



»»» DRE 150
DRE 150 IVR

»»» DRF 150-220
DRF 180-240 IVR

Gearbox driven
Oil-injected screw compressors
Fixed and variable speed

Robust, reliable, efficient.
Maximum benefits in
compressed air.





>>> DRE • DRF • Gearbox Driven DRE • DRF IVR • Gearbox driven • Variable speed

To help you achieve the highest productivity, Ceccato has developed a strong range of solutions and services. With the DRE/DRF ranges, you will get superior reliability and performance levels while keeping ease of installation and operation. The machine combines all the key features and built-in intelligence to help you reach optimal productivity each and every day.

Based on a solid technical experience and application knowledge, Ceccato is the right partner to accompany the industries in their daily challenges and contributes to their success.

User benefits

Time-proven reliability

- Meticulous components selection and advanced technology
- Strict qualification and testing procedure
- Rigid pipes and elastic coupling: durability and leak free
- Smart Airlogic® controller for a flexible monitoring
- Long lifetime filtration system

High performance

- Airend with two asymmetrical profile rotors mounted on superior-quality bearings
- High performance electric motor (IE2)
- Gear driven for highest efficiency and reliability over time
- Energy efficient ventilation with speed regulated turbines (except DRE)
- Aluminium type cooler blocks with a large surface for maximum cooling efficiency

Easy to install and operate

- Low noise level for compatibility with most operating environments
- All-in-one included package and no special foundation needed
- All connection accessible from the same side for easy installation
- Easy ducting from the roof

Service friendly design

- Wide doors that open 180°, easily removable panels
- Easy access to all working parts and consumables
- Completely free sides
- No special tools required
- Clear service schedule available from the Airlogic®



Ceccato DRE/DRF ranges offer a flexible choice of compressors, from 110 till 160kW, in different pressure and cooling variants, all gearbox driven, fix or variable speed. All compressors are designed to reach the same target: guarantee the highest uptime, and ensure you long and easy operation with the lowest operating costs.

>>> Fix speed control – Load/unload regulation

A load/unload compressor delivers a constant air capacity. The net pressure is controlled by an inlet valve operating the compressor in a load/unload cycle. In case the set pressure is reached, the compressor turns into unload mode (by closing the inlet valve). When the pressure value drops below a specific level, the compressor starts up the same routine.

>>> Variable speed control – Frequency inverter regulation (IVR)

A frequency driven compressor has a working pattern with lower peaks and a smoother air profile. This is achieved by controlling the air delivery and producing only the amount of air required for the customer's application at a specific moment. The net pressure is maintained by use of a frequency inverter. As a result, the compressor consumes only the energy needed which is very cost efficient. Additional benefits:

- ✓ Certified electromagnetic compatibility
- ✓ Higher process stability
- ✓ Reduced compressed air leaks
- ✓ Ramped motor start up
- ✓ No current peaks, no tax penalties from power suppliers
- ✓ Less stress on coupling elements and improved mechanical reliability

GEARBOX DRIVEN - Fixed & Variable speed



»»» Standard equipment

| STANDARD | GEARBOX DRIVEN | |
|---|----------------|----------------|
| | Fixed speed | Variable speed |
| Intake filter | standard | standard |
| Capacity control device | standard | standard |
| Screw compressor with asymmetrical profile rotors | standard | standard |
| Gear driven transmission with elastic coupling | standard | standard |
| IP55 electrical motor, class F insulation | standard | standard |
| Optimized Air/Oil separator | standard | standard |
| Oil filters | standard | standard |
| Aluminum type Air/Oil coolers | standard | standard |
| Speed regulated radial fans (except DRE) | standard | standard |
| Oil pressure regulating valve | standard | standard |
| Control panel | standard | standard |
| Electronic controller | standard | standard |
| Insulated sound cover | standard | standard |
| Anti-vibration dampers | standard | standard |
| Standard high efficiency panels | standard | standard |
| Integrated frequency drive (for IVR machine only) | x | standard |

»»» Large scope of available options

Special conditions require special care for your compressor. A carefully designed choice of optional features protect your machine or process when it is required:

| OPTION | GEARBOX DRIVEN | |
|--|----------------|----------------|
| | Fixed speed | Variable speed |
| High efficiency external intake filter | ✓ | ✓ |
| Dust filtration panels | ✓ | (standard) |
| Water separator | ✓ | ✓ |
| Automatic drain* | ✓ | ✓ |
| Modulating control | ✓ | ✓ |
| Phase sequence relay | ✓ | ✓ |
| Wooden case | ✓ | ✓ |
| 4000 hours oil | ✓ | ✓ |
| 8000 hours oil | ✓ | ✓ |
| Food grade oil | ✓ | ✓ |
| Energy recovery | ✓ | ✓ |

* In combination with water separator drain



“ The DRE / DRF gearbox driven ranges come with a wide range of options, so all customer needs can be met. ”

“ Advanced design Powerful & efficient Very rigid and robust construction ”

“ Maintenance is a one man job now. Costs me less. ”

“ Thanks to the synergy in design within the ranges, the service is facilitated, availability of parts is increased and lead times of machines are reduced. ”

Great reliability and flexible package

»»» DRE 150 DRE 150 IVR

The DRE is the ideal solution for all industries requiring high reliability and low operating costs. Easy installation, excellent accessibility and simple design are the results of decades of experience in designing and constructing compressors.

The gearbox driven transmission makes the compressors more reliable, more efficient, more compact and less noisy. Flexible coupling transmits torque and absorbs any torque stress that may occur during start-up and shutdown and also contributes to:

- Reduces energy costs
- Increases reliability
- Lower vibrations
- Extends component life

The DRE IVR offers all benefits to help you lower down your energy cost to a minimum: a highly efficient frequency converter with low harmonic distortion is built into the machine in a well-ventilated housing.



»»» Components



- 1 filtration panel
- 2 controller
- 3 electrical cubicle
- 4 air/oil coolers

- 5 oil separator vessel
- 6 base frame
- 7 oil filters
- 8 unloader valve
- 9 air filter

- 10 air end
- 11 gear driven transmission
- 12 motor
- 13 cooling fans



Powerful compressed air system to match your compressed air demands

DRF 150-180-220 DRF 180-240 IVR

The DRF is a robust solution offering multiple benefits in a compact package. Nothing has been left to chance: all features have been thought, designed and qualified, all components have been carefully selected.

To bring down the operating costs, all the DRF machines are fitted with speed regulated EC (Electronic Commutation) turbines. The speed is automatically regulated to the cooling requirements of the machine which brings many benefits:

- Lower noise level
- Increased energy savings, as the turbine is speed regulated to the cooling requirement
- Increased reliability by ensuring a constant temperature and reduced maintenance

The DRF IVR screw compressor, coupled to a system that electronically adjusts the motor's rotation speed, only consumes the energy needed to produce the compressed air required by the system. This saves over 30% compared to a fix speed machine at equal power.



Components



- 1 filtration panel
- 2 controller
- 3 frequency inverters
- 4 oil separator vessel

- 5 base frame
- 6 air/oil coolers
- 7 oil filters
- 8 unloader valve
- 9 air filter

- 10 air end
- 11 gear driven transmission
- 12 motor
- 13 cooling fans

Energy audit

A frequency driven compressor potentially offers a very energy efficient compressed air installation, with a return on investment of typically 1-2 years. To help you decide to go with a frequency driven compressor or not, Ceccato has created the Energy Cutter, a tool which calculates in an easy way and visually presents the yearly savings that can be obtained from investing in a frequency driven compressor for any specific industry. Besides the Energy Cutter tool, Ceccato offers energy audits, specialized advice to make sure you make the right decision when buying your compressor.



GEARBOX DRIVEN - Fixed & Variable speed



»»» Technical data

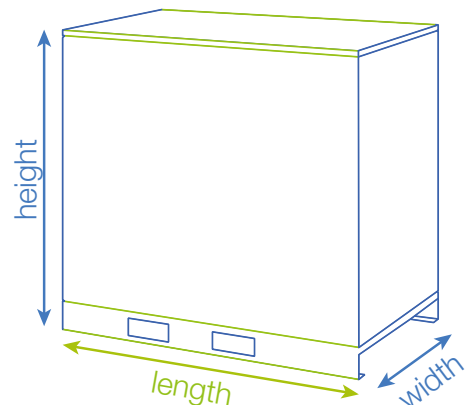
| FIX SPEED | Max. Working Pressure | Reference Working Pressure | Free Air Delivery @ reference conditions* | | | Motor Power | | Noise Level** | Cooling Air Volume | Compressed Air output diameter | Weight |
|-----------|-----------------------|----------------------------|---|-----|------|-------------|-----|---------------|--------------------|--------------------------------|--------|
| Model | BAR | BAR | m ³ /h | l/s | cfm | kW | hp | dB(A) | m ³ /h | " | kg |
| DRE 150 | 7,5 | 7 | 1175 | 326 | 692 | 110 | 150 | 75 | 15000 | 2" | 1810 |
| | 8 | 7,5 | 1139 | 316 | 670 | 110 | 150 | 75 | 15000 | | 1810 |
| | 10 | 9,5 | 1025 | 285 | 603 | 110 | 150 | 75 | 15000 | | 1810 |
| | 13 | 12,5 | 880 | 244 | 518 | 110 | 150 | 75 | 15000 | | 1790 |
| DRF 150 | 7,5 | 7 | 1192 | 331 | 702 | 110 | 150 | 75 | 19500 | 3" | 2931 |
| | 8 | 7,5 | 1143 | 317 | 673 | 110 | 150 | 75 | 19500 | | |
| | 10 | 9,5 | 1028 | 285 | 605 | 110 | 150 | 75 | 19500 | | |
| | 13 | 12,5 | 866 | 240 | 510 | 110 | 150 | 75 | 19500 | | |
| DRF 180 | 7,5 | 7 | 1415 | 393 | 833 | 132 | 180 | 75 | 19500 | 3" | 3020 |
| | 8 | 7,5 | 1358 | 377 | 799 | 132 | 180 | 75 | 19500 | | |
| | 10 | 9,5 | 1231 | 341 | 725 | 132 | 180 | 75 | 19500 | | |
| | 13 | 12,5 | 1011 | 280 | 595 | 132 | 180 | 75 | 19500 | | |
| DRF 220 | 7,5 | 7 | 1717 | 477 | 1011 | 160 | 220 | 73 | 26000 | 3" | 2830 |
| | 8 | 7,5 | 1641 | 456 | 966 | 160 | 220 | 73 | 26000 | | |
| | 10 | 9,5 | 1490 | 414 | 877 | 160 | 220 | 73 | 26000 | | |
| | 13 | 12,5 | 1231 | 342 | 725 | 160 | 220 | 73 | 26000 | | |

| VARIABLE SPEED | Working pressure | Min Free Air Delivery (7 bar) | | | Max Free Air Delivery* | | | | | | | | | | | | Motor Power | Noise Level** | Cooling Air Volume | Compressed Air output diameter | Weight | |
|----------------|------------------|-------------------------------|-----|-----|------------------------|-----|------|------|-----|-----|------|------|------|------|------|------|-------------|---------------|--------------------|--------------------------------|--------|------|
| Model | BAR | m ³ /h | l/s | cfm | 7 | | | 9,5 | | | 10 | | | 12,5 | | | kW | hp | dB(A) | m ³ /h | " | kg |
| DRE 150 IVR | 4-10 | 202 | 56 | 119 | 1144 | 318 | 673 | 1019 | 283 | 600 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 110 | 150 | 75 | 15000 | 3" | 1860 |
| | 4-13 | 142 | 39 | 84 | 902 | 251 | 531 | 897 | 249 | 528 | 895 | 249 | 527 | 883 | 245 | 520 | 110 | 150 | 75 | 15000 | | |
| DRF 180 IVR | 4-10 | 310 | 86 | 183 | 1486 | 412 | 872 | 1360 | 377 | 798 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 132 | 180 | 75 | 19440 | 3" | 2509 |
| | 4-13 | 375 | 104 | 221 | 1291 | 358 | 758 | 1234 | 342 | 724 | 1230 | 341 | 722 | 1183 | 328 | 694 | 132 | 180 | 75 | 19440 | | |
| DRF 240 IVR | 4-10 | 276 | 77 | 162 | 1820 | 506 | 1071 | 1615 | 449 | 950 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 160 | 220 | 73 | 26000 | 3" | 3550 |
| | 4-13 | 283 | 79 | 167 | 1361 | 378 | 801 | 1349 | 375 | 792 | 1341 | 373 | 789 | 1315 | 365 | 774 | 160 | 220 | 73 | 26000 | | |

* Unit performance measured according to ISO 1217, Annex C, latest edition
 ** Noise level measured according to ISO 2151
 All technical data for Aircooled machines.
 For technical data of Watercooled machines, please contact your local salesforce.

»»» Dimensions

| FIX SPEED | DIMENSIONS | | | VARIABLE SPEED | DIMENSIONS | | |
|-------------|------------|----------|-----------|----------------|------------|----------|-----------|
| Model | length mm | width mm | height mm | Model | length mm | width mm | height mm |
| DRE 150 | 2160 | 1100 | 1600 | DRE 150 IVR | 2160 | 1100 | 1600 |
| DRF 150-180 | 2860 | 1500 | 1940 | DRF 180 IVR | 2860 | 1500 | 1940 |
| DRF 220 | 2842 | 1610 | 1992 | DRF 240 IVR | 2942 | 1610 | 1992 |



SMART TECHNICAL ADVANTAGES

INTELLIGENT BUILT-IN SYSTEM

- User friendly interface for easy monitoring, 27 languages available.
- Protect your compressed air system
- Large scope of integrated functionalities : timers, dual pressure band
- Clear service schedule and fault report (10 last cases)



EXCELLENT ACCESSIBILITY, SAFE MAINTENANCE

- Coolers vertically mounted for easy maintenance
- Efficient 3-stage air/oil separation (centrifugal/gravitational/coalescent) for residual oil content < 3 ppm
- Special mountings facilitate assembly and dismantling



DESIGNED FOR HIGHEST RELIABILITY

- Variable speed turbine fans (except DRE) with low-noise, high-capacity, silent operation
- Air flow spreads over surfaces of all internal working parts, cooling them and protecting them against hot spots
- Aluminum air-oil cooler has large surface area for heat transfer and effectively cools air and oil
- Pre-filtration panel provide maximum protection of internal working parts by filtering all incoming air



Oil injected Screw compressors,
Gearbox driven

Ranges:

- DRE 150 and DRE 150 IVR
- DRF 150-220
and DRF 180-240 IVR



- A higher final product quality and a strong **technology you can trust**
- Choosing for our high performance compressor offers you a strong **partnership**
- Our products are **simple, easy to use** and stand for a high **reliability**
- **Service** and aftermarket are guaranteed
- Original Parts and Services
- Dealers are always nearby and have strong **availability**



Increase your profit and improve the image of your company



Contact your local Ceccato representative now!

6999100310



www.ceccato-compressors.com