

Spaparts123.com Pump Selection Guide:

Choosing the correct pump can be intimidating, but we are here to try and make that a little bit easier for you. Where to start?

Well the first place to start is with us! We are here to help you with whatever you need, pumps or anything. Call, text, or shoot over an email and we will happily match the pump for you. Be sure to have as much information as possible about your spa brand (year, model, serial number) and the pump you are trying to replace. I.e. lots of photos or information from the motor and/or wet end. The more the better.

If you want to give it a go on your own, we are confident in you. Follow this guide and you should find the correct pump in no time.

**1<sup>st</sup> Get lucky**

Look at your pump motor. You may find a magical number that, when entered into our search box, will pull up your exact pump. Sometimes that works, and sometimes not. Good Luck!

Here's how:

There will be 1 or 2 labels on your pump. One is a motor label. This label is not helpful in identifying your complete pump. It will only give you the individual specifications for the motor.

This is the motor label. It is not helpful (for now). Move on!

The second label you may find will be the label that the manufacturer sticks on to the motor. This label is the one you want to look at. The labels will be unique to each manufacturer. This is only one example.



Note: If you found a manufacturer label, but the part number didn't return any search results, that's okay. If you found the manufacturer name and model jump down to [Matching Pump Specs](#). Or [Click Here](#) to visit our pump page and make the appropriate selection. You will still need to narrow down several variables to match the correct pump.

### 2<sup>nd</sup>: Identify the pump by the wet end

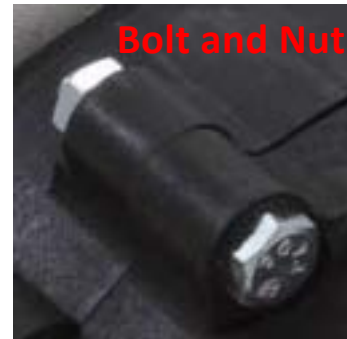
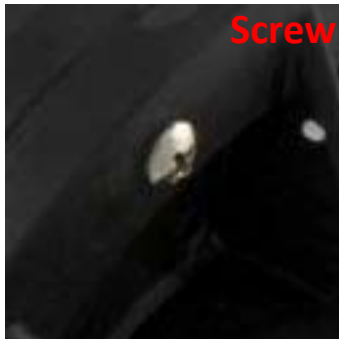
If you didn't get lucky before, welcome to my life, but we're going to use cold hard facts this time. It's all about the bolt patterns, baby. Really, how many, and what kind and combinations. It's officially called the "Volute Fastening Type". Your wet end will have between 3 and 10 fasteners holding the front and back part of the wet end together. There are different kinds of fasteners too: Screws, Bolts, and Bolts and Nuts. \*We have eliminated certain fasteners from our selection to only include relevant types used on portable hot tubs with equipment that is contained inside the spa cabinet.\*

**Screw:** As its name suggests, the head will accept a screwdriver. Only the head of the screw will be visible, the body will be hidden.

**Bolt:** Has a flat top and accepts a wrench. Only the head of the bolt will be visible. The body will be hidden.

**Bolt and Nut:** Has a flat top and accepts a wrench. The body will bolt through and come out the back, where the nut is fastened onto the end.

**Here are photos of the different fasteners.**



Now that you have identified your fastener type, just count them. Use the table below to cross reference the possible manufacturers and models. There may be more than one model matched to your fastener type and count. We will narrow that down more later, if necessary.

**Table**

	Screws	Bolts	Bolts and Nuts
3	A		
4	C		B
5			D
6	F	E	
8	G		
9		H	

**Key to Table**

- A. [See Calvert Circulation Pumps](#)
- B. Vico Ultima, Dura Jet DJ
- C. Waterway Center Discharge.
- D. Vico Ultimax, Power Right
- E. Dura Jet JS and JT
- F. Aqua Flo: FMCP FMVP. Waterway E Series
- G. This pattern has by far the most to choose from.  
 Waterway: Executive EX2 Hi Flo Spa Flo Viper  
 CMP  
 Gecko Aquaflo: FMHP XP2 Xp2e XP3.
- H. Sta Rite LT

So you picked a letter. Maybe it's G (yikes)...How do you narrow it down further? Two ways. Look at the images below. They are grouped into the letter to which they belong. Just match what your wet end looks like. The other way is take a look at the manufacturer label on the motor again. Do you see one of the above names anywhere? If so, you matched it and can jump down to **Matching Pump Specs**.

*These are all clickable links that take you to these pumps on our website.*

**B.**

**Dura Jet DJ**

**Vico Ultima**

*4 Bolts and Nuts*



**C. Waterway Center Discharge \*Replaced with WW E-Series\***

*4 Screws*



**D. Vico Ultimax**

**Power Right**

*5 Bolts and Nuts*



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**E. Dura Jet JS \*Discontinued\***

**6 Bolts**



**Dura Jet JT \*Discontinued\***



**F. Waterway E-Series**

**6 Screws**



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**Aqua Flo FMCP**

**\*Almost identical. Look closely at the bottom drain valve.\***



©HSPP

**Aqua Flo FMVP \*6 Screws 2 Bolts!!!\***



©HSPP

*These are all clickable links that take you to these pumps on our website.*

**G. WW Exec**

8 Screws



**WW EX2**



**WW Hi Flo**



**WW Spa Flo**

*\*Replaced by Aqua Flo FMHP\**



**G. WW Viper**

8 Screws



**CMP**



**FMHP**



**XP2 Replaced By Xp2e**



**G. XP3** *\*Similar to Viper, look closely at drain plug\**

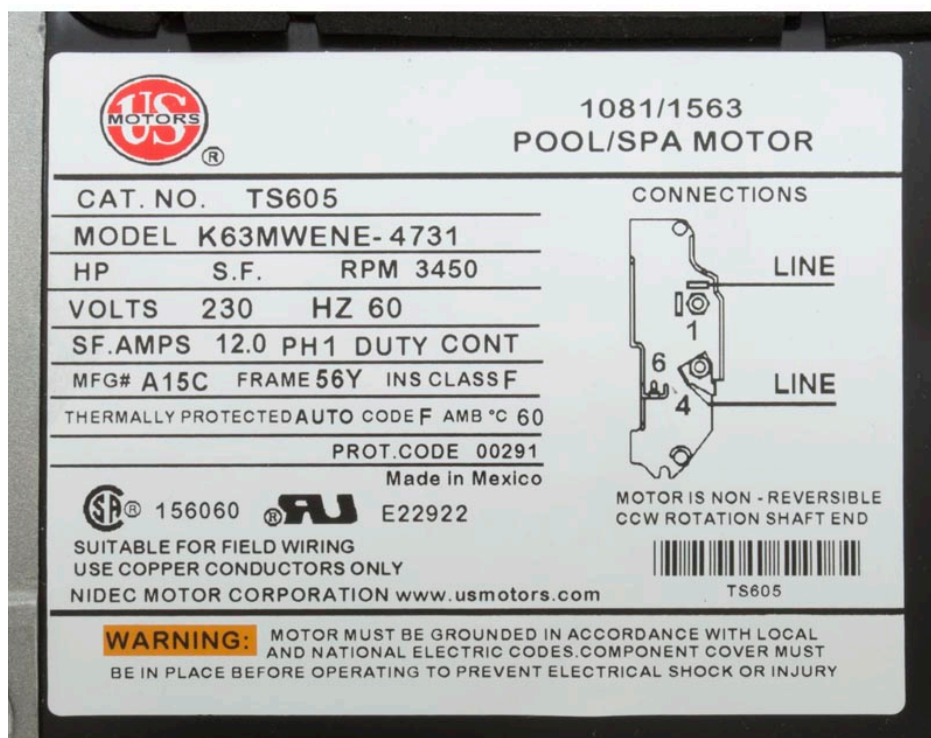


3<sup>rd</sup>. Matching pumps specs

Congratulations. You now know the manufacturer and model of your pump. The battle is over, but the war rages on. For those of you still with us, this step is equally as important as the one before it. They all are, really. In order to make sure you get the easiest, plug and play, swap out of your old pump you need to match every detail. This next step is pretty easy though. You will be matching the Amperage, Voltage, and Speeds of your pump.

Do you remember when I told you about that motor label and how it wouldn't help you identify your pump? Well, that was kind of true, but also not true. Now that you know the manufacturer and model of the pump, that label is indispensable. I mean that. If you don't have that label, there is no other way to tell the specs on your pump!!

So, what do all of those things mean? Well let me tell you...some of them mean something and some of them mean nothing. I'll tell you what they all mean anyway so at least you know, but they aren't all important. Please keep in mind that every pump maker has their own little variations on the motor label. I am using this specific one as an example. However, EVERY label will have the information we need for this purpose.



**CAT. NO.** This is the specific manufacturer part number assigned to your motor. If you were looking to replace just the motor and not the complete pump, you could search that number and maybe pull up a result.

**Model** Similar to the CAT. No this is a model number assigned specifically to the motor.

**HP** This area will often be blank. This is because horsepower is not a meaningful measurement. There is no regulation of this rating in the spa industry. Your pump may say it is 3HP or 7HP, but that doesn't mean it's true. Try to avoid disappointment when you find out your 5HP pump is really more like a 3HP pump. The truth hurts, but in reality you will loose absolutely no power. The spec we want to use instead of this one is Amperage.

**S.F.** I dunno? Let's just move on from that one. It's definitely not important.

**\*RPM** Okay, I know this one. Revolutions per minutes, aka how fast it spins. This number will always be 3450 or 3450/1725. It is a regulated number that never changes, but we need it to determine if your pump is 1 speed or 2 speeds. 3450 is 1 speed. 3450/1725 is 2 speed.

**What is a pump speed?** It basically is high and low. When you turn on your pump, do you only hit the button once no matter what? That's a single speed pump that only operates in High Speed. Or, do you get to hit the button a second time to knock things into high gear? That's a 2 speed pump that starts out in low and then goes to high.

**\*Volts** Another important one. This will be 120v, 230v, or 120/230v. This number describes the type of power your pump runs off of. 120/230v means it can operate off of either. There are not very many pumps that are convertible, so your best bet is to find the correct power your spa uses and get that one!

**HZ** Unimportant, but it describes the Hertz that the power supply needs to be to operate properly. All of North America is 60HZ, anywhere else is 50Hz. Americans, what can I say.

**\*S.F. Amps** Amperage. You may see this simply as A: on a lot of labels. This is another important one. It is basically the amount of power your pump will be pushing out. This what your horsepower really means. Roughly translated, 1 AMP=.25HP. So, 12 AMPs should be a 3hp, but the industry labels it often as 4HP! Keep that in mind when you make your final selections. Many of the pumps available on our website will have a photo of the motor label. You should try to match your amperage via this label. This spec is another place we can verify the speeds of the pump as well. One number is a single speed and 2 numbers separated by a forward slash is 2 speeds.

**FRAME** Sometimes labeled as FR or FRY this is the frame size of the motor. We will get to this one at the end. Do not use this to determine your frame size. We will do it another way.



**So far, you know a few things about your pump:**

Manufacturer and Model

Voltage

Amperage

Speed

The end is near. For some, this is your last stop. You have all the information you need to go purchase a direct, or almost direct replacement for your pump. If you fall in the list below, be gone! You're all set and don't need to match any other variables. However, feel free to follow along and verify these last 2 specs, it's always a good idea. For the rest of you, the wet end suction and discharge size, along with the frame size of the motor still needs to be matched.

**These pumps do not have variations in frame size or suction and discharge.**

**B. Dura Jet DJ** spa pumps are all 2" suction and discharge and 48 frame size.

**C. Waterway Center Discharge** spa pumps are all 1.5" suction and discharge and 48 frame size. Remember, these are replaced with the Waterway E-Series pumps.

**F. Waterway E-Series** spa pumps are all 1.5" suction and discharge and 48 frame size.

**Aqua Flo FMCP** spa pumps are all 1.5" suction and discharge and 48 frame size.

**Aqua Flo FMVP** spa pumps are all 1.5" suction and discharge and 48 frame size.

**G. Waterway Spa Flo** spa pumps are all 1.5" suction and discharge and 48 frame size. Remember, these are replaced with Aqua Flo FMHP spa pumps.

**Waterway Viper** spa pumps are all 2.5" and 56 frame size.

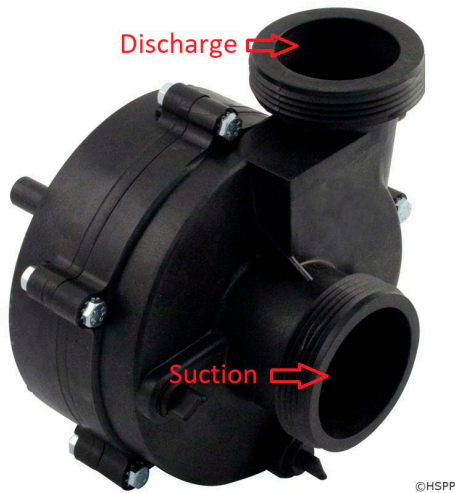
**Aqua Flo FMHP** spa pumps are all 1.5" suction and discharge and 48 frame size.

**Aqua Flo XP3** spa pumps are all 2.5" and 56 frame size.

### 4<sup>th</sup> Suction and Discharge Size

The suction and discharge pipes are located on the wet end. This is where the water is sucked into the wet end, slings around the impeller, and discharges out at a high rate of speed.

**Which is which?**



**Now to measure them.**

Your suction and discharge might be the same size, or they might not. Each your suction and discharge can be one of 3 sizes. 1.5", 2", and 2.5". So, what do you measure to get 1.5", 2", or 2.5"? That measurement refers to the internal diameter of the incoming PVC. It's not the most convenient measurement to try and get. There are a few other ways you can find this out.

Look on the PVC coming in and going out. Check for any printing on it that references the size. Some pumps have gate valves attached to them and you may be able to read a size off of that as well. The other way is to measure the outside physical dimension of the bare suction and discharge.

**What do the measurements mean?**

**1.5" = OD 1 7/8" or 1 11/16" or 2 7/16"**

**2" = OD 3 1/16" or 3 1/4"**

**2.5" = OD 3 11/16"**

**\*There are rare exceptions to these measurements, this guide will not cover those\***



Now that you know your suction and discharge size, it's time for more of you to go and find the perfect pump! If you fall in the list below you are done. Your pump does not have a variation in frame size and you can be confident in the selection you make.

**B. Vico Ultima are all 48 frame**

**G. Waterway Hi Flo are all 48 frame**

**Last. Match the motor frame size**

I left this one for the last because, well it's almost impossible to determine. Just kidding, it's really easy. It's all pretty easy to figure out when you know how to do it. Here is an easy way to get the frame size.

Look at the place where the wet end meets the motor. See the 4 "legs" that mount the wet end onto the motor? Well there are thru bolts in there. Those bolts come from the very back of the motor all the way through the length of it, then are seated deep into those legs for a very sturdy connection. You need to measure the exact center to center measurement of the top two bolts.

**48 Frame = 3 5/8" – 3 3/4"**

**56 Frame = 4" - 4 1/8"**





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We sincerely hope you found this guide helpful. If you didn't, please let us know so we can address any issues. If you couldn't find your pump, also, please let us know so we can help you.

### **\*\*\*Disclaimer\*\*\***

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This was specifically made to help you find your pump. However, it is not made for all pumps. This guide is geared toward non-proprietary spa pumps. If you have a brand like, just for example, Artesian, Dynasty, Coast, etc. First, try finding the pump through the [brand page here](#). If you don't have any luck, then try this out.

Also, this is meant for main pumps only. This guide will not help you with circulation pumps.

**[Click Here to return to the beginning and get started.](#)**