

SPC Airdor Forcefield Air Curtains – hot water, electric & ambient models



SPC Airdor Forcefield is the new range of powerful air curtains designed for applications where an invisible barrier of air is required. Ideally suited to entrance areas of public, commercial or industrial buildings the units are capable of providing a continuous barrier down to floor level. Units are available in widths of 1.0 to 2.5m and suitable for mounting heights up to 3.5m.

Units are equipped with LPHW or electric heat exchangers which warm the air being expelled from the unit to temper the effects of cold outside air passing from outside to in and to offset losses associated with open doors. A range of LPHW heat exchangers are available to suit even low grade hot water systems with little reduction on thermal output. Electric units all require a 3 phase supply and are available with 2 stage output control. Ambient units without heat exchangers can also be supplied.

Key Benefits

- Provides a barrier of high velocity warm air separating the internal environment from external so the internal environment remains draught free and comfortable
- Prevents excessive heat loss from the internal environment therefore reducing energy usage
- Helps prevent the ingress of insects and odours through open doors

Key Features

- Horizontal or vertical mounting
- Exposed or concealed
- Individual EC fans for controllability and energy efficiency
- Casing finished in pure white, outlet grille in black; other colours on request
- Linear discharge grille generates high velocity jet of air to floor level
- Enhanced heat exchangers available for low water temperature applications
- 2 stage control available for electric heated units
- Remote switching and thermostatic control
- Advanced, programmable, electronic controller available
- Hot water connections in 22mm copper



Model	1000			1500			2000			2500		
Speed	1	2	3	1	2	3	1	2	3	1	2	3
Output (kW)	5.4	7.2	8.2	11.1	14.2	16.2	15.2	19.6	22.4	18.9	24.7	28.4
Airflow (m3/s)	0.18	0.28	0.36	0.35	0.55	0.71	0.44	0.69	0.89	0.52	0.82	1.07
Water flow (l/s)	0.07	0.09	0.10	0.14	0.17	0.20	0.19	0.24	0.27	0.23	0.30	0.35
Water PD (kPa)	0.4	0.7	0.9	2.0	3.2	4.0	4.4	7.0	8.9	7.7	12.5	16.0
Electrical Power (W)	28	70	156	56	140	312	70	175	390	84	210	468
Dry weight (kg)	40			55			80			105		
Noise level (dBA)*	36	47	54	39	50	57	40	51	58	41	52	59

Table 1. Data for LPHW models at 80/60°C and room air at 20°C, conventional coil

*A rated sound pressure level in free field 3m from unit with hemispherical propagation

Model	1000			1500			2000			2500		
Speed	1	2	3	1	2	3	1	2	3	1	2	3
Output (kW)	3.5	4.8	5.6	7.3	9.6	11.1	9.9	13.1	15.2	12.2	16.4	19.1
Airflow (m3/s)	0.18	0.28	0.36	0.35	0.55	0.71	0.44	0.69	0.89	0.52	0.82	1.07
Water flow (l/s)	0.09	0.12	0.14	0.18	0.23	0.27	0.24	0.32	0.37	0.29	0.40	0.46
Water PD (kPa)	1.1	1.8	2.4	5.1	8.2	10.7	10.7	17.8	23.1	18.7	31.7	41.8
Electrical Power (W)	28	70	156	56	140	312	70	175	390	84	210	468
Dry weight (kg)	41			56			82			107		
Noise level (dBA)*	36	47	54	39	50	57	40	51	58	41	52	59

Table 2. Data for LPHW models at 50/40°C and room air at 20°C, enhanced coil

*A rated sound pressure level in free field 3m from unit with hemispherical propagation

Model	1000		1500		2000		2500	
Setting	1	2	1	2	1	2	1	2
Output (kW)	6.0	9.0	9.0	13.5	12.0	18.0	18.0	24.0
Airflow (m3/s)	0.28	0.36	0.55	0.71	0.69	0.89	0.82	1.07
Electrical Power (W)	28	70	56	140	70	175	84	210
Dry weight (kg)	38		50		73		97	
Noise level (dBA)*	47	54	50	57	51	58	52	59

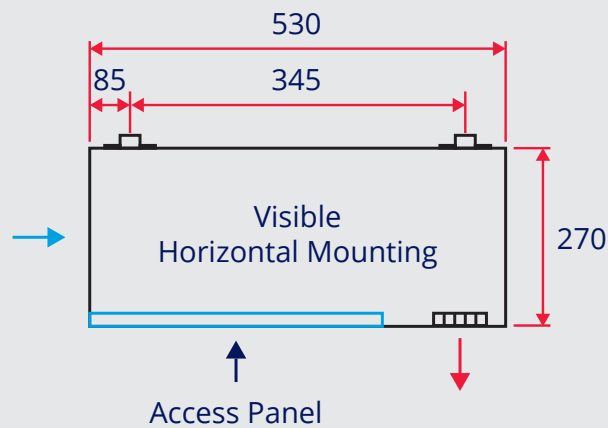
Table 3. Data for electric heated units, 400/3Ph/50Hz supply

*A rated sound pressure level in free field 3m from unit with hemispherical propagation

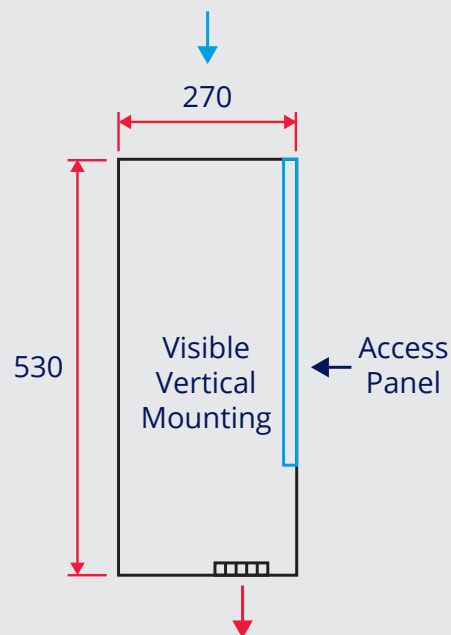


SPC Airdor Forcefield Configuration Details

Visible Horizontal Unit – Air Drawn from Room



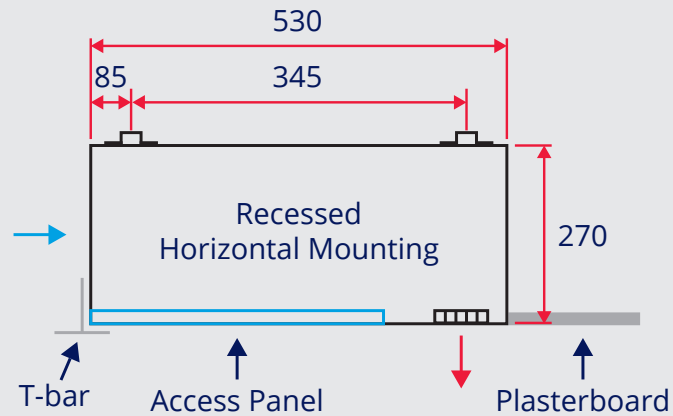
Visible Vertical Unit – Air Drawn from Room



Please see Selection Table for Lengths

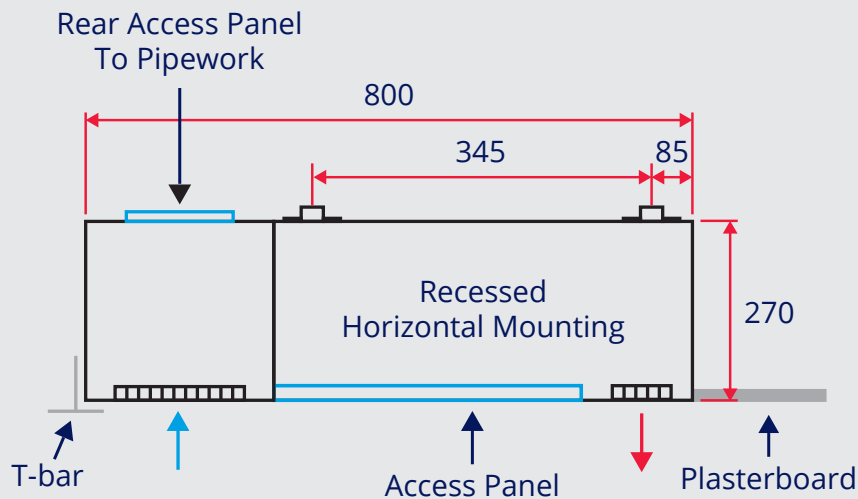
SPC Airdor Forcefield Configuration Details

Recessed Horizontal Unit – Air Drawn from Ceiling Void



Suitable for T-bar or Plasterboard,
air drawn from the ceiling void

Recessed Horizontal Unit – Air Drawn from Room Below

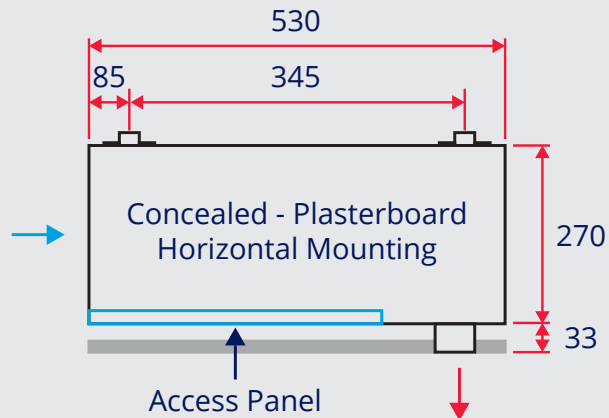


Suitable for T-bar or Plasterboard,
air drawn from room below.

Please see Selection Table for Lengths

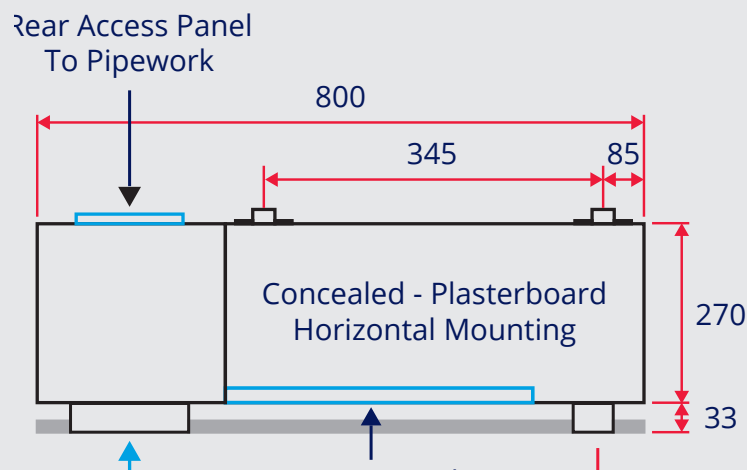
SPC Airdor Forcefield Configuration Details

Concealed Horizontal Unit – Air Drawn from Ceiling Void



Airdor Forcefield above Plasterboard ceiling,
air drawn from ceiling void.

Concealed Horizontal Unit – Air Drawn from Room Below

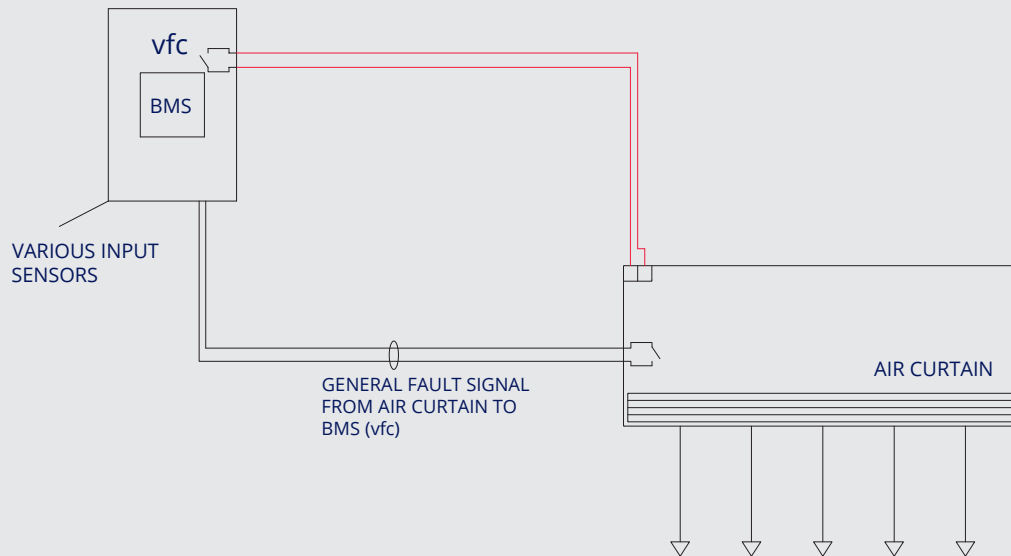


Airdor Forcefield above Plasterboard ceiling,
air drawn from room below.

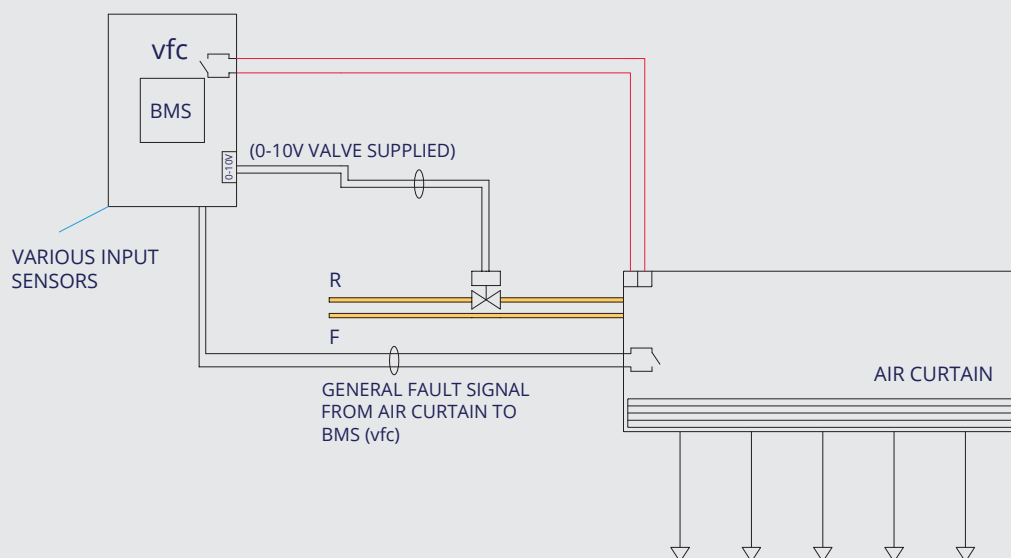
Please see Selection Table for Lengths

SPC Airdor Forcefield Control Wiring Diagrams

Central Control Option 1: Enable/ Disable & Fault Signal

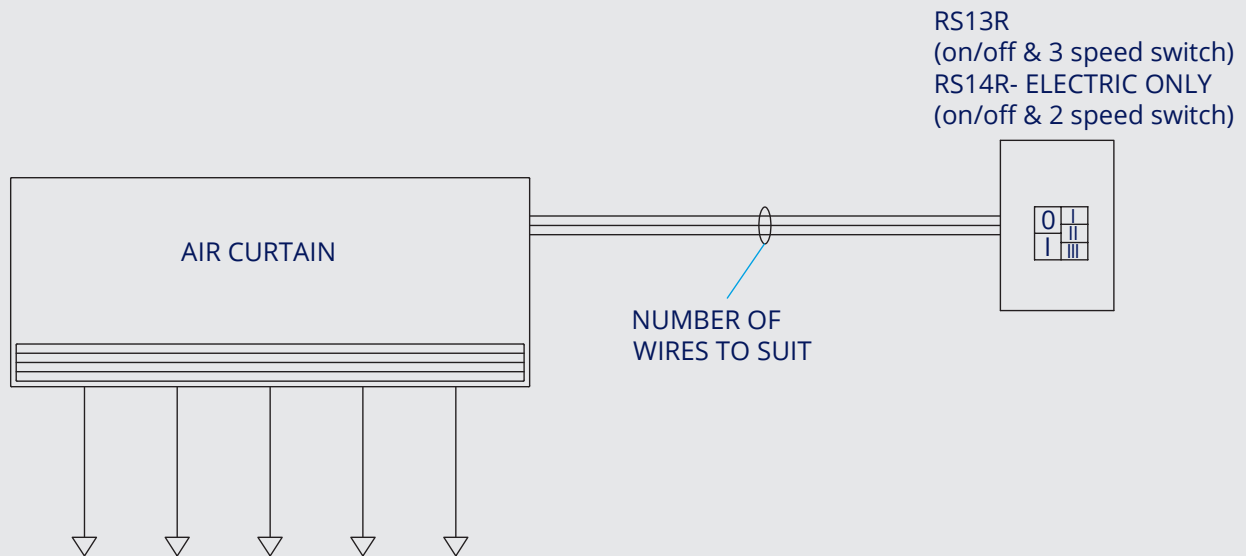


Central Control Option 2: Enable/Disable, Fault Signal & Waterside Capacity Control

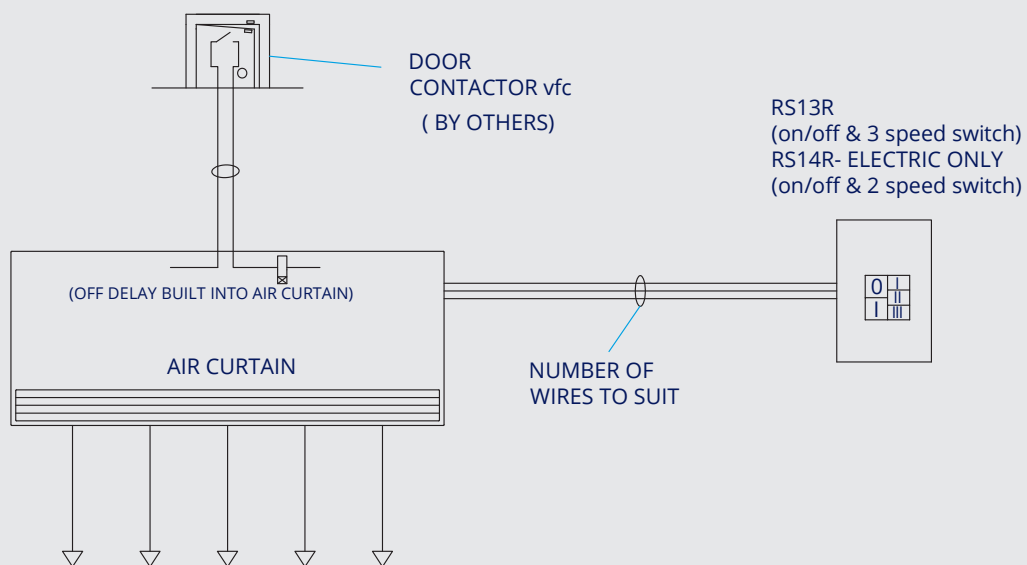


SPC Airdor Forcefield Control Wiring Diagrams

Local Control Option 1: On/Off & Speed Change



Local Control Option 2: On/Off, Delay Timer, Speed Change & Door Contactor



SPC Airdor Forcefield Control Wiring Diagrams

Local Control Option 3: On/Off, Delay Timer, Speed Change, Door Contactor & Waterside Capacity Control

