DW

Installation and operating instructions

GB D F I E P GR NL S FIN DK
PL RU H SI HR YU RO CZ SK

(GB) Declaration of Conformity

We **Grundfos** declare under our sole responsibility that the products **DW**, 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 (98/37/EC).
  Standard used: EN ISO 12100.
– Electromagnetic compatibility (89/336/EEC).
  Standards used: EN 61000-6-2 and EN 61000-6-3.
– Electrical equipment designed for use within certain voltage limits (73/23/EEC) [95].
  Standards used: EN 60335-1: 1994 and EN 60335-2-41: 1997.

(F) Déclaration de Conformité

Nous **Grundfos** déclarons sous notre seule responsabilité que les produits **DW** auxquels se réfère cette déclaration sont conformes aux Directives du Conseil concernant le rapprochement des législations des Etats membres CE relatives à

– Machines (98/37/CE).
  Standard utilisé: EN ISO 12100.
– Compatibilité électromagnétique (89/336/CEE).
  Standards utilisés: EN 61000-6-2 et EN 61000-6-3.
– Matériel électrique destiné à employer dans certaines limites de tension (73/23/CEE) [95].
  Standards utilisés: EN 60335-1: 1994 et EN 60335-2-41: 1997.

(E) Declaración de Conformidad

Nosotros **Grundfos** declaramos bajo nuestra única responsabilidad que los productos **DW** a los cuales se refiere esta declaración son conformes con las Directivas del Consejo relativas a la aproximación de las legislaciones de los Estados Miembros de la CE sobre

– Máquinas (98/37/CE).
  Norma aplicada: EN ISO 12100.
– Compatibilidad electromagnética (89/336/CEE).
  Normas aplicadas: EN 61000-6-2 y EN 61000-6-3.
– Material eléctrico destinado a utilizarse con determinadas límites de tensión (73/23/CEE) [95].
  Normas aplicadas: EN 60335-1: 1994 y EN 60335-2-41: 1997.

(GR) Δήλωση Συμμόρφωσης

Εμείς η **Grundfos** δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προιόντα **DW** συμμορφώνονται με την Οδηγία του Συμβουλίου επί της σύγκλισης των νόμων των Κρατών Μελών της Ευρωπαικής Ενωσης σε σχέση με τα

– Μηχανήματα (98/37/EC).
  Πρότυπο που χρησιμοποιήθηκε: EN ISO 12100.
– Ηλεκτρομαγνητική συμβατότητα (89/336/EEC).
  Πρότυπα που χρησιμοποιήθηκαν: EN 61000-6-2 και EN 61000-6-3.
– Ηλεκτρικές συσκευές σχεδιασμένες γιά χρήση εντός ορισμένων ορίων ηλεκτρικής τάσης (73/23/EEC) [95].
  Πρότυπα που χρησιμοποιήθηκαν: EN 60335-1: 1994 και EN 60335-2-41: 1997.

(S) Försäkran om överensstämmelse

Vi **Grundfos** försäkrar under ansvar, att produkterna **DW**, som omfattas av denna försäkran, är i överensstämmelse med Rådets Direktiv om inbördes närmande till EU-medlemsstaternas lagstiftning, avseende

– Maskinell utrustning (98/37/EC).
  Använd standard: EN ISO 12100.
– Elektromagnetisk kompatibilitet (89/336/EC).
  Använda standarder: EN 61000-6-2 och EN 61000-6-3.
– Elektrisk material avsedd för användning inom vissa spänningsgränser (73/23/EC) [95].
  Använda standarder: EN 60335-1: 1994 och EN 60335-2-41: 1997.

(DK) Overensstemmelseserklæring

Vi **Grundfos** erklærer under ansvar, at produkterne **DW**, som denne erklæring omhandler, er i overensstemmelse med Rådets direktiver om indbyrdes tilnærmelse til EF medlemsstaternes lovgivning om

– Maskiner (98/37/EF).
  Anvendt standard: EN ISO 12100.
– Elektromagnetisk kompatibilitet (89/336/EØF).
  Anvendte standarder: EN 61000-6-2 og EN 61000-6-3.
– Elektrisk materiel bestemt til anvendelse inden for visse spændingsgrænser (73/23/EØF) [95].
  Anvendte standarder: EN 60335-1: 1994 og EN 60335-2-41: 1997.

(D) Konformitätserklärung

Wir **Grundfos** erklären in alleiniger Verantwortung, dass die Produkte **DW**, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-Mitgliedstaaten übereinstimmen

– Maschinen (98/37/EG).
  Norm, die verwendet wurde: EN ISO 12100.
– Elektromagnetische Verträglichkeit (89/336/EWG).
  Normen, die verwendet wurden: EN 61000-6-2 und EN 61000-6-3.
– Elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen (73/23/EWG) [95].
  Normen, die verwendet wurden: EN 60335-1: 1994 und EN 60335-2-41: 1997.

(I) Dichiarazione di Conformità

Noi **Grundfos** dichiariamo sotto la nostra esclusiva responsabilità che i prodotti **DW** ai quali questa dichiarazione se riferisce sono conformi alle Direttive del Consiglio concernente il ravvicinamento delle legislazioni degli Stati membri CE relative a

– Macchine (98/37/CE).
  Standard usato: EN ISO 12100.
– Compatibilità elettromagnetica (89/336/CEE).
  Standard usati: EN 61000-6-2 e EN 61000-6-3.
– Materiale elettrico destinato ad essere utilizzato entro certi limiti di tensione (73/23/CEE) [95].
  Standard usati: EN 60335-1: 1994 e EN 60335-2-41: 1997.

(P) Declaração de Conformidade

Nós **Grundfos** declaramos sob nossa única responsabilidade que os produtos **DW** aos quais se refere esta declaração estão em conformidade com as Directivas do Conselho das Comunidades Europeias relativas à aproximação das legislações dos Estados Membros respeitantes à

– Máquinas (98/37/CE).
  Norma utilizada: EN ISO 12100.
– Compatibilidade electromagnética (89/336/CEE).
  Normas utilizadas: EN 61000-6-2 e EN 61000-6-3.
– Material eléctrico destinado a ser utilizado dentro de certos limites de tensão (73/23/CEE) [95].
  Normas utilizadas: EN 60335-1: 1994 e EN 60335-2-41: 1997.

(NL) Overeenkomstigheidsverklaring

Wij **Grundfos** verklaren geheel onder eigen verantwoordelijkheid dat de produkten **DW** waarop deze verklaring betrekking heeft in overeenstemming zijn met de Richtlijnen van de Raad inzake de onderlinge aanpassing van de wetgevingen van de Lid-Staten betreffende

– Machines (98/37/EG).
  Norm: EN ISO 12100.
– Elektromagnetische compatibiliteit (89/336/EEG).
  Normen: EN 61000-6-2 en EN 61000-6-3.
– Elektrisch materiaal bestemd voor gebruik binnen bepaalde spanningsgrenzen (73/23/EEG) [95].
  Normen: EN 60335-1: 1994 en EN 60335-2-41: 1997.

(FIN) Vastaavuusvakuutus

Me **Grundfos** vakuutamme yksin vastuullisesti, että tuotteet **DW**, jota tämä vakuutus koskee, noudattavat direktiivejä jotka käsittelevät EY:n jäsenvaltioiden koneellisia laitteita koskevien lakien yhdenmukaisuutta seur.:

– Koneet (98/37/EY).
  Käytetty standardi: EN ISO 12100.
– Elektromagneettinen vastaavuus (89/336/EY).
  Käytetyt standardit: EN 61000-6-2 ja EN 61000-6-3.
– Määrättyjen jänniterajoitusten puitteissa käytettävät sähköiset laitteet (73/23/EY) [95].
  Käytetyt standardit: EN 60335-1: 1994 ja EN 60335-2-41: 1997.

(PL) Deklaracja zgodności

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

– maszyny (98/37/EG),
  zastosowana norma: EN ISO 12100.
– zgodność elektromagnetyczna (89/336/EWG),
  zastosowane normy: EN 61000-6-2 i EN 61000-6-3.
– wyposażenie elektryczne do stosowania w określonym zakresie napięć (73/23/EWG) [95],
  zastosowane normy: EN 60335-1: 1994 i EN 60335-2-41: 1997.

(RU) Свидетельство о соответствии требованиям

Мы, фирма **Grundfos**, со всей ответственностью заявляем, что изделия **DW** к которым и относится данное свидетельство, отвечают требованиям следующих указаний Совета ЕС об унификации законодательных предписаний стран-членов ЕС:

– Машиностроение (98/37/EC).
  Применявшиеся стандарты: Евростандарт EN ISO 12100.
– Электромагнитная совместимость (89/336/ЕЭС).
  Применявшиеся стандарты: Евростандарт EN 61000-6-2 и EN 61000-6-3.
– Электрические машины для эксплуатации в пределах определенного диапазона значений напряжения (73/23/ЕЭС) [95].
  Применявшиеся стандарты: Евростандарт EN 60335-1: 1994 и EN 60335-2-41: 1997.

(H) Konformitási nyilatkozat

Mi, a **Grundfos**, egyedüli felelősséggel kijelentjük, hogy az **DW** termékek, amelyekre jelen nyilatkozat vonatkozik, megfelelnek az Európai Unió tagállamainak jogi irányelveit összehangoló tanács alábbi irányelveinek:

– Gépek (98/37/EK).
  Alkalmazott szabvány: EN ISO 12100.
– Elektromágneses összeférhetőség (89/336/EGK).
  Alkalmazott szabványok: EN 61000-6-2 és EN 61000-6-3.
– Meghatározott feszültség határokon belül használt elektromos eszközök (73/23/EGK) [95].
  Alkalmazott szabványok: EN 60335-1: 1994 és EN 60335-2-41: 1997.

(SI) Izjava o ustreznosti

Mi, **Grundfos**, pod polno odgovornostjo izjavljamo, da so izdelki **DW**, na katere se ta izjava nanaša, v skladu z naslednjimi smernicami Sveta za uskladitev pravnih predpisov držav članic Evropske skupnosti:

– Stroji (98/37/EG).
  Uporabljena norma: EN ISO 12100.
– Elektromagnetna kompatibilnost (89/336/EWG).
  Uporabljeni normi: EN 61000-6-2 in EN 61000-6-3.
– Električna pogonska sredstva za uporabo v določenih napetostnih mejah (73/23/EWG) [95].
  Uporabljeni normi: EN 60335-1: 1994 in EN 60335-2-41: 1997.

(HR) Izjava o usklađenosti

Mi, **Grundfos,** izjavljujemo uz punu odgovornost, da su proizvodi **DW** na koje se ova izjava odnosi, sukladni smjernicama Savjeta za prilagodbu propisa država-članica EZ:

– Strojevi (98/37/EZ).
  Korištena norma: EN ISO 12100.
– Elektromagnetska kompatibilnost (89/336/EEZ).
  Korištene norme: EN 61000-6-2 i EN 61000-6-3.
– Električni pogonski uređaji za korištenje unutar određenih granica napona (73/23/EEZ) [95].
  Korištene norme: EN 60335-1: 1994 i EN 60335-2-41: 1997.

(YU) Izjava o konformitetu

Mi, **Grundfos**, izjavljujemo pod potpunom odgovornošću da su proizvodi **DW** na koje se odnosi ova izjava u saglasnosti sa smernicama i uputstvima Saveta za usaglašavanje pravnih propisa članica Evropske unije:

– mašine (98/37/EG),
  korišćen standard: EN ISO 12100.
– elektromagnetna usaglašenost (89/336/EWG),
  korišćeni standardi: EN 61000-6-2 i EN 61000-6-3.
– električna oprema razvijena za korišćenje unutar određenih naponskih granica: (73/23/EWG) [95],
  korišćeni standardi: EN 60335-1: 1994 i EN 60335-2-41: 1997.

(RO) Declarație de conformitate

Noi, **Grundfos,** declarăm asumându-ne întreaga responsabilitate că produsele **DW** la care se referă această declarație sunt în conformitate cu Directivele Consiliului în ceea ce privește alinierea legislațiilor Statelor Membre ale CE, referitoare la:

– Utilaje (98/37/CE).
  Standard aplicat: EN ISO 12100.
– Compatibilitate electromagnetică (89/336/CEE).
  Standarde aplicate: EN 61000-6-2 şi EN 61000-6-3.
– Echipamente electrice destinate utilizării între limite exacte de tensiune (73/23/CEE) [95].
  Standarde aplicate: EN 60335-1: 1994 şi EN 60335-2-41: 1997.

(CZ) Prohlášení o konformitě

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

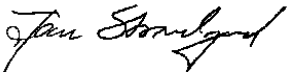
– strojírenství (98/37/EG),
  použitá norma: EN ISO 12100.
– elektromagnetická kompatibilita (89/336/EWG),
  použité normy: EN 61000-6-2 a EN 61000-6-3.
– provozování spotřebičů v toleranci napětí (73/23/EWG) [95],
  použité normy: EN 60335-1: 1994 a EN 60335-2-41: 1997.

(SK) Prehlásenie o konformite

My firma **Grundfos**, na svoju plnú zodpovednosť prehlasujeme, že výrobky **DW**, na ktoré sa toto prehlásenie vzťahuje, sú v súlade s nasledovnými smernicami Rady pro zblíženie právnych predpisov členských zemí Európskej únie:

– Stroje (98/37/EG),
  Použitá norma: EN ISO 12100.
– Elektromagnetická kompatibilita (89/336/EWG),
  Použité normy: EN 61000-6-2 a EN 61000-6-3.
– Elektrické prevádzkové prostriedky, použité v určitom napäťovom rozsahu (73/23/EWG) [95],
  Použité normy: EN 60335-1: 1994 a EN 60335-2-41: 1997.

Bjerringbro, 15th August 2005



Jan Strandgaard
Technical Director

DW

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Before beginning installation procedures, these installation and operating instructions should be studied carefully. The installation and operation should also be in accordance with local regulations and accepted codes of good practice.

1. General description

1.1 Applications

Grundfos DW pumps are designed for pumping:

- water from construction sites,
- water in mining industry,
- groundwater,
- surface water.

The DW pumps can handle all solids that can pass through the suction strainer.

The compact design makes the pumps suitable for both temporary and permanent installation. As the pumps are made of light materials such as composite and aluminium, they are easy to move from one place to another.

1.2 Operating conditions

1.2.1 pH-value

The DW pumps can cope with pH-values ranging from 5 to 8.

1.2.2 Liquid temperature

Liquid temperature: 0°C to +40°C.

1.2.3 Density of pumped liquid

Maximum density of pumped liquid: 1100 kg/m³.

1.2.4 Installation depths

Pump type	Maximum depth
DW.50.08.(A)1/3	5 metres
DW.50.07.(A)1 DW.50.09.(A)3 DW.65.27.(A) DW.65.39.(A)H DW.100.66.(A)H DW.100.39.(A) DW.100.66.(A)	25 metres
DW.100.110.(A)H DW.100.200.(A)H DW.150.110.(A) DW.150.200.(A)	20 metres

1.2.5 Level of pumped liquid

The lowest stop level is the level where the pump starts to suck air.

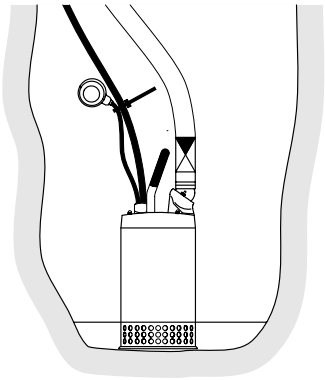
The A models have an integrated level control system. A stands for “Automatic”. This system will stop the pump when the stop level is reached.
Model DW.50.08.A has an external float switch.

1.2.6 Operation

The pumps are designed for continuous operation.

The A models have to be switched over to “C” for continuous operation.
For model DW.50.08.A, the float switch must be tied up, see fig. 1.

Fig. 1



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1.3 Sound pressure level

The sound pressure level of the pump is lower than the limiting values stated in the EC Council Directive 98/37/EEC relating to machinery.

2. Safety

Pump installation in wells must be carried out by specially trained persons.

3. Transportation and storage

The pump may be transported and stored in a vertical or horizontal position. Make sure that it cannot roll or fall over.

Always lift the pump by its carrying handle, **never** by the motor cable or the hose/pipe.

For long periods of storage, the pump must be protected against moisture and heat.

After a long period of storage, the pump should be inspected before it is put into operation. Make sure that the impeller can rotate freely. Pay special attention to the shaft seals and the cable entry.

4. Installation

Installation dimensions, see page 164.

Prior to installation, check the oil level in the oil chamber, see section *7. Maintenance and service*.

The DW pumps have pump housing for free-standing installation.

The pump can be installed with a hose/pipe.

In order to facilitate service of the pump, fit a flexible union or coupling to the discharge line for easy separation.

If a hose is used, make sure that the hose does not buckle and that the inside diameter of the hose matches that of the discharge port.

If the pump is installed in muddy conditions or on uneven ground, it is recommended to support the pump on bricks.

Lower the pump into the liquid.

Model A:

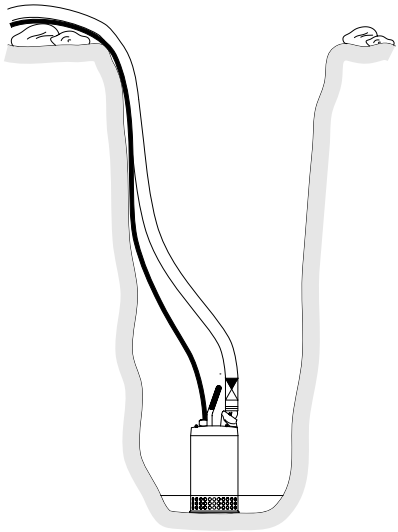
The A models have an integrated level control system.

By means of two electrodes, the level control system measures the water level in the water level compartment. The short electrode starts the pump and the long one stops the pump.

When the pump has drained the pit/sump, the rubber valve, situated next to the electrodes on top of the motor housing, will draw in air to drain the pump.

When the A models are used for automatic operation in deep pits/sumps, a non-return valve must be mounted immediately after the discharge port to prevent backflow and thus intermittent operation when the pit/sump has been drained. See fig. 2.

Fig. 2



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5. Electrical connection

The electrical connection of the pump should be carried out in accordance with local regulations.

The operating voltage and frequency are marked on the nameplate. Voltage tolerance: ±10% of the voltage stated on the nameplate. Make sure that the motor is suitable for the electricity supply available at the installation site.

5.1 Motor protection

All Grundfos DW pumps have a thermal switch built into the stator windings.

All **single-phase** Grundfos DW pumps are supplied with an operating capacitor.
For capacitor sizes, see the table below:

Pump type	Operating capacitor
	[µF]
DW.50.07.1	16
DW.50.08.1	16

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6. Start-up

When the electrical connection has been carried out, the pump is ready for operation.

Submerge the pump into the liquid to be pumped and and start it.

The valve for the level control system will automatically vent the pump. Therefore, there will be no problems with air in the pump.

6.1 Direction of rotation

All **single-phase** pumps are factory-set to the correct direction of rotation.

Before starting up **three-phase** pumps, check the direction of rotation. The direction of rotation should be clockwise.

When starting up, the pump will jerk in the opposite direction to the direction of rotation (the arrow on the top cover indicates the direction of the jerk). If the direction of rotation is wrong, interchange two of the three phases of the electricity supply.

7. Maintenance and service

Before starting work on the pump, make sure that the electricity supply has been switched off and that it cannot be accidentally switched on. Furthermore, all rotating parts must have stopped moving.

Before carrying out maintenance and service, make sure that the pump has been thoroughly flushed with clean water. Rinse the pump parts in water after dismantling.

When unscrewing the inspection screw of the oil chamber, please note that pressure may have built up in the chamber. Do not remove the screw until the pressure has been fully relieved.

Pumps running normal operation should be inspected at least once a year. If the pumped liquid is very muddy or sandy, inspect the pump at shorter intervals.

When the pump is new or after replacement of the shaft seals, check the oil level after one week of operation.

For long and trouble-free operation of the pump the following points should be checked regularly:

- **Power consumption**
- **Oil level and oil condition**
  The oil becomes greyish white like milk if it contains water. This may be the result of a defective shaft seal. The oil should be replaced after 3000 hours of operation (DW.50.08, 1000 hours). Use Shell Ondina 934.
  Note: Used oil must be disposed of in accordance with local regulations.
  The following table states how much oil the DW pumps must have in the oil chamber:

Pump type	Voltage	Quantity of oil [l]
Single-phase		
DW.50.07.1	1 x 230 V	0.25
DW.50.07.A1	1 x 230 V	0.25
DW.50.08.1	1 x 230 V	*
DW.50.08.A1	1 x 230 V	*
Three-phase		
DW.50.08.3	3 x 400 V	*
DW.50.08.A3	3 x 400 V	*
DW.50.09.3	3 x 400 V	0.25
DW.50.09.A3	3 x 400 V	0.25
DW.65.27	3 x 400 V	0.3
DW.65.27.A	3 x 400 V	0.3
DW.65.39	3 x 400 V	0.3
DW.65.39.A	3 x 400 V	0.3
DW.100.66.H	3 x 400 V	0.3
DW.100.66.AH	3 x 400 V	0.3
DW.100.39	3 x 400 V	0.3
DW.100.39.A	3 x 400 V	0.3
DW.100.66	3 x 400 V	0.3
DW.100.66.A	3 x 400 V	0.3
DW.100.110.H	3 x 400 V	2.3
DW.100.110.AH	3 x 400 V	2.3
DW.150.110	3 x 400 V	2.3
DW.150.110.A	3 x 400 V	2.3
DW.100.200.H	3 x 400 V	2.3
DW.100.200.AH	3 x 400 V	2.3
DW.150.200	3 x 400 V	2.3
DW.150.200.A	3 x 400 V	2.3

* Filled with grease (Klüber Synteso Proba 330).

- **Cable entry**
  Make sure that the cable entry is watertight and that the cables are not bent sharply and/or pinched.
- **Pump parts**
  Check the impeller, pump housing, diffuser, impeller disc etc. for possible wear. Replace defective parts.
- **Ball bearings**
  Check the shaft for noisy or heavy operation (turn the shaft by hand). Replace defective ball bearings.
  A general overhaul of the pump is usually required in case of defective ball bearings or poor motor function. This work must be carried out by the manufacturer or a competent workshop.

7.1 Contaminated pumps

Note: If a pump has been used for a liquid which is injurious to health or toxic, the pump will be classified as contaminated.

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

Possible costs of returning the pump are paid by the customer.

However, any application for service (no matter to whom it may be made) must include details about the pumped liquid if the pump has been used for liquids which are injurious to health or toxic.

8. Fault finding chart

Make sure that all power supplies have been switched off and that all rotating parts have stopped moving before attempting to diagnose any fault.

Fault	Cause	Remedy
1. Motor does not start. Fuses blow or motor starter trips out immediately. **Caution:** Do not start again!	a) Supply failure; short-circuit; earth-leakage fault in cable or motor winding.	Have the cable and motor checked and repaired by a qualified electrician.
	b) Fuses blow due to use of wrong type of fuse.	Install fuses of the correct type.
	c) Impeller blocked by impurities.	Clean the impeller.
	d) The electrodes are dirty or defective.	Clean or replace the electrodes.
2. Pump operates, but motor starter trips out after a short while.	a) Low setting of thermal relay in motor starter.	Set the relay in accordance with the specifications on the nameplate.
	b) Increased current consumption due to large voltage drop.	Measure the voltage between motor phases. Tolerance: ±10%.
	c) Impeller blocked by impurities. Increased current consumption in all three phases.	Clean the impeller.
	d) For pumps running automatic operation, the non-return valve may be defective.	Replace the non-return valve
3. Pump operates at below-standard performance and power consumption.	a) Impeller blocked by impurities.	Clean the impeller.
	b) Wrong direction of rotation.	Check the direction of rotation and possibly interchange two phases, see section *6.1 Direction of rotation*.
	c) The electrodes are dirty or defective.	Clean or replace the electrodes.
4. Pump operates, but gives no liquid.	a) The electrodes are dirty or defective.	Clean or replace the electrodes.

GB

9. Service kits

9.1 Shaft seal with O-rings

Pos.	Description	Pump type					
					DW.65.39H		
		DW.50.09			DW.100.39	DW.100.110H	DW.100.200H
		DW.50.07	DW. 50.08	DW.65.27	DW.100.66H	DW.150.110	DW.150.200
Kit no.		**96005279**	**96005278**	**96005280**	**96005281**	**96005276**	**96005277**
16	O-ring	1		1	1		
31	Fibre ring	3		3	3	3	3
32	O-ring	1		1	1	1	1
34	O-ring	3		5	5	4	4
35	O-ring	1		1	1	1	1
37	Shaft seal	1	1	1	1	1	1
39	O-ring			1	1	1	1
40	Seal ring					1	1
45	Fibre ring	3		3	3	5	5
49	O-ring	2	1	1	2	1	2
50	O-ring						1
51	O-ring		2			1	2
55	O-ring	1	1	1	1	1	1
57	O-ring		1				
61	O-ring					1	1
66	O-ring	1		1	1	1	1
76	Rubber bush			1	1	2	2
78	O-ring	2		2	2	2	2
83	O-ring	2		2	2	2	2
103	Shaft seal					1	1
108	Rubber bush	1	1			1	1
114	Fibre ring	1		1	1		
146	Rubber bush		1				
150	V-ring		1				
152	O-ring		1				
167	O-ring					2	2

9.2 Cable with cable entry

Pos.	Description	Pump type					
		Three-phase	**Single-phase**			**3 x 400 V**	
							DW.150.110
				DW.65.27			DW.100.200H
		DW.50.08	DW.50.07	DW.65.39H		DW.100.110H	DW.100.110H
		DW.50.09	DW.50.08	DW.100.39	DW.100.66H	DW.150.110	DW.150.200
Kit no.		**96459668**	**96005269**	**96005270**	**96005271**	**96005272**	**96005273**
75	Washer			2	1	1	1
76	Rubber bush			1	1	1	1
77	Washer				1	1	1
80	Cable entry			1	1	1	1
81	Screw			2	2	2	1
82	Clamp			1	1	1	1
85	Motor cable	1	1	1	1	1	1
107	Washer	1	1				
108	Rubber bush	1	1				
109	Cable entry unit	1	1				
110	Cable sleeve	1	1				

9.3 Impeller kit

Pos.	Description	Pump type					
		DW.50.07	DW.50.08	DW.50.09	DW.65.27	DW.65.39	DW.100.39
Kit no.		**96006808**	**96006817**	**96006809**	**96006810**	**96006811**	**96006812**
18	Impeller	1	1	1	1	1	1
19	Diffuser	1	1	1	1	1	1
21	Split cone	1		1	1	1	1
28	Impeller disc	1	1	1	1	1	1

Pos.	Description	Pump type					
		DW. 100.66	DW. 100.66.H	DW. 100.110H	DW. 100.200.H	DW. 150.110	DW. 150.200
		DW. 100.66.A	DW. 100.66.AH	DW. 100.110.AH	DW. 100.200.AH	DW. 150.110A	DW. 150.200A
Kit no.		**96006813**	**96006814**	**96005274**	**96005275**	**96006815**	**96006816**
8	Inlet part						1
13	Diffuser		1	1	1		
17	Split cone			1	1		
18	Impeller	1	2	2	2	1	1
19	Diffuser	1	1	1	1	1	1
21	Split cone			1	1	1	1
22	Impeller disc			1	1		
25	Seal ring				1		
28	Impeller disc	1	1	1	1	1	1

9.4 Valve kit

Pos.	Description	Pump type		
			DW.65.27	DW.100.110
			DW.65.39	DW.100.200
		DW.50.07	DW.100.39	DW.150.110
		DW.50.09	DW.100.66	DW.150.200
Kit no.		**96006810**	**96006811**	**96006812**
71	Valve guide			1
72	Valve rubber	1	1	1
78	O-ring	2	2	2
79	Valve body	1	1	1
86	Valve cap	1	1	1
87	Protective cap			1
88	Screw			1

9.5 Electrode kit

Pos.	Description	Pump type
		DW.50.07
		DW.50.09
		DW.65
		DW.100
		DW.150
Kit no.		**96005243**
35	O-ring	1
66	O-ring	1
67	Electrode unit	1
68	Rubber cap	1

10. Disposal

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

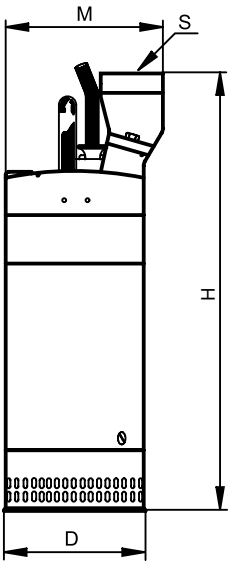
1. Use the local public or private waste collection service.
2. In case such waste collection service does not exist or cannot handle the materials used in the product, please deliver the product or any hazardous materials from it to your nearest Grundfos company or service workshop.

Subject to alterations.

Dimensions

Pump type	H [mm]	D [mm]	M [mm]	S [mm] / [inch]
Single-phase				
DW.50.07.1	395	210	212	50 / R 2
DW.50.07.A1	395	210	212	50 / R 2
Three-phase				
DW.50.09.3	365	210	212	50 / R 2
DW.50.09.A3	365	210	212	50 / R 2
DW.65.27	525	246	250	65 / R 2½
DW.65.27.A	525	246	250	65 / R 2½
DW.65.39	590	246	275	65 / R 2½
DW.65.39.A	590	246	275	65 / R 2½
DW.100.66.H	710	246	275	100 / R 4
DW.100.66.AH	710	246	275	100 / R 4
DW.100.39	590	246	275	100 / R 4
DW.100.39.A	590	246	275	100 / R 4
DW.100.66	710	246	275	100 / R 4
DW.100.66.A	710	246	275	100 / R 4
DW.100.110.H	820	360	410	100 / R 4
DW.100.110.AH	820	360	410	100 / R 4
DW.150.110	820	360	410	150 / R 6
DW.150.110.A	820	360	410	150 / R 6
DW.100.200.H	1000	360	410	100 / R 4
DW.100.200.AH	1000	360	410	100 / R 4
DW.150.200	1000	360	410	150 / R 6
DW.150.200.A	1000	360	410	150 / R 6
Pump type	**H [mm]**	**D [mm]**	**M [mm]**	**S [mm] / [inch]**
DW.50.08.1	432	200	200	50 / R 2
DW.50.08.A1	432	200	200	50 / R 2
DW.50.08.3	432	200	200	50 / R 2
DW.50.08.A3	432	200	200	50 / R 2

Dimensional sketch



TM01 3347 3998

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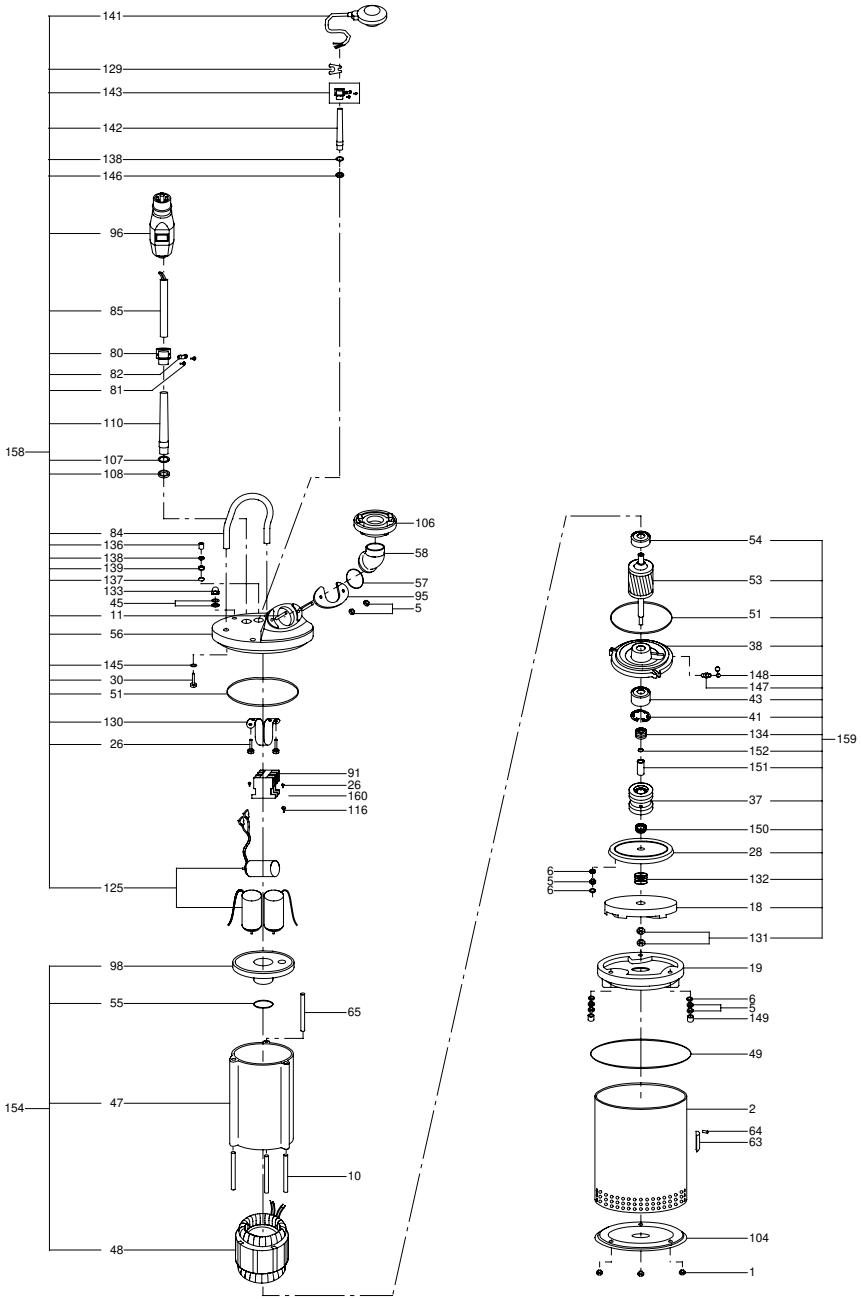
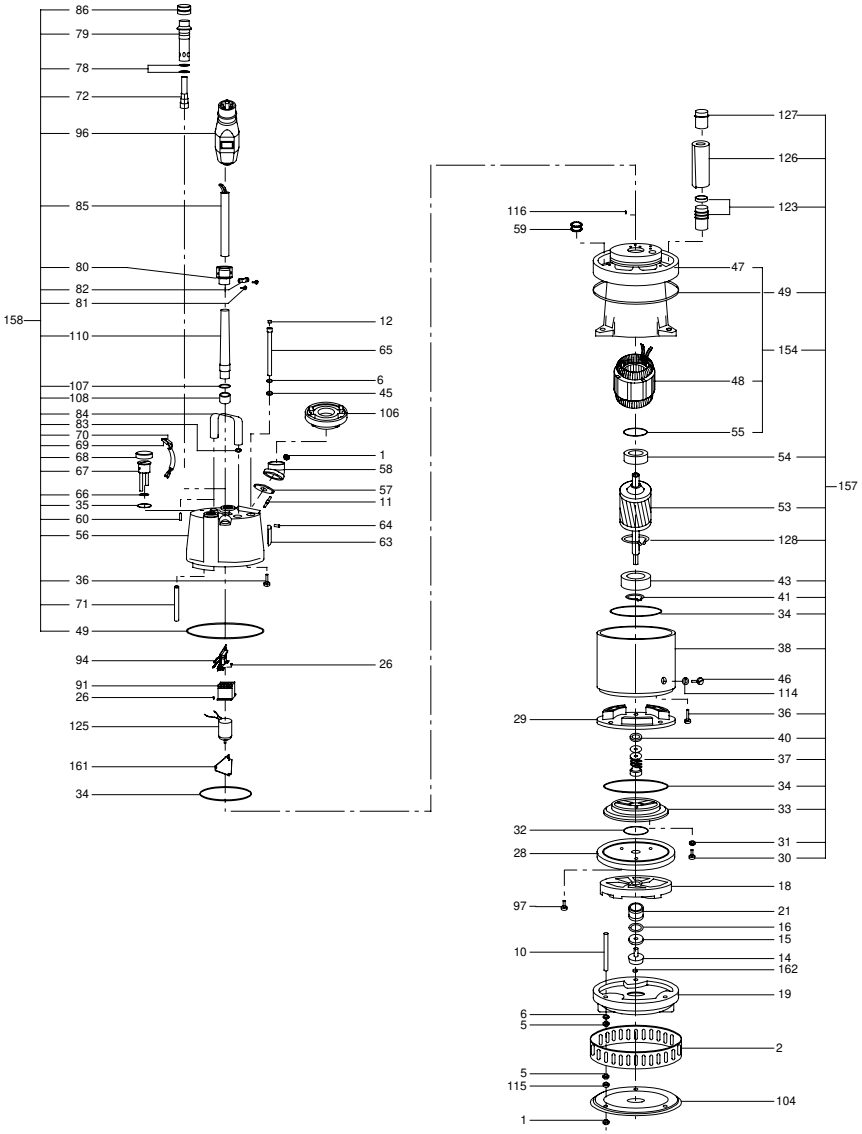


TM02 1861 2501

DW.50.07/09



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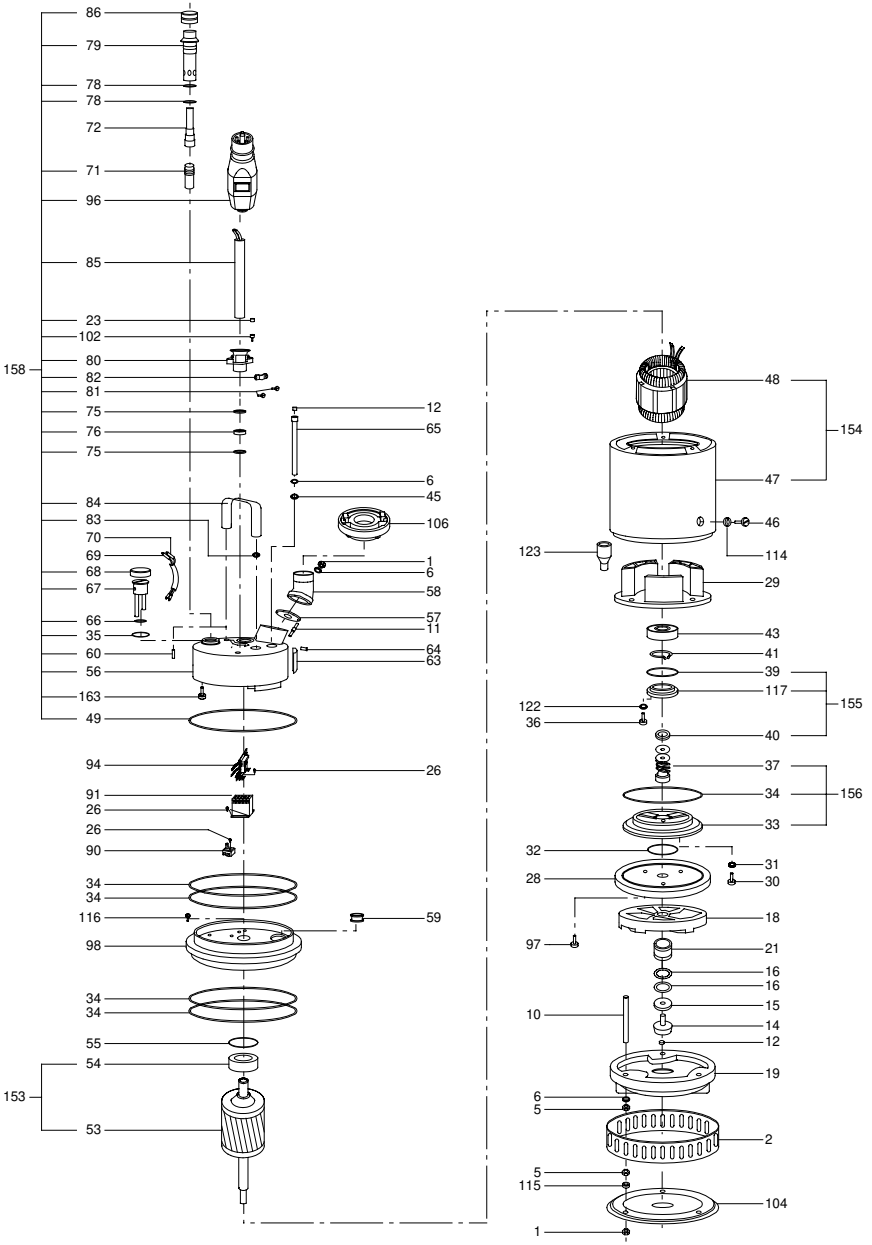

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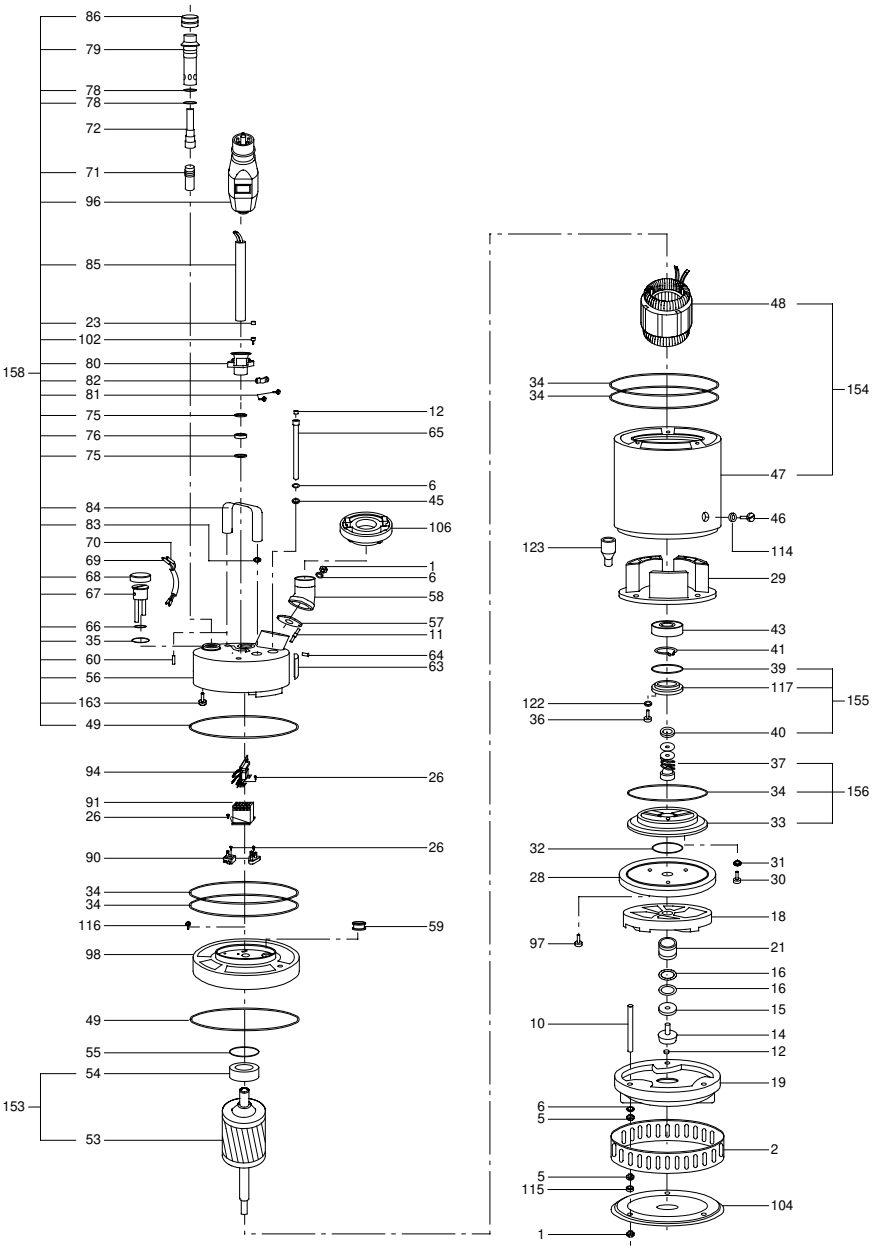

TM01 4540 2201

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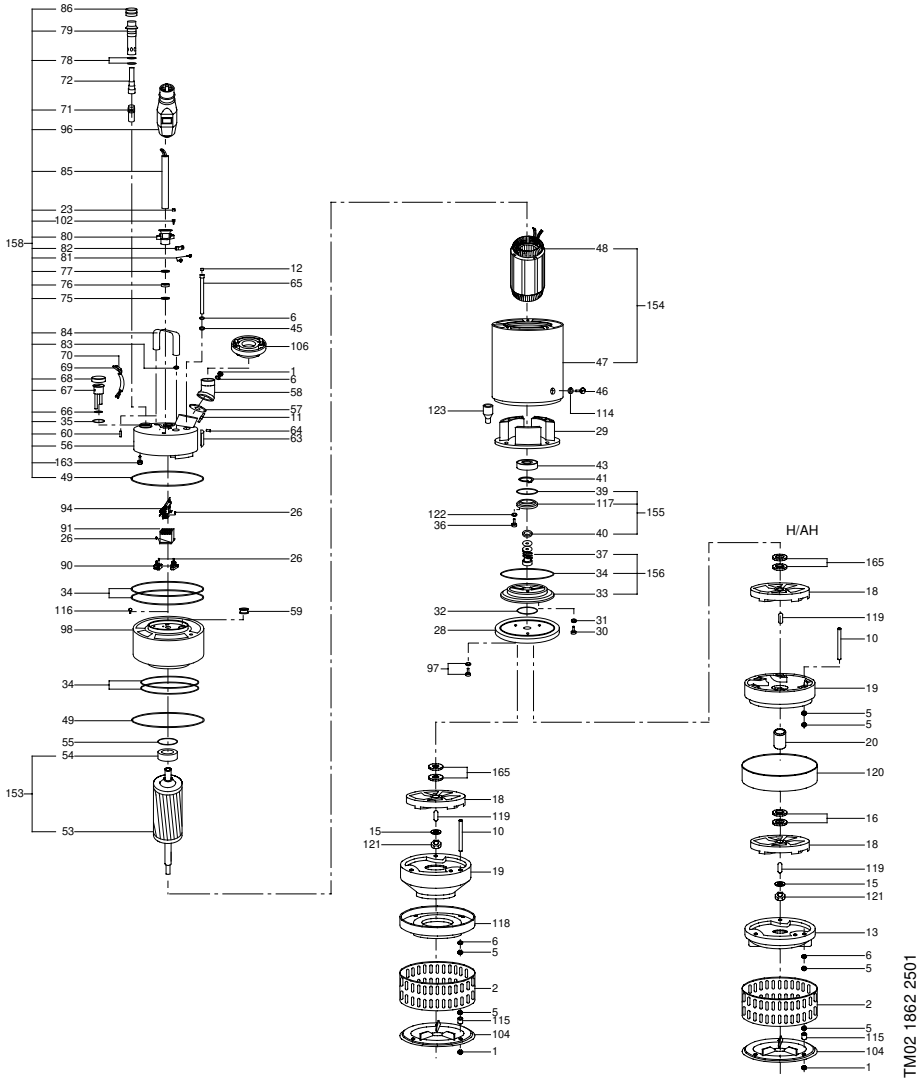

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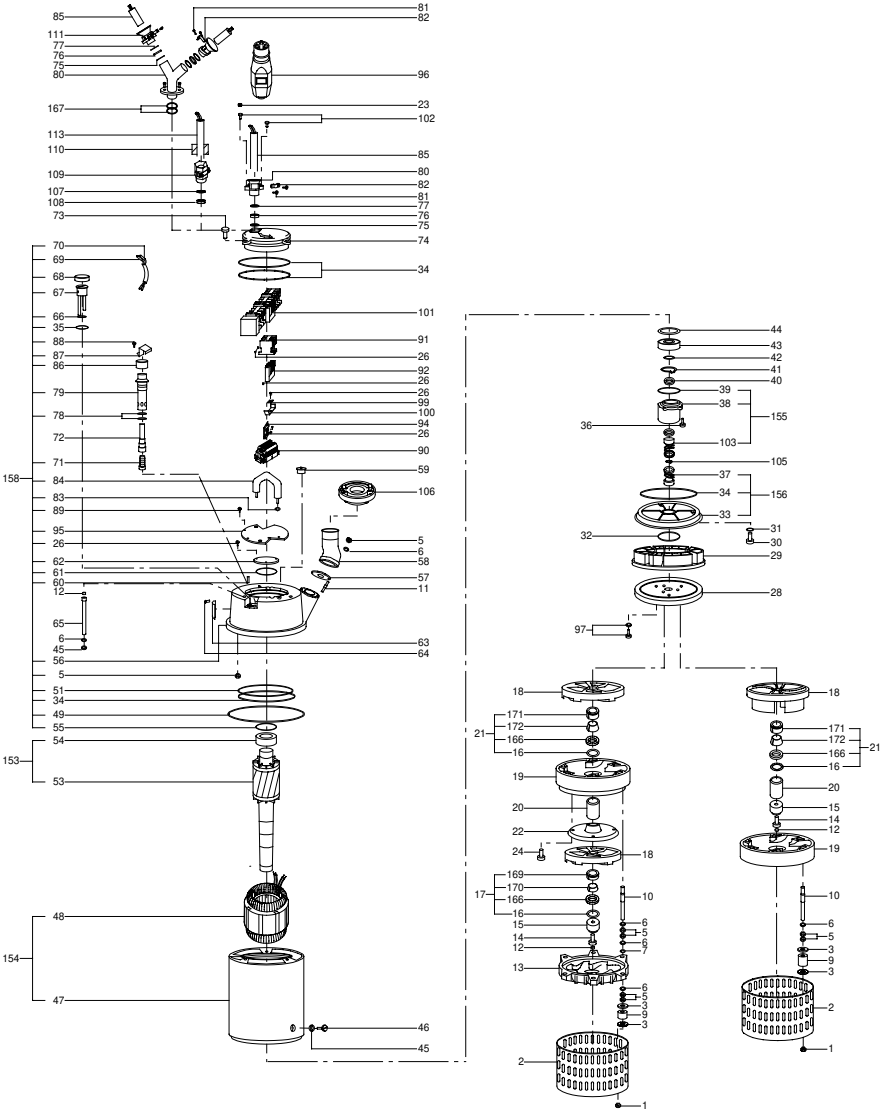

TM01 4538 2201

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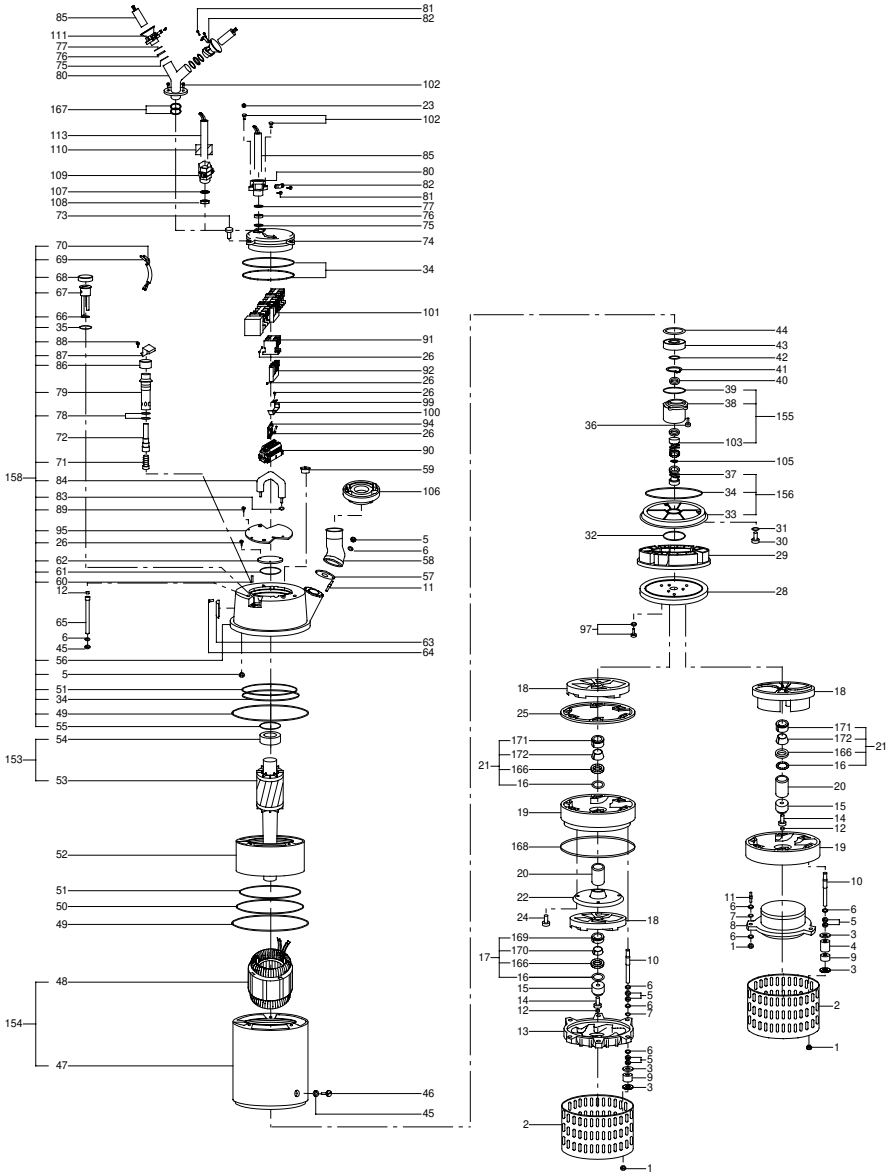

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