TWM SAND FILTER SYSTEM
16" (520-1610) • 19" (520-1910) • 22" (520-1700)

SAVE THESE INSTRUCTIONS • Read all instructions prior to installation • **IMPORTANT**: Follow all national and local building and safety codes

WARNING: A GFCI is required. System will require a 110 Volt / 20 Amp service. **DO NOT** use extension cords. Use will void warranty on pump motor. The pool equipment should be located between the pool skimmer and return line. The filtration system should not be installed less than 2 ft. and no more than 5 ft. from the pool. The TWM Sand Filter System needs to be on a completely flat / level surface (patio block, cement slab, etc.).

INSTALLATION

1. Position Equipment Base (#18) on a level, secure surface. Using Bolt (#16) and Washer (#15) position Support Mount (#17) between the Equipment Base and Sand Filter Body (#12) and secure the Sand Filter Body. **DO NOT** over-tighten. There is no need to disassemble filter or pump assemblies.
2. Open box and remove pump and trap assemblies. Open pump trap lid and remove 1 ½" gasket. Position gasket into end of pump trap union nut. Hand tighten union nut onto suction side of pump. **DO NOT** over-tighten.
3. Place pump on left side of filter. Secure pump to base with 4 screws and washers provided.
4. Remove collar assembly from filter tank. **DO NOT** lose screws. **IMPORTANT**: To prevent damage to internal filter lateral components, fill filter tank ½ full with water prior to adding sand. With sand fill guide (#10) positioned in filter tank opening, add only recommended #20 grade silica sand (see Fill Chart). Remove sand fill guide. **IMPORTANT**: Clean and remove all debris from filter tank flange after adding sand.
5. Assure that O-Ring (#9) is positioned onto multi-port throat.
6. Install Multi-Port Valve with inlet and outlet ports facing pool. Top of internal stand pipe seats directly into Multi-Port Valve. Push Multi-Port Valve evenly onto tank flange. **NOTE**: Make sure tank flange is clear of any sand debris.
7. Install filter tank collar assembly (#6 & #7) by threading collar clockwise until hand tight. Then use collar wrench to tighten further.
8. To use collar wrench (#5) place on collar assembly use both hands to turn wrench ½ to ¾ of a turn to secure multi-port valve to filter body.
9. Apply Teflon tape (4 wraps ideal) onto 1 ½" MPT fittings with 1 ½" Barb (#27). Hand tighten into valve inlet (top) and outlet (bottom), onto pump outlet and to Pump suction side.
10. Connect 3 ft. corrugated hose to top inlet port and onto pump using hose clamps (#28).
11. Connect 6 ft. corrugated hose to 1 ½" Hose fittings with ⅜" Barb (#27) onto bottom outlet port and to pump suction side.
12. Apply Teflon tape (4 wraps ideal) to Pressure Gauge (#1). Thread into Multi-Port Valve.
13. Install Waste Adapter Fitting (#3) with O-Ring for Waste Adapter (#2).

SYSTEM START-UP

1. Fill pool until water is halfway up length of skimmer throat.
2. Make sure pump trap is full of water. Slightly loosen trap lid to relieve pressure and allow water to fill trap. Re-tighten lid.
3. Make sure Multi-Port Valve handle is in Filter position.
4. Plug pump into GFCI outlet and turn pump on. Turn two (2) speed pumps to high.
5. Make note of start-up pressure on gauge.

WINTERIZATION

1. Backwash filter system completely. See Cleaning Instructions.
2. Run a filter cleaning chemical through filter system as per cleaner instructions.
3. Turn pump off. Disconnect hoses from skimmer and return fitting.
4. Remove drain plug from bottom of filter tank. Do Not remove hex drain assembly (#13).
5. Unscrew drain plugs located at bottom of pump trap and front of pump housing. Let water drain completely.
6. Disconnect filter to pump connection. Loosen union connection on discharge of pump and remove from pump. Do Not lose 2" union gasket. Lift and remove pump and pump base from filter base. Store inside.

CLEANING INSTRUCTIONS

NOTE: When pressure gauge reading is 5 PSI or higher than original starting pressure, the filter needs to be cleaned. The TWM Sand Filter System features our exclusive 7-Position Multi-Port Valve, which ensures safe and simple filter maintenance.

⚠ **Pressurized vessel. Never attempt to loosen or open Split-Nut Assembly (#6 & 7) while system is running. It could cause severe injury or harm to user.**

1. Turn off pump.
2. Attach **Backwash** hose (optional) to waste port adapter.
3. Rotate Multi-Port Valve handle to **Backwash** position. **Turn pump on** and run for 90 second intervals or until discharge water is clear. **Turn pump off.**
4. Rotate Multi-Port Valve handle to **Rinse** position. **Turn pump on** for 30 seconds.
5. Repeat steps 3 & 4 until all discharge water is clear while pump is turned on.
6. **Turn pump off**. Rotate Multi-Port Valve handle to **Filter** position. **Turn pump on.** Valve is now in normal operating position.

WARRANTY

For product registration visit: www.waterwayplastics.com.
For Warranty questions or claims please contact point of purchase.



waterway™

2200 East Sturgis Road, Oxnard CA 93030 • Phone 805.981.0262 • Fax 805.981.9403
www.waterwayplastics.com • waterway@waterwayplastics.com

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TROUBLESHOOTING

MOTOR DOES NOT START:
- Make sure motor is plugged in
- Circuit breaker in OFF position
- Thermal Overload in tripped position
- Wiring installation incorrect
- Incorrect line voltage
- Defective wiring

THERMAL OVERLOAD TRIPS:
- Low voltage
- Wiring Installation incorrect
- Dual voltage pumps mis-wired
- Inadequate ventilation

NO WATER FLOW:
- Obstruction of suction or return line
- Clogged impeller
- Clogged basket
- Dirty sand

EXCESSIVE PUMP NOISE:
- Worn bearings
- Suction line clogged

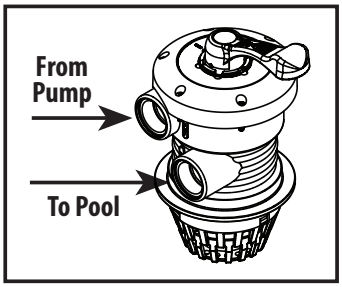
INADEQUATE FILTERING:
- Pump incorrectly mounted
- Hose fitting partially closed
- Clogged trap basket
- Sand level too low
- Inadequately cleaned system
- Chemical imbalance
- Inadequate system pressure

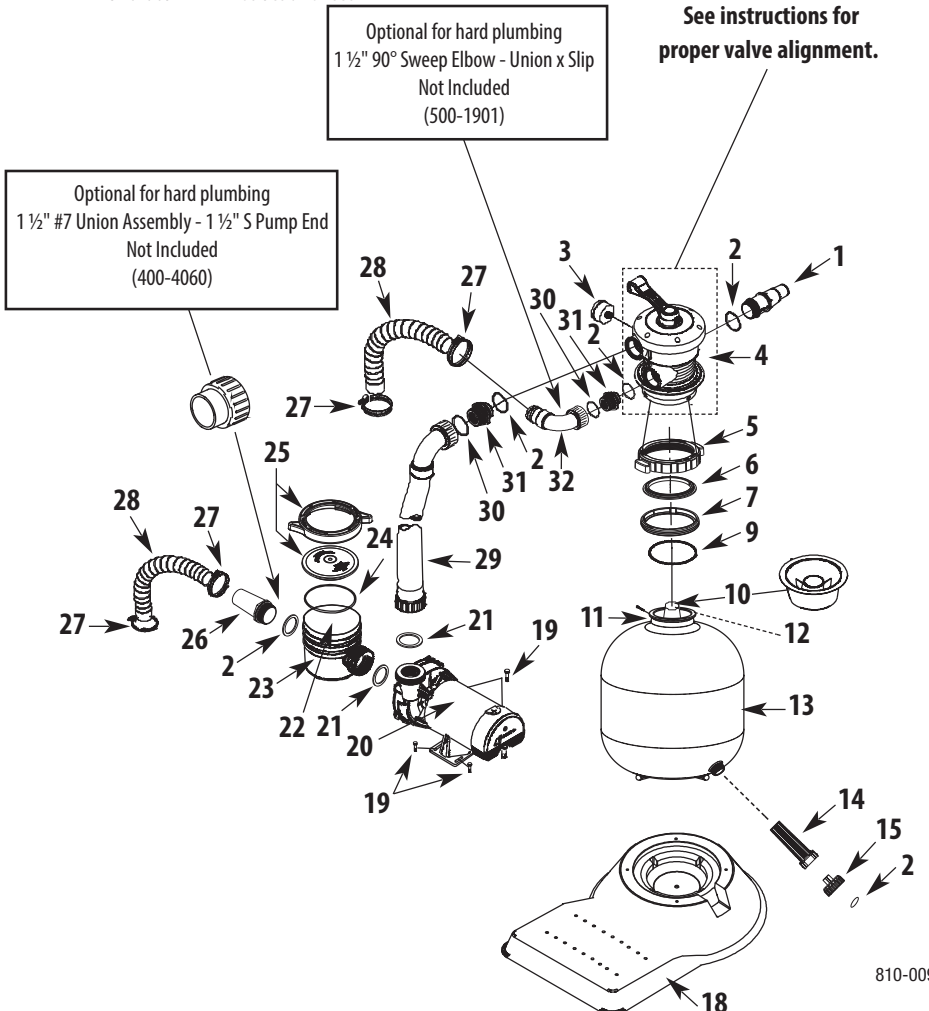
Sand Fill Chart:
16" Model - 50 lbs.
19" Model - 100 lbs.
22" Model - 150 lbs.
26" Model - 200 lbs.

REPLACEMENT PARTS

Item	*Part No.*	*Description*
1	**425-1928**	Waste Adapter Fitting
2	**805-0224**	O-Ring
3	**830-3000**	0-30 PSI Gauge
4	**WVS003-A**	Multi-Port Valve Assembly
5	**718-1860**	Nut
6	**505-2300**	Retainer
7	**505-3030**	Threaded Sleeve
8		
9	**805-0435**	O-Ring
10	**502-2011**	Sand Fill Guide
11	**505-3000**	Threaded Sleeve for Split Nut
12	**505-2040**	16" Lateral & Manifold Assembly
	505-2050	19" Lateral & Manifold Assembly
	505-2060	22" Lateral & Manifold Assembly
	505-2080	26" Lateral & Manifold Assembly
13	**515-1607**	16" Sand Filter Body
	515-1907	19" Sand Filter Body
	515-2007	22" Sand Filter Body
	515-2067	26" Sand Filter Body
14	**602-5311**	Self-Threading Drain Screen
15	**602-5321**	Drain Cap
16	**672-7241**	One-Piece Base
17	**820-0017**	Flat Washer - 3/8"
18	**819-0016**	3/8" Bolt - 22" / 26" Sand Filter
	819-0019	3/8" Bolt - 19" Sand Filter
	819-0020	3/8" Bolt - 16" Sand Filter
19	**PH1100**	1 HP - 1-Speed - Hi-Flo II Pump
	PH1150	1 ½ HP - 1-Speed - Hi-Flo II Pump
	PH1200	2 HP - 1-Speed - Hi-Flo II Pump
	PH2100	1 HP - 2-Speed - Hi-Flo II Pump
	PH2150	1 ½ HP - 2-Speed - Hi-Flo II Pump
	PH2200	2 HP - 2-Speed - Hi-Flo II Pump
20	**429-7300**	Pin & Anchor Assembly
21	**711-4010**	2" Gasket
22	**319-3230**	6" Basket Assembly (not shown)
23	**319-2170**	6" Pump Trap
24	**805-0436**	O-Ring,
25	**319-4100**	2-Piece 6" Pump Trap Lid Assembly
26	**417-6141**	1 ½" MPT x 1 ½" Hose Male Smooth Adapter
27	**872-0010**	Hose Clamp - Stainless Steel
28	**872-9002**	Corrugated Hose - Black
29	**550-1801**	16" Sand Filter Hose Assembly
	550-1811	19"Sand FIlter Hose Assembly
	550-1821	22" Sand Filter Hose Assembly
	550-1831	26" Sand Filter Hose Assembly
30	**711-4000**	1 ½" Gasket
31	**417-4161**	1 ½" Buttress x 1 ½" MPT
32	**550-1841**	Return Sweep Assembly
--	**810-0092**	Instruction Sheet

Multi-Port Valve Ports





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