It's simple: PAP PLUS compressors deliver 100% oil-free engineered air reliably and efficiently.

FS-Elliott PAP PLUS compressors incorporate the latest technology to insure high efficiency, economy and reliability.

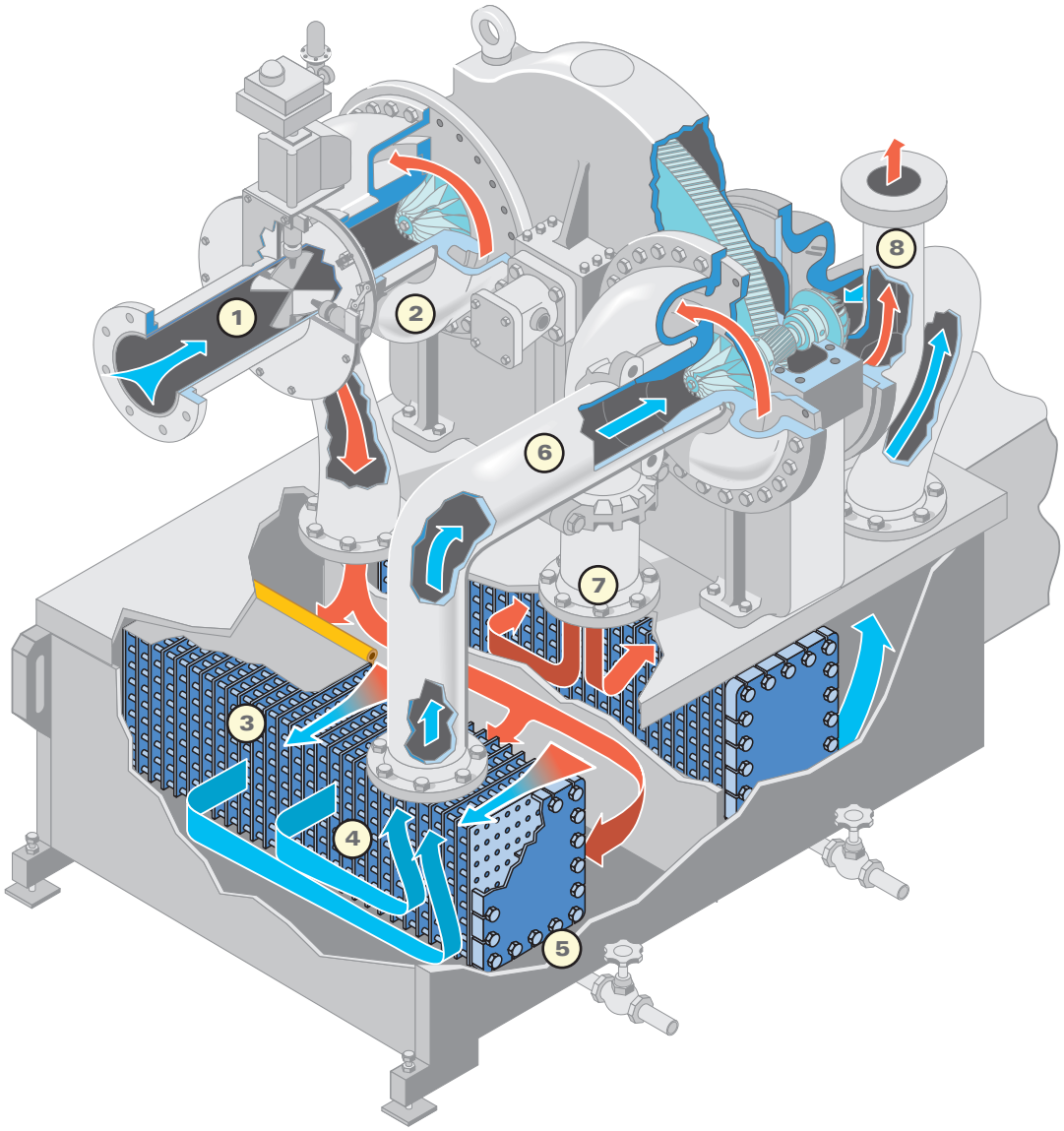
The Plant Air Package (PAP) compressor was introduced to the marketplace nearly 50 years ago. Since its introduction, thousands of units have been installed and operate worldwide.

- Electronics
- Steel Making
- Food and Beverage Processing
- Snow Making
- Utilities
- Chemical
- Textile
- Automotive
- Glass Making and P.E.T.
- Mining
- Air Separation
- Petrochemical and Oil Refining
- And Many Other Markets

The PAP PLUS design features provide benefits ranging from ease of installation, operation and maintenance to highest efficiency.

1. High Base-load and Part-load Efficiency
2. Optimized Operational Efficiency Throughout the Entire Year
3. Minimum Number of Moving Parts
4. Robust and Reliable Industrial Design
5. Superior Package Design
6. Simple, Low-cost Installation
7. Elimination of Air Line Oil Contamination
8. Ease of Operation
9. Ease of Maintenance
10. Professional Service

Typical Operation



1 Ambient air enters the first stage of the compressor through the inlet control device.

2 The air is accelerated by the first impeller. A radial diffuser converts the air's velocity into pressure before the air enters an efficient scroll casing.

3 Air enters the first stage high efficiency intercooler and cools as it passes over the water filled tubes with external fins in the bundle. The straight tubes are easily cleaned to maintain optimum performance.

4 The lower velocity cooled air exits the tube bundle and makes two 90 degree turns. This turning and upward flow path separates the condensed moisture from the cooled air and makes it unnecessary to use demister pads which are a high maintenance item. The air travels through the large corrosion resistant epoxy coated plenum.

5 Condensate is continuously drained through PAP PLUS's exclusive drain valve located in the bottom of the intercooler's enclosure.

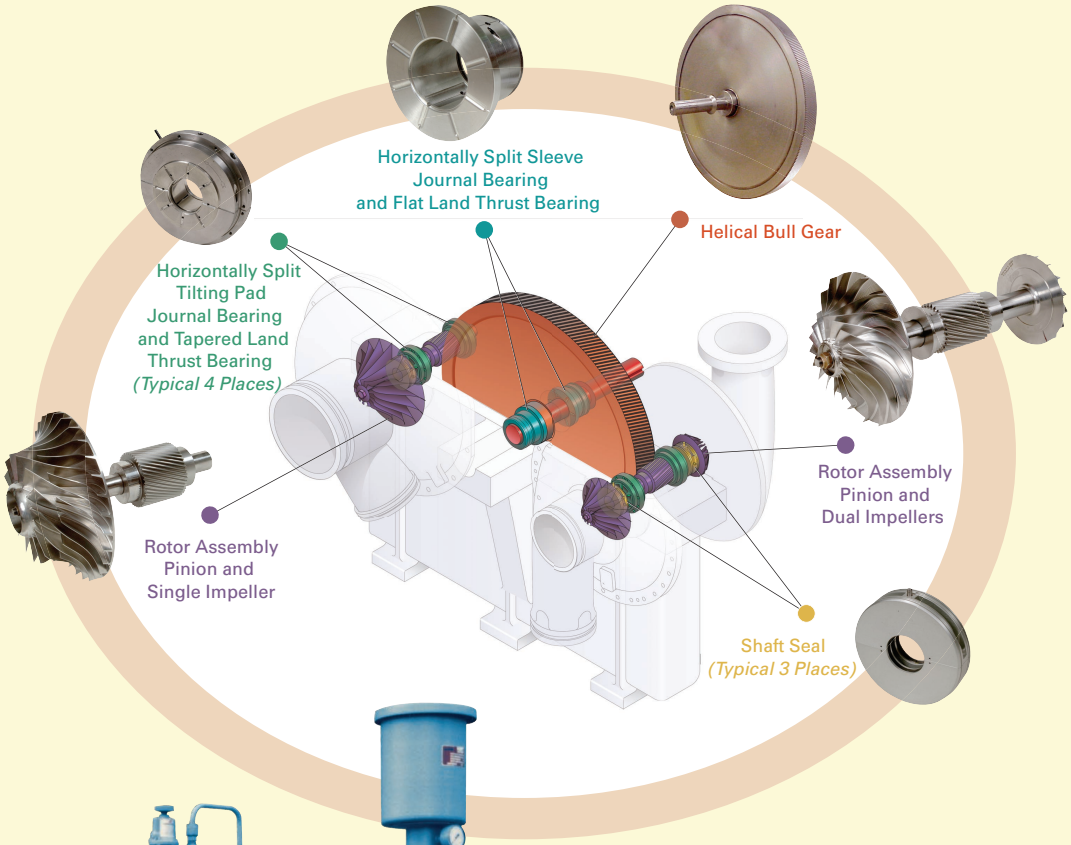
6 The air exits the intercooler and flows into the inlet duct for the second stage. In the second stage the compression process is repeated with an impeller, diffuser, and a scroll casing.

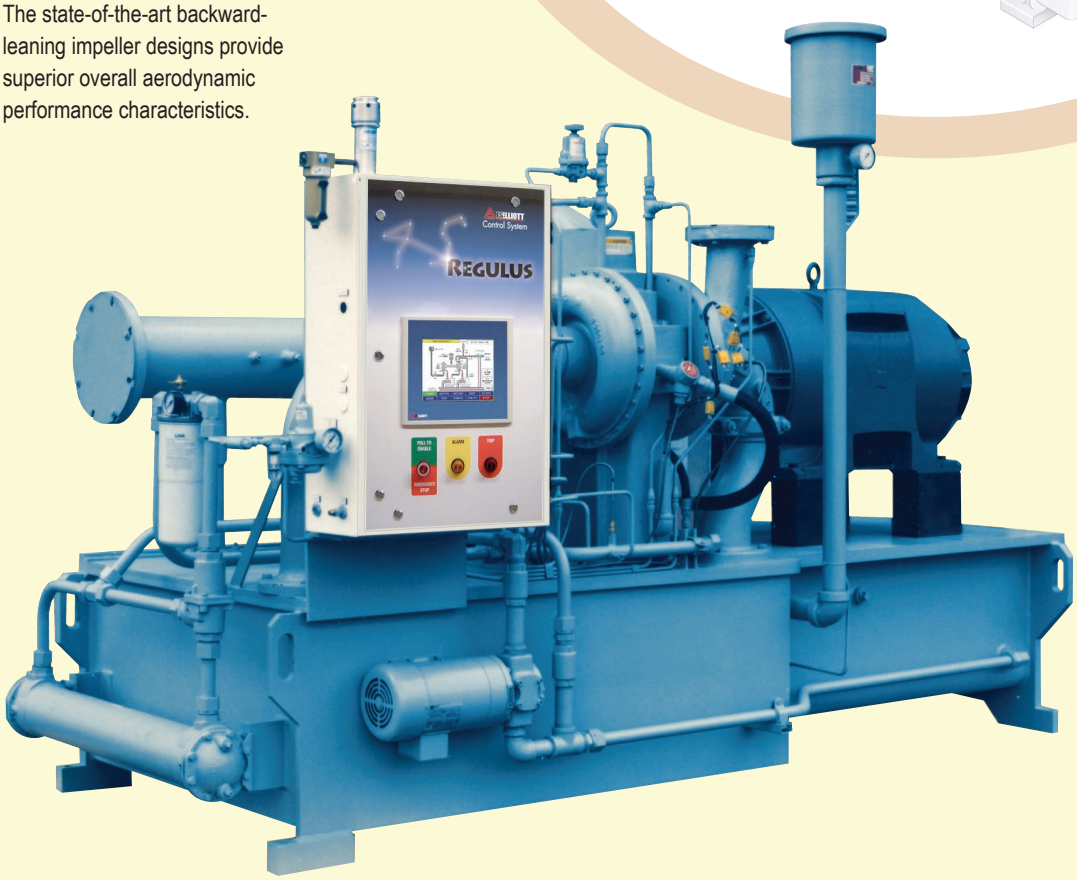
7 The air discharges from the compressor volute and enters the second stage intercooler. The intercooling process is identical to that in the first stage.

8 Air from the second intercooler moves through the third stage impeller, diffuser and scroll casing before being discharged into the after cooler and the air system.

Impellers

The impellers of the PAP PLUS compressor are stainless steel. The precipitation hardened, stainless steel material resists the corrosive and erosive action of atmospheric contaminants and water vapor that may pass through the inlet air filter. The state-of-the-art backward-leaning impeller designs provide superior overall aerodynamic performance characteristics.





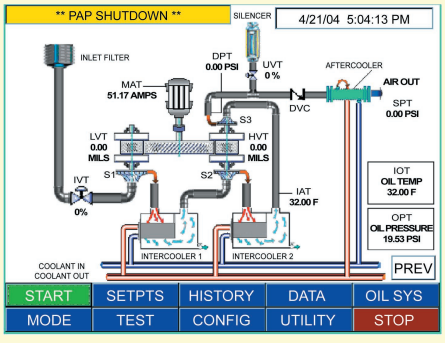
Pressure Lubrication System

The PAP PLUS oil lubrication system has proven its reliability through many years of successful operating experience. The system is self-contained within the compressor package and is designed for easy access and maintenance. This PAP PLUS system provides for all of the package's needs, which include continuous oil flow to all bearings and gears, as well as the driver when required.

REGULUS™ – Putting You in Control

The heart of FS-Elliott's Control System is designed with the latest technology processor and memory capabilities to provide optimum performance, reliability and convenience. The system includes a color graphic touch-screen Human Machine Interface (HMI). Typical control modes include:

- Constant Pressure
- Constant Pressure with Automatic Start
- Combination Control
- Combination Control with Automatic START/STOP



Control System Features

- Menu-driven Display
- System Data Logging and Printout
- Adaptive Control
- Permissive and Protective Logic
- Automatic Compensation on Temperature Change