

SLHW / BLHW SERIES AIR HANDLERS



The SLHW/BLHW Series air handlers are designed for left or right hand horizontal installation. Various models are available to provide air movement from 400 to 1200 CFM. Optional slide-in coils for air conditioning and heat pump applications are available with nominal cooling capacities to 3.0 tons with most manufactures.

Model	F	P	L	W	D	Suction conn.	Liquid conn.	Drain conn.
SLHW	17.5''	16.00''	15.25''	16.00''	19.0''	3/4''	3/8''	3/4''
BLHW	21.25''	19.75''	15.25''	19.75''	19.0''	3/4''	3/8''	3/4''

STANDARD FEATURES

The SLHW/BLHW series hydronic air handlers are designed for permanent installation in the horizontal right hand or horizontal left hand position only. This unit when matched to a properly sized hot water source will provide ample heating for most structural loads. Various models are available that provide 1 1/2 to 3 tons of air movement. All models feature a control voltage transformer, fan relay, pump relay, PSC multi-speed blower motor, Grundfos circulator with built in check valve. Cabinets are constructed of galvanized steel with a baked on finish. Full insulation is provided in the cabinet for thermal and acoustic protection. The units are available for 120 volts single phase installations. The hydronic coil is constructed of copper tubes and aluminum fins for high efficient heat transfer. Hydronic coils are available in one, two, three or four row models. A minimum of a forty gallon water heater is required for proper operation. The actual heat output of the heating coil cannot exceed the BTUH output of the heated water source. Optional air conditioning coils are available to match most manufacturer's outdoor equipment. The optional cooling coil slides into a cavity inside the air handler

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Model	CFM	GPM	ROWS	EWT 120	EWT 140	EWT 160	EWT 180
SLHW18-S2	600	3.5	2	18.1	24.0	30.0	35.9
SLHW18-S3	600	3.5	3	21.9	29.3	36.6	44.0
SLHW24-S2	800	3.5	2	20.9	27.7	34.5	41.3
SLHW24-S3	800	3.5	3	25.4	33.9	42.4	50.9
BLHW30-B2	1000	3.5	2	22.9	30.3	37.8	45.3
BLHW30-B3	1000	3.5	3	28.0	37.3	46.7	56.1
BLHW30-B4	1000	3.5	4	36.9	49.3	61.7	74.1
BLHW36-B2	1200	3.5	2	25.5	33.4	41.5	49.5
BLHW36-B3	1200	3.5	3	31.0	41.0	51.1	61.3
BLHW36-B4	1200	3.5	4	40.3	53.8	67.3	80.9

Sequence of operation in heating mode

When the space thermostat call for heat, the unit circulating pump moves warm water from the water heater to the hydronic coil in the air handler. If the temperature in the water is above 120 degrees, then the entering water thermostat closes and allows the fan motor to run. If the water temperature is below 100 degrees then the entering water thermostat remains open until the water temperature reaches 120 degrees. The blower motor in the air handler moves air from the conditioned space, across the hydronic coil, through the air duct system and into the conditioned space. The air passing over the hydronic coil absorbs heat from the water and this warms the air which is circulated throughout the space via air duct system. The warm water is returned to the water heater approximately 15-20 degrees cooler than it left the heater originally. The water is reheated and circulated back to the hydronic coil. This process continues until the thermostat is satisfied and cycles the pump and blower motor off. The actual heating output of the unit cannot exceed the BTUH output of the water heating source. To select the proper size for the water heating source, determine the gallon capacity of the heater. Then determine the BTUH input from the heater rating plate and divide the input rating.

Electrical specifications

Model	Nom CFM	Blower HP/AMPS	Pump HP\ Amps	Voltage 60HZ 1 PH			
				Rated	AMPS	MCA	MOP
SLHW18-S1	600	.25/4.0	.04/.74	115	4.8	6.0	15
SLHW24-S1	800	.25/4.0	.04/.74	115	4.8	6.0	15
BLHW30-B1	1000	.33/4.3	.04/.74	115	5.1	6.4	15
BLHW36-B1	1200	.5/7.5	.04/.74	115	8.3	10.4	15

Blower Performance

Model	SPD	.1 ESP	.2 ESP	.3 ESP	.4 ESP	.5 ESP
SLHW18	Low	775	720	690	640	600
SLHW24	High	824	780	750	700	665
BLHW30	Low	1252	1190	1092	1089	1026
BLHW36	High	1304	1255	1197	1145	108

