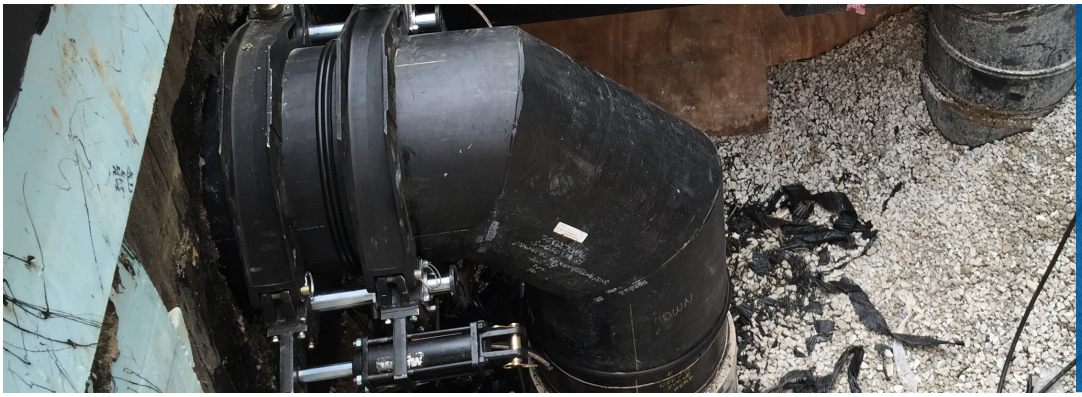
FIELD REPORT

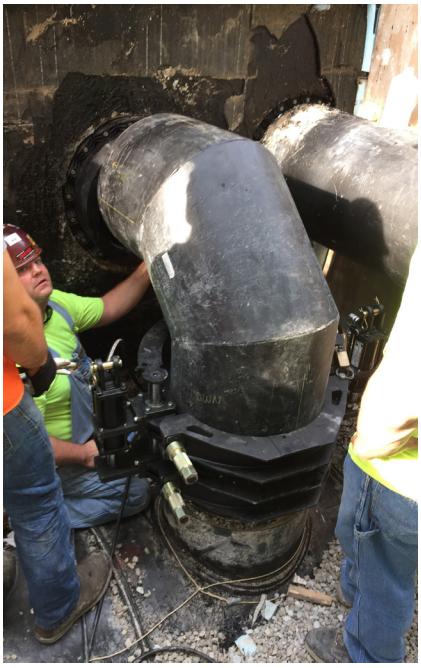
ISCO OVERCOMES OBSTACLES WITH INNOVATION



When the perfect solution doesn't exist yet...ISCO creates it.

PUMP MALFUNCTION

The University of Chicago is a big proponent of high-density polyethylene (HDPE) pipe. The school has several buildings that are served by chilled water lines, including some recent additions to that system. The school had an issue that affected the chilled water HDPE supply line within a new building near the end of construction. One of the pumps malfunctioned causing it to pump steam through a 20-inch line at an unknown elevated temperature, possibly in excess of 300 degrees F for an unknown amount of time. ISCO Industries sales rep Matt Chmielewski visited the location a few days later and was involved in developing a short term observational plan. The line was put back into temporary operation after replacing a gasket and re-bolting a flange that exhibited obvious indications of melt. There was also a long term replacement plan for a section of the line since the integrity of the HDPE flange and nearby fittings could not be guaranteed given the evidence of melting and the unknown extent of damage.



EMERGENCY SOLUTION

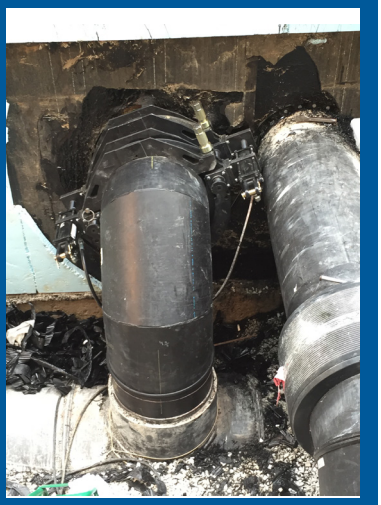
The replacement work was scheduled for mid-June. In the week prior to the scheduled work, Matt reviewed the replacement plan with ISCO's rental and technical department. The original plan involved using two new electrofusion couplings to connect the 20-inch line back to the main 36-inch line where it branched. It also dictated that couplings be used at the wall of the building where it entered and transitioned to steel piping at the flange. It became a concern to those reviewing that plan within ISCO that there was no viable backup plan should the EF couplings have any problems or leaks. Any downtime of the line would mean a shut-off of chilled water for at least one month until a more extensive repair involving the 36-inch main line could be developed. All parties at ISCO recognized the difficulty of doing these EF welds and even bigger problems if the replacement was unsuccessful.

PROJECT
Chilled Water Line

LOCATION
Chicago, Illinois

PROBLEM
Gasket and flange damaged by steam from a pump in an extremely tight space.

THE ISCO SOLUTION
A custom fabricated fusion machine designed for limited access.



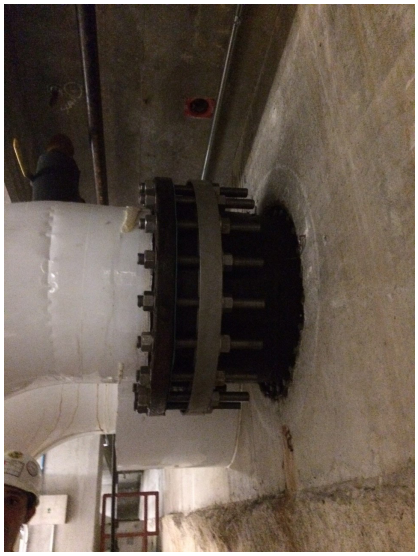
"The job was not without challenges and obstacles, but it was a perfect example of the whole package ISCO offers. It's not just pipe."

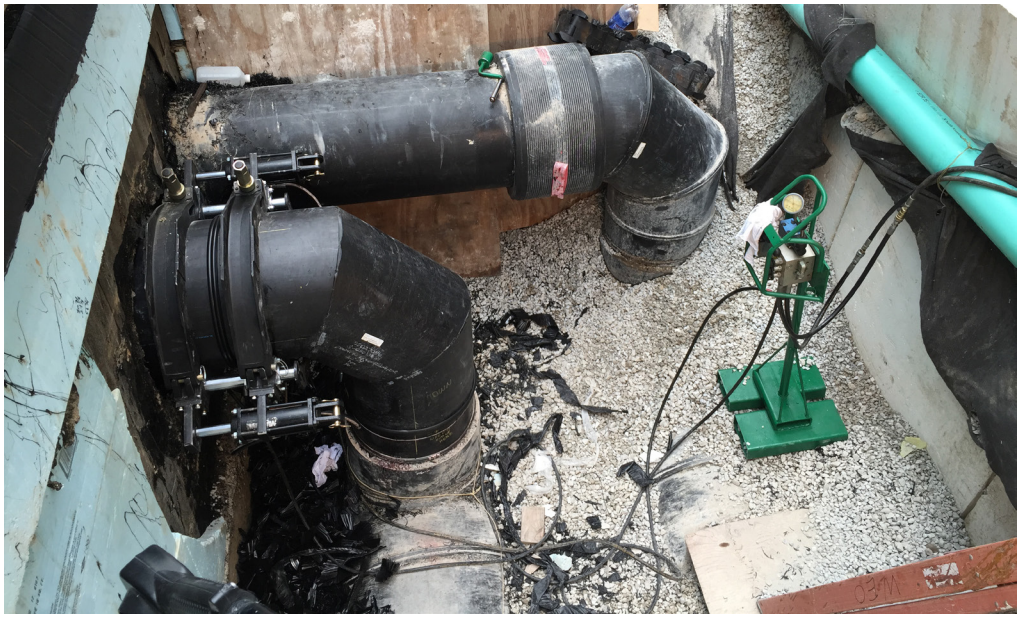
Given the turmoil that this created for getting this new building finished by an August 1st deadline, Matt was asked to meet with all the construction and engineering personnel at the University of Chicago. Matt asked director of technical services Don McGriff to join him for the meeting on site. The university was adamant that no mechanical coupling or bolted connections underground would be allowed. They wanted an all HDPE solution since long term maintenance cost and hassles created by other materials, leaking gaskets, or corrosion at bolted connections had cost thousands of dollars. They were big fans of HDPE and wanted an HDPE solution. Don worked with director of equipment sales Mike Montgomery and field technician Steve Holpp to lay out the restrictions and obstacles. Mike came up with a new plan to butt weld the joints with a "new" fabricated limited access machine, one that did not physically exists at that point. Don and Matt worked on site to establish the working room for the machine and Mike verified that there would be enough clearance to make the two new butt welds possible.

The university and ISCO agreed to have the project completed in three weeks. Mike worked with ISCO's mechanics in Huntsville, Al to manage the fabrication of the machine using older equipment along with new hydraulic cylinders. Frequent updates of the progress were provided to the university team.

The new machine has a 12-20-inch range that adds to ISCO's current equipment for limited access and in-ditch fusions. It was inspired from a special two jaw 36" limited access fusion unit ISCO currently has in the rental fleet. That unit was built in the mid 90's by a Maskell-Robbins team (ISCO Houston acquisition in 2003) of Dave Reynolds (ISCO-Australia), Neil Balsam (ISCO consultant) and Bill Karsten (retired from ISCO).

This job was not without challenges and obstacles, but it is a perfect example of the whole solution ISCO offers. It's not just pipe, ISCO is the answer to your problem.





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