

Welded or Bolted?

Mechanical Engineering

The trade between a permanent stiff joint and a serviceable one.

Welded joint

- Continuous, stiff, no leak path
- Lighter, with no fastener cost
- Heat distorts and leaves residual stress
- Hard to inspect, harder to undo

Bolted joint

- Can be dismantled for service
- Inspectable and replaceable
- Needs preload control to stay tight
- Every hole is a stress raiser

THE DIFFERENCE THAT MATTERS

Permanent and stiff, weld it. Anything that must come apart, bolt it.

Welding codes govern procedure, filler, qualification and inspection.
Educational reference only.