

1 / 12 · Definitions and Terminology

Name the five basic joint types.

filletgauge.com · free CWI Part A check

2 / 12 · Definitions and Terminology

Do you name a joint by the weld in it or by how the members sit?

filletgauge.com · free CWI Part A check

3 / 12 · Definitions and Terminology

Can a butt joint take a fillet weld?

filletgauge.com · free CWI Part A check

4 / 12 · Definitions and Terminology

Back weld or backing weld: which goes in before the groove weld?

filletgauge.com · free CWI Part A check

5 / 12 · Definitions and Terminology

List the groove shapes a drawing can name.

filletgauge.com · free CWI Part A check

6 / 12 · Definitions and Terminology

What is a surfacing weld for?

filletgauge.com · free CWI Part A check

2 / 12 · Definitions and Terminology

By how the members sit before welding. A T-joint with a bevel groove weld is still a T-joint.

AWS A3.0M/A3.0:2020, joint types and weld types
filletgauge.com · [free CWI Part A check](#)

1 / 12 · Definitions and Terminology

Butt, corner, T, lap and edge.

AWS A3.0M/A3.0:2020, joint types
filletgauge.com · [free CWI Part A check](#)

4 / 12 · Definitions and Terminology

The backing weld goes in before it; a back weld goes in after it. Both sit opposite the main weld.

AWS A3.0M/A3.0:2020, weld types
filletgauge.com · [free CWI Part A check](#)

3 / 12 · Definitions and Terminology

No. A fillet sits in a corner between two surfaces, and a butt joint has no corner.

AWS A3.0M/A3.0:2020, weld types
filletgauge.com · [free CWI Part A check](#)

6 / 12 · Definitions and Terminology

Building up or protecting a surface, not joining parts.

AWS A3.0M/A3.0:2020, weld types
filletgauge.com · [free CWI Part A check](#)

5 / 12 · Definitions and Terminology

Square, V, bevel, U, J, flare-V and flare-bevel.

AWS A3.0M/A3.0:2020, groove weld types
filletgauge.com · [free CWI Part A check](#)

7 / 12 · Definitions and Terminology

Each plate of a single-V butt joint has a 30° bevel. What is the groove angle?

filletgauge.com · free CWI Part A check

8 / 12 · Definitions and Terminology

What goes wrong if the root face (land) is too thick, or too thin?

filletgauge.com · free CWI Part A check

9 / 12 · Definitions and Terminology

Theoretical throat of an equal-leg fillet, as a multiple of its size?

filletgauge.com · free CWI Part A check

10 / 12 · Definitions and Terminology

A concave fillet gauges 8 mm on both legs. Is it an 8 mm fillet?

filletgauge.com · free CWI Part A check

11 / 12 · Definitions and Terminology

The drawing gives one fillet size and the two legs gauge unequal. Which leg sets the weld size?

filletgauge.com · free CWI Part A check

12 / 12 · Definitions and Terminology

CJP versus PJP?

filletgauge.com · free CWI Part A check

8 / 12 · Definitions and Terminology

Too thick and the root will not melt through; too thin and it burns through.

AWS A3.0M/A3.0:2020, groove nomenclature
filletgauge.com · [free CWI Part A check](#)

7 / 12 · Definitions and Terminology

60°. The bevel angle is one plate's cut; the groove angle is the total opening between both.

AWS A3.0M/A3.0:2020, groove nomenclature
filletgauge.com · [free CWI Part A check](#)

10 / 12 · Definitions and Terminology

Not necessarily. The dished face leaves a smaller triangle inside, so the throat governs and it can be undersized.

AWS A3.0M/A3.0:2020, fillet weld size and throat
filletgauge.com · [free CWI Part A check](#)

9 / 12 · Definitions and Terminology

About 0.707 times the size: corner to the sloping side of the largest 45° triangle that fits in the weld.

AWS A3.0M/A3.0:2020, fillet weld size and throat
filletgauge.com · [free CWI Part A check](#)

12 / 12 · Definitions and Terminology

CJP: the weld reaches through the full thickness of the joint. PJP: the design stops part way through.

AWS A3.0M/A3.0:2020, joint penetration terms
filletgauge.com · [free CWI Part A check](#)

11 / 12 · Definitions and Terminology

The shorter leg.

AWS A3.0M/A3.0:2020, fillet weld size
filletgauge.com · [free CWI Part A check](#)