## ADVANCED PROCESSES FOR THE FUTURE OF POWER GENERATION

For more than 50 years, Wyman Gordon has been manufacturing a variety of pipe products to withstand the increasingly critical demands in the global power generation market. Our collection of unique vertical extrusion presses is unmatched worldwide—allowing for a large range in size and length capabilities. We also work with a wide variety of materials from carbon and alloy steels to exotic nickel and titanium alloys. As the dominant world supplier of P92 [X10CrWMoVNb9-2], we work with Creep Strength Enhanced Ferritic (CSEF) steels while still introducing new alloys like INCONEL® alloy 740H®, helping solve ever increasing challenges in the power generation market.

	28		
TYPE	ASTM/ASME SPECIFICIATION	EN 10216-2 SPECIFICATION	TU 3-923-75 SPECIFICATION
Carbon Steel	A/SA 106 B A/SA 106 C	St 45.8 St 45.8	16GS
Chrome Moly	A/SA P1 A/SA P2 A/SA 335 P11 A/SA 335 P12 A/SA 335 P22 A/SA 335 P23 A/SA 335 P36 A/SA 335 P91 A/SA 335 P92 A/SA 335 P122	16Mo3 14MoV6-3 15CrMoV5-10 13CrMo4-5 10CrMo9 10 15 NiCuMoNb5-6-4 X10CrMoVNb9-1 X10CrWMoVNb9-2	15H1M1F
Nickel	B983 N07740 (Code Case 2702)		



TYPE	SIZE RANGE [MM]	SIZE RANGE (IN)
OD	219.1 mm - 1219.2 mm	8.6 in – 48 in
ID	203.2 mm - 1070.0 mm	8 in – 42 in
WT	12.5 mm - 177.8 mm	0.5 in – 7 in



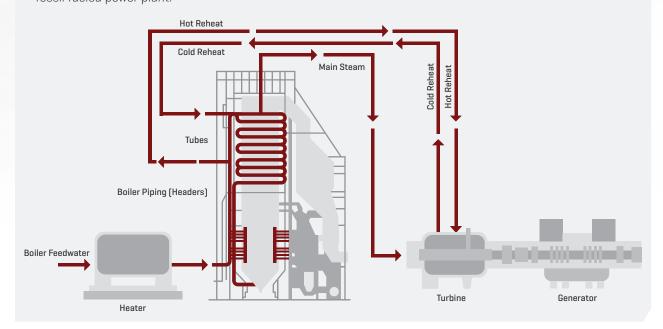
With metallurgical experts that understand complex steels and alloys, we meet the majority of all industry requirements. Please visit us online to learn more about our certifications and qualifications.



## **VERTICAL EXTRUSION PROCESS** Our unique vertical extrusion capabilities produce a metallurgically sound product that meets or exceeds customer requirements. The below diagram outlines this process which works the material four times allowing for a refined metallurgical structure. Trim Extrusion Punch Pedestal **Upsetting Position Potting Operation** Piercing Position **Upper Bolster Begins Extrusion Fully** Upper Bolster Moves to Remove Scale to Move Down Extended Down to Trim Tang

## CRITICAL PIPING SYSTEM APPLICATIONS

The below diagram highlights the various piping systems that Wyman Gordon participates in for a typical fossil fueled power plant.



## PUSHING WHAT'S POSSIBLE IN THE ENERGY INDUSTRY

The names that comprise PCC Energy Group have been on the forefront of the energy industry for decades. As part of PCC Energy Group, Wyman Gordon works to help you better tackle your toughest energy industry needs. Backed by the strength and leadership of our Fortune 500 parent company, Precision Castparts Corp., our engineers and metallurgists work closely with the world's most innovative energy companies to identify high-performance applications where we can help enhance operational performance.

