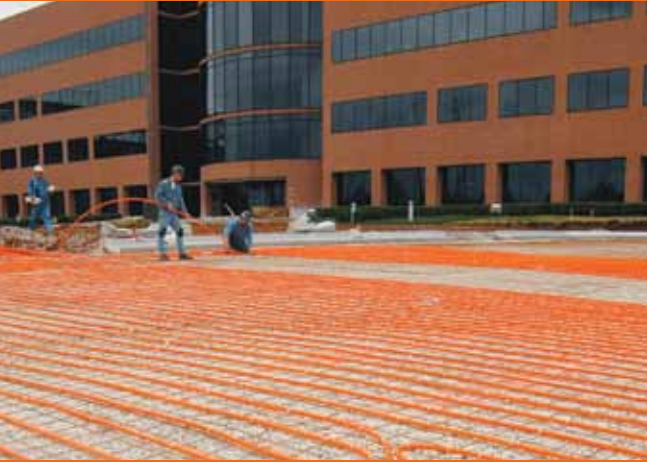




WattsRadiantTM
Radiant Heating & Potable Systems

2012 Canadian Full Line Catalogue



**RESIDENTIAL
COMMERCIAL
INDUSTRIAL**



2012 WattsRadiant Product Catalogue

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RadiantPEX™

RadiantPEX Tubing and Fittings

Superior
Protection

RadiantPEX

The RadiantPEX Advantage

Cross-linked RadiantPEX is tough, flexible, long-lasting and maintenance free. RadiantPEX withstands continuous temperatures of 180° F. RadiantPEX is a three layer pipe with an EVOH oxygen barrier to protect system components against oxidation. RadiantPEX is manufactured to the ASTM F-876 and F-877 Standards.

All of our barrier PEX offers these benefits over traditional piping systems:

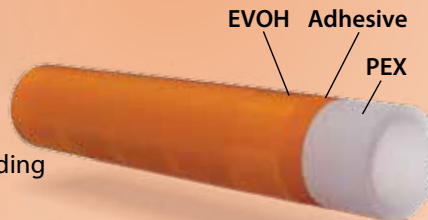
- Light and easy to transport and store
- Extremely flexible
- Maintenance free
- Corrosion resistant
- Connection systems that are fast and reliable

Commercial Approvals:

- Conforms to UL 263 (fire test of building and construction materials)
- Conforms to ASTM E-84
- Conforms to S101 and S102 ULc

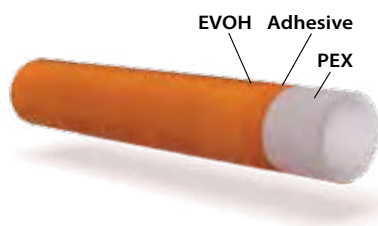
Silane Cross-linking is Better

Our Superior Silane technology enables higher burst strengths and higher anti-oxidant protection than other PEX manufacturing methods. Silane manufacturing is the most widely used process to manufacture PEX, and has been proven world-wide for over 30 years.



RadiantPEXTM Barrier Cross-linked Polyethylene Tubing

RadiantPex is a cross-linked polyethylene tubing manufactured with an EVOH DIN standard oxygen barrier that limits oxygen diffusion through the pipe walls to less than 0.10g/m³/day at 104°F water temperature. All sizes are manufactured to ASTM-876 and ASTM-877 standards and to SDR-9 dimensions. Our RadiantPEX is CSA and NSF approved for use in potable water systems.



Description	Order Number	Model Number
3/8" RadiantPEX Pipe with Oxygen Barrier		
3/8" x 600'	81000850	PB032061-600
1/2" RadiantPEX Pipe with Oxygen Barrier		
1/2" x 20'	81010944	PB032081-20
1/2" x 250'	81010945	PB032081-250
1/2" x 300'	81003406	PB032081-300
1/2" x 500'	81009710	PB032081-500
1/2" x 600'	81001682	PB032081-600
1/2" x 1000'	81001681	PB032081-1000
5/8" RadiantPEX Pipe with Oxygen Barrier		
5/8" x 400'	81010946	PB032101-400
5/8" x 600'	81001684	PB032101-600
5/8" x 1000'	81010947	PB032101-1000
5/8" x 1200'	81001683	PB032101-1200
3/4" RadiantPEX Pipe with Oxygen Barrier		
3/4" x 20'	81006643	PB032121-20
3/4" x 100'	81001685	PB032121-100
3/4" x 250'	81006644	PB032121-250
3/4" x 500'	81001687	PB032121-500
3/4" x 1000'	81006645	PB032121-1000
1" RadiantPEX Pipe with Oxygen Barrier		
1" x 20'	81006646	PB032161-20
1" x 100'	81004923	PB032161-100
1" x 300'	81006647	PB032161-300
1" x 500'	81006648	PB032161-500

Watts Radiant offers three types of fittings for use with our PEX radiant applications: CinchClamp™, Crimp Ring and Compression Fittings.



Cinch Clamp™

WattsRadiant CinchClamp™ is designed to go where other fittings cannot, mainly in tight, hard to reach spaces. With a unique tab design, there is no need to get a tool around the entire fitting. Simply press, or *pinch*, the tab closed with the CinchTool™ and the connection is complete. The ratcheting CinchTool only releases when a proper assembly is complete. One CinchTool installs all sizes of the CinchClamp, 3/8", 1/2", 5/8", 3/4" and 1". Cinch Clamps are made of corrosion resistant stainless steel.



CrimpRing™

WattsRadiant CrimpRing™ fittings are recommended for all heating and potable water projects. They feature an all-brass ribbed insert with a precision formed, ductile copper CrimpRing. When crimped, these connections form a fast and permanent seal between the PEX and the fitting. CrimpRing fittings are available in 3/8", 1/2", 5/8", 3/4" and 1". Watts Radiant offers three types of crimp tools, the RingMaster, the CrimpAll and the CrimpMaster. Each tool comes with a Go-No-Go gauge to ensure a permanent and professional crimp connection has been made. See *Tools and Fasteners* for more information on our complete line of CrimpRing tools.



T-20 Compression Fittings

Compression fittings are an advanced, brass fitting system that ensures a tight seal without the use of special connection tools. Each compression fitting comes with an O-ring creating a tight seal between the brass cone and the male threaded fitting. The fitting is made of three pieces; a brass nut, compression ring and a brass nose cone with barbed insert and an O-ring. Place the compression nut over the PEX pipe followed by the compression ring. Slide the barbed insert into the end of the PEX pipe and then slide the compression nut up over the assembly. The compression nut is then tightened over the male threaded fitting or manifold outlet. Compression fittings are available in 3/8", 1/2", 5/8", and 3/4".

RadiantPEX Fittings:



PEX T-20F Manifold Compression Fittings

3/8" PEX Manifold Fittings	81005166
1/2" PEX Manifold Fittings	81005168
5/8" PEX Manifold Fittings	81005170
3/4" PEX Manifold Fittings	81005172
1/2" COP Male Sweat x T20 Manifold Fitting	81009452



Brass PEX Compression Adapters

1/2" Sweat Fitting x T-20M Adapter	81001506	PX690500
3/4" Sweat Fitting x T-20M Adapter	81001509	PX690750
3/4" T-20M Splice/Repair Coupling*	81001494	PZ429475

***NOTE: 2 - T20 Manifold Compression Fittings Required to Complete Assembly**



Brass PEX Crimp Adapters

5/8" PEX Crimp Coupling	81003428	PCC66X
1/2" Male Sweat x 5/8" PEX Crimp Adapter	81003424	PC660X
3/4" Male Sweat x 5/8" PEX Crimp Adapter	81003426	PC670X
5/8" PEX Crimp x 3/4" MIP Adapter	81003712	PCMC64X
5/8" PEX Crimp x 3/4" Female Sweat 90° Elbow	81004785	PCE64X



CinchClamp™ Our newest stainless steel clamp for PEX Pipe

3/8" CinchClamp	81004881	PCCC2X
1/2" CinchClamp	81004884	PCCC3X
5/8" CinchClamp	81005114	PCCC6X
3/4" CinchClamp	81004887	PCCC4X
1" CinchClamp	81004890	PCCC5X



NOTE: See WaterPEX Section of Catalogue for other sizes and types of PEX Crimp Fittings

ONIX™

Radiant Hose

Fittings

Accessories



Onix is an EPDM-based, aramid fiber reinforced tube with an aluminum oxygen barrier. Its unmatched flexibility and durability make Onix the best tubing for underfloor radiant, cold weather installations, and snow melt.

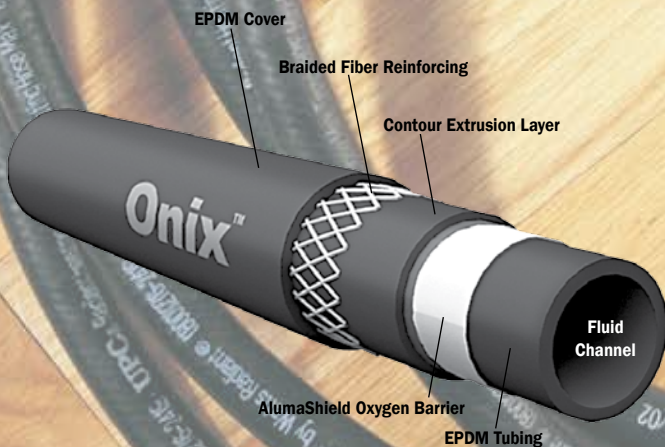
- **Proven in tens of thousands of installations across North America.**
- **Onix is Easy to Install at Any Temperature, Cutting Installation Times by as Much as 50%!**
- **Onix Does Not Expand or Contract, and will Never Make Any Noise.**
- **Onix has Excellent UV Resistance.**
- **Onix is Not Damaged by Kinking.**

Unlike PEX, Onix does not expand and contract and it always stays in contact with the subfloor, making it ideal for Underfloor applications.

Underfloor radiant lets builders construct a home the way they normally do, without pouring concrete, double plating, or other special considerations that can stop a radiant project in its tracks.

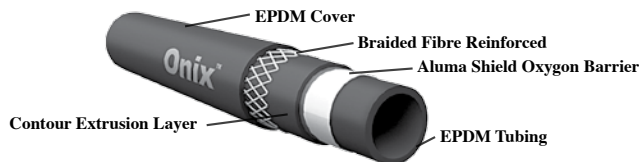
With remodels on the rise, Onix is a great way to tap into this growing market. You can easily snake Onix through floor joists, around nails, piping, ducts and other obstacles you're sure to find in a remodel project.

Onix carries a 25-year warranty for residential and commercial heating and snowmelting applications.



Onix™ Radiant Hose

Onix with AlumaShield oxygen barrier weathers the extremes of any radiant heating or snow melting application, as well as high temperature baseboard systems. Onix's EPDM inner tube offers very high temperature resistance, while the Aramid reinforcing handles higher burst pressures up to 100psi @ 210°F. The EPDM cover offers abrasion, UV, and chemical resistance.



Description	Order Number	Model Number
3/8" Onix Radiant Hose		
3/8" x 160'	81001558	086061-160
3/8" x 180'	81001559	086061-180
3/8" x 200'	81001560	086061-200
3/8" x 600'	81001565	086061-600
1/2" Onix Radiant Hose		
1/2" x 100'	81001576	086081-100
1/2" x 200'	81001579	086081-200
1/2" x 250'	81001582	086081-250
1/2" x 300'	81001584	086081-300
1/2" x 400'	81001587	086081-400
1/2" x 600'	81001590	086081-600
5/8" Onix Radiant Hose		
5/8" x 50'	81001612	086101-50
5/8" x 200'	81001603	086101-200
5/8" x 300'	81001605	086101-300
5/8" x 400'	81001609	086101-400
5/8" x 600'	81001616	086101-600
3/4" Onix Radiant Hose		
3/4" x 50'	81001635	086121-50
3/4" x 100'	81001627	086121-100
3/4" x 200'	81001629	086121-300
3/4" x 300'	81001631	086121-300
3/4" x 400'	81001634	086121-400
1" Onix Radiant Hose		
1" x 50'	81001647	086061X-50
1" x 100'	81001559	086161X-100
1" x 150'	81001560	086161X-150
1" x 200'	81001565	086161X-200

Onix Fittings:



Description	Order Number	Model Number
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Onix T-20F Manifold Fitting

3/8" Onix Manifold Fitting	81000678	689001
1/2" Onix Manifold Fitting	81000680	689002
5/8" Onix Manifold Fitting	81000682	689003
3/4" Onix Manifold Fitting	81003379	689004

Note: T-20F Manifold Fittings to be used with Onix SelfTite Clamp or TorqueTite to complete connection.



SelfTite™ Clamps – A quality economical clamp

3/8" SelfTite Clamp	81000522	663019
1/2" SelfTite Clamp	81000525	663022
5/8" SelfTite Clamp	81000528	663025
3/4" SelfTite Clamp	81000532	663029

Note: SelfTite™ Clamps must be installed using our Squeeze Tite™ Pliers.



TorqueTite™ Clamps – Our best stainless steel clamp

3/8" TorqueTite Clamp	81002912	6641117
1/2" TorqueTite Clamp	81002915	6641524
5/8" TorqueTite Clamp	81002918	6641928
3/4" TorqueTite Clamp	81002921	6642232
1" TorqueTite Clamp	81002924	6643244



Onix Barbed Male Sweat Adapters

3/8" Onix Barb x 1/2" Male Sweat Ftg	81000658	684001
1/2" Onix Barb x 1/2" Male Sweat Ftg	81000662	685001
5/8" Onix Barb x 1/2" Male Sweat Ftg	81000666	686001
3/4" Onix Barb x 3/4" Male Sweat Ftg	81000670	687001
1" Onix Barb x 1" Male Sweat Ftg	81000674	688001



Onix Barb x MNPT Fitting - for transitioning Onix to female NPT fittings.

3/8" Onix x 1/2" MPT	81005046	180806-10
1/2" Onix x 1/2" MPT	81005047	180808-10
5/8" Onix x 1/2" MPT	81005048	180810-10
3/4" Onix x 3/4" MPT	81005051	181212-10
1" Onix x 3/4" MPT	81005052	181213-10
1" Onix x 1" MPT	81005053	181214-10

Onix Fittings:

Male Sweat



Female Sweat



Description

Order Number

Model Number

Onix Barbed 90° Elbows

1/2" Onix Barb x 3/4" Male Sweat Elbow	81010464	186074
5/8" Onix Barb x 3/4" Male Sweat Elbow	81010466	186625
3/4" Onix Barb x 3/4" Male Sweat Elbow	81010465	186075

Onix Barbed 90° Elbows

1/2" Onix Barb x 3/4" Female Sweat Elbow	81000115	185074
5/8" Onix Barb x 3/4" Female Sweat Elbow	81000119	185625
3/4" Onix Barb x 3/4" Female Sweat Elbow	81000117	185075

Onix Barbed Splices

3/8" Onix Barbed Splice	81000610	677062
1/2" Onix Barbed Splice	81000614	677082
5/8" Onix Barbed Splice	81000617	677101
3/4" Onix Barbed Splice	81000620	677121
1" Onix Barbed Splice	81000622	677122

SelfTite™ Clamp Repair Kit (includes 2 barbed splices and 4 clamps)

3/8" SelfTite Clamp Repair Kit	81000507	660075
1/2" SelfTite Clamp Repair Kit	81000509	660085
5/8" SelfTite Clamp Repair Kit	81000511	660105
3/4" SelfTite Clamp Repair Kit	81000513	660125

Onix Mini Ball Valves

3/8" Onix Barb x 1/2" Male Sweat Ball Valve	81000366	446105
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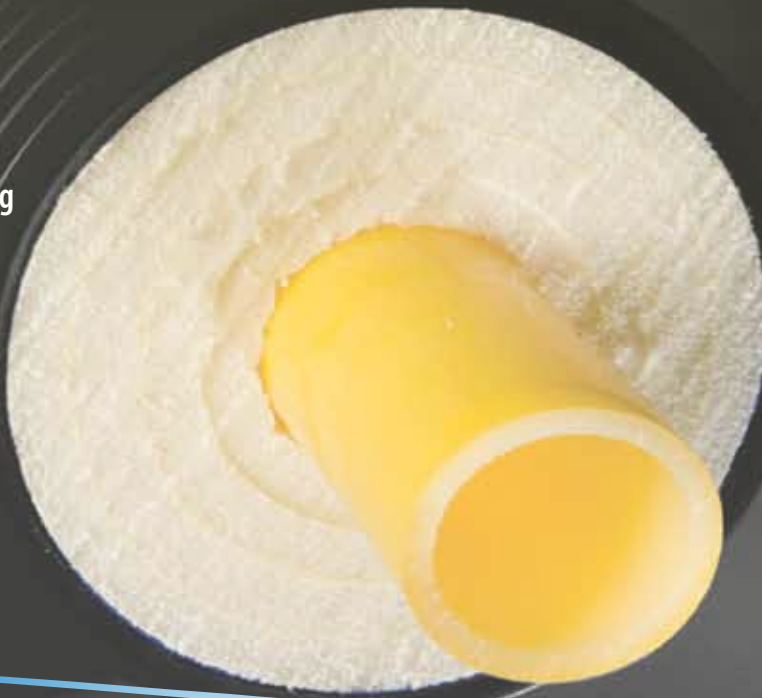
R-flexTM

insulated piping systems



Insulated supply and return piping for:

- Hydronic heating
- Hydronic snow melting
- District heating
- Commercial and process piping
- Geothermal
- Agricultural piping
- Biomass heat sources
- Wood-fired boilers
- Solar
- Cooling towers & chilled water systems



R-flex Single & Dual Coils

R-flex is a flexible pre-insulated PEX with a corrugated, double-wall HDPE cover suitable for direct burial. R-flex is manufactured in accordance with DIN 16892/16893, with a DIN 4726 oxygen barrier.

R-flex ratings: 200 Deg F at 80 psi; 180 Deg F at 100 psi; 73 Deg F at 160 psi

See page 3-8 for more sizing information.

To calculate the total length of R-flex needed, add 5% to the straight-line distance measured. This accounts for laying R-flex in a serpentine pattern. Also be sure to account for the length of all bends. See the R-flex Design and Installation Manual for more details.



Description

Order Number

Model Number

R-flex Single 328' Coils - Pre-insulated single oxygen barrier PEX with corrugated double wall HDPE cover.

40mm (~1.5") x 160mm OD Jacket, R-flex single	81012929	RFS-40X160-328
50mm (~2") x 160mm OD Jacket, R-flex single	81012886	RFS-50X160-328
63mm (~2.5") x 160mm OD Jacket, R-flex single	81012887	RFS-63X160-328
75mm (~3") x 200mm OD Jacket, R-flex single	81012889	RFS-75X200-328
90mm (~3.5") x 200mm OD Jacket, R-flex single	81012890	RFS-90X200-328
110mm (~4") x 200mm OD Jacket, R-flex single	81012891	RFS-110X200-328

R-flex Single - Custom lengths

40mm (~1.5") x 160mm OD Jacket, R-flex single	81012951	RFS-40X160-1
50mm (~2") x 160mm OD Jacket, R-flex single	81012952	RFS-50X160-1
63mm (~2.5") x 160mm OD Jacket, R-flex single	81012953	RFS-63X160-1
75mm (~3") x 200mm OD Jacket, R-flex single	81012954	RFS-75X200-1
90mm (~3.5") x 200mm OD Jacket, R-flex single	81012955	RFS-90X200-1
110mm (~4") x 200mm OD Jacket, R-flex single	81012956	RFS-110X200-1

Note: A cut charge will be incurred with custom cut lengths.

R-flex Dual 328' Coils - Pre-insulated dual oxygen barrier PEX with corrugated double wall HDPE cover

1" x 125mm OD Jacket, R-flex dual	81012879	RFD-1X125-328
32mm (~1.25") x 125mm OD Jacket, R-flex dual	81012880	RFD-32X125-328
40mm (~1.5") x 160mm OD Jacket, R-flex dual	81012882	RFD-40X160-328
50mm (~2") x 200mm OD Jacket, R-flex dual	81012884	RFD-50X200-328
63mm (~2.5") x 200mm OD Jacket, R-flex dual	81012885	RFD-63X200-328

R-flex Dual - Custom lengths

1" x 125mm OD Jacket, R-flex single	81012957	RFD-1X125-1
32mm (~1.25") x 125mm OD Jacket, R-flex dual	81012958	RFD-32X125-1
40mm (~1.5") x 160mm OD Jacket, R-flex dual	81012959	RFD-40X160-1
50mm (~2") x 200mm OD Jacket, R-flex dual	81012960	RFD-50X200-1
63mm (~2.5") x 200mm OD Jacket, R-flex dual	81012961	RFD-63X200-1

Note: A cut charge will be incurred with custom cut lengths.



R-flex Dust Caps & Shrink Caps



Description	Order Number	Model Number
Single Pipe Dust Caps - Non-waterproof - for interior terminations.		
40mm x 1, 160mm OD, R-flex Single Dust Pipe Cap	81012967	RFDC-40X1X160
50mm x 1, 160mm OD, R-flex Single Dust Pipe Cap	81012934	RFDC-50X1X160
63mm x 1, 160mm OD, R-flex Single Dust Pipe Cap	81012935	RFDC-63X1X160
75mm x 1, 200mm OD, R-flex Single Dust Pipe Cap	81012936	RFDC-75X1X200
90mm x 1, 200mm OD, R-flex Single Dust Pipe Cap	81012937	RFDC-90X1X200
110mm x 1, 200mm OD, R-flex Single Dust Pipe Cap	81012938	RFDC-110X1X200
Dual Pipe Dust Caps - Non-waterproof - for interior terminations.		
1" x 2, 125mm OD, R-flex Dual Dust Pipe Cap	81012939	RFDC-1X2X125
32mm x 2, 160mm OD, R-flex Dual Dust Pipe Cap	81012940	RFDC-32X2X160
40mm x 2, 160mm OD, R-flex Dual Dust Pipe Cap	81012941	RFDC-40X2X160
50mm x 2, 200mm OD, R-flex Dual Dust Pipe Cap	81012942	RFDC-50X2X200
63mm x 2, 200mm OD, R-flex Dual Dust Pipe Cap	81012943	RFDC-63X2X200
Single Pipe Shrink Caps - Waterproof - required for all direct burial connections in protective casings or inspection chamber		
40-50mm x 1, 160mm OD, R-flex Single Pipe Shrink Cap	81012664	RFSC-40X50X160
63mm x 1, 160mm OD, R-flex Single Pipe Shrink Cap	81012540	RFSC-63X1X160
75-110mm x 1, 200mm OD, R-flex Single Pipe Shrink Cap	81012541	RFSC-75-110X1X200
Dual Pipe Shrink Caps - Waterproof - required for all burial connections in protective casings or inspection chamber.		
1" x 2, 125mm OD, R-flex Dual Dust Shrink Cap	81012542	RFSC-1X2X125
32mm x 2, 125mm OD, R-flex Dual Pipe Shrink Cap	81012543	RFSC-32X2X125
40mm x 2, 160mm OD, R-flex Dual Pipe Shrink Cap	81012544	RFSC-40X2X160
50mm x 2, 200mm OD, R-flex Dual Pipe Shrink Cap	81012545	RFSC-50X2X200
63mm x 2, 200mm OD, R-flex Dual Pipe Shrink Cap	81012546	RFSC-63X2X200
Debris Plugs for R-flex PEX - Use these to cap R-flex and keep jobsite debris out of the PEX tubing.		
1" R-flex PEX Plug	81013021	RFPP-1"
32mm R-flex PEX Plug	81013022	RFPP-32mm
40mm R-flex PEX Plug	81013023	RFPP-40mm
50mm R-flex PEX Plug	81013024	RFPP-50mm
63mm R-flex PEX Plug	81013025	RFPP-63mm
75mm R-flex PEX Plug	81013026	RFPP-75mm
90mm R-flex PEX Plug	81013027	RFPP-90mm
110mm R-flex PEX Plug	81013028	RFPP-110mm

R-flex Connections



Description	Order Number	Model Number
Compression Adapters - PEX x MNPT, brass - for connecting R-flex to metal fittings Included steel plate and bolt make it easy to slide over PEX.		
1" x 1" MNPT, R-flex, Adapter, Comp	81012552	RFA-1X100MPT
32mm x 1" MNPT, R-flex, Adapter, Comp	81012553	RFA-32X100MPT
40mm x 1-1/4" MNPT, R-flex, Adapter, Comp	81012554	RFA-40X125MPT
50mm x 1-1/2" MNPT, R-flex, Adapter, Comp	81012665	RFA-50X150MPT
63mm x 2" MNPT, R-flex, Adapter, Comp	81012556	RFA-63X200MPT
75mm x 2-1/2" MNPT, R-flex, Adapter, Comp	81012589	RFA-75X250MPT
90mm x 3" MNPT, R-flex, Adapter, Comp	81012558	RFA-90X300MPT
110mm x 4" MNPT, R-flex, Adapter, Comp	81012590	RFA-110X400MPT
Compression Couplings - PEX x PEX, brass - for joining R-flex coils together.		
1" R-flex, Coupling, Comp	81012837	RFC-1X100
32mm x 1" MNPT, R-flex, Adapter, Comp	81012838	RFC-32V32
40mm x 1-1/4" MNPT, R-flex, Adapter, Comp	81012839	RFC-40X40
50mm x 1-1/2" MNPT, R-flex, Adapter, Comp	81012840	RFC-50X50
63mm x 2" MNPT, R-flex, Adapter, Comp	81012841	RFC-63X63
75mm x 2-1/2" MNPT, R-flex, Adapter, Comp	81012842	RFC-75X75
90mm x 3" MNPT, R-flex, Adapter, Comp	81012843	RFC-90X90
110mm x 4" MNPT, R-flex, Adapter, Comp	81012844	RFC-110X110
Compression Elbows - PEX x PEX, brass.		
1" R-flex, Elbow, Comp	81012845	RFE-1X100
32mm R-flex, Elbow, Comp	81012846	RFE-32X32
40mm R-flex, Elbow, Comp	81012847	RFE-40X40
50mm R-flex, Elbow, Comp	81012848	RFE-50X50
63mm R-flex, Elbow, Comp	81012849	RFE-63X63
75mm R-flex, Elbow, Comp	81012850	RFE-75X75
90mm R-flex, Elbow, Comp	81012851	RFE-90X90
110mm R-flex, Elbow, Comp	81012852	RFE-110X110
Compression Tees - PEX x PEX x PEX, brass.		
1" R-flex, Tee, Comp	81012853	RFT-1X1X1
32mm R-flex, Tee, Comp	81012854	RFT-32X32X32
40mm R-flex, Tee, Comp	81012855	RFT-40X40X40
50mm R-flex, Tee, Comp	81012856	RFT-50X50X50
63mm R-flex, Tee, Comp	81012857	RFT-63X63X63
75mm R-flex, Tee, Comp	81012858	RFT-75X75X75
90mm R-flex, Tee, Comp	81012859	RFT-90X90X90
110mm R-flex, Tee, Comp	81012860	RFT-110X110X110

R-flex Connections



Description	Order Number	Model Number
Compression Tees - (1)Run x (2)Run x (3)Branch = PEX x PEX, brass - for joining R-flex coils together.		
40 x 40 x 32, R-flex, Tee, Comp	81012861	RFT-40X40X32
40 x 32 x 40, R-flex, Tee, Comp	81012862	RFT-40X32X40
40 x 32 x 32, R-flex, Tee, Comp	81012863	RFT-40X32X32
50 x 50 x 40, R-flex, Tee, Comp	81012864	RFT-50X50X40
50 x 40 x 50, R-flex, Tee, Comp	81012865	RFT-50X40X50
50 x 40 x 40, R-flex, Tee, Comp	81012866	RFT-50X40X40
63 x 63 x 50, R-flex, Tee, Comp	81012867	RFT-63X63X50
63 x 50 x 63, R-flex, Tee, Comp	81012868	RFT-63X50X63
63 x 50 x 50, R-flex, Tee, Comp	81012869	RFT-63X50X50
75 x 75 x 63, R-flex, Tee, Comp	81012870	RFT-75X75X63
75 x 63 x 75, R-flex, Tee, Comp	81012871	RFT-75X63X75
75 x 63 x 63, R-flex, Tee, Comp	81012872	RFT-75X63X63
90 x 90 x 75, R-flex, Tee, Comp	81012873	RFT-90X90X75
90 x 75 x 90, R-flex, Tee, Comp	81012874	RFT-90X75X90
90 x 75 x 75, R-flex, Tee, Comp	81012875	RFT-90X75X75
110 x 110 x 90, R-flex, Tee, Comp	81012876	RFT-110X110X90
110 x 90 x 110, R-flex, Tee, Comp	81012877	RFT-110X90X110
110 x 90 x 90, R-flex, Tee, Comp	81012876	RFT-110X90X90



Threaded Brass Coupling (without R-flex Adapters)		
1" Coupling, Brass, FPT	81012902	RC-100FPTX100FPT
1-1/4" Coupling, Brass, FPT	81012903	RC-125FPTX125FPT
1-1/2" Coupling, Brass, FPT	81012904	RC-150FPTX150FPT
2" Coupling, Brass, FPT	81012905	RC-200FPTX200FPT
2-1/2" Coupling, Brass, FPT	81012906	RC-250FPTX250FPT
3" Coupling, Brass, FPT	81012907	RC-300FPTX300FPT
4" Coupling, Brass, FPT	81012908	RC-400FPTX400FPT



Threaded Brass Elbows (without R-flex Adapters)		
1" Elbow, Brass, FPT	81012909	RE-100FPTX100FPT
1-1/4" Elbow, Brass, FPT	81012910	RE-125FPTX125FPT
1-1/2" Elbow, Brass, FPT	81012911	RE-150FPTX150FPT
2" Elbow, Brass, FPT	81012912	RE-200FPTX200FPT
2-1/2" Elbow, Brass, FPT	81012913	RE-250FPTX250FPT
3" Elbow, Brass, FPT	81012914	RE-300FPTX300FPT
4" Elbow, Brass, FPT	81012915	RE-400FPTX400FPT

R-flex Connections



Description	Order Number	Model Number
Threaded Brass Tees (without R-flex Adapters)		
1" Tee, Brass, FPT	81012916	RT-100FPTX100FPTX100FPT
1-1/4" Tee, Brass, FPT	81012917	RT-125FPTX125FPTX125FPT
1-1/2" Tee, Brass, FPT	81012918	RT-150FPTX150FPTX150FPT
2" Tee, Brass, FPT	81012919	RT-200FPTX200FPTX200FPT
2-1/2" Tee, Brass, FPT	81012920	RT-250FPTX250FPTX250FPT
3" Tee, Brass, FPT	81012921	RT-300FPTX300FPTX300FPT
4" Tee, Brass, FPT	81012922	RT-400FPTX400FPTX400FPT

R-flex Bushings



Threaded Brass Bushings (without R-flex Adapters) - Use with Threaded Brass Tees to connect different R-flex run sizes.		
1-1/4"MPT x 1" FPT, Bushing, Brass	81012923	RB-125MPTX100FPT
1-1/2"MPT x 1-1/4" FPT, Bushing, Brass	81012924	RB-150MPTX125FPT
1-1/2"MPT x 1" FPT, Bushing, Brass	81012962	RB-150MPTX100FPT
2"MPT x 1-1/2" FPT, Bushing, Brass	81012925	RB-200MPTX150FPT
2"MPT x 1" FPT, Bushing, Brass	81012963	RB-200MPTX100FPT
2-1/2"MPT x 2" FPT, Bushing, Brass	81012926	RB-250MPTX200FPT
2-1/2"MPT x 1-1/2" FPT, Bushing, Brass	81012964	RB-250MPTX150FPT
3"MPT x 2-1/2" FPT, Bushing, Brass	81012927	RB-300MPTX250FPT
3"MPT x 2" FPT, Bushing, Brass	81012965	RB-300MPTX200FPT
4"MPT x 3" FPT, Bushing, Brass	81012928	RB-400MPTX300FPT
4"MPT x 2-1/2" FPT, Bushing, Brass	81012966	RB-400MPTX250FPT

R-flex Casings



Protective Sleeve Casing for R-flex - For waterproof sealing and insulating of straight connections. Includes 2 HDPE halves, insulation, sealer kit, and bolts. Must add shrink caps to seal ends of R-flex.

125-200mm pipes, R-flex Casing, Straight Sleeve 81012549 RFCS-125200



Protective Y Casing for R-flex - For waterproof sealing and insulating of dual to single connections. Includes 2 HDPE halves, insulation, sealer kit, and bolts. Must add shrink caps to seal ends of R-flex.

125-200mm pipes, R-flex Casing, Y 81012547 RFCY-125200



Protective Elbow Casing for R-flex - For waterproof sealing and insulating of elbow connections. Includes 2 HDPE halves, insulation, sealer kit, and bolts. Must add shrink caps to seal ends of R-flex.

125-200mm pipes, R-flex Casing, Elbow 81012548 RFCE-125200

R-flex Casings



Description

Order Number

Model Number

Protective Tee Casting for R-flex - For waterproof sealing and insulating of tee connections. Includes 2 HDPE halves, insulation, sealer kit, and bolts. Must add shrink caps to seal ends of R-flex.

125-200mm pipes, R-flex Casing, Tee

81012550

RFCT-125200

R-flex Accessories



Protective Inspection Chamber for R-flex - Allows access to connections and/or valves. Includes HDPE chamber with 6 connection points, inspection lid, sealer kit and screws. Must add shrink caps to seal ends of R-flex, and jacket repair sleeves for sealing the R-flex to the chamber.

125-200mm pipes, R-flex Inspect Chamber

81012551

RFIC-125200



R-flex Jacket Repair Tape - To repair accidental damage to R-flex outer cover. Wrap the tape over damaged area and heat with heat gun.

3/4 x 33', R-flex Heat Shrink Repair Tape

81012591

RFRT-075X33



R-flex Jacket Repair Sleeve - To repair accidental damage to R-flex out cover. Slide the sleeve over damaged area and heat with heat gun.

125mm, R-flex Shrink Repair Sleeve

81012592

RFRS-125

160mm, R-flex Shrink Repair Sleeve

81012593

RFRS-160

200mm, R-flex Shrink Repair Sleeve

81012594

RFRS-200

R-flex Accessories



Description

Order Number

Model Number

R-flex Caution Tape - Place in backfill along entire Length of R-flex

100 ft., R-flex Caution Tape	81012947	RFCT
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R-flex Link Belt - Used when boring a hole in an existing wall. Seals wall penetrations between R-flex outer cover and wall.

125mm outer casing, R-flex Link Belt	81012948	RFLB-125
160mm outer casing, R-flex Link Belt	81012949	RFLB-160
200mm outer casing, R-flex Link Belt	81012950	RFLB-200



R-flex Wall Sleeve & Link Belt Kit - Used when wall is to be poured in place. Seals wall penetrations between R-flex outer cover and wall.

125mm outer casing, R-flex Wall Sleeve and Belt Kit	81012931	RFLBKit-125
160mm outer casing, R-flex Wall Sleeve and Belt Kit	81012932	RFLBKit-160
200mm outer casing, R-flex Wall Sleeve and Belt Kit	81012933	RFLBKit-200

R-flex Custom Cut Lengths

R-flex cut charge any length	81013129
R-flex cut charge 25' increments	81013128

Determining size and amount of R-flex to order

R-flex U.S. equivalents

	Metric	25 mm	32 mm	40 mm	50 mm	63 mm	75 mm	90 mm	110 mm
	US Equivalent	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"
Single	160 mm			81012929	81012886	81012887			
	200 mm						81012889	81012890	81012891
Dual	125 mm	81012879	81012880						
	160 mm			81012882					
	200 mm				81012884	81012885			
Approx. Max. Flow, gpm		12	17	25	40	70	90	140	200

Important: Add approximately 5% to the straight line distance to allow for a serpentine pattern of R-Flex.

R-flex Specifications Chart

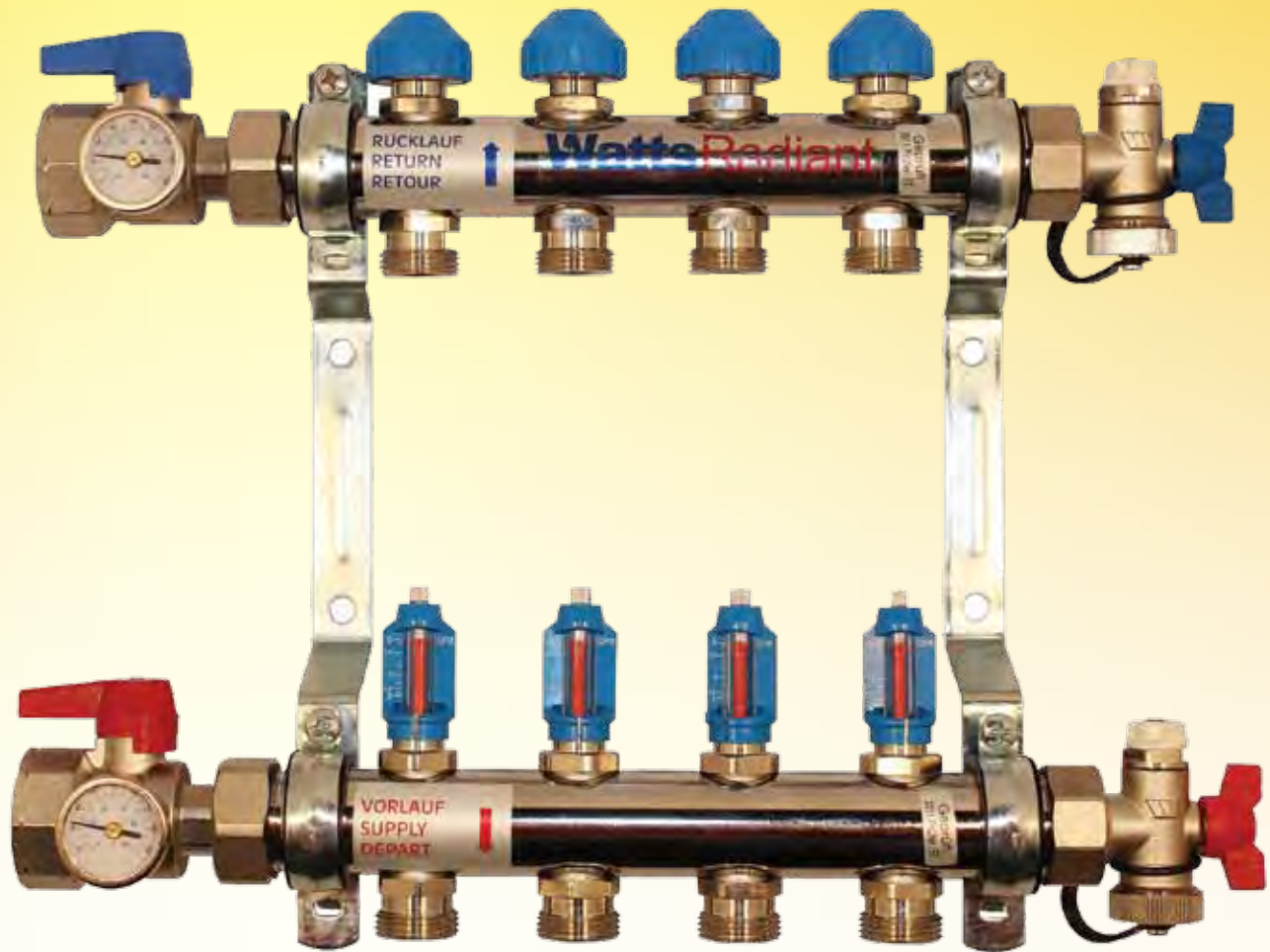
Specifications (conforms to DIN 16892, SDR-11)													
	Order #	Description	PEX ID	PEX OD	Jacket OD	Bend Radius	Coil Length	Coil Diameter	Coil Height	Coil Weight	Fluid Cap. /100m (328ft)	Insulation Thickness	Casing R-Value
Single	81012929	160/40 R-flex	32.6 mm (1.28")	40 mm (1.57")	160 mm (6.30")	350 mm (13.8")	100 m** (328 ft)	2300 mm (90.6")	850 mm (33.50")	232 kg (512 lbs)	83.00 L (21.93 gal)	47.5 mm (1.88")	6.79
	81012886	160/50 R-flex	40.8 mm (1.61")	50.0 mm (1.97")		450 mm (17.80")				248 kg (547 lbs)	131.31 L (34.69 gal)	42.5 mm (1.68")	6.07
	81012887	160/63 R-flex	51.6 mm (2.03")	63.0 mm (2.48")		550 mm (21.7")				278 kg (613 lbs)	208.76 L (55.15 gal)	37.0 mm (1.46")	5.27
	81012889	200/75 R-flex	61.4 mm (2.42")	75.0 mm (2.95")	200 mm (7.90")	800 mm (31.5")			1400 mm (55.20")	416 kg (917 lbs)	296.67 L (78.37 gal)	52.0 mm (2.05")	7.4
	81012890	200/90 R-flex	73.6 mm (2.90")	90.0 mm (3.54")		1100 mm (43.4")				473 kg (1,043 lbs)	426.02 L (112.55 gal)	44.0 mm (1.74")	6.28
	81012891	200/110 R-flex	90.0 mm (3.55")	110.0 mm (4.33")		1200 mm (47.3")				564 kg (1,244 lbs)	638.41 L (168.65 gal)	34.0 mm (1.33")	4.84
Dual	81012879	125/2x1 R-flex*	0.863" (21.92 mm)	1.125" (28.58 mm)	4.90" (125 mm)	11.80" (300 mm)	100 m** (328 ft)	2300 mm (90.60")	1400 mm (55.20")	358 lbs (162 kg)	19.94 gal (75.46 L)	1.11" (28.0 mm)	4.01
	81012880	125/2x32 R-flex	26.2 mm (1.03")	32.0 mm (1.26")	125 mm (4.90")	300 mm (11.80")				182 kg (402 lbs)	107.48 L (28.40 gal)	22.3 mm (0.88")	3.18
	81012882	160/2x40 R-flex	32.6 mm (1.28")	40.0 mm (1.57")	160 mm (6.30")	600 mm (23.70")				263 kg (580 lbs)	166.00 L (43.86 gal)	34.0 mm (1.34")	4.84
	81012884	200/2x50 R-flex	40.8 mm (1.61")	50.0 mm (1.97")	200 mm (7.90")	800 mm (31.50")				403 kg (889 lbs)	262.62 L (69.38 gal)	46.0 mm (1.81")	6.57
	81012885	200/2x63 R-flex	51.6 mm (2.03")	63.0 mm (2.48")		1200 mm (47.30")				464 kg (1,023 lbs)	417.52 L (110.30 gal)	33.0 mm (1.30")	4.69

Manifolds

Stainless Steel

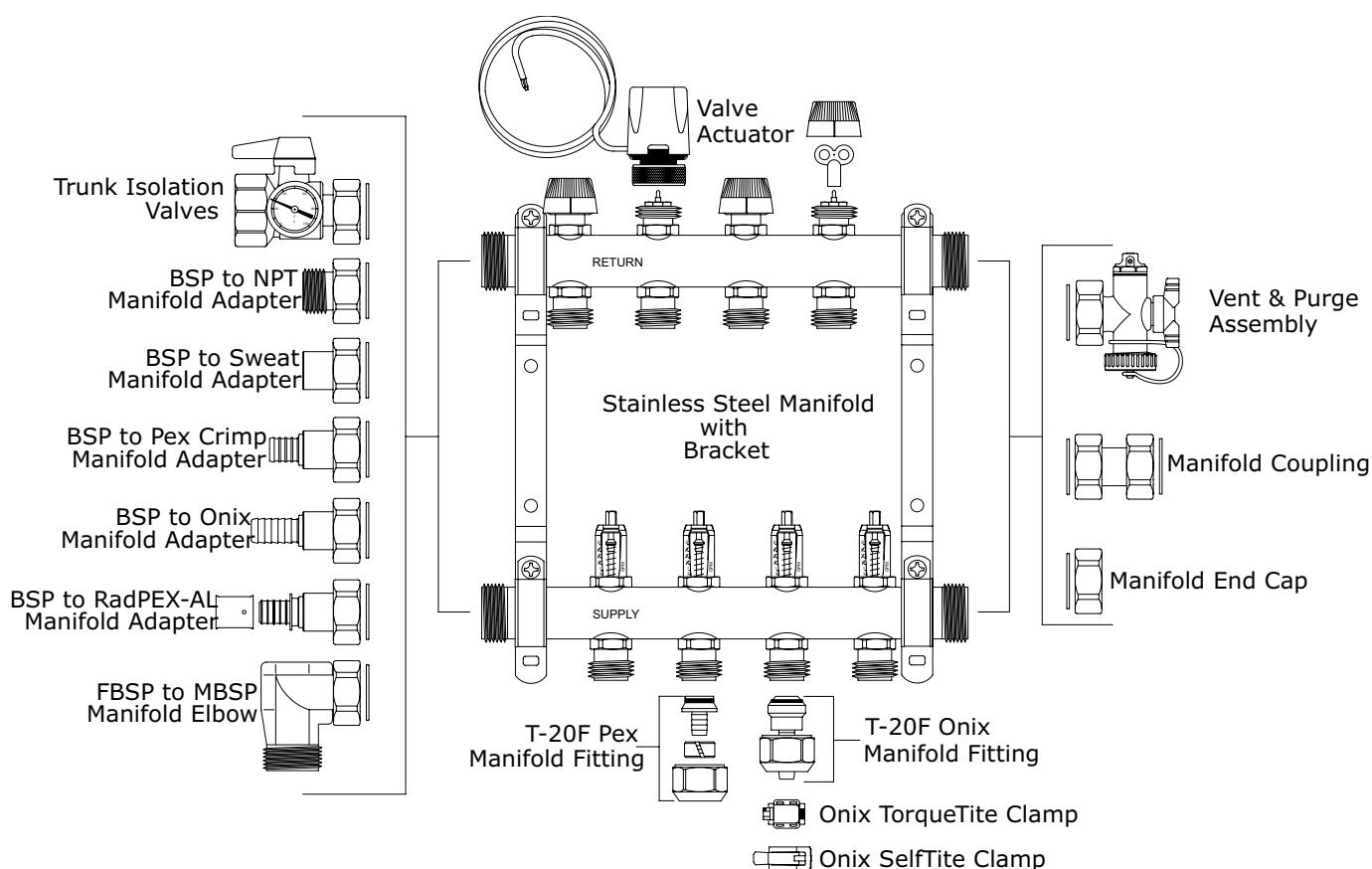
Copper

Accessories



WattsRadiant Stainless Steel Heating Manifolds

Truly, the best manifolds on the market! Once you see these Watts stainless steel manifolds, we know you'll want to use them on your next project. Made from heavy walled, DIN standard s/s tubing from Germany's finest steel mills. The tubing is carefully milled and machined by CNC machines, then robotically welded to meet exacting professional standards. WattsRadiant is proud to supply these premium quality stainless steel manifolds to our customers. Matching fittings and accessories are made of cast brass and heavily nickel plated to match the appearance of the manifolds. Manifolds are priced in pairs and are supplied mounted in the brackets with vibration absorbing clamps. The manifolds come standard with visual flow indicators on the supply manifold and a combination balancing/shut off valve on the return manifold which can be fitted with a 24Volt electric actuator for individual loop control. Manifold connection fittings are available for both our OnixTM Radiant Hose and our RadiantPEXTM tubing.



Watts Radiant Stainless Steel Heating Manifolds



Description	Order Number	Model Number
1" S/S with 0-2 GPM Flow Meter and Balance Valve		
1" S/S Manifold with 2 Loops	81001981	D3803002SS
1" S/S Manifold with 3 Loops	81001982	D3803003SS
1" S/S Manifold with 4 Loops	81001983	D3803004SS
1" S/S Manifold with 5 Loops	81003398	D3803005SS
1" S/S Manifold with 6 Loops	81001984	D3803006SS
1" S/S Manifold with 7 Loops	81003682	D3803007SS
1" S/S Manifold with 8 Loops	81001985	D3803008SS
1" S/S Manifold with 9 Loops	81003687	D3803009SS
1" S/S Manifold with 10 Loops	81001986	D3803010SS
1" S/S Manifold with 11 Loops	81003688	D3803011SS
1" S/S Manifold with 12 Loops	81001987	D3803012SS



Hi-Flow S/S with 0-4 GPM Flow Meter and Balance Valve		
HF S/S Manifold with 2 Loops	81009661	D3807602SS
HF S/S Manifold with 3 Loops	81009662	D3807603SS
HF S/S Manifold with 4 Loops	81005355	D3807604SS
HF S/S Manifold with 5 Loops	81005356	D3807605SS
HF S/S Manifold with 6 Loops	81005357	D3807606SS
HF S/S Manifold with 7 Loops	81009663	D3807607SS
HF S/S Manifold with 8 Loops	81005358	D3807608SS
HF S/S Manifold with 9 Loops	81009664	D3807609SS
HF S/S Manifold with 10 Loops	81005359	D3807610SS
HF S/S Manifold with 11 Loops	81009665	D3807611SS
HF S/S Manifold with 12 Loops	81005360	D3807612SS



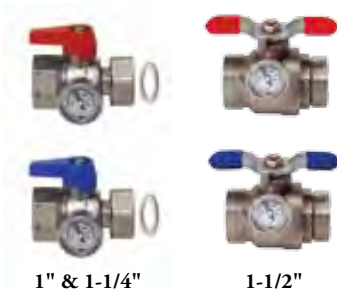
Deluxe Manifold Assembly Package		
1" S/S Manifold Assembly Kit c/w 1 Red Handle and 1 Blue Handle Trunk Isolation Ball Valve, 2 Vent and Purge Fittings and 4 Gaskets	81006651	DK1010

Stainless Steel Manifold Accessories



Economy Manifold Assembly Package

1" S/S Manifold Assembly Kit c/w 2 - 1" FBSP x 1" Male NPT Adapters and 2 - Vent and Purge Fittings and 4 Gaskets	81006640	DK2010
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Trunk Isolation Union Valve Set

1" Trunk Isolation Valve Set	81003400	D4201720-N
1-1/4" Hi-Flow Trunk Isolation Valve Set	81015002	D3114015-N
1-1/2" Hi-Flow Trunk Isolation Valve Set	81009666	D3515900-N

Valve sets include 1 red handle and 1 blue handle nickel plated brass ball valve FBSP x FNPT and 2 temperature gauges and 2 Gaskets.



Vent and Purge Assembly

1" Vent And Purge Assembly Set	81006639	D3036120-N
Hi-Flow Vent And Purge Assembly Set	81005457	D3515940-N

This assembly allows for the purging of zones at the manifold location. It includes 3/8" manual air vent and a 1/2" ball valve with GHT for the supply and return. Nickel plated brass.



Manifold End Cap

1" BSP S/S Manifold End Cap	81001977	D063064-N
Hi-Flow BSP S/S Manifold End Cap	81005425	D3515910-N



BSP to NPT Manifold Adapter

Pair 1" FBSP to NPT Adapter with Gaskets	81001990	D4201480-N
Pair Hi-Flow FBSP to 1-1/4 NPT Adapter	81010245	
Pair Hi-Flow BSP to 1-1/2 NPT Adapter with Gaskets	81005368	D3515920-N

Stainless Steel Manifold Accessories



Description

Order Number

Model Number

BSP X PEX Crimp Adapters

1" S/S Manifold FBSP x 3/4" PEX Crimp Adapter	81009351	D5SSX4C-N
1" S/S Manifold FBSP x 1" PEX Crimp Adapter	81009352	D5SSX5C-N
High-Flow S/S Manifold FBSP x 1" PEX Crimp Adapter	81009353	D8SSX5C-N
High-Flow S/S Manifold FBSP x 1-1/4" PEX Crimp Adapter	81009354	D8SSX7C-N

BSP X PEX Crimp Elbows

1" S/S Manifold x 3/4" PEX Crimp Elbow	81003300	D5ESSX4C-N
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BSP X Onix Barb Adapters

1" S/S Manifold x 3/4" Onix Barb Adapter	81009358	D5SSX40-N
1" S/S Manifold x 1" Onix Barb Adapter	81009359	D5SSX50-N
High Flow S/S Manifold x 1" Onix Barb Adapter	81009360	D0711-N

Circuit Isolation Cap

S/S Manifold T-20 Circuit Isolation Cap	81005479	D42017005
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FBSP to MBSP Manifold Elbow

1" FBSP to NPT Nickel Plated Brass Elbow	81005364	D3517020-N
Hi-Flow FBSP x MBSP Nickel Plated Brass Elbow	81005365	D3515925-N

BSP to Copper Sweat Manifold Adapter

1" FBSP x 3/4" Female Sweat Adapter	81005366	D0504
1" FBSP x Female Sweat Adapter	81005367	D0505
Hi-Flow FBSP x Female Sweat Adapter	81005480	D0708

1" Manifold Coupling

Pair 1" Nickel Plated Coupling	81001988	D425400-N
Pair Hi-Flow Nickel Plated Coupling	81005426	D3230010-N

Stainless Steel Add-A-Zone

1" S/S Add-A-Zone with Supply and Return Module	81002934	D3804000SS
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Stainless Steel Manifold Accessories



Description

Order Number

Model Number

24Volt Valve Actuator

22C24NC2 2-Wire 24VAC, 2.5W Actuator	81006634	22C24NC2
22C24NC4 4-Wire 24VAC, 2.5W Actuator with end switch	81006606	22C24NC4

This valve actuator is an optional feature for mounting directly to the balancing manifold. The actuator has a view window to indicate valve position, open/close. The actuator provides on/off flow control for individual radiant circuits, or groups of circuits, to allow for zoning. Flow is balanced prior to installation of actuator by turning the adjustment valve under the cap with the key provided with the manifold. Actuator is 24VAC and is available with 2-wire and 4-wire with end switch.



Manifold Mounting Cabinets

Manifold Cabinet for up to 3 loop manifold 16"W x 29"H x 4-1/2"D	81001525	PZ162904
Manifold Cabinet for up to 7 loop manifold 24"W x 29"H x 4-1/2"D	81003497	PZ242904
Manifold Cabinet for up to 12 loop manifold 40"W x 29"H x 4-1/2"D	81004517	PZ402904

WattsRadiant Manifold Cabinets are constructed of powder-coated sheet metal, providing increased resistance to corrosion and job-site abuse. All types of manifolds can be mounted in these boxes.



Stainless Steel Manifold Pressure Test Kit - with pressure gauge, snifter valve and 2 drain valves. Manifold can be tested with air or water.

1" Manifold Pressure Test Kit	81001996	D665161
Hi-Flow Manifold Pressure Test Kit	81005373	D665261



Dual Air Vent - optional dual air vent for use with s/s manifolds MDV10-R

3/8" Dual Air Vent	81010179	0205710
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Stainless Steel Manifold Accessories



Fiber Gaskets



Temp Gauge



Blue Cap



FlowMeter



Description	Order Number	Model Number
Manifold Service Parts		
1" S/S Manifold End Gaskets	81011861	5172005
High-Flow S/S Manifold End Gasket	81011860	8160010
Isolation Valve Thermometers	81011862	6151005
Replacement Valve Stem	81011863	1143175-N
Manifold Valve Plastic Cap	81006637	5191010
Old Style -2 GPM Flow Meter Only	81006638	3151121
O-2 GPM Comb Flow Meter / Shut Off Valve	81011868	315112N
O-4 GPM Comb Flow Meter / Shut Off Valve	81011869	3151190N
Manifold Balance Key	81004452	

WattsRadiant Custom Cut Copper Heating Manifolds

Custom Cut Manifolds are designed for flexibility at the wholesale and installation level. They come in 4-foot long copper *sticks* to be cut to length in the field. You can stock just a few types and have everything you need. Custom Cuts are manufactured with various sizes of brass, Onix, Barbs, PEX Crimp and T-20 Compression outlet connections; no copper fittings are used. They are made with 1", 1-1/4" and 2" copper trunks. Larger diameter trunks can be special ordered as well as larger outlet connections. Fittings are spaced either 3" or 4" on centre. Onix, Crimp, and Compression styles are spaced at 3" on center; Copper Stub fittings are spaced at 3" or 4" on centre.

**ONIX Barb
Custom Cut
Manifolds**



**PEX Crimp
Custom Cut
Manifolds**



**Copper Base Branch
Custom Cut
Manifolds**



**T-20F Compression
Custom Cut
Manifolds**



**Copper Stub Out
Custom Cut
Manifolds**



**ONIX
Barb
Custom Cut
Manifolds
With Ball Valve**



**PEX Barb
Custom Cut
Manifolds
with Ball Valve**



**T-20F
Compression
Custom Cut
Manifolds with
Ball Valve**



WattsRadiant Heating Custom Cut Copper Manifold

Description	Order Number	Model Number
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3/8" Onix Barb x 4 Foot Custom Cut Manifold

1" x 3/8" x 16 Onix Barb Outlet Copper Manifold	81001937	204237
1" x 3/8" x 16 Onix Ball Valve Outlet Copper Manifold	81001940	204237BV



1/2" Onix Barb x 4 Foot Custom Cut Manifold

1" x 1/2" x 16 Onix Barb Outlet Copper Manifold	81001941	204250
1" x 1/2" x 16 Onix Ball Valve Outlet Copper Manifold	81001942	204250BV



1/2" PEX Crimp x 4 Foot Custom Cut Manifold

1" x 1/2" x 16 PEX Crimp Outlet Copper Manifold	81001007	PC204250
1" x 1/2" x 16 PEX Ball Valve Outlet Copper Manifold	81001009	PC204250BV



T-20 Compression x 4 Foot Custom Cut Manifold

1" x T-20 x 16 Outlet Copper Manifold	81001481	PX204275
1" x T-20 Ball Valve x 16 Outlet Copper Manifold	81001483	PX204275BV



1/2" Copper x 4 Foot Base Branch Custom Cut Manifold

1" x 1/2" x 16 Outlet Copper Manifold, 3" centers	81001947	205250
1" x 1/2" x 12 Outlet Copper Manifold, 4" centers	81001950	205255

WattsRadiant Heating Custom Cut Copper Manifold



Description	Order Number	Model Number
1/2" Copper Stub Out x 4 Foot Custom Cut Manifold		
1" x 1/2" x 16 Outlet Copper Manifold, 3" centers	81001944	205116
1" x 1/2" x 12 Outlet Copper Manifold, 4" centers	81001943	205112
1-1/4" x 1/2" x 16 Outlet Copper Manifold, 3" centers	81001946	205216
1-1/4" x 1/2" x 12 Outlet Copper Manifold, 4" centers	81001945	205212

3/4" Copper Stub Out x 4 Foot Custom Cut Manifold

1-1/4" x 3/4" x 12 Outlet Copper Manifold, 3" centers	81001951	205412
1-1/2" x 3/4" x 12 Outlet Copper Manifold, 4" centers	81001953	205512
2" x 3/4" x 12 Outlet Copper Manifold, 3" centers	81001955	205612



Copper Manifold Vent and Purge Assembly w/Manual Air Vent and Drain Valve

1" Copper Vent & Purge	81003193	000102
1-1/4" Copper Vent & Purge	81003194	000103
1-1/2" Copper Vent & Purge	81003195	000104
2" Copper Vent & Purge	81003196	000105



Copper Manifold Pressure Test Kit with pressure gauge, snifter valve and 2 drain valves. Manifold can be tested with air or water.

1" Pressure Test Kit	81000550	665161
1-1/4" Pressure Test Kit.	81000552	665201
1-1/2" Pressure Test Kit	81000553	665241
2" Pressure Test Kit	81000554	665321



Manifold Mounting Brackets

Universal Manifold Mounting Brackets. For 1" or 1-1/4" pipe.	81000558	666162
Universal Manifold Mounting Brackets. For 1-1/2" or 2" pipe.	81000559	666163

Controls

Thermostats

Zone Controls

Hydronic Controls



WattsRadiant Hydronic Controls



Description

Order Number

Model Number

Digital DualTemp 24Volt Electronic Thermostats

Digital DualTemp 2-wire, battery powered 24V Thermostat w/floor sensor	81005259	P-3158
Digital DualTemp 4-wire, 24V Thermostat w/floor sensor	81006632	P-2597

This electronic thermostat is ideal for radiant heating systems where the owner wishes a higher end electronic thermostat. The Digital 24-Volt-heating thermostat features a large LCD display and simple push button control of set point temperature. This digital, heating or cooling-only thermostat senses both air temperature and floor temperature when used with the floor sensor (included). It can be set to sense only the floor, the air or both temperatures. Features include: on/off temperature display in °C or °F, an air temperature range from 5° to 35°C (41° to 95°F) and floor temperature range from 10° to 40°C (50° to 104°F). It can control a 5-VA, 24-VAC actuator directly, or a pump through an external relay. The thermostat has a manual setback feature. The two wire model however is not compatible with our setback timer feature used with our Zone Control Modules. The 2-wire thermostat is powered by 2 batteries (AAA), so only two thermostat wires are needed.



Programmable Thermostat - Heating Only

Digital 24Volt Weekly Programmable Thermostat	81006633	P-1859
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This thermostat allows for setback control of the heating system for energy savings. The thermostat features a large LCD display and simple push button programming for 7-Day program with on-screen display of schedule.



Programmable Thermostat - Heating and Cooling

Digital 24V Weekly Programmable Thermostat	81011866	P01357
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This thermostat allows for set back control of the heating and cooling system for energy savings. The thermostat can also be used with an optional floor sensor for radiant heating systems.



DualTemp 10K Floor Sensor

Dual Temp 10K floor sensor	8100505	500802
For use with all Watts floor sensing thermostats		

WattsRadiant Hydronic Controls



Description	Order Number	Model Number
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24-Volt Master Zone Control Modules for 24Volt Actuators

P-2086 4-Zone Master Control 24-Volt	81006628	P-2086-4
P-2082 6-Zone Master Control 24-Volt	81006626	P-2082-6

These Zone Controls simplify wiring, reduce problems and decrease installation time. The Master Valve Actuator Controls are intended to control WattsRadiant Electro-thermal Actuators, or any 24-VAC actuator or valve that draws 5VA or less. The number of actuators controlled depends on the separate 24-Volt external transformer (not supplied) powering the system. An external 40-VA transformer can control 12 actuators maximum. Up to 18 actuators can be controlled by a 60-VA transformer. However the physical limitations of the control itself is four actuators per thermostat connection. Master controls are fused and include two end switches, each rated for 8A. Actuators are switched by triacs, for quiet, safe, reliable electronic operation. Mounting is either by DIN rail or surface mount to a wall. The Expansion Module Control can be added to the Master Control to increase the number of zones.



24-Volt Add-On Expansion Module Control

P-2088 4-Zone Expansion Module	81006629	P-2088-4
P-2086 6-Zone Expansion Module	81006627	P-2084-6

The Add-On Expansion Module is added to the Master Control Module to increase the number of zones when required. Expansion Module Controls add extra zone capability to 4-zone or 6-zone Master Control Units. Like the Master Controls, they are intended to control Watts Radiant Electro-thermal Actuators, or any 24-VAC actuator that draws 5 VA or less. Up to two additional 4-zone or 6-zone Expansion Modules can be added to a Master Control. No field wiring is required between the Master and Expansion Modules. They simply plug into each other.

WattsRadiant Hydronic Controls

Description	Order Number	Model Number
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Master Setback Timer for Zone Control Modules

P-2101 2-Zone Set Back Timer	81006630	P-2101
<p>An optional Master Thermostat Setback Timer is available for additional control of Watts Radiant non-programmable thermostats. It plugs into the end of either a WattsRadiant Master or optional Expansion Module Zone Valve/Actuator Control. The Master Timer allows the user to initiate temperature “set-back” for selected zones using WattsRadiant non-programmable thermostats without having to manually set back each thermostat or install programmable thermostats in each zone. With one Timer, all selected zones are set back at the designated time(s). The setback is 2°C (3.6°F). The setback schedule is easily programmed, using one of the nine built-in programs or one program that a user can customize. The Timer also allows two different setback schedules - one schedule per zone. Zones may either be on an “A” schedule or a “B” schedule, allowing different setback schedules to be employed for different areas. The Timer either mounts to DIN rail or surface mounts to a wall.</p>		

Transformer

120/24V 60V Transformer	81009509	P3231
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Plug and Play Zone Valve/Actuator Controls



Master Valve/Actuator Control unit mated to 4-Zone and 6 Zone Expansion Modules with optional timer.



Zone Valve/Actuator assembly with outer covers removed to show the solid-state circuitry.

Mixing Controls



Description	Order Number	Model Number
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Mixing Setpoint Control	8101529	MSC-153
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The tekmar® Mixing Setpoint Control 153 is designed to operate a mixing device to maintain a setpoint water temperature. It can be used in applications ranging from boiler protection of cast iron boilers to maintaining setpoint in a heat pump system. This product is capable of operating a floating action motor for a mixing valve or damper through dry contact open and closed relays.



Mixing Reset Control	81015260	MRC-360
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The tekmar® Mixing Control 360 is designed to operate a mixing valve using Outdoor Temperature Reset. It can be used in applications ranging from in-floor radiant to commercial baseboard systems for boiler protection with full reset. This control regulates a single heating water temperature through Outdoor Temperature Reset. It controls the mixing by opening or closing a floating action type mixing valve actuator (3 or 4 way valves), and also provides control of the mixing system pump.

WattsRadiant Hydronic Controls



Description	Order Number	Model Number
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Slab Mounted Snow Melting Detector

HSC-5 Snow Melt Control	81000763	983046
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This HSC-5 Snow Melting Slab Detector is pavement mounted and senses actual pavement conditions. Microprocessor control effectively eliminates ice bridging, eliminating the need for a separate temperature sensor. The HSC-5 starts snow/ice melting at temperatures below 38°F (3.3°C) when precipitation is present. When the moisture element has dried, the HSC-5 sensor continues to operate the systems for a fixed time of 6 hours. The HSC-5 provides a low-amperage output relay contact. The heavy-duty machined brass housing provides optimum protection and reliability in severe service while providing an attractive appearance. The removable top cover and plug-in electronic assembly permit repair without disturbing the pavement.



Snow Melting Control

664 Snow Melting Control	81003586	SNO-664
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The Snow Detector & Melting Control 664 is designed to operate mechanical equipment to melt snow off of up to 2 outdoor slabs. It can be used in hydronic snow melting applications consisting of up to 2 zones and 2 boilers where each zone can operate at an independent temperature. This product uses a snow/ice detection sensor (sold separately) in order to automatically melt snow in a priority sequence while protecting the boiler plant with a mixing device.



Snow/Ice Sensor

090 Snow/Ice Sensor	81005361	SNO-090
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The Snow/Ice Sensor 090 is an in ground sensor used with tekmar® snow melting controls to automatically detect snow or ice on a driveway or walkway. The 090 has 65 ft (20m) of wire. This product can be used in applications ranging from residential driveways to commercial building fronts such as emergency access entries. This sensor allows snow melting controls to automatically operate the snow/ice melt system only when snow or ice is present, while also providing temperature feedback to the control.



Snow/Ice Sensor Socket

091 Socket for Snow/Ice Sensor	81003753	SNO-091
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The Snow/Ice Sensor Socket 091 is designed to provide a mounting solution for the Automatic Snow/Ice Sensor 090 or 094. It is intended to be installed directly innot a concreteslab when the slab is poured, so that the 090 or 094 can be installed into it once dry.



Snow Melting Control

SNO-0500 Snow Melting Control	81015258	SNO-0500
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The SNO-0500 is a stand alone Snow Melting Control. This control utilizes Optical Snow Sensor SNO-0111. The Control is capable of running the system pump and injection pump or floating action mixing valve. The Control is suitable for smaller scale projects or projects requiring several remote zones.



Optical Snow Melt Sensor

SNO-0110 Snow Melt Sensor	81015256	SNO-0110
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The HBX Snow Melt Sensor is unique to the hydronic industry. This sensor uses a distinctive combination of optical sensing and thermistor feedback to provide the SNO-0500 controller with real time snow fall conditions.

Snow Melt Socket

Socket for SNO-0111 Snow Sensor	81015257	SNO-0111
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Hydronic Accessories

Mixing Modules Mixing Valves Flow Control



WattsRadiant Hydronic Accessories



Description	Order Number	Model Number
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ThermalPro™ Manifold Mixing Module

ThermalPro Manifold Mixing Module with UPS25-58 circulator	81011873
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ThermalPro Manifold Mixing Module with UPS25-99 circulator	81011872
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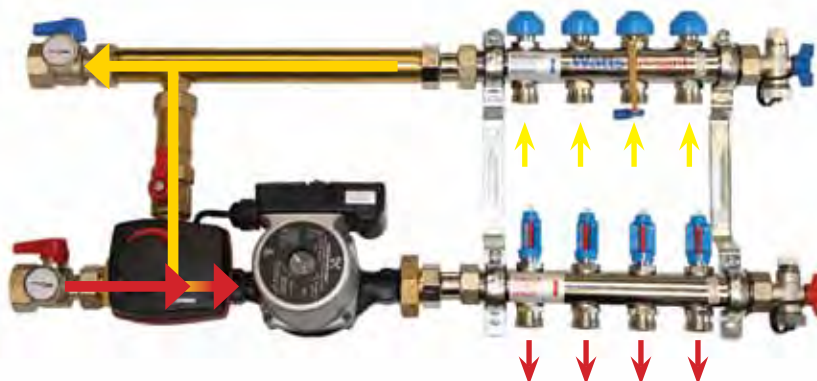
The ThermalPro™ Manifold Mixing Module is a compact, pre-piped mechanical system complete with circulator and 24 volt, 3-way mixing valve. ThermalPro™ Manifold Mixing modules are designed to connect directly to our stainless steel manifold to speed up installation and provide individual manifold mixing capabilities. ThermalPro™ mixing modules can handle up to 22GPM.

ThermalPro™ manifold mixing modules are designed to provide low temperature floor heating by connecting the mixing valve to the mixing control of your choice (not provided). The mixing valve is equipped with a manual adjustment knob, which can be used for single zone operation or temporary control of a multi-zone low temperature floor heating system.

ThermalPro™ Adapters

PR 1" x 1-1/4" FBSP x FBSP Adapters used to connect mixing module to 1" S/S manifold	81001988
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PR 1" x 1" FBSP x FBSP Adapters used to connect mixing module to Hi-Flow S/S manifold	81011871
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WattsRadiant Hydronic Accessories



Description

Order Number

Model Number

Isotherm Control Module

1" Isotherm Radiant Control Module c/w Circulator, Injection Mixing Valve, Hi-Limit Control and Temperature Gauge

81005361

D3803995

The Isotherm is a compact, pre-piped, pre-wired pump and mixing valve control designed to connect directly to a WattsRadiant 1" Stainless Steel manifold. The Isotherm is designed to speed up radiant installations by providing a complete compact piping and mixing system ready to go. The Isotherm can handle up to 50,000 Btu/H in a standard radiant heating system. Temperature range of the Isotherm Control Module is 110° to 140°F providing a wide range of control to accommodate many project applications from floor warming to floor heating. The mixing valve is easily adjustable and locks in position.



Isolation Ball Valve

1" MBSP x 1 FBSP isolation ball valve set.

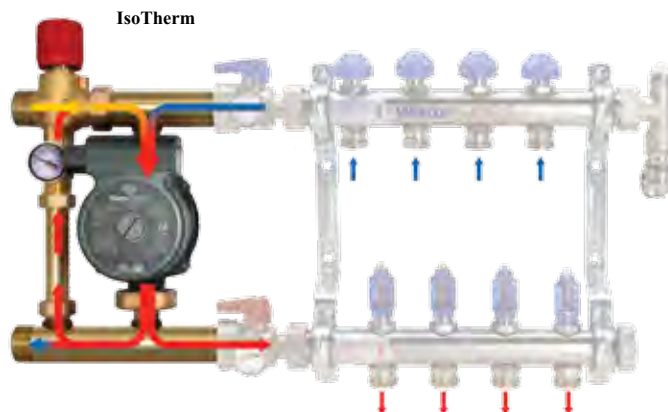
81006641

3126130

Thermometers for isolation valve set.

81006635

6151005



Order transitional fittings separately for transition to supply and return piping

WattsRadiant Hydronic Accessories



Description

Order Number

Model Number

Pressure Differential By-pass Valve for 1" S/S Manifolds

Pressure Differential By-pass

81005345

D4402050

This pressure differential by-pass installs directly on the 1" stainless steel manifolds using the same quick, durable flat seal connections and supplied unions. This valve adjusts from 0.7psi (1.6FtHd) to 10.3psi (23.8FtHd) using a graduated knob. Water by-pass capacity is 1.2gpm to 9gpm (4.55l/m to 34.0l/m). The knob is set and locked with a setscrew to prevent tampering.



FlowGuard Metered Flow Control Valves

1" Male Union 1.9 – 15L/Min (0.5– 4 gpm)

81001979

D3499375

1" FIP 5-50 L/min (1.3-13gpm)

81001980

D3499480

FlowGuards are a commercial quality, non-electric flow indicator and flow setter. Made of cast brass construction, these units give accurate flow indication. With the ability to set flow rate, the FlowGuard allow zone-by-zone balancing control for optimum performance. No special electronic instrumentation, tables or graphs are required to set and read flows.



3-Way Mixing Valves

1" 1170-UT-M2 3-Way Valves (90 - 160°F) (3.3Cv)

206011

1170UT-M2

1" 1170-US-M2 3-Way Valves (90 - 160°F) (3.3Cv)

206014

1170US-M2

1-1/4" AllTemp[™] 3-Way Valves (100 - 200°F) (6.1Cv)

81000716

703200

1-1/2" AllTemp[™] 3-Way Valves (100 - 200°F) (6.2Cv)

81000717

703240

2" AllTemp[™] 3-Way Valves (100 - 200°F) (6.1Cv)

81000718

703320

These durable non-electric mixing valves can be used in primary/secondary and direct piping systems. These valves are not to be used for potable water applications, as they are not anti-scald valves.



Differential By-pass Valve

3/4" Differential By-pass Valve

81005517

PZ4661C34

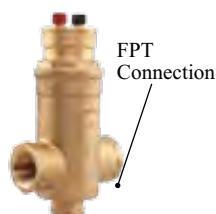
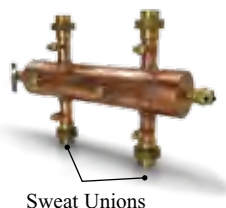
1" Differential By-pass Valve

81005518

PZ4662C1

Noise can be present in a multiple-actuator manifold if only one or two actuators are open. The pump is sized for the total flow rate and highest pressure drop of all the circuits. With just one or two circuits calling for heat, the pump is oversized, possibly causing noise. The Pressure Differential By-pass Valve eliminates water velocity noise and water hammer. With this valve, high-pressure pumps cannot exceed actuator close-off pressure. Pump life increases because of minimal pressure surging as actuators open and close. There is always correct and constant flow regardless of the number of actuators open. The valve adjusts from 2.18 psi (5.0 feet water) to 11.6 psi (26.8 feet water) using a graduated knob. Water by-pass capacity is 0.6 gpm to 9 gpm. Maximum pressure is 145 psi, maximum temperature is 230°F. The knob is set and locked with a setscrew to prevent tampering.

WattsRadiant Hydronic Accessories



Description

Order Number

Model Number

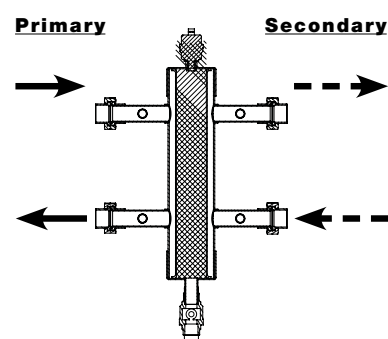
Hydraulic Separators

1" Hydraulic Separator, Sweat Union	81010007	HSEP100-U
1-1/4" Hydraulic Separator, Sweat Union	81010008	HSEP125-U
1-1/2" Hydraulic Separator, Sweat Union	81010009	HSEP150-U
2" Hydraulic Separator, 4" ANSI Flange	81010010	HSEP200-F
2-1/2" Hydraulic Separator, 4" ANSI Flange	81010011	HSEP250-F

Watts Radiant's **Hydraulic Separator** is designed to decouple the primary loop flow from the secondary, impede particle and sediment movement through a system, and to act as a point of air removal.

Flow through the hydraulic separator is dependent on the resulting pressure differentials created by the circulators on either side. Circulators should always be arranged in a counter-flow orientation.

Commonly used to simplify piping for condensing boilers, our separators are constructed from type -L copper with a stainless steel screen and brass air vent. A 3/4" brass drain, expansion tank tapping, and 5 temperature gauge/sensor wells are standard. Rated to 210°F at 100 psi.



Watts Microbubble Air Separators

3/4" FPT Air Remover	858546	AS-MB 75
1" FPT Air Remover	858547	AS-MB 100
1-1/4" FPT Air Remover	858548	AS-MB 125
1-1/4" Flanged Air Remover	858549	AS-MB FL
1" Sweat Air Remover	858551	671161
1-1/4" Sweat Air Remover	858552	671201

The rugged, high-temperature PPSU coalescing media is corrosion-resistant, and the entire unit can be disassembled for inspection and cleaning. The high capacity DuoVent (manual and automatic) allows for fast venting. AS-MB FL flanged model can be used with Watts PIPF Isolation Pump Flanges with Purge Port and Swivel Flanges to create a compact purge/air elimination module.

Air Removers are required in any closed-loop hydronic system to remove air from the system and keep it out after the system has been purged.

WattsRadiant Hydronic Accessories



Description

Order Number

Model Number

Boiler Header Module Kits

3/4" Boiler Module Kit	81013744	HP-BHM-75
1" Boiler Module Kit	81013745	HP-BHM-100
1-1/4" Boiler Module Kit	81013746	HP-BHM-125

This kit combines a Watts Air Remover, a Swivel Isolation Pump Flange with a Purge Port, and a Residential Boiler Fill Fitting.

The PIPF Isolation Pump Flange is designed to isolate circulator pumps to facilitate circulator pump replacement or repairs, while providing an integral purge port to facilitate system purging. The PIPF's swivel flange design allows the contractor to rotate the valve body 360° to place the purge port in the most convenient spot for purging and provide attractive custom installations.

The RBFF residential boiler fill fitting allows fast and easy isolation of the expansion tank, a drain valve for easy draining or filling of the system, and a 30 psi pressure gauge.

Zone Valve Body & Actuator Kit

3/4" Valve Body Only	81009858	703022
3/4" Valve Body & Actuator Kit	81011158	PZ656104A

StickTemp

StickTemp	81000757	850100
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These liquid crystal, Digital StickTemp thermometers are an inexpensive, quick way to take temperature readings at various locations in a system. Use one at each point a temperature reading is desired i.e. supply and return mains. Use for 3/4" or larger pipe. Peel off the backing paper and apply to any clean surface. Temperature range is from 100° to 200°F.

Aluminum PEX Plates

5" x 24" Aluminium Emission Plates for 1/2" PEX Tubing (package of 100)	81000842	P700524-100
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Plates are the traditional way to install PEX in underfloor and sandwich applications. Each stamped aluminum plate measures 5" x 24". You'll need about four plates per 10' of PEX. Follow our Installation Guidelines very carefully when using these plates. See our Lock-Downs for an alternative fastener for underfloor PEX applications.

WattsRadiant Hydronic Accessories



Description	Order Number	Model Number
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PEX C-Channel Heat Plates

3/8" x 4Ft. C-Channel Heat Plates	81005319	P700350
3/8" x 8Ft. C-Channel Heat Plates	81004230	P700300
1/2" x 4Ft. C-Channel Heat Plates	81005318	P700250
1/2" x 8Ft. C-Channel Heat Plates	81004227	P700200

These plates are extruded aluminum and measure 3-1/2" wide by 4 and 8 ft. long. Tubing snaps into channel, making installation fast and easy. The channel's tight grip eliminates annoying ticks and clicks as the PEX expands and contracts.



FlexPlate Graphite Plates

FlexPlate, 1/2 x 4' Long X 6" Wide	81012401	FPL04500-20
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FlexPlate™ - flexible, graphite plates install 40% faster than aluminum plates, with 50% higher thermal conductivity! Better utilize high efficiency, low temperature heat sources such as condensing boilers, geothermal, or solar

These heat transfer plates are made using a patented, highly conductive graphite material. Used in underfloor, wall, ceiling, or above floor applications, FlexPlates require lower water temperatures and produce more uniform floor temperatures than extruded aluminum plates. FlexPlates are lightweight, flexible, cut easily with scissors or a utility knife, easy to staple and don't have any sharp edges that require grinding. For use with 1/2" RadiantPex only.

SubRay™

SubRay Components

Accessories



Anatomy of the SubRay Radiant System

Header Stick

Holds radiant tubing at each end of the room on 8" centres.

Sleeper

6" wide x 60" long and installed 2" apart. Sleepers support the finish floor.

Corner Sweep

Helps RadiantPEX make 90° bends.

Gripper

Used to hold RadiantPEX where it enters or exits the floor.

Reflective Tape

Reflects radiant energy to the floor.

Aluminium Conduction Layer

Unrolled and fastened directly over the SubRay sub floor. Evenly spreads the radiant heat.

C-Cover

Protects radiant tubing from nails, and supports tile backer board.

SubRay is a Great Alternative to a thin slab

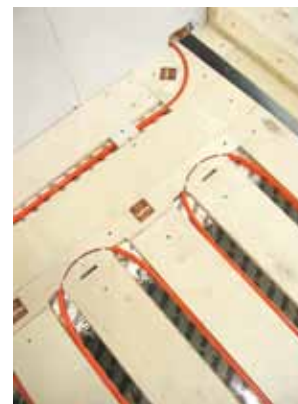
SubRay is an easy way to install radiant floor heating on top of existing frame or slab floors. SubRay can be installed as a whole-house heating system, or used to heat a basement or room addition.

Compared to thin slab, SubRay is:

- **Thin** – 5/8" or 3/4" thick.
- **Lightweight** – less than 2lbs. per sq. ft.
- **Fast responding** – twice as responsive as gypsum-based concrete.
- **An Easy Installation** – No need to wait weeks for the slab to cure. No scheduling problems with separate subcontractors.
- **Moisture-Free** – No hundreds of gallons of moisture to manage.

Compared to other thin slab alternatives, SubRay is:

- **Clean** – No messy silicone needed.
- **Two Sizes** – 15mm (5/8") for 3/8" RadiantPEX and 18mm (3/4") for 1/2" RadiantPEX or Onix.
- **Silent** – Floating design. Will not pop or squeak like some aluminium plate systems.
- **Quality** – Cabinet grade, Group 1 Baltic Birch. Meets specs of all wood flooring manufacturers.
- **Economical** – Uses standard ASTM tubing and fittings.



SubRay Radiant Panel System

SubRay Model 862[™] is a fast and practical hydronic radiant system that goes under almost any finished flooring. The SubRay system uses cabinet grade wood components and ASTM pipe sizes. The system is suitable for frame floors or concrete floors. Use in new construction, or remodelling projects. The system works with standard SDR9 3/8" PEX, 1/2" PEX, and 3/8" Onix pipe. The SubRay Radiant System is designed to securely hold the PEX pipe without the squeaking or popping associated with expansion of tubing. The SubRay System is available in 15mm components for 3/8" PEX and in 18mm for 1/2" PEX and 3/8" Onix. The components are built with 11 layer laminations, and CNC routed to precise dimensions to give you a perfect fit radiant sub floor. The components are manufactured of Group 1 density or better as required by the hardwood floor manufacturers to ensure proper fastener holding capabilities.

Description	Order Number	Model Number
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Header Sticks

862 Header Sticks, 15mm, 3" wide x 42" long with 3 bends.	81002023	862HS1542
862 Header Sticks, 18mm, 3" wide x 42" long with 3 bends.	81002026	862HS1842

Cabinet grade Baltic Birch Header Sticks are used to hold loops of RadiantPEX or Onix pipe at opposite ends of the room. They are made in two thicknesses, 15mm for 3/8" PEX and 18mm for 1/2" PEX and 3/8" Onix. Each header stick is 42" long and contains three bends.



Sleepers

862 Sleepers, 15mm 6" wide x 60" long	81002032	862S1560
862 Sleepers, 18mm 6" wide x 60" long	81002035	862S1860

Cabinet grade Baltic Birch Sleepers are installed 2" apart to form the 2" wide radiant channels that hold the radiant tubing. They are made in two thicknesses, 15mm for 3/8" PEX and 18mm for 1/2" PEX and 3/8" Onix. Allow about 30 sleepers for each 100 square feet of floor.



Corner Sweeps

862 Corner Sweeps, 15mm, 8" x 8"	81002011	862CS15
862 Corner Sweeps, 18mm, 8" x 8"	81002014	862CS18

Corner Sweeps are CNC routed pieces; they provide a nailing surface where the tubing turns a corner between the Header Sticks. Most rectangular rooms will need one or two sweeps per circuit.

SubRay Radiant Panel System



Description

Order Number

Model Number

Aluminum Conduction Roll

862 Aluminium Conduction Rolls,
16" wide x 50 Feet long

81002003

862AC1650

Install Aluminums Conduction Rolls above sleeper, **not below**. Locating aluminum above the pipe reduces thermal striping. Each strip should be spaced about a 1/2" apart, and installed perpendicular to the sleepers. Do not cover the header sticks with aluminum if your finished floor is nailed down. Use 1 roll for every 70 square feet of heated floor.



Grippers

862 Grippers, 15mm

81002017

862G15

862 Grippers, 18mm

81002020

862G18

Grippers are used for holding RadiantPEX tubing. Holds down with one screw. They are not required for Onix tubing. Use two grippers for each PEX circuit, where it enters and leaves the floor.



2" Reflecting Tape

862 Reflecting Tape 2"

81002029

862RT2

The tube in the radiant channels emits infrared heat. The 2" Reflecting Tape sends this heat back to the floor above. Use a tape dispenser to speed up the installation. Use one roll for each 240 square feet of heated floor.



C-Covers

862 C-Covers, 15mm, 2" x 4 feet

81002006

862CC1548

862 C-Covers, 18mm, 2" x 4 feet

81002008

862CC1848

C-covers are heavy steel covers that fit in the radiant channels. Typically used to protect lines that may run parallel to nailed strip flooring. Also under super thin tile floor to support cement boards. Protects the tubing against errant nails or other fasteners. See manual for more applications.

HYDRONEX™ Control Panels

Hydronic Panels Mechanical Panels



Hydronex Control Panels



Easy to Bid, Easy to Sell, Easy to Install

Making money in today's competitive market means working smarter. HydroNex helps contractors and distributors make more money by speeding up every facet of a hydronic job, from bidding to start-up. HydroNex also helps sell more jobs by offering a factory warranted piece of equipment with a professional appearance.

Fixed costs help make bidding fast and simple.

Cut installation times by 50-75%.

No parts runs, no jobsite supervision, no cutting, fitting and soldering dozens of joints. Just hang the panels and pipe to and from the boiler and zones. And move on to the next job.

Greatly reduce wiring and start-up problems.

All panels are wired and ready to go. Simply wire to the boiler and thermostats, plug in the power cords, and run Cat5 cables from panel to panel. Every panel is factory tested so you won't spend time chasing down any problems.

A factory warranty up to 5 years.

Give yourself and your customers the peace of mind of a factory warranted product. Certified installers get a 5 year parts and 3 year labor warranty. Or get a 2 year parts and labor warranty by just filling out the HydroNex registration card.

Every panel looks great.

Present a professional appearance every time with a powder coated metal cover. End users and builders only see an "appliance" hanging on the wall, not an intimidating array of pipes and wires.

Hydronex Control Panels

Condensing Boiler Panels — Stand alone panel to interface with most condensing boilers. This panel includes a 1-1/4" primary loop, air remover, optional auto fill assembly, distribution manifold with up to 8 actuators, and indirect DHW zone.

Model	Description
SCA-1 or SCM-1	Includes Zone Circulator, 1-1/2" distribution manifold
SCA-3 or SCM-3	Includes Primary, Zone, and DHW circulators, 1-1/2" distribution manifold

Primary Panels — Primary panels circulate water through the 1-1/4" primary loop, remove air, and provide essential service and monitoring capabilities. An auto-fill assembly and an indirect DHW zone are options.

Model	Description
PA_-_PO	With AutoFill assembly
PM_-_PO	With manual fill assembly
PA_-_PD	With AutoFill assembly and DHW zone circulator
PM_-_PD	With manual fill assembly and DHW zone circulator

Distribution Panels — Distribution (secondary) panels send heat to fancoils, baseboards, radiant floors, or indirect water heaters.

Model	Description
DD	1 to 5 circulator zones - No mixing device, Boiler temperature fluid
DM	1 to 3 circulator zones - Single mix valve providing fixed supply fluid temperature
DMH	2 to 4 circulator zones - Single mix valve providing fixed supply fluid temperature - also supplies boiler temperature fluid
DI	1 to 5 circulator zones - Outdoor reset with variable injection mixing - Single supply fluid temperature
DIH	2 to 5 circulator zones - Outdoor reset with variable injection mixing - also supplies boiler temperature fluid
DH	1 circulator zone for radiant or snow melt with 2 heat exchanger options

Zone Panels — Zone panels use 1" stainless steel manifolds to distribute water to radiant circuits. Pre-installed in steel cabinets for remote "in the wall" installation. A zone pump, mix valve and pre-wired actuators are all options.

Model	Description
ZB-A or ZB-N	Zone manifold, with or without actuators - 2 to 12 circuits
ZC-A or ZC-N	Zone manifold with zone pump; with or without actuators - 2 to 7 circuits
ZM-A or ZM-N	Zone manifold with zone pump and mix valve; with or without actuators - 2 to 7 circuits

Specialty Panels — These panels are designed to tie HydroNex panels into storage tanks for Ground Source Heat Pumps, Solar, Wood Boilers and other alternative heat sources.

Model	Description
SG	Cycles between 1,2, or 3 ground source heat pumps and storage tank
SS	Cycles between 2 independent heat sources, such as solar, geothermal, or a wood boiler and a back up

Hydronex Control Panels

It's Easy to choose HydroNex Panels



1. Select the heat source.

- a. Condensing boiler
- b. Non-condensing boiler
- c. Solar, geothermal, or wood fired heat source with boiler back up

2. Determine the number of different supply temperatures required.

- a. Different radiant temperature groups (radiant slab, radiant underfloor)
- b. High temperature zones such as baseboard, fan coils, panel radiators.
- c. Domestic Hot Water (DHW)

3. Select mixing options.

- a. Fixed temperature mix valve -----> DM
- b. Injection mixing with outdoor reset -----> DI
- c. Direct (no mixing) -----> DD or SC with Condensing boiler
- d. Heat Exchanger -----> DH
- e. Multiple/Combinations

4. Determine number of small zones to be served with manifold actuators rather than zone circulators.

- > Zone Panels with Actuators

For **Condensing boilers**, choose an SC-1 or SC-3 Panel or a Primary Panel and DD Panels.

For **Non-condensing boilers**, choose a Primary, and DD, DM, DI, or DH Panel(s).

For **Solar with boiler back up**, choose SS Panel with a Primary Panel and DD, DM, DI, or DH Panel(s).

For **Geothermal with boiler back up**, choose SS Panel with a Primary Panel and DD, DM, DI, or DH Panel(s).

For **Wood fired boiler with gas or electric boiler back up**, choose SS Panel with a Primary Panel and DD, DM, DI, or DHn Panel(s).

For **Geothermal only heat source**, choose GeoThermal Panel with a Primary Panel and D Panel(s)

Zone Panels can be used with most HydroNex panel configurations or can be used as a stand alone unit.



The Word from the Field about HydroNex . . .

“The HydroNex panels were chosen for this project for their quick installation, their clean appearance and the pre-wired zone control. We at LD Mechanical LLC are very satisfied with this product and will look forward to using them in the future.”

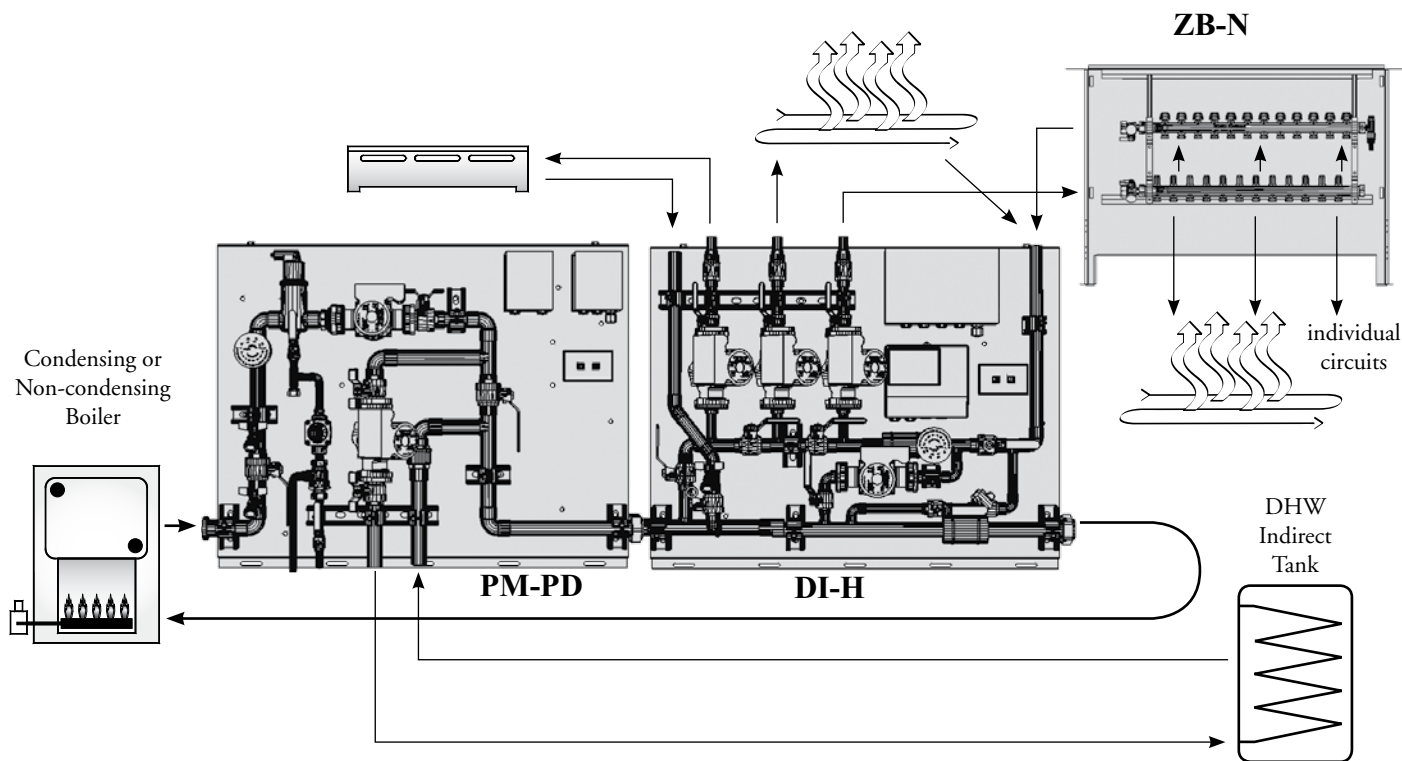
—Lance Daniel
LD Mechanical LLC
Montrose, CO

A few examples of HydroNex systems - the possibilities are endless...

Primary panel with DHW, baseboard zone, and Radiant zones with outdoor reset/ injection pumping

Description:

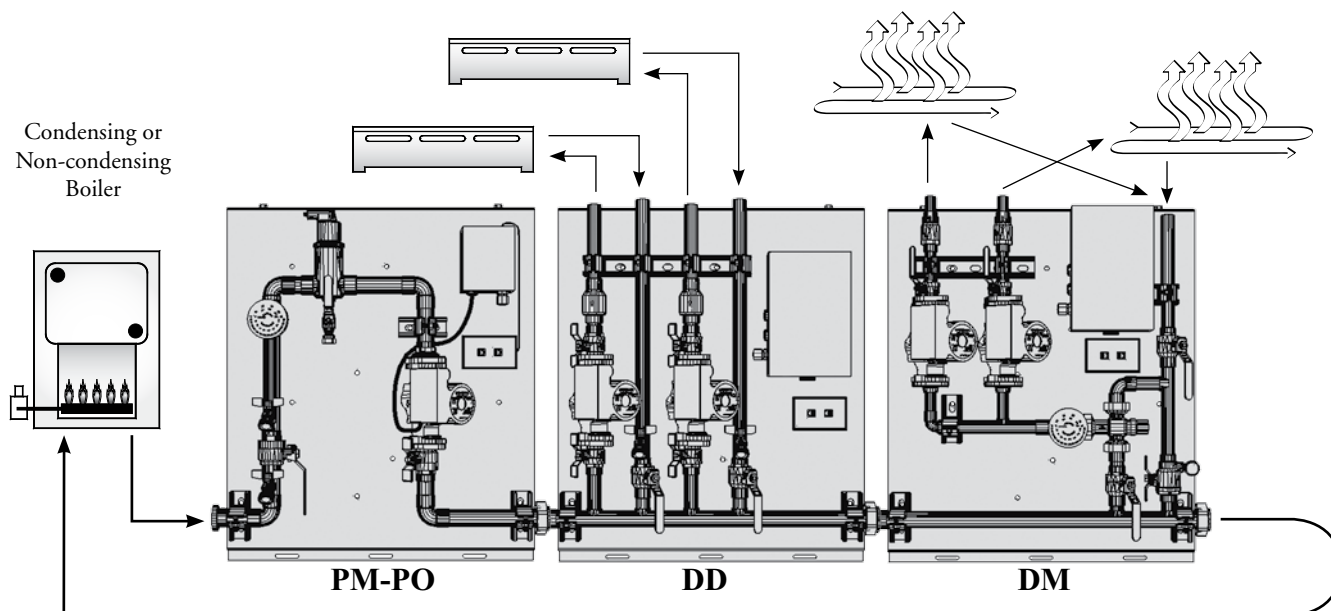
Provides a single supply temperature to radiant zones and high temperature boiler water to select zones. The DI-H panel provides modulating radiant supply temperature with outdoor reset. The Primary Panel has an automatic fill assembly and an indirect DHW zone.



Primary panel with baseboard or fan coils and radiant zones

Description:

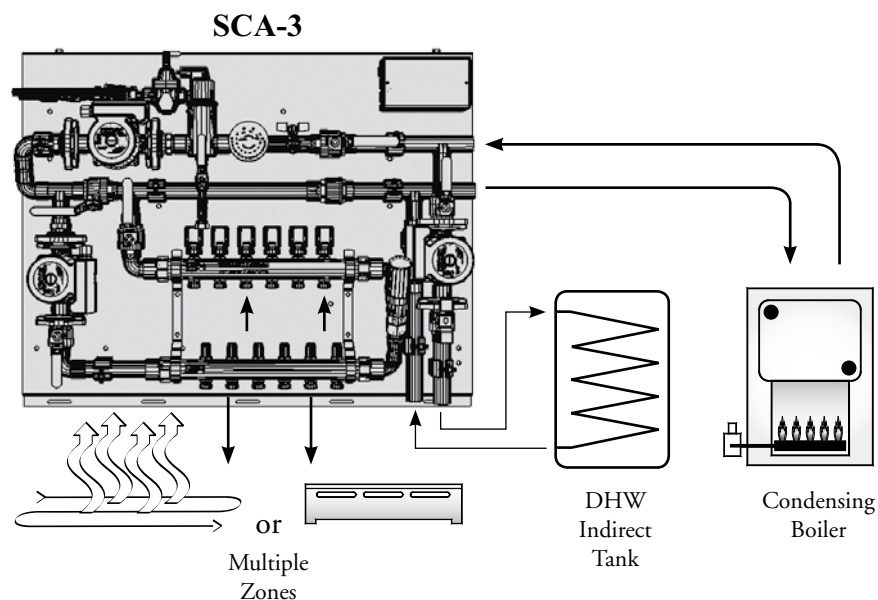
Provides a single supply temperature to radiant zones and high temperature boiler water to baseboard zones. The DD panel provides boiler temperature water to baseboard or fan coil zones. The DM panel supplies lower temperature radiant zones through a fixed temperature mixing valve.



Condensing Boiler Panel

Description:

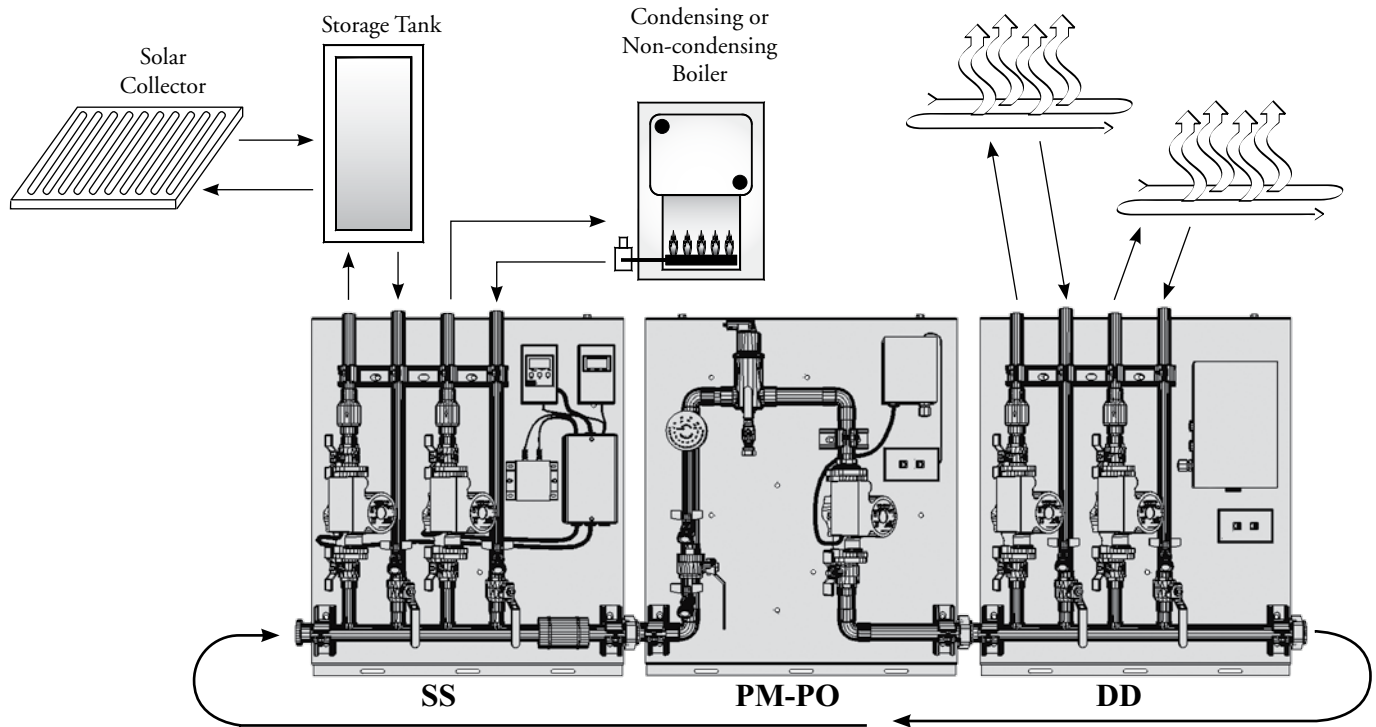
This stand alone panel provides a single supply temperature to radiant zones and high temperature boiler water to an indirect water heater. Each panel is designed to interact directly with the condensing boiler control. Reset, domestic water priority, and other features are dependant on the boiler control.



Source Select™ system - for solar and a gas-fired boiler back up, serving radiant zones.

Description:

SS (Source Select) HydroNex panels are designed to go before the Primary panels and manage two heat sources, typically an alternative source such as solar, and a boiler back up. The required system temperatures will determine which distribution panel is used. In this example, a low temperature radiant system is shown with a DD panel.



Condensing Boiler Panels (Stand Alone)



SCA-1-6

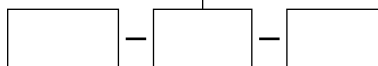


SCA-3-6

Use this model number configuration to order.

1: Type 1 (Zone Circulator only)

3: Type 3 (Primary, Zone, and DHW Circulators)



SCA: Auto Fill

SCM: Manual Fill

of circuits

options: 4, 5, 6, 8

CONDENSING PANELS

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
Type 1 Zone pump only (Watts Radiant 2699) For boilers with primary circulators	SCA/SCM - 1 - 4	60-70	S
	SCA/SCM - 1 - 5	60-70	S
	SCA/SCM - 1 - 6	60-70	S
	SCA/SCM - 1 - 8	60-70	S
Type 3 Boiler, Zone, and DHW pumps (all Watts Radiant 2699s)	SCA/SCM - 3 - 4	150-160	M
	SCA/SCM - 3 - 5	150-160	M
	SCA/SCM - 3 - 6	150-160	M
	SCA/SCM - 3 - 8	150-160	L

S = 28" wide x 31.5" tall x 12" deep

M = 40" wide x 31.5" tall x 12" deep

L = 52" wide x 31.5" tall x 12" deep

Condensing Boilers

These stand alone panels work with most condensing boilers. The Type 1 panel provides only a secondary circulator, and works with condensing boilers that supply their own primary circulator. The Type 3 panel provides primary, secondary, and DHW circulators. Both panels include a 1-1/4" primary loop with air remover and expansion tank connection (no tank) as well as optional auto-fill assembly. All circulators are energy-saving 3 speed models, which enables the installer to adjust flows for optimal temperature drops. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

The 1-1/2" stainless steel distribution manifold is equipped with thermal actuators on each circuit, and can supply up to 4 gpm to each separate zone. Each zone has a balance valve and flow meter for precise flow balancing. A pressure differential bypass eliminates velocity noise and helps extend the life of the system components.

Standard equipment includes:

- 1-1/4" copper primary and secondary piping, 1" copper DHW piping
- Primary, secondary, and DHW circulators, pre-wired and tested (Secondary circulator only on Type 1)
- High performance 1-1/4" micro-bubble air remover with expansion tank connection (tank not included) including a 10 ft piece of 3/8" Onix for mounting tank outside of enclosure
- Isolation valves for easy servicing of circulators and easy air purging
- Spring check valves in primary loop and DHW piping
- 0-50 psi/60-320 °F gauge
- 1-1/2" stainless manifold with thermal actuators, balance valves, flow meters and pressure differential bypass
- Zone actuator control, pre-wired and tested
- 9 ft 120V power cord
- Powder coated steel enclosure
- Optional Auto-fill assembly (Watts 9-11S M3 pressure reducing valve and backflow preventer)

Manifold adapters are required to transition to the distribution piping. PEX, PAP, copper or Onix can be used for distribution from the panel to the radiant zones. **Order manifold tube adapters separately.**

The panel circulators are controlled by the boiler via field wiring. Outdoor reset, DHW priority and other features are dependent on the boiler control.

Maximum flow rate is approximately 22 gpm. Each Watts Radiant 2699 circulator is capable of providing approximately 15 gpm at 20 ft hd on high speed.

Primary Panels



PM-1-PO



PA-1-PO



PM-1-PD

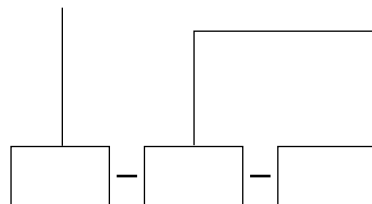


PA-1-PD

Use this model number configuration to order.

PA: Auto Fill

PM: Manual Fill



PO: Primary Only

PD: Primary and DHW Circulators

Circulator Options

1. Watts Radiant 1558
2. Watts Radiant 2699
3. B&G NRF 22
4. B&G PL 30
5. Taco 008
6. Taco 0011

NOTE: Primary circulator and the DHW circulator are the same brand/model

PRIMARY PANELS

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
P-Panel with Manual Fill	PM - ____ - PO	55-60	S
P-Panel with Auto Fill	PA - ____ - PO	55-60	S
P-Panel with Manual Fill and DHW	PM - ____ - PD	65-70	M
P-Panel with Auto Fill and DHW	PA - ____ - PD	65-70	M

S = 28" wide x 31.5" tall x 12" deep

M = 40" wide x 31.5" tall x 12" deep

Primary Panels

This panel includes a 1-1/4" primary loop with air remover and expansion tank connection (tank not included) as well as optional auto-fill assembly and DHW zone. O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections allow for fast coupling to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary and 1" copper DHW piping
- Primary circulator, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- High performance 1-1/4" micro-bubble air remover and expansion tank connection (tank not included) including a 10 ft piece of 3/8" Onix for mounting tank outside of enclosure
- Isolation valves for easy servicing of circulators and easy air purging
- Spring check valve in DHW piping
- 0-50 psi/60-320 °F gauge
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure
- Optional auto-fill assembly (Watts 9-11S M3 pressure reducing valve and backflow preventer)
- Optional DHW zone with spring check valve on return , pre-wired and tested (DHW circulator is the same selection as the primary circulator)

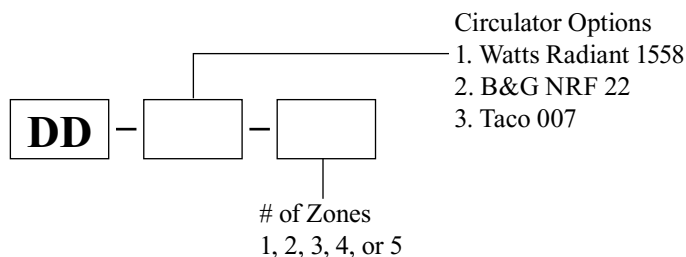
Maximum total flow rate is approximately 22 gpm.

Distribution Direct



DD-1-2

Use this model number configuration to order.



DISTRIBUTION DIRECT PANELS

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
1 Zone D-Direct	DD - ____ - 1	55-60	S
2 Zone D-Direct	DD - ____ - 2	90-95	
3 Zone D-Direct	DD - ____ - 3	120-125	M
4 Zone D-Direct	DD - ____ - 4	155-160	
5 Zone D-Direct	DD - ____ - 5	185-190	L

S = 28" wide x 31.5" tall x 12" deep
M = 40" wide x 31.5" tall x 12" deep
L = 52" wide x 31.5" tall x 12" deep

Distribution Direct

These panels are ideal for any high temperature hydronic application such as fan coils, baseboards, panel radiators, or underfloor radiant. A Direct panel could also be used with a Primary panel on a condensing boiler.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary and 1" secondary piping
- Zone circulators, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to P or D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

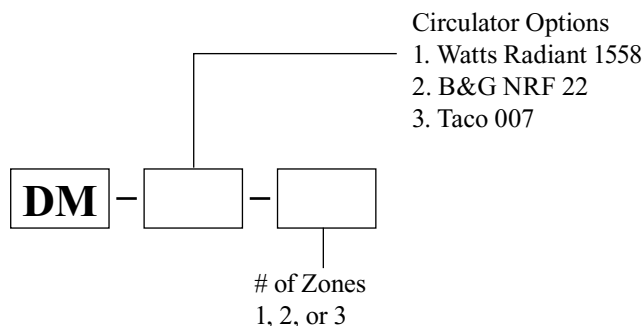
Maximum flow for entire panel is approximately 22 gpm. Maximum for each 1" secondary is approximately 8 gpm.

Distribution Mix Valve

Use this model number configuration to order.



DM-1-2



DISTRIBUTION PANELS

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
1 Zone D-Mix	DM - ____ - 1	60-65	S
2 Zone D-Mix	DM - ____ - 2	80-85	M
3 Zone D-Mix	DM - ____ - 3	95-100	

S = 28" wide x 31.5" tall x 12" deep

M = 40" wide x 31.5" tall x 12" deep

Distribution Mix Valve

These panels are used for lower temperature hydronic applications such as panel radiators, or radiant. A thermostatic, 3-way mixing valve can deliver temperatures between 100 and 160°F.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary, 3/4" secondary piping, and a 1" common return
- Zone circulators, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Thermostatic, 3-way mixing valve with 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to Primary or Distribution Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

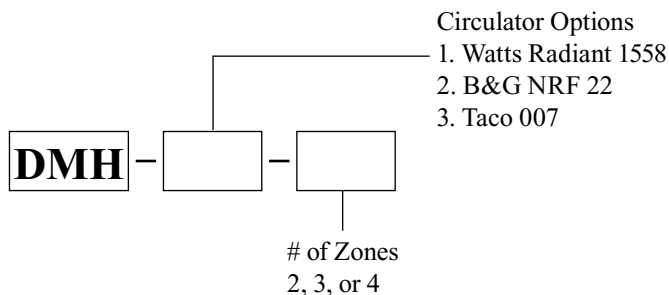
Maximum total flow rate through the mixing valve is approximately 3.5 gpm.

Distribution MixHybrid



DMH-1-4

Use this model number configuration to order.



DISTRIBUTION Mix Hybrid Panels

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
2 Zone DMix Hybrid	DMH - ____ - 2	85-90	M
3 Zone DMix Hybrid	DMH - ____ - 3	105-110	
4 Zone DMix Hybrid	DMH - ____ - 4	150-155	

M = 40" wide x 31.5" tall x 12" deep
L = 52" wide x 31.5" tall x 12" deep

Distribution Mix Hybrid

The hybrid panel adds field selected boiler temperature zones to the Distribution Mix panel. Two radiant slab zones and one fan coil zone can easily be incorporated into this single panel. Selecting which zones get boiler or mix valve temperature water is as simple as adjusting two valves.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary, 3/4" secondary piping, and a 1" common return
- Isolation valves to adjust which zones are fed boiler or mixed water temperature
- Zone circulators, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Thermostatic, 3-way mixing valve with 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to P or D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

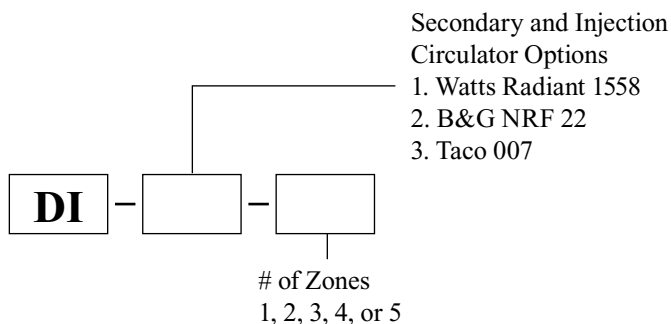
Maximum total flow rate through the mixing valve is approximately 3.5 gpm. Maximum total high temperature flow rate is approximately 8 gpm.

Distribution Injection Mix



DI-1-3

Use this model number configuration to order.



DISTRIBUTION Injection Mixing Panels

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
1 Zone D Injection Mix	DI - ____ - 1	85-90	S
2 Zone D Injection Mix	DI - ____ - 2	120-125	M
3 Zone D Injection Mix	DI - ____ - 3	140-145	
4 Zone D Injection Mix	DI - ____ - 4	170-175	L
5 Zone D Injection Mix	DI - ____ - 5	200-205	

S = 28" wide x 31.5" tall x 12" deep

M = 40" wide x 31.5" tall x 12" deep

L = 52" wide x 31.5" tall x 12" deep

Distribution Injection Mix

These panels deliver automatically adjusted, weather-responsive heat to any hydronic system. The panel resets system water temperature based on outside temperatures. The Tekmar® 361 control adjusts the speed of the injection pump to accurately regulate supply water temperatures, giving the ultimate in comfort and energy efficiency.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary, 3/4" secondary supply and 1" common return piping
- Zone circulators and injection circulator, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Tekmar 361 outdoor reset mixing control
- 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone.
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to P or D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

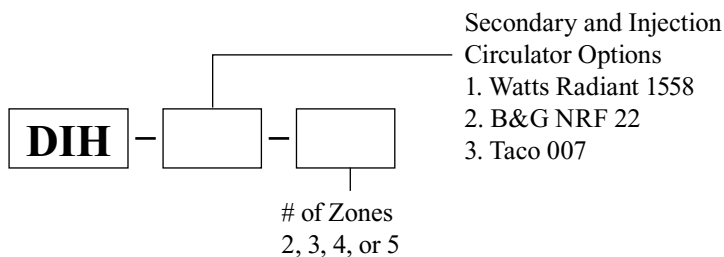
Maximum flow rate for entire panel is approximately 22 gpm. Maximum flow rate for each 3/4" secondary is approximately 5 gpm.

Distribution Injection Mix Hybrid



DIH-1-3

Use this model number configuration to order.



DISTRIBUTION Injection Mixing Hybrid Panels

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
2 Zone D Injection Mix Hybrid	DIH-____-2	115-120	M
3 Zone D Injection Mix Hybrid	DIH-____-3	140-145	
4 Zone D Injection Mix Hybrid	DIH-____-4	170-175	L
5 Zone D Injection Mix Hybrid	DIH-____-5	200-205	

S = 28" wide x 31.5" tall x 12" deep
M = 40" wide x 31.5" tall x 12" deep
L = 52" wide x 31.5" tall x 12" deep

Distribution Injection Mix Hybrid

The hybrid panel adds field selected boiler temperature zones to the Distribution Injection Mix panel. Two different water temperatures can easily be incorporated into this single panel. Selecting which zones get boiler or mixed temperature water is as simple as adjusting two valves.

The panel resets the lower system water temperature based on outside temperatures. The Tekmar® 361 control adjusts the speed of the injection pump to accurately regulate supply water temperatures, giving the ultimate in comfort and energy efficiency.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary, 3/4" secondary supply and 1" common return piping
- Isolation valves to adjust which zones are fed boiler or reset water temperature
- Zone circulators and injection circulator, pre-wired and tested
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Tekmar 361 outdoor reset mixing control (outdoor sensor included)
- 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to P or D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

Maximum flow rate for entire panel is approximately 22 gpm. Maximum flow rate for each 3/4" secondary is approximately 5 gpm. Maximum total high temperature flow rate is approximately 8 gpm.

Distribution with Heat Exchanger



DH-S-1-1

Distribution with Heat Exchanger

Heat Exchanger panels with a Tekmar 665 make it easy to add a snow melting zone to any HydroNex system. Or select the radiant option with a Tekmar 361 for a glycol loop in a garage or shop that requires isolation. The Tekmar 361 control adjusts the speed of the injection pump on the "A" side of the heat exchanger to accurately regulate supply water temperatures, giving the ultimate in comfort and energy efficiency. The heat exchanger options can transfer approximately 150,000 btu/hr or 250,000 btu/hr with 180°F boiler supply/130°F snow melt/radiant supply and a 30°F Delta T.

Each panel is equipped with O-ring sealed threaded unions on the primary loop and Cat 5 wiring connections for fast connection to other HydroNex panels. The entire panel is enclosed in a powder coated steel enclosure for a professional, appliance style appearance.

Standard equipment includes:

- 1-1/4" copper primary and secondary supply piping
- Circulators on A and B side of heat exchanger, pre-wired and tested
- Flat plate stainless steel heat exchanger with unions
- **Optional energy-saving 3 speed Watts Radiant circulators**
- Tekmar 665 snow melt control (093 slab sensor must be ordered separately) or 361 outdoor reset mixing control
- High performance 1-1/4" micro-bubble air remover and expansion tank connection (tank not included)
- 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- O-ring sealed threaded unions
- Cat 5 cable electrical connection for fast and easy connection to P or D Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

Use this model number configuration to order.

Circulator Options for 150 MBH panels

1. Watts Radiant 1558 w/ 2699 secondary
2. B&G NRF 22 w/ PL30 secondary
3. Taco 007 w/ 0014 secondary



R: Radiant Heating (Tekmar 361®)

S: Snow Melting (Tekmar 665®)

Heat Exchanger Size

1: 150 MBH

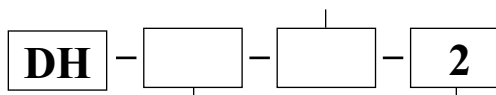
DISTRIBUTION Heat Exchanger Panels (150 MBH)

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
Radiant Heating (150 MBH)	DH-R-___-1	115-120	M
Snow Melting (150 MBH)	DH-S-___-1	115-120	

M = 40" wide x 31.5" high x 12" deep

Circulator Options for 250 MBH panels

1. B&G PL30 w/ PL36 secondary
2. Taco 0013 w/ 0014 secondary



R: Radiant Heating (Tekmar 361)

S: Snow Melting (Tekmar 665)

Heat Exchanger Size

2: 250 MBH

DISTRIBUTION Heat Exchanger Panels (250 MBH)

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
Radiant Heating (250 MBH)	DH-R-___-2	140-145	M
Snow Melting (250 MBH)	DH-S-___-2	140-145	

M = 40" wide x 31.5" high x 12" deep

Zone Basic (with or without actuators)

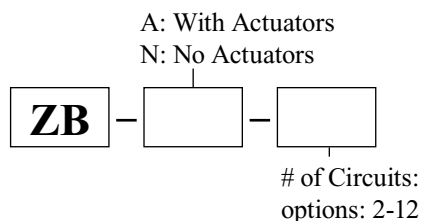


ZB-N-12
No Actuators



ZB-A-4
With Actuators

Use this model number configuration to order.



Zone Basic

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
2 Circuit	ZB - ____ - ____	30-40	M
3 Circuit		30-40	
4 Circuit		30-40	
5 Circuit		50-65	
6 Circuit		50-65	L
7 Circuit		50-65	
8 Circuit		50-65	
9 Circuit		50-65	
10 Circuit		50-65	
11 Circuit		50-65	
12 Circuit		50-65	

M = 29.25" high x 25.5" wide x 4.5" deep

L = 29.25" high x 41.5" wide x 4.5" deep

Zone Panels (with or without actuators)

Zone panels with pre-wired actuators and actuator control are our most popular panel. With a professional appearance, multiple radiant tube options and the wiring already done, it's easy to see why.

This Zone panel includes a 1" stainless steel manifold housed in a powder-coated steel enclosure with a latching door. The panel includes manifold isolation valves with temperature gauges and a vent/purge assembly. The enclosure is designed to be recessed in the wall.

Maximum flow rate for entire manifold is 12 gpm.
Individual circuit flow meters are 0-2 gpm.

Panels with actuators may require an optional pressure differential by-pass valve (ordered separately). If the by-pass valve is used, the maximum manifold size in a box is reduced by 2 circuits, and the maximum manifold is an M-10.

Zone Pump (with or without actuators)

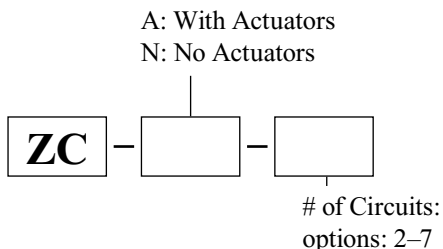


ZC-N-7
No Actuators



ZC-A-7
With Actuators

Use this model number configuration to order.



ZONE with Zone Circulator

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
2 Circuit	ZC - ____ - ____	65-70	L
3 Circuit		65-70	
4 Circuit		65-70	
5 Circuit		70-75	
6 Circuit		70-75	
7 Circuit		70-75	

L = 29.25" high x 41.5" wide x 4.5" deep

Zone Pump Panels (with or w/o actuators)

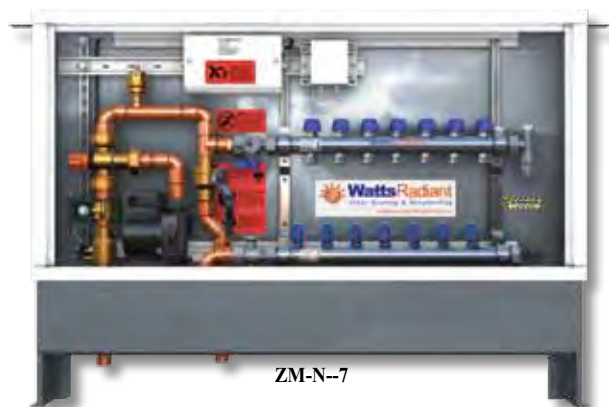
The Zone Pump panel adds a Watts Radiant 1558 circulator to a Zone Basic Panel. It is used when the radiant manifold does not have a dedicated circulator in the mechanical room (to save space, for example).

This Zone panel includes a pre-wired Watts Radiant 1558 circulator, and a 1" stainless steel manifold housed in a powder-coated steel enclosure with a latching door. The panel includes manifold isolation valves with temperature gauges and a vent/purge assembly. The enclosure is designed to be recessed in the wall. The single speed 1558 circulator produces approximately 10 gpm at 10 ft hd.

Maximum flow rate for entire panel is approximately 8 gpm. Individual circuit flow meters are 0-2 gpm.

Panels with actuators may require an optional pressure differential by-pass valve (ordered separately). If the by-pass valve is used, the maximum manifold size allowed is an M-5.

Zone Mix Pump (with or without actuators)



ZM-N-7

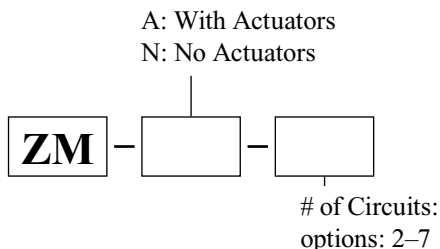
No Actuators



ZM-A-7

With Actuators

Use this model number configuration to order.



ZONE with Mix Valve & Zone Circulator

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
2 Circuit	ZM - ____ - ____	70-75	L
3 Circuit		70-75	
4 Circuit		70-75	
5 Circuit		75-80	
6 Circuit		75-80	
7 Circuit		75-80	

L = 29.25" high x 41.5" wide x 4.5" deep

Zone Mix Pump Panels (with or w/o actuators)

The Zone Mix Pump panel adds fixed temperature mixing capability to the Zone Pump Panel. It includes a 3 way mixing valve (max flow rate approximately 3.5 gpm) a pre-wired Watts Radiant 1558 circulator, and a 1" stainless steel manifold housed in a powder-coated steel enclosure with a latching door. The panel includes manifold isolation valves with temperature gauges and a vent/purge assembly. The enclosure is designed to be recessed in the wall. The single speed 1558 circulator produces approximately 10 gpm at 10 ft hd.

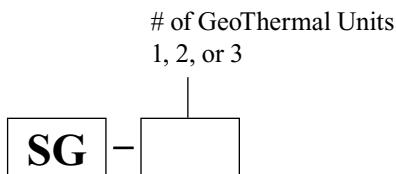
Maximum flow rate for entire panel is approximately 4 gpm. Individual circuit flow meters are 0-2 gpm.

Panels with actuators may require an optional pressure differential by-pass valve (ordered separately). If the by-pass valve is used, the maximum manifold size allowed is an M-5.

SPECIALTY GeoThermal Panel



Use this model number configuration to order.



SPECIAL GeoThermal Panels

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
1 Geothermal Unit	SG-1	60-65	S
2 Geothermal Units	SG-2	80-85	M
3 Geothermal Units	SG-3	95-100	M

S=28" wide x 31.5" high x 12" deep
M=40" wide x 31.5" high x 12" deep

GeoThermal Panel

These panels tie highly efficient water/water ground source heat pumps to a radiant system. This panel comes with an outdoor reset control that adjusts the temperature of the buffer tank based on outdoor conditions. This allows the heat pump to operate at the lowest possible water outlet temperature, ensuring maximum efficiency and extending compressor life.

The hydronic system should be carefully designed, with consideration given to both the heat loss and floor coverings. Most heat pumps can supply a maximum water temperature of approximately 115 °F. This panel is designed for use with a thermal buffer tank, a Primary panel, and a Distribution panel. The SG panel is typically connected to the inlet side of any HydroNex Primary panel. Buffer tanks limit short-cycling of the compressor, maximizing compressor life.

The heat pump will only run when the temperature of the buffer tank falls below the outdoor reset control set point. If there is no call for heat from the system, the solenoid valve will remain closed, directing hot water into the buffer tank until the set point temperature is met. When the radiant system calls for heat, the solenoid valve will open, allowing hot water to flow from the tank and/or heat pump.

Standard equipment includes:

- 1-1/4" copper primary and 1" secondary supply piping
- **Energy-saving 3 speed Watts Radiant 2699 circulators, pre-wired and tested**
- Tekmar® 274 staging control (includes outdoor sensor)
- 0-50 psi/60-320°F gauge
- Isolation valves for easy servicing of circulators and easy air purging
- O-ring sealed threaded unions
- System solenoid to regulate flow through buffer tank or heat pump.
- Cat 5 cable electrical connection for fast and easy connection to Primary or Distribution Panels
- 9 ft 120V power cord
- Powder coated steel enclosure

Maximum flow rate is approximately 22 gpm. Each Watts Radiant 2699 circulator is capable of providing approximately 15gpm at 20 ft hd on high speed.

SPECIALTY Source Select Panel

Use this model number configuration to order.



SS-1

SS —

- 1: No injection or outdoor reset (Tekmar 150)
- 2: Injection & outdoor reset for 1 source (Tekmar 361)
- 3: Injection & outdoor reset for 2 sources (Tekmar 361)

SPECIAL Source Select Panels

DESCRIPTION	MODEL #	WT. (lbs)	SIZE
No injection or outdoor reset	SS-1	90-95	S
Injection & outdoor reset for 1 source	SS-2	90-95	S
Injection & outdoor reset for 2 sources	SS-3	90-95	S

S = 28" wide x 31.5" tall x 12" deep

Source Select panels

These panels are designed to control two independent heat sources. The Source Select is used when combining a solar system, geothermal system, wood boiler or other alternative heat source with a gas or oil-fired boiler as a back up. The primary source, typically, solar or geothermal, must utilize a water storage or buffer tank.

The alternative heat source is utilized first as long as the tank temperature is sufficient. In the event the alternative heat source is unable to satisfy the system load, the Source Select panel will use the secondary heat source until the primary source has been replenished. This panel is designed for use with a buffer tank, a Primary panel, and a Distribution Panel. Source Select panels are typically connected to the inlet side of any HydroNex Primary panel. A 2-conductor 18 gauge thermostat wire must be connected between terminals in the Source Select panel relay box and the P-Series panel.

Standard equipment includes:

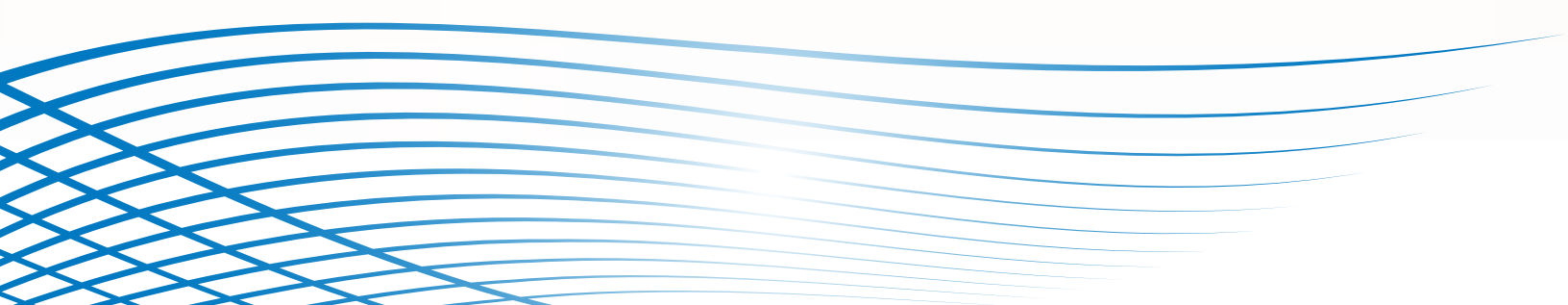
- 1-1/4" copper primary and 1" secondary piping
- Tekmar 361 mixing control with outdoor reset (only on SS-2 and SS-3)
- Watts Radiant 1558 circulators are energy-saving 3 speed models, pre-wired and tested
- Isolation valves for easy servicing of circulators and easy air purging
- Spring flow check valves on each zone
- Quick connect unions
- 9 ft 120V power cord
- Powder coated steel enclosure

Maximum flow for entire panel is approximately 22 gpm. Maximum flow for each 1" secondary is approximately 8 gpm. Each Watts Radiant 1558 circulator is capable of providing approximately 10 gpm at 10 ft hd.

HydroNex Accessories & Replacement Parts

DESCRIPTION	MODEL #	ORDER #
Replacement 504EXP Relay Box	334504	81003694
Replacement 506EXP Relay Box	334506	81003983
Replacement 501 Relay Box	334500	81004279
Replacement 4 Zone Master Valve Control Box	P-2329	81005192
Replacement 6 Zone Master Valve Control Box	P-2331	81005190
Replacement 4 Zone Slave Valve Control Box	P-2330	81005246
Replacement 6 Zone Slave Valve Control Box	P-2332	81005191
Replacement Thermal Actuator	PZ656104	81001541
Replacement Differential By-Pass Valve (SCA & SCM panels only)	PZ4662C1	81005518
Zone panel Manifold Differential By-Pass Valve (optional)	D4402050	81005345
Replacement Watts Radiant 15-58 Circulator (flange) to be used with Primary, Distribution, and Specialty panels	313025	81005542
Replacement Watts Radiant 26-99 Circulator	GUPS2699115	81009645
Replacement Watts Radiant 15-58 Circulator (thread) to be used with Zone panels	313026	81005553
Tekmar® 093 Slab Sensor (for DHS panel)	300109	81000122

Accessories



ThermalPro™ Boiler Stations and Accessories

The **ThermalPro™** boiler connection station is a compact, pre-piped mechanical system complete with circulator, isolation ball valves, thermometers, pressure bypass valve and, on mixed stations, a 24 volt, 3-way mixing valve. ThermalPro™ boiler stations are designed to speed up installation by connecting directly to a hydronic heating system providing a complete and compact piping and mixing system in a box. ThermalPro™ boiler stations can handle up to 150,000 Btu/H.

ThermalPro™ non-mixed boiler stations can provide a wide range of control to accommodate many project applications from hydronic air handlers to baseboards. ThermalPro™ mixed boiler stations are designed to provide low temperature floor heating by connecting the mixing valve to the mixing control of your choice (not provided). The mixing valve is equipped with a manual adjustment knob, which can be used for single zone operation or temporary control of a multi-zone low temperature floor heating system.

ThermalPro™ Boiler Stations



Description

Order Number

Model Number

ThermalPRO Non-Mixed Boiler Stations

ThermalPro Non-Mixed Boiler Station with UPS 25-58 Circulator	81010367	D700100P
ThermalPro Non-Mixed Boiler Station with UPS 25-99 Circulator	81010247	D700200P



ThermalPro Mixing Boiler Stations

ThermalPro Mixing Boiler Station 7.31Cv with UPS 25-58 Circulator	81010368	D700101P
ThermalPro Mixing Boiler Station 9.28 Cv with UPS 25-58 Circulator	81010369	D700107P
ThermalPro Mixing Boiler Station 9.28 Cv with UPS 25-99 Circulator	81010248	D700207P

ThermalPro™ Boiler Stations Accessories



Description	Order Number	Model Number
Station Headers		
BMX2.2 Module Boiler Station Heater	81010370	D700102
BMX2.2 Module Boiler Station Heater	81010371	D700103



Primary/Secondary Hydraulic Separators		
22GPM Hydraulic Separator (low loss header)	81010375	D700108
44GPM Hydraulic Separator (low loss header)	81011865	D700109

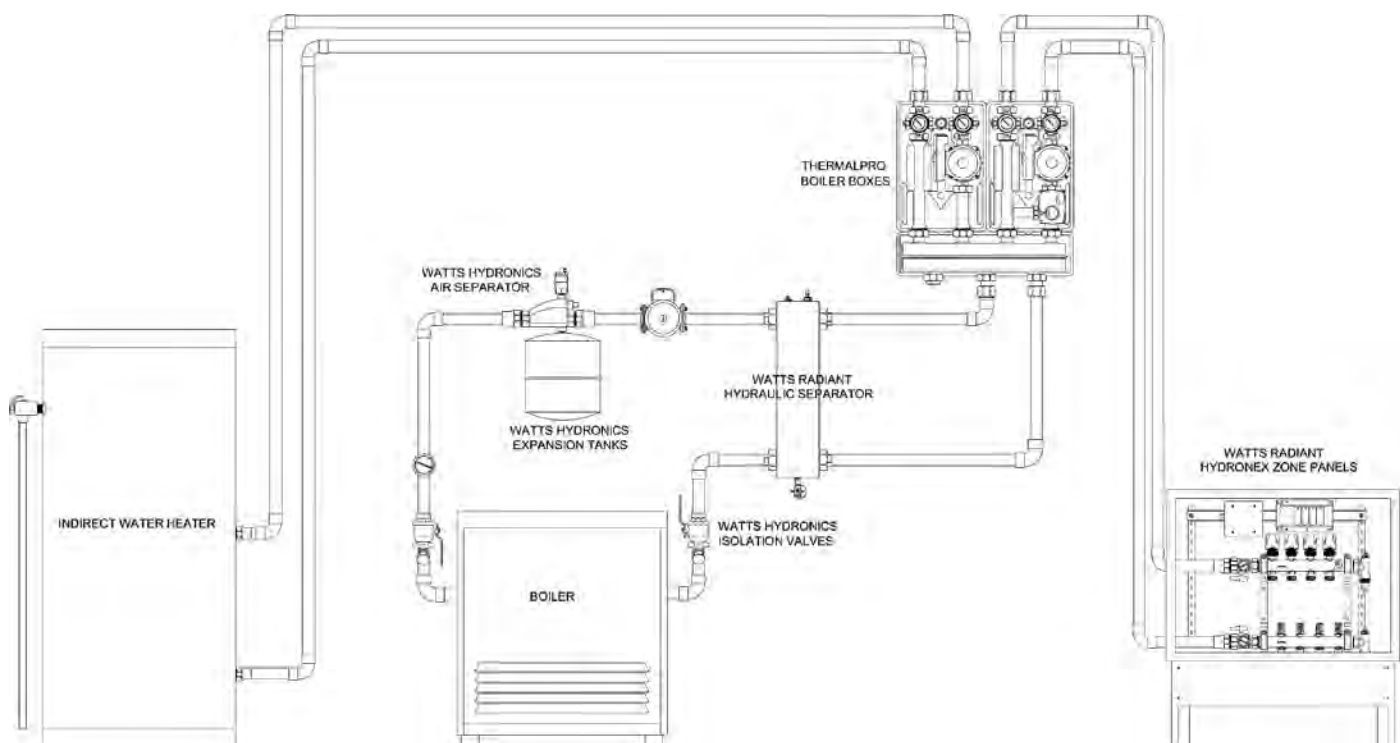
**ThermalPRO™ Boiler Station
with cover installed**



ThermalPro™ Boiler Stations Accessories

Description	Order Number	Model Number
ThermalPro Accessories and Parts		
Station Mounting Bracket	81010372	D700104
1-1/4" FNPT NA Tailpiece Set (2)	81010373	D700105
1-1/4" Sweat Union NA Tailpiece Set (2)	81010374	D700106
Replacement Mixing Valve 7.32Cv	81010857	3149020
Replacement Mixing Valve 9.28Cv	81010858	3149023
Replacement Mixing Valve Motor 24v	81010859	9119162

Typical ThermalPRO™ Piping Configuration



ThermalPro™ Mechanical Packages

ThermalPro™ Non-Mixing Station No Pump



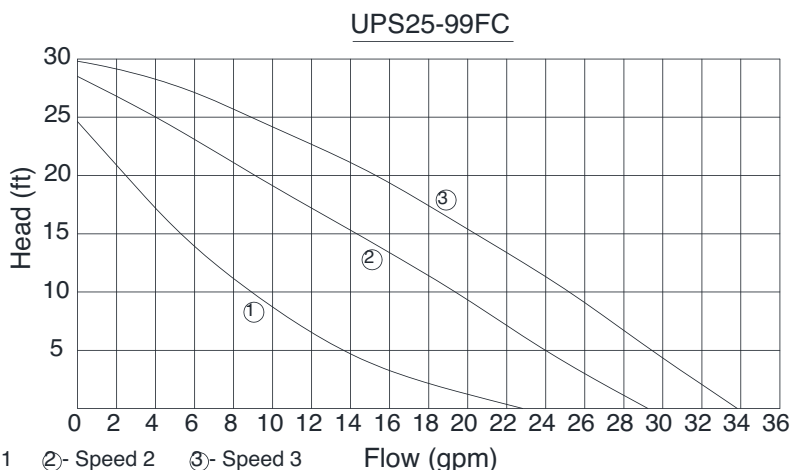
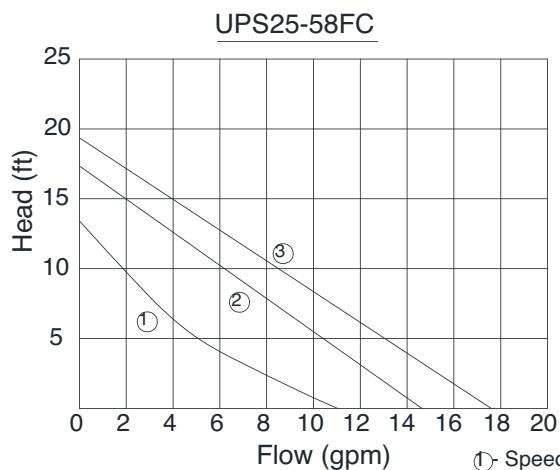
The ThermalPro Non-Mixed Manifold Station consists of either a WattsRadiant 1" Standard or HiFlow Stainless Steel manifold installed in a beautiful white powder coated steel cabinet with cover door. Manifold Stations are available in 2 to 12 loop manifold configurations.

The Manifold Station can be provided with manifold loop actuating motors and a WattsRadiant Zone Control Module installed in the cabinet to simplify system zone wiring.

ThermalPRO™ Manifold Station Model Number

Station Type	Pump Model	Actuator Option	Manifold	Loops
NOM	0			
No Mixing	0 - No Pump	A – with Actuators B – less Actuators	ST – 1" Standard HF – High Flow	02 through 12

Manifold Size	Cabinet Dimensions	Rough-In Dimensions
2 to 6 Loop	33" W x 26"H x 5-3/4"D	31" W x 24"H x 5-3/4"D
7 to 12 Loop	42" W x 26"H x 5-3/4"D	40" W x 24"H x 5-3/4"D



ThermalPro™ Mechanical Packages

ThermalPro™ Non-Mixing Station With Pump



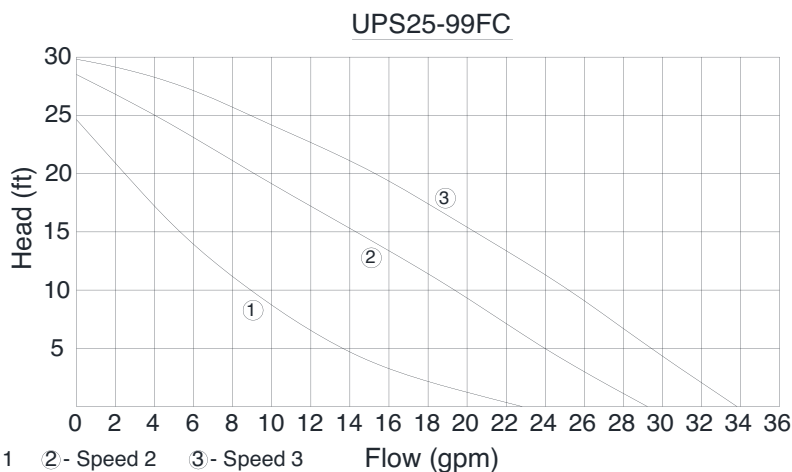
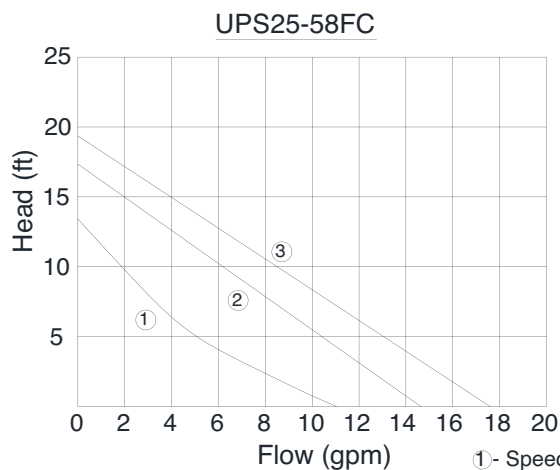
The ThermalPro Non-Mixed Manifold Station consists of either a WattsRadiant 1" Standard or HiFlow Stainless Steel manifold installed in a beautiful white powder coated steel cabinet with cover door. Manifold Stations are available in 2 to 12 loop manifold configurations.

The Manifold Station can be provided with manifold loop actuating motors and a WattsRadiant Zone Control Module installed in the cabinet to simplify system zone wiring. Unit also comes with your choice of a Grundfos UPS25-58FC or UPS25-99FC multi-speed circulator.

ThermalPRO™ Manifold Station Model Number

Station Type	Pump Model	Actuator Option	Manifold	Loops
NOM				
No Mixing	1-UPS25-88 2-UPS25-99	A – with Actuators B – less Actuators	ST – 1" Standard HF – High Flow	02 through 12

Manifold Size	Cabinet Dimensions	Rough-In Dimensions
2 to 6 Loop	33" W x 26"H x 5-3/4"D	31" W x 24"H x 5-3/4"D
7 to 10 Loop	42" W x 26"H x 5-3/4"D	40" W x 24"H x 5-3/4"D
11 to 12 Loop	52" W x 26"H x 5-3/4"D	50" W x 24"H x 5-3/4"D



ThermalPro™ Mechanical Packages

ThermalPro™ Isotherm Mixing Station



The ThermalPro Isotherm Mixing Module is a compact, pre-piped, pre-wired pump and mixing valve control connected directly to a WattsRadiant 1" Stainless Steel manifold and installed in a beautiful white powder coated steel cabinet with cover door.

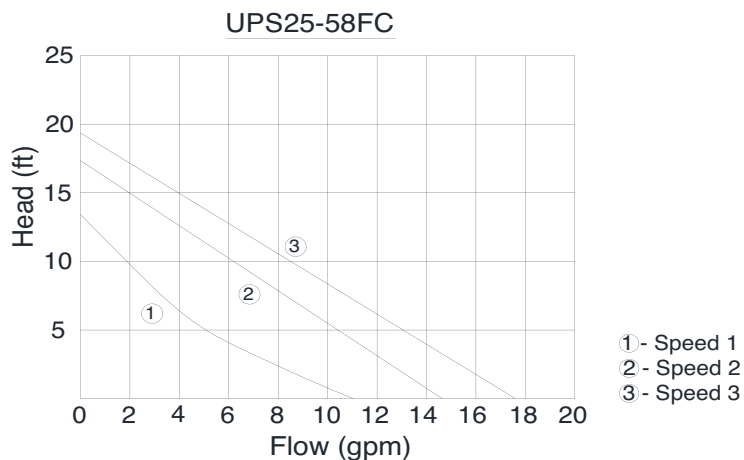
The concept of the ThermalPro Isotherm Mixing Module is to speed up radiant installations by providing a complete piping and mixing system in a box and ready to go. The Isotherm mixing module can provide up to 50,000 Btu/h for a standard radiant heating system. The temperature range of the Isotherm mixing module's adjustable and lockable mixing valve is 110°F to 140°F providing a wide range of control to accommodate many project design applications from floor warming to floor heating.

The Manifold Station can be provided with manifold loop actuating motors and a WattsRadiant Zone Control Module installed in the cabinet to simplify system zone wiring.

ThermalPRO™ Manifold Station Model Number

Station Type	Pump Model	Actuator Option	Manifold	Loops
ISO	1		ST	
Isotherm Mixing Module	1-UPS25-88	A – with Actuators B – less Actuators	ST – 1" Standard	02 through 12

Manifold Size	Cabinet Dimensions	Rough-In Dimensions
2 to 6 Loop	33" W x 26"H x 5-3/4"D	31" W x 24"H x 5-3/4"D
7 to 12 Loop	42" W x 26"H x 5-3/4"D	40" W x 24"H x 5-3/4"D



ThermalPro™ Mechanical Packages

ThermalPro™ Mixing Station



The ThermalPro Mixing Module is a compact, pre-piped, pre-wired pump and mixing valve package connected directly to a WattsRadiant 1" Standard or 1-1/2 Hi-Flow Stainless Steel manifold and installed in a white powder coated steel cabinet with cover door.

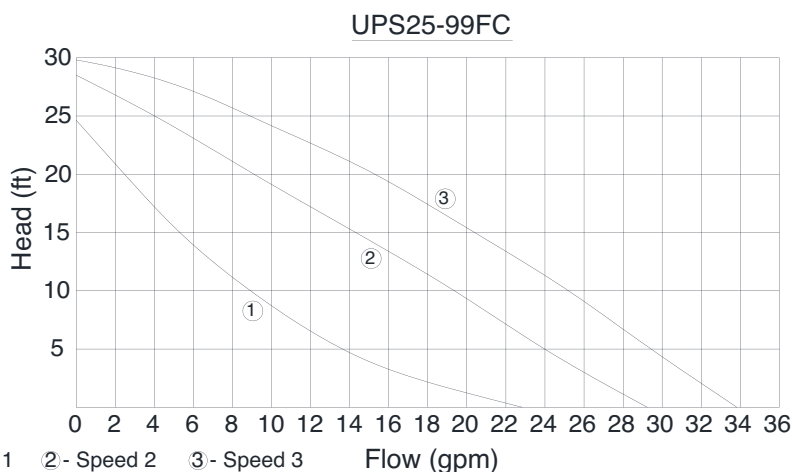
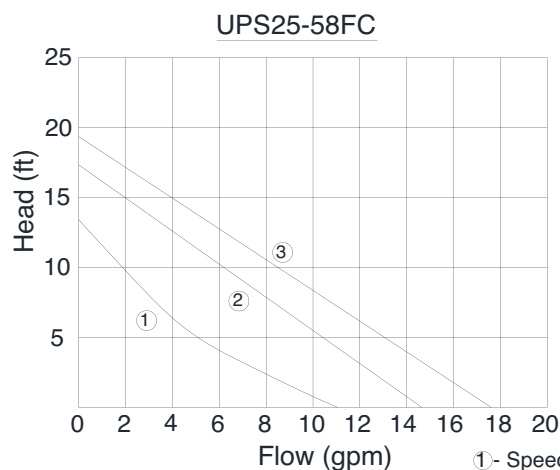
The concept of the ThermalPro Mixing Module is to speed up radiant installations by providing a complete piping and mixing system in a box and ready to go. ThermalPro Mixing Modules are supplied with your choice of either an UPS25-58 or UPS26-99 circulator depending on your projects flow and/or head requirements. The unit also comes equipped with a 3-way 24V motorized mixing valve, the controller is sold separately.

The Manifold Station can be provided with manifold loop actuating motors and a WattsRadiant Zone Control Module, as an option, installed in the cabinet to simply system zone wiring.

ThermalPRO™ Manifold Station Model Number

Station Type	Pump Model	Actuator Option	Manifold	Loops
3WM				
3-Way 24V Mixing Valve	1-UPS25-88 2-UPS25-99	A – with Actuators B – less Actuators	ST – 1" Standard HF – High Flow	02 through 12

Manifold Size	Cabinet Dimensions	Rough-In Dimensions
2 to 6 Loop	33" W x 26"H x 5-3/4"D	31" W x 24"H x 5-3/4"D
7 to 10 Loop	42" W x 26"H x 5-3/4"D	40" W x 24"H x 5-3/4"D
11 to 12 Loop	52" W x 26"H x 5-3/4"D	50" W x 24"H x 5-3/4"D



Tools and Fasteners

Staplers Hangers Crimpers Cutters



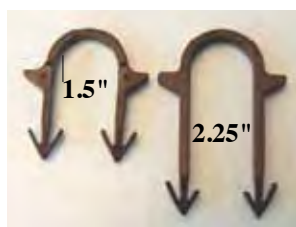
WattsRadiant Tools and Fasteners

FoamBoard Stapler

The FoamBoard Stapler is for installing Onix or PEX where foam board insulation is used. The FoamBoard stapler is designed to staple 3/8" and 1/2" Onix and 3/8" to 3/4" PEX to a wide variety of foam insulation boards. The stapler comes fully assembled and uses 1.6" staples for 1" insulation and 2.4" staples for 2" (or thicker) insulation boards. The FoamBoard Stapler holds up to 120 staples.



Description	Order Number	Model Number
FoamBoard Stapler and Accessories		
FoamBoard Stapler	81010025	P667425
FoamBoard Staples 1.5" (300/Pack)	81000822	P667300
FoamBoard Staples 2.25" (300/Pack)	81000825	P667350



ClipTwister ScrewClip Tool

The ClipTwister ScrewClip Tool is designed to install the Screw Clips easily into board type insulation using a standard cordless drill. The ScrewClip is designed to hold 3/8" or 1/2" Onix, or 3/8", 1/2" and 5/8" PEX. Simply screw the clip into the insulation and snap the tubing into the clip.



ClipTwister ScrewClip Tool

Screw Clip	81000847
Screw Clip Tool	81000827



WattsRadiant Tools and Fasteners

Jada Clips

These clips are used for attaching 1/2" and 5/8" PEX pipe to wire mesh by snapping the clip to the mesh. The clip can also be held by screws or nails to wood.



Description	Order Number	Model Number
Jada Clip		
1/2" and 5/8" Jada Clip	81006649	

Staple Guns

WattsRadiant Staple Guns are professional tools that do an excellent job stapling both Onix and RadiantPEX. You can get them in the traditional hand held form or with a convenient adjustable length Extension arm.



ONIX Staple Gun		
Onix 3/8" Staple Gun	81000588	668510
Onix 3/8" Staple Gun with Extension	81000584	668500
Onix 1/2" Staple Gun	81000587	668509
Onix 1/2" Staple Gun with Extension	81000585	668505

PEX Staple Gun		
PEX 1/2" Staple Gun	81000834	P668510
PEX 1/2" Staple Gun with Extension	81000831	P668505

Staple Gun Accessories		
Extension Arm Retrofit Kit	81000592	668515
Staple Plate Conversion Kit (3/8" and 1/2" Onix)	81005498	668520
Staple Plate Conversion Kit (1/2" PEX)	81000837	P668522

Staples		
Staples for Onix and PEX	81004290	P668018-1660
Staples for Onix and PEX	81000583	P668019-10000



These staples work with 3/8" and 1/2" Onix and 3/8" and 1/2" RadiantPEX ONLY

WattsRadiant Tools and Fasteners

Railway Track

Railway Track securely holds Onix and PEX where wire mesh or rebar is not used. Applications include concrete slabs, thin slabs, sand beds, and sub grade gravel beds. Triple Track allows for centre spacing of 6", 9", 12" or 18", while Single Track allows for 6", 8", 10", 12", 14", 16" or 18" centre spacing.



Description	Order Number	Model Number
Railway Track		
4 Ft. length Triple-Track Railway for 3/8", 1/2", 5/8" PEX and 3/8" Onix	81002002	P100500
13 Ft. length Single-Track Railway for 3/4" PEX and 1/2" Onix	81000784	P200500



Lockdown Fasteners - the best fastener for 3/8" and 1/2" underfloor PEX applications.		
3/8" and 1/2" LockDown	81000817	P667100-100



Cable Ties		
Cable Ties (1000Pack)	81000578	667161
Cable Ties (100Pack)	81000579	667161-100



Mid-Run Bend Supports		
1/2" Mid-Run Bend Support	81001280	PSBM33X
3/4" Mid-Run Bend Support	81001284	PSBM55X



Terminal Bend Support		
3/8" & 1/2" Bend Support	81001272	PSB23X
5/8" & 3/4" Bend Support	81001276	PSB45X



Basic Tubing Cutter		
Basic Tubing Cutter	81004504	PTC100

WattsRadiant Tools and Fasteners



Description

Order Number

Model Number

Professional Tubing Cutter

Professional Tubing Cutter

81001393

PCT200

The professional tubing cutter is made of all-metal, heavy-duty construction and is designed for the rigors of daily jobsite use.

15" CrimpAll Tool Kit and Accessories

15" CrimpAll Tool Kit Complete with 3/8", 1/2", 5/8", 3/4" Crimp Jaws For Use With PEX Tubing

81003038

PCCRT2346

3/8" Crimping Jaws Only

81003719

PCJ22

1/2" Crimping Jaws Only

81003720

PCJ33

5/8" Crimping Jaws Only

81003722

PCJ66

3/4" Crimping Jaws Only

81003721

PCJ44

CrimpAll Adjustment Tool

81003717

PCCRT1001

Interchangeable crimping jaws make the **CrimpAll** the only tool in North America that crimps 3/8", 1/2", 5/8" and 3/4" crimp rings. Tough plastic tool kit helps you keep track of all your crimping tools. Kit includes the CrimpAll tool, interchangeable 3/8", 1/2", 5/8" and 3/4" jaws, Go/No-Go crimp gauge, and adjustment tools.



19" CrimpAll Tool Kit and Accessories

19" CrimpAll Tool Kit for 1" and 1-1/4" PEX

81009111

PCCRT57

1" Crimping Jaws Only

81003953

PCJ55

RingMasterTM Crimp Ring Tool

3/8" Crimp Tool

81001086

PCCRT2N

1/2" Crimp Tool

81001088

PCCRT3N

3/4" Crimp Tool

81001089

PCCRT4N

1" Crimp Tool

81001090

PCCRT5N

The RingMaster Tool is larger for more leverage. RingMaster comes complete with crimp ring Go/No-Go Gauge.



CrimpMasterTM Compact Crimp Tool

3/8" Crimp Tool

81001152

PCMT22

1/2" Crimp Tool

81001153

PCMT33

3/4" Crimp Tool

81001154

PCMT44

The Crimpmaster Tool is larger for more leverage. RingMaster comes complete with crimp ring Go/No-Go Gauge.



Watts Radiant Tools and Fasteners



Description

Order Number

Model Number

Go/No-Go Gauge

For 3/8"–3/4" PEX Crimp Rings

81001123

PCGA234P

For 1" PEX Crimp Rings

81001124

PCGA5P

The Go/No-Go Gauges are used to determine that the ring has been properly crimped and to aid in maintaining your crimp tool calibration.



Ratcheting PEX CinchTool - squeeze CinchClamps with one hand (for PEX only)

Ratcheting CinchTool

81009461

PCCCT6

Use this heavy-duty Ratcheting CinchTool to cinch all sizes of stainless steel CinchClamps. Just squeeze the tool until the indicator window shows the connection is complete. Then release the quick-release knob. It's that simple. The tool comes complete with holster and adjustment tools. Meets ASTM-F2098 specifications.



PEX CinchTool™ - One simple tool installs all sizes of CinchClamps™ (for PEX only)

CinchTool

81009709

PCCCT-2

PEX connections take only seconds with the **CinchTool**. Great for those hard-to-reach spaces. Ratchet design releases only when the CinchClamp tab is properly pinched, thus ensuring a leak-proof connection. Meets ASTM F-2098 specifications.



SqueezeTite™ Pliers - for installing SelfTite clamps on Onix

SqueezeTite Pliers

81000600

669100

The **SqueezeTite Pliers** are locking caliper pliers that allow worry-free handling of all sizes of our SelfTite clamps. This uniquely designed tool prevents the SelfTite clamp from accidentally sliding free, as could happen with a standard pair of pliers or channel locks. With SqueezeTite Pliers, SelfTite clamps can be locked in the open position, freeing both hands to secure the Onix to the barb.

WattsRadiant Tools and Fasteners

Description

Order Number

Model Number



Electric Corded Crimp and Press Power Tool Kit

Corded PowerTool

81003781

PCRT2345C

This industrial tool uses forged steel jaws to crimp RadiantPEX tubing and fittings. Jaws change out in seconds on the jobsite. Kit includes corded crimp tool and steel storage case.

**Corded crimping
tool with
jaw inserted**



Battery-Powered Crimp and Press Power Tool Kit - battery-powered version of the corded model above

Battery Power Tool Kit, Cordless

81001164

PCRT2345

This industrial tool uses forged steel jaws to crimp RadiantPEX fittings. Jaws change out in seconds on the jobsite. Kit includes cordless crimp tool, one battery and steel storage case.

Crimp Jaws are sold separately.

**Cordless crimping
tool with crimp
jaw inserted**



RadiantPEX Crimping Power Tool Jaws - for crimping RadiantPEX with crimp fittings and copper crimp rings.

Power Tool Crimp Jaws, 3/8" PEX

81003898

PCRT2

Power Tool Crimp Jaws, 1/2" PEX

81003899

PCRT3

Power Tool Crimp Jaws, 3/4" PEX

81003900

PCRT4

Power Tool Crimp Jaws, 1" PEX

81003901

PCRT5

Power Tool Crimp Jaws, 1-1/4" PEX

81003660

PCRT6

Power Tool Crimp Jaws, 1-1/2" PEX

81009948

PCRT7

Power Tool RadiantPEX crimp jaws are used for crimping PEX tubing and fittings with copper crimp rings. Jaws are available for 3/8" through 1-1/2" sizes of PEX and fittings. These jaws fit our REMS-Akku Press and PowerPress-E power tools, as well as Ridgid 320-E and CT400 power tools. They do not fit the Ridgid 100-B or 210-B power tools.



Power Tool Battery

Battery, for Power Tool

81001165

PCRTB2345

WattsRadiant Tools and Fasteners



Description

Order Number

Model Number

Onix Unwinder

Onix Unwinder

81000602

669231

Watts Radiant's **Onix Unwinder** allows Onix coils to be quickly and easily unwound for faster hose layout on the jobsite. The centre post allows the Onix coil to move around without sliding off the Unwinder. Heavy duty ball-bearing construction means years of use and easy turning.



PEX Unwinder

PEX Unwinder, Standard

81000383

P669231

Our **PEX Unwinder** handles coils up to 1" PEX. The coil sits on the tripod and is held in place as it unwinds with four guide-bars. The PEX feeds through a guide-ring on top of the unwinder. The PEX Unwinder comes complete with two hold-down arms.



Replacement PEX Unwinder Hold-down Arms

Replacement Hold-down Arms

81002953

P669232

These Replacement Hold-down Arms keep the coil of PEX in place as it is unwound for use. Sold as a pair.



Compact PEX Unwinder - for unwinding RadiantPEX and RadiantPEX-AL.

Compact PEX Unwinder, Professional w/carrying bag

81013751

COMPEXUNW1

This sturdy, compact and lightweight unwinder comes complete with its own carrying bag. It comes fully assembled and can be secured to the ground or floor for smooth unwinding. Measures 10" x 36" x 6" when folded, and handles coils up to 1"

Carrying bag included



Electric Radiant

HeatWeave Mats WarmWire ProMelt Accessories





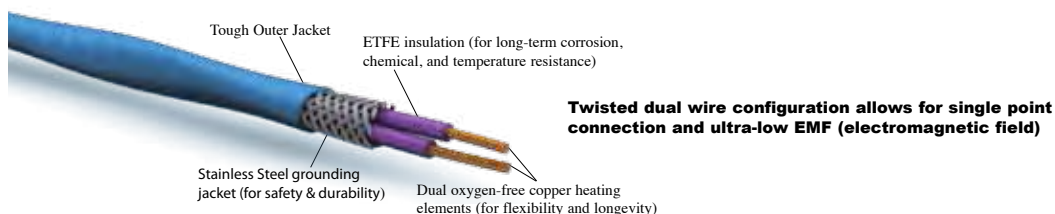
HeatWeave® Tile Floor Warming Mat

HeatWeave™ mats warm tile and stone floors in bathrooms, master ensuites, kitchens, entries, and sunrooms of any size. HeatWeave tile warming products are manufactured to the strictest standards and register no measurable electromagnetic field (EMF). All new computers are shielded against EMF. Ask the same from your heating system. It has an armoured and grounded power lead with fully grounded electrical heating elements. The elements are reinforced with DuPont® Kevlar® and are insulated with Dupont® Tufzel® and jacketed with Hylar. HeatWeave has been tested to the American Standard Test Method; ASTM C627. This test was performed by the Tile Council of America and resulted in rating of Moderate Commercial for non-vehicular commercial and light industrial use.



Description	Order Number	Model Number
HeatWeave, 24" wide, 120 VAC		
24" x 5ft, 120V 10sqft. 1.0 amp	81002183	12000524
24" x 7' 6"ft, 120V 15sqft. 1.5 amp.	81007233	12000724
24" x 10ft, 120V 20sqft. 2.0 amp.	81002197	12001024
24" x 12' 6"ft, 120V 25sqft. 2.5 amp.	81007234	12001224
24" x 15ft, 120V 30sqft. 3.0 amp.	81002208	12001524
24" x 17' 6"ft, 120V 35sqft. 3.5 amp.	81007235	12001724
24" x 20ft, 120V 40sqft. 4.0 amp.	81002217	12002024
24" x 22' 6"ft, 120V 45sqft. 4.5 amp.	81007236	12002224
24" x 25ft, 120V 50sqft. 5.0 amp.	81002226	12002524
24" x 30ft, 120V 60sqft. 6.0 amp.	81002234	12003024
24" x 35ft, 120V 70sqft. 7.0 amp.	81002240	12003524
24" x 40ft, 120V 80sqft. 8.0 amp.	81002246	12004024

HeatWeave, 36" wide, 120 VAC		
36" x 5ft, 120V 15sqft. 1.5 amp.	81002184	12000536
36" x 6.8ft, 120V 20sqft. 2.0 amp.	81002188	12000636
36" x 8.4ft, 120V 25sqft. 2.5 amp.	81002194	12000836
36" x 10ft, 120V 30sqft. 3.0 amp.	81002200	12001036
36" x 15ft, 120V 45sqft. 4.5 amp.	81002209	12001536
36" x 20ft, 120V 60sqft. 6.0 amp.	81002220	12002036



HeatWeave Tile Floor Warming Mat



Description	Order Number	Model Number
HeatWeave, 24" wide, 240 VAC		
24" x 10ft, 240V 10sqft. 1.0 amp.	81002265	24001024
24" x 15ft, 240V 30sqft. 1.5 amp.	81002269	24001524
24" x 20ft, 240V 40sqft. 2.0 amp.	81002274	24002024
24" x 25ft, 240V 50sqft. 2.5 amp.	81002279	24002524
24" x 30ft, 240V 60sqft. 3.0 amp.	81002284	24003024
24" x 35ft, 240V 70sqft. 3.5 amp.	81002288	24003524
24" x 40ft, 240V 80sqft. 4.0 amp.	81002293	24004024
24" x 45ft, 240V 90sqft. 4.5 amp.	81002407	24004524
24" x 50ft, 240V 100sqft. 5.0 amp.	81002410	24005024
24" x 60ft, 240V 120sqft. 6.0 amp.	81002415	24006024
24" x 70ft, 240V 140sqft. 7.0 amp.	81002419	24007024
24" x 80ft, 240V 160sqft. 8.0 amp.	81002422	24008024
HeatWeave, 36" wide, 240 VAC		
36" x 10ft, 240V 30sqft. 1.5 amp.	81002266	24001036
36" x 13'4", 240V 40sqft. 2.0amp.	81002268	24001336
36" x 16'8", 240V 50sqft. 2.5amp.	81002272	24001636
36" x 20ft, 240V 60sqft. 3.0 amp.	81002277	24002036
36" x 30ft, 240V 90sqft. 4.5 amp.	81002286	24003036
36" x 40ft, 240V 120sqft. 6.0 amp.	81002406	24004036

HeatWeave Underfloor Tile Floor Warming Mat

12"-wide mats - (for joist bays spaced 12" on center)



120 VAC				240 VAC			
Mat Size (L x W)	Order Number	Model Number	Amperage Draw	Mat Size (L x W)	Order Number	Model Number	Amperage Draw
5.5' x 12"	81007125	1200512U2ST	0.4	10.5' x 12"	81007134	2401012U2ST	0.4
6' x 12"	81007126	1200612U2ST	0.6	16' x 12"	81007135	2401612U2ST	0.6
10.5' x 12"	81007127	1201012U2ST	0.9				
13' x 12"	81007128	1201312U2ST	1.1				
16' x 12"	81007129	1201612U2ST	1.3				

16"-wide mats - (for joist bays spaced 16" on center)



120 VAC				240 VAC			
Mat Size (L x W)	Order Number	Model Number	Amperage Draw	Mat Size (L x W)	Order Number	Model Number	Amperage Draw
4' x 16"	81006826	1200416U2ST	0.4	8' x 16"	81005835	2400816U2ST	0.4
6' x 16"	81006827	1200616U2ST	0.6	12' x 16"	81005836	2401216U2ST	0.6
8' x 16"	81006828	1200816U2ST	0.8	16' x 16"	81005837	2401616U2ST	0.8
9.5' x 16"	81006829	1200916U2ST	1.0	19.5' x 16"	81005838	2401916U2ST	1.0
12' x 16"	81006830	1201216U2ST	1.3				
14' x 16"	81006831	1201416U2ST	1.5				
16' x 16"	81006832	1201616U2ST	1.7				
18' x 16"	81006833	1201816U2ST	1.9				
19.5' x 16"	81006834	1201916U2ST	2.1				

Watts Radiant WarmWire™

WarmWire™ is a simple, economical way to warm floors and provide years of lasting comfort. Warm all kinds of floor coverings: ceramic tile, stone woods, laminates, vinyl or carpet. WarmWire™ is true radiant floor heating. It feels like a gentle foot massage or a walk on a warm beach. Warm floors are also dry floors and that is important in your bathroom, kitchen or entry. You can heat most rooms with a WarmWire™ floor. Warm-Wire can have between 10 to 15 watts/sqft depending on spacing.



120VAC WarmWire Spools

Total Sq..Ft @ 2" o.c. 15W/sq.ft.	Total Sq..Ft @ 2.5" o.c. 12W/sq.ft.	Total Sq..Ft @ 3" o.c. 10W/sq.ft.	Wire Length (In Feet)	Amperage Draw	Order Number	Model Number
8	10	12	47	1.0	81004574	120010WD
12	15	18	71	1.5	81004575	120015WD
16	20	24	94	2.0	81004576	120020WD
20	25	30	118	2.5	81004577	120025WD
24	30	36	141	3.0	81004578	120030WD
28	35	42	165	3.5	81004579	120035WD
32	40	48	188	4.0	81004580	120040WD
36	45	54	212	4.5	81004581	120045WD
40	50	60	235	5.0	81004582	120050WD
48	60	72	282	6.0	81004583	120060WD
56	70	84	329	7.0	81004584	120070WD
64	80	96	376	8.0	81004585	120080WD
72	90	108	423	9.0	81004586	120090WD
80	100	120	470	10.0	81004587	120100WD

240VAC WarmWire Spools

Total Sq..Ft @ 2" o.c. 15W/sq.ft.	Total Sq..Ft @ 2.5" o.c. 12W/sq.ft.	Total Sq..Ft @ 3" o.c. 10W/sq.ft.	Wire Length (In Feet)	Amperage Draw	Order Number	Model Number
16	20	24	94	1.0	81004588	120020WD
24	30	36	142	1.5	81004589	120030WD
32	40	48	188	2.0	81004590	120040WD
40	50	60	236	2.5	81004591	120050WD
48	60	72	282	3.0	81004592	120060WD
56	70	84	330	3.5	81004593	120070WD
64	80	96	376	4.0	81004594	120080WD
72	90	108	424	4.5	81004595	120090WD
80	100	120	470	5.0	81004596	120100WD
96	120	144	564	6.0	81004597	120120WD
112	140	168	658	7.0	81004598	120140WD
128	160	192	752	8.0	81004599	120160WD
144	180	216	846	9.0	81004601	120180WD
160	200	240	940	10.0	81004602	120200WD

Watts Radiant SlabHeat™

SlabHeat™ is engineered with the capability to produce enough BTUs to heat a slab, the space, and the surface people walk on. Regardless of size, shape, or thickness, SlabHeat is the way to provide heat to just about any environment. SlabHeat™ can be installed over an existing slab in a topping pour or in a new slab. Insulation is recommended to improve efficiency and to improve response time.



Sq. Ft. Coverage @4" OC (15w/sq.ft.)	Sq. Ft. Coverage @6" OC (10w/sq.ft.)	Order Number	Model Number	Cable Length	Voltage	Amp Draw	Total Watts
50	75	81014956	SH15120050ST	146	120V	6.3	750
66	98	81014957	SH15120066ST	193		8.3	990
82	122	81014958	SH15120082ST	241		10.3	1230
100	149	81014959	SH15120100ST	294		12	1500
114	170	81014960	SH15120114ST	336		14.3	1710
100	149	81014961	SH15240100ST	294	240V	6.3	1500
132	196	81014962	SH15240132ST	388		8.3	1980
164	243	81014963	SH15240164ST	483		10.3	2460
200	297	81014964	SH15240200ST	590		12.5	3000
228	339	81014965	SH15240228ST	673		14.3	3420

Floor Heating Controls

SunStat® Pro - Programmable Control

The new SunStat Pro incorporates an amazing variety of functions and elegance into one thermostat:

- 15' floor sensor included
- Dual Voltage: 120 and 240 VAC
- Built-in 15-amp Relay
- Built-in GFCI (5 milliamp trip)
- "Masterstat" capability
- Connects directly to SunStat Relay
- SmartStart Technology
- 5/1/1 Day Programming
- Four Preset Program Schedules
- One User Program Schedule
- Floor, air, or air & floor temperature modes
- "Regulator" operation without sensor attached
- Display in degree F or degree C
- Temperature Range: 40°F - 99°F (4° - 37°C)
- Large Back-lit Display
- Keyboard Lockout
- Manual On/Off Switch
- Home automation remote control
- System usage monitoring



Programmable

Description	Order No.	Model No.
Programmable SunStat	81009182	500670-SB
Extra SunStat Sensor (optional)	81009178	500110



SunStat control includes 1 sensor. An Additional sensor can be purchased separately.

SunStat - Non-programmable Control

Behind the digital face of the SunStat are nearly all of the same features as our programmable model:

- 15' floor sensor included
- Dual Voltage: 120 and 240 VAC
- Built-in 15-amp Relay
- Built-in GFCI (5 milliamp trip)
- "Masterstat" capability
- Connects directly to SunStat Relay
- Floor, air, or air & floor temperature modes
- "Regulator" operation without sensor attached
- Temperature Range: 40°F - 99°F (4° - 37°C)
- Display in degree F or degree C
- Large Back-lit Display
- Keyboard Lockout
- Manual On/Off Switch
- Home automation remote control
- System usage monitoring



Non-Programmable

Description	Order No.	Model No.
Non-programmable SunStat	81009183	500675-SB
Extra SunStat Sensor (optional)	81009178	500110



SunStat control includes 1 sensor. An Additional sensor can be purchased separately.

SunStat Relay

If a mat or cable system requires more than 15 amps, we recommend installing SunStat Relays. Relays connect directly to SunStat thermostats for simple, elegant control of larger systems. SunStat Relays don't require a special "master thermostat". Relays are dual voltage (120 VAC or 240 VAC), have a 15-amp capacity, an on/off switch, a GFCI and test light.

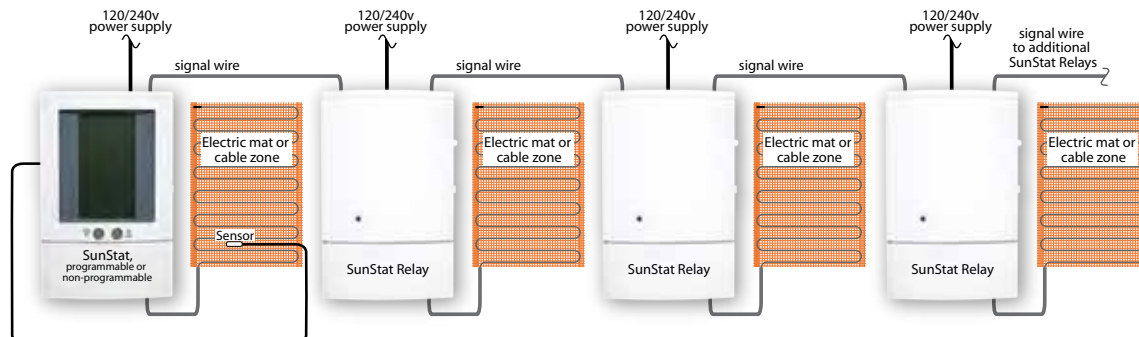
It's possible to control over 1500 sq.ft. of electric floor warming using 120 VAC and over 3,000 sq.ft. using 240 VAC floor warming mats or cables. First, find the amp draw for each SunTouch product in the project. Then determine how many mats or cables can connect to each relay. Up to ten 15-amp Relays can connect to one SunStat. Ten Relays, plus the internal relay in the SunStat, provide a total capacity of 165 amps! Each Relay should be connected to individual 20-amp breakers, as shown below.



Relay

Description	Order No.	Model No.
SunStat Relay	81009185	500680-BB

It is possible to drive up to 10 SunStat Relays with one SunStat thermostat



Accessories



LoudMouth Monitor

The LoudMouth monitors TapeMat, WarmWire, SlabHeat, or UnderFloor heating elements during the entire installation process and sounds an alarm if the heating elements are cut or damaged, allowing for easy repair before the heating elements are covered with finished flooring or insulation. The LoudMouth gives you the assurance of a quality installation. Features include 9-volt battery power, on/off switch, green light to indicate operation, red light to indicate damage to heating elements, test button to verify proper operation, and a very loud alarm.

Description	Order No.	Model No.
LoudMouth Monitor	81007474	423250ST



TapeMat Installation Kit

Everything you need to make the installation easier. Includes installation DVDs; two 1-in. x 36-yd. roll of double-sided tape to secure mat to the substrate.

Description	Order No.	Model No.
TapeMat Installation Kit	81002490	600410ST
Extra double-sided tape, 36 yds.	81000051	423275ST



CableStrap™

CableStrap is used to hold WarmWire or SlabHeat in place at the desired spacing. All three spacings are possible with this one strap. **Anchor the strap at 3–4-ft. intervals across the floor.** Cut using ordinary tin snips. Order one 25-ft.-long coil per 40–50 sq. ft. of heated floor area.

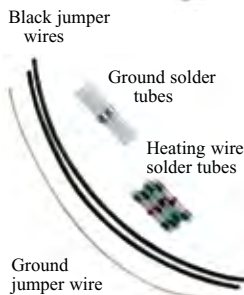
Description	Order No.	Model No.
CableStrap	81005523	321301ST



CableTrowel™

Most instances of damage to the heating wire occur when a metal trowel is banged onto the floor to remove excess mortar. A metal trowel can cut like a knife and either damage or totally sever the wire. The CableTrowel simply cannot damage the wire. For added peace of mind, consider using the 3/8" x 1/2" U notched CableTrowel or apply thin-set mortar.

Description	Order No.	Model No.
CableTrowel, 3/8" wide x 1/2" U notch	81007407	300400ST



Heating Wire Repair Kit

This simple and safe kit is used to repair heating elements that have been damaged during installation. It is suitable for all our floor-warming products excluding SlabHeat & ProMelt. Kit includes materials to make one repair: jumper wires, 1 ground jumper wire, 2 ground solder tubes, and 4 heating wire solder tubes. Detailed written instructions are included. Please call before making any type of repair.

Description	Order No.	Model No.
Heating Wire Repair Kit, 1 repair	81007142	200299ST

Extra Power Lead

Electric mats, WarmWire cables, and UnderFloor mats come standard with a 10-ft. power lead, but can be ordered with extra-long power leads up to a maximum of 50 ft. in length. When you place your order, let us know how long the leads need to be in order to reach the electrical box or control. We'll attach a custom power lead to fit your application. For 120 VAC and 240 VAC.

Description	Order No.	Model No.
Extra power lead		Consult Factory to Order

ProMelt™ Mats

**ProMelt Mats and Cables
are now approved for
outdoor patio heating.**

3' wide ProMelt mats install quickly in this full coverage example.



Snow melt sidewalks between buildings to reduce injury, liability and snow removal labor. Electric snow melting can be zoned and operated with automatic controls.

ProMelt Mats melt snow and install quickly. All you need for a typical small-to-medium size project is a control and mat.

ProMelt heating elements are surrounded with high-temperature ETFE insulation and the engineered polyurethane outer jacket tolerates 300° F asphalt and the machines that roll it in place.

Each mat holds dual heating elements on 3 inch centers on a reinforced tape grid. There's a grounded power lead on one end for a fast, single-point electrical connection.

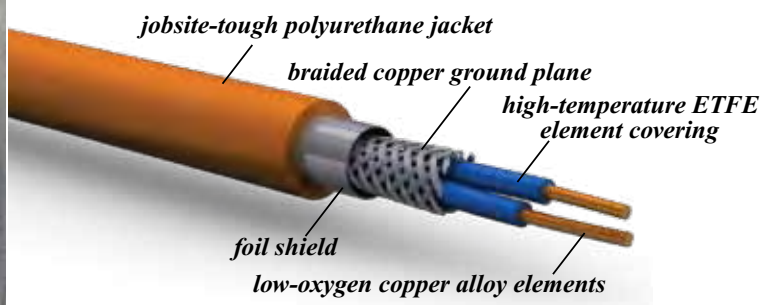
Mats come in two energy outputs:

- 120VAC mats are 38 Watts/Sq. Ft.
- 208, 240, & 277 VAC mats are 50 Watts/Sq. Ft.

ProMelt has more sizes and more options than any electric snow melting system. Standard size widths are 2 feet and 3 feet. You can order mats to cover from 9 to 112 square feet. Our catalog lists 60 standard sizes. Call us if your job requires custom sizes.

Anatomy of a world-class snow melting cable

The polyurethane outer jacket offers superior flexibility, abrasion and tear resistance, impact resistance, resiliency, and better low temperature stability than the PVC used in other products.





3-ft. wide mats 208VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
15	3' W x 5' L	81011605	SM5020800536	3.6	750
30	3' W x 10' L	81011607	SM5020801036	7.2	1500
45	3' W x 15' L	81011610	SM5020801536	10.8	2250
60	3' W x 20' L	81011612	SM5020802036	14.4	3000
75	3' W x 25' L	81011614	SM5020802536	18.0	3750
90	3' W x 30' L	81011616	SM5020803036	21.6	4500

3-ft. wide mats 240VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
15	3' W x 5' L	81011629	SM5024000536	3.1	750
30	3' W x 10' L	81011631	SM5024001036	6.3	1500
45	3' W x 15' L	81011633	SM5024001536	9.4	2250
60	3' W x 20' L	81011635	SM5024002036	12.5	3000
75	3' W x 25' L	81011637	SM5024002536	15.6	3750
90	3' W x 30' L	81011639	SM5024003036	18.8	4500
105	3' W x 35' L	81011640	SM5024003536	21.9	5250

3-ft. wide mats 277VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
30	3' W x 10' L	81011654	SM5027701036	5.4	1500
45	3' W x 15' L	81011656	SM5027701536	8.1	2250
60	3' W x 20' L	81011658	SM5027702036	10.8	3000
75	3' W x 25' L	81011660	SM5027702536	13.5	3750
90	3' W x 30' L	81011662	SM5027703036	16.2	4500
105	3' W x 35' L	81011663	SM5027703536	19.0	5250

2-ft. wide mats 120VAC 38Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
10	2' W x 5' L	81011665	SM3812000524	3.2	380
20	2' W x 10' L	81011667	SM3812001024	6.3	760
30	2' W x 15' L	81011669	SM3812001524	9.5	1140
40	2' W x 20' L	81011671	SM3812002024	12.7	1520
50	2' W x 25' L	81011673	SM3812002524	15.8	1900
60	2' W x 30' L	81011675	SM3812003024	19.0	2280

2-ft. wide mats 240VAC 38Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
20	2' W x 10' L	81014652	SM3824001024	3.2	760
40	2' W x 20' L	81014653	SM3824002024	6.3	1520
60	2' W x 30' L	81014654	SM3824003024	9.5	2280
80	2' W x 40' L	81014655	SM3824004024	12.7	3040
100	2' W x 50' L	81014656	SM3824005024	15.8	3800
120	2' W x 60' L	81014657	SM3824006024	19.0	4560

2-ft. wide mats 208VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
14	2' W x 7' L	81011593	SM5020800724	3.4	700
22	2' W x 11' L	81011594	SM5020801124	5.3	1100
28	2' W x 14' L	81011595	SM5020801424	6.7	1400
36	2' W x 18' L	81011596	SM5020801824	8.7	1800
40	2' W x 20' L	81011597	SM5020802024	9.6	2000
48	2' W x 24' L	81011598	SM5020802424	11.5	2400
56	2' W x 28' L	81011599	SM5020802824	13.5	2800
68	2' W x 34' L	81011601	SM5020803424	16.3	3400
76	2' W x 38' L	81011602	SM5020803824	18.3	3800
84	2' W x 42' L	81011603	SM5020804224	20.2	4200
96	2' W x 48' L	81011604	SM5020804824	23.1	4800

2-ft. wide mats 240VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
16	2' W x 8' L	81011617	SM5024000824	3.3	800
24	2' W x 12' L	81011618	SM5024001224	5.0	1200
32	2' W x 16' L	81011619	SM5024001624	6.7	1600
40	2' W x 20' L	81011620	SM5024002024	8.3	2000
48	2' W x 24' L	81011621	SM5024002424	10.0	2400
56	2' W x 28' L	81011622	SM5024002824	11.7	2800
64	2' W x 32' L	81011623	SM5024003224	13.3	3200
72	2' W x 36' L	81011624	SM5024003624	15.0	3600
80	2' W x 40' L	81011625	SM5024004024	16.7	4000
88	2' W x 44' L	81011626	SM5024004424	18.3	4400
96	2' W x 48' L	81011627	SM5024004824	20.0	4800
104	2' W x 52' L	81011628	SM5024005224	21.7	5200

2-ft. wide mats 277VAC 50Watts/Sq. Ft.					
Coverage (Sq.Ft.)	Dimension (W x L)	Order No.	Model No.	Amp Draw	Total Watts
18	2' W x 9' L	81011641	SM5027700924	3.2	900
28	2' W x 14' L	81011642	SM5027701424	5.1	1400
36	2' W x 18' L	81011643	SM5027701824	6.5	1800
48	2' W x 24' L	81011644	SM5027702424	8.7	2400
56	2' W x 28' L	81011645	SM5027702824	10.1	2800
64	2' W x 32' L	81011646	SM5027703224	11.6	3200
72	2' W x 36' L	81011647	SM5027703624	13.0	3600
80	2' W x 40' L	81011648	SM5027704024	14.4	4000
88	2' W x 44' L	81011649	SM5027704424	15.9	4400
96	2' W x 48' L	81011650	SM5027704824	17.3	4800
104	2' W x 52' L	81011651	SM5027705224	18.8	5200
112	2' W x 56' L	81011652	SM5027705624	20.2	5600



ProMelt Cable offers versatility for odd shaped areas or last minute design changes.

ProMelt® Cables

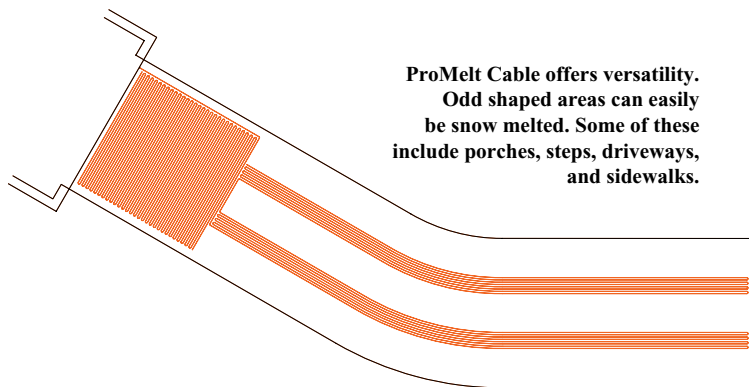
ProMelt cables give you more flexible layout options than mats, especially for areas with larger dimensions.

As with ProMelt Mats, the heating elements are surrounded with the same high-temperature ETFE and engineered polyurethane outer jacket for long life and jobsite toughness, including installation in asphalt.

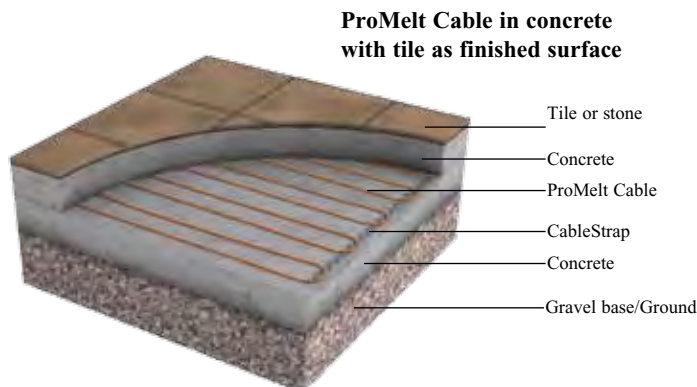
ProMelt cables are usually tied to reinforcing wire 3 or 4 inches on center. That provides either 50 or 38 Watts per square foot. ProMelt cable can go perimeter to perimeter or fill odd-shaped areas for complete snow melting coverage.

There are a lot of ProMelt cable sizes in stock in four single-phase voltage options. All the cables terminate at one end with a power lead so you only make one connection to your electrical source.

ProMelt cables carry a 10-year limited warranty.



ProMelt Cable offers versatility. Odd shaped areas can easily be snow melted. Some of these include porches, steps, driveways, and sidewalks.



ProMelt Cable in concrete with tile as finished surface



Public buildings need safe and easy access. Make plans for snow melting in walkways, stairs and wheelchair ramps.



It is good to wake up to a clear driveway.



120VAC Cable Spools

Total Sq. ft. 3" OC (50 W/Sq.Ft.)	Total Sq.Ft 4" OC (38 W/Sq.Ft.)	Order Number	Model Number	Wire Length (ft.)	Amp Draw	Total Watts
8	10	81011367	SC50120008	29	3.3	400
15	20	81011369	SC50120015	59	6.3	750
20	26	81011370	SC50120020	78	8.3	1000
30	39	81011373	SC50120030	118	12.5	1500
40	53	81011376	SC50120040	158	16.7	2000
53	69	81011378	SC50120053	208	22.1	2650

208VAC Cable Spools

Total Sq. ft. 3" OC (50 W/Sq.Ft.)	Total Sq.Ft 4" OC (38 W/Sq.Ft.)	Order Number	Model Number	Wire Length (ft.)	Amp Draw	Total Watts
14	19	81011408	SC50208014	55	3.4	700
20	26	81011416	SC50208020	78	4.8	1000
30	39	81011417	SC50208030	118	7.2	1500
35	46	81011418	SC50208035	138	8.4	1750
40	53	81011383	SC50208040	158	9.6	2000
45	59	81011384	SC50208045	178	10.8	2250
55	72	81011385	SC50208055	218	13.2	2750
60	79	81011386	SC50208060	238	14.4	3000
65	85	81011387	SC50208065	257	15.6	3250
75	98	81011388	SC50208075	297	18.0	3750
80	105	81011389	SC50208080	317	19.2	4000
90	118	81011390	SC50208090	357	21.6	4500

240VAC Cable Spools

Total Sq. ft. 3" OC (50 W/Sq.Ft.)	Total Sq.Ft 4" OC (38 W/Sq.Ft.)	Order Number	Model Number	Wire Length (ft.)	Amp Draw	Total Watts
15	20	81011391	SC50240015	59	3.1	750
25	33	81011392	SC50240025	98	5.2	1250
30	39	81011393	SC50240030	118	6.3	1500
40	53	81011394	SC50240040	158	8.3	2000
45	59	81011395	SC50240045	178	9.4	2250
55	72	81011396	SC50240055	218	11.5	2750
60	79	81011397	SC50240060	238	12.5	3000
65	85	81011398	SC50240065	257	13.5	3250
75	98	81011399	SC50240075	297	15.6	3750
80	105	81011400	SC50240080	317	16.7	4000
90	118	81011401	SC50240090	357	18.8	4500
105	137	81011402	SC50240105	417	21.9	5250

277VAC Cable Spools

Total Sq. ft. 3" OC (50 W/Sq.Ft.)	Total Sq.Ft 4" OC (38 W/Sq.Ft.)	Order Number	Model Number	Wire Length (ft.)	Amp Draw	Total Watts
18	24	81011403	SC50277018	71	3.2	900
30	39	81011404	SC50277030	118	5.4	1500
35	46	81011405	SC50277035	138	6.3	1750
45	59	81011406	SC50277045	178	8.1	2250
55	72	81011407	SC50277055	218	9.9	2750
60	79	81011409	SC50277060	238	10.8	3000
70	92	81011410	SC50277070	277	12.6	3500
75	98	81011411	SC50277075	297	13.5	3750
80	105	81011412	SC50277080	317	14.4	4000
90	118	81011413	SC50277090	357	16.2	4500
105	137	81011414	SC50277105	417	19.0	5250
115	150	81011415	SC50277115	456	20.8	5750

ProMelt® Controls/Sensors/Accessories



ProMelt Snow Sensor Controls: Pole-mount, 120/208/240VAC

The **PM-2B** & **PM-5** sensor controls are used to detect snowfall and low temperature to activate the ProMelt mats or cables. They are “pole-mounted” controls with a moisture sensor “fixed” to the top. Both offer automatic activation, rain/snow detection, adjustable trigger temperature, and a drying cycle, as well as “manual on” operation. The **PM-2B** operates on line voltage (120/208/240V, not 277V) and has a 30 Amp capacity. The **PM-5** operates on line voltage (120/208/240V, not 277V) and has a 60 Amp capacity. Both are stand-alone controls intended for relatively small systems. They should not be used with our ContactorPro series of ProMelt controls, as those are designed for 24V control sensors. The units measure approximately 5” x 7” x 3”.

A recommended upgrade to the PM-2B or PM-5 is our **PM-DP** Control Panel. This control allows convenient indoor monitoring and control of the system for manual on, automatic, and standby operation. It communicates through a simple low-voltage cable.



Description	Order Number	Model Number
ProMelt PM-2B Detector, 120/208/240V (30A)	81011699	300600
ProMelt PM-5 Detector, 120/208/240V (60A)	81014247	300580
ProMelt PM-DP Display Panel, 24V, Optional	81012360	300650

ProMelt Snow Sensor Controls: Pole-mount, 24V

The **PM-224** and **PM-824** are used to detect snowfall and low temperature to activate the ProMelt mats or cables. The **PM-224** has a moisture sensor “fixed” to the top. The **PM-824** has a remote moisture sensor, which allows mounting the control in a more convenient location. It can be mounted on a wall or inside the building and the sensor outside exposed to the snowfall, adding convenience of operation and adjustment. Both models offer automatic activation, rain/snow detection, adjustable trigger temperature, and a drying cycle, as well as “manual on” operation. Either control will operate in conjunction with our Contactor Pro series of ProMelt controls, which should be ordered separately (see next page). The unit measures approximately 5” x 7” x 3”.



Description	Order Number	Model Number
ProMelt PM-224 Detector, 24V	81011700	300224
ProMelt PM-824 Detector w/ 10' cable, 24V	81011696	300824

ProMelt Snow Sensor: Slab-mount, 24V

The **PM-HSC5** is a slab-mounted snow detector. It is used to detect snowfall and low temperature to automatically activate the ProMelt Mats or Cables. It has built-in temperature and moisture detection and a drying cycle after snow melting is complete. It is comprised of a sensor and sensor socket that is embedded in the slab where ProMelt is installed. This sensor operates in conjunction with our ContactorPro series of ProMelt controls, ordered separately (see next page).



Description	Order Number	Model Number
ProMelt PM-HSC5 Detector, 24V	81012366	983046ST

Snow Melting Plaque

Permanent aluminum plaque to indicate where a snow melting system has been installed.



Description	Order Number	Model Number
Snow Melting Plaque	81012381	100123



ProMelt ContactorProTM: 50/ 100/ 200 amp panels, 120/208/240/277 VAC

The Contactor Pro panels are complete “turn-key” solutions for activating larger systems of ProMelt Mats and Cables when used in combination with a **PM-224**, **PM-824**, or **PM-HSC5** snow sensor control, or with a Dual Temp control for outdoor patio heating. They’re available in three panel sizes: 50 Amps, 100 Amps, and 200 Amps. 120, 208, 240, or 270 VAC is supplied to the panel and a 24V Class 2 transformer allows connection to the snow sensor control.

Each Contactor Pro panel is complete with “system on” indicator light, manual override by a 4-hr timer, and simple 24V wire terminal connections to the snow sensor. A new feature allows any CP series panel to be connected to any other CP series panel as an expansion panel. The **CP-50** has one 50-amp contactor, the **CP-100** has two 50-amp contactors, and the **CP-200** has four 50-amp contactors. **Systems should be designed to connect one or more ProMelt Cables or Mats in combinations not to exceed** the capacity of individual 50-amp contactors. Each panel is NEMA Type 1 for mounting indoors on a wall, has knockouts for conduit, and measures 12” x 12” x 4”.

Description	Order Number	Model Number
ContactorPro, CP-50, 50 Amp	81012215	300050
ContactorPro, CP-100, 100 Amp	81012216	300100
ContactorPro, CP-200, 200 Amp	81012217	300200



DualTemp Floor Sensor

DualTempTM Control

For outdoor patio heating. Use with Contactor Pro. Non-programmable heat-only thermostat senses air, floor or both air and floor temperature. Adjustable from 410 to 990F (50 to 370F). Order floor sensor separately.

Description	Order Number	Model Number
DualTemp, Air/Floor, Digital, 24V	81009385	P-3285
Floor Sensor, DualTemp, 10k	81000505	500802



Cable Ties

6 inch cable ties are used to tie ProMelt mat and/or cable to rewire or rebar.

Description	Order Number	Model Number
Cable Ties / Pkg of 100	81012001	321400



CableStrapTM

CableStrap is used to hold ProMelt cable in place at the desired spacing in applications that don’t use rebar or rewire. Anchor the strap at 3–4 ft. intervals across the surface. Cut using ordinary tin snips. Order one 25-ft. long coil per 50–60 sq. ft. of ProMelt.

Description	Order Number	Model Number
CableStrap / 25 ft roll	81005523	321301ST



ProMelt/SlabHeat Heating Wire Repair Kit

This simple and safe kit is used to repair heating elements that have been damaged during installation. It is suitable for all ProMelt snow melting products. Kit includes materials to make one repair: jumper wires, 1 ground jumper wire, 2 ground solder tubes, 4 heating wire solder tubes, and 1 shrink sleeve. Detailed written instructions are included. Please call before making any type of repair.

Description	Order Number	Model Number
ProMelt/SlabHeat Heating Wire Repair Kit, 1 repair	81012263	200400



Extra Power Lead

ProMelt mats and cables come standard with a 20-ft. power lead, but can be ordered with extra-long power leads up to a maximum of 50 ft. in length. When you place your order, let us know how long the leads need to be in order to reach the electrical box or control. We’ll attach a custom power lead to fit your application. Power lead is used with 120 VAC, 208 VAC, 240 VAC, and 277 VAC ProMelt products.

Description	Order Number	Model Number
Extra power lead	Consult Factory to Order	.

Terms and Conditions

FREIGHT TERMS:

All shipments are F.O.B. shipping point. Shipments from the factory of less than 500 lbs or \$3,500.00 net are F.O.B. factory. Factory shipments over 500 lbs, \$5,000.00 list or \$3,500.00 net will be prepaid and allowed within Canada when made at the lowest motor carrier transportation rate. Short-shipments and/or damaged goods must be reported within 72 hours.

PAYMENT TERMS:

Invoices are due and payable 30 days from the date of invoice. A 2% cash discount is allowed on net amount of invoice if paid on or before the 10th of the following month. Invoices dated on or after the 25th will be considered as dated the first of the next month.

STOCKING WHOLESALE MINIMUM CHARGE:

A minimum billing charge of \$75.00 applies to shipments F.O.B. factory. Stocking Wholesaler Customers are encouraged to order sufficient material to avoid this charge which is necessitated by increased costs of processing small orders.

SPECIAL PRODUCTS:

Orders for special or modified products are non-cancellable and non-returnable.

LIMITED WARRANTY:

WATTS Industries Canada Inc. warrants each product against defects in material and workmanship for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental or consequential damages, including, without limitation, damages or other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemicals, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

THE COMPANY MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY.

RETURNED GOODS RESTOCKING CHARGE:

No material shall be returned without authorization. When credit is issued it will be at the price charged, or prevailing price if lower, less handling charges based on costs of reconditioning, boxing, etc. However, a minimum 25% handling charge will apply. A minimum handling charge of \$35.00 is applied whenever the 25% handling deduction does not total \$35.00. Products which are obsolete or made to special order are not returnable.

NOTE:

Prices and terms are subject to change without notice and supersede all previous quotations. The right is reserved to change or modify product design or construction without prior notice and without incurring any obligation to make such changes and modifications on products previously or subsequently sold.

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