



ASME B16.11 Forged Stainless Steel High Pressure Socket Weld Pipe Fittings 3000-9000LBS Elbow Tee Cross 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: SW-ASME-B16.11-3000/6000/9000
- Minimum Order Quantity: 50 PCS (Trial Order Welcome)
- Price: USD 2-80 Per Piece (Based on Size, Material Grade, and Quantity)
- Packaging Details: Export-Grade Plywood Cases, VCI Anti-Rust Film, Desiccant Packs, Palletized
- Delivery Time: Sample 3-5 Days, Bulk 20-45 Working Days
- Payment Terms: T/T 30% Advance + 70% Before Shipment, L/C at Sight
- Supply Ability: 100 TONS / MONTH



Product Specification

- Highlight: Forged Socket Weld Pipe Fittings, ASME B16.11 High Pressure SW, Stainless Steel Welding Fittings



More Images



for more products please visit us on flangespipefittings.com

Product Description

KASUGAI presents its premium range of ASME B16.11 forged stainless steel high pressure socket weld (SW) pipe fittings, engineered for critical high-pressure piping systems in demanding industrial environments. Manufactured through a precision hot forging process, these fittings deliver exceptional structural integrity, uniform grain flow, and superior mechanical properties compared to cast or fabricated alternatives. Available in pressure ratings of 3000LBS, 6000LBS, and 9000LBS, our socket weld fittings are designed to provide permanent, leak-proof connections that withstand extreme temperatures, aggressive media, and pulsating pressure conditions commonly encountered in petrochemical plants, offshore platforms, power generation facilities, and process industries worldwide.

Each socket weld fitting features a precisely machined socket bore with an internal collar that ensures proper pipe insertion depth and creates an expansion gap to prevent stress cracking during the welding procedure. The socket weld design eliminates the need for complex beveling operations required by butt-weld connections, significantly reducing on-site installation time and labor costs. Our comprehensive product range covers all standard configurations including 90° elbows, 45° elbows, straight and reducing tees, crosses, full and half couplings, caps, unions, bosses, and outlet fittings, available in sizes from 1/8 inch through 4 inches (DN6 through DN100) to accommodate virtually any piping layout requirement.

Key Features

- 2 **Premium Forged Construction:** Manufactured from solid stainless steel billets using closed-die hot forging technology, ensuring zero porosity, uniform density, and mechanical properties exceeding ASTM A182/A403 requirements for high-temperature and high-pressure service.
- 2 **Triple Pressure Class Availability:** Socket weld fittings offered in Class 3000 (Sch80), Class 6000 (Sch160), and Class 9000 (XXS) pressure ratings, providing optimal wall thickness options matched to specific piping system design pressures and temperature derating factors.
- 2 **Precision Socket Bore Machining:** CNC-machined socket bores maintain tight tolerances per ASME B16.11 dimensional specifications, featuring an internal stop collar positioned to create the mandatory 1/16" to 1/8" expansion gap before welding, compliant with ASME B31.1 and B31.3 piping codes.
- 2 **Multi-Grade Stainless Steel Options:** Available in austenitic grades including WP304/304L (UNS S30400/S30403), WP316/316L (UNS S31600/S31603), WP321 (UNS S32100), and WP310S (UNS S31008), with full material traceability from mill test certificate to finished product marking.
- 2 **100 Percent NDE Inspection Protocol:** Every fitting undergoes visual inspection, dimensional verification, and material identification testing. Supplementary liquid penetrant (PT), ultrasonic (UT), or radiographic (RT) examination available upon customer specification.
- 2 **Corrosion-Resistant Surface Finishes:** Standard pickled and passivated finish removes forging scale and surface contaminants while restoring the natural corrosion-resistant chromium oxide layer. Alternative finishes include electro-polished, shot-blasted, and black oxide coating for specific application requirements.
- 2 **Full Certification Package:** Each shipment includes EN 10204 Type 3.1 material certificates, dimensional inspection reports, hydrostatic or pneumatic test reports as applicable, and compliance declarations confirming conformity to ASME B16.11, NACE MR0175/ISO 15156, and PED 2014/68/EU requirements.

Technical Specifications

Parameter	Specification
Product Name	ASME B16.11 Forged Stainless Steel High Pressure Socket Weld (SW) Pipe Fittings
Manufacturing Standard	ASME B16.11, MSS-SP-79, MSS-SP-83, MSS-SP-95, MSS-SP-97
Material Grades	ASTM A182 F304/L, F316/L, F321; ASTM A403 WP304/L, WP316/L, WP321, WP310S
Size Range	1/8" to 4" (DN6 to DN100)
Pressure Ratings	Class 3000 (Sch80), Class 6000 (Sch160), Class 9000 (XXS)
Fitting Types	90° Elbow, 45° Elbow, Straight Tee, Reducing Tee, Cross, Full Coupling, Half Coupling, Cap, Union, Boss, Outlet
Wall Thickness Schedule	Sch80, Sch160, XXS (per ASME B36.10 and B36.19)
End Connection	Socket Weld (SW) per ASME B16.11
Surface Finish	Pickled & Passivated, Electro-Polished, Shot-Blasted, Black Oxide
Testing & Inspection	Visual (VT), Dimensional, PMI, Hydrostatic Test, Liquid Penetrant (PT), Ultrasonic (UT), Radiographic (RT)
Marking	Manufacturer Logo, Material Grade, Pressure Class, Size, Heat Number, Standard
Certification	ISO 9001:2015, PED 2014/68/EU, AD 2000-Merkblatt W0, NACE MR0175

Applications

These ASME B16.11 socket weld high pressure fittings are extensively deployed across mission-critical piping systems where zero-leakage integrity is non-negotiable. In the oil and gas sector, they serve in upstream wellhead control lines, midstream gas compression stations, and downstream refinery hydrocracker and reformer units operating at temperatures up to 816°C (1500°F). Chemical processing plants rely on them for high-pressure steam distribution, reactor cooling circuits, and corrosive chemical transfer lines handling acids, alkalis, and chlorides. Power generation facilities utilize these fittings in superheated steam lines, boiler blowdown systems, and turbine auxiliary piping. Additional applications include offshore platform topside process piping, LNG liquefaction and regasification facilities, pharmaceutical clean steam systems, food and beverage sanitary process lines, and marine shipbuilding engine room high-pressure fluid systems.

Packaging & Quality Assurance

Every KASUGAI socket weld fitting undergoes a rigorous multi-stage quality assurance program before shipment. Incoming raw material billets are verified against mill certificates using optical emission spectrometry for chemical composition confirmation. Post-forging, each batch undergoes dimensional inspection using calibrated CMM equipment, hardness testing, and metallographic examination to verify grain structure integrity. Final inspection includes 100% visual examination, thread/socket gauge verification, and positive material identification (PMI). Fittings are then protected with corrosion inhibitor coating, individually wrapped in VCI anti-rust film, and packed in reinforced export-grade plywood cases or pallets with moisture-absorbing desiccant packs. Each package is clearly labeled with product description, heat number, quantity, and traceability barcode. We also offer customized labeling and barcoding to integrate seamlessly with customers' warehouse management systems.



+86 19045290412 hechao@kasugai-group.co.jp flangespipefittings.com
Rm.8415, Bldg. A8, No. 808 Hongqiao Road, Xuhui District, Shanghai 200030, Chia