

# F76S

## Reverse rinsing fine filter

### APPLICATION

F76S reverse rinsing filters ensure a continuous supply of filtered water. The fine filter prevents the ingress of foreign bodies, for example rust particles, strands of hemp and grains of sand and thus reduces the probability of corrosion. The appliances correspond to the requirements of current DIN/DVGW specifications.

### APPROVALS

- DVGW
- SVGW

approval for all filters with 100 µm mesh sizes

### SPECIAL FEATURES

- Double Spin Technology for connection sizes 1/2" to 1 1/4"
  - Cartridge with external rotor enabling simultaneous cleaning in lower and upper filter areas
  - Visual function check possible
- Filtered water supplied even during reverse rinsing
- Patented reverse rinsing system - fast and thorough cleaning of the filter with small amount of water
- Memory ring indicates when next manual reverse rinsing is due
- Automatic reverse rinsing actuator with bayonet connector can be retrofitted
- Large filter surface
- Shock resistant clear synthetic material filter bowl enables easy checking of filter contamination
- Filter and complete filter bowl are replaceable
- Also available without connections
- Standardised discharge connection
- All materials are ACS approved
- All materials are KTW approved
- Approved by TÜV LGA for low noise, Group 1 without limitations




### TECHNICAL DATA

<b>Media</b>	
Medium:	Drinking water
<b>Connections/Sizes</b>	
Connection sizes:	1/2" - 2"
<b>Pressure values</b>	
Max. operating pressure:	1.5 - 16.0 bar with clear filter bowl 1.5 - 25.0 bar with red-bronze filter bowl
<b>Operating temperatures</b>	
Max. operating temperature medium:	40 °C with clear filter bowl 70 °C with red-bronze filter bowl
<b>Specifications</b>	
Installation position:	Horizontal, with filter bowl downwards

Note: The filter is constructed for drinking water installations. In case of a process water application the filter has to be proven individually.

## CONSTRUCTION

Overview	Components	Materials	
	<b>1</b>	Housing with pressure gauge	Dezincification-resistant brass
	<b>2</b>	Threaded male connections (versions AA and AAM)	Brass
	<b>3</b>	Fine filter in clear filter bowl (versions AA and EA) Filter in red-bronze filter bowl (version AAM)	Stainless steel fine filter, red-bronze or shock-resistant, clear transparent synthetic material filter bowl
	<b>4</b>	Ball valve with drain connection	Brass (Ball Valve body), Stainless steel (ball), Plastic-durethan (drain adapter)
<b>Not depicted components</b>			
	Double wing wrench	Plastic	
	Seals	NBR	

## METHOD OF OPERATION

The filter insert is divided into two parts. In the "filtering" position, only the lower, larger section is rinsed through by water jets from outside to inside. The small upper section does not come in contact with unfiltered water. When the ball valve is opened for reverse rinsing, then the whole filter insert is pushed downwards until the water supply to the outer side of the main filter is stopped. Simultaneously, the water flow is opened to the upper part of the filter. The water needed for cleaning the filter passes through the upper filter section, then the rotating impeller and the main filter from inside to outside, i.e. the filter is reverse rinsed with filtered water. In that way the upper filter is also cleaned by jets from the impeller. The filter automatically switches back to the operating position when the ball valve is closed again.

Filters with Double Spin Technology have turbine blades which circulate the water and thereby set the rotor on the upper filter into a rotational motion. The internal impeller rinses off particles that have adhered to the upper filter at the intersecting points with the rotor.

## TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity	85 % *

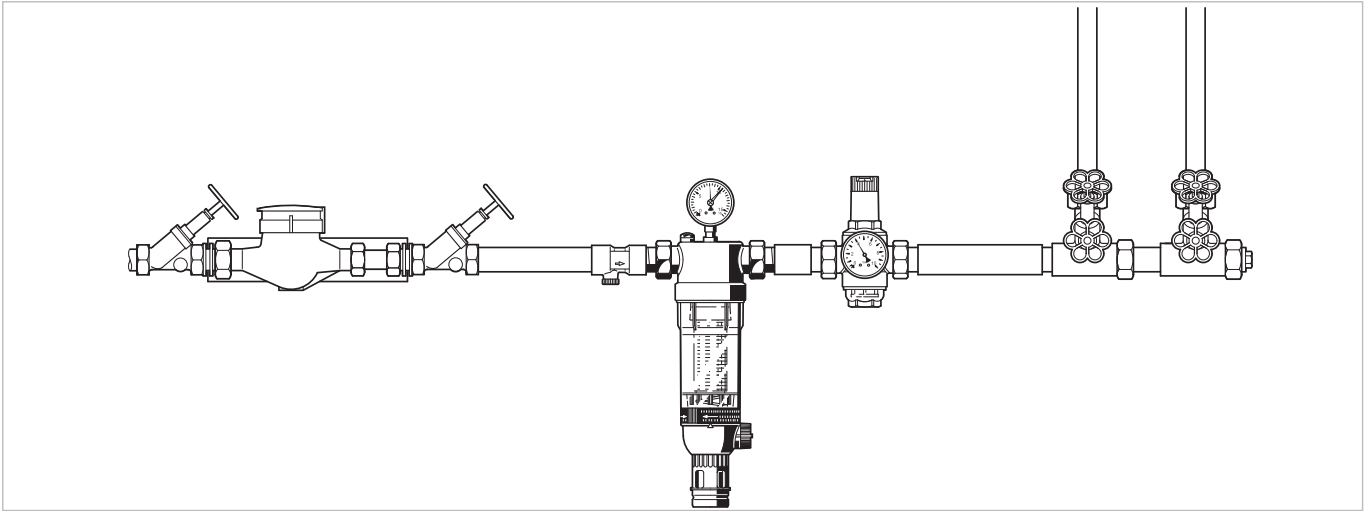
\*non condensing

## INSTALLATION GUIDELINES

### Setup requirements

- Install in horizontal pipework with filter bowl downwards
  - This position ensures optimum filter efficiency
- Install shut-off valves
- These filters are armatures which need to be maintained regularly
- Ensure good access
  - Pressure gauge can be read off easily
  - Degree of contamination can be easily seen with clear filter bowl
  - Simplifies maintenance and inspection
- The installation location should be protected against frost
- Related to the EN 806-2 it is recommended to install the filter immediately after the water meter
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection

**Installation Example**

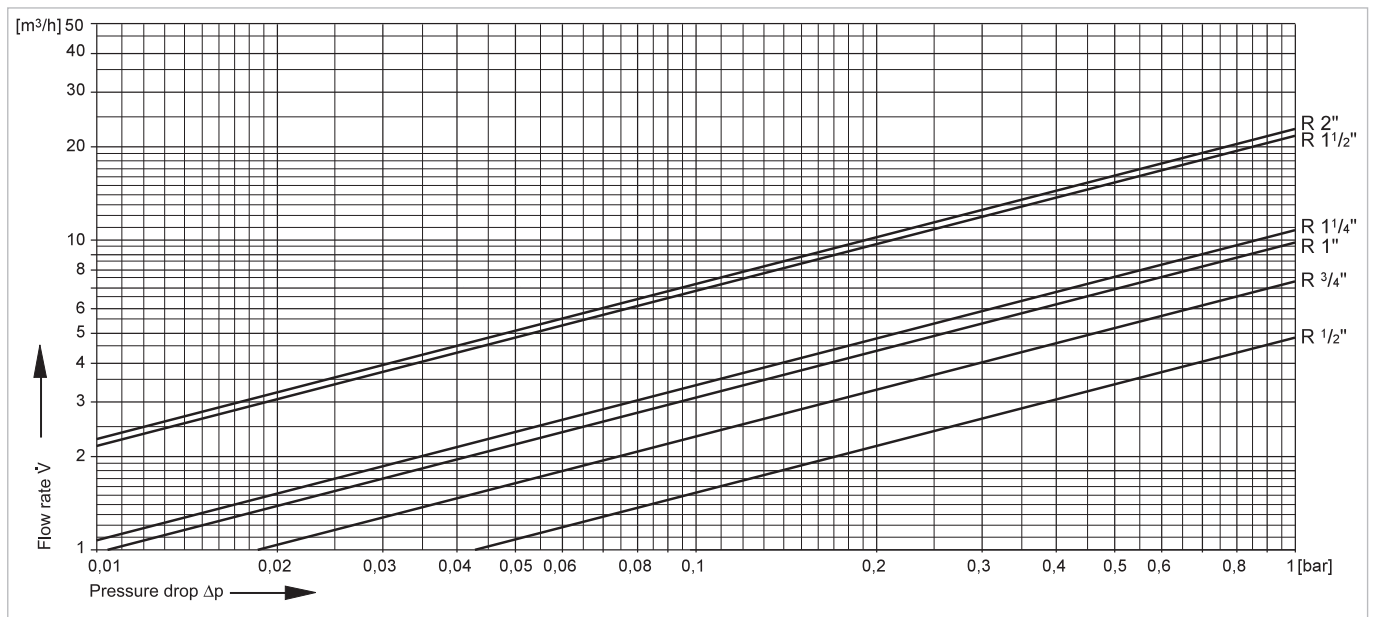


**TECHNICAL CHARACTERISTICS**

**kvs-Values**

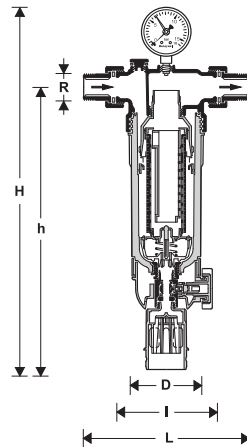
Connection sizes:	15	20	25	32	40	50
k <sub>vs</sub> -value (m <sup>3</sup> /h):	4.8	7.2	9.8	10.7	21.0	22.0

**Pressure drop characteristics**



## DIMENSIONS

### Overview



Parameter	Values						
Connection sizes:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Nominal sizes:	DN	15	20	25	32	40	50
Weight:	kg	2.9	2.9	3.1	3.3	4.0	4.8
Dimensions:	L	170	178	209	222	246	267
	I	110	110	130	130	150	150
	H	449	449	453	453	532	532
	h	350	350	351	351	417	417
	D	97	97	97	97	120	120
Flow value at Δp=0.5 bar:	m <sup>3</sup> /h	3.8	5.5	7.5	8.9	15.6	16.5
DVGW registration number:	NW-9301 AT 2308						
Double Spin Technology:		Yes	Yes	Yes	Yes	No	No

Note: All dimensions in mm unless stated otherwise.

## ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

### Options

The valve is available in the following sizes: 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".

- standard
- not available

		F76S-...AA	F76S-...AAM	F76S-...EA
Connection type:	Threaded male connections, filter mesh size 100 μm	•	-	-
	Red-bronze filter bowl, threaded male connections, filter mesh size 100 μm	-	•	-
	Without connections, filter mesh size 100 μm	-	-	•

Note: ... = space holder for connection size

Note: Ordering number example for 1" and type AA valve: F76S-1AA

Note: Filters with other mesh widths available on request

## Accessories

	Description	Dimension	Part No.	
	<b>Z11S Automatic reverse rinsing actuator</b>			
	For automatic filter cleaning at presettable intervals			
	230 V, 50/60 Hz, 10 with moulded Schuko electrical plug		Z11S-A	
	24 V, 50/60 Hz, 10 without electrical plug		Z11S-B	
	<b>VST06B Connection set</b>			
	Solder connections			
			1/2"	VST06-1/2B
			3/4"	VST06-3/4B
			1"	VST06-1B
			1 1/4"	VST06-11/4B
	<b>FT09RS Red-bronze filter bowl</b>			
	For temperatures up to 70°C and operating pressures up to 25.0 bar			
	<b>DDS76 Differential pressure switch</b>			
			1/2" + 3/4"	DDS76-1/2
			1" + 1 1/4"	DDS76-1
	<b>ZR10K Double ring wrench for removing the filter bowl</b>			
			1/2" + 3/4"	ZR10K-1/2
			1" + 1 1/4"	ZR10K-1
		1 1/2" + 2"	ZR10K-1 1/2	

**Spare Parts**

F76S Fine Filters from 2007 onwards

Overview	Description	Dimension	Part No.
	<b>1 Pressure gauge</b>	0 - 16 bar	M76K-A16
	<b>2a Connection set threaded connection</b>	1/2"	VST06-1/2A
		3/4"	VST06-3/4A
		1"	VST06-1A
		1 1/4"	VST06-11/4A
		1 1/2"	VST06-11/2A
		2"	VST06-2A
	<b>2 Union seal washer (10 pcs.)</b>	1/2" + 3/4"	0901444
		1"	0901445
		1 1/4"	0901446
	1 1/2"	0901447	
	2"	0901448	
<b>3 Filter insert complete*, filter mesh 100 µm</b>	1/2" - 3/4"	AF11S-1/2A	
	1" - 1 1/4"	AF11S-1A	
	1 1/2" - 2"	AF11S-11/2A	
<b>4 Filter insert complete*, for filters with Double Spin Technology, Filter mesh 100 µm</b>	1/2" - 3/4"	AF11DS-1/2A	
	1" - 1 1/4"	AF11DS-1A	
<b>5 Clear filter bowl</b>	1/2" - 1 1/4"	KF11S-1A	
	1 1/2" - 2"	KF11S-11/2A	
<b>6 Red-bronze filter bowl</b>	1/2" - 1 1/4"	FT09RS-1A	
	1 1/2" - 2"	FT09RS-11/2A	
<b>7 O-ring set (10 pcs.)</b>	1/2" + 1 1/4"	0900747	
	1 1/2" + 2"	0900748	
<b>8 Drain connector</b>	1/2" - 2"	AA76-1/2A	
<b>9 Ball valve complete</b>	1/2" - 2"	KH11S-1A	
<b>10 Spring</b>	1/2" - 1 1/4"	2074900	
	1 1/2" - 2"	2159400	

\*The filter guide (either with double spin or without double spin feature) is included in the packaging of the replacement filter inserts (AF11DS and AF11S) only for the sizes 1/2" up to 1 1/4"!

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 by its Authorised Representative Honeywell GmbH  
 ENOH-1110GE23 R1116  
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