Viega ProRadiant Systems

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Viega adds traps and draining products for sinks and bathtubs to our lineup





1980

The first PEX radiant floor





1989

Viega's press

technology begins

Viega launches the ProPress Marine System.

1996







2005

1899



Franz-Anselm Viegener starts Viega Co. with first brass beer tap.



1935

Viega starts manufacturing plumbing fittings.

1901



1963

copper solder fittings.



1988

is introduced.



1996

tubing, PureFlow PEX products begins.



1999

Viega's copper press technology launches in the U.S., the ProPress System.

A heritage of better ideas since 1899

Our heritage of innovation and quality began in Attendorn, Germany in 1899 when Franz-Anselm Viegener introduced a new design in brass beer taps. By 1901, the company evolved and began manufacturing home plumbing products. While Viega was growing in Europe, Stadler Corporation was established in the United States. By 1980, Stadler Corporation was selling PEX radiant floor heating systems. In 1992, Stadler Corporation introduced the first "dry" radiant heating system, known as the Climate Panel.

This is where the Viega North American story really begins. It happened in 1999, when the family-owned Viega decided to offer a selection of Viega products in the United States.

This year also marks when Stadler and Viega joined to form Stadler-Viega. In the same year, Viega signed a longterm contract with Ridge Tool Company to market a totally new system of ProPress fittings and valves to connect copper pipe.

The new century saw rapid growth in Viega innovations including PureFlow – the first PEX Press plumbing technology, ProPressG for solderless fuel gas applications, hybrid technology to connect copper to PEX and the Smart Connect feature to quickly identify unpressed fittings.

In 2002, Viega acquired 100 percent of Stadler-Viega and began to offer several innovations in radiant heating under solely the Viega name. In 2005, Viega acquired Vanguard Piping Systems and Midtec, Inc. This acquisition enabled us to combine European and American technologies to create a new standard of quality. Besides the expanded options in PEX tubing and fitting systems, the acquisition also added the number one selling PEX water distribution manifold in the United States, the

MANABLOC, to the Viega PureFlow line.

One of our most recent accomplishments took place in 2009 when Viega opened a new 439,000-squarefoot Manufacturing and Distribution Center in the heartland of the United States in McPherson, KS. The facility houses extrusion, injection molding, distribution and office space. It is the largest PEX manufacturing facility of its kind in the nation, manufacturing PEX tubing for our PureFlow and ProRadiant product lines.

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Viega stainless press technology launches in the U.S., ProPress Stainless.



2008

Viega opens new **Distribution Center** in Atlanta, GA.



2007



Distribution Center in Reno, NV.

2009





Viega opens new Manufacturing and Distribution Center in McPherson, KS.



From Franz-Anselm Viegener's first product introduction in 1899, Viega's family heritage of innovation, quality and service still flows through all of our products and the people who

design, make, sell and support them. It is our heritage of better ideas that allows us to extend our reach to exceed customer expectations around the globe.





Minimize heat loss with Viega ProRadiant

In a Viega ProRadiant heating system, ViegaPEX Barrier tubing is looped either above or below the subfloor. Warm water, 80-to-160 degree F, then circulates through the tubing, causing heat to radiate up through the floors, warming the surrounding objects. Those objects range from furniture to occupants.

A space heated by a Viega ProRadiant system puts you in direct contact with the heat source. Homeowners feel comfortable because the entire floor surface is acting as a radiator. Consider this: With a forced air system, the difference between the temperature at the floor and at the ceiling can be as much as 15 degrees. With a ProRadiant system, the difference in temperature can be as little as two degrees.

The science behind ProRadiant Radiant heating systems warm people and objects rather than just the air.

ASHRAE studied the thermal environment around the human body and developed something referred to as the Ideal Heat Curve. The Ideal Heat Curve is best described by using these images:

Ideal Heat Curve

Here, the Ideal Heat Curve shows that for maximum comfort, the warmest temperatures should be at floor level. Cooler temperatures are best kept at head and ceiling levels.

The Ideal Heat Curve also allows comparison of the efficiency and comfort levels of radiant floor vs. traditional forced air heating systems.

Forced Air By comparing radiant floor and forced air heating systems one can easily see that in forced air, heat becomes trapped at the ceiling causing an inversion of the ideal heating pattern.

Radiant Floor the Ideal Heat Curve.

You can't fool science. A space heated by radiant heat follows

Ideal Heat Curve



Forced Air Heat Curve



Radiant Heat Curve



Trusted products that offer endless benefits

The ProRadiant product line is a priority at Viega. That is why we offer everything an installer needs to install a complete radiant heating system.



Modern Products, **Modern Technologies**

For your benefit, we deliver high-quality products, system competence and technical support. No matter the job, we have the proven products, strong warranty and support staff to help you finish your job on schedule.

Homeowners Benefits

The modern products and technologies incorporated into the Viega ProRadiant product line make radiant heating a superior choice compared to traditional forcedair systems. A Viega ProRadiant system offers:

Increased Comfort - Reaches every corner of the house, delivering a consistent, steady heat all winter long.

Even Temperatures - Individual zones allow the homeowner to set different areas of the house to different temperatures, based on the room's use.

Cleaner Air – Allergy sufferers can breathe easily. A ProRadiant system doesn't use blowers so it doesn't circulate dirt, dust or pollutants throughout the home.

Decorating Freedom - There is no unsightly ductwork or floor vents to get in the way.

Energy Efficiency - Designed to reduce your heating bill, saving occupants and the environment from costly ramifications.

To top it off

A Viega ProRadiant system can be installed under any type of floor covering including hardwood, carpet, tile or linoleum.



Application types

As a contractor, you are always looking for a way to differentiate yourself from the competition. Viega can help provide a versatile heating and cooling system that will help you accomplish that goal.

Radiant heat can increase profitability.

Whether you need to install a radiant heating or cooling system for a large commercial space, or a new or remodeled home, we have a system to fit your needs.

Commercial snow-melt applications reduce liability and improve accessibility. Worthy Enterprises installed a Viega S-No-Ice system at the building entrance of the Davenport Tower in Spokane, WA.

in a 30,000-squarefoot project. They finished the job in two days.

Homeowners in Somerville, MA called on Tim Cutler of TJ's Plumbing & Heating Inc. to install the Viega Climate Panel system inside their home. Our Climate Panel system speeds installation while reducing the prep time and mess associated with concrete pours.

Even expert mechanical contractors recognize the quality of Viega's Climate Mat. Hills Service Company of Laurens, SC chose to install Climate Mat



Climate Panel

The easiest way to install a hydronic radiant floor heating system

Our Climate Panel system can be installed over wood subfloor or concrete and under any type of floor covering. No matter what type of floor covering you choose, Viega's Climate Panels provide more efficient heat and use less energy than traditional forced-air heating systems. Made of aluminum-backed plywood with specially designed grooves for ViegaPEX Barrier tubing, the Climate Panel system is the most responsive radiant system for new or retrofit construction.

Climate Panel Options:

Pre-Assembled – Assembled Climate Panels (ACPs) are easy to handle and install. To install, simply unfold the ACPs, interlock the sections, fasten to the subfloor and install ViegaPEX Barrier tubing.

Unassembled – Climate Panels are also available in single, unassembled pieces. The panels are 48" long x 7" wide x 1/2" thick and are backed with aluminum.

Multi-Runs – Multi-Runs are perfectly suited for applications where tubing cannot penetrate the subfloor.

Easiest installation at once.

to set.

U-Turns – U-Turn panels allow the installer to easily turn tubing around at each end of the room to connect with the next row of Climate Panels. All U-Turns measure approx. 7" x 48".

Climate Panel Advantages: Install up to 14 square feet

Clean, time-saving dry system

No mess, no waiting, no need to schedule pours or wait for concrete

Lightweight

No need to adapt for structural issues. (Lightweight concrete weighs 14-16 lbs./ft² on a 1-1/2" pour.)

Versatile

For new construction or retrofit applications, Climate Panels add only 1/2" to total floor height so there's no need to adjust doors or moldings.

Energy efficient

Constructed of 1/2" CDX fir plywood, Climate Panels have an aluminum heat transfer sheet attached underneath which allows for even heat distribution, high-performance output and a reduction of up to 30 percent in energy consumption.





Climate Panel is the ideal solution for wood frame construction.

Assembled Climate Panels

This pre-assembled system is excellent for floating installations over existing slabs and will dramatically reduce installation time and cost for large rooms with plywood subfloors. One unit of 7" ACPs covers 14 square feet and one unit of 10" ACPs covers 20 square feet. Standard U-Turn strips are used with the ACP system.

Climate Panels

Constructed of 1/2" CDX fir plywood with an aluminum heat transfer sheet, these panels provide even heat distribution and high-performance output.

Multi-Run Climate Panel System

This system is designed to simplify Climate Panel installations.

Multi-Run Climate Panel Set

The set consists of five Multi-Run Climate Panels and six Multi-Run Access Pieces. This set is designed to do a three-circuit (350 square feet) area. Climate Panel is the best choice for output performance in heat distribution. Climate Panel's aluminum panels allow the system to distribute the heat uniformly across a floor's surface.

Output Performance of Climate Panel vs. Thin Slab



	Climate Panel	Thin Slab
Faster Response Time	x	
Minimum Floor Buildup	x	
Minimum Additional Weight	x	
Contractor Profit	x	
Minimum Trade Interference	x	

Hardwood floor over **Climate Panel** Climate Panel showing Hardwood floor aluminum back

Plywood subfloor

Ceramic tile over **Climate Panel Climate Panel showing** Ceramic tile floor aluminum back Concrete board Plywood subfloor

Carpeted floor over Climate Panel **Climate Panel showing** Carpeted floor aluminum back Carpet pad Plywood subfloor





Climate Panel over concrete with floating wood floor **Climate Panel showing** Wood floor aluminum back

Foam pads

Concrete slab



A variety of ProRadiant systems to choose from



Climate Trak

Upgraded staple-up radiant system. Extruded heavygauge aluminum with patented snap-in design. Optimal dimension design for quick installation and maximum heat output. 3.5" wide by 8' long or 3.5" wide x 4' long. Predrilled holes for ease of installation.



Never shovel snow again. This is a wet-mass application where ice and snow are eliminated from driveways, sidewalks and helicopter landing areas.



In-Slab

Perfectly suited for basements, garages or workshops. An in-slab system with ViegaPEX Barrier or FostaPEX tubing turns cold, damp areas into cozy living spaces.





Snap Panel

High-density polystyrene grid fastener system. Each package of 18 covers a surface of 240 square feet. For use with 1/2" PEX tubing. For new or remodel applications.



Climate Mat

Customizable for any project, the Climate Mat arrives on the jobsite in rolls for fast deployment. Spacer strips and clips are attached to the tubing, which guarantees desired tubing spacing. Available in 5/8" and 1/2" PEX tubing.



Climate Mat

With a Climate Mat system, contractors may install 20,000 square feet of evenly spaced tubing in an average work day.

First of its kind, the Climate Mat arrives on the jobsite in a roll-up assembly complete with supply and return headers and tubing. The pre-engineered design takes the guesswork out of installation. Spacer strips and clips are attached for even loop spacing. When the Climate Mat arrives on the jobsite, it is ready for fast deployment.

Perfectly suited for large rectangular or square slabs such as warehouses, car garages, museums, schools, airport terminals, etc., the intelligent design of the Climate Mat system has encouraged big box stores to start installing it.

Climate Mat Benefits

- Reduced installation time
- Patent-pending tubing securement method guarantees desired tubing spacing
- Pre-pressurized tubing further reduces installation time
- Pre-engineered design takes the guesswork out of installation
- No balancing required with equal circuit lengths
- Suitable for heating and cooling
 - Balanced system is suitable for reverse return piping applications
 - Custom-designed and engineered for each project with design support from Viega
 - Various Climate Mat configurations available
 - May contribute to LEED credits
 - All connections are located above the slab to allow for future zoning and peace of mind

Benefits of Radiant Heating/Cooling

- Radiant Cooling covers up to 15 BTU/h x ft² of sensible cooling load, with direct sun exposure up to 32 BTU/h x ft²
- Radiant Heating/Cooling reduces fan energy consumption
- Radiant Heating/Cooling can be coupled with energy efficient heat sources/sinks (geothermal) to achieve further efficiency gains
- Radiant Cooling utilizes building
 mass to reduce peak cooling loads
- Radiant Heating/Cooling can lead to increased employee efficiency resulting from a more comfortable work environment





Finished in No Time Flat

In 2009, Viega partnered with Hills Service Company of Laurens, SC to install Viega Climate Mats in a new 30,000-square-foot garage. The Climate Mat's innovative, engineered design allowed installers to finish the enormous project in only two days!



Viega's Climate Mat is the most innovative radiant heating/ cooling product on the market. With its unique customized design, contractors may install up to 20,000 square feet of tubing in an average work day. Not only does this ground-breaking heating/cooling system reduce installation costs for the installer but it also cuts energy costs for the consumer.

Installation is simple. The Climate Mat arrives on the jobsite already assembled. All the installer has to do is unroll it, secure it to the installation surface and pour concrete. In three easy steps, the job is done.

Engineered by Viega, the Climate Mat will fit any floor plan. When your Climate Mat assembly is delivered, you can get to work right away without worrying about measuring, spacing, balancing or guessing. The ingenious design of the Climate Mat is customized to your needs.

Climate Mat works best in warehouses, garages, schools, museums or any other rectangular or square area but Viega will work with you no matter what your floor plan might look like.









Snap Panel



Quick Installation

Snap Panel is a plastic grid fastening system that accepts 1/2" ViegaPEX Barrier tubing for slab and lightweight concrete pour radiant applications. The unique grid pattern allows for tubing to be laid out both straight and diagonally.

- Can be easily cut to size with a utility knife.
- Interlocking capability allows installer to create a sturdy installing surface to work with. • Can accommodate spacing in multiples from 3"-to-6" and up.

Barrier tubing.

- Snap Panels can be used with any type of insulation.
- Snap Panels are considered a vapor barrier.

Compatibility with systems

The Snap Panel system works in tandem with ViegaPEX



Climate Trak

Retrofitting projects can be time consuming and frustrating. With Viega's innovative Climate Trak system, installing radiant heating becomes simple and easy.

Viega's Climate Trak consists of heavy-gauge aluminum panels that can be stapled directly to the underside of the subflooring. These panels have a special trough for our patented ViegaPEX Barrier tubing which maximizes the contact between the aluminum and the PEX tubing for efficient heat transfer.

Climate Trak is lightweight and can be installed quickly to deliver the comfort of warm, heated floors heat output.

be a concern.

Viega 1-800-976-9819

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throughout a house. Made from extruded heavy-gauge aluminum with the patented snap-in design, Climate Trak comes in two different dimensions, 3-1/2" by 8-feet or 3-1/2" by 4-feet, for quick installation and maximum

While Climate Panel or Snap Panel may be more efficient for new construction, nothing can match Climate Trak for retrofitting applications or for projects where build-up above the subfloor could

Benefits and features of Viega's **Climate Trak:**

- Fast and easy to install due to use of pre-drilled holes
- Two optimized dimensions for installation
- Lightweight and durable
- Snap-in groove for tubing
- Tubing installed separately from tracks

S-no-lce

A Viega S-no-Ice system makes snow and ice removal easy. All it takes is ViegaPEX Barrier tubing installed in a concrete slab and the proper controls for any residential, commercial or industrial setting to be snow-free.

Applications:

Residential - Snow-melting in residential applications is gaining widespread acceptance. Viega's S-no-Ice system can alleviate shoveling, plowing, sanding and salting. Typical application areas include driveways, walkways, patios and steps.

Commercial - In commercial applications, snow-melting can reduce liability and improve access during winter months. S-no-Ice is an excellent choice under pavers, where chemical melt aids, plowing and shoveling are made difficult by the many joints. Typical commercial applications include building entrances, parking ramps and parking lots.

Industrial - Snow-melting in industrial applications is installed where safe, clean and easy access to certain places is critical. Typical applications are hospital emergency entrances, helipads, loading docks, wheelchair ramps and building entrances.

Benefits

- Safety A Viega S-no-Ice system can prevent potential accidents due to slipping and falling.
- Cost Savings Maintenance costs can be lowered and injuries associated with slippery surfaces will be reduced.
- Convenience The Viega S-no-lce system will recognize precipitation and automatically turn on when needed.
- Value A Viega S-no-Ice system can help owners achieve higher resale values.



Viega ProRadiant System Synergies

Viega's system synergies are unique within the industry. As a leader in piping system technologies, Viega takes steps to ensure that all of our systems are fully compatible. This is evident in Viega's ProRadiant line which uses the same bronze PEX Press technology as Viega's PureFlow plumbing line. The PureFlow line includes ViegaPEX, ViegaPEX Ultra, ViegaPEX Barrier and FostaPEX (multi-layer PEX aluminum pipe). The use of one fitting system for our ProRadiant, PureFlow and FostaPEX products is something no other manufacturer can offer. Viega's ProRadiant line also utilizes the same battery-operated tools (Ridgid 210B or 330) as our PureFlow, ProPress, ProPress Gas, ProPress Stainless and SeaPress systems use in making connections. This allows for seamless transitions between all Viega systems.

The Viega system synergies are also present with our manifold and station technologies. All use PEX Press and ProPress ends to connect to boiler, solar or geothermal systems.

These synergies mean not only a quality installation every time but time savings as well.



ProPress x PEX Press adapter



Viega systems utilize the same battery operated tools (Ridgid 210B or 330) to join our piping systems.



FostaPEX x ViegaPEX Barrier using a PEX Press coupling

Accessories for the system

A radiant system is more than tubing in the floor. Controls, manifolds, mixing devices and fittings all work together to successfully heat a structure. These components cooperate to provide the right amount of heat in the right places at the right time. Viega's control offerings, including ProBloc, Mixing Station and Basic Heating Control, are designed to perfectly modulate the water temperature throughout the floor based on outdoor temperature. Additionally, individual rooms can be controlled with thermostats, which open or close individual tubing circuits at the manifold via zone controls and powerheads.



ProBloc

The ProBloc is a compact, powerful mixing station, enclosed in a sleek, modern casing with conveniently located piping outlets at the top and bottom. ProBloc features supplyand-return temperature gauges, an actuator, a check valve and a pressure differential valve and is available with either a low-head or high-head three-speed pump.



Advanced Snow Melt Control The Advanced Snow Melt Contol provides accurate and sensitive snow detection and snow melting activation. It operates either a floating mixing actuator or a variable speed injection pump. One durable sensor monitors slab moisture and slab temperature for the most efficient operation. Microprocessor control provides user-friendly setting and LCD readout of sensor readings.



Mixing Station

The Mixing Station modulates a hydronic system's water supply temperature using a diverting valve with an adjustable built-in mechanical high limit. Compatible with either electronic or non-electronic controls, Mixing Stations can be ordered with a preassembled manifold in various configurations and are available with a low-head or high-head threespeed pump.



Basic Snow Melt Control II The Viega Basic Digital Snow Melt Control II provides automatic snow melt system activation with slab high limit. This control senses low air temperature and precipitation to activate the snow-ice melting system. A slab sensor prevents overheating of the slab. Equipped with a timer switch for manual activation.



Thermostats

With Viega's new Digital Thermostat, users can easily change temperature settings with a threebutton design. Whether its room temperature, or floor temperature, our thermostat can sense both. The Viega Digital Thermostat can control up to four powerheads directly or it can be connected to a zone/circulator control box.



Heating Controls

The basic electronic outdoor reset control modulatesFrom copper to stainless, our manifolds come pre-
assembled and ready for mounting. Available with shutsystem water temperature as outdoor temperatureassembled and ready for mounting. Available with shutfluctuates. This control is as basic as it can get with
seasonal pump activation, boiler activation and
supply limits.off and balancing valves with flow meters for each set
of circuits, we have the manifold configurations you
need for boilers, from home use to commercial use.



Zone Control

Available in 4- and 6-zone control options, the Viega Zone Control is a wiring and switching center for individual and/or multi-room control. With a built in transformer and external LED lights, Viega's Zone Controls can easily be packaged with the new Digital Thermostat.



Manifolds



Commercial heating and cooling

Viega offers a full range of hydronic radiant heating and cooling options to heat or cool commercial spaces. When a Viega ProRadiant heating or cooling system is installed, companies not only operate in a more comfortable working environment but a more efficient working space.

ProRadiant cooling offers the same advantages of ProRadiant heating.

The systems are:

- Comfortable
- Quiet
- Energy Efficient

Featured on this page are images of locations where Viega ProRadiant heating or cooling systems have been installed.



Indianapolis Airport



150 Amsterdam



Thompson Creek

www.viega.com

When being green saves green

Viega's ProRadiant system is the ideal solution for building green. ProRadiant utilizes the entire floor surface, allowing for lower, more consistent space temperatures. Even heat distribution results in total comfort and the system's efficiency can save up to 30 percent in energy costs.

ProRadiant is compatible with high efficiency technologies like solar and geothermal, as well as condensing boilers. Compared to forced-air systems, ProRadiant heat produces less air movement and a higher relative humidity, which can reduce the amount of dust and allergens. In commercial applications, ProRadiant can be designed to downsize conventional air conditioning systems by meeting sensible cooling loads.

ProRadiant also provides extensive business benefits for contractors. ProRadiant has a 30-year warranty, valid from the installation date, and is a profitable system to install. Since radiant heating is a growing technology, more homeowners will begin requesting it in the future and, since it is eligible for points toward LEED certification, more commercial institutions will begin requesting it as a green solution. Education is a key component for success in radiant technology and Viega, as the leader in contractor education, will be there to answer any questions or solve any difficulty.

Additionally, Viega products and components, when applied in conjunction with or as part of a greater system, may be eligible for points toward LEED certification in various categories. For specific LEED certification information, visit www.usgbc.org and consult your architect and LEED professional.



The tools you need

Tech Support

Our technical support team is prepared to provide the assistance required to get your job done and answer the questions you have along the way.

Viega's highly qualified support staff is experienced in all aspects of the plumbing and heating industry. Our support team is available to answer your questions about all of our product lines – ProRadiant, ProPress Copper and Stainless, as well as PureFlow.

Design Support

The design team is well equipped to supply design and detailed drawings for both residential and commercial applications.

Training

Dedicated to education, Viega has been recognized by industry professionals as offering some of the most innovative, informative and interactive training courses. We train on real world applications. Our offerings range from two-day courses to week-long advanced courses.

Field Sales Representatives

Viega's outside sales force covers the U.S., Canada, Mexico and Latin America. The main advantage Viega has over the competition is that if customers have any problems, need training or help with local code enforcement, a Viega representative is just a phone call away.





viega





Inventing better products to help build a better bottom line

Homeowner Benefits

As a contractor or builder, you already know that your residential or commercial customers are requesting radiant heating and cooling because of the benefits. Radiant heat is comfortable, it warms at the floors and the entire floor becomes, in effect, a low-temperature radiator. The floors become a conductor of heat and warm other surfaces in the room and they in turn become heat emitters. A radiant system is energy efficient and it will typically realize a 10-to-30-percent decrease in energy use. ProRadiant systems are versatile and allow for multiple zones of efficient energy control. ProRadiant systems are clean, quiet and there are no furniture restrictions. ProRadiant systems also will help the homeowner with retaining resale value.

Engineered to be easy to use, Viega offers products that make your job easier. As a contractor, you are interested in saving on labor and increasing your efficiencies and profitability. With Viega ProRadiant you will realize these labor savings and cost efficiencies. A ProRadiant system is durable and reliable. Products are manufactured to the highest standards.

System Variety

With the Viega family of products you may use a variety of different systems. Whether installed in new construction or a remodel, we have a system to fit every application.

Contractor Benefits

- Climate Panel
- Heat Transfer Plate
- Climate Trak
- Climate Mat
- Snap Panel

When we say we are a system solutions provider, we mean it. We supply the tubing, a variety of controls, manifolds, mixing stations, fittings and tools that work together to create a radiant heating system. These components function as a complete system to provide the right amount of heat in the right places at the right time.

Viega

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