Clarke®

air

COALESCING AIR FILTER

MODEL NO: CAT181

PART NO: 3120198

INSTALLATION & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC0122 - Rev 1

INTRODUCTION

Thank you for purchasing this CLARKE Coalescing Air Filter.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

Your air filter has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, consult your local CLARKE dealer.

SPECIFICATION

Model Number	**CAT181**
Dimensions (D x W x H) mm	45 x 50 x 200
Air Inlet /Outlet Size	1/4"BSP (female)
Max Supply Pressure	150psi
Max Flow Rate	10.5 CFM
Filtration Rating	0.01 um
Bowl material	Polycarbonate
Ambient/Media Temperature	0-125 deg F

GENERAL SAFETY RULES

CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND/OR DAMAGE TO PROPERTY.

WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. Dress appropriately - do not wear loose clothing or jewellery. Tie long hair out of the way.

3. Keep children and visitors away - do not let children handle the air tools.
4. Do not operate air tools where there are flammable liquids or gases.

USE OF AIRLINE EQUIPMENT

1. Stay alert and use common sense - do not operate an air tool when you are tired or under the influence of alcohol, drugs or medication.
2. Do not overreach when using air tools - Keep proper footing and balance at all times.
3. Never use oxygen, carbon dioxide, combustible gases or any type of bottled gas as a source of power for air tools.
4. Do not exceed the maximum pressure for the airline component stated in the specification.
5. Check airline hoses for leaks or worn condition before use and ensure that all connections are secure.
6. Keep the flexible air supply hose away from heat, oil and sharp edges.
7. Avoid damaging the components for example by applying excessive force of any kind.
8. Always maintain any air tool to be used with care. Keep it clean for the best and safest performance.

COMPRESSED AIRLINE REQUIREMENTS

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND A COMPRESSED AIR SUPPLY.

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors must comply with the appropriate European Community Safety Directives.
- A build-up of moisture in the air compressor will accelerate wear and corrosion in the air tool. Ensure any moisture is drained from the compressor daily and the airline filter is kept clean.
- If an unusually long air hose is required, (over 8 metres), the line pressure or the hose inside diameter may need to be increased.
- The air hose must be rated at least 150% of the maximum operating pressure of the air tool.

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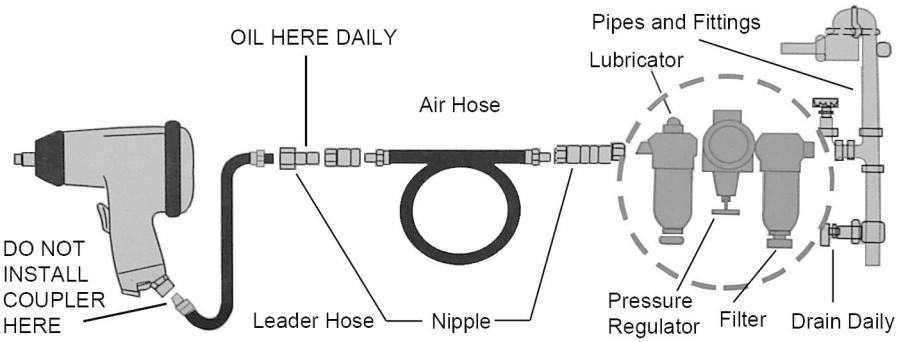


- A typical air line layout is shown above. If an automatic in-line filter & regulator are used, they will keep the tool in good condition, and the lubricator should be regularly checked and topped up with oil. SAE 10 oil should be used, and the lubricator adjusted to approx 2 drops per minute.
- Never exceed the maximum operating pressure for the air tool. Ensure that air pressure does not exceed that stated in the specification for the tool when running. Higher pressures and contaminated air will shorten the life of the air tool due to faster wear and is a possible safety hazard.

INSTALLATION

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SYSTEMS.

1. Ensure the compressor is turned off. Before using the airline, drain water from the air reservoir at the compressor.
2. The filter should be installed with reasonable accessibility for service whenever possible.
3. Keep pipe or tubing lengths to a minimum with the inside clean and free of dirt. Pipe joint compound should be used sparingly and applied only to the male pipe — never into the female port.
4. Take care using PTFE tape to seal pipe joints — pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
5. Install the filter so that air flows as marked by the arrow on the filter body.

6. Installation should be downstream of the regulator but upstream of any lubricator. The filter should be installed upstream of regulator(s), lubricator(s), and cycling valve(s) in the air line and should be as close as possible to the air tool being served when used as a main line filter and/or as a final filter.
7. Install the filter vertically with the bowl drain at the bottom, ensuring there is sufficient free space below the filter for future access.
8. Remove the blanking plugs from the connection ports and connect to the supply and delivery hoses.
    - A drain hose can be screwed to the drain port or the filter bowl drained manually.

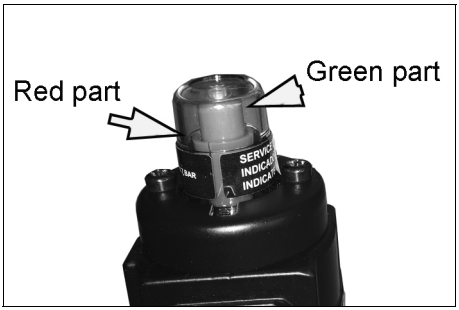
Your filter is now ready for use.

ACCESSORIES

A wide range of accessories is available including filter/regulators, lubricators, high-pressure hoses (5 to 50 metres) etc. Contact your CLARKE dealer for further information or CLARKE International Service Department.

USE AND CARE IN SERVICE

1. Let the filter run with the air supply on. Ensure that the pressure to the air inlet of the filter from the air line does not exceed the maximum pressure specified.
2. The filter is equipped with a manual drain. Turn the manual drain valve to drain accumulated liquid from inside the bowl. Take care to drain the liquid whenever necessary and always keep the liquid below the filter element.
3. The filter element should be replaced when the pressure drop across the element exceeds 15 psi.

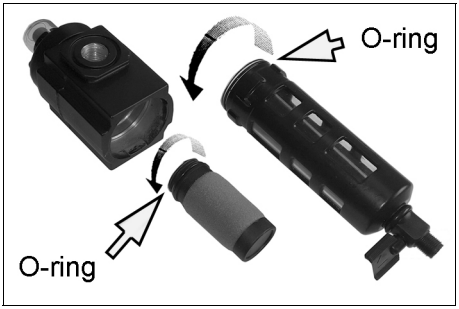


4. The mechanical service indicator shows approximately fully red when the pressure drop across the element reaches 15 psi. When an excessive pressure drop across a saturated but uncontaminated element occurs, it may indicate that the air tool being operated exceeds the maximum flow rate (CFM) of the filter (See Specifications). Refer to the maximum flow rate of your filter and make sure that the required CFM of the air tool is within the maximum flow rate of your filter for best tool operation.

MAINTENANCE

DISASSEMBLY

The filter can be disassembled without removal from air line.



1. Shut OFF the inlet pressure and reduce pressure in the inlet and outlet lines to zero.
2. Remove the bowl. Push into the body and turn anti-clockwise.
3. Disassemble in general accordance with the parts illustrated. Do not remove the drains or the service indicators unless replacement is necessary. Remove and replace only if they malfunction or if converting to auto drain.

CLEANING

1. The element cannot be cleaned. Clean the components with warm water only. Do not submerge service indicator in water. Clean indicator with a dry, clean cloth. Clean other parts with warm soapy water.

CAUTION: Some parts are made from polycarbonate which can be severely damaged if it comes into contact with some chemicals. These include acetone, benzene, carbon tetrachloride, ethylene di-chloride, gasolene or synthetic fire resistant lubricants.

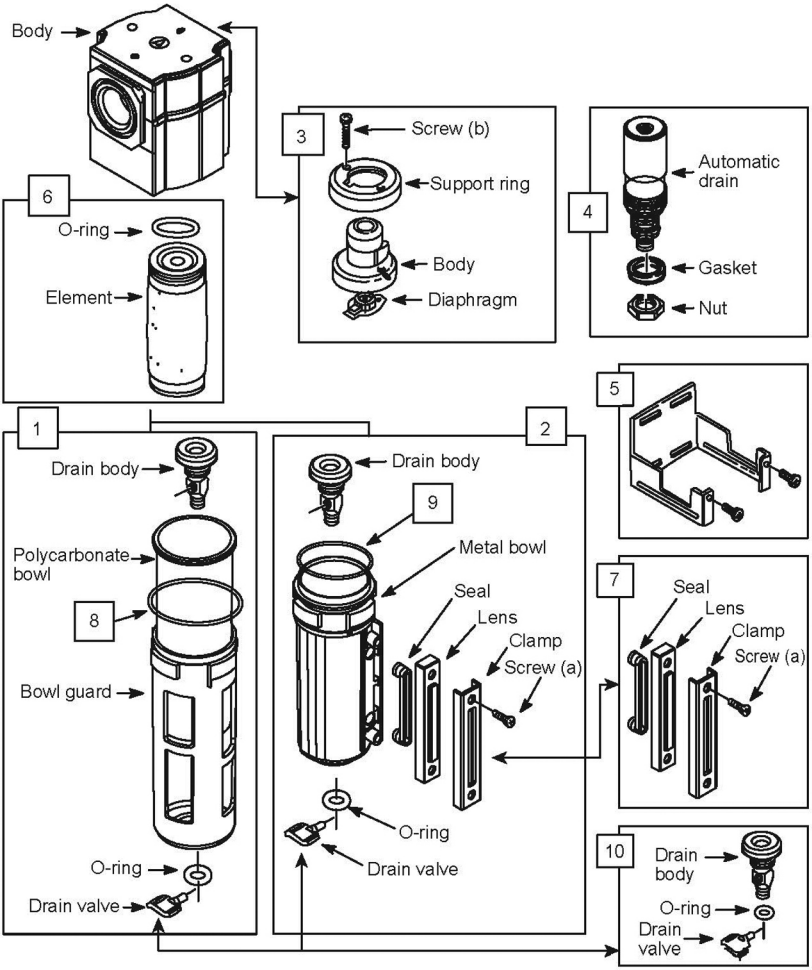
2. Rinse and dry the parts. Blow out internal passages with compressed air.
3. Replace any parts found to be damaged.

REASSEMBLY

1. Lubricate the o-rings, the portion of the manual drain body that contacts the bowl, and the hole in the manual drain body that accommodates the stem of the drain valve with o-ring grease.
2. Assemble the filter as shown on page 7. The arrows on the indicator and body must point in same direction. Torque values are listed below.

Torque Settings	
Part	**Inch Pounds (N-m)**
Screw (a)	17 to 22 (1.9 to 2.5)
Element	5 to 20 (0.5 to 2.3)
Screw (b)	25 to 35 (2.8 to 3.9)
Nut	20 to 25 (2.3 to 2.8)

PARTS LIST & DIAGRAM



No	Description
1	Polycarbonate bowl assembly
2	Metal bowl and O-ring
3	Service Indicator Assembly
4	Auto Drain Kit
5	Universal wall bracket

No	Description
6	Element & O-ring
7	Sight-glass Kit
8	O-Ring for polycarbonate bowl
9	O-Ring for metal bowl
10	Manual drain kit

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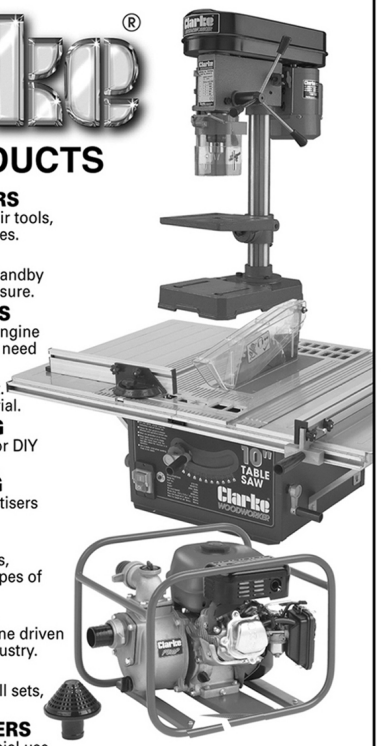

Guarantee

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended. Faulty goods should be returned to their place of purchase, no product can be returned without prior permission.

This guarantee does not affect you statutory rights.

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