

CH, JP

Installation and operating instructions

GB D F I E P GR NL S FIN DK
PL RU H SI HR SER RO BG CZ TR



(GB) Declaration of Conformity

We, Grundfos, declare under our sole responsibility that the products CH and JP, 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).
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 61000-6-2 and EN 61000-6-3.

(F) Déclaration de Conformité

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits CH et JP, 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 61000-6-2 et EN 61000-6-3.

(E) Declaración de Conformidad

Nosotros, Grundfos, declaramos bajo nuestra entera responsabilidad que los productos CH y JP, 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).
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 61000-6-2 y EN 61000-6-3.

(GR) Δήλωση Συμμόρφωσης

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα CH και JP 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/ΕΚ).
Πρότυπα που χρησιμοποιήθηκαν: EN 809: 1998 και EN 60204-1: 2006.
- Οδηγία χαμηλής τάσης (2006/95/ΕΚ).
Πρότυπα που χρησιμοποιήθηκαν: EN 60335-1: 2002 και EN 60335-2-41: 2003.
- Οδηγία Ηλεκτρομαγνητικής Συμβατότητας (ΕΜΚ) (2004/108/ΕΚ).
Πρότυπα που χρησιμοποιήθηκαν: EN 61000-6-2 και EN 61000-6-3.

(S) Försäkran om överensstämmelse

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

- Maskindirektiv (2006/42/EG).
Tillämpade standarder: EN 809: 1998 och EN 60204-1: 2006.
- Lågspänningsdirektiv (2006/95/EG).
Tillämpade standarder: EN 60335-1: 2002 och EN 60335-2-41: 2003.
- EMC-direktiv (2004/108/EG).
Tillämpade standarder: EN 61000-6-2 och EN 61000-6-3.

(DK) Overensstemmelseserklæring

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

- Maskindirektiv (2006/42/EF).
Anvendte standarder: EN 809: 1998 og EN 60204-1: 2006.
- Lavspændingsdirektiv (2006/95/EF).
Anvendte standarder: EN 60335-1: 2002 og EN 60335-2-41: 2003.
- EMC-direktiv (2004/108/EF).
Anvendte standarder: EN 61000-6-2 og EN 61000-6-3.

(D) Konformitätserklärung

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte CH und JP, 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 61000-6-2 und EN 61000-6-3.

(I) Dichiarazione di Conformità

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti CH e JP, 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 61000-6-2 e EN 61000-6-3.

(P) Declaração de Conformidade

A Grundfos declara sob sua única responsabilidade que os produtos CH e JP, 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 61000-6-2 e EN 61000-6-3.

(NL) Overeenkomstigheidsverklaring

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten CH en JP 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 61000-6-2 en EN 61000-6-3.

(FIN) Vaatimustenmukaisuusvakuutus

Me, Grundfos, vakuutamme omalla vastuullamme, että tuotteet CH ja JP, joita tämä vakuutus koskee, ovat E.Y: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 61000-6-2 ja EN 61000-6-3.

(PL) Deklaracja zgodności

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasze wyroby CH oraz JP, 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 61000-6-2 oraz EN 61000-6-3.

RU Декларация о соответствии

Мы, компания Grundfos, со всей ответственностью заявляем, что изделия CH и JP, 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 61000-6-2 и EN 61000-6-3.

SI Izjava o skladnosti

V Grundfosu s polno odgovornostjo izjavljamo, da so naši izdelki CH in JP, 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).
Uporabljeni normi: EN 809: 1998 in EN 60204-1: 2006.
- Direktiva o nizki napetosti (2006/95/ES).
Uporabljeni normi: EN 60335-1: 2002 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.

YU Deklaracija o konformitetu

Ми, Grundfos, изјављујемо под властитом одговорношћу да је производ CH и JP, на који се ова изјава односи, у складу са директивама Савета за усклађивање закона држава чланица ЕУ:

- Директива за машине (2006/42/EC).
Коришћени стандарди: EN 809: 1998 и EN 60204-1: 2006.
- Директива ниског напона (2006/95/EC).
Коришћени стандарди: EN 60335-1: 2002 и EN 60335-2-41: 2003.
- EMC директива (2004/108/EC).
Коришћени стандарди: EN 61000-6-2 и EN 61000-6-3.

BG Декларация за съответствие

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктите CH и JP, 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/EC).
Приложени стандарти: EN 809: 1998 и EN 60204-1: 2006.
- Директива за нисковоолтови системи (2006/95/EC).
Приложени стандарти: EN 60335-1: 2002 и EN 60335-2-41: 2003.
- Директива за електромагнитна съвместимост (2004/108/EC).
Приложени стандарти: EN 61000-6-2 и EN 61000-6-3.

TR Uygunluk Bildirgesi

Grundfos olarak bu beyannameye konu olan CH ve JP ürünlerimizin, AB Üyesi Ülkelerinin kanunlarını birbirine yaklaştırmaya üzerine KONSEY Direktifleriyle uyumlu olduğunu 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 Direktifi (2004/108/EC).
Kullanılan standartlar: EN 61000-6-2 ve EN 61000-6-3.

H Megfelelőségi nyilatkozat

Mi, Grundfos, egyedüli felelősséggel kijelentjük, hogy a CH és JP termékek, amelyekre jelen nyilatkozik vonatkozik, megfelelnek az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi előírásainak:

- Gépek (2006/42/EC).
Alkalmazott szabványok: EN 809: 1998 és EN 60204-1: 2006.
- Kisfeszültségű Direktíva (2006/95/EC).
Alkalmazott szabványok: EN 60335-1: 2002 és EN 60335-2-41: 2003.
- EMC Direktíva (2004/108/EC).
Alkalmazott szabványok: EN 61000-6-2 és EN 61000-6-3.

HR Izjava o usklađenosti

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

- Direktiva za strojeve (2006/42/EZ).
Korištene norme: EN 809: 1998 i EN 60204-1: 2006.
- Direktiva za niski napon (2006/95/EZ).
Korištene norme: EN 60335-1: 2002 i EN 60335-2-41: 2003.
- Direktiva za elektromagnetsku kompatibilnost (2004/108/EZ).
Korištene norme: EN 61000-6-2 i EN 61000-6-3.

RO Declarație de Conformitate

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

- Directiva Utilaj (2006/42/CE).
Standarde utilizate: EN 809: 1998 și EN 60204-1: 2006.
- Directiva Tensiune Joasă (2006/95/CE).
Standarde utilizate: EN 60335-1: 2002 și EN 60335-2-41: 2003.
- Directiva EMC (2004/108/CE).
Standarde utilizate: EN 61000-6-2 și EN 61000-6-3.

CZ Prohlášení o shodě

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky CH a JP, 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 nízkonapětové 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 61000-6-2 a EN 61000-6-3.

Bjerringbro, 15th October 2009



Svend Aage Kaas
Technical Director

CH, JP

Installation and operating instructions	6	GB
Montage- und Betriebsanleitung	9	D
Notice d'installation et d'entretien	14	F
Istruzioni di installazione e funzionamento	17	I
Instrucciones de instalación y funcionamiento	20	E
Instruções de instalação e funcionamento	23	P
Οδηγίες εγκατάστασης και λειτουργίας	26	GR
Installatie- en bedieningsinstructies	29	NL
Monterings- och driftsinstruktion	32	S
Asennus- ja käyttöohjeet	35	FIN
Monterings- og driftsinstruktion	38	DK
Instrukcja montażu i eksploatacji	41	PL
Руководство по монтажу и эксплуатации	46	RU
Szerelési és üzemeltetési utasítás	52	H
Navodila za montažo in obratovanje	56	SI
Montažne i pogonske upute	60	HR
Uputstvo za montažu i upotrebu	64	SER
Instrucțiuni de instalare și utilizare	69	RO
Упътване за монтаж и експлоатация	72	BG
Montážní a provozní návod	77	CZ
Montaj ve kullanım kılavuzu	82	TR

CONTENTS

	Page
1. Applications	6
2. Function	6
3. Installation	6
3.1 Assembly	6
3.2 Location	6
3.3 Pipework	6
3.4 Priming	6
3.5 Electrical connections	6
4. Adjustment	7
4.1 Calculation of cut-in/cut-out pressures	7
4.2 Adjustment of tank precharge pressure	7
4.3 Setting of pressure switch	7
5. Operation and maintenance	8
5.1 Checking the tank precharge pressure	8
5.2 Frost protection	8
6. Technical data and operating conditions	8
7. Disposal	8



These instructions concern the adjustment of the booster set. Please refer to the installation and operating instructions for the pump in question.

1. Applications

The Grundfos pressure booster sets, types CH and JP, are mainly used for domestic water supply or booster systems.

2. Function

The booster set cuts in and out by means of the pressure switch. When water is tapped from the system, it will at first be tapped from the diaphragm tank, fig. 1.

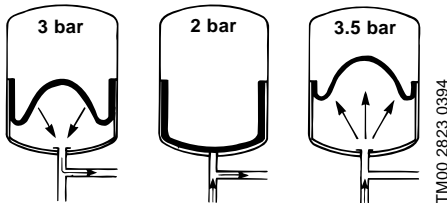


Fig. 1

Then the pressure falls to the preset cut-in pressure, and the pump will cut in.

When the water consumption drops, the discharge pressure increases, and the pump cuts out when the pressure reaches the preset cut-out pressure of the pressure switch.

3. Installation

3.1 Assembly

The booster set should be installed according to the figures on pages 89 to 90, the components being assembled in numerical order. Pos. 5 on page 88 and pos. 2 on page 90 are not fitted in sets which are ready-mounted on delivery.

Note: The threads must be wrapped with tape or yarn. The gasket is to be fitted between the hose and the tank.

3.2 Location

The booster set should be located and connected in accordance with local regulations.

The motor of the booster set must not be covered as an adequate supply of cool air must reach the motor cooling fan.

3.3 Pipework

The pipes connected to the booster set must be of adequate size.

Note: If the booster set has no non-return valve, a non-return/foot valve must be fitted in the suction pipe of the pump.

3.4 Priming

Before starting, the pump must be filled with liquid. Please refer to the installation and operating instructions for the pump in question.

3.5 Electrical connections

The electrical connections should be carried out in accordance with local regulations.



Never make any connections in the terminal box or in the pressure switch unless the electricity supply has been switched off.

The operating voltage and frequency are marked on the nameplate. Please make sure that the motor is suitable for the electricity supply on which it will be used.

Single-phase motors, 1 x 110/220 V, 60 Hz, **do not** incorporate overload protection and must be connected to an approved motor starter.

Other single-phase motors do incorporate overload protection and consequently require no additional motor protection.

Three-phase motors must be connected to an approved motor starter.

If other pumps than Grundfos pumps CH or JP are used, it must be ensured that the nominal current of the motor does not exceed the nominal current of the pressure switch.

The electrical connections should be in accordance with the diagrams on pages 92 and 93.



If the booster set has a supply cable without a plug, the set must **either** be equipped with a supply cable with a plug **or** be connected to the installation by means of a mains switch with a minimum contact gap of 3 mm in all poles. The switch must be suitable for frequent operation.

4. Adjustment

Sets which are ready-mounted on delivery have the following presettings:

Type	P _{tank}	P _{cut-in}	P _{cut-out}
CH 2-30	1.3 bar	1.5 bar	2.5 bar
CH 4-30	1.0 bar	1.1 bar	2.2 bar
CH 4-40	2.0 bar	2.2 bar	3.2 bar
Other CH and JP types	1.9 bar	2.2 bar	3.3 bar

4.1 Calculation of cut-in/cut-out pressures

The cut-in pressure is the sum of:

- minimum pressure required at the highest tap,
- delivery head from the pump to the highest tap,
- pressure loss in the pipes.

Recommended cut-out pressure:
cut-in pressure + 1.0-1.5 bar.

Note: The cut-out pressure **must not** exceed the maximum discharge pressure of the pump.

In the case of JP pumps without an inlet pressure, it is not advisable to fit the ejector valve. If fitted, the valve **must** be in pos. 1.

If a JP pump is used as a booster pump (pump with inlet pressure), the ejector valve can be turned to any position.

If the pump does not stop when no water is consumed, turn the ejector valve to a lower position.

4.2 Adjustment of tank precharge pressure

When the pump cut-in pressure has been determined, the required precharge pressure of the diaphragm tank can be calculated. The precharge pressure must be adjusted to a value of 90% of the cut-in pressure.

When adjusting/reading the precharge pressure, be certain that there is no water pressure on the diaphragm tank from the pipework.

Note: An adjustment of the pressure switch setting also requires an adjustment of the precharge pressure of the diaphragm tank.

See the installation and operating instructions for the diaphragm tank.

4.3 Setting of pressure switch



Because of shock hazard, the booster set must be off circuit when the cover of the pressure switch is removed.

When the pressure switch has reached the cut-out pressure, the input terminals of the pressure switch are still live. To avoid this situation, the electricity supply must be switched off.

Under no circumstances must the cut-out pressure be higher than the maximum operating pressure of the pump and tank.

Remove the cover from the pressure switch to reveal the adjusting screws, see fig. 2.

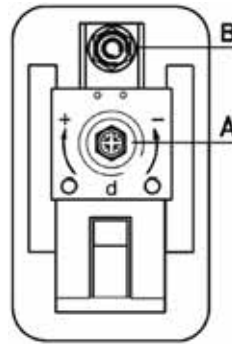


Fig. 2

Adjust	in order to
A	move the differential pressure range.
B	widen/narrow the differential pressure range.

If another pressure switch setting is desired, proceed as follows:

Setting the cut-in pressure:

1. Turn the screw B clockwise to reduce the cut-in pressure.
Turn the screw B counter-clockwise to increase the cut-in pressure.
The differential pressure range is widened and narrowed respectively.
2. Start the pump and check by reading the pressure gauge whether the desired cut-out and cut-in pressures have been obtained.

Setting the cut-out pressure:

1. Turn the screw A clockwise to increase the cut-out pressure.
Turn the screw A counter-clockwise to reduce the cut-out pressure.
The differential pressure range remains unchanged.
2. Start the pump and check by reading the pressure gauge whether the desired cut-out and cut-in pressures have been obtained.

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Repeat the procedure until the right cut-in and cut-out pressures have been obtained.

Note: The cover must be fitted to the pressure switch every time the electricity supply is switched on.

Pressure variations in the system can be reduced by reducing the differential pressure to a minimum. Set the differential pressure by means of the screw B, see fig. 2.

5. Operation and maintenance

Before start-up, the system must be flushed through with clean water and drained to remove possible impurities in the system.



If the liquid temperature exceeds +68°C, the booster set must cool before any maintenance work is carried out.

Care should be taken to ensure that persons cannot come into contact with the booster set during operation, e.g. by installing a guard.

5.1 Checking the tank precharge pressure

To ensure reliable and correct operation, including the frequency of stop/starts, the precharge pressure of the diaphragm tank should be checked regularly (at least once a year). The precharge pressure can be measured with, e.g. a tyre gauge.

5.2 Frost protection

If there is any danger of frost, the tank and the pump should be emptied.

6. Technical data and operating conditions

Supply voltage:

See pages 92 and 93.

CH:

- 1 x 220-240 V -10%/+6%, 50 Hz, PE.
- 3 x 220-240 V -10%/+6%, 50 Hz, PE.
- 3 x 380-415 V -10%/+6%, 50 Hz, PE.
- 1 x 110 V -10%/+10%, 60 Hz, PE.
- 1 x 220 V -10%/+10%, 60 Hz, PE.

JP 5:

- 1 x 220-230 V -10%/+6%, 50 Hz, PE.
- 1 x 230-240 V -10%/+6%, 50 Hz, PE.
- 3 x 220-240 V -10%/+6%, 50 Hz, PE.
- 3 x 380-415 V -10%/+6%, 50 Hz, PE.

JP 6:

- 1 x 220-240 V -10%/+6%, 50 Hz, PE.
- 3 x 380-415 V -10%/+6%, 50 Hz, PE.
- 3 x 220-240 V -10%/+6%, 50 Hz, PE.

Enclosure class:

CH: IP 54.

JP: IP 44.

Sound pressure level:

The sound pressure level of the pumps is lower than the limiting values stated in the EC Council Directive 2006/42/EC relating to machinery.

Maximum operating pressure:

Diaphragm tank: See nameplate.

JP pumps: 6 bar.

CH pumps: 10 bar.

Maximum liquid temperature:

Diaphragm tank: See nameplate.

JP pumps: +40°C.

CH pumps: +90°C.

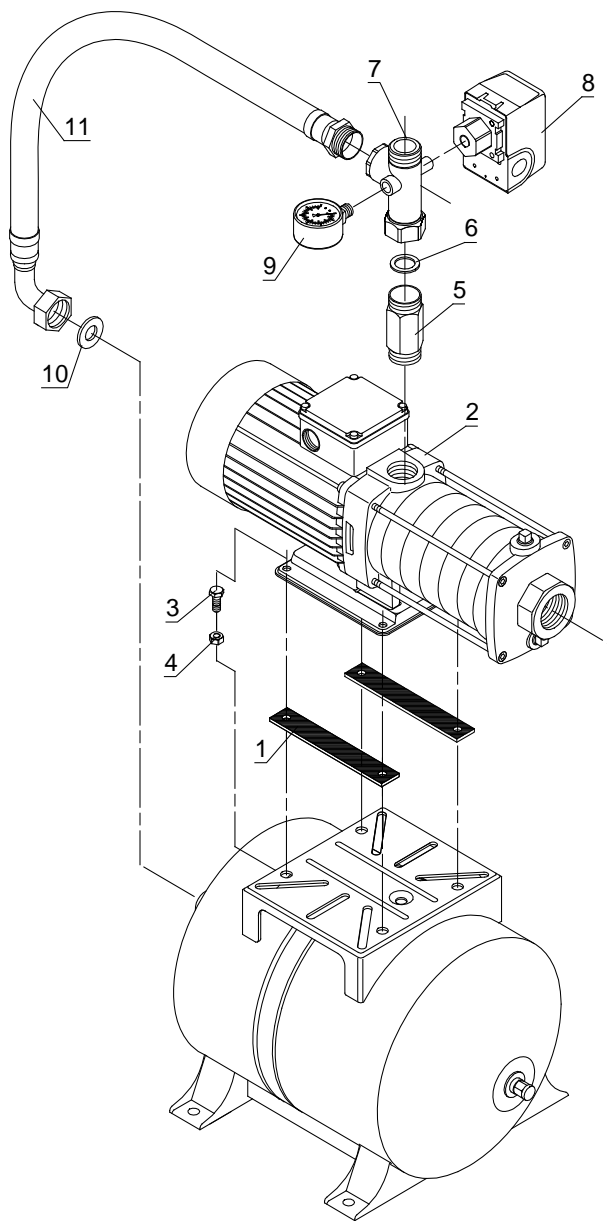
Ambient temperature:

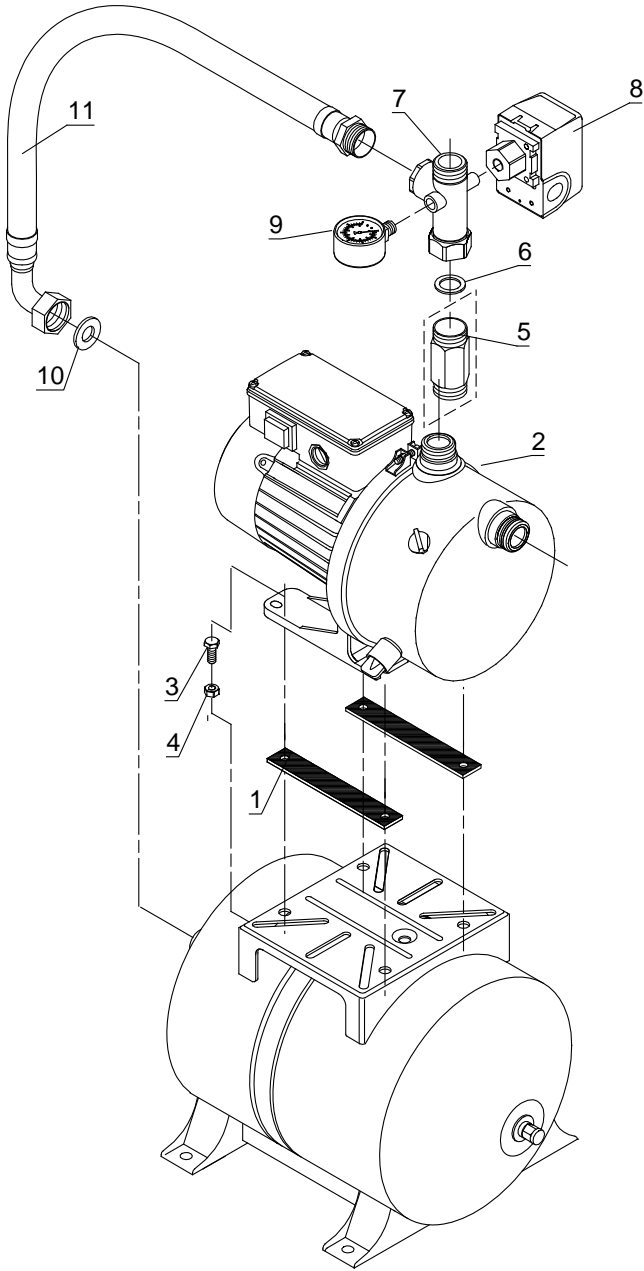
Maximum +55°C.

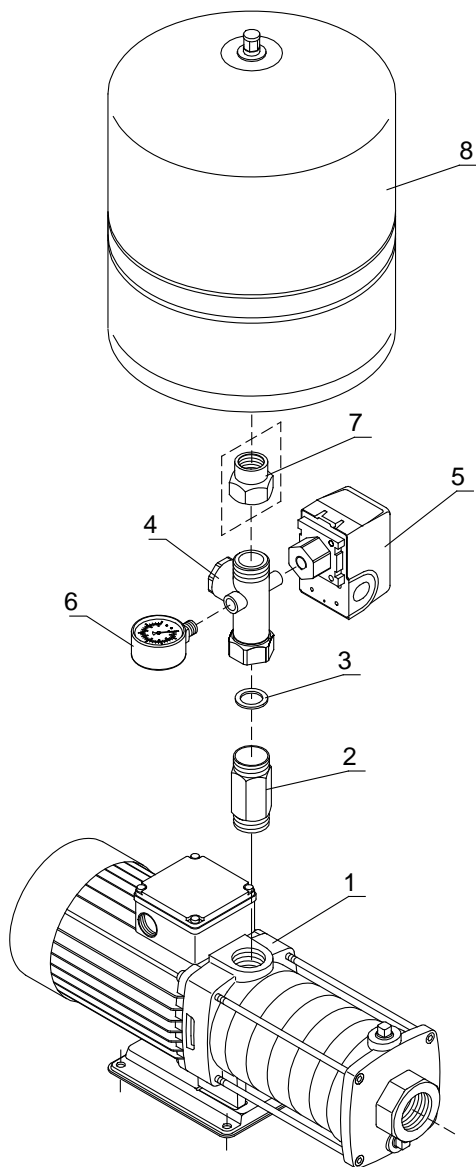
7. Disposal

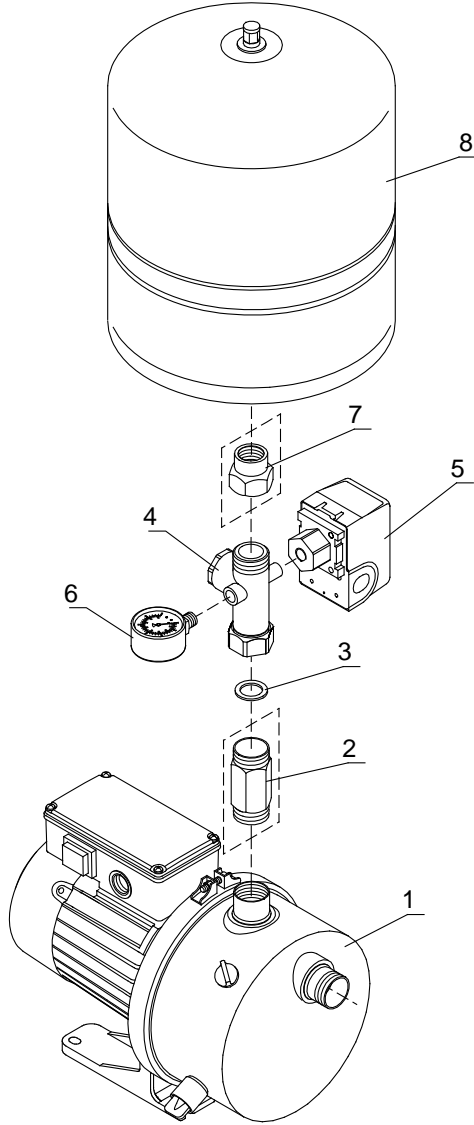
Disposal of this product or parts of it must be carried out according to the following guidelines:

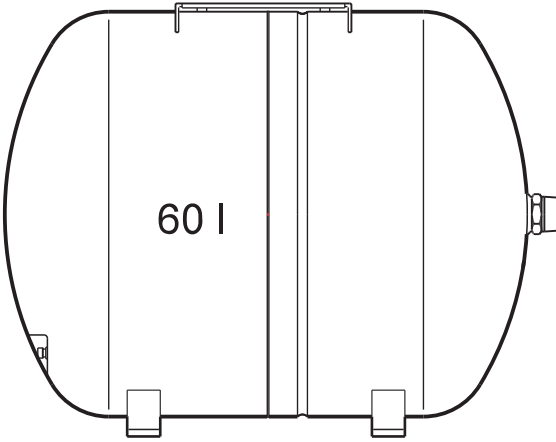
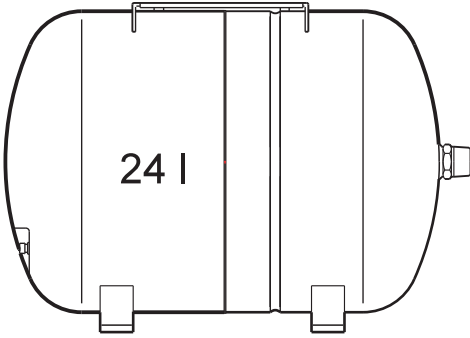
1. Use the local public or private waste collection service.
2. In case such waste collection service does not exist or cannot handle the materials used in the product, please deliver the product or any hazardous materials from it to your nearest Grundfos company or service workshop.





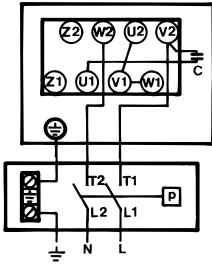






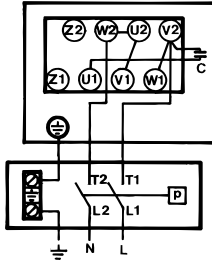
TM02 6039 0605

CH



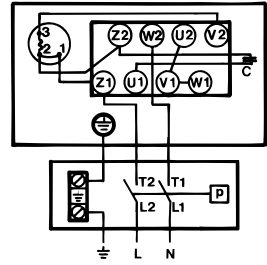
1 x 220 V, 60 Hz

TM00 2829 0394



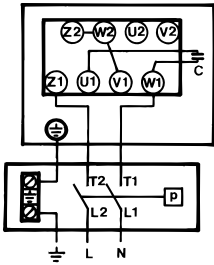
1 x 110 V, 60 Hz

TM00 2830 0394



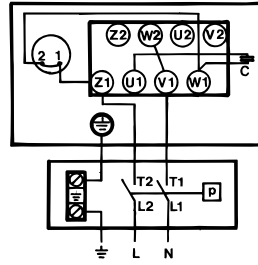
1 x 220 V, 60 Hz

TM00 2831 0394



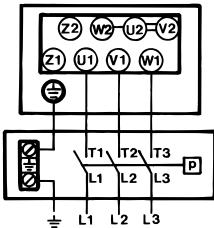
1 x 220-240 V, 50 Hz

TM00 2832 0394



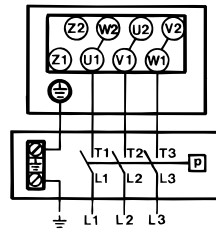
1 x 220-240 V, 50 Hz

TM00 2833 0394



3 x 380-415 V, 50 Hz

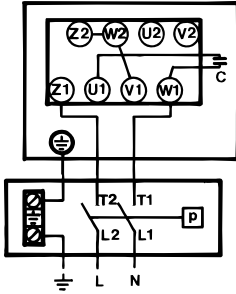
TM00 2834 0394



3 x 220-240 V, 50 Hz

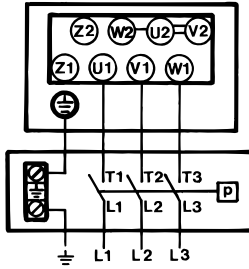
TM00 2835 0394

JP 5



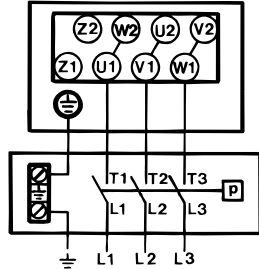
1 x 220-230 V, 50 Hz
1 x 230-240 V, 50 Hz

TM00 2836 0394



3 x 380-415 V, 50 Hz

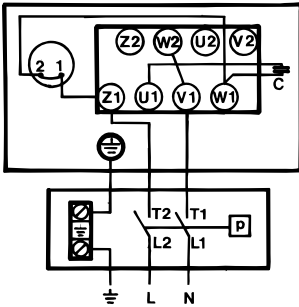
TM00 2834 0394



3 x 220-240 V, 50 Hz

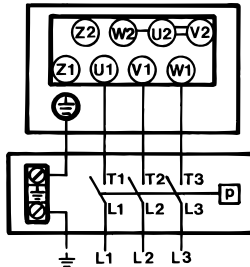
TM00 2835 0394

JP 6



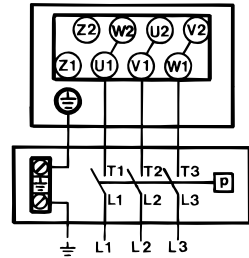
1 x 220-240 V, 50 Hz

TM00 2833 0394



3 x 380-415 V, 50 Hz

TM00 2834 0394



3 x 220-240 V, 50 Hz

TM00 2835 0394

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