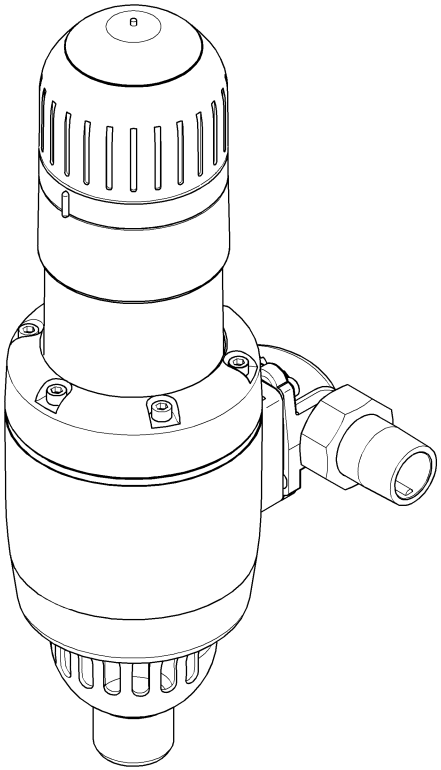
Installation and Operating Instructions
JUDO PROFI-PLUS

Backwash Protective Filter ¾" – 1"

Valid for: UK only

Attention:
Carefully read through the installation and operating instructions and safety information before installing and putting the unit into service.
These must always be issued to the owner/user.



JPF+ ¾" – 1"

Wasser-Aufbereitung

Inquiries, orders, customer support

JUDO UK Limited

The old court House,

Ascot, SL5 7EN

Phone: (44) 700 605 9441

Internet: http://www.judo.uk.com

Dear Customer,
thank you for making JUDO your brand of choice. 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 filter 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.

2007/11

Wasser-Aufbereitung	**EC Conformity Declaration**	Document no. 206/11.07

Manufacturer: JUDO Wasseraufbereitung GmbH

Address: Hohreuschstr. 39 - 41
D-71364 Winnenden

Product Description: **JUDO PROFI-PLUS ¾" - 1"**
Backwash Protective Filter

• EC-Directive:	Electromagnetic Compatibility (EMC)	2004/108/EC
• Engineering Standards:	Electromagnetic Compatibility, Generic Standards for Radiated Interference and Interference Immunity.	EN 61000-6-2 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.

Issuer: JUDO Wasseraufbereitung GmbH

Place and Date: Winnenden, 19 November 2007

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.

Table of Contents

1. About this Instruction Manual

ATTENTION

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

The instruction manual must be permanently available at the place in which the Filter is used.

This instruction manual is intended to make it easier to familiarize yourself 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 country-specific 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 inserted under the other main items.

1.1 Symbols used

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

ATTENTION Notes on existing dangers

Warning, electrical voltage.

Nm Torques specified by the manufacturer.

Tips for use and other information.

Notes directly attached to the Backwash Protective Filter, e.g.

– Direction of flow (see Fig.1)
– Rating plate
– Cleaning information

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

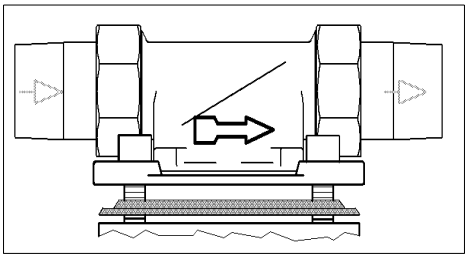


Fig. 1: built-in rotary flange

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 Backwash Protective 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. Improper use or failure to observe the instructions and warnings given in this manual will result in loss of warranty coverage.

1.3 Units used

In derogation of the International System of Units (SI = System International), the following units are used:

Units	Conversion
°F	°F = 9/5 °C + 32
bar	1 bar = 10^5 Pa = 0,1 N/mm²
G	1 G = 4,546 Liters
¾"	25.4 mm
1"	19.05 mm

2. Intended Use

The installation and operation of the Backwash Protective 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 Backwash Protective Filter is suitable for use in cold drinking water up to a maximum ambient temperature of 30 °C (86 °F).

The Backwash Protective Filter has been developed and manufactured using state of the art technology and the established safety regulations in Germany.

The Backwash Protective 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 and will result in a loss of warranty coverage.

Additional dangers may result in the event of the device not being operated in accordance with the manufacturer's specifications and non-observance of the danger symbols or safety instructions. The manufacturer / supplier cannot be made liable for any damages caused by these additional dangers. The operator is responsible for these risks.

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

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

The Backwash Protective 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 should be between 1.5 and 10 bar.

The water pressure must not drop below 1.5 bar as otherwise the backwashing can be impaired! If the filter is not backwashed regularly a pressure loss can result and this can impair the filter function.

ATTENTION

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

In the event of **water pressure above 10 bar**, the pressure reduction valve should be fitted **in front** of the Backwash Protective Filter (see Fig.2). If the operating pressure is above 10 bar, this may result in defects during operation.

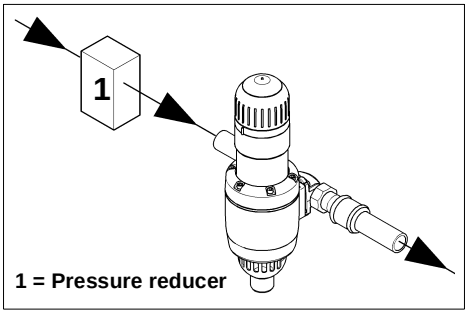


Fig. 2: Pressure reducer upstream of the unit

The installation of a pressure reduction valve is recommended for **water pressures between 5 and 10 bar**.

2.2 Notes on special dangers

2.2.1 Electrical equipment / installations

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

Electrical devices / equipment that are not splash-water proof and are situated in the direct vicinity of the Backwash Protective Filter may be damaged by water leaking from the Backwash Protective Filter caused as a result of the device not being operated in accordance with the manufacturer’s specifications. In addition this may also result short circuits if these electrical devices / equipment are 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 / equipment situated in the direct vicinity should be splash-water proof, respectively comply with the statutory requirements for wet areas (IP44). Please ensure that all safety guidelines connected with electrical work and valid in the country of use are adhered to at all times when working on this unit!

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. 3: Test marks

The units conform to the technical regulations for drinking water installations in accordance with German standards.

3.3 Materials used

The materials used are resistant to the physical, chemical, and corrosive loads to be expected in the drinking water and fulfill the requirements specified by German standards.

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 (see chapter “Discharging the backwashing water”).

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

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

(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 “Installation” chapter 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 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

ATTENTION

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

Always install the filter in a vertical position (± 5°)!
Failure to observe this can cause uncontrolled backwashing water to escape and can result in water damage.

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 horizontal position! The built-in rotary flange must be fitted so that mechanical stresses cannot occur! Otherwise mechanical damage can result in the built-in rotary flange. 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 filter

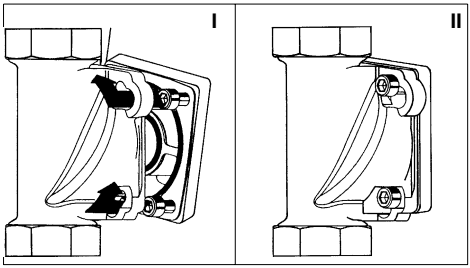


Fig. 4: Built-in rotary flange with Bayonet Fixture

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. 4I).

– Turn the filter in a clockwise direction as far as it will go (see Fig. 4II).

– Tighten the four flange screws.

Nm

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. 5). Please ensure that all regulations and guidlines connected with plumbing & safety in the workplace and valid in the country of use are adhered to at all times when working on this unit!

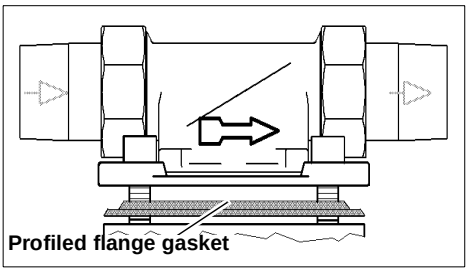


Fig. 5: Built-in rotary flange

4.2 Examples for installing the water treatment devices

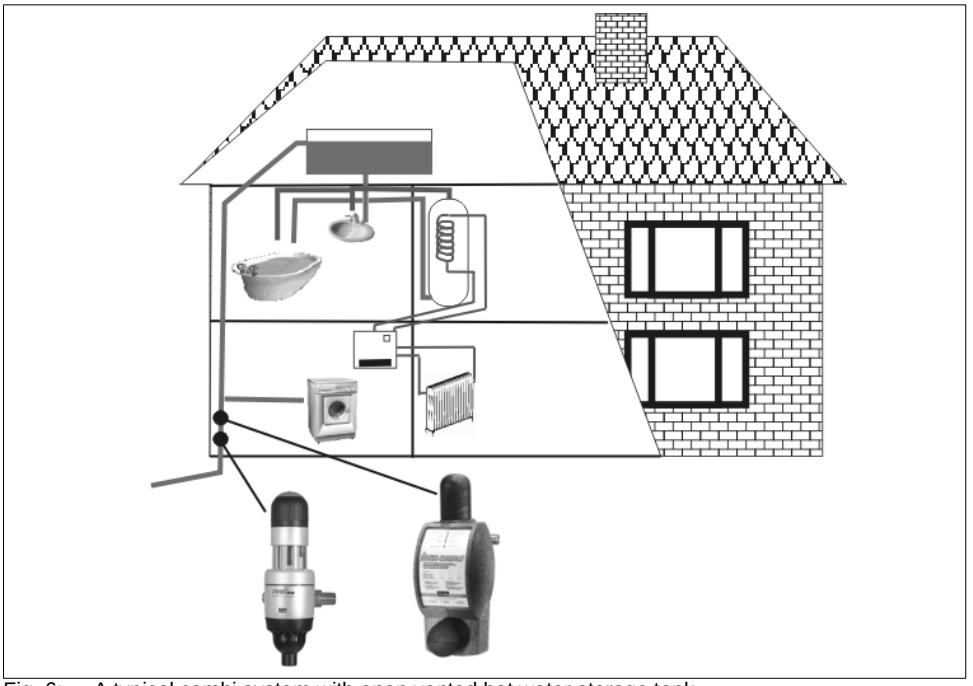


Fig. 6: A typical combi system with open vented hot water storage tank

4.3 Discharging the 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 local plumbing guidelines. If there is no wastewater connection an appropriately sized bucket can be used.

The dimensioning depends on conditions on site (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 meters 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 local plumbing guidelines.

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 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.

4.3.1 Backwashing water discharge options

JPF+ ¾" – 1"

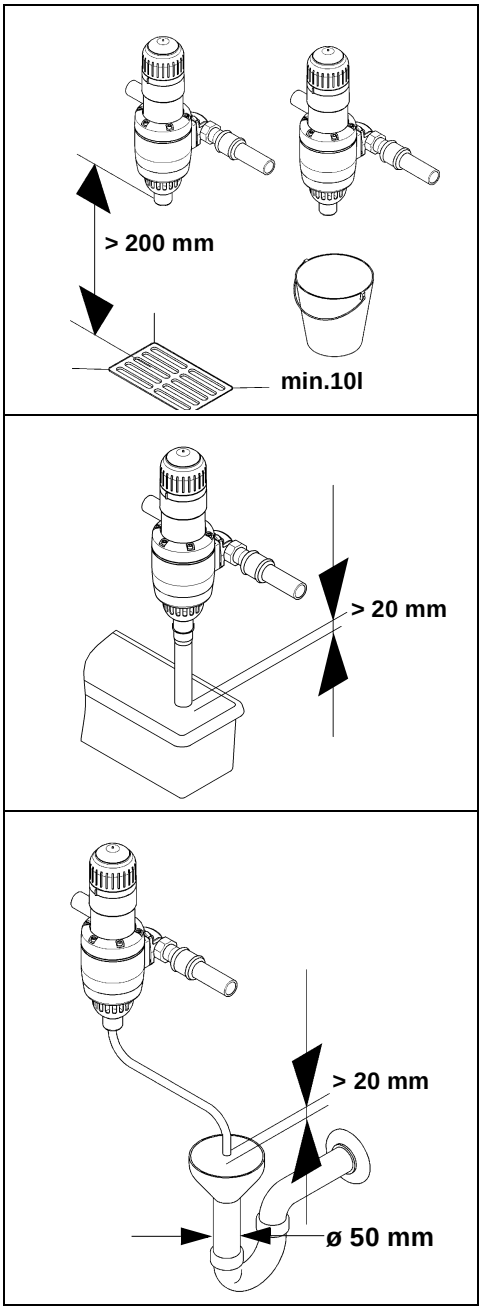


Fig. 7: Backwashing water discharge options

5. Operation

ATTENTION

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

The chapter “Intended Use” must be observed!

5.1 Commissioning

Before starting up (initial putting into service or startup after maintenance work), **fill** the 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 “Discharging the backwashing water”).

– After backwashing and venting the filter station is ready for use.

– **Note electronics for JPF$^+$ ¾" – 1":** An electronic unit is accommodated in the lid of the hand-wheel. It uses a beep to remind every two months that the filter needs to be backwashed.
  Activation:
  • Lift the lid of the hand-wheel.
  • 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.

Please ensure that all regulations and guidelines connected with plumbing & safety in the workplace and valid in the country of use are adhered to at all times when working on this unit!

5.2 Functional description

Water (**a**) flows through the built-in rotary flange (**10**) into the filter.
A coarse 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 (**12**) sieve. The adhering dirt is visible through the transparent filter hood (**6**). The filtered water (**b**) then leaves the filter via the built-in rotary flange (**10**).

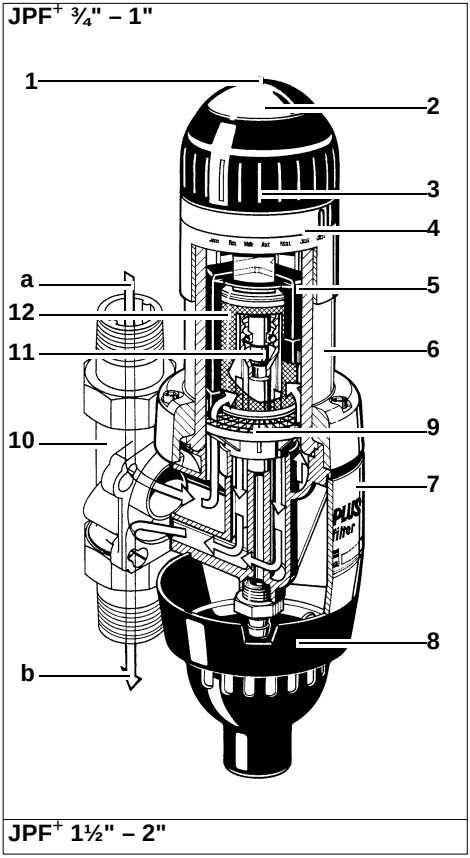


Abb. 8: Functional description

1 RESET-key
2 Hand-wheel lid with note electronics and battery compartment
3 Hand-wheel for free discharge

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.

The note electronics is accommodated in the lid of the hand-wheel (**2**). 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 hand-wheel (**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.

Clean using the *point-rotation method:*

Turn the hand-wheel (**3**) counter clockwise to rotate the suction nozzle in a spiral shaped movement around the fine filter (**12**) sieve. They progress upwards with each revolution until the entire sieve cloth has been sucked up one time. That is reached when the hand-wheel (**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 hand-wheel (**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. Repeat this procedure until reaching the lower limit stop. 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 (see Fig.8).

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

ATTENTION

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

Repeat this procedure until reaching the lower limit stop!

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”.

5.3.1 Backwashing interval

The filter must be backwashed:

– Every two months at the latest.
– If the water pressure falls.
– If the filter is visibly dirty.

ATTENTION

(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.

Unauthorized 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 carried out!

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 Note electronics for JPF+ ¾" – 1"

The note electronics in the hand-wheel reminds to backwash every 2 months. You can also mark the next backwash date using the adjusting ring under the hand-wheel.

– 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

ATTENTION

(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. Such unauthorized alterations will lead to a loss of warranty coverage.

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 depressurized! 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

ATTENTION

(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 flange 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 re-commissioning 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 loose 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 re-commissioning 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 hand-wheel until it locks into place!
	Dirt in the flushing valve.	
Water flow rate falls!	Sieve is blocked.	Carry out backwashing.
Leaks in the filter!		Inform the fitter or nearest customer service centre. (The filter cover must be replaced immediately.)
Filter cover becomes turbid!	Filter has been exposed to high temperatures or solvents.	
Hairline cracks on the filter hood!		
Note electronics beeps! (JPF$^+$ ¾" – 1")	Backwashing is due.	Carry out backwashing. Keep the RESET-key pressed for at least 3 seconds.
The note electronics does not beep when the RESET-key is pressed! (JPF$^+$ ¾" – 1")	The battery is used up.	Replace the batteries with new ones. Return used batteries to the collection centers.

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 and 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 note electronics only JPF+ ¾" – 1"

Check the note electronics as follows:

– Press the RESET-key for at least 3 seconds.

If a beep sounds, the note electronics are functioning and the batteries still have sufficient capacity. This battery test does not have any influence on the two-month interval.

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

Replacing the batteries:

– Lift the lid of the hand-wheel.

– Replace the batteries located in the battery compartment with new, identical batteries (size AAA).

– Replace the hand-wheel lid.

– Press the RESET-key in the lid of the hand-wheel 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 two months is not exceeded, backwash the filter after replacing the batteries.

7.3 Silver sieve

The sieve insert:

The filter contains a sieve insert with a silver plated stainless-steel sieve cloth. This silver coating ensures optimal germ-protection prophylaxis in the filter. The germ protection in such a sieve insert is used up to 2 years operation, but maintains its function as a protective filter.

If you want to maintain the germ-protection prophylaxis, you need to have the sieve insert replaced by authorized personnel every 2 years.

8. Warranty and Services

All JUDO products are supplied under the legal warranty requirements valid in the country of use.

Warranty is only valid in cases where the unit supplied has been used for the purposes and under the conditions stipulated in this manual. Neither JUDO nor the distributor can accept liability in any form for damage to persons, property or the environment cause by or during the installation and operation of this unit for purposes other than those described herein.

In order to maintain a high level of operational performance of your unit, JUDO strongly recommends you close a maintenance contract with an authorized service agent near you.

9. Data Sheet

9.1 Type

JUDO PROFI-PLUS
Backwash Protective Filter

Abbreviated name: JPF^{+}

9.2 Models

Model	Order No.
JPF^{+} ¾"	8010148
JPF^{+} 1"	8010149

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.

Non-silver coated stainless-steel sieves are not a health risk, but here also you must make sure that the filter is backwashed latest every two months as described in the chapter “Backwashing interval”.

Supply of filters with silver coated sieve is only possibly in countries where this is allowed in the locally valid plumbing code.

ATTENTION

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

Filters with mesh sizes larger than 0.1 mm only filter correspondingly large particles from the water. But backwashing must also be carried out here latest after two months to prevent germ formation.

A mesh size smaller than 0.1 mm allows 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:

– Pressure loss when clean (after back-washing): 0.2 bar at the water flow rate (nominal flow rate) 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!**

Nominal Pressure

Model	Operating Pressure	Nominal Pressure
JPF+ ¾" – 1"	1.5 – 10 bar	PN 16

The nominal pressure denotes the pressure class, according to which the filter must fulfill the requirements to DIN EN 13443-1 and DIN 19628 (or corresponding local norm). The maximum operating pressure is lower, in order to ensure the optimum function of the filter.

Weight

Model	Weight
JPF+ ¾"	4 kg
JPF+ 1"	4 kg

Water flow rate

Model	Water flow rate up to	Pressure loss after back-washing
JPF+ ¾"	4.0 m³/h	0.2 bar
JPF+ 1"	4.5 m³/h	0.2 bar

Back-flush Volume Stream

Model	Back-flush Volume Stream
JPF+ ¾"	0.2 - 0.4 l/s
JPF+ 1"	0.2 - 0.4 l/s

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

9.5 Installed dimensions ¾" - 1".

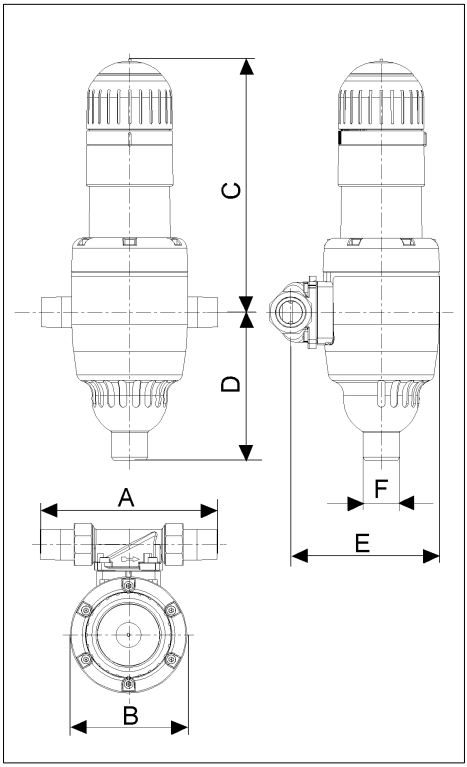


Abb. 9: Installed dimensions ¾" - 1"

Model	A	B	C	D	E	F
JPF+ ¾"	150	130	280	165	165	40
JPF+ 1"	160	130	280	165	165	40

All dimensions in [mm] (see Fig. 9)

A = Installation length

B = Unit width

C = Height above pipe centre

D = Height below pipe centre

E = Depth to pipe centre

F = Connection dimension waste water

9.6 Extent of Supply

– Pre-installed filter

– Installation and Operating Instructions

JPF+ ¾" – 1":

– Built-in rotary flange JQE ¾" or 1" with bayonet and clamp fitting JPF+ ¾" or 1"

– 2 x Battery for the note electronics (Type AAA)

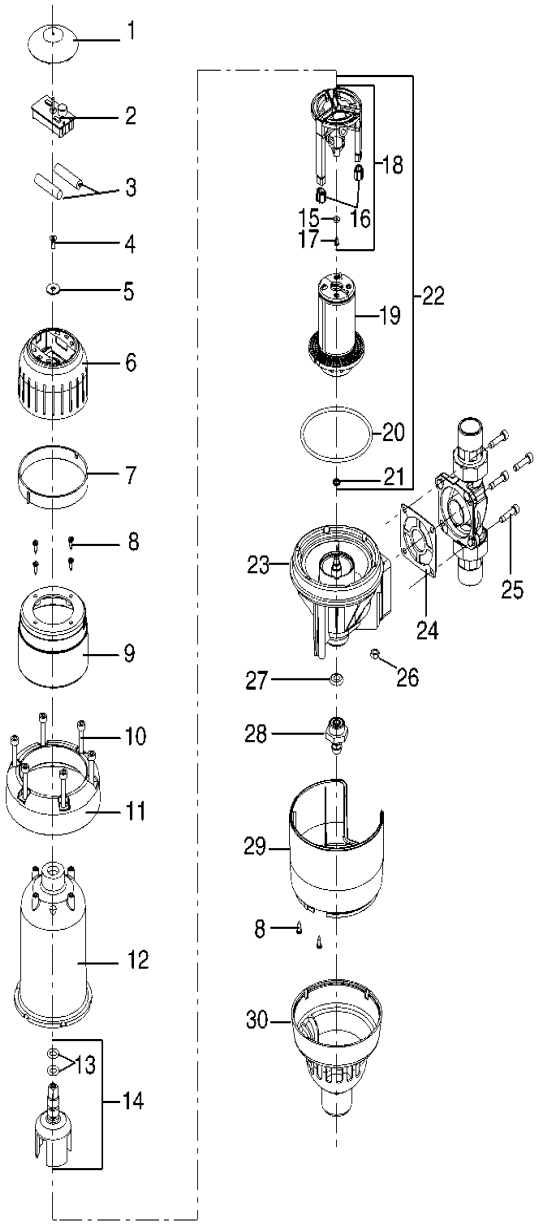
9.7 Accessories JPF+ ¾" – 1"

JPF+ ¾" – 1":

– JUDO JQR expansion QUICKSET Order no. 8250041 for the series connection of two devices, e.g. filter and water treatment system.

10. Spare Parts

10.1 JPF+ ¾" – 1"



List of Spare Parts JPF+ ¾" – 1"

Item	Designation (Recommended average replacement interval for wearing parts [*])		Piece(s)	Order No.	VE[1]/Piece
1	Lid of hand-wheel		1	1120432	7
2	Note electronics		1	1510110	61
3	Battery 1.5 V Typ AAA	**	2	1500202	4
4	Countersunk screw M5x12		1	1607454	1
5	Washer A 6.4		1	1650142	1
6	Memo hand-wheel		1	1120431	23
7	Adjusting ring		1	1120680	8
8	Self-tapping screw 3.5x13		7	1607114	1
9	Casing top part JPF+ ¾"-1"		1	2010418	41
10	Cylinder Screw M6x40		6	1650123	3
11	Flange ring		1	2010382	115
12	Filter hood		1	1120289	180
13	O-ring 10x3	****	2	1120332	2
14	Carrier		1	2010146	53
15	Suction Pipe Gasket	****	1	1607410	3
16	Mouthpiece (Nozzle)	****	3	1200166	6
17	Plate Screw 2.9x9.5	****	1	1607411	1
18	Complete Suction Pipe		1	2010151	92
19	Filter Sieve silver plated	***	1	2010148	105
20	O-ring 90x4	****	1	1120333	9
21	O-ring 6.3x2.4	****	1	1120334	2
22	Sieve + Complete Suction Pipe		1	2010366	166
23	Filter Bottom Piece		1	2020152	180
24	Profile flange seal		1	1200218	5
25	Cylinder Screw M6x25		4	2010199	2
26	Hexagonal nut M6		10	1633145	1
27	O-ring 6.5x6		1	1200214	4
28	Tube Connection		1	1120310	7
29	Cover		1	2010419	46
30	Filter Funnel		1	1120298	19
	Spare part set consisting of Item 13, 15, 16, 17, 19, 20, 21		1	2010224	139

1) VE = Unit of Billing

Replacement interval: ** = 2 years, *** = 3 years, **** = 4 years

11. Customer Service

JUDO UK Limited
The old court House
Ascot, SL5 7EN
Phone: (44) 700 605 9441
E-Mail: info@judo.eu
Internet: www.judo.uk.com

Installed by:

1702046 • 2009/08