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## **304/L SEAMLESS PIPE**

MATERIAL SPECIFICATI	ONS	PREPARED BY: H.POPE	REVISION	I DATE: 03/15/2013	
MATERIAL	304/304L STAINLESS ST	304/304L STAINLESS STEEL SEAMLESS PIPE LENGTH 20-24' PLAIN ENDS		COLD/HOT FINISHED DUAL CERTIFIED	
	LENGTH 20-24'				
SPECIFICATIONS	ALL SPECIFICATIONS WITH LATEST YEAR REVISIONS				
		ASTM A 312, ASTM A262 PRACTICE E, ASTM A 999 ASME SA 312, NACE MR 0175, EN 10204 3.1			
		E/			
CHEMICAL ANALYSIS		MECHANICAL PROPE	MECHANICAL PROPERTIES		
Carbon ( C)	.035	Tensile Strength	75 KSI	515 Mpa	
Manganses (Mn)	2.00				
Phosphorus (P)	.045	Yield Strength	30 KSI	205 Mpa	
Sulfur (S)	.03				
Silicon (Si)	1.00	Elongation	35%		
Chromium (Cr)	18.00-20.00	2 inch min %			
Nickel (Ni)	8.00-13.00				
Molybdenum (Mo)			2		
Titanium (Ti)		Hardness	90 HRB	maximum	
Nitrogen (N)					
Copper (Cu)			50		
	The % of Cobalt must be reported		07		
Other			UT.		
All singular chemistry values a	are	All singular mechanical val	All singular mechanical values are		
MAXIMUM unless otherwise r	noted	MINIMUM unless otherwise	MINIMUM unless otherwise noted		

## OTHER TEST(S) AND/OR REQUIREMENTS

BEND AND FLATTENING TEST ULTRASONIC, EDDY CURRENT, OR HYDROSTATIC PRESSURE TESTED TYPE OF NON-DESTRUCTIVE ELECTRIC TEST PREFORMED, OR ACTUAL HYDROSTATIC TEST PRESSURE FOR MATERIAL SUBJECT TO THIS TEST. MERCURY FREE CONTAMINATION STATEMENT NO WELD REPAIR STATEMENT PMI (Positive Material Identification) TESTED. LINE MARKING TO INCLUDE PMI SOLUTION ANNEALED TEMP. 1900 F / 1040 C MINIMUM AND WATER QUENCHED OR RAPIDLY COOLED HEAT TREATMENT, FINISHED CONDITION AND MELTING PROCESS MUST BE REPORTED. PLAIN ENDS, RANDOM 20-24' LENGTHS ALL PIPE TO BE CONTINUOUSLY LINE MARKED. MARKING INK MUST NOT CONTAIN HALOGENS. EACH SIZE AND HEAT MUST BE BUNDLED SEPARATELY AND CLEARLY TAGGED STANDARD SEA WORTHY PACKING. COMPLETELY WRAPPED WITH LIFTING NYLON STRAPS BUNDLE WEIGHT 2000 LBS MAXIMUM

## **IMPORTANT:**

ORIGINAL CERTIFICATES OF CHEMICAL & PHYSICAL ANALYSIS REQUIRED TWO (2) WEEKS BEFORE SHIPMENT ARRIVES ALL TEST REPORTS MUST STATE COUNTRY OF ORIGIN ALL TEST REPORTS MUST HAVE THE POSITION AND NAME OF AUTHORIZED PERSON PRINTED ALL TEST REPORTS MUST BE SIGNED ISO CERTIFIED STATEMENT