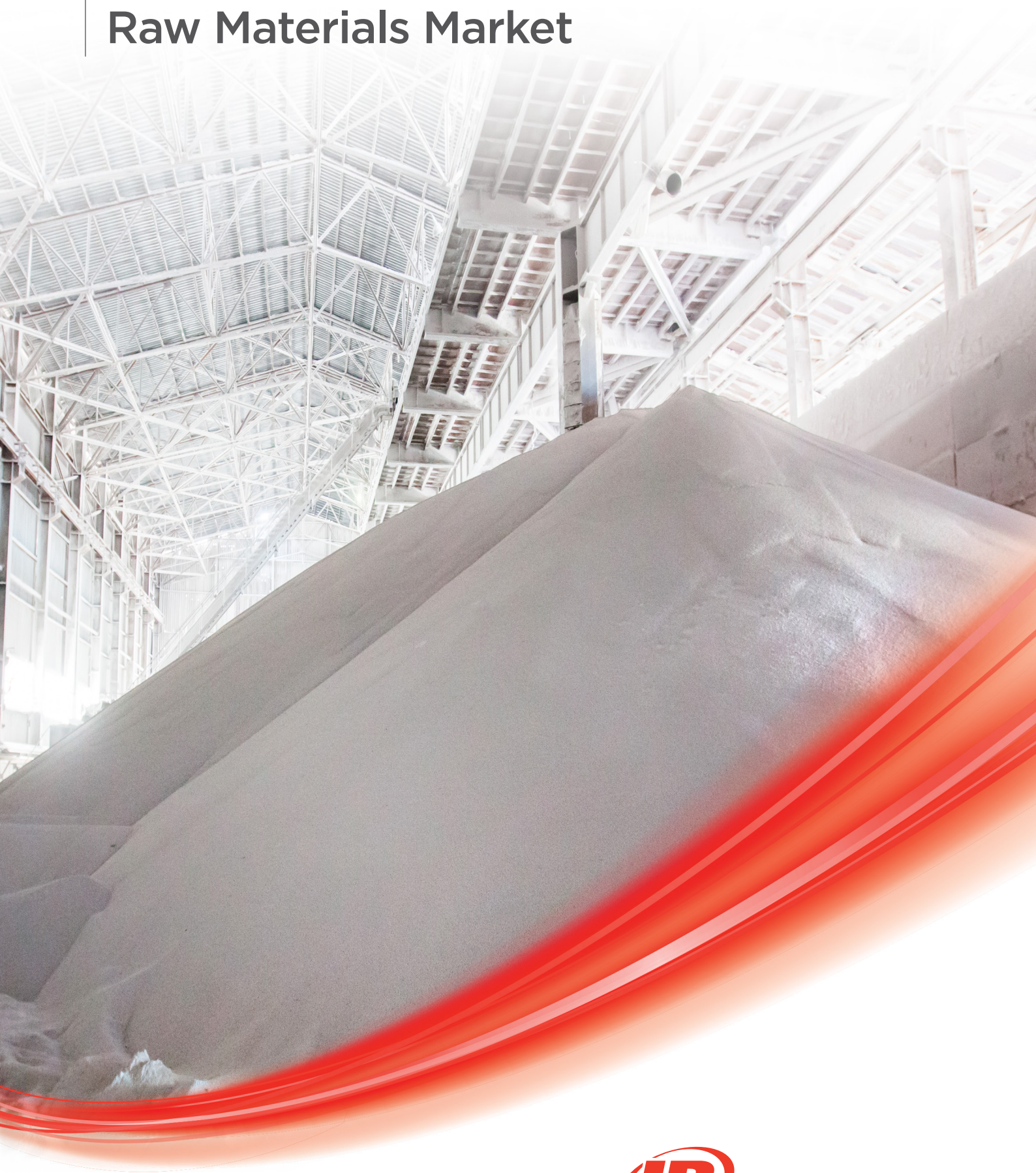


INGERSOLL RAND WHITE PAPER | APRIL 2022

# Reliable Compressed Air for the Raw Materials Market





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## Introduction

The raw materials market is a continually growing and highly competitive business segment. Post pandemic recovery has the cement industry forecasting between 2-5% growth in most areas, with India's projected growth up to 8%. Apart from almost static growth due to the global pandemic in 2020, steel production continues to grow between 3 and 5% year-on-year.

The COVID-19 pandemic has brought many new challenges to sustainable operations. Despite this, APAC, Europe and North America have continued to pursue new levels of maturity and advanced technology appropriation in the raw materials industry. More specifically, the paper industry has seen an increase of online sales and a drive to move away from plastic solutions which has led to a huge demand for packaging in lightweight and recyclable products. These developments come in spite of a more than 115% increase in the import price for energy between December 2020 and December 2021.

In such a growth-oriented and fast-paced industry, being out of step can happen very easily. To stay on top in the marketplace and to keep providing the best services possible, manufacturers and professionals have set their sights on equipping their facilities with efficient and highly reliable air compressors.

## Compressed Air for Raw Materials

Overall, the main goal of a compressed air system is to provide a reliable supply of clean, dry, compressed air at a stable pressure at the lowest cost possible. Designing a compressed air system that ensures efficiency, reliability, and safety requires thorough consideration and extensive technological knowledge about raw material applications.

## Pneumatic Conveyors

This application uses rotary screw air compressors, because it requires a higher psi level than piston/reciprocating air compressors can offer, 100 to 200 psi. Pneumatic conveyors come equipped with a dryer, control panel, oil separator, dual filters (general purpose and high-efficiency) and condensate drain system. They also eliminate up to 80% installation costs of individual air treatment equipment.



## Air-Powered Dock Levelers

Compared to hydraulic levelers that use a hydraulic cylinder to position the leveler platform, dock levelers, powered by compressed air, use an airbag to raise and lower the deck. This technology uses air as the working media instead of fluid. The airbag is inflated with a high-volume, low-pressure compressor. This offers improved simplicity and eliminates the problem of messy, hydraulic fluids and leaky seals.



## Selecting the Right Air Compressor

Various applications used for raw materials require different types of air compressors. Choosing the right one for your specific application should be done carefully. The key is to make sure the selected unit is able to meet your desired demands, while keeping maintenance and operating costs low.

Let's face it—choosing the right equipment is crucial in ensuring that your facility operates at full capacity and that your daily work gets done. Choosing an air compressor for a given application requires careful consideration of several factors, including the intended use, performance specifications and available resources.

The common misconception regarding powering either pneumatic conveyors or air-powered levelers is that more horsepower equals more compressed air output. In fact, modern air compressor technology is highly advanced, so if sized properly for the application, an air compressor can produce the same overall power with less horsepower. For example, the Next Generation R Series 11-22kW that delivers from 15 to 30 horsepower can produce 18% more airflow than its predecessor with the same horsepower capacity.

### Things to Consider Before Purchasing

It is essential to address key questions before making a purchase:

- How much airflow is required?
- Define the pressure requirements.
- How clean does it need to be?
- Which filters or dryers do you need?
- How many hours will the compressor operate per day?
- Will the flow demand fluctuate?
- Are you going to raise the scope of your operations in the near future?



## Ingersoll Rand's Solutions for Raw Material

Ingersoll Rand has long been a leader in providing compressed air solutions for various industries. Known for its high reliability and customer-oriented mindset, the company has an extensive product portfolio and application know-how, that allows it to deliver the highest performance in quality, reliability, and dependability.

Owners of raw material plants rely on technologically advanced equipment and do not want to gamble with poor compressed air quality. To help them achieve this goal, Ingersoll Rand oil-flooded rotary screw air compressors offer businesses the very best combination of time-proven designs and technologies plus new, advanced features that ensure the highest levels of reliability, efficiency, and productivity available.



## Next Generation R-Series Oil-Flooded Rotary Screw Compressor

The R-Series rotary screw compressor is characterized by a low total cost of ownership due to its reliable components and industry leading capacity. Its V-Shield™ technology translates to an integrated, leak-free design, whereas the SelectCARE™ and PackageCARE™ service programs allow for longer compressor life.

**The R-Series Oil-Flooded Rotary Screw Compressor range boasts the following features:**

- **Improved Efficiency:** State-of-the-art, fully integrated airend designed and manufactured “in house” delivers the efficiency and reliability you need
- **Decreased Energy Use:** Premium efficiency IP55 motor delivers significant energy savings, and the optional integrated variable speed drive (VSD) further decreases energy consumption
- **Enhanced Serviceability:** Easy access to all user-maintainable components, auto-tensioning V-Belt, and Ingersoll Rand extended life, premium grade coolant ensures increased uptime
- **Remote Intelligent Control:** Xe-Series controllers deliver increased functionality through an intuitive user interface, as well as remote access with any common, current web browser
- **Intelligent Uptime:** Integrated with Helix™ Connected Platform, a state-of-the-art system that gives you real-time insights and data to keep your compressor operating at peak performance and ensures uptime
- **Optional Total Air System (TAS):** Clean, dry air in a single package that minimizes installation costs, space and features improved ISO air quality
- **IES2 Advantage:** Meets or exceeds IES2 standards for power drive efficiency



## Global Service and Support Network

Renowned for its market-leading reliability, quality, and untroubled performance, Ingersoll Rand brings over 160 years of innovative solutions to the compressed air market. In addition to a comprehensive portfolio of state-of-the-art compressors, Ingersoll Rand offers various maintenance programs as well as expert air compressor repair services, that always include genuine OEM parts to ensure perfect fit and function.

Depending on your needs, Ingersoll Rand offers a variety of service packages, from a wide service program that takes the operational risk away from the customer. We also offer a simple package that includes delivering the right part to you at the right time. Choosing the right package that provides the best, most efficient support to keep your business up and running requires deep consideration. To save our customers' time, our engineers will perform a deep analysis to help determine which maintenance plan is the best for specific raw materials and compressed air system needs.



## Ingersoll Rand's Broad Portfolio of Air Compressors

Ingersoll Rand provides a wide range of high-quality, low-maintenance commercial and industrial air compressors to fit virtually every application. Our engineers can provide you with a tailor-made solution and the support you need to keep your facility working at full steam.

**Please visit and partner with us!**

