

水泵选用指南

How to choose a pump?

注意：本指南仅供一般用户选用我公司产品时参考，通常用户应先听取设计人员或安装人员的方案。请在购买前考虑以下的几点建议，以便在了解我公司水泵产品后，选择一台最合适的产品。

Notes: This Guide only serves for general users to choose our production. Regularly, the advices from your design office or pump installing departments should be taken into your first consideration.

Before purchasing a pump, please think over the following points in advance, which will be able to you to know more about water pump and choose the most suitable one for you.

▶ 首先考虑所需要的扬程流量 How many capacity and head do you need?

用户根据实际使用所需的流量扬程，在本样册中查阅泵的性能曲线及技术数据。最好让泵的最佳运行点落在泵运行的流量扬程的区间内。泵的最佳运行点通常是泵的额定运行的。可能不止一个泵满足流量扬程的要求，此时，请考虑本样册中要点后再做最好决定。

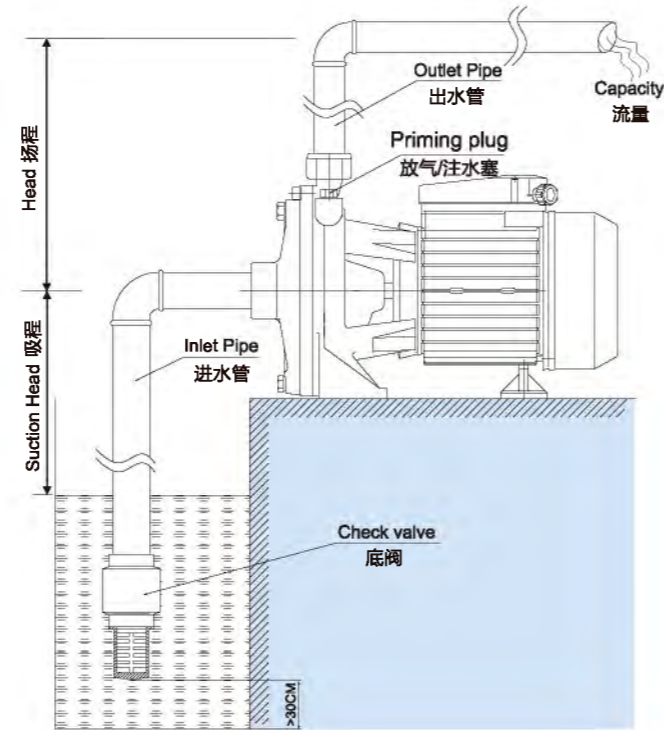
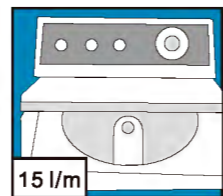
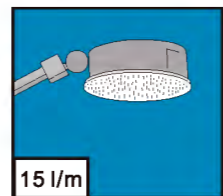
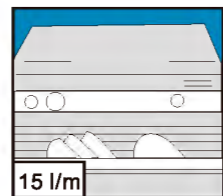
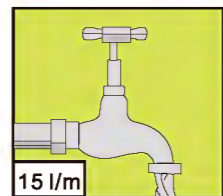
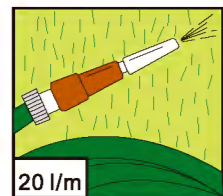
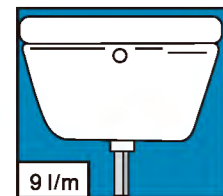
According to practical Capacity and Head requested, pick up the type of pump from the Performance Chart in this catalogue, and it would be better to put the pumps' optimal operating point among the running range of pumps. Optimal operating point of a pump is usually its rated point.

However, maybe there are some kinds of pumps satisfying both in the capacity and head on your need, in that case, please refer others points in this catalogue before come to a final decision.

▶ 普通家庭用水量选例 An example-how many litres a minute do you need in your house.

下图列出了一些普通家庭典型的家用设施所需的用水量。请参照本样册中的参数表选择本公司的泵型号来满足您的要求。

例如，在家中的二楼（距离泵安装地约为3米高）使用这些设施，假设有三个设施同时使用：一个水龙头、一个洗衣机及一个淋浴喷头，将这三个设施所需的水量相加，得出需要的总水量为45L/min。查阅本样册中，扬程为3-5米时水量在45L/min以上的泵。如JS100，即可满足所用要求。



Typical installation and defines
典型安装图及术语说明

The amount of water that some common home appliances typically use is indicated on the adjacent sketches. Please refer to the operating performance table to select the Elestar model to suit your needs.

For example, in the second floor about 3m above your pump, suppose that the most appliances likely to be operating at once is three-a tap, washing machine and a shower. Adding up the amount of water used by these- tap (15L/min) plus washing machine(15 L/min)- gives a total of 45 L/min. Then check a pump which flow is 45L/min while its Head on 3m-5m, for example, JS 100.

▶ 确定所使用的场合 In what particular field your pump is used for?

不同用途的泵采用不同的原材料，尽管其外形及性能参数相近，但价格可能会差很多。

一般将泵分为三大使用场合：家用、民用及工业用。

家用泵通常安装在房中或在有遮盖物的庭院中供家庭日常使用，主要用来输送如清水一样的清洁的流体以及类似的没有腐蚀性的化学流体。

民用泵通常安装在建筑物、工厂、商店、车间、农乡等场合，用于供水、灌溉、冷却及防火等用途。

工业用泵主要用在重要场合如设备在工业机械上、高楼、化工流体运输及食品工业流体等。

通常，为家用用途而设计的泵不能用在民用或工业用途上，否则，可能会加速泵的磨损或导致损坏；另一方面，也不必将工业用或民用的泵在家用的场合使用。

Pumps for different use, they cost different materials and the price may be quite different, though the performance and appearance of them are the same.

We divided our pumps into three kinds use: domestic, civilian and industrial.

Domestic pump is usually installed inside the house or in the courtyard with a shelter for domestic daily use. Usually the convey clean liquids and non-aggressive chemical fluids.

And the pumps for civil use are installed in storied building, worksite, store, workshop, country or farm for distributing water irrigation, cooling, fireproofing, etc.

Industrial pump is mainly used in significant occasion, such as equipped in an industries machine, buildings tall blocks, transferring chemical fluids, food liquid, etc.

Usually, pumps design only for domestic use, it would not be used for civilian and industrial use otherwise, it will may be worn out quickly or even be damaged some time. In the other hand, it is unnecessary to use a civilian or industrial pump for a domestic occasion.

▶ 所输送的流体 What kind of fluid be transmitted?

本公司设计了多种泵用于多种流体：清水、污水、带细沙的水、热水、柴油及热油等。请确定所选用的泵适合所输送的流体。例如，应避免使用清水泵来输送污水，否则可能导致叶轮堵塞及电机烧毁。也不能用污水泵来输送清水以免浪费资源。通常，环境温度不超过40℃，流体的温度也不要超过本样册中所标出的最高温度。如需要比常规更高的温度，请与我们联系，我们将为此设计方案。

We design different pumps for different fluid: clean water, dirty water, water with fine sand, hot water, diesel oil or hot oil. Make sure that your pump would be suitable for the transmitted fluid. Avoid using the clean water pump to deliver sewage because it will cause of blocked impeller and burning down the electric motor. Do not use a dirty water pump to deliver clean water to prevent the decline of its efficiency and waste energy. Ordinarily, the ambient temperature should not over 40℃ and the fluid temperature should not exceed over Max temperature showing in this catalog.

If you need pumps for higher temperature fluid, Please advise us. We will find a solution for you.

▶ 选择泵的种类 What kind of pump would you choose?

本公司有三种类型的泵供选择：旋涡泵、离心泵及离心射流泵。当所有的泵处在相同的功率时：旋涡泵提供的扬程比离心泵及射流泵高，但流量低。可以用低成本获得高扬程，但效率低，不适于长时间使用及制造大功率泵。

离心泵可提供较大的流量，其效率比旋涡泵及射流泵高，功率大的泵大多是选用离心泵，是节能产品的首选。但要获得高扬程要选用多级离心泵，增加了成本及维修费用。

射流泵的功率输出比较平稳，也可以获得较高的扬程，有自吸功能，但体积大，成本高，效率不如离心泵。

由离心泵射流泵改造而来的深井射流泵吸程可达25米，但效率比射流泵低，请查阅本样册中的相关产品的细节。

We have three kinds of pumps for you to select, peripheral pump, centrifugal pump and Jet pump. Suppose all kinds of pumps when at a same power. Peripheral pump would provide a higher Head but lower Capacity than centrifugal pump and JET pump. It can get higher Head in an economic way. Centrifugal pumps provide larger Capacity. It has higher efficiency than peripheral and Jet pump. And it is a good choice for those pumps large expending in electrical power to save energy. And JET pump provide more reliable output.

Please check feature of each pump in this catalog for detail.

▶ 考虑吸程 About the suction head

由于大气压力，相对于一定的流体有一定的吸程。例如，对清水而言，普通家用泵的最高吸程通常为8米，即使将吸管抽成真空，也将只有10米的吸程。但是对较深的吸程，比如要求15米吸程时，可以选择深井泵。因为深井泵实际上由两个部分组成：射流泵及离心泵。较深的吸程为射流泵的扬程与离心泵吸程的叠加。在选用民用及工业用泵时，应考虑汽蚀余量值，以保证泵的稳定可靠运行。对于家用泵，可不考虑汽蚀余量。

Owning to the atmospheric pressure, for a certain fluid, there is a certain suction head. For example, for water, the maximum suction lift of an ordinary domestic pump is about 8m. Even when the suction pipe would be pumped to vacuum, it would be about 10M high suction head only. However, choose a deep well pump instead when a deeper suction-15m for example, is required. Because Deep Well pump consisted of two parts, JET pump and Centrifugal pump. Its deeper head come from the combination of Jet pump's head and centrifugal pump's suctionhead. Take care to the NPSH (net positive suction head) when use industrial pump or civilian pump, to ensure the pump's stable and continual operation. But for pumps domestic using, usually we do not take NPSH into consideration.

▶ 建议 Advice

应优先考虑购买由电动机，特别是三相电动机驱动的泵。有些泵不能全扬程使用，应避免离心泵在低扬程工况下使用，否则将可能导致过载。扬程越低，所需的功率越大。相反，不要超过运行范围将旋涡泵运行在高扬程下，否则将可能导致过载，扬程越高，所需的功率越大。对于JET泵，可以用于全扬程使用，因为其功率变化小。最后应考虑泵的效率、外观及价格等因素。

The pump driven by electric motor is more preferential to consider. Usually some pumps cannot be operated for its entire head. Avoid operating the Centrifugal pump under the condition of low head out of their range, or it will make the pump over-loaded—the lower the head is, the bigger power is required. To the contrary, never operate the peripheral pump under the condition of high head out of their range; for it will make the pump over loaded—the higher the head is, the bigger power is required. So take care for the pump running within operating range. For Jet pump, its power changes little when change its head or capacity. So it can be used for the whole Head.

Finally, please consider pump's efficiency, appearance and the price before come to your final decision.