

**DISCOVER THE ADVANTAGES BEHIND  
COLD ROLL EXTRUSION FROM PCC ROLLMET.**

**Rollmet seamless large diameter ferritic alloy pipe sets the standard in thin wall pipe and tube applications for the power and petrochemical industries.**

**PRODUCTION DETAILS**

- Ferritic Alloy Steel ASTM/ASME A335 – P5, P9, P11, P22, P91, P92, 125 to 150 RMS ID finish
- 15 to 24 ft single random lengths
- ASTM +/- 1% ovality tolerance met on all seamless pipes
- All seamless pipe within +10% /-5% of the nominal weight per ft for the entire length
- All seamless pipe within +/- 12.5% of the nominal wall call out per ASTM Specification
- Specializing in large diameter thin wall ferritic alloy steel pipe

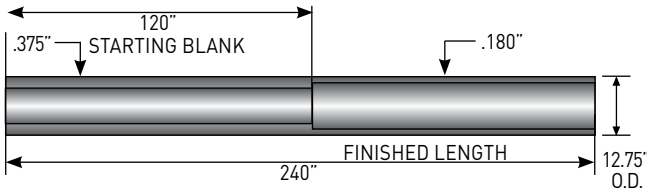
**COLD ROLL EXTRUSION METHODS**

- Strengths of Cold Roll Extruded solid-solution alloy pipes are usually greater than those of conventional manufactured pipe/tube because of the fine grain size achieved through cold working and recrystallization
- Cold Roll Extrusion, as a net process, achieves final pipe dimensions through metal displacement
- Cold Roll Extrusion is performed at ambient room temperature
- Cold Roll Extrusion utilizes precision ferritic alloy starting blanks or extruded preforms as starting material for all ferritic alloy production
- Isotropic properties achieved in all finished annealed tubular products
- Enhanced corrosion resistance achieved through ASTM 5 or finer grain size



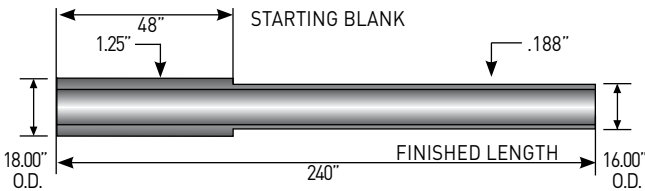
## PCC Rollmet, Inc. manufactures ferritic alloy pipe using two methods of Cold Roll Extrusion.

**INTERNAL COLD ROLL EXTRUSION.** The starting hollow is placed inside a one piece, cylindrical die ring. The rollers inside the starting hollow are displaced radially outward until they bite into the inside diameter of the hollow surface a controlled amount. The hollow outside diameter remains constant while the rollers produce a thinner wall with a corresponding increase in I.D. and hollow length in a single pass.



*Internal Cold Roll Extruded cylinder typical starting blank, demonstrating material economy and axial growth in length while keeping the O.D. constant during Internal Cold Roll Extrusion.*

**EXTERNAL COLD ROLL EXTRUSION.** External Cold Roll Extrusion utilizes a mandrel over which the hollow is placed. Two (2) annular die rings are brought into position on the hollow. The mandrel and hollow are rotated while the die rings progress axially through a series of passes. This simultaneously reduces wall thickness and O.D. while the hollow grows in length. The I.D. remains constant.



*External Cold Roll Extruded cylinder typical starting blank, demonstrating material economy and axial growth in length while keeping the I.D. constant during External Cold Roll Extrusion.*



## MANUFACTURING RANGE

PIPE SIZES	OUTSIDE DIAMETERS	ASA PIPE SCHEDULE*				
		STD	SCH 30	XH	SCH 40	SCH 60
16"	16.000	.375	.375	.500	.500	.656
18"	18.000	.375	.438	.500	.562	.750
20"	20.000	.375	.500	.500	.594	.812
22"	22.000	.375	.500	.500	.625	.875
24"	24.000	.375	.562	.500	.688	.969
26"	26.000	.375	.625	.500	.625	--

\* Wall sizes available up to 1.5" on certain pipe sizes



## QUALITY CERTIFICATIONS

- AS9100/ISO9001
- PED approved to Directive 97/23/EC
- ISO 9001 approved
- AD2000-Merkblatt W0 approved

**PCC ROLLMET** for over 50 years, has delivered high quality, precision seamless pipe in nickel, stainless steel, duplex stainless, and ferritic alloys. Backed by the global support of the PCC Energy group of companies, we provide on time delivery and material that meets all critical specification requirements, coupled with practical solutions for all your seamless piping needs.

## FOR MORE INFORMATION CONTACT:

PCC Rollmet, Inc.  
 1822 Deere Avenue | Irvine, California 92606  
 tel: 949.221.5329 | fax: 949.221.5910  
 e-mail: [mdosdourian@pccrollmet.com](mailto:mdosdourian@pccrollmet.com)  
[www.pccenergygroup.com/rollmet](http://www.pccenergygroup.com/rollmet)

**PCC Rollmet**