

# ATZ Series

Suction Filters

Max. 300 l/min



## When the ultimate protection is critical

### Compact and robust cast aluminium filter design

The ATZ Series locate below tank oil level offering maximum protection for the hydraulic system pump. Pre-filtration takes place by means of a magnetic column. Maximum flow 300 l/min. Suitable for heavy duty industrial applications and recommended for reservoirs with high contamination ingress.



## Contact Information:

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## Product Features:

- ATZ submersible suction filters locate below tank oil level.
- Pre-filtration takes place by means of a magnetic column.
- Maximum flow 300 l/min.
- In-to-Out filter stops contaminated oil leaking back into the system.

# ATZ Series

## Suction Filters

### 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 nominal 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:**  
Seal material Nitrile: -40° to +100°C.  
Seal material Fluoroelastomer: -20° to +130°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.

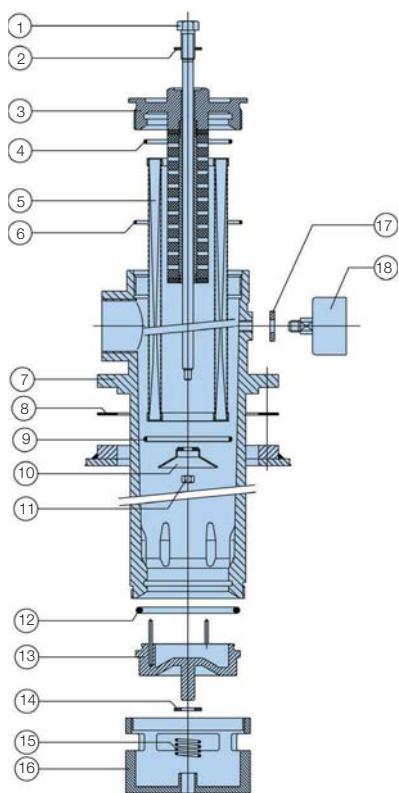
**Element collapse rating:**  
10 bar (ISO 2941).

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

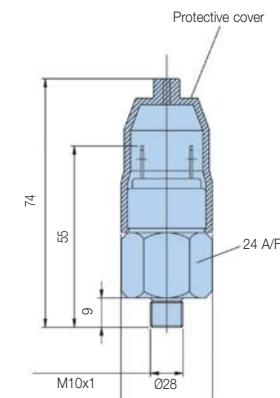
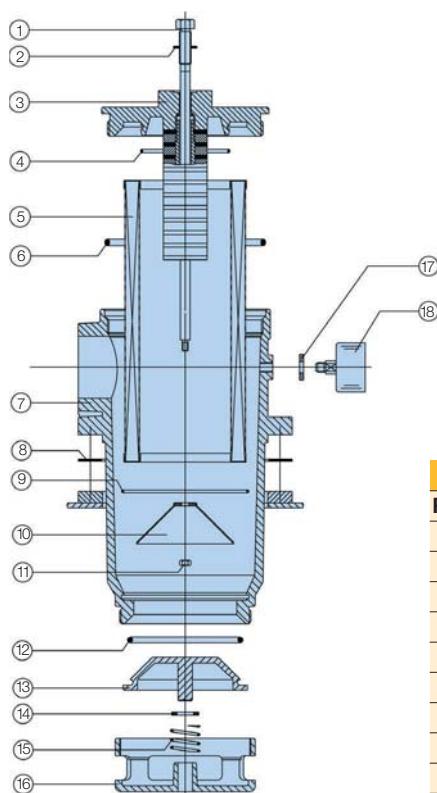
**Features:**  
Unique check valve, enabling element change below oil level.

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

**ATZ-120**



**ATZ-300**



**ATZ-120 & ATZ-300**

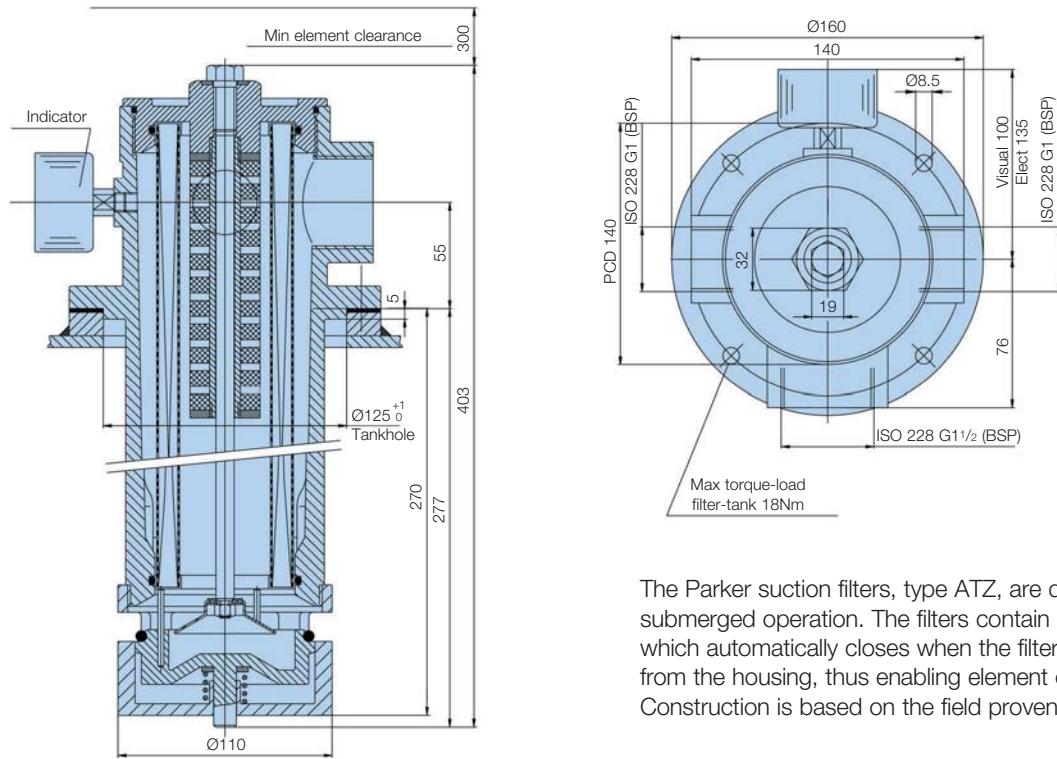
Ref. No.	Description	Ref. No.	Description
1 1	Bolt	10 1	Valve support
2 1	Seal ring	11 1	Nut
3 1	Insert	12 1	O-ring
4 1	O-ring	13 1	Valve
5 1	Element	14 1	Ring
6 1	O-ring	15 1	Spring
7 1	Filter-housing	16 1	Valve-housing
8 1	Gasket	17 1	Bonded seal
9 1	O-ring	18 1	Indicator

# ATZ Series

## Suction Filters

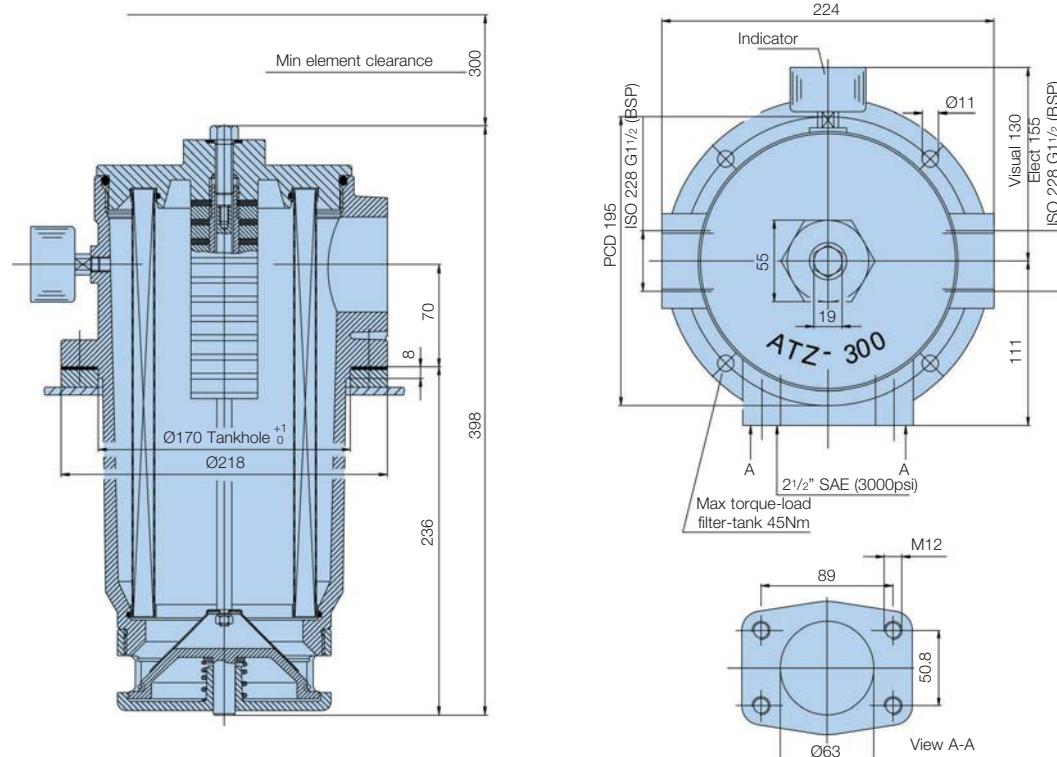
### Specification (cont.)

#### 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

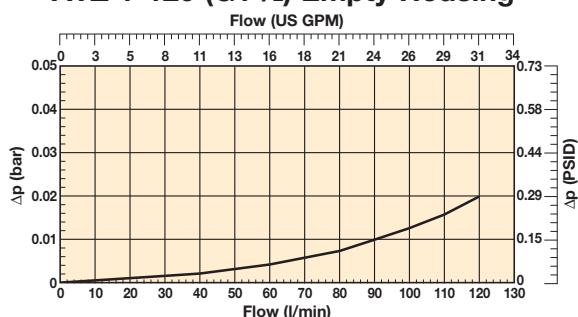
The recommended level of the initial pressure drop for suction filters is 0.03 bar.

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

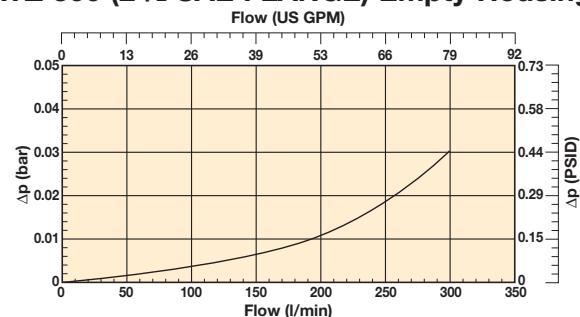
$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt}$$

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

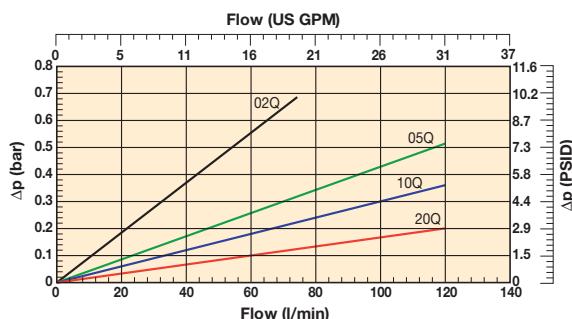
**ATZ 1-120 (G1<sup>1/2</sup>) Empty Housing**



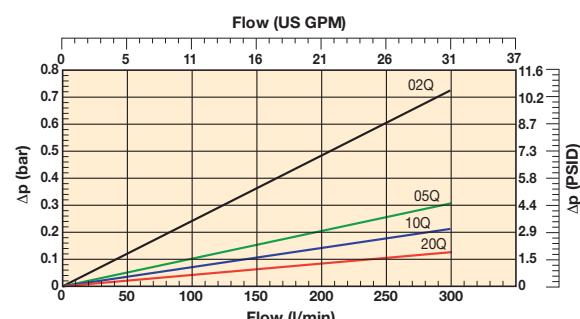
**ATZ 300 (2<sup>1/2</sup> SAE FLANGE) Empty Housing**



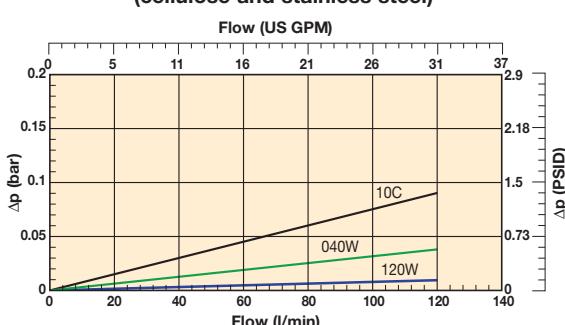
**ATZ120 Filter Element Length 1**



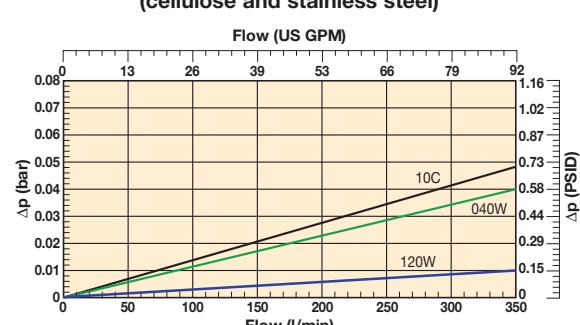
**ATZ300 Filter Element Length 2**



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



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



# ATZ Series

## Suction Filters

### Ordering Information

#### Standard products table

Part number	Supersedes	Flow (l/min)	Model number	Element length	Media rating ( $\mu$ )	Seals	Indicator	Bypass settings	Ports	Included options	Replacement elements	Supersedes
ATZ110CBPXG241	ATZ120-G1½ FXX1-R-10 B M	120	ATZ120	Length 1	10 NOM	Nitrile	Plugged	Blocked	G1½"	None	937958	FXX1-R-10
ATZ110QBPXG241	ATZ120-G1½ FXW1-R-10 B M	120	ATZ120	Length 1	10 ABS	Nitrile	Plugged	Blocked	G1½"	None	937964Q	FXW1-R-10
ATZ210CBPXR481	ATZ300-S2½-C FXX3-10 B M	300	ATZ300	Length 2	10 NOM	Nitrile	Plugged	Blocked	2½" SAE-3000 PSI	None	937959	FXX3-10
ATZ2100BPXR481	ATZ300-S2½-C FXW3-10 B M	300	ATZ300	Length 2	10 ABS	Nitrile	Plugged	Blocked	2½" SAE-3000 PSI	None	937965Q	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
ATZ	2	10C	B	U2	X	R48	1

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

#### Box 4

Seal type	
Seal material	Code
Nitrile	B
Fluoroelastomer	V
Neoprene	N

#### Box 5

Indicator		Code
Vacuum gauge, setting -0.15 bar, M10x1		U1
Vacuum gauge, setting -0.3 bar, M10x1		U2
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		P
Other settings for indicators / gauges on request		on request

#### Box 6

Bypass valve	
Bypass valve	Code
Blocked bypass	X

#### Box 7

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

#### Box 8

Options	
Options for ATZ 1-120	Code
1 x G1½" + 1 x G1" plugged	1
Not plugged	Q
1 x G1" right plugged	R
2 x G1" left & right plugged	P
Special	on request
Options for ATZ 2-300	
2½" SAE with blind counterflange	1
No counterflange	Q
Special	on request

#### Highlights Key (Denotes part number availability)

123	Item is standard
123	Item is standard green option
123	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					
Average filtration beta ratio $\beta$ (ISO 16889) / particle size $\mu\text{m}$ [c]					
Bx(c)=2	Bx(c)=10	Bx(c)=75	Bx(c)=100	Bx(c)=200	Bx(c)=1000
50.0%	90.0%	98.7%	99.0%	99.5%	99.9%
N/A	N/A	N/A	N/A	N/A	4.5
N/A	N/A	4.5	5	6	7
N/A	6	8.5	9	10	12
6	11	17	18	20	22

#### Media code

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

ATZ Series Seal Kits	
Part Number	Description
2049010001	NITRILE SEAL KIT ATZ1
2049010060	FLUOROELASTOMER SEAL KIT ATZ1
2049010002	NITRILE SEAL KIT ATZ2

Visual indicator	
Setting	-0.3 bar
Thread connection	M10x1
Code	FMUJ2VBMM10L

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, Lr 3,0A max)
Code	FMUJ2VBMM10L

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.

