

New

# Machclean - Sand Media Filters

Manual & Automatic (20", 24", 30" 36" & 48")

The Machclean Sand Media Filter delivers versatile and efficient filtration solutions for agricultural needs. Engineered with advanced polymer technology and reinforced glass fiber, this filter excels in high humidity environments, providing exceptional durability and performance. It effectively filters out organic contaminants and sediments from various water sources, ensuring that drip and micro-irrigation systems operate without clogging. With user-friendly maintenance and flexible operation modes, it is ideal for any agricultural application. Available in both manual and Automatic versions.



## HIGHLIGHTS

- **Corrosion-Free Durability:** Built with advanced polymer technology and reinforced glass fiber, with a lifetime warranty against corrosion.
- **Exceptional Strength:** Durable under-drain flutes made from polypropylene glass-filled material ensure longevity and impact resistance.
- **Anti-Clogging Design:** Innovative flute design minimizes clogging and reduces pressure drop, maintaining optimal flow rates.
- **Lightweight & Durable:** 45-55% lighter than traditional metal filters, yet robust enough to handle high capacity.
- **All-Weather Compatibility:** Operates efficiently even in high humidity, ensuring reliable performance under various conditions.
- **Easy Maintenance:** Large service ports allow for hassle-free cleaning for manual filters and upkeep.

## APPLICATIONS

- **Drip and Micro-Irrigation Systems:** Protects emitters from plugging by effectively filtering out impurities and sediments.
- **Surface Water Filtration:** Ideal for filtering water from open sources like wells, ponds, rivers, or lakes, which may contain organic contaminants, silt, and clay.



## Technical Data - Manual

Body Diameter		Inlet/Outlet		Recommended Flow Range	Back Flush Flow	Empty Tank Weight	Empty Tank Volume	Sand Bed Height	Sand Quantity /tank	Connection Type
INCH	MM	INCH	MM	M3/HR	M3/HR	KG	LITER	MM	KG	
20"	500	2	50	20~30	12~14	38	145	400	150	Threaded/Flanged /Grooved
20"	500	2.5	65	27~35	12~14	38	145	400	150	Threaded/Flanged
24"	600	2.5	65	35~45	14~16	45	230	400	200	Threaded/Flanged
24"	600	3	80	35~45	14~16	45	230	400	200	Threaded/Flanged /Grooved
30"	750	3	80	45~52	16~18	59	320	370	350	Threaded/Flanged /Grooved

Maximum Working Pressure – 4 Kg/cm<sup>2</sup> / Material of Construction - FRP, EPDM, PPGF

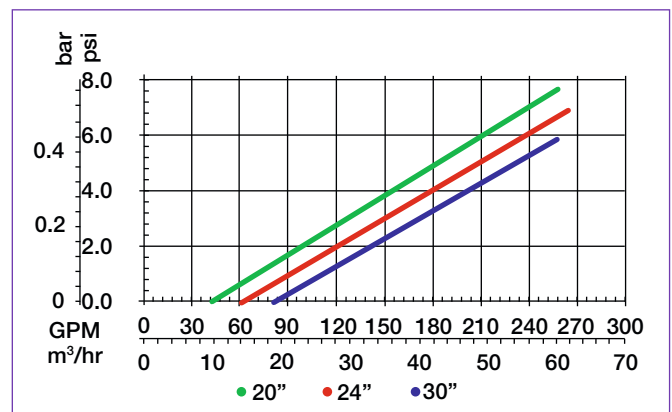
## Technical Data - Automatic

Body Dia x No of Tanks	Inlet / Outlet Size	By Pass Size	Recommended Flow Range/Tank	Maximum Flow /Array	Backflush Flow Range/Tank	Empty Tank Weight /Tank	Sand Bed Height/Tank	Sand Qty/Tank	End Connections
INCH	INCH	INCH	M <sup>3</sup> /HR	M <sup>3</sup> /HR	M <sup>3</sup> /HR	KGS	MM	KGS	
20 X 2	3	1½	15	30	12~14	42	400	150	Flanged/ Grooved
20 X 3	3	1½	15	45	12~14	42	400	150	Flanged/ Grooved
20 X 4	3	1½	15	60	12~14	42	400	150	Flanged/Grooved
24 X 2	3	1½	24	48	14~16	52	400	200	Flanged/Grooved
24 X 3	4	1½	24	72	14~16	52	400	200	Flanged/Grooved
24 X 4	4	1½	24	96	14~16	52	400	200	Flanged/Grooved
30 X 2	4	1½	35	70	16~18	69	370	350	Flanged/Grooved
30 X 3	4	1½	35	105	16~18	69	370	350	Flanged/Grooved
30 X 4	6	1½	35	140	16~18	69	370	350	Flanged/Grooved
30 X 6	6	1½	35	210	16~18	69	370	350	Flanged/Grooved
30 X 8	8	1½	35	280	16~18	69	370	350	Flanged/Grooved

\*Depends on water quality & type of media used

## Head loss Curve (Tank Only)

- **Note:** Automatic sand media filter flushing is performed on a time basis and the controller is preset to 4 hours cycle between flushing.  
Materials of construction: FRP, EPDM, PPGF
- Max. working pressure: 4 Bar
- Max. backflush interval (flushing cycle) – 4 hours\*
- Minimum flushing time of each filter- 90 seconds.\*
- Min. pressure during back flushing – 1.5 Bar





## Technical Data - Automatic (36" & 48")

Body Dia X No. of Tanks	Inlet / Outlet Size		Filtration Area / Tank	Recommended Flow Range/Tank*	Maximum Flow /Array *	Minimum Backflush Flow Range/Tank *	Empty Tank Weight /Tank	Sand Bed Height/Tank	Sand Qty/Tank	End Connections
	INCH	MM	INCH	Meter <sup>2</sup>	M <sup>3</sup> /Hr	M <sup>3</sup> /Hr	M <sup>3</sup> /Hr	Kg	MM	
36 X 2	150		6	0.64	40-45	17-18	120	400	450	Flanged/ Grooved
36 X 3	150		6							
36 X 4	150		6							
36 X 6	200		8							
36 X 8	250		8							
36 X 10	250		10							
48 X 2	150		6	1.13	75-80	17-18	400	800		
48 X 3	200		8							
48 X 4	200		8							
48 X 6	250		10							
48 X 8	315		12							
48 X 8	315		12							

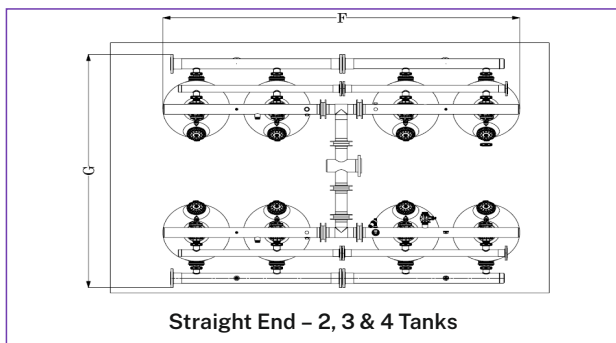
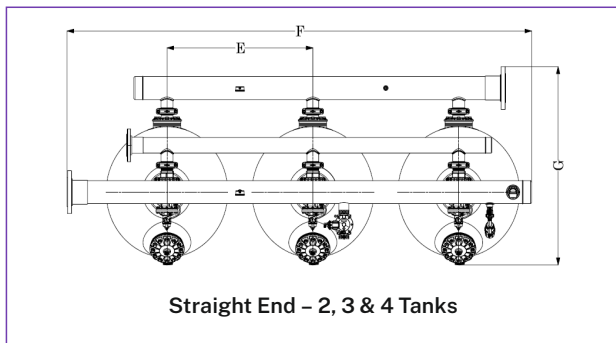
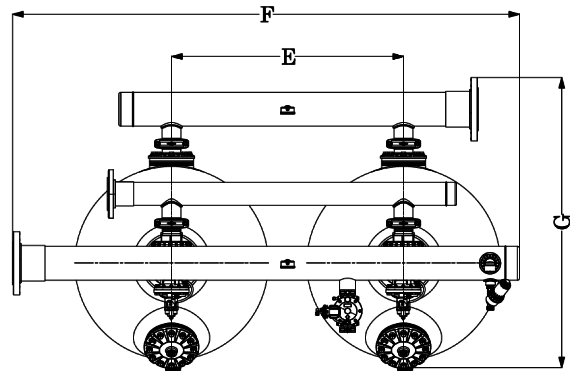
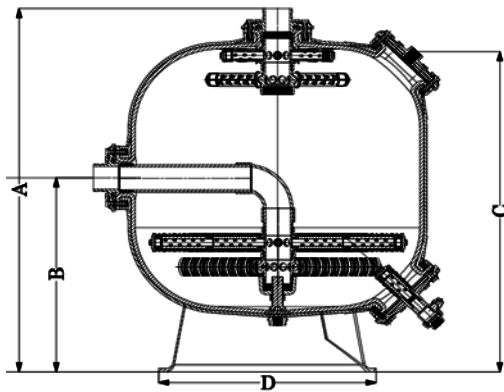
- Max. working pressure: 6 Bar
- Max. backflush interval (flushing cycle) – 4 hours\*
- Minimum flushing time of each filter- 90 seconds.\*
- Min. pressure during back flushing – 1.5 Bar
- **Note: Automatic sand media filter flushing is performed on a time basis and the controller is preset to 4 hours cycle between flushing.**

**Materials of construction:** FRP, EPDM, PPGF

\* Depends on water quality & type of media used

## Dimensions

TANK SIZES	NO. OF TANKS	A	B	C	D	E	F	G
		MM	MM	MM	MM	MM	MM	MM
36"	2	1196	639	1055	730	1100	2400	1380
	3						3500	1380
	4						4600	1380
	6						5700	1380
	8						4850	3600
	10						5950	3600
48"	2	1388	746	1189	1000	1500	3100	1785
	3						4600	1785
	4						6100	1785
	6						4900	4000
	8						6500	4000



### Head loss Curve (Tank Only)

