

Welded Tube — Which Standard Applies

A one-page selector for the standards welded tube is most often bought to.

Which standard applies to your tube?

Buyers often ask us to quote "ASTM A500 tube" when what they need is mechanical tubing, or the reverse. The two are not interchangeable, and the standard is what decides grade, tolerances and inspection. This sheet is a starting point for the conversation, not a substitute for the specification your project calls for.

Standard	What it covers	Usually chosen for
ASTM A53	Welded and seamless steel pipe, general service; black or hot-dip galvanised	Steam, water and air lines
ASTM A500	Cold-formed welded carbon steel structural tubing, round / square / rectangular	Structural members, building and support work
ASTM A513	ERW carbon and alloy steel mechanical tubing, tighter dimensional control	Mechanical parts, furniture and equipment frames
ASTM A252	Welded and seamless steel pipe piles	Foundation piling
EN 10255	Non-alloy steel tubes suitable for welding and threading	Building services: water, gas, general fluids
EN 10219	Cold formed welded structural hollow sections	European structural work
EN 10217	Welded steel tubes for pressure purposes (series incl. stainless)	Pressure and process service
GB/T 3091	Welded steel pipe for low-pressure liquid delivery	Domestic and non-export projects
GB/T 6728	Cold formed steel hollow sections	Chinese structural work
API 5L	Line pipe for oil and gas transmission	Pipeline service

How to narrow it down

- Is the tube carrying a fluid under pressure, or carrying a load as a structure? That single question separates the A53 / EN 10255 / API 5L group from A500 / A513 / EN 10219 / GB/T 6728.
- Does the project name a standard? If it does, that governs — we build the line to the size and output, the standard governs the product.
- Do you need tighter dimensional control than structural tubing gives? That is the case for A513 mechanical tubing.
- Nothing here matches? Send the drawing and the designation you work to and we will confirm the line against it.

All figures and standard designations on this sheet are the published values of the standards named, not measurements of a particular production batch. Where the standard leaves a value to the producer, the sheet says so rather than picking one.

Further reading

- Technical notes — welding methods and specification decisions — steelpipemachines.com/category/technical-notes
- All datasheets — steelpipemachines.com/downloads