

THE CUTTING OF BASALT LINED PIPE WITH AN ABRASIVE CUT-OFF SAW IS ACCOMPLISHED BY THE FOLLOWING PROCEDURES:

(1) Place the pipe to be cut on three timbers.



(2) Choose timbers of sufficient thickness to clear flanges of the ground or floor.



(3) Care should be taken in marking pipe for the cut to assure a good square end. Measure and mark the pipe in 6 – 8 places around the circumference and join these lines rather than using a wrap-around from a single point.

A 360° wrap-around will be difficult to lay square due to the spiral welded pipe casing.



(4) Arrange the timbers, placing a timber at one end.



(5) Place the second and third timbers so that they will straddle the cut.



(6) Before beginning to cut, roll the pipe a full 360° to assure that the pipe is in contact with the timbers at all points to prevent premature fracture of the lining.

(7) The initial cut with the abrasive cut-off saw should be done with care to insure a good square end.

Cut through the 10-gauge steel casing and 3/8" cement mortar before attempting to cut the basalt lining.



(8) Cutting of the basalt liner should be done while continually rotating the pipe on the timbers.

Let the abrasive blade "score" the basalt liner. Do not pressure the blade or stay in one spot.

If one area is penetrated more than another, there is a good chance of an uneven break.



(9) After penetrating the basalt liner 1/4" to 3/8", the pipe will fracture leaving a ragged end.



(10) This ragged end should be ground smooth.



(11) Measure and tack-weld the new flange in place. Permanently weld the flange in place using a “stitch” weld procedure to produce a continuous weld bead. A 3/8” fillet weld is recommended.

Welding is not usually recommended on the steel casing of basalt lined pipe. However, when welding a flange on the end of a field cut pipe, the heat will dissipate quickly enough that little damage to the mortar or basalt liner will occur.



(12) With a square cut there is no other work required after permanently welding the flange in place. If the cut end is not square and/or recessed more than 1/8” from the flange face to the basalt lining, this should be filled with ceramic trowelable wear compound or epoxy.

The type of cut-off saw and blades we recommend for this procedure are:

DeWalt 12” Cut-Off Saw, Catalogue No. DW866, Type I, 5,000 RPM

United Abrasives, Inc. / SAIT, Type 1, Cut-Off Wheel, Grade C24R Concrete, Part No. 23413



If it becomes necessary to weld a hanger clip or support to the steel casing of basalt lined pipe in a location other than on the pipe end, a “stitch” welding technique should be used. Do not weld more than 3/4” to 1” at a time and allow to cool after each “stitch”.