

# Peristaltic Pumps

*Meet our Peristaltic Pump Product Range*



# Groundwater Sampling Made Easy

## The right pump for every job

Our line of groundwater samplers has been expanded with two new additions. The Peristaltic Pump ROYAL replaces the 12 VDC Advanced. It has undergone extensive improvements, with a new pump head and updated software. The Peristaltic Pump PRO offers just the essential features, building on the success of the ROYAL model, but at a lower price point. Both pumps are lightweight and built to withstand the toughest conditions.

Our battery-powered field pumps can pump up water from a depth of up to 9 metres, as well as air. Their continuous low-flow pumping method makes the pumps perfectly suitable for sampling and purging monitoring wells. To prevent cross contamination, simply exchange the tubes of the pump.

The peristaltic pumps are controlled by a microprocessor which provides adjustable constant speed, overload protection and various external control functions. The integrated compartment for a 12 Volt lithium-ion battery makes it possible to use the pumps in the field without additional power requirements. The optional carrying strap makes the pump easily portable.

By using the filter holder or 0.45 micron disposable filters for removal of soil particles from water samples, in-line filtration for sampling of groundwater can be done.

### Use your Peristaltic Pump for:

Environmental soil research  
Monitoring well installation  
Monitoring water quality  
Ground water sampling  
Water quality research  
Anaerobe sampling  
Water sampling



### Peristaltic Pump PRO

- Simplified model
- Compact, lightweight & splash-waterproof
- Quick-loader
- Compatible with inch size tubes:  $\frac{3}{32}$ " (2.4 mm)



### Peristaltic Pump ROYAL

- New pump head
- Updated software and advanced features
- Option to connect an external pump
- Memory for rotational speed
- Digital display

## PRO vs ROYAL

The Peristaltic Pump PRO and ROYAL are both specifically produced for field use. Their designs are lightweight and portable, with highly splash-waterproof housings. No matter which pump you select, you can rely on its ability to operate safely, efficiently, and flawlessly in the field.

|            | PRO                                                                                                                                                                                                           | ROYAL                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features   |  <br>Fewer features - for basic usage   |    <br>More features - for advanced usage |
| Robustness |  <br>Less robust to enhance portability |    <br>More robust to ensure durability   |
| Costs      |                                                                                                                            |                                                                                                                                                                                                                     |

## Specifications

| Item                                                                          | Specifications<br>Peristaltic Pump PRO | Specifications<br>Peristaltic Pump ROYAL                      |
|-------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|
| <b>Housing</b>                                                                |                                        |                                                               |
| Dimensions main housing (lxwxh)                                               | 350x325x155 mm (max.)                  | 350x325x155 mm (max.)                                         |
| Weight excl. lithium-ion battery                                              | 7 kg (approx.)                         | 7 kg (approx.)                                                |
| Lithium-ion battery (LiFe PO <sub>4</sub> )                                   | 10 Ah: 1.5 kg<br>7 Ah: 0.86 kg         | 10 Ah: 1.5 kg<br>7 Ah: 0.86 kg                                |
| Material standard main housing                                                | HIPS                                   | HIPS                                                          |
| Main housing interior                                                         | Stainless steel                        | Stainless steel                                               |
| Pump housing                                                                  | PPS (plastic)                          | Anodized aluminium                                            |
| Metal pump (rotor) parts                                                      | Corrosion resistant materials          | Stainless steel                                               |
| <b>Tubing (preferred)</b>                                                     |                                        |                                                               |
| Material pump tube                                                            | Silicone                               | Silicone                                                      |
| Rigidity pump tube                                                            | 60±5° Shore-A                          | 60±5° Shore-A                                                 |
| Wall thickness                                                                | 3/32" (2.4 mm)*                        | 2.0...2.2 mm                                                  |
| Diameter pump tube (Øinside x Øoutside)                                       | 3/16" ID x 3/8" OD                     | 4x8 mm & 6x10 mm                                              |
| <b>Pump characteristics</b>                                                   |                                        |                                                               |
| Suction head (depending on ambient and tube conditions)                       | 3/16" ID x 3/8" OD 8...9.5 m.wc**      | Tube Ø 4x8 mm: 8...9.5 m.wc**<br>Tube Ø 6x10 mm: 6...9 m.wc** |
| Minimum flow rate @ 10 rev./min.                                              | ca. 20 ml/min.                         | ca. 50 ml/min.                                                |
| Maximum flow rate @ 400 rev./min.<br>(depending on height/peripheral factors) | ca. 800 ml/min.                        | ca. 2000 ml/min.                                              |
| <b>Electrical</b>                                                             |                                        |                                                               |
| Prescribed lithium-ion battery (LiFe PO <sub>4</sub> ) 10 Ah/7 Ah             | 12.8 VDC                               | 12.8 VDC                                                      |
| External power supply                                                         | 12 VDC 3.34 A                          | 12 VDC 3.34 A                                                 |
| <b>Ambient/operational conditions</b>                                         |                                        |                                                               |
| Temperature                                                                   | -10...+40° C                           | -10...+40° C                                                  |
| IP-class                                                                      | IP-66                                  | Min. IP-66 (dust- and splash proof)                           |
| Relative air humidity                                                         | 0...100%                               | 0...100%                                                      |
| <b>Certification</b>                                                          |                                        |                                                               |
| CE                                                                            | CE-conform                             | CE-conform                                                    |
| Machinery directive                                                           | 2006/42/EC                             | 2006/42/EC                                                    |
| EMC directive                                                                 | 2014/30/EU                             | 2014/30/EU                                                    |
| RoHS directive                                                                | 2011/65/EU                             | 2011/65/EU                                                    |
| WEEE directive                                                                | 2012/19/EU                             | 2012/19/EU                                                    |

\* Note: The Peristaltic Pump PRO is only compatible with tubes in inch sizes. These do not fit on the Peristaltic Pump ROYAL.

\*\* Metres of Water Column

## Get started with the Perfect Pump Set

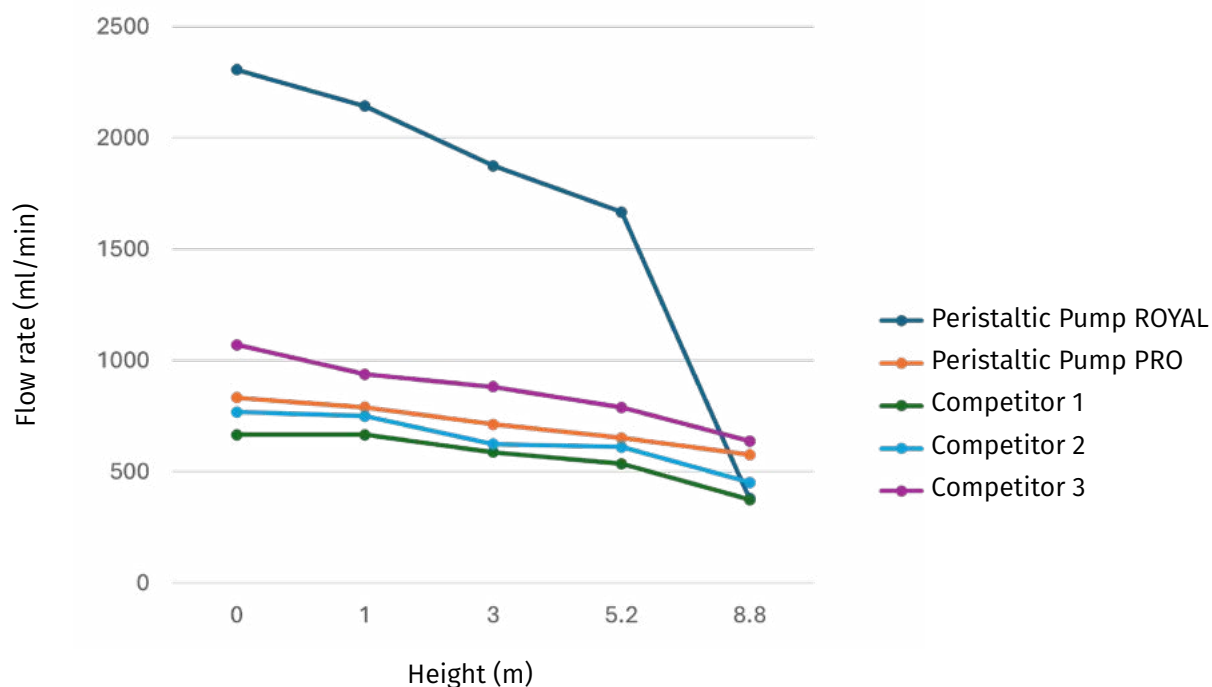
Choose from our complete sets, ready to streamline your field work:

- Peristaltic Pump PRO Set: Lightweight, portable, and ideal for basic tasks.
- Peristaltic Pump Royal Set: Robust, feature-rich, and perfect for demanding applications.
- Motorised Foot Valve Pump Set: For deep groundwater sampling with maximum mobility.
- Submersible Pump Set: With small but powerful Gigant and Booster Pumps.

## Flow rate comparisons

High quality, robust, lightweight and portable: these characteristics define our pumps. With outstanding flow rates that match or even surpass those of our competitors, they are a great choice for reliable and accurate groundwater sampling.

The Peristaltic Pump PRO, with its quick-loader pump head, delivers flow rates that match those of similar pumps. The Peristaltic Pump ROYAL, with a more advanced pump head, easily surpasses the others. Note that the actual flow rate is always dependent on the tube used and ambient conditions.



|                        | 0    | 1 metre | 3 metres | 5.2 metres | 8.8 metres |
|------------------------|------|---------|----------|------------|------------|
| Peristaltic Pump ROYAL | 2307 | 2143    | 1875     | 1667       | 380        |
| Peristaltic Pump PRO   | 833  | 790     | 714      | 652        | 577        |
| Competitor 1           | 667  | 667     | 588      | 536        | 375        |
| Competitor 2           | 769  | 750     | 625      | 612        | 452        |
| Competitor 3           | 1071 | 938     | 882      | 789        | 638        |

**ROYAL Eijkelkamp**  
Meet the difference

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