

# Conlift1, Conlift2 and Conlift2 pH+

Installation and operating instructions





# Conlift1, Conlift2 and Conlift2 pH+

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# Declaration of conformity

## GB: EC declaration of conformity

We, Grundfos, declare under our sole responsibility that the products Conlift, to which this declaration relates, are in conformity with these Council directives on the approximation of the laws of the EC member states:

- Machinery Directive (2006/42/EC).  
Standard used: EN 809: 2000.
- Low Voltage Directive (2006/95/EC).  
Standards used: EN 60335-1: 2007 and EN 60335-2-41: 2003.
- EMC Directive (2004/108/EC).  
Standards used: EN 61000-6-2 and EN 61000-6-3.

## CZ: ES prohlášení o shodě

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky Conlift, 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).  
Použitá norma: EN 809: 2000.
- Směrnice pro nízkonapěťové aplikace (2006/95/ES).  
Použitá norma: EN 60335-1: 2007 a EN 60335-2-41: 2003.
- Směrnice pro elektromagnetickou kompatibilitu (EMC) (2004/108/ES).  
Použitá norma: EN 61000-6-2 a EN 61000-6-3.

## DE: EG-Konformitätserklärung

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

- Maschinenrichtlinie (2006/42/EG).  
Norm, die verwendet wurde: EN 809: 2000.
- Niederspannungsrichtlinie (2006/95/EG).  
Normen, die verwendet wurden: EN 60335-1: 2007 und EN 60335-2-41: 2003.
- EMV-Richtlinie (2004/108/EG).  
Normen, die verwendet wurden: EN 61000-6-2 und EN 61000-6-3.

## GR: Δήλωση συμμόρφωσης EC

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα Conlift 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/ΕΕ).  
Πρότυπο που χρησιμοποιήθηκε: EN 809: 2000.
- Οδηγία χαμηλής τάσης (2006/95/ΕΕ).  
Πρότυπα που χρησιμοποιήθηκαν: EN 60335-1: 2007 και EN 60335-2-41: 2003.
- Οδηγία Ηλεκτρομαγνητικής Συμβατότητας (EMC) (2004/108/ΕΕ).  
Πρότυπα που χρησιμοποιήθηκαν: EN 61000-6-2 και EN 61000-6-3.

## FR: Déclaration de conformité CE

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits Conlift, 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).  
Norme utilisée : EN 809 : 2000.
- Directive Basse Tension (2006/95/CE).  
Normes utilisées : EN 60335-1 : 2007 et EN 60335-2-41 : 2003.
- Directive Compatibilité Electromagnétique CEM (2004/108/CE).  
Normes utilisées : EN 61000-6-2 et EN 61000-6-3.

## IT: Dichiarazione di conformità CE

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti Conlift, 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).  
Norma applicata: EN 809: 2000.
- Direttiva Bassa Tensione (2006/95/CE).  
Norme applicate: EN 60335-1: 2007 e EN 60335-2-41: 2003.
- Direttiva EMC (2004/108/CE).  
Norme applicate: EN 61000-6-2 e EN 61000-6-3.

## BG: ЕС декларация за съответствие

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктите Conlift, за които се отнася настоящата декларация, отговарят на следните указания на Съвета за уеднаквяване на правните разпоредби на държавите членки на ЕС:

- Директива за машините (2006/42/ΕΕ).  
Приложен стандарт: EN 809: 2000.
- Директива за нисковолтови системи (2006/95/ΕΕ).  
Приложени стандарти: EN 60335-1: 2007 и EN 60335-2-41: 2003.
- Директива за електромагнитна съвместимост (2004/108/ΕΕ).  
Приложени стандарти: EN 61000-6-2 и EN 61000-6-3.

## DK: EF-overensstemmelseserklæring

Vi, Grundfos, erklærer under ansvar at produkterne Conlift som denne erklæring omhandler, er i overensstemmelse med disse af Rådets direktiver om indbyrdes tilfærnelse til EF-medlemsstaternes lovgivning:

- Maskindirektivet (2006/42/EF).  
Anvendt standard: EN 809: 2000.
- Lavspændingsdirektivet (2006/95/EF).  
Anvendte standarder: EN 60335-1: 2007 og EN 60335-2-41: 2003.
- EMC-direktivet (2004/108/EF).  
Anvendte standarder: EN 61000-6-2 og EN 61000-6-3.

## EE: EL vastavusdeklaratsioon

Meie, Grundfos, deklareerime enda ainuvastutusel, et tooted Conlift, mille kohta käesolev juhend käib, on vastavuses EÜ Nõukogu direktiividega EMÜ liikmesriikide seaduste ühitamise kohta, mis käsitlevad:

- Masinate ohutus (2006/42/EC).  
Kasutatud standard: EN 809: 2000.
- Madalpinge direktiiv (2006/95/EC).  
Kasutatud standardid: EN 60335-1: 2007 ja EN 60335-2-41: 2003.
- Elektromagnetilise ühilduvuse (EMC direktiiv) (2004/108/EC).  
Kasutatud standardid: EN 61000-6-2 ja EN 61000-6-3.

## ES: Declaración CE de conformidad

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

- Directiva de Maquinaria (2006/42/CE).  
Norma aplicada: EN 809: 2000.
- Directiva de Baja Tensión (2006/95/CE).  
Normas aplicadas: EN 60335-1: 2007 y EN 60335-2-41: 2003.
- Directiva EMC (2004/108/CE).  
Normas aplicadas: EN 61000-6-2 y EN 61000-6-3.

## HR: EZ izjava o usklađenosti

Mi, Grundfos, izjavljujemo pod vlastitom odgovornošću da je proizvod Conlift, na koji se ova izjava odnosi, u skladu s direktivama ovog Vijeća o usklađivanju zakona država članica EU:

- Direktiva za strojeve (2006/42/EZ).  
Korištena norma: EN 809: 2000.
- Direktiva za niski napon (2006/95/EZ).  
Korištene norme: EN 60335-1: 2007 i EN 60335-2-41: 2003.
- Direktiva za elektromagnetsku kompatibilnost (2004/108/EZ).  
Korištene norme: EN 61000-6-2 i EN 61000-6-3.

## KZ: EO сәйкестік туралы мәлімдеме

Біз, Grundfos компаниясы, барлық жауапкершілікпен, осы мәлімдемеге қатысты болатын Conlift бұйымдары EO мүше елдердің заң шығарушы жарлықтарының үндестіру туралы мына Еуроодақ Кеңесінің жарлықтарына сәйкес келетіндігін мәлімдейміз:

- Механикалық құрылғылар (2006/42/EC).  
Қолданылған стандарт: EN 809: 2000.
- Төмен Кернеулі Жабдық (2006/95/EC).  
Қолданылған стандарттар: EN 60335-1: 2007 және EN 60335-2-41: 2003.
- Электр магнитті үйлесімділік (2004/108/EC).  
Қолданылған стандарттар: EN 61000-6-2 және EN 61000-6-3.

**LV: EK paziņojums par atbilstību prasībām**

Sabiedrība GRUNDFOS ar pilnu atbildību dara zināmu, ka produkti Conlift, uz kuriem attiecas šis paziņojums, atbilst šādām Padomes direktīvām par tuvināšanas EK dalībvalstu likumdošanas normām:

- Mašīnbūvības direktīva (2006/42/EK).  
Piemērotais standarts: EN 809: 2000.
- Zema sprieguma direktīva (2006/95/EK).  
Piemērotie standarti: EN 60335-1: 2007 un EN 60335-2-41: 2003.
- Elektromagnētiskās sadarbības direktīva (2004/108/EK).  
Piemērotie standarti: EN 61000-6-2 un EN 61000-6-3.

**HU: EK megfelelőeségi nyilatkozat**

Mi, a Grundfos, egyedüli felelősséggel kijelentjük, hogy a Conlift termékek, amelyekre jelen nyilatkozik vonatkozik, megfelelnek az Európában Unió tagállamaikainak jogi irányelveit összehangoló tanács alábbi előírásainak:

- Gépek (2006/42/EK).  
Alkalmazott szabvány: EN 809: 2000.
- Kisfeszültségű Direktíva (2006/95/EK).  
Alkalmazott szabványok: EN 60335-1: 2007 és EN 60335-2-41: 2003.
- EMC Direktíva (2004/108/EK).  
Alkalmazott szabványok: EN 61000-6-2 és EN 61000-6-3.

**UA: Свідчення про відповідність вимогам ЄС**

Компанія Grundfos заявляє про свою виключну відповідальність за те, що продукти Conlift, на які поширюється дана декларація, відповідають таким рекомендаціям Ради з уніфікації правових норм країн - членів ЄС:

- Механічні прилади (2006/42/ЄК).  
Стандарти, що застосовувалися: EN 809: 2000.
- Низька напруга (2006/95/ЄК).  
Стандарти, що застосовувалися: EN 60335-1: 2007 та EN 60335-2-41: 2003.
- Електромагнітна сумісність (2004/108/ЄК).  
Стандарти, що застосовувалися: EN 61000-6-2 та EN 61000-6-3.

**PT: Declaração de conformidade CE**

A Grundfos declara sob sua única responsabilidade que os produtos Conlift, 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).  
Norma utilizada: EN 809: 2000.
- Directiva Baixa Tensão (2006/95/CE).  
Normas utilizadas: EN 60335-1: 2007 e EN 60335-2-41: 2003.
- Directiva EMC (compatibilidade electromagnética) (2004/108/CE).  
Normas utilizadas: EN 61000-6-2 e EN 61000-6-3.

**RO: Declarație de conformitate CE**

Noi, Grundfos, declarăm pe propria răspundere că produsele Conlift, la care se referă această declarație, sunt în conformitate cu aceste Directive de Consiliu asupra armonizării legilor Statelor Membre CE:

- Directiva Utilaje (2006/42/CE).  
Standard utilizat: EN 809: 2000.
- Directiva Tensiune Joasă (2006/95/CE).  
Standarde utilizate: EN 60335-1: 2007 și EN 60335-2-41: 2003.
- Directiva EMC (2004/108/CE).  
Standarde utilizate: EN 61000-6-2 și EN 61000-6-3.

**SI: ES izjava o skladnosti**

V Grundfosu s polno odgovornostjo izjavljamo, da so naši izdelki Conlift, na katere se ta izjava nanaša, v skladu z naslednjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES:

- Direktiva o strojih (2006/42/ES).  
Uporabljena norma: EN 809: 2000.
- Direktiva o nizki napetosti (2006/95/ES).  
Uporabljeni normi: EN 60335-1: 2007 in EN 60335-2-41: 2003.
- Direktiva o elektromagnetni združljivosti (EMC) (2004/108/ES).  
Uporabljeni normi: EN 61000-6-2 in EN 61000-6-3.

**LT: EB atitikties deklaracija**

Mes, Grundfos, su visa atsakomybe pareiškiame, kad gaminiai Conlift, kuriems skirta ši deklaracija, atitinka šias Tarybos Direktyvas dėl Europos Ekonominės Bendrijos šalių narių įstatymų suderinimo:

- Mašinių direktyva (2006/42/EB).  
Taikomas standartas: EN 809: 2000.
- Žemų įtampų direktyva (2006/95/EB).  
Taikomi standartai: EN 60335-1: 2007 ir EN 60335-2-41: 2003.
- EMS direktyva (2004/108/EB).  
Taikomi standartai: EN 61000-6-2 ir EN 61000-6-3.

**NL: EC overeenkomstigheidsverklaring**

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten Conlift 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 norm: EN 809: 2000.
- Laagspannings Richtlijn (2006/95/EC).  
Gebruikte normen: EN 60335-1: 2007 en EN 60335-2-41: 2003.
- EMC Richtlijn (2004/108/EC).  
Gebruikte normen: EN 61000-6-2 en EN 61000-6-3.

**PL: Deklaracja zgodności WE**

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

- Dyrektywa Maszynowa (2006/42/WE).  
Zastosowana norma: EN 809: 2000.
- Dyrektywa Niskonapięciowa (LVD) (2006/95/WE).  
Zastosowane normy: EN 60335-1: 2007 oraz EN 60335-2-41: 2003.
- Dyrektywa EMC (2004/108/WE).  
Zastosowane normy: EN 61000-6-2 oraz EN 61000-6-3.

**RU: Декларация о соответствии ЕС**

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

- Механические устройства (2006/42/ЕС).  
Применявшийся стандарт: EN 809: 2000.
- Низковольтное оборудование (2006/95/ЕС).  
Применяющиеся стандарты: EN 60335-1: 2007 и EN 60335-2-41: 2003.
- Электромагнитная совместимость (2004/108/ЕС).  
Применявшиеся стандарты: EN 61000-6-2 и EN 61000-6-3.

**SK: Prehlásenie o konformite Ú**

My firma Grundfos prehlasujeme na svoju plnú zodpovednosť, že výrobky Conlift, na ktoré sa toto prehlásenie vzťahuje, sú v súlade s ustanovenými smernicami Rady pre zblíženie právnych predpisov členských štátov Európskeho spoločenstva v oblastiach:

- Smernica pre stroje/zariadenie (2006/42/EC).  
Použitá norma: EN 809: 2000.
- Smernica pre nízkonapäťové aplikácie (2006/95/EC).  
Použitá norma: EN 60335-1: 2007 a EN 60335-2-41: 2003.
- Smernica pre elektromagnetickú kompatibilitu (2004/108/EC).  
Použitá norma: EN 61000-6-2 a EN 61000-6-3.

**RS: EC deklaracija o konformitetu**

Mi, Grundfos, izjavljamo pod vlastitom odgovornostjo da je proizvod Conlift, na koji se ova izjava odnosi, u skladu sa direktivama Saveta za usklađivanje zakona država članica EU:

- Direktiva za mašine (2006/42/EC).  
Korišćen standard: EN 809: 2000.
- Direktiva niskog napona (2006/95/EC).  
Korišćeni standardi: EN 60335-1: 2007 i EN 60335-2-41: 2003.
- EMC direktiva (2004/108/EC).  
Korišćeni standardi: EN 61000-6-2 i EN 61000-6-3.

**FI: EY-vaatimustenmukaisuusvakuutus**

Me, Grundfos, vakuutamme omalla vastuullamme, että tuotteet Conlift, joita tämä vakuutus koskee, ovat EY:n jäsenvaltioiden lainsäädännön yhdenmukaistamiseen tähtäävien Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti:

- Konedirektiivi (2006/42/EY).  
Sovellettu standardi: EN 809: 2000.
- Pienjännittdirektiivi (2006/95/EY).  
Sovellettavat standardit: EN 60335-1: 2007 ja EN 60335-2-41: 2003.
- EMC-direktiivi (2004/108/EY).  
Sovellettavat standardit: EN 61000-6-2 ja EN 61000-6-3.

**SE: EG-försäkrän om överensstämmelse**

Vi, Grundfos, försäkrar under ansvar att produkterna Conlift, som omfattas av denna försäkrän, är i överensstämmelse med rådets direktiv om inbördes närmande till EU-medlemsstaternas lagstiftning, avseende:

- Maskindirektivet (2006/42/EG).  
Tillämpad standard: EN 809: 2000.
- Lågspänningsdirektivet (2006/95/EG).  
Tillämpade standarder: EN 60335-1: 2007 och EN 60335-2-41: 2003.
- EMC-direktivet (2004/108/EG).  
Tillämpade standarder: EN 61000-6-2 och EN 61000-6-3.

**CN: EC 产品合格声明书**

我们格兰富在我们的全权责任下声明，产品 Conlift，即该合格证所指之产品，符合欧共体使其成员国法律趋于一致的以下欧共理事会指令：

- 机械设备指令 (2006/42/EC)。  
所用标准：EN 809: 2000。
- 低电压指令 (2006/95/EC)。  
所用标准：EN 60335-1: 2007 和 EN 60335-2-41: 2003。
- 电磁兼容性指令 (2004/108/EC)。  
所用标准：EN 61000-6-2 和 EN 61000-6-3。

Bjerringbro, 1st July 2011



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# English (GB) Installation and operating instructions

Original installation and operating instructions.

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## 1. Symbols used in this document



### Warning

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



### Warning

*If these instructions are not observed, it may lead to electric shock with consequent risk of serious personal injury or death.*



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



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

## 2. General description

Grundfos Conlift1, Conlift2 and Conlift2 pH+ are small, compact lifting stations with built-in non-return valve.

Conlift2 and Conlift2 pH+ incorporate a printed-circuit board (PCB) with alarm device enabling additional pump start.

The Conlift2 pH+ includes a neutralisation unit designed to neutralise the acid condensate coming from gas- and oil-powered boilers.

## 3. Handling



*Do not drop the Conlift on the floor.*



### 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.*



## 4. Applications

The Conlift is designed for the pumping of condensate from the following:

- boilers
- air-conditioning systems
- cooling and refrigeration systems
- air dehumidifiers
- evaporators.

The Conlift is suitable for the pumping of condensate which is collected below sewer level or which cannot flow to the sewage system or drain of the building by means of a natural downward slope.



### Warning

**Condensates from boilers are aggressive as they contain acid.**



### Warning

**Treat (possibly neutralise) condensate from boilers according to local regulations before it is led out into the sewage system.**



### Warning

**The Conlift must not be used for flammable liquids.**



### Warning

**The Conlift must not be installed in potentially explosive environments.**

The Conlift can pump condensates not requiring neutralisation, i.e. with pH values of 2.5 or higher.

Condensates with pH values up to 2.5 should be neutralised before they leave the Conlift.

Boilers fired with the following fuels normally supply condensate with pH values up to 2.5:

- gas
- liquid gas
- low-sulphur fuel oil according to DIN 51603-1.

Irrespective of the capability of the Conlift, local regulations may require the installation of a neutralisation unit, even for pH values of 2.5 or higher.

## 5. Function

The condensate runs by natural fall through a hose into the tank. See section 7. *Installation*.

The liquid level in the tank is controlled automatically by a float switch. A micro switch in the float switch will start the pump when the liquid level reaches the start level, and it will stop the pump again when the liquid level has fallen to stop level. The condensate is pumped through the discharge hose to the drain.

The Conlift also has a safety overflow switch with a 1.7-metre electric cable. This overflow switch can be connected to the condensate boiler and set to stop the boiler in case of an alarm.

The Conlift has a thermal switch which stops the motor in case of overload. When the motor has cooled to normal temperature, it will restart automatically.

## 6. Operating conditions

### 6.1 Maximum head

5.5 metres.

### 6.2 Maximum flow rate

600 l/h.

### 6.3 Temperatures

#### 6.3.1 Ambient temperature

During operation: +5 °C to +35 °C.

#### 6.3.2 Liquid temperature

Average temperature: +50 °C.

## 6.4 Operating mode

### Caution

**The Conlift is designed for max. 60 starts per hour.**

S3 (intermittent operation): 30 % according to DIN EN 0530 T1. This means that the system is running for 18 seconds and is stopped for 42 seconds.

## 6.5 Handling of condensates

Condensates from condensate boilers are very aggressive and will attack the material of the building's sewage system.

In order to protect the sewage system, we recommend the use of a neutralisation unit. The neutralisation unit is included in Conlift2 pH+ and is available as an accessory for Conlift1 and Conlift2. See section 11. *Accessories*.

The local discharge regulations regarding condensates from boilers must be met.

## 7. Installation

### Note

**The Conlift must be installed according to local regulations.**

If not already integrated, a water trap (emission trap) must be fitted in all inlets.

The Conlift is not designed for outdoor use.

### 7.1 Mechanical installation

See also the quick guide supplied with the Conlift.

When installing the Conlift, observe the following:

- The condensate must run freely into the lifting station.
- The cooling slots in the motor cover must not be covered.
- The lifting station should be easily accessible in order to facilitate maintenance.
- The lifting station must be installed in a well-illuminated and -ventilated room.
- The lifting station is protected against splashing water (in compliance with IP24).

#### 7.1.1 Conlift2 and Conlift2 pH+

Conlift2 and Conlift2 pH+ incorporate a printed-circuit board (PCB) enabling additional functions when the level in the tank reaches the alarm level.

The contact on the PCB can be set to two positions:

**Position 1:** The pump is started, the condensate source is switched off and an acoustic alarm is generated.

**Position 0:** The condensate source is switched off and an acoustic alarm is generated.

The Conlift1 can be retrofitted with the PCB which is available as an accessory.

## 7.2 Electrical installation

Carry out the electrical connection according to local regulations.

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

Check that the installation has a 10 A slow-blowing fuse on the mains side and an earth leakage circuit breaker according to IEC 345.

The power supply cable has a Schuko plug or a free cable end. The cable has a length of 2 metres.



### Warning

**The power supply cable with a free cable end must be connected by an authorised electrician.**



### Warning

**If the power supply cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or similarly qualified person.**



### Warning

**Before starting work on or moving the Conlift, make sure that the power supply has been switched off and that it cannot be accidentally switched on.**



### Warning

**As a precaution, the Conlift must be connected to a Schuko socket or socket with earth connection.**

**We recommend to provide the permanent installation with an earth leakage circuit breaker (ELCB) with a tripping current < 30 mA.**

**The Conlift must be connected to an external mains switch with a minimum contact gap of 3 mm in all poles.**

### 7.2.1 Cable to condensate source or external alarm

#### Warning



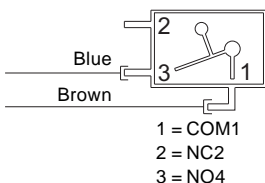
**Before starting work on the Conlift, switch off the power supply and make sure that it cannot be accidentally switched on.**

**Work on electric systems and components must only be carried out by an authorised electrician.**

The Conlift has a safety overflow switch which can be connected to the condensate source or to an external alarm system. The switch is connected to an alarm cable with free cable end.

Alarm systems with a control voltage of 250 VAC, 2.5 A, can be used.

On delivery, the alarm cable is connected to terminals COM1 (brown) and NO4 (blue) of the safety overflow switch. See fig. 1.



**Fig. 1** Wiring diagram

The alarm cable can be connected in two ways, depending on application:

- **Shutdown of condensate source**  
The safety overflow switch can be connected to a Class-II low-voltage circuit. To enable shutdown of the condensate source, the COM1 and NO4 terminals of the safety overflow switch must be connected in series with the low-voltage thermostat circuit of the condensate source.
- **External alarm system**  
The COM1 and NC2 terminals can be used to close a low-voltage alarm circuit. To activate an alarm, the COM1 and NC2 terminals of the safety overflow switch must be connected in series with the low-voltage alarm circuit.

## 8. Start-up

**Note** *Start up the Conlift in accordance with local regulations and accepted codes of good practice.*

1. Check that all hoses and connections are tight.
2. Connect the power supply.

### 8.1 Checking the function

#### Pump operation

Press the manual test button.

#### Alarm

1. To ensure that the alarm level is reached, squeeze the discharge hose (or close the isolating valve, if fitted), and fill water into the tank. The pump will be started via the float switch.
2. Continue filling water into the tank until the safety overflow switch is activated. If no external alarm is connected to the Conlift, this function can be checked by means of a multimeter.

**Note** *The safety overflow switch must be activated before the water starts running out of the Conlift.*

3. Stop filling water into the tank and stop squeezing the discharge hose. The alarm stops (the switch opens). The pump continues operating. When the stop level is reached, the pump will stop.

After checking the function, push the inlet hose back into the lifting station and let the condensate from the boiler or air-conditioning system run into the tank again.

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## 9. Maintenance and service

### Warning



**The Conliff must only be serviced by trained service personnel.**

**Always use original accessories from Grundfos to ensure safe and reliable operation.**

### Warning



**If the power supply cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or similarly qualified person.**

### 9.1 Maintenance

The Conliff does not require any special maintenance, but we recommend to check operation and pipe connections at least once a year and to check and clean the collecting tank, if necessary.

#### Conlift2 pH+

Check the state of the granulate regularly.

Check the level of acid in the condensate with the supplied pH indicator twice a year.

See section 9.2 *Service*.

### 9.2 Service

Thanks to the Conliff design, service can easily be performed in case of malfunction or blocked pump.



### Warning

**The Conliff must only be serviced by trained service personnel.**

### Warning



**Before starting any service work, remove the fuse, pull out the plug, or switch off the power supply. Make sure that the power supply cannot be accidentally switched on.**

**All rotating parts must have stopped moving.**

#### 9.2.1 Conlift1 and Conlift2

See illustrations on page 222.

Make the following checks and clean the collecting tank, if necessary:

1. Disconnect the power supply.
2. Cut off the flow of condensate from the boiler or other application, or stop the flow of condensate to the Conliff.
3. Make sure that the hoses are not mechanically or chemically damaged.
4. Remove the discharge hose by turning the bayonet coupling, and check the O-ring.  
The condensate in the hose will not run out due to the non-return valve.
5. If the condensate is running out of the hose, check and clean the non-return valve.

6. Press the side-locking catches and lift off the motor support. Place it in upright position.
7. Remove deposits, dirt, algae and incrustations under running water.

#### 9.2.2 Conlift2 pH+

### Warning



**Condensates from boilers are aggressive as they contain acid.**

**Use protective gloves and safety goggles when performing service work.**

#### Neutralisation unit

See illustrations on page 223.

Check and clean the neutralisation unit drawer regularly.

Make the following checks, measure the pH level and clean the collecting tank, if necessary.

1. Disconnect the power supply.
2. Cut off the flow of condensate from the boiler or other application, or stop the flow of condensate to the Conliff.
3. Check the pH value of the granulate in the drawer with the supplied pH indicator.
4. If the drawer is empty or the pH indicator indicates an acid level below 5, fill the drawer with neutralisation granulate (approx. 1.5 kg).
5. Make sure that the hoses are not mechanically or chemically damaged.
6. Remove the discharge hose by turning the bayonet coupling, and check the O-ring.  
The condensate in the hose will not run out due to the non-return valve.
7. If the condensate is running out of the hose, check and clean the non-return valve.
8. Press the side-locking catch and lift off the neutralisation unit.
9. Press the side-locking catches and lift off the motor support. Place it in upright position.
10. Remove deposits, dirt, algae and incrustations under running water.

### 9.3 Contaminated lifting station or components

#### Caution

**If a Conliff has been used for a liquid which is injurious to health or toxic, it will be classified as contaminated.**

If Grundfos is requested to service the lifting station, Grundfos must be contacted with details about the pumped liquid, etc. *before* the lifting station is returned for service. Otherwise Grundfos can refuse to accept the lifting station for service.

Incidentally, any application for service, no matter to whom it may be made, must include detailed information about the pumped liquid.

A lifting station returned for service must always be cleaned in the best possible way.

Possible costs of returning the lifting station are to be paid by the customer.

## 10. Fault finding



### Warning

*Before starting fault finding, switch off the power supply and make sure that it cannot be accidentally switched on.*

*Work on electric systems and components must only be carried out by an authorised electrician.*

Fault	Cause	Remedy
1. The pump does not run.	a) No power supply.	Connect the power supply.
	b) Fuse is blown.	Replace the fuse (10 A slow-blow fuse).
	c) Power supply cable damaged.	Repair or replace the cable. This must only be carried out by an authorised service workshop or by Grundfos.
	d) Thermal overload switch has tripped: <ul style="list-style-type: none"> <li>– The motor is not sufficiently cooled.</li> <li>– Deposits in the pump.</li> </ul>	Clean the cooling slots in the motor cover.  Clean the impeller, pump housing and the entire lifting station.
2. Reduced or no performance.	a) Discharge hose squeezed or broken.	Straighten the discharge hose or replace it. The bending radius of the hose should be at least 60 mm.
	b) The non-return valve does not open.	Remove the discharge connection, and clean the non-return valve.
	c) The motor fan cannot be turned freely.	Clean the pump housing and the impeller.
3. Frequent starts/stops.	a) The non-return valve does not close.	Remove the discharge connection, and clean the non-return valve.
	b) The inlet quantity is too high.	Make sure the inlet quantity is correct.
4. Alarm.	a) The condensate is not pumped out of the tank.	See points 1 and 2.

## 11. Accessories

The following accessories for the Conlift are available from your local Grundfos supplier.

Accessory/ service part	Description	Product number
pH+ Box	Complete neutralisation unit including fitting accessories, neutralisation granulate and pH indicator.	97936176
Extension hose	6 metres of PVC hose with 10 mm internal diameter including one hose coupling.	97936177
Granulate refill package	Granulate, 4 x 1.4 kg.	97936178
Alarm PCB Conlift	Printed-circuit board (PCB) enabling additional pump start at alarm level or stop of boiler with acoustic alarm.	97936209

## 12. Technical data

### Supply voltage

1 x 230 VAC - 6 %/+ 6 %, 50 Hz, PE.

See nameplate.

### Input power

P1 = 70 W.

### Input current

I = 0.65 A.

### Alarm connection

An external alarm can be connected via the safety overflow switch.

The cable can stand a control voltage of 250 VAC, 2.5 A.

### Cable lengths

Alarm and power supply cables: 1.7 metres.

### Storage temperature

When stored in dry rooms:

- Empty tank: -10 °C to +50 °C.
- Tank with condensate: above 0 °C (risk of frost not allowed).

### Maximum head

5.5 metres.

### Maximum flow rate

600 l/h.

### pH value of condensate

2.5 or higher.

### Density of condensate

Maximum 1000 kg/m<sup>3</sup>.

### Motor protection

- Thermal overload switch: +120 °C.
- Insulation class: F.

### Enclosure class

IP24.

### Weight

2.0 kg.

### Volume

- Tank volume: 2.65 litres.
- Useful volume: 0.9 litre.
- Alarm condition: 2.1 litres.
- Operating condition: 1.7 litres.

### Dimensions

See dimensional sketches on pages 225 to 227.

## 13. Marking and approvals

### 13.1 Marking



### 13.2 Approvals



## 14. Disposal

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

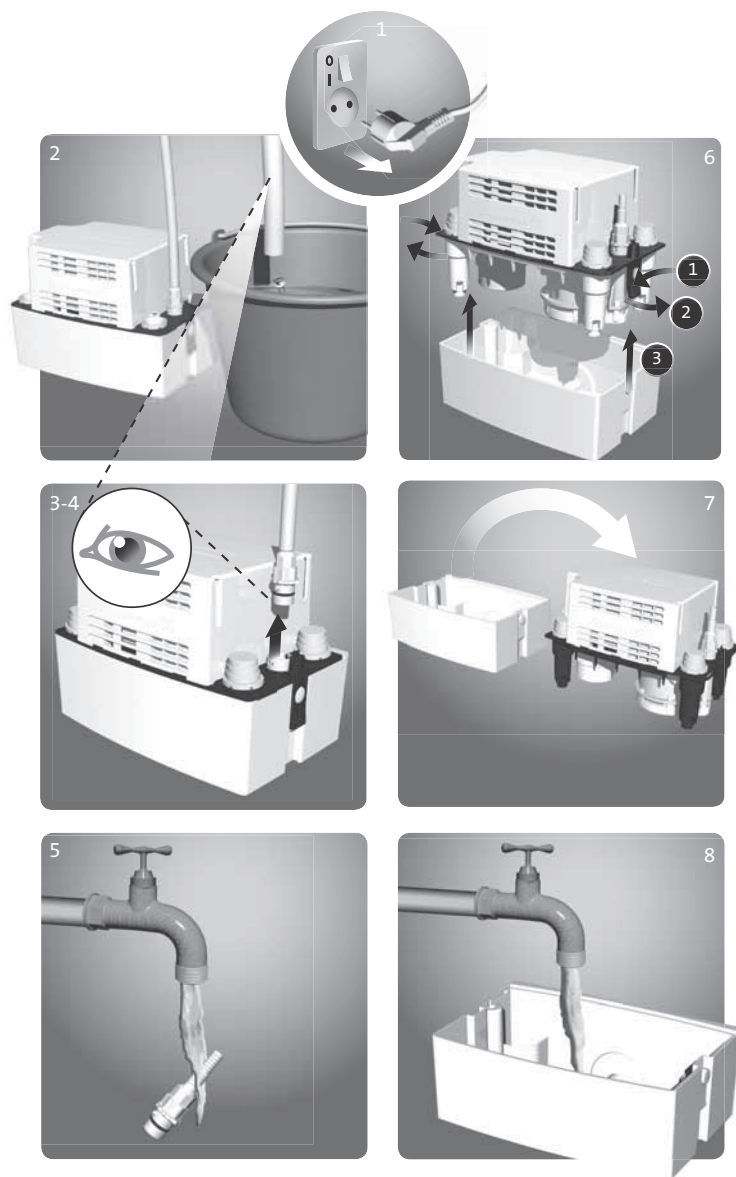
1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

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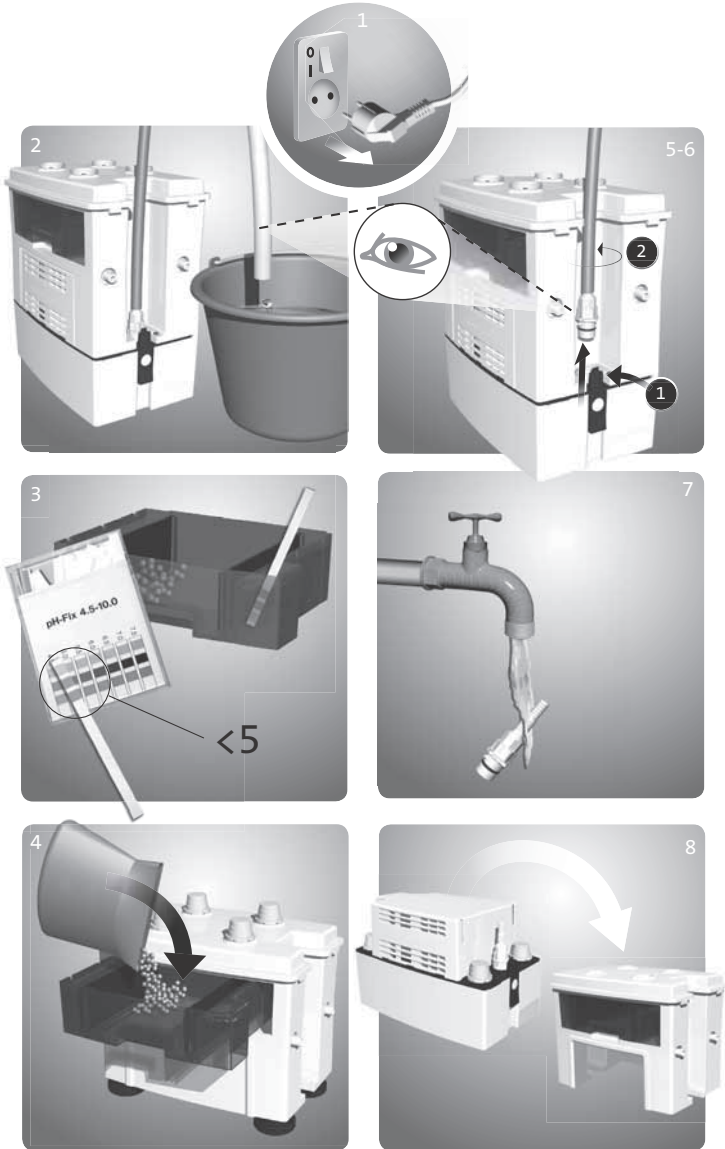
Subject to alterations.

# Appendix

## Conlift1 and Conlift2

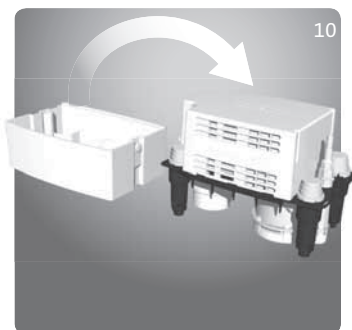
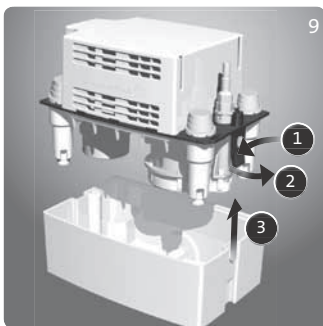


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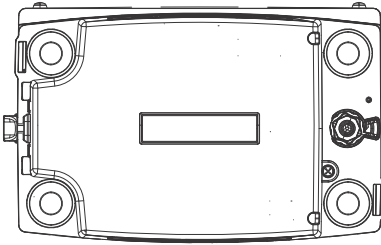
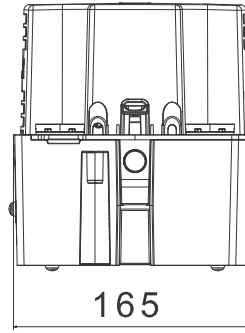
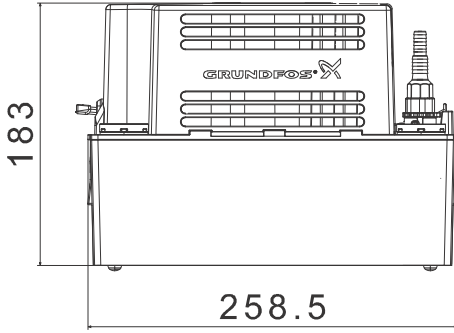
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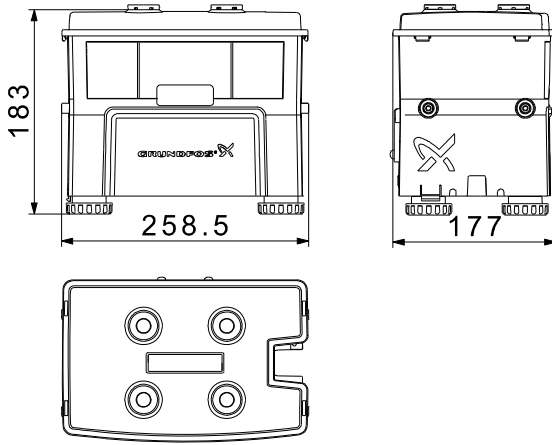
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Dimensions, Conlift1 and Conlift2



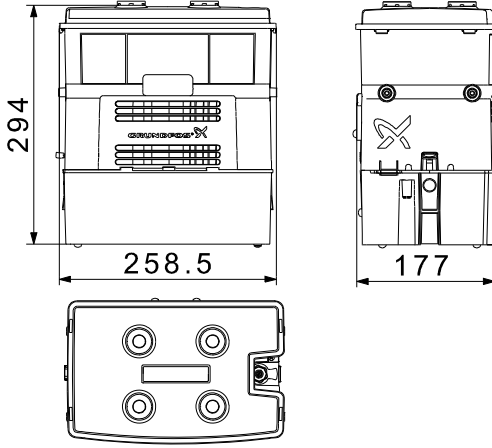
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Dimensions, Conlift pH+ Box



TM05 1228 2411

Dimensions, Conlift2 pH+



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