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**Oil-sealed  
Rotary Vane Vacuum Pumps**



SHANGHAI HANBELL PRECISE MACHINERY CO., LTD.



Shanghai Hanbell Precise Machinery Co.,Ltd. is one of the largest manufacturers of vacuum pumps and compressors in the world. Our product range comprises the largest selection of solutions for vacuum and overpressure technology in all industry sectors worldwide. We can draw on more than 20 years of experience in vacuum pump manufacture. Hanbell can provide a complete range of products and industrial vacuum technology most widely all over the world.

Our company was founded in 1998. With branch companies and agencies in more than 30 countries worldwide, we can provide sound advice and practical support to our customers wherever they are. All our products are available with a variety of options and advanced design features to match a diverse range of applications, so our customers benefit from the most appropriate and cost-effective solutions. We constantly evaluate our activities in order to maintain the highest standards, and continue to develop innovative technologies that will define the future of vacuum system

Our headquarters are located in Taiwan (China), listed in China.

The main manufacturing facilities are located in Taiwan and Shanghai. The Hanbell workforce of more than 1,000 employees worldwide includes many physical and chemical engineering, mechanical engineering and service specialists. With our global service network we offer seamless service for vacuum pumps and systems to our clients. Our manufacturing sites use the latest manufacturing techniques, machinery and equipment. We offer all necessary certifications to meet the specific requirements of all our clients.



Reliable non-return valve



Gas ballast



High quality oil seal



High quality oil mist filter

## PX series single rotary vane vacuum pumps —The best reliable vacuum technology

The Hanbell vacuum technology plays a vital role in the industrial field. We are always trying to solve the customer's specific problem. Our high reliable products meet the needs of customers in different industries.

## Applications



Packaging



Semiconductors



Power engineering



Medicine technology



PV



Petroleum industry



Electrical engineering



Ceramic industry



Automotive industry

# PX Single Rotary Vane Vacuum Pumps

## High Reliability



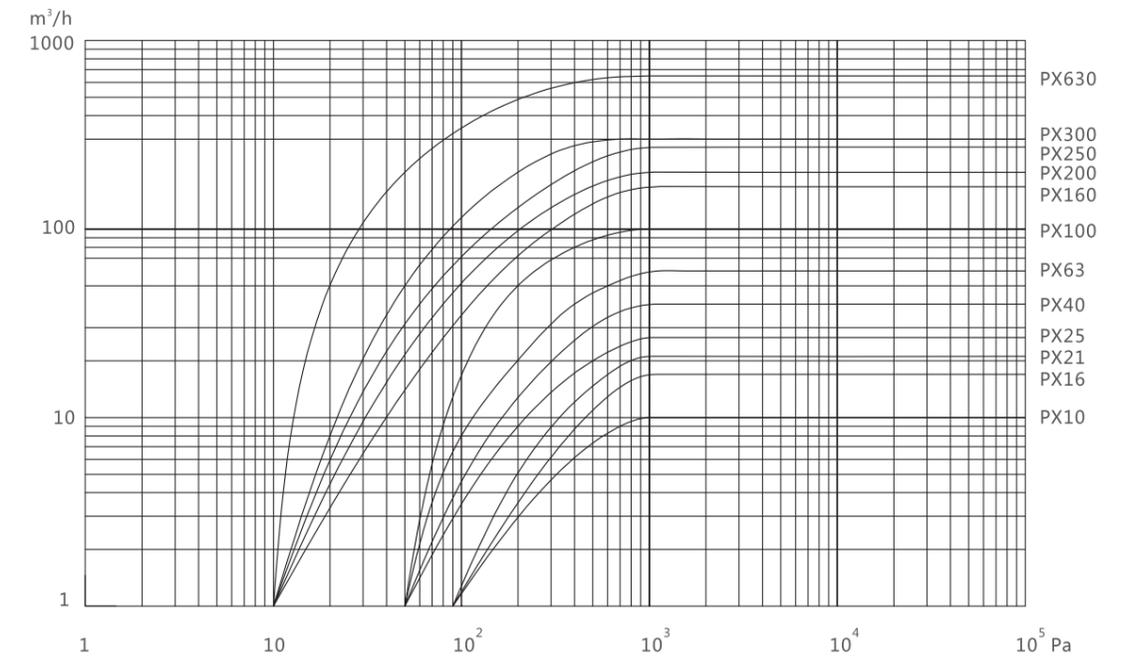
-  High quality oil mist filters solves lampblack effectively.
-  The seals are made of fluorine rubber to improve corrosion resistance and eliminate oil leakage problems.
-  Gas ballast designed to meet customers' vacuum requirements and water treatment capacity.

## Technical parameters

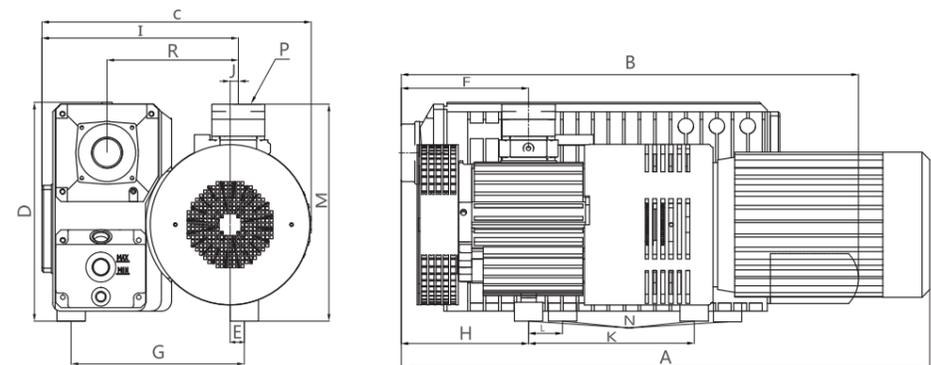
Models	PX10	PX16	PX21	PX25	PX40	PX63
Pumping speed (m³/h)	10	16	20	25	40	63
Ultimate total pressure(mbar)	2	2	1	0.5	0.5	0.5
Motor power (Kw)	0.37	0.55	0.75	0.75	1.1	1.5
Motor speed (r/min)	2800	2800	2800	1450	1450	1450
Water vapor capacity (Kg/h)	0.2	0.3	0.4	0.5	0.7	1
Noise (dB)	62	63	64	64	64	64
Oil capacity (L)	0.5	0.5	0.5	1	1	2
Inlet port (inch)	G1/2"	G1/2"	G1/2"	G1 1/4"	G1 1/4"	G1 1/4"
Weight (kg)	16	16	19	38	43	49
Dimensions (L*W*H)	308*215*207	308*215*207	421*232*218	580*286*266	605*308*266	620*405*280

Models	PX100	PX160	PX200	PX250	PX300	PX630
Pumping speed (m³/h)	100	160	200	250	300	630
Ultimate total pressure(mbar)	0.5	0.1	0.1	0.1	0.1	0.1
Motor power (Kw)	2.2/3.0	4	4.0/5.5	5.5	5.5/7.5	15
Motor speed (r/min)	1450	1450	1450	1450	1450	825
Water vapor capacity (Kg/h)	1.5	2.5	4	4	4.5	26
Noise (dB)	65	70	72	72	74	75
Oil capacity (L)	2	6	6	8	8	25
Inlet port (inch)	G1 1/4"	G2"	G2"	G2"	G2"	DN100
Weight (kg)	69	142	145	190	212	660
Dimensions (L*W*H)	710*405*290	761*495*411	795*495*411	965*585*411	1010*585*411	1488*888*752

## Curve of pumping speed



## Dimension diagram



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
PX-40	630	605	308	286	25	255	275	165	235	12	240	30	266	3*M8	G11/4"
PX-63	595	620	405	290	25	275	275	165	305	12	240	30	280	3*M8	G11/4"
PX-100	685	710	405	290	25	390	275	195	305	15	240	35	290	3*M8	G11/4"
PX-160	755	761	495	411	25	400	310	225	345	15	240	35	420	4*M10	G2"
PX-200	775	795	495	435	25	425	310	225	345	15	240	35	420	4*M10	G2"
PX-250	936	980	585	440	30	430	355	260	385	20	300	40	411	4*M10	G2"
PX-300	956	1010	585	440	37.5	430	355	260	385	27.5	300	40	411	4*M10	G2"

## PZ Double Rotary Vane Vacuum Pumps



## PX series double rotary vane vacuum pumps ——The most comprehensive vacuum technology

In pursuit of the highest technical standards of PZ series vacuum pump of Hanbell, the quality has reached a higher level which the cylinder structure, innovative lubricating system, automatic non-return valve and the gas ballast create a comprehensive vacuum products.

## Application



### Medical industry

Plasma sterilizer, vacuum freeze drying, vacuum mixing, etc.. In view of the large amount of  $H_2O_2$  in the reaction environment of the plasma sterilizer, a special vacuum pump for resisting weak corrosive gas has been developed.

### Analytical instrument

Spectrometer, chromatograph, physical and chemical analysis instrument, electron microscope, leak detector ,etc for ultra clean environment (it is recommended to configure the oil mist filter).



### Power industry

$SF_6$  recovery, testing instruments, oil purifier and so on.

### Electronics, semiconductor industry

Vacuum oven, glove box, industrial furnace (Sapphire furnace, single crystal furnace, sintering furnace, melt spinning furnace), coating equipment (ion plating, sputtering equipment, etc.), as molecular pump or roots pump front auxiliary pump.



### Refrigeration industry

Air conditioner, refrigerator (a full set of accessories are available), refrigerant injection machine, helium leak detection systems, helium recovery system etc..

# PZ Double Rotary Vane Vacuum Pumps

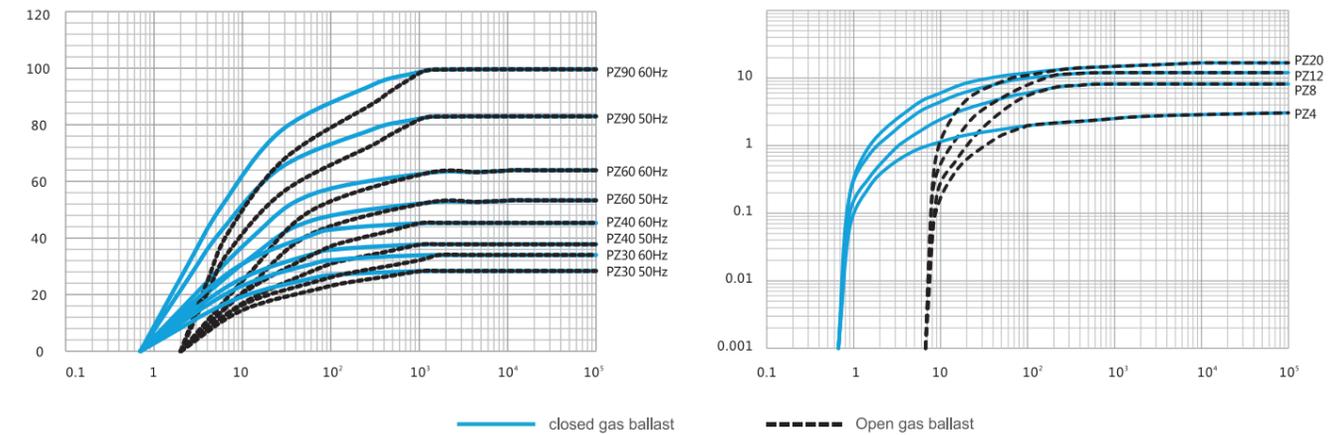


-  Gas ballast design to meet customers' the vacuum requirements and water treatment capacity.
-  Anti-suckback valve to protect vacuum chamber from oil pollution.
-  The lubrication: internal gear pump provides optimal oil supply and improves operational stability.
-  Simple maintenance.
-  Low noise gives a better working environment

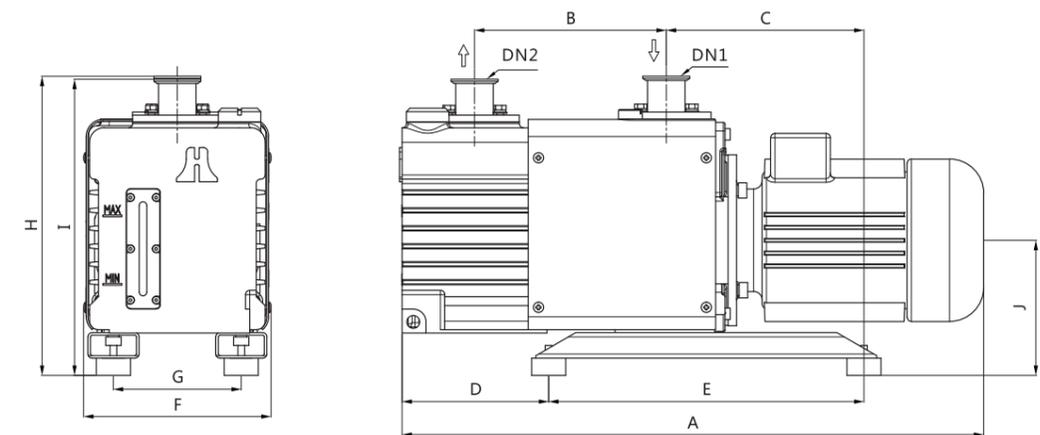
## Technical parameters

Models		PZ4	PZ8	PZ12	PZ20	PZ30	PZ40	PZ60	PZ90
Pumping speed (m³/h)	50HZ	4	8	12	20	30	40	60	90
	60HZ	4.8	9.6	14.4	24	36	48	72	108
Ultimate total pressure without gas ballast (Pa)		1	1	1	1	6.7*10 <sup>-1</sup>	6.7*10 <sup>-1</sup>	6.7*10 <sup>-1</sup>	6.7*10 <sup>-1</sup>
Ultimate total pressure with gas ballast (Pa)		5	5	5	5	3	3	3	3
Power supply		single/3-ph	single/3-ph	single/3-ph	single/3-ph	3-ph	3-ph	3-ph	3-ph
Motor power (kw)		0.25	0.37	0.55	0.75	1	1.5	2.2	4
Inlet port DN(mm)		KF25	KF25	KF25	KF25	KF40	KF40	KF50	KF50
Oil capacity (L)		0.6~1	0.6~1	0.9~1.5	0.9~1.5	1.5~2.0	1.5~2.0	3.0~4.0	3.0~4.0
Motor speed (rpm)	50HZ	1440	1440	1440	1440	1440	1440	1440	1440
	60HZ	1720	1720	1720	1720	1720	1720	1720	1720
operating ambient temperature (°C)		5-40	5-40	5-40	5-40	5-40	5-40	5-40	5-40
Noise (dB)		≤56	≤56	≤58	≤58	≤60	≤62	≤63	≤65
Weight (Kg)		19	21	30	35	59	61	90	105

## Pumping speed curves



## Key dimensions



Dimensions	DN1	DN2	A	B	C	D	E	F	G	H	I	J
PZ4	KF25	KF25	426	75.5	122.5	77	220	108	145	234.5	226.5	107.5
PZ8	KF25	KF25	490	111.5	79.5	52	250	133	173	249	249	128
PZ12	KF25	KF25	515	111.5	79.5	77	250	133	173	249	249	128
PZ20	KF25	KF25	519	132	65	107	210	134	180	277	277	126
PZ30	KF40	KF40	663	205	232	152	370	220	150	350	346	158
PZ40	KF40	KF40	683	225	232	172	370	220	150	350	346	158
PZ60	KF50	KF40	804	255	234	50	530	280	200	408	405	194
PZ90	KF50	KF40	854	305	234	100	530	280	200	408	405	194