

# ATZ Series

MAX 300 l/min



# ATZ Series

## Features & Benefits

Features	Advantages	Benefits
Cast aluminium construction	Compact and robust durable construction	Suitable for heavy duty industrial applications
Integrated check valve	Filter element can be changed when the filter housing is submerged under the oil in the tank	Improved protection of sophisticated pumps
Magnetic pre-filtration	Removes ferrous particles, even during bypass conditions	Improved fluid cleanliness levels Extended element life time
In-to-Out filtration	All captured contamination retains inside the element	No recontamination of system during change of elements
Wide range of vacuum measurement devices	Continuous filter condition monitoring	Contributes to just-in-time service Improved protection of pump when pressure measurement device connected with pump drive management

## Typical Applications

- Wool untangling machine
- Hydraulic winch
- Power packs with sophisticated pumps
- Drilling blocks

### The Parker Filtration ATZ Series Submersible Suction Filters.

ATZ Filters are located below the tank's oil level, offering maximum protection for the hydraulic system pump. When removing the element, the check valve closes automatically, eliminating any chance of oil leakage. Pre-filtration takes place by means of a magnet column. Thanks to the 'In-to-Out' filter principle, contaminated oil cannot leak back into the system. ATZ Filters are capable of handling flow rates up to 300 l/min.



## Specification

**Operating pressure:**  
Vacuum.

**Assembly:**  
Suction line filter, mounted horizontally against tank side.

**Connections:**  
Threads G1½ (ISO 228) or flanges 2" SAE-300PSI.

**Filter housing:**  
Aluminium.

**Seal material:**  
Nitrile, neoprene, fluoroelastomer.

**Operating temperature range:**  
-40° to +120°C.

**Bypass valve:**  
Blocked.

**Degree of filtration:**  
Determined by multipass test according to ISO 16889.

**Flow fatigue characteristics:**  
Filter media is supported so that the optimal fatigue life is achieved.

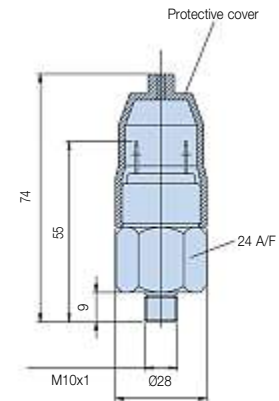
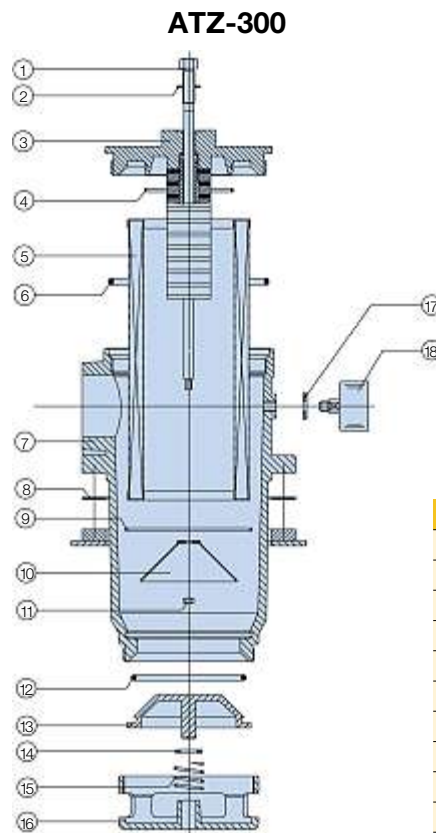
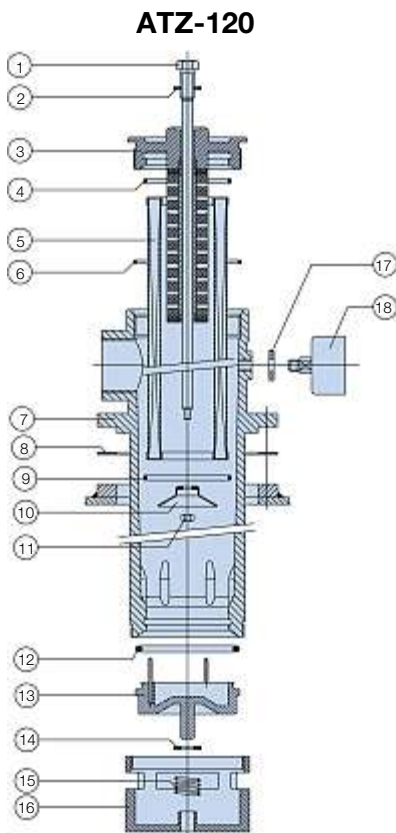
**Filtration media:**  
Microglass III.  
10µ cellulose and 40µ Stainless Steel.

**Element collapse rating:**  
10 bar (ISO 2941).

**Pressure indicator options:**  
0.15 bar or 0.30 bar (vacuum gauge).  
125-250VAC (LJ-0, 5A, Lr-2, 0A) (electrical vacuum switch).  
12-28Vdc (Li-1, 0A, Lr-3, 0A) (electrical vacuum switch).

**Features:**  
Unique check valve, enabling element change below oil level.

**Filter element:**  
Element with steel end caps.



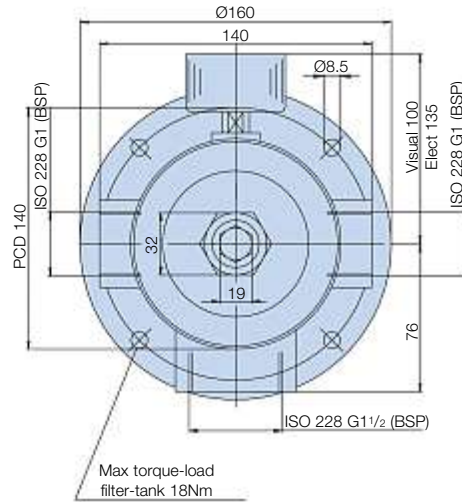
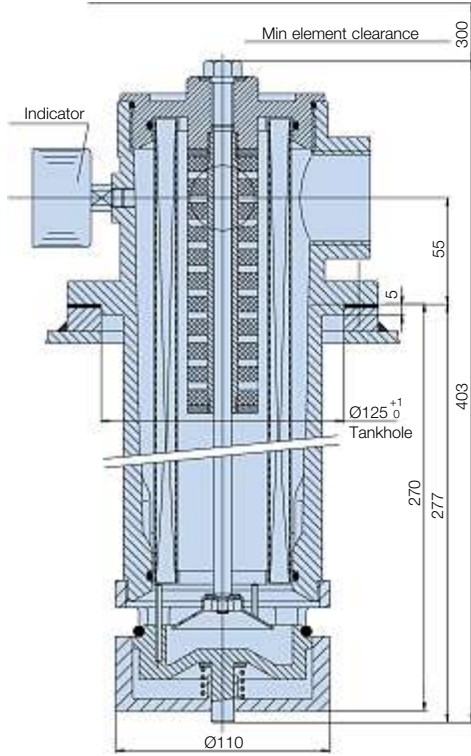
**ATZ-120 & ATZ-300**

Ref. No.	Description	Ref. No.	Description
1	Bolt	10	Valve support
2	Seal ring	11	Nut
3	Insert	12	O-ring
4	O-ring	13	Valve
5	Element	14	Ring
6	O-ring	15	Spring
7	Filter-housing	16	Valve-housing
8	Gasket	17	Bonded seal
9	O-ring	18	Indicator

# ATZ Series

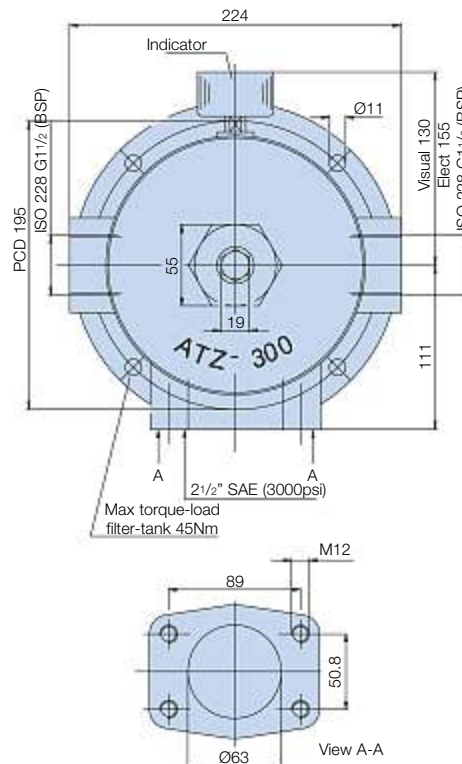
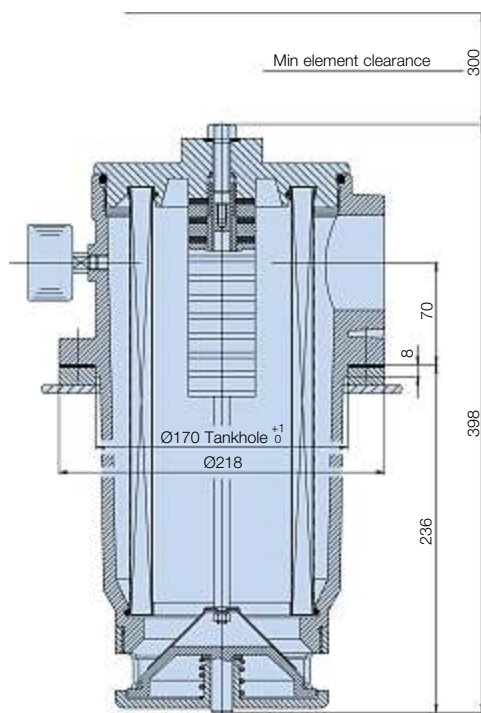
## Specification (cont.)

### ATZ-120



The Parker suction filters, type ATZ, are designed for submerged operation. The filters contain a unique check valve which automatically closes when the filter insert is removed from the housing, thus enabling element change below oil level. Construction is based on the field proven Parker Filter System.

### ATZ-300



## Pressure Drop Curves

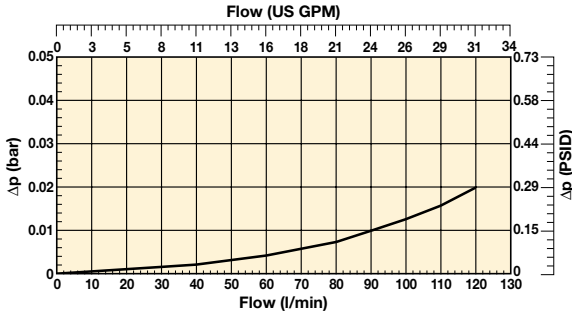
The recommended level of the initial pressure drop for suction filters is 0.03 bar.

If the medium used has a viscosity different from 32cSt, pressure drop over the filter can be estimated as follows:

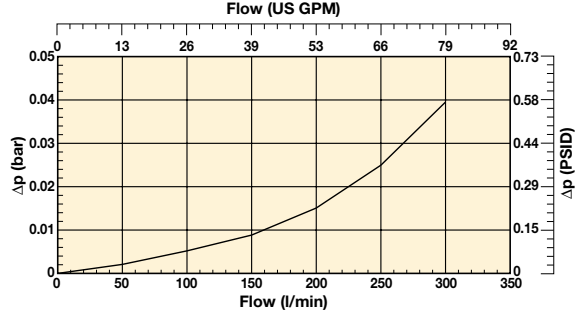
$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt}$$

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

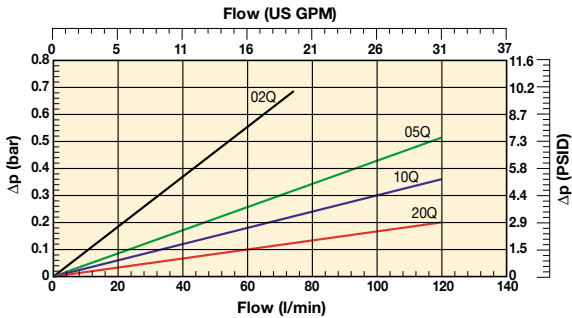
**ATZ 1-120 (G1<sup>1/2</sup>) Empty Housing**



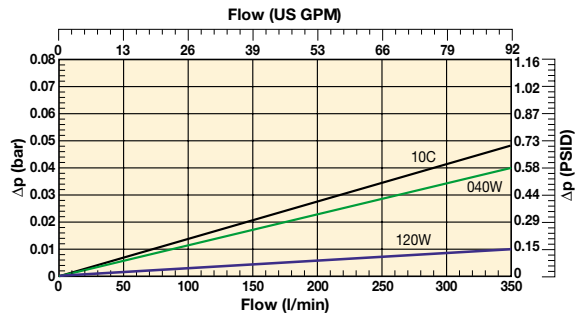
**ATZ 300 (2<sup>1/2</sup> SAE FLANGE) Empty Housing**



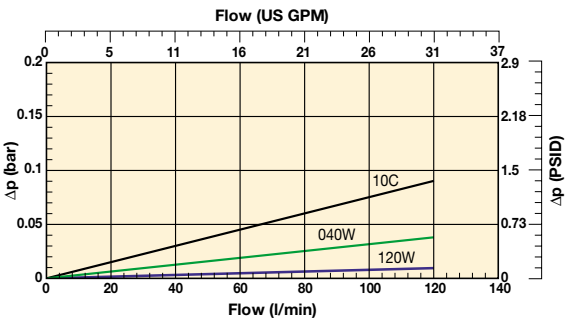
**ATZ120 Filter Element Length 1**



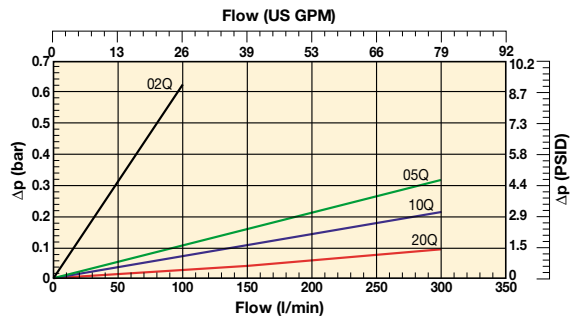
**ATZ300 Filter Element Length 2  
(cellulose and stainless steel)**



**ATZ120 Filter Element Length 1  
(cellulose and stainless steel)**



**ATZ300 Filter Element Length 2**



## Suction Filters

# ATZ Series

## Ordering Information

### Standard products table

Part number	Supersedes	Flow (l/min)	Model number	Element length	Media rating (µ)	Seals	Indicator	Bypass settings	Ports	Included options	Replacement elements	Supersedes
<b>ATZ110CBP1XG241</b>	ATZ120-G1½ FXX1-R-10 B M	120	ATZ120	Length 1	10 NOM	Nitrile	Plugged	Blocked	G1½"	None	<b>937958</b>	FXX1-R-10
<b>ATZ110QBP1XG241</b>	ATZ120-G1½ FXW1-R-10 B M	120	ATZ120	Length 1	10 ABS	Nitrile	Plugged	Blocked	G1½"	None	<b>937964Q</b>	FXW1-R-10
<b>ATZ210CBP1XR481</b>	ATZ300-S2½-C FXX3-10 B M	300	ATZ300	Length 2	10 NOM	Nitrile	Plugged	Blocked	2½" SAE-3000 PSI	None	<b>937959</b>	FXX3-10
<b>ATZ210QBP1XR481</b>	ATZ300-S2½-C FXW3-10 B M	300	ATZ300	Length 2	10 ABS	Nitrile	Plugged	Blocked	2½" SAE-3000 PSI	None	<b>937965Q</b>	FXW3-10

Note: Filter assemblies ordered from the product configurator below are on extended lead times. Where possible, please make your selection from the table above.

### Product configurator

#### Configurator example ATZ filter

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
<b>ATZ</b>	<b>2</b>	<b>10C</b>	<b>B</b>	<b>U2</b>	<b>X</b>	<b>R48</b>	<b>1</b>

Box 1	Box 2	Box 3									
<b>Code</b>	<b>Filter type</b>		<b>Degree of filtration</b>								
<b>ATZ</b>	<b>Housing</b>	<b>Code</b>	<b>Element media</b>			<b>Glass fibre</b>					
	ATZ 1-120	<b>1</b>	Microglass III (for disposable elements)			Wire mesh					
	ATZ 2-300	<b>2</b>									
			<b>Cellulose</b>			<b>Nom. rating</b>					
			Disposable element			10C	02Q	05Q	<b>10Q</b>	20Q	040W

Box 4	
<b>Seal type</b>	
<b>Seal material</b>	<b>Code</b>
Nitrile	<b>B</b>
Fluoroelastomer	V
Neoprene	N

Box 5	
<b>Indicator</b>	
	<b>Code</b>
Vacuum gauge, setting -0.15 bar, M10x1	U1
Vacuum gauge, setting -0.3 bar, M10x1	<b>U2</b>
Vacuum switch 42V, -0.15 bar setting, NO/NC, M10 x 1	V1
Vacuum switch 42V, -0.30 bar setting, NO/NC, M10 x 1	V2
Vacuum switch 250 VAC, -0.15 bar setting, NO/NC, M10 x 1	V3
Vacuum switch 250 VAC, -0.30 bar setting, NO/NC, M10 x 1	V4
No indicator, indicator ports not machined	N
No indicator, indicator port plugged	<b>P</b>
Other settings for indicators / gauges on request	on request

Box 6	
<b>Bypass valve</b>	
<b>Bypass valve</b>	<b>Code</b>
Blocked bypass	<b>X</b>

Box 7	
<b>Filter connection</b>	
<b>Ports</b>	<b>Code</b>
G1½" + 2 x G1" (For ATZ 1-120 only)	<b>G24</b>
2½" SAE-3000 PSI + 2 x G1½" (For ATZ 2-300 only)	<b>R48</b>

Box 8	
<b>Options</b>	
<b>Options for ATZ 1-120</b>	<b>Code</b>
1 x G1½" + 1 x G1" plugged	<b>1</b>
Not plugged	Q
1 x G1" right plugged	R
2 x G1" left & right plugged	P
Special	on request
<b>Options for ATZ 2-300</b>	
1 x SAE16 plugged	1
Not plugged	Q
Special	on request

### Highlights Key (Denotes part number availability)

<b>123</b>	Item is standard
<b>123</b>	Item is standard green option
<b>123</b>	Item is semi standard
123	Item is non standard

Note: Standard items are in stock, semi standard items are available within four weeks

Degree of filtration						Media code
Average filtration beta ratio β (ISO 16889) / particle size µm [c]						
βx(c)=2	βx(c)=10	βx(c)=75	βx(c)=100	βx(c)=200	βx(c)=1000	
% efficiency, based on the above beta ratio (βx)						
<b>50.0%</b>	<b>90.0%</b>	<b>98.7%</b>	<b>99.0%</b>	<b>99.5%</b>	<b>99.9%</b>	<b>02Q</b>
N/A	N/A	N/A	N/A	N/A	4.5	<b>05Q</b>
N/A	N/A	4.5	5	6	7	<b>10Q</b>
N/A	6	8.5	9	10	12	<b>20Q</b>
6	11	17	18	20	22	

Spare element table						
ATZ 1-120	FXX1-R-10	FXW1-R-2	FXW1-R-5	FXW1-R-10	FXW1-R-20	SF1-R-40
Part number spare element	937958	937960Q	937962Q	937964Q	937966Q	937967
ATZ 2-300	FXX3-10	FXW3-2	FXW3-5	FXW3-10	FXW3-20	SF3-40
Part number spare element	937959	937961Q	937963Q	937965Q	937966Q	937968

Visual indicator	
Setting	-0.3 bar
Thread connection	M10x1
Code	FMUV2VBMM10L

Electrical switch	
Setting	-0.3 bar
Thread connection	M10x1
Switch type	NO or NC
Elec.connection	AMP terminal 6.3x0.8
Protection	IP54 (terminal IP00)
Performance	125-250 VAC (Li 0,5A, Lr 2,0A max)
	12-28 Vdc (Li 1,0A, Lr3,0A max)
Code	FMUU2VBMM10L

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.