Types F, E and S

astm-a53

Type	Manufacturing route	Grades	Engineering note
Type F	Furnace-butt-welded, continuous welded	Grades A and B	Not intended for flanging
Type E	Electric-resistance-welded	Grades A and B	May be nonexpanded or cold expanded
Type S	Seamless	Grades A and B	No longitudinal weld seam

Page note: Grade B provides higher minimum strength. Grade A may be preferred for close coiling or cold bending, subject to the product type and project requirements.

ASTM source / basis: ASTM International — ASTM A53/A53M-24.