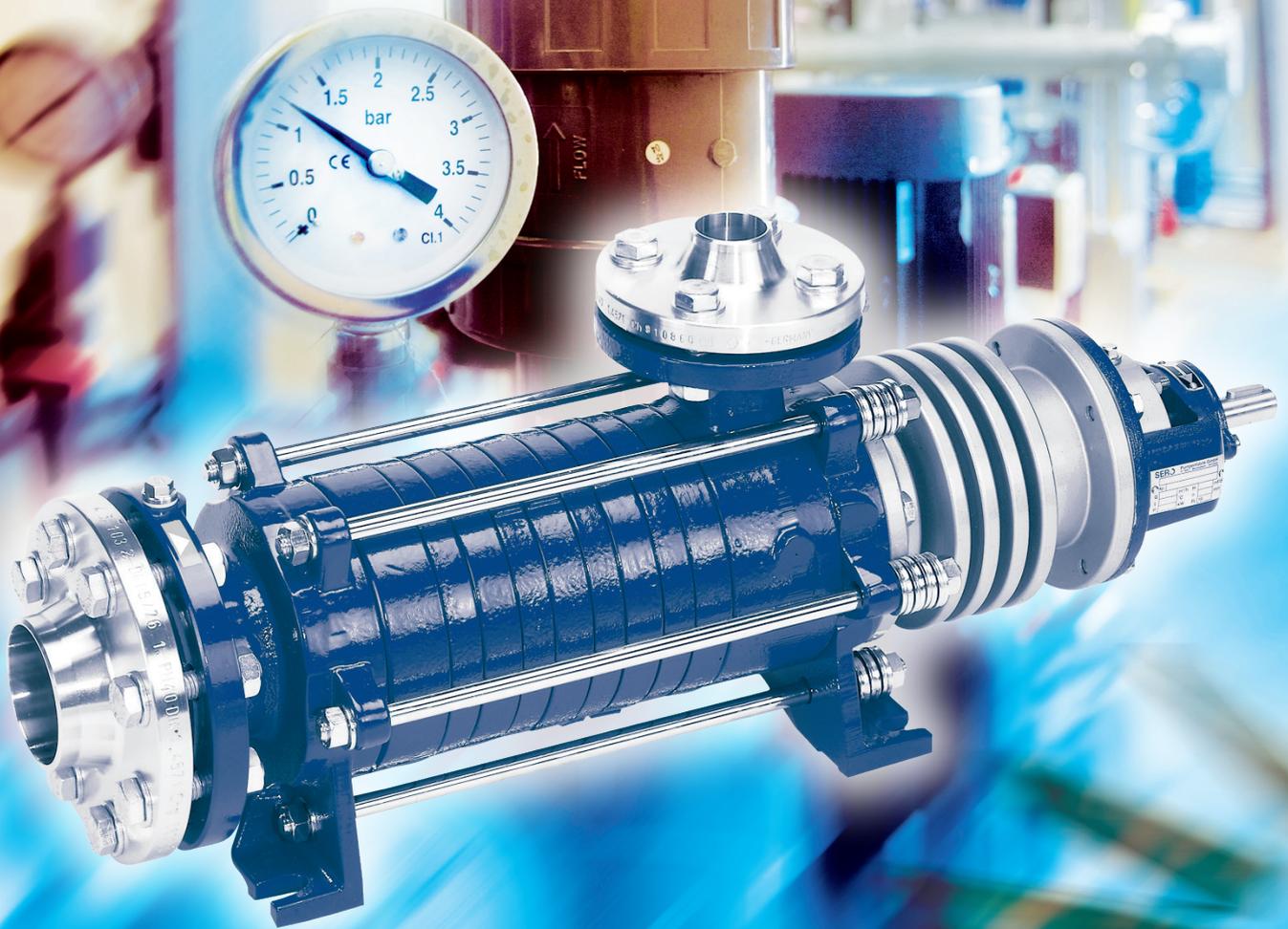


## Condensate pump, PN 40

for the temperature range from 120 °C to 220 °C

SRZS...KK



**SERO is the optimal technological solution for transporting media which contain gas or which vaporize readily**

## Operating Data

SRZS...KK	
Flow rates:	1 up to 12 m <sup>3</sup> /h
Heads:	5 up to 300 m
Speed:	max. 1800 1/min
Temperature:	+120 °C up to +220 °C
Rated pressure:	40 bar
Viscosity:	0,3 up to 230 mPas
Gas entrainment:	max. 50 %
Max. motor:	11 KW
NPSH-pump:	0,4 up to 1,5 m

## Construction

Housing pressure:	Nominal pressure 40
Socket position:	Suction casing: axial Pressure casing: radial
Flanges:	As specified by DIN 2501, nominal pressure 40 bar Suction side: Nominal diameters 65 – 80 mm Pressure side: Nominal diameters 32 – 40 mm
Bearings:	Pressure side: deep-grooved ball bearing Suction side: hard carbon in steel housing and shaft sleeve Intermediate stages: special carbon
Direction of rotation:	Counterclockwise
Shaft seal:	Standard single-acting mechanical seal as specified by DIN 24960, graphitic carbon, aluminium oxide, ethylene-propylene rubber G11E = < 16 bar, unbalanced G12E = < 40 bar, balanced Deaeration of the shaft seal space avoids evaporation and dry running of the sliding surfaces
Condensate design KK:	- Expansion disks, supporting jackets and enlarged clearances assure temperature equalization - Cooling of the shaft seal not required because of cooling segment and cooling ribs - High-temperature coating
Drive:	Standard 3-phase motors, 4-pole

## Design

Side channel pump, gas-entraining, self-priming, in segmented construction, with open unpressurized impellers, single-stage or multi-stage, with intake NPSH suction impeller and with cooling segment.

## Areas of application

### - as condensate pumps

- in open and closed, pipe and vessel systems
- in condensate reflux systems for steam consumers

### - as boiler feed pumps

- for steam boilers and steam generators

## Advantages for you

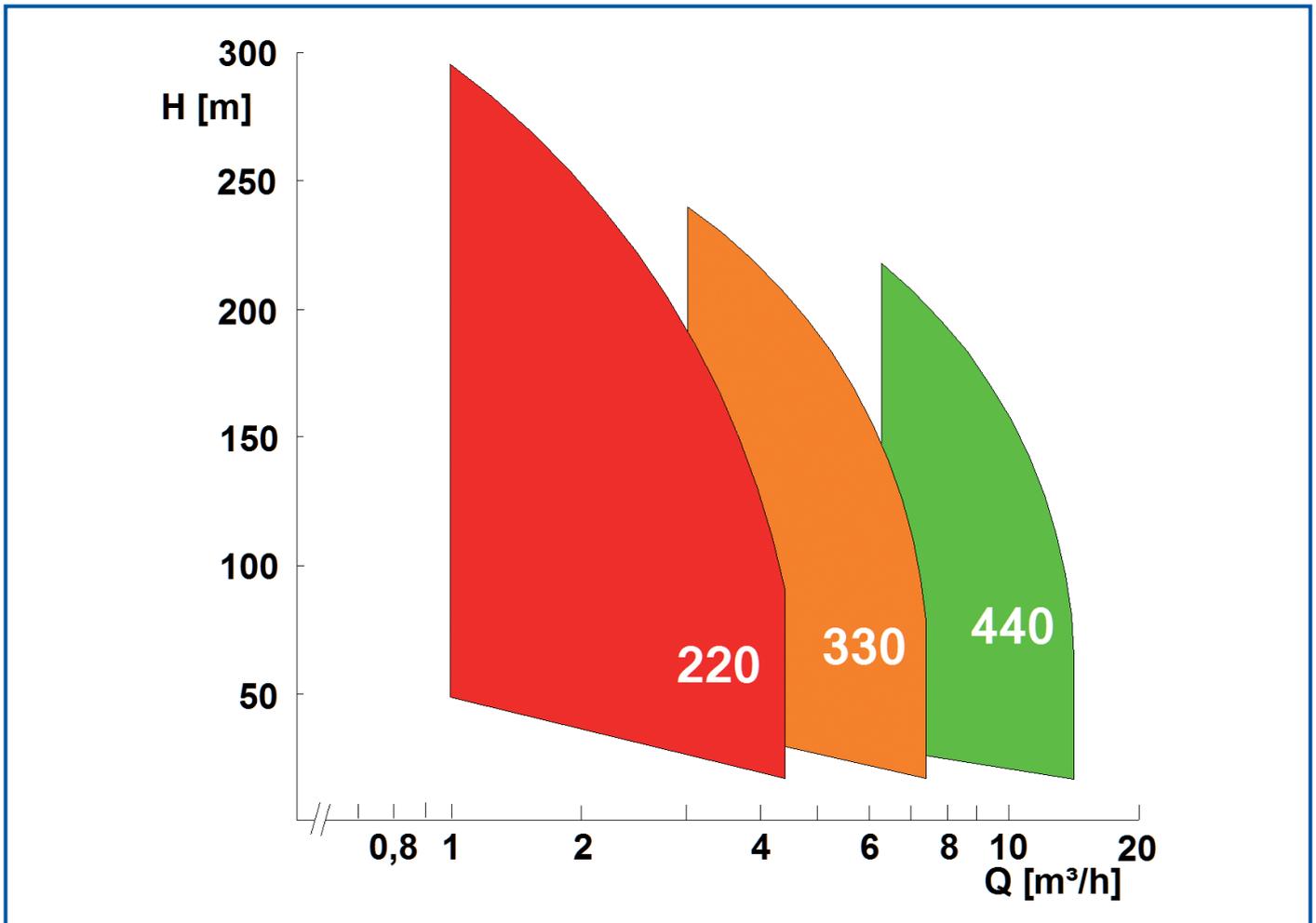
### Reducing system costs

- Omission of a cooling system for the shaft seal saves cooling water and the cost of monitoring and maintenance
- Coolant connecting, piping, etc., no longer necessary
- Uses economical mechanical seal, as the maximum temperature in the seal gap is only 85 °C
- High efficiency at specific speeds below 10 nq (rpm) saves energy costs
- Extremely low intake height saves costs

### A sophisticated know-how concept

- Insensitive to cavitation with variable steam pressure (the flow is not interrupted during partial degassing)
- The steep Q-H characteristic curve controls steam pressure fluctuations
- High nominal pressure of 40 bar makes SERO **SRZS...KK** pumps reliable

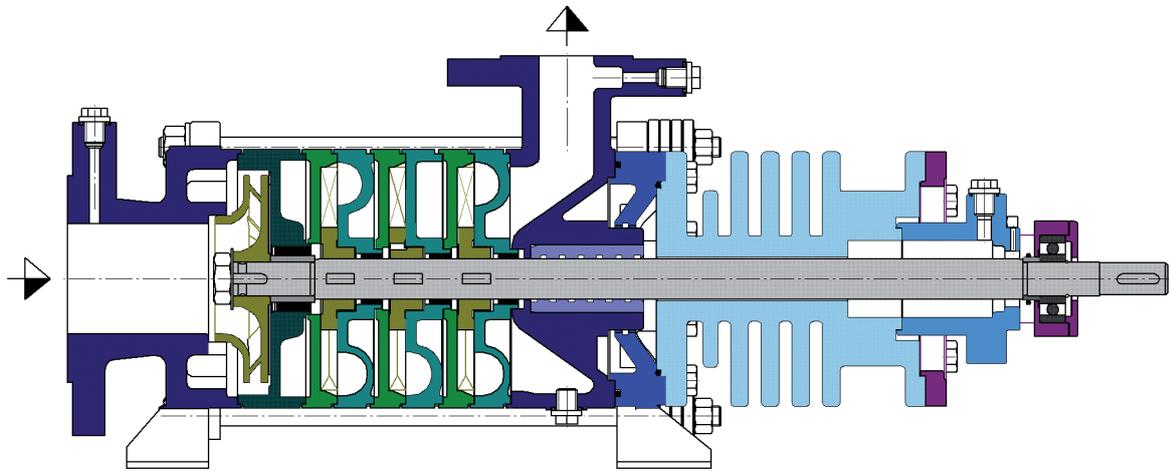
## Performance Range n = 1450 rpm (50 Hz)



## Pump Components

SRZS ... KK	Dry run and load monitors	Speed control	Expansion joints
Brief technical description:	Metering without sensor. The monitor is directly connected to the motor circuit and can be installed outside of the Ex zone.	Three-phase motor with integrated electronic frequency converter for continuously variable speed control.	Axial expansion joints, on both sides with fixed flanges.
Particularities:	<b>Simple handling by means of keyboard settings.</b> Factory presettings possible.	Compact, space-saving IEC standard dimension motor. No extra space required for the electronic frequency converter in the control cabinet.	<b>Ensures expansion of the pump in axial direction,</b> in particular with higher or lower temperatures.
Application:	Signaling of pump shutdown, respectively, in the following cases: - Dry run - Closed suction or pressure line - The suction head is below the specified NPSH value	Variable duty points can be controlled at different speeds. This ensures <b>expanded pump performance while saving energy.</b>	Recommended for pumps in boiler/condensate systems.

## Sectional View



**Condensate pumps with extended cooling segments and specially designed cooling ribs for media temperatures up to 220 °C.** This design allows a temperature drop from 220 °C to 85 °C for the pumped medium at the shaft seal. **Because of the temperature drop at the seal gap, the pump can be operated without external cooling.**

## Material Specification

SRZS...KK	Material version 62
Suction casing:	GGG 40.3
Discharge casing:	GGG 40.3
Stage casing:	GGG 40
Discharge stage casing:	GGG 40
Shaft:	1.4021
Impeller:	1.4059
Foot:	GGG 40
Bearing bracket:	GG 25
Bearing bushing:	Antimon – impregnated carbon
Tie bolt:	St. 60
Cooling segment:	GGG 40

*High quality materials subject to change.*

## Pump Designation (Example)

SRZS...KK	
Pump series:	SRZS
Size:	33
Numbers of stages:	5
Bearing design:	W
Condensate design:	KK
Shaft seal:	G12E
Material version:	62