



Dry-Filtro Systems

together we grow ..

The main pollutants are
water, oil and solid dust particles
In Compressed Air

We Care Pure Air



DUST WATER OIL

Filtration → Drying → Purification



About Us

Dry-Filtro Systems is a technology oriented company having experience team of more than 25 years in Compressed air down-stream system. We worked with various industries and provided better solutions for different applications to remove contamination in compressed air. We believe in customer satisfaction and maintaining good product quality as per ISO 8573.1 Standards.

Desiccant Air Dryer (Heatless Type)

Condensate moisture along with oil and dust particles for downstream application is a major problem. The only way to remove these unwanted contaminants (Heatless) dryer is a complete purification package, it includes filtration plus drying.

Filtration: Before drying, wet air enters Pre Filter in series. i.e first air enters into pre filter of sintered bronze element and removes all major dust particles along with big droplets of moisture and oil. The air flow direction in this PF is from out to In. This will help to reduce early chocking from major particles. In Second stage filter (MF) micro filter which is made up of micro glass fiber removes mist form of moisture and oil along with small dust particles up to 0.2μ . This type of filter enhances the life of solenoid valves and increases life of desiccant in the drying tower.

Drying: After pre filtration only vapour content of moisture which is major contribution in the air will enter into desiccant towers. Both towers are totally filled up with desiccant and type of desiccant depends upon desired dew point required for application. Solenoid valves are controlled by the control panel (Timer based). At the initial stage both towers will remain open for 15 seconds to bring both towers in pressurized mode. After pressurized mode one tower will be in drying mode to adsorb vaporized moisture and second tower will be in regeneration mode. The total cycle time will be of 10 min. To remove minute particles after dryer, dust filter is adopted at the outlet of dryer. The quality of air at the std. dryer

Dust: $< 5\mu$

Moisture: upto $(-)40^{\circ}\text{C}$ ADPC (Atm dew point)

Oil: 0.1 PPM

Model: standard models at 7kg/cm²



Note: High pressure and lowest dew point upto $(-)70^{\circ}\text{C}$ ADP are optional.

Applications:

- **Powder Coating /Spray Painting**
- **Pharmaceutical Industries**
 - Blister pack machine and tablet / capsule coating
- **Automobile Industries**
 - Automobile workshop
- **Engineering Industries**
 - Cleaning & Pneumatic operations
 - Sand blasting machine.
- **Textile**– Pneumatic operation in spinning, weaving & processing industries
- **Dairy industries** – FFS machine
- **Plastic Industries** – Blow & injection molding machine, PET Bottles
- **Sugar**- Centrifugal, Instrumentation, Co-Gen & Distilleries
- **Power Sector** – Circuit Breaking
- **Others** - Hospitals, Ceramic & Chemical Industries, Cement, Co-generation plant, Breweries, Distilleries, CNC machine shop, Foundry, Instrumentation, Packing, Paper, Printing, Rice Mill, Tool room and more.

| Sr. No. | Model | Capacity | End Connection | Overall Dimensions (L x W x H) in mm Approx. |
|---------|----------|----------|----------------------|--|
| 1. | DFS-001 | 10 CFM | 1/2" BSPT (F) | 750 x 400 x 1100 |
| 2. | DFS-0015 | 15 CFM | 1/2" BSPT (F) | 850 x 400 x 1500 |
| 3. | DFS-002 | 20 CFM | 1/2" BSPT (F) | 850 x 400 x 1750 |
| 4. | DFS-002N | 25 CFM | 1/2" BSPT (F) | 850 x 400 x 1800 |
| 5. | DFS-003 | 30 CFM | 1/2" BSPT (F) | 850 x 500 x 1850 |
| 6. | DFS-004 | 40 CFM | 3/4" BSPT (F) | 900 x 500 x 1900 |
| 7. | DFS-006 | 60 CFM | 3/4" BSPT (F) | 1000 x 500 x 1950 |
| 8. | DFS-008 | 80 CFM | 1" BSPT (F) | 1150 x 600 x 2000 |
| 9. | DFS-010 | 100 CFM | 1" BSPT (F) | 1200 x 600 x 2100 |
| 10. | DFS-012 | 120 CFM | 1" BSPT (F) | 1250 x 600 x 2100 |
| 11. | DFS-015 | 150 CFM | 1 1/2" BSPT (F) | 1250 x 650 x 2100 |
| 12. | DFS-020 | 200 CFM | 1 1/2" FLGD ASA 150# | 1250 x 650 x 2100 |
| 13. | DFS-025 | 250 CFM | 1 1/2" FLGD ASA 150# | 1250 x 700 x 2150 |
| 14. | DFS-030 | 300 CFM | 1 1/2" FLGD ASA 150# | 1400 x 800 x 2150 |
| 15. | DFS-040 | 400 CFM | 2" FLGD ASA 150# | 1600 x 800 x 2150 |
| 16. | DFS-050 | 500 CFM | 2" FLGD ASA 150# | 1800 x 1000 x 2200 |
| 17. | DFS-080 | 800 CFM | 3" FLGD ASA 150# | 2000 x 1050 x 2200 |
| 18. | DFS-100 | 1000 CFM | 4" FLGD ASA 150# | 2200 x 1200 x 2200 |
| 19. | DFS-150 | 1500 CFM | 4" FLGD ASA 150# | 2400 x 1500 x 2250 |

Refrigerated Air Dryer

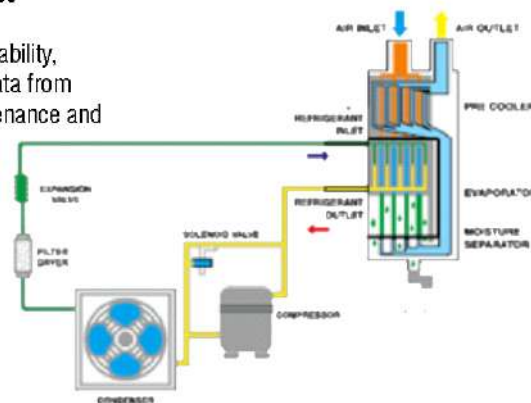
Working principle

The wet compressed air enters in to compact three in one heat exchanger (Economizer, Evaporator & Moisture Separator) for pre cooling and passes through moisture separator and separates condensate and will be discharged by auto drain valve. The cooled and dried compressed air will return through heat exchanger and passes through outlet.



Silence Features

- Compact Three-in-One heat exchanger.
- Aluminium plate finned cross flow heat exchanger.
- Reliable refrigerated compressor having eco-friendly refrigerant, low noise level/less power consumption
- Total modular canopy design, interchangeability, easy fitment of all components and the data from microcontroller ensures preventive Maintenance and easy serviceability.



Version: Air Cooled

Refrigerated Dryer Technical Datasheet Table

TECHNICAL SPECIFICATIONS

| Model | Airflow | | Max. Op. Pressure | | Power Supply | Version | Line Size | End Conn. | | |
|----------|---------------------|------|--------------------|-----|--------------|------------|--------------------|-----------|------|------|
| | m ³ /min | cfm | Kg/cm ² | psi | | | | L | W | H |
| DF-20R | 0.57 | 20 | 12 | 171 | 230/1/50 | Air Cooled | ½" BSPT (F) | 480 | 400 | 625 |
| DF-40R | 1.13 | 40 | 12 | 171 | 230/1/50 | Air Cooled | ¾" BSPT (F) | 480 | 400 | 625 |
| DF-60R | 1.7 | 60 | 12 | 171 | 230/1/50 | Air Cooled | ¾" BSPT (F) | 480 | 400 | 625 |
| DF-80R | 2.27 | 80 | 12 | 171 | 230/1/50 | Air Cooled | 1" BSPT (F) | 680 | 560 | 850 |
| DF-100R | 2.83 | 100 | 12 | 171 | 230/1/50 | Air Cooled | 1" BSPT (F) | 680 | 560 | 850 |
| DF-125R | 3.54 | 125 | 12 | 171 | 230/1/50 | Air Cooled | 1½" BSPT (F) | 680 | 560 | 850 |
| DF-150R | 4.25 | 150 | 12 | 171 | 230/1/50 | Air Cooled | 1½" BSPT (F) | 680 | 560 | 850 |
| DF-200R | 5.66 | 200 | 12 | 171 | 230/1/50 | Air Cooled | 1 ½" BSPT (F) | 750 | 650 | 1000 |
| DF-250R | 7.08 | 250 | 12 | 171 | 230/1/50 | Air Cooled | 1 ½" BSPT (F) | 750 | 650 | 1000 |
| DF-300R | 8.49 | 300 | 12 | 171 | 415/3/50 | Air Cooled | 2" FLGD ASA 150# | 950 | 850 | 1250 |
| DF-350R | 9.91 | 350 | 12 | 171 | 415/3/50 | Air Cooled | 2" FLGD ASA 150# | 950 | 850 | 1250 |
| DF-450R | 12.74 | 450 | 12 | 171 | 415/3/50 | Air Cooled | 2" FLGD ASA 150# | 950 | 850 | 1250 |
| DF-550R | 15.57 | 550 | 12 | 171 | 415/3/50 | Air Cooled | 2 ½" FLGD ASA 150# | 1000 | 900 | 1400 |
| DF-650R | 18.41 | 650 | 12 | 171 | 415/3/50 | Air Cooled | 2 ½" FLGD ASA 150# | 1000 | 900 | 1400 |
| DF-750R | 21.24 | 750 | 12 | 171 | 415/3/50 | Air Cooled | 2 ½" FLGD ASA 150# | 1000 | 900 | 1400 |
| DF-900R | 25.48 | 900 | 12 | 171 | 415/3/50 | Air Cooled | 3" FLGD ASA 150# | 1250 | 1000 | 1550 |
| DF-1000R | 28.32 | 1000 | 12 | 171 | 415/3/50 | Air Cooled | 3" FLGD ASA 150# | 1250 | 1000 | 1550 |
| DF-1100R | 31.15 | 1100 | 12 | 171 | 415/3/50 | Air Cooled | 3" FLGD ASA 150# | 1250 | 1000 | 1550 |

Note: Water Cooled Models starting from 550 cfm and above are available on request

Ideal Installation



Selection Criteria: To select dryer following desired specification is required.

- * Application
- * Flow in/cfm or Nm³/hr
- * Inlet temperature
- * Max. Operating Pressure
- * Operating Pressure / Max. Pressure

Optional Accessories:

- Activated Carbon Filter
- Auto Drain Valve
- Differential Pressure Gauges

Other Manufacturing Range



Coalescing Filters

To remove water / oil liquid form as well as mist, dust up to 0.2 micron and vapour oil. In the Compressed air systems, install filters in the series near to the application or coolest place in the pipeline for better efficiency.

The first filter (PF) have the purpose of pre-filtration and protecting second high efficiency micro filter (MF). To remove vapour oil, install activated carbon filter (ACF) in series with these two filters.



Filter Elements

PF – Pre Filter

Element: Sintered bronze / SS wire mesh

MF – Micro Filter

Element: Binder free micro –glass fiber

ACF – Activated Carbon Filter

Element: Carbon cartridge or granules for higher efficiency.

Capacity: upto 10,000 CFM / 7kg/cm² Operating Pressure.

Quality of Air:

Dust – upto 0.2m

Moisture /Removes liquid and mist from.

Oil - 0 - 0.1 ppm



Moisture Separator

Moisture Separator removes big droplets of moisture & oil from compressed air. For better efficiency install at coolest place in the pipeline.

Types: •Baffle

- Demister
- Baffle cum demister
- Centrifugal

Range- 1/2 inch to 10 inch line size



After cooler

After cooler will help to reduce the temperature of compressed air up to ambient temperature. Shell & tube type of heat exchanger will cool the air to desired temperature and big droplets in the air will be separated by moisture separator.

Types: Horizontal & Vertical

Range: up to 5000 CFM.



Pressure Vessels (Air Receiver)

Pressure Vessels are designed as per IS Standards. The role of Air Receiver is to store the pressurized air and to maintain constant pressure at utility.

If also acts as a pulsation dampener, cools the air and collects moisture at the bottom.

Proper draining of accumulated water is essential. Proper selection /sizing will help to increase the life of compressor also.

Type : Vertical/Horizontal

Standard : IS 2825/MOC 2062 ASME Sec VIII Div I

Capacity : upto 5m³



Duplex Filter

Duplex Filters are used for liquid/water and air to remove large particles in the pipeline or system. It consists of two separate housings and valves to divert liquid flow while otherhousing /element is being cleaned. The valves works automatically or self cleaning operation. These filters are used in the pipe line system where flow cannot be stopped for continuous operation. The filtration (element) can be selected best on the flow, line size and continuation level.

The filters are used in various type of industries like Chemical, Process, Pulp, Oil, and Gas etc.

ADV (Automatic Drain Valve)

Presence of condensate at compressor accessories like Air Receiver, Filters and Moisture Separator etc in the system should be removed regularly. Otherwise moisture carryover along with air takes place in the system. Proper selection of auto drain valve plays important role. 'Dry-Filtro' brought various range to select.



Mechanical Auto Drain Valve (MDV-15)



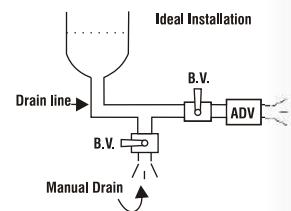
ADV-50(Regular)



Dual Timer Based ADV-151



ADV-151 (Full Bore)



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