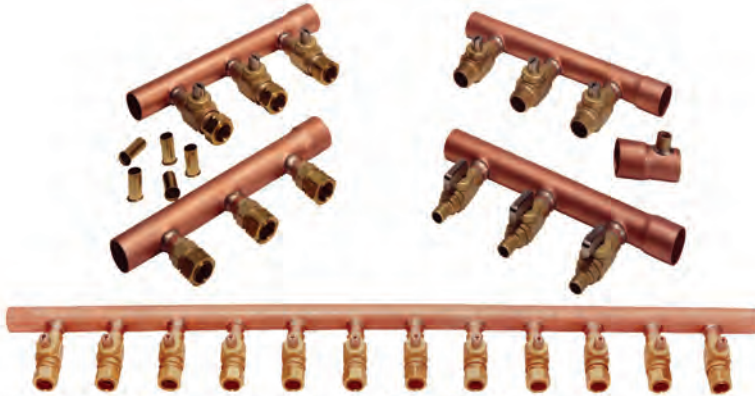
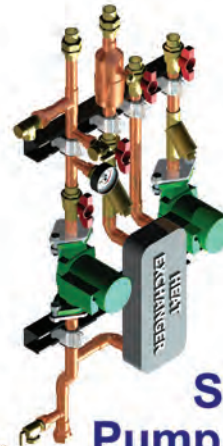


“Mechanical Rooms in a Moment”
Wholesale Price Guide 03-01-2016

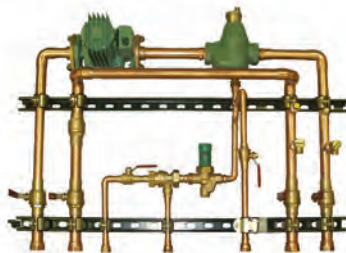


Hydronic Manifolds

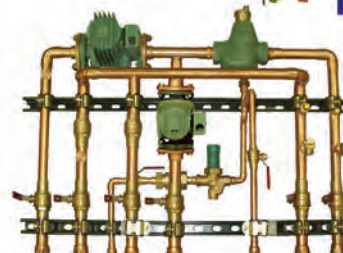


Solar Pump Modules

Mini-Sep PlusTM



TK-1000



TKI-1000



Pro-ModularTM



Allcan PlusTM



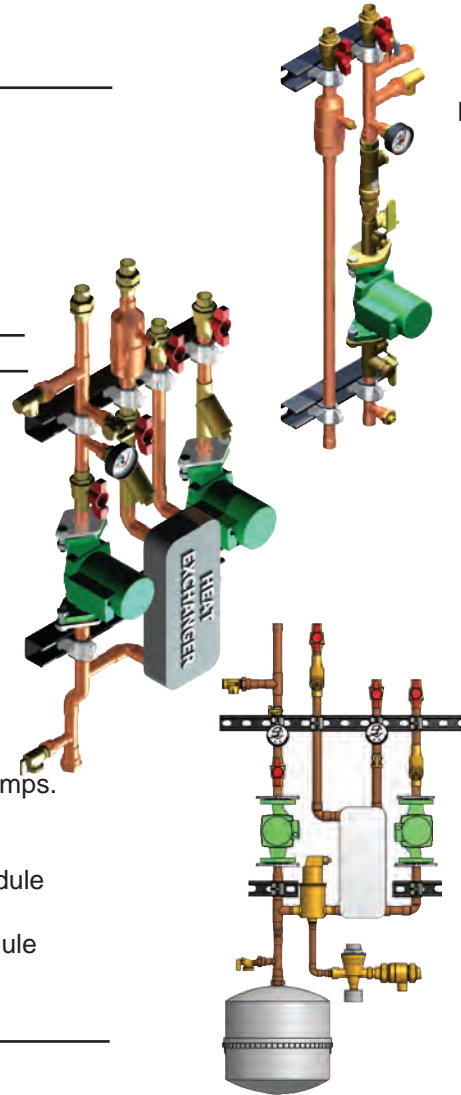
SOLAR MODULES - NEAR BOILER PIPING

Solar Panel without Heat Exchanger

PART NUMBER	DESCRIPTION	LIST PRICE
PHP-SP750G	¾" Solar Panel W/grundfos UPS15-58FC	\$ 1,827.20
PHP-SP750T	¾" Solar Panel W/taco 00R-MSF1-IFC	1,794.20
PHP-SP750LP	¾" Solar Panel Less Pump	1,457.05

Solar Panel with Heat Exchanger

PHP-SPHE750G	¾" Solar Panel W/grundfos UPS 15-58FC, UPS15-35SFC and Heat Exchanger	3,823.75
PHP-SPHE750GC	¾" Solar Panel W/two Grundfos UPS15-58FC and Heat Exchanger	3,823.75
PHP-SPHE750T	¾" Solar Panel W/taco 00R-MSF1-IFC, 008-BC6-IFC and Heat Exchanger	3,170.55
PHP-SPHE750TC	¾" Solar Panel W/two Taco 00R-MSF1-IFC and Heat Exchanger	3,136.05
PHP-SPHE750LP	¾" Solar Panel W/Heat Exchanger, but no Pumps.	2,463.30
PHP-HX750G	¾" HX Hydronic Heating Heat Exchanger Module	4,565.50
PHP-HX1000G	1" HX Hydronic Heating Heat Exchanger Module	4,922.50
PHP-VAE750	¾" Vertical Air Eliminator	188.60



PRIMARY MODULES - NEAR BOILER PIPING

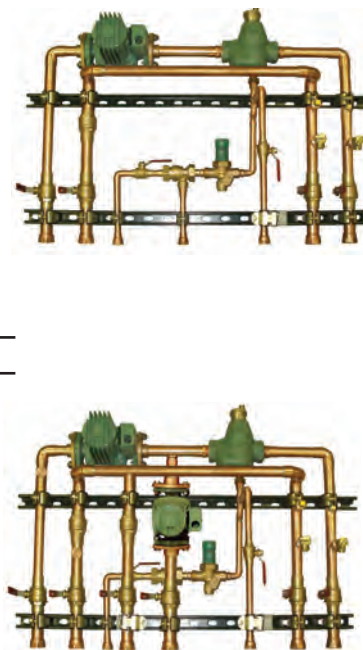
Pro-Modular Strut-Mounted Panels

Strut-Mounted Primary Panel without Indirect Water Heater Pump

PHP-TK-1000T	Boiler module with Taco system pump and without indirect pump, up to 80,000 Btuh	\$ 3,469.30
PHP-TK-1000G	Boiler module with Grundfos system pump and without indirect pump, up to 80,000 Btuh	3,526.65
PHP-TK-1250T	Boiler module with Taco system pump and without indirect pump, up to 200,000 Btuh	3,847.90
PHP-TK-1250G	Boiler module with Grundfos system pump and without indirect pump, up to 200,000 Btuh	3,905.60

Strut-Mounted Primary Panel with Indirect Water Heater Pump

PHP-TKI-1000T	Boiler module with Taco system pump and with indirect pump, up to 80,000 Btuh	\$ 5,062.40
PHP-TKI-1000G	Boiler module with Grundfos system pump and with indirect pump, up to 80,000 Btuh	5,028.65
PHP-TKI-1250T	Boiler module with Taco system pump and with indirect pump, up to 200,000 Btuh	5,563.20
PHP-TKI-1250G	Boiler module with Grundfos system pump and with indirect pump, up to 200,000 Btuh	5,594.80



PRIMARY MODULE - ACCESSORIES

Differential Pressure Bypass Kit for use with Pro-Modular Primary Panels

PHP-DPV750-KIT	3/4" differential pressure bypass kit for primary modules up to 200,000 Btuh
PHP-DPV1250-KIT	1-1/4" differential pressure bypass kit for primary modules up to 500,000 Btuh



\$ 334.00
616.85

SECONDARY-LOOP COMPONENTS FOR PRO-MODULAR PANELS

Secondary zone modules are multi-zone modules that may be combined in various configurations.

1-1/4" Secondary-Loop Components (Sweat Connections)

Zone Pump Modules (Sweat connections)

PHP-PMPCM-1TSW	1 zone pumping component module with Taco pump	\$ 1,049.80
PHP-PMPCM-1GSW	1 zone pumping component module with Grundfos pump	1,067.20
PHP-PMPCM-2TSW	2 zone pumping component module with Taco pump	1,775.45
PHP-PMPCM-2GSW	2 zone pumping component module with Grundfos pump	1,810.15
PHP-PMPCM-3TSW	3 zone pumping component module with Taco pump	2,537.00
PHP-PMPCM-3GSW	3 zone pumping component module with Grundfos pump	2,589.15
PHP-PMPCM-4TSW	4 zone pumping component module with Taco pump	2,642.70
PHP-PMPCM-4GSW	4 zone pumping component module with Grundfos pump	3,332.00
PHP-PMPCM-5TSW	5 zone pumping component module with Taco pump	3,987.90
PHP-PMPCM-5GSW	5 zone pumping component module with Grundfos pump	4,074.90



Zone Valve Modules (Sweat connections)

PHP-PMZVCM-1SW	1 zone valve component module (Taco)	\$ 735.30
PHP-PMZVCM-2SW	2 zone valve component module (Taco)	1,342.60
PHP-PMZVCM-3SW	3 zone valve component module (Taco)	1,985.75
PHP-PMZVCM-4SW	4 zone valve component module (Taco)	2,592.75
PHP-PMZVCM-5SW	5 zone valve component module (Taco)	3,200.85



3-Way Manual Mixing Modules (Sweat connections)

PHP-PM3WCAMV-1TSW	1 zone manual mix module with Taco pump	\$ 1,327.85
PHP-PM3WCAMV-1GSW	1 zone manual mix module with Grundfos pump	1,340.05
PHP-PM3WCAMV-2TSW	2 zone manual mix module with Taco pump	2,675.55
PHP-PM3WCAMV-2GSW	2 zone manual mix module with Grundfos pump	2,711.50
PHP-PM3WCAMV-3TSW	3 zone manual mix module with Taco pump	4,071.85
PHP-PM3WCAMV-3GSW	3 zone manual mix module with Grundfos pump	4,070.05



SECONDARY-LOOP COMPONENTS FOR PRO-MODULAR PANELS

Continued...

3-Way Taco i-Valve Mixing Modules (Sweat connections)

PHP-PM3WiMV-1TSW	1 zone 3-way i-Valve mix module with Taco pump	\$ 2,504.55
PHP-PM3WiMV-1GSW	1 zone 3-way i-Valve mix module with Grundfos pump	2,521.95
PHP-PM3WiMV-2TSW	2 zone 3-way i-Valve mix module with Taco pump	5,025.70
PHP-PM3WiMV-2GSW	2 zone 3-way i-Valve mix module with Grundfos pump	5,061.20
PHP-PM3WiMV-3TSW	3 zone 3-way i-Valve mix module with Taco pump	7,548.40
PHP-PM3WiMV-3GSW	3 zone 3-way i-Valve mix module with Grundfos pump	7,600.60



2-Way Taco i-Valve Mixing Modules (Sweat connections)

PHP-PM2WiMV-1TSW	1 zone 2-way i-Valve mix module with Taco pump	\$ 2,543.20
PHP-PM2WiMV-1GSW	1 zone 2-way i-Valve mix module with Grundfos pump	2,560.50
PHP-PM2WiMV-2TSW	2 zone 2-way i-Valve mix module with Taco pump	5,196.10
PHP-PM2WiMV-2GSW	2 zone 2-way i-Valve mix module with Grundfos pump	5,230.85
PHP-PM2WiMV-3TSW	3 zone 2-way i-Valve mix module with Taco pump	7,810.45
PHP-PM2WiMV-3GSW	3 zone 2-way i-Valve mix module with Grundfos pump	7,862.65



SECONDARY PARTS AND ACCESSORIES (FOR 1", 1-1/4" PARTS CONNECT WITH SWEAT)

Secondary Parts and Accessories Sweat connections

PHP-PMCMTA1-1000SW	1" primary/secondary transition kit (includes: transition fittings, transition adapter, end caps with drains)	\$ 380.10
PHP-PMCMTA1-1250SW	1-1/4" primary/secondary transition kit (includes: transition fittings, transition adapter, end caps with drains)	380.10
PHP-PMSADPTKIT-1000SW	1" short adapter kit	50.85
PHP-PMSADPTKIT-1250SW	1-1/4" short adapter kit	46.40
PHP-PMJBENDSW	"J"-bend kit, 1 short bend, 1 long bend (1")	134.20
PHP-PMSJBENDSW	"J"-bend kit, 2 short bends (1")	53.80
PHP-PMLJBENDSW	"J"-bend kit, 2 long bends (1")	149.15
PHP-PM1250PEKSW	End piece replacement kit (1-1/4")	89.75



Other Accessories

PHP-1000DB	1" pump spacer blank	\$ 60.65
PHP-1250DB	1-1/4" pump spacer blank	61.50



END PIECE REPLACEMENT KIT

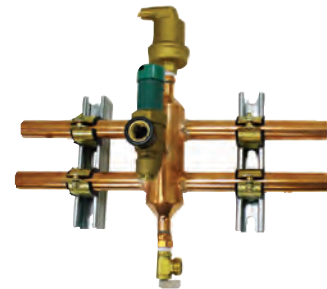
PHP-MSEP-1250SW KIT	Sweat Fittings for Connecting to Pro-Modular™ Secondary System	\$ 220.85
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HYDRAULIC SEPERATORS/CANISTERS

MINI-SEP™ - Includes air vent, fast-fill pressure-reducing valve

PHP-MSEP-1000	1" Mini-Sep™
PHP-MSEP-1250	1 1/4" Mini-Sep™

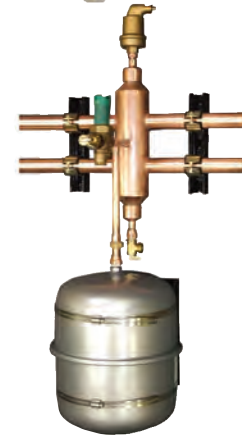


\$ 739.60

845.25

MINI-SEP PLUS™ - Includes air vent, fast-fill pressure-reducing valve, expansion tank, mounting bracket

PHP-MSEPPLUS-1000	1" Mini-Sep Plus™
PHP-MSEPPLUS-1250	1 1/4" Mini-Sep Plus™



\$ 1,110.40

1,222.80

ALLCAN™ Includes built in air separator, air vent, fast-fill pressure reducing valve, drain port, check valves, isolation valves, pressure/temperature guage, primary pump, expansion tank, Grundfos end-suction flange pumps or Taco in-line pumps, indirect water tank taps, mounting bracket.

(Taco in-line pumps require special mounting bracket included in the price)

PHP-ALLCAN-2G	2-Port Allcan™ w/ Grundfos
PHP-ALLCAN-4G	4-Port Allcan™ w/ Grundfos
PHP-ALLCAN-6G	6-Port Allcan™ w/ Grundfos
PHP-DHW-G	Indirect DHW Kit w/ Grundfos
PHP-ALLCAN-2T	2-Port Allcan™ w/ Taco
PHP-ALLCAN-4T	4-Port Allcan™ w/ Taco
PHP-ALLCAN-6T	6-Port Allcan™ w/ Taco
PHP-DHW-T	Indirect DHW Kit w/ Taco

Mixing Modules - available with Grundfos pumps only

PHP-CANMIX-3WM	3-Way Manual Mix Module
PHP-CANMIX-3WiV	3-Way Taco i-valve Mix Module



\$ 5,348.35

6,310.40

7,289.90

1,285.45

5,318.90

6,508.05

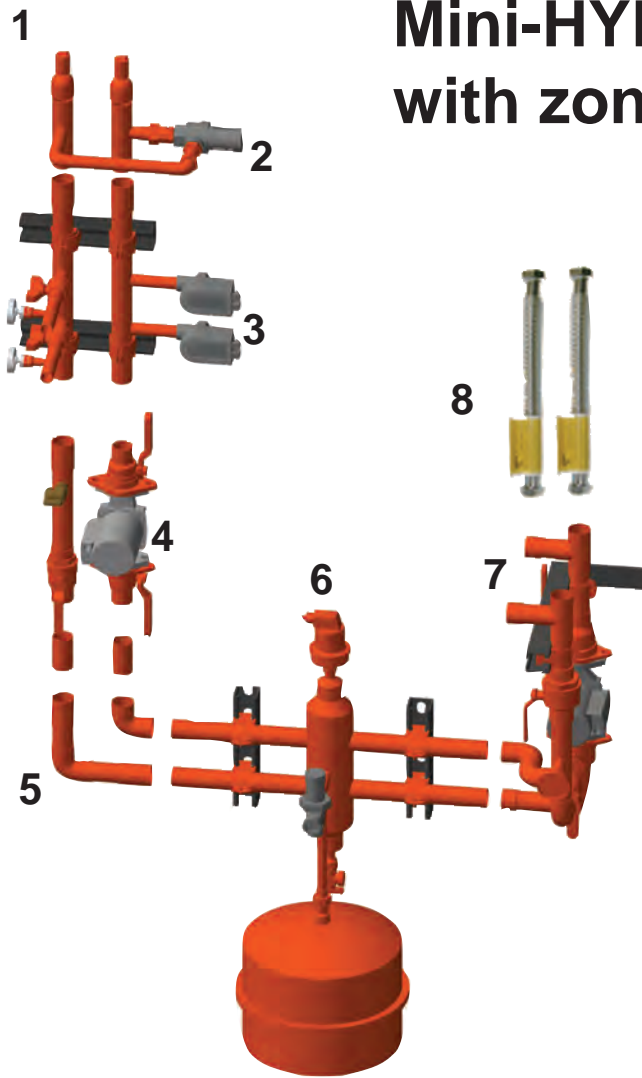
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1,311.20

323.30

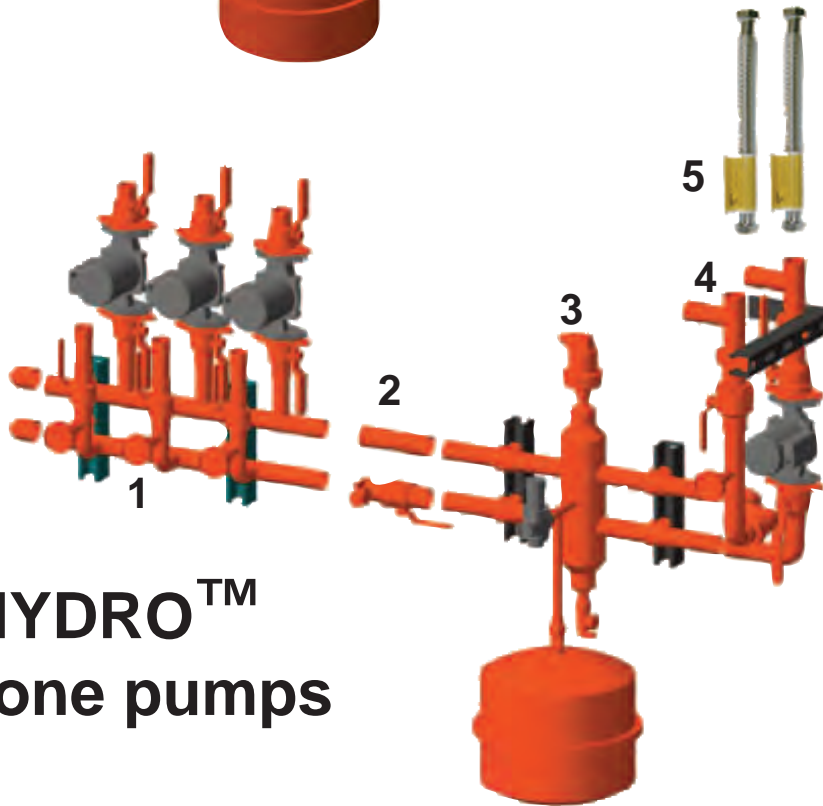
1,517.75

Mini-HYDRO™ with zone valves



Complete Kit Assemblys
available at
hydronicworkshop.com

Mini-HYDRO™ with zone pumps



Mini-HYDRO™ Kit - Secondary Zoning With Valves

Reference #	Part Number	Description	List Price
1	PHP-AVA1250	Air vent. Used when headers are installed upwards. (2 required)	\$ 25.25 ea
2	PHP-PMDPV750SW KIT	Differential Pressure Bypass Valve Kit for use with conventional secondary pump. Not needed with delta-T or delta-P pumps.	389.30
3	PHP-PMZVCM-1SW	1 zone valve component module	735.30
	PHP-PMZVCM-2SW	2 zone valve component module	1,342.60
	PHP-PMZVCM-3SW	3 zone valve component module	1,985.75
4	PHP-MSEP-1250SW KIT GF	Zone Valve Starter and Purge Kit. Includes end caps with plugs, purge valve, Grundfos UPS15-58FC or Taco 00R-MSF1-IFC.	871.25
	PHP-MSEP-1250SW KIT TACO		853.85
	PHP-MSEP-1250SW KIT TDT	Zone Valve Starter/Purge Kit with Taco T.	1,112.30
	PHP-MSEP-1250SW KIT WDP	Zone Valve Starter/Purge Kit with Wilo P.	1,477.55
5	PHP-PMJB ENDSW	"J"-bend kit, 1 short bend, 1 long bend. Used when installing zone modules up or down.	122.25
6	PHP-MSEPPLUS-1250	1-1/4" Mini-Sep Plus	1,222.80
7	PHP-MSEP-BCG	Primary Loop Kit. Includes taps for indirect water tank connection, Grundfos UPS15-58FC or Taco 00R-MSF1-IFC pump.	1,524.10
	PHP-MSEP-BCT		1,506.70
	PHP-MSEP-BCLP	Primary Loop Kit without pump.	1,086.90
8	PHP-SWC-1250-18	1-1/4" stainless steel flex connector with sweat adapters 18"	142.70 ea
	PHP-SWC-1250-24	1-1/4" stainless steel flex connector with sweat adapters 24"	155.10 ea

Mini-HYDRO™ Kit - Secondary Zoning With Pumps

Reference #	Part Number	Description	List Price
Not shown	PHP-AVA1250	Air vent. Used when headers are installed upwards. (2 required)	\$ 25.25 ea
1	PHP-PMPCM-1TSW	1 zone pump component module - Taco	1,049.80
	PHP-PMPCM-1GSW	1 zone pump component module - Grundfos	1,067.20
	PHP-PMPCM-2TSW	2 zone pump component module - Taco	1,775.45
	PHP-PMPCM-2GSW	2 zone pump component module - Grundfos	1,810.15
	PHP-PMPCM-3TSW	3 zone pump component module - Taco	2,537.00
	PHP-PMPCM-3GSW	3 zone pump component module - Grundfos	2,589.15
	PHP-PMPCM-1LPSW	1 zone pump component module without pump	661.55
	PHP-PMPCM-2LPSW	2 zone pump component module without pump	1,021.15
	PHP-PMPCM-3LPSW	3 zone pump component module without pump	1,414.45
2	PHP-MSEP-1250SW KIT	Pump Module Adapter Kit. Includes end caps with plugs, shutoff with purge valve	220.85
Not shown	PHP-PMJBENDSW	"J"-bend kit, 1 short bend, 1 long bend. Used when installing zone modules up or down.	122.25
3	PHP-MSEPPLUS-1250	1-1/4" Mini-Sep Plus	1,222.80
4	PHP-MSEP-BCG	Primary Loop Kit. Includes taps for indirect water tank connection, Grundfos UPS15-58FC or Taco 00R-MSF1-IFC pump.	1,524.10
	PHP-MSEP-BCT		1,506.79
	PHP-MSEP-BCLP	Primary Loop Kit without pump.	1,086.90
5	PHP-SWC-1250-18	1-1/4" stainless steel flex connector with sweat adapters 18"	142.70 ea
	PHP-SWC-1250-24	1-1/4" stainless steel flex connector with sweat adapters 24"	155.10 ea

HEATING MANIFOLDS AND ACCESSORIES

1" Copper Manifolds W/sweat Branch (2 1/2" Oc)

PHP-10002500	2 Loop 1" X 1/2" Plain Drop
PHP-10003500	3 Loop 1" X 1/2" Plain Drop
PHP-10006500	6 Loop 1" X 1/2" Plain Drop
PHP-100012500	12 Loop 1" X 1/2" Plain Drop



\$	20.95
	25.45
	43.05
	74.45

1" Copper Manifolds W/brass PEX Barb (2 1/2" Oc)

PHP-10002500 PB	2 Loop 1" X 1/2" PEX Barb
PHP-10003500 PB	3 Loop 1" X 1/2" PEX Barb
PHP-10006500 PB	6 Loop 1" X 1/2" PEX Barb
PHP-100012500 PB	12 Loop 1" X 1/2" PEX Barb



\$	21.80
	26.65
	44.85
	81.25

1" Copper Manifolds W/1/2" Ball Valve PEX Barb (2 1/2" Oc)

PHP-10002500 PBBV	2 Loop 1" X 1/2" Ball Valve w/PEX Barb
PHP-10003500 PBBV	3 Loop 1" X 1/2" Ball Valve w/PEX Barb
PHP-10006500 PBBV	6 Loop 1" X 1/2" Ball Valve w/PEX Barb
PHP-100012500 PBBV	12 Loop 1" X 1/2" Ball Valve w/PEX Barb



\$	46.65
	58.50
	109.15
	208.80

1" Copper Manifolds W/1/2" Compex Ball Valve (2 1/2" Oc)

PHP-10002500CPX3BV	2 Loop 1" X 1/2" Compex Ball Valve
PHP-10003500CPX3BV	3 Loop 1" X 1/2" Compex Ball Valve
PHP-10004500CPX3BV	4 Loop 1" X 1/2" Compex Ball Valve
PHP-100012500CPX3BV	12 Loop 1" X 1/2" Compex Ball Valve



\$	58.65
	81.95
	107.15
	302.65

1 1/4" Copper Manifolds W/3/4" Ball Valve w/PEX Barb (4" Oc)

PHP-12502750 PBBV	2 Loop 1 1/4" X 3/4" Ball Valve w/PEX Barb
PHP-12503750 PBBV	3 Loop 1 1/4" X 3/4" Ball Valve w/PEX Barb
PHP-12504750 PBBV	4 Loop 1 1/4" X 3/4" Ball Valve w/PEX Barb



\$	77.50
	112.05
	146.65

End Piece 1/8" & 3/8" Air Vents

PHP-1000125 EP	1" X 1/8" End Piece
PHP-1000375 EP	1" X 3/8" End Piece
PHP-1250125 EP	1 1/4" X 1/8" End Piece
PHP-1250375 EP	1 1/4" X 3/8" End Piece
PHP-1500125 EP	1 1/2" X 1/8" End Piece
PHP-1500375 EP	1 1/2" X 3/8" End Piece
PHP-1000125-500 EP	1" X 1/8" Ftg X 1/2" Ftg End Piece
PHP-1250125-500 EP	1 1/4" X 1/8" Ftg X 1/2" Ftg End Piece
PHP-1500125-500 EP	1 1/2" X 1/8" Ftg X 1/2" Ftg End Piece
PHP-2000125-500 EP	2" X 1/8" Ftg X 1/2" Ftg End Piece



\$	18.05
	18.05
	27.25
	27.25
	32.00
	32.00
	23.35
	34.70
	37.70
	47.00

* NOTE: Not all manufactures of PEX Barrier tubing meet the dimensional requirements as set forth in ASTM Standards: F876 and F877.

HEATING MANIFOLDS AND ACCESSORIES

Continued...

72" Copper Heating Manifolds X 24 Drop (3" Oc)



PHP-100024500 PBBV	24 Loop 1" X 1/2" PEX Barb W/ Ball Valve	\$ 420.55
PHP-100024500 PB	24 Loop 1" X 1/2" PEX Barb	156.50
PHP-100024500	24 Loop 1" X 1/2" Plain Drop	157.95
PHP-100024750	24 Loop 1" X 3/4" Plain Drop	181.30
PHP-125024500	24 Loop 1 1/4" X 1/2" Plain Drop	215.36
PHP-125024750	24 Loop 1 1/4" X 3/4" Plain Drop	234.85
PHP-150024750	24 Loop 1 1/2" X 3/4" Plain Drop	287.00
PHP-200024750	24 Loop 2" X 3/4" Plain Drop	381.55
PHP-2000241000	24 Loop 2" X 1" Plain Drop	397.65

72" Copper Heating Manifolds X 18 Drop (4" Oc)



PHP-100018750-4	18 Loop 1" X 3/4" Plain Drop	\$ 157.80
PHP-125018750-4	18 Loop 1 1/4" X 3/4" Plain Drop	205.55
PHP-150018750-4	18 Loop 1 1/2" X 3/4" Plain Drop	250.80
PHP-200018750-4	18 Loop 2" X 3/4" Plain Drop	352.25

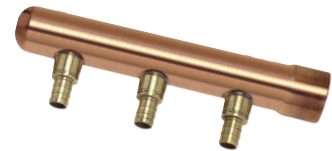
72" Copper Heating Manifolds X 12 Drop (6" Oc)



PHP-100012750-6	12 Loop 1" X 3/4" Plain Drop	\$ 134.30
PHP-125012750-6	12 Loop 1 1/4" X 3/4" Plain Drop	176.20
PHP-150012750-6	12 Loop 1 1/2" X 3/4" Plain Drop	223.80
PHP-200012750-6	12 Loop 2" X 3/4" Plain Drop	322.95

1" x 1/2" PEX Barb ftg., Belled & Spun Closed End (2" Ctrs)

PHP-1003 SBPB	3 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	\$ 27.25
PHP-1004 SBPB	4 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	33.15
PHP-1005 SBPB	5 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	38.35
PHP-1006 SBPB	6 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	43.90
PHP-1007 SBPB	7 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	49.40
PHP-1008 SBPB	8 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	57.95
PHP-1009 SBPB	9 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	59.20
PHP-10010 SBPB	10 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	65.60
PHP-10012 SBPB	12 Loop 1" x 1/2" PEX Barb ftg., Belled & Spun Clsd End	76.95



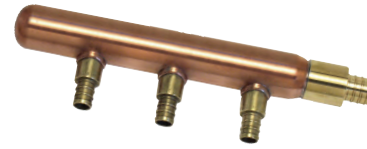
1" x 1/2" PEX Barb Ball Valve, Belled & Spun Closed End (2" Ctrs)

PHP-1003 SBPBVV	3 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	\$ 59.60
PHP-1004 SBPBVV	4 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	76.35
PHP-1005 SBPBVV	5 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	92.30
PHP-1006 SBPBVV	6 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	108.60
PHP-1007 SBPBVV	7 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	124.90
PHP-1008 SBPBVV	8 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	144.20
PHP-1009 SBPBVV	9 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	156.30
PHP-10010 SBPBVV	10 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	173.45
PHP-10012 SBPBVV	12 Loop 1" x 1/2" PEX Barb Ball Valve, Belled & Spun Clsd End	206.45



HEATING MANIFOLDS AND ACCESSORIES*Continued...****1" x 1/2" Pex Barb ftg., Spun Closed and Reduced End w/3/4" Pex Barb ftg. (2" Ctrs)***

PHP-1003 SNPB	3 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	\$ 29.65
PHP-1004 SNPB	4 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	35.60
PHP-1005 SNPB	5 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	40.75
PHP-1006 SNPB	6 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	46.30
PHP-1007 SNPB	7 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	51.85
PHP-1008 SNPB	8 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	60.30
PHP-1009 SNPB	9 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	61.60
PHP-10010 SNPB	10 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	69.80
PHP-10012 SNPB	12 Loop 1" x 1/2" PEX Barb ftg., Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	79.40

***1" x 1/2" PEX Barb Ball Valve, Spun Closed and Reduced End w/3/4" PEX Barb ftg. (2" Ctrs)***

PHP-1003 SNPBBV	3 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	\$ 62.00
PHP-1004 SNPBBV	4 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" Pex Barb ftg.	78.75
PHP-1005 SNPBBV	5 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	94.70
PHP-1006 SNPBBV	6 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	111.00
PHP-1007 SNPBBV	7 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" Pex Barb ftg.	127.35
PHP-1008 SNPBBV	8 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" Pex Barb ftg.	146.65
PHP-1009 SNPBBV	9 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	158.70
PHP-10010 SNPBBV	10 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	175.85
PHP-10012 SNPBBV	12 Loop 1" x 1/2" PEX Barb Ball Valve, Spun Clsd & Reduced End w/3/4" PEX Barb ftg.	208.85

***1" x 1/2" PEX Barb ftg., Ends Reduced w/3/4" PEX Barb ftg. (2" Ctrs)***

PHP-1003 N2PB	3 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	\$ 32.55
PHP-1004 N2PB	4 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	38.50
PHP-1005 N2PB	5 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	43.65
PHP-1006 N2PB	6 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	49.20
PHP-1007 N2PB	7 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	54.75
PHP-1008 N2PB	8 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	63.25
PHP-1009 N2PB	9 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	64.50
PHP-10010 N2PB	10 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	70.90
PHP-10012 N2PB	12 Loop 1" x 1/2" PEX Barb ftg. Ends Reduced w/3/4" PEX Barb ftg.	82.25

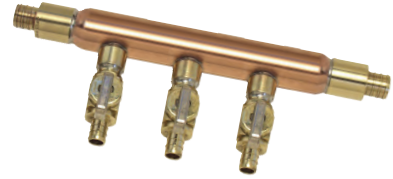


HEATING MANIFOLDS AND ACCESSORIES

Continued...

1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg. (2" Ctrs)

PHP-1003 N2PBBV	3 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	\$ 64.95
PHP-1004 N2PBBV	4 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	81.65
PHP-1005 N2PBBV	5 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	97.60
PHP-1006 N2PBBV	6 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	113.90
PHP-1007 N2PBBV	7 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	130.25
PHP-1008 N2PBBV	8 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	148.95
PHP-1009 N2PBBV	9 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	166.60
PHP-10010 N2PBBV	10 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	178.75
PHP-10012 N2PBBV	12 Loop 1" x 1/2" PEX Barb Ball Valve, Ends Reduced w/3/4" PEX Barb ftg.	209.85



Thermostatic Mixing Valves

PHP-TMV500	Sweat 1/2" Thermostatic Valve	\$ 195.90
PHP-TMV750	Sweat 3/4" Thermostatic Valve	195.90
PHP-TMV1000	Sweat 1" Thermostatic Valve	195.90



Temperature range 95° F to 140° F. Maximum flow rates for 1/2" valve 13 GPM and 3/4" 15 GPM. Valves are listed by ASSE & IAPMO.

Automatic Hot Water Air Vents

PHP-AVA125	1/8" Automatic Air Vent	\$ 26.70
PHP-AVA250	1/4" Automatic Air Vent	25.25



Manufactured from heavy duty forged brass.
Features low profile, compact body with side vent design.

FOR MORE INFORMATION ON THESE AND ADDITIONAL PRODUCTS AS SEEN ON THE BACK GO TO

www.phpinc.us

TO ORDER ON LINE GO TO

www.hydrionicworkshop.com

**LET PHP QUOTE LARGE CUSTOM NEAR BOILER PIPING MODULES
PHP ALSO MAKES LARGE CUSTOM HYDRONIC PANELS
UP TO 3" PIPE SIZE**

LOOK AT THESE 3 BASIC LAYOUTS:

OPTION 1

TK, TKI, ProModular™ Series

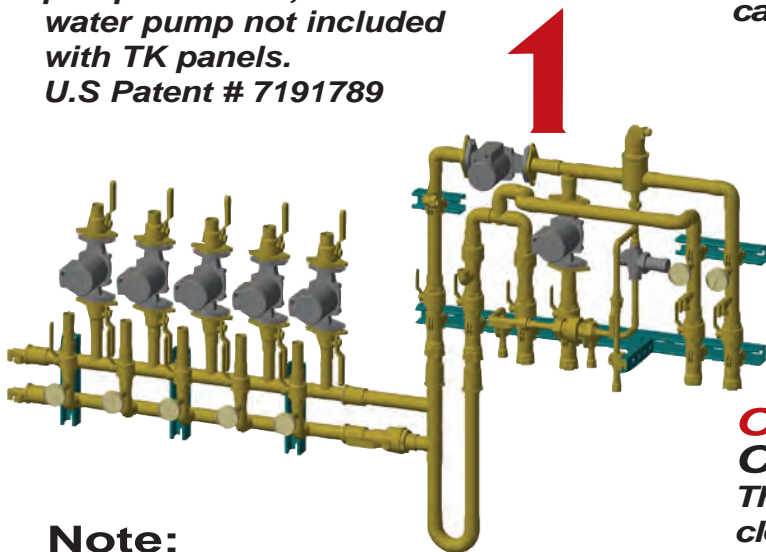
This patented system consists of larger scaled up versions of our popular residential panels.

In this layout all the near boiler piping is in the TK or TKI panel and with a transition adapter

Promodular™ secondary parts are added.

TKI with indirect water pump is shown; indirect water pump not included with TK panels.

U.S Patent # 7191789



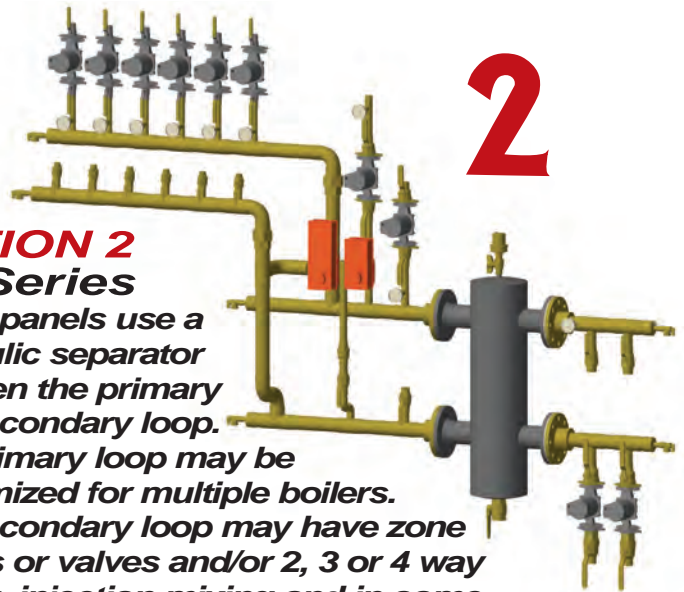
Note:

Secondary-loop arrangements are very flexible and may include zone pumps or valves, and zone and/or injection mixing strategies.

**OPTION 2
HS Series**

These panels use a hydraulic separator between the primary and secondary loop.

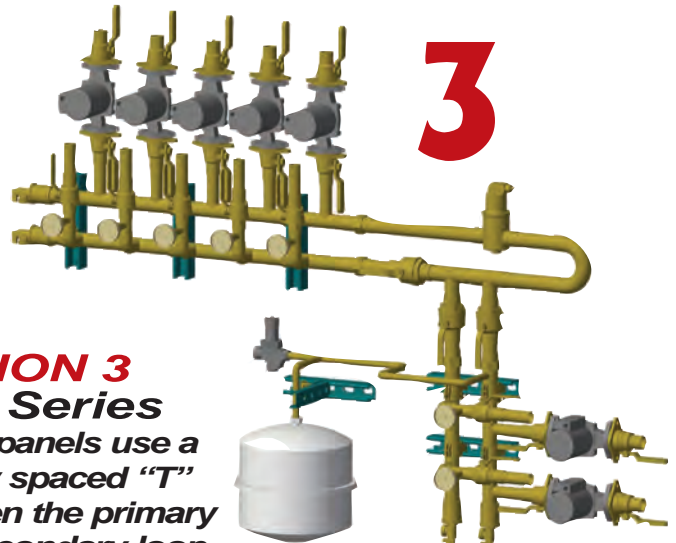
The primary loop may be customized for multiple boilers. The secondary loop may have zone pumps or valves and/or 2, 3 or 4 way mixing, injection mixing and in some cases, sub zoning components.



**OPTION 3
CST Series**

These panels use a closely spaced "T" between the primary and secondary loop.

The primary loop may be customized for multiple boilers. The secondary loop may have zone pumps or valves and/or 2, 3 or 4 way mixing, injection mixing and in some cases, sub-zoning components.



PHP ALSO PRODUCES SOLAR PUMPING STATIONS UP TO 3".

**FOR INFORMATION OR A QUOTE CALL RICK LAMPERT (503) 445-4188
OR HOYT CORBETT PRODUCT DEVELOPEMENT MANAGER (206) 369-1458**

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