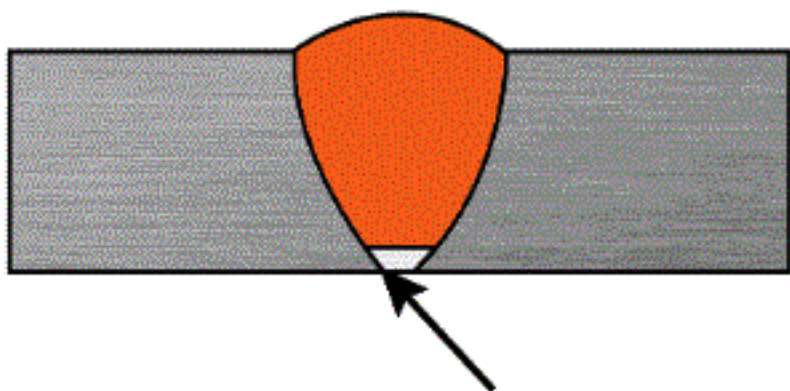


# INCOMPLETE PENETRATION



## Incomplete penetration

Incomplete penetration occurs when the groove of the metal is not filled completely, meaning the weld metal doesn't fully extend through the joint thickness.

### Causes:

- There was too much space between the metal you're welding together.
- You're moving the bead too quickly, which doesn't allow enough metal to be deposited in the joint.
- You're using a too low amperage setting, which results in the current not being strong enough to properly melt the metal.
- Large electrode diameter.
- Misalignment.
- Improper joint.

### Remedies:

- Use proper joint geometry.
- Use a properly sized electrode.
- Reduce arc travel speed.
- Choose proper welding current.
- Check for proper alignment.