

# **GRUNDFOS SCALA1 Fully Integrated Compact Self Priming Pressure Booster Instructions**

Home » GRUNDFOS » GRUNDFOS SCALA1 Fully Integrated Compact Self Priming Pressure Booster Instructions

## **Contents**

- 1 GRUNDFOS SCALA1 Fully Integrated Compact Self Priming Pressure Booster
- 2 Safety instructions and other important information
- 3 Pumped liquids
- 4 Mechanical installation
- **5 Electrical connection**
- 6 Setting up external input
- 7 Setting SCALA1 twin booster system
- 8 Service
  - 8.1 Starting up after standstill
  - 8.2 Taking the product out of operation
  - 8.3 Fault finding
  - 8.4 Operating conditions
  - 8.5 Declaration of conformity
- 9 Documents / Resources
  - 9.1 References
- 10 Related Posts



**GRUNDFOS SCALA1 Fully Integrated Compact Self Priming Pressure Booster** 



# Safety instructions and other important information

## **General information**

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Read this document before you install the product. Installation and operation must comply with local regulations and accepted codes of good practice.

# **Pumped liquids**

# **DANGER Explosion risk**

Do not use the product for flammable liquids such as diesel oil, petrol or similar liquids. The product must only be used for water.

## **WARNING Electric shock**

- Do not use the product for aggressive liquids. The product must only be used for water.
- · Toxic material Death or serious personal injury
- Do not use the product for toxic liquids. The product must only be used for water.

## **Mechanical installation**

Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.

#### **WARNING**

- **Electric shock** Mount the product horizontally to avoid condensation in the electrical insulation inside the control box.
- Chemical hazard: Before the pump is used for supplying drinking water, flush the pump thoroughly with clean

water.

• **Biological hazard:** Before the pump is used for supplying drinking water, flush the pump thoroughly with clean water.

## **Electrical connection**

# Setting up external input Setting SCALA1 twin booster system

## **WARNING Electric shock**

- Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.
- The protective earth (PE) of the power outlet must be connected to the protective earth of the pump. The plug must have the same
- PE connection system as the power outlet.
- All electrical connections must be carried out by qualified persons in accordance with local regulations.
- If the power cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or a similarly qualified person.

## Connecting products with a plug

#### **WARNING**

Make sure that the power plug delivered with the product is in compliance with local regulations. The plug must have the same protective earth (PE) connection system as the power outlet. If not, use a suitable adapter if allowed by local regulations.

# Connecting products without a plug

#### WARNING

- Power cables without a plug must be connected to a supply disconnecting device incorporated in the fixed wiring according to the local wiring rules.
- The protective earth (PE) of the power outlet must be connected to the protective earth of the pump. The plug must have the same PE connection system as the power outlet.

## Setting up external input

Setting SCALA1 twin booster system

#### **WARNING**

- Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.
- The protective earth (PE) of the power outlet must be connected to the protective earth of the pump. The plug must have the same PE connection system as the power outlet.



- All electrical connections must be carried out by qualified persons in accordance with local regulations.
- If the power cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or a similarly qualified person.

## Setting SCALA1 twin booster system

## Setting up external input

Setting SCALA1 twin booster system

## **WARNING**

- Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.
- The protective earth (PE) of the power outlet must be connected to the protective earth of the pump. The plug must have the same PE connection system as the power outlet.



- All electrical connections must be carried out by qualified persons in accordance with local regulations.
- If the power cable is damaged, it must be replaced by the manufacturer, the manufacturer's service partner or a similarly qualified person.

## **Service**

## **WARNING**

- **Electric shock:** Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.
- Chemical hazard: Make sure that the product has only been used for water. If the product has been used for pumping aggressive liquids, flush the system with clean water before you start work on the product.
- **Biological hazard:** Make sure that the product has only been used for water. If the product has been used for pumping aggressive liquids, flush the system with clean water before you start work on the product.
- **Pressurized system:** Before dismantling the pump, drain the system or close the isolating valves on both sides of the pump. Slowly loosen the drain plug and unpressurize the system.

## **CAUTION**

## Impurities in the water

Minor or moderate personal injury

- Before the pump is used for supplying drinking water, flush the pump thoroughly with clean water.
- · Use spare parts approved by Grundfos.
- Only qualified persons are allowed to service the pump.

# Starting up after standstill

## **WARNING**

**Electric shock:** Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.

Check that the product is intact and not cracked. Especially if the product was not drained before standstill or was exposed to frost.

## **CAUTION**

Impurities in the water
Minor or moderate personal injury

• Before the pump is used for supplying drinking water, flush the pump thoroughly with clean water.

## Deblocking the pump

## **WARNING**

**Electric shock:** Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.

Moving parts: Make sure that the product cannot start unexpectedly while deblocking the pump shaft.

## Taking the product out of operation

## **WARNING**

**Electric shock:** Switch off the power supply before you start any work on the product. Make sure that the power supply cannot be switched on accidentally.

# Fault finding

## **CAUTION**

Hot surface: Do not run the pump continuously with a closed inlet or outlet valve.

**Hot or cold liquid:** Make sure that escaping hot or cold liquid does not cause injury to persons or damage to the equipment.

# **Operating conditions**

## SCALA1

3-25		3-35	3-45	5-25	5-55
Max. ambient temperature	55 °C				
(131 °F)		(131 °F)	(131 °F)	(131 °F)	(131 °F)
Max. liquid temperature	45 °C				
(113 °F)		(113 °F)	(113 °F)	(113 °F)	(113 °F)
Maximum system pressure	8 (116)	8 (116)	8 (116)	8 (116)	8 (116)
Maximum inlet pressure [bar	5 (72.5)	4 (58)	3 (43.5)	5 (72.5)	2 (29)
Max. head [m (ft)] 50 Hz	25 (82)	36 (118.1)	44 (144.3)	26 (85.3)	52 (170.6)
Max. head [m (ft)] 60 Hz	25 (82)	35 (114.8)	51 (167.3)	27 (85.3)	53 (173.8)
Nominal head [m (ft)]	15 (49.2)	20 (65.6)	25 (82)	15 (49.2)	25 (82)
Nominal flow [m3/h (gpm)]	3.00 (12.19)	3.72 (16.38)	3.59 (15.80)	4.80 (21.12)	5.33 (23.48)
IP Rating	X4D	X4D	X4D	X4D	X4D
Pumped liquid	Clean water				
Noise level [db(A)]	< 55	< 55	< 55	< 55	< 55
Frequency of starts and stops	25 per hour				
Start pressure (pstart) [bar	1.2 (17.4)	1.5 (21.8)	2.2 (31.9)	1.2 (17.4)	2.8 (40.6)

# Disposing of the product

The crossed-out wheelie bin symbol on a product means that it must be disposed of separately from household waste. When a product marked with this symbol reaches its end of life, take it to a collection point designated by

the local waste disposal authorities.

The separate collection and recycling of such products will help protect the environment and human health.

## Disposing of hazardous or toxic materials

#### **WARNING**

## **Chemical hazard**

- Observe the material safety data sheet of the dosing medium.
- Wear protective clothing when working on the dosing head, connections or lines.
- Rinse the parts that have been in contact with the dosing medium.
- Collect and dispose of all chemicals in a way that is not harmful to persons or the environment.

# **Declaration of conformity**

We, Grundfos, declare under our sole responsibility that the product SCALA1, SCALA1 TWIN, SCALA1-SYSTEM, to which the declaration below relates, is in conformity with the Council Directives listed below on the approximation of the laws of the EC/EU member states.

## Radio Equipment Directive (2014/53/EU). Standards used:

**EN 60335-1:** 2012/A11:2014 + A12:2017 + A13:2017

EN 60335-2-41:2003 + A1:2004 + A2:2010

EN 62479:2010 EN 301 489-1 V2.2.0 EN 301 489-17 V2.2.1 EN 300 328 V2.1.1

RoHS Directives (2011/65/EU and 2015/863/EU). Standards used:

EN IEC 63000:2018

This EC/EU declaration of conformity is only valid when published as part of the Grundfos safety instructions (publication number 99742086).

Bjerringbro, 09 February 2021

Steen Tøffner-Clausen Head of PD DBS Grundfos Holding A/S Poul Due Jensens Vej 7 8850 Bjerringbro, Denmark

Person authorised to compile technical file and empowered to sign the EC/EU declaration of conformity.

## **Declaration of conformity**

We, Grundfos, declare under our sole responsibility that the products to which the declaration below relates, are in conformity with UK regulations, standards and specifications to which conformity is declared, as listed below:

Valid for products: SCALA1, SCALA1 TWIN, SCALA1 SYSTEM

- Electrical Equipment (Safety) Regulations 2016 Standards used: EN 61439-1:2011, EN 61439-2:2011
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Standards used: EN IEC 63000:2018

This UK declaration of conformity is only valid when accompanying Grundfos instructions.

UK Importer: Grundfos Pumps ltd. Grovebury Road, Leighton Buzzard, LU7 4TL.

Bjerringbro, 09 February 2021

Steen Tøffner-Clausen
Head of PD DBS
Grundfos Holding A/S
Poul Due Jensens Vej 7
8850 Bjerringbro, Denmark
Manufacturer and person empowered to sign the UK declaration of conformity.
10000252325

U.S.A.

GRUNDFOS Water Utility Headquarters 856 Koomey Road Brookshire, Texas 77423 USA

## http://net.grundfos.com/gr/i/99735772

Trademarks displayed in this material, including but not limited to Grundfos, the Grundfos logo and "be think innovate" are registered trademarks owned by The Grundfos Group. All rights reserved.

#### **Documents / Resources**



<u>GRUNDFOS SCALA1 Fully Integrated Compact Self Priming Pressure Booster</u> [pdf] Instructions

SCALA1, Fully Integrated Compact Self Priming Pressure Booster, SCALA1 Fully Integrated Compact Self Priming Pressure Booster, Integrated Compact Self Priming Pressure Booster, Compact Self Priming Pressure Booster, Self Priming Pressure Booster, Booster

#### References

- ★ QR Documents | Grundfos
- Slovak (Slovakia) | The full range supplier of pumps and pump solutions. As a renowned pump manufacturer, Grundfos delivers efficient, reliable, and sustainable solutions all over the globe. Step into our world.
- O Bosnian (Bosnia) | The full range supplier of pumps and pump solutions
- Dansk (Danmark) | Den komplette leverandør af pumper og pumpeløsninger. Som en berømt pumpeproducent leverer Grundfos effektive, pålidelige og bæredygtige løsninger over hele kloden. Gå ind i vores verden.

