



B SERIES
COMMERCIAL FILTER



Features & Advantages

- 100% factory tested according to international and Minder improved standard.
- Smart air release valve for manual & automatic air pressure release
- Designed to assemble with valve manifold
- In-fluent manifold distribution to prevent clogging
- Materials used are durable and suitable for all-weather performance
- 10 – 15 years life-time
- Available in standard 2.5bar and advance 4.0bar operating pressure model

Warranty

Fittings	1 year
Filter Tank	1 years

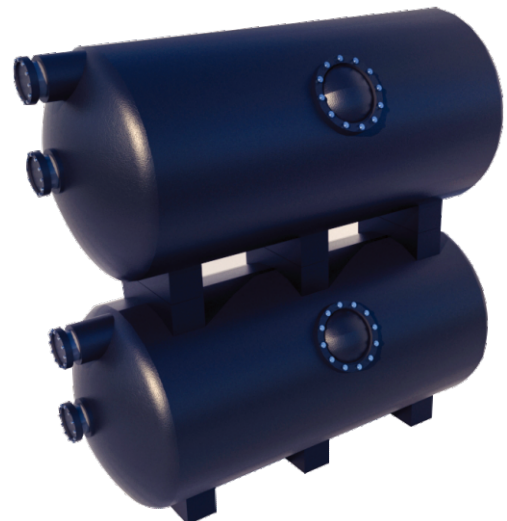
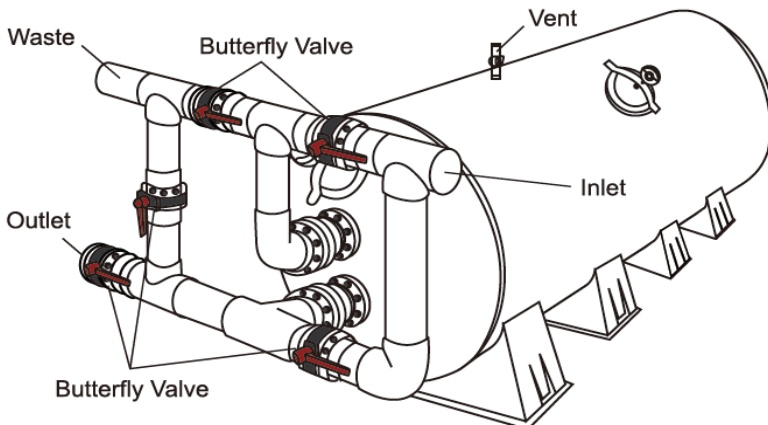
Minder B Series horizontal Commercial filters offer a much bigger filtration system for big commercial projects. B Series filters size range from 1050mm to 2500mm in diameter with optional accessories.

Operating Limits

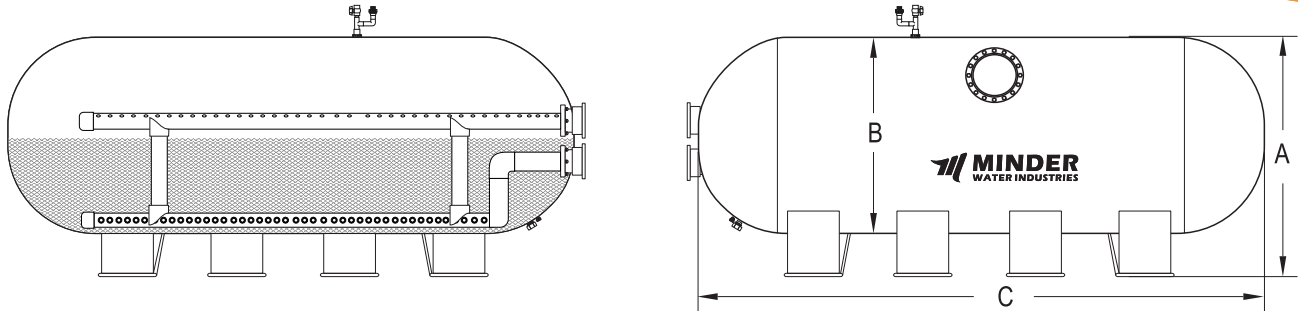
Model	2.5bar	4.0bar
Maximum water temperature	43°C	43°C
Operating Pressure	2.5bar	4.0bar
Maximum Pressure	4.0bar	6.0Bar

Optional Components

- Nozzle collection system
- Internal sight glass
- Additional inline sight glass
- Sedi manhole
- Valve manifold (valve battery)
- Vinyl-ester internal coating



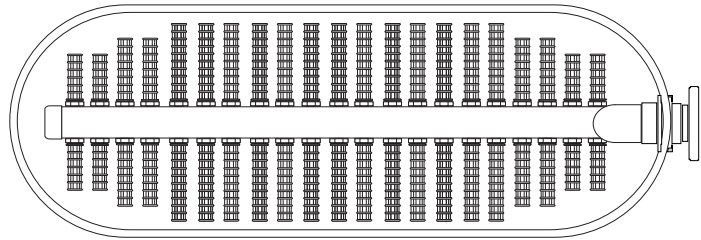
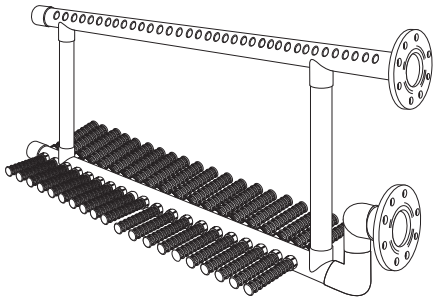
Optional configuration available by request



Technical Specification & Dimensions

Model	Code	Tank Ø	Height	Length	Flange Connection	Filtration Area	Designed Velocity	Maximum Flow Rate	Media Bed depth	Silica Sand (kg)		Gravel (kg)	
		A	B	C						mm	mm	mm	mm
A: Tank diameter 1050mm													
B1050-1.9	70682	1050	1260	1,900	90	1.72	30	52	500	350	950		
B1050-2.3	70683		1260	2,300	110	2.12	20	42		475	1,250		
B1050-2.5	70684		1260	2,500	110	2.32	20	46		575	1,525		
B1050-2.7	70685		1260	2,700	160	2.51	40	100		700	1,600		
B1050-3.0	70686		1260	3,000	160	2.81	40	112		775	2,025		
A: Tank diameter 1200mm													
B1200-2.5	70687	1200	1500	2,500	160	2.65	40	106	600	700	1,750		
B1200-3.0	70688		1500	3,000	160	3.21	40	129		925	2,325		
A: Tank diameter 1400mm													
B1400-2.5	70689	1400	1600	2,500	160	3.02	40	121	800	800	2,825		
B1400-3.0	70690		1600	3,000	160	3.67	30	110		1,000	3,450		
A: Tank diameter 1600mm													
B1600-2.5	70691	1600	1830	2,500	160	3.36	30	101	1000	850	3,875		
B1600-3.0	70692		1830	3,000	160	4.1	30	123		1,050	4,750		
A: Tank diameter 1800mm													
B1800-2.5	70693	1800	2050	2,500	160	3.74	30	112	1000	975	4,850		
B1800-3.0	70694		2050	3,000	160	4.58	30	137		1,225	5,925		
B1800-3.5	70695		2050	3,500	200	5.41	30	162		1,475	7,000		
B1800-4.0	70696		2050	4,000	200	6.25	30	187		1,700	8,075		
A: Tank diameter 2000mm													
B2000-2.5	70697	2000	2220	2,500	160	4.34	30	130	1200	1,050	6,575		
B2000-3.0	70698		2220	3,000	160	5.3	30	159		1,300	8,025		
B2000-3.5	70699		2220	3,500	200	6.25	30	187		1,550	9,475		
B2000-4.0	70700		2220	4,000	200	7.21	30	216		1,800	10,925		
B2000-4.5	70701		2220	4,500	200	8.16	20	163		2,075	12,375		
A: Tank diameter 2350mm													
B2300-3.0	70702	2350	2560	3,000	160	5.94	20	119	1200	2,575	9,300		
B2300-3.5	70703		2560	3,500	200	7.06	30	212		3,125	11,050		
B2300-4.0	70704		2560	4,000	250	8.17	40	327		3,650	12,800		
B2300-4.5	70705		2560	4,500	250	9.28	40	371		4,200	14,525		
B2300-5.0	70706		2560	5,000	250	10.4	30	312		4,750	16,250		
A: Tank diameter 2500mm													
B2500-3.5	70707	2500	2710	3,500	200	7.34	30	223	1300	3,175	11,675		
B2500-4.0	70708		2710	4,000	250	8.62	40	345		3,725	13,500		
B2500-4.5	70709		2710	4,500	250	9.8	30	294		4,300	15,350		
B2500-5.0	70710		2710	5,000	250	10.98	30	329		4,850	17,200		

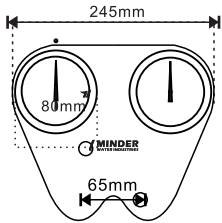
Collection Systems



Standard Inclusions for F and B Series

All Minder commercial filters come with the following fittings. Please inform our representative if you prefer not to have these items installed.

Pressure Gauge Panel



Every F or B series comes with a pressure gauge panel with dual extra large gauges. Gauges are oil-filled for long-lasting durability.

Re-order code: 30144

Water Drain



Easy draining of sand and water for F & B series

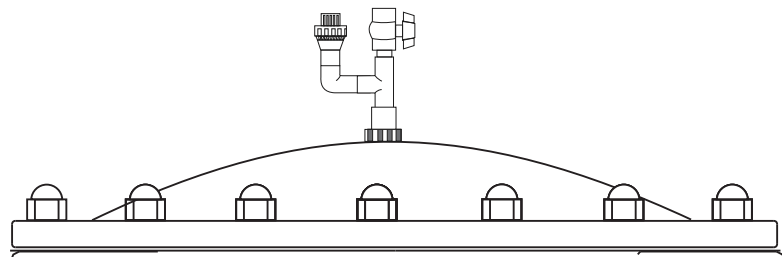
Re-order code: 70306

Smart Air Release Valve

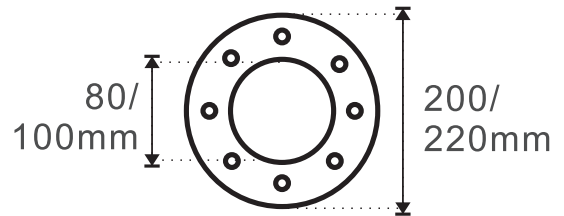
Minder's unique feature "Smart Air Release Valve" can manually release the air inside the tank. Also, the one way valve is able to automatically release negative pressure during water drainage to minimize the impact to the filter tank.



Re-order code: 90577



Internal Sight Glass

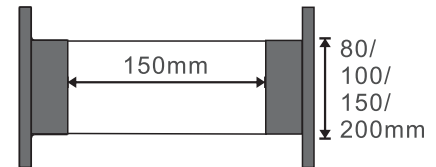


Model	Code	Inner Dia. (mm)	Outer Dia. (mm)
SG80	70713	80	200
SG100	70714	100	200

Operational internal sight glass for F or B series. Available in 2 sizes. Position above sand bed.

Inline Sight Glass (External Sight Glass)

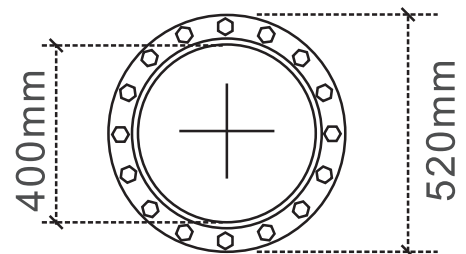
Model	Code	Inner Dia. (mm)	Outer Dia. (mm)
ILSG80	70715	80	150
ILSG100	70716	100	150
ILSG150	70717	150	150
ILSG200	70718	200	150



Optional inline sight glass for F or B series. Available in 4 sizes. Allows operators to effectively monitor water condition during backwashing.

Manhole

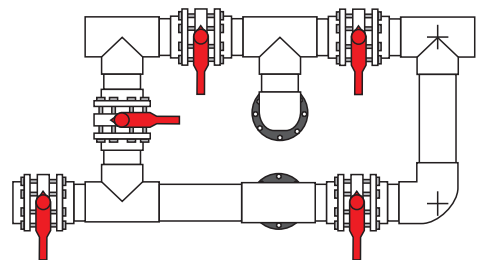
Model	Code	Inner Dia. (mm)	Outer Dia. (mm)
MH400	30234	400	520



Optional manhole access for F or B series

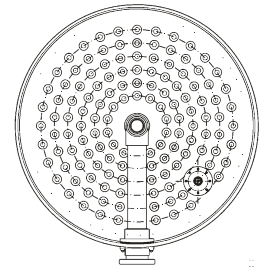
Valve Manifold (Valve Battery)

Model	Code	Inner Dia. (mm)
MF80	70719	80
MF100	70720	100
MF150	70721	150
MF200	70722	200



Nozzle Plate Collection System

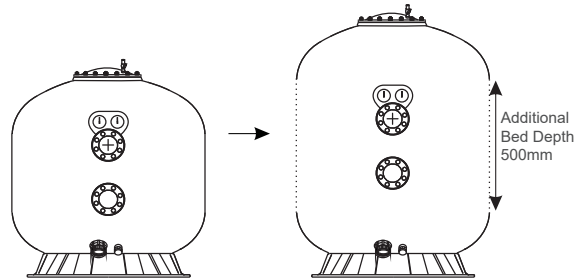
Model	Code	Sand Filter
NP1200	70515	F1200
NP1400	70516	F1400
NP1600	70517	F1600
NP1800	70518	F1800
NP2000	70519	F2000
NP2300	70520	F2300
NP2500	70521	F2500
NP3000	70522	F3000



Nozzle plate collection system allows equal distribution of water and enable air wash capability that optimize water saving. Suitable for F series only.

Additional Bed Depth

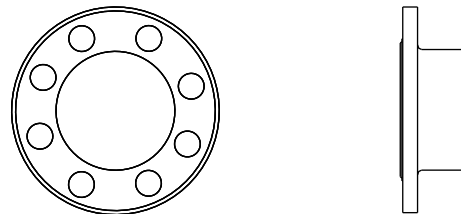
Model	Code	Sand Filter
ABD1200	70612	F1200
ABD1400	70613	F1400
ABD1600	70614	F1600
ABD1800	70615	F1800
ABD2000	70616	F2000
ABD2300	70617	F2300
ABD2500	70618	F2500
ABD3000	70619	F3000



Optional bed depth extension for deep bed filtration. Suitable for F series only. Extra depth is in 500mm block.

PVC Flanges

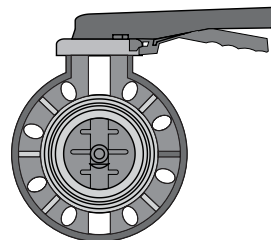
Model	Code	Inner Dia. (mm)
FG80	40154	80
FG100	40162	100
FG150	40178	150
FG200	40186	200



Optional PVC flanges for connecting valves and fittings. Available in 4 sizes. Suitable for F or B series.

Valve Butterfly

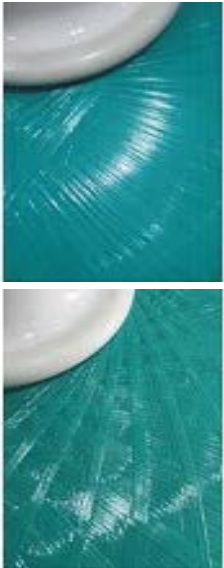
Model	Code	Inner Dia. (mm)
BV80	40247	80
BV100	40248	100
BV150	40249	150
BV200	40251	200



Vinyl-Ester Coating

Additional internal layer coating of Vinyl-ester for resistant against corrosion for ozone application

Bobbin wound material & Quality Test



Minder Offers 2 types of bobbin-wound threading: For commercial filter, the overlapping technology will be chosen, and for Minder domestic products, Minder's cross-winding technology will be chosen for great strength on Minder domestic products.

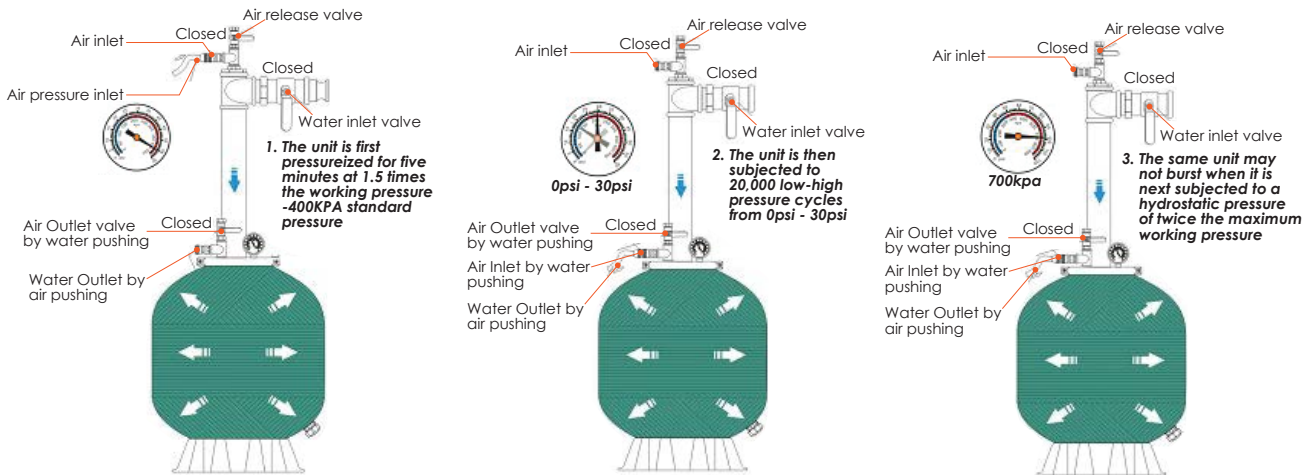
Minder filters are produced with 6 processes to achieve it's highest quality with possible extreme weather conditions in mind.

1. **Optional Vinyl-ester layer:** For resistance against corrosion for ozone application
2. **Chemical Layer:** ISO or VE laminated layer for resistance against corrosion
3. **Internal Structural Layer:** Threading of fibreglass thread with polyester resin
4. **Reinforcement Layer:** Thickening of fibreglass threading for additional strength
5. **Inner winding layer:** Further fibreglass threading for higher pressure strength
6. **Surface finishing:** UV screen coating for resistance against UV light and excellent surface finishing

Minder Filter are 100% tested with international and improved Minder standard to ensure filters are able to withstand up to it's maximum pressure and also for any possible leakage.

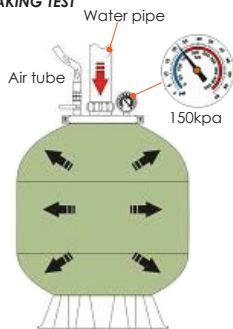
1. **Internal fibreglass layer:** Tested at operating pressure
2. **Completed filters:** Tested at maximum pressure

Testing method



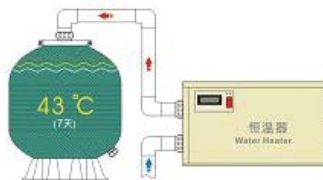
Additional Minder test standard

WATER LEAKING TEST



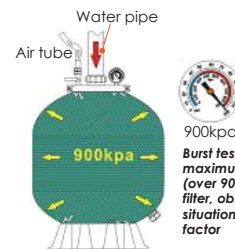
1. Test for supporting tank before winding fibreglass and tested at 400kpa, the unit must be passed pressure successfully at 150kpa for 5 minutes

HEAT - RESISTANT TEST



2. Test the unit at 43°C temperature for 7 days, be subjected to heat - resistant character used for swimming pools, spas/Hot tubs

BURST TEST



Burst test to exam the maximum pressure (over 900kpa) on pressure filter, observe temporal situation and analyze factor

Situation A

Pressure filter under 28 diameter, the cover O'ring move place and air bleed, thus release pressure, ni crack on tank body or the plastic ring on the top mount that inserted into fibreglass, which is also a part might cause leaking. If put the O'ring back in the propper position, test can be performed again

Situation B

Pressure filter above 32 diameter, water leaking from bottom of filter and air bleed, no crack on the sides. If happen based on production technology by no winding fibreglass on that side



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