

COMBINED

FILTER/REGULATOR/ LUBRICATOR UNIT

70824

Read this manual in full before using this product and retain it for future use. Always use the latest version of the manual. Please visit drapertools.com/manuals for the latest version.

1. Intended Use

This unit is designed to clean, dry and regulate compressed air.

Any other application will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

2. Specification

Stock No.	70824
Part No.	DFRL
Inlet/Outlet thread	1/4" BSP
Max. inlet pressure	145psi (1MPa)
Temperature range	5 – 60°C
Filtration element	40µm

3. Health and Safety Information

Important: Read all Health and Safety instructions before attempting to operate, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user or the product.

3.1 General Safety Warnings for Compressed Air

- Compressed air is a source of considerable energy. When handling products dealing with compressed air, the following precautions must be taken to prevent accidents.
- Ensure that compressed air is not blocked or in contact with any part of your body.
- Before connecting any pneumatic equipment to the compressed air supply, all mounted fittings, piping assemblies and electrical connections should be checked for security. All plastic plugs in the equipment used for protection during shipping should be removed.
- No piping alterations, removal of fittings, repairing of equipment etc. should be attempted with air supplies connected. Air and electrical supplies must be disconnected before beginning any adjustment, maintenance or dismantling of equipment.

- The maximum allowable operating pressures, temperature, flows etc. must be strictly observed. Failure to do so might result in catastrophic failure of equipment, and result in serious personal injury and / or death. Refer to individual product manuals for this information, and any other operating or application limitations.

3.2 Compressed Air Safety for Pneumatic Equipment



WARNING!

- Compatibility of pneumatic equipment**
 - Ensuring the compatibility of the procured FRL equipment is the responsibility of the person who designs the Pneumatic system and/ or System specifications. This should be based on specifications or after analysis and / or tests to meet specific requirements.
- Repair & Maintenance**
 - Assembly, handling, or repair of pneumatic systems should be performed by only trained and experienced operators.

- **Safety First**

- Do not service machinery / equipment or attempt to remove any component until safety is confirmed.
- Inspection and maintenance of machinery / equipment should only be performed after confirmation that both compressed air and electrical supply have been positively disconnected and all residual compressed air in the system has been completely exhausted to the atmosphere.


- **Contact the manufacturer if equipment is to be used in any of the following conditions:**

- Equipment is to be used in conditions beyond the given specifications, or if equipment is to be used outdoors.
- Equipment is to be used in conjunction with atomic energy, railroad, air navigation, automobiles or related vehicles, medical equipment or safety equipment.
- In applications that adversely affect humans, animals, or property requiring special safety analysis.

3.3 Product Selection



WARNING! Standard Filters, Regulators, Lubricators and Filter- Regulator Combination units should be used in accordance with the specifications mentioned in the specification sheets. While installing and using this equipment, please also follow the respective specification & instruction manual available for each product.

Wherever this symbol  is shown, it indicates **CAUTION!** and/or **WARNING!** It indicates that operator error can lead to damage and malfunctioning of the pneumatic equipment and can lead to serious personal injury or loss of life.

- **Air Filter and Lubricator**

- Standard Filters and Lubricators incorporate polycarbonate bowls and / or observation windows. Do not use filters & lubricators in an environment that will expose the above components to synthetic fluids, organic solvents, corrosive chemicals, cutting lubricants, thread sealant or similar materials.
- Ensure that the condensate is periodically drained when using manual drain valves on Filters.

- **Regulator**

- Safety devices shall be placed to prevent secondary (output) pressure from rising past the set pressure. This will ensure that damage to the components on the secondary side will be minimized in the event of a malfunction.

- In a standard regulator, when the supply pressure is removed or disconnected, either of the following may happen:

- a) The residual pressure will remain on the secondary side of the regulator.
- b) The pressure on the secondary side of the regulator will exhaust.

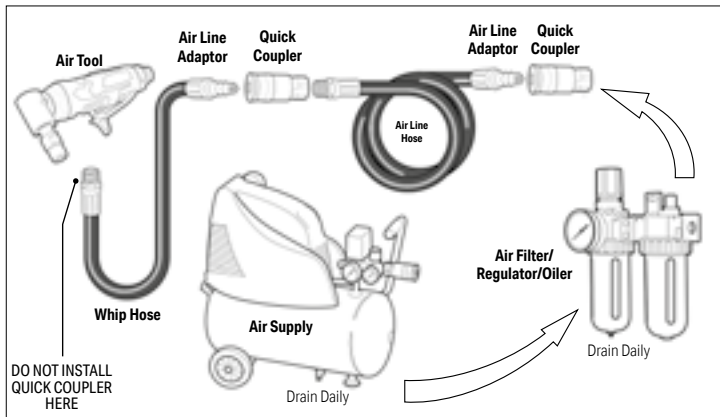
- The designer should add components to the circuit to compensate for any of the above conditions.
- Regulator operation may be affected when used in Balanced or Secondary sealed circuits. Please consult the manufacturer regarding these applications.

- **Lubricators**

- Ensure proper function of the Lubricator. Minimum airflow rate should be ensured for effective lubrication.

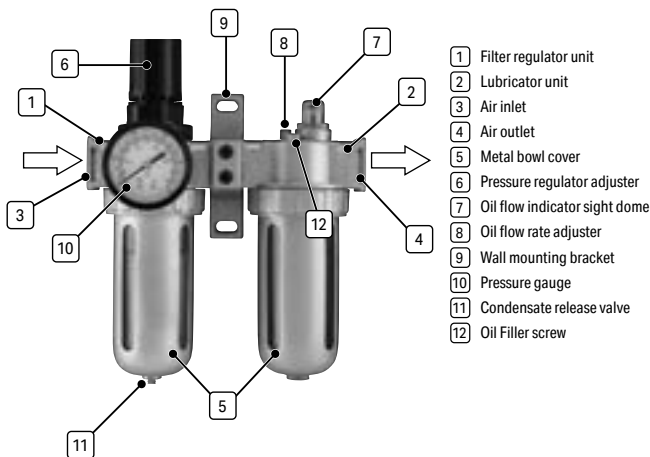
3.4 Recommended Air Supply Set Up

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4. Identification

4.1 Product Overview



5. Setting The Unit

5.1 Regulator

1. The output pressure is controlled by the pressure regulator adjuster (6).
2. Before pressurising the air system for the first time, pull up and rotate the knob anticlockwise to remove any loading on the regulator spring.
3. Pressurise the system and then rotate the pressure regulator adjuster (6) clockwise to set required output pressure, as shown on gauge.
4. When the required pressure is achieved push in the pressure regulator adjuster (6) to prevent inadvertent adjustment.

Note: For correct pressure setting always adjust up from a lower pressure. Therefore to reset from 80 to 70psi for example, reduce pressure from 80 to 60psi and then increase to 70psi.

5.2 Filter

- The bowl should be drained regularly to prevent an excessive build-up of water/oil.
- Push in the drain valve at the bottom of the bowl, allow to drain and then release.

5.3 Lubricator

1. Undo the oil filler screw (12) and fill the bowl up to the maximum level with air tool oil. This can be done with the air line pressurised.
2. With air flowing through the lubricator, adjust the oil delivery rate by turning the oil flow rate adjuster screw (8). Monitor the drip rate through the sight dome (7).
3. The oil delivery rate will automatically increase or decrease in line with the air flow volume.

6. Warranty

6 months from date of purchase –
Visit drapertools.com/warranty for full details.

7. Explanation of Symbols



Read the instruction manual



Warning! / Caution / Danger



British Standard Pipe gauge thread



Maximum operating air pressure (psi)



Filtration element



Operating temperature



Net product weight