Whalen Company Whisperline® Single Riser System

WATER-SOURCE AND GEOTHERMAL HEAT PUMP FOR SINGLE RISER INTEGRAL PUMP APPLICATIONS

Whether you're a developer, a contractor or a project engineer, Single Riser heating and cooling systems from Whalen deliver unparalleled efficiency and value to your building project. Here are just some of the notable benefits our systems deliver:

For contractors:

- Reduces installation labor with fewer solder connections, fewer or smaller core drills and fire stop.
- Reduces equipment cost, including less copper requirements for only one riser.
- Reduces the time required to flush the riser.

For project engineers:

- · Reduces design time:
 - Sizing for riser pressure loss only, not the equipment.
 - Less coordination requirements for riser sizing, plus coring or sleeving.

For building owners and project developers:

- · Reduces commissioning time.
- Lowers overall electrical requirements and total pump horsepower for reduced energy costs.
- Transfers more operating cost to tenants.

Whisperline® Water Source Heat Pump Capacities

<u> </u>										
				Water Loop	Heat Pump		Ground Loop Heat Pump			
			Coolin	ıg 86°F	Heatin	g 68°F	Coolir	ng 77°F	Heatin	g 32°F
Model with PSC Motor	CFM	GPM	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP
VP-A-0204*SC	280	1.5	6,500	13.5	8,000	5.3	6,600	14.0	4,600	3.1
VP-A-0304*SC	340	2.5	9,300	13.8	12,500	5.3	9,650	14.8	6,850	3.2
VP-A-0404*SC	420	3.3	12,300	14	14,900	5.0	12,500	15.8	9,300	3.2
VP-A-0604*SB	630	4.5	18,000	14.5	21,600	5.0	18,800	15.5	13,000	3.2

Cooling based upon 80.6°F DB, 66.2°F WB entering air temperature Heating based upon 68°F DB, 59°F WB entering air temperature Performance based upon 208/60/1 voltage

			Water Loop Heat Pump			Ground Loop Heat Pump					
			Coolin	Cooling 86°F		Heating 68°F		Cooling 77°F		Heating 32°F	
Model with EC Motor	CFM	GPM	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	Capacity Btuh	EER Btuh / W	Capacity Btuh	COP	
VP-A-0204*GC	280	1.5	6,500	15.0	8,000	5.5	6,600	14.2	4,600	3.2	
VP-A-0304*GC	340	2.5	9,300	15.0	12,500	5.7	9,650	15.4	6,850	3.3	
VP-A-0404*GC	420	3.3	12,800	15.6	15,000	5.5	12,700	16.0	9,400	3.3	
VP-A-0504*GB	540	3.9	15,000	16.1	18,200	5.5	15,500	17.0	10,800	3.2	
VP-A-0604*GB	655	4.5	18,200	15.2	21,600	5.1	19,000	16.2	13,000	3.3	
VP-A-0804*DB	830	6.0	23,000	13.1	30,000	5.0	25,000	14.5	19,000	3.2	
VP-A-0814*DD	830	6.0	23,200	16.0	28,200	5.6	24,000	17.1	17,000	3.8	
VP-A-1004*DD	970	7.5	30,000	17.0	34,800	5.5	31,000	18.2	20,800	3.8	
VP-A-1204*DD	1170	9.0	37,000	15.9	41,200	5.5	38,200	16.8	24,800	3.7	

General Data

	VP-A-0204	VP-A-0304	VP-A-0404	VP-A-0504	VP-A-0604	VP-A-0804	VP-A-0814	VP-A-1004	VP-A-1204
Compressor Type	Recip	Recip	Recip	Recip	Recip	Scroll	Recip	Scroll	Scroll
Compressor Quantity	1	1	1	1	1	1	1	1	1
Chassis Operating Weight (lbs.)	79	81	83	122	123	132	180	165	175
Cabinet Operating Weight (lbs.)	133	133	133	153	153	153	173	173	173
Chassis Shipping Weight (lbs.)	85	87	89	128	129	138	186	171	181
Cabinet Shipping Weight (lbs.)	145	145	145	165	165	165	185	185	185
Filter Size	13 x 24 1	13 x 24 1	13 x 24 x 1	15 x 28 x 1	15 x 28 x 1	15 x 28 x 1	17 x 32 x 1	17 x 32 x 1	17 x 40 x 1
Filter Quantity	1	1	1	1	1	1	1	1	1

Whisperline® Single Riser System

Whalen Single Riser systems feature the Taco® LoadMatch® Design, which is universally recognized for its robust engineering, practical design, plus operating and energy efficiencies. The effectiveness of the concept, which uses only one riser to distribute fluid to a heat pump when two pipes are usually required, allows designers to specify a single riser size for large portions of the system.

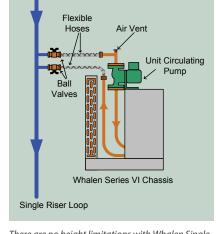
- The primary distribution system features a single main loop with a decoupled secondary distribution loop for each heat pump unit.
- Upon demand, a circulator pump provides the specified flow to each terminal unit.
- There are no limits on the number of units on a loop.
- Pipe size is determined by the total load and flow requirements of the loops.
- Loops can be split if loading becomes elevated and smaller pipe sizes are preferred.
 Splitting loops can reduce installation costs, save energy, and decrease pump horsepower requirements.

Cabinet Dimensions

Model A B W H K P 204-**C 16 17 14 46 60 50 304-**C 16 17 14 46 60 50 404-**C 16 17 14 46 60 50 504-**C 18 20 16 50 64 54 604-**C 18 20 16 50 64 54 804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59							
304-**C 16 17 14 46 60 50 404-**C 16 17 14 46 60 50 504-**C 18 20 16 50 64 54 604-**C 18 20 16 50 64 54 804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59	Model	А	В	W	Н	K	Р
404-**C 16 17 14 46 60 50 504-**C 18 20 16 50 64 54 604-**C 18 20 16 50 64 54 804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59	204-**C	16	17	14	46	60	50
504-**C 18 20 16 50 64 54 604-**C 18 20 16 50 64 54 804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59	304-**C	16	17	14	46	60	50
604-**C 18 20 16 50 64 54 804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59	404-**C	16	17	14	46	60	50
804-**C 18 20 16 50 64 54 814-**C 20 22 18 54 68 59	504-**C	18	20	16	50	64	54
814-**C 20 22 18 54 68 59	604-**C	18	20	16	50	64	54
	804-**C	18	20	16	50	64	54
	814-**C	20	22	18	54	68	59
1004-**C 20 22 18 54 68 59	1004-**C	20	22	18	54	68	59
1204-**C 20 22 18 54 68 59	1204-**C	20	22	18	54	68	59

All dimensions in inches

Riser Length	С
9 Foot	4
10 Foot	16



There are no height limitations with Whalen Single Riser units. The most popular designs include mains located on the upper and lower floors.

