
Collapse Pressure vs Burst Pressure

Collapse pressure and burst pressure are often discussed together, but they refer to opposite load directions.

Item	Collapse Pressure	Burst Pressure
Pressure direction	Outside to inside	Inside to outside
Main risk	Casing is compressed inward or ovalized	Casing expands outward or ruptures
Typical cause	High external pressure, mud weight, salt creep, reservoir depletion	High internal pressure, pressure test, production or injection pressure
Main control point	Wall thickness, D/t ratio, ovality, yield strength, collapse rating	Wall thickness, grade, internal pressure rating, connection sealing
Buyer concern	Will the casing resist external pressure?	Will the casing resist internal pressure?

For High Collapse Casing, the priority is collapse pressure. The product is selected when external pressure is the main risk, especially in deep wells, depleted reservoirs, salt formations, HPHT wells and high mud weight drilling sections.

Octal Steel Technical Reference - Collapse Pressure vs Burst Pressure