

Hydraulic Features

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

Based upon the **centrifugal pump system**, we offer **immersion 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 catalog, apply to water at 68 °F (20° C) at 4.6 SSU (1 mm²/s)**. Higher viscosities need larger motors. Coolants with specific weight of less than 1 need less power and with more than 1 need more power.

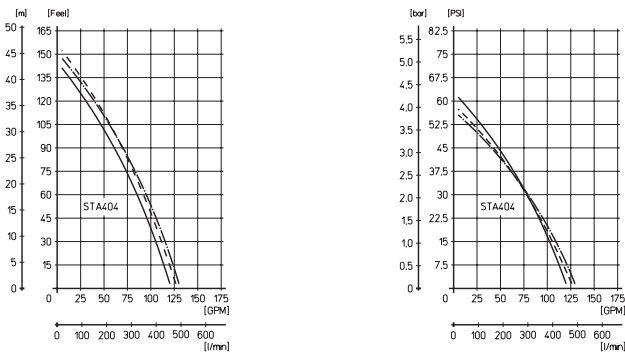
Centrifugal pump pressure is stated as delivery head in Feet, (m) and PSI.

The diagrams of immersion pump types **STA404**; with semi-open impellers, and **STC63S560**, with closed impellers, show the rates for coolants of different viscosities and different specific weights in ft (m) and PSI (bar) respectively.

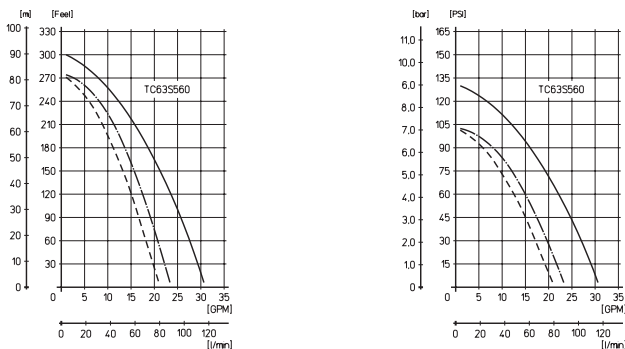
Noise levels refer to 60 Hz operation.

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

STA404 with semi-open impellers



(S)TC63 with closed impellers



Water ———
Oil - - - - - 210 SSU spec. weight
Oil - - - - - 415 SSU 0.87

