

17-4 PH

Metal | SLM

High-strength hardened stainless for load-bearing parts — heat treatment included.

Our go-to steel when a part has to carry real load. 17-4 PH is a precipitation-hardening stainless that reaches about 1230 MPa tensile and 38 HRC after the included heat treatment, while keeping useful corrosion resistance. Choose it for shafts, valve bodies and tooling details that would otherwise be machined from bar stock.

Mechanical properties

Hardness	38 HRC
Yield strength	1050 MPa
Elastic modulus	170 GPa
Tensile strength	1230 MPa
Elongation at break	13%

Typical applications

- Pump and drive shafts
- Valve bodies and fittings
- Mechanical seal parts
- Landing-gear brackets
- Mixer and agitator parts
- Gas-turbine hardware

Maximum part size

320 × 360 × 360mm (larger parts can be split and joined)

Available finishes

CNC-machined surfaces · E-coated · Electroplated · Glass-bead blasted · Mirror polished · Polished · Powder coated · Sandblasted · Spray painted, matte · Tapped threads · Tumbled · Welded

Values are indicative and depend on part geometry, build orientation and post-processing. For project-specific requirements contact info@3dexperts.me. Instant price: 3dexperts.me/quote