

Big Fork, Montana

Hydro Power Plant Water Supply



Pacificorp's Big Fork, Montana 4.1 MW hydroelectric power plant has been in service for over 100 years. Weholite was selected to replace a woodstave penstock feed line that parallels the Swan River. After many years of service, in 2000, a failure of the woodstave pipeline caused a washout into the scenic Swan River, along a section of the river that is popular for canoeing and whitewater rafting. The plant's electrical output was cut in half, pending replacement of the pipeline.

1,700' of 120" diameter pipe was installed as an inverted siphon operating with internal pressures of 5 psi. The project featured several large radius bends. The pipes were joined using full wall extrusion welds (welds that extend from the OD of the pipe to the pipes' ID) to create a leak free system. Long pipe lengths, constrained only by the logistical issues of shipping, reduced the number of joints to be welded to a minimum.



Full wall welds using an automated extrusion welder.

Project:

Turbine Feed Water Supply, Big Fork, Montana

Owner:

PacifiCorp

Application:

Replacement of Turbine Feed Water Supply

Contractor:

J.R. Merit