Welding Passes

Welding a pipe typically involves multiple passes to ensure a strong and durable bond. The number of passes and the specific welding technique used may vary based on factors such as the type of pipe, its thickness, and the welding process being employed. However, a common approach involves the following layers of passes:

1. Root Pass: The first pass is the root pass, which establishes the root of the weld. It is usually performed with a technique that ensures proper penetration and fusion between the pipe's base metal and the filler metal.

2. Hot Pass: The hot pass, also known as the second pass, is applied over the root pass. It helps to further reinforce the root weld and prepare the joint for subsequent filler and cap passes.

3. Fill Pass: Following the root and hot passes, multiple fill passes are made to fill the groove or gap between the pipe sections. The fill passes build up the weld to the desired level, creating a strong bond between the pipe sections.

4. Cap Pass: The final pass, known as the cap pass, provides the finishing layer. It is crucial for achieving a smooth and uniform surface, and it helps ensure the integrity and appearance of the weld.

Each pass plays a specific role in building a strong, reliable weld that meets the required standards for the particular application. Keep in mind that the specific welding procedure and number of passes may vary based on the specific welding code or industry standards being followed.