

First Co.

CWC

Commercial Water Coils

Available In 2, 4 Or 6 Row Configurations

All Coils Are Pressure Tested To 350 PSI

Up To 20 Tons Clg, 900,000 BTU Htg.

Utilizes Hot Or Chilled Water

Manufactured With Copper Tubes &
Aluminum Fins For High Efficiency Performance

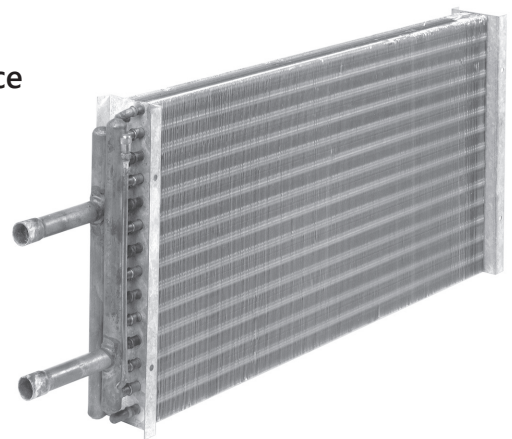


TABLE OF CONTENTS

FEATURES.....3

TECHNICAL DATA

AIR FRICTION LOSS4

HW HEATING CORRECTION5

HW CAPACITIES – **2 ROW COILS**.....6

CHILLED OR HW CAPACITIES – **4 ROW COILS** 7-8

CHILLED OR HW CAPACITIES – **6 ROW COILS**9-10

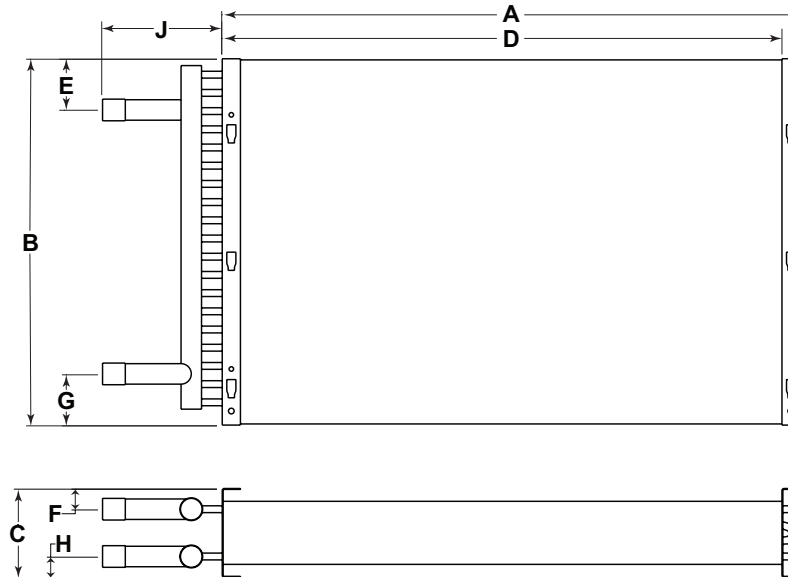


COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

FEATURES

The **CWC** series water coils are available for immediate delivery to provide desired heating and cooling capacities using hot or chilled water. These coils are manufactured with copper tubes and aluminum fins for high efficiency performance. All coils are pressure tested to 350 PSI to ensure leak-proof operation. Coils are available in 2, 4, and 6 row configurations.



Commercial Water Coil

CWC – DIMENSIONS												
ROW / MODEL		FACE AREA	A (W)	B (H)	C (D)	D	E	F	G	H	J	MANIFOLD CONNECTIONS
2 ROW	CWC 14182	14 X 18-3/4	19-3/4	14-1/8	3-1/8	18-3/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 14282	14 X 18-1/4	29-1/4	14-1/8	3-1/8	28-1/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 18292	18 X 29-3/4	30-3/4	18-1/8	3-1/8	29-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 18362	18 X 36-3/4	37-3/4	18-1/8	3-1/8	36-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 20452	20 X 45-5/8	46-5/8	20-1/8	2-11/16	45-5/8	1-1/4	7/8	3-1/2	1-3/8	5-5/8	1-1/8 OD (SWT)
	CWC 25482	25-1/2 X 48-5/8	49-5/8	25-5/8	2-11/16	48-5/8	1-1/4	7/8	3-1/2	1-3/8	5-5/8	1-3/8 OD (SWT)
	CWC 33572	32-1/5 X 57-5/8	58-5/8	32-5/8	2-11/16	57-5/8	1-1/4	7/8	3-1/2	1-3/8	5-5/8	1-3/8 OD (SWT)
	CWC 45572	45 X 57-5/8	58-5/8	45-1/8	2-11/16	57-5/8	1-1/4	7/8	3-1/2	1-3/8	5-5/8	1-3/8 OD (SWT)
4 ROW	CWC 16184	16 X 18-3/4	19-3/4	16-1/8	4-7/8	18-3/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 16284	16 X 28-1/4	29-1/4	16-1/8	4-7/8	28-1/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 20294	20 X 29-3/4	30-3/4	20-1/8	4-7/8	29-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 20364	20 X 36-3/4	37-3/4	20-1/8	4-7/8	36-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	1-1/8 OD (SWT)
	CWC 22454	22-1/2 X 45-5/8	46-5/8	22-5/8	5	45-5/8	1	15/16	3-1/2	7/8	5-5/8	1-1/8 OD (SWT)
	CWC 27484	27-1/2 X 48-5/8	49-5/8	27-5/8	5	48-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)
	CWC 35574	35 X 57-5/8	58-5/8	35-1/8	5	57-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)
	CWC 47574	47-1/2 X 57-5/8	58-5/8	47-5/8	5	57-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)
6 ROW	CWC 16186	16 X 18-3/4	19-3/4	16-1/8	6-5/8	18-3/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 16286	16 X 28-1/4	29-1/4	16-1/8	6-5/8	28-1/4	3-9/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 20296	20 X 29-3/4	30-3/4	20-1/8	6-5/8	29-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	7/8 OD (SWT)
	CWC 20366	20 X 36-3/4	37-3/4	20-1/8	6-5/8	36-3/4	2-13/16	1-3/16	2-13/16	1-3/16	5-1/16	1-1/8 OD (SWT)
	CWC 22456	22-1/2 X 45-5/8	46-5/8	22-5/8	7-1/8	45-5/8	1	15/16	3-1/2	7/8	5-5/8	1-1/8 OD (SWT)
	CWC 27486	27-1/2 X 48-5/8	49-5/8	27-5/8	7-1/8	48-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)
	CWC 35576	35 X 57-5/8	58-5/8	35-1/8	7-1/8	57-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)
	CWC 47576	47-1/2 X 57-5/8	58-5/8	47-5/8	7-1/8	57-5/8	1	15/16	3-1/2	7/8	5-5/8	1-3/8 OD (SWT)

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA

AIR FRICTION LOSS

CWC – (600 TO 2200 CFM) AIR FRICTION LOSS									
AIR FRICTION LOSS (inches of water)									
MODEL	600 CFM	800 CFM	1000 CFM	1200 CFM	1400 CFM	1600 CFM	1800 CFM	2000 CFM	2200 CFM
CWC 14182	0.07	0.12	0.18	---	---	---	---	---	---
CWC 14282	---	---	0.08	0.12	0.15	---	---	---	---
CWC 18292	---	---	---	---	---	0.11	0.13	---	---
CWC 18362	---	---	---	---	---	---	0.09	0.11	0.13
CWC 16184*	0.14	0.23	0.29	---	---	---	---	---	---
CWC 16284*	---	---	0.17	0.23	0.30	---	---	---	---
CWC 20294*	---	---	---	---	---	0.23	0.28	---	---
CWC 20364*	---	---	---	---	---	---	0.20	0.23	0.28
CWC 16186*	0.22	0.34	0.43	---	---	---	---	---	---
CWC 16286*	---	---	0.25	0.34	0.45	---	---	---	---
CWC 20296*	---	---	---	---	---	---	0.42	---	---
CWC 20366*	---	---	---	---	---	---	0.28	0.34	0.40

CWC – (2500 TO 6800 CFM) AIR FRICTION LOSS								
AIR FRICTION LOSS (inches of water)								
MODEL	2500 CFM	3000 CFM	3500 CFM	4000 CFM	4500 CFM	5200 CFM	6000 CFM	6800 CFM
CWC 20452	0.13	0.18	0.24	---	---	---	---	---
CWC 25482	---	---	0.15	0.19	0.23	---	---	---
CWC 33572	---	---	---	---	---	0.14	0.18	0.23
CWC 22454*	0.26	0.34	0.44	---	---	---	---	---
CWC 27484*	---	---	0.30	0.44	0.44	---	---	---
CWC 35574*	---	---	---	---	---	0.30	0.37	0.45
CWC 22456*	0.39	0.51	0.65	---	---	---	---	---
CWC 27486*	---	---	0.44	0.6	0.66	---	---	---
CWC 35576*	---	---	---	---	---	0.44	0.55	0.66

CWC – (6000 TO 10000 CFM) AIR FRICTION LOSS			
AIR FRICTION (inches of water)			
MODEL	6000 CFM	8000 CFM	10000 CFM
CWC 45572	0.10	0.18	0.25
CWC 47574*	0.21	0.37	0.58
CWC 47576*	0.31	0.55	0.86

* 4 and 6 row coil air friction loss is with wet coil.
For dry coil air friction loss multiply by 0.82.

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

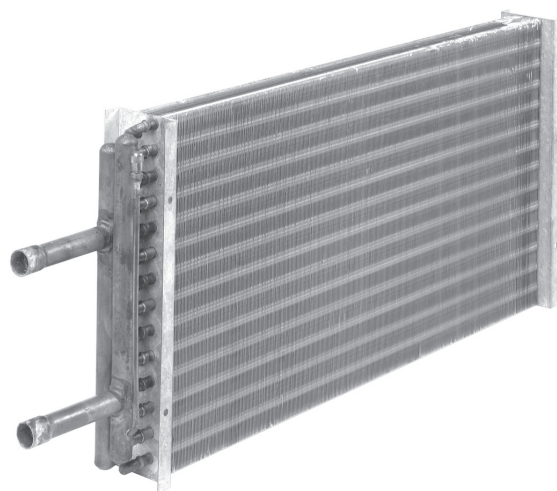
TECHNICAL DATA (CONT'D)

HW HEATING CORRECTION FACTORS

CWC – HOT WATER HEATING CORRECTION FACTORS									
ENTERING AIR TEMP. (°F)	ENTERING WATER TEMPERATURE (°F)								
	100°F	110°F	120°F	130°F	140°F	150°F	160°F	170°F	180°F
50°F	0.455	0.545	0.636	0.727	0.818	0.909	1.00	1.091	1.182
55°F	0.409	0.500	0.591	0.682	0.773	0.864	0.955	1.045	1.136
60°F	0.363	0.455	0.545	0.636	0.757	0.818	0.909	1.000	1.091
65°F	0.318	0.409	0.500	0.591	0.682	0.773	0.864	0.955	1.045
70°F	0.272	0.363	0.455	0.545	0.636	0.727	0.818	0.909	1.000
75°F	0.227	0.318	0.409	0.500	0.591	0.692	0.773	0.864	0.955
80°F	0.182	0.272	0.363	0.455	0.545	0.636	0.727	0.818	0.909

NOTES:

1. To determine heating capacity at other than 180°F entering water temperature and 70°F entering air temperature, multiply the selected heating capacity at 180°F times the appropriate correction factor from above chart.
2. These correction factors may be used on all First Co. published 180°F heating capacities.



Water Coils

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA (CONT'D)

CWC – **HOT** WATER CAPACITIES – 2 ROW COILS

CWC 14182 (24SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		600	800	1000
3.0	0.9	33.3	38.4	42.9
6.0	3.2	36.6	43.2	49.0
9.0	6.7	37.9	45.3	51.8

CWC 20452 (90SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		2500	3000	3500
8	1.0	146.2	160.5	171.5
14	2.8	162.3	180.4	196.2
21	6.1	171.1	191.2	209.1

CWC 14182 (36SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		1000	1200	1400
4.0	1.6	53.3	58.7	65.4
8.0	6.1	59.4	66.2	72.5
12.0	13.1	61.5	68.7	75.4

CWC 25482 (120SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		3500	4000	4500
11	1.0	201.6	215.8	227.3
18	2.8	221.6	239.8	255.0
25	5.3	231.9	251.9	268.9

CWC 18292 (48SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		1400	1600	1800
5.0	2.0	72.8	78.0	82.7
8.0	4.8	79.2	85.4	91.4
12.0	10.4	83.3	90.2	97.0

CWC 33572 (180SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		5200	6000	6800
17	1.9	308.7	332.3	352.6
25	4.1	332.3	360.2	386.1
35	8.0	347.8	378.5	407.5

CWC 18362 (60SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		1800	2000	2200
6.0	3.1	93.1	98.2	103.1
9.0	6.6	100.4	106.5	112.6
12.0	11.5	104.4	111.0	117.7

CWC 45572 (230SHW/SHX/SVW/SVX)				
GPM	PRESSURE DROP (FT. WTR.)	HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM		
		6000	8000	10000
15	0.9	323	369	415
25	2.3	361	420	457
35	4.3	382	449	494

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA – 4 ROW COILS

CWC – CHILLED OR HOT WATER CAPACITIES – 4 ROW COILS

CWC 14182 (24SHW/SHX/SVW/SVX)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		600	800	1000	600	800	1000
3.0	1.2	17.9	19.9	21.3	47.5	56.4	64.3
6.0	4.4	22.7	26.6	29.8	52.0	63.2	73.3
9.0	9.3	24.5	29.2	33.3	53.6	65.8	76.8

CWC 16284 (36SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1000	1200	1400	1000	1200	1400
4.0	2.0	27.2	28.8	30.4	75.5	83.9	91.7
8.0	7.5	35.8	39.4	42.6	83.9	94.7	105.1
12.0	16.3	39.0	43.6	47.7	86.8	98.9	110.1

CWC 20294 (48SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1400	1600	1800	1400	1600	1800
6.0	3.9	39.4	41.4	42.6	106.3	114.9	123.3
10.0	10.3	48.3	51.8	54.7	114.9	125.3	135.3
13.0	17.0	51.6	55.8	59.6	118.0	129.4	140.0

CWC 20364 (60SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1800	2000	2200	1800	2000	2200
6.0	1.8	44.7	45.0	45.5	128.0	136.2	143.8
11.0	5.7	58.4	61.2	63.7	142.6	152.9	162.6
16.0	11.6	64.8	69.1	72.9	149.6	160.8	171.4

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA – 4 ROW COILS (CONT'D)

CWC – CHILLED OR HOT WATER CAPACITIES – 4 ROW COILS

CWC 22454 (90SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		2500	3000	3500	2500	3000	3500
10.0	2.2	73.8	78.1	82.0	207.8	232.4	255.2
15.0	4.7	88.3	95.8	102.0	222.4	251.1	278.5
22.0	9.8	99.2	109.4	118.1	232.8	265.1	295.7

CWC 27484 (120SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		3500	4000	4500	3500	4000	4500
12.0	2.0	96.8	98.5	102.6	278.4	302.6	324.3
21.0	5.8	123.4	130.9	137.8	307.6	337.0	365.5
30.0	11.4	135.6	146.3	155.5	321.0	352.9	384.1

CWC 35574 (180SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		5200	6000	6800	5200	6000	6800
18.0	2.0	142.2	144.4	150.5	411.0	449.4	483.2
30.0	5.3	178.3	188.7	198.7	450.7	496.9	540.5
42.0	10.1	197.2	212.8	226.2	471.7	521.8	570.0

CWC 47574 (230SHW/SVW-4)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		6000	8000	10000	6000	8000	10000
40.0	5.2	222	253	274	547	664	768
50.0	8.0	238	275	302	561	687	799
60.0	11.3	248	290	322	571	702	819

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA – 6 ROW COILS

CWC – CHILLED OR HOT WATER CAPACITIES – 6 ROW COILS

CWC 16186 (924SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		600	800	1000	600	800	1000
3.0	1.3	20.5	22.8	24.5	57.0	68.4	78.3
5.0	3.3	24.7	28.7	32.0	61.1	74.6	86.6
7.0	9.3	24.5	32.3	36.5	63.5	78.2	91.4

CWC 16286 (36SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1000	1200	1400	1000	1200	1400
4.0	2.7	32.6	34.9	37.1	92.8	104.0	114.3
7.0	7.5	41.3	45.6	49.5	101.5	115.1	128.2
10.0	14.5	45.4	50.9	55.9	105.4	120.6	134.9

CWC 20296 (48SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1400	1600	1800	1400	1600	1800
5.0	2.3	41.8	43.6	44.7	124.9	135.1	145.2
8.0	5.5	52.3	55.7	58.4	135.7	147.8	160.0
11.0	10.1	58.4	63.0	67.0	141.6	155.3	168.6

CWC 20366 (60SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		1800	2000	2200	1800	2000	2200
6.0	1.6	52.7	53.1	58.9	156.2	167.1	177.0
9.0	3.4	63.8	66.2	68.5	168.4	181.1	192.9
12.0	5.9	71.0	74.8	78.3	176.2	190.0	202.8

COMMERCIAL WATER COILS

2, 4 OR 6 ROW CONFIGURATIONS

TECHNICAL DATA – 6 ROW COILS (CONT'D)

CWC – CHILLED OR HOT WATER CAPACITIES – 6 ROW COILS

CWC 22456 (90SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		2500	3000	3500	2500	3000	3500
11.0	1.6	86.4	92.0	97.8	246.8	275.0	301.5
21.0	5.5	110.8	122.4	132.9	271.1	306.3	340.3
31.0	11.5	122.3	131.7	150.6	282.1	321.6	359.0

CWC 27486 (120SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		3500	4000	4500	3500	4000	4500
15.0	1.7	121.5	125.4	131.6	337.0	367.7	394.8
25.0	4.7	147.7	158.1	168.0	365.8	401.4	434.7
35.0	9.1	161.8	176.1	188.7	381.8	420.0	456.6

CWC 35576 (180SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		5200	6000	6800	5200	6000	6800
20.0	1.7	168.8	172.6	181.1	487.5	534.1	573.6
30.0	3.6	200.3	211.7	224.2	521.9	575.3	623.2
40.0	6.3	220.8	237.8	253.7	544.5	602.0	655.0

CWC 47576 (230SHW/SVW-6)							
GPM	PRESSURE DROP (FT. WTR.)	COOLING BTUH (1000) AT 45°F EWT & 80/67°F EAT			HEATING BTUH (1000) AT 180°F EWT & 70°F EAT		
		CFM			CFM		
		6000	8000	10000	6000	8000	10000
40.0	5.2	246	282	309	633	774	896
50.0	8.0	265	309	344	652	800	928
60.0	11.3	279	330	371	667	819	952



AMERICAN-MADE. FAMILY OWNED.



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