

Liquid-ring pumps for vacuum or compressor duty

Types

PMSH/PMSK 136 to 156

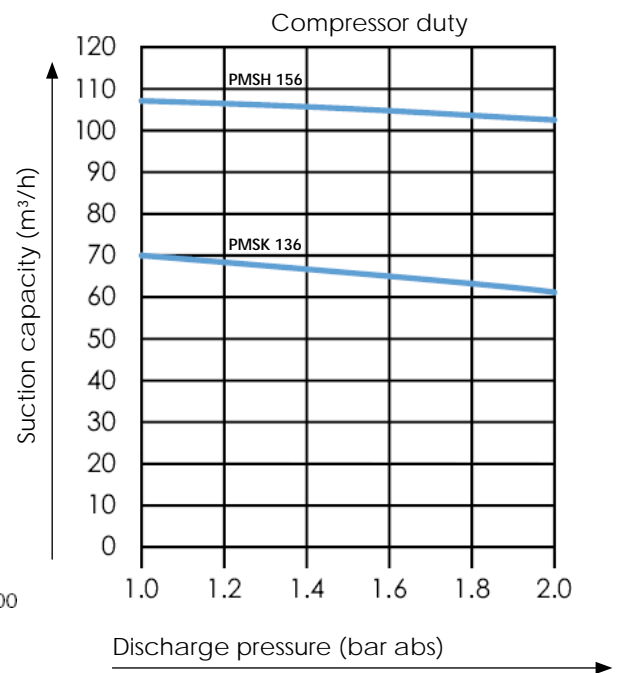
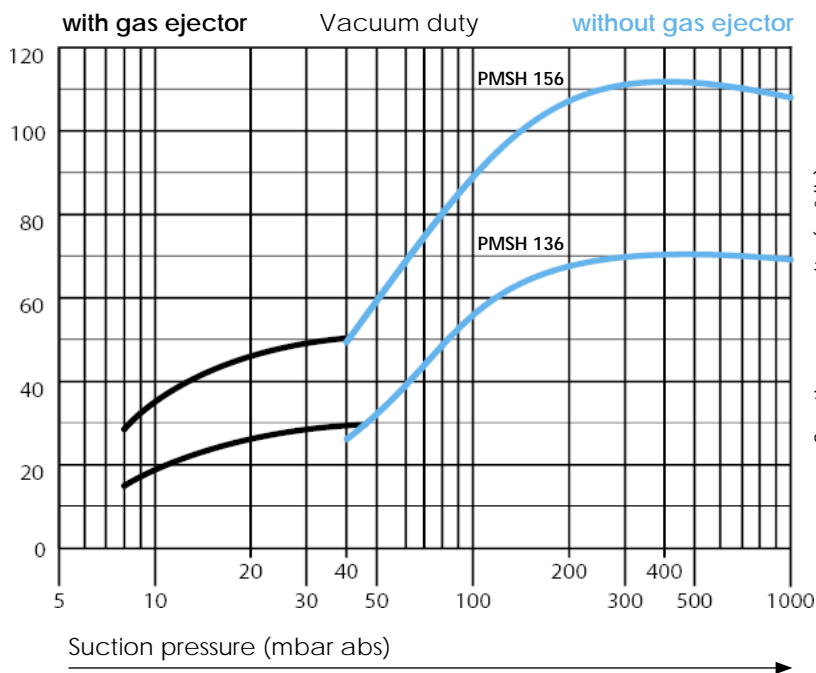
The simple stage standard pumps for vacua down to 40 mbar (8 mbar with gas ejector)
Overpressure up to 2 bar abs



Features and advantages

- Sturdy
- Cold compression
- Not sensitive to impurities nor liquids
- Conformity with ATEX
- Simple mechanical seal
- Low power requirement
- Low ring-liquid requirement
- Quiet running
- Low maintenance
- Self-priming
- Safe operation

Suction capacity



The performance curves indicate effective suction capacities at given pressure of the respective pumps with a tolerance of $\pm 10\%$ for the following operation conditions:

- Intake of dry air with a temperature of 20°C
- Ring liquid: water with an inlet temperature of 15°C
- Ambient pressure 1013 mbar abs
- Electric motor 50 Hz

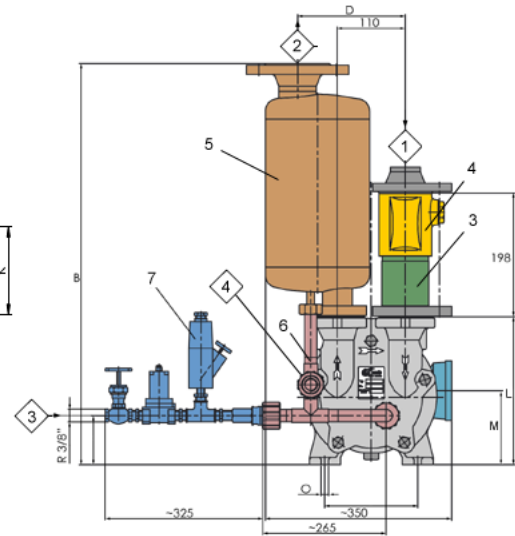
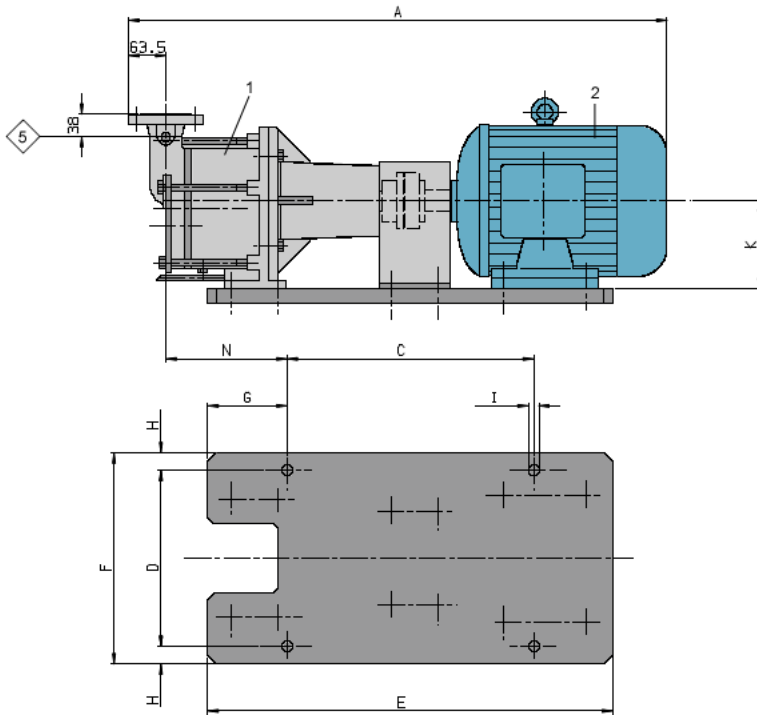
Construction materials

Part	Execution B	Execution C	Execution D	ExecutionH (156)
Pump body	cast iron	cast iron	stainless steel	Hastelloy
Casting cover	cast iron	cast iron	stainless steel	Hastelloy
Port plate	bronze	stainless steel	stainless steel	Hastelloy
Impeller	bronze	stainless steel	stainless steel	Hastelloy

Materials (example)

stainless steel 1.4435 / 1.4408
 bronze GK-CU AL 9 NI
 cast iron EN-GJL-200
 hastelloy C-22
 Assigned materials in accordance with offer / confirmation of order

Dimensions



Typ / Type	C	D	E	F	G	H	I	K	L	M	N	O
PMSH/K 136	395	250	575	300	90	25	4xØ14	120	240	80	134	20
PMSH/K 156	420	300	690	360	135	30	4xØ18	150	298	108	207	25

- 1 Vacuum pump
- 2 Motor
- 3 Non-return valve
- 4 Gas ejector
- 5 Liquid separator
- 6 Economy circuit
- 7 Automatic ring-liquid control

Technical data

Size	Installed motor rating IP54/ EEx e II T3	Speed (50 Hz)	Ring liquid flow	Weight with motor IP54/ EEx e II T3	Noise level	Inlet <1>	Outlet <2>	Kavitation protection* <5>	Ringliquid pipe * <3> & <4>
PMSH	kW	1/min	l/h	kg	db (A)			R	R
PMSK	PMSH PMSK								
136	2.2/2.5 3.0/3.3	2900	250	70/75	72	DN40/PN 6	DN40/PN 6	3/8"	3/8"
156	4.0/4.6 5.5/5.5	2900	500	90/95	72	DN40/PN 6	DN40/PN 6	3/8"	3/8"

*Deviations are reserved

Design concept

Pump and motor are mounted on a common base. Drive via flexible coupling.
 Bearing support between pump and motor.
 Base plate, coupling guard.

Class of protection:
 Totally enclosed, fan-cooled, IP 54
 resp. EExe II T3, 50 Hz
 (other classes of motor protection and 60 Hz frequency on request).

Accessories

Non-return valve (3)

Gas ejector (4)
 For pressure down to 8 mbar abs.

Liquid separator (5)
 Polypropylene (non ATEX) or stainless steel

Economy circuit (6)
 With the economy circuit, combined with liquid separator, the consumption of ring-liquid can be reduced, up to one half of its normal quantity, depending on the required vacuum.

Automatic ring-liquid control (7)
 consisting of regulating valve, pressure guard, solenoid valve and isolation valve.



NSB Gas Processing AG
 Reinacherstrasse 129
 CH-4053 Basel, Switzerland
 Telephone ++41 61 338 18 18
 Telefax ++41 61 338 18 00
 E-mail info@nsbgas.com
 Homepage www.nsbgas.com