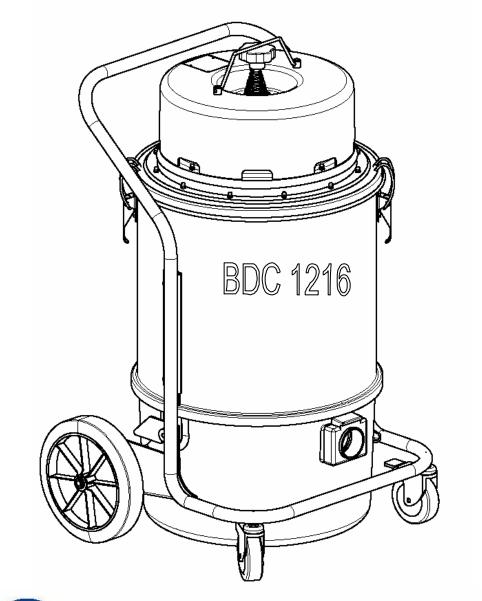
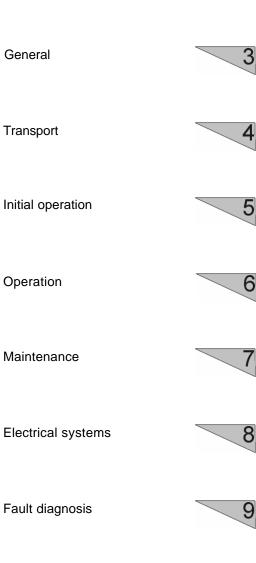
# Operating Manual BDC 1216





MAN-BDC-1216-EN





Spare parts

n and specifications are subject to

Blastrac B.V. Utrechthaven 12 3433 PN Nieuwegein THE NETHERLANDS T +31(0)30 - 601 88 66 F +31(0)30 - 601 83 33 E info@blastrac.nl

I www.blastrac.com



Design and specifications are subject to change without notice - September 2007







1

# **Technical Data**

# **Contents Chapter 1**

- 1.1 Rating
- 1.2 Unit specifications
- 1.3 Operative range and correct usage
- 1.4 Stand-by power supply
- 1.5 Machine type designation



# **Technical Data**

1.1 Rating	
Unit / designation:	Blastrac Dust collector
Machine type:	BDC 1216
Manufacturer:	Blastrac BV Utrechthaven 12 NL-3433PN Nieuwegein THE NETHERLANDS

#### 1.2 Unit specifications

Technical data

Dust collector	BDC 1216
Power consumption Motor power (with 2 turbines)	1600 W
Input current Motor power (with 2 turbines)	max. 10 A
Connected loads	230 V, 50Hz, 16A fuse
Dust hose connection	50 mm Ø
Dust hose length	10 m
Filter surface	1,50 m²
Dedusting interval	Manual
Airflow	312 m³/h

Connected loads (electrical system):

The indicated input current values correspond to the nominal current values of the motors working under full load. These values are not achieved under normal operating conditions.

Operating Manual *BLASTRAC* 



**Technical Data** 

**Dimensions:** 

	Dust collector BDC 1216	
Length	570	mm
Width	640	mm
Height	1000	mm
Weight	34	kg

#### 1.3 Operative range and correct usage

The dust collector BDC 1216 is exclusively designed to be used with Blastrac machines. It is only allowed to vacuum dry dust. The manufacturer will not be liable for damage resulting from such incorrect usage. In these cases the user assumes all risks.





**Technical Data** 

1.4 Stand-by power supply (Generator)



If the dust collector BDC 1216 is operated using a generator, this generator must be operated in accordance with the current VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and to eliminate possible damage to electrical components.

# 1.5 Machine type designation

Diastros Duct Collector	<u>BDC 1216</u>
Blastrac Dust Collector	
(1) single phase (2) motors (16) 1.6 kW	



Safety advice

#### **Contents Chapter 2**

- 2.1 Warnings and symbols
- 2.2 Organisational measures
- 2.3 Personnel selection and qualification
- 2.4 Safety precautions applicable to normal operation
- 2.5 Special work within the scope of use of the dust collector and maintenance activities as well as repairs during operation
- 2.6 Safety off position
- Particular dangerous aspects of the equipment 2.7
- 2.8 Safety regulations Electric



# Safety advice

# 2.1 Warnings and symbols

The following denominations and symbols are used in the Operating Instructions to highlight areas of particular importance:



Symbol of operational safety.

In these Operating Instructions this symbol will be shown next to all safety precautions that are to be taken in order to ensure prevention to life and injury. Follow these instructions and take special care in these circumstances. In addition to these instructions, the general safety precautions and accident prevention guidelines are also to be followed.



Particular details regarding the economical use of the dust collector.







Information, instructions and restrictions with regard to possible risks to persons or to extensive material damages.







Safety advice

Warning against dangerous voltages.

Indications relating to protective devices in electrical appliances.

Indications where consultation with the manufacturer of the dust collector is required.

Instructions relating to periodical checks.

Reference to important instructions contained in the **Operating Instructions.** 

2.2 Organisational measures

The **Operating Instructions** are to be kept **near the location** where the dust collector is located and must be within reach at all times!

In addition to the Operating Instructions general and legal regulations regarding accident prevention and environmental protection must be complied with and indicated!

Such duties may for example relate to the handling of hazardous substances or to the provision and wearing of personal protection equipment as well as compliance with traffic regulations.

















# Safety advice

The Operating Instructions must be **supplemented** by **instructions** including the duty to **supervise** and **report** relating to **particular working practices**, for example work organisation, work procedures and personnel allocation.

**Personnel entrusted with working with the dust collector must** have read the **Operating Instructions** before starting work, in particular the **Safety Instructions** chapter. To read these instructions during work is too late. This particularly applies to incidental activities such as setting up the equipment, carrying out maintenance work or training staff to work with the **dust collector**.

From time to time the working practices of the staff are to be **checked** regarding awareness of **safety and hazards**.

Personnel must tie back long hair and not wear loose clothing or jewellery including rings. There is a risk of injury through getting stuck or being drawn into moving machinery.



Use **personnel protection equipment** if necessary or required by regulations! Take notice of **all** safety and hazard notices on the dust collector!

All **safety and hazard notices** at or on the dust collector must be kept complete and **legible**!

If **safety-critical changes** occur to the **dust collector** or its working method, the **dust collector** must be **shut down immediately**! The cause of the fault must be established immediately!



Changes, add-ons or conversions to the dust collector which might impair safety must not be undertaken without the manufacturer's permission!

This applies in particular to the fitting and adjustment of safety devices as well as to welding on load-bearing parts.

Spare parts must comply with the technical requirements specified by the manufacturer. This is always guaranteed if original spare parts are used.

**Intervals** for recurring **checks and inspections** specified in these Operating Instructions must be complied with!



Safety advice

To perform maintenance work correctly it is imperative to be equipped with the proper tools for the task in question.

The location and the operation of fire extinguishers must be made known on each building site!

Take note of the facilities for reporting and fighting fires!



#### 2.3 Personnel selection and qualification

Fundamental duties :

Work on the dust collector may only be undertaken by reliable personnel.

Only trained personnel may be deployed. Note the statutory minimum age! Specify clearly the responsibilities of personnel for operation, setting up, servicing and maintenance work!

Make sure that only authorised personnel operate or work on the dust collector!

Define responsibilities of the equipment operator also regarding to traffic safety regulations and empower him to decline instructions from third parties which are not complying with the safety requirements!

Personnel being trained or made acquainted with the equipment may only be deployed on the dust collector under constant supervision of an experienced person!

#### 2.4 Safety precautions applicable to normal operation

Ban any method of working that **impairs safety**!



# Safety advice



Only operate the **dust collector** when all **safety devices** and related **safety equipment**, e.g. detachable **safety devices**, emergency stops, sound insulations and suction devices are present and **operational**!

Check the **dust collector** visually for any **damage** and **defects** at least once a day!

In the event of **operational malfunctions** the dust collector must be **shut down immediately** and secured! The faults must be immediately rectified!



Secure the **work area** around the dust collector in **public areas** providing a **safety distance** of at least 2 m from the dust collector.

Before switching on the **dust collector** make sure that no-one can be endangered when the **dust collector** starts up!

Do not switch off or remove the exhaust and ventilation devices when the **dust collector** is running!



All persons in the proximity of the dust collector, when it is working, must wear safety glasses with lateral protection and safety shoes. The operator is obliged to wear close-fitting protective clothing.



Use only extension cable for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

#### 2.5 Special work within the scope of use of the dust collector and maintenance activities as well as repairs during operation

#### Mechanical servicing work:

Put the machine in the **Safety off position** as described in chapter 2.6 for any servicing work on the machine in order to prevent the machine from being **switched on** accidentally.



Safety advice

Please follow any special **safety instructions** in the various chapters on servicing the machine. See chapter 7.

Adjustment, servicing and inspection work and time limits specified in these Operating Instructions as well as any information on the replacement of parts and equipment must be undertaken and/or complied with!

These activities may only be undertaken by **gualified personnel**.

Do not use any **aggressive** cleaning materials!

Use lint-free cleaning cloths!

Always tighten any screw connections that are undone during servicing and maintenance work!

If safety devices need to be taken off or dismantled during service and repair, these safety devices must be reinstalled and inspected immediately after completion of the servicing and repair work.

Make sure that process materials and replaced parts are disposed of safety and in an environmentally-friendly manner!

#### **Electrical servicing work:**

Make sure that electrical components used for replacement purposes comply with the original parts and are correctly adjusted if necessary.

Regarding the safety advice see also chapter 2.8 "Safety regulations electric".



# Safety advice

## 2.6 Safety off position

#### **Definition:**

The dust collector is in a safe condition when it cannot generate any hazard.

Putting the equipment in the Safety off position means:

- □ Switch off the dust collector.
- □ Wait for standstill of all drives.
- **D** Pull out mains plug.

# 2.7 Particular dangerous aspects of the equipment



Any dust collector, if it is **not used according the regulations**, may be **hazardous** for operating, setting-up and service personnel. The **operating authority** is responsible for **compliance with the safety regulations** during operation and maintenance of **safety devices** supplied with the dust collector as well as the provision of appropriate additional safety devices!

## 2.8 Safety regulations Electric



Work on **electrical** equipment or operating materials may only be undertaken by a **skilled electrician** or by **trained** persons under the **guidance** and **supervision** of a **skilled electrician** as well as in accordance with the **electrical engineering regulations**.



Use only extension cable for extending the main cable that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

9

## **BDC 1216**

Safety advice

**Operating Manual** 

The electrical equipment for the plant must be **inspected regularly**. Please note in particular the **specified recurring inspections** according **VBG 4**. Defects such as **loose** connections or **scorched** cables must be rectified **immediately**. **Call a skilled electrician or our Customer Services**.

A **second** person must be at side in order to unplug or to control the emergency stops if maintenance or repair requires working on live parts.

The work area must be blocked off using a red and white **safety chain** and a danger sign. Use a tool that is **insulated against voltages**.

**Only** start work once you are familiar with the **electrical engineering regulations** that apply to your area.

Only use voltage seekers that **comply with the regulations** when troubleshooting. From time to time check voltage seekers to ensure that they are operationally efficient.









3

General

# **Contents Chapter 3**

- 3.1 Operating Manual
- 3.2 Care and maintenance
- 3.3 Scope of supply
- 3.4 Description
- 3.5 Control box
- 3.6 The suction air system



#### General

#### 3.1 Operating Manual

This manual has been written to support the operating personnel on learning the functioning of the dust collector and to guarantee optimum operation and maintenance.

#### Therefore it is important that all persons operating and maintaining the dust collector read this manual carefully and understand it fully.

The supplied dust collector has been manufactured for being employed in the user's country. All descriptions and notes have been formulated in the language of the user's country or in English in accordance with the statutory regulations, or shown as pictograms. If the customer deploys personnel with little knowledge of the language of the user's country, appropriate instruction and training must be provided.



#### Before using the dust collector personnel must be familiar with how to operate the machine, with all important components, with the method of working and with its dimensions.



**Blastrac** offers a course on the use of the dust collector in order to make the operating and maintenance personnel familiar with all elements of the dust collector.

Initial commissioning of the dust collector must be carried out very carefully. The dust collector operator must fully understand the sequence of commissioning of the individual parts and their functioning.

#### 3.2 Care and maintenance

Special attendance and regular maintenance of the dust collector are imperative for functioning and safety.



3

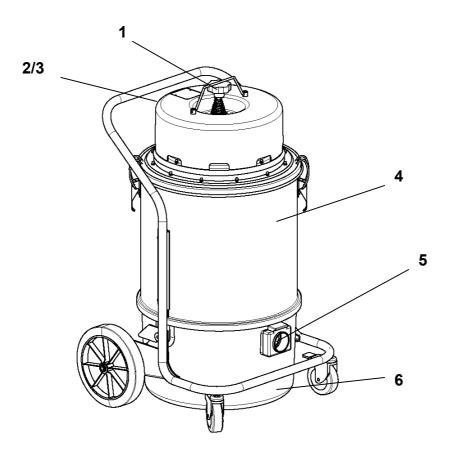
General

## 3.3 Scope of supply

Scope of supply of the dust collector:

- Dust collector (BDC 1216)
- Operating Manual 1 x

# 3.4 Description



#### Fig. 3.1

2

Manual filter dedusting 1

On - Off Switch (2x.)

- 4 Filter house
- 5 Aspiration port

Control lamps 3

6 Dust bin



#### General

3.5 Control

#### ON – OFF Switch

There are installed 2 aspirating engines in the dust collector BDC 1216. Each motor can be individually switched on or off. The selector switches has two positions:

> **ON** = Motor ON **OFF** = Motor OFF

Power supply

The control lamp lights up, when there is power supply.

#### 3.6 The suction air system

The air streaming through the complete system during the application of the blast cleaning machine or rather the scarifier and the dust collector, has the following functions:

- □ Cooling of the blast wheels
- **Cooling of the abrasive**
- **Transport of the abrasive**
- **Transport of dust through the system**
- Separation of dust from the re-useable abrasive
- Transport of dust to the dust collector



General

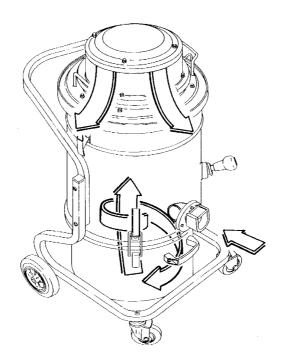
All connection points must be sealed carefully and the dust hose must be fixed with hose clamps!

The filter housing must be sealed properly and all sealings must be in good condition!

If dust leaves the dust collector instead of clean air, this is a sign that the Filter bag is either damaged or not fixed correctly inside the filter housing.

The air streams through the dust collector as follows:

- □ The air stream then flows through the approx. 10 m long flexible dust hose taking dust and fine particles with it.
- □ The air stream now enters the filter housing of the dust collector where the dust and the fine particles are separated from the air. The cleaned air is then fed into the environment again.







General





4

Transport

# **Contents Chapter 4**

- 4.1 General information
- 4.2 Transport
- 4.3 Operation
- 4.4 Unit specifications



Transport

#### 4.1 General information



Before the dust collector is used for the first time, **Blastrac** authorised dealers offer a course to familiarise maintenance and operating personnel with all elements of the dust collector. We are not liable for damage caused by incorrect use of the dust collector by personnel not trained by **Blastrac**.

## 4.2 Transport

When transporting the dust collector proceed in such a manner that damage due to the effects of the use of force or incorrect loading and unloading is avoided.

Remove the dust from the dust collector before it is transported. The dust collector may only be lifted and tightened by the housing frames. The weight and dimensions of the dust collector are shown in Chapter 1 "Technical data".

#### 4.3 Operation

The machine is operated in accordance with the instructions given in Chapter 5 "Initial operation".

#### 4.4 Unit specifications



#### Dimensions

The main dimensions and unit specifications of the dust collector when assembled are shown in Chapter 1 "Technical data".



**Initial operation** 

**Contents Chapter 5** 

- Preparations for initial operation 5.1
- 5.2 Initial operation

5



# Initial operation

#### 5.1 Preparations for initial operation

Before switching on make sure that all existing protective housings are mounted and that the dust collector is connected correctly.



Handle all plugs, cables, hoses and operating devices with care. Avoid any contact with live wires.

Works on the electrical system must only be carried out by qualified specialists.

Regular inspection is important in order to avoid downtimes of your dust collector. Carry out the following checks before any start-up:

- Check whether all dust collector parts are assembled safely and correctly.
- Check all screws and other fasteners for tight seat.
- Check the tightness of the hose connections and the condition of the hose to the filter.
- Check the electrical connections for dirt and foreign body deposits.
- Check the electrical motors for dirt and other contaminants.



Before start-up the operating personnel must be familiar with the safety regulations given in this manual.

Check the main power cable and the dust hose for damage. Replace or repair all damaged parts before starting the machine.



**Initial operation** 

- $\mathbf{\nabla}$ Connect the Blastrac dust collector and the Blastrac machine with the dust hose. Use hose clamps at the connections.
- $\mathbf{\nabla}$ Check that the dust bin of the dust collector is empty.
- $\mathbf{\nabla}$ Put the dust collector near the working place and press down the lever in order to lock up the front wheels.

#### 5.2 **Initial operation**

The start of the dust collector is effected in the following sequence:

#### Switching on of the dust collector

- $\mathbf{\nabla}$ Connect the dust collector to the power supply, and check if the voltage and the frequency coincide with the specifications indicated on the type plate.
- Put the switch in the "ON" position in order to start the aspirating  $\mathbf{N}$ engines.

The dust bin of the dust collector must be emptied regularly. Observe the waste disposal regulations, in uncertain situation ask your next policy level.



5



Operation

# **Contents Chapter 6**

- 6.1 Operation
- 6.2 Switching-off the dust collector
- Emptying the dust bin 6.3
- 6.4 Trouble shooting
- 6.5 Safety shutdown
- 6.6 Restarting after a fault
- 6.7 Proceedings-prior and after a stationary period

6



# Operation

#### 6.1 Operation

Normal start-up and operation of the dust collector BDC 1216 is no different from the procedure described in Chapter 5 "Initial operation".

Make sure that no vehicles, such as forklift trucks and other equipment run over the electric cable and the dust hose.

#### 6.2 Switching-off the dust collector

- Put the switch in the "OFF" position in order to switch off the aspirating engines.
- Pull out the mains plug from the socket.

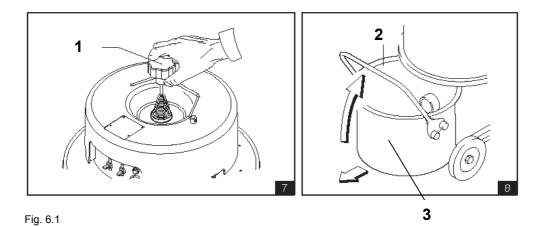
When the **Blastrac** dust collector is put out of operation for a longer period of time, pull out the mains plug ,clean the dust collector and cover it with a plastic foil.

#### 6.3 Emptying the dust bin

The level of the hopper must be regularly checked. The periods are dependent on the surface to be cleaned.



Operation



Put the switch in the "OFF" position in order to switch off the aspirating engines.

- Pull up and press down forceful the star grip (Item 1) several times, in order to liberate the filter bag from dust.
- Wait a few minutes so that the dust falls on the bottom of the dust bin.
- Pull up the lifting handle (Item 2), so that the dust bin (Item 3) goes down until the wheels touch the surface.

#### 6.4 Trouble shooting

Irrespective of the following information, the local safety regulations are valid in any case for the operation of the dust collector.

First put the dust collector to its Safety off position. Afterwards start searching for the fault.



6



# Operation

#### 6.5 Safety shutdown



The dust collector has to be into its **"Safety off position"** before starting repair works. See Chapter 2 "Safety advice".

## 6.6 Restarting after a fault



See Chapter 5 "Initial operation".

#### 6.7 Proceedings-prior and after a stationary period

#### Before a long standstill period

- $\square$  Clean the machine and cover it with a plastic foil.
- ☑ Preserve bright parts of the dust collector with Tectyl 506, for example, or a similar preservative.

#### After a long standstill period



See Chapter 5 "Initial operation



Maintenance

**Contents Chapter 7** 

- 7.1 Recommendations
- 7.2 Maintenance and inspection liste
- 7.3 Repairing
- 7.4 Replacing the Filter bag

 $\overline{}$ 



# Maintenance

#### 7.1 Recommendations



Pay attention to Chapter 2 "Safety information" during maintenance and repair works.

Failures due to inadequate or incorrect maintenance may generate very **high repair costs** and long standstill periods of the dust collector. **Regular** maintenance therefore is imperative.

Operational safety and service life of the dust collector depend, among other things, on proper maintenance.

The following table shows recommendations about time, inspection and maintenance for the normal use of the dust collector.

The time indications are based on uninterrupted operation. When the indicated number of working hours is not achieved during the corresponding period, the period can be extended. However a full overhaul must be carried out at least once a year.

Due to different working conditions it can't be foreseen how frequently inspections for wear checks, inspection, maintenance and repair works ought to be carried out. Prepare a suitable inspection schedule considering your own working conditions and experience.

Our specialists will be happy to assist you with more advice.



Prior to any repair works on the dust collector and its drives, secure the dust collector against unintentional switching-on. Put the dust collector to its safety off position.



Follow additional operating and maintenance of OEM if included during your service and maintenance work.



Maintenance

#### 7.2 Maintenance and inspection liste

Operating hours/ time period	Inspection points, maintenance instructions	
12 h after repairing	Check all safety devices working adequate. Check all accessible screw connections for tight seat.	
Daily and prior to starting work	Check the hose connections for tightness and fixed seat. Check the hose to the filter for damages. Make sure that the dust bin of the filter is emptied. Check the electric connections for sediments of dirt or foreign bodies. Check the electric motors for dirt and other contaminants.	
Annually	Full overhaul and cleaning of the complete dust collector.	

#### 7.3 Repairing

As already mentioned in Chapter 5 "Initial operation" we recommend to execute the first repair works on the dust collector having support of Blastrac personnel. Doing this together, your maintenance personnel gets the opportunity to be trained intensely.



We will describe only regular maintenance works that could occur within the bounds of regular maintenance or work that is required to replace wear parts.

If you replace parts yourself for specific reason, the following instructions and work sequence have to be observed.



# Maintenance



You should also stock all spare or wear parts that cannot be supplied quickly. As a rule, production standstill periods are more expensive than the cost for the corresponding spare part.

Screws that have been removed must be replaced with those of the same quality (strength, material) and design.



Prior to any repair works on the dust collector and its drives, secure the dust collector against unintentional switching-on. Pull out the mains plug in order to do this.

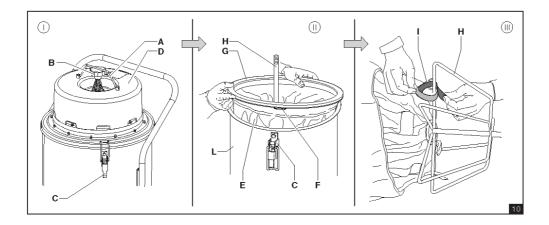
#### 7.4 Replacing the Filter bag

- Switch off the dust collector and then unplug the mains plug. Safety off position
- □ Release stop 'A', unscrew filter shaker knob 'B' and remove head 'D'
- □ Release the both locking hooks (C), lift the filter 'E' and unscrew the clamp 'F' that holds the filter on the bearing ring 'G'
- □ **Unscrew** cage **"H"** and overturn the filter, **exposing** coupling clamp **"I"**
- **Release** the **clamps** and **detach** the **cage** from the filter.
- **Dispose** of the filter **according** to the **laws in force**.
- **Fit** the **new filter** and **secure** it in the **cage** with **special clamps**
- Assemble the components in the reverse order of disassembly.



Maintenance

Notice to Blastrac - Dust collector BDC 1216. Replace the damaged filter bags only by genuine parts. Warranty can only be assigned when genuine Blastrac parts are used.





**Electrical system** 

**Contents Chapter 8** 

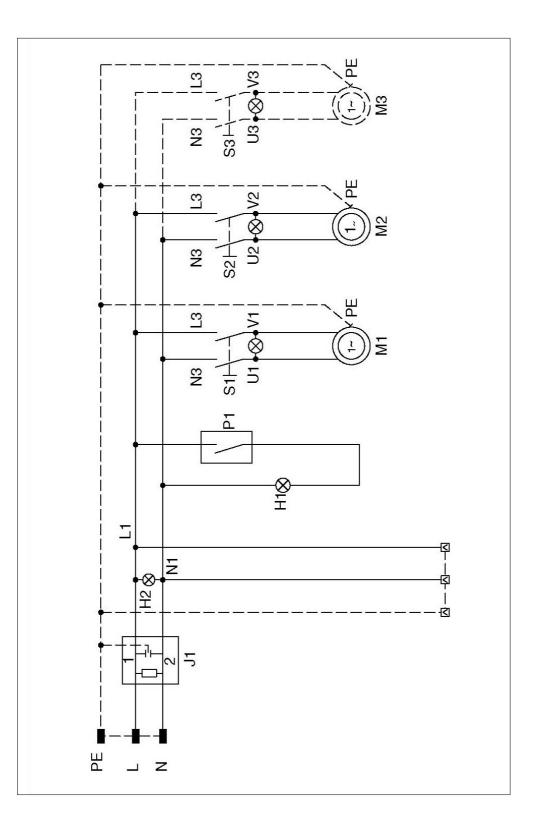
8.1 Electric circuit diagrams BDC 1216



# **Operating Manual**

## **Electrical system**

## 8.1 Electric circuit diagrams BDC 1216





Fault diagnosis

**Contents Chapter 9** 

9.1 Fault diagnosis - Dust collector



## **Operating Manual**

## Fault diagnosis

### 9.1 Fault diagnosis - Dust collector



Prior to any repair works on the equipment or its drives the equipment must be secured against unintentional switchingon. Put the machine to its Safety off position.

Fault	Possible cause	Remedy
The dust collector does	Any power supply	Check if by the outlet box carries current.
not start.		Check the socket and the cable of the dust collector for damages.
		Have the unit checked by an electrician.
The r.p.m. of the dust collector	Filter bag blocked up.	Vibrate filter bag, if it is not enough, change it.
increase.	Suction hose is clogged.	Check and clean the hose assembly.
The dust collector lose	Filter bag is damaged.	Replace the filter bag.
dust.	Filter bag does not fit correctly.	Replace the filter bag by a suitable and check it.
Electrostatic current on the Vacuum cleaner	Non existent or inefficient grounding	Check all grounding, particularly the union to the inlet; moreover, the hose must be strictly antistatic
The motor of the dust collector are to loud.	The Carbon brush is worn or damaged.	Replace the Carbon brush of the motors.



**Contents Chapter 10** 

10.1 Spare parts



## Frame

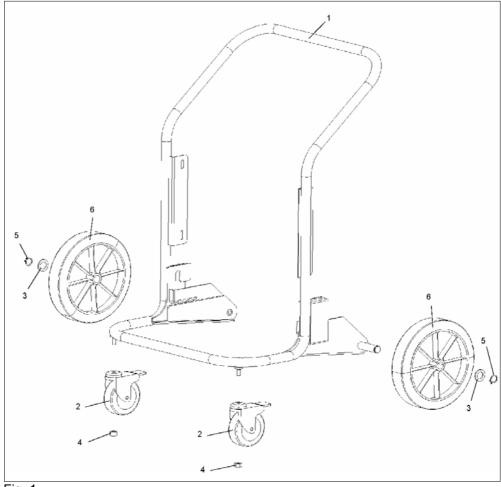


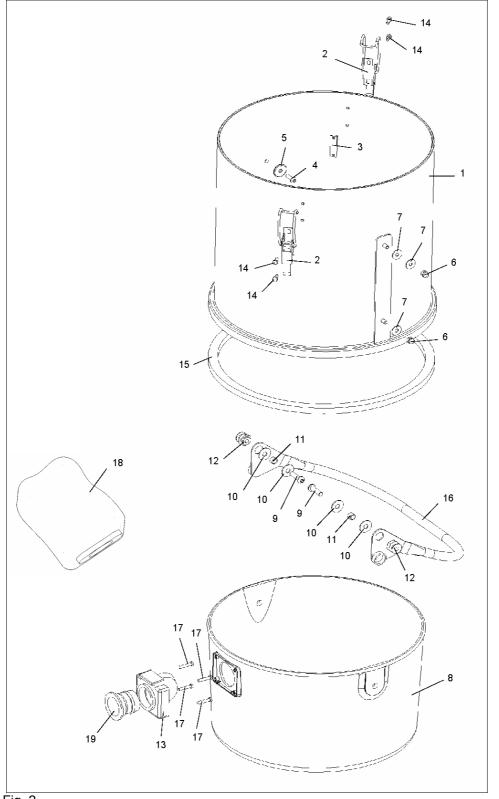
Fig. 1

ltem	Part-No.	Qty.	Description
1	CF836362	1	Car
2	CF840395	2	Wheel
3	CFBROB20ZB	2	Washer
4	CFBDAB08ZB	2	Nut
5	CF838008	2	Circlip
6	CF840889	2	Wheel
1 - 4	CF836513	1	Compl. car





## Container unit

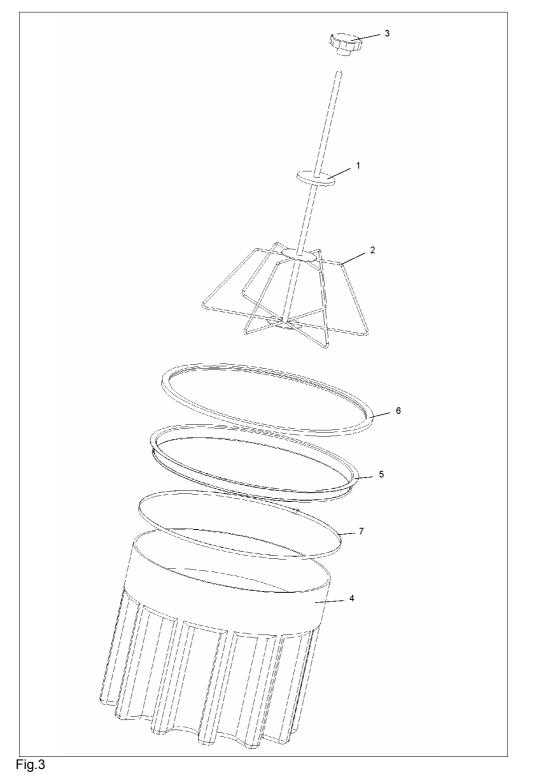




ltem	Part-No.	Qty.	Description
1	CF831690	1	Chamber
2	CF836028	2	Lock
3	CF818010	2	Plaque
4	CFBVTBCE0825ZB	4	Screw
5	CFBRO0832ZB	4	Washer
6	CFBDC08ZB	4	Nut
7	CFBRO0824ZB	6	Washer
8	CF830332	1	Container
9	CFBVTBCE1035ZB	2	Screw
10	CFBOR1030ZB	4	Washer
11	CF814619	2	Bushing
12	CF814618	2	Pin
13	CFN1407204510	1	Filler
14	CFBVTEZ0612ZB	4	Screw
15	CF817007	1	Seal
16	CF818967	1	Handle
17	CFBVRFTBC0423ZB	4	Screw
18	CFN1470745010	1	Paper bag (pack)
19	CFN1403304000	1	Hose inlet
	CF831693		Filterchamber compl.
	CF830338		Compl. container



## Filter unit



5



ltem	Part-No.	Qty.	Description
1	CFA8170069	1	Seal
2	CF833093	1	Cage
3	CF840027	1	Knob
4	CF817767	1	Filter
5	CF815003	1	Ring
6	CF817026	1	Seal
7	CF818079	1	Tie
1-7	CF833331		Complete filter





## Suction unit

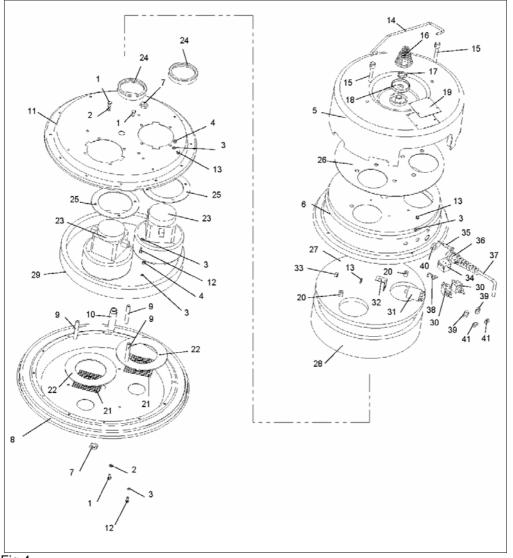


Fig.4

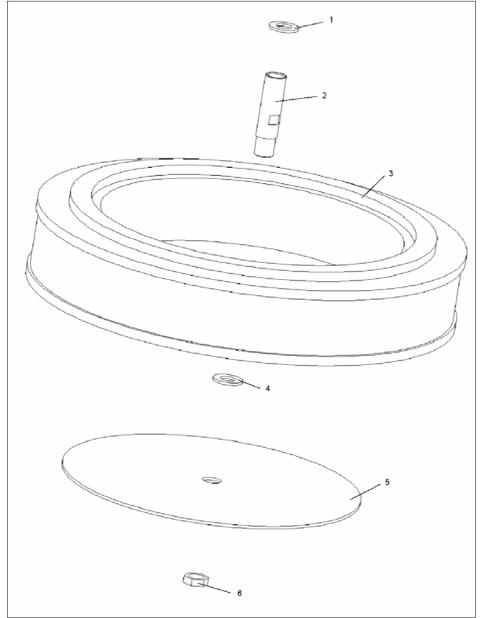


ltem	Part-No.	Qty.	Description
1	CFBVTE0616ZB	7	Screw
2	CFBRO06ZB	6	Washer
3	CFBRO05ZB	37	Washer
4	CFBDN05ZB	16	Nut
5	CF816382	1	Сар
6	CF816386	1	Engine cover
7	CF814052	2	Nut
8	CF816384	1	Engine holder
9	CF814032	3	Spacer
10	CF814051	1	Bushing
11	CF816385	1	Motor fixing device
12	CFBVTE0516ZB	16	Screw
13	CFBDN05ZB	17	Nut
14	CF818968	1	Hook
15	CF814620	2	Pin
16	CF814079	1	Spring
17	CFBAAPASG18	1	Ring
18	CF814071	1	Flange
19	CFS08BL17031	1	Plate
20	CF838065	2	Rivet
21	CF813074	2	Mesh
22	CF817002	2	Seal
23	CF854007	2	Engine
24	CF817326	2	Seal
25	CF817003	2	Seal
26	CF815192	1	Flange
27			Ť
28	CF817229	1	Soundproofing kit
29			
30	CF839000	2	Switch
31	CF839533	1	Filter
32	CF818501	1	Bracket
33	CFBDN08ZB	1	Nut
34	CF839528	1	Connection block
35	CF839051	1	Warning light
36	CF839097	1	Cable press
37	CF839016	1	Electr. Cable
38	CF839576	1	Cable kit
39	CF839005	2	Plate
40	CF839567	1	Ring nut
41	CF838041	2	Washer
1-41	CF853125		Complete head





## Kit absolute filter





ltem	Part-No.	Qty.	Description
1	CFBRO18ZB	1	Washer
2	CF814621	1	Spacer
3	CF817455	1	Hepa filter
4	CF838054	1	Washer
5	CF815168	1	Disc
6	CF814052	1	Nut
1-6	CF560357		Kit absolute filter

