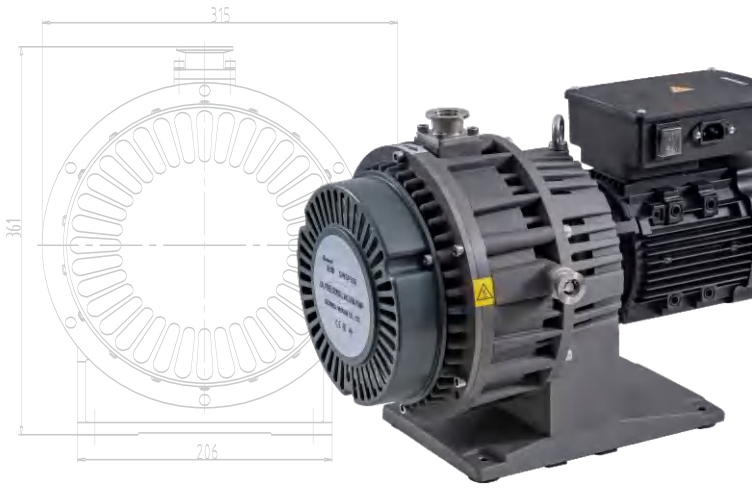
Geowell 纪维

Professional oil free scroll vacuum pump manufacturer



GWSP	Oil free Scroll Vacuum Pump
GWSPS	Oil free Scroll Vacuum Pump
GWSPL	Oil free Scroll Vacuum Pump
GWMS	Oil free Ultrahigh Vacuum Unit
GWRS	Oil free Vacuum Unit
GWSPC	Oil free Scroll Vacuum Compressor
GWSC	Oil free Scroll Compressor
GWT	Foreline Filter
GWS	Exhaust Silencer
GWMMK	Major Maintenance Kit
GWTSK	Tip Seal Kit

GEOWELL VACUUM CO., LTD.

www.geowell.com.cn

GWSP Oil free Scroll Vacuum Pump

Working principle

GWSP oil free scroll vacuum pump is constructed with pump head assembly, crank pin assembly, bracket assembly, air flush assembly, and exhaust valve assembly. Two spiral cylinders, one offset and orbiting against the other fixed with an offset of 180° to form several crescent-shaped pockets of differing sizes. By means of an eccentric drive, the orbiting scroll is made to orbit about the fixed scroll, reducing the volume of the pockets and compressing gas from outside towards the inside thereby pumping the gas from vacuum chamber.

Specifications

Model			GWSP75	GWSP150	GWSP300	GWSP600	GWSP1000
Pumping Speed	50Hz	L/s	1.0	2.0	4.3	8.7	16.6
		L/min	60.0	120.0	258.0	522.0	996.0
		m^3/h	3.6	7.2	15.5	31.3	59.8
		cfm	2.2	4.3	9.3	18.7	35.8
	60Hz	L/s	1.2	2.4	5.1	10.4	20.0
		L/min	72.0	144.0	310.0	626.0	1195.0
		m^3/h	4.3	8.6	18.3	37.4	71.6
		cfm	2.5	5.1	10.9	22.3	42.8
Ultimate Pressure		Pa	≤8	≤6	≤2.6	≤1	≤1
		mbar	$\leq 8.0*10^{-2}$	$\leq 6.0*10^{-2}$	$\leq 2.6*10^{-2}$	$\leq 1.0*10^{-2}$	$\leq 1.0*10^{-2}$
		Torr	$\leq 6.0*10^{-2}$	$\leq 4.5*10^{-2}$	$\leq 1.9*10^{-2}$	$\leq 7.5*10^{-3}$	$\leq 7.5*10^{-3}$
		psi	$\leq 1.2*10^{-3}$	$\leq 9.0*10^{-4}$	$\leq 3.8*10^{-4}$	$\leq 1.5*10^{-4}$	$\leq 1.5*10^{-4}$
Noise Level		dB(A)	≤57	≤57	≤60	≤61	≤63
Leakage		mbar·l/s	$1*10^{-7}$				
Max. Inlet/Exhaust Pressure		MPa	0.1 / 0.13				
Ambient Operation Temp.		°F	41~104				
Motor 1 phase	Power	kW	0.55	0.55	0.55	0.75	--
	Voltage	V	110~115 (60Hz), 200~230 (50Hz)				--
	Speed	rpm	1425 (50Hz), 1725 (60Hz)				--
	Plug		North America, Europe, UK/Ireland, India				--
Motor 3 phase	Power	kW	0.55	0.55	0.55	0.75	1.50
	Voltage	V	200~230 or 380~415 (50Hz), 200~230 or 460 (60Hz)				
	Speed	rpm	1425 (50Hz), 1725 (60Hz)				
Inlet/Exhaust Flange			KF25/KF16			KF40/KF16	KF40/KF16*2
Dimensions	1 phase	mm	455*260*275	460*260*275	495*310*320	525*325*335	--
	3 phase	mm	455*260*275	460*260*275	495*310*320	525*325*335	565*445*405
Net Weight	1 phase	kg	21	22	29	36	--
	3 phase	kg	20	21	28	31	54
Cooling Type			Air cooled				
Others			With air flush				

Safety Precautions

The GWSP series oil free scroll vacuum pumps are suitable for clean processes only.

Do not pump toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. GEOWELL will not perform maintenance work on pumps which have used special gases or other hazardous substances.

Be sure the inlet gas temperature must be lower than 122 °F.

GWSP Oil free Scroll Vacuum Pump

Features & Benefits

No oil clean vacuum
No oil back-diffusion, no oil mist exhaust, provide clean vacuum environment

Wide product lineup
Pumping speed covers 3~60 m^3/h, limited vacuum level 1~8 Pa

Suitable for all type of power supply around the world
110/220/380/460V, 50/60Hz for choose

Low vibration, low noise
57~63 dB(A), smooth operation

High efficiency, ease of maintenance
No water cooled, no oil lubricated, no daily maintenance

Applications

Semiconductor industry
Vacuum sputtering machine.
IC plasma cleaning machine.
IC plasma polishing machine.
IC packaging machine.
IC transmission chamber.

Photoelectric industry
LED vacuum annealing furnace.
Load lock/transfer chambers.
Glove box.
LED packaging machine.
Liquid crystal injection and packaging.

Material industry
Vacuum annealing furnace.
Vacuum diffusion oven.
3D metal printing.
Single crystal growth furnace.
Microwave cleaning and microwave drying machine.
E-beam/Laser melting.
Vacuum degassing. Vacuum gas substitution.

Food and drug industry
Freezing dry. Vacuum storage.

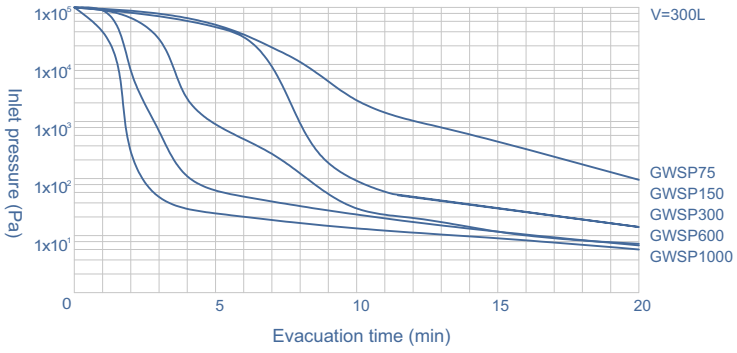
Medical equipment
Low temperature plasma sterilizer.
Vacuum storage.
Dental equipment.

Energy industry
SF 6 Gas recovery machine.
Lithium battery drying and packaging machine.

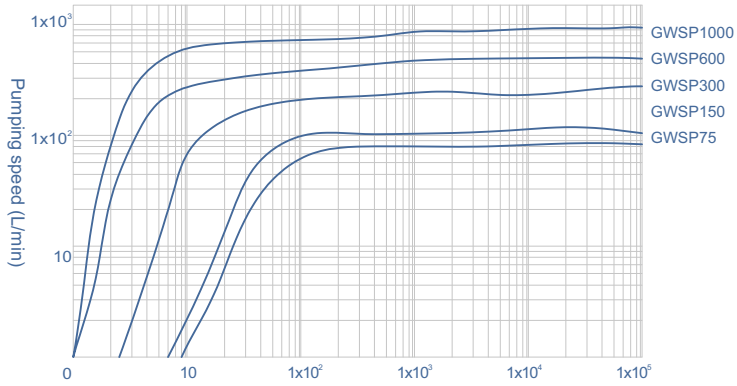
Analyzing instrument and device
Spectroscopy/scanning electron microscopy
Space environment simulation machine
Helium Leak detector
Mass spectrometer
Cryopump regeneration
Accelerators/synchrotrons

Vacuum equipment
Oil free ultrahigh vacuum unit
Oil free vacuum unit

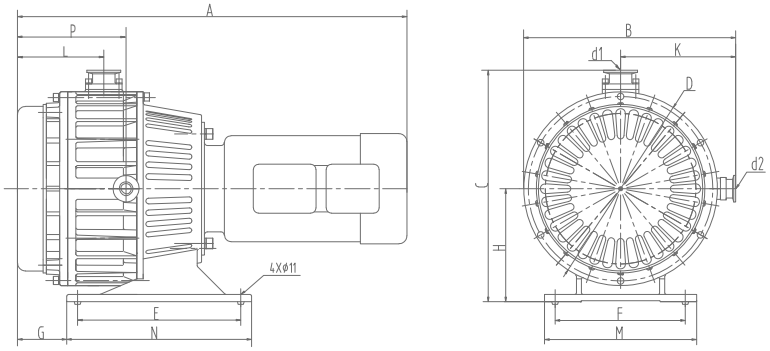
Performance Curves



Evacuation time-inlet pressure curve



Pumping speed-inlet pressure curve



Dimensions

	A	B	C	D	E	F	G	H	K	L	M	N	P	d1	d2
GWSP75	455	260	275	210	210	115	80	130	140	100	155	250	55	KF25	KF16
GWSP150	460	260	275	210	210	115	80	130	140	105	155	250	130	KF25	KF16
GWSP300	495	310	320	260	253	160	90	160	160	115	190	290	150	KF25	KF16
GWSP600	525	325	335	290	253	160	95	170	180	125	205	290	160	KF40	KF16
GWSP1000	565	445	405	335	267	185	120	195	190	135	220	305	120/64	KF40	KF16*2

GWSPS Oil free Scroll Vacuum Pump

Working principle

GWSPS oil free scroll vacuum pump is constructed with pump head assembly, crank pin assembly, bracket assembly, air flush assembly, and exhaust valve assembly. Two spiral cylinders, one offset and orbiting against the other fixed with an offset of 180° to form several crescent-shaped pockets of differing sizes. By means of an eccentric drive, the orbiting scroll is made to orbit about the fixed scroll, reducing the volume of the pockets and compressing gas from outside towards the inside thereby pumping the gas from vacuum chamber.

Specifications

Model			GWSPS75	GWSPS150	GWSPS300	GWSPS500	GWSPS900
Pumping Speed	50Hz	L/s	1.0	2.6	4.4	6.7	11.6
		L/min	60.0	156.0	264.0	402.0	693.0
		m^3/h	3.6	9.4	15.8	24.0	41.6
		cfm	2.2	5.7	8.8	14.7	24.6
	60Hz	L/s	1.2	3.1	5.3	8.1	13.9
		L/min	72.0	187.0	317.0	482.0	831.6
		m^3/h	4.2	11.1	18.9	28.8	50.0
		cfm	2.4	6.8	10.6	17.6	30.0
Ultimate Pressure		Pa	≤15	≤10	≤8	≤5	≤200
		mbar	$\leq 1.5*10^{-1}$	$\leq 1.0*10^{-1}$	$\leq 8.0*10^{-2}$	$\leq 5.0*10^{-2}$	≤2.0
		Torr	$\leq 1.1*10^{-1}$	$\leq 7.5*10^{-2}$	$\leq 6.0*10^{-2}$	$\leq 3.7*10^{-2}$	≤1.5
		psi	$\leq 2.2*10^{-3}$	$\leq 1.5*10^{-3}$	$\leq 1.2*10^{-3}$	$\leq 7.5*10^{-4}$	$\leq 2.9*10^{-2}$
Noise Level		dB(A)	≤61				
Leakage		mbar·l/s	$1*10^{-7}$				
Max. Inlet/Exhaust Pressure		MPa	0.1 / 0.13				
Ambient Operation Temp.		°F	41~104				
Motor 1 phase	Power	kW	0.55	0.55	0.55	--	--
	Voltage	V	110~115 (60Hz), 200~230 (50Hz)			--	--
	Speed	rpm	1425 (50Hz), 1725 (60Hz)			--	--
	Plug		North America, Europe, UK/Ireland, India			--	--
Motor 3 phase	Power	kW	0.55	0.55	0.55	0.75	1.5
	Voltage	V	200~230 or 380~415 (50Hz), 200~230 or 460 (60Hz)				
	Speed	rpm	1425 (50Hz), 1725 (60Hz)				
Inlet/Exhaust Flange			KF25/KF16			KF40/KF16	
Dimensions	1 phase	mm	505*265*275	510*265*275	535*320*305	--	--
	3 phase	mm	505*265*275	510*265*275	535*320*305	590*320*345	590*320*345
Net Weight	1 phase	kg	21	22	32	--	--
	3 phase	kg	20	21	27	38	41
Cooling Type			Air cooled				

Safety Precautions

Be sure the inlet gas temperature must be less than 122 °F.

GWSPS Oil free Scroll Vacuum Pump

Features & Benefits

100% no oil clean vacuum
No oil back-diffusion, no oil mist exhaust, provide clean vacuum environment

Wide product lineup
Pumping speed covers 3~60 m^3/h, limited vacuum level 1~8 Pa

Suitable for all type of power supply around the world
110/220/380/460V, 50/60Hz for choose

Low vibration, low noise
57~63 dB(A), smooth operation

High efficiency, ease of maintenance
No water cooled, no oil lubricated, no daily maintenance

Applications

Semiconductor industry
Vacuum sputtering machine.
IC plasma cleaning machine.
IC plasma polishing machine.
IC packaging machine.
IC transmission chamber.

Photoelectric industry
LED vacuum annealing furnace.
Load lock/transfer chambers.
Glove box.
LED packaging machine.
Liquid crystal injection and packaging.

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Vacuum diffusion oven.
3D metal printing.
Single crystal growth furnace.
Microwave cleaning and microwave drying machine.
E-beam/Laser melting.
Vacuum degassing. Vacuum gas substitution.

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Freezing dry. Vacuum storage.

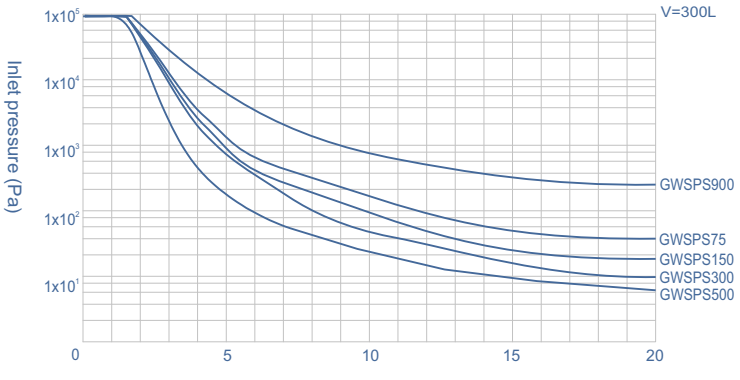
Medical equipment
Low temperature plasma sterilizer.
Vacuum storage.
Dental equipment.

Energy industry
SF 6 Gas recovery machine.
Lithium battery drying and packaging machine.

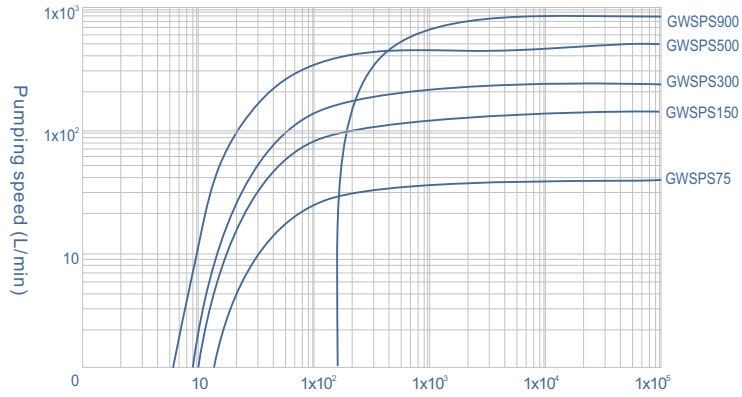
Analyzing instrument and device
Spectroscopy/scanning electron microscopy
Space environment simulation machine
Helium Leak detector
Mass spectrometer
Cryopump regeneration
Accelerators/synchrotrons

Vacuum equipment
Oil free ultrahigh vacuum unit
Oil free vacuum unit

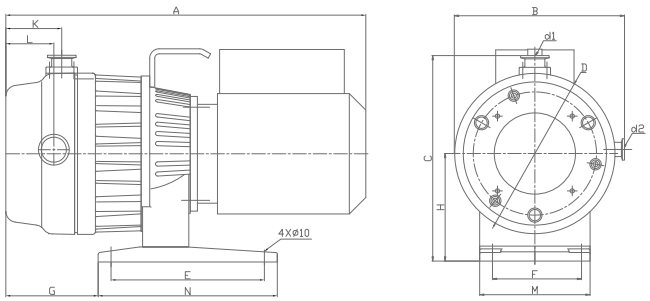
Performance Curves



Evacuation time-inlet pressure curve



Pumping speed-inlet pressure curve



Dimensions

	A	B	C	D	E	F	G	H	K	L	M	N	d1	d2
GWSPS75	505	265	275	225	215	120	125	160	80	65	200	250	KF25	KF16
GWSPS150	510	265	275	225	215	120	135	145	80	70	155	250	KF25	KF16
GWSPS300	535	320	305	255	230	160	140	165	95	85	200	270	KF25	KF16
GWSPS500	590	320	345	300	250	165	125	190	135	85	205	290	KF40	KF16
GWSPS900	590	320	345	300	250	165	125	190	135	85	205	290	KF40	KF16

GWSPL Oil free Scroll Vacuum Pump

Working principle

GWSPL oil free scroll vacuum pump is constructed with pump head assembly, crank pin assembly, bracket assembly, air flush assembly, and exhaust valve assembly. Two spiral cylinders, one offset and orbiting against the other fixed with an offset of 180° to form several crescent-shaped pockets of differing sizes. By means of an eccentric drive, the orbiting scroll is made to orbit about the fixed scroll, reducing the volume of the pockets and compressing gas from outside towards the inside thereby pumping the gas from vacuum chamber.

Specifications

Model			GWSPL75	GWSPL150	
Pumping Speed	50Hz	L/s	1.0	2.0	
		L/min	60.0	120.0	
		m^3/h	3.6	7.2	
		cfm	2.2	4.3	
	60Hz	L/s	1.2	2.4	
		L/min	72.0	144.0	
		m^3/h	4.3	8.6	
		cfm	2.5	5.1	
Ultimate Pressure		Pa	≤8	≤6	
		mbar	$\leq 8.0*10^{-2}$	$\leq 6.0*10^{-2}$	
		Torr	$\leq 6.0*10^{-2}$	$\leq 4.5*10^{-2}$	
		psi	$\leq 1.2*10^{-3}$	$\leq 9.0*10^{-4}$	
Noise Level		dB(A)	≤57	≤57	
Leakage		mbar·l/s	$1*10^{-7}$		
Max. Inlet/Exhaust Pressure		MPa	0.1 / 0.13		
Ambient Operation Temp.		°F	41~104		
Motor 1 phase	Power	kW	0.55	0.55	
	Voltage	V	110~115 (60Hz), 200~230 (50Hz)		
	Speed	rpm	1425 (50Hz), 1725 (60Hz)		
	Plug		North America, Europe, UK/Ireland, India		
Motor 3 phase	Power	kW	0.55	0.55	
	Voltage	V	200~230 or 380~415 (50Hz), 200~230 or 460 (60Hz)		
	Speed	rpm	1425 (50Hz), 1725 (60Hz)		
Inlet/Exhaust Flange			KF25/KF16		
Dimensions	1 phase	mm	470*265*250	475*265*250	
	3 phase	mm	470*265*250	475*265*250	
Net Weight	1 phase	kg	21	22	
	3 phase	kg	20	21	
Cooling Type			Air cooled		
Others			With air flush		

Safety Precautions

The GWSPL series oil free scroll vacuum pumps are suitable for clean processes only.

Do not pump toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. Geowell will not perform maintenance work on pumps which have used special gases or other hazardous substances.

Be sure the inlet gas temperature must be less than 122 °F.

GWSPL Oil free Scroll Vacuum Pump

Features & Benefits

No oil clean vacuum
No oil back-diffusion, no oil mist exhaust, provide clean vacuum environment

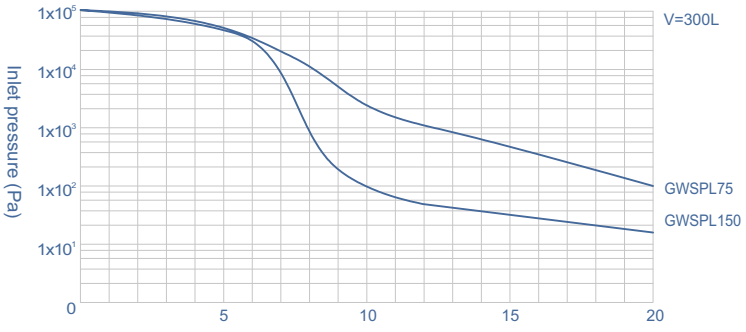
Wide product lineup
Pumping speed covers 3~60 m^3/h, limited vacuum level 1~8 Pa

Suitable for all type of power supply around the world
110/220/380/460V, 50/60Hz for choose

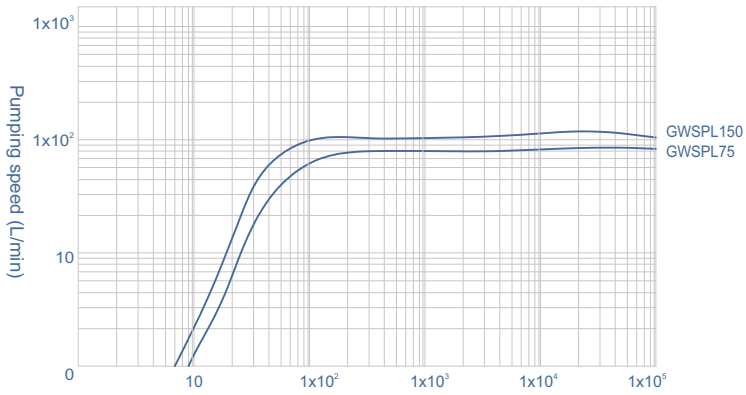
Low vibration, low noise
57~63 dB(A), smooth operation

High efficiency, ease of maintenance
No water cooled, no oil lubricated, no daily maintenance

Performance Curves



Evacuation time-inlet pressure curve



Pumping speed-inlet pressure curve

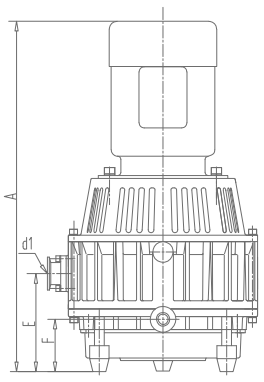
Applications

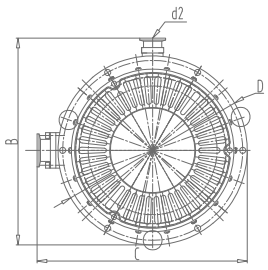
Food and drug industry
Freezing dry. Vacuum storage.

Medical equipment
Low temperature plasma sterilizer.
Vacuum storage.
Dental equipment.

Analyzing instrument and device
Spectroscopy/scanning electron microscopy
Space environment simulation machine
Helium Leak detector
Mass spectrometer
Cryopump regeneration
Accelerators/synchrotrons

Vacuum equipment
Oil free ultrahigh vacuum unit
Oil free vacuum unit





Dimensions

	A	B	C	D	E	F	d1	d2
GWSPL75	470	265	250	220	115	64	KF25	KF16
GWSPL150	475	265	250	220	120	64	KF25	KF16

GWMS Oil free Ultrahigh Vacuum Unit

Constructions

GWMS oil free ultrahigh vacuum unit is combined turbo molecular pump, gate or angle valve, connect hose, solenoid valves, vacuum meter and GWSP oil free scroll vacuum pump in an integrated unit for oil free ultra high vacuum pumping.

Specifications

Model		GWMS100/150	GWMS300/150	GWMS600/300	GWMS1200/600	GWMS1600/1000
Molecular Pump Model		FF-100	FF-300	FF-600	FF-1200	FF-1600
Scroll Pump Model		GWSP150	GWSP150	GWSP300	GWSP600	GWSP1000
Pumping Speed	l/s	110	300	500	1200	1600
	l/min	$6.6*10^3$	$1.8*10^4$	$3.0*10^4$	$7.2*10^4$	$9.6*10^4$
	m^3/h	$3.9*10^2$	$1.1*10^3$	$1.8*10^3$	$4.3*10^4$	$5.8*10^4$
	cfm	$2.2*10^2$	$6.0*10^2$	$1.0*10^3$	$2.5*10^4$	$3.4*10^4$
Ultimate Pressure	Pa	$\leqslant 1.0*10^{-5}$	$\leqslant 1.0*10^{-5}$	$\leqslant 1.0*10^{-5}$	$\leqslant 1.0*10^{-5}$	$\leqslant 1.0*10^{-5}$
	mbar	$\leqslant 1.0*10^{-7}$	$\leqslant 1.0*10^{-7}$	$\leqslant 1.0*10^{-7}$	$\leqslant 1.0*10^{-7}$	$\leqslant 1.0*10^{-7}$
	Torr	$\leqslant 7.5*10^{-8}$	$\leqslant 7.5*10^{-8}$	$\leqslant 7.5*10^{-8}$	$\leqslant 7.5*10^{-8}$	$\leqslant 7.5*10^{-8}$
	psi	$\leqslant 1.4*10^{-9}$	$\leqslant 1.4*10^{-9}$	$\leqslant 1.4*10^{-9}$	$\leqslant 1.4*10^{-9}$	$\leqslant 1.4*10^{-9}$
Noise Level	dB(A)	⩽63	⩽63	⩽63	⩽63	⩽63
Inlet/Exhaust Pressure	MPa	0.1/0.13				
Start Time	min	<3				
Motor		1 phase / 3 phase, 220V / 380V, 50Hz / 60Hz				
Ambient Temp	°F	41~104				
Dimensions	mm	500*510*680	500*510*680	730*570*700	950*570*730	990*630*880
Inlet/Exhaust Flange		CF100/KF16	CF150/KF16	CF150/KF16	CF200/KF16	CF250/KF16*2
Cooling Type		Air cooled				

Features & Benefits

Wide product lineup
Suitable for all power supply around the world
Create oil-free ultra high vacuum
Limit vacuum high up to $6x10^{-7}$ Pa
No oil, no pollution to pumping cavity & environment
Low vibration, low noise and high efficiency
Ease of maintenance

Applications

Leak detection
Accelerators
Spectroscopy
Scanning electron microscopy
Space environment animation
Surface analysis instruments

Safety Precautions

The GWMS series oil free ultrahigh vacuum units are suitable for clean processes only.
Do not pump toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. GEOWELL will not perform maintenance work on pumps which have used special gases or other hazardous substances.
Be sure the inlet gas temperature must be lower than 122 °F.

GWRS Oil free Vacuum Unit

Constructions

GWRS oil free vacuum unit is combined the roots pump, gate or angle valve, connect hose, solenoid valves, vacuum meter and GWSP dry scroll vacuum pump in an integrated unit for oil free vacuum pumping.

Specifications

Model		GWRS30/300	GWRS30/600	GWRS70/1000
Roots Pump Model		ZJP-30	ZJP-30	ZJP-70F
Scroll Pump Model		GWSP300	GWSP600	GWSP1000
Pumping Speed	l/s	30	30	70
	l/min	$1.8*10^3$	$1.8*10^3$	$4.2*10^3$
	m^3/h	$1.1*10^2$	$1.1*10^2$	$2.5*10^2$
	cfm	$6.4*10^1$	$6.4*10^1$	$1.4*10^2$
Ultimate Pressure	Pa	≤3	≤1	≤1
	mbar	$\leqslant 3.0*10^{-2}$	$\leqslant 1.0*10^{-2}$	$\leqslant 1.0*10^{-2}$
	Torr	$\leqslant 2.2*10^{-2}$	$\leqslant 7.5*10^{-3}$	$\leqslant 7.5*10^{-3}$
	psi	≤22	≤7.5	≤7.5
Noise Level	dB(A)	≤73		
Inlet/Exhaust Pressure	MPa	0.1/0.13		
Ambient Operation Temp	°F	41~104		
Scroll Pump Power	kW	0.55	0.75	1.50
Roots Pump Power	kW	0.55	0.75	1.50
Total Power Consume	kW	1.10	1.50	3.00
Inlet Direction		Vertical		
Inlet/Exhaust Flange		80/KF16	80/KF16	80/KF16*2
Dimension	mm	870*800*950	870*800*950	1100*1000*1100
Cooling Type		Air cooled		

Features & Benefits

Large pumping speed
No oil, no pollution to pumping cavity and environment
Low vibration, low noise
High efficiency
Ease of maintenance
Easy installation

Applications

Vacuum oven
E-beam/Laser melting
Glove box
Load lock/transfer chambers
Space environment animation

Safety Precautions

The GWRS series oil free vacuum units are suitable for clean processes only.

Do not pump toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. GEOWELL will not perform maintenance work on pumps which have used special gases or other hazardous substances.

Be sure the inlet gas temperature must be lower than 122 °F.

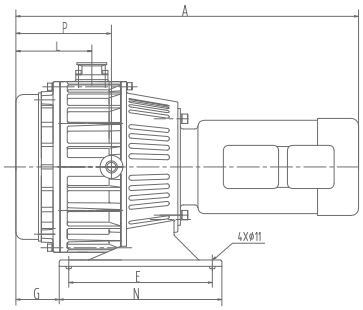
GWSPC Oil free Scroll Vacuum Compressor

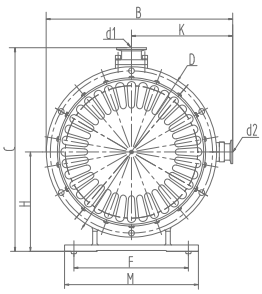
Specifications

Model			GWSPC150	GWSPC300	GWSPC600	GWSPC1000
Pumping Speed	50Hz	m^3/h	7.2	15.5	31.3	59.8
		cfm	4.3	9.3	18.7	35.8
	60Hz	m^3/h	8.6	18.3	37.4	71.6
		cfm	5.1	10.9	22.3	42.8
Ultimate Pressure		mbar	$\leqslant 3.0*10^{-1}$	$\leqslant 2.0*10^{-1}$	$\leqslant 1.0*10^{-1}$	$\leqslant 1.0*10^{-1}$
		Torr	$\leqslant 2.2*10^{-1}$	$\leqslant 1.5*10^{-1}$	$\leqslant 7.5*10^{-1}$	$\leqslant 7.5*10^{-1}$
Noise Level		dB(A)	≤57	≤61	≤63	≤63
Max. Inlet/Exhaust Pressure		MPa	0.1 / 0.3			
Ambient Operation Temp.		°F	41~104			
Motor 3 phase	Power	kW	0.55	1.5	2.2	3.0
	Voltage	V	200~230 or 380~415 (50Hz)，200~230 or 460 (60Hz)			
	Speed	rpm	1425 (50Hz)，1725 (60Hz)			
Inlet/Exhaust Flange			KF25/KF16		KF40/KF16	KF40/KF16*2
Dimensions		mm	460*260*270	545*310*320	605*340*350	655*400*415
Net Weight		kg	21	39	53	64
Cooling Type			Air cooled			

Applications

SF 6 recovery and recirculating
Special gas recovery





Dimensions

	A	B	C	D	E	F	G	H	K	L	M	N	P	d1	d2
GWSPC150	460	260	270	220	210	120	90	135	140	110	155	250	135	KF25	KF16
GWSPC300	545	310	320	262	250	155	90	165	165	120	190	290	155	KF25	KF16
GWSPC600	605	340	350	295	300	160	105	175	175	140	210	340	165	KF40	KF16
GWSPC1000	655	400	415	355	300	160	115	195	200	135	210	340	120/65	KF40	KF16*2

Safety Precautions

The GWSPC series oil free scroll vacuum compressor are suitable for clean processes only.
Do not use toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. Geowell will not perform maintenance work on compressors which have used special gases or other hazardous substances.
Be sure the inlet gas temperature must be less than 122 F.

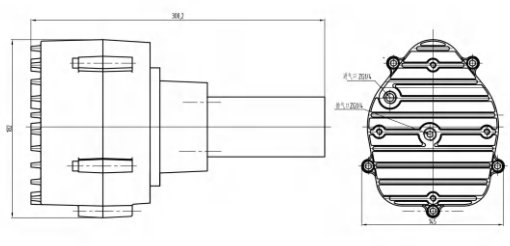
GWSC Oil free Scroll Compressor

Specifications

Model		GWSC500
Pumping Speed	m^3/h	24.5
	cfm	15.1
Max. Inlet Pressure	mbar	$\leqslant 2.0*10^{-2}$
Max. Pressure Increase	mbar	$\leqslant 3.0*10^{-2}$
Noise Level	dB(A)	≤57
Ambient Operation Temp.	°F	68~104
Motor		DCBL, 0.55kW, 24VDC
Dimensions	mm	460*265*295
Net Weight	kg	4.8
Cooling Type		Air cooled

Features & Benefits

No oil, no pollution to cavity and environment
Low vibration, low noise
High efficiency
Ease of maintenance
Easy installation



Applications

Fuel cell hydrogen extraction and compressing

Safety Precautions

The GWSC series oil free scroll compressor are suitable for clean processes only.
Do not use toxic, explosive, flammable or corrosive substances or substances which contain chemicals, solvents or particles. Geowell will not perform maintenance work on compressors which have used special gases or other hazardous substances.
Be sure the inlet gas temperature must be less than 122 F.

GWT Foreline Filter

Specifications

Model		GWT25	GWT40
Operating Pressure	Pa	$1\sim10^5$	$1\sim10^5$
Efficiency	%	⩾99	⩾99
Flitting Particle Size	μm	⩾2~5	⩾2~5
Filter Element		Paper, or polyester	Paper, or polyester
In/Exhaust Flange		KF25/KF25	KF40/KF40
Dimensions	mm	190(L)*155(W)*145(H)	230(L)*185(W)*190(H)

Applications

Model	GWT25	GWT40
Coating	v	v
Pharmaceutical	v	v
Food	v	v
Ceramics and Glass	v	v
Vacuum Furnaces	v	v
Vacuum Packing	v	v

GWS Exhaust Silencer

Specifications

Model		GWS16	GWS25
Operating Pressure	Pa	$1\sim10^5$	$1\sim10^5$
Efficiency	%	⩾99	⩾99
Flitting Particle Size	μm	⩾2~5	⩾2~5
Filter Element		Paper, or polyester	Paper, or polyester
In/Exhaust Flange		KF16	KF25
Dimensions	mm	85(L)*65(W)*65(H)	105(L)*85(W)*85(H)

Applications

Model	GWS16	GWS25
Coating	v	v
Pharmaceutical	v	v
Food	v	v
Ceramics and Glass	v	v
Vacuum Furnaces	v	v
Vacuum Packing	v	v

GWMMK Major Maintenance Kit

Specifications

Model	GWMMK75	GWMMK150	GWMMK300	GWMMK600	GWMMK1000
Product suited	GWSP75	GWSP150	GWSP300	GWSP600	GWSP1000
	GWSPL75	GWSPL150	GWSPL300		
		GWSPC150	GWSPC300	GWSPC600	GWSPC1000

Features & Benefits

Supper wear proof
High temperature resistance
Excellent abrasion resistance
Self-lubricating
Working life 1~2 year
Reasonable price

Clean and quiet
Improve limited vacuum
Decrease noise
Improve temperature increase
24 hours per day continues operation

Applications

For the major maintenance of dry scroll vacuum pump and oil free scroll vacuum compressors.

GWTSK Tip Seal Kit

Specifications

Model	GWTSK75	GWTSK150	GWTSK300	GWTSK600	GWTSK1000
Product suited	GWSP75	GWSP150	GWSP300	GWSP600	GWSP1000
	GWSPL75	GWSPL150	GWSPL300		
		GWSPC150	GWSPC300	GWSPC600	GWSPC1000

Features & Benefits

Supper wear proof
High temperature resistance
Excellent abrasion resistance
Self-lubricating
Working life 1~2 year
Reasonable price

Clean and quiet
Improve limited vacuum
Decrease noise
Improve temperature increase
24 hours per day continues operation

Applications

For the major maintenance of dry scroll vacuum pump and oil free scroll vacuum compressors.

Vacuum Pump Selection Formula

T=(V/S)x2.303xlog(P1/P2)

T: exhaust time (s), V: volume (L), S: displacement (L/s), P1: initial pressure (Pa), P2: final pressure (Pa)

Example:

1.100 liters chamber, within 10 minutes from the atmosphere evacuated to 20Pa, how to do pump selection ?

S=(V/T)x2.303xlog(P1/P2)=(100/10)x2.303xlog(100000/20)=10x2.303x3.699=85(L/min)=1.42(L/s), choose vacuum pump of 4L/s.

2.100 liters chamber, use 8L/s vacuum pump, pumping from atmosphere to 200Pa, how long time will be spent?

T=(V/S)x2.303xlog(P1/P2)=(100/8)x2.303xlog(100000/200)=77s, need 77 seconds.

Evacuation Time Estimates Empirical Formula

T=8V/S

V: volume (L), S: displacement (L/s). This formula is suitable for the pressure scale of atmospheric pressure to estimate 133Pa.

Example:

100 liters chamber, with 8L/s vacuum pump, pumping from atmosphere to 133Pa, how long time will be spent?

T= 8V/S (empirical formula)=8x100/8=100s, need 100 seconds.

Unit Conversion Table of Vacuum Degree

	Pa (N/m²)	bar	mbar	Torr (mmHg)	Micron (mTorr)	atm	Psi (lbf/inch²)
1 pa=	1	1×10^{-5}	1×10^{-2}	7.5×10^{-3}	7.5	9.87×10^{-6}	1.45×10^{-4}
1 bar=	1×10^{5}	1	1×10^{3}	7.5×10^{2}	7.5×10^{5}	9.87×10^{-1}	1.45×10^{1}
1 mbar=	1×10^{2}	1×10^{-3}	1	7.5×10^{-1}	7.5×10^{2}	9.87×10^{-4}	1.45×10^{-2}
1 Torr=	1.33×10^{2}	1.33×10^{-3}	1.33	1	1×10^{3}	1.32×10^{-3}	1.93×10^{-2}
1 micron=	1.33×10^{-1}	1.33×10^{-6}	1.33×10^{-3}	1×10^{-3}	1	1.32×10^{-6}	1.93×10^{-5}
1 atm=	1.01×10^{5}	1.01	1.01×10^{3}	7.6×10^{2}	7.6×10^{5}	1	1.47×10^{1}
1 psi=	6.89×10^{3}	6.89×10^{-2}	6.89×10^{1}	5.17×10^{1}	5.17×10^{4}	6.8×10^{-2}	1

Unit Conversion Table of Pumping Speed

	L/s	L/min	m³/h	cft/min
1 L/s=	1	60	3.60	2.12
1 L/min=	1.67×10^{-1}	1	6×10^{-2}	3.54×10^{-2}
1 m³/h=	0.28	16.67	1	0.59
1 cft/min=	0.47	28.32	1.69	1

Unit Conversion Table of Conductivity and Leakage Rate

	Pa·m³/s	mbar·l/s	Torr·l/s	atm·cm³/s	sccm
1 Pa·m³/s	1	10	7.5	9.87	592
1 mbar·l/s=	0.1	1	0.75	0.987	59.2
1 Torr·l/s=	0.133	1.33	1	1.32	78.9
1 atm·cm³/s=	0.101	1.01	0.76	1	60
1 sccm=	1.69×10^{-3}	1.69×10^{-2}	1.27×10^{-2}	1.67×10^{-2}	1

Unit Conversion Table of Temperature

	K	℃	°F
1 K=	1	℃+273.15	5/9(°F+459.67)
1 ℃=	K-273.15	1	5/9(°F-32)
1 °F=	9/5K-459.67	9/5℃+32	1

Unit Conversion Table of Length

	m	ft	in
1 m=	1	3.28	39.37
1 ft=	0.31	1	12.00
1 in=	0.025	0.083	1

Unit Conversion Table of Weight

	Kg	Lb	Oz
1 Kg=	1	2.20	35.27
1 Lb=	0.45	1	16.00
1 Oz=	0.028	0.06	1

Why Choose GEOWELL Oil free Scroll Vacuum Pump?

GEOWELL is a leading professional manufacturer of oil free scroll vacuum pumps with over 20 years of field experience, longest performance hours and largest sales in China, GEOWELL's oil free scroll vacuum pumps are the premium choice for clean pumping technology.

Oil free scroll vacuum pump, also refer to as vortex pump, scroll pump, dry pump, dry scroll pump, oil free scroll pump, oilless scroll pump, dry scroll vacuum pump, oil free vortex vacuum pump, etc, is perfectly used in semiconductor equipment, photoelectric equipment, materials equipment, medical and food equipment, energy, aerospace, analyzing instruments and vacuum systems, with the advantages of compact structure, small size, light weight and low vibration, low noise, low energy consumption, suitable for global power supply, one button start, can be frequently started and stop between atmospheric pressure and vacuum.

Oil free scroll vacuum pumps are constructed with one or two fixed scroll and orbiting scroll. The orbiting scroll is driven by motor through an eccentric shaft driven by electric motor. The movement of the orbiting scroll, meshed with the fixed scroll, forms successive crescent shaped volumes in the pump body. Gas which enters the pump through the inlet is compressed by the movement of the orbiting scroll and swept towards the center of the fixed scroll. The compressed gas enters the exhaust port near the center of the fixed scroll and is exhausted from the pump through the exhaust port as shown below:

0°(360°) gas suction

90° gas pressing

180° further compressing

270° discharging

SERVICE CENTERS

Geowell
纪维

PROFILE

GEOWELL is a leading professional manufacturer of oil free scroll vacuum pumps and compressors with over 20 years experience of production history, longest product operation hours and largest sales in China, we GEOWELL have been providing users and partners with the premium quality products of high efficiency and dependability. Now we have more than 30 patents and proprietary technologies for oil free scroll vacuum pump and compressor, multiple international certificates, including UL, CE, EAC and ISO9001 certification, annual output excess of 8000+ sets. All these helping us rank among the top scroll pump manufacturer in the world.

UL CE EAC ISO9001 Certified Manufacturer

30+intellectual properties

China top sales 8000+ per year

Users from 30+ countries

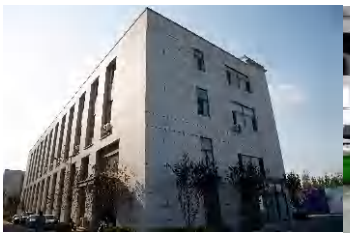
OEM available

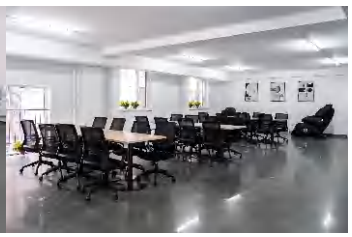
Manufacturing Facility 5000+ m²

20+Service centers home and abroad

CERTIFICATES

FACILITIES



APPLICATION CASES





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