POWER APPLICATIONS: PIPE, FORGINGS, AND ALLOY SOLUTIONS
The PCC Energy Group provides total material solutions to the power generation, oil and gas, refining, chemical processing and general industrial markets. We are the foremost supplier of nickel-based alloys, titanium, stainless steel, and carbon and alloy steel products ranging from ingot to complex, value-added solutions. We produce pipe, fittings, forgings, tubing, cladding, sheet, plate, wire, rod and solid bar products in a wide array of sizes.

Headquartered in Houston, Texas, the PCC Energy Group has a worldwide presence with 30 locations across the globe. Our manufacturing network includes 12 facilities with melting and forging capabilities, including closed die and extrusion presses in capacities ranging up to 35,000 tons. We produce:

- Hot worked, seamless, extruded pipe
- Cold-drawn, seamless pipe
- Extreme, thin-wall, cold-drawn, seamless pipe and tube
- Welded and welded-and-drawn pipe and tube
- High-quality, rolled, drawn and forged rod and bar
- Hot-rolled wire rod
- Welding products and consumables
- Weld overlay and co-extruded seamless clad products
- Hot- and cold-rolled sheet and plate

The PCC Energy Group offers years of experience in solving the energy industry’s toughest material challenges. Having developed more than 85% of the nickel alloys in the market, we bring world class R&D facilities and high quality forging capabilities to solve your most demanding needs.

The PCC Energy Group is a division of Precision Castparts Corp., a worldwide leader in structural investment castings, forged components, and airfoil castings for critical airframe, engine, power generation, and general industrial components.

NYSE: PCP
The PCC Energy Group has the ability to produce a diverse range of critical products, unique within the power industry. We provide solutions for coal, gas, nuclear and renewable (geothermal, solar and hydro) power projects.

Quality assurance is integral to all operations within the PCC Energy Group. Each facility maintains the highest industrial and international standards and certifications.

Our Special Metals superalloys are the ideal solution for a broad array of nickel alloy requirements, including land-based gas turbines, feedwater and superheated tubing for coal- and oil-fired utilities, FGX systems, and nuclear applications. As the inventor of alloy brands including INCONEL®, INCOLLOY®, NIMONIC®, MONEL®, UDINEM®, INCO-WELD®, HI-ROD® and others, Special Metals sets the world standard for corrosion resistance, high-pressure and high-temperature strength. Power generation finished products that are produced from these alloys include: pipe, plate, sheet, strip, bar, rod, tube, wire, forgings, and welding products.

The PCC Energy Group offers a unique combination of metalworking capability, technology, and outstanding metallurgical know-how for the most demanding applications. For more than 40 years, we have manufactured a variety of components for nuclear power plants and spent-fuel shortage. We can melt, extrude, draw, forge, roll and weld overlay from a range of exotic nickel alloys, with restricted or special chemistry capability.

The current demand for improved power generation efficiency requires the development of advanced materials that can withstand higher temperatures and higher pressures. Creep-strength enhanced ferritic (CSEF) steels such as P91 were developed to withstand the extreme operating conditions of ultra-super critical (USC) power plants. Subsequently, P92 was developed to achieve even higher-efficiency power plants, therefore, INCONEL® alloy 740H® tolerates steam temperatures up to 760° C (1400° F), and is qualified for fabrication of steam loops, tube bends and is weldable.

Wyman Gordon routinely supplies pipe in these grades of materials globally, to meet ASTM/ASME, Engineers India Limited (EIL) and “Well Known Pipe Maker”, India Boiler Regulations, 1950, GOST and/or EN10216-2. Using the 35K extrusion press, the range of size capability is unmatched.

PCC Rollmet is an industry leading supplier of precision, seamless, cylindrical shapes and assemblies, including close-tolerance, thin-walled cylinders in materials such as: aluminum alloys, stainless steels, high-strength steels and nickel-based alloys. For the power generation market, PCC Rollmet produces ASTM A335 Grades, P11, P22, P91 and P92 ferritic alloy for seamless power plant piping, for both fossil and nuclear piping applications.

RathGibson is an industry leading supplier of precision engineered tubing for heat exchangers, steam condensers, and U-Bend Feedwater heaters. Producing over 40 different alloys, RathGibson manufactures Duplex, Super Austenitic, Nickel, Super Ferritic and Stainless grades.

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INCONEL® alloy 740H® is approved by the ASME Boiler and Pressure Vessel Code at Special Metals mills in the U.K. and U.S.A. INCONEL® alloy 740H® is also readily welded. Strength and creep resistance at elevated temperatures along with niobium, aluminum and titanium. It offers a unique combination of high power generation. The nickel-chromium-cobalt alloy is precipitation-developed to operate under the demanding service conditions of A-USC superheater-size tubes have been manufactured from INCONEL® alloy 740H® tubes large enough for A-USC steam header pipes. In addition, standard prototype demonstrates the ability of the PCC Energy Group to manufacture up to manufacture one of the largest superalloy tubes ever produced. Since A-USC facilities will operate at higher temperatures (700 to 760°C) and pressures (up to 35 MPa) than conventional power plants, nickel-base superalloys are required to meet the rigors of strength and corrosion resistance. INCONEL® is a superalloy that was specifically developed for the demanding service conditions of A-USC power generation. The nickel-chromium-cobalt alloy is precipitation-strengthened by the formation of gamma prime due to its contents of niobium, aluminum and titanium. It offers a unique combination of high strength and creep resistance at elevated temperatures along with resistance to coal ash corrosion, oxidation, carburization and sulfidation. INCONEL® alloy 740H® is also readily welded. PCC Energy Group companies, Special Metals and Wyman Gordon teamed up to manufacture one of the largest superalloy tubes ever produced. Melted and refined at Special Metals / Huntington, West Virginia and forged and extruded at Wyman Gordon / Houston, TX, the tube is over 15 inches (381 mm) in diameter, has a wall over 3 inches (76.2 mm) in thickness, is 22 feet (6.7 m) long and weighs over 10,000 pounds (4,535 kg). This prototype demonstrates the ability of the PCC Energy Group to manufacture tubes large enough for A-USC steam header pipes. In addition, standard superheater-size tubes have been manufactured from INCONEL® alloy 740H® at Special Metals mills in the U.K. and U.S.A. INCONEL® alloy 740H® is approved by the ASME Boiler and Pressure Vessel Code Case 2702 for Section I construction for power applications to 800°C (1500°F)."