

Installation and Operating Instructions JUDO PROFI ¾" - 2"

Backwash Protective Filter

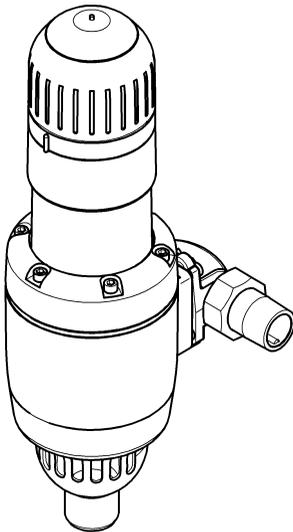
Model JPF

Valid for: Canada

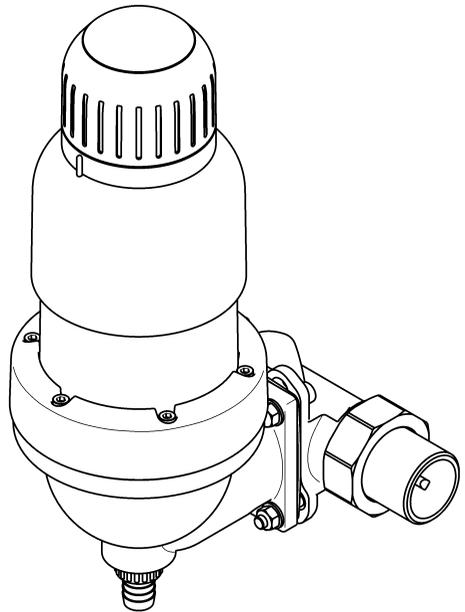
Attention:

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.



JPF ¾" - 1¼"



JPF 1½" - 2"



Corporate head office

JUDO Wasseraufbereitung GmbH
P.O. Box 380
D-71351 Winnenden
Germany
e-mail: info@judo.eu
judo.eu

Manufacturing plant

JUDO Wasseraufbereitung GmbH
Hohreuschstraße 39-41
D-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 filter through screen filtration.

Particles smaller than the screen mesh size used, charge 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 inspected before delivery. However should difficulties nevertheless occur, please contact the responsible customer service. See back page.

Trademarks:

Trademarks used in this document are protected and registered trademarks of the respective holder.

© JUDO Wasseraufbereitung GmbH
D-71364 Winnenden

All rights reserved.

Reprints – even of extracts – are only permitted with special written approval.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply within the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Table of Contents

1. About this Instruction Manual..... 4

1.1 Symbols used..... 5

1.2 Safety information and dangers due to non-compliance..... 5

1.3 Units used 5

2. Intended Use..... 6

2.1 Water Pressure 7

2.2 Notes on special dangers..... 7

3. Product Information 8

3.1 Intended purpose 8

3.2 Test mark 8

3.3 Materials used..... 8

4. Installation 9

4.1 General 9

4.2 Discharging backwash water 11

5. Operation 13

5.1 Commissioning..... 13

5.2 Functional description 13

5.3 Backwashing 14

5.4 Modifications / changes / spare parts 16

5.5 Servicing / Repair..... 16

5.6 Stoppages 17

6. Faults 17

7. Maintenance..... 18

7.1 Cleaning..... 18

7.2 Checking the note electronics only JPF ¾" – 1¼" 18

8. Warranty and Services..... 19

9. Data Sheet..... 20

9.1 Type 20

9.2 Models..... 20

9.3 Special designs 20

9.4 Technical Data 21

9.5 Installed dimensions ¾" - 1¼" 22

9.6 Installed dimensions 1½" - 2" 22

9.7 Extent of Supply 23

9.8 Accessories JPF ¾" – 2" 23

10. Spare Parts 24

10.1 JPF ¾" – 1¼" 24

10.2 JPF 1½" – 2" 26

11. Customer Service..... 28

1. About this Instruction Manual



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

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

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

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.

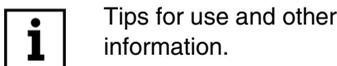
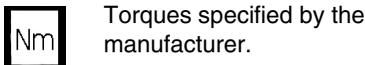
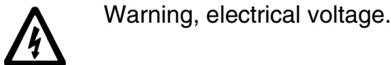
Therefore, this instruction manual must always be read by the installer and respon-

sible skilled personnel/owner or operator before installation, putting into service and main-tenance.

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:



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.

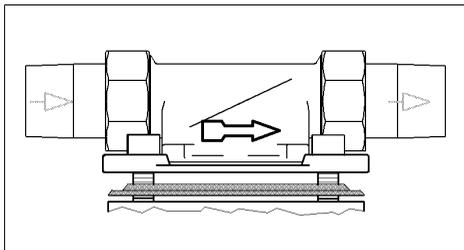


Fig. 1: Built-in rotary flange

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
psi	kPa = 0.001 N/mm ²
gpm	1 m ³ /h = 4.4 gpm
¾"	= DN 20 2" = DN 50
1"	= DN 25 2½" = DN 65
1¼"	= DN 32 3" = DN 80
1½"	= DN 40 4" = DN 100

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 to be filtered must possess quality of drinking water!

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 established safety regulations 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 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 held 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 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 should be between 22 psi (150 kPa) and 150 psi (1000 kPa).

The water pressure must not be lower than 22 psi (150 kPa) 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 150 psi (1000 kPa)**, the pressure reduction valve should be fitted **in front** of the Backwash Protective Filter (see fig. 2). If the operating pressure is above 150 psi (1000 kPa), this may result in defects during operation.

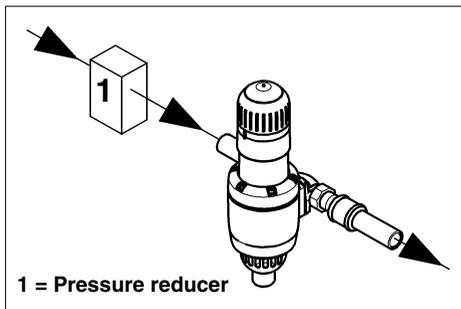


Fig. 2: Pressure reducer upstream of the unit

i The installation of a pressure reduction valve is recommended for **water pressures between 73 psi (500 kPa) and 150 psi (1000 kPa)**.

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 filter!

Electrical devices / equipment 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 / equipment 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 / equipment situated in the direct vicinity should be splash-water proof, respectively comply with the statutory requirements for wet areas (IP44).

3. Product Information

3.1 Intended purpose

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



(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 mark

CSA



Fig. 3: Test mark

The Backwash Protective Filter has been checked by the CSA, and has been marked with the CSA sign for certified safety (see Fig. 3).

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



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

The unit may only be installed by skilled personnel.

The chapter on “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 (8 inch) 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!



(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 could 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 its 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



(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 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 an arrow on the flange (see Fig. 5).

Failure to comply with this means the filter cannot work.



(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 Backwash Protective Filter

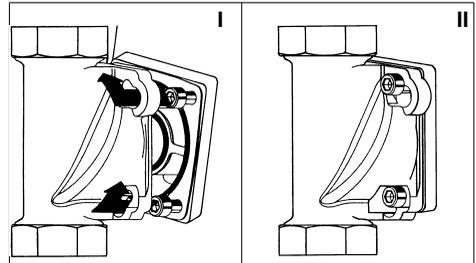


Fig. 4: Built-in rotary flange with Bayonet Fixture

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. 4 I).
- Turn the filter in a clockwise direction as far as it will go (see Fig. 4 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. 5).

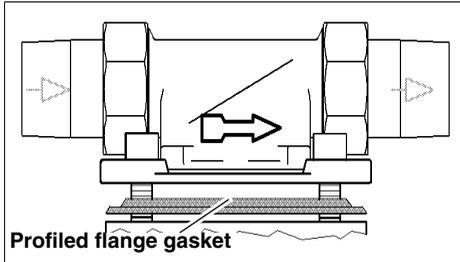


Fig. 5: Built-in rotary flange

4.2 Discharging backwash water



ATTENTION

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

An adequately dimensioned wastewater connection (e.g. floor drain) must be available for the backwashing water.

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.

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.

4.2.1 Backwashing water discharge options

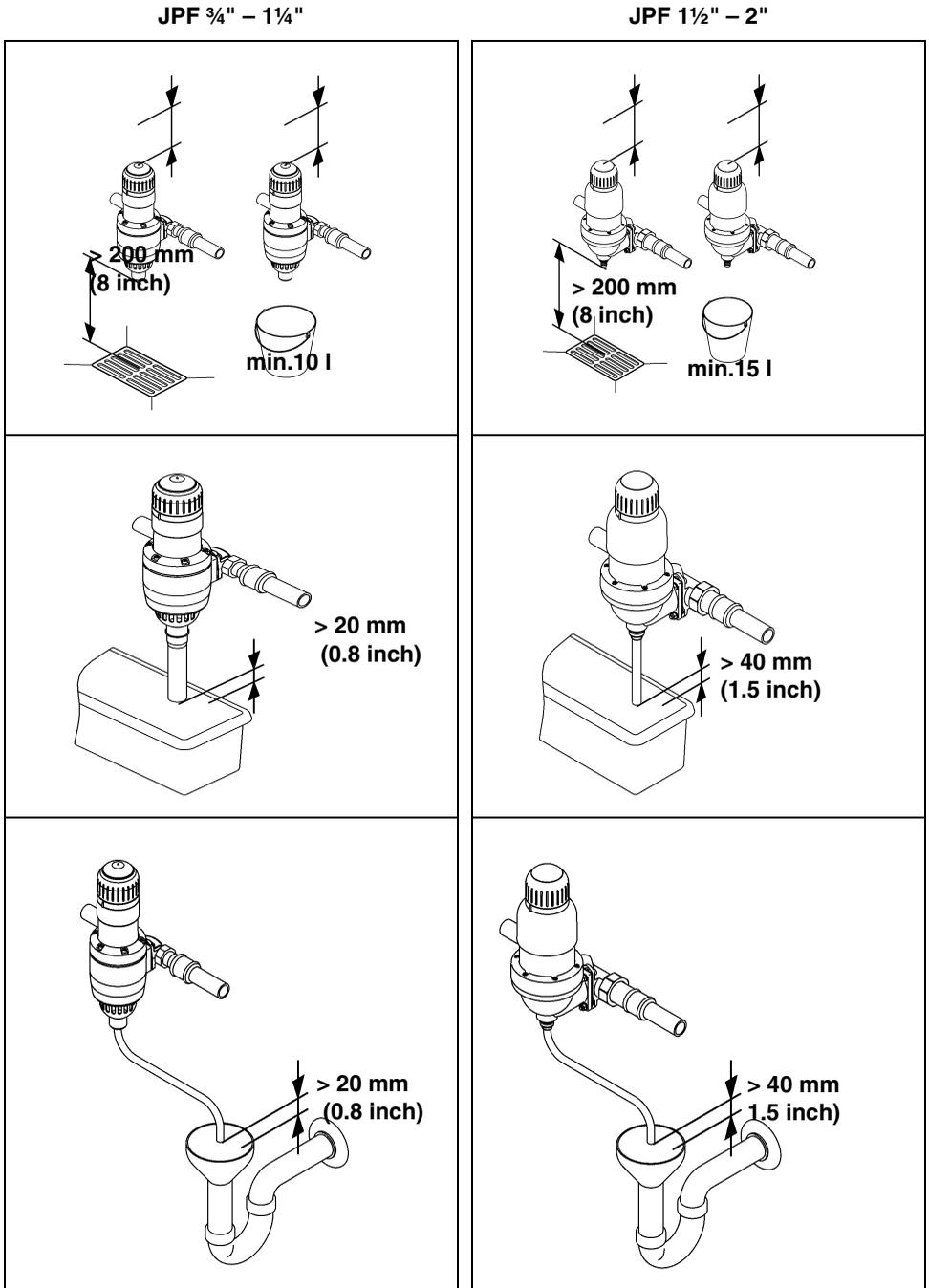


Fig. 6: Backwashing water discharge options

5. Operation



ATTENTION

(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 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 only JPF ¾" – 1¼"**: A note electronics 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 hand wheel lid.
 - You can test the functionality by pressing the RESET-key in the lid of the hand wheel.

5.2 Functional description

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

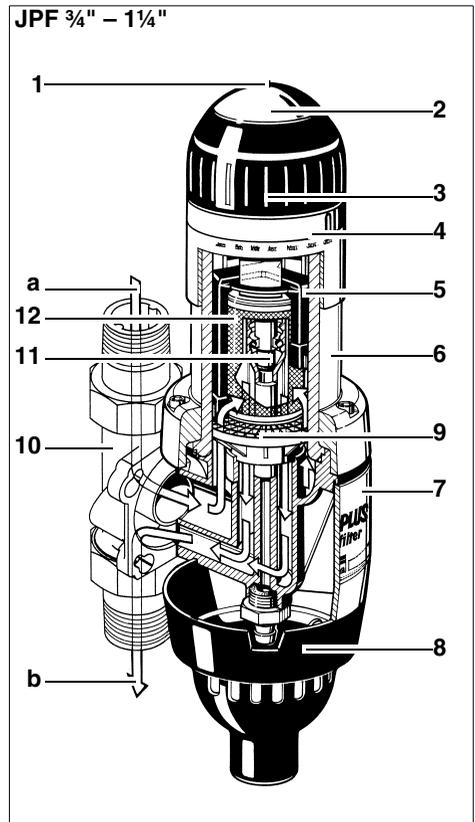


Fig. 7: Functional description

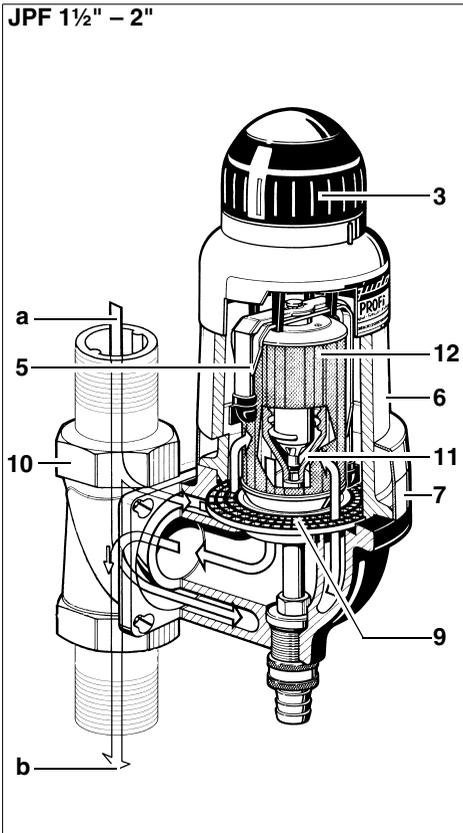


Fig. 7: Functional description

- 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) sievcloth. 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. 7).



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")

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 backwash water".

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.

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 sieve 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 can 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 during the backwashing function.

5.3.2 Note electronics only for JPF ¾" – 1¼"

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.

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

Only the original power supply from JUDO may be used!

5.5 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.

5.6 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" must 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 its 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 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 to 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!	Screen is blocked.	Carry out backwashing.
Leaks in the Backwash Protective Filter!	Filter has been exposed to high temperatures or solvents.	Inform the fitter or nearest customer service centre. (The filter cover must be replaced immediately.)
Filter cover becomes turbid!		
Hairline cracks on the filter hood!		
Note electronics beeps! (JPF ¾" – 1¼")	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" – 1¼")	The battery is used up.	Replace the batteries with new ones. Return used batteries to the collection centres.

7. Maintenance



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

Always observe the chapter “Intended Use”!

7.1 Cleaning



(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" – 1¼"

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.



(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.

8. Warranty and Services

In order to comply with the legal warranty claim, according to DIN EN 806-5, it is necessary that the "... backwashing takes place at least every 2 months, after operating conditions exist ...".

Regular servicing is indispensable in order to continue to achieve a successful treatment for many years after the unit is put into service. In the building services sector this is covered by 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
Backwash Protective Filter
Abbreviated name: JPF

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

Filters with mesh sizes larger than 0.1 mm (0.004 inch) only filter correspondingly large particles from the water. Backwashing must also be carried out every two months to prevent germ formation.

9.2 Models

Model	Order No.
JPF ¾"	8010110
JPF 1"	8010111
JPF 1¼"	8010135
JPF 1½"	8010136
JPF 2"	8010137

A mesh size smaller than 0.1 mm (0.004 inch) 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. Backwashing must be carried out when the filter is visibly soiled or the water pressure drops.

9.3 Special designs

The filters come factory equipped with a stainless-steel sieve with a mesh size of 0.1 mm (0.004 inch).

If desired, mesh sizes of 0.03 / 0.32 and 0.5 mm (0.001 / 0.01 and 0.02 inch) are available for technical and industrial use.



You must make sure that the filter is backwashed latest every two months as described in the chapter "Backwashing interval".

9.4 Technical Data

The following applies for all the models of the device:

- Pressure loss when clean (after backwashing): 3 psi (20 kPa) 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 possess quality of drinking water!**
- Threaded connection to DIN 2999.

Nominal Pressure

Model	Operating Pressure	Nominal Pressure
JPF ¾" – 2"	22 - 150 psi (150 - 1000 kPa)	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. The maximum operating pressure is lower, in order to ensure the optimum function of the filter.

Weight

Model	Weight
JPF ¾"	2.6 kg
JPF 1"	2.7 kg
JPF 1¼"	3.3 kg
JPF 1½"	9 kg
JPF 2"	10.3 kg

Water flow rate

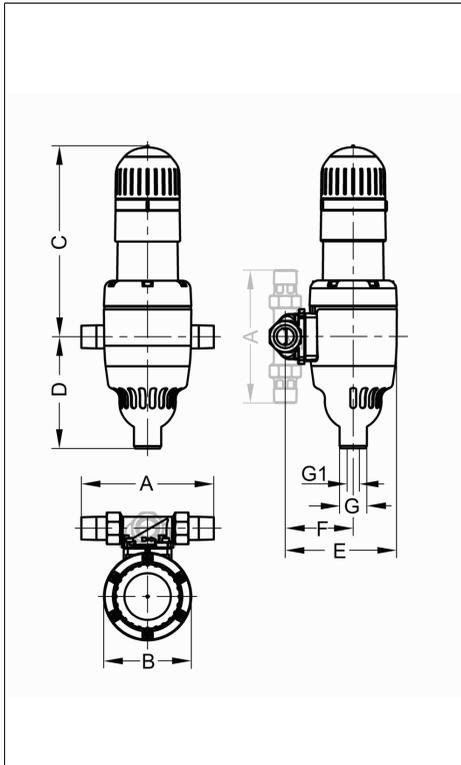
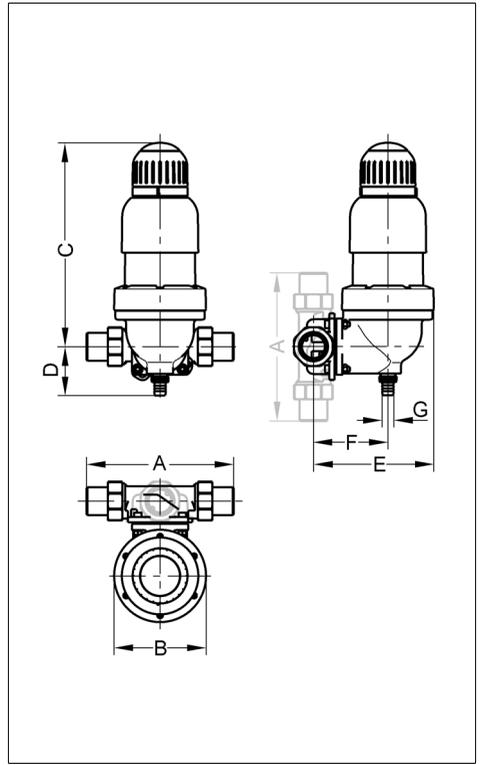
Model	Water flow rate for a pressure loss of 3 psi (20 kPa) with clean sieve insert ¹
JPF ¾"	4.0 m ³ /h (17.5 gpm)
JPF 1"	4.5 m ³ /h (20 gpm)
JPF 1¼"	5.5 m ³ /h (24 gpm)
JPF 1½"	16.0 m ³ /h (70 gpm)
JPF 2"	17.0 m ³ /h (75 gpm)

1. Data concerning the water flow rate are valid for drinking water. The maximum water flow rate for more polluted water is lower, depending on the mesh size. If so, a larger dimension has to be chosen.

Back-flush Volume Stream

Model	Back-flush Volume Stream
JPF ¾"	0.2 - 0.4 l/s (3 - 6.5 gpm)
JPF 1"	0.2 - 0.4 l/s (3 - 6.5 gpm)
JPF 1¼"	0.2 - 0.4 l/s (3 - 6.5 gpm)
JPF 1½"	0.3 - 0.8 l/s (5 - 13 gpm)
JPF 2"	0.3 - 0.8 l/s (5 - 13 gpm)

The backwashing volumetric flow given applies to 29 - 44 psi (200 - 300 kPa) mains pressure and for a completely opened flushing water valve.

9.5 Installed dimensions $\frac{3}{4}$ " - $1\frac{1}{4}$ ".Fig. 8: Installed dimensions $\frac{3}{4}$ " - $1\frac{1}{4}$ "9.6 Installed dimensions $1\frac{1}{2}$ " - 2".Fig. 9: Installed dimensions $1\frac{1}{2}$ " - 2"

Model	A	B	C	D	E	F	G
JPF $\frac{3}{4}$ "	180 (7.0)	130 (5.2)	280 (11)	165 (6.5)	165 (6.5)	100 (3,9)	40 (1.5)
JPF 1"	195 (7.5)	130 (5.2)	280 (11)	165 (6.5)	165 (6.5)	100 (3,9)	40 (1.5)
JPF $1\frac{1}{4}$ "	230 (9.0)	130 (5.2)	280 (11)	165 (6.5)	170 (6.7)	105 (4,1)	40 (1.5)
JPF $1\frac{1}{2}$ "	252 (9.9)	158 (6.2)	348 (13,7)	84 (3.3)	207 (8.1)	128 (5,0)	20 (0.8)
JPF 2"	280 (11)	158 (6.2)	348 (13,7)	97 (3.3)	213 (8.4)	136 (5,3)	20 (0.8)

All dimensions in mm (inch) (see Fig. 8 and Fig. 9)

A = Installation length

G = Connection dimension waste water

B = Unit width

C = Height above pipe centre

D = Height below pipe centre

E = Depth to pipe centre

F = Connection dimension residual water

9.7 Included Supply

- Pre-installed Backwash Protective Filter
- Installation and Operating Instructions

JPF ¾" – 1¼":

- Built-in rotary flange JQE ¾", 1" or 1¼" with bayonet fixture and screw connection JPF ¾" – 1¼"
- 2 x Battery for the note electronics (Typ AAA)

JPF 1½" – 2":

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

9.8 Accessories JPF ¾" – 2"**JPF ¾" – 1¼":**

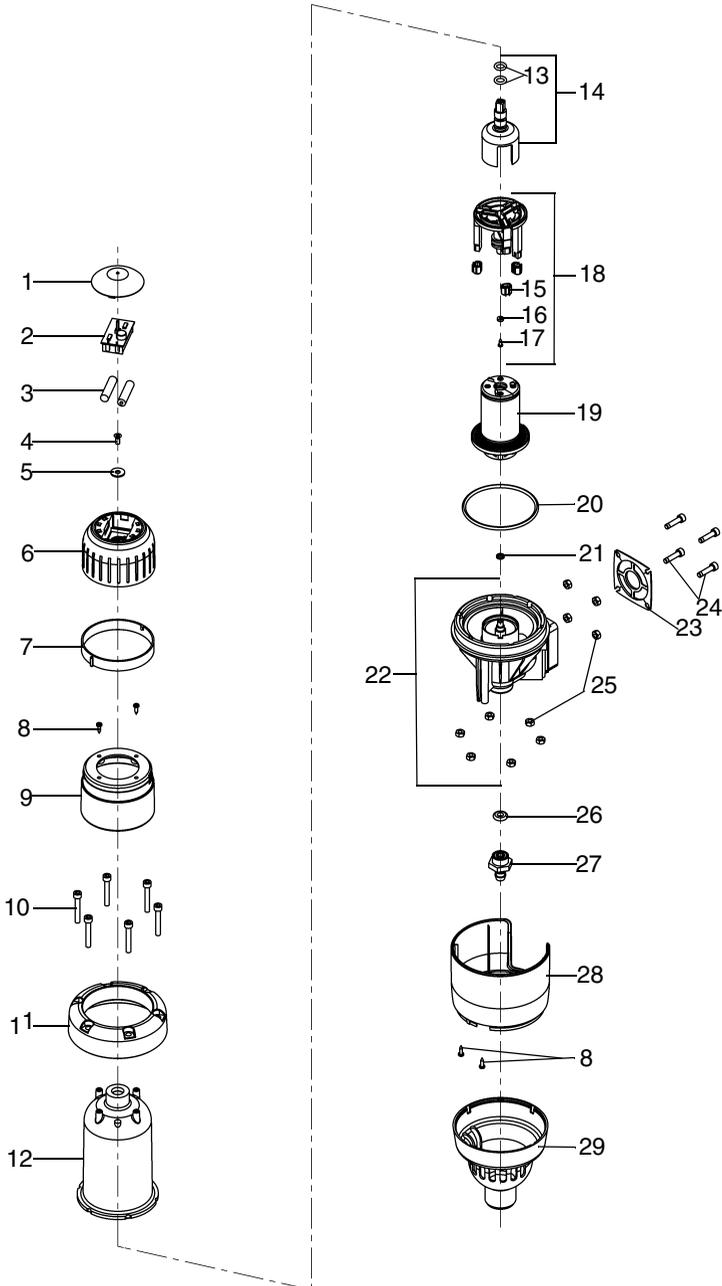
- JUDO JQR expansion QUICKSET
Order no. 8250041 for the series connection of two devices, e.g. filter and water treatment system.
- JUDO safety block JSB
Order No. 8735260. For subsequent filter retrofitting to house water stations. Contains a pressure reducer, non-return valve, inlet and outlet pressure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

JPF 1½" – 2":

- JUDO safety block JSB
Order No. 810 5001. 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 3/4" - 1 1/4"

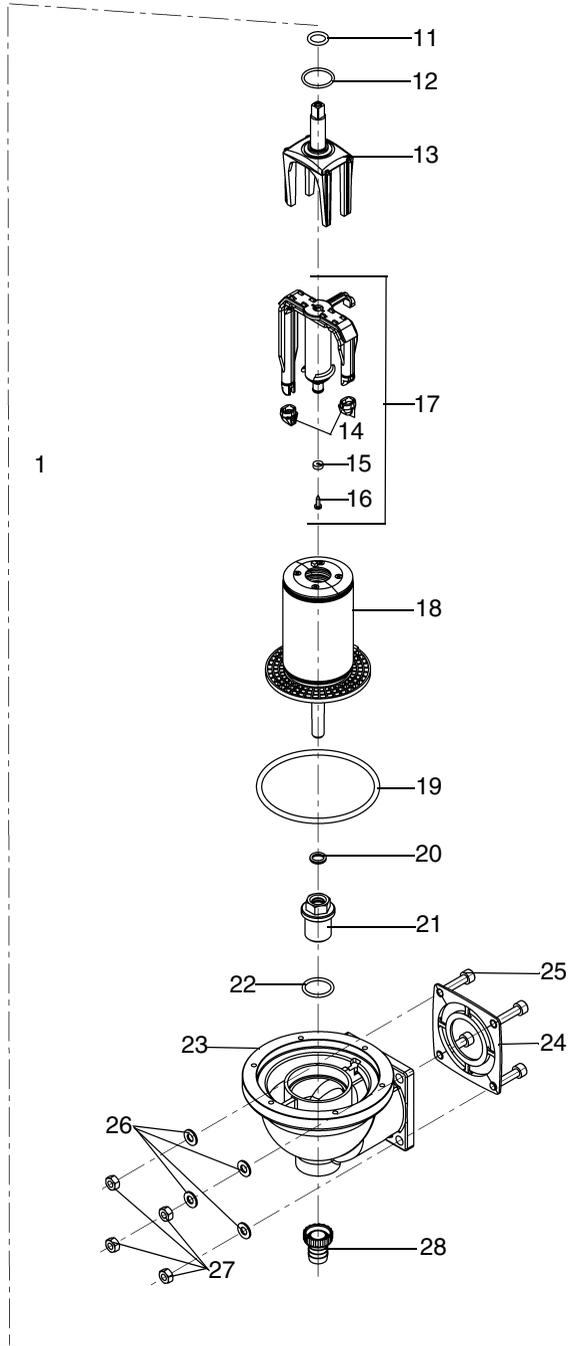
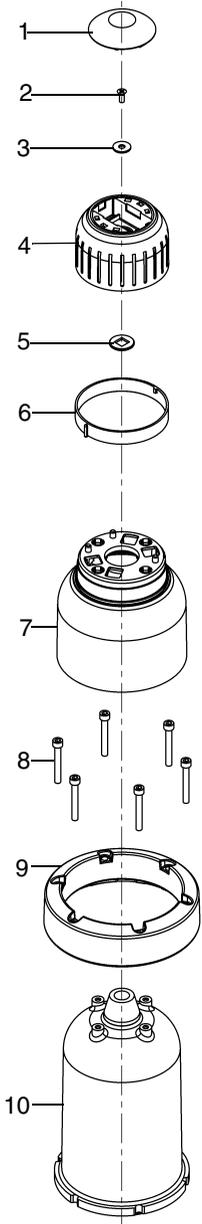


List of Spare Parts JPF ¾" – 1¼"

Item	Designation (Recommended average replacement interval for wearing parts [*])	Piece(s)	Order No.
1	Lid of hand wheel	1	1120432
2	Note electronics	1	1510144
3	Battery 1.5 V Typ AAA	**	2010499
4	Countersunk screw M5x12	1	1607454
5	Washer A 6.4	1	1650142
6	Memo hand wheel	1	1120431
7	Adjusting ring	1	1120680
8	Self-tapping screw 3.5x13	4	1607114
9	Cover filter hood	1	2010383
	Type Plate	1	1701778
10	Cylinder Screw M6x40	6	1650123
11	Flange ring	1	2010382
12	Filter hood	1	1120289
13	O-ring 10x3	****	1120332
14	Carrier	1	2010146
15	Mouthpiece (Nozzle)	****	1200166
16	Suction Pipe Gasket	****	1607410
17	Plate Screw 2.9x9.5	****	1607411
18	Complete Suction Pipe	1	2010151
19	Filter Screen	**	2010378
20	O-ring 90x4	****	1120333
21	O-ring 6.3x2.4	****	1120334
22	Filter Bottom Piece	1	2020152
23	Profile flange seal	1	1200218
24	Cylinder Screw M6x25	4	2010199
25	Hexagonal nut M6	10	1633145
26	O-ring 6.5x6	1	1200214
27	Tube Connection	1	1120310
28	Cover JPF ¾" - 1½"	1	2010386
29	Filter Funnel	1	1120298
	Spare part set consisting of Item 13, 15, 16, 17, 19, 20, 21	1	2020819

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

10.2 JPF 1½" – 2"



List of Spare Parts JPF 1½" – 2"

Item	Designation (Recommended average replacement interval for wearing parts [*])	Piece(s)	Order No.
1	Lid of hand wheel	1	1120943
2	Countersunk screw M5x12	1	1607454
3	Washer A 6.4	1	1650142
4	Memo hand wheel	1	1120431
5	Spacer disc	1	1120137
6	Adjusting ring	1	1120680
7	Cover filter hood JPF 1½" - 2"	1	1120929
	Type Plate	1	1701778
8	Cylinder Screw M6x45	6	1607417
9	Flange ring	1	2020102
10	Filter hood	1	2010422
11	O-ring 15x3.2	**** 1	1607420
12	O-ring 28x2.5	**** 1	1200027
13	Carrier	1	2020034
14	Mouthpiece (Nozzle)	**** 2	1607104
15	Suction Pipe Gasket	**** 1	1607113
16	Plate Screw C 2.5x13	1	1607114
17	Complete Suction Pipe	1	2607135
18	Filter Screen MW 0.10 mm (0.004 inch)	** 1	2010380
19	O-ring 113.67x5.33	1	1607112
20	O-ring 12x3	1	1607110
21	Connection Piece	1	1607154
22	O-ring 26x3	1	1607111
23	Filter Bottom Piece JPF 1½" – 2"	1	2607102
24	Profile flange seal	1	1200230
25	Cylinder Screw M8x30	4	1607116
26	Washer A 8.4	4	1607125
27	Hexagonal nut M8	4	1607117
28	Hose Connection	1	1607157
	Spare part set consisting of Item 9, 10, 12, 13, 14, 16, 20	1	2020821

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

11. Customer Service



JUDO Water Treatment Inc.

240 Lesmill Road
Toronto, ON M3B 2T5
Canada

Telephone: (416) 441-1556

Toll-free (Canada/USA): (866) 451-5836

Fax: (416) 391-4273

Toll-free fax (Canada/USA): (877) 761-3335

e-mail: info@judo-online.com

judo-online.com

Installed by:

All illustrations, dimensions and information for the different models are those valid on the date of printing. All rights are reserved for modifications as a result of technical progress or further developments. Claims with regard to models or products are excluded.

1700841 • 2014/06