



## Aquarium Equipment, Filters and Decoration Tips

### 1. **Minimum Aquarium Size**

[\(LINK: Ideal Aquarium Conditions \(Recommendations Aquarium Size – Stocking Density\)\)](#)

To keep a pair of discus fish without companion fish, we recommend a minimum aquarium size of 1 m x 0.40 m x 0.45 m (180 litres) 39,5" x 16" x 18" (50 US gallons). The **discus pair** should have a **minimum size of 14 centimetres**.

For a pair of fully-grown discus fish in an aquarium with plant life and a small school of approx. 30 – 50 neon fish, an aquarium with a capacity of at least 250 litres (65 US gallons) 100 cm x 50 cm x 50 cm (39,5" x 20" x 20") would be better suited. Juvenile fish should ideally be reared in a group of at least 10 fish.

Complete aquarium sets (with pump/ filter, heating rod, lighting, thermometer and additional equipment) are available in specialist pet shops at reasonable prices. An aquarium cabinet is a useful accessory. It should be constructed to bear the weight of the aquarium and should also offer storage room for equipment.

### 2. **Filters**

We would like to provide you with some information about three different types of filters: (1) internal filters, (2) external filters and (3) Hamburg Mat Filters. All filter systems must run 24 hours a day. You should choose one sort of filter to use in your aquarium.

We recommend that you **use two internal filters so that you always have a backup if one filter should fail**. Please attach the two internal filters on opposing walls of the aquarium. Using two filters also improves the water quality and pollutants are removed more quickly. Your filter system must be connected to a power source and run at all times!

**External filters** are attached via hoses and are placed outside of the aquarium. There is a risk that one of the hoses may come undone or that the filter may become leaky. If this happens, the water may completely drain out of your aquarium.

This risk can be avoided by using an internal filter or „Hamburg Mat Filter“. In external filters, the aquarium water flows quickly through a small initial section (e.g. filter wool), where most of the nutrient content is broken down and much of the oxygen is lost. Thereby, the filter layers further back in the filter can hardly contribute to the overall filter function.

You can, however, also opt for the **Hamburg Mat Filter**, which we use exclusively in our hatchery. These filter mats have an extremely large initial surface area, through which the polluted aquarium water flows very slowly, giving the bacteria the time and oxygen they require to optimally break down the pollutants. Furthermore, in an aquarium stocked solely with discus fish and without substrate, a Hamburg Mat Filter can be used as a partition.

This then allows you to reduce the water space available for your fish as required, so as to increase “competitive feeding”. Equally, once your fish have grown well in size, you can then provide them with more room in which to swim. In addition, thanks to the large water volume of the aquarium, you will always have excellent water quality and ideal conditions



for your fish to grow and thrive in. The only disadvantage: these mat filters are not all that pretty to look at. However, you can slit the filter foam with a knife and plant attractive water plants into the foam. This will give you a “green, vegetated filter solution”, which can look great. For our instructions on building filters see: ([LINK: Building Your Own Aquarium Filter](#)) Alternatively, “Jonny’s Air Concept” offers ready-made filter solutions: <http://www.jonnysairconcept.de/>

### 3. **Heating Rod/ Aquarium Heating**

We recommend attaching the heating rod on one of the side walls (i.e. not rear or front) of your aquarium, so that it doesn’t affect your view of your fish. Please note that a connected and functioning **heating rod must be under water at all times**, so that it does not overheat and burn out. The heating rod should be in operation 24 hours a day.

### 4. **Thermometer**

Attach a small thermometer (with a suction cup) to the front wall of your aquarium. This will help you to easily read and control the temperature. The ideal water temperature for discus fish is 28° – 30°C (82,6 - 86°F).

### 5. **Oxygen Supply**

We also recommend using a diaphragm pump with 1 – 2 diffusers (aeration stones) so that your discus fish have a sufficient oxygen supply. We recommend installing the oxygen supply diaphragm pump above the waterline, so that no water can flow out of the aquarium in the event of a power blackout.

### 6. **Lighting**

Discus fish have large eyes, making them quite sensitive to light. For aquariums with a height of no more than 50 cm / 19,5”, a single fluorescent tube which closely approximates natural daylight should be sufficient for water depths of up to 40 cm / 16”. For deeper water, two fluorescent tubes are necessary to supply the aquarium plants with sufficient light. The lighting should be switched on for approx. 12 – 14 hours per day (from 7 am to 9 pm). This time span can be regulated easily, using a timer clock.

### **Nightlights**

In the wild, fish use the moon or sun for orientation. By using a nightlight, which you can regulate using a timer clock and which should overlap with the daytime lighting, you can provide your fish with orientation and help minimise their jumpiness and tendency to startle easily. If, on the other hand, you keep your aquarium in total darkness at night and then suddenly switch on daytime lighting, discus fish may jump out of the aquarium or swim against the glass panes at high speed, because they are startled, which can lead to injury. By using a nightlight, you can almost rule this risk out.

### 7. **Timer Clock**

We recommend that you use a timer clock to regulate the lighting, with daytime lighting on for 12 – 14 hours per day. **IMPORTANT:** The timer clock must be used **only for the daytime lighting** (connect the nightlight via a separate power supply) and must never be connected to the pump or heating rod by accident, as it is vital that these run without interruption!



## Decorating Your Discus Aquarium

### **Substrate**

We recommend using quartz sand or fine aquarium gravel as a substrate. Before placing the gravel in your aquarium, please wash it thoroughly in a strainer or colander under running water to remove all dust. This will help prevent your aquarium water becoming cloudy.

### **Roots, Plant Life, Rocks and Stones**

**Bogwood** is good choice and is available in specialist pet shops. These aquarium roots do not float, and they rest securely on the substrate and are free of pollutants, e.g. from pesticides. When choosing plant life for your aquarium, please be sure to only choose **plants which are able to withstand temperatures of 30°C/86°F long term**, e.g. Amazon plants, various types of Echinodorus, Oak-Leaf, Tiger Lotus, Cabomba, Vallisneria gigantea, etc.

[\(LINK: Plants for Discus Aquariums\)](#)

Please make sure that you don't place any objects in your aquarium which have sharp edges or are pointy/ spiky. These could cause your discus fish to startle and to "shoot" through the aquarium at high speed. To avoid injury to your discus fish, we recommend that you remove pointy parts of roots etc. by using a saw or sandpaper.

Please also **be cautious about rocks and stones** that you place in your aquarium, as these release minerals into the water and may negatively impact on your water chemistry.

### **Backgrounds**

You can use plastic sheeting, printed with photos of green plant life, which are available in specialist pet shops. We recommend turning these backdrops around and using the black or white side of the sheet, as these will provide a stark contrast to the colours of your discus fish, highlighting their colours even more. You can also purchase backgrounds with a blue "water design" that make the water in your aquarium look "blue" and give it a brilliant underwater look.

These plastic sheets must be attached to the outside of your aquarium's rear wall. If you wish to use a background inside your aquarium, only "back to nature" backgrounds are suitable.

We recommend using "back to nature" backgrounds with a root design, to provide your discus fish with a habitat with very natural conditions. These backgrounds not only look great, but they also function as an additional filter.

### **Further Decorating Tips**

For your companion fish, like Butterfly Cichlids or other Dwarf Cichlids, we recommend placing half a coconut shell in the aquarium for them as a hatching area. The coconut shell should be placed upside down and fitted with holes.

**Suitable Companion Fish:** [\(LINK: Companion Fish for Discus Fish\)](#)