Technical Information

BRINKMANN PUMPS

Medium Pressure Pumps (S)TC | (S)TH | FH

Our multistage pump models (S)TC25 to (S)TC460 have been especially developed to supply internally cooled tools with coolant fluid.

Closed impellers provide optimal hydraulic efficiencies while minimizing power consumption.

A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

(S)TC63   (S)TC260

SAE Flange for TC Pumps

Upon request all TC pumps are available with an SAE flange. The flange allows for either vertical or horizontal pipe connection and offers a NPT ¼ (G ¼) pressure gauge connection port. A surcharge applies for pumps ordered with SAE flange.
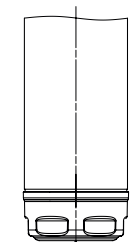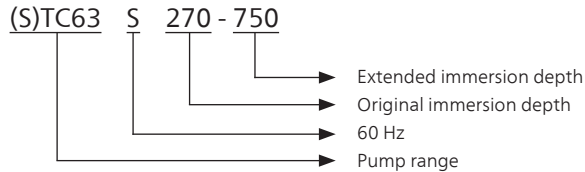
Number of Stages

(S)TC pump curves are determined by the number of impeller used within the pump.

Within the range the immersion depth can be extend up to the maximum mentioned length.
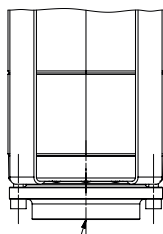Example: STC63S350-750

Pump suction with threaded inlet

The TC25 to TC160 series pumps are also available with threaded suction ports upon request. This feature increases the standard immersion depth by 1.57 inch (40 mm).

G1 ¼

TC25–160
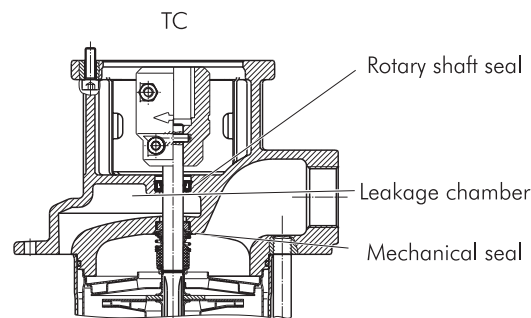
G2 ½

TC260–460

Type Designation

(S)TC63   S   270 - 750

→ Extended immersion depth
→ Original immersion depth
→ 60 Hz
→ Pump range

Leakage chamber / Leakage connections

TC

Rotary shaft seal

Leakage chamber

Mechanical seal

Series (S)TH and FH use closed impellers in order to minimize power consumption and to optimize hydraulic pump efficiencies. In addition, the (S)TH series offers high pressures at short immersion depths. Inline pumps of the series FH can be used as boosting pumps if provided with positive inlet pressure. This inlet pressure can be provided by the central coolant supply or a feed pump. In such a setup, pumps of the series FH can raise the incoming pressure by up to 375 PSI (26 bar).

A **frequency converter** can be supplied for **special applications** or for matching the pump characteristic to a specific duty point. See page "Control/Regulation" in the Technical Information section of this catalog for further information.

(S)TH

FH

SAE Flange for TH Pumps

Upon request all TH pumps are available with an SAE flange (STH). The flange allows for either vertical or horizontal pipe connection and offers a NPT ¼ (G ¼) pressure gauge connection port. A surcharge applies for pumps ordered with SAE flange.
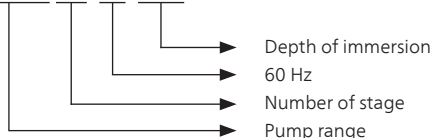
Number of Stages

(S)TH/FH pump curves are determined by the number of impeller used within the pump.

Within the range the immersion depth can be extend up to the maximum mentioned length.
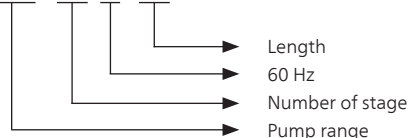Example: STH203S690 (3 impeller, 27.17 inch / 690 mm immersion depth)
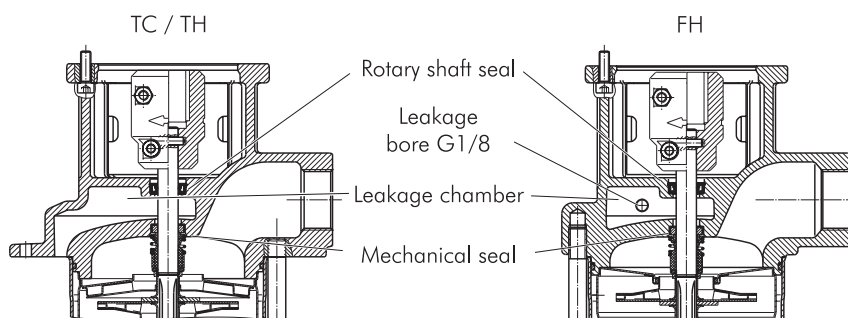
Type Designation

(S)TH4 11 S 290

→ Depth of immersion
→ 60 Hz
→ Number of stage
→ Pump range

FH4 11 S 39

→ Length
→ 60 Hz
→ Number of stage
→ Pump range

Leakage chamber / Leakage connections

TC / TH

FH

Rotary shaft seal

Leakage bore G1/8

Leakage chamber

Mechanical seal

Small leaks flow back through the leakage chamber into the tank without reaching the outside.

By connecting a leakage line it is possible to direct minor leaks back into the tank.

## Medium Pressure Pumps (S)TC | (S)TH | FH

Operation of (S)TH/FH pumps in grinding applications

Grinding versions (S)TH/FH pumps (-E). (S)TH/FH series pumps can be supplied upon request as a special grinding version for applications with heavy loads of abrasive particles (>50HRC).
Ordering description: e.g. TH224A590-E

In this version pumps are supplied without internal diffusor gaskets in order to prevent increased wear caused by the abrasive particles in the fluid. As a result, however, the internal losses of the pump increase and the pump curves are reduced.

These curves are available upon request.

Examples for pressure boosting: TH632A890 + FH632A89 in tandem-arrangement

Leakage Ø 0.28 (Ø 7)

Leakage G 1/8

TH632A890   FH632A89

Dimensions in Inches / mm

Tandem-arrangement
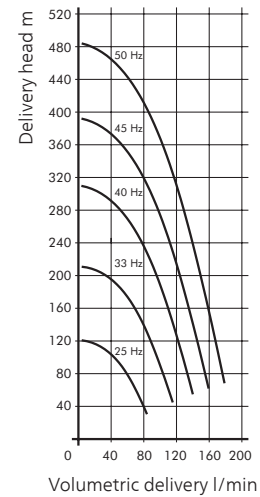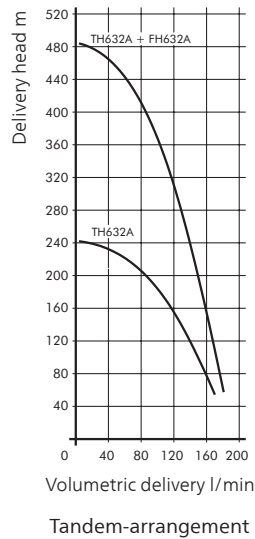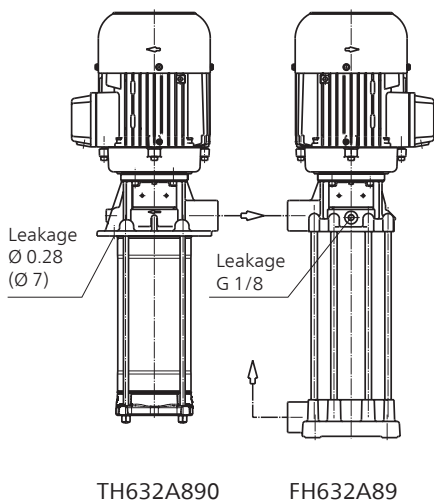
Tandem-arrangement
Both pumps controlled
by one variable
frequency converter

Examples for pressure boosting: FH616A49 + 4 bar of positive head from central coolant supply

Leakage G 1/8

G 1

G 1

FH616A49

4 bar of positive head
+ pump
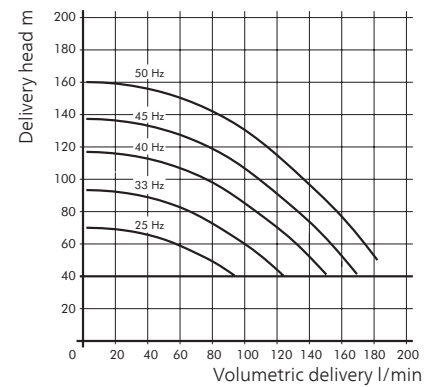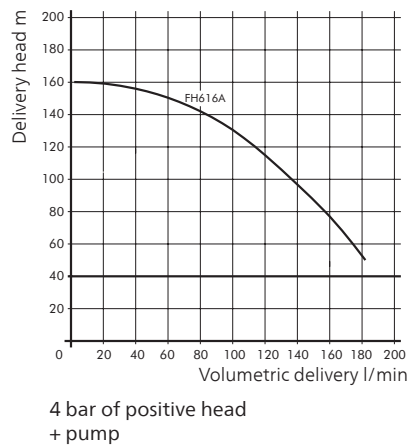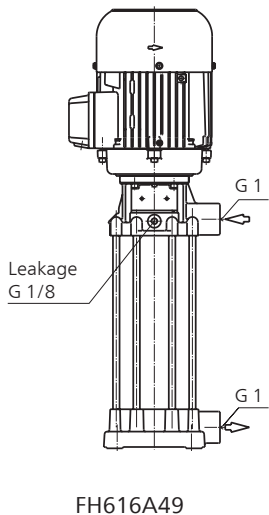
4 bar of positive head
+ pump controlled by
frequency converter

Operation of (S)TH / FH Pumps outside of the recommended flow rate ranges

Operation of (S)TH and FH pumps **outside of the recommended flow rate ranges** and within the perforated zones of the pump curves can lead to premature damage and failure of pump components.

Therefore, we recommend the use of the reinforced versions of these pump models when operation in the perforated zones of the curves is present, i.e. during temporary pump operation through a bypass with very low flow rates.

Ordering description: e.g. TH224A590-Q

Example: (S)TH2

Leakage Ø 7

(S)TH2

Delivery head m

TH241
TH236
TH231
TH226
TH221
TH216
TH211
TH206

Volumetric delivery l/min