



Nomenclature:

- $W_b$  = Widest width of weld attaching the branch connection to the pipe.
- $SB$  = Soak band on pipe (width of the volume of the material where the holding temperature equals or exceeds the minimum and equals or is below the maximum required. The minimum width is typically specified as  $W_b$  plus a multiple of  $t$  on each side of the weld attaching the branch connection).
- $SB_b$  = Soak band on branch connection. The minimum width is typically specified as a multiple of  $t_b$  beyond the widest width of the weld attaching the branch connection.
- $L, L_b$  = Minimum distance over which the temperature may drop to one half of that at the edge of the soak band.
- $HB, HB_b$  = Heated band (width of heat source), shown as shaded area.
- $GCB, GCB_b$  = Gradient control band (minimum width of insulation and/or gradient heat source).
- $t, t_b$  = Nominal thickness of pipe or branch connection.
- $R, R_b$  = Inside radius of pipe or branch connection.

**Local 360-Degree Band PWHT Practice  
for Branch Connection to Pipe Attachment Weld**