US CELLAR SYSTEMS

HS SERIES

High Static / Air or Water Cooled
Single Evaporator Unit with Digital Controller

SYSTEM INFORMATION

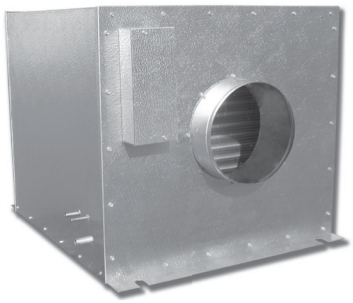
The High Static (HS) Systems are designed to provide refrigerated air to medium-high temperature spaces. HS evaporators are powerful enough to be installed as far as 25 feet away from the refrigerated room. The chilled air is ducted back into the room, eliminating noise or the inconvenience of an in-room evaporator, which frees up valuable space.

HS evaporators are available in capacities from 1,800 to 20,000 BTU per hour and are used with an R134a refrigerant.

AVAILABLE OPTIONS

- Secondary drain pan for elevated and sensitive installations
- Stainless steel cabinets for high corrosive environments
- Eco-friendly water-cooled condensing units available
- Industrial applications available

FEATURES



- No noise produced in the wine cellar
- Occupies no space in the wine cellar
- Provides static pressure for duct runs up to 25 ft
- Insulated rust-proof aluminum housing
- Thermally protected permanently lubricated motor
- Automatic expansion valve (standard) ensures constant coil temperature to promote "Humidity Balance"
- Pump-down solenoid valve (standard) protects compressor in the event of leaks
- Pre-installed valves eliminate additional wiring to thermostat
- Pressure tested by the manufacturer to ensure quality
- Factory-wired for simple field installation
- ETL certified

High Static	HS2600	HS3600	HS4600	HS6600	HS8600	HS15000	HS20000
Max Cubic Feet	300	650	1,000	1,500	2,000	VARIES	VARIES
BTUH	2600	3600	4600	6600	8600	15000	20000
Fan Coil	HS25	HS31	HS31	HS47	HS66	HS87	HS120
Length	22.5"	22.5"	22.5"	25.125"	27.125"	27.13"	27.13"
Width	13.375"	25.375"	25.375"	20.375"	22.375"	22.88"	27.88"
Height	13.375"	16.375"	16.375"	22.875"	22.875"	22.38"	26.38"
Weight	30 lbs	39 lbs	39 lbs	48 lbs	58 lbs	66 lbs	87 lbs
Volts	115 V	115 V	115 V	115 V	115 V	115 V	115 V
Amps	0.80 A	1.85 A	1.85 A	1.85 A	2.10 A	2.10 A	4.30 A
Condensing Unit	CU26	CU36	CU46	CU66	CU86	CU150	CU200
Length	17"	19"	13.8"	20.6"	17.5"	24.1"	25.1"
Width	12"	12.21"	11.8"	13.9"	14.3"	18.3"	34.1"
Height	9.4"	10.91"	9.7"	13.2"	12.0"	16.2"	19.1"
Weight	41 lbs	40 lbs	48 lbs	83 lbs	79 lbs	140 lbs	215 lbs
Volts	115 V	115 V	115 V	115 V	115 V	230 V	230 V
Amps MFS	15 A	15 A	20 A	30 A	30 A	30 A	30 A
System Line Set							
Suction	3/8"	3/8"	1/2"	1/2"	5/8"	7/8"	7/8"
Liquid	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"

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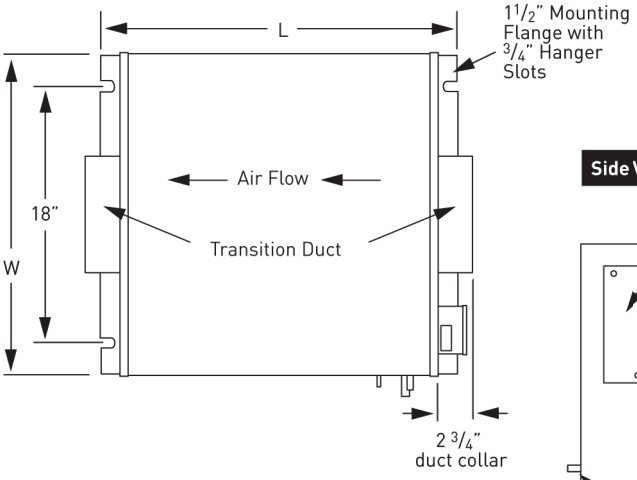
HS Air Handler Specifications

MODEL	CFM	AMPS 115 V	LENGTH	WIDTH	HEIGHT	LIQUID	SUCTION	DRAIN	DUCT	APPROX SHIP WT.
HS 25	220	0.8	22.50″	15.88″	14.38″	0.38″	0.38″	0.88″	8	30 lbs
HS 31	380	1.85	25.13″	22.88″	16.38″	0.38″	0.38″	0.88″	8	39 lbs
HS 47	490	1.85	25.13″	22.88″	20.38″	0.38″	0.63″	0.88″	10	48 lbs
HS 66	750	2.1	27.13″	22.88″	22.38″	0.38″	0.63″	0.88″	10	58 lbs
HS 87	810	2.1	27.13″	22.88″	22.38″	0.38″	0.63″	0.88″	10	66 lbs
HS 120	1400	4.3	27.13″	27.88″	26.38″	0.38″	0.88″	0.88″	12	87 lbs

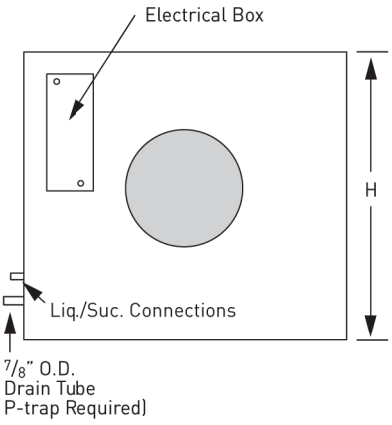
Mounting Diagrams

- Expansion valve and liquid line solenoid valve standard
- Air handlers are designed for a maximum of 50′ total duct at 1″ static pressure
- Suction line accumulators recommended
- Drain must have a vented P-trap
- Connections at coil do not indicate refrigeration line size

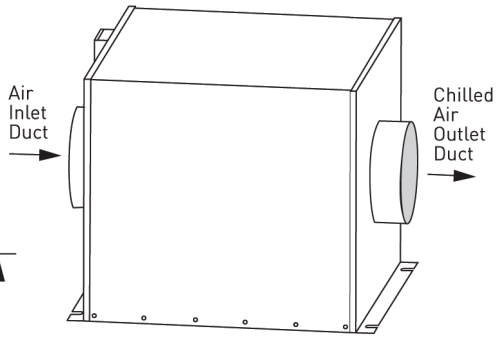
Top View



Side View



3-D View



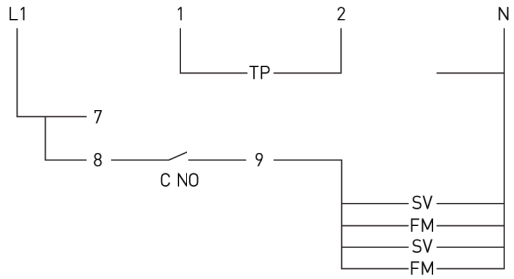
Field Wiring

L1 115 V Line Voltage
N Neutral
SV Solenoid Valve
FM Fan Motor
TP Temperature Probe

Back of Controller Connections

1 Not used
2 Jumper from 5
3 To Coil
4 Neutral
5 115V Line Voltage
6-9 Not Used
10-11 Sensor

Fan Coil Wiring



Condensing Unit Wiring

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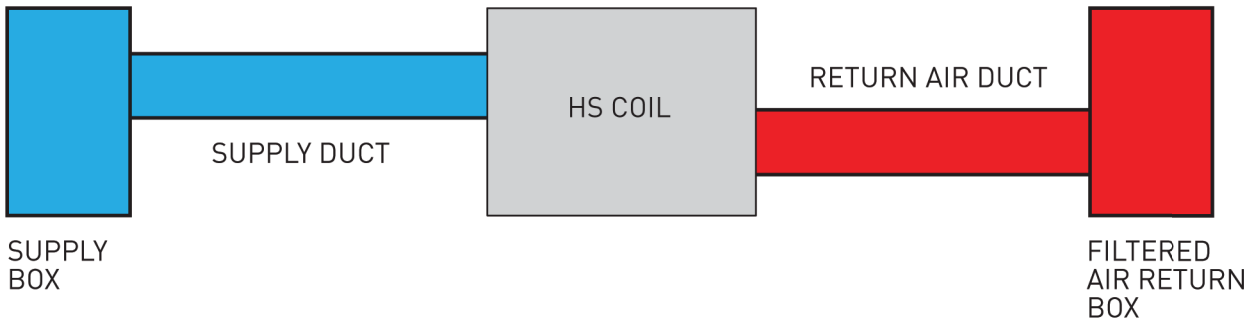
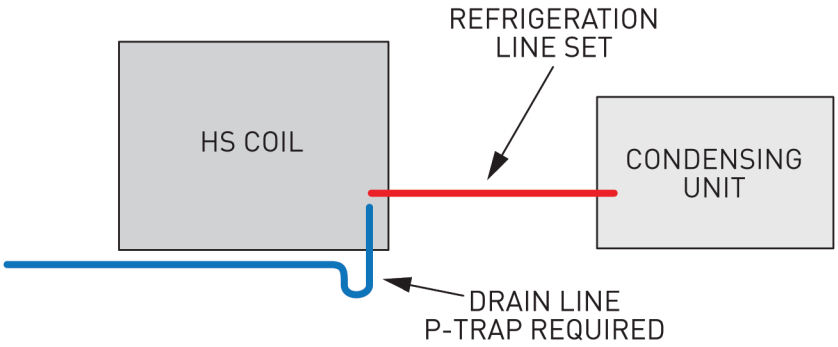
HS Cooling System Typical Installation

- Installation diagram shows the typical duct layout. Actual layout to be determined by installer
- Duct work not to exceed 50' total length
- For short duct length mat install a fan speed to slow down fan speed. Keep line sets as short as possible
- The system is controlled by a pump down control system. There is no control wiring between thermostat and condensing unit
- Standard line sets should be 50' or less. Extended runs may require larger line sizes and 3oz. oil must be added for every 10' over 35'. Drain line must always flow downhill to drain or pump
- The line connections at Fan Coil and Condensing Unit may not be the same as the required line sizes
- Excessive number of turns will cause refrigerant flow problems. This could cause early compressor failure. Suction line accumulators are recommended. Required if working lower than the normal 55-65° operating range from wine cellar.





CEILING CONSTRUCTION

EXTERIOR

VAPOR BARRIER

INSULATION – R19 OR BETTER

INTERIOR

WALL CONSTRUCTION

EXTERIOR

VAPOR BARRIER

INSULATION – R12 OR BETTER

INTERIOR

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