Ariel's moderate-speed API 618 process compressors are utilized in a wide range of process applications around the globe, providing the safety and reliability demanded by today's refinery and petrochemical industries. With 53,000+ reciprocating compressors ranging from 100 to 10,000 horsepower shipped since 1966, Ariel is the largest manufacturer of separable reciprocating gas compressors in the world.
Case Study

Ariel Reliability

Ariel reliability is proven in the field. A recent 24,000-hour overhaul on two units at a refinery in Louisiana showed no measurable wear to the crossheads, crosshead guides, cylinder bores, piston rods, piston trim, or packing trim. Ariel reliability = peace of mind.

53,000+
Number of compressors produced since 1966

100+
Countries where Ariel compressors operate

24 hrs.
Availability of factory tech service and parts personnel
Ariel Durability

The end-user required a new hydrogen unit employing steam methane reforming technology. The facility supplies hydrogen and steam to a refinery for use in the production of fuels.

For this application, the customer selected four Ariel JGT/2 100% capacity non-lubricated, short-stroke, moderate-speed compressors driven by electric motors for the natural gas feed and hydrogen product services. The decision to purchase Ariel compressors was based on delivery, compact packaging, and reduced total installed cost. Spare parts availability and references for similar applications also contributed to the decision to purchase Ariel moderate-speed reciprocating process compressors.

Ariel reliability makes your investment pay off in the long run. Two of the JGT/2 compressors in this case study were overhauled:

- Gas-Feed Unit #1 after 12,086 operational hours
- Hydrogen Unit #2 after 9,334 operational hours

Inspections of the running gear, cylinder bores, pistons, and rods revealed that all clearances were within specified tolerances. Even consumables such as piston rings, wearbands, and packing rings had not expended their specified service life. With Ariel quality, reliability, wide range of API-618 frame and cylinder options, and global support network, Ariel has the correct compressor for your next project.

15+ Years producing durable Process compressors
31 Number of Ariel models suited for Process service
1,200 Cylinders offered for Process service
API 618 COMPRESSOR
SPECIFICATIONS

Rated BHP
5,200

Stroke
5.75 in

Tension Rod Load
75,000 lbs.

Gas Compression Rod Load
80,000 lbs.

Piston Rod Diameter
2.875 in.

ARIEL CORPORATION
www.arielcorp.com

API 618 Type C Long
Two-Compartment
Distance Piece

Non-Cooled Cylinder Body

Valve Type and Material
Application Specific

Valve Retainer
Valve

Forged Steel
Crankshaft

Forged Steel
Connecting Rod

Pressure Lubricated
Sleeve Cross-Freeze

Unlined Cylinder Bore
Surface Hardened to 57 Rc.

Throw 1

Low Unbalanced
Forces and Couples

Auxiliary End

Lubricated or Non-lubricated
Configuration Available

Frame Lube Oil Pump
(Low Pressure)

Frame Oil Filter and
Filtering

Intermediate Packing
with Purge

Packing Water Cooling
and Purge

Auxiliary End

Forced Steel
Bearings

Nonmetallic Wear
Materials

Shaft Balanced
Oscillating
Throw

KBU/4
WORLD STANDARD COMPRESSORS
Expertise, Teamwork, and Commitment to the Customer

The Ariel distribution business model is based on the seamless integration between Ariel and the packaging distributor. Only the most experienced and qualified companies can become Ariel Distributors. These companies don’t just package Ariel compressors – they become part of Ariel and its global distribution network, designed to serve its worldwide customer base by providing regional access to engineering, packaging facilities, technical services, and after-market parts support. Ariel and its distributors work as a team throughout every project to ensure the successful operation of the installed equipment. We begin with project planning and participate throughout the design, fabrication, installation, start-up and commissioning of the compressor package. When you talk to an Ariel distributor, you are talking to Ariel.

Ariel OEM Parts Support

Ariel Original Equipment Manufacturer Parts keep your Ariel compressor running like new. Ariel OEM Parts are the exact same high-precision, exceptional quality parts that go into Ariel’s new units. Available through over 700 worldwide distributor locations, Ariel OEM Parts are offered at a fair price and supported by Ariel expertise. Whether you’re looking for recommended spares for new units or planning scheduled maintenance of your current compressors, Ariel is available to assist you around the world. The Ariel commitment does not end there. Ariel “Unit Down!” Protocol ensures that your compressor will be back on-line as soon as possible.

Ariel and its Distributors offer 360° Service and Support

Ariel and its Distributors continue their commitment to the customer after start-up by providing industry-leading after-market support.

Ariel and its Distributors offer 360° Service and Support

Ariel and its Distributors: a partnership that offers the customer a proactive dual-line of support for every phase of the project. The Ariel-Distributor network – service excellence for the world’s finest compressor.
Ariel compressors are packaged to meet industry specifications by Ariel Distributors located around the world. These partner companies follow the highest standards for design and construction of packaged equipment, as well as parts and service support. For a complete list of Ariel Distributors, please visit www.arielcorp.com

Ariel Global Network

Distributor Quality & Support

Ariel compressors are packaged for Process Service by Ariel Distributors located around the world. These partner companies follow the highest standards for design and construction of packaged equipment, as well as parts and service support. For a complete list of Ariel Distributors, please visit www.arielcorp.com

Ariel compressors packaged for Process Service

700+
Trusted Ariel distributor locations around the world

ARIEL REGIONAL SALES AND SUPPORT LOCATIONS

**Houston, Texas**  
**Fort Worth, Texas**  
**Denver, Colorado**  
**Calgary, AB, Canada**  
**Moscow, Russia**  
**Mount Vernon, Ohio**  
**World Headquarters**  
**Beijing, China**  
**Sydney, Australia**  
**The Netherlands**  
**Singapore**  
**Bangkok, Thailand**  
**Mumbai, India**  
**Dubai, UAE**  
**Buenos Aires, Argentina**

YOUR DIRECT LINE TO ARIEL PROCESS COMPRESSOR INFORMATION  
process@arielcorp.com

Legend

- Ariel Corporation World Headquarters
- Regional Sales and Support Offices
- Distributor Location
- Multiple Distributor Locations
Subject to proper maintenance and normal use, Ariel’s warranty covers every part for 12 months, with the frame, crosshead guide, and running gear covered for three years. With the exclusive use of Ariel OEM Replacement Parts, the coverage on cylinder bodies, pistons, and piston rods is extended to two years, while the frame, crosshead guides, and running gear coverage is extended to six years. Please see Ariel’s Limited Warranty Summary for details.

Comprehensive Warranty

Since 1966, Ariel has shipped 53,000+ compressors, with the vast majority still operating today. Supporting this ever-growing fleet is a network of Ariel professionals who are available 24/7. Ariel’s engineering and field service professionals are backed by a lean manufacturing group that produces parts of the highest quality for both new unit assembly and after-market support.

Comprehensive Product Training

Ariel offers training free of charge to our customers and distributors at our world headquarters in Mount Vernon, Ohio. The Ariel Process Compression School is designed to educate operation and service personnel on the inner workings of an Ariel Process compressor.
WORLD STANDARD COMPRESSORS

- Nitrided, non-cooled cylinders
- Crosshead guide
- Balance nut
- Piston
- Large gas passages
- Heavy-duty frame
- Connecting rod
- Nitrided piston rod