

OVERVIEW AND FEATURES

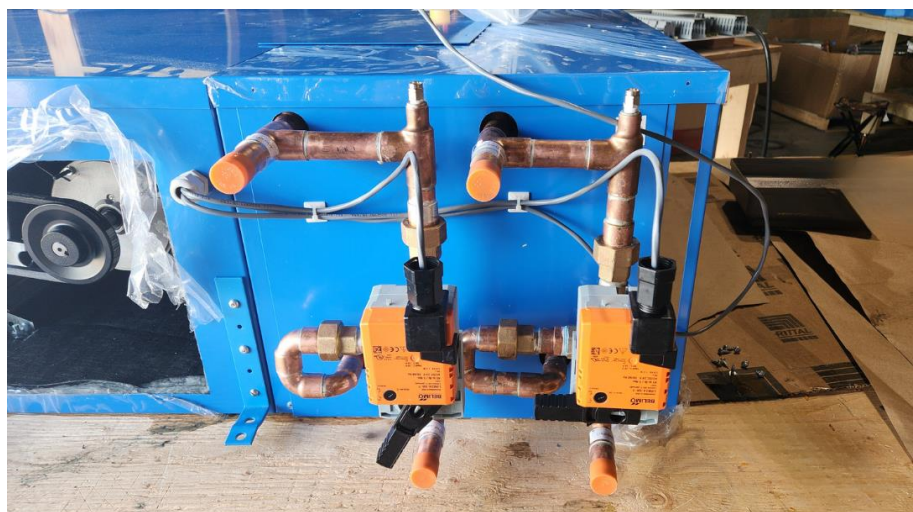
The BluTree SAM 14 series can be supplied with 1, 2, or 3 coils and has a dual blower for maximum air flow up to 2000 cfm.

The SAM 14S unit is a smaller version of the SAM 14 using one (1) blower and provides airflow between 600 and 1000 CFM.

Cabinet:	20-gauge G90 cold rolled steel with durable powder-coated blue paint.
Orientation:	Left-handed or right-handed units available
Controls:	A DDC system is recommended as the ECM fan motor allows speed variations upon demand, and controls the factory-installed Belimo valve(s) for the coil(s).
Motor Drive:	Belt driven with motor access from the bottom.
Coils:	Coils are factory-sized individually to meet the specific load of the area served by the fan coil Typical: 3/8" copper tubing, with 8 fins per inch aluminum fins.
Filter:	3-way accessible filter rack at the bottom or either side of the unit.
Condensate Pump:	Use of an internal condensate pump (Sauermann SI-33), or external condensate pump to a Distance of 10' maximum and 3' vertically. Access to the internal condensate pump from the bottom of the unit.
UV Light:	Air-purifying UV light is available with an onboard electrical outlet inside the control box. UV lights are field mounted in the return air ducting according to the UV manufacturer's specifications.
Mounting:	Fan coils can be mounted close to the ceiling. The optional mounting brackets are low to allow for vibration isolators. The mounting brackets installed on the sides can be used to support the unit or Unistrut channels can be used under the unit.
Drain Pan:	The internal drain pan slopes to a central point from which it is piped to a small internal condensate pump piped to the side of the unit (1/4" tubing connection) near the bottom of the blower box section. Access the drain pan from the bottom of the unit.
Serviceability:	SAM 14 units are built with the controls and coil piping on the same side of the unit. This allows for the back of the unit to be placed near a wall, requiring maintenance access from the front and bottom only.
CSA Certification:	CSA inspected and certified.
Warranty:	All BluTree Innovation products come with a 5-year warranty. Condensate pump 1-year warranty.

COIL PIPING ASSEMBLY

Factory-installed piping and valves are available for 2-pipe and 4-pipe assembly options. Factory-installed piping assemblies are factory-tested. Field piping connections face the front of the unit, as shown in the photos below, which show a 2-coil, 4-pipe arrangement. Labels will be included to clearly identify the supply/return hot/cold water connections.



PERFORMANCE & SPECIFICATIONS

The data provided is a range sample based on the conditions indicated.

SAM 14 & 14S Nominal Performance Data

Electrical Data										
Unit	Motor Size HP	Blowers	Blower Motor Speed RPM	Amperage						
				120 V Amp	208 V Amp	230 V Amp				
SAM 14	0.5	2	1800	5.7	3.4	2.6				
	1.0	2	1800	11	6.4	5.2				
SAM 14S	0.5	1	1800	5.7	3.4	2.6				

All services are single-phase.
Motors are high-efficiency ECM models.

Unit	Nominal Air Flow SCFM	Coils # of rows	Air Delta P "W.C."	Nominal Cooling Capacity				Nominal Heating Capacity		
				Water Flow GPM	Total MBh	Sensible MBh	Water Delta P Feet	Water Flow GPM	Sensible MBh	Water Delta P Feet
SAM 14	1000	2	0.11	5	17.8	15.6	2.2	5	19.9	1.8
		3	0.17	5	23.3	20.1	3.0	5	25.7	2.4
		4	0.27	5	27.7	23.4	3.7	5	30.0	3.0
SAM 14	1400	2	0.20	5	19.8	18.4	2.2	5	23.8	1.8
		3	0.30	5	26.4	24.0	3.0	5	31.9	2.4
		4	0.47	5	31.6	28.3	3.7	5	36.5	3.0
SAM 14S	700	2	0.06	5	11.8	10.5	1.8	5	13.5	1.5
		3	0.09	5	15.8	13.7	2.3	5	17.7	1.9
		4	0.13	5	19.1	16.1	2.9	5	20.9	2.3
SAM 14S	1000	2	0.11	5	13.1	12.4	1.8	5	16.4	1.5
		3	0.17	5	17.9	16.5	2.3	5	21.7	1.9
		4	0.22	5	21.9	19.7	2.9	5	25.9	2.3

Cooling capacities are based on 75/61F (DB/WB) entering air temperature and 37F entering water temperature.

Heating capacities are based on 70F entering the air temperature and 115F entering the water temperature.

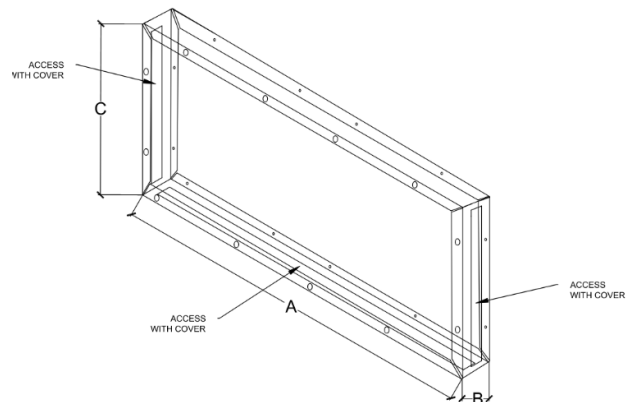
Coil performance for heating or cooling is dependent on the relationship between airflow, water temp and GPM.

Options			
Coils – 1, 2, or 3	Right-Handed	UV lights	This unit can be supplied in various configurations. Primary use as a Dehumidification Unit using coils 1 and 2 for cooling, and coil 3 as Reheat. In winter, coil 3 is used for maximum heating after the primary dehumidification cycle.
Factory attached brackets	Left-Handed (Default)	Coil piping assembly with 3-way diversion valve(s)	

FILTER RACK DETAIL

The 3-way filter rack provides flexibility for filter replacement, allowing filters to be replaced from the bottom or either side of the fan coil.

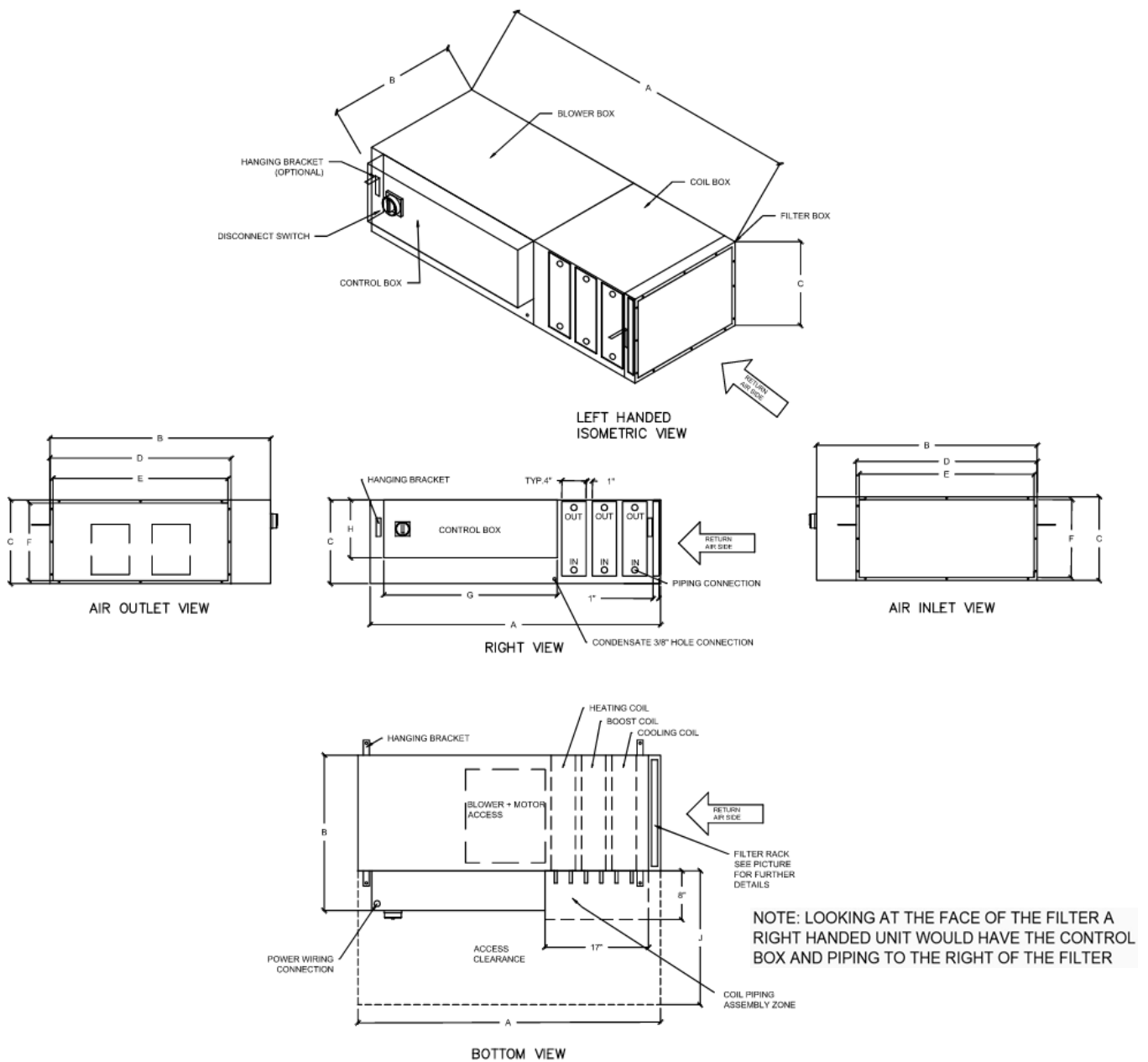
Unit	A		B		C	
	in	mm	in	mm	in	mm
Sam 14	29.8	757	2.5	64	13.9	353
Sam 14-S	19.0	483	2.5	64	13.9	353



DIMENSIONS

Unit	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Sam 14	50.8	1289	36.0	914	13.9	352	29.8	756	27.8	705	11.9	302
	G		H		J		Weight (No Coils)		Single Coil Weight			
	in	mm	in	mm	in	mm	Lbs	kG	Lbs	kG		
	28.8	730	9.5	241	36.0	914	115.0	52.3	15.0	6.8		

SAM 14



DIMENSIONS

Unit	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
Sam 14S	50.8	1289	25.3	641	13.9	352	19.0	483	17.0	432	11.9	302
	G		H		J		Weight (No coils)		Single Coil Weight			
	in	mm	in	mm	in	mm	Lbs	kG	Lbs	kG		
	28.8	730	9.5	241	25.0	635	85.0	38.6	10.0	4.5		

SAM 14S

