

## Anaesthetic Gas Scavenging Plant Simplex 24Vac Controls 50/60Hz

### Description

Anaesthetic Gas Scavenging (AGS) Plants are intended to provide a continuous low level vacuum supply to pipeline systems in healthcare facilities for the removal of waste anaesthetic gases captured from patient breathing circuits via AGS receivers. The plant shall be a simplex configuration such that the vacuum supply is maintained in single fault condition. The stated volumetric flow rate shall be delivered with one blower running.

AGS Plants shall comply with BS EN ISO 7396-2 and United Kingdom Department of Health (DoH) publications HTM 02-01, HTM 2022 and NHS Model Engineering Specification C11.

The entire AGS Plant shall be skid mounted, fully assembled and factory tested as a complete system. A test certificate shall be provided showing the results of all tests, which shall include the free-air flow rate obtained with the system delivering a working pressure of -125 mbar gauge. Type testing or testing in component form is not acceptable.

Pneumatech Medical Gas Solutions Anaesthetic Gas Scavenging Plant are CE marked to the Medical Device Directive 93/42/EEC under the auspices of notified body no. 0088 (Lloyds ) Under this directive, Anaesthetic Gas Scavenging Plant are classified as Class IIa Medical Devices.

### Regenerative Blowers

One sized regenerative blower shall be provided. The blower shall be oil-less, air cooled side channel regenerative type, suitable for both continuous operation and frequent start/stop. The motor shall be directly coupled to a fully enclosed impeller with contact free operation. All bearings shall be sealed and greased for life, requiring no further lubrication in service.

The motor shall also be afforded protection by means of a thermal overload relay with a manually reset function.

### Plant Control Unit

The plant control unit shall incorporate a transformer to provide a nominal 24 V a.c. electrical supply to all internal controls and remote start switches and an interlock isolator shall be integrated into control panel door.



The vacuum level at the plant inlet shall be displayed on 63mm nominal diameter pressure gauge mounted on the plant control unit. The pressure gauge shall have a scale range of 0 to -400mbar gauge pressure and have an accuracy of +/-2% or better across the middle half of the scale range.

At the pump outlet, the exhaust pipe shall be provided with a polymer coated autoclavable Pyrex drain flask at the lowest point.

### Vacuum Regulation

The pipeline vacuum level shall be regulated by a vacuum relief valve fitted to close to the interface with the pipeline system. The valve shall incorporate a wire mesh filter to prevent ingress of large particulates, thereby protecting the impeller and housing.

### Remote Start Switches

Remote start switches shall be connected in parallel such that the plant can be operated from any switch and the plant will continuously operate until all switches are turned off.

### Building Management System Contacts

Means shall be provided to enable plant status Indications to be relayed to a building management system (BMS) via an optional BMS relay module (supplied separately on request) with both normally open and normally closed volt-free contacts.



## Simplex Anaesthetic Gas Scavenging Plant Specifications

Oil-Less Side Channel Blowers. 230V 1-phase ~ 50Hz / 220V 1 phase~ 60Hz Duel Frequency Motors.

Part Number	Free Air Aspired (l/min) <sup>(1)</sup> 400V 50Hz / 380V 60Hz	Nominal Motor Power per Blower (kW)	Starting Method	Full Load Current (A) <sup>(2)</sup>	Motor Rated Supply per Blower (A)	Configuration	Stages per Blower	Nominal Pipe Size	Service Connection (mm OD Cu Tube)	Sound Pressure Level/Blower dB(A) <sup>(3)</sup>	Cooling Air Flow per Blower (mm /s)	No. AGSS Outlets Served (HTM 2022/BS 6834:1987)	Length x Width x Height (m) <sup>(4)</sup>	Plant Weight (kg)
3265103-24V	260 / 390	0.37	DOL	2.1	6	Simplex	2	1.5"	42 mm	62	0.04	2 / 3	380x300x700	21
3265107-24V	570 / 650	0.75	DOL	3.1	10	Simplex	2	1.5"	42mm	60	0.09	4 / 5	430x350x750	27

## Simplex Anaesthetic Gas Scavenging Plant Specifications

Oil-Less Side Channel Blowers. 400V 3-phases ~ 50Hz / 380V 3 phases~ 60Hz Duel Frequency Motors.

Part Number	Free Air Aspired (l/min) <sup>(1)</sup> 400V 50Hz / 380V 60Hz	Nominal Motor Power per Blower (kW)	Starting Method	Full Load Current per Blower (A) <sup>(2)</sup>	Motor Rated Supply per Blower (A)	Configuration	Stages per Blower	Nominal Pipe Size	Service Connection (mm OD Cu Tube)	Sound Pressure Level/Blower dB(A) <sup>(3)</sup>	Cooling Air Flow per Blower (mm /s)	No. AGSS Outlets Served (HTM 2022/BS 6834:1987)	Length x Width x Height (m) <sup>(4)</sup>	Plant Weight (kg)
3265104-24V	260 / 390	0.37	DOL	2.1	6	Simplex	2	1.5"	42 mm	62	0.04	2 / 3	380x300x700	21
3265108-24V	570 / 650	0.75	DOL	3.1	10	Simplex	2	1.5"	42mm	60	0.09	4 / 5	430x350x750	27
3265112-24V	1040 / 1300	1.1	DOL	5.2	16	Simplex	2	1.5"	42mm	64	0.13	8 / 10	430x350x890	33
3265113-24V	1430 / 2080	1.5	DOL	5.8	16	Simplex	1	1.5"	42mm	62	0.18	11 / 16	480x400x890	33

- (1) System flow with an air intake at 1000 mbar at 20°C. Flow rates stated are subject to a tolerance of ±5%.  
 (2) These are typical figures and may vary with the specific motor used. Consult the motor nameplate for exact figures.  
 (3) Measured in free field conditions according to DIN EN ISO 3744. Subject to a tolerance of ±3dB.  
 (4) Dimensions do not include clearance for access and servicing.

