

Side Channel Pumps

Self-priming, segmental type with verly low NPSH



SIHI® Pumps

CEH

Sizes 1201 ... 6108, 1202/5 ... 6108/5, 1202/7 ... 6107/7

Technical data

Capacity:	max. 35 m ³ /h
Delivery head:	max. 354 m
Speed:	max. 1800 1/min
Temperature:	max. 120 °C max. 180 °C for high temperature design (higher temperatures upon request)
Casing pressure:	PN 40
Shaft sealing:	Stuffing box or mechanical seal
Flange connections:	DIN 2501 / PN 40
Direction of rotation:	anti-clockwise (when seen from the drive end)



Application

The SIHI CEH pump is a self-priming side channel pump capable of handling gas along with the medium and operates at a low noise level.

The CEH pumps are used for problem-free pumping of clean liquids at unfavourable suction side conditions. They are also very suitable for positive suction heads below 0.5m.

The different material possibilities with uniform dimensions and performance characteristics as well as the standard exchangeable components, make the CEH particularly recommendable for applications in the pharmaceutical, chemical or petrochemical market as well as in the plastic or oil industry. Because of its low NPSH and positive suction head the CEH is very suitable for the pumping of liquefied gasses and liquids under vapour pressure like condensate, refrigerant, boiler feed water or LPG.

The pumps of the CEH /7 series have a retaining stage to avoid the dry running by controlling the liquid level in the pump. This design is especially developed for the handling of liquids under vapour pressure or when pumping from underground tanks. The series CEH /5 are used for bottom off-loading of liquids under vapour pressure.

Design

Pumps of the series CEH have a segmental type construction with open vane wheel impellers. The construction of the CEH pump is a so-called centrifugal combined system. This combination pump is suited with a centrifugal stage in serial connection before the side channel stages to obtain a more favourable NPSH.

The program comprises 6 sizes each with 1-8 stages. The existing material design allows an optimum rating for the respectively desired performance range and the pumping medium.

Pumps of the series CEH /7 are equal to the CEH series but equipped with a retaining stage. This program comprises 6 sizes with 2-7 stages. The series CEH /5 have also 6 sizes but with 2-8 stages.

The applied hydraulic components are from our Modular Side Channel system (interchangeability of parts).

Construction

Casing pressure

Maximum 40 bar from -40 °C up to +120 °C.
Maximum 32 bar from +120 °C up to +180 °C.
Pressure stages for temperature as per DIN EN 1333.

Please observe

Technical rules and safety regulations.
Casing pressure = inlet pressure + delivery head at minimum pump capacity.

Position of branches

Axial suction branch, discharge branch points radially upwards.

Flanges

The flanges correspond to DIN EN 1092-2 / PN 40.
Flange design as per DIN 2512 with groove or drilled according to ANSI 150 or 300 lbs is basically possible.

Bearing

One grease lubricated ball bearing according to DIN 625 and one liquid surrounded sleeve bearing (design A). The ball bearing is greased for life.

Direction of rotation

Anti-clockwise, when looking from the drive end.

Shaft sealing

The shaft can be sealed by a stuffing box or a mechanical seal conform DIN EN 12756. The shaft sealing is also available in a design suitable for heating or cooling of the stuffing box or the mechanical seal.

Double mechanical seal (back-to-back as well as tandem) or a quench design with throttle bush are available upon request. The CEH can also be supplied with a magnetic coupling (for information see the separate catalogue).

