



Flow Xtreme **PLUS**

FX PLUS C/T 16" AG SYSTEM W/ 1/2HP PUMP
FX PLUS C/T 16" AG SYSTEM W/ 3/4HP PUMP



VER.0418

NE4505
NE4506

A. Safety Warnings

Read all Warnings and Cautions noted below. Failure to do so could result in serious or fatal injury.

- Prior to installation of this unit, carefully read and adhere to all CAUTION, ATTENTION, and ADVICE notices located throughout this manual. Failure to comply with these instructions can cause serious injury, death, or damage to the unit.
- RISK OF SUCTION ENTRAPMENT HAZARD, WHICH, IF NOT AVOIDED CAN RESULT IN SERIOUS INJURY OR DEATH. Do not block pump suction at the pump or in the pool as this can cause severe injury or death.
- Electrical wiring MUST be installed by trained professional and adhere to local code and regulations.
- Avoid electric shock. DO NOT USE power extension cords.
- Connect ONLY to a Ground-Fault Circuit Interrupter (GFCI) power outlet. Consult a qualified professional electrician for safe and proper installation of a qualified electrical outlet.
- Incorrectly installed equipment may fail, causing severe injuries or damage to the pump-filter system.
- Never submerge the filter and/or pump in water.
- Never place the pump or filter in your pool.
- Trapped air in the pump-filter system may cause the TANK COVER to be blown off which can result in death, serious injury, or damage to the pump-filter system. Ensure all air is out of system before operating.
- Never change the 7 Position Multi-Port Valve while the system is operating.
- ALWAYS unplug the system before changing the control valve.
- Install this product with sufficient safety margin from the pool to prevent children from using the system to access the pool.
- Never PLUG or UNPLUG this unit from an electrical source while standing in water.
- NEVER service this unit with electrical power cord connected.
- DO NOT operate the system while the pool is being used.
- KEEP CHILDREN AWAY from all electrical equipment.
- NEVER ALLOW CHILDREN TO OPERATE THIS EQUIPMENT.
- The Pool Owner should always exercise caution and common sense when utilizing their swimming pool and operating equipment.

B. General Information

This manual provides information relating to the installation, utilization and maintenance of our filtration system. We recommend that you read this manual in its entirety and keep it for future reference.

The pump included with the filtration system is a horizontal, self-priming centrifugal pump. For the pump to function correctly, the water temperature must not exceed 35 °C / 95 °F . The materials used in the pump have undergone stringent hydraulic testing and electrical inspections.

The filter tank included in the filtration system consists of high-grade polypropylene (PP). It is manufactured as a single unit (absolutely corrosion resistant and resistant to commercially available swimming pool chemicals). (Prerequisite: Compliance with the standard recommended

specifications for the pH- and chlorine value). It is equipped with a tank drainage system. The filter tank comes ready to attach with an approved filter pump with hair and lint basket, and a plastic base for ready on- site mounting.

Read this manual carefully before installation. The filtration system and pump must be installed in accordance with all federal and local codes and standards in effect for the area of installation. We decline all responsibility for the consequences of failure to comply with the installation instructions. We recommend that you comply with the power source instructions to avoid overloading the pump motor and/or electric shock.

This filtration system is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.

Safety notes and information boxes should always be observed.

C. Safety Notes

Your filter pump was constructed and tested and left the manufacturing plant in technically operational condition. In order to maintain this condition and ensure safe operation, the user should observe the notes and product information contained in this technical manual. If there is any indication that safe operation is no longer possible, the device is to be disconnected from the power supply and secured against accidental use.

This is the case when:

- The device has visible damage.
- The device no longer appears functional.
- After long periods of storage in poor conditions.

If the power cord or other parts of this equipment are damaged, they have to be replaced by manufacturer or its service agent or a similarly qualified person in order to avoid danger.

D. Damage during delivery

Your filter system has been carefully and professionally packed for delivery. Please check to ensure that the package is undamaged and that all parts are in the box. If you purchased this product on order and the product was shipped to you, ensure that delivery is complete. Damage to product as a result of shipping is not the responsibility of the supplier and must be immediately reported to the shipper. The shipper assumes the liability for damages during delivery, the supplier is not responsible for it.

E. Implied Warranty

The manufacturer warranties safe operation and reliability only under the following conditions:

- The filter system is installed and operated according to the assembly and operating instructions.
- Only original replacement parts are used for repairs or replacements (consumable & expendable parts do not fall under the warranty).

Expendable parts that do not fall under the warranty include:

- All O-rings
- Pressure gauge
- Mechanical seal, complete
- Hoses and metal hose clamps

F. Resultant Damages

We cannot be responsible for damages to the product if the product is not used in accordance with the instructions provided.

G. Technical Data and Specifications

- The recommended filter run time is twice a day for 4 to 5 hours with floor vacuum cleaning as needed.
- The major components of your system are:

Filter pump, filter tank, tank lid, lid V-band with bolt & nut connecting base plate, and hose with fittings

(Confirm you have all these components before starting installation)

	NE4505	NE4506
Flow Volume (Q)	2100 GPH	2300 GPH
MAX Operating Pressure	22 psi	22 psi
Filtration Area	16"	16"
Rated Voltage	110V AC 60Hz	110V AC 60Hz
Power	1/2 HP	3/4 HP
Max. ambient temperature	95 °F	95 °F
Cotton Tails Volume	1 lbs	2.5 lbs

H. Unpacking your filter system

Carefully remove the product and all component parts from the box. Cross reference all parts in the box with the parts list reference chart to make certain all parts are present before beginning assembly.

NOTE: Some parts may be located within the filter tank. To access these parts, you must remove the tank cover.

Refer to *page 9 for complete EXPLODED VIEW PARTS DIAGRAMS.

I. Power source instructions

1. The Above Ground filter pump system you have purchased is equipped with a standard electrical cord and plug which should only be connected to a power outlet protected by a 30 Amp Ground-Fault-Circuit-Interrupter (GFCI) that has been installed by a professional electrician and adheres to local codes and regulations.
2. To avoid electric shock, power cord extensions should not be used.

J. Positioning your filter system

- For the operation of this filter system with Above Ground pools, you need a skimmer installed in your pool. Either an integrated skimmer (built into the pool wall) or a suspended skimmer (attachment to the pool wall).
- The installation area must allow an adequate safety margin to the pool wall.
- We recommend putting the filter system on a concrete slab or similar. Be sure the installation is level.
- Additional installation accessories such as hoses, hoses clamps are available from your pool dealer.

K. Filter-Pump assembly

1. Water pump & Base Plate assembly

- a) Secure water pump to the base plate with the provided pump mounting hardware. Orient as shown. (Figure 5)

2. Pump Fittings Assembly (Figure 6)

- a) Screw the 1¼"-1½" hose connector into the center port of the water pump. Ensure that the O-ring "A" is installed between the port and the connector.
- b) Remove the threaded ring (Collar) on the outer opening of the pump.
- c) Place O-ring "B" in the groove around the hair and lint strainer basket.
- d) Place the transparent hair & lint strainer cover in place and then screw the threaded ring (Collar) back on securely over the cover.
- e) Insert O-ring "C" (1¼") inside the outward facing opening of the transparent hair & lint strainer cover.
- f) Screw the 1¼"-1½" hose connector into the opening of the transparent hair & lint strainer cover.

3. Filter tank assembly

- a) Attach the filter tank to the base plate as shown (Figure 7). The feet on the bottom of the filter tank fit within the holes provided on the base plate.
- b) Screw the filter basket onto the Central Pipe (Figure 1). Fix the Central Pipe with Filter Basket onto the bottom of the filter tank. (Figure 2).

Filling tank with Cotton Tails which provided in the package.(Figure 3)

- c) Securing filter assembly (Figure 4)

Ensure the main tank seal around the top of the filter tank is in good condition and securely seated in the groove. Be sure groove is free of sand.

Carefully place the tank cover onto the filter tank. The tank cover should be oriented so that the notch on the cover is aligned with the matching tab on the filter tank - this ensures proper alignment.

Secure tank cover and filter tank with the tank cover lock ring assembly and tighten with the knob and bolt.

- d) Connecting the filter system and hooking up the hoses (Figures 8-11)

This pool filter system is designed to connect to pools with standard 1 1/4" or 1 1/2" diameter hose connectors.

If your pool has a hose connector size and/or type different than described here, you may need to purchase an adapter at your local pool supply store or hardware retailer.

Before you begin to connect hoses to the filter and pump, make certain that no water can flow through the intake or return hoses connected to the pool. Some pools have shut off valves in their intake and return ports, others do not. If you do not have a shut off valve, block the ports with a removable plug to prevent water from passing into and through the hoses.

Attach the hose coming from your pool's skimmer (outlet of pool) to the 1 1/4"-1 1/2" hose connector extending from the hair & lint strainer cover.

Secure with a hose clamp.

Lightly lubricate the pool return port on the tank cover with synthetic PTFE lubricant, available at any pool supply store or hardware store.

Attach the pool return hose (inlet of pool) to the pool return port on the tank cover.

NOTE: Be careful not to secure return hose to the waste/backwash port.

Secure with a hose clamp.

L. Filter system start up

1. Once the filter system has been properly assembled, the tank filled with Cotton Tails and the hoses connected as described above, you may begin with filtration. Do not plug the system in until advised to do so below. Make certain the pump is not plugged into a power supply. Before operating the filter system, it is important to ensure that the filter system is positioned outside the pool and is lower than the pool's water level. The hose connections must also be correctly connected and fastened.
2. If you haven't done so already, fill your pool with water. Ensure that the water level is at least 1"-2" (2.5-5cm) above the top of the hose intake (Skimmer) and return ports in the pool. The filter system is now vented. If applicable, open the vent screw (pressure gauge) on the upper side of the filter cover until the water flows out. Release the shut off valve at the intake port (Skimmer) in the pool. If you plugged the intake port (Skimmer), remove the plug to allow the water to flow into the intake hose. With the filter-pump system installed in a location level lower than your pool's water level - water will automatically flow into the pump-filter system. Allow the filter tank to fill with water.
3. Check the filter system and the connection hoses for leaks and resolve, if necessary. Leakage points may possibly arise due to manufacturing tolerances, which need to be resolved by wrapping "Teflon" tape, available at any plumbing or hardware store, around the connections before the connection hose is attached. Your filter system is now ready for use.
4. Cleaning Cotton Tails
Do not back wash on initial operation.
No need to back wash unless tank's pressure gauge reaches 25 psi.
We recommend removing Cotton Tails from filter tank at the end of the season, place in a mesh bag, wash in clothes washing machine, let dry and return to tank for next season.
5. Important note regarding Clarifiers.
Pool water clarifiers or other chemical additives that bond to particulate matter for the purpose of improved filtration must not be used if Cotton Tails is the filtration media for your pool. This is the same warning or instruction that is commonly given for pools where Diatomaceous Earth is the filtration media.
Like Diatomaceous Earth, Cotton Tails filters down to a very small particle size, 3 microns. Therefore, the addition of a clarifier will not improve the effectiveness of Cotton Tails. The clarifier or a similar chemical additive is likely to cause damage to the Cotton Tails resulting in significant reduction in the filtration capability. In addition, possible damage to the filtration tank or its internal components may occur.
Blue Wave will not be responsible for damage caused to the Cotton Tails, the filtration tank or any of the internal components of the filtration tank where a clarifier or other chemical additives that bond to particulate matter have been used in the pool.
6. Filtering time
The water in the pool should be circulated and filtered at least 4 to 5 hours 2 to 3 times in a 24 hour period, depending on the load and the size of the filter system. The time required is based on the performance of the filter system and the size of the swimming pool. However, we recommend a minimum running time of 12 hours per day.

M. Manual Vacuuming the Pool

For Above Ground Pools

Vacuuming is done in normal filter mode. The pool vacuum is connected by use of a pool vacuum hose and vacuum plate directly into the skimmer. Do not turn on the pump until the pool vacuum is connected and ready for operation.

Important: The pool vacuum hose must be fully filled with water so that the pump does not lose prime and fill the tank with air.

N. Winterize the system in cold weather climates

For Above Ground Pools

- Unplug the pump from the power source.
- Close the shut off valves or block the flow of water at the pool inlet and return ports.
- Disconnect the filtration system from the pool, drain the tank and hoses.
- Store the filter system in a location protected from frost and severely cold temperatures. In a garage or insulated storage shed is recommended.

P. Important Do's & Don'ts

DO'S:

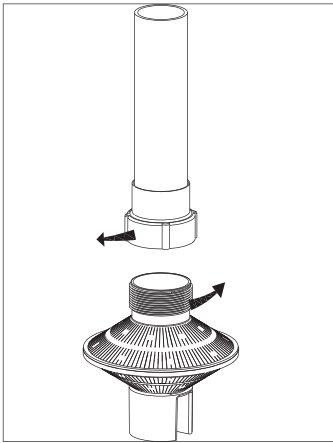
- Be aware and make note of the filter pressure when the Cotton Tails is clean. Remove and clean the Cotton Tails when you see the pressure increase to over 25 psi on the pressure gauge.
- Protect bottom filter basket while cleaning the Cotton Tails. Fill the tank with a few inches (about 1/8 of tank height) of water. While the Cotton Tails are being cleaned.
- Install and clean the cotton tails with the following instructions:
 - a. Open the cover of the filter tank.
 - b. Empty any residual matter from the filter and clean it thoroughly.
 - c. Fill the filter tank about 2/3 with cotton tails, 1.5 lbs(700g) cotton tails equal to 55 lbs(25kg) sand.
 - d. Close the filter and start filtering immediately.
 - e. Do not back wash on initial installation.
 - f. No need to back wash unless tank's pressure gauge reaches 25 PSI.
 - g. We recommend removing cotton tails from filter tank at end of the season, place in a mesh bag, wash in clothes washing machine, let dry and return to tank for next season.

DON'TS:

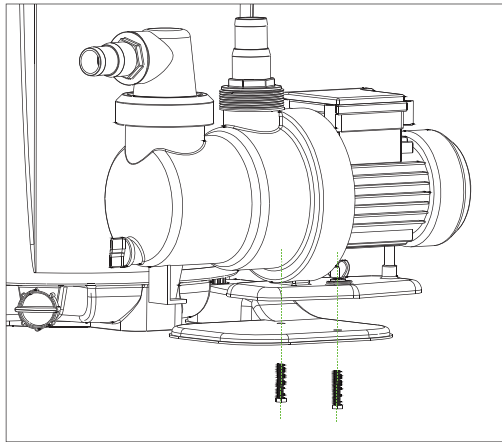
- Over clean the cotton tails. This filter media operates more efficiently during mid-cycle. Some level of debris in the cotton tails actually helps filtration and makes the filter more effective. Too much cleaning will reduce efficiency.
- Let filtration system run dry (without water)! Damage to the pump caused by dry running is NOT covered by the warranty.

Q. FLOW XTREME PLUS COTTON TAILS SYSTEM NE4505 NE4506 INSTALLATION FIGURES

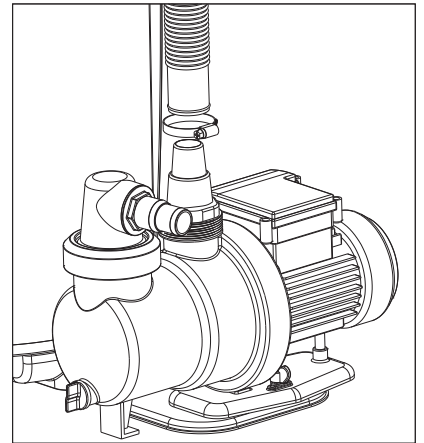
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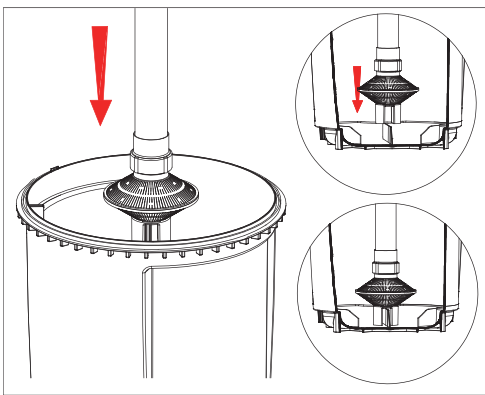
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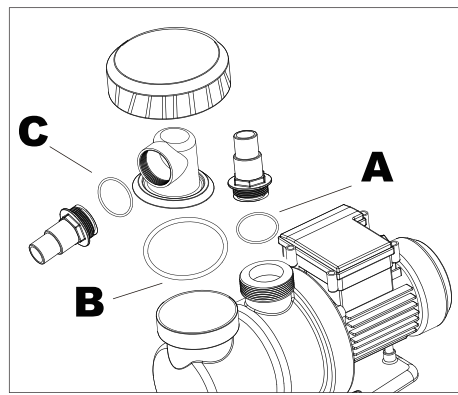
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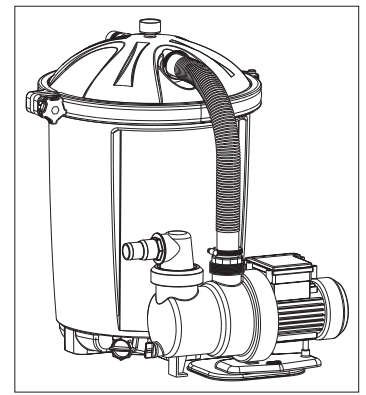
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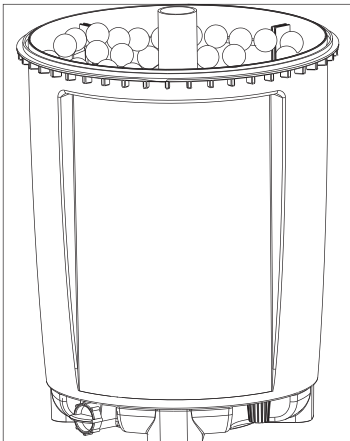
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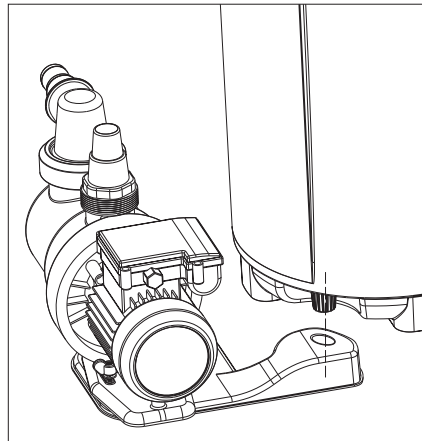
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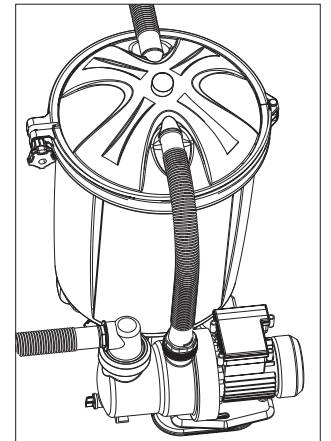
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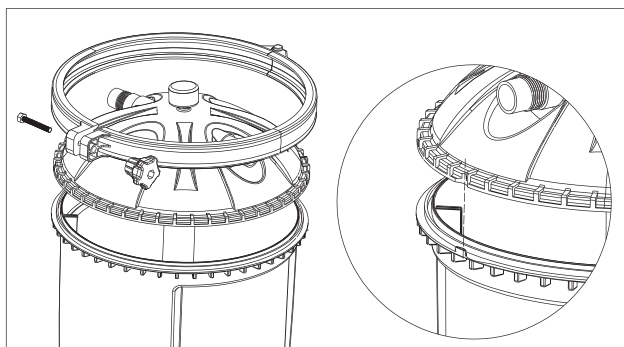
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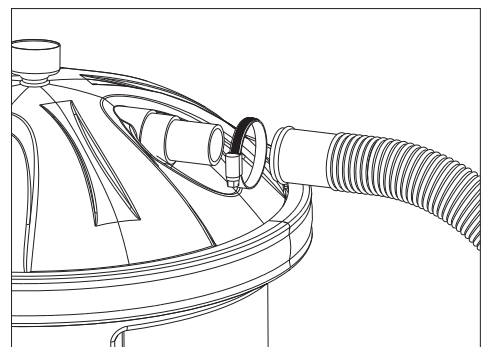
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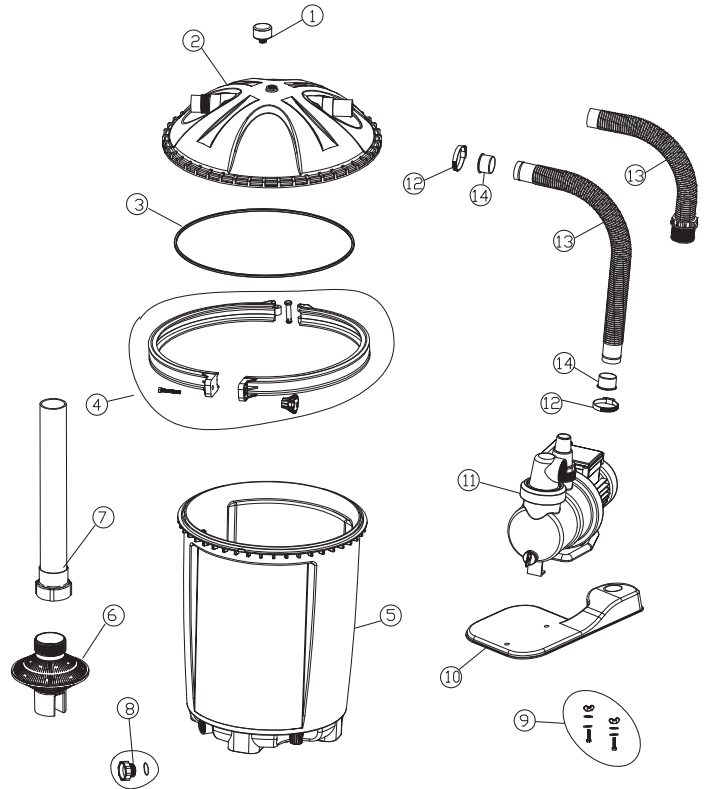


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R. FLOW XTREME PLUS COTTON TAILS SYSTEM NE4505 NE4506 PARTS BREAKDOWN

Key	Part Name	Qty	Manf. No.	B.W. No.	For Model#
1	PRESSURE GAUGE	1	17001	NEP4080	AF1725 & AF1750
2	FILTER COVER	1	17003	NEP4082	AF1725 & AF1750
3	O-RING	1	17004	NEP4083	AF1725 & AF1750
4	LEFT CLAMP RING	1	L00169	NEP4237	AF1725 & AF1750
	RIGHT CLAMP RING	1	L00170	NEP4238	AF1725 & AF1750
	CLAMP PIN	1	L00171	NEP4239	AF1725 & AF1750
	M8*80 BOLT	1	L00172	NEP4240	AF1725 & AF1750
	PLASTIC NUT	1	L00173	NEP4241	AF1725 & AF1750
5	FILTER TANK	1	1701025	NEP4122	AF1725
	FILTER TANK	1	1701050	NEP4123	AF1750
6	BASKET FILTER	1	17011	NEP4084	AF1725 & AF1750
7	HARD TUBE	1	17012	NEP4085	AF1725 & AF1750
8	DRAIN VALVE	1	17013	NEP4086	AF1725 & AF1750
	O-RING	1	17014	NEP4087	AF1725 & AF1750
9	Pump Bolt Wing Nut	2	P00175	NEP4261	AF1725 & AF1750
	PUMP MOUNTING	2	P00176	NEP4262	AF1725 & AF1750
	Pump Bolt Flat Water	2	P00177	NEP4263	AF1725 & AF1750
	PUMP MOUNTING	2	P00178	NEP4264	AF1725 & AF1750
10	BASE PLATE	1	17019	NEP4088	AF1725 & AF1750
11	WATER PUMP 1/2HP	1	SPS1A450	NEP4269	AF1725
	WATER PUMP 3/4HP	1	SPS1A550	NEP4270	AF1750
12	HOSE CLAMP	1	17021	NEP4089	AF1725
	HOSE CLAMP	2	17021	NEP4089	AF1750
13	SOFT HOSE	1	1702225	NEP4124	AF1725
	SOFT HOSE	1	1702250	NEP4125	AF1750
14	HOSE REDUCER	1	17023	NEP4090	AF1725
	HOSE REDUCER	2	17023	NEP4090	AF1750



S. FX PRIME SINGLE SPEED NE4523, NEP4268, NEP4269 PUMP SERIES PARTS BREAKDOWN

Key	Part Name	Qty	Manf. No.	B.W. No.	For Model#
1	Water Pump/ Motor	1	SPS1A250, 450, 550	NE4523-NEP4268-NEP4269	NE4523, NEP4268-NEP4269
2	Transparent Hair & Lint Strainer	1	P00131	NEP4245	All
3	1 1/4"- 1 1/2" Hose Connector	2	P00132	NEP4246	All
4	O-ring "A" - 2 1/4"	1	P00182	NEP4265	All
5	O-ring "B" - 3"	1	P00183	NEP4266	All
6	O-ring "C" - 1.5"	1	P00184	NEP4267	All
7	Strainer Collar	1	P00133	NEP4247	All
8	Strainer Basket	1	P00134	NEP4248	All
9	Pump Drain Cap	1	P00135	NEP4249	All
10	Drain Valve O-ring	1	P00136	NEP4250	All
11	Motor Pump Seal	1	P00137	NEP4251	NE4523
11	Motor Pump Seal	1	P00138	NEP4252	NEP4268
11	Motor Pump Seal	1	P00138	NEP4252	NEP4269
12	Impeller Assembly	1	P00139	NEP4253	NE4523
12	Impeller Assembly	1	P00140	NEP4254	NEP4268
12	Impeller Assembly	1	P00140	NEP4254	NEP4269
13	Shaft Seal & Spring Assbly	1	P00141	NEP4255	NE4523
13	Shaft Seal & Spring Assbly	1	P00142	NEP4256	NEP4268
13	Shaft Seal & Spring Assbly	1	P00142	NEP4257	NEP4269

