EN

Application
Beer and Malt Production

Gentle handling of raw materials
with Hidrostal screw centrifugal impeller pumps

The Hidrostal Screw Centrifugal Impeller Pump in Beer and Malt Production

What is the relevance of the Hidrostal pump in the manufacture of a product, which has existed for over 5000 years?

According to the German beer purity law of 1516, there are only four ingredients, which are needed to make a good beer: Malt, hops, yeast and water. Nothing has changed to this day. However, the degree of automation and the scale of the brewing process have changed, to achieve increased beer output.

The Hidrostal pump can show its strengths in different areas of beer production. In this field of application the

- → gentle handling
- → low NPSH values
- → solid handling capacity

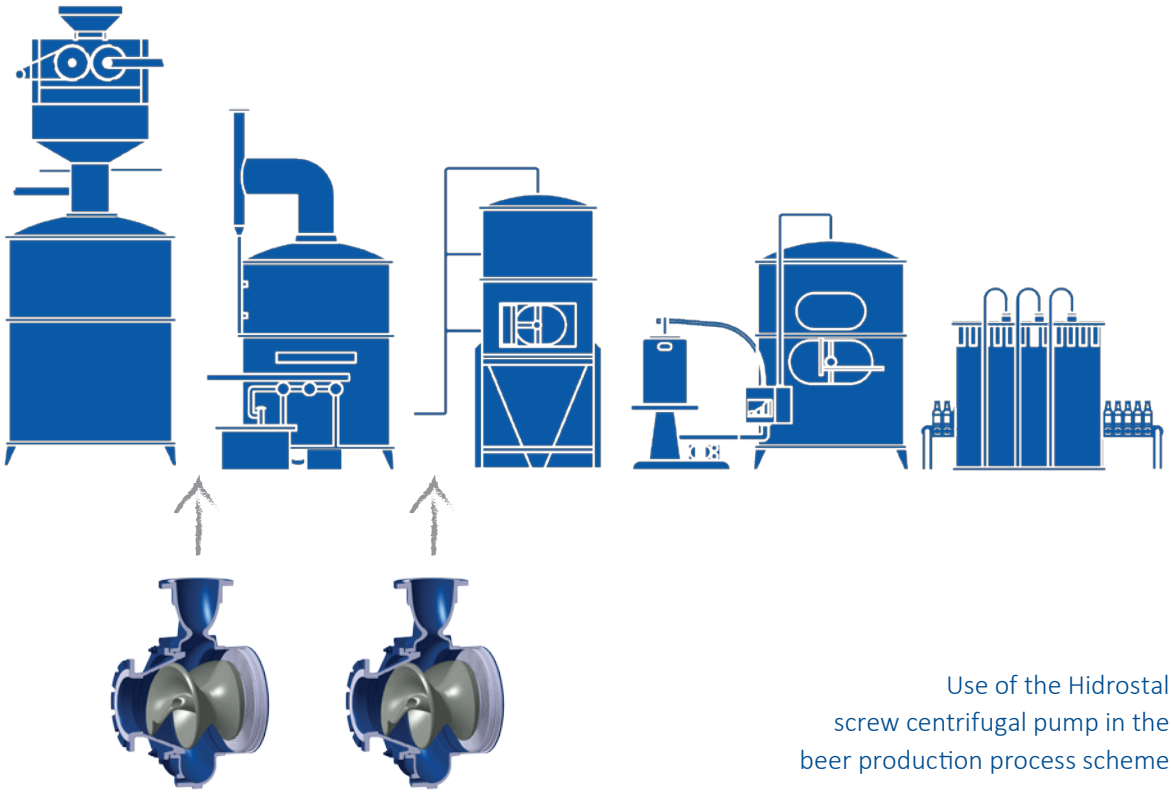
the decisive points for the use of the screw centrifugal impeller.

The high efficiency levels for reducing energy-costs are another reason for using Hidrostal pumps. Due to its special characteristics, the pump can be used in malt production when transporting the grain with the carrier medium water. If the pump is optimally dimensioned, the damage to the germ is kept to a minimum thanks to it's gentle handling characteristics.

In the brewing process the Hidrostal pump is used as

- → Mashing pump
- → Lautering pump
- → Wort circulation and wort casting pump
- → Trubpump

The low NPSH values as well as the gentle handling properties have a positive effect on the product during all process steps. High solids content in the pumped medium, as is normal in the brewery, can be handled with the pump.



Use of the Hidrostal screw centrifugal pump in the beer production process scheme

Wort pump London
(Ontario, CAN) I16K-SS

In this process normally a bearing frame pump in a horizontal arrangement is used. The type of drive depends on local conditions. Both flexible couplings and belt drives can be supplied.

Some types also allow a lateral discharge nozzle position, should the space conditions require this.

The design of the pump allows operation at the temperatures required in the production process.

By means of a adequate material selection, CIP (cleaning-in-place) cleaning with conventional cleaners based on NaOH and chlorine is possible. Hidrostal can supply pumps in grey cast iron, V4A cast steel and duplex to fulfil the customer requirements. The wetted elastomers are predominantly made from EPDM; fluorocarbon rubber or other materials are also available.

Hidrostal pumps can be supplied with different sealing systems for these applications. Mechanical seals are usually installed in tandem arrangement with seal flushing. Also, stuffing box packing or cartridge seals are available.

The rolling bearings are for a bearing life L_{10} of 50,000 operating hours at the design point of the pump.

Applications

- Malt production
- Industrial beer production
- As auxiliary units in contaminated liquids, E.g. waste water, bottle cleaning

Specifications

- Pressure port size: DN 50 – 500
- Suction piece size: DN 65 – 500
- Delivery height: 5 – 35 m
- Flow rate: 5 – 1000 l/s
- Power: 3 – 300 kW
- Materials: cast iron, spheroidal graphite iron, hi-chrome, stainless steel, duplex

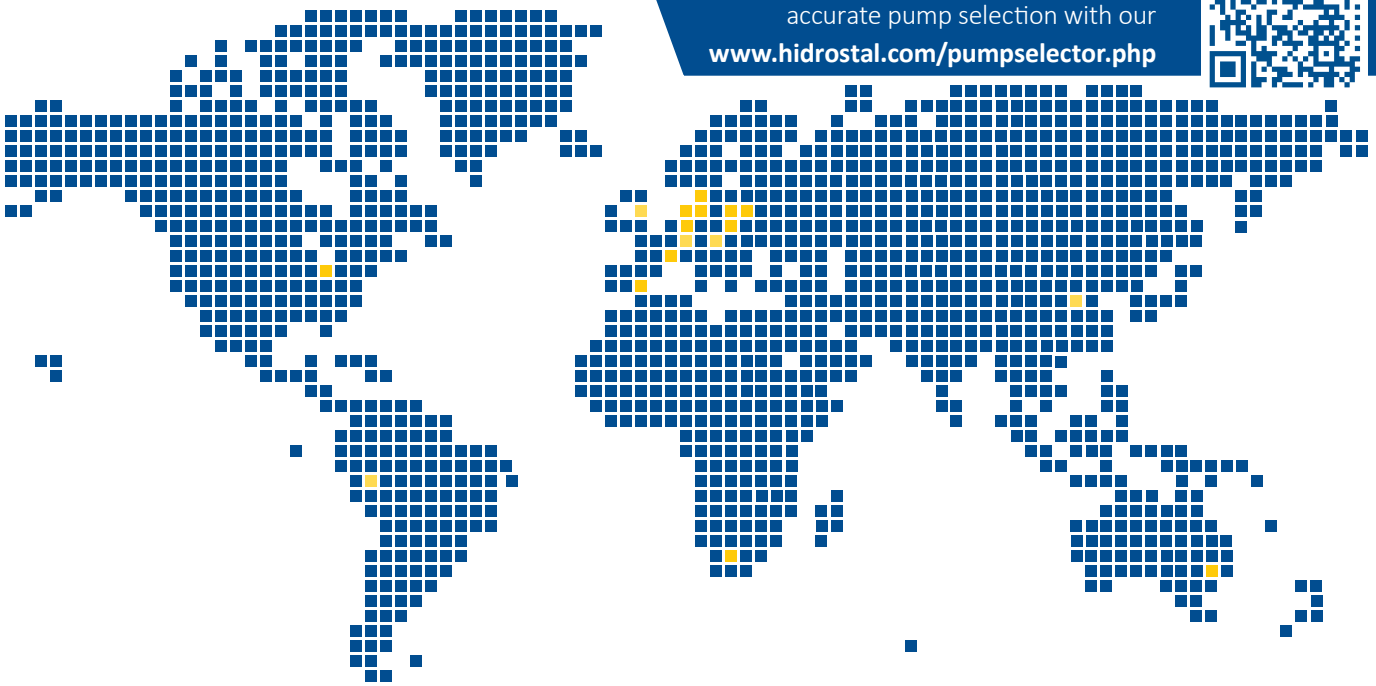
Numerous internationally renowned breweries rely on the Hidrostal screw centrifugal impeller pump in their production process.

- → Warsteiner
- → Staropramen
- → Krušovice
- → Paulaner
- → Heineken
- → Pilsener Urquell
- → EFES
- → Paderborner
- → Gilde
- → Becks
- → Lycos
- → BAVARIA S.A.
- → Obolon
- → Radeberger
- → Herforder
- → Freiberger

Hidrostal worldwide.

Pumps from Hidrostal are used all around the world. Our pumps are custom -made and are specially tailored to the needs of each location. With this procedure we achieve a high level of operational effectiveness and excellent energy efficiency. It is always worth investing in a Hidrostal pump in the long run because our pumps are low-maintance, they almost never clog, and their long service life is unique. Depending on the location, our clients are assisted by one of our subsidiary companies or sales partners. You will find your contact at www.hidrostal.com

Find your pump! Make a quick and accurate pump selection with our **www.hidrostal.com/pumpselector.php**



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