



## **FIELD CUTTING OF BASALT PIPE**

Cast Basalt lined steel pipe can be modified/cut in the field using the following procedures. Normal care and workmanlike practices are needed to insure good quality cuts are achieved.

### **Preparation:**

The pipe to be cut must be properly aligned and firmly supported at four (4) locations; two (2) locations on each side of the cut. You should make sure that all (4) supports are touching the pipe, if not, the pipe will either crimp and damage the blade or snap the basalt liner unevenly.

### **Equipment:**

Handheld power saw with abrasion cut off blade  
Additional blades  
Face shield and/or goggles  
Leather gloves  
Pipe 'wrap around'  
Marker

(Check with your safety office for approval of procedure and safety equipment needed.)

### **Cutting Procedure:**

- 1.) Check and inspect all safety equipment and tools.
- 2.) When the pipe is correctly supported the steel shell can be marked at the point to be cut with the aid of a 'wrap around'.
- 3.) To start, cut the steel shell only for a length of 6" or so using the power saw and cut off blade. The steel shell and cement filler beneath the steel will be relatively easy to cut. You will feel a hard surface under the cement, which will be the basalt liner.
- 4.) To cut the basalt liner, continue through the cut made in 3) above with the cut off blade. Steps 3) and 4) will have to be repeated a number of times to complete the cut. When finishing the cut make sure the pipe is correctly supported and totally level. Extreme care during the final cut is required to produce a clean straight cut.
- 5.) Before welding the flange onto the lined pipe, clean the area to be welded of any paint or debris. Properly square the flange and 'two hole' the bolt pattern with the other flange. Weld on flange per field welding procedure. The pipe casing and flange are made of mild carbon steel.  
  
Weld ~90° section of pipe and then allow to cool for ~20 minutes. Proceed in this manner until welding is complete.
- 6.) The cement grout will require replacing on the cut end. Remove approximately 1 1/2" depth of the grout and fill with an epoxy cement (suitable material for the application). This process is necessary to protect the pipe end and grout from the liquid slurry.

Cutting time for the steel and basalt is about 25 minutes for 10"ID pipe.