



Dry screw air compressors

Oil-free air
ISO 8573-1 CLASS 0

Reliable air for demanding sites

A TAILOR-MADE APPROACH Reduces interface risk

Utility & instrument air is critical for plant services. When harsh and extreme environmental conditions and demand vary, a compressor is only as reliable as the package around it—cooling, filtration, drains, controls and maintainability. Our tailor-made oil-free rotary screw compressor packages are engineered as integrated “ready-to-use” skids, to simplify installation, shorten commissioning time and support stable operation over time, across varying demand.

A systems approach to lowest lifecycle cost

Delivering reliable compressed air goes beyond the compressor core. We engineer the package as a complete system: selection for worst-case inlet conditions, robust cooling strategy, accessible maintenance layout, and the documentation set required for end-user and long-term operations.



Packaging done right

Engineered for uptime, easy installation and maintenance

Designed for demanding compressed air applications, this package combines oil-free compression with robust cooling and effective moisture separation. Clear package interfaces and service-friendly access reduce commissioning effort and support reliable operation over the full lifecycle.

Key benefits

- Oil-free air design (ISO 8573-1 Class 0) in combination with Hadetec's filter & dryer packages
- Designed for harsh & extreme conditions; marine & salt laden, continental & arid or desert environments
- Integrated cooling, separation and automatic drains
- Service access designed for fast routine maintenance
- Connectivity / monitoring options for alarms and status
- High Free Air Delivery (FAD) with low energy consumption
- No external instrument air is required

Some specifications

- **Pressure:** Up to 13 bar(g)
- **Ambient design basis:** -40 to + 55 °C
- **Controls:** PLC or Microprocessor based controller integrated in a NEMA4X / IP66 enclosure
- **Control principle:** Fixed Speed (Load/Unload) or Variable Speed Drive (VSD)
- **Noise:** Acoustic enclosure option
- **Filtration:** High level self cleaning inlet filter

1 Automatic louvers

- To reduce dust ingress during standby operation



2 Full enclosure concept

- For outdoor duty & low noise targets
- Service-friendly access through wide doors

3 Self cleaning inlet filtration for cooling air inside the compressor canopy

- Supports operation in high-dust environments



4 Self cleaning pulse-jet inlet filtration for compressed (process) air

- ISO 5011 verified filter performance

Built by a package integrator

Integrated systems for industrial utilities

We take on project management for integrated systems. A dedicated project manager is assigned to each project, keeping you informed at all times. Furthermore, we handpick the project team for each project to ensure optimal quality and efficiency. We are active into onshore and offshore projects.

Among our specialisations are:

- (Oil-free) air compressor packages
- Air & Process Gas dryers (PSA / TSA / HOC)
- Nitrogen & Oxygen generators incl. bottle racks storage (Membrane / PSA type)
- Liquid Gas Storage & vaporisers (LIN / LOX)
- Hydrogen purification packages
- Fuel gas / Black powder filtration packages
- Measurement skids / Gas & flow metering / Reducing stations



Engineered for uptime and maintainability

Separation, drains, monitoring built into the skid

Designed for vary environments, our compressor packages includes integrated staged cooling, moisture separation and automatic drains. HMI monitoring and diagnostics provide operators with clear status, alarms and trending- enabling preventive maintenance and reduced downtime.

5 High performance coolers

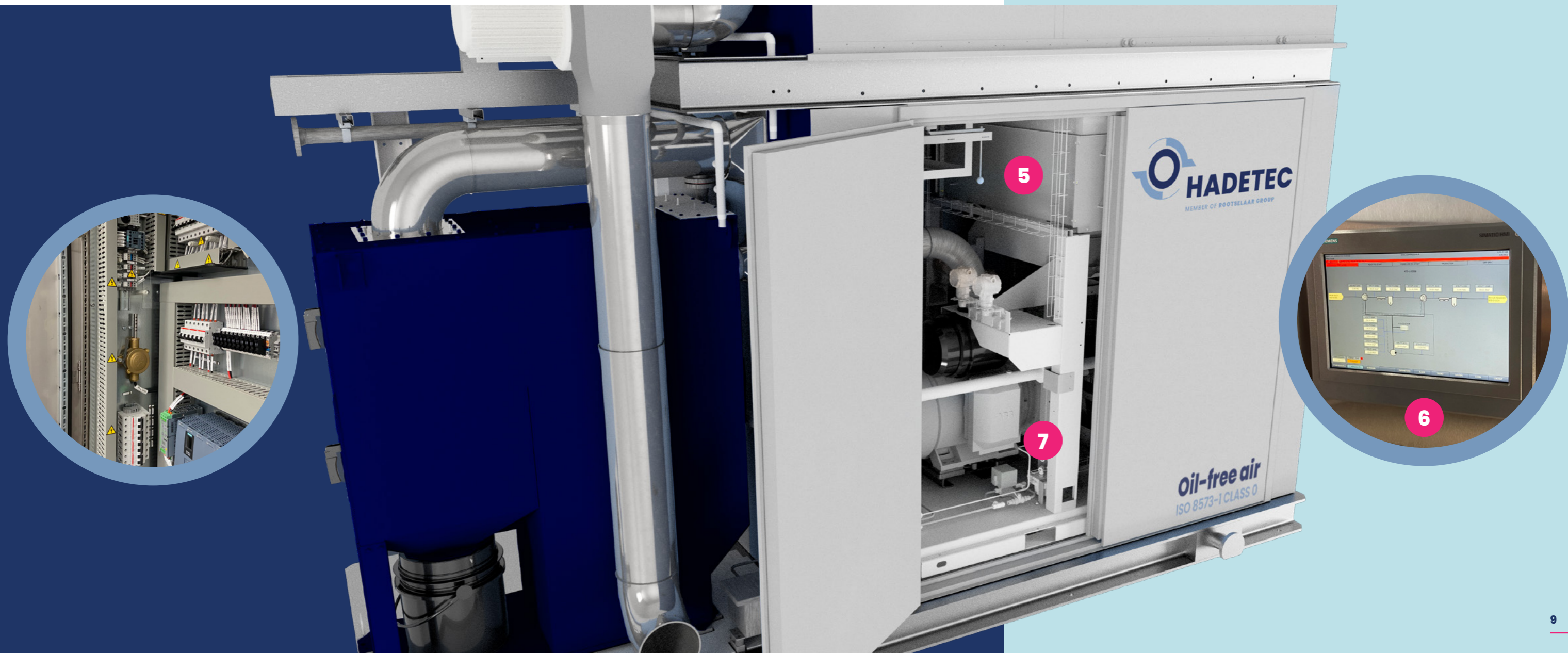
- Cooling strategy sized for max ambient operation
- Corrosion resistant stainless steel tubing

6 Integrated monitoring

- Pressure, temperature and vibration monitoring
- Alarm indication & start/stop pushbutton
- Large sized HMI available for optimal ease of use

7 High efficiency water separation

- Automatic drains with bypass
- Low moisture carry-over to protect downstream components

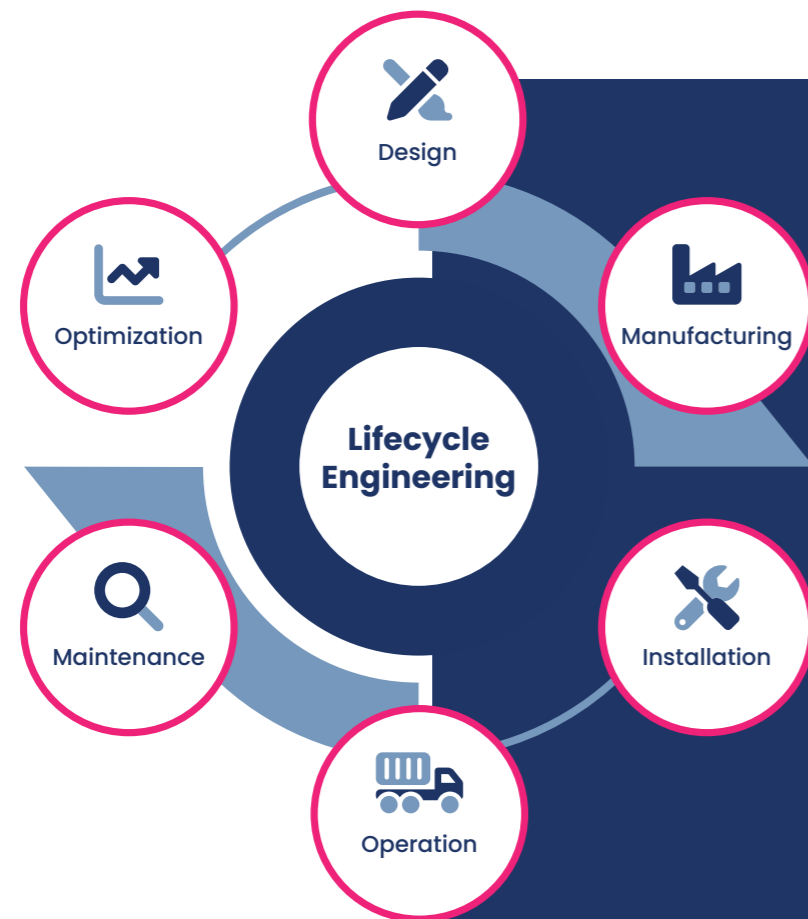


Lifecycle Engineering

Designed, built and supported for long-term reliability

We engineer tailor made oil-free compressor packages as complete systems—mechanical, electrical and controls — so performance is predictable from day one. Every unit is assembled and tested before shipment, with documentation to support installation and commissioning. The result is faster installation, simpler maintenance and long-term reliability in demanding environments.

- **Complete packaged solution** — compressor, cooling, separation, drains and controls in one integrated skid
- **Outdoor-duty design basis** — engineered for the applicable ambient conditions and dust-resistant airflow concepts
- **Air quality focus** — oil-free compression concept supporting ISO 8573-1 Class 0
- **Service-friendly layout** — clear access to filters, coolers, separators and wear parts
- **Controls & diagnostics** — clear alarms/status, trending options and remote interface readiness
- **Verified before shipment** — assembly checks and functional testing with supporting documentation



Verified before shipment

Each compressor package is assembled, inspected and verified before shipment to reduce commissioning time and support a smooth start-up. Testing is tailored to the project scope and documented for efficient handover.

- **Electrical checks & safety functions**
- **Instrument loop checks**
- **Functional run test**
- **Documentation pack for commissioning**
- **Performance verification**
- **Leak and drain functionality check**
- **Control logic verification**
- **Seaworthy Packing, suitable for long-term storage at site**

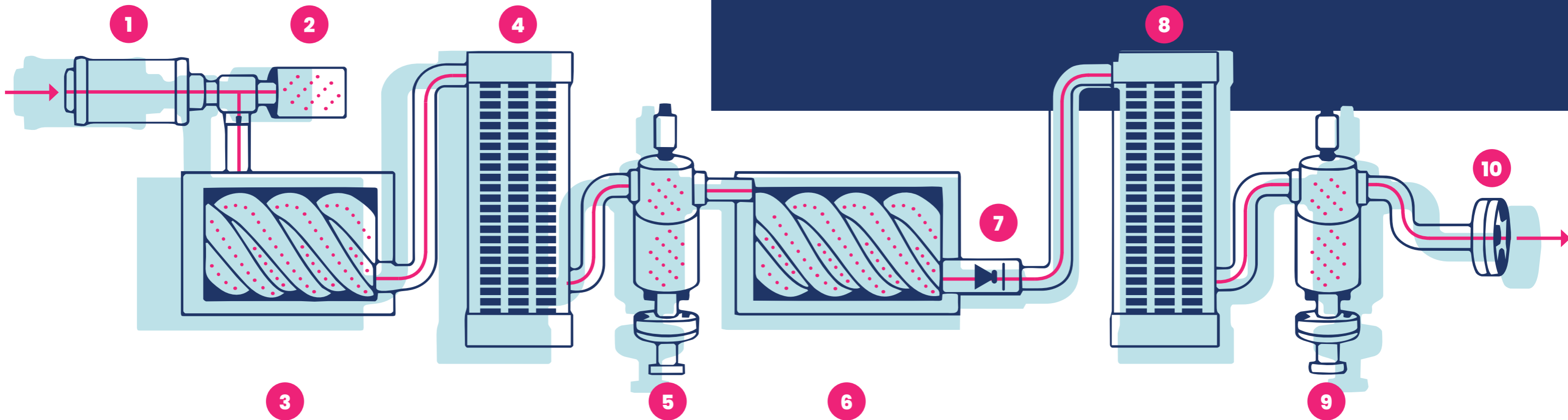


Options & scope of supply

- **Variable Speed Drive (VSD)** for demand matching and stable pressure
- **Acoustic enclosure** for low-noise targets
- **Enhanced inlet filtration** for high-dust environments
- **Automatic louvers** to reduce dust ingress during standstill
- **316 stainless steel external piping** for corrosion resistance
- **Remote monitoring / connectivity readiness** (protocols project dependent)
- **Downstream treatment integration** (dryers, filters, dew point options)
- **Anchor pads** for installation on concrete foundation
- **Anti-condensation heater**
- **Duplex Oil filters**
- **SPM monitoring equipment**

How the system works

Designed, built and supported for long-term reliability



1 Suction filter

- Protects the compressor from dust and particles; supports longer service life in demanding environments.

2 Suction valve / inlet control

- Controls intake air for stable pressure and safe starting/unloading.

3 1st stage oil-free screw element

- First compression step; designed to prevent oil carry-over into the air path.

4 Intercooler

- Cools air between stages to reduce temperature and improve efficiency.

5 Interstage water separator + automatic drain

- Removes condensate formed during cooling; prevents water carry-over to the next stage.

6 2nd stage oil-free screw element

- Final compression to delivery pressure; optimized for stable output.

7 Non-return valve (check valve)

- Prevents backflow into the compressor during shutdown or pressure fluctuations.

8 Aftercooler

- Reduces discharge air temperature after final compression, improving air quality and system efficiency.

9 Final water separator + automatic drain

- Removes remaining condensate after aftercooling.

10 Discharge flange

- Standardized outlet connection for integration with downstream piping and compressed air systems.

Technical data

Air cooled 

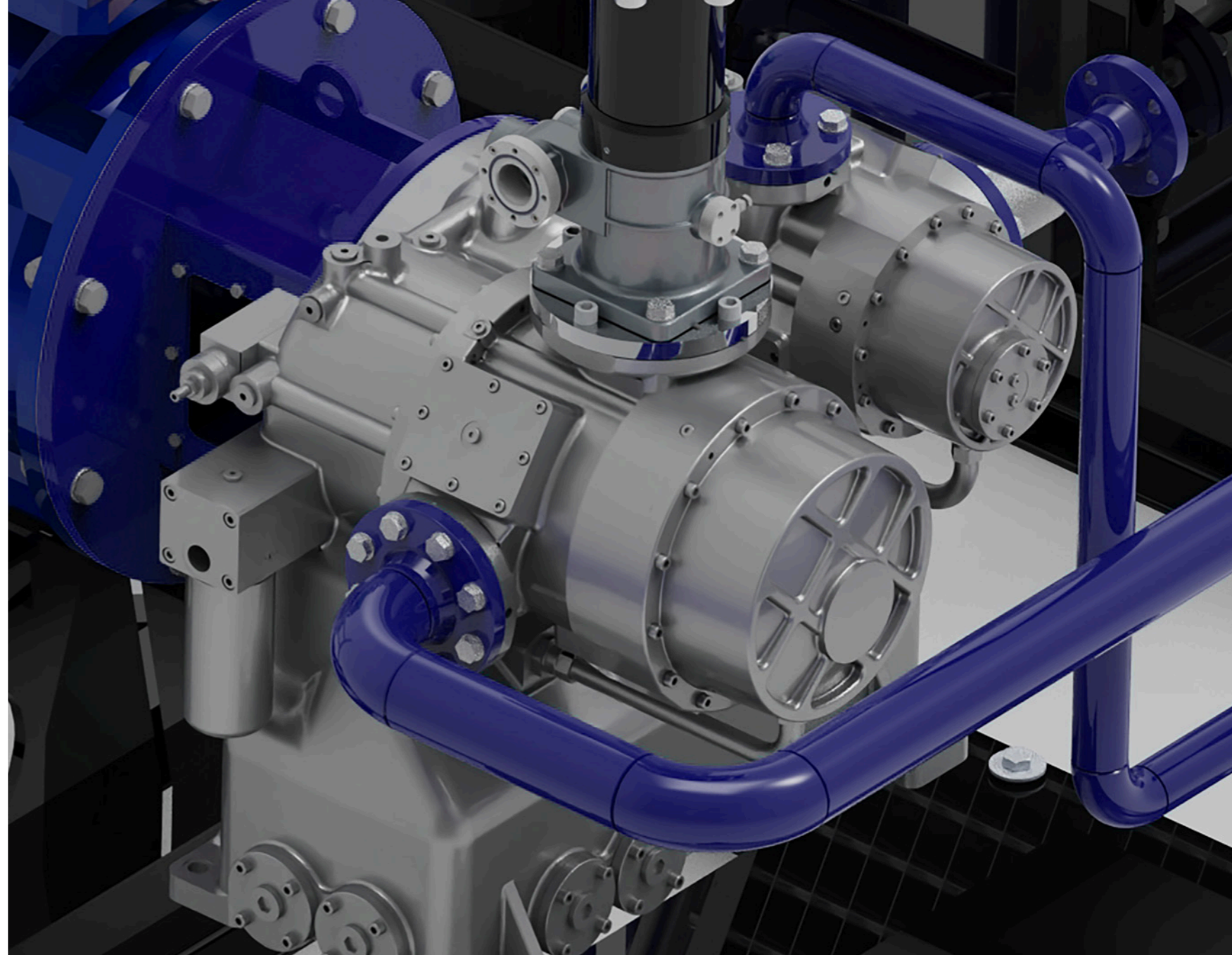
Model ⁽¹⁾	Motor power rating kW	Free Air delivery ⁽²⁾ m ³ /min	Discharge Pressure barg
HDT37-AC7	37	3.4 - 5.7	7
HDT37-AC8		3.3 - 5.5	8
HDT37-AC10		2.5 - 4.6	10
HDT45-AC7	45	4.1 - 6.8	7
HDT45-AC8		3.9 - 6.6	8
HDT45-AC10		3.2 - 5.4	10
HDT55-AC7	55	9.2	7
HDT55-AC8		9	8
HDT55-AC10		7.7	10
HDT75-AC7	75	12.2	7
HDT75-AC8		12	8
HDT75-AC10		10.7	10
HDT90-AC7	90	16	7
HDT90-AC8		13.6	8
HDT90-AC10		13	10
HDT110-AC7	110	19.5	7
HDT110-AC8		18.2	8
HDT110-AC10		16.5	10

⁽¹⁾ Other models available and tailor made upon request:

Capacity class (FAD): All sizes up to 350 kW (custom built)

Pressure Range: 8-13 Bar(g)

Cooling: air-cooled / water-cooled



⁽²⁾ Compressor performance measured according to ISO 1217 - Annex C, Edition 4 (2009)

Reference conditions:

- Relative humidity 0%
- Absolute inlet pressure: 1 bar (14.5 psi)
- Intake air temperature: 20 °C (68°F)

FAD is measured at the following working pressures:

Fixed Speed:

- 7.5/8.6 bar versions at 7 bar
- 10/10.4 bar versions at 9 bar
- For VSD: at their maximum working pressure

⁽³⁾ Noise level measured according to ISO 2151: 2004 using ISO 9614/2 (sound intensity scanning method). The added correction factor (± 3 db(A)) is the total uncertainty value (KpAd) confirm the test code.



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