Ingersoll Rand at a Glance

Who We Are
Our Commitment
Our Businesses
Our Brands
Ingersoll Rand is passionate about inspiring progress around the world. We share a vision of a better future—a world of sustainable progress and enduring results. We are driven by a purpose to advance the quality of life by creating and sustaining safe, comfortable and efficient environments. Through our people and our market-leading brands, we are committed to helping meet growing, critical needs: the need for clean and comfortable air, secure homes and buildings, safe and fresh food, energy efficiency and sustainable business practices around the globe.

Michael W. Lamach
Chairman and Chief Executive Officer

This brochure contains information on our market-leading products, systems and services, and how they deliver on the needs of our customers. Now more than ever, we are prepared to continue our pursuit of innovation to address unmet needs while establishing Ingersoll Rand as a premier performing company.
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Who We Are

Ingersoll Rand advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results.

Our Commitment

We inspire progress through unleashing the potential in people and technologies to advance the quality of life. By making environments safe, comfortable and efficient, we enable our customers to achieve real progress and create a positive impact in their world.

Our Businesses

Our strong foundation includes businesses with powerful brands, solid reputations and market-leading positions. These businesses are aligned within four global operations—Climate Solutions, Industrial Technologies, Residential Solutions and Security Technologies. Each one of these sectors is composed of one or more of our leading brands.
Our Businesses continued

**Climate Solutions**

Climate Solutions delivers energy-efficient solutions globally and includes Trane, which provides HVAC systems and building services, parts, support and controls for commercial buildings, and Thermo King, the leader in transport temperature control solutions.

**Industrial Technologies**

Industrial Technologies provides products, services and solutions to enhance customers’ productivity, energy efficiency and operations. Products include compressed air systems, tools, fluid power products, and golf and utility vehicles.

**Residential Solutions**

Residential Solutions includes the Trane and Schlage brands, which deliver safety, comfort and efficiency to homeowners throughout the Americas, and has recently expanded into India. With a broad range of products and services spanning energy-efficient HVAC systems, indoor air quality solutions, advanced controls, mechanical and electronic locks, portable security systems and remote home management through Nexia™ Home Intelligence, Residential Solutions helps consumers bring energy efficiency, reliability and comfort to their homes.

**Security Technologies**

Security Technologies supplies global leading commercial security products and services. The segment’s market-leading products include electronic and biometric access control systems; time-and-attendance and personnel scheduling systems; mechanical locks; portable security; and mechanical and electronic security products such as door closers, exit devices, architectural hardware, and steel doors and frames.
Our Well-Known Brands

Ingersoll Rand is a diversified industrial manufacturer with market-leading brands serving customers in global commercial, industrial and residential markets. Our family of brands includes well-known names, such as those listed here, and dozens of highly regarded regional brands serving a variety of market segments.

- Industry-leading golf cars and utility, transportation and rough-terrain vehicles

- Air compressors, air treatment equipment and compressed air systems
- Tools, fluid pumps, material-handling equipment and air motors
- Parts, accessories and comprehensive services

- Residential and commercial mechanical locks and deadbolts
- Patented key systems, online, offline and wireless electronic locking systems, and remote home management

- Transport temperature-control units for trucks, trailers, railcars and seagoing containers
- Heating, ventilation and air-conditioning systems for buses and passenger railcars
- Electric and engine-based auxiliary idle reduction and temperature-management systems for sleeper compartments in tractor cabs

- The most extensive line of heating, ventilation and air conditioning (HVAC) systems in the industry, from large chillers to packaged rooftop units, supported by a comprehensive portfolio of service agreement solutions—with a chain of Trane HVAC parts and supplies centers
- User-tested and proven building automation controls for better HVAC system regulation and better building performance
- Leading provider of advanced heating, cooling and indoor comfort systems for residential environments with national distribution through an expert network of about 10,000 independent dealers
- Accredited Energy Services Company (ESCO)
Environmental Product and Service Innovation

Through our products and services, Ingersoll Rand helps companies become more efficient, innovative and successful.

By approaching product stewardship and innovation in a holistic manner we enable businesses around the world to reduce energy consumption, reduce the use of raw materials and water, and reduce or eliminate waste and harmful emissions.

We embed sustainability into the innovation and design processes to drive product development around world-class energy efficiency and environmental design.

Our approach to product stewardship includes the strategic use of full life-cycle analyses to determine the areas of greatest impact; a product-level sustainability index that represents the degree to which environmental factors across the full life cycle of the product have been addressed in the design process; and a design checklist which requires the consideration of several environmental indicators at each stage of the new product development process.

For more information on how Ingersoll Rand is helping businesses contribute to economic, social and environmental progress, please refer to our Sustainability Report on our web site, www.ingersollrand.com.

“Our greatest contribution to fighting climate change is innovation—creating new products and services to help our customers reduce their energy use and greenhouse gas emissions.”

Michael W. Lamach
Chairman and Chief Executive Officer
Climate Solutions

Section 1
Climate Solutions

Transport Solutions

Key Markets and Industries
Refrigerated Transportation of Temperature-Sensitive Products
Mass Transit and Public Transportation Climate Control
Local and Long-Haul Temperature-Controlled Transport
Long-Haul Ground Transportation
Refrigerated Ocean Transportation
Idle Reduction Systems for Tractor Cabs

- Providing climate control solutions for transportation industries worldwide
- The global leader in refrigerated transport since 1938
- Cutting-edge technologies for increased efficiency and reliable results
- Industry-leading product quality and reliability
- Innovative product designs and service solution packages
- Providing the ultimate in performance and flexibility
- Quality-engineered products backed by a worldwide team of factory-trained experts

thermoking.com

continued
Industrial Refrigeration

Key Markets and Industries
Distribution Centers and Storage
Food Processing
Blast Freezers
Process Cooling
Pharmaceutical
Design and Build Refrigeration

▶ Single-source provider for all critical temperature projects
▶ Industry-leading refrigeration products and services
▶ More than 40 years of experience with commercial and industrial projects
▶ Extensive sales and service support

industrialrefrigeration.ingersollrand.com

continued
Ingersoll Rand at a Glance

Commercial HVAC Systems and Services

Key Markets and Industries
Healthcare
Education
Commercial
Retail
Manufacturing
Data Centers
Pharmaceuticals
Biomedical Laboratories
Commercial Office
Government

- The most extensive line of HVAC systems in the industry, from large chillers to packaged rooftop units
- Trane EarthWise high-efficiency, low-emission systems deliver sustainable performance for better indoor air quality, acoustics and occupant comfort
- User-tested and proven Tracer building automation controls mean better HVAC system regulation and better building performance
- A comprehensive portfolio of service agreement solutions control cost, reduce risk and maximize equipment life
- Trane High Performance Buildings, a comprehensive approach designed to make buildings’ systems operate at peak efficiency, enables building owners to see a real improvement to their bottom line
- Trane LEED® accredited professionals help customers meet energy and environmental goals
- Trane HVACR parts and supplies centers for the right parts with the right advice

trane.com
Transport Solutions

**Trailer, Truck and Rail Diesel-Powered Temperature Control Systems**
- Whisper-quiet operation
- Lower fuel consumption for reduced operating costs
- Low-maintenance units save time and money
- Flexible system solutions provide single and multi-temperature capabilities allowing mixed load transportation
- Technologically advanced microprocessors self-monitor and self-troubleshoot to ensure unmatched temperature precision with fewer breakdowns
- Engines meet all Environmental Protection Agency requirements for emissions

**Cryogenic Temperature-Control Systems for Trailers and Trucks**
- Lowest environmental impact refrigeration system
- No cumulative global warming effect from refrigeration
- Fueled by recycled liquid CO2 for temperature control
- Ideal for distribution services requiring precise temperature control, rapid pull-down and temperature recovery
- Exceptionally low operating noise

**Vehicle-Powered Truck Refrigeration Systems**
- Temperature-control solutions for delivery trucks and vans
- Flexible systems to fit any application, from frozen to fresh
- Fast pull-down and accurate temperature control
- Low cost of operation
- Start-stop on engine operation with electric standby option
- Compatible with hybrid vehicles

**Containers and Gensets**
- Industry’s lowest energy consumption, highest capacity and fastest pulldown
- Only unit in the market that maintains a -35 °C set point
- Available AFAM+ atmosphere management option provides for extended product shelf life
- Generator sets meet Tier II emissions requirements with reduced CO2 emissions

Consult your sales agent for local availability of specific products
Transport Solutions continued

**Bus and Rail HVAC**
- Environmental control systems allow for total control of temperature, humidity, ventilation and circulation
- Low-profile design enhances vehicle appearance
- Lightweight, one-piece design allows easier installation and maintenance
- Control temperature year-round with heating and cooling systems unmatched in quality and performance
- Zero-emission, all-electric HVAC systems available

**Hybrid and Electric Auxiliary Idle Reduction and Temperature Management Systems**
- Eliminates truck engine idling, thereby reducing fuel consumption and saving money
- California Air Resources Board compliant diesel particulate filter further reduces emissions
- Hybrid model provides sleep cab heating, air conditioning, auxiliary power, battery charging and truck engine preheating
- Helps drivers comply with increasing number of anti-idle laws
- Environmental benefits include reduced emissions, less noise and less waste from oil and filter changes on tractor engines

**Aftermarket Parts and Service**
- 24/7 parts shipments and mobile service to maximize uptime and convenience
- A complete selection of parts, options and accessories for optimal performance
- Centralized billing and guaranteed maintenance plans to save time and money
- Fixed-rate maintenance and service terms simplify budget and cost control

Consult your sales agent for local availability of specific products.
Industrial Refrigeration

Insulated Thermal Panels
- High-quality expanded polystyrene (EPS) materials used to create internal or external temperature-controlled space
- Materials constructed based on project design specs
- Ensures product integrity for temperature-sensitive products

Refrigeration Systems
- High-efficiency systems reduce overall energy costs
- Products designed for specific needs from small condensing units to large capacity systems
- Freon and ammonia applications

Coils and Condensers
- Heat transfer and refrigeration products, including evaporators and condensers
- Industry-leading design and reliability
- Product selection from low velocity for walk-ins to high capacity evaporators for large food processing facilities

Evaporative Condensers
- Preferred heat of rejection method for large refrigeration systems combining superior water delivery and coil technology
- Patented spray nozzle technology providing clog-free operation

Integrity Audits
- Expertise in analysis and inspection of equipment performance and reliability
- State-of-the-art detection and monitoring equipment
- Knowledge of current environmental, safety and health and Environmental Protection Agency standards and guidelines
- Refrigeration and air compressor rebuilds

Consult your sales agent for local availability of specific products
Installation, Service and Maintenance

- Highly trained team of professionals
- 24/7 call center to monitor and dispatch emergency response
- Reduces operating costs by maintaining equipment at peak operating performance

Design Engineering and Consulting

- Trained to understand the full scope of project requirements
- Turnkey responsibility for project-specific engineering, refrigeration design, architectural engineering and permitting
- Project management to ensure on-time schedules and deliveries to reduce unforeseen project costs

Environment Management System (EMS)

- Patented surface and air sanitation technology* that destroys various bacteria, fungi, and viruses in the air and on surfaces
- System components include: environmental testing/sampling, food safety consulting/education, equipment, design and installation, and after sale support/performance management
- Benefits vary across each step of the supply chain and include: reduced food safety risk, increased shelf life of fresh fruits and vegetables, reduced shrink, and continuous operation with no human intervention as a supplement to existing HACCP programs

* Licensed under protection of one or more US patents

Consult your sales agent for local availability of specific products.
Commercial HVAC Systems and Services

**Chillers**
- Extensive line of chillers, ranging from 20 – 3,950 ton capacity, utilizing centrifugal, rotary or scroll compressors
- Trane EarthWise™ CenTraVac® Chillers – since 1938, Trane has set the global standard for reliability and energy efficiency with the lowest possible operating costs
- Trane Series R™ water-cooled chillers – a low speed/direct drive compressor features higher full-load energy efficiency and proven performance
- Trane air-cooled chillers – highly energy efficient and easy to install, with the application flexibility to meet a wide variety of system needs

**Unitary Systems**
- Large commercial rooftops utilizing air cooled condensers from 20 – 150 tons, and evaporative condensing units up to 162 tons. Trane IntelliPak™ units are among the most flexible units in the industry.
- Light commercial rooftop units from 3 – 25 tons. These units are available as heat pumps, cooling only or cooling with gas heat, in both standard and high efficiency models. In the 3-5 ton range, Trane offers a 17 plus SEER unit, utilizing 2 stage compressors
- A complete line of water source heat pump units for use with tower loop systems or geothermal systems. Horizontal and vertical units, console, vertical stack, rooftop and water to water units ranging from ½ ton to 25 tons depending on unit. Trane also has the first AHRI rated water source heat pump to utilize variable speed compressors
- Large Commercial Split Systems from 20 – 120 tons
- Light commercial condensing units from 6 – 20 tons in heat pumps or cooling only, as well as a 25 ton cooling only condensing unit
- Signature line of commercial self contained units from 20 – 110 tons with both air and water cooled condensers. The modular commercial self contained units from 20 -35 tons are ideal for the replacement market
- Trane also offers vertical self contained units from 3 – 15 tons, with integral air cooled, water cooled or remote air cooled condensers
Ingersoll Rand at a Glance

Consult your sales agent for local availability of specific products

Commercial HVAC Systems and Services continued

Airside and Terminal Devices

- Full spectrum of air handlers, from a 1,500 cfm cataloged air handler to a 200,000 cfm custom air handling system
- Trane Performance Climate Changer™ – the most energy-efficient air handling unit in the HVACR industry
- Trane CDQ™ (Cool, Dry, Quiet) – desiccant dehumidification system, for critical humidity control and quiet air handling to support healing environments
- Energy-efficient, direct-drive plenum fans and fan arrays
- Trane Catalytic Air Cleaning System (TCACS) air cleaning solutions
- Airflow measuring options, including Trane Traq™ dampers and fan piezometers
- Terminal products – a full portfolio to suit all cooling, heating and air conditioning needs in single zone spaces

Controls

- Controls that integrate building systems enabling better decision making, providing easy integration and compatibility, and offering sustainable performance
- AdaptiView™ – provides building engineers a virtual view into a chiller’s inner workings
  Added visibility helps keep building occupants cool and critical processes operational
- Tracer™ enterprise solutions – a web-based systems integration solution that gives facility managers an online, enterprise-wide view of all their buildings and systems, from any PC on the network
  Fully customizable, easy to install and lets users perform daily operations such as online scheduling, alarm management, troubleshooting, status updates and data analysis
- Tracer™ XT – a software solution that provides a powerful approach to integrating data from stand-alone systems—HVAC, power, lighting, safety and more—into a common single user interface
- Wireless zone sensors – ideal for building owners who want installation flexibility and comfort control
  Flexible, easy-to-install, can be easily mounted anywhere in the building and readily relocated to meet the ever-changing space configurations of buildings
- Critical hospital systems dashboard – a computer-based tracking tool that allows hospital administrators and facility engineers to continuously view, monitor, track, trend and report environmental conditions in all critical areas from a single location
- Controls capability to continuously view, monitor, track, trend, and compare conditions across multiple buildings to identify best-in-class efficiencies
Building Services

- Start-up services – ensure new product purchases are properly installed and operating at optimal performance
- Warranty services – provide additional coverage on maintenance, parts and labor, above and beyond standard terms
- Trane Intelligent Services – monitor 24/7/365 for critical alarms and events, while technical specialists perform remote diagnostic, mitigation and remediation using state of the art automated system performance analytic tools
- Service agreements – available for new and existing equipment and controls to cover scheduled maintenance, select components and total system performance
- National service – deliver comprehensive maintenance, repair and managed services for businesses with multiple locations across North America
- R’newal™ Services – restore the performance of HVAC equipment and controls to the same level of reliability as when new, including current technology enhancements
- Energy retrofit services – improve infrastructure systems on aging buildings through targeted retrofit improvements that reduce energy costs
- Turn-Key contracting – a “start-to-finish,” all-encompassing approach to optimizing building infrastructure and equipment
- Performance contracting – create “self-funded” solutions for building owners by installing highly efficient systems that significantly reduce energy and operating costs
- Rental Services – temporary cooling, heating and power for emergency or planned outage situations

HVAC Parts and Supplies

- Trane Parts Stores carry a wide range of repair and replacement items from a variety of manufacturers, including all Trane and American Standard air conditioning products
- HVAC systems advice and expertise
- Nationwide coverage with a Trane Parts Store within 20 minutes of any major construction site

High Performance Buildings

- Trane High Performance Buildings is a comprehensive outcome-based approach that addresses the many integrated factors that contribute to an organization’s success and helps them realize their mission through better building performance
- Trane creates high performance buildings using a unique methodology that combines financial, operating and energy analysis with specialized services and available financing
- Trane High Performance Buildings consider and use current and emerging technologies and best practices such as renewable energy sources to achieve and hold standards

Consult your sales agent for local availability of specific products
Industrial Technologies

Compressed Air

Key Markets and Industries

- Air Separation
- Chemical Processing
- Electronics
- Food and Beverage
- General Manufacturing
- Industrial Machinery
- Iron and Steel
- Mining
- Motor Vehicle Industry
- Oil and Gas Drilling
- Pharmaceutical
- Power Generation
- Pulp and Paper
- Textiles
- Utilities
- Vehicle Services
- Wastewater Treatment

Power, finesse, ruggedness, precision – for more than 140 years these have been the characteristics that describe Ingersoll Rand’s compressed air equipment. Around the globe and across all industries, our compressed air systems are hard at work enhancing the safety, productivity, efficiency and profitability for our many and varied partners. Whatever the industry, Ingersoll Rand has the right solution.

- Wide range of technologically advanced, highly reliable air compressors for light industry to the largest manufacturer
- Complete air systems including a full line of air treatment equipment, system controls, and installation accessories
- Critical parts and basic labor to maintenance plans, system optimization and comprehensive system design available 24/7 through a global network

ingersollrandproducts.com

continued
Tools, Fluid, Material Handling, Engine Starters and Air Motors

Key Markets and Industries

Aerospace                      | Motor Vehicle Industry
Chemical Processing           | Oil and Gas Drilling
Electronics and Computers     | Pharmaceutical
Food and Beverage             | Printing and Paper Production
Furniture and Fixtures         | Shipbuilding and Repair
General Manufacturing          | Textiles
Industrial Machinery          | Vehicle Services
Iron and Steel                | Warehousing
Medical Systems               | Wastewater Treatment
Mining                        | Woodworking

- Tools – Service technicians and industry crew workers around the globe reach for the power and reliability of Ingersoll Rand tools. Advanced engineering and innovation make our tools the benchmark for productivity, durability, safety and award-winning design.

- ARO Fluid Products – known for reliably moving fluids of all types. ARO branded fluid products do everything from mixing chemicals to dispensing paint.

- Material Handling – equipment such as trolleys, hoists and winches used to lift, lower, position and move parts and products of all shapes and sizes safely.

- Engine Starters and Air Motors – When jobs call for optimum performance and long life in an engine starter, Ingersoll Rand has leading solutions for the marine, oil and gas, power generation, mining and rail industries. That same excellence can be found in our air motors – the sheer power alternative to electrical sources.

ingersollrandproducts.com

continued
### Club Car®

#### Key Markets and Industries

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<th>Education</th>
<th>Farms/Ranches</th>
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<tbody>
<tr>
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<td>Government/Municipalities</td>
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<tr>
<td>Hobby Farmers</td>
<td>Homeowners with Acreage</td>
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<tr>
<td>Hunters</td>
<td>Multi-Family Housing</td>
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<td>Resorts and Hotels</td>
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- Global leader of golf, utility and transportation vehicles
- Innovative technology including the Precedent golf car, IntelliTrak™ automatic 4-wheel drive, IntelliTach tool attachment system, the Excel™ drive system for programmable electric vehicles, and the Visage™ Mobile Golf Information System
- Unique aluminum vehicle construction guarantees higher return on investment, longer life and better efficiency
- Industry-leading custom solutions department designs custom vehicles for specific applications

[clubcar.com](http://clubcar.com)
Compressed Air

Small Reciprocating Air Compressors
- Wide range of portable and stationary compressors in gas, electric and high pressure models from 1-22 kW (2-25 hp)
- High quality components and cast iron construction for superior durability
- Legendary reliability in any environment

Rotary Screw Air Compressors
- Oil-free and contact-cooled compressors available in sizes from 2.2-300 kW (3-400 hp) to meet varied needs for air quality
- Precision rotors available with hybrid permanent magnet motors and variable speed drives to maximize efficiency
- Web-enabled controls available to allow for easy system monitoring

Centrifugal Oil-Free Air Compressors
- A leader in rugged, oil-free centrifugal technology since 1912
- Best in class efficiency with flow rates ranging from 82-850 m³/min (1,300-30,000 cfm)
- Superior design with fewer moving parts for maximum reliability
- Intuitive, web-enabled controllers make management simple and convenient

High Pressure Oil-Free Air Compressors
- Customizable centrifugal and reciprocating models ranging from 13-113 m³/min (471-4,000 cfm) to meet any demand
- Robust construction with stainless steel components and minimal moving parts reducing required maintenance
- 100 percent oil-free air with full ISO Class 0 certification

Low Pressure Blowers
- L-Series low pressure oil-free rotary screw compressor available in flow rates from 10-26 m³/min (370-930 cfm)
- Extreme reliability for vital applications in demanding environments
- Stainless steel components and UltraCoat™ rotor coating protect against wear and maximize efficiency
Compressed Air continued

Rotary Screw OEM Solutions
- Oil-free and oil-injected airends and components for OEM packagers of industrial, portable and specialized air compressors
- High-pressure applications up to 500 psi
- Aftermarket and component solutions
- Discharge equipment for bulk tanker trucks

Air System Components, Parts and Accessories
- Dryers – full range of dryers from refrigerated to desiccant to heat-of-compression for removing moisture from compressed air
- System Controls and Automation – equipment and software to connect, control and communicate with multiple compressors and system components, enhancing system efficiency and providing intuitive, remote, web-based visualization
- Condensate and Filtration Management – drains, separators and filters available to remove air system contaminants and separate water and oil
- Power Management – bolt-on VFDs to improve compressor efficiency and a full range of disconnects, fuses, transformers and reactors to optimize power quality
- Installation Solutions – SimplAir® air piping, couplings and receiver tanks designed to safely deliver clean, dry air from compressor to point of use

Compressed Air System Services
- Worldwide network of certified, factory trained technicians and engineers provide innovative and cost effective solutions to keep you running at peak performance
- Committed to serving you 24 hours a day, 7 days a week no matter where your facility is located

Consult your sales agent for local availability of specific products
Compressed Air continued

**PackageCare™**
- Control costs and keep your equipment running at peak efficiency
- Comprehensive service agreement which controls costs and keeps compressed air equipment running at peak efficiency for the long term
- Protect against all repair and replacement expenses over the life of the agreement
- Maintain or improve the operational efficiency of any compressor, regardless of age, make or model
- Ensure long-term value and total satisfaction from your system

**UltraCare**
Five-year, all-in-one maintenance program for rotary and centrifugal compressors and air dryers helps keep compressed air systems running at maximum efficiency 24 hours a day, 7 days a week.
- 5-year warranty
- One price covers all
- Energy savings through efficient operation
- Minimized risk of breakdown
- Fixed costs over five years
- Extendable contract

Consult your sales agent for local availability of specific products.
Tools, Fluid, Material Handling, Engine Starters and Air Motors

Services Tools
- Complete line of Impactools™, ratchets, drills, drivers and surface preparation tools to meet all needs
- Complete offering of professional-grade cordless tools and kits for use in a variety of applications including garages and the Vehicle Service industry

Industrial Tools
- Wide range of Impactools™, surface finishing and construction tools for product and maintenance applications
- Ergonomically designed for increased productivity and safety
- Most advanced tools of their type in the world for the size, weight and power output

Assembly Tools
- Air and electric screwdrivers, nut runners, drills and accessories for all types of assembly
- Products deliver the best torque accuracy in the industry, with award-winning ergonomic designs
- Full range of torque verification and calibration equipment to ensure accurate performance

Precision Fastening
- Precision air and electric assembly equipment and fastening control systems for consistent and precise tool performance
- Superior user-oriented ergonomics and process control for reliability
- Custom configurations and engineering available to meet unique needs

Engine Starters and Air Motors
- Leading provider of air starting systems and air motors for the marine, oil and gas, power generation, mining and transportation industries
- Flexible and efficient alternative to electric starters

Consult your sales agent for local availability of specific products
ARO Diaphragm Pumps
- Patented unstallable air valve and quick-dump exhaust valves allow for ice-free operation and maximum operating efficiency
- Multiple materials of construction for chemical compatibility and flow rates ranging from 17.4-1,041 L/min (4.6-275 gpm)
- 5-year warranty for reliability

ARO Piston Pumps and Packages
- Pumps for fluid viscosities ranging from 500-1,000,000 cPs including oils, paints, inks, sealants, caulking and more
- Multiple package seal options, including leather, UHMW-PE and PTFE for chemical compatibility
- Optional ultra-coating for tubes and plungers reduces abrasion and scoring

ARO Lubrication Equipment
- Piston and diaphragm pumps and packages specifically designed to handle all types of oil, grease, and specialty-type fluid applications
- Specialty pumps for antifreeze/water mixing, solvents transfer, calcium chloride tire fill and high-pressure wash
- Diaphragm pumps meet U.L. 79 specification code for fuel related applications

ARO Filters, Regulators and Lubricators (FRL’s)
- Best-in-class air flow with flow rates from 0.9-50 m3/min (32-1,770 scfm)
- Modular design for 1000 – 3000 series facilitates easy installation and maintenance
- Positive thumb-locking switch on polycarbonate bowls for enhanced safety

ARO Pneumatic Valves and Cylinders
- Valves with flow rates up to 7.8 Cv (280 scfm) and cylinders with stroke lengths up to 250 mm (99”)
- 2-, 3- and 4-way valves with electrical, manual, mechanical and pneumatic actuators and various body styles to fit all applications
- NFPA interchangeable, round repairable and disposable, square and round compact cylinders to accommodate different environments

Consult your sales agent for local availability of specific products
Ingersoll Rand at a Glance

Tools, Fluid, Material Handling, Engine Starters and Air Motors continued

**Air, Electric and Hydraulic Utility Winches**
- Available in a wide range of capacities from 300-10,000 kg (660-22,000 lbs)
- Top reliability with our Liftstar®, Pullstar®, BU, EU, Force 5® Third Generation and Infinity winch series
- Lifting, pulling and positioning applications for the world’s toughest industries

**ManRider Winches**
- Available in capacities from 150-3,125 kg (330-6,875 lbs)
- LS2-150RLP, FA150KGi, Force 5® Third Generation and Infinity winch series ensure your personnel gets lifted safely
- Meeting the toughest personnel lifting requirements in the offshore industry

**Balancers and Air, Electric and Hydraulic Hoists**
- Balancers, CLK, MLK, HLK, ARO, Quantum, Liftchain®, Hercu-Link® and BOP Handling Systems can handle load capacities from 0.12-200 tons
- Air balancers with float to position load by hand for precision spotting
- Hoists for high-speed production, food grade applications and the harshest industrial, underground and marine environments

**Manual Hoists**
- Manual and lever chain hoists from 0.5-25 ton capacity
- Overload protection to reduce downtime and repair costs
- Versatility to be used in construction, maintenance and rigging applications

**Workstation Bridge and Jib Cranes (Support Structures)**
- Overhead and floor supported enclosed track workstation cranes with <1 percent rolling resistance and articulation for maximum ease of use
- Standard low profile enclosed track rail jib cranes with 220 and 360 degree coverage
- Standard and custom applications with bridge cranes up to 1,360 kg (3,000 lbs) and jib cranes up to 907 kg (2,000 lbs)

Consult your sales agent for local availability of specific products
Handling Devices
- Custom and standard solutions and devices including clamping, vacuum, probing rotary action handlers and hook/trap action to overcome your material handling challenges
- Vacuum load capacities from 27-136 kg (60-300 lbs) and clamp load capacities from 27-45 kg (60-100 lbs)

Material Handling Parts and Accessories
- Trolleys, hooks, chain, chain buckets and wire rope for smooth and reliable operations
- Air preparation kits – filter, regulators, lubricators and a variety of other components available to get your installation up and running at peak performance

Tools Parts and Accessories
- Air line accessories, ergonomic accessories and attachments – durable and reliable accessories that help you perform your job more efficiently.
- Consumables and tune-up kits - genuine Ingersoll Rand parts provide durability and keep tools running at peak performance

ARO Fluid Parts and Accessories
- Controls, inlet/outlet, mounting and filter accessories – controls and accessories available for a wide range of applications to accommodate your specific needs
- Service kits – high quality air and fluid section service kits and EXP retrofit kits help maintain pump quality and performance

Consult your sales agent for local availability of specific products
Club Car

Commercial and Industrial Utility Vehicles

- Industry exclusive aluminum frame is rustproof, corrosion resistant and up to three times stronger than competitors’ steel frames
- Longest warranty in the industry minimizes your cost of ownership
- Adaptable for accessories, making almost any job possible

Custom Solutions

- Vehicle solutions limited only by the imagination of your customers
- Industry’s only design and manufacturing center dedicated to building application-specific vehicles and accessories, backed by a full factory warranty
- From ambulance units and security vehicles to van boxes and customized work vehicles — if you imagine it, Club Car can build it

Food and Beverage Vehicles

- Take highly profitable items directly to the customer by adding wheels to your food and beverage operations
- Easy to maintain and economical to operate
- Superior reliability combined with improved storage and merchandise displays mean maximum return on your investment

Golf Cars

- Club Car Precedent models represent the ultimate in dependable performance, advanced engineering and refinement on the golf course.
- The exclusive Excel™ Drive System offers customized programming, enhanced efficiencies and greater vehicle control.
- The innovative Visage™ Mobile Golf Information System provides touch screen amenities for golfers as well as fleet management capabilities for the golf course.
- DS and Precedent models feature an all-aluminum, rust-proof chassis for durability

Consult your sales agent for local availability of specific products

Ingersoll Rand at a Glance 2.11
Industrial Solutions

Club Car continued

Private Golf and Community Vehicles
- Stylish, comfortable vehicles designed for golf and community use
- Available in a variety of models and packages offering the ultimate in comfort, style and affordability
- Available features include enclosures, light packages and lockable compartments for added comfort and luxury

Rough Terrain Utility Vehicles
- Models available in 2-wheel drive, 4-wheel drive; 2-passenger and 4-passenger configurations; and choices of gasoline, electric or diesel power trains
- Built for extreme expectations
- The exclusive IntelliTrak™ drive system makes Club Car the easiest-to-use 4x4 you can buy, featuring automatic 4-wheel drive, automatic high/low gearing, and automatic front and rear differential lock
- The exclusive IntelliTach quick-change, fully hydraulic tool attachment system allows for quick and effortless attaching and detaching of a variety of tools, including: buckets, blades, push brooms, pallet forks and mowers

Transportation Vehicles
- Available in efficient gas or electric models for flexibility
- Suspension design ensures a smooth quiet ride, maximizing customer satisfaction
- Models available for seating 4-8 people with and without cargo

Turf Utility Vehicles
- Industry exclusive aluminum frame is rustproof, corrosion resistant and up to three times stronger than competitors’ steel frames
- Available in efficient gas or electric models for flexibility
- Most maneuverable vehicle in the industry helps prevent costly turf damage
- IQ Plus System delivers best-in-class performance and simplified vehicle management to provide the most advanced electric utility vehicle solution on the market today

Consult your sales agent for local availability of specific products
Residential Solutions

HVAC Systems

Key Markets and Industries
Homeowners
Residential Home builders
Multi-Family Housing
Independent Dealers
Light Commercial Buildings
Retail

- A leading provider of premium heating, cooling and indoor comfort systems for residential and light commercial environments in North America
- Marketed under two premium brands—Trane® and American Standard® Heating and Air Conditioning
- Full line of high-quality, energy-efficient air conditioners, heat pumps, furnaces, air handlers, thermostats, parts and service
- Distributed through an expert network of about 10,000 leading independent dealers who assess specific needs, recommend solutions and install systems to optimize homeowners’ lifestyle and comfort needs
- Demonstrated indoor air quality leadership—the breakthrough CleanEffects™ and AccuClean™ are the industry’s most effective whole house air filtration systems, removing more allergens, pollutants and viruses from filtered air than any other system
- Innovative and award-winning broad product line, fitting needs of single-family and multi-family market

trace.com
americanstandardair.com

continued

Consult your sales agent for local availability of specific products
Residential Security

Key Markets and Industries
Homeowners
Residential Home Builders
Multi-Family Housing
Big-Box Retailers

- Creating and sustaining safe, secure and efficient home environments for residential buildings
- Schlage has built a legacy of providing the highest level of security to homes and businesses
- Install a Schlage, and you install nearly a century of total dedication to security, quality and innovation
- Key trade and consumer publications consistently acknowledge Schlage’s reputation as a leader in home security design and innovation
- While mechanical door locks are still the mainstay at home, Schlage today offers a wide selection of mechanical and electronic security products and accessories designed to mesh with modern lifestyles
- Schlage introduced cutting-edge technology with the Nexia™ Home Intelligence home automation system, where you can control access to your home via your cell phone, tablet or computer

schlage.com
nexiahome.com

Consult your sales agent for local availability of specific products
Connected Home Solutions

Key Markets and Industries
Homeowners
Residential Home Builders
Big-Box Retailers
Consumer Electronic Retailers
Integrators
Cable Companies
Telco Companies
Security Companies

▶ Enables consumers/homeowners to control their home remotely from their computer, tablet or cell phone complementing our increasingly mobile lifestyle
▶ Constructing a new world of communication and control as well as recurring revenue streams
▶ Affordable home management with top brand names like Schlage, American Standard® Heating and Air Conditioning, and Trane
▶ A scalable solution allowing homeowners to add on and customize as their needs change
▶ Providing tools to monitor and reduce energy consumption
▶ Offering homeowners tools for convenience, control and peace of mind

nexiahome.com
HVAC Systems

Air Cleaners
- Trane and American Standard breakthrough whole house air filtration systems are 100 times more effective than a standard 1 inch filter, delivering cleaner air and more of it with performance verified by professors from the Harvard School of Public Health
- Removes up to 99.98 percent of airborne allergens

Air Conditioners
- Trane and American Standard air conditioners range in efficiency from 13 – 20 SEER and are designed to meet rigid specifications, tested to assure excellent performance over the life of the system, and designed with state-of-the art technology and innovation
- Highest efficiency units feature self-charging technology to assure maximum performance and reliability

Air Exchangers
- Trane and American Standard Energy Recovery Ventilators replace stale indoor air with fresh outdoor air for a healthier home environment
- Retain heat and moisture from exchanged air in winter, and pre-condition and dehumidify incoming air in the summer for enhanced comfort and year-round efficiency

Air Handlers
- Trane and American Standard air handlers represent the ultimate in comfort, while quietly distributing air evenly in every room. Also provides further fine tuning with humidity control in the cooling season.
- The Hyperion™ and ForeFront™ cabinet designs feature fully enclosed foam insulation and reduced air leakage, minimizing energy loss and increasing efficiency. An all-aluminum coil means longer system life and less chance of refrigerant leaking into the atmosphere.

Consult your sales agent for local availability of specific products
HVAC Systems continued

**Furnaces**
- Trane and American Standard furnaces are available in highly efficient gas and oil models, including one of the most efficient furnaces enabling up to 96.7 percent AFUE
- Fully modulating furnaces, Trane XC95m and American Standard Platinum ZV, deliver up to 95 percent AFUE, with ComfortLink™ II and AccuLink™ communicating technology connecting all of the key system components for enhanced performance, efficiency, comfort and reliability

**Heat Pumps**
- Trane and American Standard heat pumps are designed to deliver reliable, energy efficient heating and cooling for all-season comfort with up to 19 SEER and 9 HSPF
- ComfortLink™ II and AccuLink™ communicating technology on select models connects all of the key components so the system automatically charges, configures and calibrates for optimal performance, efficiency, comfort and reliability

**Humidifiers**
- Trane and American Standard humidifiers help alleviate dry conditions which may aggravate asthma and allergy symptoms while enhancing your comfort by adding just the right amount of moisture into the conditioned indoor air

**Packaged Heating and Cooling Systems**
- Trane and American Standard packaged products deliver superior design leading to measurable energy efficiency, and are considerably quieter than other packaged products on the market.
- Gas/electric and heat pump models offer some of the highest efficiencies on the market today
- The variable-speed blower motor operates more quietly and efficiently than conventional blowers

**Thermostats and Controls**
- Trane and American Standard 7-day programmable and non-programmable digital thermostats offer precise temperature control, ease of use, flexibility, energy savings, and an attractive streamlined design
- ComfortLink™ II and AccuLink™ Platinum ZV high definition touchscreen controls offer a central planning center for the home including live weather information, and powerful zoning and scheduling options

Consult your sales agent for local availability of specific products
Residential Security

**Mechanical Security**
- Residential locks and door hardware
- Industry-leading retail brand
- Most preferred and used brand with residential builders and remodelers
- High quality, easy installation

**Keypad Locks and Deadbolts**
- Convenient keyless access; no keys to hide, lose or forget
- No programming required; preset with two unique user codes
- Allows you to add, change or delete user codes in seconds
- Premium 9-volt battery included; low-battery indicator alerts you to change the battery
- Fits most standard door preparations; no additional mounting holes required
- Can be installed with just a screwdriver in less than 30 minutes
- Illuminated, wear-resistent keypad provides easy visibility even at night
- Two keys included for use as needed

**Programmable Electronic Deadbolts**
- Features time and date controlled access
- User-friendly Security Management System Express software from Schlage
- Vandal-resistant, free-spinning deadbolt turn
- Audit trail reports up to 1,000 events
- Supports up to 1,000 users
- Eight time zone capability
- Uses ibutton credential

**Dexter**
- The best grade 3 security you can buy
- Best warranty in grade 3 class
- Can be keyed to Schlage lock products
- Long-lasting durability
- Rugged construction

Consult your sales agent for local availability of specific products
Residential Security continued

Kryptonite Security Products

- An industry leader in portable security
- Lifetime warranty
- Full line of security chains, locking cables and security hasps
- Padlocks that can be keyed to Schlage door locks for one key convenience
- Tested in the toughest of environments to ensure the best security for your investment

Consult your sales agent for local availability of specific products
Connected Home Solutions

**Home Automation – Nexia™ Home Intelligence**

- Home automation backed by household brands Schlage and Trane enables consumers/homeowners to control their home remotely from their computer, tablet or cell phone complementing our increasingly mobile lifestyle.
- Security management, energy management, video verification and home automation, from a single source through Z-Wave technology.
- 24/7 home access through the Nexia Home Intelligence online and mobile interfaces.
- Ability to check lock status and home access authorization.
- Change, add, delete or schedule codes to the door remotely.
- Text message or email updates are available to always alert you to who is home.
- Remotely control the home’s temperature settings with the Trane ComfortLink™ II Control via Nexia Home Intelligence to reduce energy consumption while away.
- Easily schedule the Trane ComfortLink™ II Control via Nexia Home Intelligence to conserve energy while away or arrive to your ideal setting when you return home.
- Set a scene so that the lights greet you when your key code is entered.
- Schlage Home Camera allows remote monitoring of your home from anywhere, and record video to view later.
- Set scenes and schedules to turn Z-Wave enabled lights on and off.
- View a 90-day event log to view all activity within the system.
- Add additional Z-Wave devices to the system as your needs change.

Consult your sales agent for local availability of specific products.
Security Technologies

Commercial Security Solutions

Key Markets and Industries

Education          Healthcare
Government/Military Hospitality
Office              Stadiums and Arenas
Airports            Commercial, Retail, Manufacturing
Multi-Family Housing Amusement Parks

- Creating and sustaining safe, secure and productive environments for our customers
- Access and egress for commercial buildings
- Integrated solutions for people and asset protection
- Improving user productivity through credential management – time and attendance, personnel scheduling and visitor management

securitytechnologies.ingersollrand.com
schlage.com
Commercial Security Systems

Schlage Mechanical Security
- Commercial locks and door hardware
- Industry-leading brand
- Options include mortise, cylindrical, deadbolts and tubular locks
- High quality, easy installation

Schlage Key Systems Management
- Patented high security key systems – cannot be copied without authorization
- Everest Primus™ provides the ability to tailor levels of security to meet exact needs and budgets of end users
- Proprietary system Sitemaster™ program optimizes flexibility and affordability of key control
- Interchangeable cylinder cores reduce replacement cost and extend security through controlled key distribution
- Key system consultants help formulate security strategy, policy and productivity

Schlage Networked and Standalone/Offline Electronic Locks and Wireless Solutions
- AD-Series Adaptable Electronic Locks available in Networked or Offline and Wireless or Hard Wired configurations
- CO-Series Standalone/Offline Electronic Locks available with manually programmable or computer managed options
- Open Architecture Solutions for Electronic Access Control
- Highest industry certifications for Access Control including UL294

Schlage System Components
- Full range of open architecture systems components and services to help design the optimum electronic opening
- Electromagnetic locks, electric strikes, power supplies, access, egress and monitoring components, electrified exit devices, auto operators, keypads and credential readers

Consult your sales agent for local availability of specific products
Commercial Security Systems continued

Readers and Credentials

- Smart, multi-technology, and proximity contactless access control readers and credentials
- Built on ISO 14443 open standards for optimum interoperability
- Readers can be used with nearly any access control system using Wiegand
- Additional reader products include keypads, magnetic stripe readers, barcode readers, and credential encoders
- Multiple reader and credential sizes and form factors

Schlage Biometric Technologies

- Hand geometry and fingerprint readers
- Solutions for access control or time and attendance applications
- Efficient and easy to use for employers and staff

Briton Door Hardware

- European-designed specification hardware including door closers, exit hardware, locks, cylinders and trim
- Proven performance, reliability and safety on which specifiers rely
- Conforms to European standards including CE marking

Bricard

- French market leader in locks, security and access control
- More than two centuries of experience as a locksmith
- Barrels and locks for all types of door, panic bars, safes, door closers, latches, artistic locks and access control systems
- More than 7,000 references, the widest range of solutions in protecting your property, meeting the most stringent standards [NF (French standards) - A2P - CE]
- Security systems for the home, industry and the tertiary sector

Consult your sales agent for local availability of specific products
Commercial Security Systems continued

**CISA**
- European leader, and one of the chief operators worldwide, in the manufacture of systems for the closing and protection of access points
- Cylinders, locks for every type of door, panic exit devices, safes, door closers, padlocks, electronic locks and access control systems
- Offering more than 30,000 articles, all of them certified according to European standards
- Proven experience in the sector of electronic locking systems for applications in community settings
- Technological applications involving cards with microprocessors or smart cards

**Falcon**
- Commercial locks engineered for value, functionality and proper aesthetics
- Offers a broad choice of configurations to meet the most demanding applications.
- Complete line of commercial door closers
- Reliable panic and exit door hardware

**Glynn-Johnson Door Controls**
- Providing quality overhead door holders and stops, and push / pull latches for over 75 years
- Consistent quality and performance, meeting the needs of the most demanding application
- Low profile, unique designs maintaining design aesthetics ensuring optimum safety

Consult your sales agent for local availability of specific products
Consult your sales agent for local availability of specific products
4.6 Security Technologies

Commercial Security Systems continued

**Legge Door Hardware**
- Range of U.K. residential security products and accessories
- Conforms to British and European Standards
- Suitable for a wide range of applications

**Martin Roberts High Performance Doorsets**
- Complete range of steel doorsets for commercial use
- Doorsets can be custom made to suit individual requirements, finished in a wide range of colors
- Specialists in fire, acoustic and cleanroom applications

**Normbau Fixtures and Hardware**
- Wide range of door hardware, letter boxes, balustrading and railing systems, together with bathroom fittings and accessories for the disabled and elderly
- Products are manufactured in nylon, stainless steel and aluminum
- Unique combination of design and function to suit almost any building style
- Materials to resist corrosion and provide antibacterial protection, keeping hardware maintenance free

**Randi Door and Bathroom Hardware**
- Handles and bathroom fittings designed by Scandinavian architects for prestige commercial and residential constructions
- 125 years of experience
- Designed by architects for architects

Consult your sales agent for local availability of specific products.
Commercial Security Systems continued

Steelcraft Doors and Frames
- Providing quality steel doors and frames since 1942
- Fire, hurricane, tornado and positive pressure-rated doors
- Graintech stainable steel doors available to provide beauty of wood and durability of steel

Von Duprin Exit Devices
- Industry leader in exit devices and frames
- Invented the first exit device invented in 1908
- Unequaled durability
- All popular mounting styles and finishes

LEED® Rated Products
- Many Schlage, LCN, Von Duprin, Steelcraft and Ives products are manufactured with recycled materials
- These products, if specified in building design and construction, can contribute to Leadership in Energy and Environmental Design (LEED) credits
- Ask your sales representative about Ingersoll Rand products that qualify for LEED credits

Consult your sales agent for local availability of specific products.
Service and Solutions
Ingersoll Rand provides global business solutions that help our customers maximize efficiency. We dynamically link project planning, state-of-the-art technology and world-class professional services with our ability to listen, identify customer challenges and create individualized solutions.

Site Surveys and Assessments Specific to Market Need
- Safe Schools programs for K-12 and universities
- HAS – Highest Access Security program for airports
- Scalable ADA solutions to meet security and compliance needs

SpeXtra™ Project Management Software
- Significant productivity tool for specification writers and distribution partners
- Reduces errors and helps ensure code compliance
- Unique to Ingersoll Rand and its partners in the industry
- Ensures that an opening is configured with optimal component compatibility

Project Planning Services
- Complete design through build projects
- In-depth security analysis
- Specification creation
- Risk-management consulting

Consult your sales agent for local availability of specific products
Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands— including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results.

ingesollrand.com