All Metals & Forge Group

Supplying Global Markets

YOUR ISO9001:2015/AS9100D SINGLE SOURCE FOR CUSTOM OPEN DIE FORGING & SEAMLESS ROLLED RINGS

www.steelforge.com  1 (973) 276-5000
WELCOME TO ALL METALS & FORGE GROUP

Welcome to All Metals & Forge Group. Our Business Development Program emphasizes partnerships with our clients, doing away with the usual adversarial nature of the buyer/seller relationship of the 20th century. We look to create the 21st century paradigm of win-win relationships, where everyone wins! Additionally our sales group has been renamed the “AM&FG Solutions Team®” Aside from supplying raw material to meet your production needs, we realize that we can be of great service in providing AM&FG Solutions® to many of your other corporate material issues; material choices; inventory management; material financial issues and custom designed alloys for special applications.

Working as partners to SOLVE YOUR STEEL PROBLEMS AND CREATE SOLUTIONS.

TABLE OF CONTENTS

About Us......................2
Industries Served..........3-4
Materials.......................5-6
Forged Shapes.................7-8
Forging Capabilities........9-10
ALL METALS & FORGE GROUP

All Metals & Forge Group is an ISO9001:2015 and AS9100D, PED Approval (acc. to Directive 97/23/EC), manufacturer of open die forgings and seamless rolled rings, a certification it obtained and has held since 1994. AM&FG was one of the first companies in its industry to obtain an ISO certificate of registration since the company’s founding in 1972. AM&FG maintains one of the most stringent quality processes and standards in the industry to ensure that our customers receive the finest forged material with the tightest tolerances in exactly the condition that best suits their finish machining needs.

All Metals & Forge Group can help you win jobs by responding to a rush quote in less than a day (no kidding), and even complex requests for price and delivery quotation are responded to within 48 hours. When your order is placed with AM&FG, our goal is to deliver it on time in a shape and condition that minimizes machining time, lowers cost and reduces material waste.*

Fairfield, New Jersey
World Headquarters

* Long-term Agreements and Forged Part Stocking programs available.
INDUSTRIES SERVED

Open die forged shapes produced by All Metals & Forge Group are used in a wide variety of industries including oil and gas exploration, gear manufacturing, aircraft and aerospace, energy and power generation, defense, automotive, heavy industrial, manufacturing, general metalworking, petroleum and chemical, mining, engine and turbine, ship building, construction, fabricated metal, pulp and paper, and food. We even produce forgings for other forge shops both domestically and internationally.

GEAR INDUSTRY – open die forgings and seamless rolled rings for gear blanks, step shafts, flanged shafts, single and double hubs, sleeves, cylinders, trunnions and other shapes for gears.

AEROSPACE AND AIRCRAFT INDUSTRY – forgings and seamless rolled rings to AMS specifications in nickel and cobalt alloys, stainless, carbon, alloy and tool steel, aluminum, titanium and copper.

DEFENSE INDUSTRY – stocked billet includes DFARS-compliant materials for defense industry use by major OEM’s including Lockheed Martin, Boeing, GE, United Technology and their sub-tier suppliers throughout the United States and Canada.

OIL & GAS AND FRACKING INDUSTRIES – forgings for deep water, offshore and land-based oil and gas exploration or production in 4130, 4140, 4330V, 4340, 8620, 1600, 1625, 1718, 1825 and other harsh environment or high-stress materials.

POWER AND ENERGY INDUSTRIES – forged shapes and seamless rolled rings for turbines and other power generation machinery or hydraulic applications, including gears, shafts, hubs and flanges.

MINING AND TUNNEL BORING INDUSTRIES – specially hardened forgings for extreme environments and underground conditions for mineral extraction and boring through earth and rock.

MACHINERY BUILDERS – a wide variety of forged shapes are available for the production of light and heavy machinery, including blocks, hubs, step shafts, forged rounds, cylinders and other forms.

MACHINE SHOPS & METALWORKING SHOPS – open die forgings and seamless rolled rings in a variety of metals that can be heat treated after forging to improve machinability or durability.
SHIPBUILDING INDUSTRIES – long shafts and step shafts, forgings for propeller components, and other forged shapes for the construction of cruise liners, super tankers, LNG carriers, drill ships and large container ships.

PAPER AND PULP INDUSTRIES – forgings for rollers, drive shafts, gears and other components in carbon and alloy steels widely used in these manufacturing plants to produce pulp, paper, board and other cellulose-based products.

TRANSPORTATION INDUSTRIES – forgings and gear blanks for bridges, tunnels, waterways, trucking, off-road heavy equipment, rail, ships, aircraft and military transport vehicles and weapons.

FOOD PROCESSING INDUSTRIES – high quality sanitary stainless steel forgings for mixers, loaders, conveyors, blenders and other food processing equipment or plant facilities.

VALVE AND PUMP INDUSTRIES – forgings for check values, pipe unions, flanges, reducers and other liquid or natural gas pipelines or equipment in alloy steel, carbon steel, stainless steel, titanium, nickel, cobalt and super alloys.

STEEL SERVICE CENTERS, STEEL WAREHOUSES AND FORGE SHOPS – forgings for your customers produced by a ISO9001:2015 and AS9100D manufacturer of open die forgings and seamless rolled rings that allows you to serve their needs and capture an add-on revenue stream with special pricing and confidentiality.

ENGINE & TURBINE INDUSTRIES – quality forgings for high demand, high stress components in aircraft engines and power generation turbines including nickel, cobalt and super alloys, stainless pH grades and duplex stainless steels, and titanium.

PETROLEUM & CHEMICALS – forgings for pipelines, oil refineries, oil and natural gas exploration, caustic and harsh environmental conditions drilling, pumping, or storing petroleum or chemicals.
MATERIALS

AM&FG works with alloy steel, carbon steel, stainless steel, titanium, aluminum, tool steel, nickel alloys and copper alloys and produces forgings to ASTM, AMS, AISI, Boeing, GE, DIN or other industry-recognized specifications. The customer declares their desired specification in their initial request for quotation so that price and delivery includes the proper chemical, physical and testing requirements. All Metals & Forge Group’s Forging Capabilities includes seamless rolled rings up to 108”/2743mm OD and forged product weights up to 75,000 pounds depending upon the material selected.
METAL FAMILIES

Alloy Steel
Carbon Steel
Stainless Steel
Tool Steel
Specialty Steels
High-Temp Alloys
Corrosion Resistant Alloys
Nickel Alloys
Cobalt Alloys
Titanium
Aluminum
Copper
Trade Named Metals

See inside back cover for complete list
FORGED SHAPES

Forged Shapes: AM&FG forges small to large round, flat or hex bars, forged shafts, forged step shafts, seamless rolled rings, contoured rings, conical shaped forgings, forged discs, forged blocks, forged plates, forged cylinders and blind-end cylinders, forged and bored heavy wall hollow bar, and forged flanges produced to ASME B 16.5, ASME B 16.47, or API 6A and PED specification standards.
FORGING CAPABILITIES

All Metals & Forge Group is a producer of open die forgings, seamless rolled rings, and contoured rolled rings up to 108”/2743mm outside diameter. Forging shapes include discs, hubs, blocks, shafts (including step shafts or with flanges), sleeves, cylinders, flats, rounds, and some custom shapes. Forgings can be produced as finished size, finished size rough machined, forged size, forged size rough machined, or as forged size with allowance to finish to your finish size. Seamless rolled rings and contoured rings are produced to save on material and machining costs.

Please see the following chart for size capabilities in various metal alloys. Materials that we forge include carbon steel, alloy steel, tool steel, special grades, stainless steel (including PH grades), titanium, aluminum, magnesium, copper, nickel, cobalt, high temperature, super alloys and special alloys.

Manufacturing Talk Radio is a weekly podcast for manufacturers of all sizes. Hosts Lew Weiss and Tim Grady present breaking news, tackle business trends and economic forecasts in manufacturing for small, medium and large manufacturers.

Listen every Tuesday at MFGTALKRADIO.COM or listen to all of our previous shows in our archive or on iTunes. MFGTALKRADIO.COM
### Ferrous Alloys

<table>
<thead>
<tr>
<th>SHAPE</th>
<th>SIZE/WEIGHT</th>
<th>CARBON, ALLOY &amp; TOOL</th>
<th>STAINLESS</th>
<th>NICKEL, COBALT &amp; SPECIAL ALLOYS</th>
<th>NON-FERROUS ALLOYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Bar/Blocks</td>
<td>Max. Width</td>
<td>120”</td>
<td>120”</td>
<td>27”</td>
<td>60” 65”</td>
</tr>
<tr>
<td></td>
<td>Max. Weight</td>
<td>60,000#</td>
<td>60,000#</td>
<td>15,000#</td>
<td>10,000# 10,000#</td>
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<tr>
<td>Cylinders/Sleeves</td>
<td>Max. O.D.</td>
<td>84”</td>
<td>84”</td>
<td>50”</td>
<td>72” 52”</td>
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<tr>
<td></td>
<td>Max. Length</td>
<td>108”</td>
<td>108”</td>
<td>65”</td>
<td>96” 65”</td>
</tr>
<tr>
<td>Discs/Rings</td>
<td>Max. Dia.</td>
<td>96”</td>
<td>96”</td>
<td>50”</td>
<td>80” 65”</td>
</tr>
<tr>
<td></td>
<td>Max. Weight</td>
<td>75,000#</td>
<td>75,000#</td>
<td>20,000#</td>
<td>15,000# 10,000#</td>
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<tr>
<td>Hand Forged Rings, Rods</td>
<td>Max. O.D.</td>
<td>108”</td>
<td>108”</td>
<td>84”</td>
<td>80” 65”</td>
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<tr>
<td></td>
<td>Max. Length</td>
<td>65”</td>
<td>65”</td>
<td>40”</td>
<td>65” 65”</td>
</tr>
<tr>
<td>Round Shafts (with steps or flanges)</td>
<td>Max. Length</td>
<td>420”</td>
<td>220”</td>
<td>144”</td>
<td>220” 65”</td>
</tr>
<tr>
<td></td>
<td>Max. Weight</td>
<td>75,000#</td>
<td>75,000#</td>
<td>20,000#</td>
<td>10,000# 10,000#</td>
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</tbody>
</table>

### Carbon Alloys

| Carbon Alloys | 1006 | 1008 | 1010 | 1015 | 1018 | 1020 | 1022 | 1023 | 1025 | 1026 | 1029 | 1030 | 1035 | 1040 | 1045 | 1050 | 1055 | 1060 | 1070 | 1072 |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6470          | 6720 | 6870 | 7290 | 7300 | 8140 | 8150 | 8160 | 8165 | 8617 | 8617 | 8620 | 8630 | 8640 | 8642 | 8645 | 8720 | 8735 | 8740 | 8750 |

### Special Grades

<table>
<thead>
<tr>
<th>Special Grades</th>
<th>D6AC</th>
<th>HY30</th>
<th>HY100</th>
<th>F-111</th>
<th>1/4 CR-1/2 MO</th>
<th>F-222</th>
<th>1/4 CR-1 MO</th>
<th>F-5(CR-1/2MO)</th>
<th>F-91</th>
<th>17-22 A</th>
<th>17-22 AS</th>
<th>17-22 AV</th>
<th>Nitrailloy 135N 52100</th>
<th>LF1, LF2, LF3</th>
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<tbody>
<tr>
<td>H12</td>
<td>H13</td>
<td>H21</td>
<td>H26</td>
<td>H43</td>
<td>M2</td>
<td>P20</td>
<td>S1</td>
<td>S5</td>
<td>T1</td>
<td>W1</td>
<td>W2</td>
<td>SPECIAL GRADES Stainless Steel 300 Series</td>
<td>420</td>
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<td></td>
<td>400 Series</td>
<td>17-4PH</td>
<td>17-7PH</td>
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### Nickel, Cobalt, Special Alloys

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<thead>
<tr>
<th></th>
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<tr>
<td>2014</td>
<td>2024</td>
<td>2219</td>
<td>5083</td>
<td>5086</td>
<td>6061</td>
<td>6063</td>
<td>7049</td>
<td>7050</td>
<td>7075</td>
<td>7175</td>
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### Copper Alloys

<table>
<thead>
<tr>
<th>Copper Alloys</th>
<th>C10100</th>
<th>C10200</th>
<th>C11000</th>
<th>C12300</th>
<th>C15000</th>
<th>C17000</th>
<th>C18200</th>
<th>C28000</th>
<th>C46400</th>
<th>C65300</th>
<th>C65500</th>
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<tbody>
<tr>
<td>13.5% - 11CR-3AL Ti/7</td>
<td>1175</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
<td>7475</td>
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</tbody>
</table>

### Grades of Billet Material in Stock or Available from Mill Depot

(If your required grade is not shown, call 1 (973) 276-5000 for assistance)
Our Commitment and Pledge

Global Business in the new millennium demands excellence in client servicing. We are committed to creating and building “partnership” type relationships to better serve our customers. Towards this goal we pledge only the best possible service, quality, products and fair competitive pricing. Our commitment and pledge will help you meet your challenges of tomorrow.

Open Die Forgings & Seamless Rolled Rings
Rounds • Blocks • Cylinders • Rings to 216 in. (5486 mm) • Shafts • Hubs
Flanges • High-Temp Alloys • Corrosion Resistant Alloys • Nickel Alloys
Cobalt Alloys • Stainless Steel • Duplex Stainless • Ph Grades
Titanium • Aluminium • Alloy Steel • Copper • Tool Steel • Carbon Steel
Max Weight 75,000 lbs. (34,000 kgs.)

All Metals & Forge Group

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