High-Pressure Screw Compressors
For Fuel Gas Boosting
Natural gas is now the leading source of electricity generation in America and a rapidly growing source of power worldwide.

Today’s gas turbines — bigger and more efficient than ever before — require a significantly higher feed pressure than their predecessors, one well in excess of the fluctuating pressures in a typical gas pipeline. As a result, they need Fuel Gas Booster (FGB) compressors that can satisfy the steady gas flow rate and high pressure needs of the turbine, while handling the fluctuating gas pressure at the inlet.

These turbines represent significant investments and, as such, are expected to perform at a high level for decades. Further, FGB compressors must do their job with steadfast reliability, because if the compressor fails, the turbine shuts down, too.

The solution?

High-pressure screw compressors from York® Process Systems.

1 Maximum outlet operating pressure
2 Maximum displacement at 3,350rpm of largest model in this rotor diameter
Worldwide Leader in Gas Compression:
Compressors Built for the Long Haul

FRICK® Screw Compressors
Our vast experience, advanced technology, and smart controls serve as your assurance of a reliable compressor solution that can continually meet your flow and pressure demands.

Features and Options:
- Electric motor, gas engine, steam turbine drive
- Slide valve for efficient capacity control
- Variable volume ratio (Vi) eliminates over/under compression
- High-efficiency oil removal systems

Compressor Spotlight: HPS 407
The HPS 407 is designed for various high pressure gas compression applications, including Fuel Gas Boosting (FGB), where compressors need to satisfy the steady gas flow rate and high pressure needs of the turbine, while handling the fluctuating gas pressure at the inlet.

Our equipment has run in some of the most complicated processes in the most demanding industries for over a century. We bring this unmatched experience to the new HPS 407 high pressure screw compressor which delivers a pressure range of 1,100 psi (76 bar).

Our full line of rotary screw compressor models is manufactured to meet the exacting requirements of the gas compression industry.

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<th>FEATURE</th>
<th>SPECIFICATIONS RANGE</th>
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<td>Flow Range</td>
<td>Up to 8,212 cfm (13,952 m³/hr)</td>
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<tr>
<td>Power Range</td>
<td>Up to 6,000 hp (4,474 kW)</td>
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<tr>
<td>Pressure Range</td>
<td>Up to 1,100 psi (76 bar)</td>
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<td>Gases</td>
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<td>Certifications and</td>
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<tr>
<td>Classifications</td>
<td>CSA, ISO 9001 + 14001, PED, UK, UL</td>
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HPS 407:
Pressure¹ (psia) 1,100
Pressure¹ (bar) 76
Capacity² (cfm) 4,262
Capacity² (m³/hr) 7,242

HPS 273-1.2
1,100 psia¹
1,298 cfm²

SGC 355-1.1
615 psia¹
6,402 cfm²

HPS 407-1.2
1,100 psia¹
4,262 cfm²
Everything You’re Looking For in Fuel Gas Boosting Compressor Packages

Performance and Long-term Reliability
You expect your gas turbines to run hard for a long time. It’s not unreasonable to expect the same durability and reliability from your FGB compressor. Our screw technology is significantly more reliable than other technologies.

Availability
When you call on our compressor packages, they will be ready with the steady supply of gas at the pressure you need. Our engineering expertise and non-wearing parts combine to deliver longer intervals between scheduled maintenance and greater performance over longer periods of time.

Heightened Compressor Efficiency for Enhanced Sustainability
Our advanced technology brings exceptional energy efficiency to your operation.

Experience
With more than 135 years of industry-leading compression experience and more than 150,000 compressors installed, we have earned a reputation for making screw compressors that are extremely reliable.

Low Oil Carryovers
Years of R&D and rigorous testing have enabled us to optimize our oil separators and deliver the low oil carryover you demand to protect your investment.

Meeting the Highest Industry Standards
Our compressors are designed to meet ASME, ANSI, NEMA, ISO standards and other standards as applicable.

Lower Total Cost of Ownership
Non-wearing parts, longer maintenance intervals and less frequent rebuilds, coupled with the rotary screw compressor’s longer operating life, make the FRICK® screw compressor the perfect component in your 20+ year, life-cycle planning.
Our new, high-pressure, variable speed, Screw Compressor Test Stand is one of the largest, most sophisticated test stands in the screw compressor industry, and is a significant addition to our existing lab.

At 7,000 square feet, the $6.7 million facility features the latest testing technology to verify large compressor capabilities, capacity and power ratings with unsurpassed accuracy.

With it, we are uniquely capable of precisely load testing and confirming performance of our array of large screw compressors that support refrigeration and gas compression applications in the oil and gas process industries.

The resulting data allows you to purchase equipment with the highest degree of confidence. Exactly the kind of confidence you need when selecting FGB compressors for your gas turbines.

At the heart of the stand is a 5,000 HP variable speed electric motor. The test loop is rated for 1,100 psig, supporting test conditions up to 1,000 psig discharge pressure. An ammonia refrigeration system equipped with a FRICK® RWFII 177 screw compressor with electric motor drive is used, along with a cooling tower to remove the heat of compression and achieve desired suction temperatures. The lab operates on nitrogen, with the ability to model a wide range of gases.

Our state-of-the-art test lab stands as unequivocal proof of our commitment to — and confidence in — the industry and its bright future.
135 Years of Compressor Manufacturing Experience

Designed for durability. Built with precision. Our screw compressors are manufactured in advanced facilities in multiple locations globally in order to be close to our worldwide customers. We design and build compressors to deliver the most rugged, efficient, and flexible machines on the market.

Rotors are precision-cut in temperature controlled machining areas; profiles are finish ground for consistent surface finish and close tolerances.

Assembly areas are also temperature controlled and under positive air pressure to assure cleanliness and accuracy. All rotors are balanced to ISO 1940–Grade G2.5 for smooth running, and every compressor is test run to guarantee proper operation.
With More than 300 Locations Around the World to Serve York® Process Systems Equipment

We’re There When You Need Us

As part of Johnson Controls, York® Process Systems has access to the resources of a global technological and industrial leader. We have more than 300 service locations around the world, so when you partner with us, you benefit from one of the industry’s foremost commitments to service.

Regardless of your location, our locally-based teams of factory-trained technicians stand ready to provide preventive maintenance, troubleshooting, repair, and, if need be, retrofit services. All of our services are performed by highly skilled technicians who specialize in specific types of equipment, enabling them to ensure continued safe, reliable, efficient equipment performance.

If unexpected failure should occur, York® Process Systems will be at your door with expert repair service and support. We know critical equipment breakdowns always seem to happen at the worst time, and that your compressor is one of the most vital assets in your facility.

We make sure that you get the most out of your investment by offering the following time- and money-saving support services:

- Supervision of installation
- Start-up and commissioning
- Staff training
- Service and maintenance (4,000 technicians in 192 countries, trained on all brands of rotary screw and centrifugal compressors)
- Technological upgrades
- Power-saving improvements
- Replacement parts
- Information and advice
- Design studies
Global Manufacturing Locations

Sales Offices Strategically Located Around the Globe

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Rock solid reliability™ 

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