

# Clarke®

# *air*



## COALESCING AIR FILTER

MODEL NO: CAT180

PART NO: 3120197

## OPERATING & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC0619 - ISS 1

---

## INTRODUCTION

---

Thank you for purchasing this CLARKE Airline 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

---

	<b>CAT180</b>
Dimensions (D x W x H)	37 x 42 x 107 mm
Air Inlet /Outlet Size	1/4" BSP (female)
Max Flow	6.5 CFM
Max Inlet Pressure	150 psi
Element Micron Rating	0.01 $\mu$
Max working Temperature	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 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, CO<sub>2</sub>, 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.

---

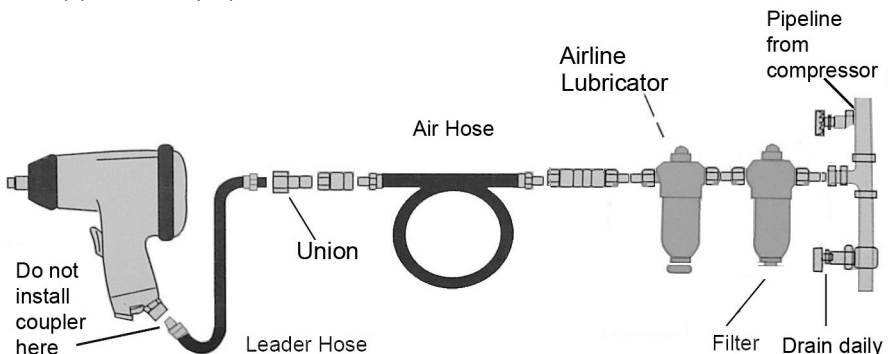
## COMPRESSED AIRLINE REQUIREMENTS

---



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

A typical air line layout is shown below. 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.



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.

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. 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.
3. Take care if using PTFE tape to seal pipe joints — pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
4. Install the filter so that air flows in the direction marked by the arrow on the filter body.
5. Installation should be downstream of the regulator but upstream of any lubricator.
6. Install the filter vertically with the bowl drain mechanism at the bottom, ensuring there is sufficient free space below the filter for future access.
7. Remove the blanking plugs from the connection ports and connect to the supply and delivery hoses.
8. A drain hose can be screwed to the drain port or the filter bowl drained manually.

---

## 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. Depress the manual drain valve to drain accumulated liquid from inside the bowl. 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. 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 (6.5 CFM). 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

---

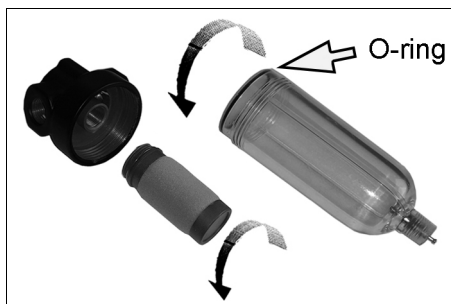
### DISASSEMBLY

The filter can be disassembled without removal from air line.

1. Shut down the compressor and vent the inlet pressure to reduce pressure in the inlet and outlet lines to zero.
2. Remove the bowl by pushing into the body and turning counterclockwise.
3. Disassemble in general accordance with the parts illustrated. Do not remove the drain unless replacement is necessary. Remove and replace only if it malfunctions or if converting to auto drain.

### CLEANING

1. Unscrew and remove the bowl assembly and the filter element.
2. Clean all components with soap and water only.
3. Rinse and dry all parts. Blow out internal passages in the body with clean, dry compressed air.
4. Inspect all parts and replace any found to be damaged.



## ASSEMBLY

1. Lubricate the o-rings and the lip of the drain valve with o-ring grease.
2. Assemble the filter as shown on page 7. Tighten to the values listed below.

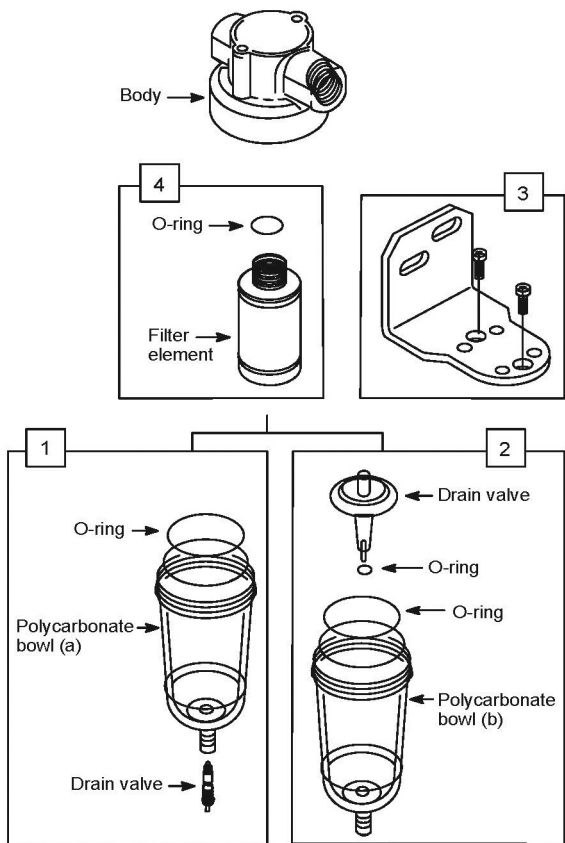
Torque Settings	
Part	Inch Pounds (N-m)
Manual drain	1.5 to 2.5 (0.17 to 0.28)
Bowl	5 to 10 (0.56 to 1.13)
Element	5 to 10 (0.56 to 1.13)

3. Refit the filter, followed by the bowl assembly, ensuring the O-ring is in position. Push the body into the bowl and turn clockwise.

## 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.

# COMPONENT PARTS



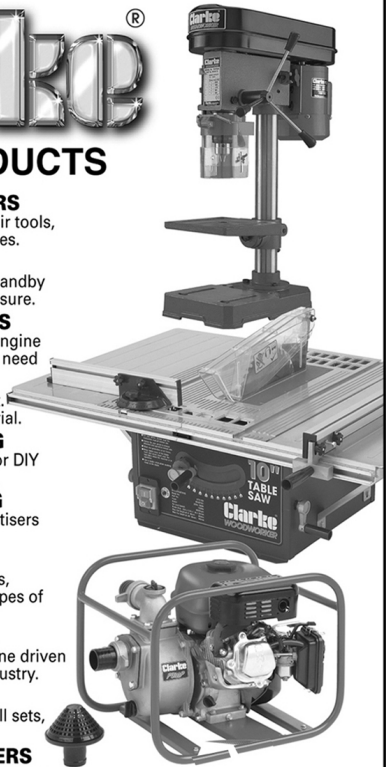
No	Description
1	Bowl assembly-manual drain
2	Bowl assembly-auto drain

No	Description
3	Wall mounting bracket
4	Filter element & O-ring

# A SELECTION FROM THE VAST RANGE OF

# Clarke®

## QUALITY PRODUCTS



### **AIR COMPRESSORS**

From DIY to industrial. Plus air tools, spray guns and accessories.

### **GENERATORS**

Prime duty or emergency standby for business, home and leisure.

### **POWER WASHERS**

Hot and cold, electric and engine driven - we have what you need

### **WELDERS**

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

### **METALWORKING**

Drills, grinders and saws for DIY and professional use.

### **WOODWORKING**

Saws, sanders, lathes, mortisers and dust extraction.

### **HYDRAULICS**

Cranes, body repair kits, transmission jacks for all types of workshop use.

### **WATER PUMPS**

Submersible, electric and engine driven for DIY, agriculture and industry.

### **POWER TOOLS**

Angle grinders, cordless drill sets, saws and sanders.

### **STARTERS/CHARGERS**

All sizes for car and commercial use.

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.

**PARTS & SERVICE: 020 8988 7400**

E-mail: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com) or [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)

**SALES: UK 01992 565333 or Export 00 44 (0)1992 565335**

**Clarke®** INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG  
[www.clarkeinternational.com](http://www.clarkeinternational.com)