**INDUCTANCE**

**Inductance** influences the rate of rise up to peak current during short circuit/dip transfer.

A lower **Inductance** setting will produce higher short-circuiting frequency identified by a stiffer arc and a faster and sharper “crackling sound”. A taller bead is typically produced, with a sharper transition at the toes and generally more spatter.

Higher **Inductance** will provide a lower short circuiting frequency, identified by a slower and softer “crackling sound” due to longer arcing periods between short circuits. A flatter bead is typically produced, with superior wetting at the toes.

**Inductance** controls are primarily used for extra control on open root welds, assistance with spatter issues, and to aid with short-circuiting welds on stainless steels and their associated spatter issues.

**Slope** characteristics of a machine are integral to providing specific inductance properties. Machines that are not equipped with variable **inductance** controls may have lugs to select from a steeper slope(short circuiting friendly) or a flatter slope(spray transfer friendly).

This information is courtesy of Lawrence Bower & Al Moore of the AWS forum.