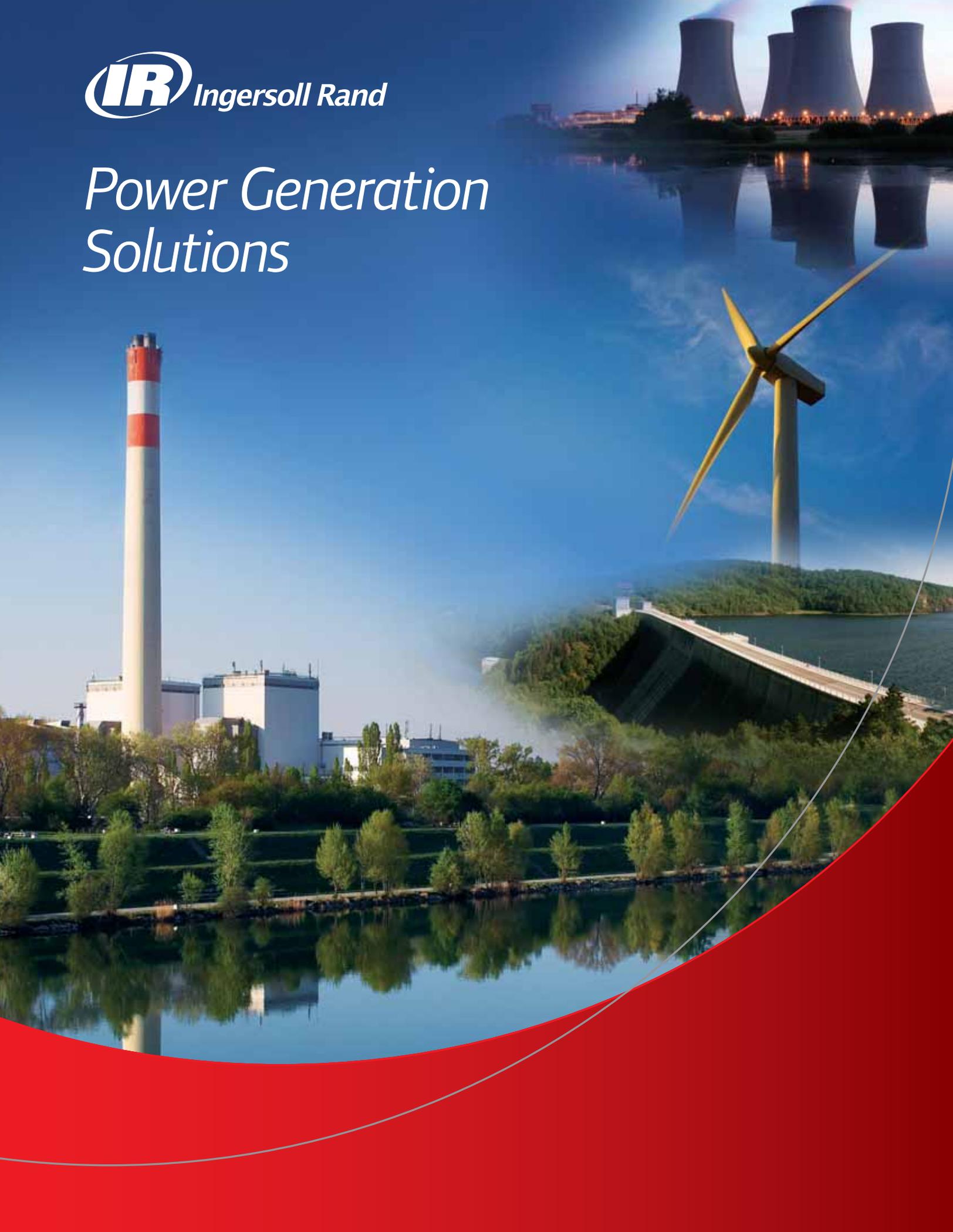




# Power Generation Solutions





**A legacy of innovation** For more than 100 years, Ingersoll Rand has inspired progress by driving innovation with revolutionary technology and creating new standards for how the world gets work done. We're proud of our legacy for developing ruggedly reliable, class-leading industrial technologies and outstanding customer service and technical support.



We're a world leader not just because of our products, but also because we know our customers' industries very well — especially power generation. Out of this comes a solid understanding of the unique challenges you face in power generation, and an ability to deliver the highest levels of safety, reliability, and performance.

Whether you need equipment, parts and service, technical support, training, consulting — or virtually anything in between — you can trust Ingersoll Rand to deliver. After all, we've been doing it for more than 100 years.



# The power to perform

We're constantly tapping into the power-generation-specific expertise of more than 150 distributors throughout North America, with whom we've formed strategic partnerships. In so doing, we're better prepared to provide you with the world-class products, services, and support you need to operate efficiently and profitably in your specific industry sector.

## Fossil fuel power generation

Our products are used in a variety of applications involving coal, oil, and natural gas. Whether you're overhauling turbines, repairing boilers or pulverizers, working on induced draft or booster fan motors, maintaining scrubbers or environmental equipment, are in the process of site construction, or other things, Ingersoll Rand will help you get it done easier.



## Nuclear power generation

Ingersoll Rand products and services are useful for site construction, reactor re-coring, and repairing pressure vessels, steam generators, turbines, and heat exchangers, among many other applications.



## Renewable power generation

With the ever-increasing focus on the environment, renewable power generation presents outstanding business opportunities — hydroelectric, wind, solar, geothermal, and biomass. Ingersoll Rand products and services make it easier to construct, install, and maintain these types of facilities, as well as with actual energy production.



## Gas turbine power generation

Ingersoll Rand products and services are useful for the construction, maintenance, and repair of gas-powered turbine generators within this growing industry. These range from low-output generators used for electrical backup in residential, commercial, or industrial sites; to much larger, independent generators supplying enough electricity to power an entire factory.



# A full range of productivity solutions

Whether you're designing, building, expanding, powering, servicing, or maintaining a power generation facility, you can count on Ingersoll Rand for a full range of tools, equipment, and accessories to get the job done.

## INDUSTRIAL LIFTING

### Manual chain hoists

- Lever chain hoists in 3/4- to 6-ton capacities
- Manual chain hoists in 1/2- to 25-ton capacities
- Spark and corrosion-resistant versions available
- Overload protection standard on select models



### Air chain hoists

- Capacities ranging from 1/8 ton through 100 tons
- Multiple suspension and control options
- Low maintenance
- Spark and corrosion-resistant versions available



### Hydraulic chain hoists

- Capacities ranging from 6 to 100 tons
- Compact modular design for easy maintenance
- Suitable for hazardous explosion-proof environments
- Overload protection device



### Electric chain hoists

- Capacities ranging from 1/8 ton to 255 tons, among various series
- Compact, lightweight relative to horsepower
- Multiple suspension and control options



### Air winches

- Capacities ranging from 660 pounds (300 kg) to 22,000 pounds (10000 kg)
- Suitable for hazardous explosion-proof environments
- Rugged and compact designs
- Multiple drum, brake, and control options



### Electric winches

- Capacities ranging from 5,300 pounds (2409 kg) to 45,600 pounds (20727 kg)
- 5:1 safety factor with overload protection
- Multiple drum and control options



### Hydraulic winches

- Capacities ranging from 1,323 pounds (600 kg) to 22,000 pounds (10000 kg)
- Ideal for general utility pulling and lifting applications
- Compact design for space savings
- Multiple control options



## PUMPS / FLUID HANDLING

### Diaphragm pumps

- 1/4- to 3-inch ports
- Flow rates up to 275 gallons per minute (1041 L)
- Wide range of material and porting configurations



### Piston pumps

- Piston pumps and packages for transferring, extruding, and spraying a wide range of fluid materials
- Available in two-ball, four-ball, and chop-check designs for many applications
- Pneumatic and hydraulic options



### Lubrication pumps

- Piston and diaphragm pumps to handle all types of motor oil, gear oil, and transmission fluids
- Oil and grease pump package configurations
- Designed to pump from a variety of drum sizes and tank units.



### Pneumatic valves and cylinders

- Valves enable the precise management of pneumatic circuits in system applications
- Cylinders are available in composite, round line repairable and disposable, and NFPA square interchangeable configurations



## INDUSTRIAL TOOLS

### Impacttools™

- Available in pneumatic and cordless
- Maintenance- to titanium-duty ratings
- 3/8-inch to 3 1/2-inch spline square drives
- 50 to 80,000 ft-lb (69 to 110,600 Nm) torque



### Grinders

- 0.25 to 3 horsepower (.19 to 2.3 kW)
- 6,000 to 35,000 rpm
- Available in die, angle, vertical, and horizontal configurations
- Maintenance- to industrial-duty ratings



### Scalers

- Needle and chisel scalers
- 2,200 to 5,500 blows per minute
- Pistol, swan neck, and in-line grips



### Air saws

- Reciprocating and circular
- Longer life and safer operation than electric saws
- Grip handle with self-locking throttle to promote operator safety



### Chipping hammers

- 1.75- to 4-inch (44 to 102 mm) stroke
- 1,600- to 3,600-blows per minute
- Round and hex shank
- Lock spring and threaded barrel
- General- to heavy-duty ratings



### Rivet busters

- Available with 8- to 11-inch (203 to 279 mm) stroke
- 800- to 1,140-blows per minute
- Lock spring or threaded barrel
- Piston bridge to prevent accidental discharge



### Breakers

- Available in 35- to 90-pound (16 to 40 kg) models
- Flex-handle units for vibration dampening
- One piece housing eliminates costly side rods and springs



### Large drills

- Available in 9/16- to 3-inch (14 to 76 mm) capacities
- Morse or stub taper spindles
- Ball bearing support for long life and efficient operation





## COMPRESSED AIR

### Small reciprocating

- Lower life cycle costs
- Ability to thrive in punishing applications
- Configurations that meet varying needs
- Portable and stationary models



### Rotary contact-cooled

- Available in 5- to 500-horsepower capacities
- Quiet operation
- Energy efficient
- Extended service intervals



### Rotary oil-free

- ISO 8573-1:2001 Class 0 certification
- Reliable two-stage compression line
- Nirvana, the world's first true variable-speed drive, oil-free compressor system.



### Centrifugal

- Standard pressure — 3.0 barg (14 psig) to 10.3 barg (150 psig)
- Low pressure — 0.4 barg (5 psig) to 2.1 barg (30 psig)
- High pressure — 10.3 barg (150 psig) to 42 barg (610 psig)
- Engineered



## ACCESSORIES



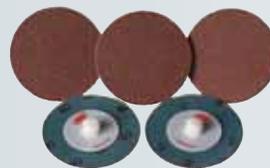
### Steels

- Broad range of lengths
- 15 tip styles for round and hex shank hammers
- Five tip styles for jumbo shank rivet busters
- 15 tip styles for all hex shank breakers
- Steel and rubber tamper butts
- Scalers and multi-point needles



### Industrial-grade impact sockets

- Broad range of SAE and metric sizes from 3/8-inch to #5 spline square drive
- Offered as individuals and sets
- Extensions, adapters, and retainers available



### Abrasives

- Wide range of sanding, surface prep and strip-style discs
- Grinding stones and burs
- Available in 2- to 3-inch collet-style, quick-change discs



### Filters, regulators, lubricators (FRLs)

- Individual units, two- and three-piece combos, and piggyback models available
- 1/8- to 2-inch NPT ports
- Modular compatibility
- Safety lockout valve options



### Couplers, plugs, and hoses

- 1/4-inch, 3/8-inch, and 1/2-inch sizes
- Composite safety coupler
- Air swivels for reduced operator fatigue
- Bulk hoses, hose whips, universal hoses, and self-retracting coils range from 1/4- to 3/4-inch inside diameters

### Spring balancers

- Available in carrying capacities ranging from 0.9 to 363 pounds (0.4 to 165 kg)
- 5.2- to 9.85-foot (1.6 to 3 m) lift capacities
- Primary and safety suspensions
- Safety device to prevent load drop



# Serving you every way we can



At Ingersoll Rand, we know how demanding your job can be, especially in terms of your equipment and its performance. That's why we offer unmatched customer service and support designed to keep you running at your peak.

- Genuine parts
- Individual spares and repair kits
- Extended warranty kits
- Bench and field service and repair
- Equipment rental
- Contract preventive maintenance and service
- Product training
- Consulting



# Built for the way you work

Ingersoll Rand products are engineered and built to meet the most stringent industry standards — ensuring they perform safely and reliably in the harshest, most-demanding environments and applications.

Pneumatic Tools	ANSI B186.1, Safety Code for Portable Air Tools
Basic Winches	ASME B30.7-2006, Base Mounted Drum Hoists, The American Society of Mechanical Engineers, NY.
Basic Hoists	ASME B30.16-2007, Overhead Hoists (Underhung), The American Society of Mechanical Engineers, NY.
Cold Weather products, DNV	Standard for Certification No. 2.22, Lifting Appliances October 2008, Det Norske Veritas, Norway
Cold Weather products, ABS	Guide for the Certification of Drilling Systems, July 2006. American Bureau of Shipping, TX
API Hoist	Specification for Drilling and Well Servicing Equipment, API Specification 7K, Fourth Edition, December 2005. American Petroleum Institute, Washington DC
FA150Kgi	Offshore Standard DNV-OS-E101, Drilling Plant, October 2008. Det Norske Veritas, Norway
Top level for –CE products	Directive 2006/42/EC of the European Parliament of the Council of 17 May 2006 (Machinery Directive)
–CE Pneumatic Tools	EN 792:2000, Hand-held non-electric power tools
–CE Winches	EN 14492-1:2006, Cranes – Power Driven Winches and Hoists – Part 1: Power Driven Winches
–CE Hoists	EN 14492-2:2006, Cranes – Power Driven Winches and Hoists – Part 1: Power Driven Hoists
–CE Cordless Tools	EN 60745:2003, Hand-held motor-operated electric tools

List includes latest standards at time of print. Contact your local Ingersoll Rand representative for information on current industry standard compliance for specific products.

Distributed by:



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.

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