

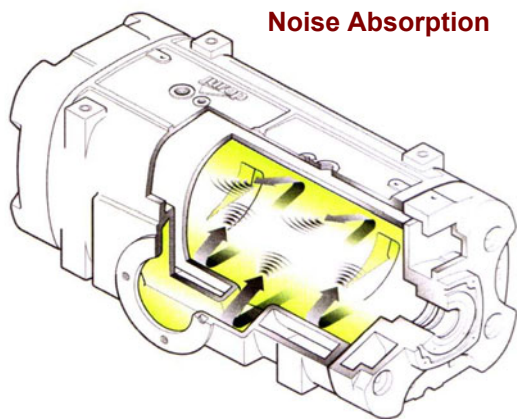


VACUUM TANKER (GULLY EMPTIER) - PR series pump

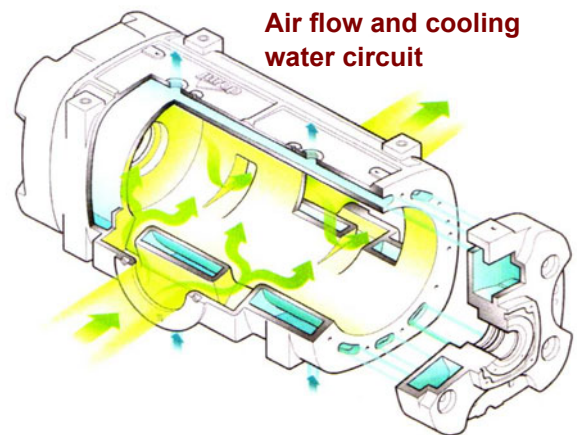


JUROP vacuum pump cooled by forced water complete with built-in recycling pump, lubricating pump and oil reservoir.

Low noise operating pump , trouble-free continuous running at high vacuum rates, suitable for the suction of both wet and dry materials.

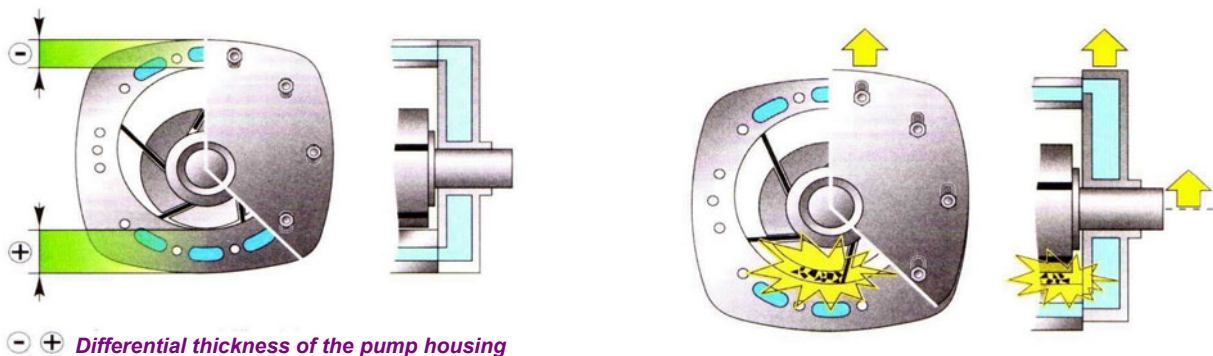


The low operating speed, the cooled baffle plates in the inlet & outlet ports and the depth of the water jacket allow the PR pumps to be extremely quiet in operation.



The uniform distribution of the air flow through the PR pump and an effective cooling circuit result in a high volumetric efficiency

The introduction of a housing with a differential thickness and the sliding end plate design allows the range of PR vacuum pumps to withstand failures which would normally create



⊖ ⊕ **Differential thickness of the pump housing**

Sliding end plate shown in operating position. The end plate securing bolts are pre-tightened to breakaway torque

The sliding end plate moves upwards to absorb the impact from the rotor caused by injection of foreign matter .

## Vacuum pumps / compressors. PR series (Lubricated, sliding vanes pump)



### Application

- Sludge and slurry suction vehicles. Dusty materials with suitable suction filter.
- Vacuum plants
- Pneumatic transport installations

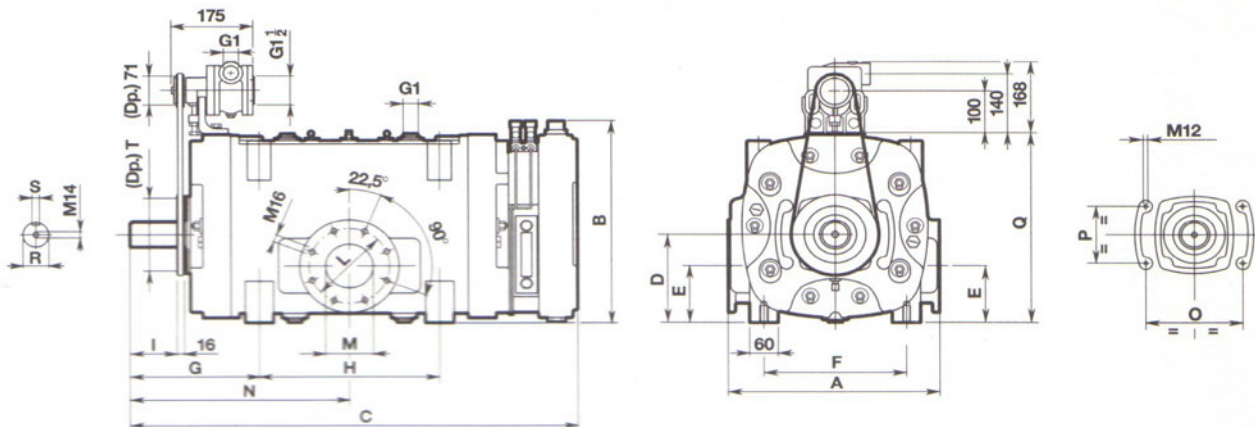
### Drive

- By vehicle engine with mechanical transmission
- With auxillary engine, electric motor , etc ..
- Hydrostatic drive

Note : the pumps are delivered for right or left rotation upon request

### Cooling and lubrication

- Cooling is obtained by force circulation with external pump
- Automatic oil lubrication of the moving parts with a piston pump driven by the rotor. High capacity oil tank with level sightglass.



### Dimensions

Model	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T
PR150	400	435	866	187	120	280	256	320	80	150	90	416	185	110	402	45	14	150
PR200	445	460	943	200	128	300	273	380	99	170	100	463	205	130	430	55	16	180
PR250	445	460	1123	200	144	300	283	540	99	200	130	553	205	130	430	55	16	180

### Performances

Pump model		PR150	PR200	PR250
Recommended speed	rpm	1,200	1200	1100
Air-flow (free air)	m3/hr	900	1250	1550
Air-flow (400 mbar 60% vac)	m3/hr	860	1210	1470
Max vacuum (continuous)	%	80	80	80
Max vacuum	%	95	95	95
Power req'd @ 1.5 bar abs	kW	28	39	48
Max operating abs press	bar	2	2	2
Noise @ 7m & 60% vac	dBA	75	74	78
Weight	kg	345	445	530
Oil consumption	g/h	210	250	330
Oil tank capacity	ltr	11	13	13
Mass moment of inertia	kgm2	0.57	0.96	1.3
Heat to be dissipated	kcal/r	8000	11000	12000
Circulating pump flow	l/min	50	70	80
Circulating pump speed	rpm	2600	3000	2800

### Lubrication

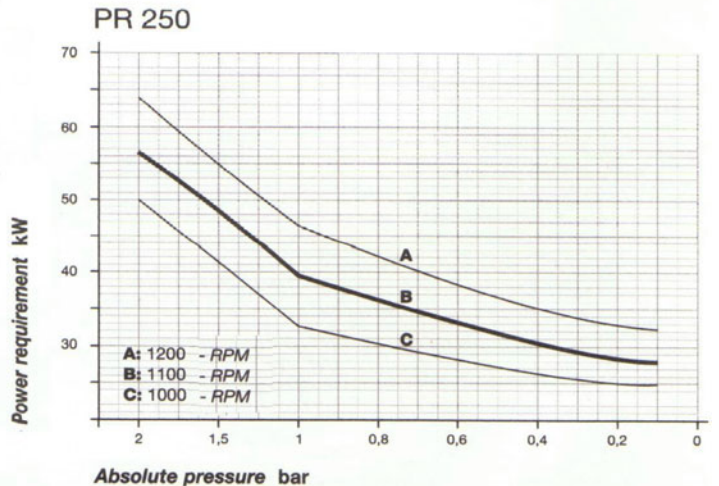
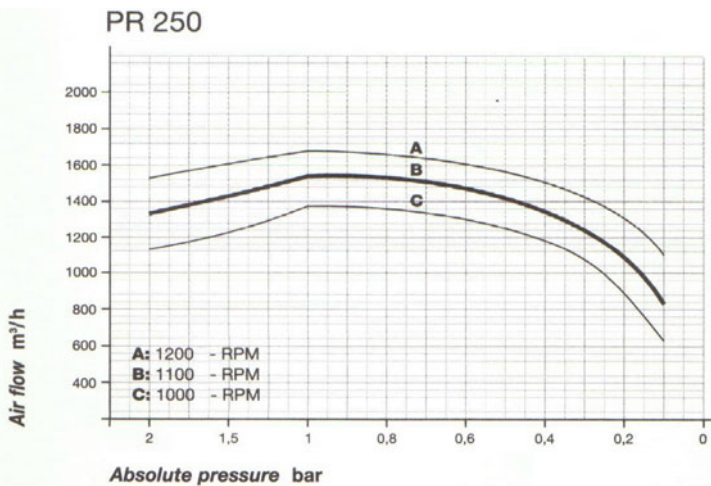
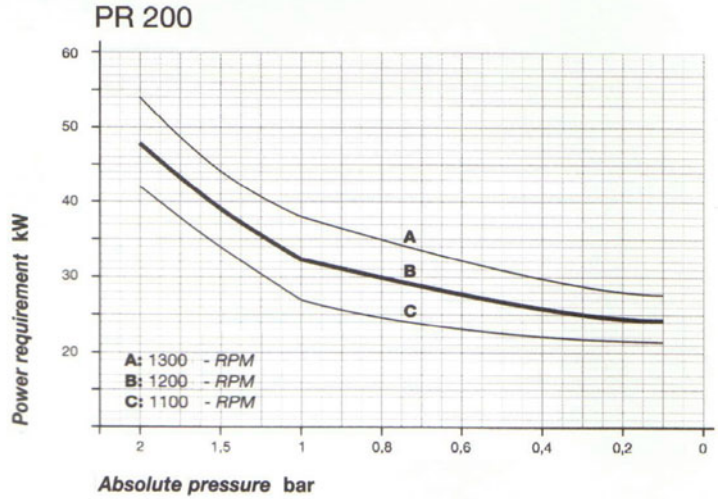
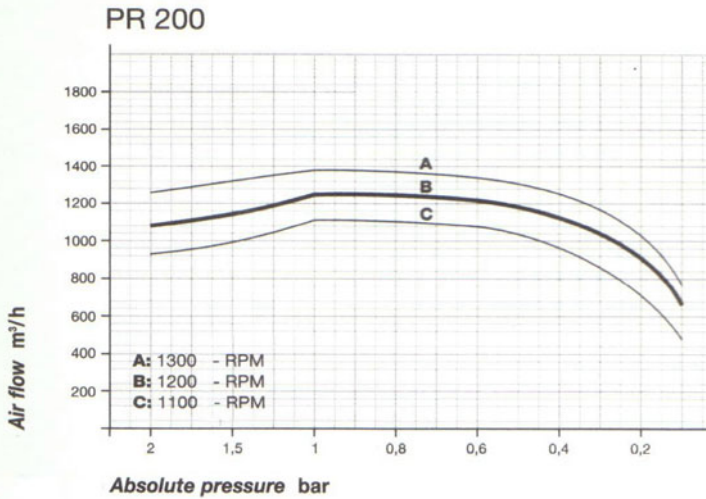
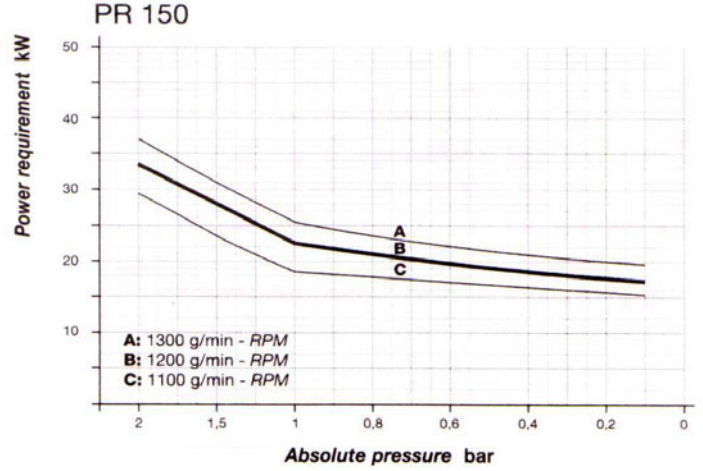
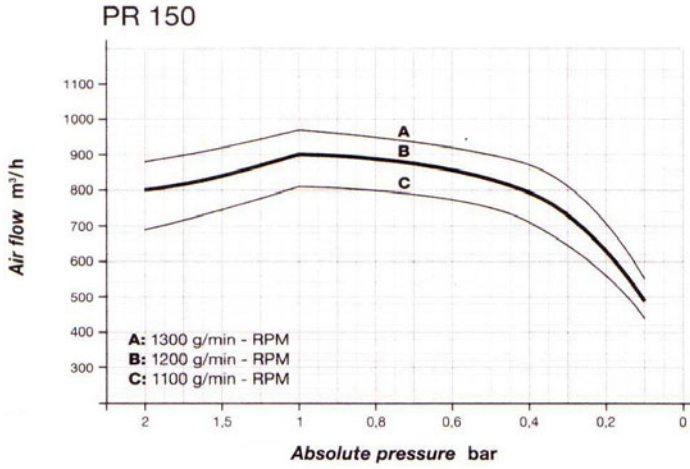
	BP	SHELL	ESSO	AGIP
Summer	Energol CS150	Vitrea/Tellus150	Nuto 150	Acer 150
Winter	Vanelus C3SAE20W20	Rimula SAE20W20	Essolube D3SAE20W20	Diesel Sigma 5

# Vacuum Pump Performance for PR series vacuum pump



## Flow rate / pressure

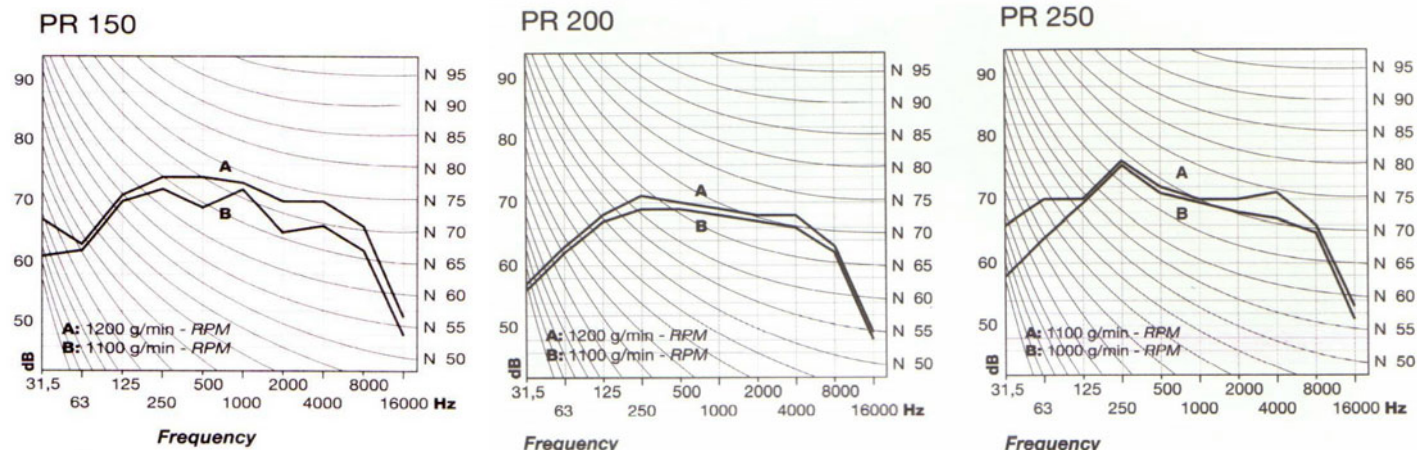
## Power / pressure



1,000 ltr / hr = 16.66 ltr / min = 0.588 cfm  
1 bar = 100 kPa = 29.5 Hg = 14.5 psi

# Vacuum Pump Performance for PR series vacuum pump

## Sound pressure level



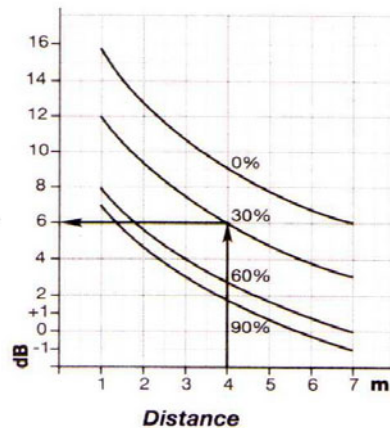
The diagrams of the left shows the sound analysis of PR series pumps measured at 456mm Hg (60% vacuum) at 7.0m distance for different rotation speed. In such conditions the reference is :

- 1,100 rpm = 72 dBA
- 1,200 rpm = 75 dBA

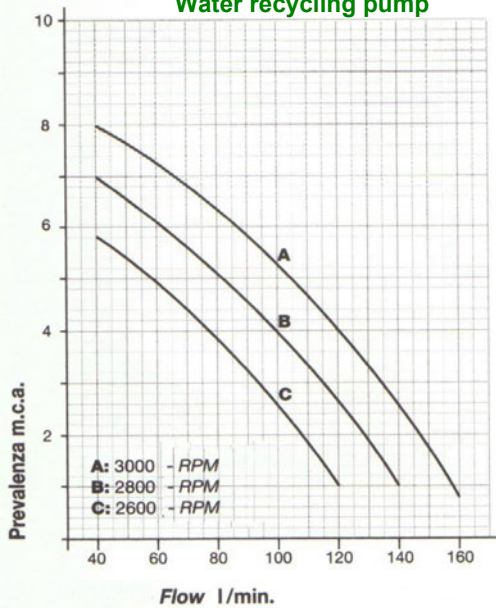
To have the sound level at different distances and or vacuum rates, add the correction factor from figure on right to the reference value .

*Eg. pump @1,100rpm, 30% vacuum at 4.0m = 72 + 6 = 78 dBA*

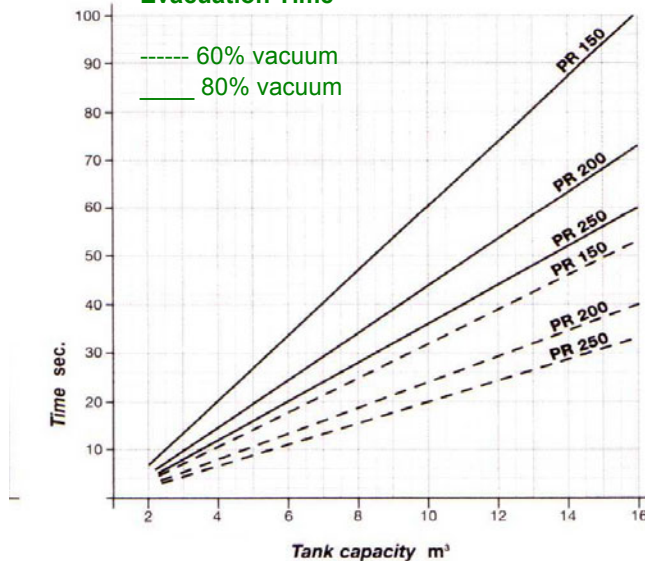
## Correction factor



## Water recycling pump

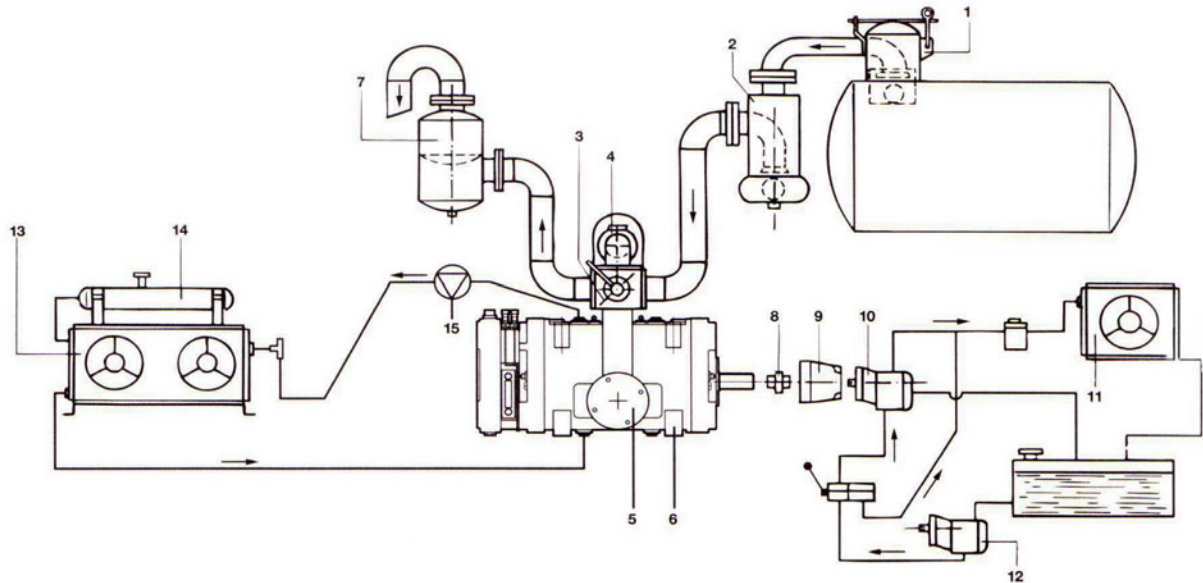


## Evacuation Time



The diagram gives the evacuation time for a tank of a stated capacity. The actual time is affected by the air tightness of the whole vacuum system.

## Typical Installation of PR series Vacuum Pump



Components	Pos.	Code <b>PR150</b>	Description
Vacuum Line	1	18450.001.00	Primary Shut-off
	2	18440.007.00	Secondary Shut-off
	3	14881.009.00	4 way valve
	4	4027.4003.09	Check valve
	5	14450.002.00	Air-filter
	6	A2908.001.30	Vacuum pump cc
	7	15470.013.00	Silencer / Oil seperator
Transmission	8	40252.470.02	Coupling
	9	16125.025.00	Hydromotor mounting flange
	10	4024.1070.04	Hydraulic motor
	11	4021.5010.31	Air-oil cooler
	12	4024.2050.04	Hydraulic pump
Cooling	13	4021.5010.211	Air-water cooler
	14	14873.002.00	Expansion tank
	15	14072.008.00	Water recycling pump

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