



**SÜDMO**  
**SP SERIES -**  
**HYGIENIC**  
**CENTRIFUGAL PUMPS**  
**FOR THE FOOD & BEVERAGE INDUSTRY**

**NEW**

# SÜDMO SP SERIES - HYGIENIC CENTRIFUGAL PUMPS

## FOR THE FOOD & BEVERAGE INDUSTRY

**Designed for continuous operation on thin liquids, the new generation Südmö SP pump series are suitable for process and CIP/SIP applications, and liquids with a viscosity up to 500 mPas. They offer a very gentle and steady product treatment, which makes them an ideal solution also for sensitive product applications like milk and cream products or yeast.**

**The pumps can handle volume flow rates of up to 160 m<sup>3</sup>/h and up to 75 mWc head.**

Features of the new SP pump series include a high-quality stainless steel construction – all product wetted parts are stainless steel (1.4404/316L) – and an optimized hydraulic design for the pump housing and impeller, combined with a very smooth surface. The combination of these features results in a very good cleanability and a high efficiency with reduced energy consumption.

Pentair's hygienic centrifugal SP pump series, available with IEC standard electric motors and a variety of options, provide flexible and accurate adaptation to customer specific requirements, which contributes to lower total cost of ownership.

The SP series compact and straightforward design allows for a fast and easy maintenance without the need for special tools. This reduces labor and significantly minimizes plant downtime.



**NEW**



## **CUSTOMER BENEFITS**

- High efficiency
- Low energy consumption
- Gentle product handling
- Easy & quick maintenance
- Low noise
- Excellent cleanability
- Flexible & accurate adaptation to customer specific requirements due to a variety of options



**WIDE RANGE OF APPLICATIONS**

- Beer**
- Milk**
- Soft Drinks**
- Liquid Foods**
- Chemicals**
- Distillates**
- Yeast**
- Cream**
- Juices**
- Emulsions**
- Flavours**
- CIP Solutions**
- Wort**
- Yoghurt**
- Mineral water**
- Oil**
- Extracts**
- SIP Solutions**
- Whey**
- Sauces**
- Liquid Pharmaceuticals**
- Concentrates**
- Ingredients**
- Brine**
- Baby Food**

**FEATURES**

- Optimized design through state-of-the-art computational fluid dynamics
- Improved diffusing element housing design at suction / discharge
- Low product shear rate
- IEC standard motors, IE3, IP55
- All product contact parts are made of stainless steel
- Polished impeller



**TECHNICAL DATA**

<b>Motors</b>	up to 45 kW
<b>Head</b>	max. 75 mWc – 50 Hz
<b>Flow rates</b>	max. 160 m <sup>3</sup> /h - 50 Hz
<b>Temperature (EPDM Sealing)</b>	max. 130° C (266° F) continuous max. 150° C (300° F) short-term (steam sterilization) Higher temperatures on request
<b>Connections</b>	DIN 11851 Others on request
<b>Surface Finish</b>	Product wetted parts Ra ≤ 0.8 µm

**MATERIALS**

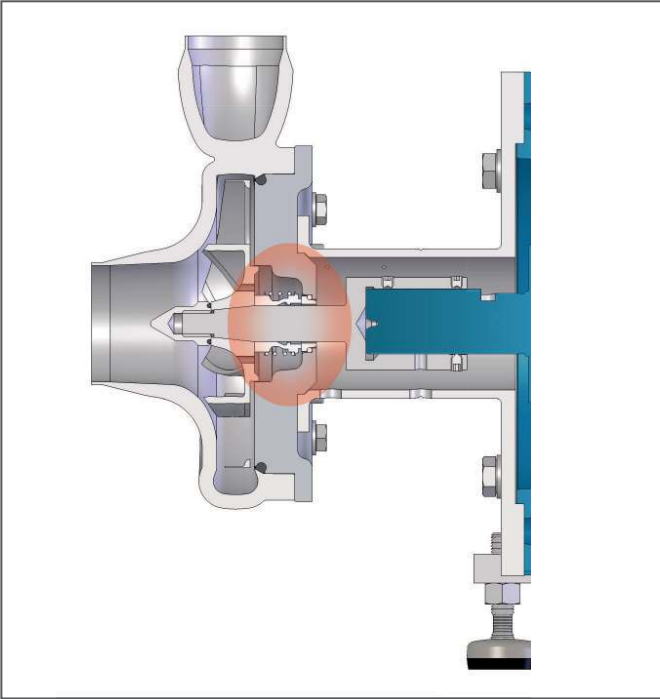
**According European Directive 1935/2004**

Product wetted	1.4404 (AISI 316 L)
Other parts	1.4301 (AISI 304)

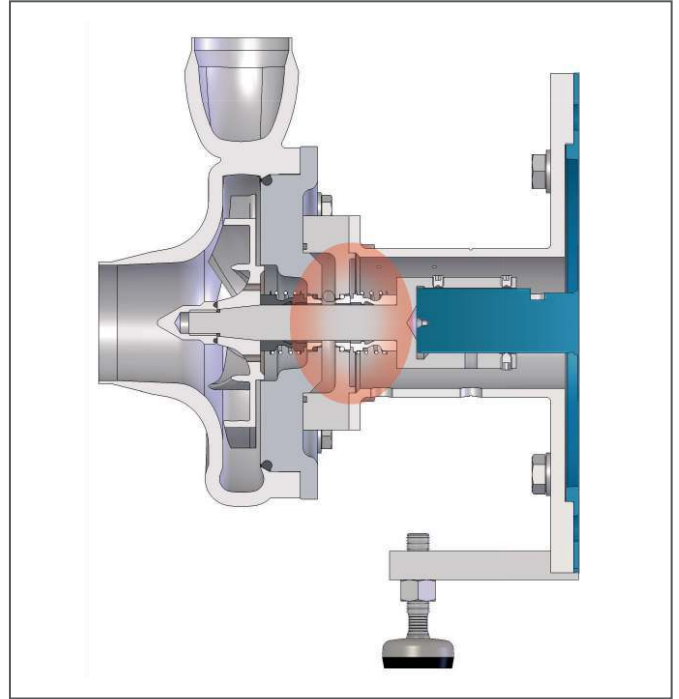
**Sealing Elements (according to FDA)**

Mechanical	C-SiC, SiC-SiC
Elastomers	EPDM, NBR, HNBR, FKM
Other seal materials on request	

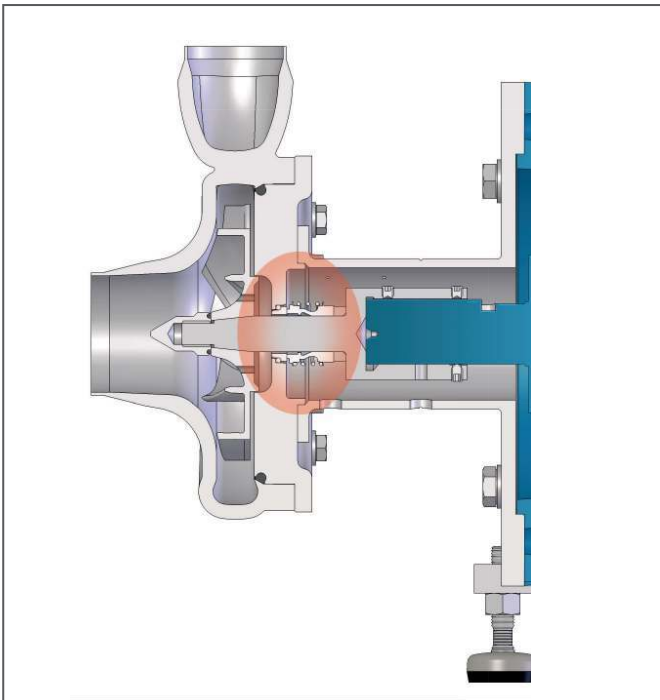
## SEAL CONFIGURATIONS



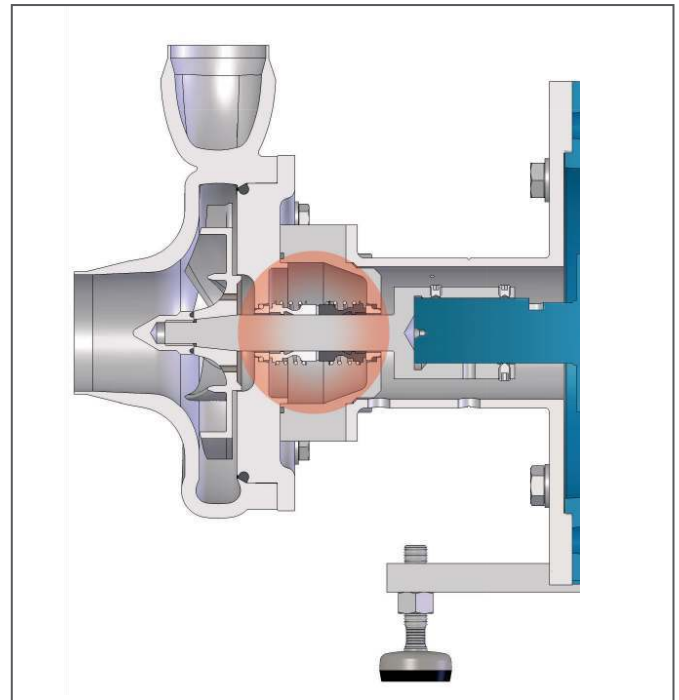
Single working internal mechanical seal



Double working internal mechanical seal with quench  
(pressureless cooling liquid)

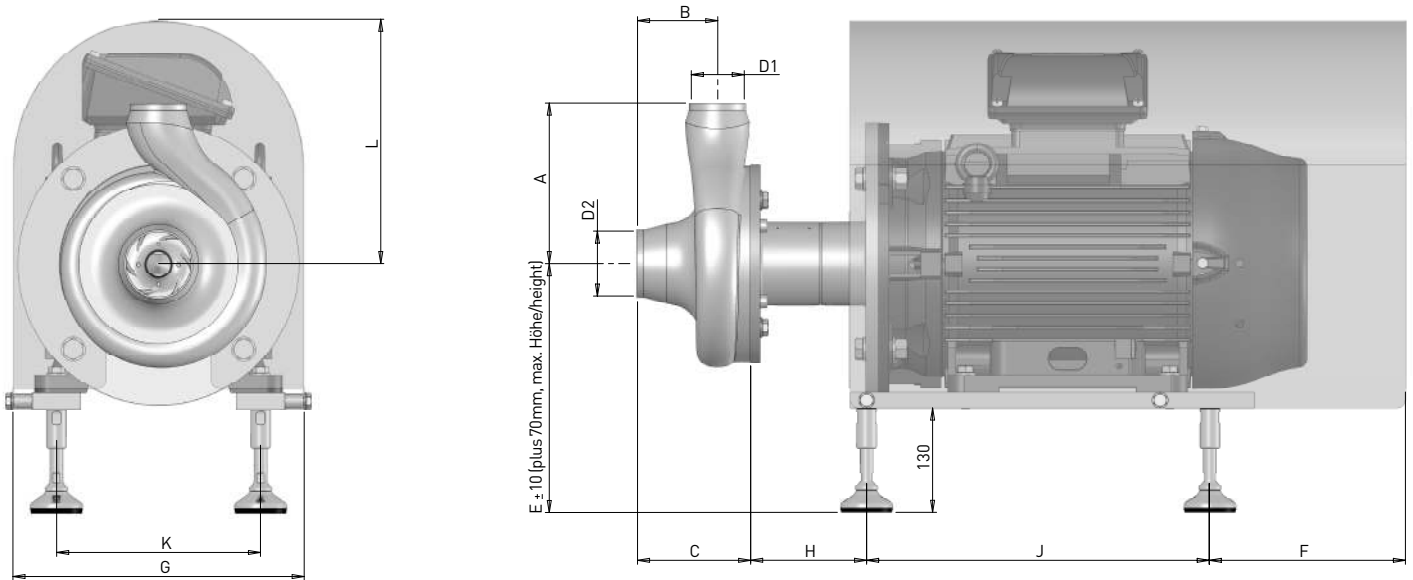


Single working external mechanical seal



Double working external mechanical seal back to back  
(pressurized cooling liquid)

## OVERALL DIMENSIONS



H1/J1 Single acting mechanical seal  
 H2/J2 Double acting mechanical seal

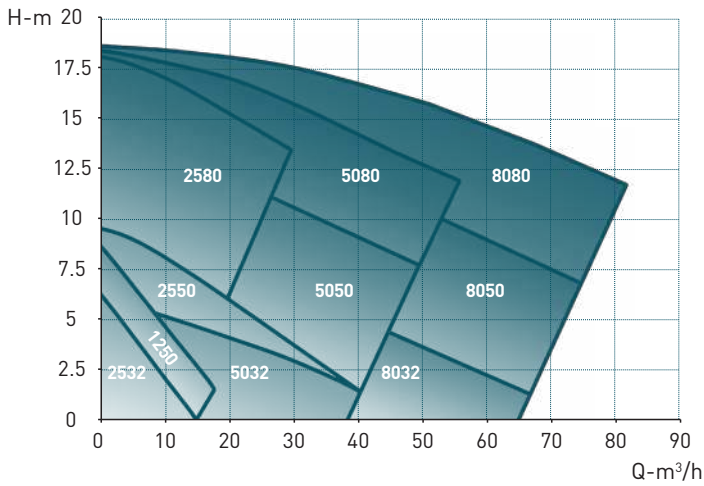
MOTOR IEC	MOTOR - KW 1500 RPM	MOTOR - KW 3000 RPM	SINGLE SEAL			QUENCH	BACK TO BACK	SINGLE SEAL	DOUBLE SEAL			
			E	F	G	H1	H1	H2	J1	J2	K	L
80	0.55 - 0.75	0.75 - 1.1	157	76	209	71	o.r.	o.r.	215	o.r.	125	160
90S	1.1	1.5	167	125	209	81	o.r.	o.r.	221	o.r.	140	185
90L	1.5	2.2	167	100	209	81	o.r.	o.r.	246	o.r.	140	185
100L	2.2 - 3	3	179	143	259	93	o.r.	o.r.	268	o.r.	160	233
112M	4	4	191	136	259	93	o.r.	o.r.	275	o.r.	190	233
132S	5.5	5.5 - 7.5	211	212	309	113	o.r.	o.r.	294	o.r.	216	253
132M	7.5	9.2	211	174	309	113	o.r.	o.r.	332	o.r.	216	253
160M	9.2 - 11	11 - 15	242	288	363	145	o.r.	o.r.	383	o.r.	254	297
160L	15	10.5	242	244	363	145	o.r.	o.r.	427	o.r.	254	297
180M	18.5	22	262	304	373	145	o.r.	o.r.	427	o.r.	279	317
200L	30	30 - 37	282	338	417	145	o.r.	o.r.	503	o.r.	318	347

PUMP	D1		D2		A	B	C
	OD-TUBE	METRIC	OD-TUBE	METRIC			
SP 1250	2.0	50	1.5	40	160	80	118.5
SP 2532	2.5	65	2.0	50	160	80	120
SP 5032	3.0	80	2.5	65	180	100	143
SP 8032	4.0	100	3.0	80	200	100	141
SP 2550	2.5	65	2.0	50	225	100	145
SP 5050	3.0	80	2.5	65	225	125	165.5
SP 8050	4.0	100	3.0	80	250	125	167.5
SP 2580	2.5	65	2.0	50	160	80	120
SP 5080	3.0	80	2.5	65	180	100	143
SP 8080	4.0	100	3.0	80	280	125	172

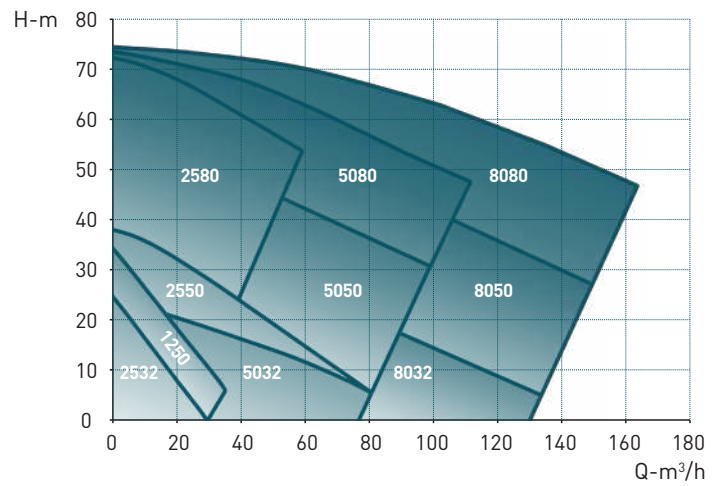
Please note: Measurements A and C increase about the length of the chosen welding-ends (threads, flanges, etc.)

## PUMP PERFORMANCE CURVES

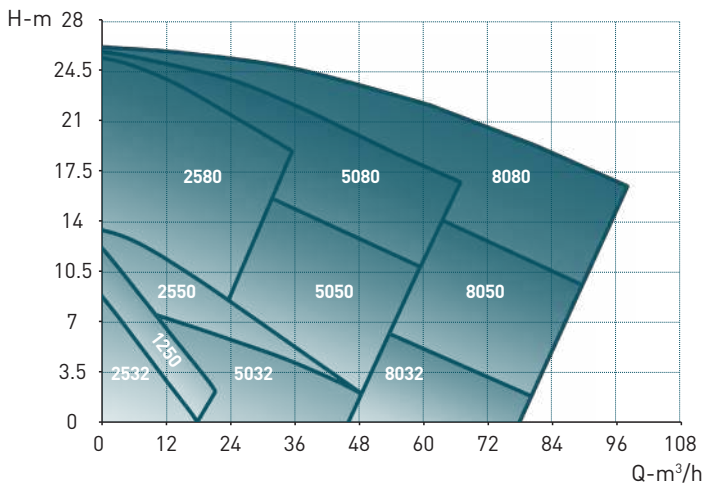
50 Hz / 1500 RPM



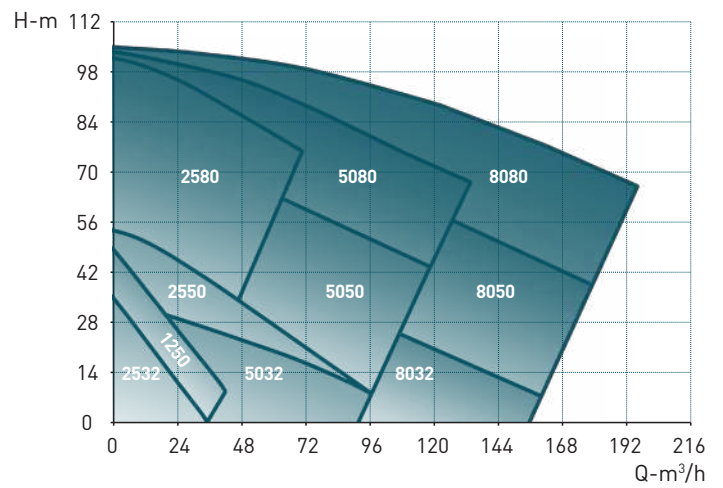
50 Hz / 3000 RPM



60 Hz / 1800 RPM



60 Hz / 3600 RPM



Medium: Water 20° C  
Tolerance on performance: ± 5 %

# SÜDMO HYGIENIC CENTRIFUGAL PUMPS QUESTIONNAIRE

Designing pumps requires exact specifications, so thanks for giving us as much detailed information as possible.

## CUSTOMER DATA

Date:	
Customer:	
Place:	
Country:	
Contact:	
Customer Reference:	
Pump/Tag-No(s):	
Remarks:	

## PUMP DATA

Capacity [m <sup>3</sup> /h]:	
Pump head [mWC (Water column)]:	
Pump head [mLC (Liquid column)]:	
Available pressure on suction side [bar]:	
Product:	
Product temperature [°C]:	
Specific weight [kg/m <sup>3</sup> ]:	
Viscosity [Pas]:	
Applied process:	
Pump location on site:	
Site elevation (height above sea level) [m]:	
Pump must be self-priming [yes/no]:	
Port connections (standard: metric DN 11851 SC threaded male):	
Voltage [V]:	
Frequency [Hz]:	
PTC sensor required [yes/no]:	
Trolley required [yes/no]:	
Heating/cooling jacket required [yes/no]:	
Drain required [yes/no]:	
Shroud required [yes/no]:	

## MECHANICAL SEAL AND GASKET MATERIALS

Single internal mechanical seal (standard):	
Single external mechanical seal:	
Double mechanical seal with quench:	
Back-to-back double mechanical seal:	
Primary seal materials: Carbon-SiC (Standard) / SiC-SiC / Others?:	
Secondary seal materials: Carbon-SiC (Standard) / Others?:	
Pump gasket: EPDM (Standard) / FKM (Viton) / NBR?:	

You can either email the form to [info.suedmo@pentair.com](mailto:info.suedmo@pentair.com) or fax to +49 9081 803 158



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