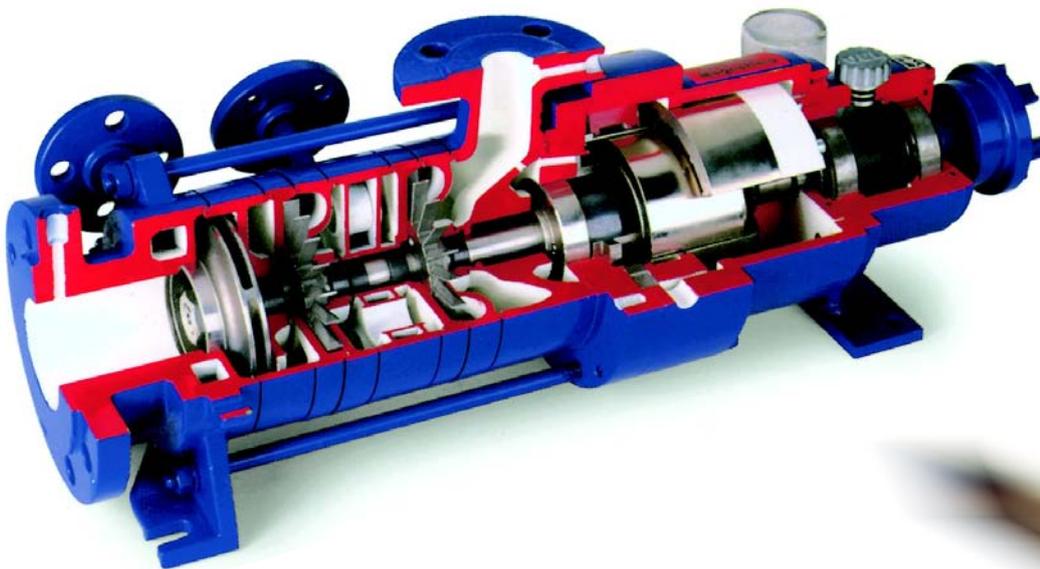


## **Company Profile**

## **Product Range**



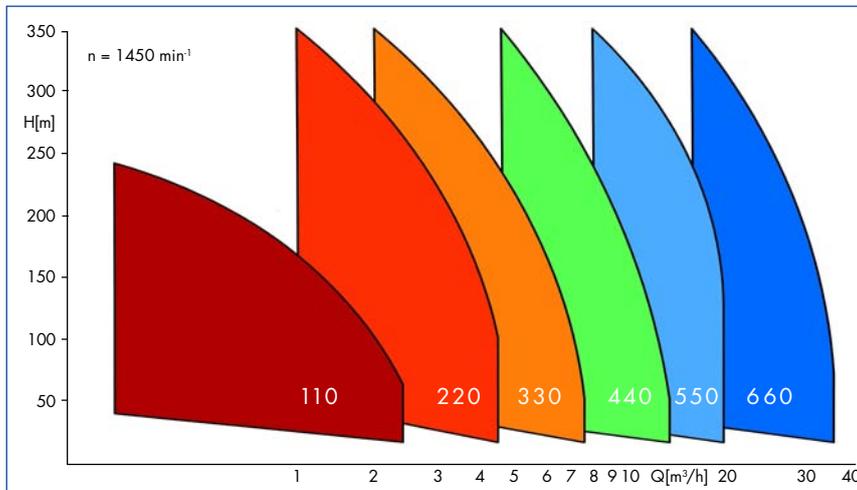
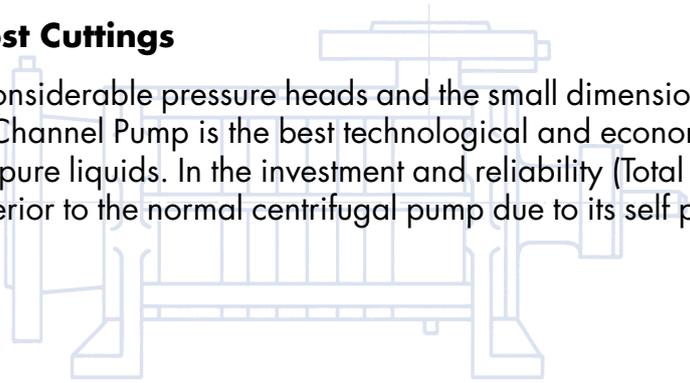
**Individually Configured  
Pumping Systems for**

- Gas fraction pumping**
- Pressure boosting**
- Priming**

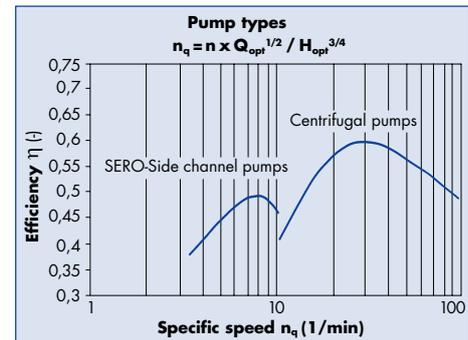
# The Pump Selection...

## System Cost Cuttings

Due to the considerable pressure heads and the small dimensions of the modular construction, the SERO Side Channel Pump is the best technological and economical solution for the delivery of low viscose and pure liquids. In the investment and reliability (Total Life Cycle Cost) the Side Channel Pump is superior to the normal centrifugal pump due to its self priming capability.



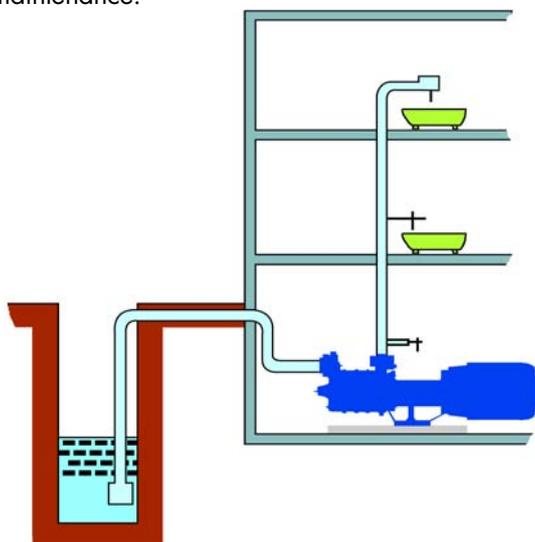
SERO Characteristic Range



Efficiencycurve

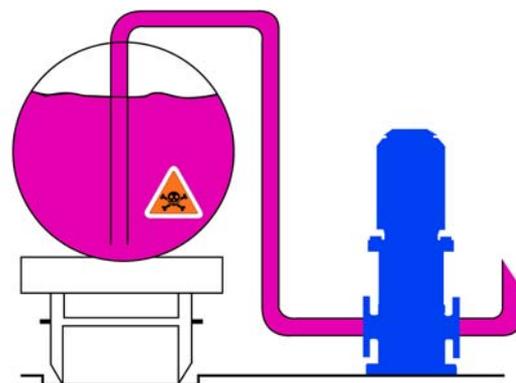
## High Self Priming Capability

Pump installation above the container for higher operational safety and easier accessibility and maintenance.



Home Engineering

Containers, tanks are entirely emptied from above (environmental safety).



Environmental Protection

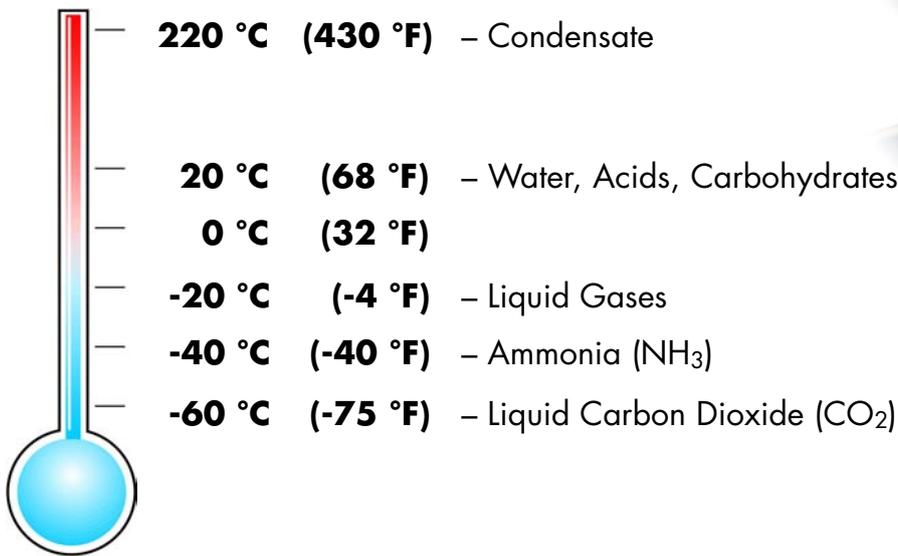
# ...a Sophisticated Know-How Concept

## Output of Two-Phase Flows (Liquid/Gas Mixtures)

Partial gas delivery up to 50 % gas without auxiliary attachments

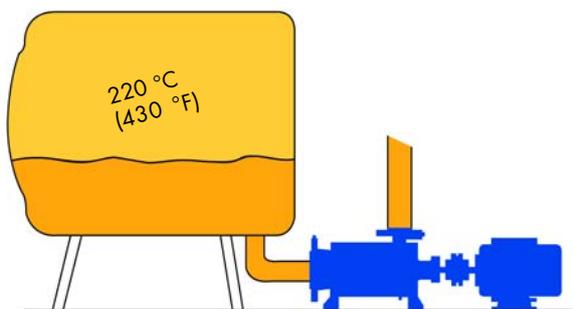
- Our specialty: Delivery of liquids close to boiling temperature
- Cavitation-proof at variable vapor pressure  
(flow is not interrupted during partial degassing)

Customer Benefit: Higher operational safety guarantees troublefree production process.



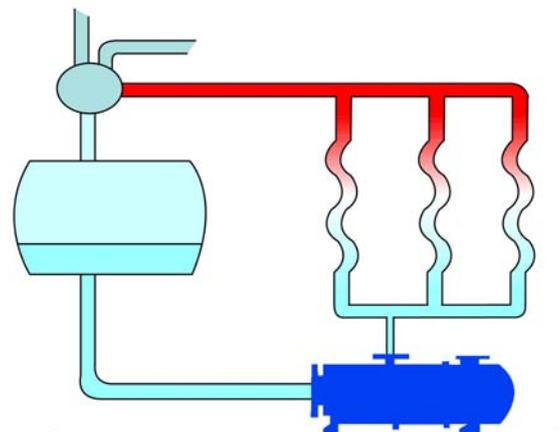
## Optimal Solution for Low Flows and High Pressures

High efficiency rate reduces energy costs, extremely low inlet height reduces system costs.



Energy Technology

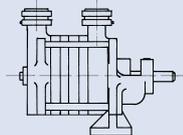
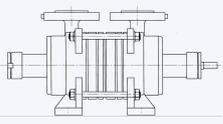
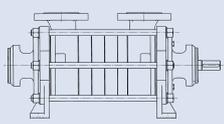
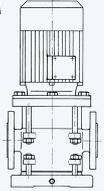
Economical and clean delivery and circulation of refrigerants.



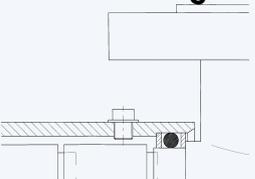
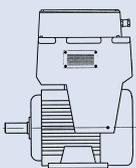
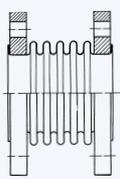
Refrigeration Engineering

# The Side Channel Pumps

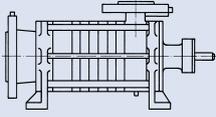
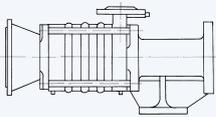
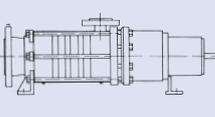
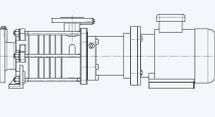
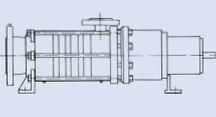
for higher operational safety and lower operating expenditure

	SOH...W SOHB...W 	SFH...W SFH...WW 	SRZ...W SRZ...WW 	SVG/SVM with magnet coupling 
Capacity	max. 7,5 m <sup>3</sup> /h	max. 20 m <sup>3</sup> /h	max. 36 m <sup>3</sup> /h	max. 20 m <sup>3</sup> /h
Pressure Head	5 – 150 m	5 – 250 m	5 – 350 m	5 – 52 m
Rated Pressure	16 bar	25 bar	40 bar	16 bar
Temperature	-20 °C to +120 °C	-20 °C to +120 °C	-40 °C to +220 °C	-20 °C to +120 °C
Suction Height	7 m	7 m	7 m	7 m
Materials	GG 25, 1.4581	GG 25, 1.4581	GG 25, GGG 40.3, 1.4581	GGG 40.3, 1.4581
Particularities	<b>For increased requirements</b> in home engineering, agriculture, and general industry.	<b>Very well suited as a boiler feed pump.</b> As a 25 bar machine made from stainless steel, also an <b>interesting alternative</b> for the chemical industry.	For heavy-duty service in the chemical industry and process engineering. <b>According to standards DIN/EN 734</b>	<b>Vertical, singlestage inline pump in block design for space-saving installation,</b> without shaft seal (magnetic coupling) or with mechanical seal.
Application	<ul style="list-style-type: none"> <li>• Home Engineering</li> <li>• Agriculture</li> <li>• General Industrial Engineering</li> <li>• Marine Industry</li> </ul>	<ul style="list-style-type: none"> <li>• Systems and Equipment Engineering</li> <li>• Chemical Industry</li> <li>• for Chlorination and Neutralization</li> <li>• Boiler Feeding</li> </ul>	<ul style="list-style-type: none"> <li>• Process Engineering</li> <li>• Chemical and Petrochemical Industry</li> <li>• Systems and Equipment Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical and Petrochemical Industry</li> <li>• Tank Systems Engineering</li> <li>• Air Conditioning and Refrigeration Engineering</li> </ul>
Media Selection	<ul style="list-style-type: none"> <li>• Water, also for Sprinkling and Irrigation</li> <li>• Sae water</li> <li>• Acids, Bases, Solvents</li> <li>• Carbohydrates</li> </ul>	<ul style="list-style-type: none"> <li>• Fuels, Oil</li> <li>• Acids, Bases, Solvents</li> <li>• Condensate</li> </ul>	<ul style="list-style-type: none"> <li>• Acids, Bases</li> <li>• Carbohydrates</li> <li>• Processing Water</li> </ul>	<ul style="list-style-type: none"> <li>• Fuels</li> <li>• Solvents</li> <li>• Acids, Bases</li> </ul>

## Pump Components

	Dry Run and Load Monitors 	Jacket Housing 	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.	<b>A specially designed jacket houses the hydraulic part of the pump.</b>	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. Factory presettings possible.</b>	Simple design with 2 O-ring sealing. Can also be used – without changing the modular construction units – as a heating or cooling jacket.	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 or pump shutdown, respectively, in the following cases: <ul style="list-style-type: none"> <li>• Dry Run</li> <li>• Closed Suction or Pressure Line</li> <li>• Below the NPSH unit-value</li> </ul>	For all toxic, highly volatile or highly viscous media. In combination with the SEMA or SEMIS, this jacket housing guarantees absolute sealing of the pumping unit.	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.

# The Multi-Function Pumps for gaseous liquids in the process industry

	SRZS...W	SRBS...W	SEMA with magnet coupling	SEMA-Block with magnet coupling in block design	SEMA-S...TT Refrigerant pump
					
Capacity	max. 36 m <sup>3</sup> /h	max. 7,5 m <sup>3</sup> /h	max. 20 m <sup>3</sup> /h	max. 7,5 m <sup>3</sup> /h	max. 20 m <sup>3</sup> /h
Pressure Head	5 – 350 m	5 – 240 m	5 – 250 m	5 – 250 m	5 – 250 m
Rated Pressure	40 bar	25 bar	40 bar	40 bar	40 bar
Temperature	-40 °C to +220 °C	-20 °C to +120 °C	-20 °C to +200 °C	-40 °C to +220 °C	to -60 °C
Suction Height	7 m	7 m	7 m	7 m	7 m
Materials	GG 25, GGG 40.3, 1.4581	GG 25	GG 25, GGG 40.3, 1.4581	GG 25, GGG 40.3, 1.4581	GGG 40.3, 1.4581
Particularities	<b>Combination pump with extremely low NPSH values. By using only one shaft seal on the pressure side, transportation media can also be carried in the high-vacuum area.</b>	Proven <b>boiler feed pump in close coupled design</b> with extremely low NPSH values.	<b>Pump without shaft seal by means of magnetic coupling.</b> The SEMA ensures that hazardous substances remain where they are supposed to be: within the system cycle.	<b>Pump without shaft seal by means of magnetic coupling in block design.</b> Available as Multi-Function-Pump with extremely low NPSH-values or with pump body acc. to DIN EN 734	<b>Special pump for refrigerants up to -60 °C.</b> For carefree transportation, even in the high-pressure area.
Application	<ul style="list-style-type: none"> <li>• Energy Engineering</li> <li>• Chemical Industry</li> <li>• Refrigeration Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Boiler Feeding</li> <li>• Condensate Recycling</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Engineering</li> <li>• Chemical and Petrochemical Industry</li> <li>• Process and Systems Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Engineering</li> <li>• Chemical and petrochemical Industry</li> <li>• Process Engineering</li> <li>• Refrigeration Industry</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical Industry</li> <li>• Process Engineering</li> <li>• Refrigeration Engineering</li> </ul>
Media Selection	<ul style="list-style-type: none"> <li>• Media containing gas or evaporating quickly</li> <li>• Liquid Gases</li> <li>• Refrigerants</li> </ul>	<ul style="list-style-type: none"> <li>• Condensate</li> </ul>	<ul style="list-style-type: none"> <li>• Aggressive and Toxic Liquids</li> <li>• Liquid Gases</li> </ul>	<ul style="list-style-type: none"> <li>• Aggressive and hazardous liquids</li> <li>• Refrigerants</li> <li>• Liquids containing gas</li> </ul>	<ul style="list-style-type: none"> <li>• Ammonia (NH<sub>3</sub>)</li> <li>• Liquid Carbon Dioxide (CO<sub>2</sub>)</li> <li>• CFC substitutes</li> </ul>

## SERO – we are at your service nearby



### Spare parts Service

- On our central stock in Meckesheim we keep at your disposal all original spare parts for the SERO standard pump series.
- Delivery of spare parts for standard series is effected within one day.
- Procurement/delivery of a selection of spare parts for other pump brands (outside the SERO range).
- Advisory assistance for an optimal commissioning and procurement of original SERO parts.

### Engineered Service/ Systems Engineering

- Tailor-made pump systems in various designs, adapted to the site requirements or ready-for-operation units out of our standard programme.
- Electronic pump monitoring or control.
- Analysis, assessment and optimized (re)design of pump systems.
- Consulting assistance for a technologically and economically optimal solution with Side Channel Pumps, compared with centrifugal pumps.

### Retrofit

- Modernization of existing pumps, components and pumping systems (e.g. through sealing modifications, reduction of inlet heights, new arrangements allowing removal of cooling devices, etc.)
- We make necessary modifications to increase lifetime and to reduce life cycle costs of your pump units.

### Assembly and Start-up

- Expert-guided, at-site pump installation and start-up (75% of all damages occurred during the guarantee period result from false assembly or start-up).
- We check the whole system and optimize the plant parameters during the process.
- We maintain your pumps and look after them.

### Training

- We offer trainings at-site or in our Meckesheim premises, helping to qualify your personnel and update them with all relevant know-how.
- Trained and qualified personnel keep your processes safe and minimize the operating expenditure.

### Repair and Maintenance

- Pump users benefit from our competent, quick and price-worthy repair of SERO pumps and all brands of centrifugal pumps.
- It is up to you to decide if the repair is done at-site or in our modern service center in Meckesheim.
- Our Service is at your disposal day and night, 24 hours.

**SMW GmbH**  
Service und Pumpentechnik  
A member of the SERO group

# A Naturally Growing Company

1894



Max Brandenburg establishes the Berliner Pumpenfabrik AG.

1929



Imperial patent for the side channel pump.

The SERO trademark is created:

**SE** – selfpriming

**RO** – rotating

Many patents follows.

1959



The SERO Pumpenfabrik GmbH is established in Meckesheim by Heidelberg.

2003



Founding of SERO PumpSystems GmbH.

SERO has positioned itself as one of the leading manufacturers of Side Channel Pumps.

2005



Founding of SMW Service und Pumpentechnik GmbH as Service Company within the SERO group.

SMW offers a full „Customer Support Service“ with the goal of an optimized Life Cycle for complete pump systems.

## Prepared for the Future

We have high engineering competence in side channel pumping systems.

What users can expect from us:

- First class product quality
- Reliable service and availability of all spare parts
- Particularly good value for your money
- Competent assistance in technical and commercial matters
- Top quality of offers (expert pump selection) and quick response
- Extremely short delivery times, always on schedule



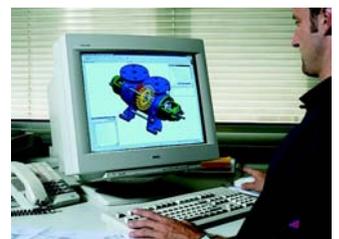
Managing Director:  
Beate Zientek-Strietz

# Partnership from A to Z



The world market offers an inexhaustible potential. We have creative ideas and an innovative management, and numerous international relationships with qualified partners form the basis for our success.

For a list of our sales and service partners visit our homepage on the Internet: [www.seroweb.de](http://www.seroweb.de)



## Guaranteed Reliability

- Friendly, open and partnership-oriented communication both externally and internally instills reliability as a core value in our employees.
- SERO is the only pump factory which exclusively produces side channel pumps. And we are good at what we are doing.
- Our proven product quality „Made in Germany“ reduces possible malfunctioning.



# SERO

PumpSystems



**SERO PumpSystems GmbH**  
Industriestraße 31  
D-74909 Meckesheim  
near Heidelberg/Germany

Phone +49 6226 9201-0  
Fax +49 6226 9201-40

info@seroweb.de  
sales@seroweb.de  
service@seroweb.de  
www.seroweb.de