



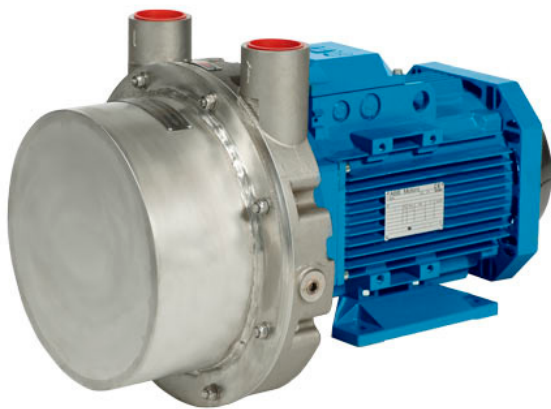
**SAMSON LIQUID RING VACUUM PUMPS**

**ME-SERIES**

# DATASHEET ME-SERIES

Range: 33 mbar, absolute to 1.0 bar, gauge

Capacity: From 50 m<sup>3</sup>/h to 165 m<sup>3</sup>/h





Index	Page
About SAMSON PUMPS.....	4
Materials.....	5
Technical data.....	6
Dimensions.....	7
ME65 vacuum performance .....	8
ME160 vacuum performance .....	9
Accessories.....	10
How to order ME.....	11

## ABOUT SAMSON PUMPS

SAMSON PUMPS was established in 1938 by the local blacksmith in a small town near Viborg, Denmark. It all started with a production of machinery and tools for local farmers.

Now with more than 40 years of experience in liquid ring vacuum pumps and vacuum technology SAMSON PUMPS has a large number of equipment installed in industries worldwide. SAMSON vacuum pumps are well known for its strength, reliability and low maintenance costs.

### Quality

All SAMSON vacuum pumps are tested before leaving the factory.

### Delivery

SAMSON PUMPS has a large amount of standard pumps on stock and we are known for our short lead time.

### Service

SAMSON PUMPS has service facilities and all repaired pumps are tested to fulfill the original specifications.

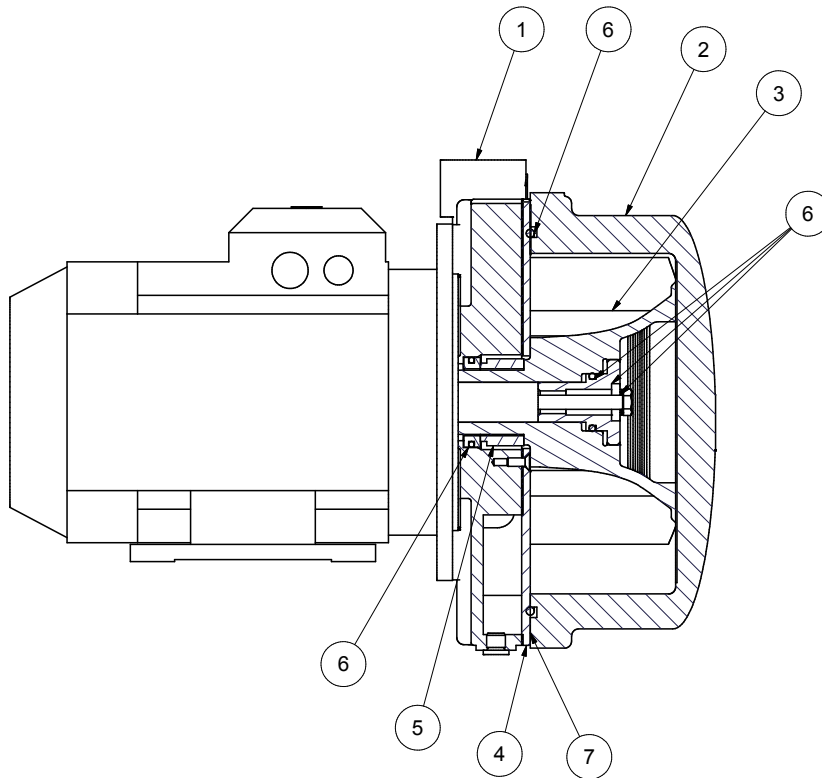
### Main markets

- Fish Industry
- Offshore
- Vacuum transport
- Food industry
- Truck building industry

## MATERIALS

Position / Components	Material		ME65	ME160
1: Pump housing	Cast iron	EN-GJL-250; EN 1561	•	•
	Stainless steel	EN 1.4401	•	•
2: Pump cover	Stainless steel	EN 1.4401	•	•
	Composite - SGS	PUR	•	•
3: Rotor	Stainless steel	EN 1.4404	•	•
4: Flow plates	Stainless steel	En 1.4401	•	•
5: Mechanical shaft seal	Stainless steel/NBR	EN 1.4301/NBR	•	•
	Stainless steel/Teflon	EN 1.4301/PTFE	•	•
6: O-rings	Nitrile	NBR	•	•
	Ethylene Proylene Diene Monomer	EPDM	•	•
	VITON	FKM	•	•
7: Gaskets	Rubber gasket	NBR	•	•
	Teflon gasket	PTFE	•	•

Available = •



Doc.1612035\_3

## TECHNICAL DATA

			ME65	ME160
Weight	Ex. branch pipes	[kg]	63	73
Sound pressure		[db(A)]	70	70
Pressure test		[bar, gauge]	5	5
Rotation speed range		[rpm]	1.500 - 1.800	
Temperature	Gas temp, max	[°C]	80	80
	ATEX, Gas temp, max	[°C]	80	80
	Service liquid temp, max	[°C]	50	50
	ATEX, service liquid temp, max	[°C]	50	50
Bearing type**	Ball bearing non greasable, DE		•	•
	Ball bearing non greasable, NDE		•	•
Pump colour*	RAL code	RAL 5021	•	•
Connection, water supply	Thread hole	1/2" BSP	•	•
Approvals	ATEX certified	Ex II2 G c T4 (zone 1)	•	•

Available = •

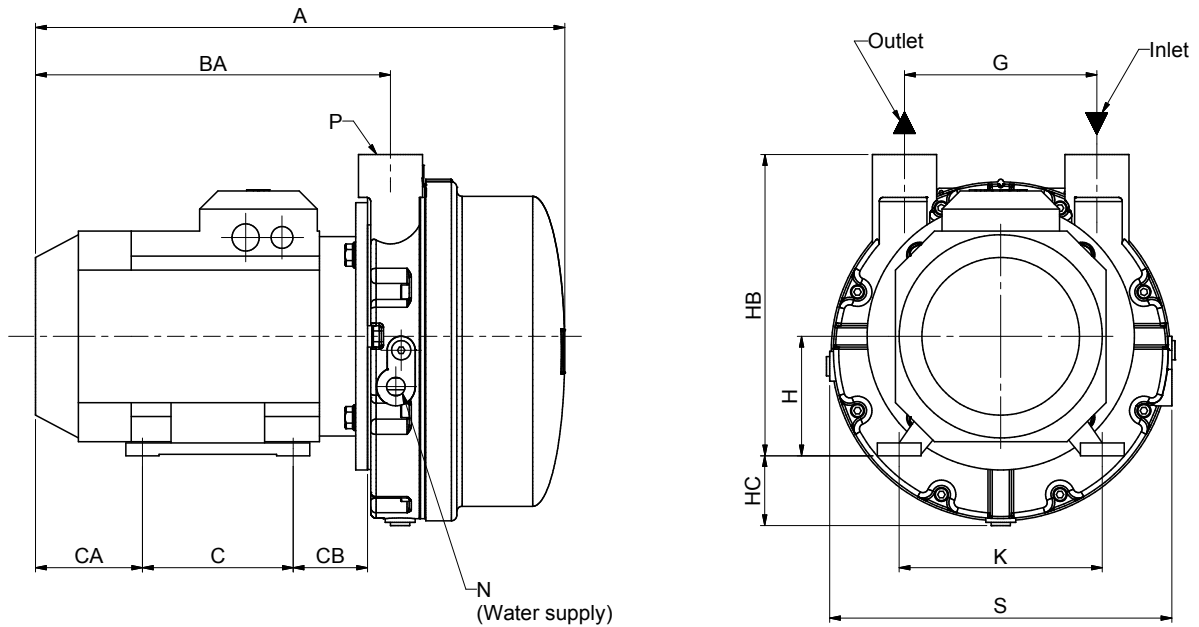
\* = Cast iron housing

\*\* = Motor bearings

# ME SERIES

## DIMENSIONS [mm] ME WITH STAINLESS STEEL PUMP HOUSING

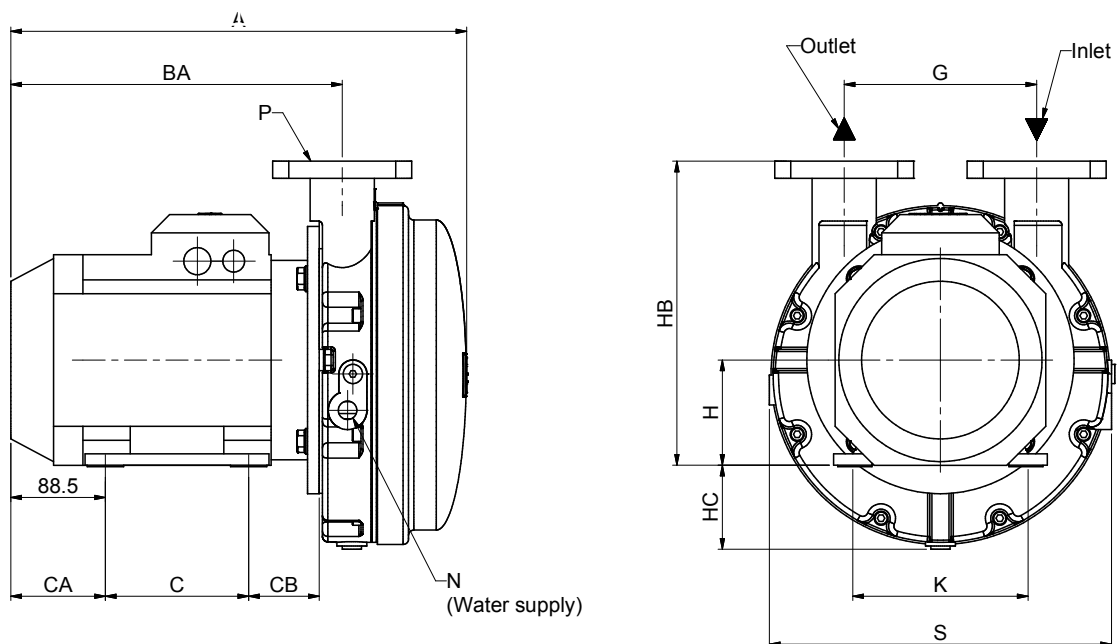
Pump type	A	BA	C	CA	CB	G	H	HB	HC	K	N	P	S
ME65	430	310	140	90	63	180	100	285	80	160	1/2" BSP	1 1/2" BSP	320
ME160	495	335	140	100	70	180	112	285	65	190	1/2" BSP	1 1/2" BSP	320



Doc.1612035\_2

## DIMENSIONS [mm] ME WITH CAST IRON PUMP HOUSING

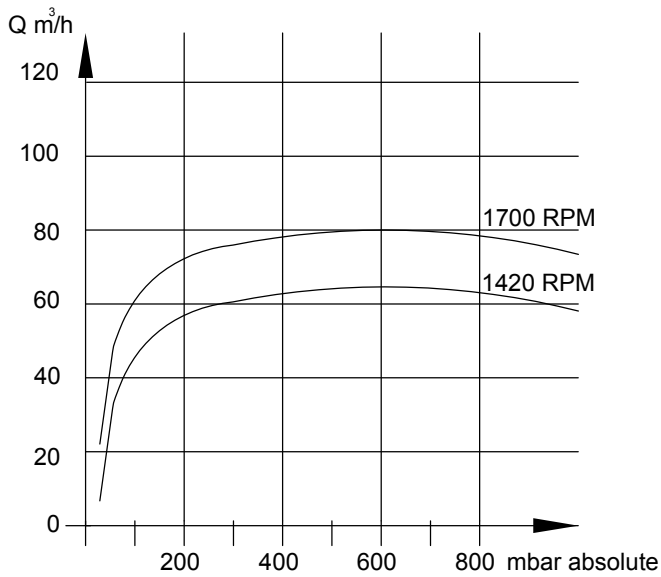
Pump type	A	BA	C	CA	CB	G	H	HB	HC	K	N	P	S
ME65	430	310	140	90	63	180	100	285	80	160	DN40	1 1/2" BSP	320
ME160	495	335	140	100	70	180	112	285	65	190	DN40	1 1/2" BSP	320



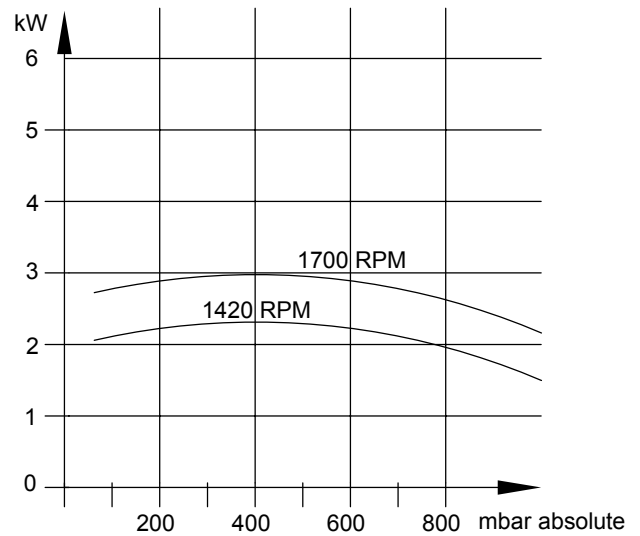
Doc.165.237\_2

# ME65 - Vacuum performance

ME65 VACUUM PERFORMANCE - DRY AIR

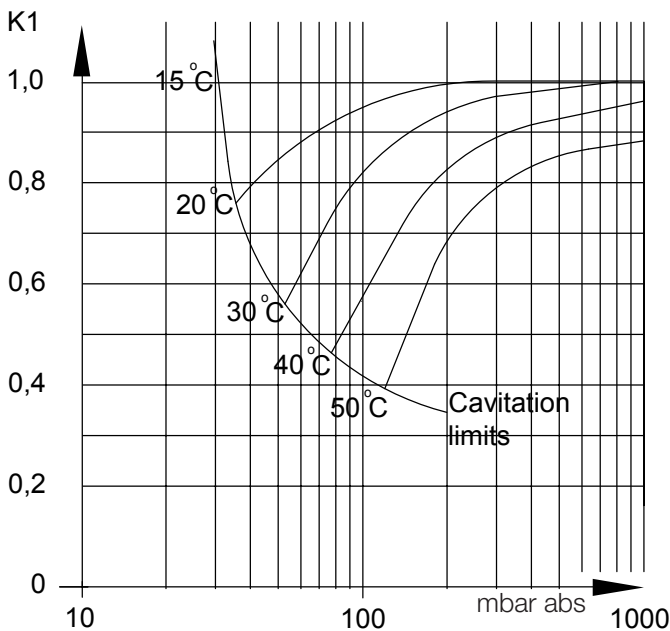


ME65 POWER CONSUMPTION - VACUUM



Air temperature 20°C  
 Sealing water temperature 15°C  
 Performance based on dry air at 1013 mbar absolute  
 Tolerance +/- 10%

CORRECTION FACTOR BASED ON SEALING LIQUID TEMPERATURE



$Q_t = Q_{15} * K$   
 Pump performance at temperature of sealing liquid higher than 15°C

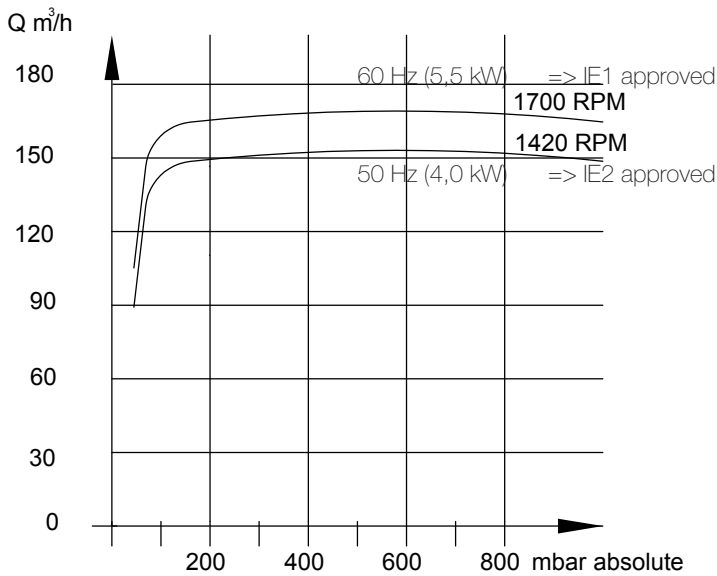
## VACUUM OPERATION:

Performance and power consumption are based on a constant operation media pressure at +/- 0.2 bar gauge. Deviations will affect the performance and power consumption. Using a liquid separator from Samson Pumps the amount of water will be regulated automatically depending on the operating pressure. At the same time the water will be reused and will reduce the costs of operation. If operating without liquid separator the pump must be supplied with 0.2 m³/h as a minimum in considerations to lubrication and cooling of the mechanical shaft seals.

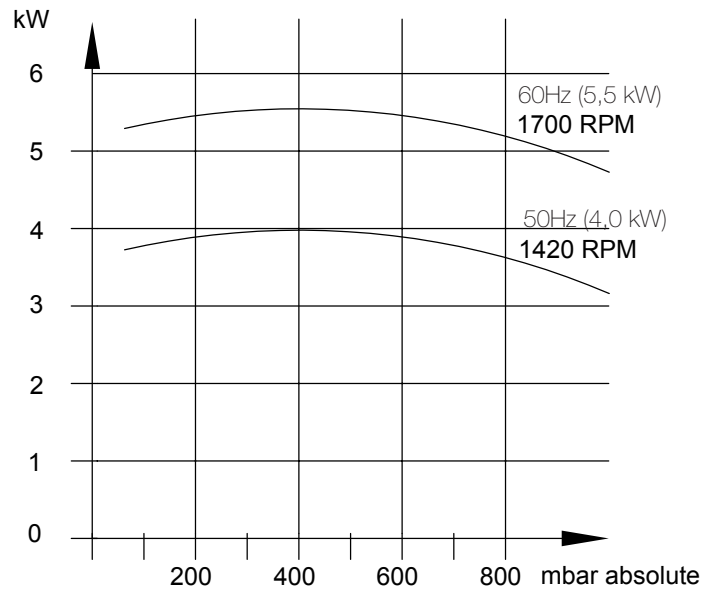


# ME160 - Vacuum performance

ME160 VACUUM PERFORMANCE - DRY AIR

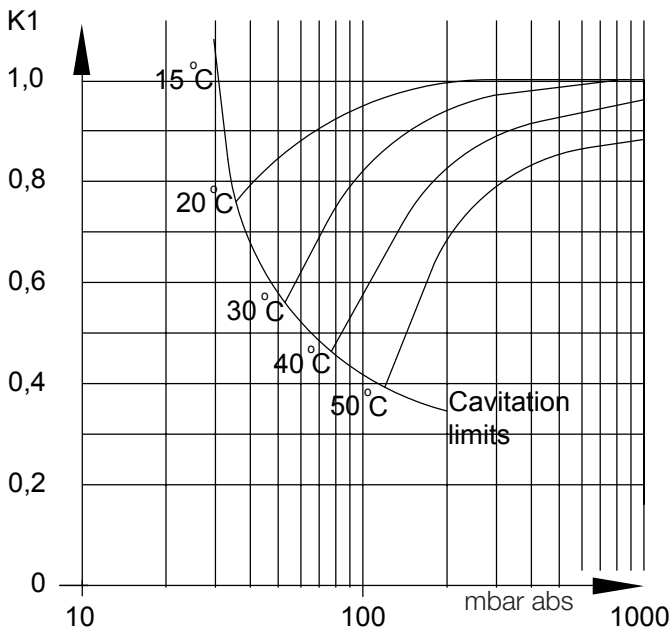


ME160 POWER CONSUMPTION - VACUUM



Air temperature 20°C  
 Sealing water temperature 15°C  
 Performance based on dry air at 1013 mbar absolute  
 Tolerance +/- 10%

## CORRECTION FACTOR BASED ON SEALING LIQUID TEMPERATURE



$Q_t = Q_{15} \cdot K$   
 Pump performance at temperature of sealing liquid  
 higher than 15°C

## VACUUM OPERATION:

Performance and power consumption are based on a constant operation media pressure at +/- 0.2 bar gauge. Deviations will affect the performance and power consumption. Using a liquid separator from Samson Pumps the amount of water will be regulated automatically depending on the operating pressure. At the same time the water will be reused and will reduce the costs of operation. If operating without liquid separator the pump must be supplied with 0.2 m<sup>3</sup>/h as a minimum in considerations to lubrication and cooling of the mechanical shaft seals.

## ME SERIES

---

### ACCESSORIES

	ME65	ME160
Non return valve	•	•
Vacuum limiter	•	•
Service liquid valve	•	•
4-way valve	•	•
4-way valve with pneumatic actuator	•	•
Intermediate pipe for 4-way valve	•	•
Adaptor for hydraulic motor ISO	—	—
Adaptor for hydraulic motor SAE	—	—
Liquid separator	•	•
Temperature control, partial recovery	•	•
Temperature control, full recovery	•	•

Available = • Not available = —

# ME SERIES

## HOW TO ORDER ME

Example:		ME	160	4	6	7	1	0	0	C	A	SD
<u>Model:</u>												
ME	65											
ME	160											
<u>Rotor type:</u>												
Stainless steel AISI 316	4											
<u>Pump housing:</u>												
Cast iron EN-GJL-250; EN1561	6											
Stainless steel AISI 316	7											
<u>Shell:</u>												
Composite SGS	7											
Stainless steel AISI 316	8											
<u>Flow plate:</u>												
Stainless steel AISI 316	1											
<u>Mechanical shaft seal:</u>												
NBR / AISI 316	0											
Teflon / AISI 316	2											
<u>Gaskets:</u>												
NBR / Teflon	0											
EPDM / EPDM	3											
<u>Motor:</u>												
3.0 kW (ME65)	B											
4.0 kW (ME160)	C											
5.5 kW (ME160)	D											
<u>Colour:</u>												
Samson standard	A											
Without paint	0											
On request	X											
<u>Documentation:</u>												
Samson standard	SD											
ATEX zone I	X1											
ATEX zone II	X2											

Samson Pumps A/S  
Petersmindevej 21  
DK-8800 Viborg

Phone <sup>1</sup> +45 87 50 95 70  
[www.samson-pumps.com](http://www.samson-pumps.com)



**SAMSON PUMPS**