Wall thinning, ovality and defects

Condition	Cause or location	Control
Wall thinning	Outer bend surface	Radius, mandrel, lubrication and post-bend wall verification
Ovality	Cross-section distortion	Tooling, mandrel and multi-direction diameter checks
Wrinkling	Inner bend surface	Pressure-die adjustment and internal support
Surface cracking	High strain or pre-existing defects	Visual inspection and PT/MT where applicable
Leg twist	Uncontrolled bend plane	Fixtures and alignment measurement

Source / basis: https://niktrd.com/u-tube