

# FORGED CONNECTORS AND COMPONENTS

Total Turnkey Supply Solutions for Diversified Industries



### Capabilities

Through innovative design, specialized forging techniques, and versatility of equipment, AFGlobal is uniquely positioned to meet our customers' exacting requirements efficiently and economically. We offer a wide array of forged products manufactured at several AFGlobal facilities across our global network. Our product offering ranges from commodity flanges—both raw forgings and finished flange profiles—to highly engineered connectors and components for all major industries. Our product brands—names like Coffer, TaperLok<sup>®</sup>, Texas Metal Works, and Forged Vessel Connections—are synonymous with quality and reliability. We also offer everything from squared and contoured rings to large block forgings. Our forging capabilities allow us to provide the correct solutions for your challenges.

Our testing and machining services are backed by ASME and ISO 9001 certifications, along with other industry standards as required. We also feature advanced in-house heat treating capabilities, ensuring the highest quality standards throughout the manufacturing process. As regulations become more stringent within our industries, customers have an escalating challenge to satisfy these requirements. Our in-house engineering team enables AFGlobal to analyze, develop, and implement flexible solutions to complex connection challenges.

#### Forging



- Open/closed die forging
- Ring rolling
- 500 to 7,000-ton hydraulic press
- Heavy wall
- Hammer presses
- Mechanical presses
- High pressure
- Large OD
- Lathes

- Drilling

Milling

-CNC

Contouring

### Testing



- Metallurgical lab
- Mechanical testing
- Material identification
- Chemical analysis
- Tensile testing
- Hardness testing
- Charpy testing
- A2LA accredited mechanical test lab, Certificate No 2162.01

#### Heat Treat

Machining



- Normalizing
- Quench
- Tempering
- Aluminum drop-bottom furnace
- Aluminum age heat treat oven
- Solution Anneal

#### Call AFGlobal today at 713-393-4200 for more information.



### Raw Materials

As one of the few companies in the industry with the capability and resources to build solutions from a large variety of raw materials, AFGlobal maintains a vast and diverse inventory from stainless, carbon, and alloy steels to aluminum and special grades. We have a long history of relationships with industry-leading material suppliers across the globe and our expertise in working with these materials is second to none. If a grade of material is not listed for your forged product requirements, please contact us for availability.

### Materials

- Aluminum
- Carbon

Chrome
Duplex

- Nickel

— Titanium

— Stainless

Other special chemistry or materials are available upon request.

## Product Overview

AFGlobal offers a full range of approved flanges in a variety of configurations and bore sizes. Our vast inventory and quickturn production capability allow us to provide short lead-time deliveries. We can also accommodate specialty sizes and alloys.

### Weld Neck (WN) Flanges

- ½-in. to 72-in. diameter
- Pressure class 150 psi to 2,500 psi
- Multiple facing configurations with other combinations of diameter and pressure class available up to 72-in. O.D.

### Long Weld Neck (LWN) Flanges

- ½-in. to 60-in. diameter
- Pressure class 150 psi to 2,500 psi
- Multiple facing configurations

#### Blinds

- 1/2-in. to 72-in. diameter
- Pressure class 150 to 2,500 psi
- Multiple facing configurations

#### Rings

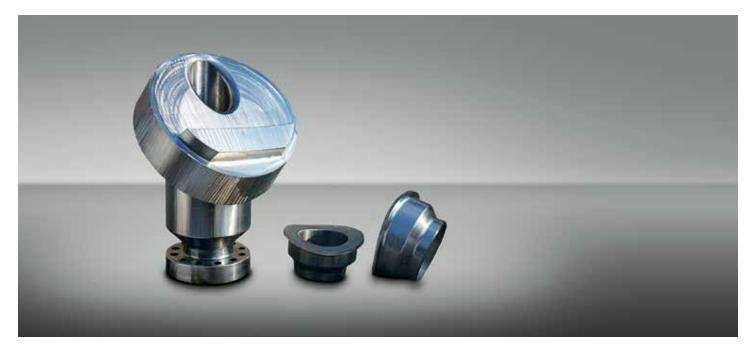
- ½-in. through 26-ft. diameter

Maximum weight of 25 tons





#### Call AFGlobal today at 713-393-4200 for more information.



## Forged Other Products (FOP)

Our forging equipment allows us to offer a broad range of products, shapes, and sizes — from a basic block to complex component designs. The following is a select list of some of our most popular forged products.

- Heavy barrel nozzles
- V1, V2, V3 nozzles
- Custom-engineered forgings
- Blocks
- Shafts
- Discs
- Specialty connections

- Full-body flanges
- Studding outlets
- Q-type attachments
- Heavy wall tees
- Laterals
- Wyes
- Caps
- End caps

- Manways
- Spindles
- Plates
- BOPs
- Hubs
- Sleeves
- Riser assemblies
- Tube sheets

- Self-reinforcing nozzles
- Swivel flanges
- Taper bore nozzles
- Thimbles
- Orifice flanges
- Cylinders



# Overlay Services

AFGlobal's capabilities across all areas of forging include precision overlay. Our broad experience with materials, machining and heat treating along with an extensive library of weld procedures (approved and conforming to NACE, DNV and others) and multiple ARC-05 machines firmly establishes AFGlobal as a leading provider of overlay services.

- Overlay of IDs down to 1-1/2-in. Ø
- ARC-06 CNC hot wire GTAW welding with machine travel capabilities of 144-in. (X), 60-in. (Y) and 96-in. (Z), with a control-integrated tilting and rotating positioner capable of handling parts up to 44,000 lbs.

## Global Reach, Local Advantage

With more than 20 reputable product brands, AFGlobal has the breadth and expertise to deliver solutions across multiple industries. From the most basic commodity flanges to highly engineered connectors and sealing technologies, AFGlobal's products are proven by decades of experience in the field.



Power



Petrochemical and Refining



Oil & Gas



General Industrial



Pipeline

Call AFGlobal today at 713-393-4200 or email Sales@AFGlobalcorp.com for more information.

# Certifications and Manufacturing Conformance

With a range of industry certifications and conformance, AFGlobal demonstrates our commitment to manufacturing the highest quality products through our specification standards, affiliations, and accreditations. The following is a small selection of our standards and accreditations. For a more complete listing, visit our website.

- ASME Boiler code pressure vessels
- Code Sections I, II, V, & VIII
- Section VII, Divisions I & II
- ASME/ANSI B16.47, B16.48, and B16.5
- ISO 9001:2008
- API 605
- MSS-SP44
- NACE MR-0175
- API6A and 16A
- Pressure Equipment Directive (PED)
- British Standard (BS) 3293



945 Bunker Hill, Suite 500 | Houston, Texas 77024 USA | 713-393-4200 forged-connect@afglobalcorp.com

afglobalcorp.com