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OIL-FREE ROTARY SCREW COMPRESSORS

Fixed Speed

Regulated Speed (RS)

D75 – D275



INTELLIGENT AIR TECHNOLOGY



⇒ D75 – D275 OIL-FREE ROTARY SCREW COMPRESSORS AIR & WATER COOLED – FIXED & REGULATED SPEED



The CompAir range of oil-free compressors can be relied on to deliver a consistent flow of high quality, clean and economical compressed air.



Where contaminated compressed air can result in expensive product spoilage, you can rest assured that a CompAir oil-free compressor will eliminate oil-carryover in the compressed air supply. In addition, the removal of oil from the compression process enables compressed air users to operate with maximum environmental efficiency.



CompAir have been designing, manufacturing and supplying oil-free compressors for more than 90 years.

CompAir's D-Range of compressors generate the highest quality oil-free air in accordance with ISO 8573 Class 0, making them the ideal choice for manufacturing processes where air is in direct contact with product or sensitive equipment. Industries such as Chemical, Food & Beverage, Pharmaceutical, Electronics and Power Generation already rely on CompAir for complete oil-free peace of mind.

Industries, both large and small, rely on CompAir for a supply of consistently high quality compressed air.

⇒ D75 – D275 water-cooled



⇒ QUALITY FEATURES FOR HIGH QUALITY OIL-FREE AIR

⇒ *CompAir Compression Element* *100% Oil-Free Compressed Air – Guaranteed*

Non-contact, non-wearing labyrinth seals prevent bearing lubricant entering the compression chamber.

The design also features heavy duty, low friction ball and roller bearings and helical drive and timing gears. Thrust balance pistons equalise the loads across the bearings, allowing each bearing to achieve its optimum life expectancy.

⇒ *Excellent Efficiency*

The CompAir compression element design sets the industry standard for energy efficiency. Advanced asymmetric rotor profiles and optimised radial and axial porting ensure maximum air output for minimum energy consumption.

The rotor casings feature generously-sized liquid cooling passages for even heat dissipation, enabling closer tolerances to be used for high compression efficiency.

⇒ *Extended Service Life*

For the longest working life the correct lubrication and cooling of gears and bearings, under all conditions, is essential. For this reason, the CompAir D-Series features an electric motor-driven oil pump that delivers full lubricant pressure prior to starting and during the stopping phases, thereby extending the operating life of the compression element.

Two-stage inlet filtration protects against the ingress of airborne particles into the compression elements. Filter element life is extended by the enclosure mesh panel filters. This also ensures that the motors and coolers operate with the maximum cooling capability.



Motor-driven oil pump extends component life through optimum bearing and gear lubrication



Thrust balance pistons on low and high pressure compression elements equalise bearing loads and extend element life



Protection relay ensures security of operation and safeguards your investment



IP55 totally enclosed, fan cooled, energy efficient drive motor



Coated rotors and casings for maximum protection and long operating life

⇒ Air Cooling System

The optimised air cooling arrangement ensures that only unheated ambient air passes across the coolers, maximising the cooling effect and enabling the plant to operate in high ambient temperatures with total reliability.

Air cooling simplifies installation and eliminates the costs associated with installing and maintaining cooling water systems.

A low final air discharge temperature reduces the sizing and loading on downstream air treatment equipment.



⇒ D75–D150 air-cooled

⇒ PERFECT RESPONSE TO YOUR INDIVIDUAL AIR DEMANDS WITH REGULATED SPEED TECHNOLOGY

The D-range of compressors offers a number of regulated speed models using highest efficiency inverter drives and modern easy to use touch screen technology. Adding a regulated speed compressor to any installation of standard compressors gives the entire system the ability to precisely match output to demand, allowing the compressors to consume exactly the right amount of energy to do the job, and no more providing excellent energy savings.



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⇒ ENERGY RECOVERY

Utilising the hot cooling air discharge, CompAir D-Range air-cooled compressors can provide space heating to supplement existing systems and reduce heating costs.

D-Range water-cooled compressors can be factory configured to provide cooling water outlet temperatures of up to 85°C, enabling the water to be used for process or heating requirements

➤ HIGH RELIABILITY CONTROL SYSTEM

CompAir's microprocessor-based compressor management system simplifies operation and allows instant review of status. Comprehensive control, condition monitoring, protection and remote control facilities are incorporated into the system.

Recognising that many electrical supplies are subject to irregularities, a protection relay is fitted to provide security against reverse rotation, phase imbalance, phase failure and phase reversal.

With flexibility built in, the D-Series range can meet specific control requirements such as:

- Remote start and stop
- Remote load and unload
- Automatic power failure restart
- Available output
- Running output
- Onload output
- Service due output
- Group alarm and trip outputs
- RS485 communications interface for remote monitoring and control.



➤ INDIVIDUAL SOLUTIONS FOR YOUR SPECIFIC APPLICATION

The D-range compressors can be specially modified to meet the individual demands and specifications of a wide range of industries.

Examples for customer engineered products:

- Alternative voltages
- Outdoor weather protection
- Freeze protection
- Non-standard motors
- Silicon free compressors
- Soft starter solutions
- HOC (Heat Of Compression) connections for HOC dryers
- Special control and instrumentation for oil and gas industry
- Stainless steel canopies and special paintings
- Company specific documentation

A modern production system and process demands increasing levels of air quality. A CompAir compressed air system utilising the latest technology provides an energy efficient solution at lowest life cycle costs.

➤ *Compressed Air Refrigerant Dryer*

With pressure dew point down to 3°C CompAir offer a full range of energy efficient and environmentally friendly stand alone refrigerant dryers.



➤ *HOC Dryers*

Utilising heat generated by the compressor to re generate the dessicant towers.

➤ *Refrigerant - Zero ODP*

Ozone friendly.

➤ *Heatless Desiccant Dryers*

Series A_XS and A_TX.

➤ *Heat Regenerative*

Desiccant Dryers
Series A_TV and A_RS.



➤ *Condensate Drain Bekomat*

System to drain compressed air condensate without loss of compressed air.



➤ *Oil-Water Separation System*

Proven and enhanced oil-water separation system for disposal of compressed air condensate.



➤ *Compressed Air Filter CF N Series*

Particle removal including water and oil aerosols.

➤ *Water Cyclone Separator X N Series*

Designed for efficient removal of bulk liquid contamination from compressed air.



➤ *SmartAir Lite & SmartAir Master Sequencers*

for up to 12 units



➤ **SIMPLIFIED MAINTENANCE**

Servicing costs and downtime are kept to a minimum with:

- A grouped service area
- Simplified access for cooler cleaning
- Hinged service access doors all round
- 8000 hours standard service interval.

A pumped lubricant drain facility ensures that lubricant changes are both quick and clean.

The CompAir SureScan control system identifies servicing needs and allows for services to be conveniently planned.

➤ TECHNICAL DATA

➤ D75–D150 FIXED SPEED OIL-FREE ROTARY SCREW COMPRESSORS: AIR COOLED

| COMPRESSOR MODEL | | D75-A | | D90-A | | D110-A | | D132-A | | D150-A | |
|---------------------------------|---------------------|----------------|------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| Nominal pressure | bar g | 8 | 10 | 8 | 10 | 8 | 10 | 8 | 10 | 8 | 10 |
| Drive Motor | kW | 75 | | 90 | | 110 | | 132 | | 150 | |
| FAD ¹⁾ | m ³ /min | 11.13 | 9.46 | 13.81 | 12.12 | 16.75 | 14.83 | 19.93 | 17.67 | 22.87 | 20.99 |
| Noise level ²⁾ , 1 m | | 73 | | 74 | | 75 | | 76 | | 77 | |
| Dimensions (L x W x H) | mm | 2895x1600x2050 | | 2895x1600x2050 | | 2895x1600x2050 | | 2895x1600x2050 | | 2895x1600x2050 | |
| Weight | kg | 2490 | | 2565 | | 2758 | | 2816 | | 2986 | |

➤ D75–D275 FIXED SPEED OIL-FREE ROTARY SCREW COMPRESSORS: WATER COOLED

| COMPRESSOR MODEL | | D75-W | | D90-W | | D110-W | | D132-W | | D150-W | | D155-W |
|---------------------------------|---------------------|----------------|--|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|
| Nominal pressure | bar g | 8 | | 8 | 10.5 | 8 | 10.5 | 8 | 10.5 | 8 | 10.5 | 10.5 |
| Drive Motor | kW | 75 | | 90 | | 110 | | 132 | | 150 | | 185 |
| FAD ¹⁾ | m ³ /min | 11.25 | | 14.61 | 11.17 | 17.62 | 14.45 | 20.59 | 17.53 | 22.78 | 20.40 | 22.61 |
| Noise level ²⁾ , 1 m | | 75 | | 76 | 75 | 77 | 76 | 78 | 77 | 79 | 78 | 79 |
| Dimensions (L x W x H) | mm | 2300x1500x1500 | | 2300x1500x1500 | | 2300x1500x1500 | | 2300x1500x1500 | | 2300x1500x1500 | | 2300x1500x1500 |
| Weight | kg | 2193 | | 2323 | | 2423 | | 2633 | | 2843 | | 2855 |

| COMPRESSOR MODEL | | D160-W | | D185-W | | D200-W | | D250-W | | D275-W |
|---------------------------------|---------------------|----------------|--|----------------|-------|----------------|-------|----------------|-------|----------------|
| Nominal pressure | bar g | 8 | | 9 | 10 | 9 | 10 | 8 | 10 | 9 |
| Drive Motor | kW | 150 | | 185 | 185 | 200 | 200 | 260 | 260 | 300 |
| FAD ¹⁾ | m ³ /min | 24.21 | | 28.95 | 23.96 | 34.34 | 28.74 | 42.42 | 34.18 | 42.30 |
| Noise level ²⁾ , 1 m | | 77 | | 78 | 77 | 79 | 78 | 80 | 79 | 80 |
| Dimensions (L x W x H) | mm | 3200x1900x1841 | | 3200x1900x1841 | | 3200x1900x1841 | | 3200x1900x1841 | | 3200x1900x1841 |
| Weight | kg | 4243 | | 4253 | | 4743 | | 4894 | | 5244 |

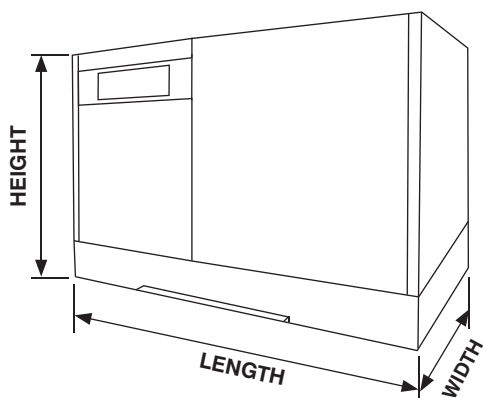
➤ D110–D275 REGULATED SPEED OIL-FREE ROTARY SCREW COMPRESSORS

| COMPRESSOR MODEL | | D110RS-A | | D110RS-W | | D155RS-W | | D275RS-W | |
|-------------------------------------|---------------------|----------------|----|----------------|----|----------------|----|----------------|----|
| Min - Max pressure | bar g | 4 | 10 | 4 | 10 | 4 | 10 | 4 | 10 |
| Drive Motor | kW | 110 | | 110 | | 160 | | 300 | |
| FAD at 7 bar ¹⁾ | m ³ /min | 7.50-14.95 | | 7.05-14.20 | | 12.05-22.89 | | 21.20-42.60 | |
| Noise level ²⁾ , 1 m | | 76 | | 77 | | 80 | | 81 | |
| Dimensions compressor (L x W x H) | mm | 2895x1600x2050 | | 2300x1500x1500 | | 2300x1500x1500 | | 3200x1900x1841 | |
| Dimensions inverter box (L x W x H) | mm | 1200x600x2325 | | 1200x600x2325 | | 1200x600x2325 | | 1600x600x2525 | |
| Weight | kg | 2758 | | 2423 | | 2855 | | 5100 | |

¹⁾ Data measured and stated in accordance with ISO 1217 Edition 4, Annex C & E at the following conditions:

Air Intake Pressure 1 bar a/14.5 psi; Air Intake Temperature 20°C/68°F; Humidity 0% (dry)

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



INNOVATIVE PRODUCTS AND SERVICES

– TRUST COMPAIR TO SUPPLY INTELLIGENT COMPRESSED AIR SOLUTIONS



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 environmental impact compressors 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®

Complete Air Treatment Range

- Filter
- Refrigerant Dryer
- Desiccant Dryer
- Condensate Management
- Heat of Compression Dryer

Modern Control Systems

- CompAir DELCOS Controllers
- SmartAir Master Sequencer

Value Added Services

- Air Audit
- Performance Reporting
- Leak Detection

Leading Customer Support

- Custom Engineered Solutions
- Local Service Centres
- Genuine CompAir Parts and Lubricants

CompAir policy is one of continuous improvement and we therefore reserve the right to alter specifications and prices without prior notice. All products are sold subject to the Company's conditions of sale.

