

# KÄRCHER

makes a difference



## SUBMERSIBLE PUMPS

Impressively reliable

# KÄRCHER SUBMERSIBLE PUMPS: ALL CUT AND DRIED - WITH KÄRCHER.

Professional quality for the home: submersible pumps from Kärcher are provided with a ceramic slide ring sealing that has been tried and tested in the professional field - which makes it all the more robust, longer-lasting and ready for demanding tasks in the domestic field. Our submersible dirty water pumps also carry contaminated water easily from A to B. The submersible flat suction pumps drain water down to just one millimeter, and thus provide mop-dry results. In short, Kärcher's range offers the perfect pump for any application, and provides specific needs-based equipment, such as an integrated prefilter or the Level Sensor with continuous switching level adjustment.



# SUBMERSIBLE DIRTY WATER PUMPS – FOR DEMANDING TASKS.

Robust through and through and extra-long-lasting – this is how the user will find our submersible dirty water pumps. They can handle any task around the home, no matter how demanding, and, depending on the performance class, carry water with dirt particles of up to 30 millimetres in size. Our top models are equipped with an integrated stainless steel prefilter for even better pump protection.

## SP 7 Dirt Inox Submersible dirty water pump

- Max. flow rate 15,000 l/h.
- Max. delivery height 8 m.
- Max. 750 W.
- Max. grain size 30 mm.
- Extremely durable thanks to the ceramic slide ring sealing
- Continuously adjustable Level Sensor
- Integrated stainless steel prefilter
- Quick Connect hose adaptor
- Switch to change between automatic and manual operation mounted on the pump



### Individual switching level

The switching level can be continuously adjusted simply by moving the Level Sensor.

### Manual or automatic

Easy switching between manual operation and automatic mode.



### Extremely durable

Protected by an oil chamber, the ceramic slide ring sealing increases the lifetime of the submersible pumps.

### Perfect protection

The prefilter, available in integrated form or as an optional accessory, reliably protects the pump against blockage.

\* You can extend your guarantee to 5 years by registering at [www.kaercher.com/guarantee](http://www.kaercher.com/guarantee).

# SUBMERSIBLE FLAT SUCTION PUMPS - FOR MOP-DRY RESULTS.

Our submersible flat suction pumps can transport clear or slightly dirty water with particles of up to 5 mm. Thanks to the folding legs, water can be pumped out right down to a level of 1 mm for mop-dry results. The Level Sensor ensures that the pump starts even at very low water levels. The SP 6 Flat Inox can, according to the user's requirements, be switched between both automatic and manual modes via a separate switch on the pump.

## SP 6 Flat Inox Submersible Flat Suction Pump

- Max. flow rate 14,000 l/h.
- Max. delivery height 9 m.
- Max. 550 W.
- Flat pick-up up to 1 mm
- Extremely durable thanks to the ceramic slide ring sealing
- Continuously adjustable Level Sensor
- Detachable stainless steel prefilter
- Quick Connect hose adaptor
- Switch between automatic and manual operation mounted on pump



### Automatic pump starter

The Level Sensor reacts immediately - even at the lowest water level.

### Mop-dry pumping results

Once the legs have been folded away, the submersible flat suction pumps can remove water to a depth of 1 mm for mop-dry results.



### Extremely durable

Protected by an oil chamber, the ceramic slide ring sealing increases the lifetime of the submersible pumps.



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## COMPLETE KIT FOR QUICK SET-UP.

If there is flooding in the house and cellar and quick pumping is required, the Kärcher submersible Pump Box is the ideal solution for pumping out large volumes of water. The box holds everything necessary for prompt operation. With the high-performance SP 5 Dirt water pump, up to 9,500 litres of water can be pumped out per hour. For larger dirt particles, as is the case with floods, the box with its coarse mesh can even be used as an additional prefilter, protecting the pump impeller from blockages.

### Submersible Pump Box with SP 5 Dirt

- Max. flow rate 9,500 l/h.
- Max. delivery height 7 m.
- Extremely durable thanks to the ceramic slide ring sealing
- Vertically adjustable float switch
- Includes plastic box with meshes
- Includes 1 ¼" fabric hose and hose clamp with wing screw for tool-free connection



### 2-in-1 function

The box serves not only as a container for storage or transport, but also as a prefilter that protects the pump from foliage or other particles in the water.

### Flexible switching level adjustment

The vertically adjustable float switch offers increased flexibility when changing the switching level.



### Practical, fast connection

Quick and simple hose handling thanks to the Quick Connect adaptor.



## WELL EQUIPPED WITH KÄRCHER.

As reliable system providers, we offer our customers a comprehensive programme of high-value original accessory parts. After all, there are all kinds of possible uses around the home for our tried-and-tested pump systems. Kärcher original accessories equip you best for every eventuality.



### Reliably compatible

Spiral and garden hoses are ideally suited for connection to any Kärcher pump.

### Practical fabric hose

The flexible fabric hose with stainless-steel hose clamp and wing screw can be connected without tools and can be easily stored.

### Easy connection

With Kärcher adapters and connectors, hoses can be easily and securely connected to the respective pumps.

### Perfectly protected

This detachable stainless steel prefilter increases the operational reliability of your submersible pump and protects the pump impeller against blockages.

# FINDING THE RIGHT PUMP.

The decisive criteria for choosing the right pump are the flow rate and delivery pressure (= delivery height) required during application. You can use the calculated values to select the most appropriate pump from the pump performance curve.

## Example calculation for selecting the right submersible pump:

1. The choice of the correct pump depends entirely on the water volume, which can be calculated as follows: rectangular area: length × width × average depth (m) × 1000 = basin capacity (l). Circular area: **diameter × diameter × average depth (m) × 0.78 × 1000 = basin capacity (l).**  
(Example pool: 6 m × 3 m × 1 m × 1000 = 18000 l)
2. Choose a dirty water pump or a flat suction pump depending on the area where its use is intended. **The application overview on page 14 can help you to select the appropriate type of pump.** (Example: flat suction pump)
3. Consult the diagram that applies to you and use the pump curves and the curves for a 10-metre-long 1" PrimoFlex® hose or a 10-metre-long 1 ¼" fabric hose as a guideline, depending on what type of hose you would like to use.  
(Example: 1" PrimoFlex® hose)

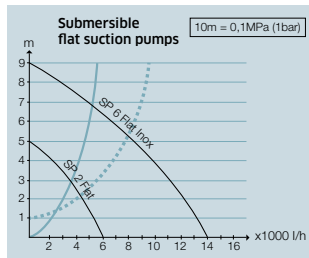
## Sample calculation result:

At the points where the hose curve and the pump curve intersect, you can now simply read off the approximate corresponding flow rate. Divide the water volumes you calculated previously by the flow rate readings (you can find these on the horizontal axis). In this way you can find out the expected pump duration, in hours.

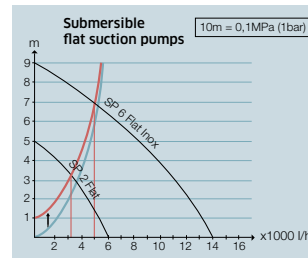
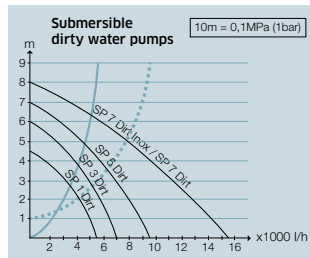
**If you need to account for a height difference\* when evacuating water, simply shift the curve for the relevant hose upwards by the respective number of metres.** (Example: Max height difference = 1 m; curve must be shifted upwards by one metre on the vertical axis.)

The point of intersection for the SP 2 Flat is around 3,200 l/h, and for the SP 6 Flat Inox around 5,000 l/h. This results in a pumping duration of around 5½ hours with the SP 2 Flat. The SP 6 Flat Inox, on the other hand, would require only 3½ hours and would therefore be the better solution for this application.

\* Height difference between the water surface and the hose end



Curve for 1" PrimoFlex® hose  
 .....  
 Curve for 1 ¼" fabric hose



Curve for 1" PrimoFlex® hose  
 .....  
 Shifted curve for the 1" PrimoFlex® hose

# APPLICATION AREAS

Depending on the area of application and the degree of contamination of the water to be pumped out, either a dirty water pump or a submersible clear water pump is to be recommended. The following table shows which pumps match which uses best.

Applications	Submersible dirty water pumps		Submersible flat suction pumps	
		SP 1 Dirt	SP 3 Dirt	SP 2 Flat
Pump is underwater	■		■	
Permanent installation possible				■*
Water removal: Pumping from and circulating from				
Pond / swimming pond		■		
Flooding		■		
Small excavation (max. 100 m³)		■		
Washing machine leaks / Groundwater ingress	■	■		
Pool			■	■
Drainage shaft				■
<b>The pumps are not suitable for continuous circulation and continuous pump operation or for use with drinking water.</b>				

\* For example, in the drainage shaft.





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