



River Pump

## EJECTOR PUMP FOR BORE DRILL WELLS



- Bore well pump
- Easy to install and available as a finished pressure system
- No parts requiring regular maintenance
- A simple, durable and reliable pump structure
- Corrosion-proof
- The pump can be installed for example in a basement or boiler room.

# The RIVER R pump has a sturdy and simple structure

## PUMP STRUCTURE

RIVER R pump is equipped with a B14 bladed 3-phase-motor, speed of rotation 2850 r/min. The pump's suction end has a 1 1/4" internal thread and the pressure and water end has a 1" internal thread.

Impellers, guide vanes and adapters are made of fibreglass enforced Noryl. The suction and pressure ends of the pump have been cast from corrosion-proof aluminium mix. The pump body is made of stainless steel.

The pump axle is made of stainless steel. The pressure end of the axle has been furnished with bearings in the bearings of the electric motor, and the suction end is equipped with a sliding bearing.

The axle seal is a self-adjusted rotary seal. The materials of the seal are very wear-resistant ceramics/eco-carbon rings.

The ejector pump is delivered equipped with a priming tank and an air release valve.

## CHOOSING THE RIGHT PUMP

When you know the preferred water volume and submersion depth, you can choose the right pump and ejector on the basis of the attached table.

The pressure of the pressure tank is independent of the submersion depth and can be adjusted to 1.5–3 bar as needed.

The values reported in the table take account of the loss created in the riser pipe.

In a horizontal pipe, the distance between the pump and the well is taken into account in such a way that the 25 m pipe reduces the maximum total head by approximately 5 metres.

If the bore well production is not large enough in comparison to the pump's efficiency, avoid the suction of air into the pipe through the ejector and the subsequent dry running.

You can prevent this by installing an electronic dry-run protection that guides the pump's motor. The dry-run protection stops the pump when the water level lowers under the set limit and re-starts it when the water level rises to the set level.

## PUMP INSTALLATION

The pump must be installed in a space where the temperature does not go below zero, e.g. a basement or boiler room. The ejector is installed in the bore hole, diameter minimum 100 mm.

Use a plastic pipe in installations up to the depth of 120 m.

Before turning on the pump, the pump and pipes must be thoroughly primed.

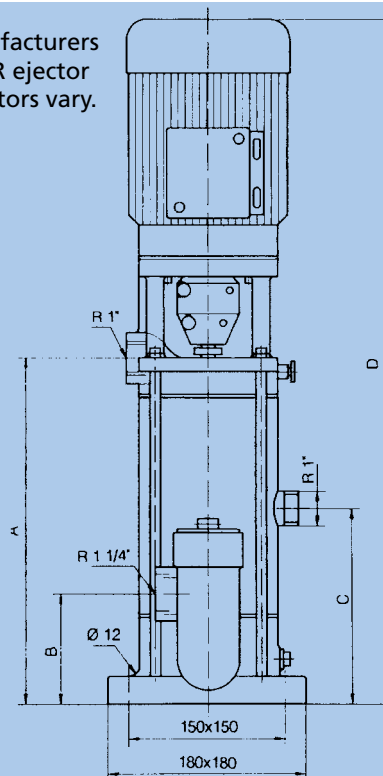
When installing the well and the pump, it must be especially noted that the pipes rise continuously towards the pump to avoid creating air bubbles.

## USING THE PUMP

Make sure that the pump does not run dry.

The motor must be protected from overloading by using a motor-circuit switch. The pump is easy to use with no parts requiring lubrication. The pressure switch which is installed in connection with the pressure tank is responsible for switching the pump on and off.

The manufacturers of RIVER R ejector pump motors vary.



| Type       | A   | B   | C   | D            |
|------------|-----|-----|-----|--------------|
| RIVER 4 R  | 288 | 150 | 172 | approx. 620  |
| RIVER 6 R  | 354 | 150 | 205 | approx. 684  |
| RIVER 8 R  | 420 | 150 | 205 | approx. 750  |
| RIVER 10 R | 486 | 150 | 205 | approx. 842  |
| RIVER 12 R | 552 | 150 | 205 | approx. 908  |
| RIVER 16 R | 684 | 150 | 205 | approx. 1094 |

## RIVER R PRESSURE TANK SYSTEM

- Fully assembled, complete and suitable for a small space for bore well use
- Makes work at the installation site faster and easier
- The necessary and correct components have been selected at the factory to create an efficient unit.
- Six different sizes. Enough power to lift water from a depth of up to 130 metres.
- Depending on the ejector and submersion depth, production is 300–2400 l/h

## STRUCTURE

The RIVER R PRESSURE TANK SYSTEM includes a high-quality centrifugal pump with a motor, a 50-litre membrane pressure tank, adjustable pressure switch, pressure gauge, relief valve and necessary pipe connections. It is a reliable system with quiet operation which is ready to be connected through electrical and pipe connections.

The RIVER R PRESSURE TANK SYSTEM membrane pressure tank provides the following benefits, among others:

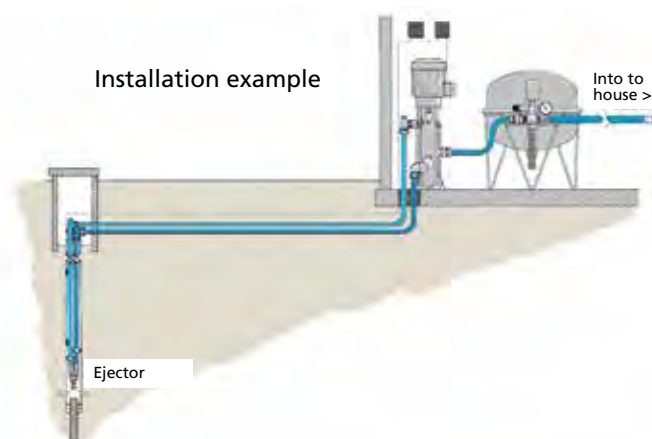
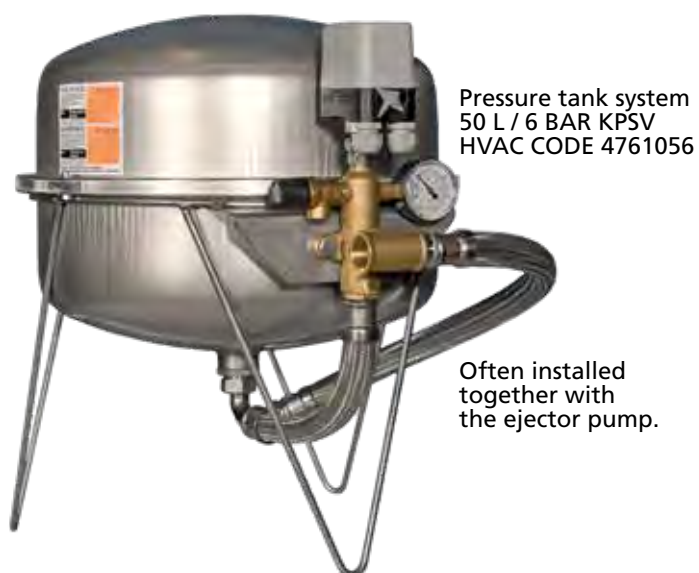
- 2.5 times greater storage capacity than a regular tank
- pre-pressurised air separated from water with a plastic membrane. Longer maintenance periods.

## CHOOSING THE CORRECT PYKE R PRESSURE TANK SYSTEM

Use the attached instructions and chart to determine which size is right for you. It is recommended to choose the next size up from the smallest possible option for the submersion depth in question.

The guideline is based on the shorter run time of the pump to lift the same volume of water. This helps to reduce electricity consumption and prolong the life span of the pump.

| Power chart for RIVER R in ejector use                            |                 |              |                |         |                          |                 |                         |
|-------------------------------------------------------------------|-----------------|--------------|----------------|---------|--------------------------|-----------------|-------------------------|
| Model                                                             | Submersion<br>m | Power<br>l/h | Ejector<br>VSL | Grundf. | Pressure<br>class<br>bar | Pipes           | Minimum<br>bore<br>hole |
| RIVER 4 R<br>0.75 kW<br>HVAC CODE<br>4751002                      | 10              | 2400         | 50/100         | 46 B    | 6+6                      | 32/26+40/32.6   | Ø 100 mm                |
|                                                                   | 15              | 2000         | 50/85          | 45 B    | 6+6                      | "               | "                       |
|                                                                   | 20              | 1200         | 45/70          | 22 B    | 6+6                      | "               | "                       |
|                                                                   | 25              | 950          | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 30              | 750          | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 35              | 500          | 40/55          | 11 B    | 6+6                      | "               | "                       |
| RIVER 6 R<br>1.1 kW<br>HVAC CODE<br>4751004                       | 15              | 2400         | 50/100         | 46 B    | 6+6                      | 32/26+40/32.6   | Ø 100 mm                |
|                                                                   | 25              | 1600         | 50/85          | 44 B    | 6+6                      | "               | "                       |
|                                                                   | 35              | 1000         | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 40              | 800          | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 45              | 550          | 40/55          | 11 B    | 6+6                      | "               | "                       |
|                                                                   | 50              | 470          | 40/55          | 11 B    | 6+6                      | "               | "                       |
| RIVER 8 R<br>1.5 kW<br>HVAC CODE<br>4751006                       | 25              | 2400         | 50/100         | 46 B    | 6+6                      | 32/26+40/32.6   | Ø 100 mm                |
|                                                                   | 35              | 1600         | 50/85          | 44 B    | 6+6                      | "               | "                       |
|                                                                   | 45              | 1000         | 45/70          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 55              | 750          | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 60              | 550          | 40/55          | 11 B    | 6+6                      | "               | "                       |
|                                                                   | 65              | 500          | 40/55          | 11 B3   | 10+6                     | 32/22.8+40/32.6 | "                       |
| RIVER 10 R<br>2.2 kW<br>HVAC CODE<br>4751008                      | 70              | 400          | 40/55          | 11 B4   | 10+10                    | 32/22.8+40/28.4 | "                       |
|                                                                   | 35              | 2000         | 50/85          | 45 B    | 6+6                      | 32/26+40/32.6   | Ø 100 mm                |
|                                                                   | 45              | 1200         | 45/70          | 22 B    | 6+6                      | "               | "                       |
|                                                                   | 55              | 900          | 45/65          | 20 B    | 6+6                      | "               | "                       |
|                                                                   | 65              | 650          | 45/65          | 20 B3   | 10+6                     | 32/22.8+40/32.6 | "                       |
|                                                                   | 75              | 500          | 40/55          | 11 B4   | 10+10                    | 32/22.8+40/28.4 | "                       |
| RIVER 12 R<br>2.2 kW<br>HVAC CODE<br>4751010                      | 80              | 400          | 40/55          | 11 B4   | 10+10                    | "               | "                       |
|                                                                   | 85              | 350          | 40/55          | 11 B4   | 10+10                    | "               | "                       |
|                                                                   | 45              | 1600         | 50/85          | 44 B3   | 10+6                     | 32/22.8+40/32.6 | Ø 100 mm                |
|                                                                   | 55              | 1050         | 45/70          | 20 B4   | 10+10                    | 32/22.8+40/28.4 | "                       |
|                                                                   | 65              | 800          | 45/65          | 20 B4   | 10+10                    | "               | "                       |
|                                                                   | 75              | 600          | 45/65          | 20 B4   | 10+10                    | "               | "                       |
| RIVER 16 R<br>3.0 kW<br>HVAC CODE<br>4751012<br>Not in<br>storage | 85              | 500          | 40/55          | 11 B4   | 10+10                    | "               | "                       |
|                                                                   | 90              | 450          | 40/55          | 11 B4   | 10+10                    | "               | "                       |
|                                                                   | 100             | 400          | 40/55          | 11 B4   | 10+10                    | "               | "                       |
|                                                                   | 65              | 1200         | 45/70          | 22 B4   | 10+10                    | 32/22.8+40/28.4 | Ø 100 mm                |
|                                                                   | 80              | 800          | 45/65          | 20 B4   | 10+10                    | "               | "                       |
|                                                                   | 95              | 600          | 45/65          | 20 C    | 25                       | "               | "                       |
| 4751012                                                           | 110             | 500          | 40/55          | 11 C    | 25                       | "               | "                       |
|                                                                   | 120             | 400          | 40/55          | 11 C    | 25                       | "               | "                       |
|                                                                   | 130             | 300          | 40/55          | 11 C    | 25                       | 1"x1 1/4" galv. | "                       |





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