

# **SELF CONTAINED**

Water-Cooled Air Conditioners 5-20 Tons SWUT Model 50 Hz

# Self-Contained Air Conditioners : Water-Cooled



#### **Quality And Reliability**

- Scroll compressors are available from 5 to 20 tons with excellent reliability and high efficiency.
- Trane's passive parallel manifolded compressors have high reliability due to the excellent oiling characteristics.
- Dual compressors and independent circuits are standard in the SWUT180 and SWUT240 models.
- All units are 100 percent run tested prior to leaving the production line.

#### **Maximum Efficiency**

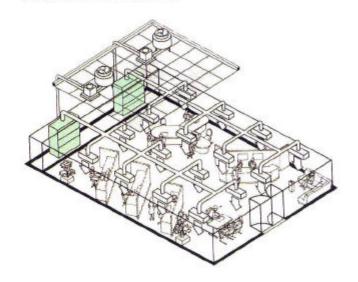
- Lower noise operation and higher efficiency with the new generation higher EER Scroll Compressor.
- 64% fewer parts than a comparable capacity reciprocating compressor.
- Trane's Patented 3-dimensional scroll compliance tip seals allows axial contact for maximum efficiency.
- Single rotating assembly minimizes the friction and mechanical losses.
- Smooth operation, similar to a centrifugal compressor, give low torque variation and extend motor life, and minimal vibration reducing wear.
- Solid mount with no internal suspension to be worn out.
- Integral inlet dirt separator removes contaminants.
- Rolling element bearings for higher efficiency reduced friction.
   No suction or discharge valves for improved efficiency compared to a reciprocating compressor.

# Economical Operations Especially For Tenant Building

- Complete HVAC system on each floor minimizes tenant inconvenience during routine maintenance.
- Floor-by-floor system control results in energy savings especially for the off peak operation or after working hours.
   Because of this feature, the annually energy consumption can be better than a central chilled water system.

### Low First Cost Compared To A Central System

- Complete factory assembly reduces the field labor, installation time and costs.
- Minimized need and cost for fire dampers and airshafts.
- Large equipment rooms and penthouses are not needed.
- Condenser water is available for each floor to the computerized tenant systems.



### System Performance Matrix

	Nominal	Capacit	ty in MBH	Condenser	Pressure Drop	
Model	CFM	Total	Sensible	GPM	Foot of Water	
SWUT060 D	2200	61.5	46.7	15.7	23.9	
SWUT090 D	3300	93.5	70.2	23.9	13.8	
SWUT120 D	4400	120.0	88.6	30.5	22.5	
SWUT180 D	6600	182.8	141.6	48.2	14.1	
SWUT240 D	8800	240.0	179.8	61.1	22.6	

Note: 1. Matched system ratings are per ARI condition. Full load ratings are at 90° F entering condenser water temperature, and 80/67° F air dry bulb/ wet bulb entering the air handler coil.

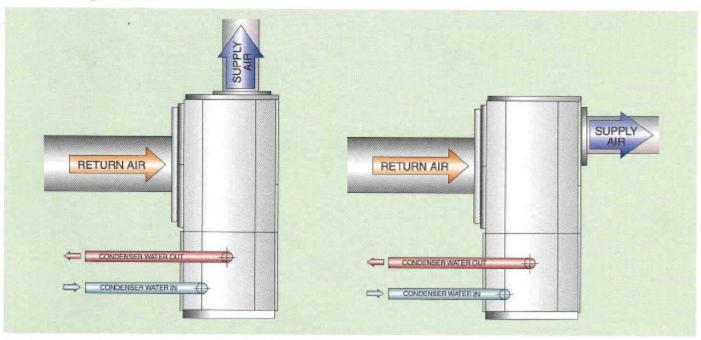
Evaporator fan power accounts for ARI condition required external static pressure, and losses associated with air filters, casing and wet evaporator coil pressure drop.

#### **General Data**

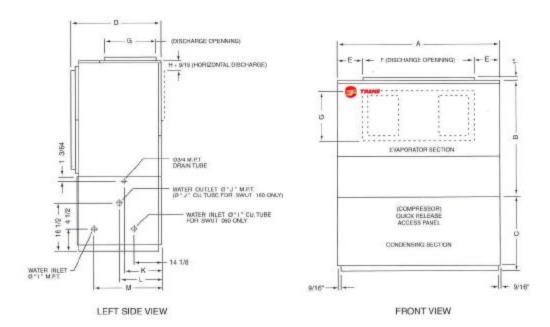
MODEL	SWUT060 D	SWUT090 D	SWUT120 D	SWUT180 D	SWUT240 D				
NOMINAL CAPACITY - MBH	60	90	120	180	240				
COMPRESSOR - Type	Scroll Compressor								
No. Used	1	1	1	2	2				
Unit Capacity Steps - %	100-0	100-0	100-0	100-50-0	100-50-0				
Volt/Phase/Hertz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50				
RL Amp LR. Amp. (each)	10.0-74	17.3-114	19.2-125	17.3-114	19.2-125				
CONDENSER - Type		19 11	Tube in Shell						
No. Used	1	2	2	4	4				
Water Conn. Size - Inch MPT	1 1/4	1 1/2	1 1/2	2	2				
EVAPORATOR									
Blower - Type	Double Inlet, Forward Curve Centrifugal Blower								
No. Used	1	1	1	2	2				
Size - Inch	10x10	15x12	15x15	15x12	15x15				
MOTOR				ETH					
STD Motor nominal HP.	1	1	2	3	5				
No. Used	1	1	1	1	1				
Volt/Phase/Hertz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50				
FL. Amp LR. Amp	1.8-10.6	1.8-10.6	3.3-21.2	4.7-31.3	7.6-53.0				
COIL - Type	Aluminum Fin with Copper Tube								
Rows / FPI	3/12	3/12	3/12	4/12	4/12				
Size - Inch	24x30	24x46	32x46	34x55	48x55				
Face Area - Sq. Ft.	5.00	7.67	10.22	13.00	18.33				
Tube Size - Inch	3/8	3/8	3/8	3/8	3/8				
Drain Conn. Size - Inch MPT	3/4	3/4	3/4	3/4	3/4				
REFRIGERATION CIRCUIT - No.	1	10.0	1	2	2				
FILTER - Type		Alu	ıminum Cleanable Fi	Iter					
(No.) - Size x Thk (inch)	(2) 16x25x1	(2) 25x25x1	(4) 16x24x1	(6) 17x20x1	(9) 16x20x1				
WEIGHT - Kg. (lbs.)									
Opp. Weight	190 (418)	288 (634)	329 (724)	494 (1087)	604 (1329)				

Note: Nominal capacities are based on 80° FDB / 67° FWB air on evaporator and 90° F entering condenser water temperature.

# **Unit Configurations**



# **Feature Summary**



#### **Evaporator Section**

For SWUT 060D, 090D, 120D have 1 evaporator blower, except SWUT 180D, 240D have 2 evaporator blowers.

MODEL	A	В	С	D	E ·	F	G	Н	1	J	K	L	M
SWUT060D	40 1/4	27 1/16	24 1/2	34 3/16	13 15/32	13 5/16	11 1/2	2 1/8	7/8	7/8	16 3/8	16 7/8	
SWUT090D	56 1/4	27 1/16	25 1/2	41 1/8	20	16 3/16	16	2 1/8	1 1/2	1 1/2	19 13/16	20 7/16	27 13/16
SWUT120D	56 1/4	34 5/16	25 1/2	41 1/8	18 11/16	18 13/16	16	2 1/8	1 1/2	1 1/2	19 13/16	20 7/16	27 13/16
SWUT180D	65 3/4	36	25 1/2	42	5 3/8	54 7/8	16 1/4	2 5/16	2	2	20	13 3/4	33 1/2
SWUT240D	65 3/4	49 1/2	25 1/2	42	5 3/8	54 7/8	16 1/4	2 5/16	2	2	20	13 3/4	33 1/2

Note: All dimensional data are in inch.

# **Product Specifications**

## **Evaporator Section**

- Convertible horizontal and vertical air discharge.
- Evaporator coil with 375 psig leak tested.
- Single refrigeration circuits for SWUT060D-120D.
- Dual refrigeration circuit for SWUT180D-240D.
- Thermal expansion valve(s), factory installed.
- Double inlet, double width, forward curve, centrifugal type.
   evaporator fan(s) with adjustable belt drive.
- Thermal overload protection on evaporator fan motor.
- Completely insulated with fire-retardant, permanent, odorless.
   glass fiber with glass tissue material to unit casing.
- 1 inch aluminium cleanable filter.

## **Condensing Section**

- Single compressor for SWUT060D-120D.
- Dual compressors for SWUT180D-240D with 2-step capacity control
- Filter driers, sight glasses and service valves.
- Tube in shell condenser.
- Suction gas cooled temperature and current-sensitive motor.
   overload for compressor motor.
- External high and low pressure cut-out devices.
- Completely factory wired with 220 volt control circuit.
- Plus or minus 10 percents of name plate voltage for utilization range.



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