AURORA 1081BP SERIES

MODEL AP

BRAZED PLATE HEAT EXCHANGERS

AP Model	# of Plates	Width (Inches)	Length (Inches)	Depth (Inches)	Connections MPT	Capacity (BTU/hr)	Side A (Boiler) GPM	Side A (Boiler) PD (psi)	Side B (Radiant) GPM	Side B (Radiant) PD (psi)	Weight (lbs)
AP2H-8	8	3.4	8.9	1.1	3/4"	37,109	3.8	5.0	3.7	3.0	2.7
AP2H-10	10	3.4	8.9	1.3	3/4"	49,804	5.1	5.0	5.0	3.5	2.9
AP2H-12	12	3.4	8.9	1.4	3/4"	61,034	6.3	5.0	6.2	3.8	3.2
AP2H-14	14	3.4	8.9	1.6	3/4"	71,776	7.3	5.0	7.2	4.0	3.4
AP2H-16	16	3.4	8.9	1.8	3/4"	82,030	8.4	5.0	8.3	4.1	3.7
AP2H-20	20	3.4	8.9	2.1	3/4"	101,073	10.4	5.0	10.2	4.4	4.1
AP2H-24	24	3.4	8.9	2.5	3/4"	117,186	12.0	5.0	11.8	4.6	4.6
AP2H-30	30	3.4	8.9	3.0	3/4"	136,717	14.0	5.0	13.8	4.7	5.3
AP2H-40	40	3.4	8.9	3.9	3/4"	161,130	16.5	5.0	16.3	4.8	6.5
AP2H-50	50	3.4	8.9	4.8	3/4"	175,779	18.0	5.0	17.7	4.9	7.7
AP4H-8	8	5.1	13.3	1.1	3/4"	43,456	4.4	5.0	4.4	3.1	2.7
AP4H-10	10	5.1	13.3	1.3	3/4"	57,738	5.9	5.0	5.8	3.5	2.9
AP4H-12	12	5.1	13.3	1.4	3/4"	71,776	7.3	5.0	7.2	3.7	3.2
AP4H-14	14	5.1	13.3	1.6	3/4"	85,936	8.8	5.0	8.7	3.9	3.4
AP4H-16	16	5.1	13.3	1.8	3/4"	100,096	10.3	5.0	10.1	4.1	3.7
AP4H-20	20	5.1	13.3	2.1	1"	128,904	13.2	5.0	13.0	4.3	4.1
AP4H-24	24	5.1	13.3	2.5	1"	156,248	16.0	5.0	15.8	4.5	4.6
AP4H-30	30	5.1	13.3	3.0	1"	197,263	20.2	5.0	19.9	4.6	5.3
AP4H-36	36	5.1	13.3	3.5	1"	235,348	24.1	5.0	23.7	4.7	6.1
AP4H-40	40	5.1	13.3	3.9	1-1/4"	259,762	26.6	5.0	26.2	4.7	6.5
AP4H-50	50	5.1	13.3	4.8	1-1/4"	322,261	33.0	5.0	32.5	4.9	7.7
AP4H-60	60	5.1	13.3	5.6	1-1/4"	375,971	38.5	5.0	37.9	4.9	8.9
AP4H-70	70	5.1	13.3	6.5	1-1/4"	424,798	43.5	5.0	42.8	4.9	10.1
AP4H-80	80	5.1	13.3	7.4	1-1/4"	468,743	48.0	5.0	47.3	4.9	11.3
AP4H-90	90	5.1	13.3	8.2	1-1/4"	512,688	52.5	5.0	51.7	5.0	12.5
AP4H-100	100	5.1	13.3	9.1	1-1/4"	546,867	56.0	5.0	55.2	5.0	13.7
AP4H-110	110	5.1	13.3	10.0	1-1/4"	576,163	59.0	5.0	58.1	5.0	14.9
AP4H-120	120	5.1	13.3	10.8	1-1/4"	605,460	62.0	5.0	61.1	5.0	16.1

The AP model is designed specifically for Hydronic Heating, Industrial Process, Boiler, Domestic Water Heating, Snow Melt, Steam and Fluid-to-Fluid applications as well as Shell & Tube Replacements. Reliable and compact, the AP model represents the latest technology in high performance heat exchangers. Copper brazed, stainless steel plates provide a highly efficient, low fouling heat transfer surface. All AP models have male pipe thread fittings and mounting stud bolts are standard; other connections are available by special order. U.L. Listed. Optional ASME and (CE) European PED code approvals.

NOTES:

1. For ASME versions, put "-UM" after the model number.
   Example: AP4H-20-UM (1" MPT)-UM
2. For International versions, connections are BSPT.
   Example: AP5x12-20 (1-1/4" BSPT)
3. Design Pressure Ratings:
   All models are 450 psig.
   APSMO models are 300 psig.

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AURORA®
Pentair Water

AURORA 1081BP SERIES

MODEL AP

BRAZED PLATE HEAT EXCHANGERS

AP Model	# of Plates	Width	Length	Depth	Connections	Capacity	Side A (Boiler)		Side B (Radiant)		Weight
		(Inches)	(Inches)	(Inches)	MPT	(BTU/hr)	GPM	PD (psi)	GPM	PD (psi)	(lbs)
AP57H-20	20	9.8	20.3	2.5	1-1/2"	202,145	20.7	5.0	20.4	4.3	51.0
AP57H-24	24	9.8	20.3	2.9	1-1/2"	248,043	25.4	5.0	25.0	4.5	55.4
AP57H-30	30	9.8	20.3	3.6	2"	315,425	32.3	5.0	31.8	4.6	62.0
AP57H-36	36	9.8	20.3	4.2	2"	380,854	39.0	5.0	38.4	4.7	68.6
AP57H-40	40	9.8	20.3	4.6	2"	424,798	43.5	5.0	42.8	4.8	73.0
AP57H-50	50	9.8	20.3	5.7	2-1/2"	532,219	54.5	5.0	53.7	4.9	84.0
AP57H-60	60	9.8	20.3	6.7	2-1/2"	634,756	65.0	5.0	64.0	4.9	95.0
AP57H-70	70	9.8	20.3	7.7	2-1/2"	737,294	75.5	5.0	74.4	4.9	106.0
AP57H-80	80	9.8	20.3	8.8	2-1/2"	834,949	85.5	5.0	84.2	5.0	117.0
AP57H-90	90	9.8	20.3	9.8	2-1/2"	932,604	95.5	5.0	94.1	5.0	128.0
AP57H-100	100	9.8	20.3	10.9	2-1/2"	1,025,376	105.0	5.0	103.4	5.1	139.0
AP57H-110	110	9.8	20.3	11.9	2-1/2"	1,108,382	113.5	5.0	111.8	5.0	150.0
AP57H-120	120	9.8	20.3	12.9	2-1/2"	1,191,389	122.0	5.0	120.2	5.1	161.0
AP57H-130	130	9.8	20.3	14.0	2-1/2"	1,269,513	130.0	5.0	128.1	5.1	172.0
AP57H-140	140	9.8	20.3	15.0	2-1/2"	1,347,637	138.0	5.0	135.9	5.1	183.0
AP57H-150	150	9.8	20.3	16.1	2-1/2"	1,415,995	145.0	5.0	142.8	5.1	194.0
AP57H-160	160	9.8	20.3	17.1	2-1/2"	1,484,353	152.0	5.0	149.7	5.1	205.0
AP57H-170	170	9.8	20.3	18.1	2-1/2"	1,542,946	158.0	5.0	155.6	5.1	216.0
AP57H-180	180	9.8	20.3	19.2	2-1/2"	1,601,539	164.0	5.0	161.5	5.1	227.0
AP57H-190	190	9.8	20.3	20.2	2-1/2"	1,660,132	170.0	5.0	167.5	5.1	238.0
AP57H-200	200	9.8	20.3	21.3	2-1/2"	1,708,959	175.0	5.0	172.4	5.1	249.0
AP10H-50	50	15.2	34.5	5.6	3" FLG	800,770	82.0	5.0	80.8	4.8	227.1
AP10H-60	60	15.2	34.5	6.5	3" FLG	961,900	98.5	5.0	97.0	4.9	255.1
AP10H-70	70	15.2	34.5	7.4	3" FLG	1,127,913	115.5	5.0	113.8	4.9	283.1
AP10H-80	80	15.2	34.5	8.4	3" FLG	1,298,809	143.0	5.0	131.0	5.0	311.1
AP10H-90	90	15.2	34.5	9.3	3" FLG	1,455,057	149.0	5.0	146.8	5.0	339.1
AP10H-100	100	15.2	34.5	10.2	4" FLG	1,140,756	167.0	5.0	115.1	5.0	367.1
AP10H-110	110	15.2	34.5	11.1	4" FLG	445,959	183.0	5.0	45.0	0.4	395.1
AP10H-120	120	15.2	34.5	12.1	4" FLG	484,950	199.0	5.0	48.9	0.4	423.1
AP10H-130	130	15.2	34.5	13.0	4" FLG	523,941	215.0	5.0	52.8	0.4	451.1
AP10H-140	140	15.2	34.5	13.9	4" FLG	562,932	231.0	5.0	56.8	0.4	479.1
AP10H-150	150	15.2	34.5	14.9	4" FLG	604,360	248.0	5.0	61.0	0.4	507.1
AP10H-160	160	15.2	34.5	15.8	4" FLG	640,914	263.0	5.0	64.6	0.4	535.1
AP10H-170	170	15.2	34.5	16.7	4" FLG	626,658	278.0	5.0	68.3	0.4	563.1
AP10H-180	180	15.2	34.5	17.7	4" FLG	718,896	295.0	5.0	72.5	0.4	591.1
AP10H-190	190	15.2	34.5	18.6	4" FLG	755,450	310.0	5.0	76.2	0.4	619.1
AP10H-200	200	15.2	34.5	19.5	4" FLG	794,440	326.0	5.0	80.1	0.4	647.1
AP10H-220	220	15.2	34.5	21.4	4" FLG	865,112	355.0	5.0	87.3	0.4	703.1
AP10H-240	240	15.2	34.5	23.2	4" FLG	935,783	384.0	5.0	94.4	0.4	759.1
AP10H-260	260	15.2	34.5	25.1	4" FLG	1,004,017	412.0	5.0	101.3	0.4	815.1
AP10H-280	280	15.2	34.5	27.0	4" FLG	1,067,377	438.0	5.0	107.7	0.4	871.1
AP10H-300	300	15.2	34.5	28.8	4" FLG	1,133,174	465.0	5.0	114.3	0.4	927.1

NOTES:

1. For ASME versions, put "-UM" after the model number.
   Example: AP57H-20 (1-1/2" MPT)-UM
2. For International versions, connections are BSPT.
   Example: AP57H-20 (1-1/2" BSPT)

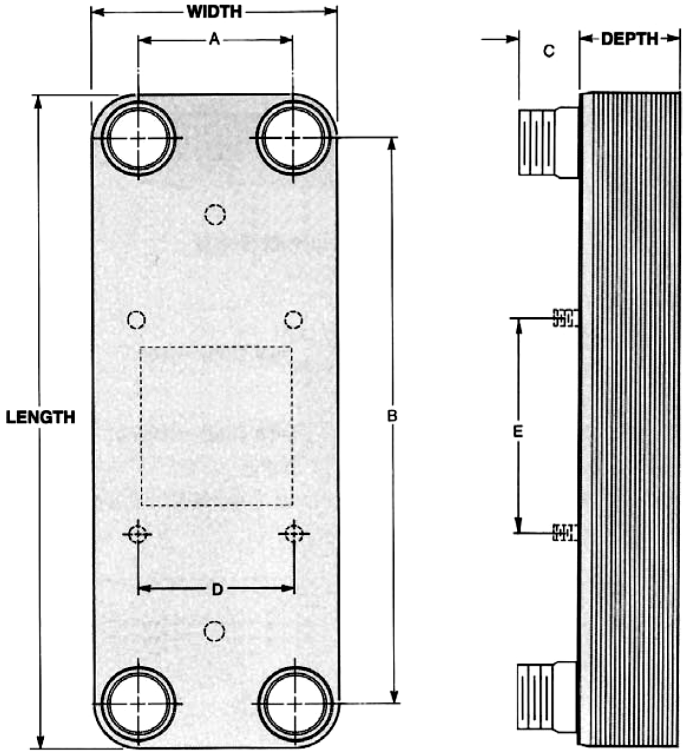
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AURORA 1081BP SERIES

MODEL AP

BRAZED PLATE HEAT EXCHANGERS



Models	Length	Width	Depth	A	B	C (Min)	C (Max)	D	E	Approximate Weight (lbs)
AP2H	7.8	3.3	0.094 x #plates + 0.36	1.6	6.1	0.88	1.00	C/L	3.0	0.107 x #plates + 1.8
AP4H	12.2	4.9	0.094 x #plates + 0.36	2.7	9.9	1.13	1.38	2.5	3.5	0.328 x #plates + 3.1
AP57H	20.3	9.8	0.094 x #plates + 0.36	6.5	17.0	1.47	1.77	4.0	5.5	1.1 x #plates + 10.7
AP10H						6.50	7.00			0.328 x #plates + 3.1

NOTES:
1. All dimensions are in inches.
2. Connections the same on both sides.
3. Heat exchanger may be installed in vertical or horizontal position (except steam application).
4. Heat exchanger must be piped in counterflow arrangement.
5. A water strainer must be installed in the water inlet circuit (16-20 mesh minimum; 20-40 mesh recommended).
6. Water quality should be maintained at a PH of 6.5 to 8.0.
7. Use APSMO Series for steam, chlorinated water and pool water applications.

STUD BOLTS:
- 1/4-20 x 11/16"L on all AP2H Models
- 3/8-24 x 7/8"L on all AP4H Models
- 1/2-13 x 1-3/8"L standard on all AP57H Models

SPECIFICATIONS:
Plate Material.....316L Stainless Steel
Braze Material.....Copper
Maximum Working Temperature.....350˚F
Minimum Working Temperature.....-320˚F
Maximum Working Pressure.....450 psig for all models (excluding APSMO models)
.....300 psig for APSMO models

APPROVALS:
U.L. (Underwriters Laboratory) USA and Canada-standard
ASME Certification (optional)
Canadian CRN
CE (optional)
- Optional Floor Mount Brackets and Strainers
- Standard and Custom units available including **nickel brazed**, (300 psi) versions.

c UL us LISTED
Optional ASME Certified
Optional European Code

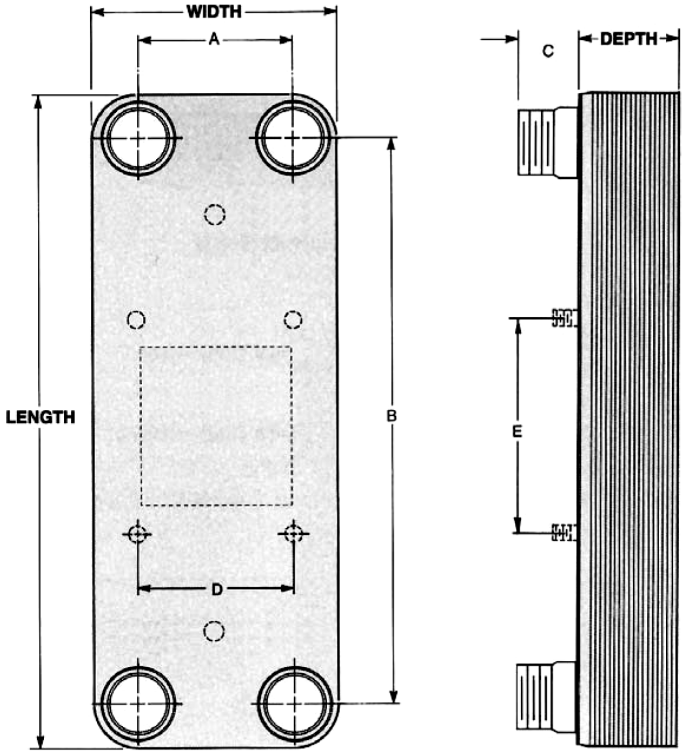
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AURORA® Pentair Water

AURORA 1081BP SERIES

MODEL APSMO

BRAZED PLATE HEAT EXCHANGERS



Connections (a)		C
# of Plates	Standard Threaded (MPT)	
APSMO5x12		
4 thru 16	1	1.250
20 thru 80	1-1/4	1.375
APSMO10x20L		
20 and 24	1-1/2	1.500
30 thru 40	2	1.750
50 thru 200	2-1/2	2.000

Models	Length	Width	Depth	A	B	C (Min)	C (Max)	D	E	Approximate Weight (lbs)
APSMO5x12	12.2	4.9	0.094 x #plates + 0.36	2.7	9.9	1.13	1.38	2.5	3.5	0.328 x #plates + 3.1
APSMO10x20L	20.3	9.8	0.094 x #plates + 0.36	6.5	17.0	1.50	2.00	4.0	5.5	1.1 x #plates + 10.7

NOTES:
1. All dimensions are in inches.
2. Connections the same on both sides.
3. Heat exchanger may be installed in vertical or horizontal position (except steam application).
4. Heat exchanger must be piped in counterflow arrangement.
5. A water strainer must be installed in the water inlet circuit (16-20 mesh minimum; 20-40 mesh recommended).
6. Water quality should be maintained at a PH of 2.0 or higher.
7. Designed for chlorinated pool water and process applications.
8. A zinc anode must be installed and attached to the heat exchanger for swimming pools with electronic chlorinators or salt water.

STUD BOLTS:
- 3/8-24 x 7/8"L on all APSMO5x12 Models
- 1/2-13 x 1-3/8"L on all APSMO10x20L Models

SPECIFICATIONS:
Plate Material.....254SMO Stainless Alloy
Braze Material.....Nickel
Maximum Working Temperature.....350˚F
Minimum Working Temperature.....-320˚F
Maximum Working Pressure.....300 psig

- Optional Floor Mount Brackets and Strainers
- Optional Zinc Anodes

c UL us LISTED
Optional ASME Certified
CE Optional European Code

AURORA® Pentair Water

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AURORA 1081BP SERIES

MODEL APSMO

BRAZED PLATE HEAT EXCHANGERS

AP Model	Boiler Water: 180°F Supply, 130°F Return Pool Water: 70°F Return, 107°F Supply										
	# of Plates	Width	Length	Depth	Connections	Capacity	Side A (Boiler)		Side B (Radiant)		Weight
		(Inches)	(Inches)	(Inches)	MPT	(BTU/hr)	GPM	PD (psi)	GPM	PD (psi)	(lbs)
APSM05X12-4	4	4.9	12.2	0.7	1"	32,587	1.3	5.0	1.8	2.5	3.7
APSM05X12-6	6	4.9	12.2	0.9	1"	64,929	2.7	5.0	3.5	4.3	4.4
APSM05X12-8	8	4.9	12.2	1.1	1"	98,006	4.0	5.0	5.3	5.4	5.0
APSM05X12-10	10	4.9	12.2	1.3	1"	129,858	5.3	5.0	7.0	6.1	5.7
APSM05X12-12	12	4.9	12.2	1.4	1"	161,710	6.6	5.0	8.7	6.5	6.3
APSM05X12-16	16	4.9	12.2	1.8	1"	224,189	9.1	5.0	12.1	7.1	7.6
APSM05X12-20	20	4.9	12.2	2.2	1"	289,731	11.8	5.0	15.6	7.6	8.9
APSM05X12-24	24	4.9	12.2	2.5	1-1/4"	358,476	14.6	5.0	19.4	8.1	10.1
APSM05X12-30	30	4.9	12.2	3.1	1-1/4"	443,815	18.1	5.0	24.0	8.1	12.1
APSM05X12-40	40	4.9	12.2	4.0	1-1/4"	581,568	23.8	5.0	31.4	8.1	15.3
APSM05X12-50	50	4.9	12.2	4.9	1-1/4"	737,496	30.1	5.0	40.0	8.8	18.5
APSM05X12-60	60	4.9	12.2	5.8	1-1/4"	857,554	35.0	5.0	46.5	8.8	21.7
APSM05X12-70	70	4.9	12.2	6.7	1-1/4"	980,061	40.0	5.0	53.2	8.8	24.9
APSM05X12-80	80	4.9	12.2	7.6	1-1/4"	1,092,768	44.6	5.0	59.3	8.9	28.1
APSM05X12-90	90	4.9	12.2	8.5	1-1/4"	1,188,324	48.5	5.0	64.5	8.9	31.3
APSM05X12-100	100	4.9	12.2	9.4	1-1/4"	1,298,581	53.0	5.0	70.5	9.2	34.5
APSM05X12-110	110	4.9	12.2	10.3	1-1/4"	1,382,131	56.4	5.0	75.0	9.2	37.7
APSM05X12-120	120	4.9	12.2	11.2	1-1/4"	1,396,587	57.0	5.0	75.8	9.2	40.9
APSM010X20L-20	20	9.8	20.3	2.2	1-1/2"	1,114,820	45.5	5.0	60.5	7.7	43.8
APSM010X20L-24	24	9.8	20.3	2.5	1-1/2"	1,359,835	55.5	5.0	73.8	8.0	47.9
APSM010X20L-30	30	9.8	20.3	3.1	2"	1,702,856	69.5	5.0	92.4	8.2	54.0
APSM010X20L-36	36	9.8	20.3	3.6	2"	2,033,627	83.0	5.0	110.4	8.4	60.1
APSM010X20L-40	40	9.8	20.3	4.0	2"	2,254,141	92.0	5.0	122.4	8.6	64.2
APSM010X20L-50	50	9.8	20.3	4.9	2-1/2"	2,778,474	113.4	5.0	150.8	8.8	74.4
APSM010X20L-60	60	9.8	20.3	5.8	2-1/2"	3,185,199	130.0	5.0	172.9	8.8	84.6
APSM010X20L-70	70	9.8	20.3	6.7	2-1/2"	3,577,223	146.0	5.0	194.2	8.8	94.8
APSM010X20L-80	80	9.8	20.3	7.6	2-1/2"	3,920,245	160.0	5.0	212.8	8.9	105.0
APSM010X20L-90	90	9.8	20.3	8.5	2-1/2"	4,304,919	173.0	5.0	230.1	8.9	115.2
APSM010X20L-100	100	9.8	20.3	9.4	2-1/2"	4,496,031	183.5	5.0	244.0	8.9	125.4
APSM010X20L-110	110	9.8	20.3	10.3	2-1/2"	4,753,297	194.0	5.0	258.0	9.1	135.6
APSM010X20L-120	120	9.8	20.3	11.2	2-1/2"	4,949,309	202.0	5.0	268.6	9.0	145.8
APSM010X20L-130	130	9.8	20.3	12.1	2-1/2"	5,120,820	209.0	5.0	278.0	9.0	156.0
APSM010X20L-140	140	9.8	20.3	13.0	2-1/2"	5,267,829	215.0	5.0	285.9	9.0	166.2
APSM010X20L-150	150	9.8	20.3	13.9	2-1/2"	5,414,838	221.0	5.0	293.9	9.1	176.4
APSM010X20L-160	160	9.8	20.3	14.8	2-1/2"	5,537,346	226.0	5.0	300.6	9.1	186.6
APSM010X20L-170	170	9.8	20.3	15.7	2-1/2"	5,635,352	230.0	5.0	305.9	9.1	196.8
APSM010X20L-180	180	9.8	20.3	16.6	2-1/2"	5,733,358	234.0	5.0	311.2	9.1	207.0
APSM010X20L-190	190	9.8	20.3	17.5	2-1/2"	5,819,114	237.5	5.0	315.9	9.1	217.2
APSM010X20L-200	200	9.8	20.3	18.4	2-1/2"	5,892,618	240.5	5.0	319.8	9.1	227.4

The APSMO model is designed specifically for Swimming Pool applications, where chlorine, biological elements or low concentrations of acids are present. Durable and compact, the APSMO model represents the latest technology in corrosion resistant plate heat exchangers. Nickel brazed, 254SMO stainless alloy plates offer substantial improvements in reliability over traditional stainless materials and have high efficiency heat transfer for applications up to 200 GPM per unit. All APSMO models have male pipe thread fittings, mounting stud bolts and a maximum allowable working pressure of 300 psig.

APSMO applications include:

Process
Brackish Water
Treated Steam to Fluid
Steam Condensate to Fluid
Cooling Tower Water
Low Acid Concentrations

Swimming Pool
Swimming Pool to Boiler
Swimming Pool to Heat Pump Water Loop

NOTES:
1. Made with 254SMO stainless alloy; nickel brazed.
2. Stainless steel MPT fittings and mounting stud bolts.
3. Design Working Pressure: 300 psig.

APPLICATION:
Swimming Pool Applications –
See Section 1080 Selection Data APSMO pages.

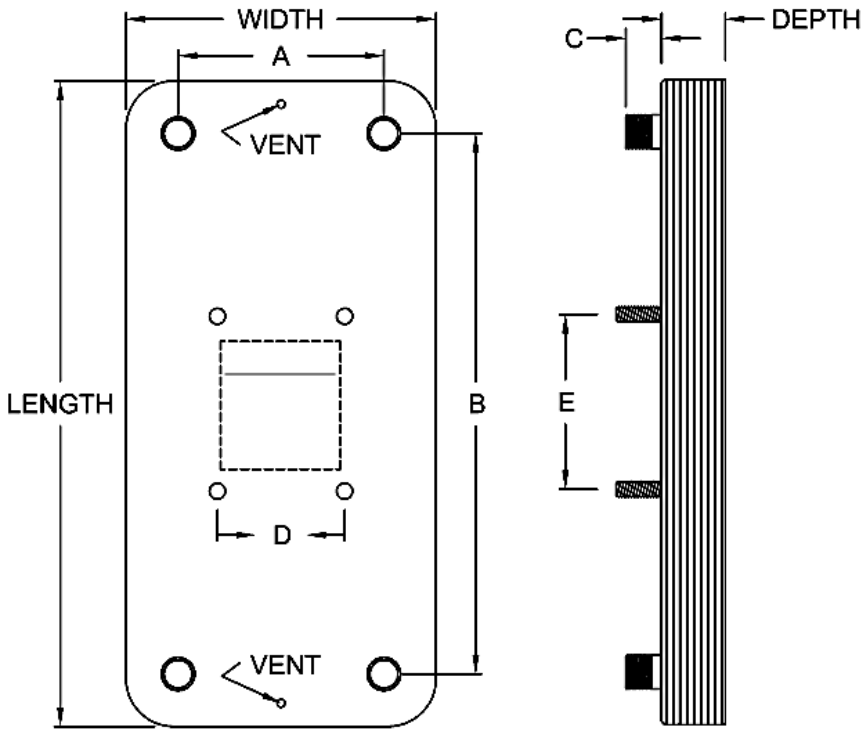
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AURORA®
Pentair Water

AURORA 1081BP SERIES

MODEL APDW

DOUBLE WALL, VENTED HEAT EXCHANGER



Models	No. of Plates	Width	Length	Length	Connections (MPT)	GPM @ 5 psig PD (Side–A & B)	Weight (lbs)
APDW10-6	6	9.8	20.3	1.0	1"	1.8	18
APDW10-10	10	9.8	20.3	1.4	1"	3.7	22
APDW10-14	14	9.8	20.3	1.8	1"	5.5	26
APDW10-18	18	9.8	20.3	2.1	1"	7.5	31
APDW10-22	22	9.8	20.3	2.5	1"	9.2	35
APDW10-30	30	9.8	20.3	3.3	1-1/4"	12.1	44
APDW10-42	42	9.8	20.3	4.4	1-1/4"	16.3	57
APDW10-50	50	9.8	20.3	5.1	1-1/2"	19.2	66
APDW10-62	62	9.8	20.3	6.3	1-1/2"	23.6	79
APDW10-74	74	9.8	20.3	7.4	1-1/2"	28.0	92
APDW10-94	94	9.8	20.3	9.3	2"	35.1	114
APDW10-110	110	9.8	20.3	10.8	2"	40.9	132
APDW10-134	134	9.8	20.3	13.0	2"	49.7	158
APDW10-154	154	9.8	20.3	14.9	2"	57.2	180
APDW10-198	198	9.8	20.3	19.0	2"	73.3	229

NOTES:
1. All dimensions are in inches.
2. Design Working Pressure: 450 psig.
3. All units are standard models.
4. Made with 316L stainless alloy; copper brazed.
5. Stainless steel MPT fittings and mounting stud bolts.
6. For ASME versions, put "-UM" after the model number.
   Example: APDW10-50 (1-1/2" MPT)-UM
7. For International versions, connections are BSPT.
   Example: APDW10-50 (1-1/2" BSPT)

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