



January 4, 2013

TO OUR VALUED CUSTOMERS

MATERIAL CERTIFICATE

J.B. Smith Mfg. Co. certifies that the material used to manufacture line pipe sizes of swage nipples and bull plugs has been processed and heat treated to comply with all requirements of ASTM A234-11 WPB and the chemical and physical properties of the material fall within the ranges listed below. J.B. Smith Mfg. also certifies that this product meets the requirements of NACE MR0175-2001 revision and MSS-SP95 specifications.

A234-11 WPB Chemical Composition Requirements									
C	MN	P	S	SI	CR	MO	NI	CU	V
.30	.29-	.05	.058	.10	.40	.15	.40	.40	.08
Max	1.06	Max	Max	Min	Max	Max	Max	Max	Max

1. Fittings made from bar or plate may have 0.35 Max Carbon.
2. Fittings made from forgings may have a 0.35 Max Carbon and 0.35 Max Silicon.
3. For each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be permitted, up to a maximum of 1.35%.
4. The Sum of Copper, Nickel, chromium, and Molybdenum shall not exceed 1.00%.
5. The Sum of Chromium and Molybdenum shall not exceed .32%.
6. The carbon equivalent (CE) does not exceed the level of 0.50 max. carbon equivalent, as per ASTM A234-11 WPB.

Marking	A234-11 WPB Physical Requirements		
Symbol	TENSILE	YIELD	HBN
WPB	60	35	197
	KSI Min	KSI Min	Max

1. ELONGATION as stated in A234-11 Grade WPB, Table 2.

All fittings are manufactured in the U.S.A.

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