

HWC Series

Add-on Hot Water

Cased Duct Coil

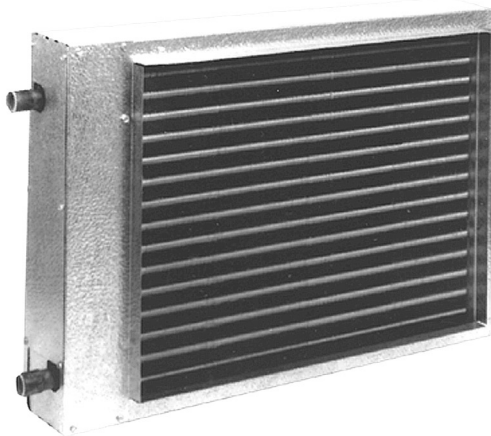
Horizontal / Vertical

Available in 3 sizes



Description :

The **HWC** series duct coil is ideal for adding hot water space heating to either existing or new installations. These coils can be matched with residential gas or oil-fired water heaters (called the **Aqua Therm** System), boiler systems, or any other source of hot water that does not exceed 180°F. Air circulation must be provided by an external source, such as an existing air handler.



(Flow Control Module)

FEATURES:

1. Embossed **galvanized steel** cabinet
2. Completely **insulated** cabinet
3. **High capacity** copper tube / aluminum fin coil
4. 7/8 inch **duct flanges** for supply and return connections
5. Manual **air vent** for air purging
6. **Expanded** piping connections accept 3/4 " nominal (I.D.), 7/8" O.D. tubing
7. Optional "**Flow Control Module**" can be **mounted at the water heater** for easier service

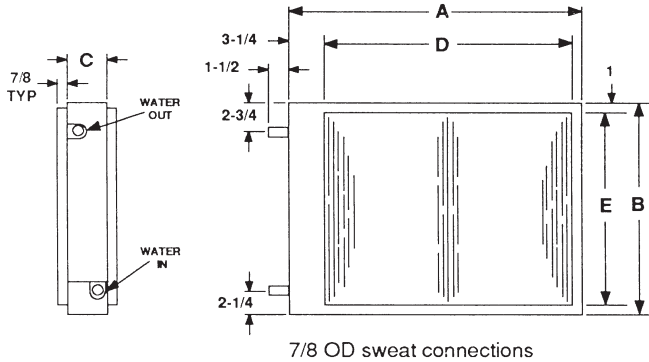
FIELD INSTALLED ACCESSORIES:

1. "**Flow Control Module**" - consists of a circulating pump, pump relay, check valve to eliminate "thermosyphoning", 6 foot plug-in line cord, and large air purge valve. This module is required when coils are piped to water heaters (**Aqua Therm** System) or any other hot water source not having a circulating pump.
#940-3 CV = 3 GPM Flow Rate
#940-2 CV = 7 GPM Flow Rate
2. #941-1 **Freeze Protector** - attaches to coil piping and is wired between "R" and "W". This switch energizes the circulator pump if the coil temperature falls below 38°F to keep the coil from freezing. The freeze protector is required when the coil is installed in areas subjected to freezing temperatures.

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HOT WATER

CASED DUCT COIL



PHYSICAL DIMENSIONS						
MODEL	FACE AREA	A	B	C	D	E
HWC1520	15 X 20	24-1/4	17	3-7/8	20	15
HWC2025	20 X 25	29-1/4	22	3-7/8	25	20
HWC2030	20 X 30	34-1/4	22	3-7/8	30	20

AIR FRICTION LOSS								
MODEL	AIR FRICTION LOSS (INCHES WATER)							
	800 CFM	1000 CFM	1200 CFM	1400 CFM	1600 CFM	1800 CFM	2000 CFM	2200 CFM
HWC1520	0.13	0.19	0.26	---	---	---	---	---
HWC2025	---	---	---	0.14	0.18	0.22	---	---
HWC2030	---	---	---	---	---	0.16	0.19	0.22

In keeping with its policy of continuous progress and product improvement, First Operations reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at www.firstco.com.

HWC1520 PERFORMANCE DATA										
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE								
		120°F			140°F			180°F		
		800 CFM	1000 CFM	1200 CFM	800 CFM	1000 CFM	1200 CFM	800 CFM	1000 CFM	1200 CFM
3	1.2	24.2	27.4	30.1	33.8	38.3	42.2	53.1	60.2	66.3
5	3.4	26.4	30.4	33.8	36.9	42.5	47.3	58.0	66.8	74.3
7	6.7	27.6	31.9	35.7	38.6	44.7	50.0	60.6	70.2	78.6
9	11.0	28.2	32.7	36.8	39.5	45.8	51.5	62.0	72.0	81.0

HWC2025 PERFORMANCE DATA										
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE								
		120°F			140°F			180°F		
		1400 CFM	1600 CFM	1800 CFM	1400 CFM	1600 CFM	1800 CFM	1400 CFM	1600 CFM	1800 CFM
3	0.6	36.6	39.3	41.4	51.2	56.0	58.0	80.5	86.4	91.1
5	1.7	41.4	44.6	47.5	58.0	62.5	66.5	91.2	98.2	104.6
7	3.4	44.1	47.9	51.3	61.7	67.0	71.8	97.0	105.3	112.8
9	5.8	45.9	50.0	53.7	64.2	70.0	75.1	100.9	110.0	118.1

HWC2030 PERFORMANCE DATA										
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT ENTERING WATER TEMPERATURE								
		120°F			140°F			180°F		
		1800 CFM	2000 CFM	2200 CFM	1800 CFM	2000 CFM	2200 CFM	1800 CFM	2000 CFM	2200 CFM
3	0.75	43.6	45.7	47.3	61.0	64.0	66.2	95.9	100.6	104.0
5	2.2	50.4	53.2	55.7	70.6	74.5	78.0	110.9	117.1	122.6
7	4.4	54.2	57.8	60.8	75.9	80.9	85.2	119.3	127.1	133.9
9	7.5	56.7	60.7	64.1	79.4	84.9	89.8	124.8	133.4	141.0

NOTES:

- Heat BTUH is at 70°F entering air temperature.
- #940-3 CV - This flow control module will achieve BTUH capacities shown at 3 GPM.
#940-2 CV - This flow control module will achieve BTUH capacities shown at 7 GPM. When this module is used and the total distance between the coil and water heater exceeds 20 feet, the copper piping should be 1-1/8" O.D. For all other applications use 7/8" O.D. piping.
- Heating BTUH of coil will not exceed output of water heater.
- Note: State of MA, .248 CMR code of the state of MA requires a pump timer. (60 seconds every 6 hours)

Numbers in grey areas represent typical applications.