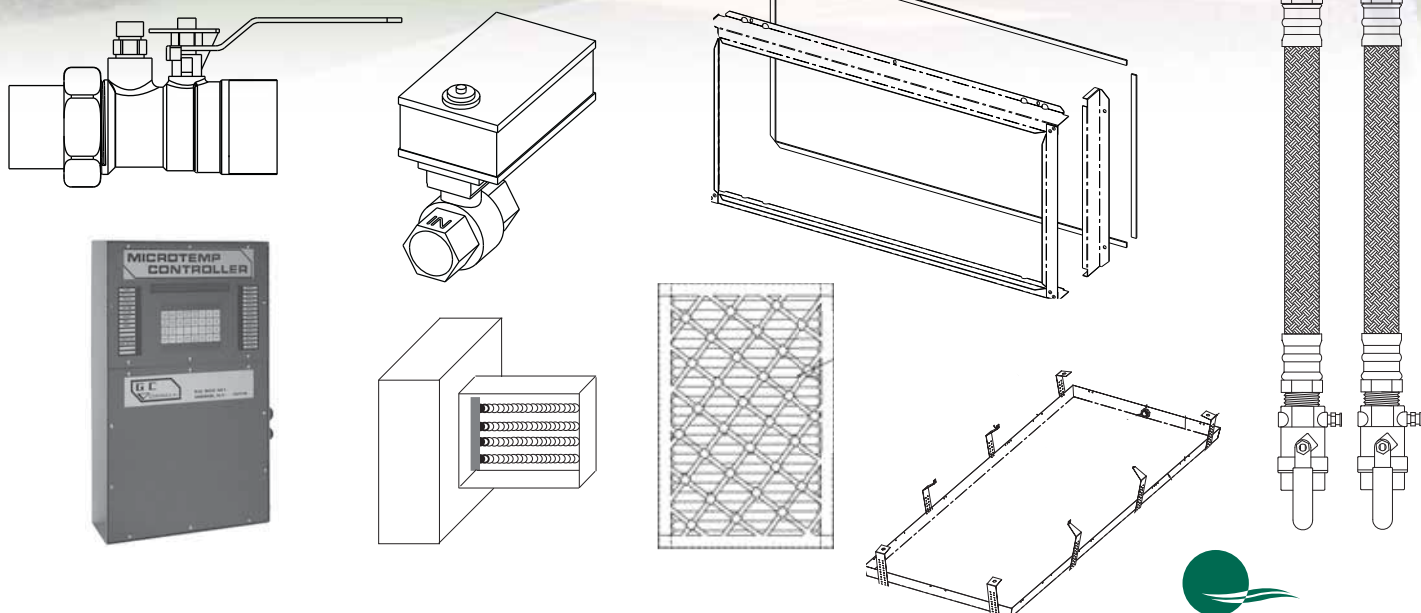


Accessories

Submittal Data



 LC294

Rev.: November 18, 2016



ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

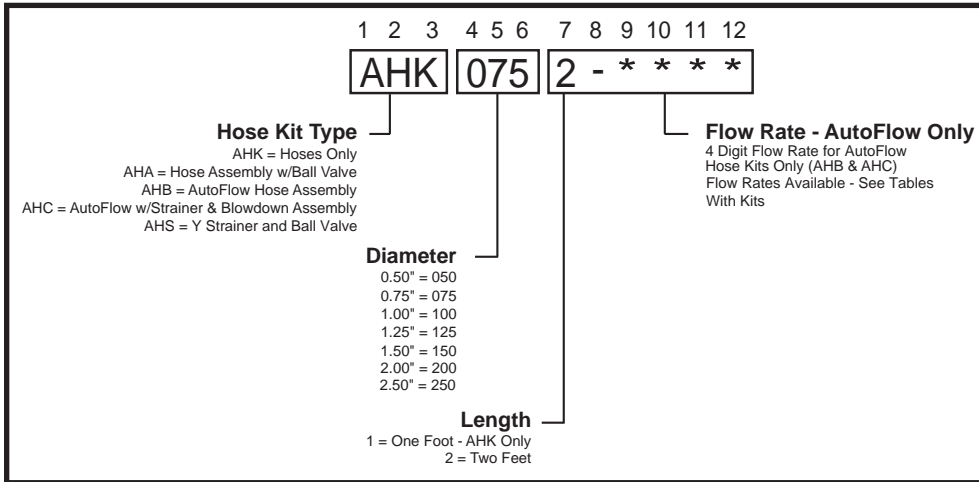
Accessories Series

Hose Kit Nomenclature	4
AHK**** 1/2" to 1-1/4" Hose Kit	5
AHK**** 1-1/2" to 2-1/2" Hose Kit	6
AHA**** 1/2" to 1-1/4" Hose Kit with Ball Valves	7
AHA**** 1-1/2" to 2" Hose Kit with Ball Valves	8
AHB****-**** 1/2" to 1-1/4" Hose Kit with Automatic Balancing Valve and Ball Valves	9
AHB****-**** 1-1/2" to 2" Hose Kit with Automatic Balancing Valve and Ball Valves	10
AHC****-**** 1/2" to 1-1/4" Hose Kit with Automatic Balancing Valve, "Y" Strainer and Ball Valves	11
AHC****-**** 1-1/2" to 2" Hose Kit with Automatic Balancing Valve, "Y" Strainer and Ball Valves	12
AHS****-**** 1/2" to 1-1/4" Hose Kit with "Y" Strainer and Ball Valves	13
AHS****-**** 1-1/2" to 2" Hose Kit with "Y" Strainer and Ball Valves	14
AHH**** 1/2", 3/4" and 1" (TSM/TSL/TRM/817 series only) Hose Kit	15
Manual Shut Off Valve	16
Motorized Shut Of Valve	17
Strainer	17
ALCP Loop Control Panel	18
Accessory Electric Heater - AH	19
AFF Filter Frame	21
Frame Dimensions	22
MERV Filter information	23
Replacement Air Filter Part Numbers	26
Accessory Secondary Drain Pans	28
Revision History	29

Document page number is shown next to part number (e.g. LC294 - 3 = page 3). Since not all pages are typically used in the submittals process, the page number in the lower right corner can still be used (page ____ of ____).

Stainless Steel Braided Hose Kit

Hose Kit Nomenclature



Flow Rate Example

GPM number
0.75 = -0075
4.50 = -0450
18.00 = -1800

AHK0752
 3/4" kit

AHB0752-0450
 3/4" kit, 4.5 gpm

AHB1002-1200
 1" kit, 12.0 gpm

All hose kit part numbers contain 2 hoses

Unit Water Connection Sizes

Unit Size	Water Connection Diameter Table										Typical Autoflow Flow Rate Range (gpm)		
	TRC	TC	TR	TS	TT	TY	TZ	TMW	TL	TRE			
006		0.50	0.50	0.50							1.25	1.50	
009	0.50	0.50	0.50	0.50							1.75	2.25	
012	0.50	0.50	0.50	0.50							2.25	3	
015	0.50	0.50	0.50								3	4	
018	0.75	0.50	0.50	0.75							3.50	4.50	
024 / 026		0.75	0.75	0.75	0.75	0.75	0.75				4.50	6	
030		0.75	0.75	0.75		0.75	0.75				6	8	
036 / 038		0.75	0.75	0.75	0.75	0.75	0.75	0.75		0.75	7	9	
041 / 042		0.75	0.75	1.00			0.75	0.75			8	11	
048 / 049		1.00	1.00	1.00	1.00	1.00	1.00			0.75	9	12	
060 / 064		1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	12	15	
070 / 072		1.25			1.00	1.00					1.25	14	18
084										1.50		15	20
096		1.25								1.50	1.50	18	24
120		1.50						1.5	1.50	1.50	23	30	
144										1.50	30	40	
150									2.00		30	40	
160		2.00									30	40	
168		2.00									30	40	
192									2.00		40	50	
240		2.00							2.00	2.00	45	60	
300		2.50							2.50		60	75	
170								2.00			18	35	
340								2.00			35	70	
360								2.00			45	90	
600								2.50			75	150	
840								2.50			105	210	

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

AHK**** 1/2" to 2" Hose Kit

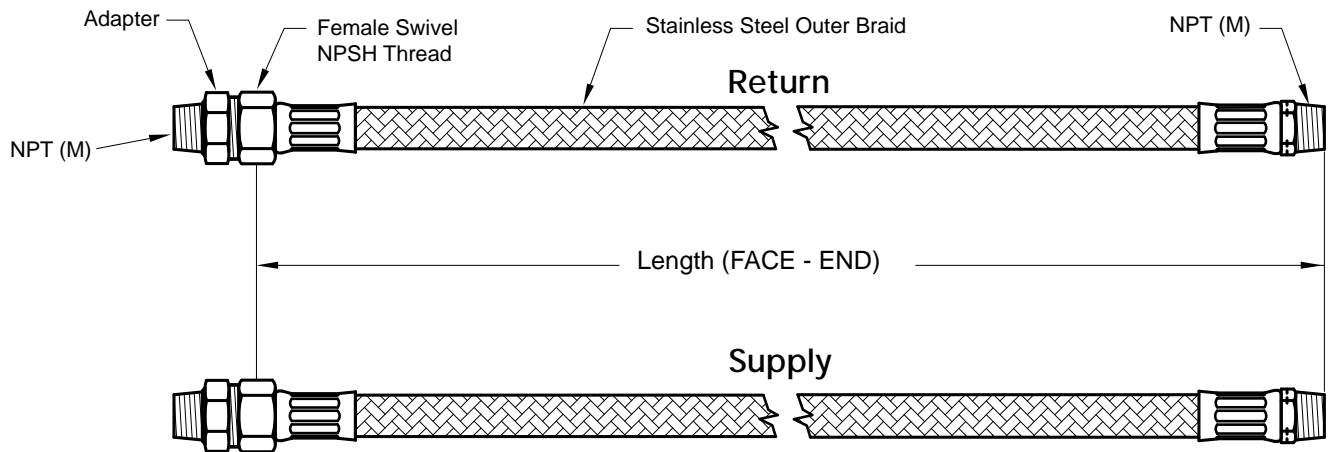
Global note for drawings: If possible, change the pattern on the hoses, so that they all look like "AHK.pdf."

INSERT corrected decoder here

Unit Water Connection Sizes

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (External Pipe Thread) fitting at one end; swivel connector and adapter with NPT (External Pipe Thread) at the other end (swivel to adapter connection via fiber or EPDM gasket).
- Swivel connection provides union between heat pump and piping system.
- Brass fittings, stainless steel ferrules for 1/2" to 1", aluminum ferrules for 1-1/4" to 2".
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



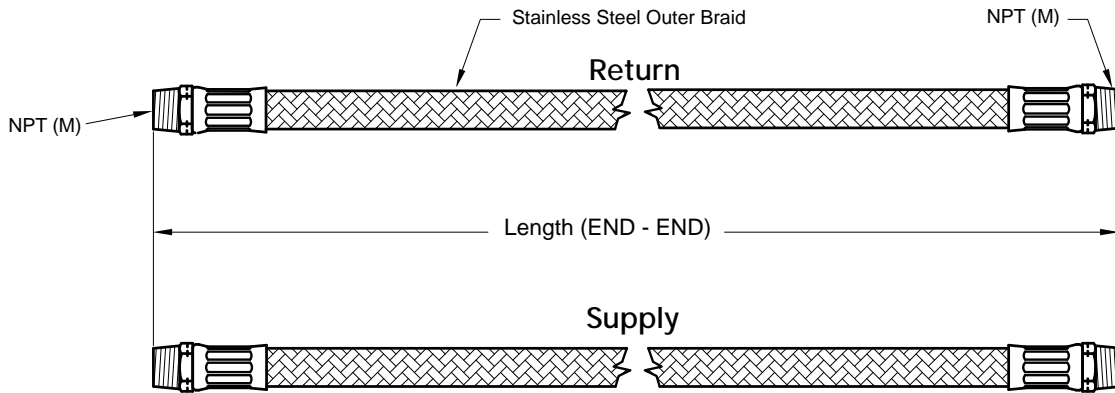
Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Cv
AHK0501	0.50 [12.7]	1 [30.5]	400 [2756]	1600 [11024]	2.5 [63.5]	3.9
AHK0502	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]	3.5
AHK0752	0.75 [19.1]	2 [61]	400 [2756]	1600 [11024]	4.5 [114.3]	12.8
AHK1002	1.00 [25.4]	2 [61]	400 [2756]	1600 [11024]	5.5 [139.7]	21.5
AHK1252	1.25 [31.8]	2 [61]	300 [2067]	1200 [8268]	7 [177.8]	29.0
AHK1502	1.50 [38.1]	2 [61]	300 [2067]	1200 [8268]	8.5 [216]	54.0
AHK2002	2.00 [50.8]	2 [61]	300 [2067]	1200 [8268]	9.5 [241.3]	68.0

AHK**** 2-1/2" Hose Kit

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (External Pipe Thread) fitting at both ends
- Brass fittings and aluminum ferrules.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



Physical Data

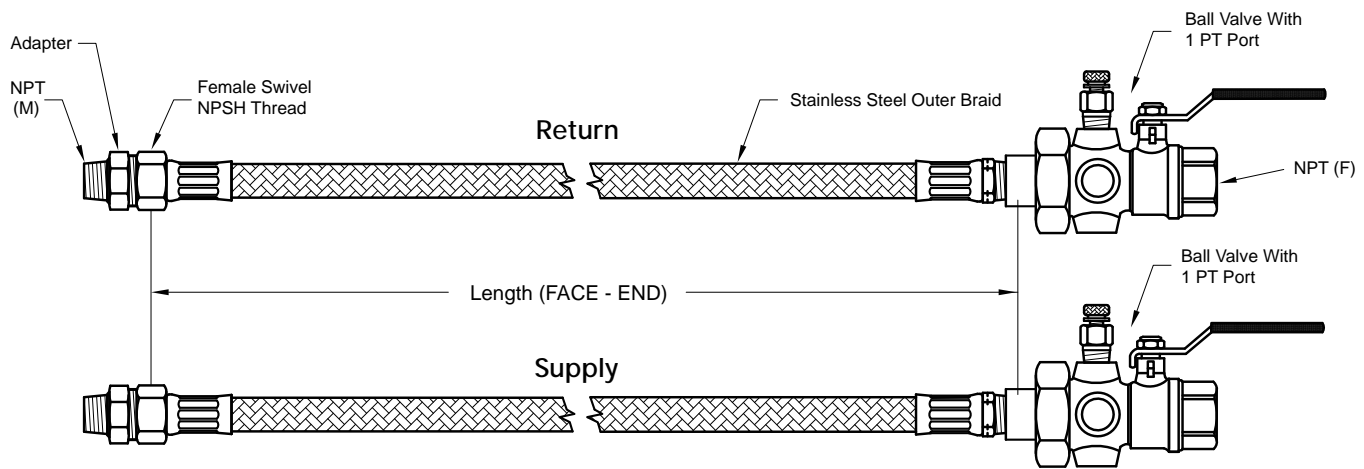
Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Cv
AHK2502	2.5 [63.5]	2 [61]	300 [2067]	1200 [8268]	16.0 [406.4]	200.0

Note: Field must provide and install swivels (prevents hose from twisting)

AHA**** 1/2" to 1-1/4" Hose Kit with Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPT (External Pipe Thread) at the other end (swivel to adapter connection via fiber or EPDM gasket).
- Swivel connection provides union between heat pump and piping system.
- Brass fittings, stainless steel ferrules.
- Full port ball valve with integral P/T (pressure/temperature) ports.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



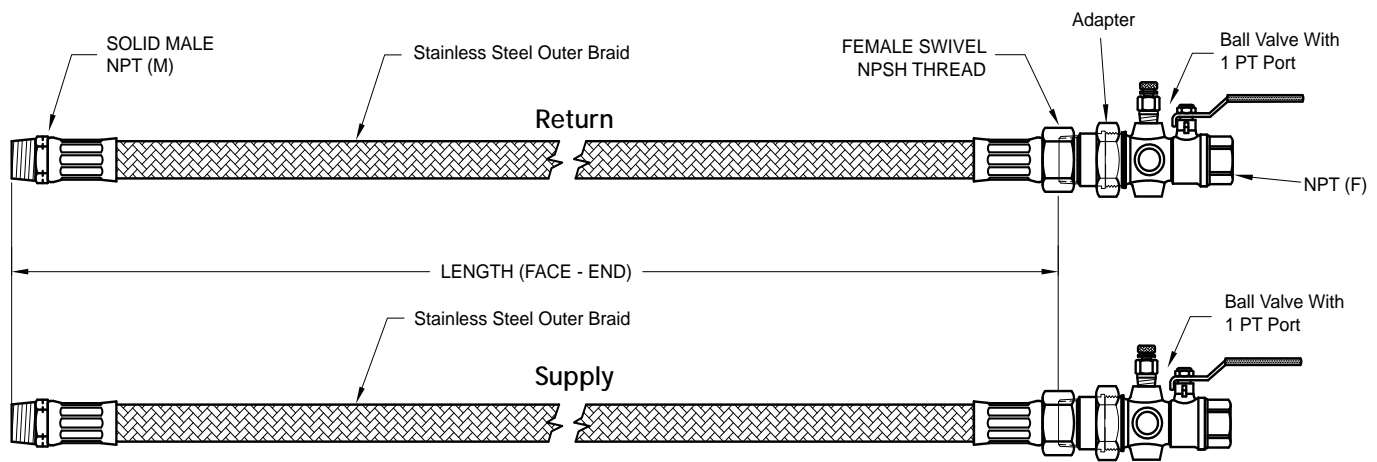
Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]
AHA0502	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]
AHA0752	0.75 [19.1]	2 [61]	400 [2756]	1600 [11024]	4.5 [114.3]
AHA1002	1.00 [25.4]	2 [61]	400 [2756]	1600 [11024]	5.5 [139.7]
AHA1252	1.25 [31.8]	2 [61]	300 [2067]	1200 [8268]	7 [177.8]

AHA**** 1-1/2" to 2" Hose Kit with Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end with hose swivel connector; with NPT (External Pipe Thread) connection at the other end.
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; aluminum ferrules.
- Full port ball valve with integral P/T (pressure/temperature) ports.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



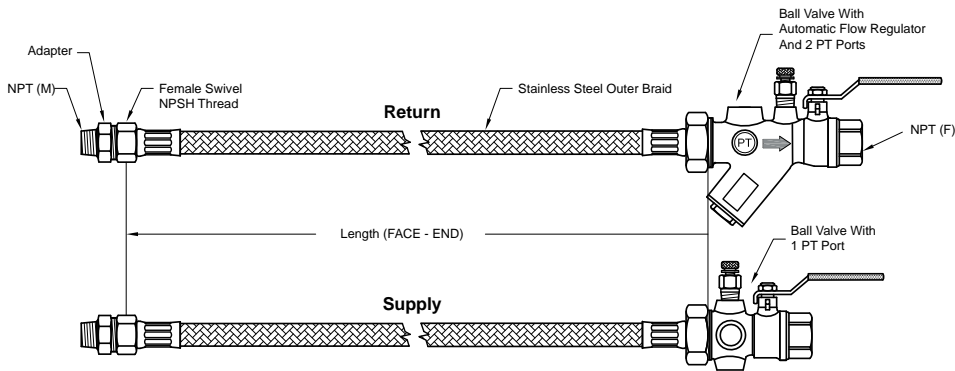
Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]
AHA1502	1.5 [38.1]	2 [61]	300 [2067]	1200 [8268]	8.5 [216]
AHA2002	2.0 [50.8]	2 [61]	300 [2067]	1200 [8268]	9.5 [241.3]

AHB****.**** 1/2" to 1-1/4" Hose Kit with Automatic Balancing Valve and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPT (External Pipe Thread) at the other end (swivel to adapter connection via fiber or EPDM gasket).
- Swivel connection provides union between heat pump and piping system.
- Brass fittings, stainless steel ferrules for 1/2" to 1", aluminum ferrules for 1-1/4".
- Full port ball valve with integral P/T (pressure/temperature) port on supply hose.
- Automatic balancing valve with integral P/T ports and full port ball valve on return hose.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Typ. Flow Rate Range U.S. GPM [l/s]
AHB0502-****	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]	See Table
AHB0752-****	0.75 [19.1]	2 [61]	400 [2756]	1600 [11024]	4.5 [114.3]	See Table
AHB1002-****	1.00 [25.4]	2 [61]	400 [2756]	1600 [11024]	5.5 [139.7]	See Table
AHB1252-****	1.25 [31.8]	2 [61]	300 [2067]	1200 [8268]	7.0 [177.8]	See Table

Available Flow Rates

Model Suffix -****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [xPa]
-0050	0.50 [0.032]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0100	1.00 [0.063]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0150	1.50 [0.095]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0200	2.00 [0.126]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0250	2.50 [0.158]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0300	3.00 [0.189]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0350	3.50 [0.221]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0400	4.00 [0.252]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0500	5.00 [0.315]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0600	6.00 [0.378]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0650	6.50 [0.410]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0700	7.00 [0.441]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0800	8.00 [0.504]	1/2" & 3/4" & 1"	2 - 45 [13.8 - 310]

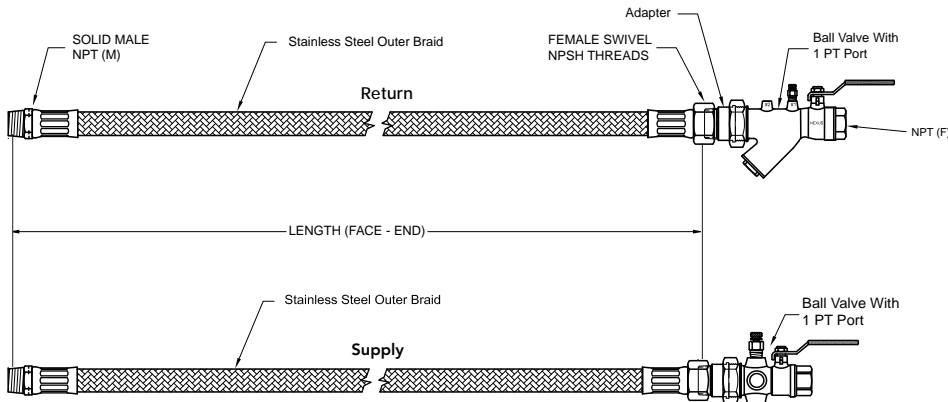
Model Suffix -****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [xPa]
-0900	9.00 [0.567]	3/4" & 1"	5 - 50 [34.5 - 344.5]
-1050	10.5 [0.663]	3/4"	5 - 50 [34.5 - 344.5]
-1100	11.0 [0.693]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1200	12.0 [0.756]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1300	13.0 [0.819]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1400	14.0 [0.882]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1500	15.0 [0.945]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1600	16.0 [1.008]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1800	18.0 [1.134]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2000	20.0 [1.260]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2100	21.0 [1.323]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2200	22.0 [1.386]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2500	25.0 [1.575]	1 1/4"	2 - 45 [13.8 - 310]
-3000	30.0 [1.890]	1 1/4"	2 - 45 [13.8 - 310]

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

AHB****.**** 1-1/2" to 2" Hose Kit with Automatic Balancing Valve and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end with hose swivel connector; with NPT (External Pipe Thread) connection at the other end.
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; aluminum ferrules.
- Full port ball valve with integral P/T (pressure/temperature) port on supply hose.
- Automatic balancing valve with integral P/T ports and full port ball valve on return hose.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Typ. Flow Rate Range U.S. GPM [l/s]
AHB1502-****	1.50 [38.1]	2 [61]	300 [2067]	1200 [8268]	8.5 [216.0]	See Table
AHB2002-****	2.00 [50.8]	2 [61]	300 [2067]	1200 [8268]	9.5 [241.3]	See Table

Available Flow Rates

Model Suffix -****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [kPa]
-1500	15.0 [0.945]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-2000	20.0 [1.260]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-2500	25.0 [1.575]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-3000	30.0 [1.890]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-3500	35.0 [2.205]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-4000	40.0 [2.520]	1-1/2" & 2"	2 - 45 [13.8 - 310]

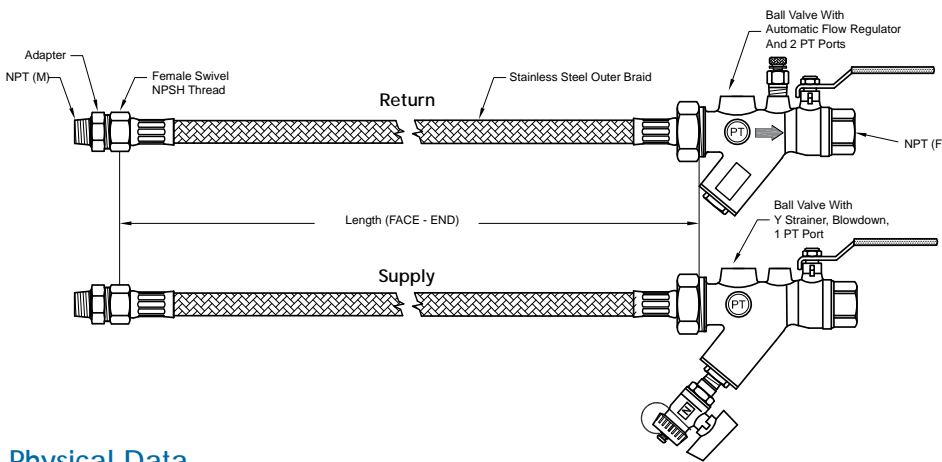
Model Suffix -****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [kPa]
-4500	45.0 [2.835]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-5000	50.0 [3.150]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-6000	60.0 [3.780]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-6500	65.0 [4.095]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-7000	70.0 [4.410]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-9000	90.0 [5.670]	2"	2 - 45 [13.8 - 310]

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

AHC****_**** 1/2" to 1-1/4" Hose Kit with Automatic Balancing Valve, "Y" Strainer and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPT (External Pipe Thread) at the other end (swivel to adapter connection via fiber or EPDM gasket).
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; stainless steel ferrules for 1/2" to 1", aluminum ferrules for 1-1/4" .
- Full port ball valve with integral P/T (pressure/temperature) port and 20 mesh "Y" strainer/blowdown valve on supply hose.
- Automatic balancing valve with integral P/T ports and full port ball valve on return hose.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Typ. Flow Rate Range U.S. GPM [l/s]
AHC0502_****	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]	See Table
AHC0752_****	0.75 [19.1]	2 [61]	400 [2756]	1600 [11024]	4.5 [114.3]	See Table
AHC1002_****	1.00 [25.4]	2 [61]	400 [2756]	1400 [9646]	5.5 [139.7]	See Table
AHC1252_****	1.25 [31.8]	2 [61]	300 [2067]	1200 [8268]	7.0 [177.8]	See Table

Available Flow Rates

Model Suffix _****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [kPa]
-0050	0.50 [0.032]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0100	1.00 [0.063]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0150	1.50 [0.095]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0200	2.00 [0.126]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0250	2.50 [0.158]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0300	3.00 [0.189]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0350	3.50 [0.221]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0400	4.00 [0.252]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0500	5.00 [0.315]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0600	6.00 [0.378]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0650	6.50 [0.410]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0700	7.00 [0.441]	1/2" & 3/4"	2 - 45 [13.8 - 310]
-0800	8.00 [0.504]	1/2" & 3/4" & 1"	2 - 45 [13.8 - 310]

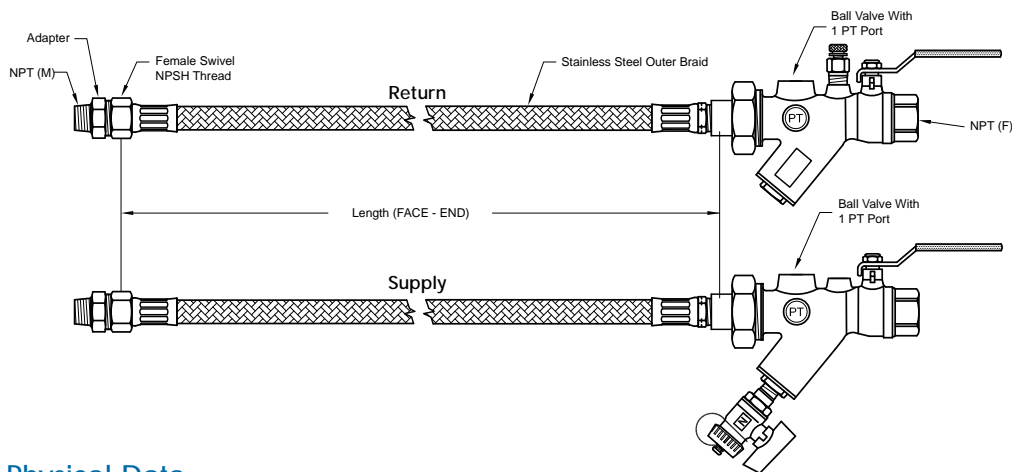
Model Suffix _****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [kPa]
-0900	9.00 [0.567]	3/4" & 1"	5 - 50 [34.5 - 344.5]
-1050	10.5 [0.663]	3/4"	5 - 50 [34.5 - 344.5]
-1100	11.0 [0.693]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1200	12.0 [0.756]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1300	13.0 [0.819]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1400	14.0 [0.882]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1500	15.0 [0.945]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-1800	18.0 [1.134]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2000	20.0 [1.260]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2100	21.0 [1.323]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2200	22.0 [1.386]	1" & 1 1/4"	2 - 45 [13.8 - 310]
-2500	25.0 [1.575]	1 1/4"	2 - 45 [13.8 - 310]
-3000	30.0 [1.890]	1 1/4"	2 - 45 [13.8 - 310]

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

AHC****.**** 1-1/2" to 2" Hose Kit with Automatic Balancing Valve, "Y" Strainer and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPT (External Pipe Thread) fitting at the other end.
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; aluminum ferrules.
- Full port ball valve with integral P/T (pressure/temperature) port and 20 mesh "Y" strainer/blowdown valve on supply hose.
- Automatic balancing valve with integral P/T ports and full port ball valve on return hose.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]	Typ. Flow Rate Range U.S. GPM [l/s]
AHC1502-****	1.50 [38.1]	2 [61]	300 [2067]	1200 [8268]	8.5 [229]	See Table
AHC2002-****	2.00 [50.8]	2 [61]	300 [2067]	1200 [8268]	9.5 [254]	See Table

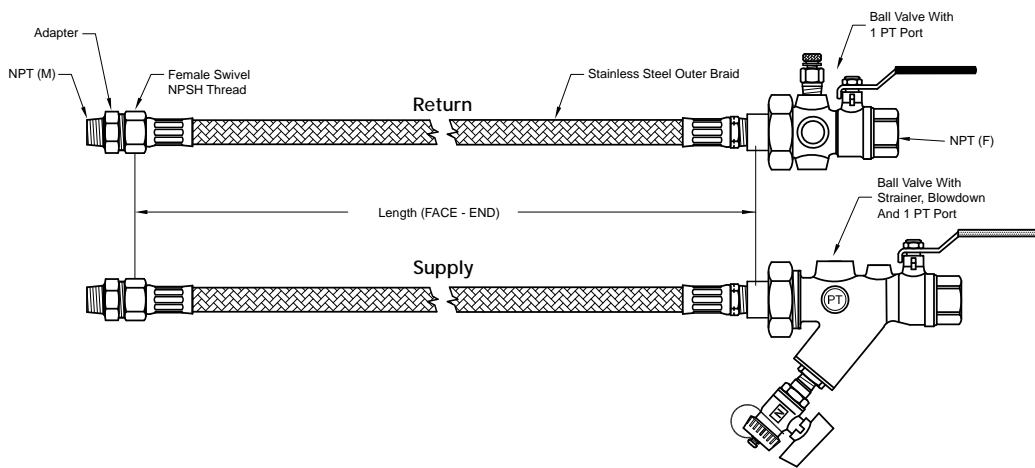
Available Flow Rates

Model Suffix -****	Flow Rate U.S. GPM [l/s]	Hose Kit Diam. inches	Operating Differential PSI [kPa]
-2500	25.0 [1.575]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-3000	30.0 [1.890]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-3500	35.0 [2.205]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-4000	40.0 [2.520]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-4500	45.0 [2.835]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-5000	50.0 [3.150]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-6000	60.0 [3.780]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-6500	65.0 [4.095]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-7000	70.0 [4.410]	1-1/2" & 2"	2 - 45 [13.8 - 310]
-9000	90.0 [5.670]	2"	2 - 45 [13.8 - 310]

AHS****.**** 1/2" to 1-1/4" Hose Kit with "Y" Strainer and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPT (External Pipe Thread) at the other end (swivel to adapter connection via fiber or EPDM gasket).
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; stainless steel ferrules for 1/2" to 1" , aluminum ferrules for 1-1/4" .
- Full port ball valve with integral P/T (pressure/temperature) port and 20 mesh "Y" strainer/blowdown valve on supply hose.
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



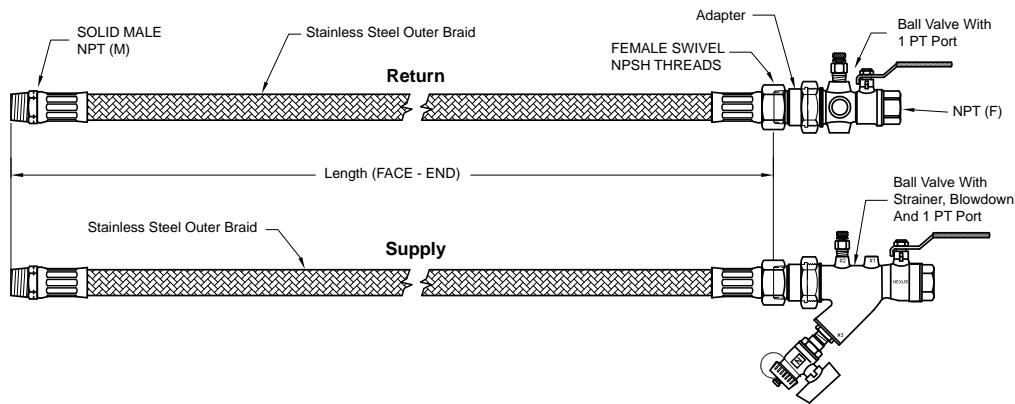
Physical Data

Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]
AHS0502	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]
AHS0752	0.75 [19.1]	2 [61]	400 [2756]	1600 [11024]	4.5 [114.3]
AHS1002	1.00 [25.4]	2 [61]	400 [2756]	1600 [11024]	5.5 [139.7]
AHS1252	1.25 [31.8]	2 [61]	300 [2067]	1200 [8268]	7.0 [177.8]

AHS****.**** 1-1/2" to 2" Hose Kit with "Y" Strainer and Ball Valves

Specifications:

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (Internal Pipe Thread) Ball valve at one end with hose swivel connector; with NPT (External Pipe Thread) connection at the other end.
- Swivel connection provides union between heat pump and piping system.
- Brass fittings; aluminum ferrules.
- Full port ball valve with integral P/T (pressure/temperature) port and 20 mesh "Y" strainer/blowdown valve on supply hose.
- Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).

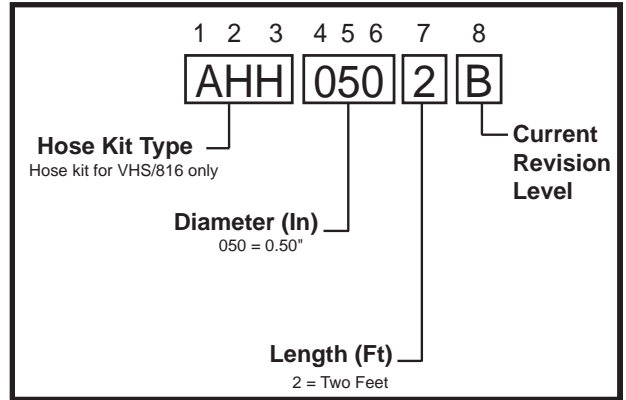


Physical Data

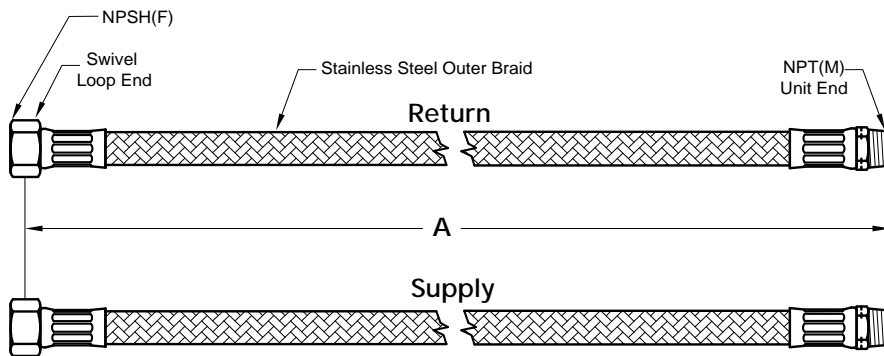
Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]
AHS1502	1.50 [38.1]	2 [61]	300 [2067]	1200 [8268]	8.5 [229]
AHS2002	2.00 [50.8]	2 [61]	300 [2067]	1200 [8268]	9.5 [254]

AHH**** 1/2", 3/4" and 1" (TSM/TSL/TRM/816 series only) Hose Kit

- Designed for water source heat pump applications.
- Kevlar® reinforced EPDM core with ANSI 302/304 stainless steel outer braid.
- Fire rated materials per ASTM E 84-00 (NFPA 255, ANSI/UL 723 & UBC 8-1).
- NPT (M) (Internal Pipe Thread) Ball valve at one end; swivel connector and adapter with NPSH* Threads with fiber or EPDM washer, shipped inside connection.
- Swivel connection provides union between chassis and risers.
- Brass fittings; stainless steel ferrules
- Fluid Temperature range of 15°F [9°C] to 180°F [82°C] (Operation below 32°F requires antifreeze).



*- Compatible with BSPPM fitting in TSM/TS4/TRM/817 chassis.

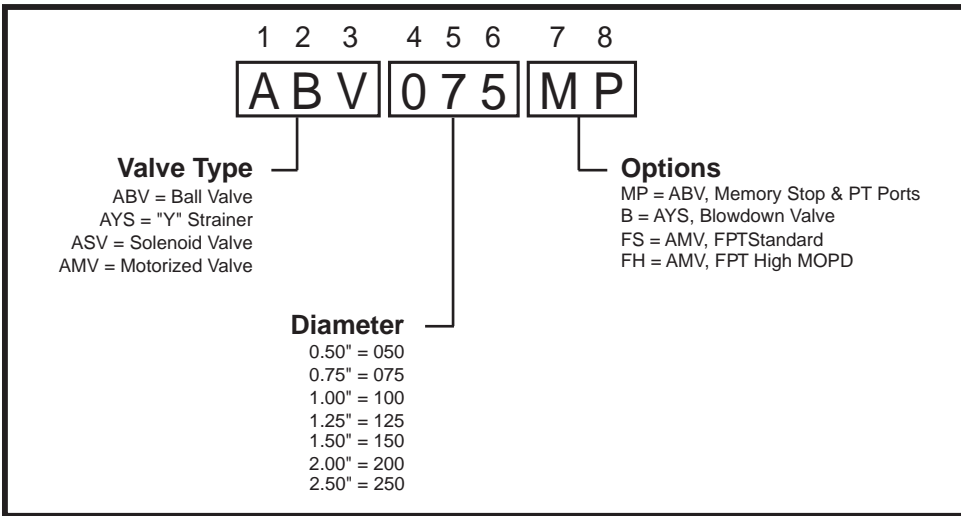


Unit Size	Hose Diameter	A
09, 12	.50"	24" [61 cm]
15, 18	.75"	36" [91 cm]
24, 30, 36	1.00	36" [91 cm]

Physical Data

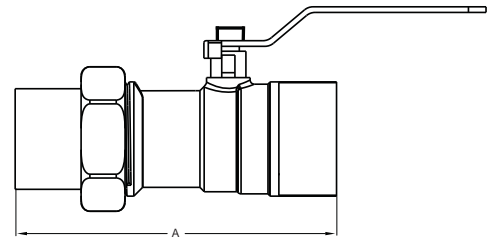
Part #	Hose Size inches [mm]	Length feet [cm]	Working Pressure psi [kPa]	Min. Burst Pressure psi [kPa]	Min. Bend Radius inches [mm]
AHH0502B	0.50 [12.7]	2 [61]	400 [2756]	1600 [11024]	2.5 [63.5]
AHH0753B	0.75 [19.1]	3 [91]	400 [2756]	1600 [11024]	4.5 [114.3]
AHH1003B	1.00 [25.4]	3 [91]	400 [2756]	1600 [11024]	5.5 [139.7]

Water Valves and Strainers



ABV*** Ball Valve

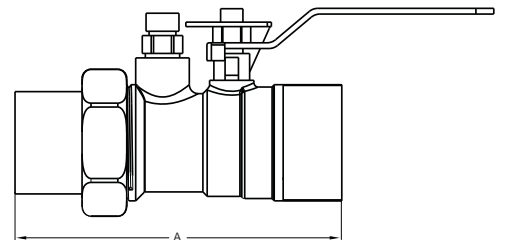
- Brass body with union.
- FPT connection both ends except 1/2" (union end is MPT).
- Designed for water source heat pump applications.
- Temperature range of -40° to 200°F [-40° to 93°C].
- Full port ball valve Class 125 (400 psig [2763 kPa] WOG @ 150°F [66°C]).



Model	Diameter (inch)	A Max (in)	Cv
ABV050	1/2"	3.9"	21
ABV075	3/4"	4.1"	44
ABV100	1"	4.5"	42
ABV125	1-1/4"	5.7"	132
ABV150	1-1/2"	5.5"	132
ABV200	2"	6.4"	345
ABV250	2-1/2"	6.9"	345

ABV***MP Ball Valve with Memory Stop and PT Port

- Brass body with union.
- FPT connection both ends except 1/2" (union end is MPT).
- Designed for water source heat pump applications.
- Temperature range of -40° to 200°F [-40° to 93°C].
- Full port ball valve Class 125 (400 psig [2763 kPa] WOG @ 150°F [66°C] with integral pressure/temperature (P/T) plug and memory stop.



Model	Diameter inch	A Max (in)	Cv
ABV050MP	1/2"	3.9"	21
ABV075MP	3/4"	4.1"	44
ABV100MP	1"	4.5"	42
ABV125MP	1-1/4"	5.7"	132
ABV150MP	1-1/2"	5.5"	132
ABV200MP	2"	6.4"	345
ABV250MP	2-1/2"	6.9"	345

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

Water Valves and Strainers

AMV***F* "Motorized Water Valve Kit with End Switch

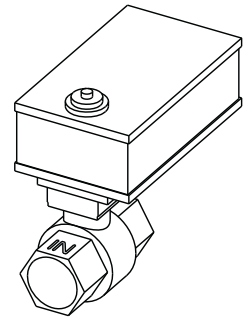
- FPT x FPT with brass body material
- Designed for water source heat pump applications.
- Slow Closing Quiet operation - 24VAC with 60" [152 cm] leads
- Temperature range of 32° to 240°F [0° to 115°C].
- Working pressure (300 psig [2072 kPa] WOG @ 150°F [66°C])



Model	Diameter inch	MOPD	Cv
AMV050FHS	0.50"	150	4.9
AMV075FHS	0.75"	150	10.3
AMV100FHS	1.00"	150	8.9

AMV***F* "Motorized Water Valve Kit with End Switch

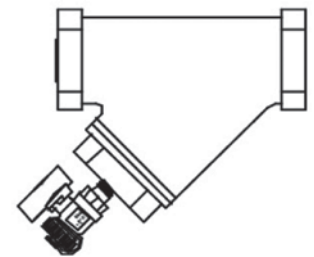
- FPT x FPT with brass body material
- Designed for water source heat pump applications.
- Full Port Stainless Steel ball, spring return.
- Slow Closing Quiet operation - 24VAC with 48" [121cm] leads
- Temperature range of -22° to 250°F [-30° to 121°C].
- Working pressure (360 psig [2482 kPa] WOG @ 250°F [121°C])



Model	Diameter inch	MOPD	Cv
S23S0252N01	1.25"	100	25
S23S0253N01	1.50"	100	41
S23S0254N01	2.00"	100	57

AYS***B "Y" Strainer w/ Blowdown

- FPT x FPT with Bronze material
- Designed for water source heat pump applications.
- Temperature range of -40° to 200°F [-40° to 93°C].
- Strainer includes #20 stainless steel wire mesh
- Class 125 working pressure (400 psig [2763 kPa] WOG @ 150°F [66°C])



Model	Diameter inch
AYS050B	0.50"
AYS075B	0.75"
AYS100B	1.00"
AYS120B	1.25"
AYS150B	1.50"
AYS200B	2.00"
AYS250B	2.50"

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

ALCP Loop Control Panel

Description

The Micro Temp Controller is completely programmable loop control panel. Each output may operate based upon time and day, water temperature, or both, for a total of 12 control outputs. Three additional outputs are supplied for time and day programming for auxiliary equipment, i.e. lighting. The main loop pumps are programmable for lead/lag control and time and day on/off with a dry contact input to override the schedule and bring pumps on.

Application

Boiler/Cooling tower loop control. Not for geothermal units.

Standard Control Features

- Dimensions 16.5" H x 15" W x 6.5" D [41.9cm x 38.1cm x 16.5cm]
- Input Power 120Vac -1-60.
- Microprocessor based control.
- Lock code to protect against unauthorized use.
- Time out so user cannot leave in program mode.
- Indicator lights display pump, alarm and output status.
- Solid state relays.
- LCD displays - temperatures, flow time & programming data.
- Seven day timer with provisions for Mon. - Fri., Sat. & Sun.
- Automatic pump switch-over in the event of flow loss.
- Outputs can be programmed to operate on time and/or temperature.
- Alarm initiated by high temp, low temp, or no flow.
- Range - Low temp alarm (35F to 75F) low temp shutdown (33F to 90F); high temp alarm (75F to 120F) high temp shutdown (75F to 120F)
- Of the 16 outputs, 4 are dedicated to pumps 1 & 2, alarm and shutdown. The remaining 12 outputs available to control your system requirements. The ALCP2004-20 has eight additional outputs available.
- Dry contacts are rated for 2.0 A @ 14 to 240 VAC.
- Relays connections are made through screw type terminal block.
- Simulator provided to test program prior to start-up.
- Outdoor air temperature sensor with 50 feet of cable
- Water temperature sensor with 50 feet of cable
- The enclosure shall be CSA and UL listed.
- Optional Flow Switch



ALCP Controller



Outdoor Air Sensor, Water Temperature Sensor and Simulator (Included)



Flow Switch (Optional)

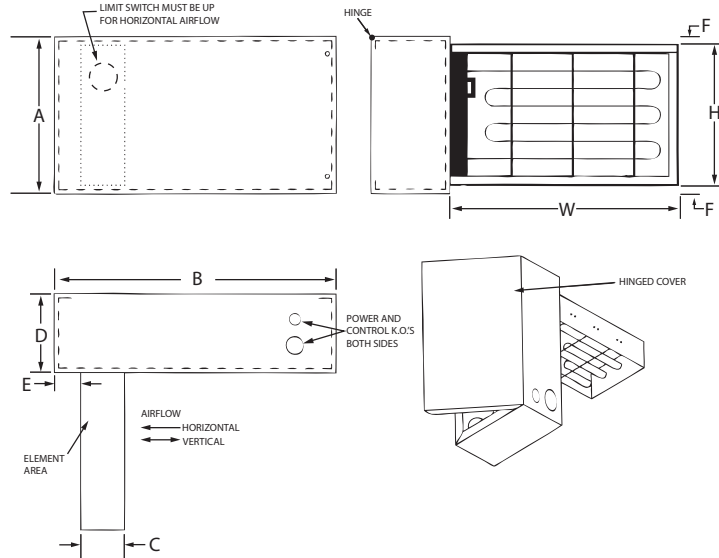
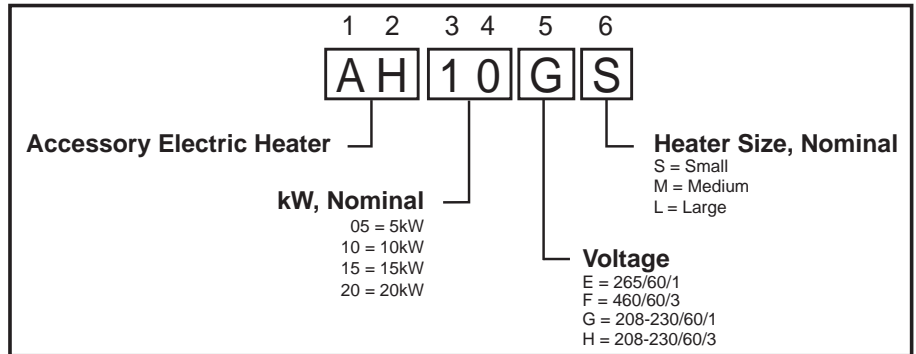
Model	Description
ALCP2004	2 Pump with 14 programmable outputs
ALCP2004-20	2 Pump with 22 programmable outputs
68263800	Flow Switch

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

Accessory Electric Heater - AH

Description

- UL and CSA Listed
- Integral control box
- "Stab in" configuration
- Primary and secondary limit protection
- Recessed terminal connection
- Magnetic de-energizing contactors
- Fan relay control
- UL/NEC circuit fusing
- Hinged control box door
- Leaving air temperature should not exceed 135°F (57°C), auto reset limit switch is 145°F (62°C).



Electrical Data

Model	Voltage	Hz	Phase	*kW	Amps	Steps	Minimum Air Velocity Ft/Min.
5	208	60	1	3.6	17.3	1	420
	240	60	1	4.8	20.0		520
	208	60	3	3.8	10.4		480
	240	60	3	5.0	12.0		480
	277	60	1	5.0	18.1		480
10	480	60	3	5.0	6.0	530	
	208	60	1	7.2	34.6	2	500
	240	60	1	9.6	40.0	2	680
	208	60	3	7.4	20.7	2	500
	240	60	3	9.9	23.9	2	650
	277	60	1	10.0	36.1	2	640
15	480	60	3	10.0	12.0	1	640
	208	60	1	10.0	51.9	3	600
	240	60	1	14.4	60.0	3	900
	208	60	3	11.2	31.0	2	800
	240	60	3	15.0	36.0	2	900
20	277	60	1	15.0	54.2	3	870
	480	60	3	15.0	18.1	1	900
	208	60	1	14.4	69.2	4	900
	240	60	1	19.2	80.0	4	970
	208	60	3	14.8	41.3	3	900
20	240	60	3	19.8	47.7	3	970
	277	60	1	20.0	72.2	4	870
	480	60	3	20.0	24.1	2	910

*Maximum kW if all steps are wired in.

Heater Dimensions

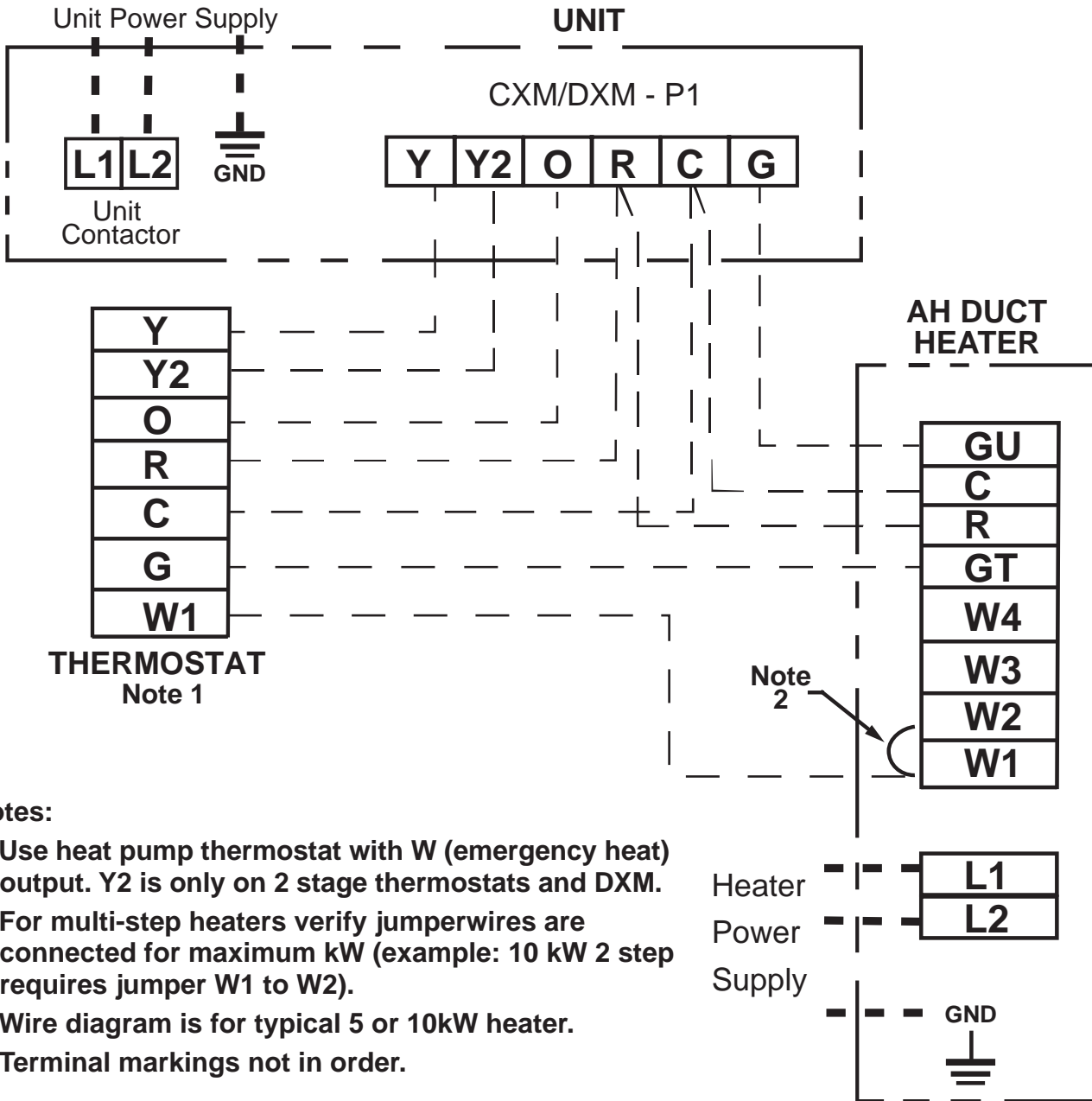
Model	A	B	C	D	E	F	W	H	Element Area (Sq. Ft)
AH05-S	14	10	3	4	2	1	11.5	12	1.0
AH10-M	16	14	3	4	2	1	12.5	14	1.2
AH10-L	17	10	3	4	2	1	15.5	15	1.6
AH15-M	16	16	6	4	2	1	12.5	14	1.2
AH15-L	17	15	3	4	2	1	15.5	15	1.6
AH20-L	17	15	3	4	2	1	15.5	15	1.6

All Dimensions are ± 1/4"

NOTES:

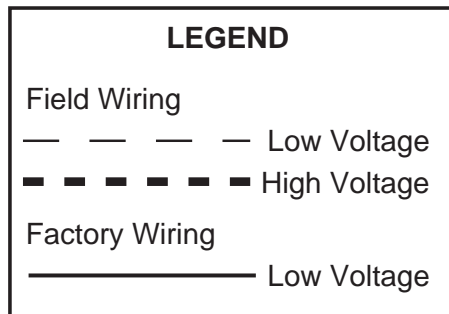
1. For electric heat in boilerless applications, unit must have DXM option or electric heat with MPC; must also order ASKHTR - Relay kit, (see 97B0012N07 IOM for wiring and DIP settings).
2. For 3 and 4 step heaters, use pilot duty relay part number 13B0004N01 (see 97B0012N07 IOM for wiring).

Accessory Electric Heater - AH



Notes:

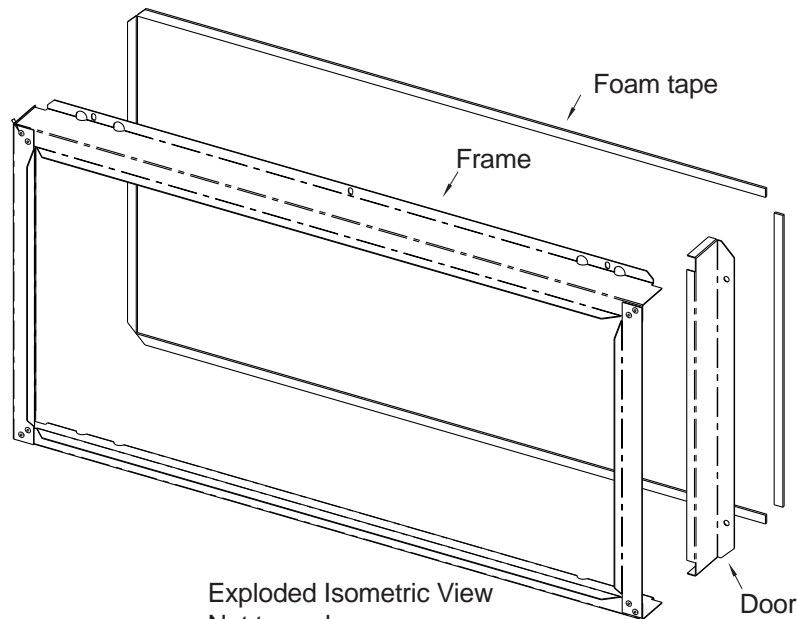
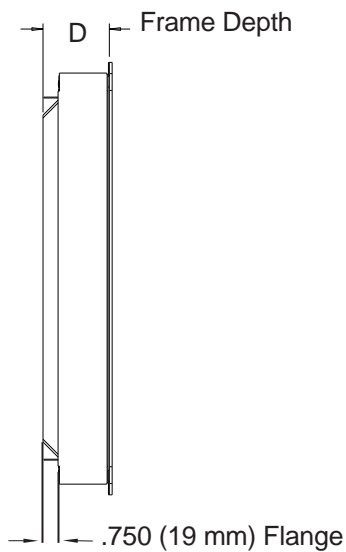
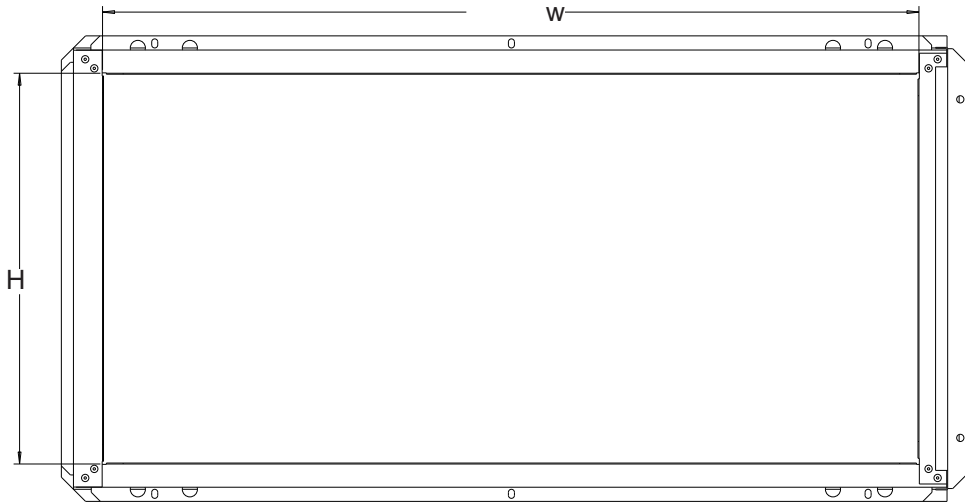
1. Use heat pump thermostat with W (emergency heat) output. Y2 is only on 2 stage thermostats and DXM.
2. For multi-step heaters verify jumperwires are connected for maximum kW (example: 10 kW 2 step requires jumper W1 to W2).
3. Wire diagram is for typical 5 or 10kW heater.
4. Terminal markings not in order.



Accessory Filter Frame for Packaged Units

AFF Filter Frame Description:

- Air filter frame with filter access door.
- Integral flanges for air duct connection.
- Field installed. Used on right or left return units.
- Galvanized steel painted or unpainted to match heat pump cabinet.



Exploded Isometric View
Not to scale
Access door style may vary

Filter	D Typical
1" (25mm)	2" (50mm)
2" (50mm)	3" (75mm)

Accessory Filter Frames

Frame Dimensions

Unit Series	Unit Size	Part Number 1" (25mm)	Flange Dimension " (cm)		Part Number 2" (50mm)	Flange Dimension " (cm)	
			H	W		H	W
TCH TRH TYH TZH	006 - 012	AFF10181NRSH	8.1 (21)	15.6 (40)	AFF10182NRSH	8.1 (21)	15.6 (40)
	015 - 018	AFF16251NRSH	14.1 (36)	22.7 (55)	AFF16252NRSH	14.1 (36)	22.7 (55)
	024 - 030	AFF18251NRSH	15.9 (41)	22.7 (55)	AFF18252NRSH	15.9 (41)	22.7 (55)
	036 - 042	AFF20281NRSH	18.1 (46)	25.8 (60)	AFF20282NRSH	18.1 (46)	25.8 (60)
	048 - 060	AFF20381NRSH	18.1 (46)	35.8 (86)	AFF20382NRSH	18.1 (46)	35.8 (86)
TCV TRV TYV TZV	006 - 012	AFF10181NRSV	8.1 (21)	15.6 (40)	AFF10182NRSV	8.1 (21)	15.6 (40)
	015 - 030,041	AFF20201NRSV	18.1 (46)	18.1 (46)	AFF20202NRSV	18.1 (46)	18.1 (46)
	036 - 042	AFF24241NRSV	22.1 (56)	22.6 (55)	AFF24242NRSV	22.1 (56)	22.6 (55)
TRV/TZV	048 - 060	AFF28281NRSV	26.1 (66)	25.8 (66)	AFF28282NRSV	26.1 (66)	25.8 (66)
TCV/TYV		AFF32241NRSV	22.1 (56)	29.1 (74)	AFF32242NRSV	22.1 (56)	29.1 (74)
TCH	072-120	AFF20651NRSH	18.0 (46)	59.9 (152)	AFF20652NRSH	18.0 (46)	59.9 (152)
TSH	006 - 012	AFF16201BRSH	14.2 (36)	17.7 (45)	AFF16202BRSH	14.2 (36)	17.7 (45)
	018 - 030	AFF18361BRSH	16.2 (41)	33.8 (86)	AFF18362BRSH	16.2 (41)	33.8 (86)
	036	AFF20371BRSH	18.2 (46)	34.8 (88)	AFF20372BRSH	18.2 (46)	34.8 (88)
	042 - 048	AFF20421BRSH	18.2 (46)	39.8 (101)	AFF20422BRSH	18.2 (46)	39.8 (101)
	060 - 070	AFF20481BRSH	18.2 (46)	44.8 (114)	AFF20482BRSH	18.2 (46)	44.8 (114)
TSV	006 - 012	AFF16201BRSV	14.2 (36)	17.7 (45)	AFF16202BRSV	14.2 (36)	17.7 (45)
	018	AFF24241BRSV	22.2 (56)	22.2 (56)	AFF24242BRSV	22.2 (56)	22.2 (56)
	024-030	AFF28241BRSV	26.2 (67)	22.2 (57)	AFF28242BRSV	26.2 (67)	22.2 (57)
	036	AFF28301BRSV	26.2 (67)	27.2 (69)	AFF28302BRSV	26.2 (67)	27.2 (69)
	042 - 048	AFF32301BRSV	30.2 (77)	27.2 (69)	AFF32302BRSV	30.2 (77)	27.2 (69)
	060 - 070	AFF36301BRSV	34.2 (87)	27.2 (69)	AFF36302BRSV	34.2 (87)	27.2 (69)
TTH/TEH	026	AFF18361BRSH	16.2 (41)	33.8 (86)	AFF18362BRSH	16.2 (41)	33.8 (86)
	038	AFF20371BRSH	18.2 (46)	34.8 (88)	AFF20372BRSH	18.2 (46)	34.8 (88)
	049	AFF20421BRSH	18.2 (46)	39.8 (101)	AFF20422BRSH	18.2 (46)	39.8 (101)
	064	AFF20481BRSH	18.2 (46)	44.8 (114)	AFF20482BRSH	18.2 (46)	44.8 (114)
	072	AFF20481BRSH	18.2 (46)	44.8 (114)	AFF20482BRSH	18.2 (46)	44.8 (114)
TTV/TEV	026	AFF28241BRSV	26.2 (67)	22.2 (56)	AFF28242BRSV	26.2 (67)	22.2 (56)
	038	AFF28301BRSV	26.2 (67)	27.2 (69)	AFF28302BRSV	26.2 (67)	27.2 (69)
	049	AFF32301BRSV	30.2 (77)	27.2 (69)	AFF32302BRSV	30.2 (77)	27.2 (69)
	064	AFF36301BRSV	34.2 (87)	27.2 (69)	AFF36302BRSV	34.2 (87)	27.2 (69)
	072	AFF36301BRSV	34.2 (87)	27.2 (69)	AFF36302BRSV	34.2 (87)	27.2 (69)

All Dimensions +/- .2 in. (5 mm)

Accessory Filters

ClimateMaster units (except TE) are shipped with disposable woven fiberglass filters. If there is sufficient external static pressure available, the filter can be upgraded to Merv 8 or higher rated filters for improved room air filtration and possible LEED points.

Filter Testing Standard

ASHRAE 52.2 is a testing procedure and rating standard that filter manufacturers use. Table below shows the typical characteristics of the Merv ratings for filters. The higher the Merv rating the smaller the particles are that will be removed from the air stream, thus improving air quality.

ASHRAE Standard 52.2 Minimum Efficiency Reporting Value (MERV)	Dust Spot Efficiency	Arrestance	Particle Size (microns)	Typical Media Type
13	89-90%	> 98%	.3 to 1.0	Synthetic
11	60-65%	> 95%	1.0 to 3.0	Synthetic
8	30-35%	>90%	3.0 to 10	Pleated cotton-polyester
1-4	<20%	<65-80%	>10	Fiberglass

Information taken from internet and may vary for different manufacturers.
Most Merv 1-4 filters are not certified due to cost associated with testing.

General Information

ASHRAE recommends Merv 6 or higher.

Not all installations or units will be able to upgrade to Merv 8 or higher filters.

Merv tables below are for ClimateMaster filters only. For customer supplied filters obtain manufacturers specification sheets and use those in determining acceptability. Media resistance and square footage in same frame thickness does vary sufficiently.

Determining the Maximum Filtration Allowable for Your Unit

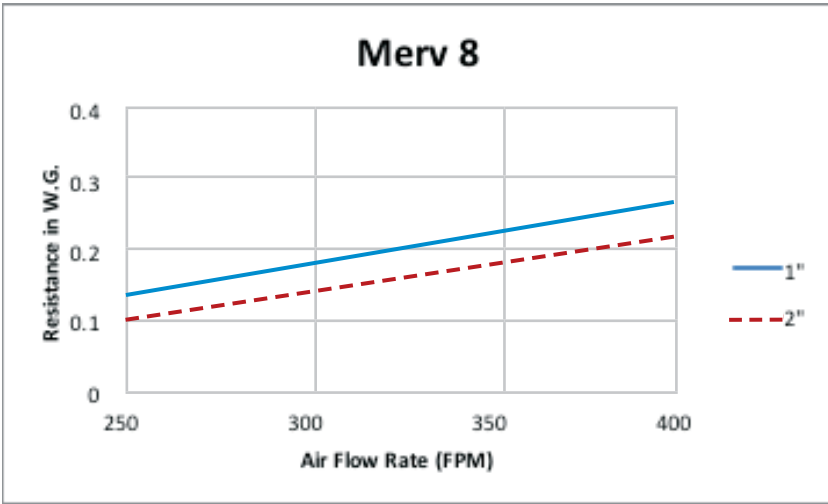
First step -Check unit submittal blower table to obtain the static pressure (SP) at lowest CFM for PSC motor or highest CFM for ECM motor that unit will operate. Obtain from engineer supply and return duct SP and supply air grille SP; add together to get system SP. Filter SP is unit SP minus system SP.

Second step- Convert your unit air flow from CFM to Initial Velocity in FPM. (Use blower table and air coil face area in physical data information both in product submittal). For PSC- Use final filter velocity to represent a loaded filter, for calculations use 50% loaded which doubles the velocity. (PSC motors will lose some CFM as filter clogs, disregard this in calculations) For ECM motors final velocity is equal to Initial velocity. ECM will hold the CFM setting up to its maximum static as filter loads.

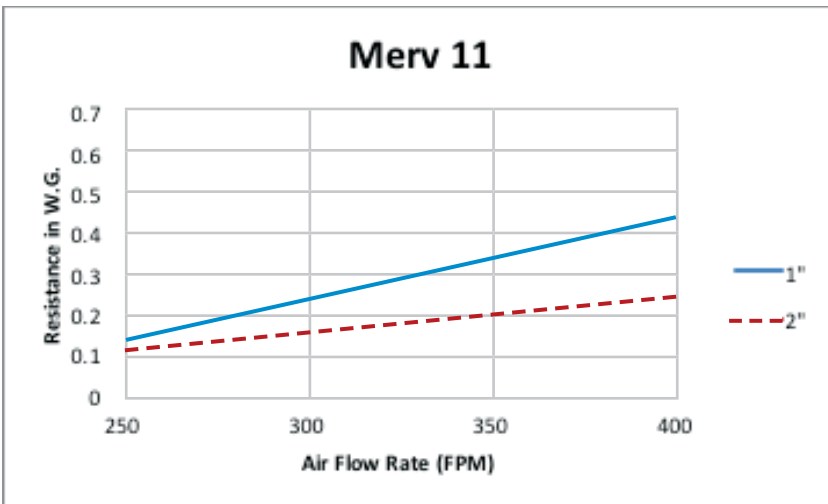
Third step- Select Merv filter desired and use the tables to get filter resistance at your unit velocity.

Last step- Check that your total external static pressure and CFM are both within blower table in your product submittal. If static pressure is too high, select lower Merv rated filter and recalculate.

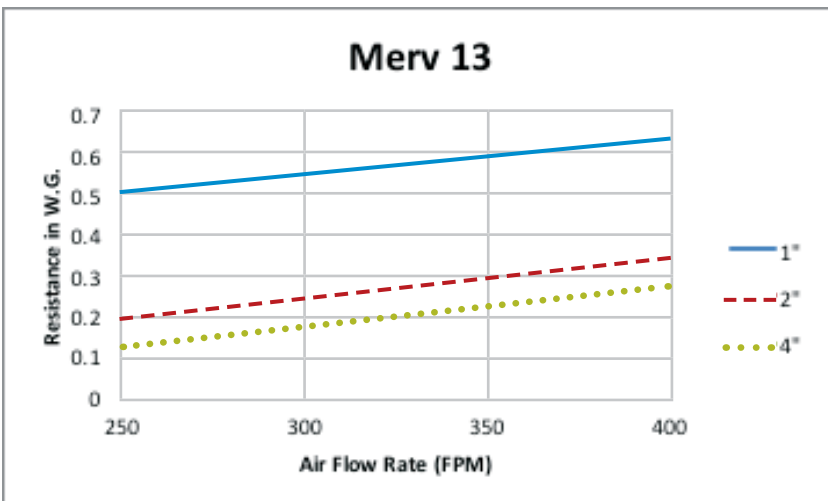
Accessory Filters



24" x 24" Filter Merv 8- 1" has 6.9 sq ft of media; 2" has 11.5 sq ft of media



24" x 24" Filter Merv 11- 1" has 7.9 sq ft of media; 2" has 17.6 sq ft of media



24" x 24" Filter Merv 13- 1" has 7.9 sq ft of media; 2" has 17.6 sq ft of media; 4" has 27.2 sq ft of media

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products. The latest version of this document is available at climatemaster.com.

Accessory Filters

Maintenance

Schedule routine filter cleaning or replacement for proper unit operation. Filters with higher square feet of media and lower Merv rating clog slower and require less maintenance.

Example 1

What Merv rated filters would be acceptable for TSV036 with PSC motor. Unit submittal shows the minimum unit CFM is 825 at maximum ESP of .6 and in physical data table the air coil is 28" by 25" or 4.8 sq ft. Engineering plans show system ESP is 0.30.

Initial filter resistance is 740 CFM divided by 4.8 = 154 FPM. Final filter resistance is 308 FPM

From .6 ESP subtract .3 leaves .3 for the filter.

Checking tables at 344 FPM, all filters up to 2" Merv 13 will be acceptable.

Example 2

What Merv rated filters would be acceptable for TSM24 with ECM motor. Unit submittal shows the maximum unit CFM is 950 at maximum ESP of .3 and in physical data table the air coil is 30" by 18" or 3.8 sq ft. Engineering plans show system ESP is 0.1.

Initial filter resistance is 950 CFM divided by 3.8 = 250 FPM. Final filter resistance is 250 FPM

From .3 ESP subtract .1 leaves .1 for the filter.

Checking tables at 250 FPM, all filters up to 2" Merv 13 would be acceptable.

Replacement Air Filters-Part Numbers

Product Line		Fiberglass		Pleated		
		1" / 25mm	2" / 50mm	1" / 25mm	2" / 50mm	2" / 50mm
Unit Size	Qty & Size	Part Number	Part Number	Part Number	Part Number	Part Number
TCH / TRH / TYH / TZH - Horizontal Units				MERV 8	MERV 8	MERV 13
006 - 012	1 - 10 x 18	76B0001N22	76B0002N22	76B0004N23	76B0003N22	76B0013N22
015 - 018	1 - 16 x 25	68544448	68544434	76B0004N21	68301748	76B0013N21
024 - 030	1 - 18 x 25	76B0001N27	76B0002N25	76B0008N01	76B0012N01	76B0013N26
036 - 042	2 - 14 x 20	68544445	68544446	76B0004N20	76B0003N18	76B0013N18
048 - 060	1 - 14 x 20	68544445	68544446	76B0004N20	76B0003N18	76B0013N18
	1 - 20 x 24	76B0001N07	76B0002N07	76B0004N07	76B0003N07	76B0013N07
072 - 120	4 - 16 x 20	76B0001N03	76B0002N03	76B0004N03	76B0003N03	76B0013N03
TCV / TRV / TYV / TZV - Vertical Units				MERV 8	MERV 8	MERV 13
006 - 012	1 - 10 x 18	76B0001N22	76B0002N22	76B0004N23	76B0003N22	76B0013N22
015 - 030, 041	1 - 20 x 20	68544402	76B0002N19	76B0004N22	76B0003N17	76B0013N17
036, 042	1 - 24 x 24	76B0001N08	76B0002N08	76B0004N08	76B0003N08	76B0013N08
TCV / TYV 048 - 060	1 - 14 x 24	76B0001N05	76B0002N05	76B0004N05	76B0003N05	76B0013N05
	1 - 18 x 24	76B0001N06	76B0002N06	76B0004N06	76B0003N06	76B0013N06
TRV / TZV 048 - 060	1 - 28 x 28	76B0001N28	76B0002N26	76B0015N08		76B0013N27
072 - 120	4 - 20 x 20	68544402	76B0002N19	76B0004N22	76B0003N17	76B0013N17
160 - 300	4 - 20 x 25	76B0001N09	76B0002N09	76B0004N09	76B0003N09	76B0013N09
	2 - 20 x 30	76B0001N24	76B0002N24	76B0004N24	76B0003N24	76B0013N24

TSH - Horizontal Units				MERV 8	MERV 11	MERV 13
006 - 012	1 - 16 x 20	76B0001N03	76B0002N03	76B0004N03	76B0005N03	76B0013N03
018 - 030	2 - 18 x 18	76B0001N01	76B0002N01	76B0004N01	76B0005N01	76B0013N01
036	1 - 12 x 20	76B0001N02	76B0002N02	76B0004N02	76B0005N02	76B0013N02
	1 - 20 x 25	76B0001N09	76B0002N09	76B0004N09	76B0005N09	76B0013N09
042 - 048	1 - 18 x 20	76B0001N04	76B0002N04	76B0004N04	76B0005N04	76B0013N04
	1 - 20 x 24	76B0001N07	76B0002N07	76B0004N07	76B0005N07	76B0013N07
060 - 070	2 - 20 x 24	76B0001N07	76B0002N07	76B0004N07	76B0005N07	76B0013N07
TSV - Vertical Units				MERV 8	MERV 11	MERV 13
006 - 012	1 - 16 x 20	76B0001N03	76B0002N03	76B0004N03	76B0005N03	76B0013N03
018	1 - 24 x 24	76B0001N08	76B0002N08	76B0004N08	76B0005N08	76B0013N08
024 - 030	1 - 24 x 28	76B0001N14	76B0002N14	76B0004N14	76B0005N14	76B0013N14
036	1 - 28 x 30	76B0001N15	76B0002N15	76B0004N15	76B0005N15	76B0013N15
042 - 048	2 - 16 x 30	76B0001N23	76B0002N23	76B0004N25		76B0013N23
	1 - 30 x 32				76B0005N19	76B0013N19
060 - 070	1 - 16 x 30	76B0001N23	76B0002N23	76B0004N25		76B0013N23
	1 - 20 x 30	76B0001N24	76B0002N24	76B0004N24		76B0013N24
	1 - 30 x 36				76B0005N20	76B0013N20
TTH - Horizontal Units				MERV 8	MERV 11	MERV 13
026	2 - 18 x 18	76B0001N01	76B0002N01	76B0004N01	76B0005N01	76B0013N01
038	1 - 12 x 20	76B0001N02	76B0002N02	76B0004N02	76B0005N02	76B0013N02
	1 - 20 x 25	76B0001N09	76B0002N09	76B0004N09	76B0005N09	76B0013N09
049	1 - 18 x 20	76B0001N04	76B0002N04	76B0004N04	76B0005N04	76B0013N04
	1 - 20 x 24	76B0001N07	76B0002N07	76B0004N07	76B0005N07	76B0013N07
064 - 072	2 - 20 x 24	76B0001N07	76B0002N07	76B0004N25	76B0005N07	76B0013N07
TTV - Vertical Units				MERV 8	MERV 11	MERV 13
026	1 - 24 x 28	76B0001N14	76B0002N14	76B0004N14	76B0005N14	76B0013N14
038	1 - 28 x 30	76B0001N15	76B0002N15	76B0004N15	76B0005N15	76B0013N15
049	2 - 16 x 30	76B0001N23	76B0002N23	76B0004N25		76B0013N23
049	1 - 30 x 32				76B0005N19	76B0013N19
064 - 072	1 - 16 x 30	76B0001N23	76B0002N23	76B0004N25		76B0013N23
	1 - 20 x 30	76B0001N24	76B0002N24	76B0004N24		76B0013N24
	1 - 30 x 36				76B0005N20	76B0013N20

Box of 12 must be ordered.

Accessory Filters

Replacement Air Filters-Part Numbers

Unit Size	Qty & Size	Part Number	Part Number	Part Number	Part Number
TSM/TSL Vertical Stack Units					
		1" / 25mm Fiberglass	1" / 25mm MERV 8	1" / 25mm MERV 11	
09 - 18	1 - 16 x 30	76B0001N23	76B0004N25	76B0007N23	
24 - 36	1 - 20 x 32	76B0001N25	76B0004N27	76B0007N25	
		2" / 50mm Fiberglass	2" / 50mm MERV 8	2" / 50mm MERV 11	2" / 50mm MERV 13
09 - 18	1 - 16 x 30	76B0002N23	76B0003N23	76B0005N23	76B0013N23
24 - 36	2 - 16 x 20	76B0002N03	76B0003N03	76B0005N03	76B0013N03

Unit Size	Qty & Size	Part Number	Part Number	Part Number	Part Number
TRM Vertical Stack Units					
		1" / 25mm Fiberglass	2" / 50mm Fiberglass	1" / 25mm MERV 8 Pleated	1" / 25mm MERV 11 Pleated
09 - 12	1 - 14 x 24	76B0001N05		76B0004N06	76B0007N05
15 - 18	1 - 16 x 30	76B0001N23		76B0004N25	76B0007N23
24 - 36	1 - 20 x 32	76B0001N25		76B0004N27	76B0007N25

Unit Size	Qty & Size	Part Number	Part Number	Part Number	Part Number
TLV - Large Vertical Units					
		1" / 25mm Fiberglass	2" / 50mm Fiberglass		
084 - 150	4 - 18 x 25	76B0001N27	76B0002N25		
168 - 300	8 - 18 x 25	76B0001N27	76B0002N25		
		1" / 25mm MERV 8	2" / 50mm MERV 8	4" / 100mm MERV 8	
084 - 150	4 - 18 x 25	76B0008N01	76B0009N01	76B0010N01	
168 - 300	8 - 18 x 25	76B0008N01	76B0009N01	76B0010N01	
		1" / 25mm MERV 11	2" / 50mm MERV 11		
084 - 150	4 - 18 x 25	76B0011N01	76B0012N01		
168 - 300	8 - 18 x 25	76B0011N01	76B0012N01		
			2" / 50mm MERV 13	4" / 100mm MERV 13	
084 - 150	4 - 18 x 25		76B0013N01	76B0014N01	
168 - 300	8 - 18 x 25		76B0013N01	76B0014N01	

TRE - Rooftop Units					
		2" / 50mm MERV 8	4" / 100mm MERV 8	4" / 100mm MERV 13	
036 - 072	4 - 16 x 20	76B0008N02	76B0008N03	76B0014N02	
096 - 144	6 - 16 x 20	76B0008N02	76B0008N03	76B0014N02	
168 - 240	8 - 16 x 20	76B0008N02	76B0008N03	76B0014N02	
	2 - 20 x 20	76B0008N04	76B0008N05	76B0014N05	

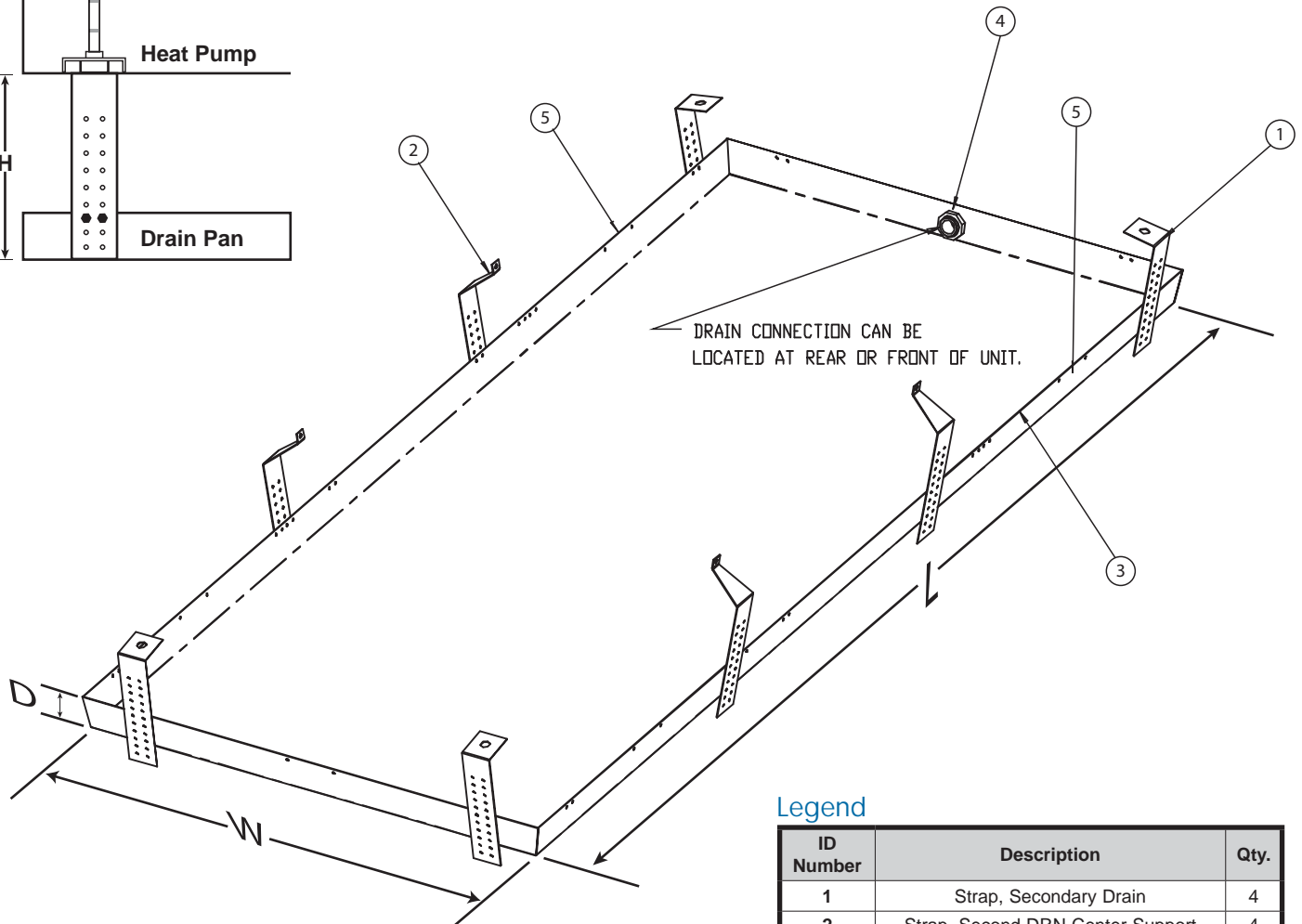
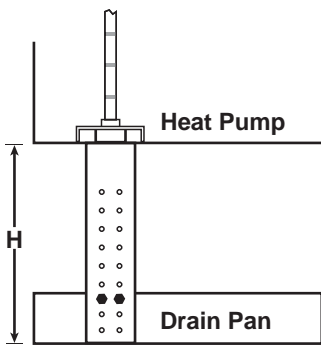
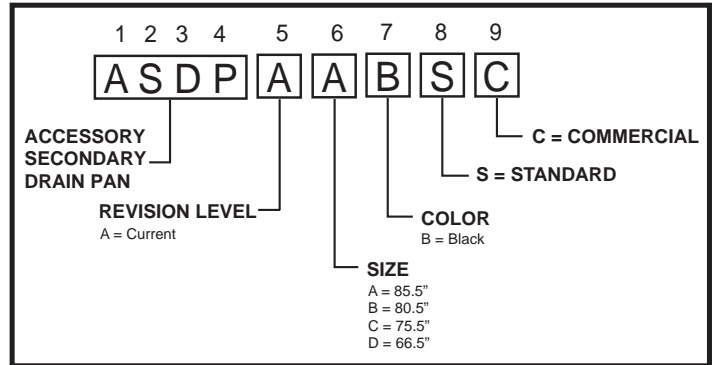
TRC - Console Units					
Unit Size	Qty & Size	Bottom Return			Front Return
		1" / 25mm Fiberglass	1" / 25mm MERV 8	1" / 25mm MERV 11	1/8" / 3mm Electrostatic
09 - 15	1 - 10 x 30	76B0001N10	76B0004N10	76B0007N10	24189610
18	1 - 10 x 36	76B0001N26	76B0004N26	76B0007N26	24189615

Box of 12 must be ordered, except TRC front return.

Accessory Secondary Drain Pans

TE, TT, & TS Secondary Drain Pan

Model	Part Number (Carton of 10)	Width W	Length L	Depth D	Overall Height H	
					Min.	Max.
018 - 030	ASDPADBSC	27.1	66.5	1.9"	4.125"	6.5"
036 - 038	ASDPACBSC	30.0	75.5	1.9"	4.125"	6.5"
042 - 049	ASDPABBSC	30.0	80.5	1.9"	4.125"	6.5"
060 - 072	ASDPAABSC	30.0	85.5	1.9"	4.125"	6.5"



Legend

ID Number	Description	Qty.
1	Strap, Secondary Drain	4
2	Strap, Second DRN Center Support	4
3	Secondary Drain	1
4	ADPTR PVC 3/4MPT x 3/4 FPT	1
5	Condensate Sensor Possible Locations	2

Revision History

Date:	Item:	Action:
2/7/17	Page 22	Updated part numbers
11/15/16	Document Design Updated	Updated
5/4/16	Pages 5,6,16,21	Edited AHK Hose Kit physical data ; ABV Ball Valve table data and drawing
03/12/16	Pages 15, 23-27	Add TSL/TSM, MERV filter information, replacement air filter part numbers
02/18/16	Page 21	Updated AMV Part Numbers
08/03/15	Page 21	Updated AMV Data
06/17/15	Table - Page 26	Updated
11/12/14	Table - Page 27	Added
06/17/14	Page 26	Updated
09/24/13	Unit Water Connection Sizes	Changes TY/TZ 041, 042 to 0.75
11/26/12	Accessory Secondary Drain Pan	Added
08/31/12	Accessory Electric Heater	Updated
04/30/12	Pages 4, 25	Added TZ/TY Updated TRV/TCV filter frames
01/23/12	Pages 4, 25	Added TCV041 to tables
10/03/11	Accessory Filter Frame Table	Updated
06/22/11	R-22 Products AH Heaters	Removed Updated Dimensions
01/03/11	Format - All Pages	Updated
06/11/10	Format - All Pages	Updated
07/22/09	Accessory Electric Heater	Electrical Data Table Updated
07/01/09	Filter Frame Table	TSH006-012 Added, Flange Dimensions Corrected
06/16/09	AMV050FHS Water Valve	Information and Drawing Updated
06/10/09	Stand-Alone and Big Book Submittals	Consolidated
06/04/09	Air Filter Frame Table	TCH and TCV Added
04/23/09	Unit Water Connection Sizes Table	Updated
08/21/08	AHB, AHC	Verbiage Updated
08/21/08	Flow Rate Tables	Added Operating Differential Information
06/18/08	ALCP Loop Control Panel	Updated Verbiage, added sensor and simulator photos
05/30/08	AHA, AHB, AHK, AHC, AHH, AHS	Updated Verbiage
05/30/08	AHA, AHB, AHK, AHC, AHH, AHS	Updated Drawings
05/16/08	AFF Information	Created
05/12/08	All	Updated Verbiage
05/12/08	AHS Pages	Edited hose graphics
05/12/08	AHH Hose Page	Created
05/12/08	Decoder	Added 'AHS' hose kit type
10/17/07	All	Minor formatting updates
10/17/07	Electric Heaters	Updated dimensional data
10/17/07	Decoders	Updated all accessory decoders
10/17/07	Change Log	Added
01/01/07	Thermostat	Replaced With New Thermostat Line
01/01/06	First Published	