

Hydraulic Features

BRINKMANN's program of coolant pumps offers appropriate design approaches for different applications.

Based upon the **centrifugal pump system**, we offer **immersed pumps with open, semi-open and closed impellers** for different coolants.

Patented quick suctioning pumps series **TL, SAL, SFL, SGL and SZG** are provided for **handling** of air entrained coolants.

Vortex pumps series SFT and lifting pumps series SFL are suitable for coolants with heavy chip loads.

Suction immersion pumps Series TAS/STS make it possible to connect to vacuum filters because of their single connection on the suction side (for instance, with a wedge wire).

Lifting pumps series TAA pump are for foam-sensitive cooling lubricants.

Immersion pumps series (S)TC, (S)TH for medium pressure get **optimal hydraulic efficiency** due to their **closed impellers**; simple pre-filtration is recommended.

High pressure in coolant systems is provided by **screw pumps using longwearing silicon carbide housings**. Please contact us to provide additional information about working conditions in your devices.

Please note that with all immersion pumps, the **highest fill level of coolant should stay a few inches below the mounting flange**.

The pump characteristics, shown in this brochure, apply to water at 20 °C (1 mm²/s). Higher viscosities need larger motors. Coolants with specific weight of less than 1 need less power and more than 1 need more power.

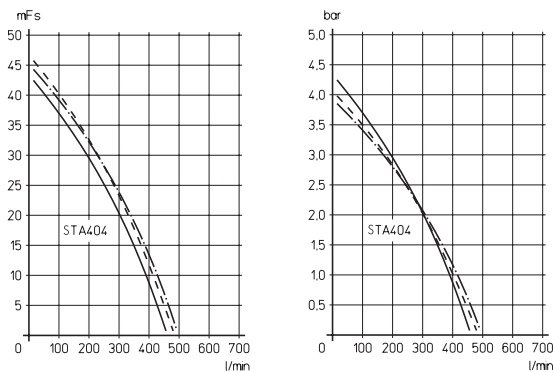
Centrifugal pump pressure is stated as delivery head in metres (m).

The diagrams of immersion pump types STA404; with semi-open impellers, and STC63/560, with closed impellers, show the rates for coolants of different viscosities and different specific weights in m and bar respectively.

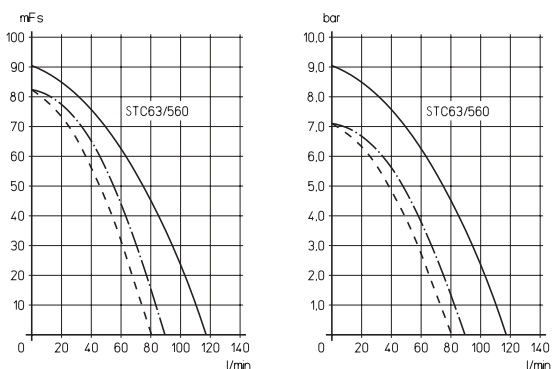
Noise levels refer to 50 Hz operation.

The viscogram shows examples of common oils. Upon request, oil curves for specific pumps can be provided.

STA404 with semi-open impellers



STC63 with closed impellers



Water ————
 Oil - - - - - 45 mm²/s spec. weight
 Oil - - - - - 90 mm²/s 0.87

