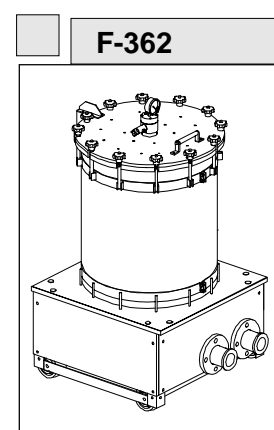
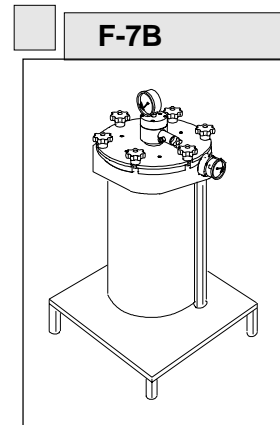
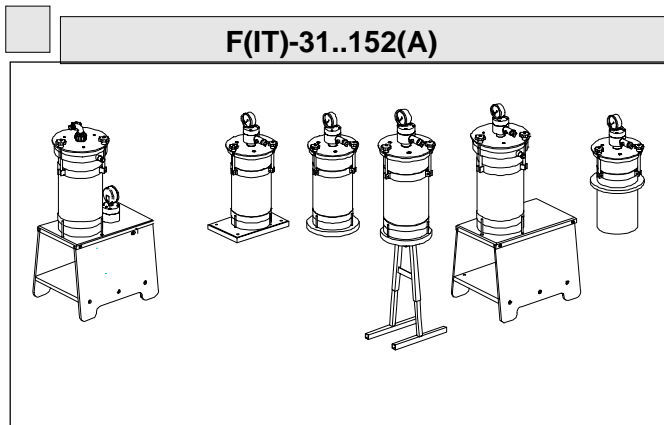
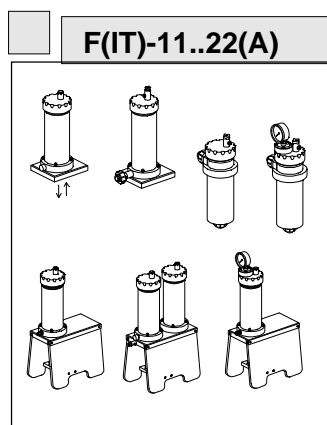


Index	Page
Productidentity	1
Detailed index	2
Introduction	3
Safety instructions	3
Receipt	3
Installation	4
Operation/maintenance	5
Troubleshooting	5
Dis/assembly, cleaning/replacing filtermedia	6-7-8
CEE Declaration	9
Exploded views (see index on page 2)	10..45
Partslists (see index on page 2)	10..45

## 1. Product identity



### EXAMPLE (sticker)

Customer:	Hendor PE USA
Your order no.	000001
Our reference	CF00/9126
Article	Filterchamber
Article code	3011IT071ZK-2302
Serial number(s)	S/N000865
Remarks	2302
Type	FIT-71Z-K-PP
Voltage	

## 2. Detailed index

Page	Contents
1	Product identity
2	Detailed index
3	Introduction Safety instructions Receipt
4	Installation of filterchambers
5	Operation instructions and maintenance Troubleshooting
6	Dissassembling, cleaning/replacing and reassembling the filter(media) Séries 11..22 / Bottom outlet chambers # 31A..152A / Top outlet chambers #31 .. 152
7	Dissassembling, cleaning/replacing and reassembling the filter(media) # 7B1 + 7B2
8	Dissassembling, cleaning/replacing and reassembling the filter(media) # 362
9	CEE Declaration
10*	Exploded view F-11-K-PP / F-12-K-PP on PP support
11*	Exploded view F-21-K-PP / F-22-K-PP on PP support
12	Exploded view F-11A-K-PP / F-12A-K-PP square mountingplate
13	Exploded view FIT-11Z-K-PP / FIT-12Z-K-PP in-tank model
14	Partslist Series 11..22
15*	Exploded view F-31-K/P-PP / F-32-K/P-PP top outlet + PP support
16*	Exploded view F-32-KC-PP / F-32-PC-PP top outlet + carbon bag
17*	Exploded view F-31A-K/P-PP / F-32A-K/P-PP bottom outlet + PP support
18	Exploded view F-31A-K/P-PP / F-32A-K/P-PP bottom outlet + mounting plate
19	Exploded view FIT-31A-K/P-PP / FIT-32A-K/P-PP In-Tank + bottom in-/and outlet
20	Exploded view FIT-31Z-K/P-PP / FIT-32Z-K/P-PP In-Tank+side in-/and bottom outlet
21	Partslist Series 31..32
22*	Exploded view F-71-K/P-PP / F-72-K/P-PP Top outlet + PP support
23*	Exploded view F-72-KC-PP / F-72-PC-PP Top outlet + PP support
24*	Exploded view F-71-E-PP Top outlet + PP support
25*	Exploded view F-71A-K/P-PP / F-72A-K/P-PP Bottom outlet + PP support
26*	Exploded view F-71A-K/P-S-PP / F-72A-K/P-S-PP Bottom outlet + Slurry tank
27*	Exploded view F-71A-E-PP Bottom outlet + Oilfilter
28	Exploded view F-71A-K/P-PP/PVDF / F-72A-K/P-PP/PVDF Bottom outlet + SS support
29	Exploded view F-71A-K/P-PP / F-72A-K/P-PP Bottom outlet + mountingplate
30	Exploded view FIT-71A-K/P-PP / FIT-72A-K/P-PP In-Tank + bottom in-/and outlet
31	Exploded view FIT-71Z-K/P-PP / FIT-72Z-K/P-PP In-Tank+side in-/and bottom outlet
32	Partslist Series 71..72
33*	Exploded view F-151-K/P-PP / F-152-K/P-PP Top outlet + PP support
34*	Exploded view F-151A-K/P-PP / F-152A-K/P-PP Bottom outlet + PP support
35*	Exploded view F-151A-K/P-S-PP / F-152A-K/P-S-PP Bottom outlet + Slurry tank
36	Exploded view F-151A-K/P-PP / F-152A-K/P-PP Bottom outlet + mountingplate
37	Partslist Series 151..152
38	Exploded view F-7B1-PP / F-7B2-PP Bagfilterchamber on PP legs
39	Partslist Series 7B
40*	Exploded view F-7B1-PP / F-7B2-PP Bagfilterchamber on PP support
41	Partslist Series 7B
42*	Exploded view F-362A-K-PP / F-362A-K-S-PP Filterchamber with large filtration area
43	Partslist Series 362A - K
44*	Exploded view F-362A-P-PP / F-362A-P-S-PP Filterchamber with large filtration area
45	Partslist Series 362A - P

\*) All model with \* symbol can be equipped with standard Hendor magnetic drive pump

## 2. Introduction

Thank you for choosing a Hendor product. Before you start to use it Hendor strongly recommends you read this owner's manual carefully and follow the instructions as closely as possible, so your product will function properly for years to come. This owner's manual contains all obligatory safety- instructions and it should be furnished to the end-user of this product. This owner's manual should be present at site, so operator or maintenance crew can use this manual

## 3. Safety instructions

### NOTICE

The following symbols are safety alert symbols. When you see the symbol(s) on the product or in the manual, be alert to the potential for personal injury



This label warns That failure to observe the precautions involve a **risk of electric shock**



This label warns about hazards that **will** cause **serious personal injury**, death or major property damage if ignored. Remind the product contains chemical liquids;



This label warns about hazards that **can** cause **serious personal injury**, death or major property damage if ignored



This label warns about hazards that **will** or **can** cause **minor** personal injury or property damage if ignored.

The label **NOTICE** indicates special instructions which are important but not related to hazards

**Carefully read and follow all safety instructions in this manual and on the pump.**

Keep safety labels in good condition. Replace missing or damaged safety labels

## 4. receipt

At receipt of the product, the identity of the product (by checking the nameplate data), the completeness of delivery as well as the absence of visible damage should be ascertained. Any problems arising from these checks, should be stated in writing and preferably signed by the forwarding agent for evidence.

## 5. Installation of filterchambers

Check after installation if the filterchamber is connected according to the prescribed way. The user should always take into consider the personal safety and health of himself as well as his direct surrounding.



DANGER

### Plumbing (by hose or by piping)

The connections to the filterchamber should be provided with reliable, persistent (also for pressure) material; for hoses take care of the use of correct hoseclamps. Use the correct O-rings for connections. Check the tightness of the connections before starting up; hoses and piping should be clean inside before starting up. Thermoplastic chambers will not tolerate plumbing stress; be sure your plumbing is properly aligned and supported.

### Installing

- Place the base of the filter chamber at the same level as the bath surface, or just above it. During cleaning, the liquid in the filter chamber can be led back to the bath via the draw-off tap. Moreover, the bath cannot empty via the filter chamber in case of emergency.
- If the filter chamber is placed below the bath surface, stopcocks will have to be installed in the supply pipe and outlet pipe, as well as a drain-valve tap in the supply pipe below the filterchamber
- When installing the filter chamber, take into account the need for easy access for cleaning and replacing the filter package.
- Adjust the diameter of the supply pipe and outlet pipe to the capacity of the pump.
- The maximum pressure of the pump should not exceed the maximum value indicated by the manometer.
- It is recommended that the outlet pipe of the filter chamber is placed as far as possible from the suction pipe of the pump in the bath to promote good bath movement.
- Before starting the filter, check to ensure that the filter package, filter chamber lid, pipework and valves are all properly attached.
- After starting the motor, the filter chamber needs to be properly bled. (If the filter chamber has an air-release tap, it is recommended to hang the tube of the air-release tap above the bath.)
- With pump **series 361/362**, the tiltable filter chamber lid can be placed in the desired position by turning the upper cylinder clamp, in accordance with the operating conditions.

A standard filter chamber is fitted with wheels. If so desired, these can easily be removed at the final location.



CAUTION

## 6. Operating instructions and maintenance



CAUTION

The maximum pressure in Hendor filterchambers should not exceed 1.6 bar. Hendor filterchambers for higher pressure up to 2.5 bar, can be recognized by a stainless steel base plate supporting the bottom of the filterchamber.

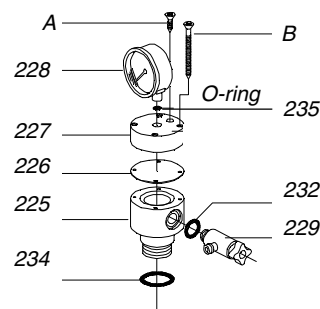
(During normal operation, the filter chamber should be checked periodically.)

### Regularly check the following:

- flow (compare it to the position of the manometer)
- tubes, tube clamps, taps, manometer
- sealing rubber of the filter chamber

### Topping up manometer liquid:

- Remove manometer. (228)
- Remove air-release screw (A).
- Top up manometer casing (227) with anti-freeze.
- Assemble manometer (mind O-ring 235).
- The liquid must show up in screw hole of A.
- Put back air-release screw (A) into manometer-casing and tighten it. (This to be sure no air remains)
- If liquid does not show up, repeat the procedures hereabove. If still no liquid shows membrane(226) is probably damaged and should be replaced. To do so remove manometer (228) (mind O-ring 235) then unscrew 4 screws (B); replace the membrane (226), refit 4 screws lightly, meanwhile holding down membrane by inserting an unsharp object in manometer-casing(227), then tighten 4 screws (not too tight). Remove air release screw(A) and repeat the procedures hereabove to top up the manometer liquid..



## 7. Trouble shooting (filterchambers)

### problem: possible causes:

7.1	No or too little liquid flow	01 - 02 - 03 - 06
7.2	Leakage from the filter chamber lid	04 - 05
7.3	Manometer not reading correctly	07 - 08- 09
7.4	Filtered liquid is turbid	10 - 11 - 12 - 13 - 14 - 15 - 16
7.5	Foam formation in the bath	17 - 18 - 20
7.6	Air in the bath	06 - 18 - 19 - 20

### Causes:

- 01 Filter element is blocked.
- 02 Taps are in a wrong position.
- 03 The pump does not function properly (see the pump manual).
- 04 The star buttons are not tightened properly.
- 05 The sealing rubber of the filter chamber is damaged or warped.
- 06 The filter chamber is insufficiently bled.
- 07 The manometer is faulty.
- 08 There is no or too little liquid (anti-freeze) in the chamber below the manometer.
- 09 The diaphragm of the manometer is warped.
- 10 The filter element is incorrectly assembled.
- 11 The filter element is incomplete (there is a bypass allowing unfiltered liquid to escape).
- 12 The filter material is of inferior quality.
- 13 The filter material has a deviant measure.
- 14 The selected filter material is too coarse.
- 15 The filter material is damaged or torn.
- 16 The liquid contains colloidal elements.
- 17 Unwashed cartridges have been used that contain residues of wetting agents.
- 18 There is an air leak in the suction pipe.
- 19 The return pipe is located above the bath surface (free fall of liquid!)
- 20 The supply pipe is too close to a point where air is blown into the liquid

## 8. Disassembling, cleaning/replacing and reassembling the filter



Depending on the type of pump, the filter should be cleaned at a maximum difference in pressure of 1-2 bar.)

- Switch off the pump.
- Turn off the mains taps.
- Open the drain-valve.
- Open the air-release tap (in case of discharge at the bottom) or air-release plug (in case of discharge at the top).
- Loosen the star buttons. (or unscrew filterchamberlid by hand #11..22)
- Remove the filter chamber lid. (or open it carefully -> #362)



### Replacing/cleaning filtermedia For Series 11..22 (Single cartridge filter housings)

- Loosen the button on top of the cartridge.
- Remove the cartridge.
- Clean or replace the cartridge and put it back.
- Lightly tighten the button of the cartridge-rod.



### For bottom outlet-version (series 31A/32A/71A/72A/151A/152A);)

By staying a screwdriver into the hole of the vertical strip of the cylinder clamping strip and by subsequently pushing down this screwdriver, the cover plate will come loose easily.

#### Filtercartridges

- Loosen the button on top of the cartridge.
- Remove the cartridge.
- Clean or replace the cartridge and put it back.
- Lightly tighten the button of the cartridge-rod.

#### Filterpaper

- Lift the filter plate package bodily from the filter chamber by means of the central button. (It is simply pressed into the base of the chamber with help of two O-rings)
- Place the filter package on the supplied synthetic half ring.
- Now the base of the filter package with the two O-rings can be removed by giving it a few turns.
- Now the filter plates and paper can be removed one by one.
- The package with new filter paper is assembled in reverse order. (Be sure to press it firmly by hand, so that both O-rings are properly fixed into the base of the filterchamber).



### For top outlet-version (series 31/32/71/72/151/152;

By staying a screwdriver on the upper side of the vertical strip of the cylinder clamping strip and by subsequently pushing down this screwdriver, the cover plate will come loose easily; by subsequently inserting the screwdriver into the hole of the strip and repeating the action, the filter package holder can be likewise easily removed. ( see also the printed instructions on the lid).

#### Filtercartridges

- Turn the cartridge element upside down and put it on a work bench.
- Loosen the button on top of the cartridge.
- Remove the cartridge.
- Clean or replace the cartridge and put it back.
- Lightly tighten the button on the cartridge-rod.

#### Filterpaper

- Turn the filter plate element upside down and put it on the work bench.
- Loosen and remove the retaining plate of the filter plate package.
- Now the filter plates and paper can be removed one by one.
- The package with new filter paper is assembled in reverse order.

## 9. EEC-Declaration



### EEC-DECLARATION OF CONFORMITY FOR MACHINERY

(Directive 89/392/EEC, Annex II, sub A)

Manufacturer: **hendor pompen b.v.**  
Address: P.O Box 9, 5530 AA Bladel ( NL)  
Leemskuilen 15, 5531 NK Bladel (NL)  
(www.hendor.com Email: info@hendor.com)

Herewith declares that the product ;

- is in conformity with the provisions of the MachineryDirective, as amended, and with national implementing legislation; (Directive 89/392/EEC)
- is in conformity with the provisions of the following other EEC directives :
  - Low Voltage Directive (Directive 73/23/EEC)

Confirmed at Bladel,

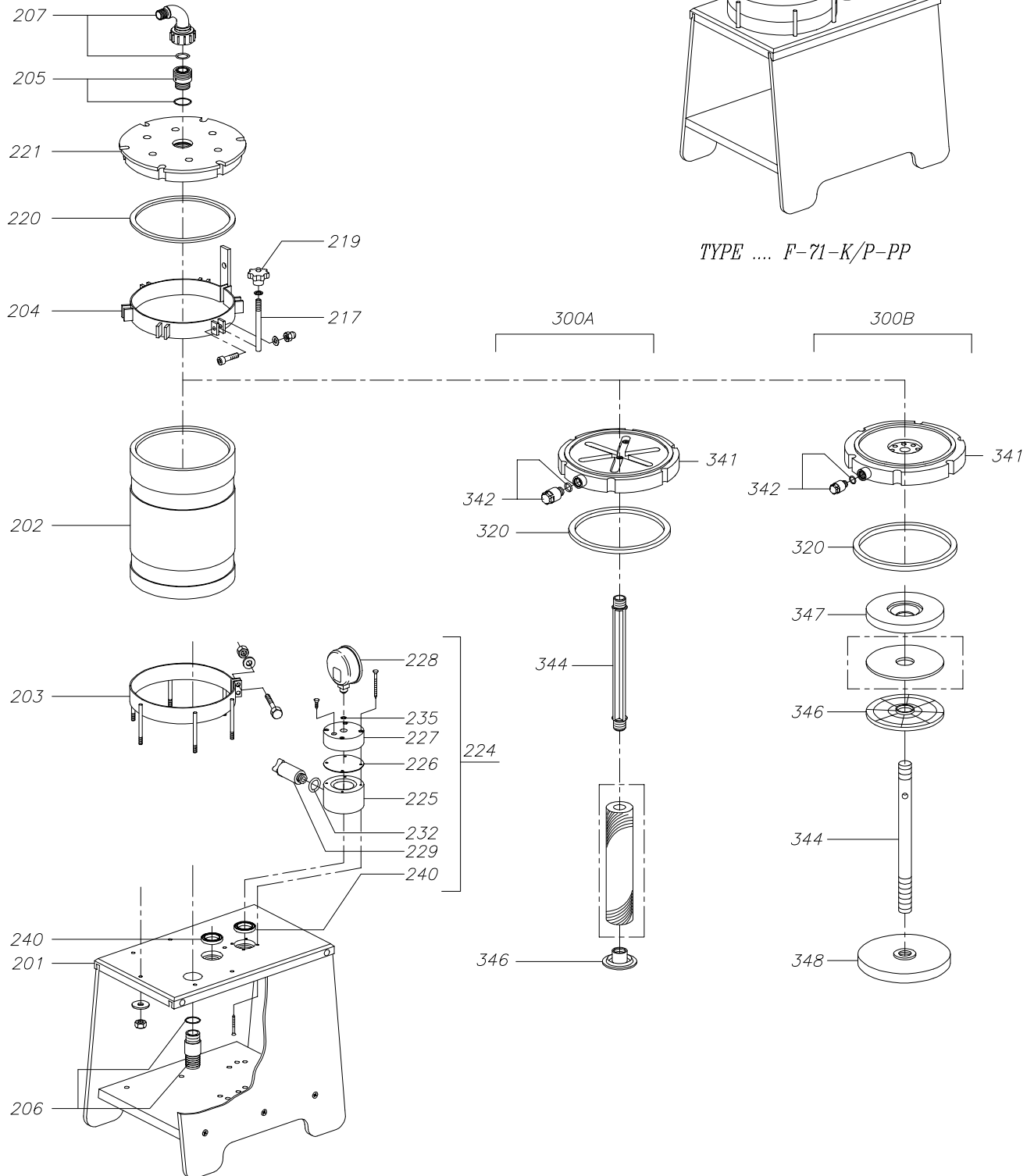
Signature

Technical director **H.F.G. Bohncke.**

## 10. Exploded view



**F-71-K/P-PP (7x 10" or 37x Ø205x32mm)**  
**F-72-K/P-PP (7x 20" or 69x Ø205 x32mm)**  
**(with top outlet and PP support)**



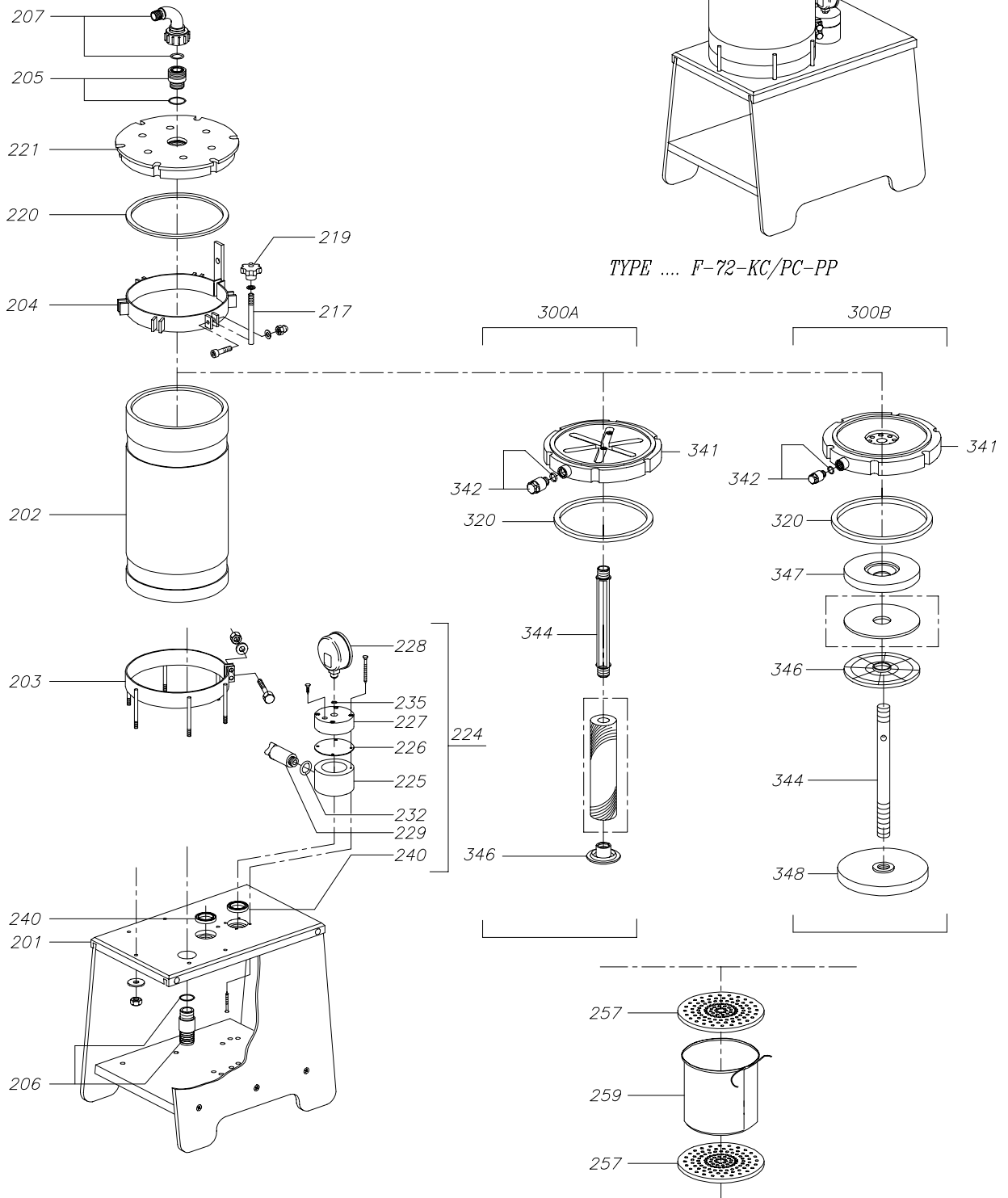
**When ordering parts always quote chamber type and serial number**



## 10. Exploded view



**F-72-KC-PP (7x 10" cartridges and 10" carbon bag)**  
**F-72-PC-PP (37x discs Ø205 x32mm + 10" carbon bag)**  
**(with top-outlet and PP support )**

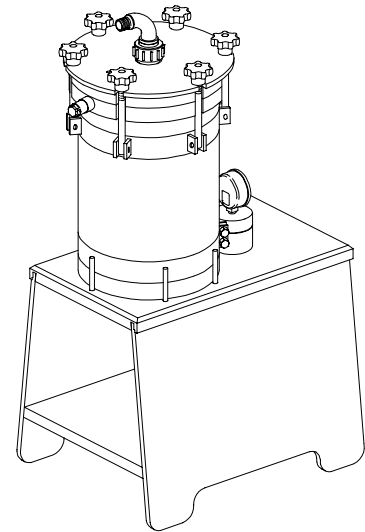
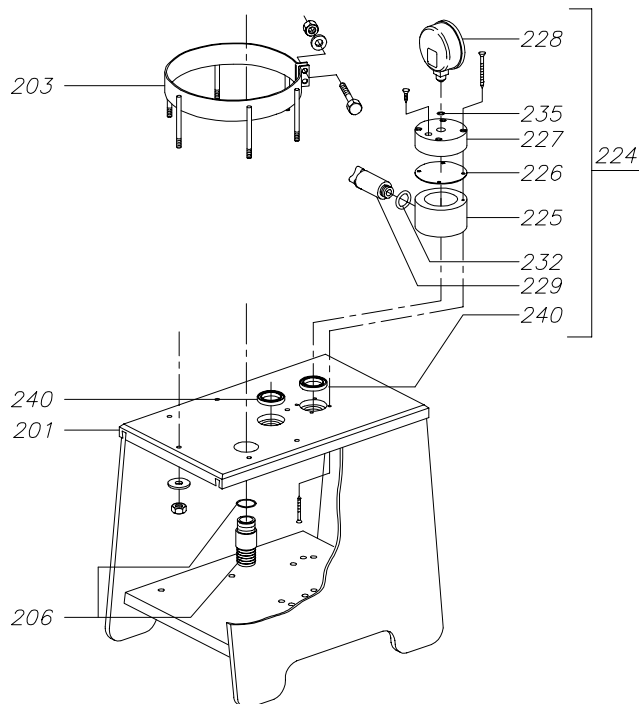
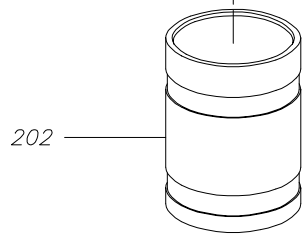
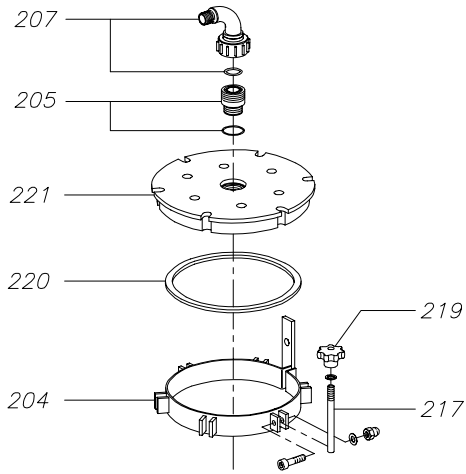


**When ordering parts always quote chamber type and serial number**

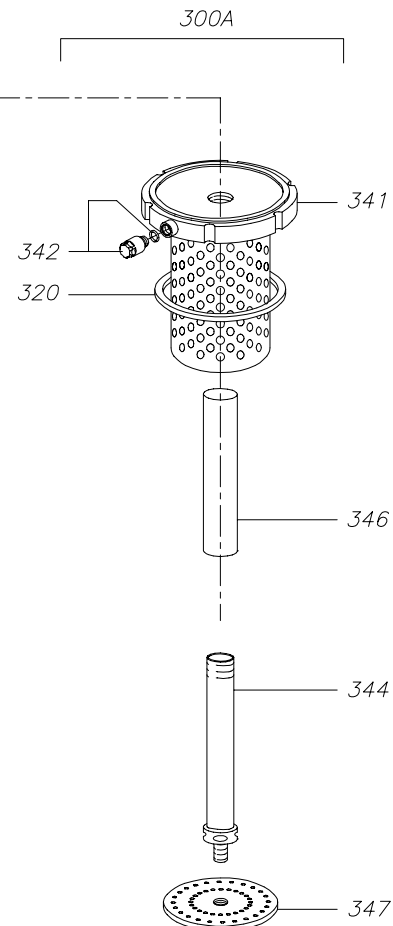
## 10. Exploded view



**F-71-E-PP (with oilfilter, PP fibers in basket )  
(Top-outlet model with PP support)**

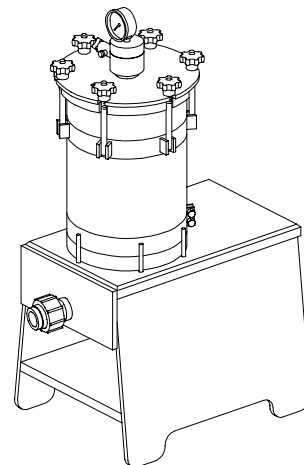
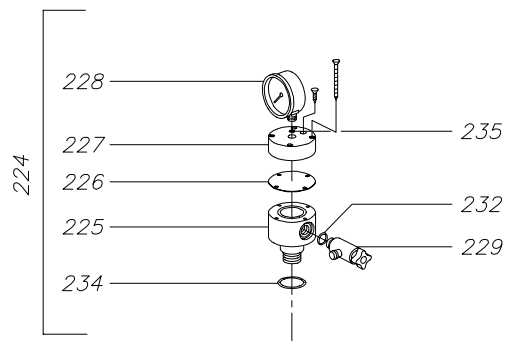


TYPE .... F-71-E-PP

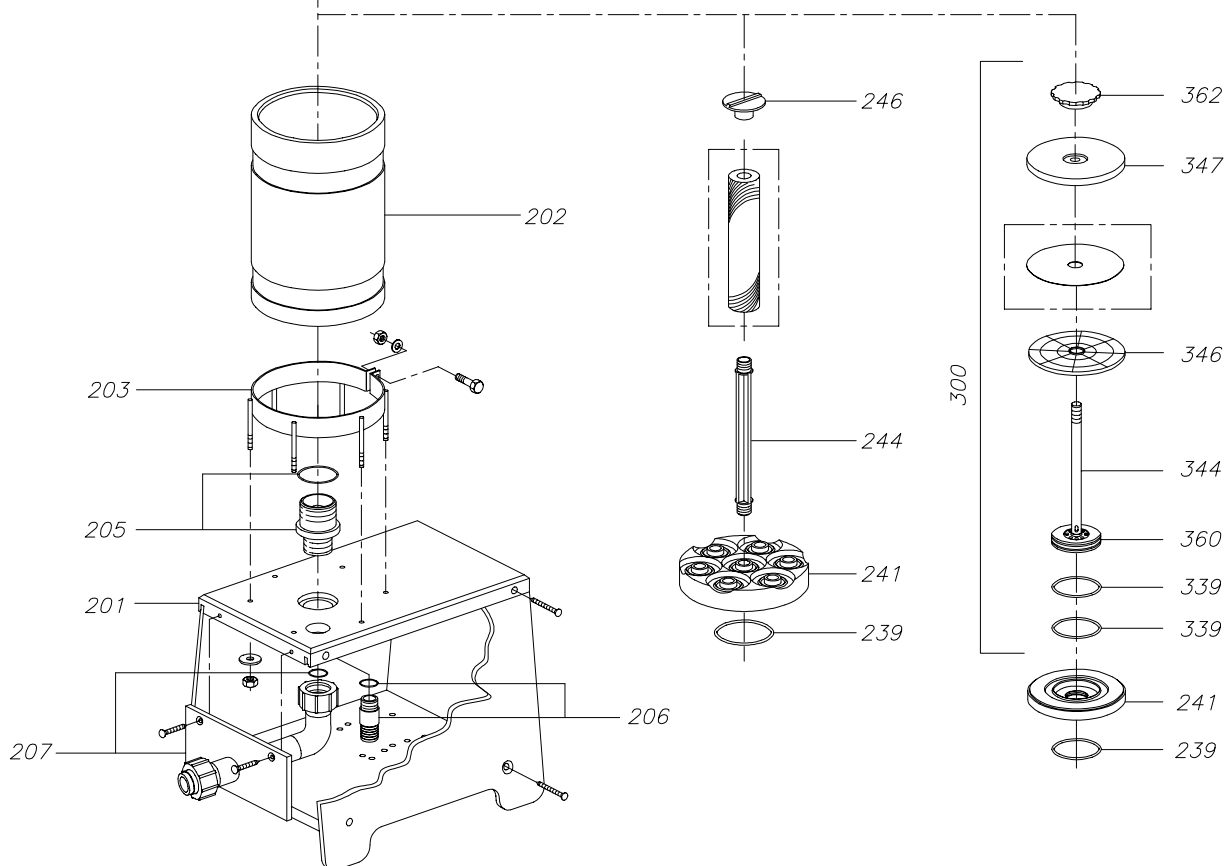
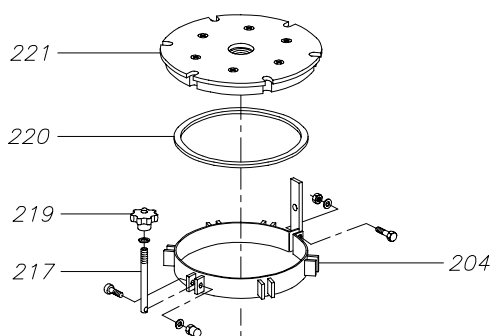


**When ordering parts always quote chamber type and serial number**

## 10. Exploded view



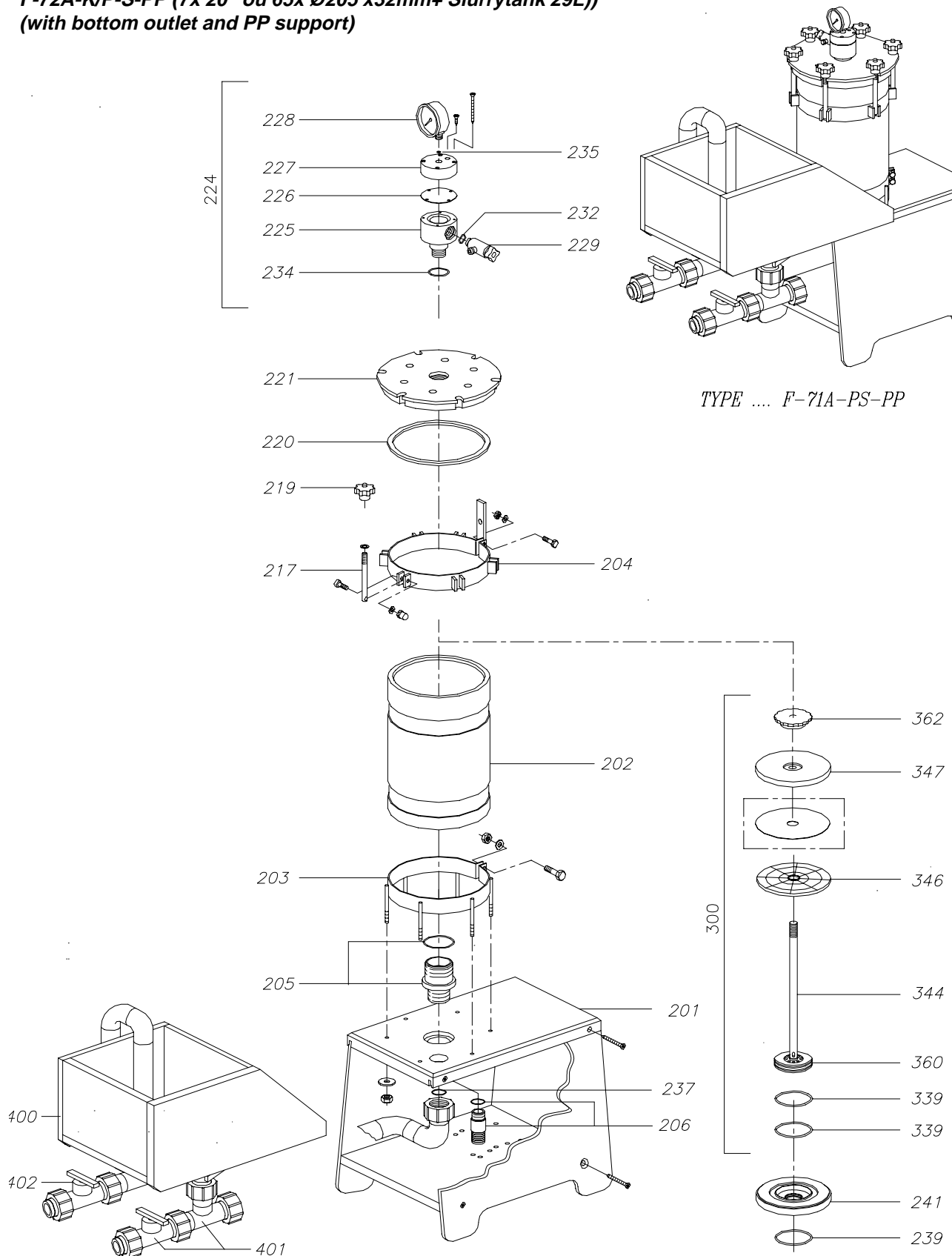
**F-71A-K/P-PP (7x 10" or 32x Ø205x32mm)**  
**F-72A-K/P-PP (7x 20" or 65x Ø205 x32mm)**  
 (With bottom outlet and PP support)



*When ordering parts always quote chamber type and serial number*

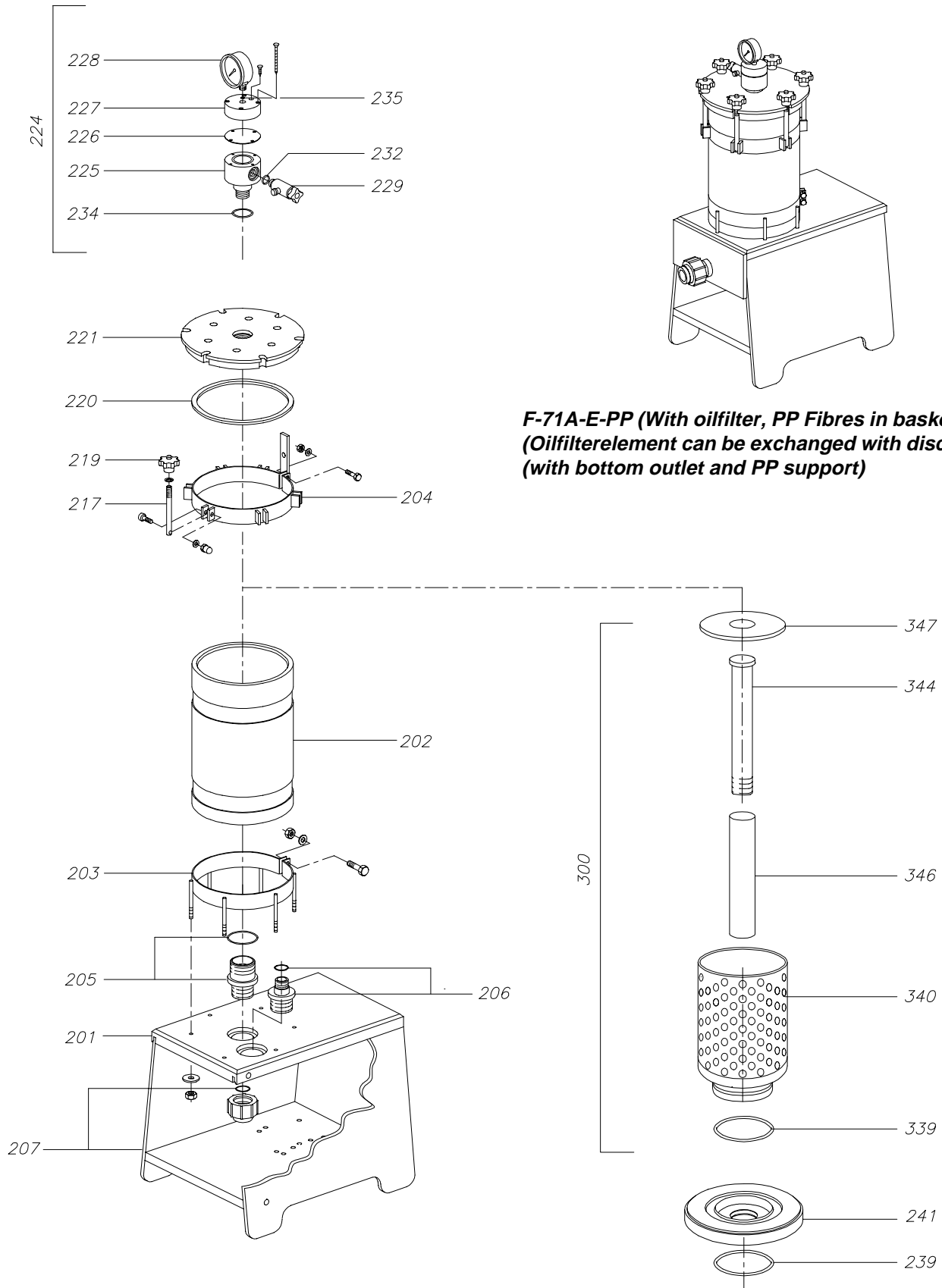
## 10. Exploded view

**F-71A-K/P-S-PP (7x 10" or 32x Ø205x32mm + Slurrytank 14L)**  
**F-72A-K/P-S-PP (7x 20" ou 65x Ø205 x32mm+ Slurrytank 29L))**  
**(with bottom outlet and PP support)**



**When ordering parts always quote chamber type and serial number**

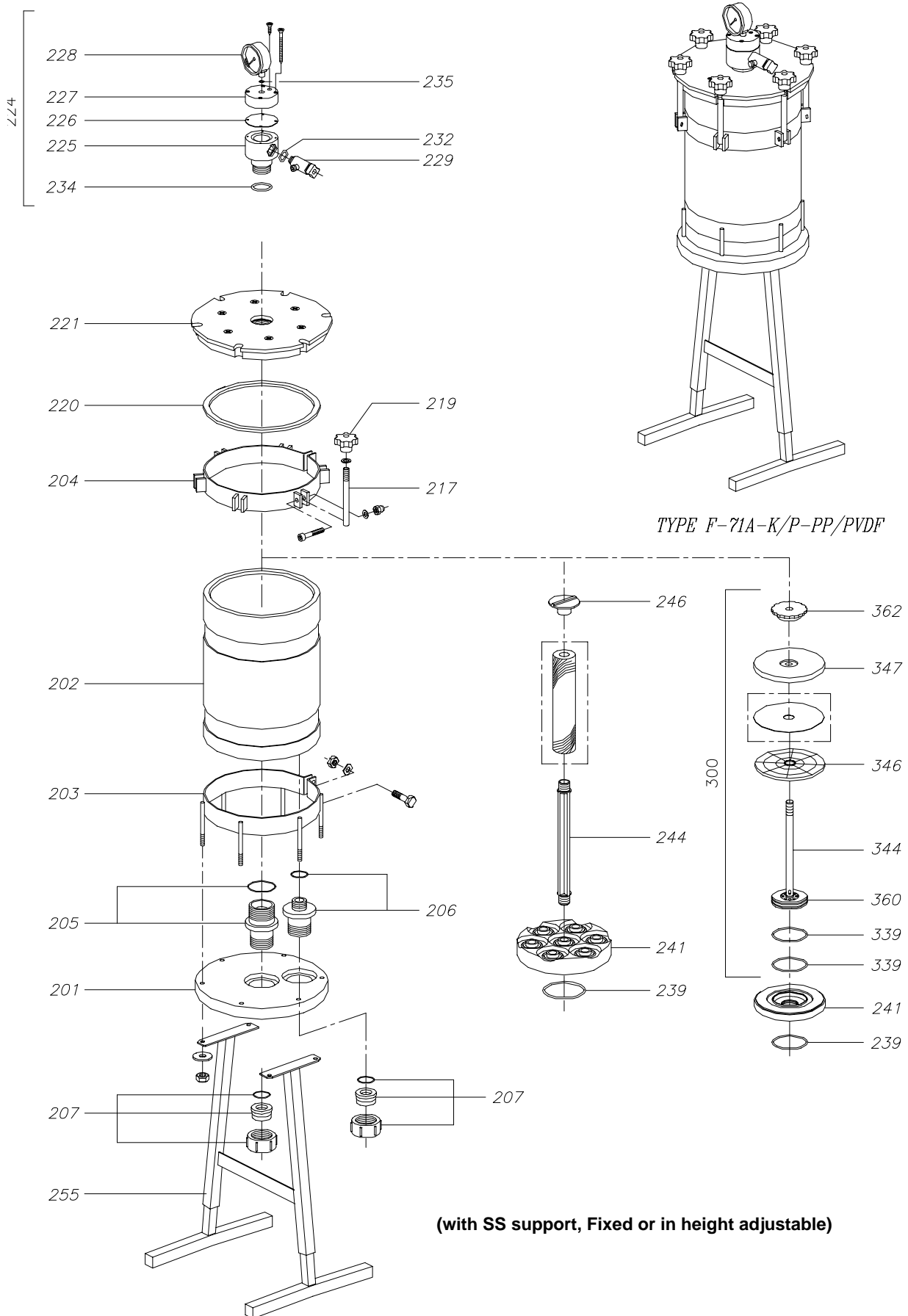
## 10. Exploded view



**F-71A-E-PP (With oilfilter, PP Fibres in basket)**  
**(Oilfilterelement can be exchanged with discfilter)**  
**(with bottom outlet and PP support)**

**When ordering parts always quote chamber type and serial number**

## 10. Exploded view



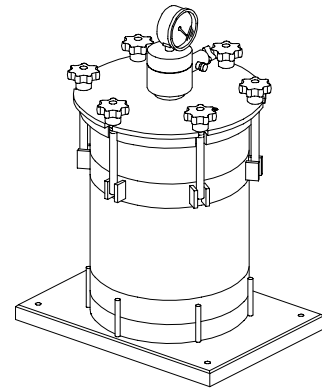
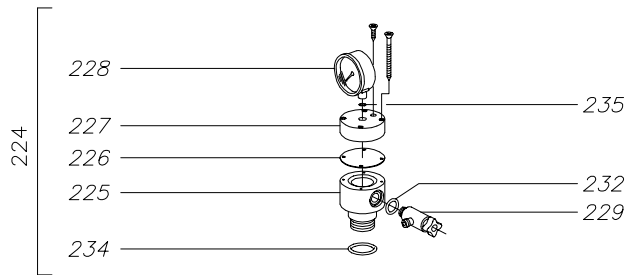
(with SS support, Fixed or in height adjustable)

When ordering parts always quote chamber type and serial number

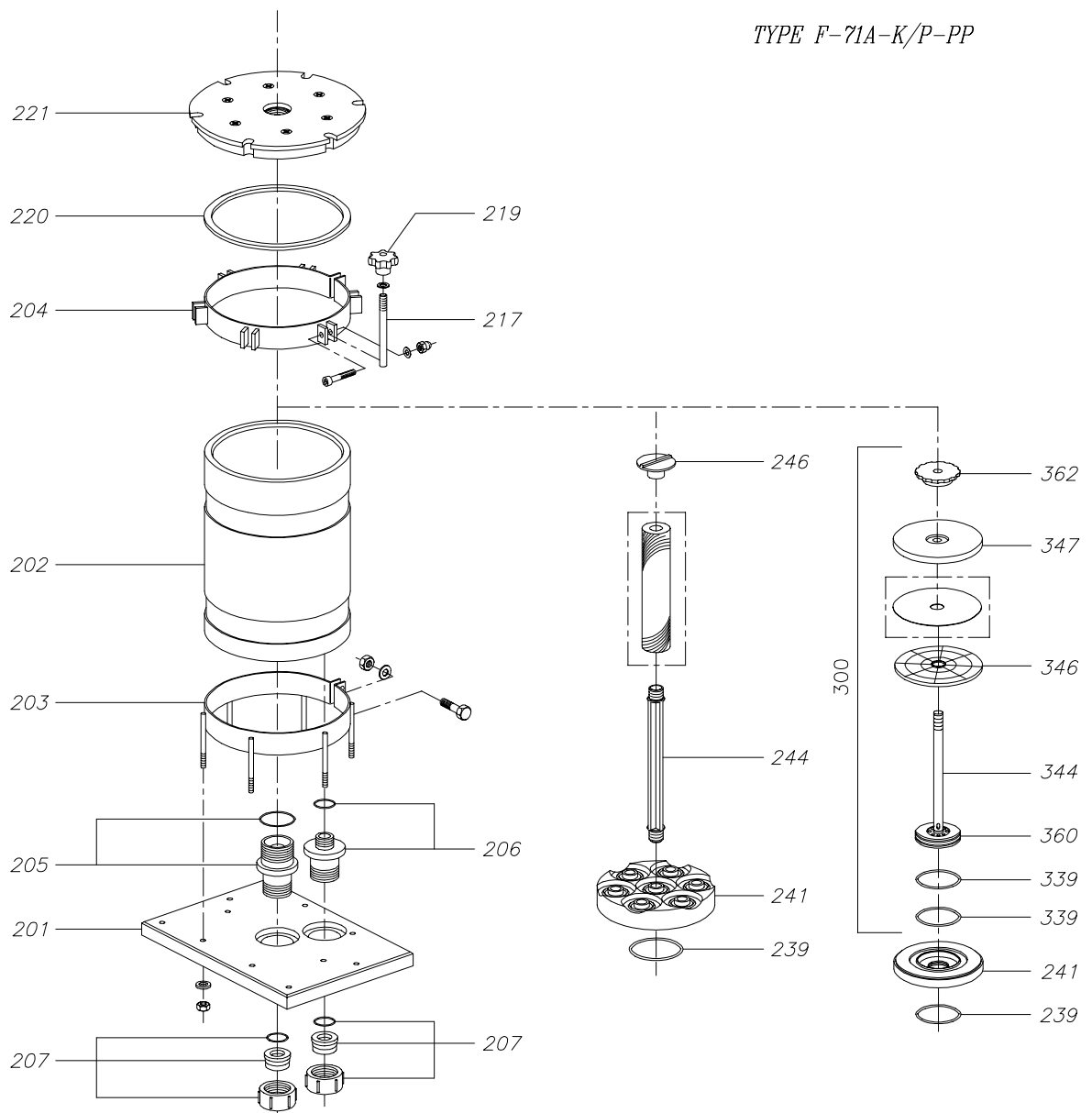
## 10. Exploded view



**F-71A-K/P-PP (7x 10" or 32x Ø205 x32mm)**  
**F-72A-K/P-PP (7x 20" or 65x Ø205 x32mm)**  
**(Standard filterchamber with bottom in-/and outlet)**



TYPE F-71A-K/P-PP

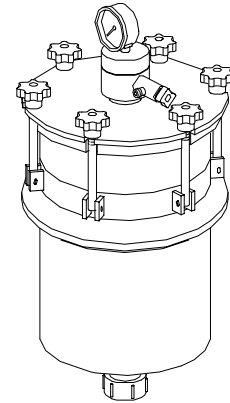
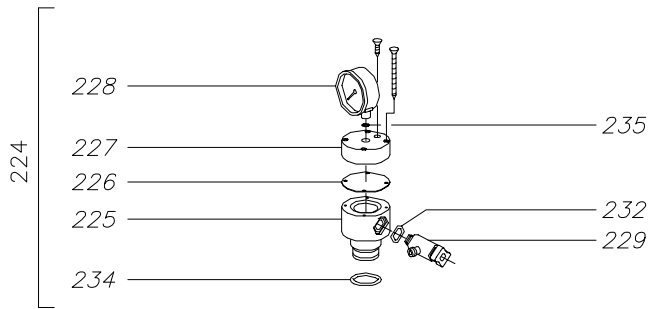


**When ordering parts always quote chamber type and serial number**

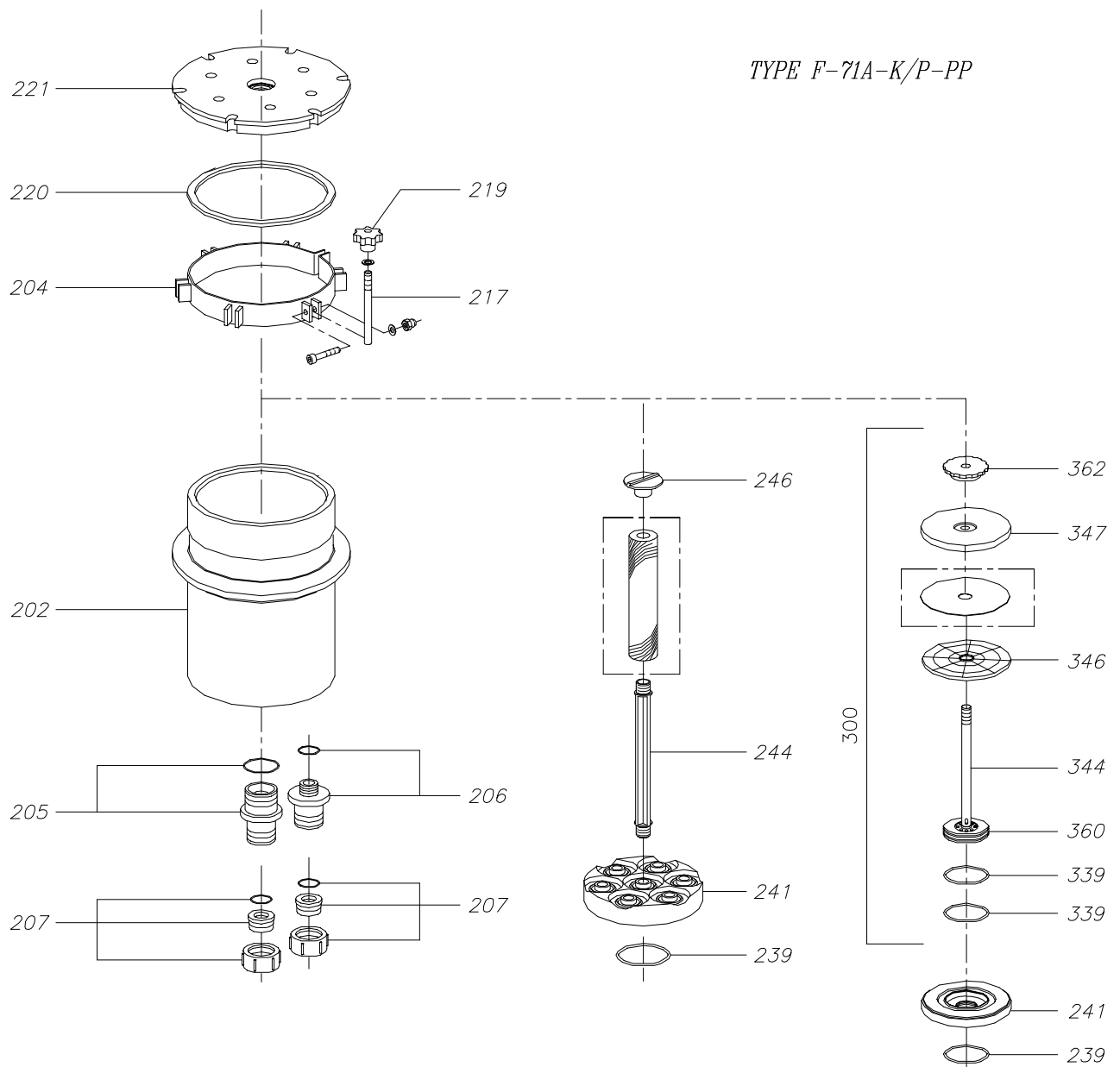
## 10. Exploded view



**FIT-71A-K/P-PP (7x 10" or 32x Ø205 x32mm)**  
**FIT-72A-K/P-PP (7x 20" or 65x Ø205 x32mm)**  
 ("FILTER-IN-TANK" standard with bottom in-/and outlet)



TYPE F-71A-K/P-PP

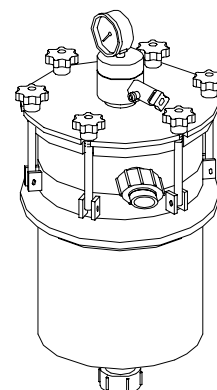
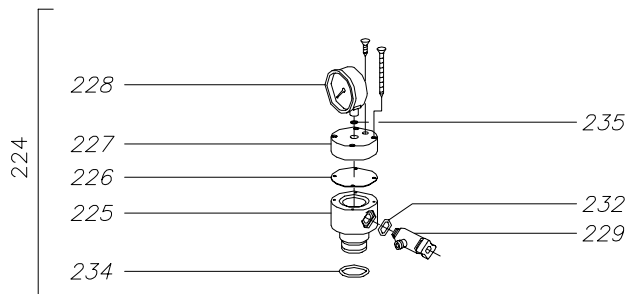


**When ordering parts always quote chamber type and serial number**

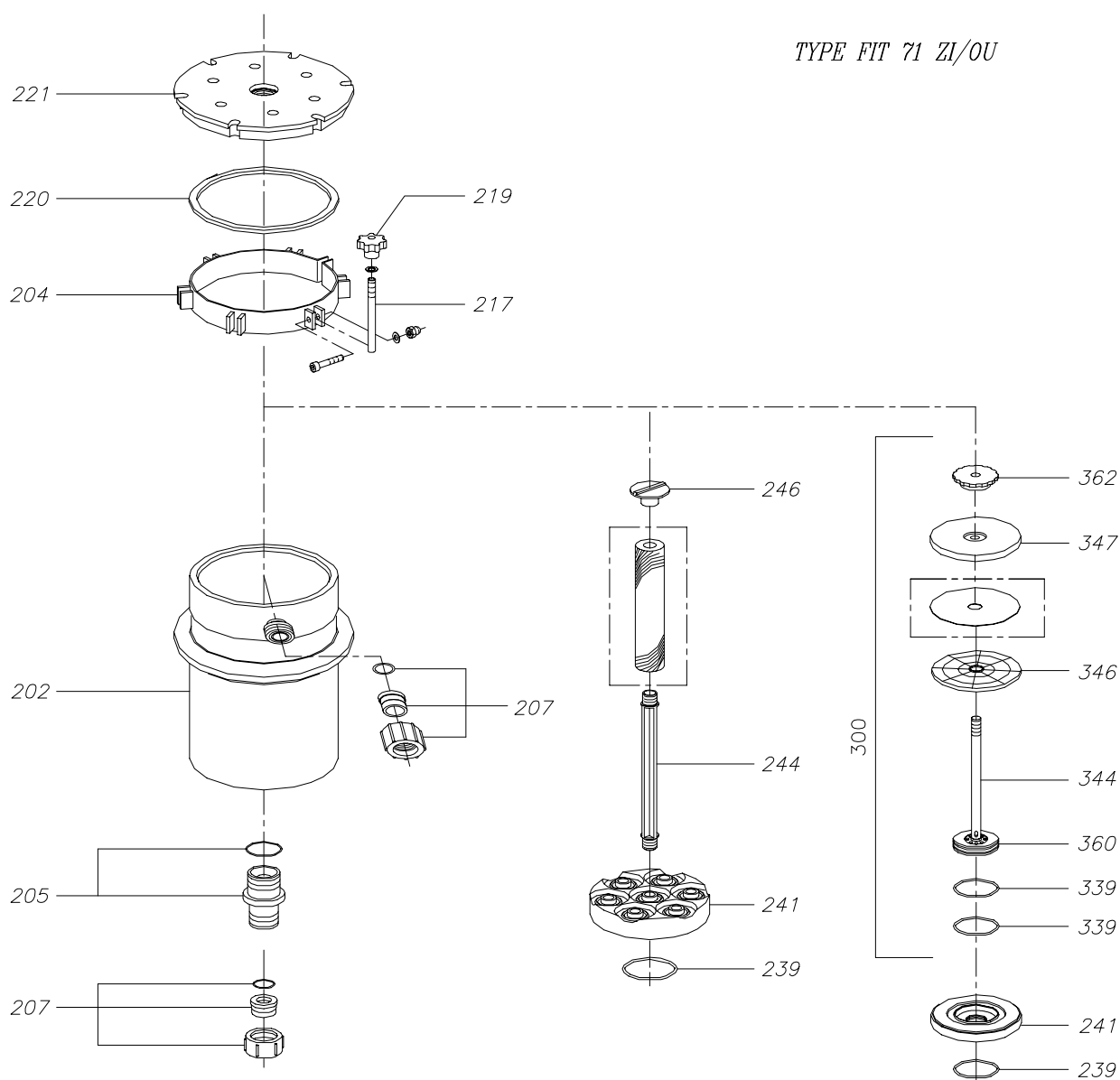


## 10. Exploded view

**FIT-71Z-K/P-PP (7x 10" or 32x Ø205 x32mm)**  
**FIT-72Z-K/P-PP (7x 20" or 65x Ø205 x32mm)**  
 ("FILTER-IN-TANK" standard with  
 side inlet and bottom outlet)



TYPE FIT 71 ZI/OU



**When ordering parts always quote chamber type and serial number**

# 11. Partslist #71-72

FILTERCHAMBERS # F-71/72			F71-K-PP	F71-P-PP	F72-K-PP	F72-P-PP	F72-K-C-PP	F72-P-C-PP	F71-A-K-PP	F71-A-P-PP	FIT-71-A-K-PP	FIT-71-A-P-PP	FIT-71-Z-K-PP	FIT-71-Z-P-PP	F72-A-K-PP	F72-A-P-PP	FIT-72-A-K-PP	FIT-72-A-P-PP	FIT-72-Z-K-PP	FIT-72-Z-P-PP
Pos.	Description	Articlenr.																		
201	Mountingplate	9011500400918							1	1					1	1				
201	Mountingplate	9011500400919	1	1	1	1	1	1												
202	Filterchamber	9011500400003							1	1										
202	Filterchamber	9011500400006									1	1								
202	Filterchamber	9011500400126											1	1						
202	Filterchamber	9011500400301													1	1				
202	Filterchamber	9011500400116															1	1		
202	Filterchamber	9011500400021	1	1															1	1
202	Filterchamber	9011500400005			1	1	1	1												
203	SS Bottom Ring	9063500400306	1	1	1	1	1	1	1	1					1	1				
204	SS Top Ring	9063500400306	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
205	Discharge coupling complete	9011500400121							1	1	1	1	1	1	1	1	1	1	1	1
205	Discharge coupling complete	9011500400125	1	1	1	1	1	1												
206	Inlet coupling complete	9011500400123							1	1	1	1			1	1	1	1		
206	Inlet coupling complete												1	1					1	1
206	Inlet hose coupling complete	9011500400124	1	1	1	1	1	1												
207	GF Union Complete	9011651032000							2	2	2	2	2	2	2	2	2	2	2	2
207	Discharge hose (+ elbow )	9011500400046	1	1	1	1	1	1												
217	SS Rod complete	9063500900086	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
219	Starknob	9011626012000	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
220	Sealing ring filterchamber	9031402001002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
221	SS/PP Filtercoverlid	9011500400056	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
224	Pressure gauge complete 0..1bar								0	0	0	0	0	0	0	0	0	0	0	0
224	Pressure gauge complete 0..1.6bar	9011500900053							1	1	1	1	1	1	1	1	1	1	1	1
224	Pressure gauge complete 0..2.5bar	9011500900094							0	0	0	0	0	0	0	0	0	0	0	0
224	Pressure gauge complete 0..1bar		0	0	0	0	0	0												
224	Pressure gauge complete 0..1.6bar	9011500900088	1	1	1	1	1	1												
224	Pressure gauge complete 0..2.5bar		0	0	0	0	0	0												
225	Pressure gauge housing	9011500900007							1	1	1	1	1	1	1	1	1	1	1	1
225	Pressure gauge housing	9011500200901	1	1	1	1	1	1												
226	Membrane pressure gauge	9031500900304	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
227	Cover pressure gauge	9011500900075	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
228	SS Gauge 0 .. 1 bar	9063650000001																		
228	SS Gauge 0 .. 1.6 bar	9063650000002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
228	SS Gauge 0 .. 2.5 bar	9063650000004																		
	SS bottom pressure plate *)	9063500400057							0	0	0	0	0	0	0	0	0	0	0	0
229	Drain valve complete	9011500900018	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
232	O-Ring drain valve	90431016350	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
234	O-Ring pressure housing	90431220003							1	1	1	1	1	1	1	1	1	1	1	1
235	O-ring pressure gauge	90431005300	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
239	O-ring	90431237003							1	1	1	1	1	1	1	1	1	1	1	1
240	Sealing (Gauge)	9031402001004	2	2	2	2	2	2												
241	Centre Core AP-insert	9011500400050							1		1	1	1	1	1	1	1	1	1	1
241	Centre Core AK insert	9011500900308							1		1	1	1	1	1	1	1	1	1	1
244/344	Support rod 10"	9011500900308	7		14		7		7		7		7		14		14		14	
246/346	Knob support rod	9011500900309	7		7		7		7		7		7		7		7		7	
257	Support plate carboninsert	9011504160001					2	2												
259	Carbon bag (10")	43C071				1	1													
300	Filterinsert AP 10" complete	9011030071012							1		1	1	1	1						
300	Filterinsert AP 20" complete	9011030072012													1		1		1	
320	Sealing Filterinsert	9031402001002		1		1	1													
339	O-ring	90431237003							2		2	2	2	2	2	2	2	2	2	2
341	Centre core K-insert	9011500400040	1		1		1													
341	Centre Core P-Insert	9011500400038		1		1	1													
342	Air release complete	9011500900313	1	1	1	1	1													
344	Support rod filterdiscs 10" AP	9011500900057							1		1	1	1	1						
344	Support rod filterdiscs 20" AP	9011500900058													1		1		1	
344	Support rod filterdiscs 10" P	9011500900064		1			1													
344	Support rod filterdiscs 20" P	9011500900065				1														
346	Filterdiscs (200mm)	9011501603001		37		69		37		32		32		32		65		65		65
347	Top plate filterdiscs AP / P	9011500400054							1		1	1	1	1	1	1	1	1	1	1
347	PP connection cartridge rods	9011500900026			7										7		7		7	
348	Bottom plate P filterinsert	9011500400053		1		1	1													
360	Bottom plate AP filterinsert	9011500400049							1		1	1	1	1	1	1	1	1	1	1
362	Nut Filterdiscs	9011500900013							1		1	1	1	1	1	1	1	1	1	1
300A	Filterinsert K complete 10"	9011030071001	1				1													
300A	Filterinsert K complete 20"	9011030072001			1															
300B	Filterinsert P complete 10"	9011030071012		1			1													
300B	Filterinsert P complete 20"	9011030072012				1														

\*) For pumphead &gt;2bar

o = options