

Standard Equipment

Compressor

Single-stage, flooded rotary screw airend with the power-saving, proprietary Sigma Profile. The airend maintains its efficiency over a wide flow range.

SFC Drive System

- TEFC motor, high efficiency, 460 V or 575 V, 3-phase, 60 Hz, 1800 rpm, class F insulation, 1.15 service factor, and EPA compliant.
- PTC motor protection
- Siemens AG frequency converter
- Magnetic contactor between power and drive (galvanic separation)
- Pulse width modulation and IGBT Technology
- Soft start for unlimited motor starts
- Power factor correction to near unity
- Incoming AC line reactor
- EMI (electromagnetic interference) filter
- Pressure transducer controlled to +/-2 psig
- Constant torque

Sigma Control System

Sigma Control is a modern, compact, PC-based control system with Intel™ processor and real-time operating system. Sigma Control monitors all critical compressor and control system functions and compressor maintenance items. History memory offers easy trouble shooting and record keeping. Integrated database with plain text display in up to 30 languages. Sigma Control has three communication ports built in (RS 232, RS 485, Profibus) with open architecture for communication and integration into master control systems.

Protective Devices

Sigma Control System provides low temperature lock-out, and fluid temperature rise gradient monitoring. Safety pressure relief valve, emergency stop button and fluid level indicator are also included.

Compressor Control

The Sigma Control, combined with the SFC drive system, efficiently adjusts compressed air output to fluctuating requirements. System pressure is maintained ± 2 psig by reducing or increasing airend speed in a wide flow range without sacrificing efficiency. If the air demand falls below the minimum flow output, the compressor idles for a minimal period of time before it shuts down. The compressor starts up automatically if the pressure drops below a predetermined level.

Air/Coolant System

The cooling air enters the package through the cooling fluid and air coolers. The compressor intake air is taken from the outside and passes through a two-stage 4-micron air intake filter with cyclone pre-separation, and a replaceable, cleanable cartridge extends fluid drain intervals and airend life. Includes:

- Pneumatic inlet and vent valve.
- Combined reservoir and separator tank with 3-stage separation system ensures minimal fluid carry over of 2 ppm (by weight). Quick-change devices on the separator and cooler allow complete, fast, and easy fluid changes.
- ASME or CRN separator tank is equipped with quick-disconnect fittings for manual verification of separator element contamination.
- A thermostatically controlled valve ensures perfect regulation of the fluid temperature.

- The micro fluid filter utilizes a spin-on cartridge.
- Main fluid and compressed air lines are made of rigid pipe and incorporate flexible pipe connections.
- Standard units are air-cooled with high efficiency air and fluid cooler. Optional water cooling is available.
- Radial cooling fan(s) provides intensive cooling for reliable condensate removal and high static pressure for easy ducting.
- Moisture separator with Eco-Drain.

Enclosure

Compact unit is super sound-proofed by a sheet metal enclosure with mineral wool and plastic liners. Enclosure features a durable powder-coated finish. Compressor is mounted on solid base frame with a solid steel floor and anti-vibration mounts. Additional vibration isolation for airend, motor, and separator tank is standard. Unit is very maintenance-friendly with easy access to all important components through wide-opening access doors and removable cabinet panels with key locks.

Devices for Easy Maintenance

Fluid change pressurization valve complete with drain hose; gasketed and hinged doors on the front with slotted key locking lugs; removable rear and side panels and easily accessible drive motor grease fittings.

Options

Water-cooled models are available.

Accessories

A comprehensive range of clean air treatment products, including dryers, filters, separators, and air receivers are available.