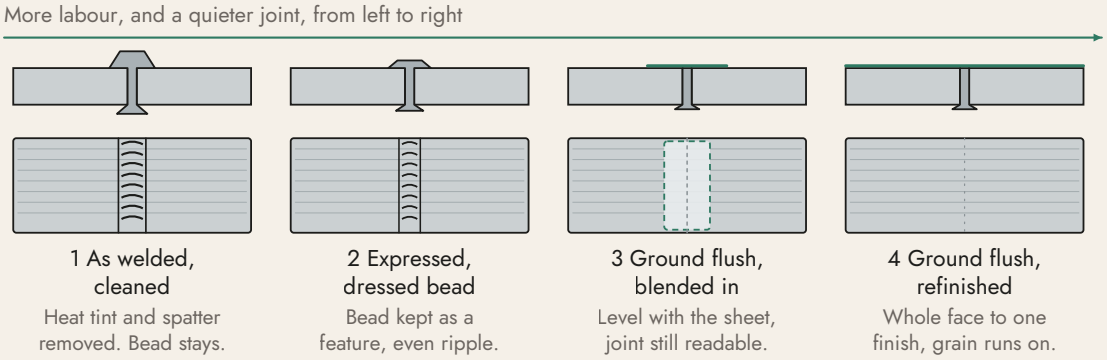
Weld finish and *visible welds*

Say which weld is hidden, which is dressed and which is shown, mark each on the drawing, and approve a sample. ISO 5817 grades imperfections; it does not describe a finish.

AT A GLANCE

Weld finish	What it is	What it asks for	Where it suits
As welded, cleaned	The bead is left. Spatter, slag and heat tint are removed.	Heat tint removal restores corrosion resistance (Euro Inox). Nothing more on the face.	Hidden frames and joints behind a face.
Expressed	The bead is dressed to an even ridge and left visible on purpose.	Careful, low-heat TIG work and an even ripple. Approve a sample.	Where the joint is part of the design.
Ground flush, blended	The bead is ground level, then blended into the surface with a fine pad along the grain.	Skilled hand work. Grit, direction and finish must match the sheet. A faint line may remain.	Visible joints on brushed or satin metal.
Ground flush, refinished	As above, then the whole face is brought to one finish.	The most labour. Euro Inox shows skilled hand finishing that leaves no evidence of the joint.	Large visible faces and polished finishes.
No weld in sight	The joint is made another way: a fold, a hidden fixing, a stud weld, or a weld behind a face.	Planned at the drawing stage. Stud welding on sheet of 1 mm or more needs no weld clean-up (Euro Inox).	Cladding, panels and thin sheet.

Sources: Euro Inox Vols. 1, 3, 6 and 15 and an IMOA brochure. They cover stainless steel: for brass, bronze and mild steel ask the partner workshop. A finish name is not a standard, so approve a sample.



One butt joint, four finishes, in section (above) and on the face (below). Original schematic by Make Bespoke Studio, not to scale; the faint line on the right-hand panels is illustrative.

SPECIFICATION WORDING

WELD FINISH SCHEDULE

Welds on visible faces are marked [W1] to [W3] on the drawings. [W1] ground flush: the weld is ground level with the parent surface, heat tint removed, and blended into the [brushed 2J] finish along the grain, with no depressions, undercuts or grinding marks visible at [1 m] in [normal room lighting], matched to sample [ref. __]. [W2] expressed: TIG welded, even ripple, heat tint removed, bead dressed smooth and left visible, to sample [ref. __]. [W3] hidden: not seen once assembled; spatter and heat tint removed; no finishing to the face.

WELD QUALITY AND TOLERANCES

Welds in steel and stainless steel to [BS EN ISO 5817 (edition [to be confirmed]), quality level [ ]], as confirmed in writing by the fabricator's welding coordinator. Copper-alloy and aluminium welds to the acceptance criteria the fabricator states in writing [ ]. General tolerances of welded assemblies to [BS EN ISO 13920 (edition [to be confirmed]), class [ ]]. Structural welds as the engineer specifies [ ].

SEQUENCE, PROTECTION AND CLEANING

All welding, grinding and polishing is to be completed before any PVD, plating, lacquer or paint. Pre-finished sheet, tube and bar are to stay under protective film until final assembly. Tools, abrasives and brushes used on stainless steel are to be kept for stainless steel only. Heat tint is to be removed from every weld and the surface cleaned and passivated as [the fabricator advises], to restore corrosion resistance.

SAMPLE AND APPROVAL

Before production, a sample of each weld type [W1, W2], [250] mm long, is to be made on the approved material and finish, and approved by [name] in [raking and face-on light]. The approved sample is kept as the reference for the work.

TERMS USED

Ground-flush weld
A weld ground and blended until the joint reads as continuous metal, then refinished to match. It costs labour and needs the surface finish specified.

Weld quality level (ISO 5817)
A grading of acceptable weld imperfections from stricter (B) to looser (D). It is about defects, not about how a weld looks.

Heat tint
The straw-to-blue discolouration around a weld on stainless steel. It lowers corrosion resistance and is removed by pickling or mechanical cleaning.

TIG welding
A slow, precise welding method with a tungsten electrode, used for visible seams and thin stainless or brass. MIG is faster and used where the weld will be hidden or dressed.

Stitch weld
A row of short welds with gaps between them, instead of one unbroken seam. It puts less heat into the metal per length, but each gap is a crevice unless it is sealed.

Expressed weld
A weld left visible on purpose as part of the design, with the bead dressed to an even, smooth ridge rather than ground away.

Seal weld
A weld run to close a joint against dirt, water or crevices, rather than to carry load.

STANDARDS AND SOURCES

- Euro Inox, Vol. 6, The Mechanical Finishing of Decorative Stainless Steel Surfaces (1st ed. 2005)
- Euro Inox, Vol. 3, The Welding of Stainless Steels (2nd ed. 2007)
- Euro Inox, Building Series Vol. 1 (3rd ed. 2005) and Vol. 15 (2nd ed. 2011)
- IMOA, Which Stainless Steel Should Be Specified for Exterior Applications? (brochure)
- ISO 5817:2023, quality levels for imperfections in fusion-welded joints: listing read; text not read; confirm the BS EN ISO edition.
- EN ISO 13920:2023, general tolerances for welded constructions: listing read; text not read.

Full guide: https://makebespoke.com/trade/technical/weld-finish-and-visible-welds. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.