



ARD Refrigerant Dryers

**Smart & Simple Compressed Air
Solutions with Outstanding Value**

www.abacaircompressors.com

User benefits

Reliability

- ABAC brand
- Reliable components
- Largest air dryer manufacturer
- Fault alarm function

Uncompromised Quality

- ISO 9001· ISO 14001 quality assurance
- OHSAS 18001 quality assurance
- World renowned refrigerant compressor
- Industry proven fan motor
- In-house engineered condenser and evaporator
- International standard refrigeration gases

Simplicity

- Compact design
- Simple technology
- Easy maintenance
- Simple controller
- Simple timer solenoid drain
- On-off switch

Easy Installation & Serviceability

- Inlet-outlet from the top
- Flexible placement allowed backside to the wall
- Easily serviceable
- Easy setting of drain intervals
- Easily removable side panels

ARD refrigeration air dryers

PDP indicator

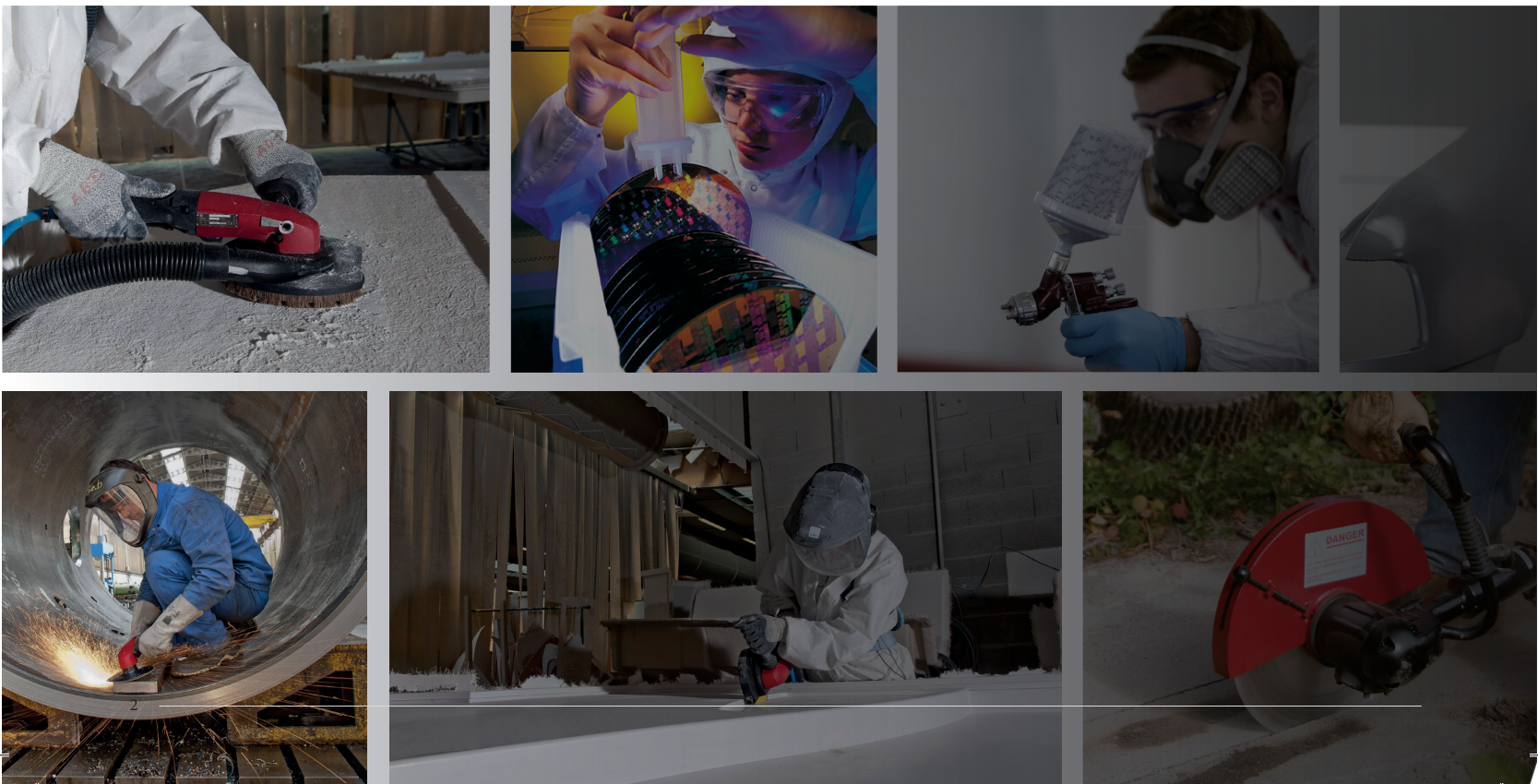
The operation of the ARD dryer is monitored by an electronic controller indicating all relevant information:

Technical details:

- Status of the refrigerant dryer
- Status of the fan
- Dewpoint indication

Simple timer operated drain discharge

The refrigerant dryer range is equipped with a simple timer operated condensate drain discharge. Easy to set and adjust the condensate drain interval and drain operating period. Highest quality brand in Industry.



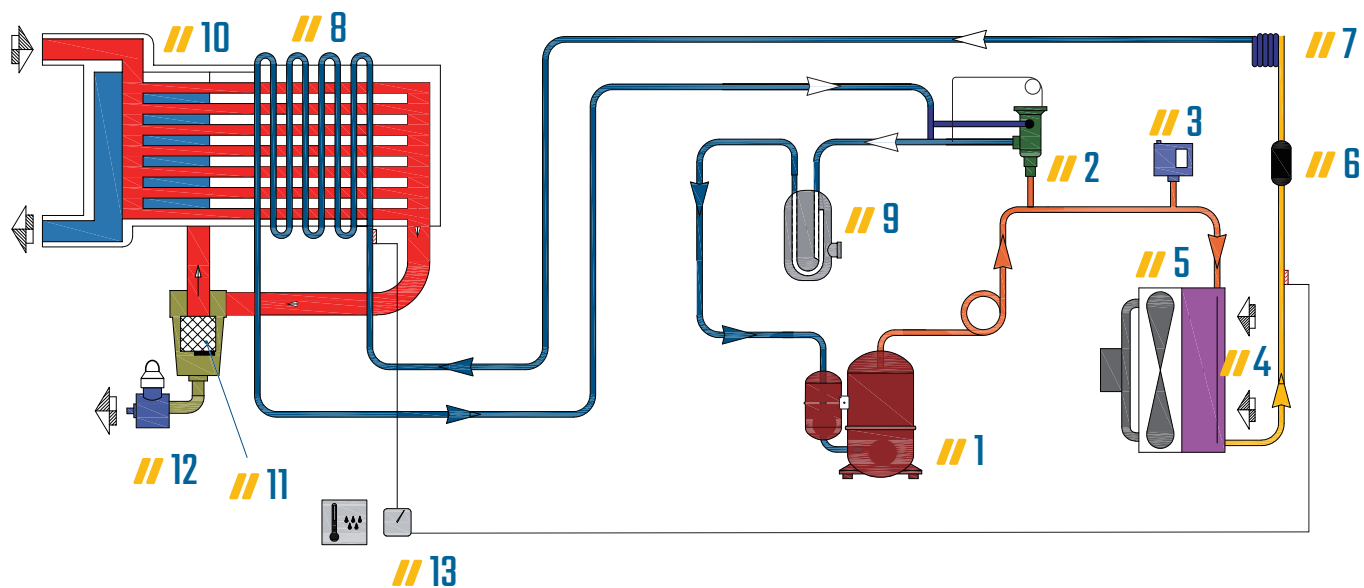
How does ARD dryer work?

Refrigerant circuit

The refrigerant circuit compresses and expands the refrigerant medium in a circular system in order to efficiently transfer heat from the wet compressed air to the atmosphere. The ARD dryer's refrigerant circuit is designed as a whole and only uses components of high and reliable quality, supplied by globally recognized manufacturers.

Air circuit

Wet compressed air flows directly through the ARD dryer's internal 3-in-1 heat exchanger, wherein the 3 key dryer functions are combined. Firstly the wet compressed air is cooled down to condensate the moisture, secondly this condensed moisture will be collected and drained out. Finally the dried compressed air is re-heated before it enters the factory's pipework.



- | | |
|--|--|
| // 1. Compressor | // 7. Expansion valve (on ARD10) Expansion capillary (on ARD13-260) |
| // 2. Hot gas valve (on ARD13-260) | // 8. Evaporator |
| // 3. High pressure switch (on ARD40-260) | // 9. Liquid separator (on ARD140-260) |
| // 4. Air condenser | // 10. Air-air exchanger |
| // 5. Fan motor | // 11. Separator |
| // 6. Filter dryer | // 12. Drain valve |
| | // 13. Digital controller |

The smart choice for high reliability

Components

// 1. Refrigerant compressor

Driven by an electric motor, cooled using refrigerant fluid and protected against thermal overload

// 2. HGB Valve

Bypass the extra capacity in low condition, sufficiently avoid ice block

// 3. 3-in-1 aluminum heat exchanger

With integrated air-to-air heat exchanger, air to refrigerant evaporator, and water separator. High efficient heat transfer & high efficient water separate, low pressure drop

// 4. Refrigerant condenser

Air-cooled with a large exchange surface for efficient thermal exchange

// 5. Motor-driven fan

For the condenser cooling air flow

// 6. Automatic discharge of condensate

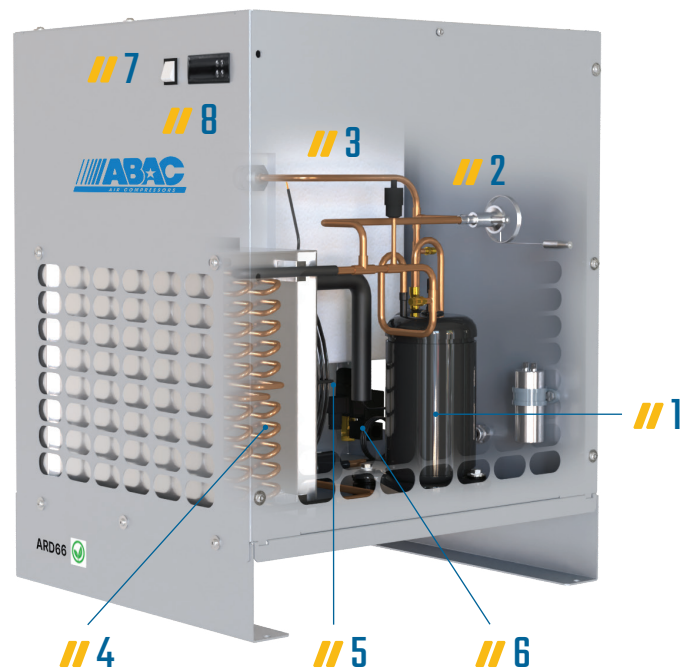
- User adjustable
- Timer solenoid drain
- Reliable and time
- Proven design

// 7. On/Off switch

Reliable simple on/off switch to turn on and off the dryer

// 8. Control panel

Indicating all relevant information



Technical data

| Model | Max working pressure | Air Treatment Capacity | | | Nominal power | Electrical | Connection | Dimension | Weight | Refrigerant |
|----------------|----------------------|------------------------|-----|-------|---------------|------------|------------|----------------|--------|-------------|
| | Bar | l/s | CFM | m3/hr | kW | V/Ph/Hz | G | L x W x H (mm) | KG | |
| ARD 105 | 13 | 175 | 371 | 630 | 1.15 | 230/1/50 | G2" | 650×650×875 | 79 | R 410A |



Correction factor for condition differing from the project $K = A \times B \times C$

Ambient temperature (A)

| Ambient Temperature (°C) | 25 | 30 | 35 | 40 | 45 |
|--------------------------|----|------|------|------|------|
| Multiplication Factor | 1 | 0.91 | 0.81 | 0.72 | 0.62 |

Inlet temperature (B)

| Inlet Temperature (°C) | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
|------------------------|----|----|----|------|------|------|------|------|
| Multiplication Factor | 1 | 1 | 1 | 0.82 | 0.69 | 0.58 | 0.45 | 0.41 |

Inlet pressure (°C)

| Pressure (bar) | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------|-----|------|---|------|------|------|------|------|-----|
| Multiplication Factor | 0.9 | 0.97 | 1 | 1.03 | 1.06 | 1.08 | 1.10 | 1.12 | 1.3 |

- ARD design working condition: environment temperature 25°C, intake temperature 35°C
- The maximum pressure drop: less than 0.3 bar
- The new ow rate value can be obtained by dividing the current or real ow rate by the correction factor related to the real operation conditions.





Air. Anytime. Anywhere.

**Contact your
local representative**

Contact your local ABAC representative now



شركة دلتا للمعدات الصناعية ذ.م.م
DELTA INDUSTRIAL
TOOLS CO. L.L.C

www.abacaircompressors.com

© 2024/09 Pan-Asia Gas Technologies (Wuxi) Co., Ltd. All rights reserved. ABAC reserves the right to modify specifications and product design without entitling buyers to corresponding changes for previously sold equipment.
Certain image(s) used under license from Shutterstock.com.