



*Specialist for Pumping Technology*



# **SCE-L HHLF**

**High head low flow process pump**

## 70 years developing the pumping technology that drives progress

Ruhrpumpen is an innovative and efficient pump technology company that offers highly engineered, custom made solutions for oil & gas, chemical processing, power generation, industrial applications and water.

Implementation of cutting-edge technology and world-class engineering, combined with our unique vertically integrated structure, allows Ruhrpumpen to design complex technical solutions, creating the most robust and powerful pump systems in the marketplace.

Our broad product line complies with the most demanding quality standards and industry specifications such as **American Petroleum Institute (API)**, **American National Standards Institute (ANSI)**, **Underwriter's Laboratories (UL)**, **Factory Mutual (FM)**, **National Fire Protection Association (NFPA)**, **ISO** and **Hydraulic Institute**.

### Products include:

- Single stage overhung pumps
- Vertical in-line pumps
- Single and multi-stage between bearing pumps
- Multi-stage vertical pumps
- Reciprocating plunger pumps
- Sealless magnetic drive pumps
- Fire protection systems
- Pitot tube pumps
- Hydraulic decoking systems



### Ruhrpumpen is your single source supplier

- Original Equipment
- Spare parts
- Installation and startup support
- Repair and maintenance
- Engineering, training and consulting
- Reverse engineering

### Benefits of our pumps:

- Proven reliability
- High efficiency designs ensure lowest operating cost
- Robust design allows for long system life with minimal maintenance
- Optimized total cost of ownership

## SCE-L HHLF

The **SCE-L** is a High Head Low Flow (OH2) are horizontal pumps with semi-open impeller design, heavy-duty centrifugal process pumps with a back-pull-out design for easy maintenance.

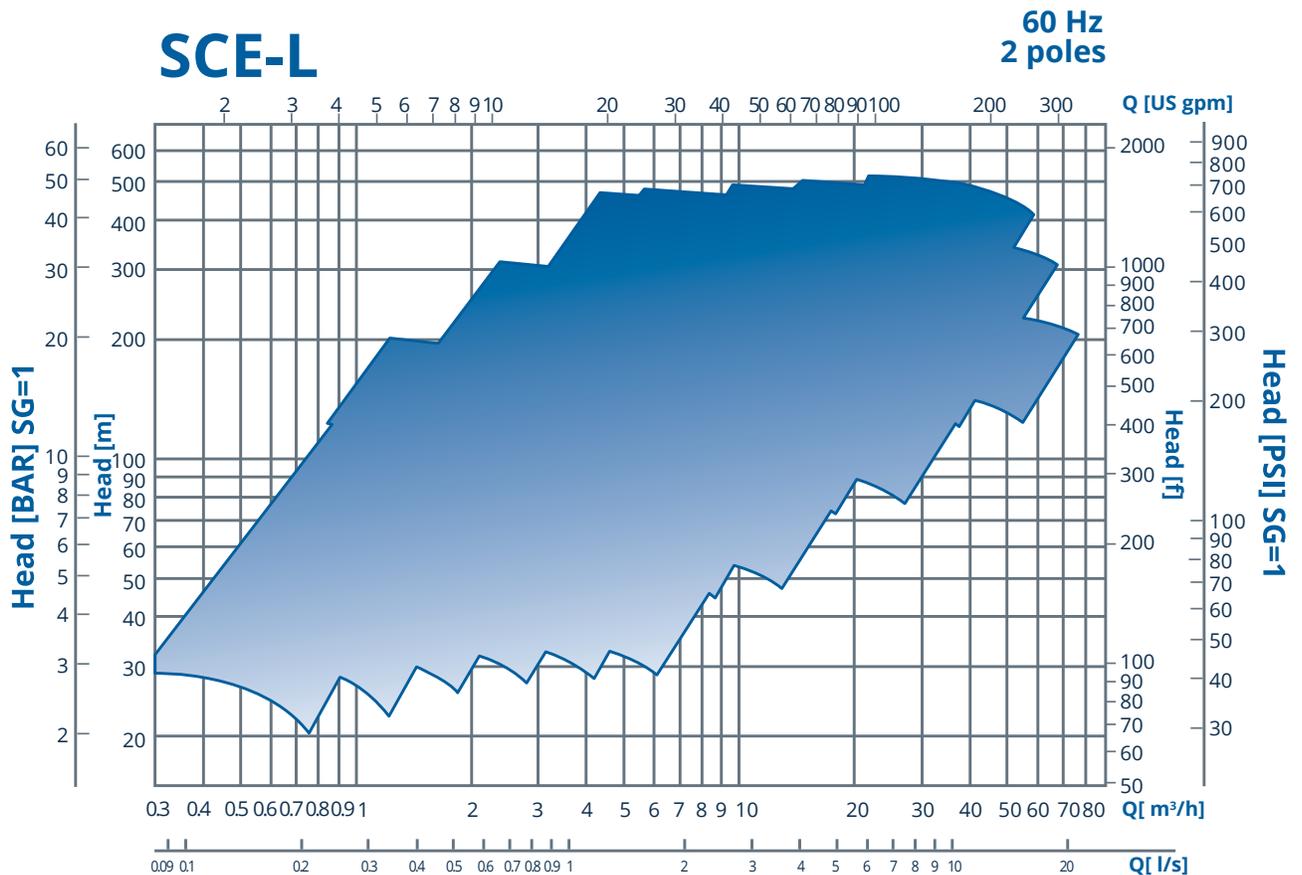
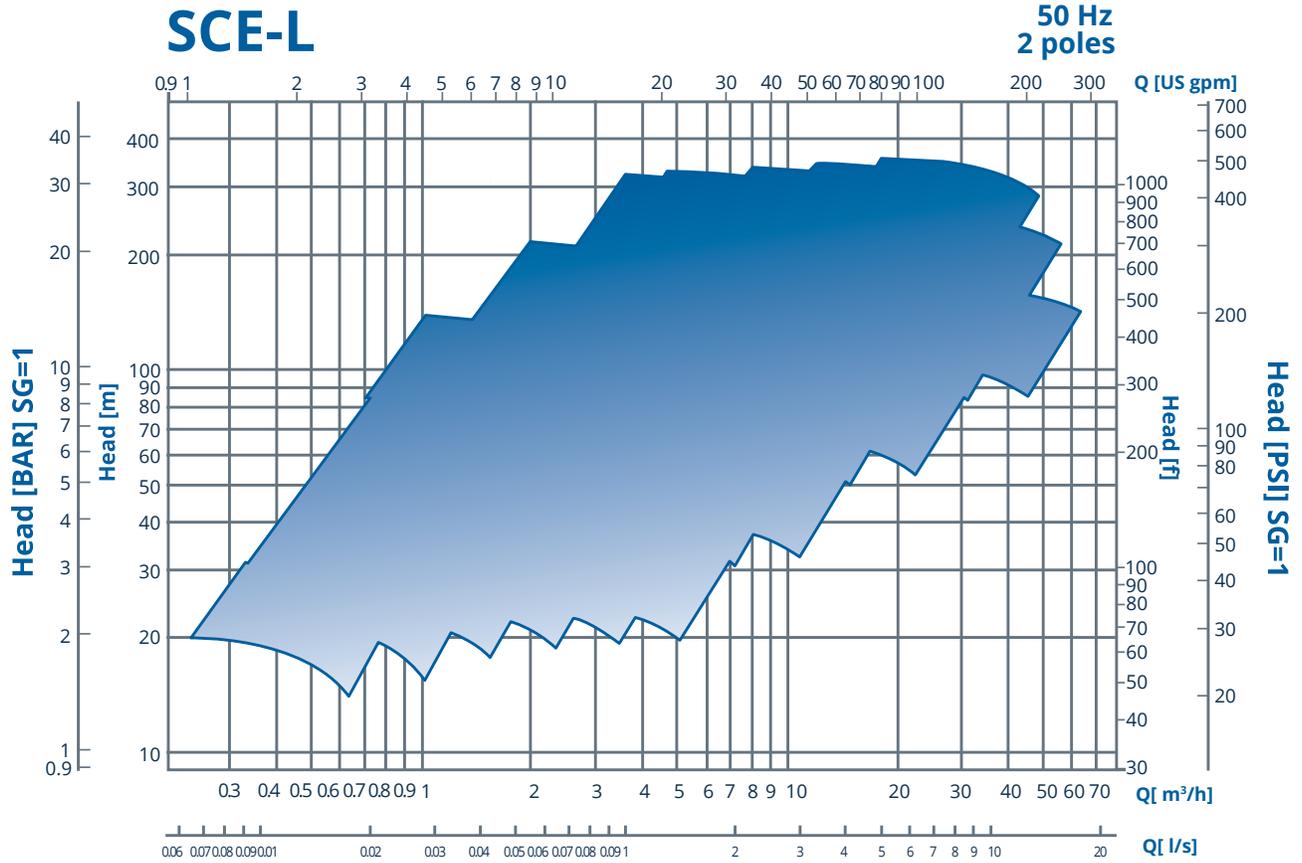
We have the latest engineering techniques and tools to assure our customers the best product quality.

Designed to comply with the latest edition of API 610.

The HHLF utilize semi-open impeller with high efficiency with over 42 hydraulic combinations available for the SCE-L pump, almost all customer requirements are covered.



# Pump Performance Chart



## Characteristics

### DIFFUSSER

Precision machining for enhanced performance.

### CASE

300RF optional 600RF.

Center line discharge nozzles from 1" to 4" in compliance with API 610.

Generous corrosion allowance.

### MECHANICAL SEAL

Design for API 610.

### IMPELLER

Patented impeller with 3D vanes, double acting semi-open. Longer bearing life due to the lower axial thrust on Impeller. Investment cast.

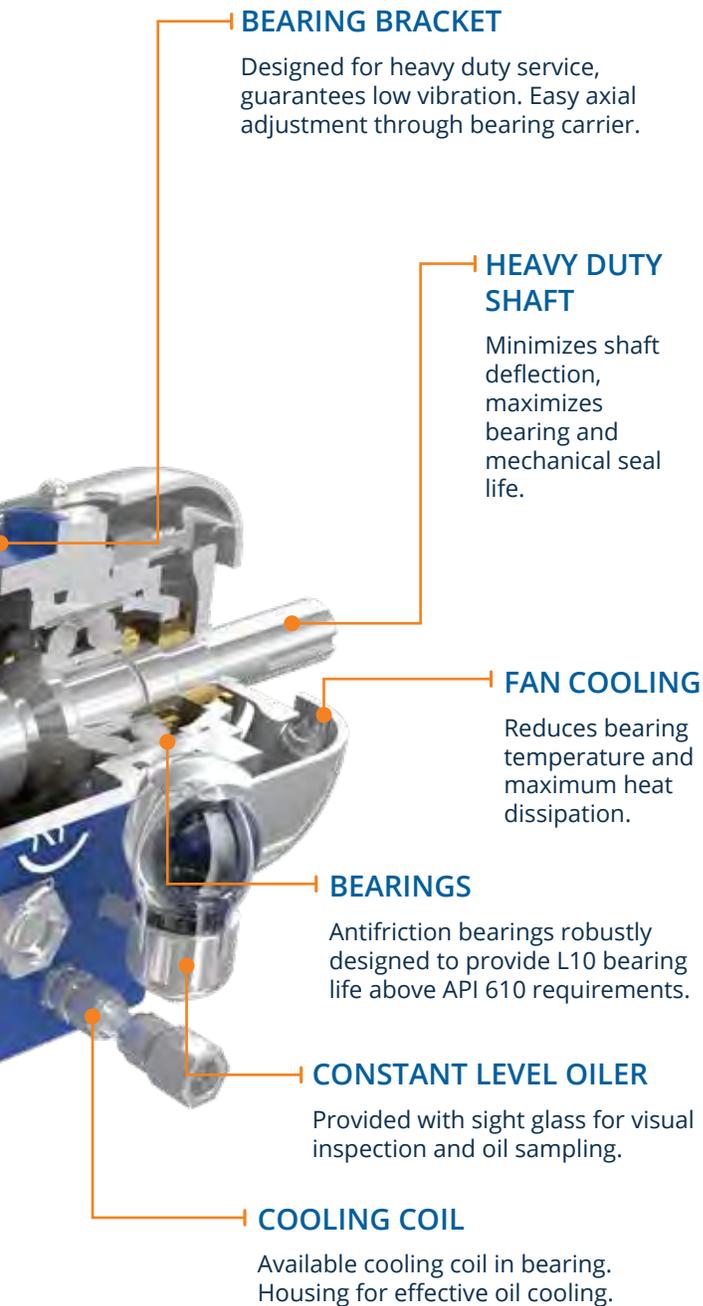
### BEARINGS

Designed to work with either oil or oil mist lubrication.

### BEARING LUBRICATION

Designed with effective and proven ring oil system for optimal and effective bearing lubrication.

*Images for general arrangement use only, not certified for construction.*



## SCE-L HHLF PERFORMANCE DATA

Frequency	50 and 60 Hz
API Pump Type	OH2
Material Construction	A8, C6, D1, D2, S1, S5, S6, S8, T1, T2
Mounting	Centerline
Temperature	450°C ( 842°F)
Max Head (50Hz)	330 m (1082 ft)
Max Head (60Hz)	515 m (1689 ft)
Max Flow (50Hz)	63 m <sup>3</sup> /h (277 gpm)
Max Flow (60Hz)	61 m <sup>3</sup> /h (269gpm)
Max Speed	3600 RPM

For Pump operation outside this range, please contact a Ruhrpumpen representative.

## DESCRIPTION

- Horizontal, radially split case, heavy-duty centrifugal process pump
- End suction, centerline discharge
- Clockwise rotation viewed from the driver end, hydraulically balanced
- Robust construction combined with a very low shaft stiffness ratio (L3/D4). Designed to comply with the latest edition of API 610.
- Pump specific speeds range  $1 < nq < 9$

## BENEFITS

- Reinforced Casing to carry nozzle loads that exceed API 610 requirements.
- Longer bearing life due to low axial thrust exceeds API 610 requirements. Exceeds API 610 requirements.
- Solutions for high suction pressure services
- Back-pull-out design for easy maintenance

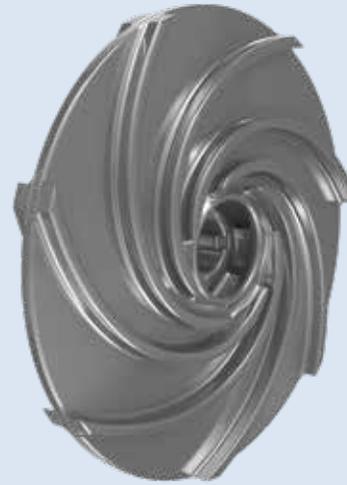
## APPLICATIONS

- Petroleum Refining, Production and Distribution (Pipeline)
- Petrochemical and Chemical Industry
- Gas Industry Services
- Hydrocarbon Processing
- Hot Oil Service
- Boiler Feed Recirculation and HRSG Recirculation
- High Pressure Process

## Optional Features

### Special Configuration and Optional Features

- For low flow applications.
- In case of low NPSH available values, the installation of an inducer is possible.
- Water cooling for bearing bracket if needed.
- Pure/purge oil mist lubrication available.



*Impeller for  
low NPSH*



# Other Ruhrpumpen Products

## ANSI Horizontal Process Pump



CPP - Single Stage end suction horizontal centrifugal pump, enclosed impeller, radially split casing with flanged connections. Petrochemical, Oil & Gas, Steel Industry, Automotive, Food Processing, Power Generation, Pharmaceuticals, Water Treatment, General Process.

## Vertical Turbine Pump



VTP - Multistage vertical centrifugal pump with diffuser type bowl, semi-open / enclosed impellers, cast iron bowls, counterclockwise rotation viewed from coupling end. Deep well and irrigation, cooling tower, sump, condensate, can pump requirements.

## Multi-Stage, Axially Split Casing Pump



SM - Axially split, horizontal multi-stage, centrifugal pump, near-centerline mounted, single suction, radial, closed impeller (API Type BB3). Oil Fields and Terminals, Water Pipelines, Fluid Injection and High Pressure Services.

## Vertical Barrel Pump



VLT - Low NPSH "Shockless Entry" first stage impeller (single or double suction), Single or multi-stage. Heavy duty process design according to API 610 latest edition (Type VS6). Condensate, Power Plants, Municipal, Hydrocarbons, Pipeline and Refineries.

## Submersible Sewage Pump



NE - Cast Iron body, multi-purpose pump, double mechanical seal, discharge nozzle up to 6", semi-open impeller. General Industry, Commercial, Irrigation, Farming, Landscaping.

## Horizontal Split Case Pump Single Stage



HSD - Single stage double suction horizontal centrifugal pump, foot mounted, oil or grease lubricated bearings. Dewatering, Mining, Water, Fire service, Cooling Towers, Municipal, Oil Process, Petrochemical, Sugar Industry, Paper Industry, Pipeline, Power Generation.

## +65 years creating the pumping technology that moves our world

Ruhrpumpen is an innovative and efficient pump technology company that offers highly-engineered and standard pumping solutions for the oil & gas, power generation, industrial, water and chemical markets. We offer a broad range of centrifugal and reciprocating pumps that meet and exceed the requirements of the most demanding quality specifications and industry standards such as API, ANSI, UL, FM, ISO and Hydraulic Institute.

