# Installation and operating instructions JUDO PROFI-PLUS

Backwash protective filter 3/4" - 2"

Valid for: EU countries and Switzerland

Language: English

#### Attention:

Carefully read through the installation and operating instructions and safety information before installing and putting the unit into service.

These instructions must always be issued to the owner/user.

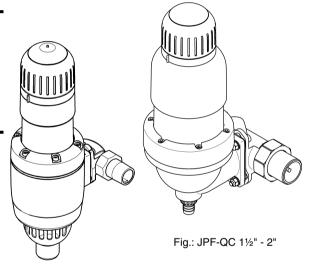


Fig.: JPF+ 34" - 114"







#### Inquiries, orders, customer support

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#### Address

JUDO Wasseraufbereitung GmbH Hohreuschstraße 39 - 41 71364 Winnenden Germany Dear customer,

we would like to thank you for your confidence in us, which you have shown by purchasing this device. The product you have purchased is a filter developed using state of the art technology.

This filter is suitable for use in cold drinking water up to a maximum ambient temperature of 30 °C (86 °F).

It removes coarse and fine-grained particles larger or equal in size to the filter screen (strainer) mesh from the water through screen filtration.

Particles smaller than the screen mesh size used, turbidities (i.e. substances that make the water turbid) and substances dissolved in the water cannot be filtered out of the water.

Each unit is thoroughly checked before delivery. Should difficulties nevertheless occur, please contact the responsible customer service. See back page.

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#### **EC Conformity Declaration**

Document no. 148/10.17

Manufacturer: JUDO Wasseraufbereitung GmbH

Address: Hohreuschstr. 39 - 41

D-71364 Winnenden

Product description: Backwash protective filter

JUDO PROFI-PLUS 34" - 114"

EC Directive: Electromagnetic compatibility (EMC)
 2014/30/EU

 Harmonized Electromagnetic compatibility, generic standards for Standards: radiated interference and interference immunity EN 61000-6-3

The observance of all points of the EMC requirements (EC conformity) for the use of the device in household / commercial areas and industrial areas is hereby confirmed.

Harmonized Safety of power transformers, power supply units
 EN 60950-1

Standard: and similar

 EC Directive: Restriction of the use of certain hazardous substan-2011/65/EU

ces in electrical and electronic equipment (RoHS)

Issuer: JUDO Wasseraufbereitung GmbH

Place and date: Winnenden, 10th October, 2017

Legally binding signature:

JUDO Wasseraufbereitung GmbH

This declaration certifies that the product is in accordance with all the stated directives; it is however not an assurance of its characteristics.

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#### 1. About this instruction manual



### **ATTENTION**



(see chapter "Safety information dangers due to non-compliance")

The instruction manual must permanently be available at the place where the filter is installed

This instruction manual is intended to make it easier to familiarize vourself with the filter and its possible intended uses.

The instruction manual contains important information in order to safely, properly and economically run the filter.

It contains fundamental information, which must be observed during installation, operation and maintenance. Observance of this information helps to avoid dangers, reduce repair costs and increase the reliability and service life of the filter.

The instruction manual must be read and used by each person entrusted with carrying out work on the filter, for example:

- Installation
- Operation
- Maintenance

(servicing, inspection, repair)

Installation and maintenance may only be carried out by personnel authorized by the manufacturer, who are capable of fulfilling the instructions given in the installation and operating instructions and the countryspecific regulations.

Apart from the instruction manual and the legally binding accident prevention provisions applicable in the country and place of use, the recognized technical regulations for safe and proper work must also be observed.

Therefore, this instruction manual must always be read by the fitter and responsible skilled personnel/owner or operator before installation, putting into service and maintenance.

Not only the general safety notes given in the chapter "Intended use" are to be observed, but also the special safety notes in the other main chapters.

#### 1.1 Symbols used

The safety notes contained in this instruction manual are labelled with the following symbols:



ATTENTION Notes on existing dangers



Warning, electrical voltage.



Torques specified by the manufacturer.



Tips for use and other information.

Notes directly attached to the filter, e.g.

- Direction of flow (see fig.1)
- Rating plate
- Cleaning information

must always be observed and kept in a fully legible condition.

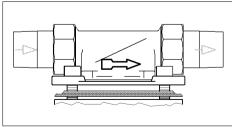


Fig. 1: Built-in rotary flange

### 1.2 Safety information and dangers due to non-compliance

In detail, failure to observe the general danger symbols can result, for example, in the following risks:

- Failure of important functions of the filter.
- Danger to persons due to electrical and mechanical effects.
- Danger to persons and the environment due to leaks.

Refrain from any unsafe working methods.

Failure to comply with this instruction manual and the safety information can not only result in dangers for people but can also harm the environment and the unit.

#### 1.3 Units used

In derogation of the International System of Units SI (Système International d'Unités), the following units are used:

Units	Conversion
°F	°F = 9/5 °C + 32
bar	1 bar = $10^5$ Pa = 0,1 N/mm <sup>2</sup>
3/4"	DN 20
1"	DN 25
11/4"	DN 32
1½"	DN 40
2"	DN 50

#### 2. Intended use

The installation and operation of the filter is subject to the following existing national regulations.

In addition to the operating instructions and the obliging regulations concerning accident prevention that exist in the country of operation and the location of use, the established technical regulations concerning safe and professional work, should also be observed.

## The water which is to be treated should fulfil the requirements stipulated by European drinking water directives!

It is absolutely essential that the manufacturer/supplier will be consulted prior to any operation of the device using water of a different quality, respectively with water that contains additives.

This filter is suitable for use in cold drinking water up to a maximum ambient temperature of 30 °C (86 °F).

The filter has been developed and manufactured using state of the art technology and the safety regulations generally accepted in Germany.

The filter may only be operated in accordance with the manufacturer's specifications. Any other operation or operation beyond the specified use, is not in accordance with the manufacturer's specifications.

Additional dangers exist in case of nonintended use and where the danger symbols and safety information are not observed. The manufacturer/supplier are not liable for any losses or damage resulting from such use. The risk is borne solely by the user.

The use of the device in accordance with the customer's specifications includes the observance of the operating instructions.

The manufacturer/supplier should be consulted prior to any operation of the filter other than in the operational areas stated in these operating instructions.

The filter may only be operated in a technically faultless condition, in accordance with the manufacturer's specifications and the stated safety and danger relevant instructions and under observance of the operating instructions!

Any functional defects are to be removed immediately!

#### 2.1 Water pressure



The water pressure must not exceed 16 bar inlet pressure. At mains pressures above 16 bar (even temporarily) the device must not be installed!

The water pressure must not drop below 1.5 bar as otherwise the backwashing can be impaired!



With an operating pressure of more than 10 bar, increased wear must be expected.

#### 2.2 Notes on special dangers

### 2.2.1 Electrical devices / installations



There must not be any electrical cables and devices underneath or in the immediate vicinity of the filter!

Electrical devices/installations that are not splash-water proof and are situated in the direct vicinity of the filter may be damaged by water leaking from the filter caused as a result of the device not being operated in accordance with the manufacturer's specifications. In addition this may also result in short circuits if these electrical devices/ installations being connected to the electrical power supply. In the event of such cases persons are at risk and may sustain electrical shocks. Therefore any electrical devices/installations situated in the direct vicinity should be splash-water proof or comply with the statutory requirements for wet areas

#### 3. Product information

#### 3.1 Intended purpose

This filter is suitable for use in cold drinking water up to a water temperature of maximum 30 °C (86 °F).



### **ATTENTION**

(see chapter "Safety information and dangers due to non-compliance")

Please refer to the chapter on "Intended use" for use restrictions.

This filter removes coarse and fine-grained particles from the water which are larger than or equal in size to the mesh size of the filter.



Particles smaller than the supplied mesh size and impurities causing turbidity cannot be filtered out of the water.

#### 3.2 Test marks

#### **DIN-DVGW mark**



Fig. 2: Test marks

The units conform to the technical regulations for drinking water installations in accordance with DIN EN 806 ff. and the national annex DIN 1988 ff. and DIN EN 1717. They are tested by the DVGW (Deutsche Vereinigung des Gas- und Wasserfaches e.V. technical–scientific association for the gas and water industries) in accordance with the requirements of DIN EN 13443-1 and DIN 19628 pressure stage PN 16 for mechanical filters for use in drinking water and are entitled to bear the DIN-DVGW mark.

#### 3.3 Materials used

The materials used are resistant to the physical, chemical, and corrosive loads to be expected in the drinking water and fulfil the requirements specified in DIN EN 13443-1 and DIN 19628 ("Mechanical filters in drinking water installations"). All materials are hygienically and physiologically safe. Plastics fulfil the KTW guideline of the German Federal Environmental Agency as well as the DVGW working sheet W 270. Metallic materials fulfil the requirements of DIN 50930-6 (Impact on the drinking water quality).

#### 4. Installation

#### 4.1 General



#### ATTENTION /



(see chapter "Safety information and dangers due to non-compliance")

The unit may only be installed by skilled personnel.

The chapter "Intended use" must always be observed!

The pipes must be able to safely support the filter.

Otherwise mechanical damage or fractures/ bursts can occur in the pipes. This can result in major water damage. People close to the filter are exposed to a health risk due to the large quantities of water released. Therefore, if necessary, the pipes must be additionally fixed or supported.

For convenient operation and maintenance it is absolutely necessary to ensure the given spacings.

A space of at least 100 mm above the filter and 200 mm below the filter should be maintained. These distances are necessary to be able to properly carry out the backwashing (see chapter "Backwashing water discharge options").

### 4.1.1 Requirements for the place of installation

The room where the unit is installed must be dry and frost free!

Unauthorised persons must not have access to the filter!



#### ATTENTION A



(see chapter "Safety information and dangers due to non-compliance")

- The ambient temperature must not exceed 30 °C (86 °F)! At higher temperatures or direct sun radiation the material can be damaged and the filter hood can even break.
- In order to be able to safely discharge the wastewater in operation and in case of any defects that occur in the system, precise compliance with the details given in the chapter "Installation" is necessary! If the wastewater (backwashing) cannot be safely and completely discharged, the house and installations can be damaged by water.
- A shut-off valve must be installed upstream of the filter! This enables the water supply to the filter to be interrupted during installation, servicing/maintenance, repairs and in case of malfunctions. Floods and serious water damage to house installations can therefore be avoided.
- The unit can be installed in all standard drinking water pipes.
- It is not permitted to install the Backwash protective filter upstream of the water meter!



The shipping carton can be slipped over the built-in filter to prevent damage, for instance at construction sites.

#### 4.1.2 Installed position



(see chapter "Safety information and dangers due to non-compliance")

Always install the filter in a vertical position  $(\pm 5^{\circ})!$ 

Failure to observe this can cause uncontrolled backwashing water to escape and can result in damage caused by water.

### 4.1.3 Mounting the built-in rotary flanges

Install using the supplied built-in rotary flange. The built-in rotary flange is used as a connecting element between the pipe and the filter.

It is suitable for both horizontal and vertical pipes.

The built-in rotary flange must be installed in the direction of flow. This is marked by a cast in arrow (see fig. 4).

Failure to comply with this means the filter cannot work.



### ATTENTION !

(see chapter "Safety information and dangers due to non-compliance")

The flange surface of the built-in rotary flange must be in a vertical position! The built-in rotary flange must be fitted so that mechanical stresses cannot occur! Otherwise mechanical damage can result, the pipe may burst or the built-in rotary flange can break. This can result in major water damage.

In this case, people close to the filter are exposed to a health risk due to the large quantities of water.

Therefore, during installation, ensure that no large forces act on the pipe, built-in rotary flange and filter.

### 4.1.4 Installing the Backwash protective filter

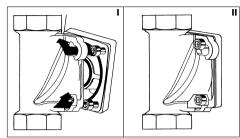


Fig. 3: Built-in rotary flange with bayonet fixture

The built-in rotary flange for the filter is supplied with bayonet drill holes. The necessary seals and screws for this filter have already been mounted.

#### Do not unscrew the screws!

- Insert the four flange screws in the bayonet drill holes on the built-in rotary flange (see fig. 3 I).
- Turn the filter in a clockwise direction as far as it will go (see fig. 3 II).
- Tighten the four flange screws.



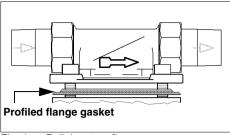
Select the torque (approx. 4 Nm) so that the gasket closes and the filter is not damaged or strained!



### ATTENTION !

(see chapter "Safety information and dangers due to non-compliance")

The section of the profiled flange gasket must point towards the built-in rotary flange. Failure to observe this can lead to leaks and water escaping. This can in turn cause water damage to the house and its installations (see fig. 4).



Built-in rotary flange Fig. 4:

#### Discharging the 4.2 backwashing water



### ATTENTION



(see chapter "Safety information and dangers due to non-compliance")

For the backwashing water a wastewater connection (for example a floor drainage) in accordance with DIN 1986 must be in place. If there is no wastewater connection, an appropriately sized bucket can be used.

The dimensioning depends on the local circumstances (e.g. wastewater pipe gradient, number of pipe bends, length of the wastewater pipe, etc.). The dimensioning must at least allow all the wastewater to be discharged at the same time. If it is not possible to provide a wastewater connection directly beneath the filter, the flushing water can be fed several metres to the next wastewater connection, either through a hose or a pipe to be fitted to the flushing water valve. This pipe must have the same dimension as the flushing water valve.

In all options, a free discharge must be ensured in accordance with DIN FN 1717

The following points must be noted if a bucket is used for backwashing:

- If the mains pressure is high, water can splash out of the bucket. In this case. damage to property close to the Backwash protective filter is possible.
- When the bucket is half-filled the backwashing process must be stopped. Otherwise it is possible for the bucket to overflow. Therefore the bucket must be adequately dimensioned and the backwashing should be carried out quickly.

#### 4.2.1 Backwashing water discharge options

JPF-QC 11/2" - 2" JPF+ 34" - 114" 100 mm -> 100 mm > 100 mm > 100 mm > 200 mm > 200 mm min.10 l > 40 mm 20 mm > 40 mm

Fig. 5: Backwashing water discharge options

#### 5. Operation



(see chapter "Safety information and dangers due to non-compliance")

Imperatively observe the chapter "Intended use"!

#### 5.1 Commissioning

Before starting up (initial putting into service or startup after maintenance work), **fill** the Backwash protective filter with water and **vent!** 

- To this end, after installation the filter station is filled with water by opening the upstream shut-off valve.
- The filter is now at the same pressure as the water system.
- The enclosed air must then be immediately removed from the filter station in order to avoid damage to the installation caused by pressure surges. The filter station is vented by means of backwashing (see chapter "Backwashing").
- After backwashing and venting the filter station is ready for use.

#### Backwash reminder alarm (only JPF<sup>+</sup> ¾" - 1¼"):

A backwash reminder alarm is accommodated in the lid of the handwheel. It uses a beep to remind every two months that the filter needs to be backwashed.

#### Activation:

- Lift the lid of the handwheel.
- Insert the two included batteries in the battery compartment. Use 1.5 V Micro batteries.
- · Replace the handwheel lid.
- You can test the functionality by pressing the RESET-key in the lid of the handwheel.

#### 5.2 Functional description

Water (a) flows through the built-in rotary flange (10) into the Backwash protective filter.

A coarse Backwash protective filter (9) prevents large dirt particles from getting into the fine filter (12). The water flows through the fine filter (12) from the outside inwards.

The filtered dirt is retained by the fine filter screen (12). The adhering dirt is visible through the transparent filter hood (6). The filtered water (b) then leaves the Backwash protective filter via the built-in rotary flange (10).

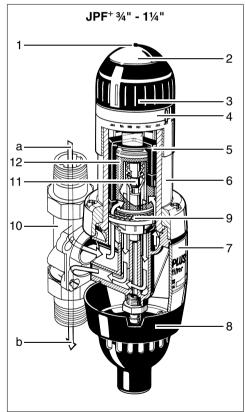


Fig. 6: Functional description

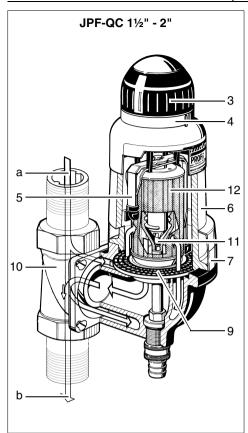


Fig. 6: Functional description

- 1 RESET key
- 2 Handwheel lid with backwash reminder alarm and battery compartment
- 3 Handwheel for backwashing
- 4 Adjusting ring for the next backwash date
- 5 Suction pipe
- 6 Transparent filter hood
- 7 Cover
- 8 Filter funnel
- 9 Coarse filter
- 10 Built-in rotary flange
- 11 Flushing valve
- 12 Fine filter
- a Water inlet
- **b** Filtered water

#### 5.3 Backwashing

The filter must be backwashed (= cleaned) at the specified cycles in order to remove the filtered dirt from the fine filter screen (12).

The backwash reminder alarm is accommodated in the lid of the handwheel (2) of the JPF<sup>+</sup> ¾" - 1¼". It uses a beep to remind every two months that the filter must be backwashed. Press the RESET-key (1) (keep pressed for at least 3 seconds) in the lid of the handwheel (2) to switch off the beep and to restart the two-month time interval.



All filter sizes are backwashed with treated water. The treated water supply within the domestic installation is maintained throughout the backwashing performance. During the backwashing any wastewater can't get into the pure water side.

The backwash process uses a patented point-rotation system with simultaneous cleaning of the inside of the filter hood:

Turn the handwheel (3) counterclockwise to rotate the suction nozzles in a helical movement around the fine filter screen (12). They progress upwards with each revolution until the entire sieve cloth has been sucked up one time. That is reached when the handwheel (3) has been turned to its limit. At the same time, the flushing valve (11) on the bottom of the filter opens and the backwash water can exit. During this, pure water flows from the interior to the outside through the sieve surface in the suction nozzle, pulling along the adhering particles.

After reaching the upper limit stop, turn the handwheel (3) clockwise to re-close the flushing valve (11). The sieve cloth in the fine filter (12) is then sucked through the suction nozzle a second time. During this step, the suction nozzle does not only clean the sieve cloth in the fine filter (12) but also the transparent filter hood (6) using a rubber lip on its exterior side.



The degree of pollution as well as the cleaning off operation can be watched from outside.



(see chapter "Safety information and dangers due to non-compliance")

The closing operation must be carried out until the lower limit stop, until no backwash water exits any more!

If the closing operation is interrupted before reaching the lower limit stop, the closing valve is not completely closed. The result is that water permanently leaks. Along with high water consumption, this can lead to water damage, especially if the backwash water is not drained off as described in the chapter "Discharging the backwashing water".

Backwashing may be repeated if required.

#### 5.3.1 Backwashing interval

The Backwash protective filter must be backwashed:

- Every two months at the latest.
- If the water pressure falls.
- If the Backwash protective filter is visibly dirty.



(see chapter "Safety information and dangers due to non-compliance")

An interval greater than two months until the next backwashing can lead to a contamination of the filter. That can result in a significant reduction in the water quality.

Unauthorised persons must not operate the filter! Persons who operate the filter must observe the operating instructions. Failure to observe these instructions can result in damage to property and personal injuries.

The smaller the mesh size of the screen insert the more frequently backwashing has to be effected!

Experience shows that increased dirt is deposited during the initial running period. If so, the unit has to be flushed more often than usual.

Failure to flush in good time can cause damage to the screen. Larger quantities of filtered particles can deform the screen and as an extreme incident cause the tearing of the sieve. As a result a filter function is not any longer ensured. In addition, larger quantities of dirt can cause mechanical impairment concerning the backwashing function.

### 5.3.2 Backwash reminder alarm (only JPF+ 3/4" - 11/4")

The backwash reminder alarm in the handwheel reminds to backwash every 2 months. You can also mark the next backwash date using the adjusting ring under the handwheel

Push the RESET-key to stop the beeping.
 This also restarts the 2-month time interval. Be sure to replace exhausted batteries in time. The beep is only considered an additional reminder for backwashing. Independent of that, the backwashing needs to be carried out every two months.

### 5.4 Modifications / Changes / Spare parts



(see chapter "Safety information and dangers due to non-compliance")

Only original spare parts are to be used!

Arbitrary modifications and changes are prohibited for safety reasons! They can impair the function of the filter, lead to leaks and as an extreme incident they can lead to the bursting of the filter.

The imprinted test marks are only valid if original spare parts are used.

#### 5.4.1 Servicing / Repair

Before carrying out any work on the filter, that is beyond pure operation induced control, the filter has to be depressurised! Failure to observe this can lead to an uncontrolled escape of water and therefore lead to water damages in the building. Strictly comply with the instructions given in the "Installation" and "Maintenance" chapters.

#### 5.5 Stoppages



(see chapter "Safety information and dangers due to non-compliance")

If a filter has to be removed from the flange or unscrewed, the chapter "Intended use" has imperatively to be observed!

- Protect the flange surfaces from damage! Damaged flanged surfaces cannot close tight any longer. As a result, escaping water can damage the building and installations.
- Ensure that no dirt can get into the filter!
   Upon recommissioning this dirt can get into contact with the drinking water and be discharged into the drinking water.
   The health of people consuming polluted water is at risk.

- Store the filter in frost-free conditions! The water contained in the hollows of the filter can freeze due to frost and thus the filter can be mechanically damaged to a degree that it will become untight at operating pressure or that it can burst. Leaking water can cause major material-damages to the building. In addition, people near the filter can be injured by blistering filter parts.
- When recommissioning the filter, same course of action as applied to the new filter

#### 6. Faults

The opening of the units and the replacement of the water pressure charged parts may only be effected by authorized personal in order the ensure the unit security and its tightness.

#### Help with faults:

Fault	Cause	Remedy	
Backwashing water continues running.	Flushing valve not fully closed.	Repeat the backwashing and then turn the handwheel until	
	Dirt in the flushing valve.	it locks into place!	
Water flow rate falls.	Screen is blocked.	Carry out backwashing!	
Leaks in the Backwash protective filter.		Inform the fitter or nearest customer service centre! (The	
Filter cover becomes turbid.	Filter has been exposed to	filter cover must be replaced immediately!)	
Hairline cracks on the filter hood.	high temperatures or solvents.		
Backwash reminder beeps. (only JPF <sup>+</sup> ¾" - 1¼")	Backwashing is due.	Carry out backwashing! Keep the RESET-key pressed for at least 3 seconds!	
The backwash reminder does not beep when the RE-SET-key is pressed. (only JPF+ 3/4" - 11/4")	The battery is used up.	Replace the batteries with new ones! Return used bat- teries to the collection cen- tres!	

#### 7. Maintenance



### **ATTENTION**

(see chapter "Safety information and dangers due to non-compliance")

Always observe the chapter "Intended use"!

#### 7.1 Cleaning



### **ATTENTION**



(see chapter "Safety information dangers due to non-compliance")

Use only clear, drinking water concerning the cleaning of the housing and the transparent filter hood.

Domestic all-purpose cleaners and glass cleaners can contain up to 25 % solvents or alcohol (spirits).

These substances can chemically attack the plastic parts, which can lead to brittleness right up to [brittle] fractures.

These kinds of cleaners must therefore not be used.

#### 7.2 Checking the backwash reminder alarm (only JPF+ 34" - 114")

Check the backwash reminder alarm as follows:

Press the RESET-key for at least 3 seconds.

If a beep sounds, the backwash reminder alarm is functioning and the batteries still have sufficient capacity. This battery test does not have any influence on the twomonth interval

If no beep sounds, the batteries have to be replaced with fresh batteries.

#### Replacing the batteries:

- Lift the lid of the handwheel.
- Replace the batteries located in the battery compartment with new, identical batteries (size AAA).
- Replace the handwheel lid.
- Press the RESET-key in the lid of the handwheel for at least 3 seconds. The two-month time interval is restarted.
- Used batteries are to be returned to a distributor or to one of the returning facilities established to this purpose by the public recycling entities.



#### **ATTENTION**



(see chapter "Safety information and dangers due to non-compliance")

To make sure the total interval of twomonths is not exceeded, backwash the filter after replacing the batteries.

#### 8. Warranty and services

In order to comply with the legal warranty claim, it is necessary that backwashing takes place according to the existing operating conditions (see chapter 5.3.1). DIN EN 13443-1 specifies that backwashing must take place at least every six months. However, JUDO recommends to carry out backwashing every two months!

In order to achieve an operation success also after the putting into service and over many years, regular inspection and routine servicing of the unit are indispensable. In the domestic engineering field it is regulated in accordance with the DIN standards [DIN EN 806-5].

A servicing agreement is the best way to ensure a good operating function beyond the warranty period.

Wherever possible, the regular servicing work and supply with consumables and wearing materials, etc. should be carried out by the specialist trade or the factory's customer service department.

#### 9. Data sheet

#### **9.1** Type

JUDO PROFI-PLUS Backwash protective filter

Abbreviated name: JPF+

#### 9.2 Models

Model	Order no.
JPF <sup>+</sup> ¾"	8010072
JPF <sup>+</sup> 1"	8010073
JPF <sup>+</sup> 1¼"	8010074
JPF-QC 1½"	8107012
JPF-QC 2"	8107013

#### 9.3 Special designs

Non-silver coated special mesh sizes

The filters come factory equipped with a silver-plated stainless-steel sieve with a mesh size of 0.1 mm.

If desired, non-silver coated mesh sizes of 0.03 mm, 0.32 mm and 0.5 mm are available for technical and industrial use.

Filters with special mesh sizes are not subject to tests according to DIN 19632 and for this reason are not allowed to bear the DVGW mark.



(see chapter "Safety information and dangers due to non-compliance")

A mesh size smaller than 0.1 mm causes smaller particles to also be filtered out of the water. That means that the filter can become contaminated faster. The backwash intervals should be shortened in such cases. Carry out backwashing latest when the filter is visibly soiled or the water pressure drops.

#### 9.4 Technical data

The following applies for all the models of the device:

- Nominal flow rate after backwashing at a pressure loss of 0.2 (0.5) bar as given in the table
- Maximum ambient temperature and water temperature: 30 °C (86 °F)
- The water to be filtered must conform to the European Drinking Water Regulations!
- Threaded connection to DIN EN 10226-1

#### Nominal pressure

Model		Nominal pressure	
JPF <sup>+</sup> ¾" - 1¼" JPF-QC 1½" - 2"	1.5 - 16 bar	PN 16	

Model	Weight	Nominal flow rate after backwashing at a pressure loss of 0.2 (0.5) bar and clean sieve	Back-flush volume stream
JPF <sup>+</sup> ¾"	2.6 kg	4.1 (6.7) m³/h	0.2 - 0.4 l/s
JPF <sup>+</sup> 1"	2,7 kg	4.7 (7.6) m³/h	0.2 - 0.4 l/s
JPF <sup>+</sup> 1¼"	3,3 kg	5.3 (8.5) m³/h	0.2 - 0.4 l/s
JPF-QC 1½"	9.0 kg	13.0 (18.0) m³/h	0.3 - 0.8 l/s
JPF-QC 2"	10.2 kg	16.0 (22.0) m³/h	0.3 - 0.8 l/s

The backwashing volumetric flow given applies to 2 - 3 bar mains pressure and for a completely opened flushing water valve.

### 9.5 Installation dimensions JPF<sup>+</sup> 3/4" - 11/4"

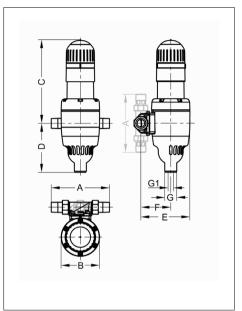


Fig. 7: Installation dimensions JPF+ 3/4" - 11/4"

### 9.6 Installation dimensions JPF-QC 1½" - 2"

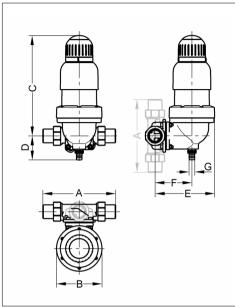


Fig. 8: Installation dimensions JPF-QC 1½" - 2"

Model	Α	В	С	D	E	F	G	G1
JPF <sup>+</sup> ¾"	180	130	280	165	165	100	40	14
JPF <sup>+</sup> 1"	195	130	280	165	165	100	40	14
JPF <sup>+</sup> 1¼"	230	130	280	165	170	105	40	14
JPF-QC 1½"	252	158	348	84	207	128	20	-
JPF-QC 2"	280	158	348	84	215	136	20	-

All dimensions in [mm] (see fig. 7 and fig. 8)

A = Installation length

B = Unit width

C = Height above pipe centre

D = Height below pipe centre

E = Depth to pipe centre

F = Waste water connection centre to pipe centre

G = Connection dimension waste water

G1 = Connection dimension waste water (alternative)

#### 9.7 Extent of supply

- Pre-installed Backwash protective filter
- Installation and operating instructions

#### Additionally for JPF+ 3/4" - 11/4":

- Built-in rotary flange JQE ¾", 1" or 1¼" with bayonet and screw connection
- 2 batteries for the backwash reminder alarm (Size AAA)

#### Additionally for JPF-QC 11/2" - 2":

 Built-in rotary flange JQE 1½" or 2" with bayonet fixture and screw connection

#### 9.8 Accessories

#### JPF+ 34" - 114":

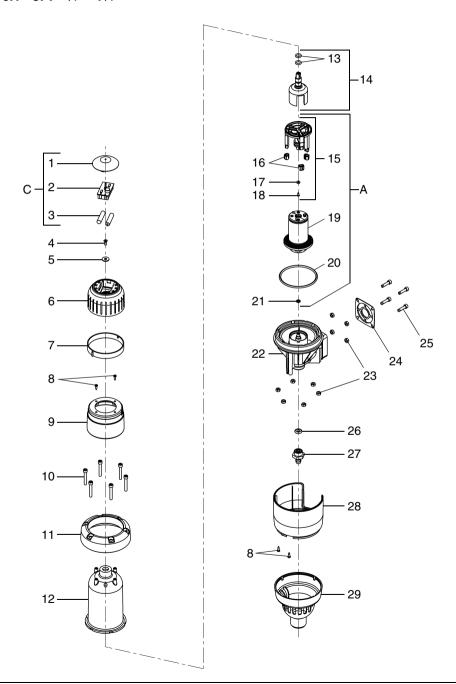
- JUDO expansion quickset JQR (order no. 8250041)
   For the series connection of two devices, e.g. filter and water treatment system.
- JUDO safety block JSB (order no. 8735260)
   For subsequent filter retrofitting to house water stations. Contains a pressure reducer, non-return valve, inlet and outlet pressure manometer.

#### JPF-QC 11/2" - 2":

 JUDO safety block JSB (order no. 8105001)
 For subsequent filter retrofitting to house water stations. Contains a pressure reducer, non-return valve, inlet and outlet pressure manometer.

#### 10. Spare parts

#### 10.1 JPF<sup>+</sup> ¾" - 1¼"



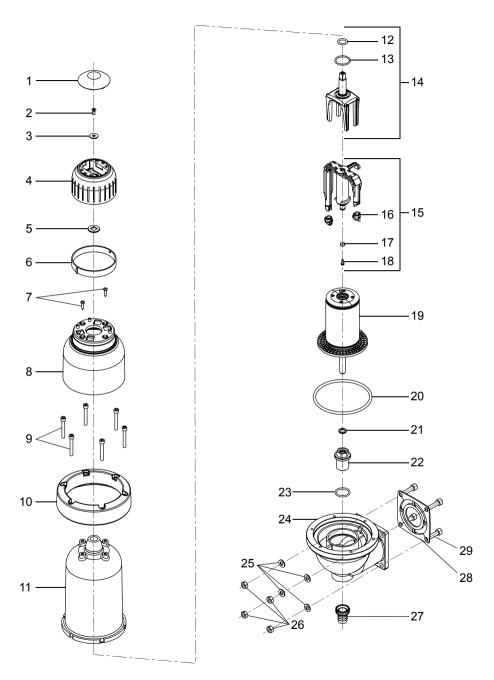
#### List of spare parts JPF+ 3/4" - 11/4"

Item	Designation (Recommended average replacement interval for wearing parts [*])	Piece(s)	Order no.	AU <sup>1)</sup> / Piece
Α	Wearing parts set "Sieve 0.1 mm and suction pipe" ***	1	2020722	166
	(consisting of pos. 15, 19, 20, 21)			
В	Wearing parts set "Gaskets" (consisting of pos. 13, 16, 17, 18, 20, 21, 24, 26)	1	2010335	42
С	Spare parts set "Backwash reminder alarm"	_	0010105	40
	(consisting of pos. 1, 2, 3)	1	2010495	49
1	Lid of handwheel	1		
2	Backwash reminder alarm	1		
3	Battery 1.5 V Size AAA	2		
4	Countersunk screw M5x12	1		
5	Washer A 6.4	1		
6	Memo handwheel	1		
7	Adjusting ring for next backwash date	1		
8	Self-tapping screw 3.5x13	7		
9	Top of housing JPF-PLUS ¾"	1	2010395	41
9	Top of housing JPF-PLUS 1"	1	2010396	41
9	Top of housing JPF-PLUS 11/4"	1	2010397	41
10	Cylinder screw M6x40	6		
11	Flange ring	1	2010382	115
12	Filter hood	1	2010424	149
13	O-ring 10x3	2		
14	Carrier	1	2010146	53
15	Suction pipe, complete	1		
16	Mouthpiece (Nozzle)	3		
17	Suction pipe gasket	1		
18	Pan-head sheet metal screw 2.9x9.5	1		
19	Filter screen 0.1 mm, silver plated	1		
20	O-ring 90x4	1		
21	O-ring 6.3x2.4	1		
22	Filter bottom piece	1		
23	Hexagonal nut M6	10		
24	Profiled flange gasket	1		
25	Cylinder screw M6x25	4	2010199	2
26	O-ring 6.5x6	1		
27	Hose connection	1	1120310	7
28	Cover	1		
29	Filter funnel	1		

<sup>1)</sup> AU = Accounting unit (Items without AU are only available in a set.)

Replacement interval: \*\*\* = 3 years, \*\*\*\* = 4 years

#### 10.2 JPF-QC 1½" - 2"



#### List of spare parts JPF-QC 11/2" - 2"

Item	Designation (Recommended average replacement interval for wearing parts [*])	Piece(s)	Order no.	AU <sup>1)</sup> / Piece
	Wearing parts set "Sieve 0.1 mm and suction pipe" *** (consisting of pos. 12, 13, 15, 19, 20, 21)	1	2020724	280
	Wearing parts set "Gaskets" (consisting of pos. 12, 13, 16, 17, 18, 20, 21, 28)	1	2010337	55
	Wearing parts set "Handwheel" (consisting of pos. 1, 2, 3, 4, 6)	1	2020994	25
1	Lid of handwheel	1		
2	Countersunk screw M5x12	1		
3	Washer A 6.4	1		
4	Handwheel	1		
5	Washer	1	1120137	3
6	Adjusting ring for next backwash date	1		
7	Sheet metal screw 4.2x19	2		
8	Top of housing	1		
9	Cylinder screw M6x45	6	1607417	2
10	Flange ring	1		
11	Filter hood	1	2010422	371
12	O-ring 15x3.2	1		
13	O-ring 28x2.5	1		
14	Carrier	1	2021277	29
15	Suction pipe, complete	1		
16	Mouthpiece (Nozzle)	2		
17	Suction pipe gasket	1		
18	Pan-head sheet metal screw 3,5x13	1		
19	Filter screen 0.1 mm, silver plated	1		
20	O-ring 113.67x5.33	1		
21	O-ring 12x3	1		
22	Connection piece	1	2021288	21
23	O-ring 26x3	1	1607111	8
24	Filter bottom piece	1		
25	Washer A 8.4	4	1607125	1
26	Hexagonal nut M8	4	1607117	2
27	Hose connection	1	1607157	8
28	Profiled flange gasket	1		
29	Cylinder screw M8x30	4	1607116	2

<sup>1)</sup> AU = Accounting unit (Items without AU are only available in a set.)

Replacement interval: \*\*\* = 3 years, \*\*\*\* = 4 years

#### 11. Customer service



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### JUDO PROMI Domestic water unit

Backwashing protective filter with JUDO PROFI-PLUS technology, pressure reducer and backflow preventer.

### and detects leaks. JUDO JULIA

JUDO ZEWA-

WATERSTOP

Central water safety fitting.

event of water pipe bursts

Stops water flow in the

Metering pump for JUL mineral solution against corrosion (brown water) and lime deposits.

#### JUDO BIOSTAT-COMBIMAT

The anti-lime protection and hygiene unit to be used in domestic water installations. Stops lime - without replacing the cartridge - and fights germs.

#### JUDO BIOQUELL-SOFT

Softening unit producing wonderfully soft water, protecting against lime and economising energy.

#### JUDO HEIFI-KOM

Combination of the heating backwashing filter and automatic heating feed station for fulfilment of DIN EN 1717.

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