filters	Service break/fix
Fluid handling systems	Utility and consumer low-speed vehicles
Golf vehicles	Visage® mobile golf information systems
Hoists (air, electric and manual)	Winches (air, electric and hydraulic)

These products are sold primarily under our name and under other names including American Standard, ARO, Club Car, Nexia, Thermo King and Trane.

Acquisitions

On January 1, 2015, we completed the acquisition of the assets of Cameron International Corporation's Centrifugal Compression (Engineered Centrifugal Compression) business for approximately \$850 million. The acquired business manufactures centrifugal compression equipment and provides aftermarket parts and services for global industrial applications, air separation, gas transmission and process gas. The acquisition was funded through a combination of cash on hand and debt. The results of the Engineered Centrifugal Compression business have been included in our consolidated financial statements since the date of the acquisition and reported within our Industrial segment.





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On March 4, 2015, we acquired 100% of the outstanding stock of FRIGOBLOCK for approximately €100 million (approximately \$113 million). The acquisition was funded through a combination of cash on hand and debt. The acquired business manufactures and designs transport refrigeration units for trucks and trailers, which it sells primarily in Western Europe. The results of the FRIGOBLOCK business have been included in our consolidated financial statements since the date of the acquisition and reported within our Climate segment.

### Competitive Conditions

Our products and services are sold in highly competitive markets throughout the world. Due to the diversity of these products and services and the variety of markets served, we encounter a wide variety of competitors that vary by product line and services. They include well-established regional or specialized competitors, as well as larger U.S. and non-U.S. corporations or divisions of larger companies.

The principal methods of competition in these markets relate to price, quality, delivery, service and support, technology and innovation. We believe that we are one of the leading manufacturers in the world of HVAC systems and services, air compression systems, transport temperature control products, power tools, and golf, utility and consumer low-speed vehicles.

### Distribution

Our products are distributed by a number of methods, which we believe are appropriate to the type of product. U.S. sales are made through branch sales offices, distributors and dealers across the country. Non-U.S. sales are made through numerous subsidiary sales and service companies with a supporting chain of distributors throughout the world.

### Operations by Geographic Area

Approximately 35% of our net revenues in 2016 were derived outside the U.S. and we sold products in more than 100 countries. Therefore, the attendant risks of manufacturing or selling in a particular country, such as currency devaluation, nationalization and establishment of common markets, may have an adverse impact on our non-U.S. operations. For a discussion of risks associated with our non-U.S. operations, see “Risk Factors – Our global operations subject us to economic risks,” and “Risk Factors – Currency exchange rate fluctuations and other related risks may adversely affect our results,” in Item 1A and “Quantitative and Qualitative Disclosure about Market Risk” in Item 7A. Additional geographic data is provided in Note 18 to the Consolidated Financial Statements.

### Customers

We have no customer that accounted for more than 10% of our consolidated net revenues in 2016, 2015 or 2014. No material part of our business is dependent upon a single customer or a small group of customers; therefore, the loss of any one customer would not have a material adverse effect on our results of operations or cash flows.

### Raw Materials

We manufacture many of the components included in our products, which requires us to employ a wide variety of commodities. Principal commodities, such as steel, copper and aluminum, are purchased from a large number of independent sources around the world. In the past, variability in prices for some commodities, particularly steel and non-ferrous metals, have caused margin pressure in some of our businesses. We have historically been able to adjust pricing with customers to maintain our margins; however, we may not always be able to offset these cost changes with price changes.

We believe that available sources of supply will generally be sufficient for the foreseeable future. There have been no commodity shortages which have had a material adverse effect on our businesses. However, significant changes in certain material costs may have an adverse impact on our costs and operating margins. To mitigate this potential impact, we enter into long-term supply contracts in order to manage our exposure to potential supply disruptions.

### Working Capital

We manufacture products that must be readily available to meet our customers’ rapid delivery requirements. Therefore, we maintain an adequate level of working capital to support our business needs and our customers’ requirements. Such working capital requirements are not, however, in the opinion of management, materially different from those experienced by our major competitors. We believe our sales and payment terms are competitive in and appropriate for the markets in which we compete.

### Seasonality

Demand for certain of our products and services is influenced by weather conditions. For instance, sales in our commercial and residential HVAC businesses historically tend to be seasonally higher in the second and third quarters of the year because this

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represents summer in the U.S. and other northern hemisphere markets, which is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of our business and impact overall results of operations.

**Research and Development**

We engage in research and development activities in an effort to introduce new products, enhance existing product effectiveness, improve ease of use and reliability as well as expand the various applications for which our products may be appropriate. In addition, we continually evaluate developing technologies in areas that we believe will enhance our business for possible investment or acquisition. We anticipate that we will continue to make significant expenditures for research and development activities as we look to maintain and improve our competitive position.

**Patents and Licenses**

We own numerous patents and patent applications, and are licensed under others. Although in aggregate we consider our patents and licenses to be valuable to our operations, we do not believe that our business is materially dependent on a single patent or license or any group of them. In our opinion, engineering, production skills and experience are more responsible for our market position than our patents and/or licenses.

**Backlog**

Our approximate backlog of orders, believed to be firm, at December 31, was as follows:

In millions 2016 2015