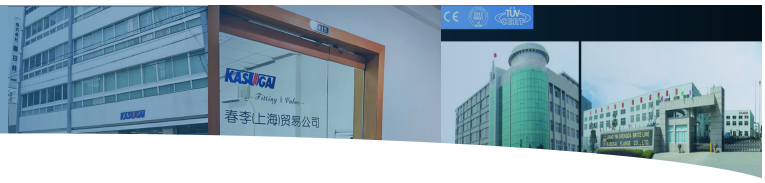

ASME B16.11 Forged Stainless Steel High Pressure Threaded Pipe Fittings NPT 2000-6000LBS Elbow Tee Coupling 1/8"-4"

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: KASUGAI
- Certification: ISO-9001; PED 2014/68/EU; AD 2000
- Model Number: THD-ASME-B16.11-2000/3000/6000
- Minimum Order Quantity: 50 PCS (Trial Order Welcome)
- Price: USD 1.5-60 Per Piece (Based on Size, Material Grade, and Quantity)
- Packaging Details: Export-Grade Plywood Cases, Thread Protectors, VCI Anti-Rust Paper, Palletized
- Delivery Time: Sample 3-5 Days, Bulk 15-40 Working Days
- Payment Terms: T/T 30% Advance + 70% Before Shipment,L/C at Sight
- Supply Ability: 100 TONS / MONTH

Product Specification

- Highlight: **Forged Threaded Pipe Fittings NPT**, **ASME B16.11 High Pressure THD**, **Stainless Steel Threaded Connection**

More Images

Our Product Introduction

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Product Description

KASUGAI introduces its comprehensive line of ASME B16.11 forged stainless steel high pressure threaded (THD/NPT) pipe fittings, purpose-built for industrial piping systems where welded connections are impractical or where frequent disassembly for maintenance access is required. Manufactured from solid stainless steel forgings conforming to ASTM A182 and ASTM A403 specifications, these threaded fittings combine the strength of forged metallurgy with the convenience of mechanical joining. The tapered NPT threads, precision-cut to ASME B1.20.1 standards, create a self-sealing metal-to-metal interference fit that becomes progressively tighter under pressure, making these fittings the preferred choice for high-pressure steam, hydraulic, instrument air, and process fluid applications across the oil and gas, chemical processing, power generation, and marine industries.

Unlike socket weld or butt weld fittings that require certified welders and post-weld heat treatment, our threaded fittings enable rapid assembly and disassembly using standard pipe wrenches and thread sealants. This modularity significantly reduces installation time during plant construction, simplifies maintenance interventions during turnarounds, and allows for future piping system modifications without hot work permits. Each threaded fitting features full-length tapered threads with precise pitch diameter control, ensuring optimal thread engagement depth, uniform load distribution across all engaged threads, and reliable sealing performance even under thermal cycling and vibration conditions. Available in pressure ratings of Class 2000, 3000, and 6000, and encompassing all standard configurations from elbows to plugs, our threaded fitting range provides complete solutions for small-bore high-pressure piping networks up to 4 inches in diameter.

Key Features

- Precision NPT Thread Machining: All tapered threads are CNC-cut to ASME B1.20.1 specifications with rigorous pitch diameter, taper, and thread form verification using calibrated ring and plug gauges. This ensures consistent thread engagement depth, prevents cross-threading during assembly, and delivers reliable metal-to-metal sealing under pressure.
- Forged Body Integrity: Solid one-piece forging construction eliminates weld seams, joints, and potential leak paths inherent in fabricated fittings. The hot forging process refines grain structure and aligns metal flow lines with fitting geometry, delivering superior fatigue resistance and impact toughness compared to cast equivalents.
- Three-Tier Pressure Rating System: Threaded fittings available in Class 2000 (light wall), Class 3000 (standard/Sch80), and Class 6000 (extra heavy/Sch160) pressure ratings, enabling engineers to select the optimal balance of pressure capacity, weight, and material cost for each specific piping service condition.
- Comprehensive Configuration Range: Full product program including 90° elbows, 45° elbows, street elbows (male-female), straight tees, reducing tees, crosses, full couplings, half couplings, caps, hex/round head plugs, hex bushings, and ground joint unions covering all required piping network topologies.
- Multi-Grade Material Availability: Standard stock in ASTM A182 F304/L and F316/L dual-certified grades with controlled carbon content for as-welded service. Special grades including F321 (titanium-stabilized), F347 (niobium-stabilized), F310, duplex F51 (UNS S31803), and super duplex F53/F55 available on request.
- Enhanced Corrosion Protection: All fittings undergo pickling and passivation treatment per ASTM A380/A967 to remove forging scale, machining residues, and free iron contamination while restoring the passive chromium oxide layer. Optional electropolishing for ultra-clean surface finish requirements in semiconductor and pharmaceutical applications.
- Complete Documentation Package: Every order includes EN 10204 Type 3.1 material certificates with chemical and mechanical test results, dimensional conformance reports, thread inspection records, and quality compliance declarations. Type 3.2 certificates with third-party inspection by Lloyds, DNV, or BV available upon request.

Technical Specifications

Parameter	Specification
Product Name	ASME B16.11 Forged Stainless Steel High Pressure Threaded (THD/NPT) Pipe Fittings
Manufacturing Standard	ASME B16.11, MSS-SP-79, MSS-SP-83, MSS-SP-95, MSS-SP-114
Thread Standard	ASME B1.20.1 (NPT), ISO 7-1 (BSPT), DIN 2999
Material Grades	ASTM A182 F304/L, F316/L, F321, F347, F310; Duplex F51, Super Duplex F53/F55
Size Range	1/8" to 4" (DN6 to DN100)
Pressure Ratings	Class 2000, Class 3000 (Sch80), Class 6000 (Sch160)
Fitting Types	90° Elbow, 45° Elbow, Street Elbow, Straight Tee, Reducing Tee, Cross, Full Coupling, Half Coupling, Cap, Hex Plug, Round Plug, Hex Bushing, Union
Thread Type	Female NPT (Internal Tapered), Male NPT (External Tapered), Street (Male-Female)
Surface Finish	Pickled & Passivated (A380/A967), Electro-Polished, Black Oxide, Galvanized
Testing & Inspection	Visual (VT), Dimensional, Thread Gauge (Ring/Plug), PMI, Hydrostatic Test (100% or Sample)
Marking	Manufacturer Logo, Material Grade, Pressure Class, Size, Heat Number, NPT Designation, Standard
Certification	ISO 9001:2015, PED 2014/68/EU, AD 2000-Merkblatt W0, NACE MR0175, NORSOK M-650

Applications

ASME B16.11 threaded high pressure fittings are integral to industrial piping systems where reliability, accessibility, and maintainability converge as design priorities. In oil and gas production facilities, they connect instrument air tubing, chemical injection quills, and hydraulic control lines on wellhead control panels and separator skids. Refineries and petrochemical plants employ them extensively in steam tracing circuits, sample conditioning systems, and small-bore utility stations where welded connections would complicate future tie-ins. Power generation plants depend on threaded fittings for boiler auxiliary piping, turbine lube oil systems, and condensate return lines. The food and pharmaceutical industries specify these fittings for CIP (clean-in-place) spray ball connections, sterile utility drops, and process sampling systems where disassembly for sanitation validation is mandatory. Marine and offshore applications leverage threaded connections in engine room seawater cooling, fuel transfer, and ballast systems where vibration resistance and field repairability are essential operational requirements.

Packaging & Quality Assurance

KASUGAI implements a comprehensive quality control regime for every threaded fitting manufactured. The process begins with positive material identification (PMI) of incoming forging blanks to verify alloy composition before machining commences. During production, thread quality is monitored using calibrated NPT ring gauges (for male threads) and plug gauges (for female threads) to confirm pitch diameter, taper, and lead compliance with ASME B1.20.1 tolerance classes. Completed fittings undergo 100% visual inspection for surface defects, thread damage, and marking legibility. Dimensional verification is performed on AQL sampling plans per ISO 2859-1. For pressure-containing service, hydrostatic testing at 1.5 times the rated working pressure is available as standard or optional. Prior to packaging, all fittings receive protective treatment including thread protectors on male threads and plastic caps on female threads to prevent transit damage. Fittings are then packed in compartmentalized export plywood cases with VCI anti-corrosion paper, silica gel desiccants, and moisture-barrier lining. Full traceability from heat number to final delivery is maintained through our ERP system, and each shipment includes a detailed packing list with product codes, quantities, heat numbers, and certification references.

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