

## Which standard should be used for each engineering decision?

ASME codes and standards for pipe and piping

| Document                   | Primary role                             | Typical project decision                                                     | Does not replace                      |
|----------------------------|------------------------------------------|------------------------------------------------------------------------------|---------------------------------------|
| ASME B31.1                 | Power piping code                        | Stress, supports, fabrication, testing and boiler-external-piping boundaries | Material technical product definition |
| ASME B31.3                 | Process piping code                      | Fluid service, pressure design, fabrication, NDE and leak test               | Process datasheet or piping class     |
| ASME B36.10M               | Wrought steel pipe dimensions            | NPS, OD, Schedule, wall and nominal mass                                     | Grade or allowable pressure           |
| ASME B36.19M               | Stainless pipe dimensions                | NPS, OD and S-suffix schedules                                               | A312/A358 material specification      |
| ASME B16.5 and ASME B16.47 | Flanges and pressure-temperature ratings | Flange dimensions and class                                                  | Whole-system stress analysis          |
| ASME B16.9 and ASME B16.11 | Wrought and forged fittings              | Elbow, tee and fitting geometry                                              | Governing construction code           |
| ASME BPVC II / IX          | Material data and welding qualification  | Allowable stress and WPS/PQR/WPQ                                             | Piping code selection                 |

Source / basis: <https://niktrd.com/asme-standards>