



COALESCING AIR FILTER

MODEL NO: CAT183

PART NO: 3120500

OPERATING & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC0619 - ISS 1

INTRODUCTION

Thank you for purchasing this CLARKE Airline Coalescing 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 filter has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

SPECIFICATIONS

	CAT183
Dimensions (D x W x H)	70 x 80 x 235 mm
Air Inlet /Outlet Size	1/2" BSP (female)
Max Flow	35 CFM
Max Inlet Pressure	250 psi
Element Micron Rating	0.01µ
Max working Temperature	150 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 tools.

4. Do not operate air tools where there are flammable liquids or gases.

USE OF AIRLINE EQUIPMENT

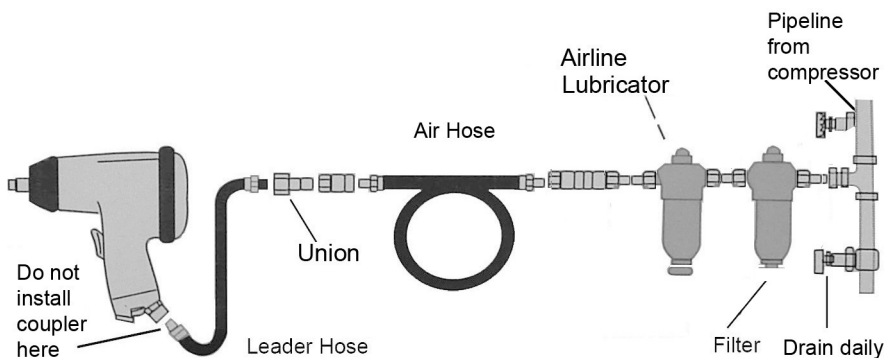
1. Stay alert and use common sense - do not operate an air tool when you are tired or under the influence of alcohol, drugs or medication.
2. Do not overreach - Keep proper footing and balance at all times.
3. Never use oxygen, CO₂, combustible gases or any type of bottled gas as a source of power for 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 air supply hose away from heat, oil and sharp edges.
7. Avoid damaging the component for example by applying excessive force of any kind.
8. Always maintain the air tool 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 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.



- A typical air line layout is shown above. If an automatic in-line filter/regulator is used it will keep the tool in good condition. The lubricator should be adjusted to approx 2 drops per minute and SAE 10 oil should be used.
- 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

For maximum life, use in conjunction with a general purpose air line filter equipped with a 5-micron element.

Polycarbonate bowls are not recommended for use in atmospheres containing chemicals such as acetone, benzene, carbon tetrachloride, ethylene dichloride, gasoline and/or air compressor systems using synthetic fire-resistant lubricants.

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.
9. Your filter is now ready for use.

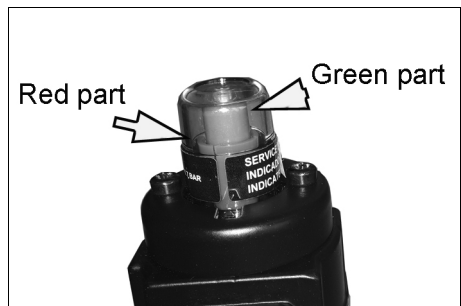
ACCESSORIES

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).



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 the air line.

1. Shut OFF inlet pressure. Reduce pressure in the inlet and outlet lines to zero.
2. To remove the bowl, push it into the body and turn counterclockwise.
3. Disassemble in 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 automatic drain.

CLEANING

1. The element cannot be cleaned. Clean the plastic bowl with warm water only. Do not submerge the service indicator in water. Clean the indicator with a dry, clean cloth. Clean other parts with warm water and soap.
2. Rinse and dry parts. Blow out internal passages with clean, dry, compressed air.
3. Replace any parts found to be damaged.

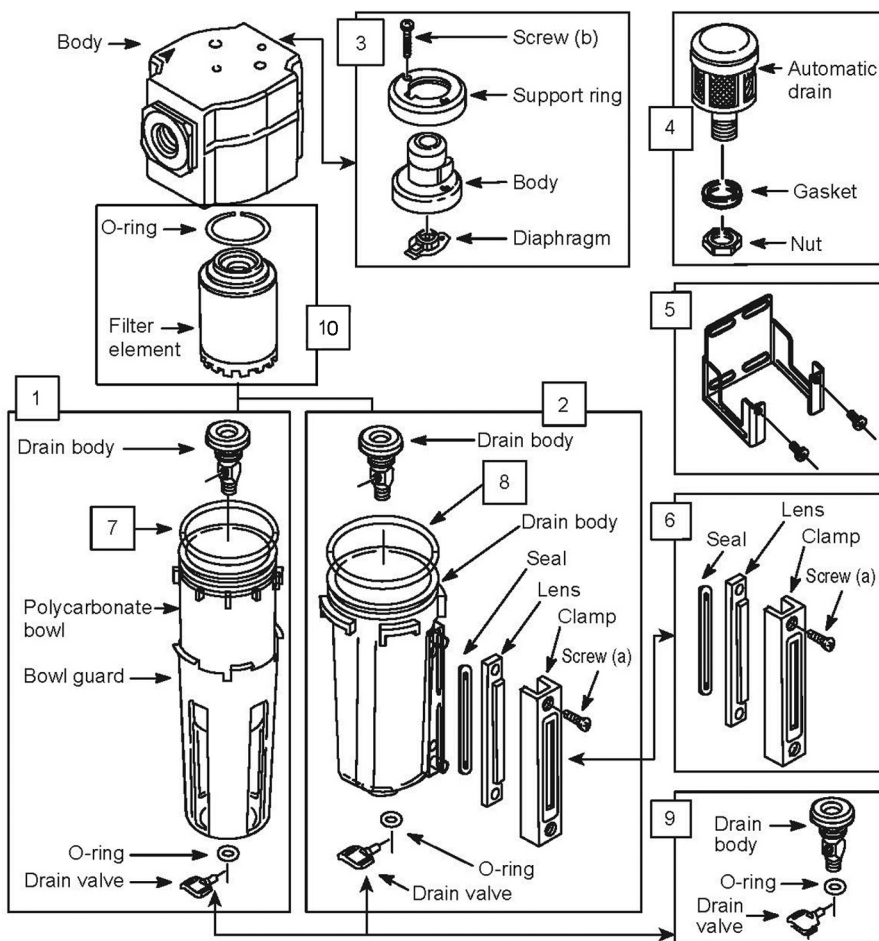
ASSEMBLY

1. Lubricate all 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. 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)	15 to 20 (1.7 to 2.3)
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)

3. Push the bowl into the body and turn fully clockwise.

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	Sight-glass Kit
7	O-Ring for polycarbonate bowl
8	O-Ring for metal bowl
9	Manual drain kit
10	Filter element

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WATER PUMPS

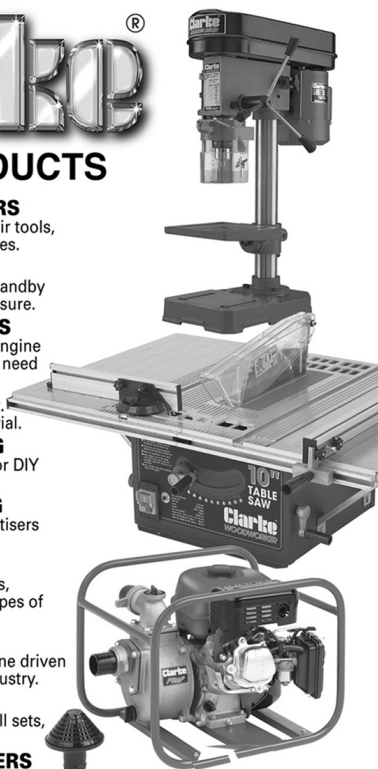
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