

International Piping Systems Enjoys a “Walk in the Park” with Anvil’s Design Services

Rising above 13th and Michigan Avenue directly across from the old Soldiers’ Field on the South Side of Chicago, the construction of a 21 story Museum Park Condo tower was highly anticipated as being one of the crown jewels of the neighborhood’s renaissance.

However, before the potential residents could enjoy the many comforts of the condo, a myriad of challenges involving the installation of the HVAC systems - ranging from limited space and on-site storage, to a tight budget and construction schedule - needed to be addressed. International Piping Systems (IPS), a leading full-service mechanical contractor since 1979 from Schaumburg, Illinois, addressed these challenges by enlisting the expertise of Anvil’s Design Services Group and its grooved pipe connection system.

International Piping had success with Anvil, its design services capability and its Gruvlok® brand piping system on a number of previous jobs. They felt that Anvil’s past performance of meeting challenges, as well as the inherently quick and easy shop fabrication and installation and alignment characteristics of the system, would best meet its space, time, and labor savings needs.



The Museum Park Condo’s - Block 4, Tower II

It’s All in the Planning

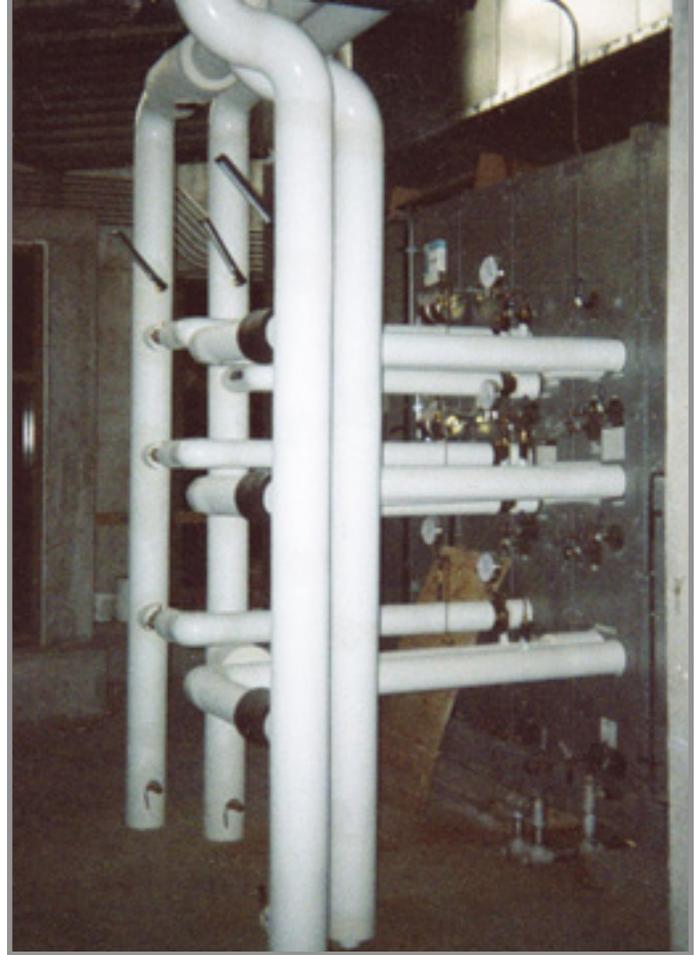
Anvil’s Design Services Group, led by David Campbell, Manager of Design Services for Anvil, assisted in the pre-planning for the \$2 million mechanical room project by interpreting the contractor’s flow diagrams, mechanical drawings, approved submittals and specifications in terms of economy, accuracy and compliance. The design team, working with IPS personnel, then made modifications in arrangement, construction, equipment location and included product to gain efficiency in the system while simplifying the fabrication and installation process.

“I’ve been in the business for more than 25 years and have never seen pre-planning as good as on this project, particularly the three-dimensional drawings,” said Kevin Simek, the Project Supervisor for IPS. “Anvil’s design services allowed the project to come together like an easy puzzle. The three-dimensional drawings also made it easy for any fitter to pick right up where the previous one left off and fix any changes quickly on site.”

IPS was able to reserve space for piping at the early coordination meetings because it had some of the first preliminary drawings. This timeliness minimized future conflicts. The final drawings included a bill of materials with tags referencing the components in the mechanical room. The piping was color coded by service and was represented in 3-D with plan, isometric and elevation views.

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Pristine Manifold with Accessible Gauges



Flex Couplings keep Pump Components at Serviceable Height

Save Product, Space and Time

Final fabrication drawings were prepared to maximize fitting and piping efficiencies. “The Museum Park project was another example of how we can reduce fitting counts by 10-15 percent by simply moving equipment, usually less than a foot,” said Campbell. “Our pre-planning also allowed us to save space, which was at a premium in the mechanical room, and make the system more accessible than it would have been otherwise.”

In addition, utilizing Anvil’s design services facilitated the cutting of pipe at the shop instead of on the 21st floor where space and scheduling issues would have made fabrication problematic. With these same challenges in mind, 90 percent of the Gruvlok[®] fittings/pump components for the equipment room were sorted as complete packages and delivered to the site by Anvil’s distributor, SG Supply of Calumet Park, Illinois “bagged and tagged” and “just in time.” Each pump package was tagged with the shipping order and a picture of the pump components was enclosed.

Service Priority One

“No matter what hour of the day or night, SG and Anvil were extremely responsive to our needs,” said Simek. “The delivery of the components went very smoothly as they were delivered by crane trucks right when and where we needed them. Since most of the job was bagged and tagged we also didn’t need to spend days breaking down and picking through product.” Prior to the installation, Anvil conducted a quick and easy grooved training session which received International Piping’s complete support. “We have workers from every walk of life and varying job experiences,” said Simek. “It just makes business sense to do the training so we can work as efficiently as possible.”

As a result, Simek and other International Piping managers were free to spend more time supervising instead of looking for product, calculating pipe lengths or routing pipe. Without proper training and the timely, coordinated effort of preparing and delivering the pipe and fittings to the job site, costly lift schedules would have been missed.

“IPS is 100 percent professional in everything they do,” said Anvil’s Richard Redmond, Sales Engineer. “They realized the importance of pre-planning and the space, time and labor savings that can be realized as a result. They were very supportive of our efforts as they always have the ultimate satisfaction of their customer in mind.”



Easy Access 3-Way Valve, Tee Strainers, and Air Separator (Located Together)

Adding Value

Lastly, IPS employed value engineering throughout the project. The selection of the seven pump packages was no exception. Anvil’s Design Services Group recommended that three Gruvlok® 7001 flexible couplings be installed on each side of the five split case pumps at normal joint locations, instead of 6” braided steel flexible joints, to save time, space and costs.

Using the three flexible coupling “flex joint”, a practice proven by many field applications, also allowed for controlled axial movement and deflection to accommodate thermal expansion/contraction and ground settlement. Yet another benefit was that the valves were

at a more user friendly (lower) elevation than if the braided steel flex joints were employed. The five 6” horizontal split case pumps were quickly installed back-to-back in a serviceable 255 sq. ft. area. The rest of the Gruvlok® system featured tri-service valves and inexpensive but highly functional T-strainers. Other Anvil products used on the project were pipe hangers and struts.

Plan the Work and Work the Plan

Although International Piping was confronted with a number of challenges relating to space, schedule and budget, the company’s emphasis on pre-planning through the utilization of Anvil’s Design Services Group and Gruvlok® brand pipe connection system helped make the Museum





FROM TOP LEFT: **Richard J. Redmond**, Sales Engineer, Anvil International;
Wally Bock, Project Manager, IPS; **June M. Lempa**, Project Manager, IPS;
Jack Murray, Vice President-Operations, IPS

FROM BOTTOM LEFT: **Kevin Simek**, Field Supervisor, IPS; **Robert E. Lempa**,
 President, IPS;

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— **Kevin Simek**
 Project Supervisor for IPS

Park Condo’s project a “walk in the park.” Concluded Simek, “I’d have to say we used about half the space a more traditional system would require and reduced the amount of installation time by one-third if not more.”

Anvil International, Inc.

Anvil is the largest and most complete manufacturer of fittings and hangers in the world, with manufacturing facilities in Columbia, PA; Pottstown, PA; Waynesboro, PA; Henderson, TN; Longview, TX; Houston, TX; Simcoe, Ontario and North Kingstown, RI. Anvil’s product lines include Gruvlok® fittings and valves, malleable iron fittings and unions, cast iron fittings and flanges, forged steel fittings, unions and couplings, welded and seamless pipe nipples, tee-lets, adjustable drop nipples, pipe hangers and supports for the plumbing and mechanical, water and waste water, fire protection, mining, oil and gas, and OEM markets. Corporate offices are located at 110 Corporate Drive, Suite 10, Portsmouth, NH 03801.

ANVIL REGIONAL SERVICE CENTERS • www.anvilintl.com

NORTH EAST
 2530 Pearl Buck Road
 Bristol, PA 19007
 Tel: 215-788-4056
 Fax: 972-641-8946
 Toll Free:
 1-800-457-4414

MIDWEST
 750 Central Avenue
 University Park, IL 60466
 Tel: 708-534-1414
 Fax: 708-534-5441
 Toll Free:
 1-800-301-2701

WESTERN
 1385 Greg Street
 Sparks, NV 89431
 Tel: 775-331-7029
 Fax: 775-331-5075
 Toll Free:
 1-800-572-0051

SOUTHWEST/SOUTHEAST
 1313 Avenue R
 Grand Prairie, TX 75050
 Tel: 972-343-9206
 Fax: 972-642-8946
 Toll Free:
 1-800-457-4414