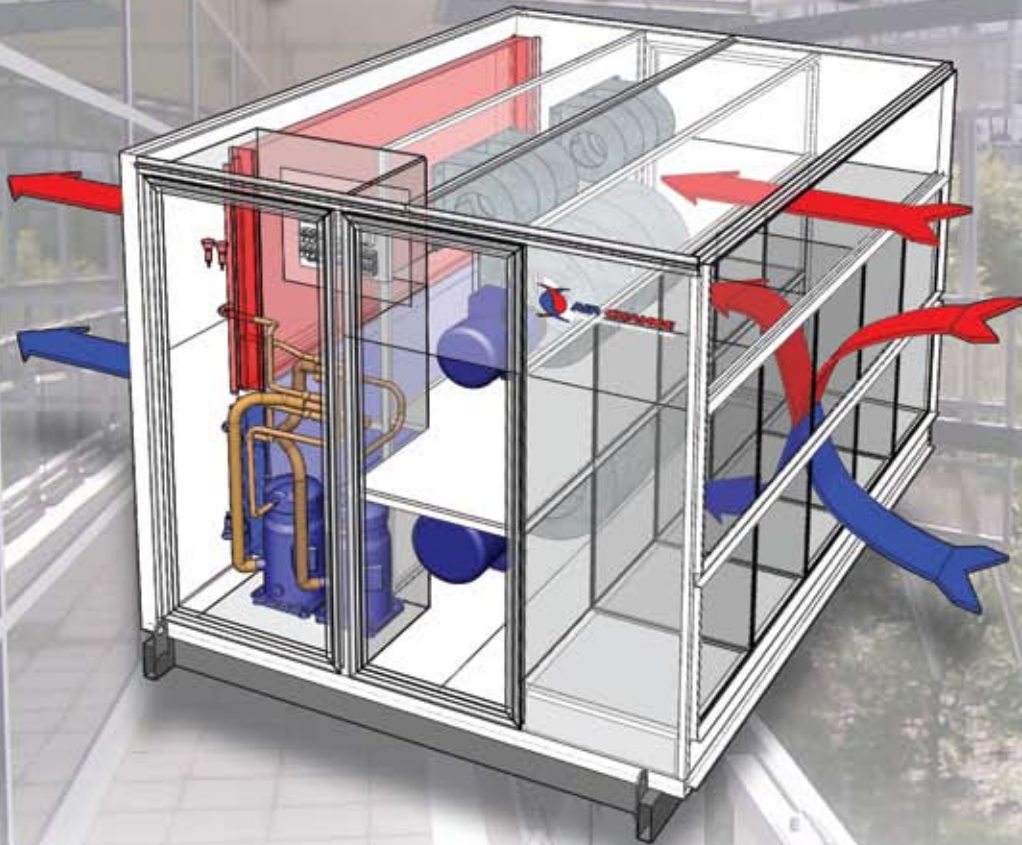




New generation HVAC for a sustainable future



## Heat/Energy Recovery Outdoor Air Reverse Cycle Rooftop Package Units



### 2007 Winner AIRAH "Excellence in HVAC" Award

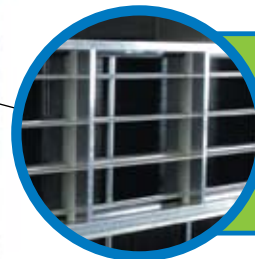
#### Up to 125 kW, 5000 l/s

- Heat/energy recovery through patented counterflow air-to-air heat exchanger
- Comply to section J of BCA
- Saves up to 75% of the cost to condition outdoor air
- Improves Indoor Air Quality with up to 100% energy efficient outdoor air
- CO<sub>2</sub> sensors for variable outdoor air (optional)
- Economy cycle for free cooling (optional)
- Variable speed drives standard (excluding ACS11/ACS16)
- Refrigerant R407C option

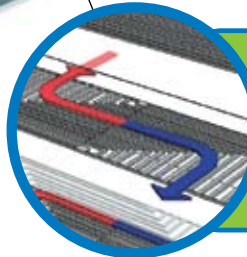
# Up to 100% Outdoor Air with Energy Recovery, improves Indoor Air Quality and saves Operating Costs

## Energy Efficiency

- Saves up to 75% of the cost to condition outdoor air by reclaiming energy from exhaust air
- Inbuilt air to air Enthalpy Heat exchanger transfers temperature and humidity from Return Air to Supply Air
- Built in economy cycle option for free heating and cooling
- Eliminates the need for additional equipment such as "air cleaners", exhaust fans and energy reclaim systems
- Coolroom panel cabinet minimizes heat/energy loss through unit
- De-superheater option reclaims waste heat from DX system for free hot water heating
- Variable Speed Drives with soft start, standard for 3 phase motors
  - Up to 40% fan power savings with direct drive fan system
  - Ramped starting prolongs life of fans and bearings
- Sensible Heat Exchanger for specialist applications (washable film media)



**Built in Economy Cycle**  
Offers flexibility to engineers and designers for free heating and cooling.



**Enthalpy or Sensible Heat Exchanger**  
in two sizes, Internationally Patented



**No more belts and pulleys!**  
Fan and motors are directly coupled for energy savings, lower noise levels and reduced service calls.

**Variable Speed Drives**  
control fan speeds, reduce commissioning time and provide additional electronic protection for compressors and fan motors.



## Indoor Air Quality (IAQ)

- 100 percent outdoor air improves IAQ by expelling air borne contaminants and resolving internal moisture or mould problems
- Improved IAQ provides increased health benefits to occupants by reducing the influence of communicable respiratory illness, allergy asthma and "Sick Building" Syndrome
- Healthy buildings attract high quality workers and increase productivity, whilst owners gain a better rental potential with lower turnover of tenants

*Air Change products internationally patent protected.*



**Multi Award Winning Technology**  
SEDA "Green Globe" Winner 2002 & 2003  
AIRAH "Excellence in HVAC" Winner 2003 (Qld) & 2006 (National)

**Three operational modes provide the most energy efficient solution for all conditions**

Recent RTP Installations



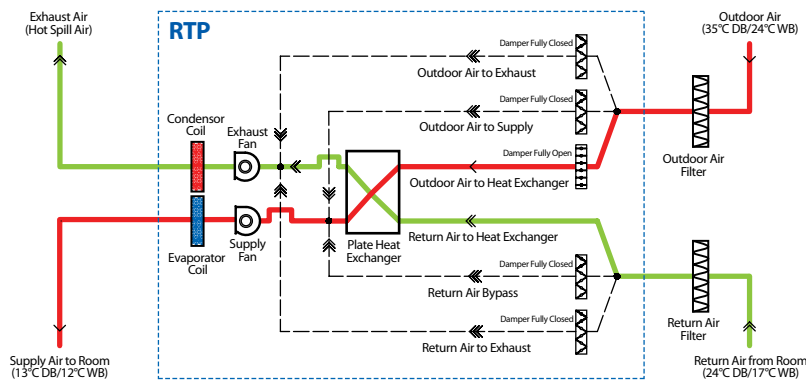
**Fitness First**

Fitness First is the leading health club brand in Australia with over 70 Fitness clubs providing state of the art facilities for its members. Air Change has been the preferred supplier of outdoor air HVAC since 2004.

**Buildings that breathe with Air Change RTP include:**

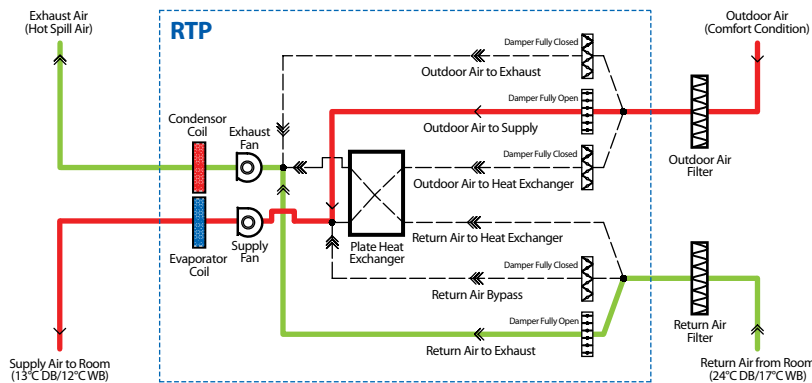
- Australian Catholic University - ACT
- Canberra Irish Club - ACT
- Anita's Theatre Wollongong - NSW
- Beverly Hills Cinemas - NSW
- Caringbah Bowling Club - NSW
- Charles Sturt University - NSW
- Hillsong Church - NSW
- Liverpool Catholic Club - NSW
- Presbyterian Ladies College - Croydon NSW
- RSPCA Centres - Somersby & Rutherford Facilities NSW
- Shire Live Church - NSW
- Silverwater Correctional Centre - NSW
- TAFE - Gymea NSW
- Town Hall Station, City Rail - NSW
- University of Wollongong - NSW
- Yamba Shopping Centre - NSW
- Adelaide High School - SA
- Australian Red Cross - SA
- Clare Hospital - SA
- Salisbury Community Hall - SA
- Savage River Mine - TAS
- University of Tasmania - TAS
- Brothers Leagues Club - QLD
- Donald Simpson Leisure Centre - QLD
- Melba's Nightclub - QLD
- Mount Isa Mortuary & Transfer Services - QLD
- The Mega Centre - QLD
- Trinity Bay State High School - Nth QLD
- Manunda Library - Nth QLD
- Agriquality - VIC
- Cameo Cinemas - VIC
- Ford Motor Company Lara Proving Ground - VIC
- RACV Club - VIC
- Richmond Public Library - VIC
- Southern Star Observation Wheel - VIC
- WoolfPurNay Veterinary Clinic & Hospital - VIC
- St Vincent's Nursing Home - WA
- Frederick Irwin Anglican School - WA
- Guido Valadares Hospital - Dili, Timor Leste
- North Shore Hospital - New Zealand
- Auckland Airport - New Zealand

**100% Outdoor Air**



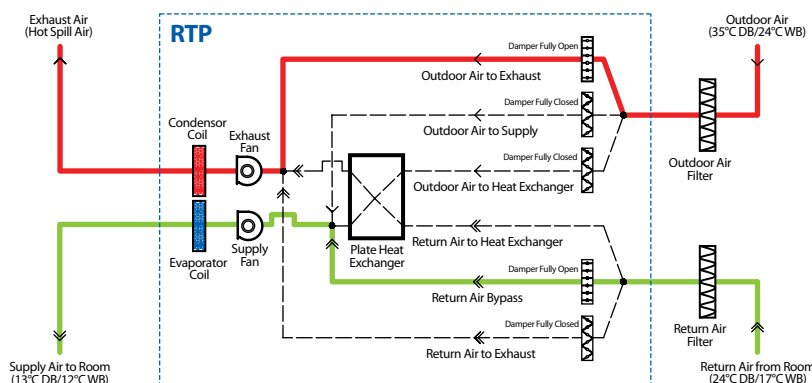
When temperatures are hot or cold outside with high occupancy inside, 100% outside air passes through the heat exchanger which reduces the fresh air energy load by approximately 75% through pre-conditioning the outdoor air.

**Economy Cycle for free cooling (optional)**



When temperatures are mild outside, the outside air will bypass the heat exchanger and provide free cooling to the space.

**CO<sub>2</sub> Sensors for variable outdoor air (optional)**



CO<sub>2</sub> sensors monitor the space and provide minimum Outside Air in times of low occupancy to conserve energy.



# Heat/Energy Recovery Outdoor Air Rooftop Package Units

Contact Air Change engineers for technical information or visit [www.air-change.com](http://www.air-change.com) for selection software and technical details.

Model Number		ACS11	ACS16	ACS20	ACS23	ACS27	ACS32	ACS36	ACL45	ACL52	ACL60	ACL65	ACL70	ACL82	ACL96	ACL125	
		RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	RCRTP	
Supply Air	Flow Rate (L/s)	500	750	1000	1100	1200	1400	1700	2000	2300	2700	2800	3200	3600	4200	5000	
	External Static (Pa)	< 150			< 200				< 300				< 350				
Compressor Capacity (kW <sub>r</sub> )	Cooling <sup>#</sup>	11	16	20	23	27	32	36	45	52	60	65	70	82	96	125	
	Heating <sup>*</sup>	14	20	25	29	34	40	45	59	68	78	85	91	107	125	156	
Energy Reclaim Cooling <sup>#</sup> (kW <sub>r</sub> )	Sensible	4.9	7.4	9.9	10.9	11.9	13.9	16.8	19.8	22.8	26.7	27.7	31.7	35.6	41.6	47.3	
	Latent	5.7	8.5	11.3	12.4	13.6	15.8	19.2	22.6	26	30.6	31.7	36.2	40.7	47.5	54.1	
	Total	10.6	15.9	21.2	23.3	25.5	29.7	36	42.4	48.8	57.3	59.4	67.9	76.3	89.1	101.4	
Energy Reclaim Heating <sup>*</sup> (kW <sub>r</sub> )	Sensible	6.0	9.0	12.0	13.3	14.5	16.9	20.6	24.2	27.8	32.7	33.9	38.7	43.6	50.8	60.5	
	Latent	5.0	7.7	10.2	11.3	12.3	14.3	17.4	20.5	23.5	27.6	28.7	32.8	36.8	43.0	51.3	
Compressor Type		1 x Hermetically Sealed Scroll Compressor							2 x Hermetically Sealed Scroll Compressors								
Refrigerant		R407C/R22															
Fan Type		3 speed 240V			3 Phase Direct Couple Motor/Fan – VSD Controlled												
Volts/ph/Hz		415/3/50															
Construction		50mm sandwich panel, 0.6mm clad colourbond both sides. UV treated polymer joiners for maximum strength, insulation and durability.															
Weights (kg)		300	340	420	480	510	550	650	880	940	1100	1400	1430	1470	1600	1850	

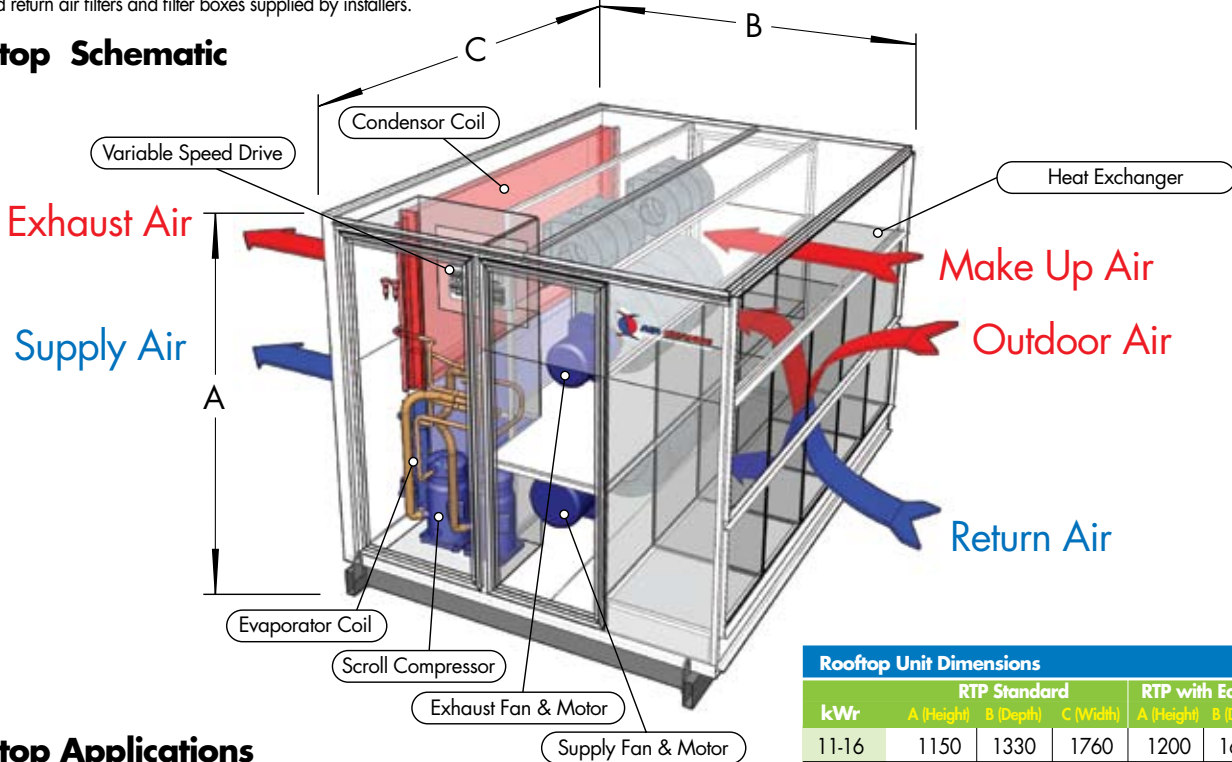
# Cooling data based on ambient 35°C/24°C, RA 24°C/17°C with 100% outdoor air.

\* Heating data based on ambient 8.3°C/50% RH, RA 21°C/50% with 100% outdoor air.

Fresh and return air filters and filter boxes supplied by installers.

(Specifications subject to change without notice)

## Rooftop Schematic



## Rooftop Applications

Everywhere outdoor air is required in an air conditioned space such as gymnasiums, schools, universities, clubs, hotels, cinemas, hospitals, laboratories and all commercial buildings.

Air Change products internationally patent protected.

kW <sub>r</sub>	Rooftop Unit Dimensions					
	RTP Standard			RTP with Economy Cycle		
	A (Height)	B (Depth)	C (Width)	A (Height)	B (Depth)	C (Width)
11-16	1150	1330	1760	1200	1630	1950
20-23	1200	1630	1950	1300	1630	2200
27-36	1300	1630	2200	1850	2350	2250
45-60	1850	2350	2250	1965	2350	2900
65-96	1965	2350	2900	1965	2350	3550
125	2210	2350	3550	2210	2350	4850



Toll Free 1300 766 704 • [www.air-change.com](http://www.air-change.com)

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