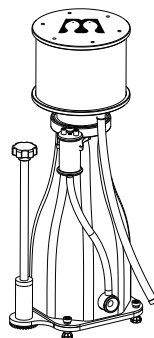




TORNADO SKIMMER

INSTRUCTIONS



The Tornado protein skimmer is is a remarkably compact skimmer that offers a new level of refined filtration for marine aquariums. Compact and robust, the skimmer works quietly and efficiently to remove contaminants from your aquarium, leaving the water clean, clear and healthy for your marine life.

Skimmer Parameters

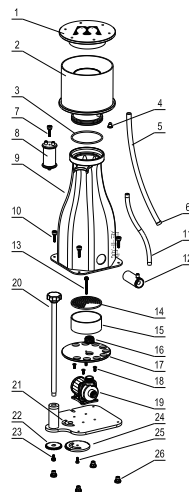
Model	TORNADO 120	TORNADO 150	TORNADO 180	TORNADO 200	TORNADO 300	TORNADO 500
Foot Print/Height	130*160 /500mm	160*200 /520mm	190*250 /570mm	285*230 /640mm	320*260 /700mm	364*312 /632mm
Chamber Diameter	120mm	150mm	180mm	230mm	250mm	300mm
Air Intake Max	400 lph	800 lph	1000 lph	2500L	3000L	5000L
Tank Size	600L	850L	1500L	2000L	2500L	4000L
Pump	1000L	2000L	2500L	4000L	6000L	10000L
Water Level	160mm	170mm	220mm	230mm	250mm	270mm
Wattage	12 watts at full rpm	30 watts at full rpm	35 watts at full rpm	50w at full rpm	70w at full rpm	105w at full rpm

Skimmer Installation

1. Insert Water Pump to Baseplate. Fix Water Pump with Diversion Box. Install Baseplate and Reaction Chamber with Hand Screws and Rubber feet.
2. Install Outlet regulator with Baseplate , fix Small gear with the Outlet regulator with M6x12 hand screw, fix Big gear with Baseplate with M6x14 screw.
3. Fix Body Seal “O” Ring with the collection cup. Insert Silicon Stopper / Draining Pipe into the draining port of Collection Cup, Insert Collection Cup into Body, cover with Lid.
4. Connect Silencer and Venturi with Air line.
5. Insert Venturi into Skimmer Pump.

Skimmer Part Description

1. Lid
2. Collection Cup
3. Body Seal “O” Ring
4. Silicon Stopper
5. Draining tube
6. Acrylic stopper
7. M6x25 hand screw
8. Silencer
9. Skimmer body
10. M6x25 hand screws
11. Air line
12. Venturi
13. M6x50 hand screw
14. Bubble plate
15. Diversion box
16. Outlet screw
17. Diversion baseplate
18. M6x12 sunk screws
19. Skimmer pump
20. Outlet regulator
21. Baseplate
22. Small gear
23. M6x12 hand screw
24. Big gear
25. M6x14 screw
26. Rubber Feet



Skimmer Installation

• Collection Cup

Should be taken away and clean at least once a week, depend on the organic buildup that has accumulated. Cleaning will enhance the extraction of dissolved organics substantially.

• Skimmer Pump

Should be cleaned and inspected every 3 months with a mild vinegar & water solution.

• Venturi (air induction port)

Should be inspected monthly for salt buildup.
During the winter/drier months you may need to inspect and clean weekly.

• Skimmer Body

clean every 6 months or as needed by wiping the acrylic walls of the body down with a soft sponge or cotton cloth and fresh water.
Never use any chemicals to clean the skimmer or any acrylic products.
For stubborn calcified buildup a soak in diluted solution of vinegar and water can be used.

WARRANTY

One(1) year warranty on pump and Skimmer body.

Mantis can not be responsible for consequential damages arising from installation or use of this product. Mantis warrants the pump to be free from defects in material and workmanship under normal use and conditions for the warranty period from the date of purchase. Mantis liability under this warranty shall be limited to repairing or replacing at Mantis's discretion, without charge. Mantis will not be liable for any cost of removal, installation, transportation, or any other charges which may arise in a warranty claim.

This Standard Limited Warranty applies and is limited as follows:

- To the product only as long as it remains in the possession of the original purchaser.
- To the product that has not been subject to accident, misuse or abuse.
- To the product that has not been modified, altered, defaced, or had repairs made or attempted by other than Mantis
- That Mantis be immediately notified in writing within ten (10) days of first knowledge of defect by owner or his agent.
- That Mantis shall be given first opportunity to make any repairs,
- replacements or corrections to the defective construction within a reasonable period of time

NOTE

- This warranty is void if the product is damaged through abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair. Consumable spare parts are not applicable to the warranty.
- Warranty is activated on the date of purchase.

User's Information

Product Name		DOP	
Product No			
Customer	Name	Tel	
	Add		
Retailer	Name	Tel	
	Add		
Maintenance Records	Date	Remarks	Sign
			Maintenance Person
Checker:		Check Date:	