

REFRIGERATION AIR DRYER

RD Series

delair[®]

The Compressed Air Treatment System Company



REFRIGERATION DRYER



Range:
18 m³/hr to 6,000 m³/hr
(10.6 cfm to 3540 cfm)
Higher capacity available on request



CE Certificate

How does it work?

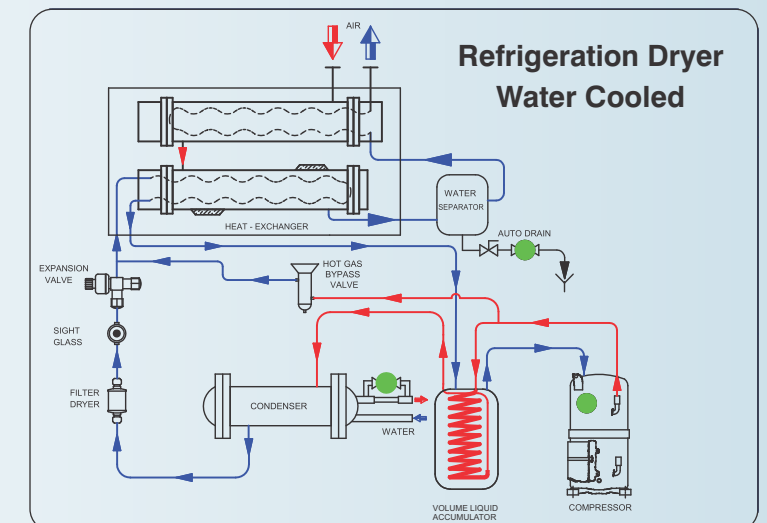
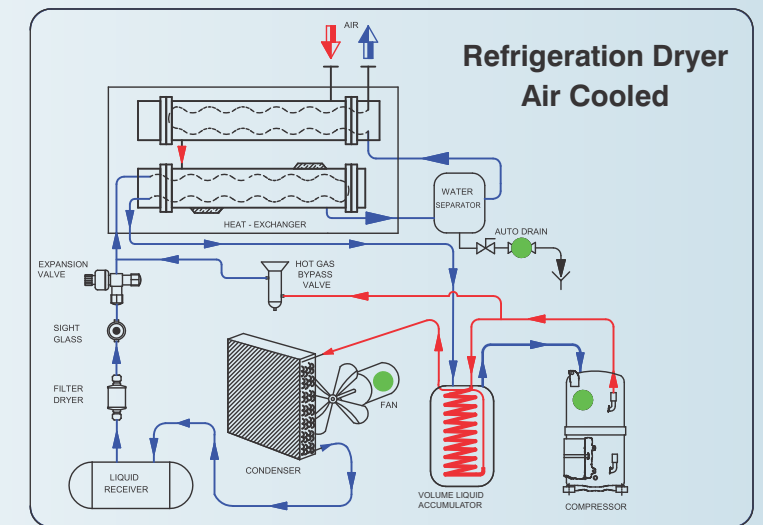
Delair Refrigeration type Dryer operates on the method of cooling the air to near freezing point to remove the moisture. The cold air is reheated by the incoming air to approximately 10°C below the incoming compressed air temperature at nominal conditions.

The Refrigeration Dryer consists of an air drying unit with centrifugal cum demister pad condensate separator and a refrigeration circuit. The refrigeration circuit consists mainly of a compressor, a condenser, a receiver, a volume liquid accumulator with liquid refrigerant and an evaporator. The air drying unit consists of two kinds of heat exchangers, one is air to air heat exchanger and second is refrigerant to air heat exchanger.

THE HEART OF THE SYSTEM IS THE PROPRIETARY HEAT EXCHANGER WHICH MAKES IT OUTPERFORM OTHER DRYERS.

The function of the air to air heat exchanger is to lower the load on the refrigerant system and secondly by warming the outgoing cold air pipelines to the required temperature.

The refrigerant to air heat exchanger(s) further cools the air to the required temperature thus condensing the water vapour from the air, which is automatically drained.



Features

- o Available in 45 standard models
- o Provides best pressure dew point from +3°C to +4°C
- o Delsmart card MIMIC display to read out dew point, operating parameters faults indication
- o Proprietary Heat Exchanger
- o Filled with Eco-friendly refrigerant
- o Energy saving
- o Designed specially for tropical conditions
- o Unique Volume Liquid Accumulator
- o Compact design
- o According to ISO 7183 Compressed Refrigerant Air Dryer

Std. Working Parameters

- o Pressure : 7.0 kg/cm²(g)
- o Max. Working Pressure : 14kg/cm²(g)
- o Air Inlet Temperature : 38°C
- o Ambient Temperature : 38°C
- o Water Pressure : 3-6 kg/cm²(g)
- o Water Inlet Temperature : 32°C

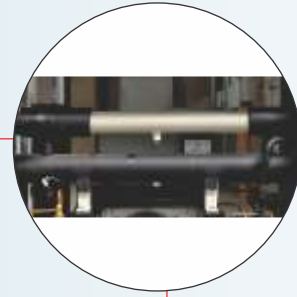
Optional Features

- o Available in both option with automatic expansion valve and with thermostatic expansion valve
- o Explosion proof controls for offshore application
- o Delair also manufactures standard high pressure Refrigeration Dryers for PET industry/PET blowing application

BEST PERFORMANCE WITH RELIABILITY

AIR TO AIR AND AIR TO REFRIGERANT HEAT EXCHANGER

- Proprietary heat exchanger
- Minimum pressure drop
- Excellent heat transfer
- Universal corrosion resistance



SIGHT GLASS

- Provides fast and easy indication
- Moisture indicator



LIQUID RECEIVER

- A pressure vessels which contains the liquid refrigerant coming from the condenser
- It ensure steady pressure to the expansion valve



FILTER DRYER

- 100% molecular sieve core
- Highly efficient



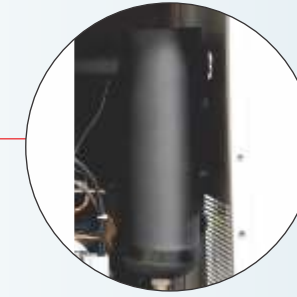
CANOPY

- 7 tank process powder coating
- CRCA canopy



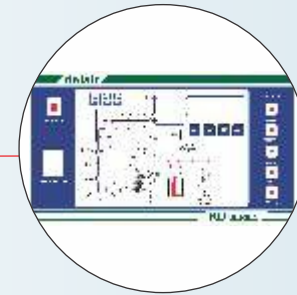
MOISTURE SEPARATOR

- Centrifugal cum demister pad manufactured Moisture Separator which leads to efficient moisture separation



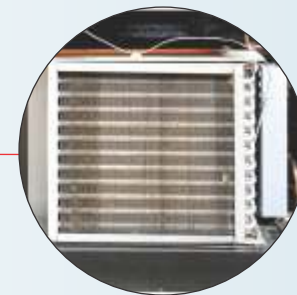
MICROPROCESSOR BASED DELSMART CARD

- Displays process parameters
- Displays faults indications
- Displays component on/off indication
- User defined setting



AIR COOLED CONDENSER

- Higher thermal efficiency
- Lower fan power consumption
- Higher corrosion resistance



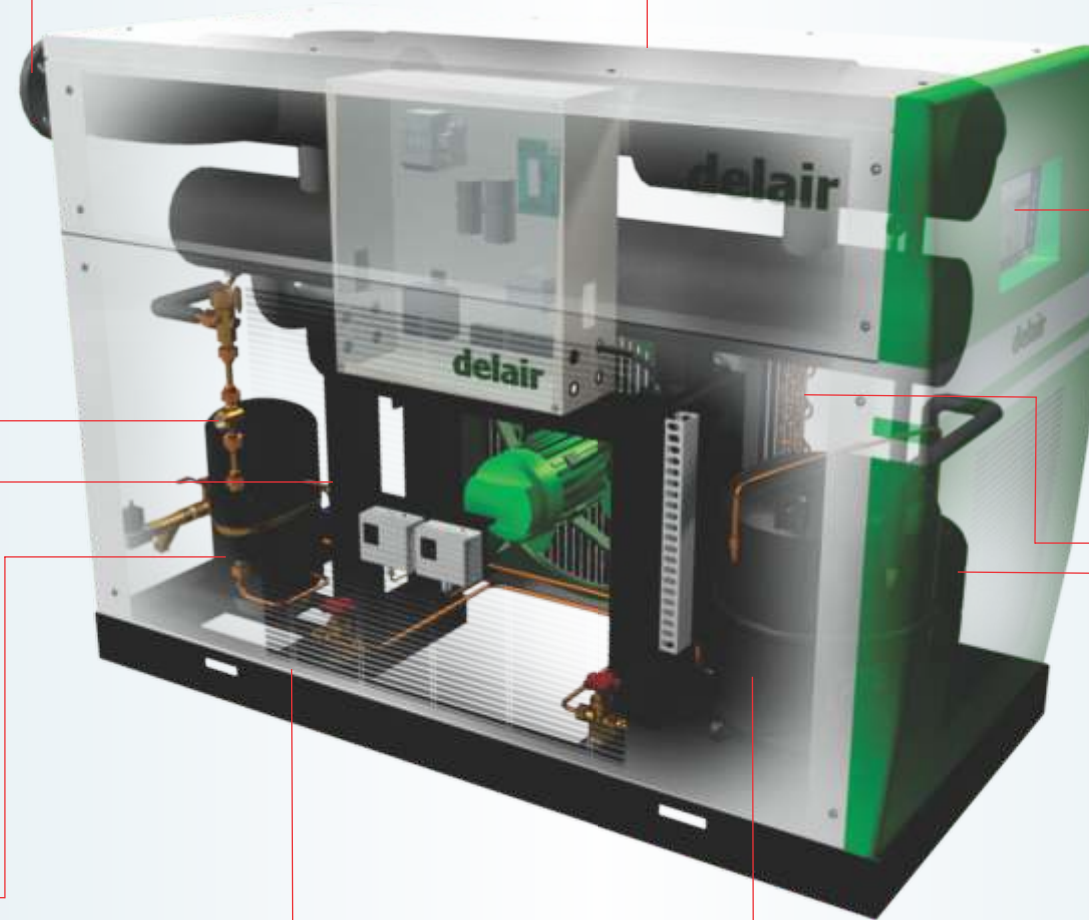
VOLUME LIQUID ACCUMULATOR

- With high pressure line
- Unique design



COMPRESSOR

- High duty cycle
- High efficiency
- Proven reliability
- Low power consumption

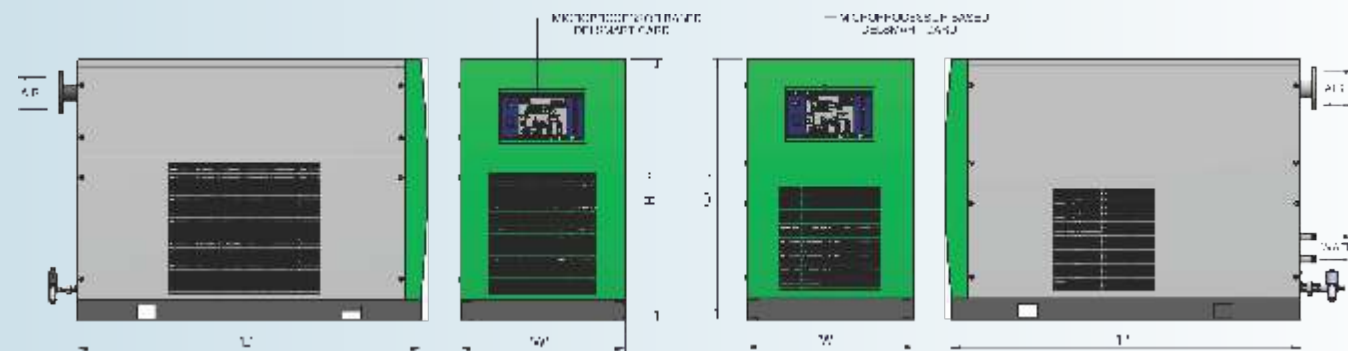


delcare™

Quick response for spare & service need supported by experienced team of qualified engineers.

Technical Specification

| MODEL | CAPACITY | | | DIMENSIONS (IN MM) | | | APPROX. WT. (IN KG.) | CONNECTION (IN INCHES) | | CONN. LOAD (IN KW) | WATER QTY. (IN M3/HR) |
|-----------|----------|------|----------|-----------------------|------|------|----------------------------|---------------------------|-----------|--------------------------|--------------------------------|
| | CFM | CMH | Ltr./SEC | L | W | H~ | | AIR | WATER | | |
| RD-18 A | 10.6 | 18 | 5 | 880 | 465 | 700 | 90 | 1/2" BSP. | --- | 0.29 | --- |
| RD-54 A | 32 | 54 | 15 | 880 | 465 | 700 | 90 | 1/2" BSP. | --- | 0.38 | --- |
| RD-110 A | 65 | 110 | 31 | 880 | 465 | 830 | 100 | 3/4" BSP. | --- | 0.47 | --- |
| RD-150 A | 88 | 150 | 42 | 1100 | 465 | 830 | 200 | 1" BSP. | --- | 0.62 | --- |
| RD-180 A | 106 | 180 | 50 | 1100 | 465 | 830 | 200 | 1" BSP. | --- | 0.62 | --- |
| RD-220 A | 130 | 220 | 62 | 1100 | 465 | 830 | 210 | 1" BSP. | --- | 0.93 | --- |
| RD-290 A | 170 | 290 | 81 | 1200 | 465 | 830 | 215 | 1" BSP. | --- | 0.93 | --- |
| RD-360 A | 212 | 360 | 101 | 1250 | 600 | 950 | 280 | 2" F | --- | 1.47 | --- |
| RD-430 A | 254 | 430 | 120 | 1250 | 600 | 950 | 280 | 2" F | --- | 1.47 | --- |
| RD-540 A | 318 | 540 | 151 | 1250 | 600 | 950 | 295 | 2" F | --- | 1.75 | --- |
| RD-600 A | 355 | 600 | 168 | 1250 | 700 | 950 | 335 | 2" F | --- | 1.94 | --- |
| RD-720 A | 424 | 720 | 202 | 1300 | 750 | 1000 | 340 | 2" F | --- | 2.41 | --- |
| RD-850 A | 500 | 850 | 238 | 1300 | 750 | 1000 | 385 | 3" F | --- | 2.72 | --- |
| RD-970 A | 572 | 970 | 272 | 1300 | 750 | 1000 | 385 | 3" F | --- | 2.72 | --- |
| RD-1060 A | 624 | 1060 | 297 | 1480 | 900 | 1200 | 520 | 3" F | --- | 3.22 | --- |
| RD-1150 A | 678 | 1150 | 322 | 1480 | 900 | 1200 | 520 | 3" F | --- | 3.22 | --- |
| RD-1270 A | 749 | 1270 | 356 | 1480 | 900 | 1200 | 525 | 3" F | --- | 3.86 | --- |
| RD-1350 A | 795 | 1350 | 378 | 1480 | 900 | 1200 | 525 | 3" F | --- | 3.86 | --- |
| RD-1690 A | 996 | 1690 | 473 | 1480 | 1000 | 1270 | 610 | 4" F | --- | 4.93 | --- |
| RD-1910 A | 1124 | 1910 | 535 | 1650 | 1050 | 1320 | 700 | 4" F | --- | 6.02 | --- |
| RD-2160 A | 1271 | 2160 | 605 | 1650 | 1050 | 1320 | 750 | 4" F | --- | 6.85 | --- |
| RD-2550 A | 1500 | 2550 | 714 | 1800 | 1200 | 1500 | 1100 | 4" F | --- | 8.24 | --- |
| RD-2880 A | 1695 | 2880 | 806 | 1800 | 1200 | 1500 | 1150 | 4" F | --- | 10.48 | --- |
| RD-3000 A | 1770 | 3000 | 840 | 1800 | 1200 | 1500 | 1150 | 4" F | --- | 10.48 | --- |
| RD-3340 A | 1971 | 3340 | 935 | 1480 | 2500 | 1270 | 1350 | 6" F | --- | 9.86 | --- |
| RD-4310 A | 2543 | 4310 | 1207 | 1650 | 2900 | 1320 | 1600 | 6" F | --- | 13.7 | --- |
| RD-6000 A | 3540 | 6000 | 1680 | 1800 | 3200 | 1500 | 2500 | 6" F | --- | 20.96 | --- |
| RD-540 W | 318 | 540 | 151 | 1250 | 600 | 930 | 300 | 2" F | 1/2" BSP. | 1.29 | 1 |
| RD-600 W | 355 | 600 | 168 | 1250 | 600 | 930 | 325 | 2" F | 3/4" BSP. | 1.57 | 1 |
| RD-720 W | 424 | 720 | 202 | 1250 | 600 | 930 | 325 | 2" F | 3/4" BSP. | 1.57 | 2 |
| RD-850 W | 500 | 850 | 238 | 1300 | 700 | 1050 | 390 | 3" F | 3/4" BSP. | 2.04 | 2 |
| RD-970 W | 572 | 970 | 272 | 1300 | 700 | 1050 | 390 | 3" F | 3/4" BSP. | 2.04 | 3.5 |
| RD-1060 W | 624 | 1060 | 297 | 1300 | 700 | 1050 | 450 | 3" F | 3/4" BSP. | 2.35 | 3.5 |
| RD-1150 W | 678 | 1150 | 322 | 1300 | 700 | 1050 | 450 | 3" F | 3/4" BSP. | 2.35 | 3.5 |
| RD-1270 W | 749 | 1270 | 356 | 1300 | 700 | 1050 | 450 | 3" F | 3/4" BSP. | 2.35 | 3.5 |
| RD-1350 W | 795 | 1350 | 378 | 1300 | 700 | 1050 | 450 | 3" F | 3/4" BSP. | 2.35 | 3.5 |
| RD-1690 W | 996 | 1690 | 473 | 1400 | 800 | 1200 | 545 | 4" F | 1" F | 4.43 | 3.5 |
| RD-1910 W | 1124 | 1910 | 535 | 1400 | 800 | 1200 | 550 | 4" F | 1.1/2" F | 4.02 | 4.5 |
| RD-2160 W | 1271 | 2160 | 605 | 1600 | 900 | 1280 | 625 | 4" F | 1.1/2" F | 4.67 | 5.5 |
| RD-2550 W | 1500 | 2550 | 714 | 1600 | 900 | 1280 | 715 | 4" F | 1.1/2" F | 5.38 | 5.5 |
| RD-2880 W | 1695 | 2880 | 806 | 1600 | 900 | 1280 | 735 | 4" F | 1.1/2" F | 6.34 | 5.5 |
| RD-3000 W | 1770 | 3000 | 840 | 1600 | 900 | 1280 | 735 | 4" F | 1.1/2" F | 6.34 | 5.5 |
| RD-3340 W | 1971 | 3340 | 935 | 2000 | 1650 | 1400 | 1300 | 6" F | 1.1/2" F | 8.84 | 7 |
| RD-4310 W | 2543 | 4310 | 1207 | 2000 | 1650 | 1400 | 1400 | 6" F | 2" F | 9.32 | 9 |
| RD-6000 W | 3540 | 6000 | 1680 | 2000 | 1650 | 1400 | 1700 | 6" F | 2" F | 12.66 | 11 |

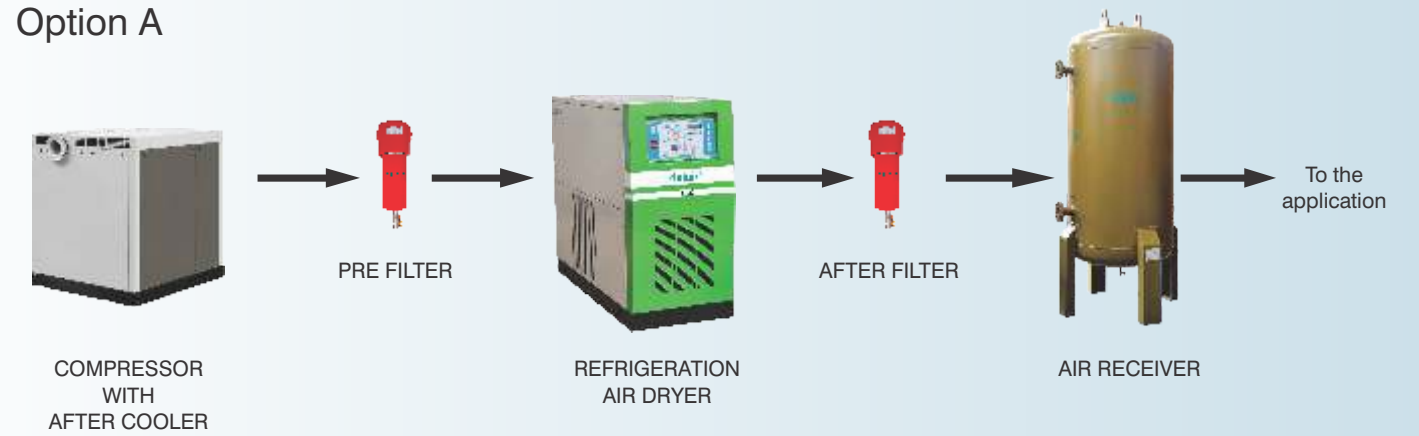


- NOTE:-**
- Connecting load from RD-18A to RD-970A & RD-540W to RD-1350W with 220V AC, 1 PH, 50Hz.
 - Connecting load from RD-1060A to RD-3000A & RD-1690W to RD-6000W with 415V AC, 3 ph, 50Hz.
 - 3 PH model available from RD-540A/W onward
 - Available with Eco-friendly refrigerant gas R-22, R134a and R-407c
 - For other working conditions please contact us
 - RD-3340A, RD-4310A & RD-6000A shall be supply in two individual circuit with common air inlet / outlet header
 - RD-3340W, RD-4310W & RD-6000W shall be in double circuit with common inlet / outlet header

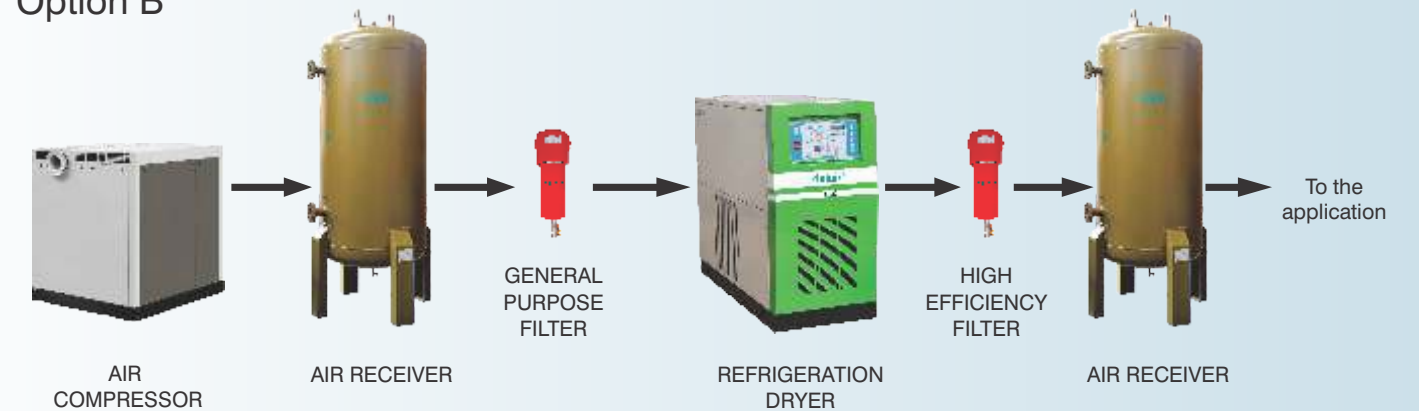
All data subject to change without notice

Installation Options

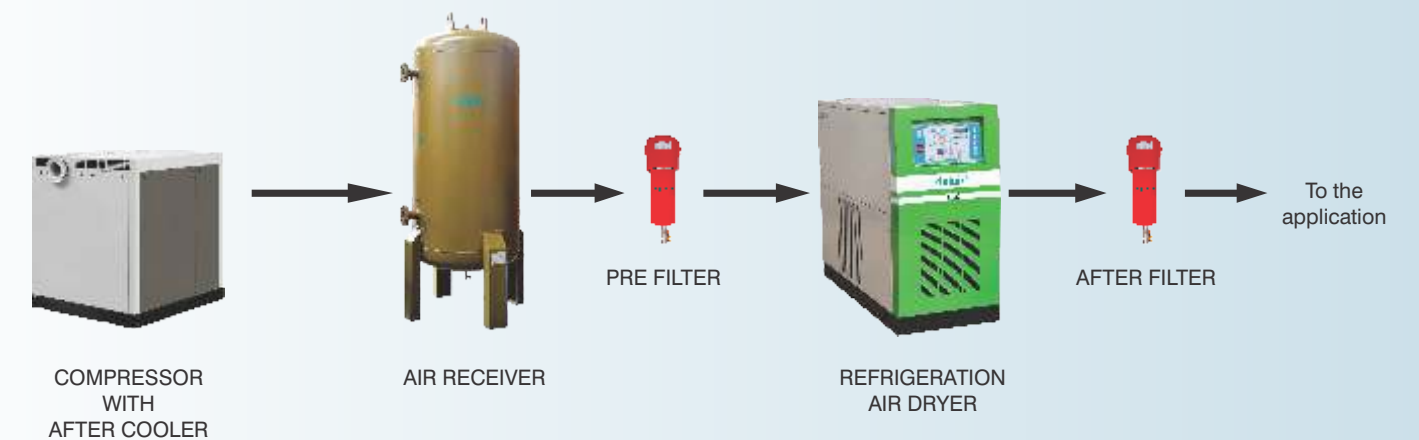
Option A



Option B



Option C



delcare™

Quick response for spare & service need supported
by experienced team of qualified engineers.

PAHWA™ GROUP
Innovation is life



PRODUCTS & ACCESSORIES



Refrigeration
Dryer



Adsorption
Dryer



Customised /
Engineered Adsorption
Dryers



Air Filter



Air
Receiver



Water
Cooled-
After Cooler



Air Cooled
After Cooler



Moisture
Separator



Auto Drain Valve
ZL series



Auto Drain Valve
EO series



Auto Drain Valve
BF series

delair® India Pvt. Ltd.

Gurugram : 21-C, Sector-18, Gurugram-122015, Ph: 0124-4091111, Fax: 0124-4091100, E-mail: delairmarketing@pahwa.com

Kolkata : 168, Linton Street, 2nd Floor, Kolkata-700 014, Ph: +91 8527390905, 033-22896834, E-mail: delairkolkata@pahwa.com

Mumbai : 319, TV Tower, INDS. Estate, Worli, Mumbai-400 030, Ph: 022-24935155, 24947475, E-mail: delairmumbai@pahwa.com

Vadodara : 22, GIDC Estate, Makarpura, Vadodara - 390010, Gujarat, Ph : 0265-6567666, Fax : 0265-2638770, E mail : puriflair@pahwa.com

Chennai : Door No.2/1-7, 3rd Floor, Block-A, Harrington Chambers, Abdul Razack Street, Saidapet, Chennai - 600 015, Ph: 044-42693761/62, Fax: 044-42693764, E-mail: delairchennai@pahwa.com