

# Machclean - Sand Media Filters

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

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	M <sup>3</sup> /HR	GPM	M <sup>3</sup> /HR	GPM	KG	LBS	LITER	MM	INCH	KG	LBS	
20"	500	2	50	9-15	40-66	12-14	53-62	43	95	145	400	16	150	330	Threaded/Flanged/Grooved
20"	500	2.5	65	9-15	40-66	12-14	53-62	43	95	145	400	16	150	330	Threaded/Flanged
24"	600	2.5	65	16-24	70-106	14-16	62-70	52	115	230	400	16	200	440	Threaded/Flanged
24"	600	3	80	16-24	70-106	14-16	62-70	52	115	230	400	16	200	440	Threaded/Flanged/Grooved
30"	750	3	80	25-32	110-141	18-32	79-141	73	160	320	370	15	350	770	Threaded/Flanged/Grooved

Maximum Working Pressure – 6 Kg/cm<sup>2</sup> / Material of Construction - FRP, EPDM, PPGF

## Technical Data - Automatic

Body Dia X No. of Tanks	Inlet / Outlet Size		Filtration Area / Tank		Recommended Flow Range/Tank*		Maximum Flow /Array *		Backflush Flow Range/Tank *		Empty Tank Weight		Sand Bed Height/Tank		Sand Qty/Tank		End Connections
	INCH	MM	INCH	Meter <sup>2</sup>	ft <sup>2</sup>	M <sup>3</sup> /Hr	GPM	M <sup>3</sup> /Hr	GPM	M <sup>3</sup> /Hr	GPM	Kg	lbs	MM	INCH	Kg	
20 X 2	80	3	0.2	2.2	9-15	40-66	30	132	12-14	53-62	43	95	400	16	150	330	Flanged/Grooved
20 X 3	80	3					45	198									
24 X 2	80	3	0.29	3.1	16-24	70-106	48	211	14-16	62-70	52	115	400	16	200	440	
24 X 3	100	4					72	317									
24 X 4	100	4					96	423									
30 X 2	100	4	0.45	4.8	25-32	110-141	70	308	18-32	79-141	73	160	370	15	350	770	
30 X 3	100	4					105	462									
30 X 4	150	6					140	616									
30 X 6	150	6					210	925									
30 X 8	200	8					280	1233									

\*Depends on water quality & type of media used

- **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: 6 Bar ( 85 PSI)
- Max. backflush interval (flushing cycle) – 4 hours\*
- Minimum flushing time of each filter- 90 seconds.\*
- Min. pressure during back flushing – 1.5 Bar (22 PSI)

### Head loss Curve (Tank Only)

