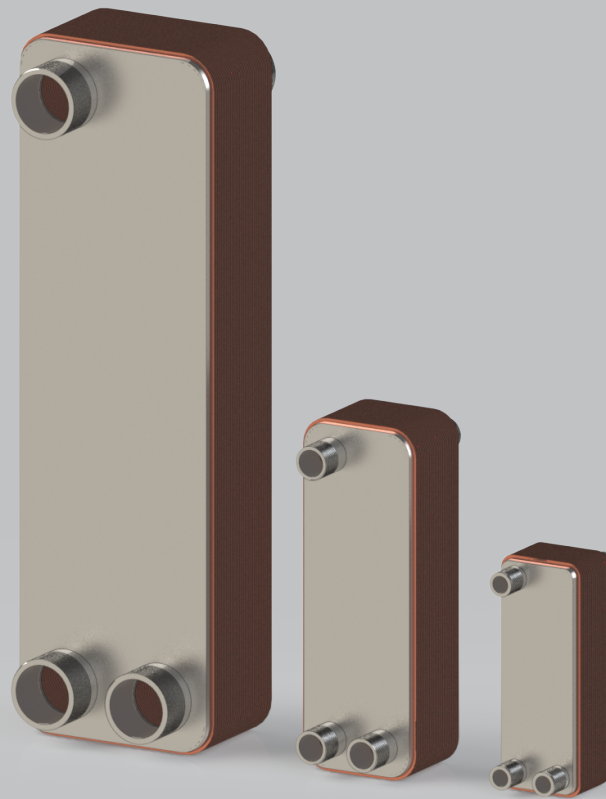


# Air Dryer



## General

Providing you with Heat Exchangers and added value accessories in the compressed air market- BAODE offers a complete range of Airdryers for refrigerated air dryers.

BAODE is committed to optimizing the performance of your processes, with complete dedication to your business.

The Airdryer is a brazed plate heat exchanger designed specifically for compressed air dryers, consisting of both the air to air and the air to refrigerant heat exchanger.

Easy installation of the separator is accomplished through convenient

connection locations.

Airdryers are designed for high thermal performance and low-pressure drop, covering a capacity range from 37-1400 Nm<sup>3</sup>/h (22-825 scfm).

## Features and advantages

- Compact size:
  - reduces the total air dryer size
  - significantly reduces the refrigerant hold-up volume
- Highly efficient thermal performance and low pressure drop minimizes power usage.

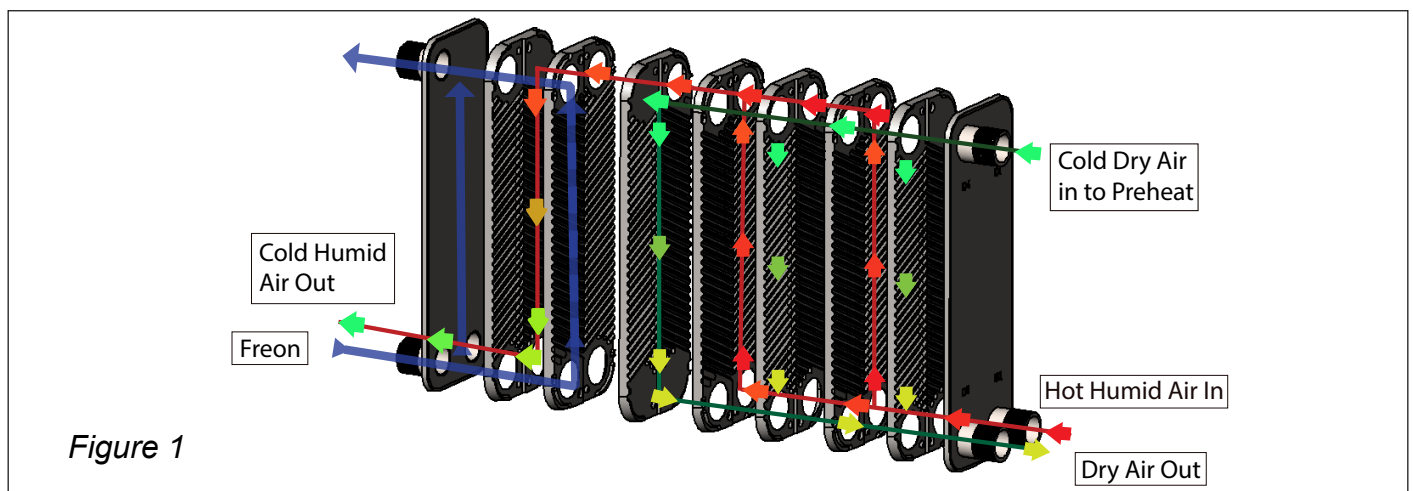


Figure 1

Figure 1. The heating surface consists of thin corrugated stainless steel plates that are compressed together to form a plate pack. Channels are formed between the plates and the ports are arranged so the media flows through alternate channels in full counter current

flow. Media is directed by a brazed seal enhanced with contact points to contain the media flow pressure.

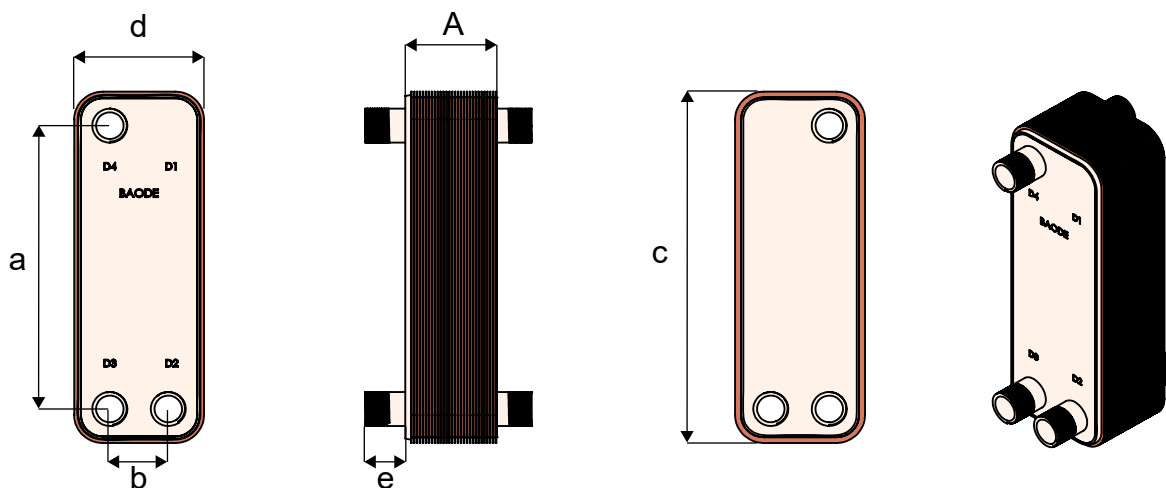
## How it works

Refrigerated air dryers separate humidity from compressed air by cooling the air in an evaporator. This cooling effect comes from the evaporation of the refrigerant. As the air cools, it loses its ability to hold moisture. The condensate is then collected and removed in a separator.

A heat recovery air to air heat exchanger that reheats the air to ambient temperature is in the Airdryer for optimal efficiency.

The coldest temperature in the system determines the "dew point". "Dew point" is the temperature at which the water vapor in the air starts to condense in the water separator. This is normally maintained slightly above the freezing point of water, 2-5 °C (35-40 °F).

The humid air enters into the heat exchangers and cools down in the air to refrigerant. This humid air then moves into a separator and then dry air is preheated in the heat recovery side. The total air side pressure drop is typically 20-30 kPa (3-4 psi)



| Type  | Dimensions (mm) |     |     |     |    |           | Weight     |
|-------|-----------------|-----|-----|-----|----|-----------|------------|
|       | a               | b   | c   | d   | e  | A         | kg         |
| BL14  | 172             | 42  | 208 | 78  | 24 | 10+2,3xn  | 0.7+0,06xn |
| BL26  | 250             | 50  | 310 | 112 | 24 | 10+2,3xn  | 1,2+0,13xn |
| BL120 | 378             | 138 | 488 | 248 | 49 | 10+2,35xn | 6.5+0,37xn |

| Flow  |      | Unit  |              | Freon Connections | Air Connections |
|-------|------|-------|--------------|-------------------|-----------------|
| Nm³/h | scfm | Model | n° of plates |                   |                 |
| 37    | 22   | BL14  | 17           | 3/8"/3/8"         | 1/2"            |
| 55    | 32   | BL14  | 25           | 3/8"/1/2"         | 5/8"            |
| 72    | 42   | BL14  | 33           | 3/8"/1/2"         | 5/8"            |
| 96    | 56   | BL14  | 45           | 3/8"/1/2"         | 5/8"            |
| 111   | 65   | BL26  | 26           | 1/2"/5/8"         | 1 1/8"          |
| 147   | 86   | BL26  | 34           | 1/2"/5/8"         | 1 1/8"          |
| 182   | 107  | BL26  | 42           | 1/2"/5/8"         | 1 1/8"          |
| 213   | 125  | BL26  | 50           | 1/2"/5/8"         | 1 1/8"          |
| 244   | 143  | BL26  | 58           | 1/2"/5/8"         | 1 1/8"          |
| 284   | 167  | BL26  | 70           | 1/2"/5/8"         | 1 3/8"          |
| 325   | 190  | BL26  | 81           | 1/2"/5/8"         | 1 3/8"          |
| 400   | 235  | BL26  | 113          | 1/2"/5/8"         | 1 3/8"          |
| 425   | 250  | BL120 | 26           | 1/2"/1 3/8"       | 2 1/2"          |
| 500   | 300  | BL120 | 34           | 1/2"/1 3/8"       | 2 1/2"          |
| 700   | 400  | BL120 | 46           | 1/2"/1 3/8"       | 2 1/2"          |
| 850   | 500  | BL120 | 58           | 1/2"/1 3/8"       | 2 1/2"          |
| 1000  | 600  | BL120 | 70           | 1/2"/1 3/8"       | 2 1/2"          |
| 1200  | 700  | BL120 | 86           | 1/2"/1 3/8"       | 2 1/2"          |
| 1400  | 825  | BL120 | 102          | 1/2"/1 3/8"       | 2 1/2"          |