

Revolutionary energy efficiency

Groundbreaking oil-free variable speed
screw compressor



PureAir
ISO CLASS: ZERO PLUS SILICONE FREE

Innovative oil-free
compressed air technologies

Ultima™ U75 – U160
Variable Speed

Ultima™ redefines efficiency

Ultima™ delivers on every level

Ultima is a groundbreaking oil-free PureAir compressor. The unique design of this all new compressor range from CompAir, utilises a low pressure and high pressure dry screw airend - each airend is individually driven by a variable speed, permanent magnet synchronous motor, offering exceptional levels of efficiency versus traditional oil-free technology. Considering that the highest cost in the lifecycle of a compressor is the energy to run it, the unique design of Ultima has allowed us to combine the ultimate performance with the ultimate efficiency, and still deliver a footprint 37% smaller than a conventional two-stage oil-free compressor.

GERMAN
ENGINEERING
& DESIGN

► **Pressure range**
4 to 10 bar

► **Volume flow**
6.7 to 23.3 m³/min

► **Motor power**
75 to 160 kW



100% oil and silicone-free for clean air critical applications

The Ultima compressors are 100% oil and silicone-free and meet ISO 8573-1 Class Zero (2010), making them the ideal choice for stringent oil-free applications within food and beverage, pharmaceutical, electronic and the automotive industries.

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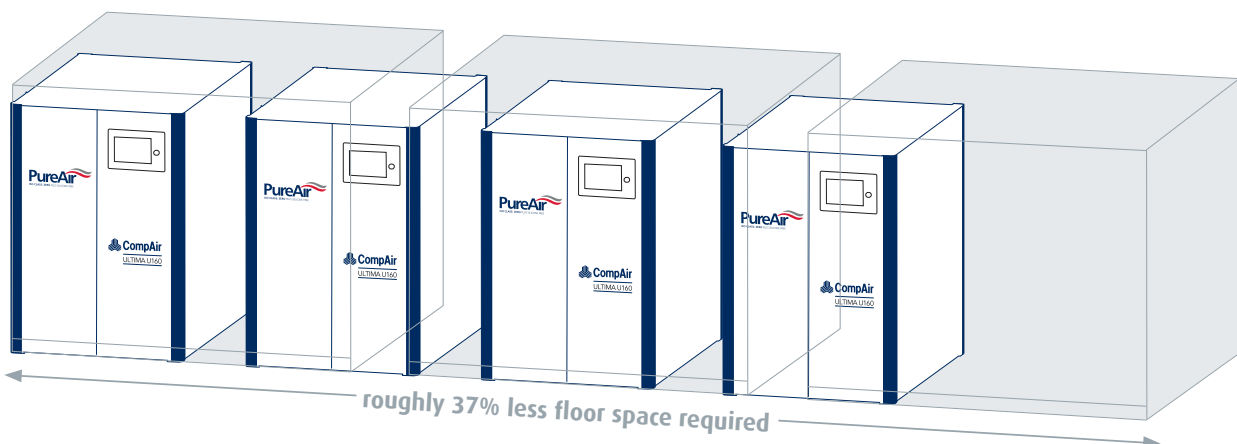
Delivering significant increases in efficiency and exceeding environmental targets.

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Ultima™ – The real deal

The unique patented design delivers numerous benefits to compressed air users:

- ▶ **100% oil and silicone free**
 - Highest levels of air quality
- ▶ **Highest efficiency levels**
 - Low running costs
- ▶ **Low noise design**
 - Installation at point of use
- ▶ **LP & HP airends individually driven**
 - Energy efficient across the flow range
- ▶ **Very efficient heat recovery**
 - Most efficient machine
- ▶ **Easy installation**
 - No ducting required
- ▶ **On-board monitoring**
 - Very user-friendly
- ▶ **Available with iConn remote monitoring**
 - IoT connected



Unrivalled power to weight ratio

Ultima contributes to bottom line cost savings in many ways. Not only do they deliver outstanding efficiency and significantly lower lifecycle costs, the Ultima requires on average, 3.4 m³ less space (or up to 37% less floor space) than a conventional two-stage oil-free compressor. This allows easy installation in the smallest possible space - not only a benefit where space is limited - it also translates into property cost saving.

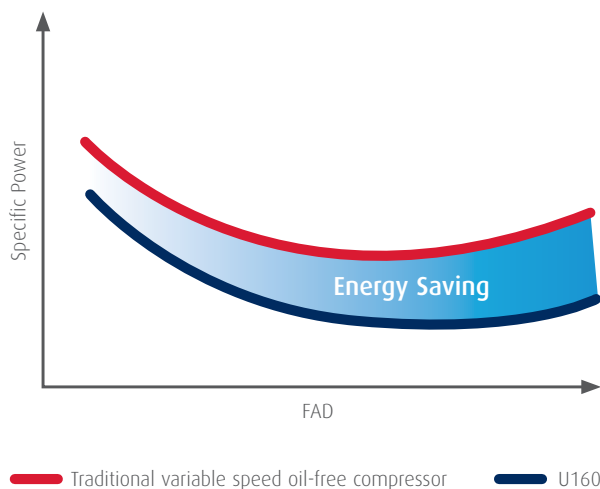
Ultima™ – truly superior, however you look at it

The unique drive design

Traditional oil-free compressors are driven by a single motor using a gearbox which in turn, drives both the low and high pressure airends. Gearboxes require oil and create friction which equates to energy loss. Ultima uses ultra high efficiency motors which replace the gearbox and the single motor which optimise performance throughout the complete volume range, as the airends can be driven at different speeds dependant on the demand. With a single motor driving both airends together this is not possible. This is where Ultima is hard to beat.

The Ultima design utilises an intelligent "digital gearbox" design which continuously monitors and independently adjust the speeds of each airend, ensuring maximum efficiency and pressure ratios at all times.

Efficiency - 160kW at 10 bar (g)



Even greater efficiency

When any regulated speed compressor gets to the minimum speed, it goes into idle run. For any compressor, this is wasted energy. Ultima uses 45% less energy in idle run than a conventional two-stage compressor and a 160kW compressor uses only 8 kW in idle run.



Perfectly balanced airend performance

Conventional oil-free compressors have both stages controlled by a single drive. With the machine speeding up and slowing down, the delivery ratio changes and so does the efficiency. Ultima features two individual units of high-speed, high-efficiency motors combined with the high-efficiency airends. The intelligent on-board controller again provides maximum efficiency by individually controlling the speed of each stage, perfectly matching the delivery ratio for optimum efficiency.

“Highest efficiency levels throughout the life of the compressor.”

Premium efficiency airends

Unlike the majority of oil-free airends that quickly succumb to performance degradation, the German engineered and manufactured airends featured in Ultima, use a special coating to ensure maximum efficiency and protection throughout the life of the compressor.

Unique cooling

By utilising the superior design of the closed loop water system, Ultima requires no air for internal cooling. Ultima processes cooling air within the compressor and utilising a heat exchanger, cools the internal air, then recirculates it via the base frame around the compressor. This also ensures that no dust or particulate can enter the inside of the compressor.

As a result, installation is made easy with no requirement for ducting, compressor rooms can be kept to the minimum size, noise levels are greatly reduced and machines can be easily installed at point of use.

Lowest noise levels

Due to the unique design, Ultima is extremely quiet, a 160kW compressor has a noise level of only 69dB(A). This is also a great benefit for customers who want to use compressors at point of use, eliminating the need for complicated and expensive pipework and even further maximising efficiency.



Ultima™ – driving the perfect compressed air solution

Indu

Delcos XXL smart compressor controller

The Delcos XXL with its high resolution 8-inch colour touch screen display, is extremely user-friendly and self-explanatory. All functions are clearly structured in five main menus and are intuitively visual. The multilingual Delcos XXL control system ensures reliable operation and protects your investment by continuously monitoring the operational parameters, essential for reducing your running costs.

iConn Industry 4.0 Solution

Ultima, through the controller, is iConn-ready. iConn is the all new and smart, proactive real-time monitoring service that delivers in-depth and real-time knowledge on the system to our compressed air users. It enables accurate production planning and total peace-of-mind protection, generating insight and statistics that keep users informed on performance, at the same time highlighting potential issues before they become a problem.

AirPlus – Compressed air solutions

Modern production systems and processes demand increasing levels of air quality. A CompAir compressed air system utilising the latest technology provides an energy efficient solution at lowest life cycle costs. Implementing heat recovery and sequencers further help to maximise the efficiency.

The right filtration and drying systems ensure that the equipment remains protected.



Secure iConn Data Management

Open to API's, such as SAP, GE, Oracle, Microsoft



Analytical → Predictive → Cognitive

Industry 4.0

PureCARE

Specifically developed to support our oil-free product range, the CompAir PureCARE service programmes go beyond traditional service schemes to ensure uninterrupted quality compressed air supply coupled with optimum compressor performance, giving you peace of mind for your production and budgeting processes.

PureCARE Service plans are delivered by factory-trained CompAir technicians specifically to keep your oil-free compressed air system at peak performance, supported by the unrivalled quality and performance of CompAir genuine parts. Each PureCare Service plan is tailored to your specific application and site circumstances, ensuring system reliability and productivity at optimum cost.

PureCARE
PUREAIR SERVICING & MAINTENANCE PROGRAMME



CompAir Ultima™ - Technical Data

Compressor Model	Working Pressure [bar g]	Drive Motor [kW]	FAD at 8 bar g ¹⁾ min - max [m ³ /min]	FAD at 10 bar g ¹⁾ min - max [m ³ /min]	Noise Level ²⁾ at 100% Load [dB(A)]	Dimensions L x W x H [mm]	Weight [kg]
U75	4 - 10	75	6.7 - 12.5	7.7 - 11.2	69	2044 x 1394 x 1992	2500
U90	4 - 10	90	6.7 - 14.9	7.7 - 13.4	69	2044 x 1394 x 1992	2500
U110	4 - 10	110	6.7 - 18.2	7.7 - 16.3	69	2044 x 1394 x 1992	2500
U132	4 - 10	132	6.7 - 21.5	7.7 - 19.6	69	2044 x 1394 x 1992	2500
U160	4 - 10	160	6.7 - 23.3	7.7 - 21.5	69	2044 x 1394 x 1992	2500

¹⁾ Data measured and stated in accordance with ISO 1217, Ed. 4, Annex C & E at the following conditions:
Air Intake Pressure: 1 bar a / 14.5 psia
Air Intake Temperature: 20°C / 68°F
Humidity: 0% (dry)

²⁾ Measured in free field conditions in accordance with the ISO 2151 test code, tolerance ± 3dB(A)

Global experience – truly local service



Our Sales and Service trade counter in High Wycombe. With over 200 years of engineering excellence, the CompAir brand offers an extensive range of highly reliable, energy efficient compressors and accessories to suit all applications.

An extensive network of dedicated CompAir Sales companies and distributors across all continents provide global expertise with a truly local service, ensuring our advanced technology is backed up with the right support.

As part of the worldwide Gardner Denver operation, CompAir has consistently been at the forefront of compressed air systems development, culminating in some of the most energy efficient and low environment impact compressor on the market today, helping customers achieve or surpass their sustainability targets.

CompAir compressed air product range

Advanced Compressor Technology

Lubricated

- Rotary Screw
 - Fixed and Regulated Speed
- Piston
- Portable

Oil-Free

- Water Injected Screw
 - Fixed and Regulated Speed
- Two Stage Screw
 - Fixed and Regulated Speed
- Piston
- High Speed Centrifugal - Quantima®
- Rotary Scroll

Complete Air Treatment Range

- Filtration
- Refrigerant and Desiccant Dryer
- Condensate Management
- Heat of Compression Dryer
- Nitrogen Generator

Modern Control Systems

- CompAir DELCOS Controllers
- SmartAir Master Sequencer

Value Added Services

- Professional Air Audit
- Performance Reporting
- Leak Detection

Leading Customer Support

- Custom Engineered Solutions
- Genuine CompAir Parts and Lubricants



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