Stainless Steel Flanges and Fittings (ASTM A182 F304 / F316 / F304L / F316L)

Designations: ASTM A182 F304 | F304L | F316 | F316L

Applicable standards: ASTM A182, ASME B16.5, ASME B16.47, ASME B16.11

Product Description

Ochnology is a manufacturer and supplier of stainless steel flanges and forged fittings to ASTM A182 in grades F304, F304L, F316 and F316L. Types include weld neck, slip-on, blind, socket weld, threaded and lap joint flanges to ASME B16.5 in classes 150 to 2500, plus larger sizes to B16.47. Supplied with mill test certificates (EN 10204 3.1) and available with positive material identification on request. Used for refineries, chemical plants, power plants and piping systems.

Chemical Composition (% by weight)

Element	F304	F304L	F316	F316L
Carbon (C)	≤ 0.08	≤ 0.030	≤ 0.08	≤ 0.030
Manganese (Mn)	≤ 2.00	≤ 2.00	≤ 2.00	≤ 2.00
Silicon (Si)	≤ 1.00	≤ 1.00	≤ 1.00	≤ 1.00
Phosphorus (P)	≤ 0.045	≤ 0.045	≤ 0.045	≤ 0.045
Sulphur (S)	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030
Chromium (Cr)	18.0–20.0	18.0–20.0	16.0–18.0	16.0–18.0
Nickel (Ni)	8.0–11.0	8.0–13.0	11.0–14.0	10.0–15.0
Molybdenum (Mo)	—	—	2.00–3.00	2.00–3.00

Mechanical and Physical Properties

Property	F304	F304L	F316	F316L
Tensile strength, min	515 MPa	485 MPa	515 MPa	485 MPa
Yield strength (0.2%), min	205 MPa	170 MPa	205 MPa	170 MPa
Elongation, min	30 %	30 %	30 %	30 %
Hardness, max	187 HBW	187 HBW	187 HBW	187 HBW

Supply Details

Item	Detail
Types	Weld neck, slip-on, blind, socket weld, threaded, lap joint
Dimensions	ASME B16.5 (NPS ½–24, Class 150–2500); ASME B16.47 (NPS 26–60)
Delivery condition	Forged, solution annealed
Certification	Mill test certificate (EN 10204 3.1) and third-party inspection available on request

Typical Applications

- Refinery and petrochemical piping
- Chemical plants
- Power plants
- General process piping systems

Ordering Information

To request a quotation, send the grade and standard, form, size or thickness, quantity, delivery condition, destination port and required certificates to info@ochnology.com or bd@ochnology.com. Typical values apply to the stated standards; actual values are certified on the mill test certificate for each lot.

Issue date: 31 October 2026