

Atlas Copco

Instruction Manual



Instruction Manual
for Dust Collector
English

DCP 10 PNE

Atlas Copco

Instruction Manual for Dust Collector

DCP 10 PNE

ATLAS COPCO AIRPOWER NV
www.atlascopco.com



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Warranty and Liability Limitation

Use only authorized parts.

Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.

The manufacturer does not accept any liability for any damage arising for modifications, additions or conversions made without the manufacturer's approval in writing.

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Preface

Please read the following instructions carefully before starting to use your dust collector.

It is a solid, safe and reliable machine, built according to the latest technology. Follow the instructions in this booklet and we guarantee you years of trouble free operation.

Always keep the manual available near the machine.

In all correspondence always mention the dust collector type and serial number, shown on the data plate.

The company reserves the right to make changes without prior notice.

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Safety precautions

 **To be read attentively and acted accordingly before operating, performing maintenance or repairing the dust collector.**

Special attention must be paid to all the framed safety text that begins with a warning symbol (Triangle) followed by a signal word, as shown below.



Denotes a hazard or hazardous procedure which can lead to serious or life-threatening injuries if the warning is not observed.



Denotes a risk or risky procedure which can lead to personal injury or damage to equipment if the Caution is not observed.

INTRODUCTION

The policy of Atlas Copco is to provide the users of their equipment with safe, reliable and efficient products. Factors to be considered are among others:

- The intended and predictable future use of the products, and the environments in which they are expected to operate.

- Applicable rules, codes and regulations.
- The expected useful product life, assuming proper service and maintenance.
- Providing the manual with up-to-date information.

Read all instructions before using this dust collector.



To reduce the risk of fire, electric shock, or injury.

- 1 Read and understand entire owner's manual before attempting assembly or operation of this dust collector.
- 2 Read and understand the warnings posted on the machine and in this manual.
- 3 Replace warning labels if they become obscured or removed.
- 4 This dust collector is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe

operation of a dust collector, do not use until proper training and knowledge have been obtained.

- 5 Do not use this dust collector for other than its intended use. If used for other purposes, Atlas copco disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- 6 Always wear approved safety glasses/ face shield while using this dust collector.
- 7 Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- 8 Keep safety guards in place at all times when the dust collector is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after maintenance is complete.

- 9 Check damaged parts. Before further use of the dust collector, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
- 10 Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 11 Provide adequate space surrounding for work area and non-glare, overhead lighting
- 12 Keep visitors at a safe distance from the work area. Keep children away.
- 13 Do not put any objects into the openings. Do not use dust collector with any opening blocked; Opening must be free of dust, lint, hair, and anything that may reduce air flow.
- 14 Use non recommended accessories; improper accessories may be hazardous.
- 15 Handle tools with care. Follow instructions for lubricating and changing accessories.

- 16 Turn OFF the dust collector and unplug it from power source before cleaning. Use a brush or compressed air to remove dust, chips or debris; do not use bare hands.
- 17 Do not stand on the dust collector. Serious injury could occur if the dust collector tips over.

GENERAL SAFETY PRECAUTIONS

- 1 The owner is responsible for maintaining the unit in a safe operating condition. Unit parts and accessories must be replaced if missing or unsuitable for safe operation.
- 2 All regulating and safety devices shall be maintained with due care to ensure that they function properly. They may not be put out of action.
- 3 Keep the work area neat and clean. Lack of order will increase the risk of accidents.
- 4 Wear appropriate Personal Protective Equipments (PPE) depending on the kind of activities while operating the dust collector. Protect long hairs with a hairnet. Do not wear loose clothing or jewellery.
- 5 For reasons of product safety, the machine must not be modified.

SAFETY DURING MAINTENANCE AND REPAIR

Maintenance, overhaul and repair work shall only be carried out by adequately trained personnel; if required, under supervision of someone qualified for the job.

- 1 Use only the correct tools for maintenance and repair work, and only tools which are in good condition.
- 2 Parts shall only be replaced by genuine Atlas Copco replacement parts.
- 3 Always replace worn and damaged components immediately. Never use any equipment that is damaged or in need of repair.

Leading particulars

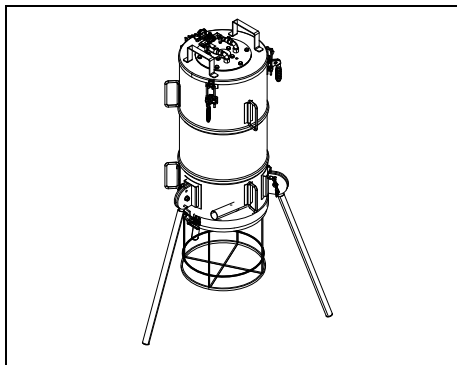
DESCRIPTION OF SAFETY PICTOGRAMS USED IN THIS MANUAL



This symbol draws your attention to dangerous situations. The operation concerned may endanger persons and cause injuries.



This symbol is followed by supplementary information.



GENERAL DESCRIPTION

The DCP 10 dust collector is intended for use with one hand-held Rock drill or Breaker with a proper attachments such as hose and appropriate suction hood attachments.

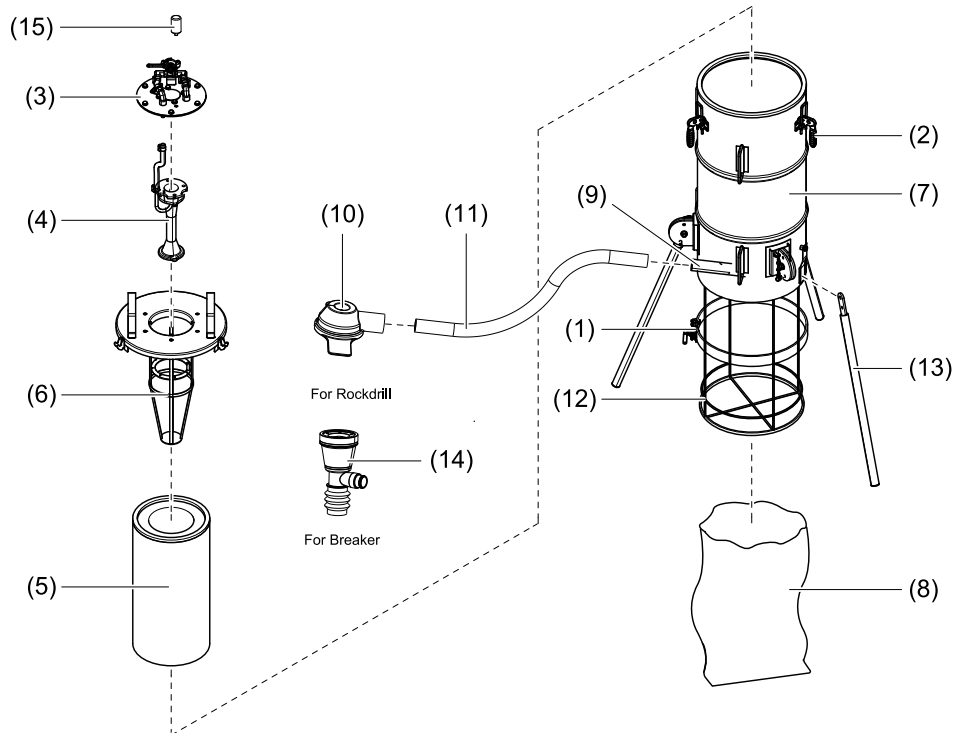
The ejector tube is located in a well-protected position inside the filter and the Housing-unit.

The dust collector has low weight, and is therefore easy to handle. It is set up by locating the tripod which is having foldable legs on the ground that keep the unit upright and stable if the ground is flat and not having slope. It can also be mounted on Atlas Copco trolley.

The rock cuttings and dust particles that are sucked into the dust collector are collected into a sack. The sack is secured around the cyclone part of the filter unit by the sack holder.

The DCP 10 dust collector has high suction capacity to its air consumption.

Main parts



Reference	Name
1	Adjustable belt
2	Clamping lock
3	Cover
4	Drive ejector
5	Filter
6	Filter support
7	Housing
8	Sack
9	Suction pipe
10	Suction hood
11	Suction hose
12	Sack support
13	Tripod
14	Tool holder
15	Vacuum indicator

FUNCTIONAL DESCRIPTION

Drive ejector

The drive ejector (4) is located inside the filter unit (5), and is thus well-protected from mechanical damage. By locating the ejector above the filters (5), an under pressure is maintained in the suction system. This eliminates the risk of dust leakage. Since only filtered air flows through the ejector, wear to the unit is minimal.

Collection system

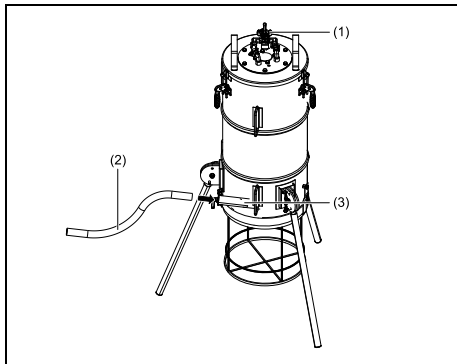
The collection system consists of a suction hood (10) or tool holder (14) which is made of wear resistant material and it is attached with flexible suction hose (11). Other end of suction hose (11) is connected to suction pipe (9).

Filter unit

Filter mounted on filter support (6) with the help of fasteners. In filtration chamber larger particles are separated in the cyclone, while smaller particles are trapped by the filter.

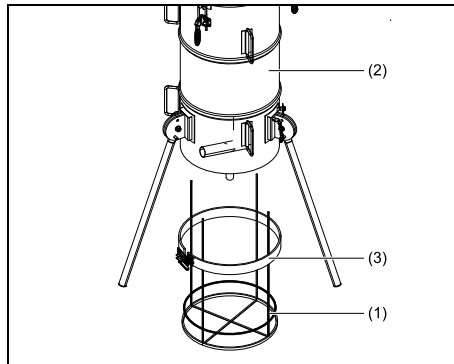
Operating instructions

HOSE CONNECTION



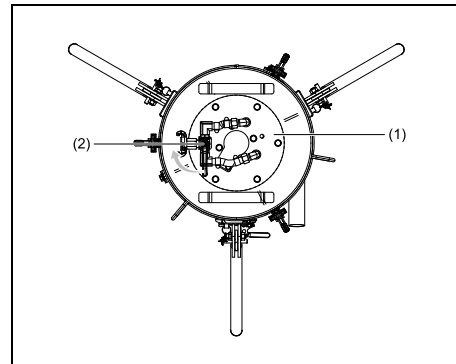
- 1 Connect the compressed-air hose to the claw coupling on the cover (1).
- 2 Connect one end of suction hose (2) to suction hood or tool holder and another end to suction pipe (3) as shown in the above figure.

BEFORE STARTING



- 1 Pull the sack support (1) which is inside the housing unit (2) till it comes down completely.
- 2 Lock the sack support by tightening the four screws in housing (2), so that the bottom support does not get pulled in during operation.
- 3 Wrap the sack around sack support (1) and hold it tight around housing (2) with the help of adjustable belt (3) as shown in the above figure.

STARTING

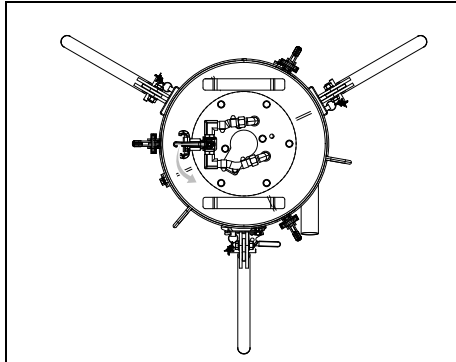


- 1 There is a 2 way ball valve mounted on cover (1).
- 2 To start the dust collector, turn the knob (2) to the starting position.

SACK REPLACEMENT

- 1 When the sack has been filled with 10-20 kg of drill cuttings, it must be changed.
- 2 First switch off the ejector by turning the ball valve “across” the air flow (i.e. at right angle to the air flow).

FILTER CLEANING



- 1 Do not remove the filter from the housing.
- 2 Turn the 2-way ball valve knob to cleaning position which will force the pressurized air to flow inside the filter and all dust accumulated on filter is collected in a sack.

MOVING THE DUST COLLECTOR

For specific instruction see below!



Do not carry the dust collector horizontally it may damage housing and filter.

If the distance is short, the housing unit is carried vertically.

If the distance is long, remove the suction hose from the filter unit and carry the unit vertically. Do not lift the dust collector with the tripod stands as it can damage the unit or deform the unit.

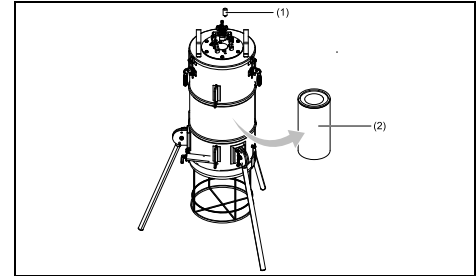
FILTER REPLACEMENT

- 1 Clean the filter (2) once the vacuum indicator (1) has reached the red line and then reset the vacuum indicator (1).
- 2 If the vacuum indicator (1) continuously shows the red line even after cleaning the air filter (2), wash the air filter (2) by water and filter should be properly dried before using in Dust Collector.
- 3 If the vacuum indicator (1) continuously shows the red line even after washing the air filter (2), replace the air filter.



When suction inlet is closed completely, the vacuum indicator turns red.

So always consider the vacuum indicator reading when suction hood is open to atmosphere.



DRILLING IN WATER-BEARING ROCK



This dust collector should not be used in water-bearing rock.

Drilling at temperatures below 0°C



When drilling in temperatures below 0°C, the compressed air line must be equipped with a water separator. If this is not done, there is a risk of the drive ejector freezing up, with reduced suction capacity as a result. In extremely cold operating conditions, it may be necessary to connect an alcohol dispenser to the compressed air line.

TOOL HOLDER

To operate dust collector for breakers, tool holder needs to be connected on working tool.

Connect one end of suction hose to tool holder and another end to suction pipe of dust collector.

Tool holder mounting instructions:

Tool holder is provided with adjustable spring for different sizes of working tool.

1. Fit bellow (1) to the tool holder (2).
2. Insert the tool holder (2) over working tool (3) till it touches the bottom of breaker (4).

3. For bigger diameter working tool adjust the spring (6) to position (5).

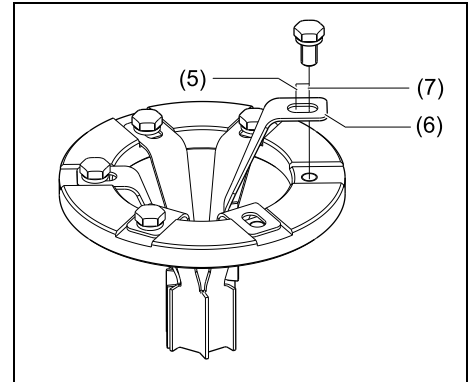
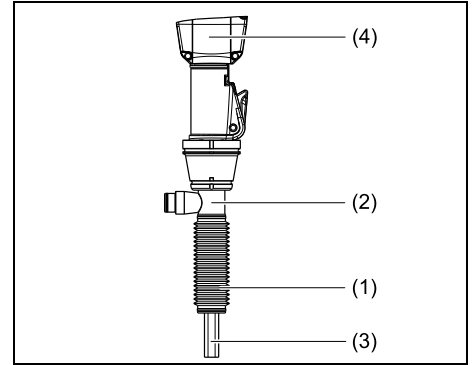
4. For Smaller diameter working tool, adjust the spring (6) to position (7).



Before operating the breaker, please make sure tool holder is tightly hold on working tool. If tool holder is not tightly hold, it may slide down the working tool.



If working tool (3) tip is not below the bellow(1), cut the bellow (1) to the required length.

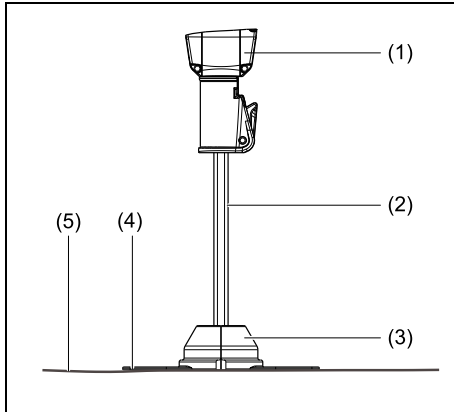


SUCTION HOOD

To operate dust collector for Rock Drill (1), suction hood needs to be connected on working tool.

Connect one end of suction hose to Suction hood and another end to suction pipe of dust collector.

Suction hood mounting instructions:



1. Insert working tool (2) inside the suction hood (3).
2. Two flap supports are provided on suction hood.

3. During operation the operator needs to keep his/her legs on the flaps (4), so that suction hood (3) is always at ground surface (5).



During operation, please make sure the suction hood always in contact with ground surface, so that entire dust gets collected through suction hood.

Maintenance

SAFETY PRECAUTIONS



Always observe the applicable safety precautions. See section Safety during maintenance and repair.

The schedule contains a summary of the maintenance instructions

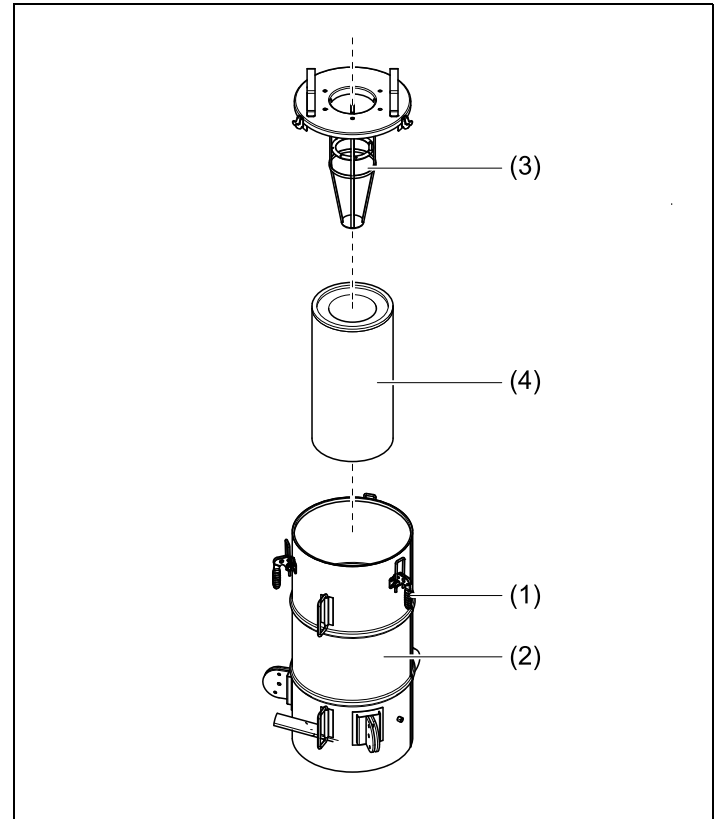
Maintenance schedule	Hourly	Daily	Weekly	Monthly
Check the suction hood and remove any accumulations of dirt		x		
Check that there is no filter leakage (i.e. Dust leakage through the ejector)		x		
Check the clamping lock is properly tightened to avoid leakage		x		
Check that there is no leakage in connections, joints, gaskets and hoses			x	
Clean the filter	x			
Disassemble the filter unit and check the filters for clogging and/or damage				x



Parts shall only be replaced by genuine Atlas Copco replacement parts.

Disassembly of the filter unit

1. Loosen the clamping lock (1) at housing (2).
2. Remove filter unit with the help of handle provided on top of filter support (3).
3. Remove the filter (4) from support by unscrewing the Nut.
4. Assembly is carried out in reverse order. Make sure that the filters are moderately but sufficiently tightened.



Problem solving

Problem: Reduced suction effect.

Possible faults	Corrective actions
Clogged filter	Clean the filter
Damp cuttings have blocked the suction hose	Clean out the suction hose by starting the ejector and then striking the hose carefully
Freezing the ejector	Pour approx. 100 ml of carburettor spirits into the inlet of the ejector. Check carefully the water separator is working properly
Dirt in ejector. (Shine a torch through the ejector to check for dirt)	Remove the ejector from the filter unit. Carefully clean out the dirt. Take care not to damage or deform the nozzle

Problem: Ejector does not start.

Possible faults	Corrective actions
The compressed air hose is not connected to the dust collector	Connect-up the compressed hose
Freezing in dust collector air system	Warm-up the parts carefully

Problem: Dust in Exhaust air.

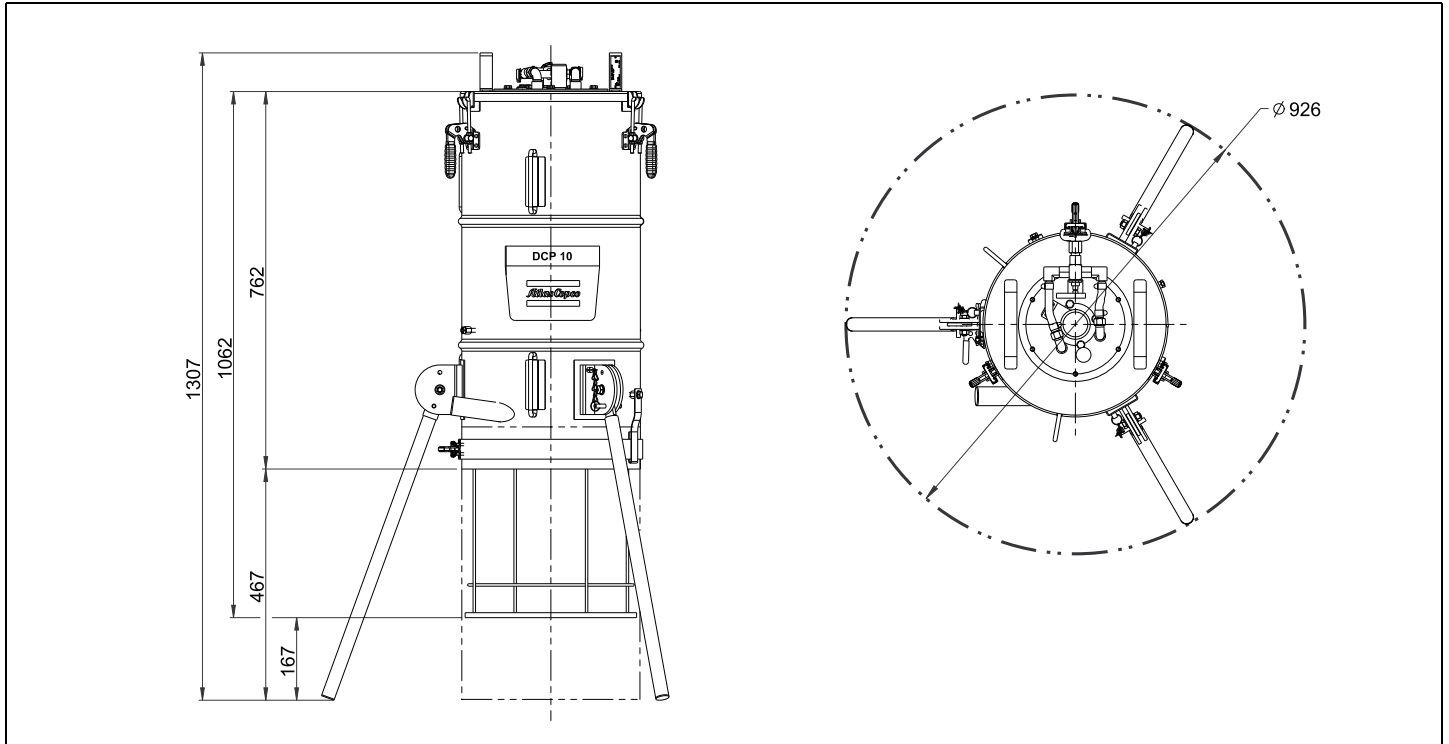
Possible faults	Corrective actions
Filter damaged	Replace damaged filters
Filters not correctly attached	Fit and fasten correctly

Technical specifications

GENERAL SPECIFICATION

Description	Units	Specification
Weight	Kg	24
Air Consumption at 6 bar	l/s	11-12
Suction hose	mm	38
Filter surface area	m ²	2
Collection sack, flat dimensions	mm	560 x 700
Diameter of Housing unit	mm	365
Height of Housing unit	mm	760
Height above ground	mm	1310

Dimension drawing



Disposal

GENERAL

When developing products and services, Atlas Copco tries to understand, address, and minimize the negative environmental effects that the products and services may have, when being manufactured, distributed, and used, as well as at their disposal.

Recycling and disposal policy are part of the development of all Atlas Copco products. Atlas Copco company standards determine strict requirements.

Selecting materials, the substantial recyclability, the disassembly possibilities and the separability of materials and assemblies are considered as well as the environmental perils and dangers to health during the recycling and disposal of the unavoidable rates of not recyclable materials.

Material of most of the parts of dust collector are metallic, that can be remelted in steelworks and smelting works and that is therefore almost infinite recyclable. The plastic used is labelled; sorting and fractioning of the materials for recycling in the future is foreseen.



This concept can only succeed with your help. Support us by disposing professionally. By assuring a correct disposal of the product you help to prevent possible negative consequences for environment and health, that can occur with an inappropriate waste handling.

Recycling and re-usage of material helps to preserve natural resources.

DISPOSAL OF MATERIALS

Dispose contaminated substances and material separately, according to local applicable environmental legislations.

Before dismantling a dust collector at the end of its operating lifetime drain all fluids and dispose of according to the applicable local disposal regulations.

Remove the batteries. Do not throw batteries into the fire (explosion risk) or into the residual waste. Separate the machine into metal, electronics, wiring, hoses, insulation and plastic parts.

Dispose all components according to the applicable disposal regulations.

Remove spilled fluid mechanically; pick up the rest with absorbing agent (for example sand, sawdust) and dispose it according to the applicable local disposal regulations. Do not drain into the sewage system or surface water.

Maintenance Log

Dust Collector Customer

Serial number.....

Service hours	Maintenance action	Date	By initials



DCP-10

Spare Parts List Dust Collector

DCP-10 s/n PUN823224 -



General information

This spare parts list applies to the following:

Part number	Description
8311032515	DCP-10

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Instructions for use

This spare parts list contains no safety regulations and is merely intended to assist in the ordering of spare parts.

For information about operating, servicing, or repairing, the relevant Safety and operating instructions must be consulted at all costs.

Please observe the safety instructions listed in the relevant Safety and operating instructions!

Mechanical

Main Parts 1

Accessories

Accessories_dust collector 4

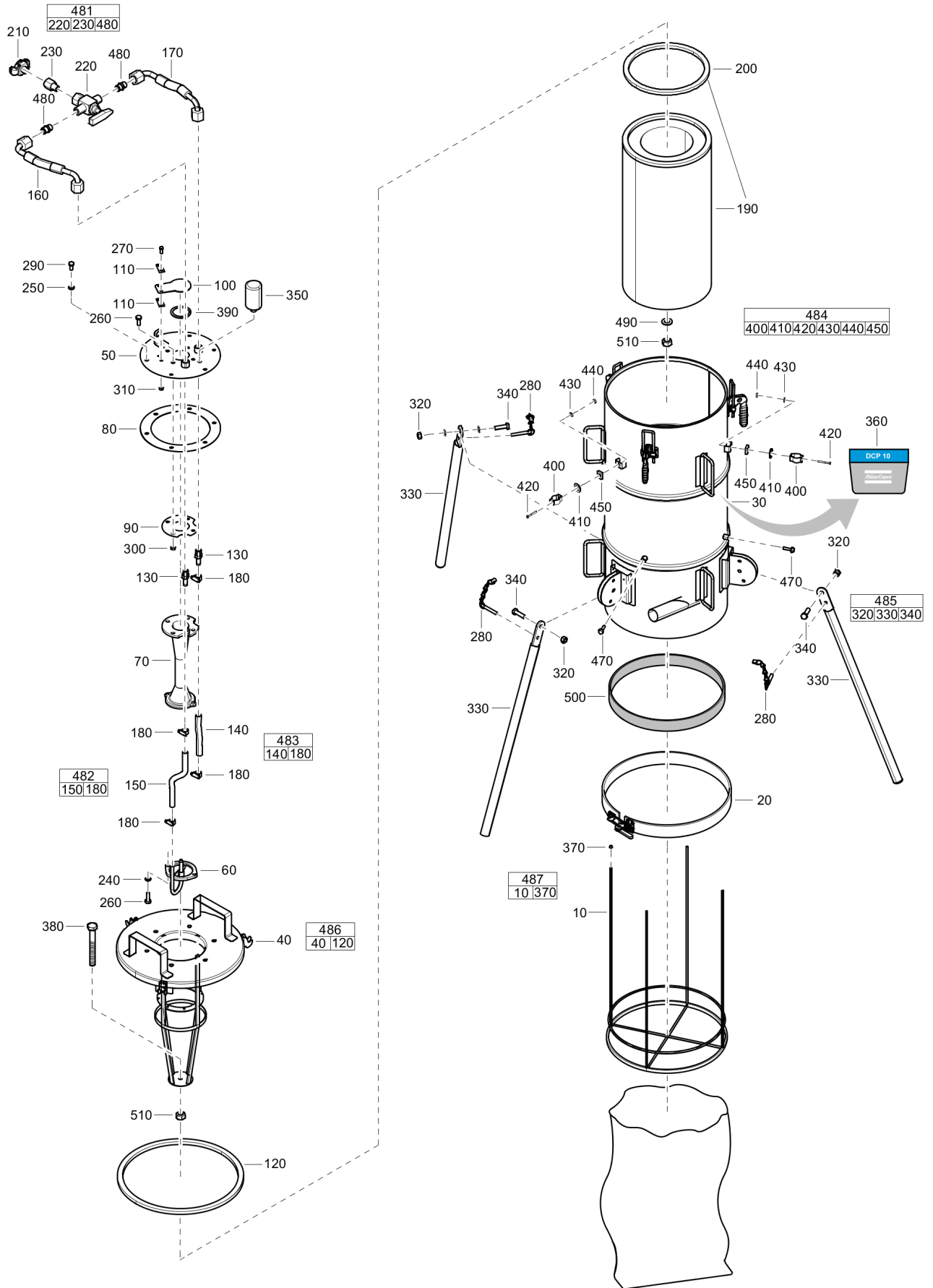
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Mechanical Main Parts



Refer to the Parts Online web page for most up-to-date information. The printed information might be outdated.

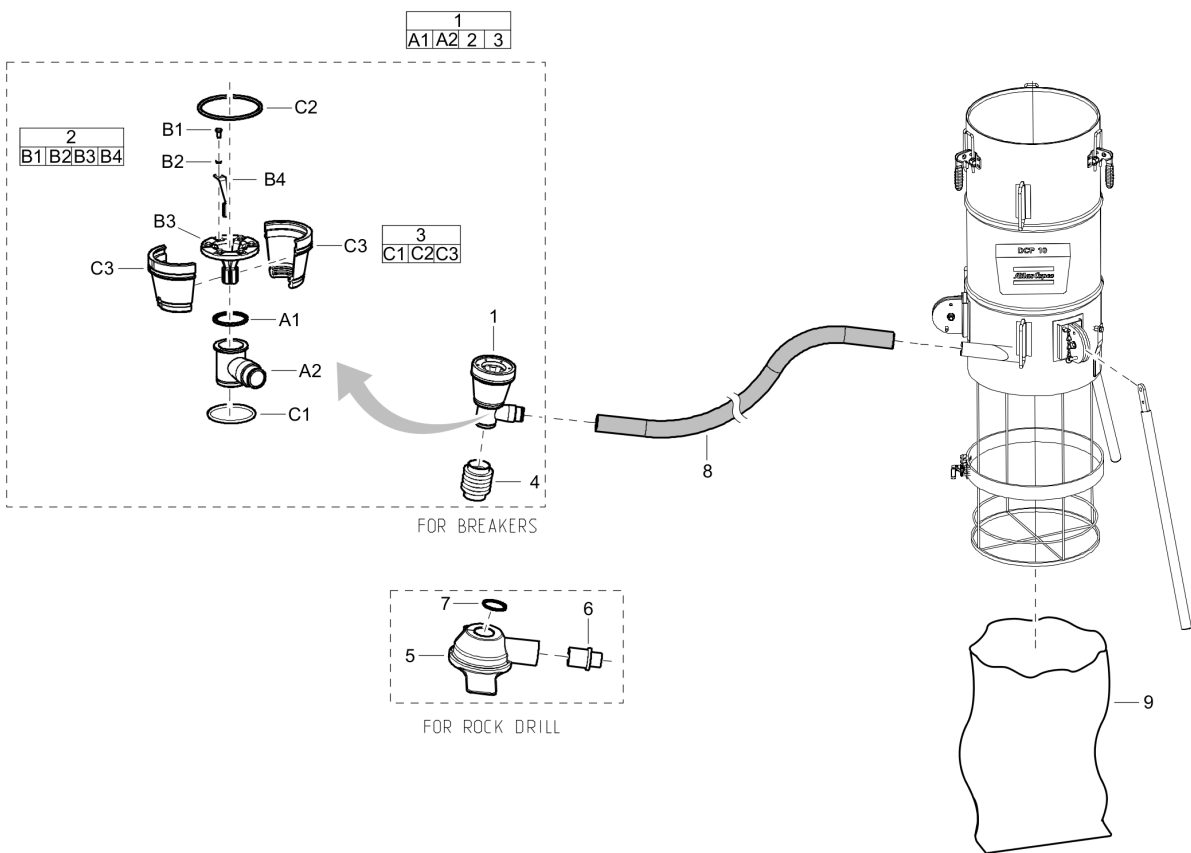
Item	Part No.	Name	Qty	L
20	3310100734	Sack holder	1	
30	3310100764	Housing	1	
50	3310100766	Top cover	1	
60	3310100704	Ejector nozzle	1	
70	3310100722	Ejector tube	1	
80	3310100756	Gasket	1	
90	3310100712	Gasket	1	
100	3310100710	Lid	1	
110	3310100711	Clamping plate	2	
130	3310100751	Nipple, Hose	2	
160	3310101147	Hose, Ball valve to cleaning	1	
170	3310101146	Hose, Ball valve to venturi	1	
190	3310101012	Air filter with Gasket	1	
200	3310101011	Gasket, Filter	1	
210	9000030000	Claw coupling - 3/8 in. BSP	1	
240	0333217437	Lockwasher	2	
250	0301233500	Washer DIN9021	2	
260	0147132503	Hex. head screw	2	
270	9234000299	Flange Hexagon head screw M6 x L16 mm	2	
280	3310101020	Chain lock	3	
290	3310101136	Flange hexagon head screw M8 x L15 mm	8	
300	3310101142	Flange hexagon head nut M8	4	
310	0261109179	Flange head hex.nut M6	2	
350	3310101113	Vacuum indicator	1	
360	3310101085	Decal	1	
380	3310101139	Flange head hex.screw M10 x L60 mm	1	
390	3310101095	Gasket	1	
460	3310101144	Flange head hex.screw M8 x L24 mm	4	
470	0147300050	Flange head hex.screw M8 x L30 mm	4	
481	3310101345	Ball valve complete	1	
220	-	Ball valve	1	
230	3310100974	Bushing	1	
480	3310101208	Hexagon nipple	2	
482	3310101347	Venturi hose complete	1	
150	-	Hose, venturi	1	
180	0347610400	Hose clamp	2	
483	3310101348	Cleaning hose complete	1	
140	-	Hose, cleaning	1	

Refer to the Parts Online web page for most up-to-date information. The printed information might be outdated.

Item	Part No.	Name	Qty	L
180	0347610400	Hose clamp	2	
484	3310101349	Leg clamp complete	3	
400	3310101116	Stand Support	1	
410	0301232100	Washer DIN9021	1	
420	0160608200	Slotted screw M6 x L14 mm	1	
430	0333210845	Spring washer	1	
440	0261109171	Hexagon nut M6	1	
450	3310101202	Flat	1	
485	3310101350	Leg complete	3	
320	0261109176	Flange head hex.nut M10	3	
330	-	Stand	3	
340	0147300046	Flange hexagon head screw M10 x L30 mm	3	
486	3310101375	Hood Assembly complete	1	
40	-	Hood assembly	1	
120	3310100714	Packing	1	
487	3310101376	Bottom support complete	1	
10	-	Bottom support	1	
370	0261109121	Hexagon nut	4	
490	3310101383	Washer	1	
500	3310101377	Anti slip tape	1	
510	0261109176	Flange head hex.nut M10	2	

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Accessories Accessories_dust collector



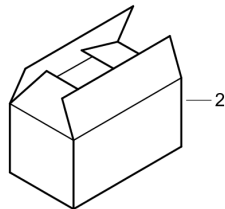
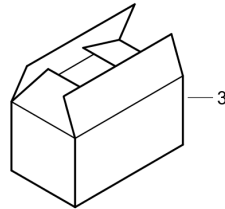
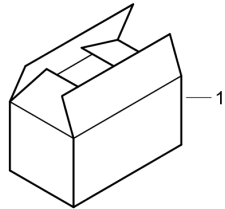
Item	Part No.	Name	Qty	L
8	3310100769	Hose	1	
9	3310100975	Plastic bag	1	
Not Shown	-	For Breaker	-	
1	3310101108	Tool holder CPL (For Breaker)	1	
A1	3310101130	Dust isolator	1	
A2	3310101131	Hose adaptor	1	
2	3310101351	Sleeve complete	1	
B1	0147124403	Hex. Head screw	6	
B2	0333217450	Spring washer	6	
B3	-	Top sleeve	1	
B4	3310101134	Spring	6	
3	3310101354	Cover complete	1	
C1	0663211413	O-ring	1	
C2	0663214300	O-ring	1	
C3	-	Cover	2	
4	3310101109	Bellow (For Breaker)	1	
Not Shown	-	For Rockdrill	-	
5	3310100798	Suction Hood (For Rockdrill)	1	
6	3310100928	Connector (For Rockdrill)	1	
7	3310101130	Dust isolator	1	

Option Optional parts_dust collector



Item	Part No.	Name	Qty	L
1	8311032514	Trolley	1	

Kit Kits for dust collector



Item	Part No.	Name	Qty	L
Not Shown	-	Kits for dust collector	-	
1	3310101353	Plastic bag kit (50 piece per pkt.)	1	
2	3310101352	Bellow kit (10 piece per pkt.)	1	
3	3310101385	Filter kit (3 piece per pkt.)	1	

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