WORKING WATER
Units H-J, Little Moor Lane, Loughborough, Leicestershire, LE11 1SF
t/f: 01509 237 486 e: info@workingwater.co.uk www.workingwater.co.uk

OPERATION & MAINTENANCE MANUAL

BAG FILTRATION SYSTEM

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Safety Notes

General

Please read this manual carefully before attempting any maintenance work on your reclaim system

This manual should remain accessible to all operators.

Please consider local legal requirements which may apply to this equipment.

The plant room area should be well lit to allow safe servicing of the equipment.

SAFETY !

Always isolate the mains power, mains water and the compressed air supply before carrying out any maintenance work or opening the reclaim control cabinet.

Never leave an open interceptor chamber unattended. Barrier off the area and use suitable PPE and safety equipment.

When handling chemicals appropriate safety wear should be worn.

Recycled water is not suitable for drinking and may cause damage to health if consumed.

Always release water pressure in the filter vessels prior to removing the filter bungs.

Maintenance

To ensure that the equipment functions reliably and safely it is essential that it is properly maintained (see maintenance service schedule).

Repair work should only be carried out by trained personnel or a customer service engineer.

Always use original replacement parts or alternatives recommended by the equipment supplier.

Don't forget to recharge the sump tank with water after gulping sediment. This is important in order for the Reclaim to function correctly.

Chemical use

Don't use chemicals other than those recommended by the manufacturer for cleaning the wash bay area, otherwise this could contaminate the water.

Before bay cleaning commences please contact customer services for further advice.

Don't use any form of salt to de-ice the wash bay as this gets washed into the system and will cause water problems.

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System Specification

Typical recycling performance	**%**	**95**
Connection load:	Amp/V/Hz	4/415/50
Electrical rating:	kW	1.0
Breaker Size:	Amp	6
Max wash water production:	l/hr	2000
Pipework material:		ABS Class E
Fittings material:		ABS, PVC, Brass
Submersible pump rating:	kW	0.78
Submersible pump load:	Amp	3.5
Noise level	dB(A)	<55
Typical overall dimensions W x D x H:	m	1.0 x 1.0 x 1.5
Approx total weight (dry):	kg	40
Approx total weight (wet):	kg	120
Housing requirements:		Weather protection & Frost protection

System Limitations:

Reclaim compatible chemicals only (neutral pH, low foam).
Max service interval: 6 weeks.

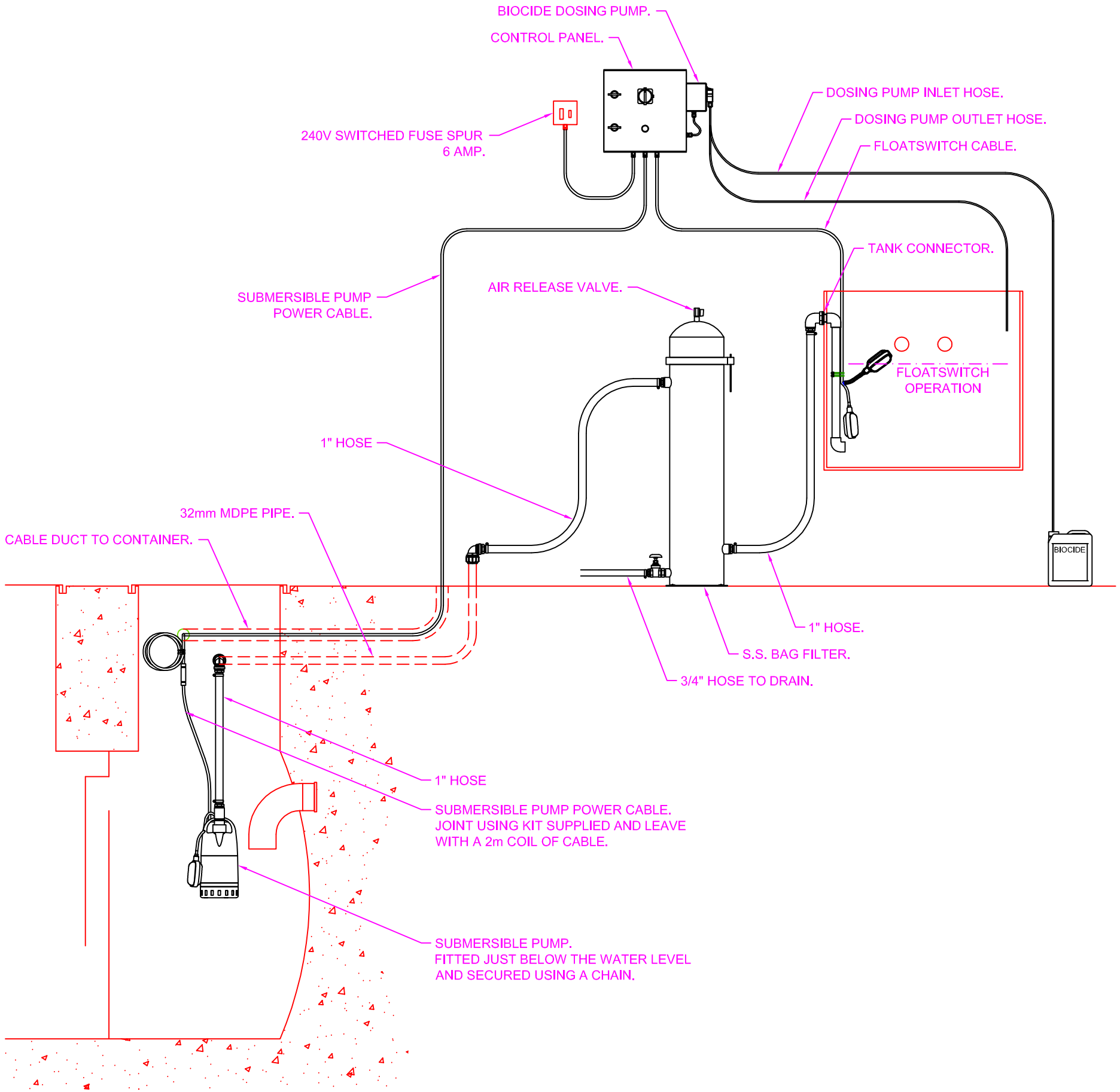
System Description

All the effluent from car washing is drained into a below ground interceptor.

In the interceptor heavy solids settle out and any free oils are held back by the tanks internal baffle arrangement.

A submersible pump draws water on demand from the final chamber of the interceptor to a water holding tank in the plant room via a bag filter.
The bag filter removes particles down to 25 micron to protect the pressure washers.
The submersible pump is controlled by an integral float switch and a float switch in the water storage tank.

To prevent bacterial problems, the system is fitted with a biocide dosing system and aeration as standard.



BAG FILTER SYSTEM INSTALLATION INSTRUCTIONS

1. Pull submersible pump cable up through the duct from the interceptor to the container.
2. Connect a 1" hose to the submersible pump, cut to length and connect onto the MDPE water pipe with the adaptor fitting supplied.
3. Lower the submersible pump into the separator just below the water level and secure in place using a chain.Ensure the floatswitch is free to operate.
4. Position the bag filter housing and screw securely to the container floor.
5. In the container run a 1" hose from the MDPE pipe to the top 1" connection on the bag filter housing using the adaptor fittings and pipe clips provided.
6. Run a 3/4" hose from the lowest 3/4" connection on the bag filter housing to a drain using the hose clip provided.
7. Cut a 35mm hole at high level in the existing water storage tank. Fit the pipework as show.
8. Run a 1" hose from the bag filter housing lower 1" connection to the tank connect pipework.
9. Mount the float switch as shown so the upper operation will cut off the submersible pump below the tank overflow.
10. Mount the control panel on the container wall by the 6amp switched fuse spur provided by others.
11. Run the dosing pump inlet hose to the biocide drum.
12. Run the dosing pump outlet hose to the existing water storage tank via a cable gland in the tank wall.
13. Wire the submersible pump to the control panel terminal rail.
    Joint cable in turret of the interceptor with kit supplied and leave a 2m coil of cable.
11. Wire the float switch to the control panel terminal rail via a cable gland in the tank wall.
12. Wire the control panel to the switched fuse spur

INITIAL SYSTEM STARTUP

1. Ensure there is a filter bag in the filter housing
2. Ensure there is sufficient water in the final chamber of the interceptor.
3. Slug dose the final chamber of the interceptor with 2 litres of biocide.
4. Ensure there is biocide left in the drum.
5. Ensure the air relief valve is open.
6. Turn on the control panel.
7. If the float switch in the existing water storage tank is down the submersible pump will start.
8. It will take a little time for water to enter the storage tank while the bag filter is filling.
9. Be ready to close the air release valve when water comes through (the bag filter is now fully filled and all the air has been vented).
10. Ensure the submersible pump stops when the float switch raises to the up position.
11. Trigger the dosing pump timer to confirm it is operating correctly.

SYSTEM ISOLATION

1. Turn the panel isolator to the OFF position.
   Before working on the control panel switch off the switched fuse spur.

REPLACING THE FILTER BAG

1. Isolate power supply on control panel.
2. Open the bag filter drain line to remove the water pressure
3. Remove the top from the bag filter vessel
4. Remove the bag filter and support
5. Replace the soiled filter bag
6. Replace the filter bag and support into the vessel
7. Replace the bag filter vessel top
8. Close the bag filter drain
9. Follow the initial system startup instructions above.

TITLE	REV	DESCRIPTION	APPROVED	DATE
WAVES CAR WASH LTD BAG FILTRATION SYSTEM	A	FIRST ISSUE		-
	B	DESIGN FINALISED.		16/12/11

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DRAWN BY	DATE	SCALE	CHECKED	REVISION
P.S.	16/11/11	1 : 20	-	B

3 RD ANGLE | IF IN DOUBT CHECK!!!!! ORIGINAL SIZE A3 | DRAWING No. 81 00 190 | PAGE 1 of 1

SAFETY DATA SHEET

Biocide Odour Control

1. IDENTIFICATION OF THE SUBSTANCE & THE COMPANY

PRODUCT NAME: **Biocide Odour Control**

SUPPLIER:

Wilcomatic Ltd
Unit 5 Commerce Park
19 Commerce Way
Croydon
CR0 4YL

Tel: 0208 649 5761

2. COMPOSITION / INFORMATION ON INGREDIENTS

An aqueous blend of Quaternary Ammonium Compounds, Sodium Salt of Nitrilo Acetic Acid, Nonionic Detergent and Dye.

3. HEALTH HAZARD DATA

Irritant to eyes and skin. Harmful if swallowed.

4. FIRST AID MEASURES

First Aid – Eyes: Flush with copious amounts of water.
First Aid – Skin: Wash with soap and water.
First Aid – Ingestion: In the unlikely event of accidental ingestion, seek medical aid immediately. Do not give anything by mouth to an unconscious person.
First Aid – Inhalation: N/A

5. FIRE FIGHTING MEASURES

Non Flammable

6. ACCIDENTAL RELEASE MEASURES

Cover with sand, earth or granules, pick up and hold for waste disposal. Small spills, wash away with water.

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7. HANDLING & STORAGE

Closed containers above 5ºC. Keep away from food, drinks and animal feedstuffs.

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8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory protection:	N/A
Ventilation:	N/A
Protective gloves:	Wear gloves (PVC/ Rubber)
Eye Protection:	Wear goggles
Occupational exposure limit:	-

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @ 20ºC	Liquid
Colour	Green
Odour	Low odour
Flash Point	Non flammable
Solubility	Water soluble
Specific gravity @ 20ºC	1.000 +/- 0.01

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10. STABILITY & REACTIVITY

Decomposition Products	Thermal decomposition may produce harmful gas.
Stability & Reactivity	Stable at ambient temperatures. Avoid contact with anionic surfactants, soaps and oxidising agents.

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11. TOXICOLOGICAL INFORMATION

Eyes:	Irritant
Skin:	Irritant
Inhalation:	N/A
Ingestion:	Harmful

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12. ECOLOGICAL INFORMATION

Biodegradable.

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13. DISPOSAL CONSIDERATIONS

As per current rules of local authority.

14. TRANSPORT INFORMATION

Not dangerous for transport.

15. REGULATORY INFORMATION

EEC Labelling and Classification

R Phrase(s)	R22 – Harmful if swallowed
S Phrase(s)	S2 – Keep out of reach of children S24/25 – Avoid contact with eyes or skin S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 – If in contact with skin, wash immediately with plenty of soap and water. S36 – Wear suitable protective clothing
Hazard Symbol	Xn

16. OTHER INFORMATION

This data sheet was prepared in accordance with directive 91/155/EEC and regulation 6 of the chemicals (Hazard Information and Packaging) Regulations 1993 (CHIP). The information this sheet contains does not constitute on its own users own assessment of workplace risks as required by other heath and safety legislation, e.g. COSHH. Occupational exposure standards were taken from the 1994 edition of EH40 (UK HSE).

Wilcomatic Ltd
Unit 5 Commerce Park
19 Commerce Way
Croydon
CR0 4YL

Tel: 0208 649 5761

Unilift CC 5, CC 7, CC 9

Installation and operating instructions

GB D F I E P GR NL S FIN DK
PL RU H CZ SK TR



(GB) Declaration of Conformity

We Grundfos declare under our sole responsibility that the products Unilift CC 5, CC 7 and CC 9, to which this declaration relates, are in conformity with the Council directives on the approximation of the laws of the EC member states relating to:

– Machinery Directive (2006/42/EC).
  Standards used: EN 809: 1998 and EN 60204-1: 2006.
– Low voltage Directive (2006/95/EC).
  Standards used: EN 60335-1: 2002 and EN 60335-2-41: 2003.
– EMC Directive (2004/108/EC).
  Standards used: EN 6100-6-2 and EN 61000-6-3.
– Construction Products Directive (89/106/EEC).
  Standard used: EN 12050-2: 2001.

(D) Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte Unilift CC 5, CC 7 und CC 9, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EU-Mitgliedsstaaten übereinstimmen:

– Maschinenrichtlinie (2006/42/EG).
  Normen, die verwendet wurden: EN 809: 1998 und EN 60204-1: 2006.
– Niederspannungsrichtlinie (2006/95/EG).
  Normen, die verwendet wurden: EN 60335-1: 2002 und EN 60335-2-41: 2003.
– EMV-Richtlinie (2004/108/EG).
  Normen, die verwendet wurden: EN 6100-6-2 und EN 61000-6-3.
– Bauproduktenrichtlinie (89/106/EWG).
  Norm, die verwendet wurde: EN 12050-2: 2001

(F) Déclaration de Conformité

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits Unilift CC 5, CC 7 et CC 9, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des Etats membres CE relatives aux normes énoncées ci-dessous :

– Directive Machines (2006/42/CE).
  Normes utilisées : EN 809: 1998 et EN 60204-1: 2006.
– Directive Basse Tension (2006/95/CE).
  Normes utilisées : EN 60335-1 : 2002 et EN 60335-2-41 : 2003.
– Directive Compatibilité Electromagnétique CEM (2004/108/CE).
  Normes utilisées : EN 6100-6-2 et EN 61000-6-3.
– Directive sur les Produits de Construction (89/106/CEE)
  Norme utilisée : EN 12050-2 : 2001.

(I) Dichiarazione di Conformità

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti Unilift CC 5, CC 7 e CC 9, ai quali si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il riavvicinamento delle legislazioni degli Stati membri CE:

– Direttiva Macchine (2006/42/CE).
  Norme applicate: EN 809: 1998 e EN 60204-1: 2006.
– Direttiva Bassa Tensione (2006/95/CE).
  Norme applicate: EN 60335-1: 2002 e EN 60335-2-41: 2003.
– Direttiva EMC (2004/108/CE).
  Norme applicate: EN 6100-6-2 e EN 61000-6-3.
– Direttiva Prodotti da Costruzione (89/106/CEE)
  Norma applicata: EN 12050-2: 2001.

(E) Declaración de Conformidad

Nosotros, Grundfos, declaramos bajo nuestra entera responsabilidad que los productos Unilift CC 5, CC 7 y CC 9, a los cuales se refiere esta declaración, están conformes con las Directivas del Consejo en la aproximación de las leyes de las Estados Miembros del EM:

– Directiva de Maquinaria (2006/42/CE).
  Normas aplicadas: EN 809: 1998 y EN 60204-1: 2006.
– Directiva de Baja Tensión (2006/95/CE).
  Normas aplicadas: EN 60335-1: 2002 y EN 60335-2-41: 2003.
– Directiva EMC (2004/108/CE).
  Normas aplicadas: EN 6100-6-2 y EN 61000-6-3.
– Directiva de Productos de Construcción (89/106/CEE).
  Norma aplicada: EN 12050-2: 2001.

(P) Declaração de Conformidade

A Grundfos declara sob sua única responsabilidade que os produtos Unilift CC 5, CC 7 e CC 9, aos quais diz respeito esta declaração, estão em conformidade com as seguintes Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE:

– Directiva Máquinas (2006/42/CE).
  Normas utilizadas: EN 809: 1998 e EN 60204-1: 2006.
– Directiva Baixa Tensão (2006/95/CE).
  Normas utilizadas: EN 60335-1: 2002 e EN 60335-2-41: 2003.
– Directiva EMC (compatibilidade electromagnética) (2004/108/CE).
  Normas utilizadas: EN 6100-6-2 e EN 61000-6-3.
– Directiva Produtos Construção (89/106/CEE).
  Norma utilizada: EN 12050-2: 2001.

(GR) Δήλωση Συμμόρφωσης

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα Unilift CC 5, CC 7 και CC 9 στα οποία αναφέρεται η παρούσα δήλωση, συμμορφώνονται με τις εξής Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της ΕΕ:

– Οδηγία για μηχανήματα (2006/42/ΕC).
  Πρότυπα που χρησιμοποιήθηκαν: EN 809: 1998 και EN 60204-1: 2006.
– Οδηγία χαμηλής τάσης (2006/95/ΕC).
  Πρότυπα που χρησιμοποιήθηκαν: EN 60335-1: 2002 και EN 60335-2-41: 2003.
– Οδηγία Ηλεκτρομαγνητικής Συμβατότητας (EMC) (2004/108/ΕC).
  Πρότυπα που χρησιμοποιήθηκαν: EN 6100-6-2 και EN 61000-6-3.
– Οδηγία Παραγωγής Προϊόντων (89/106/ΕΕC).
  Πρότυπο που χρησιμοποιήθηκε: EN 12050-2: 2001.

(NL) Overeenkomstigheidsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten Unilift CC 5, CC 7 en CC 9 waarop deze verklaring betrekking heeft, in overeenstemming zijn met de Richtlijnen van de Raad in zake de onderlinge aanpassing van de wetgeving van de EG Lidstaten betreffende:

– Machine Richtlijn (2006/42/EC).
  Gebruikte normen: EN 809: 1998 en EN 60204-1: 2006.
– Laagspannings Richtlijn (2006/95/EC).
  Gebruikte normen: EN 60335-1: 2002 en EN 60335-2-41: 2003.
– EMC Richtlijn (2004/108/EC).
  Gebruikte normen: EN 6100-6-2 en EN 61000-6-3.
– Bouwproducten Richtlijn (89/106/EEC).
  Gebruikte norme: EN 12050-2: 2001.

(S) Försäkran om överensstämmelse

Vi, Grundfos, försäkrar under ansvar att produkterna Unilift CC 5, CC 7 och CC 9, som omfattas av denna försäkran, är i överensstämmelse med rådets direktiv om inbördes närmande till EU-medlemsstaternas lagstiftning, avseende:

– Maskindirektivet (2006/42/EG).
  Tillämpade standarder: EN 809: 1998 och EN 60204-1: 2006.
– Lågspänningsdirektivet (2006/95/EG).
  Tillämpade standarder: EN 60335-1: 2002 och EN 60335-2-41: 2003.
– EMC-direktivet (2004/108/EG).
  Tillämpade standarder: EN 6100-6-2 och EN 61000-6-3.
– Byggproduktdirektivet (89/106/EEG).
  Tillämpad standard: EN 12050-2: 2001.

(FIN) Vaatimustenmukaisuusvakuutus

Me, Grundfos, vakuutamme omalla vastuullamme, että tuotteet Unilift CC 5, CC 7 ja CC 9 ita tämä vakuutus koskee, ovat EY:n jäsenvaltioiden lainsäädännön yhdenmukaistamiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti:

– Konedirektiivi (2006/42/EY).
  Sovellettavat standardit: EN 809: 1998 ja EN 60204-1: 2006.
– Pienjännitedirektiivi (2006/95/EY).
  Sovellettavat standardit: EN 60335-1: 2002 ja EN 60335-2-41: 2003.
– EMC-direktiivi (2004/108/EY).
  Sovellettavat standardit: EN 6100-6-2 ja EN 61000-6-3.
– Rakennustuotedirektiivi (89/106/ETY).
  Sovellettu standardi: EN 12050-2: 2001.

(DK) Overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produkterne Unilift CC 5, CC 7 og CC 9 som denne erklæring omhandler, er i overensstemmelse med disse af Rådets direktiver om indbyrdes tilnærmelse til EF-medlemsstaternes lovgivning:

- Maskindirektivet (2006/42/EF).
  Anvendte standarder: EN 809: 1998 og EN 60204-1: 2006.
- Lavspændingsdirektivet (2006/95/EF).
  Anvendte standarder: EN 60335-1: 2002 og EN 60335-2-41: 2003.
- EMC-direktivet (2004/108/EF).
  Anvendte standarder: EN 6100-6-2 og EN 61000-6-3.
- Byggevaredirektivet (89/106/EØF).
  Anvendt standard: EN 12050-2: 2001.

(RU) Декларация о соответствии

Мы, компания Grundfos, со всей ответственностью заявляем, что изделия Unilift CC 5, CC 7 и CC 9, к которым относится настоящая декларация, соответствуют следующим Директивам Совета Евросоюза об унификации законодательных предписаний стран-членов ЕС:

- Механические устройства (2006/42/EC).
  Применявшиеся стандарты: EN 809: 1998 и EN 60204-1: 2006.
- Низковольтное оборудование (2006/95/EC).
  Применявшиеся стандарты: EN 60335-1: 2002 и EN 60335-2-41: 2003.
- Электромагнитная совместимость (2004/108/EC).
  Применявшиеся стандарты: EN 6100-6-2 и EN 61000-6-3.
- Директива на строительные материалы и конструкции (89/106/ЕЭС).
  Применявшийся стандарт: EN 12050-2: 2001.

(CZ) Prohlášení o shodě

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky Unilift CC 5, CC 7 a CC 9, na něž se toto prohlášení vztahuje, jsou v souladu s ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství v oblastech:

- Směrnice pro strojní zařízení (2006/42/ES).
  Použité normy: EN 809: 1998 a EN 60204-1: 2006.
- Směrnice pro nízkonapěťové aplikace (2006/95/ES).
  Použité normy: EN 60335-1: 2002 a EN 60335-2-41: 2003.
- Směrnice pro elektromagnetickou kompatibilitu (EMC) (2004/108/ES).
  Použité normy: EN 6100-6-2 a EN 61000-6-3.
- Směrnice o konstrukci výrobků (89/106/ES).
  Použitá norma: EN 12050-2: 2001.

(TR) Uygunluk Bildirgesi

Grundfos olarak bu beyannameye konu olan Unilift CC 5, CC 7 ve CC 9 ürünlerinin, AB Üyesi Ülkelerin kanunlarını birbirine yaklaştırma üzerine Konsey Direktifleriyle uyumlu olduğunun yalnızca bizim sorumluluğumuz altında olduğunu beyan ederiz:

- Makineler Yönetmeliği (2006/42/EC).
  Kullanılan standartlar: EN 809: 1998 ve EN 60204-1: 2006.
- Düşük Voltaj Yönetmeliği (2006/95/EC).
  Kullanılan standartlar: EN 60335-1: 2002 ve EN 60335-2-41: 2003.
- EMC Diretifi (2004/108/EC).
  Kullanılan standartlar: EN 6100-6-2 ve EN 61000-6-3.
- Yapı Ürünleri Yönergesi (89/106/EEC).
  Kullanılan standart: EN 12050-2: 2001.

(PL) Deklaracja zgodności

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasze wyroby Unilift CC 5, CC 7 oraz CC 9, których deklaracja niniejsza dotyczy, są zgodne z następującymi wytycznymi Rady d/s ujednolicenia przepisów prawnych krajów członkowskich WE:

- Dyrektywa Maszynowa (2006/42/WE).
  Zastosowane normy: EN 809: 1998 oraz EN 60204-1: 2006.
- Dyrektywa Niskonapięciowa (LVD) (2006/95/WE).
  Zastosowane normy: EN 60335-1: 2002 oraz EN 60335-2-41: 2003.
- Dyrektywa EMC (2004/108/WE).
  Zastosowane normy: EN 6100-6-2 oraz EN 61000-6-3.
- Dyrektywa Wyrobów Budowlanych (89/106/WE).
  Zastosowana norma: EN 12050-2: 2001.

(H) Megfelelőségi nyilatkozat

Mi, a Grundfos, egyedüli felelősséggel kijelentjük, hogy a Unilift CC 5, CC 7 és CC 9 termékek, amelyekre jelen nyilatkozik vonatkozik, megfelelnek az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak:

- Gépek (2006/42/EK).
  Alkalmazott szabványok: EN 809: 1998 és EN 60204-1: 2006.
- Kisfeszültségű Direktíva (2006/95/EK).
  Alkalmazott szabványok: EN 60335-1: 2002 és EN 60335-2-41: 2003.
- EMC Direktíva (2004/108/EK).
  Alkalmazott szabványok: EN 6100-6-2 és EN 61000-6-3.
- Építőipari Termék Direktíva (89/106/EGK).
  Alkalmazott szabvány: EN 12050-2: 2001.

(SK) Prehlásenie o konformite

My firma Grundfos prehlasujeme na svoju plnú zodpovednosť, že výrobky Unilift CC 5, CC 7 a CC 9, na ktoré sa toto prehlásenie vzťahuje, sú v súlade s ustanovením smernice Rady pre zblíženie právnych predpisov členských štátov Európskeho spoločenstva v oblastiach:

- Smernica pre strojové zariadenie (2006/42/EC).
  Použité normy: EN 809: 1998 a EN 60204-1: 2006.
- Smernica pre nízkonapäťové aplikácie (2006/95/EC).
  Použité normy: EN 60335-1: 2002 a EN 60335-2-41: 2003.
- Smernica pre elektromagnetickú kompatibilitu (2004/108/EC).
  Použité normy: EN 6100-6-2 a EN 61000-6-3.
- Smernica o konštrukcií výrobkov (89/106/EEC).
  Použitá norma: EN 12050-2: 2001.

Bjerringbro, 1st March 2010



Svend Aage Kaae
Technical Director

Unilift CC 5, CC 7, CC 9

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Original installation and operating instructions.

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Warning

Prior to installation, read these installation and operating instructions. Installation and operation must comply with local regulations and accepted codes of good practice.

Warning

The use of this product requires experience with and knowledge of the product.
Persons with reduced physical, sensory or mental capabilities must not use this product, unless they are under supervision or have been instructed in the use of the product by a person responsible for their safety.
Children must not use or play with this product.

1. Symbols used in this document

Warning

If these safety instructions are not observed, it may result in personal injury!

Caution ***If these safety instructions are not observed, it may result in malfunction or damage to the equipment!***

Note ***Notes or instructions that make the job easier and ensure safe operation.***

2. Unilift CC 5, CC 7 and CC 9 pumps

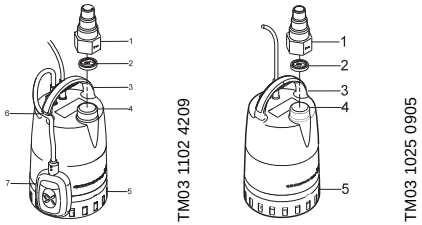

Fig. 1 Pump with and without float switch

1. Adapter
2. Non-return valve
3. Handle
4. Discharge port
5. Suction strainer
6. Clamp
7. Float switch.

3. Applications

Grundfos Unilift CC 5, CC 7 and CC 9 pumps are single-stage submersible pumps designed for pumping rainwater and grey wastewater, e.g. from

- washing machines, baths, sinks, etc. from low-lying parts of buildings up to sewer level
- cellars or buildings prone to flooding
- draining wells
- wells for surface water with inlets from roof gutters, pits, tunnels, etc.
- swimming pools, ponds or fountains.

The pump is suitable for both stationary and portable use.

Warning

The pump must not be used in or at swimming pools, garden ponds, etc. if there are persons in the water.

The pump is **not** suitable for

- liquids containing long fibres
- inflammable liquids (oil, petrol, etc.)
- aggressive liquids.

4. Identification

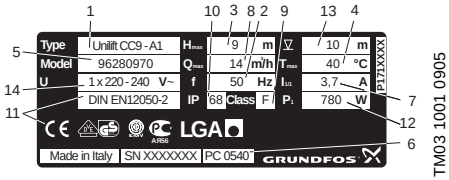

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Fig. 2 Example of nameplate for Unilift CC 9

Pos.	Description	Pos.	Description
1	Pump type	8	Max. flow rate
2	Frequency	9	Motor insulation class
3	Max. head	10	Enclosure class
4	Max. liquid temperature during continuous operation	11	Approvals
5	Product number	12	Motor input power
6	Production code	13	Max. installation depth
7	Full-load current	14	Supply voltage

5. Functions

Pump with float switch

- Automatic start/stop.
- Pumping to low water level without suction strainer, with the pump in forced operation.

Pump without float switch

- Manual external start/stop.
- Pumping to low water level without suction strainer. See section *8.4*.

Unilift CC pumps incorporate a vent valve. See section *8.1*.

6. Operating conditions

Liquid temperature

0 °C to +40 °C.

At intervals of at least 30 minutes, the pump is allowed, however, to run at maximum +70 °C for periods not exceeding 2 minutes.

Storage temperature

–10 °C to +50 °C.

Installation depth

Maximum 10 metres below water surface.

7. Installation

Caution

The pump must not be installed hanging from the electric cable or the discharge pipe.

Do not lift or lower the pump by means of the electric cable.

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7.1 Installation dimensions

7.1.1 Pump with float switch

If the pump is installed in a well, the minimum dimensions of the well should be as shown in fig. 3 and the table to ensure free movability of the float switch.

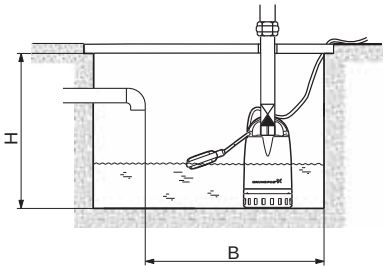

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Fig. 3 Minimum installation dimensions

Minimum installation dimensions

Pump type	Height (H) [mm]	Width (B) [mm]
Unilift CC 5 **Unilift CC 7**	520	400
Unilift CC 9	570	500

7.1.2 Pump without float switch

The space required corresponds to the physical dimensions of the pump. See page 137.

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7.2 Pump location

The pump can be used in the vertical position and in the tilted or horizontal position with the discharge port as the highest point of the pump. During operation, the suction strainer must be covered by the pumped liquid.

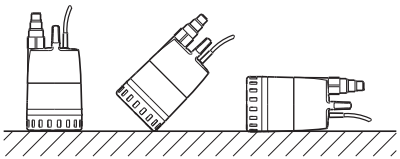

Fig. 4 Pump positions

Position the pump so that the suction strainer is free of silt, mud or similar materials. This can be ensured by placing the pump on bricks, an iron plate, etc.

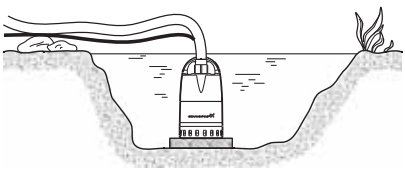

Fig. 5 Pump mounted on a plate

7.3 Connection of discharge pipe

The discharge pipe can be connected directly to the pump discharge port or by means of the adapter.

To prevent backflow through the pump when it stops, the supplied non-return valve can be fitted in the adapter. The non-return valve is fixed when the adapter is fitted to the pump discharge port.

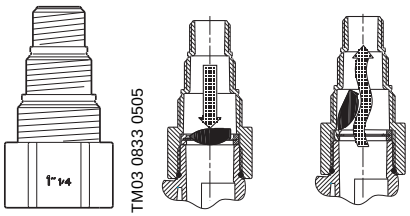

Fig. 6 Adapter and non-return valve (position and function)

The adapter enables the connection of a pipe or hose matching 3/4", 1" and 1 1/4" external pipe thread (G). Cut off the adapter so that it matches the discharge pipe diameter. If a system gasket is used between the discharge pipe and the adapter, the cut-off adapter must have an even and smooth surface.

The approval according to DIN EN 12 056-4 stipulates that the pipe from the fixed installation must be connected directly to the pump discharge port. If the supplied adapter is to be used, the 3/4" and 1" sockets must be cut off.

7.4 Adjustment of cable length for float switch

The difference in level between start and stop can be adjusted by changing the free cable length between the float switch and the pump handle.

- An increased free cable length results in fewer starts/stops and a large difference in level.
- A reduced free cable length results in more starts/stops and a small difference in level.

In order that the float switch can start and stop the pump, the free cable length must be min. 100 mm and max. 200 mm.

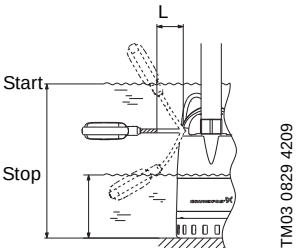

Fig. 7 Start/stop levels at min. and max. cable lengths

Pump type	Cable length (L) min. 100 mm		Cable length (L) max. 200 mm	
	Start [mm]	Stop [mm]	Start [mm]	Stop [mm]
Unilift CC 5	350	115	400	55
Unilift CC 7	350	115	400	55
Unilift CC 9	385	150	435	90

7.5 Electrical connection

Supply voltage: 1 x 220-240 V, 50 Hz.

The electrical connection must be carried out in accordance with local regulations.

Check that the mains voltage and frequency correspond to the values stated on the pump nameplate.

Warning

As a precaution, the pump must be connected to a socket with earth connection.
It is recommended to fit the permanent installation with an earth leakage circuit breaker (ELCB) with a tripping current < 30 mA.

8. Operation

8.1 Self-venting

A vent valve is built into the pump handle. The valve allows air to escape from the pump in case the free air flow through the discharge pipe is blocked. Once the pump is vented, the valve normally closes.

If the pump sucks air or water with a high air content, the valve may leak a mixture of air and water. This is no fault but a natural consequence of the opening and closing of the valve.

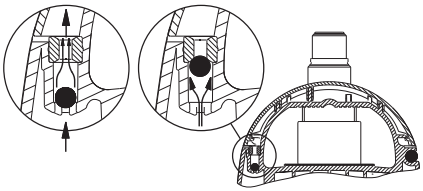

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Fig. 8 Self-venting

8.2 Manual operation

The pump is started and stopped by an external switch.

To eliminate the risk of dry running, the water level should be checked regularly during operation. This can for instance be done by an external level controller.

In order that the pump can self-prime when started, the water level must be at least 25 mm.

When the pump sucks water, it can pump down to 20 mm water level.

For pumping to low level, see section *8.4*.

8.3 Automatic operation

During automatic operation, the pump with float switch will start and stop, depending on the water level and the float switch cable length.

Forced operation of pump with float switch

If the pump is used to drain water levels below the stop level of the float switch, the float switch can be kept in a higher position by fixing it to the discharge pipe.

During forced operation, the water level should be checked regularly to prevent dry running.

8.4 Pumping to low water level

When the suction strainer has been removed, the pump can pump down to 3 mm.

Remove the suction strainer by inserting a screwdriver between the pump sleeve and the suction strainer and turning it.

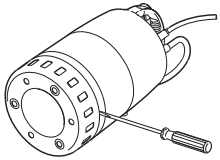

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Fig. 9 Removal of suction strainer

These conditions must be fulfilled:

- The pump must be placed on an even, horizontal surface.
- The water must not contain particles which may block the pump inlet.
- Minimum water level when the pump is started: 5 mm.

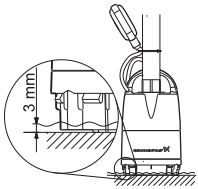

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Fig. 10 Low water level

8.5 Thermal protection

If the pump is running without water, or if it is otherwise overloaded, the built-in thermal switch will cut out.

When the motor has cooled to normal temperature, it restarts automatically.

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9. Maintenance

Under normal operating conditions, the pump is maintenance-free.

If the pump has been used for liquids other than clean water, it should be flushed through with clean water immediately after use.

9.1 Cleaning the pump

Warning

Before starting work on the pump, make sure that the power supply to the pump has been switched off and that it cannot be accidentally switched on.

Cleaning the suction strainer

1. Switch off the power supply to the pump.
2. Drain the pump.
3. Loosen the suction strainer by inserting a screwdriver between the pump sleeve and the strainer and turning it. See fig. 9.
4. Clean and refit the suction strainer.

Cleaning the impeller

1. Switch off the power supply to the pump.
2. Loosen the suction strainer by inserting a screwdriver between the pump sleeve and the strainer and turning it. See fig. 9.
3. Remove the bottom part. See fig. 11.

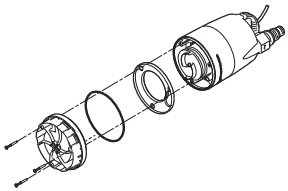

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Fig. 11 Removal of bottom part

4. Remove and clean the diaphragm.
5. Flush the pump with clean water to remove possible impurities between the motor and the pump sleeve. Clean the impeller.
6. Check that the impeller can rotate freely.
7. Assemble the pump in reverse order of dismantling.

10. Technical data

Pump performance

Pump type	Unilift CC 5	Unilift CC 7	Unilift CC 9
Max. head [m]	5	7	9
Max. flow rate [m^3/h]	6	10	14

Maximum particle size

∅10 mm.

Enclosure class

IP68.

Insulation class

- Unilift CC 5 and Unilift CC 7: F.
- Unilift CC 9: B.

Thermal protection

Cutting out at a winding temperature of

- Unilift CC 5 and Unilift CC 7: +160 °C.
- Unilift CC 9: +140 °C.

Maximum permissible dry-running time

24 hours.

10.1 Electrical data

Pump type	Unilift CC 5	Unilift CC 7	Unilift CC 9
Voltage [V]	220-240	220-240	220-240
Current, $I_{1/1}$ [A]	1.2	1.8	3.5
Power, P_1 [W]	250	380	780
Power factor, cos $\varphi_{1/1}$	0.90	0.98	0.94
Cable type	H05RN-F 3G0.75	H07RN-F 3G1	H07RN-F 3G1

10.2 Sound power level

Airborne noise emitted by pump: ≤ 70 dB(A).

10.3 Dimensions

See page 137.

11. Fault finding chart



Warning

Before starting work on the pump, make sure that the power supply to the pump has been switched off and that it cannot be accidentally switched on.

Fault	Cause	Remedy
1. The pump does not run.	a) power supply switched off.	Switch on the power supply.
	b) Fuses in installation blown.	Replace defective fuses.
	c) The pump thermal switch has tripped out. See section *8.5*. (See also point 2.)	The thermal switch restarts the pump when the motor has cooled to normal temperature.
2. The pump stops after short time of operation (thermal switch tripped out).	a) The pumped liquid temperature is higher than that stated in section *6.* The motor is overheated.	The pump starts automatically after sufficient cooling.
	b) Pump partly blocked by impurities or blocked.	Clean the pump. See section *9.1*.
	c) Water level too low when the pump is started. The pump cannot self-prime. See sections *8.1* and *8.4*.	Move the pump to a position with higher water level or add water until the pump starts sucking.
3. The pump runs but gives insufficient water.	a) Pump partly blocked by impurities.	Clean the pump. See section *9.1*.
	b) Discharge pipe/hose partly blocked by impurities. The hose may be sharply bent.	Check and clean the non-return valve, if fitted.
	c) Impeller, bottom part or diaphragm defective.	Replace defective parts. See section *12.*
4. The pump runs but gives no water.	a) Pump blocked by impurities.	Clean the pump. See section *9.1*.
	b) Non-return valve in discharge pipe/ hose blocked in closed position or blocked by impurities. The hose may be sharply bent.	Check the non-return valve. Clean or replace the valve, if necessary.
	c) Pumps with float switch: The pump does not stop because the free cable length of the float switch is too long.	Reduce the free cable length. See section *7.4*.
5. The pump leaks at the handle (no fault).	a) Pump sucks air or water with a high air content. See section *8.1*.	The pump is not damaged. Move the pump to a place where the water level is higher.

12. Service

It is possible to replace these parts:

Service kit	Type	Part number
Impeller	CC 5	96578967
	CC 7	96578968
	CC 9	96578969
Non-return valve		96578978
Adapter for discharge port		96578979
Suction strainer		96578990

The parts can be ordered from your pump supplier.

If other pump components are damaged or defective, contact your pump supplier.

Note ***The cable and the float switch must be replaced by an authorised Grundfos service workshop.***

13. Disposal

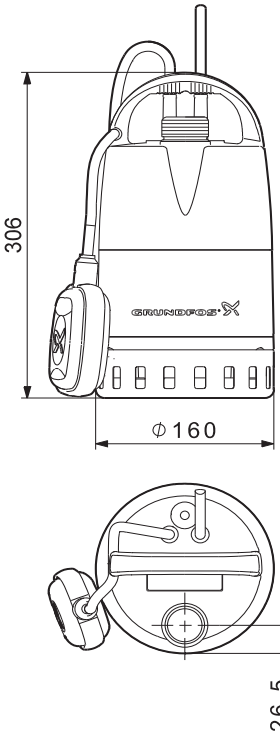
This product or parts of it must be disposed of in an environmentally sound way:

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

Subject to alterations.

Dimensions

CC 5, CC 7



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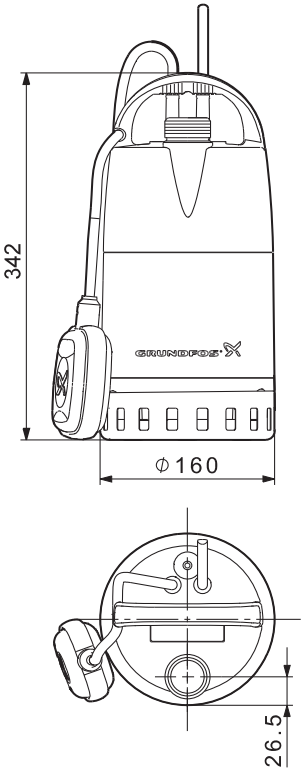
CC 9



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DRAWING No.	PAGE No.	DESCRIPTION	REV
01 OF 03	84 000 98	DOCUMENTATION SHEET	A
02 OF 03	84 000 982	PANEL GENERAL ARRANGEMENT	A
03 OF 03	84 000 983	CONTROL CIRCUIT	A

Cable Colour	Function
Brown	Phase 1
Black	Phase 2
Grey	Phase 3
Orange	DC control circuit (24VDC+)
White	DC control circuit (0VDC-)
Red	AC control circuit (+ & -)
Violet	AC or DC circuits wired from an external power source that may remain live when the main panel isolator is off.
Green/Yellow	Earth continuity conductor
Light Blue	Power neutral (e.g. 230VAC neutral)

Note: Minimum Cable sizes (Unless Stated)
Brown, Black & Grey – 0.75mm² Unfused
Brown, Black & Grey – 0.5mm² Fused
Light Blue – 0.75mm² Unfused
Light Blue – 0.5mm² Fused
Others – 0.50mm²
Green/Yellow Electrical Earth – 1.5mm²

(Star Washers to be used on all bonding Connections)

RCDs Should be Tested Monthly

TITLE

Bag Filter Reclaim
WIRING DIAGRAM

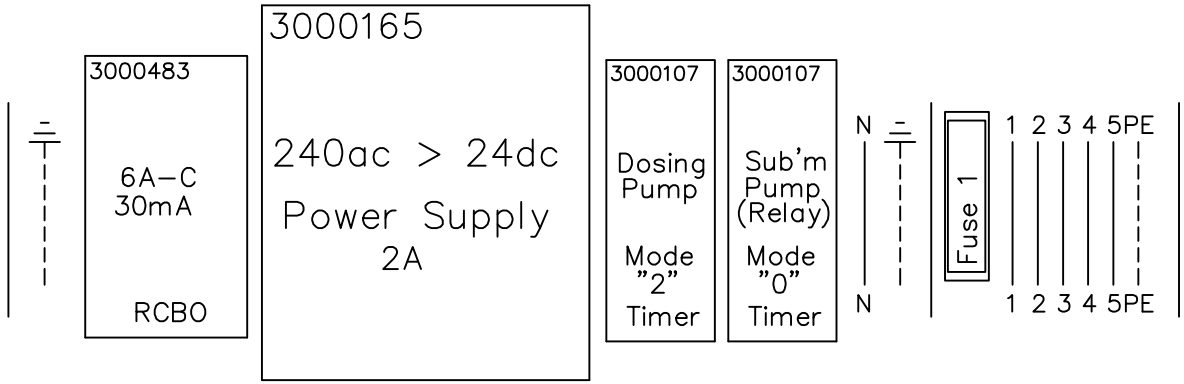
REV	DESCRIPTION	APPROVED	DATE
A	FIRST ISSUE		–

workingwater
Unit H - J Little Moor Lane
Loughborough
Leicestershire LE11 1SF
t/f: 01509 237 486
e: Info@working water.ltd.uk
www.workingwater.ltd.uk

DRAWN BY	DATE	SCALE	CHECKED	REVISION
S.E.B.	30/11/11	N/A	-	A

3 RD ANGLE | ORIGINAL SIZE A3 | DRAWING No. 84 000 98 | PAGE 1 of 3

Control Panel Enclosure



TITLE	REV	DESCRIPTION	APPROVED	DATE
Bag Filter Reclaim WIRING DIAGRAM	A	FIRST ISSUE		–

workingwater

Unit H - J Little Moor Lane
Loughborough
Leicestershire LE11 1SF

t/f: 01509 237 486
e: Info@working water.ltd.uk
www.workingwater.ltd.uk

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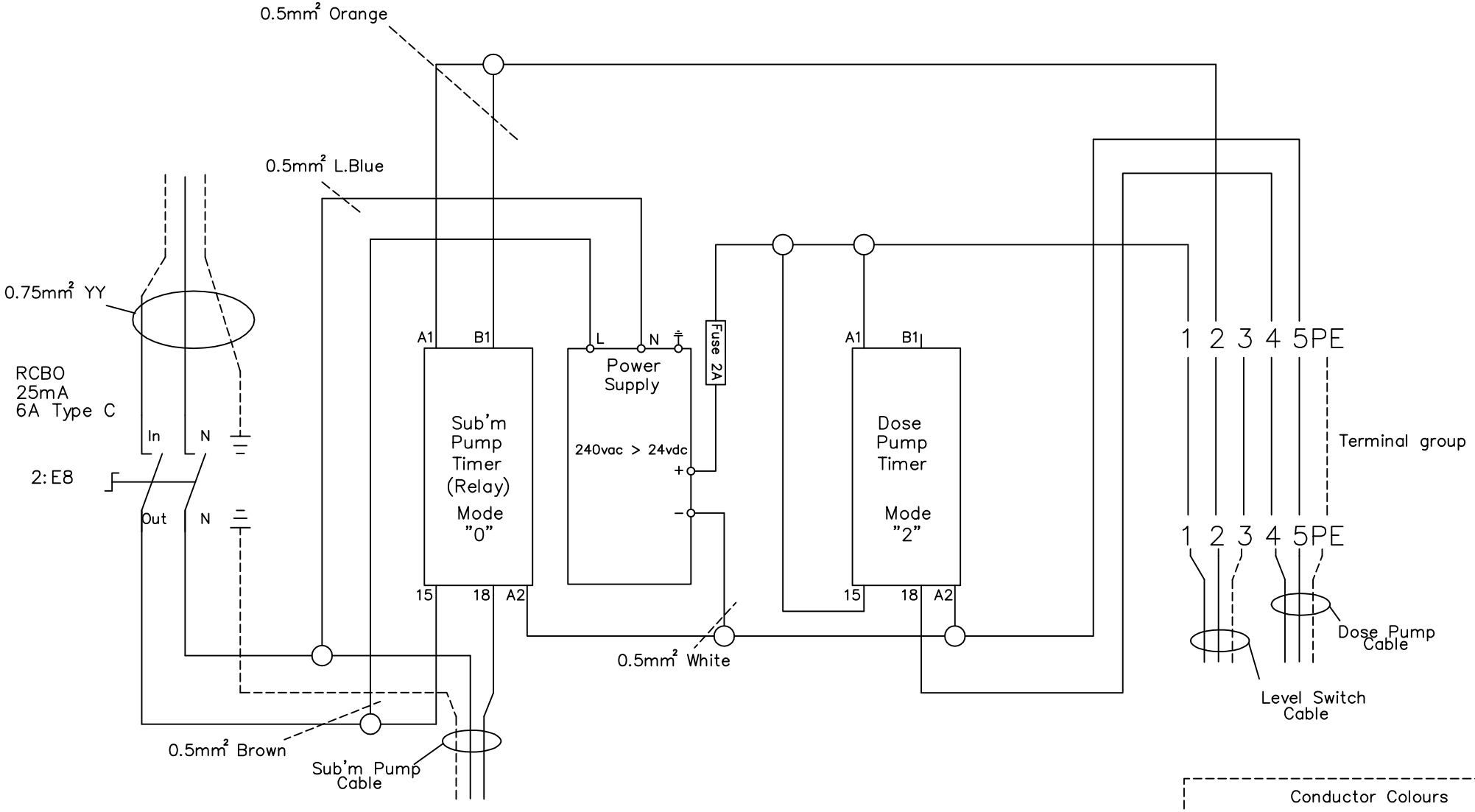
3 RD ANGLE | ORIGINAL SIZE A3 | DRAWING No. 84 000 98 | PAGE 2 of 3



Conductor Colours

240ac = 0.5mm² Brown
Nuetral = 0.5mm² L.Blue
24dc = 0.5mm² Orange
0dc = 0.5mm² White

TITLE	REV	DESCRIPTION	APPROVED	DATE
Bag Filter Reclaim WIRING DIAGRAM	A	FIRST ISSUE		–

workingwater
Unit H - J Little Moor Lane
Loughborough
Leicestershire LE11 1SF
t/f: 01509 237 486
e: Info@working water.ltd.uk
www.workingwater.ltd.uk

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S.E.B.	30/11/11	N/A	-	A

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