Model PSL centrifugal slurp pumps – for fluids containing large amounts of trapped air

They've stood the test for years in

- machine tools,
- filtering systems,
- washing and degreasing installations.

Technical data

Q_{max} = 1250 l/min
H_{max} = 105 m
Immersion depths down to 670 mm

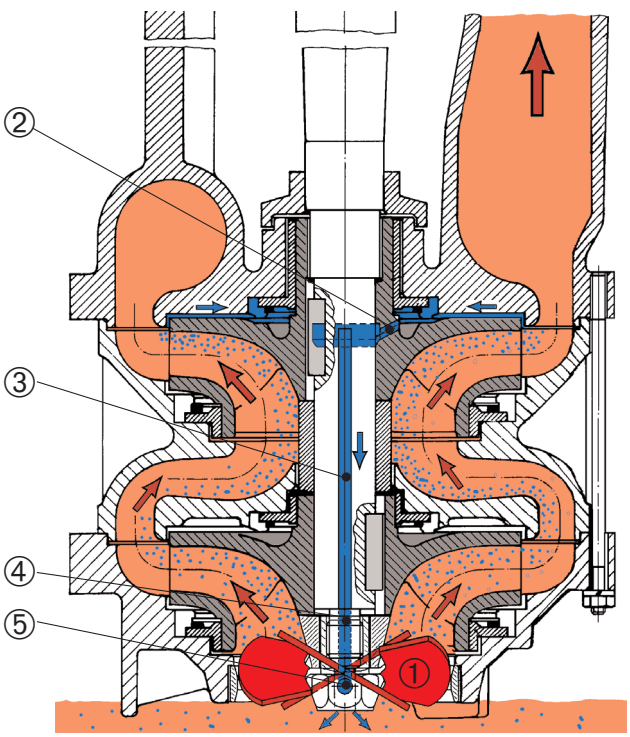
What's so special about the slurp pump?

During modern metal-cutting operations air can get trapped in the coolant. This trapped air can impede or even stop delivery of the fluid.

The “System Spandau” slurp pump makes sure that air is separated and dissipated from the fluid while it's being pumped. As a result of this bleeding, the flow remains constant, thus ensuring the desired cooling or lubrication.

Another advantage: the reservoir can take up less space since it's completely emptied. The pump keeps delivering as long as the intake is wetted with fluid.

Please note: our model PMS centrifugal slurp pumps are designed to deliver smaller amounts of fluids containing trapped air. They work within a range of Q_{max} = 400 l/min and H_{max} = 15 m.



minimum level of fluid

Design features

① suction impeller
② bore connecting to shaft through the impeller
③ two axial grooves along the shaft to serve as guide courses
④ radial bores leading inside the shaft at the end of the grooves
⑤ bottom end of shaft with axial bore and banjo bolt

Functional principle

The impeller ①, a pre-pressurizing propeller, ensures stable delivery, even when only little fluid is still left in the reservoir and air is drawn in as well (“slurping”).

The air is separated from the fluid by centrifugal force. In the topmost pump chamber it is then fed through the impeller ② to the shaft via the connecting bore.
Due to the difference in pressure, the air flows along the grooves ③ to the bottom of the shaft. From there it makes its way through holes ④ to the hollow end of the shaft ⑤.

There the air can escape into the fluid, where it is picked up by the suction impeller and swirled into tiny particles that are easy to deliver.