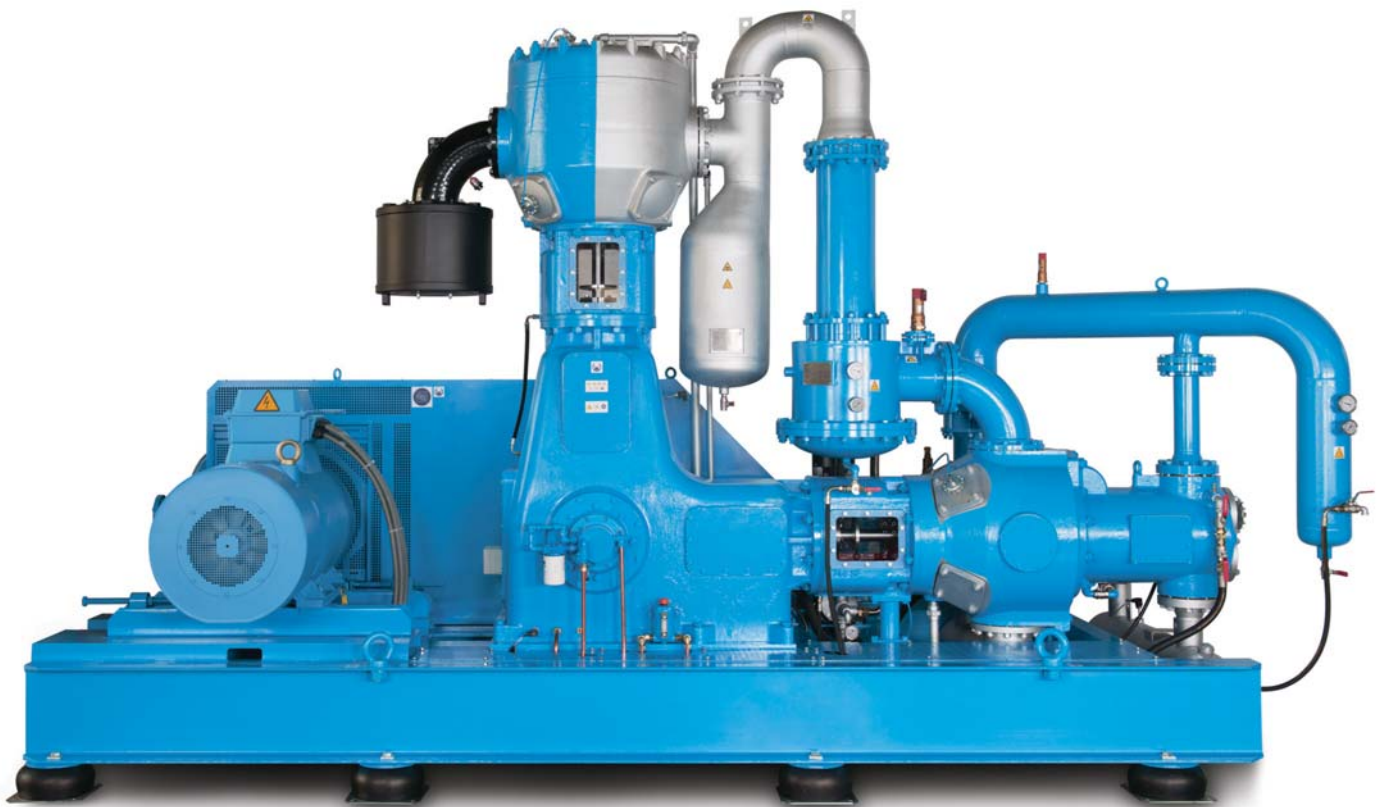




AF COMPRESSORS

20 BAR ▶ 40 BAR OIL FREE PISTON PET COMPRESSORS



[WWW.AFCOMPRESSORS.COM](http://WWW.AFCOMPRESSORS.COM)



■ INNOVATION AND TRADITION  
IN COMPRESSED AIR INDUSTRY SINCE 1870



AF Compressors is the global leader in the annual production of over 400 oil-free compressors per year for the PET blow molding market. Along with our main factory and headquarters in Belgium, we also have world class production centers in Pune, India and Kunshan, China to support these thriving markets.

To provide the utmost quality and aftermarket support to our customers, AF Compressors continually invests in new research and development of our products as well as creating an aftermarket support network to meet the needs of our customers.

■ **Research & Quality Control**

- Massive R&D integrated at different sites, with a unique in-house compressor R&D laboratory @ University of Louvain-la-Neuve.
- State of the art test bench to ensure that each compressor shipped is tested according to ISO 5167-2003 for ISO 1217-2009 air capacity.

■ **Aftermarket Support**

- 15 subsidiaries + distribution centers + spares shops + agencies + AF Academy & training centers located strategically throughout the world to provide superior aftermarket support to our customers.
- More than 140+ technicians, 100% trained for the oil free air piston compressors.



AF's experience and legacy has provided a solid foundation for our company to becoming the leading supplier of high quality compressed air systems. Our customers include the most renowned blow mold manufacturers and major beverage producers of soft drinks, water, juices, teas, and other applications where dependable compressed air is required. Today, AF has over 4500+ compressor installations in over 170 countries around the world.

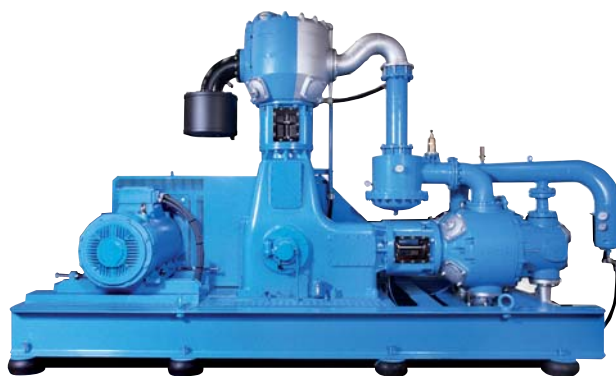


- 1870, AF, a privately owned company was formed in Liège, Belgium to produce pneumatic hammers for the mining industry.
- 1900-1950, AF manufactures reciprocating compressors for the coal and the steel industry.
- 1960, Oil-free reciprocating compressors with PTFE piston rings was developed and successfully used in the brewing, chemical, and food industries.
- 1980, AF begins manufacturing oil free PET Compressors to penetrate the emerging PET bottle market
- 2000, AF becomes the leading supplier and specialist for the high pressure oil-free compressor PET Market
- 2010, AF expands our product range for lower pressure applications including two-stage, oil-free piston compressors dedicated to the food and beverage industry.





The AF range of High Pressure - 20 to 40 bar - oil-free 3 stage piston PET compressors cover application from 225 m<sup>3</sup>/h to 3200 m<sup>3</sup>/h utilizing electric motors from 45 to 550 kW.



Compressed air capacity (Free Air Delivery) measured and guaranteed according to ISO 1217. Nominal pressure : 20 bar to 40 bar, and possibly up to 44 bar.

Air quality according to ISO 8573 : 1.2.4.1.

- The CE-RANGE with its proven technology is always available on the market.
- The L-RANGE with innovative technological features is offering higher performance.

See our complete range of capacities and specifications in the CE and L brochures.



- The AF Range of Low Pressure (7-10-15 bar) oil-free 2 stage piston compressors cover application from 550 m<sup>3</sup>/h to 2100 m<sup>3</sup>/h utilizing motors from 55 to 200 kW. All other capacities from 3 bar to 15 bar are available on request : [central@afcompressors.com](mailto:central@afcompressors.com)  
See our OPC brochure.



## THE HIGH PRESSURE PET COMPRESSOR TURN KEY SOLUTIONS



### CONTROL CABINET

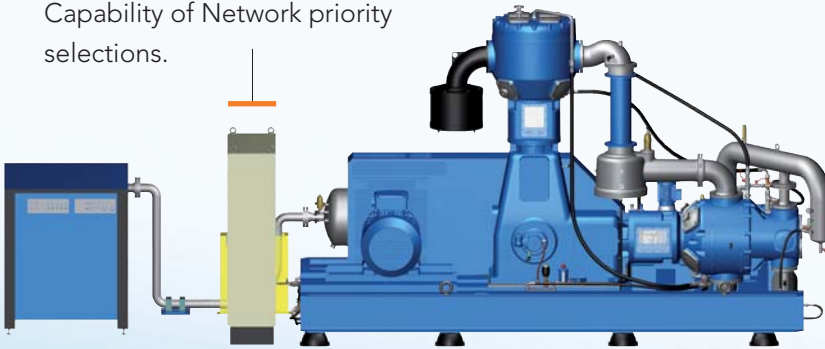
#### FEATURES

Starting and capacity control cabinet fully interconnected with the compressor, with microprocessor adaptable to PC monitoring

#### ► BENEFITS

Easy control and monitoring, Integrated monitoring of the whole package. Safe and securing control for the whole package.

Capability of Network priority selections.



### COMPRESSOR BARE UNIT : 20 to 40 BAR

#### FEATURES

Robust and simple "L" cylinder design.

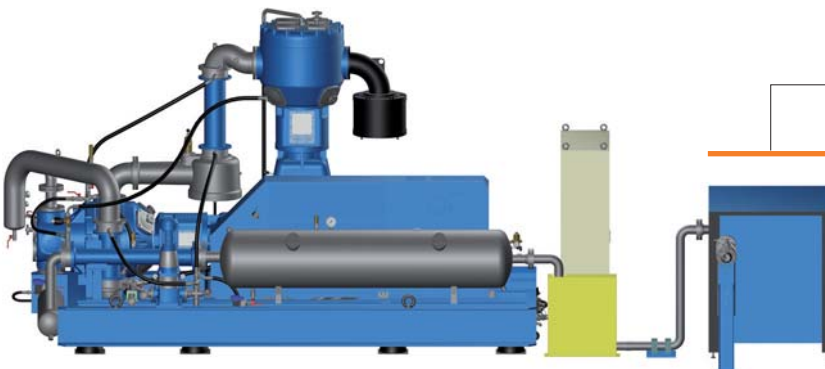
3 stage, 3 cylinders, 2 piston rod assemblies. Electric motor and V-belt transmission.

Skid mounted on antivibration mounts, no specific foundation. Automatic draining system.

#### ► BENEFITS

Easy and quick installation.

Long lifetime of all components & spares : Low maintenance costs.



### HP AIR RECEIVER - horizontal or vertical

#### FEATURES

Hot galvanised 40 bar Air Receiver. Equipped with Bekomat drain system.

#### ► BENEFITS

Air receiver with top quality 40 bar air. To the 40 bar air Dryer.

### AIR DRYER

#### FEATURES

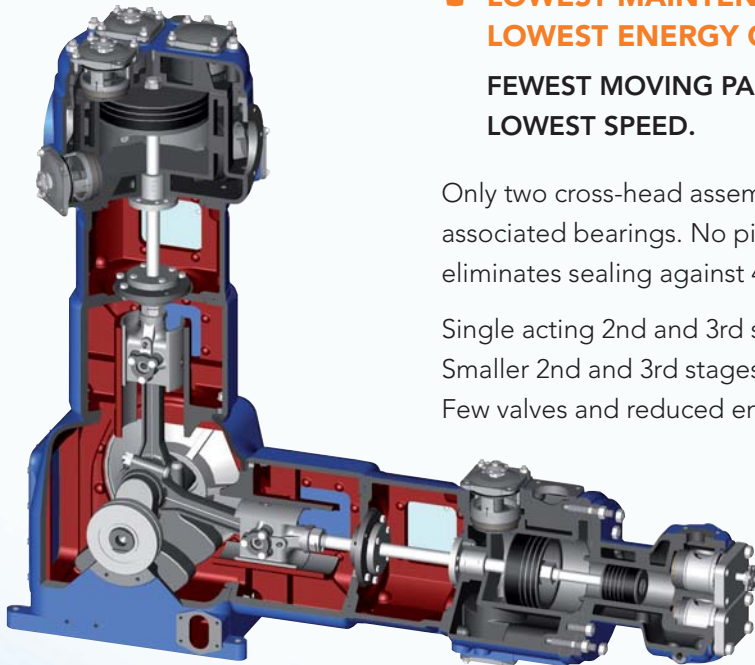
Stainless steel flexible connections from the galvanized air receiver to the refrigerative air dryer.

Stainless steel dryer with integrated 1 micron filter, dew point alarm and automatic Bekomat drain system.

#### ► BENEFITS

Highest quality High Pressure air available in the entire PET market.

Constant PET Production :  
Return on Investment.  
Best availability of PET  
Production time.



■ **LOWEST MAINTENANCE COSTS.  
LOWEST ENERGY COSTS.**

**FEWEST MOVING PARTS.  
LOWEST SPEED.**

Only two cross-head assemblies, two connecting rods and associated bearings. No piston rod packing on 3rd stage, which eliminates sealing against 40 bar.

Single acting 2nd and 3rd stage, requiring few valves.  
Smaller 2nd and 3rd stages horizontal to optimise the piston ring life.  
Few valves and reduced energy losses.

▶ **HIGH ENERGY EFFICIENCY :**

longer component life, less friction, low speed : 340 rpm to 670 rpm.  
Less wearing parts as described above.

- Easy access on the machine for maintenance.  
Reliability and easy maintenance.  
Less time for maintenance.
- Easy and quick installation due to the use of anti-vibration mounts, no specific foundation is required : low investment costs for installation.

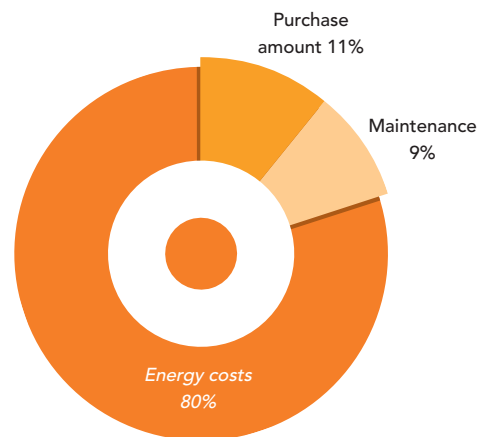


■ **80 % of PET Plant working money expenses is energy consumption**

AF brings your production direct money savings !

Energy cost is increasing worldwide and neglecting its importance in a production management is for sure increasing the working expenses.

Money savings is your benefit during years...  
AF Compressors offers the Lowest Energy Consumption

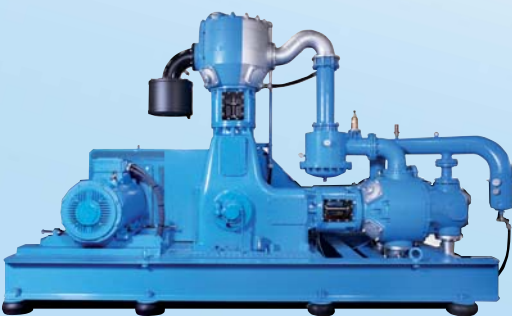


Total life cycle of a 40 bar PET compressor calculated on a 10 year operation.

COMPRESSOR OPTIONS :  
AVAILABLE OPTIONS FOR ANY SITE CONDITIONS



COMPRESSOR OPTIONS THE GLOBAL SOLUTION



COOLING SYSTEMS.

Radiator coolers or evaporative closed cooling towers. The cooling capacity is adapted to compressor's power, the water pump is mounted on compressor frame, pump and cooler are controlled by regulation and capacity control cabinet.

Radiator cooling systems.

Selected for maximum ambient temperatures up to 32°C or 36°C with automatic spray system.

Evaporative Cooling Towers.

All wetbulb temperature selections.

Every cooling system is designed to match with the most stringent ambient conditions from tropical environment to Siberia.

OTHER OPTIONAL SPECIFICATIONS.

40 Bar Air Dryer :

Stainless steel condenser, water cooled or air-cooled. Dew Point Alarm, integrated pre-filter.

Options for the HP air receiver :

Additional 2000 l, 5000 l air receivers, all certifications available CE-PED, ASME, SELO, GGTN...

Optional electrical control cabinet :

Airconditioning. Star delta starter is standard. Optional soft starter or frequency inverter.

Electric motors : IP23, IP55, IE 2, IE 3 class... :

Many optional equipment for a complete turnkey package. Protection for hot or cold temperatures : compressor crankcase : oil warming or oil cooler.

Air quality : ISO 8753 2.4.1. :

Filtration with all filtration levels - submicronic, particles, Active Carbon,... Stainless steel drain collector, additional HP stop valve. Set of spare parts for first necessity...





## COMPRESSOR OPTIONS : ENERGY SAVINGS

### INTEGRATING TCO - TOTAL COST OF OWNERSHIP IN THE COMPRESSOR NETWORK

#### Adjustable Air Flow System :

0-50-100 % air flow regulation system.

Full automatic partial regulation controlled by the PLC following to the exact air requirement of the Blow Moulding Machine.

#### Specific electric motors :

High efficiency motors I.E.3, specific motors for Frequency Inverter package 'VSD'...

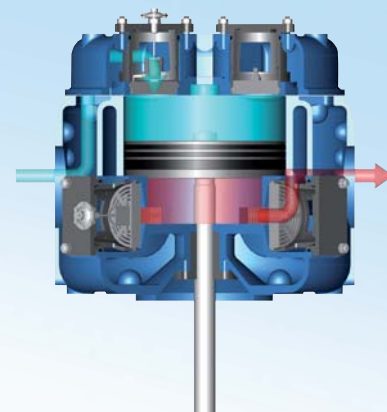
#### Frequency inverter. Variable Speed Drive.

Following to your specific bottling production profile, the Frequency Inverter will increase the efficiency and decreases the power consumption.

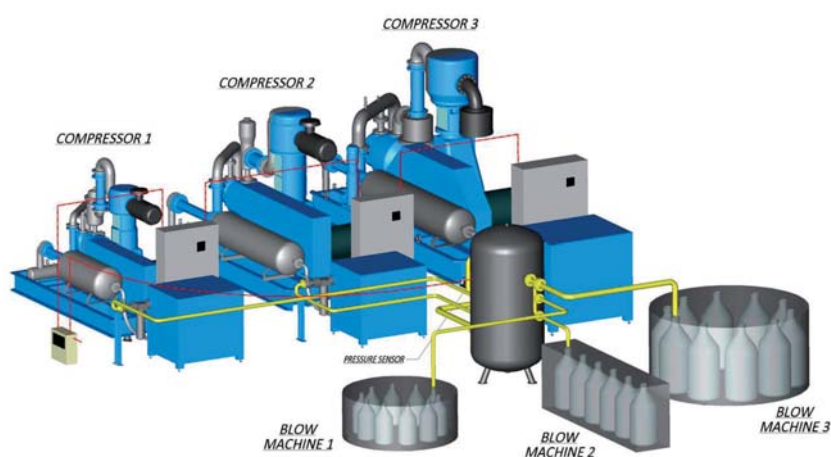
A pre-lubrication oil pump, a specific motor and other special device such as shielded cabling is included in the package. LHF, Line Harmonic Filters are optional following to your technical requirements.

#### Intelligent monitoring : Multiple Compressor Controller.

Managing and controlling from 2 to 12 units and more... compressors with star delta, soft starter or frequency inverters. The system controls for an optimal performance and energy savings. The air pressure is kept constant in the network. The compressors are monitored to anticipate the rapid pressure changes and air demand from the PET production. Many possibilities, same running hours, FIFO...



ENERGY AND  
COST SAVINGS



#### Air Back 5-Re-Injection System.

The Air Back re-injection-recycling system re-use the 5 bar compressed air coming back from the Blow Moulding Machine. The 1st Stage is acting as a Low Pressure unit while the 2nd and 3rd stage are managed as a Booster unit. The energy saving is from 8 to 9 kWh per m<sup>3</sup>/h retrofit. This unique system on the PET market has been engineered and designed by AF.



# AF COMPRESSORS

## ▶ THE HIGH PRESSURE PET SPECIALIST OPERATING WORLDWIDE



- |                |                   |
|----------------|-------------------|
| Algeria        | Nigeria           |
| Argentina      | Norway            |
| Australia      | Pakistan          |
| Austria        | Peru              |
| Bangladesh     | Philippines       |
| Belgium        | Poland            |
| Brazil         | Romania           |
| Canada         | Russia            |
| Chile          | Serbia            |
| China          | South Africa      |
| Czech Republic | South Korea       |
| Egypt          | Spain             |
| Finland        | Sweden            |
| France         | Switzerland       |
| Germany        | Thailand          |
| India          | Trinidad & Tobago |
| Indonesia      | Tunisia           |
| Kazakhstan     | Turkey            |
| Lebanon        | UAE-Dubai         |
| Luxembourg     | Ukraine           |
| Malaysia       | United Kingdom    |
| Mexico         | USA               |
| Morocco        | Vietnam           |

Visit our website to get all updated contact details of :

- AF subsidiaries, local commercial & technical support worldwide
- AF official agencies, with local service support



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