

Sales, Service and Smiles

When Bill Gavin, president of Gavin Chevrolet, Buick and Geo of Middleville, Mich., planned to add 12 new service bays to his dealership, he insisted worker comfort be a priority.

In past winters, the environment of the existing eight service bays had been anything but pleasant. The floors were slushy, grimy and cold, and blasts of freezing air entered the bays whenever the large doors opened and closed. The service mechanics, which spent just as much time on the floor as under the hood, were miserable.

"This was not a good situation," says Gavin. "It's quick, warm and friendly service that wins customer loyalty and pays the bills. By adding service bays, we had an opportunity to simultaneously expand our business and improve working conditions."

Gavin chose Uponor hydronic radiant floor heating system for the addition because of its proven benefits — even, economical warmth and quick heat recovery. After completing the addition and tearing down the wall separating the new and old service bays, Gavin was astonished at the difference between the two areas.

"The quality of the radiant floor heat was so apparent that mechanics working in the old section were



Bill Gavin installed radiant floor heating in his new service area. The system was so successful, he put radiant floor heating in his showroom and offices too.

constantly walking over to the addition," he says. "Even though it was now technically one space, it seemed like two separate rooms."

In fact, Gavin was so pleased with the success of radiant floor heating in the service area, he decided to install it in the showroom and sales offices as well.

"The employees noticed a difference right away," says Gavin. "And even customers remarked how much more comfortable our showroom was to our competitors."

Gavin says his decision to go radiant was the best thing he could have

done for his auto dealership — his workers are happy, his customers are comfortable and his sales are up.

"The advantages of radiant floor heat are more than I could have ever imagined," he says. "The whole place is warm and comfortable and the price is respectable, too. And even though we've nearly doubled the size of the dealership, we're only using about 90% of our former energy requirement."



Summary of Benefits

Improved Working Conditions

The radiant floor heating system melts away snow and ice to keep the service area floors warm and dry. Warmth is quickly recovered as automobiles enter and leave the service bays. Mobility is increased because the radiant floor heating provides short-sleeve comfort for the mechanics. They perform their work more efficiently and sick days are down.



Comfortable and Convenient

The mechanics, office and sales staff all noticed an immediate improvement in comfort with radiant floor heating. Customers also remarked how Gavin's showroom was far superior to the showrooms of his competitors. They found the sales and service experience more pleasurable — even on the coldest, wettest days Michigan has to offer.

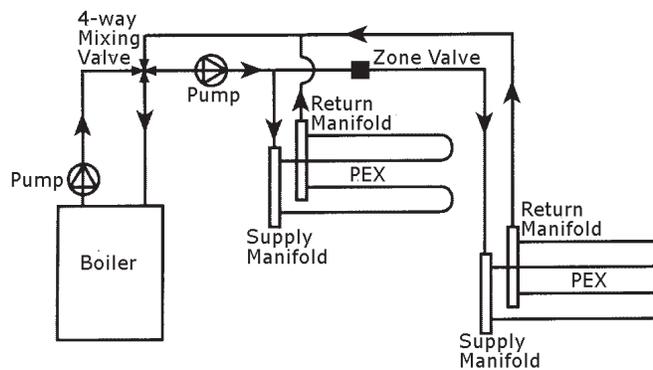
Cost Effective

Gavin is now heating nearly twice as much space with less energy. A thermostat controls the single heating zone of the entire service area and keeps it at a consistent, 65°F temperature. The showroom, parts department and offices were also designed as separate heating zones, each controlled with an individual thermostat. Various waste oils, including everything from crankcase to transmission oils, heat the new waste-oil unit. Gavin has yet to use his old natural gas boiler which is now relegated to standby duty.

Mechanical System Information

The system incorporated a heat sink for fast heat recovery in the service area. Installers laid PEX tubing 12 inches on center across a metal grid and covered it with 6 inches of concrete. The original design featured a 300,000 BTU/h natural gas boiler tied into the Uponor system via a series of manifolds. The boiler was also tied into forced-air blowers in the existing section of the service area.

Uponor radiant floor heating was then installed in the remodeled showroom and office areas. Installers placed mesh and tubing along the outside 10-foot perimeter of the showroom wall at 6 and 12 inches on center, and covered the tubing with 4½ inches of concrete. A new waste-oil boiler unit with a 250-gallon storage tank replaced the old boiler.



Project Data

Size of Structure:	98,000 square feet
Type of Construction:	Steel frame
Floor Construction:	6" slab on grade for the service area; 4½" slab on grade in the sales and showroom areas
Outside Design Temperature:	5°F
Room Setpoint Temperature:	65°F
Heat Plant Size:	300,000 BTU/h
System Supply Water Temp:	105°F
Tubing Type:	Uponor PEX
Number of Manifold Locations:	3
Tube Spacing:	6" and 12" on center
System Flow:	28 gallons per minute (gpm)

The design information in this case study is provided for illustrative purposes only. The actual requirements of similar projects will depend on regional climatic conditions, project-specific heat loss, owner expectations, applicable building codes, etc. Please contact your Uponor representative for assistance in designing your specific projects.