

MILL TEST CERTIFICATE

IN ACC TO EN-10204 3.1

CUSTOMER : NORCA INDUSTRIAL COMPANY, LLC
 PURCHASE ORDER : 505/005063
 COMMODITY : CARBON STEEL BUTTWELD FITTINGS

MTR NO.	20190706-0001
Date of issue	6-Jul-19
Material Specification	ASTM A234-14/ASME SA234-14
Material	WPB
Dimensional Specification	ASME B16.9 - 12
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Chemical Analysis

ITEM NO	Item Description	HEAT NO.	QTY	%C	%SI	%Mn	%P	%S	%Cu	%Ni	%Cr	%Mo	%V	%CE	%Nb
				≤ 0.30	≥ 0.10	0.29-1.06	≤ 0.050	≤ 0.058	≤ 0.40	≤ 0.40	≤ 0.40	≤ 0.15	≤ 0.08	≤ 0.45	-
51	CONC RED12"X8"XH	438112	20	0.20	0.22	0.52	0.019	0.006	0.018	0.019	0.022	0.004	0.002	0.29	-
52	CONC RED12"X10"XH	438112	20	0.20	0.22	0.52	0.019	0.006	0.018	0.019	0.022	0.004	0.002	0.29	-
53	CONC RED14"X8"XH	982635	5	0.19	0.22	0.53	0.020	0.008	0.019	0.017	0.020	0.004	0.002	0.28	-
54	CONC RED14"X10"XH	982635	5	0.19	0.22	0.53	0.020	0.008	0.019	0.017	0.020	0.004	0.002	0.28	-
55	CONC RED16"X8"XH	234852	5	0.18	0.22	0.42	0.017	0.006	0.023	0.016	0.014	0.004	0.002	0.25	-

ITEM NO	Item Description	HEAT NO.	YS	TS	E/L	Hardness	HEAT	Impact Akv	Red	PMI	X-RAY	MT	Visual
			Mpa	Mpa	%	(HB)	TREATMENT	(J)	Area	Test	Test	Test	
			≥ 240	≥ 415	≥ 30	≤ 197							
51	CONC RED12"X8"XH	438112	316	475	37	138	A	-	-	-	N/A	N/A	ok
52	CONC RED12"X10"XH	438112	316	475	37	136	A	-	-	-	N/A	N/A	ok
53	CONC RED14"X8"XH	982635	307	473	35	141	A	-	-	-	N/A	N/A	ok
54	CONC RED14"X10"XH	982635	307	473	35	143	A	-	-	-	N/A	N/A	ok
55	CONC RED16"X8"XH	234852	295	459	34	145	A	-	-	-	N/A	N/A	ok

NOTE: A: HOT FORMED WITH FINAL TEMPERATURE BETWEEN 820-980.AIR COOLING
 S:STRESS RELIEVING 675*0.5 H.R. AIR COOLING
 YS: (YIELD POINT) TS: (TENSILE STRENGTH) E : (ELONGATION)

We hereby certify that

- The product described has been manufactured in accordance with ANSI B16.9-2012 which was approved as an American National Standard on December 7, 2012.
- And also with the purchaser's requirements and that the test result shown here are in accordance with ASTM A/SA234 WPB.
- 'Hardness' is according to NACE-MR0175/ISO15156-2009 and MR0103 2012.
- The starting material for elbows, tees and reducers is seamless pipe. The starting material for cap is plate.
- NO WELD REPAIR
- MERCURY FREE
- MANUFACTURED IN VIETNAM

QA DEPARTMENT



NGUYEN VAN TRUNG