

## MATERIAL & PRESSURE RATING

### ANSI B16.47 SERIES B FORGED FLANGES

#### Mechanical Properties

ASTM Specification Number	Tensile Strength	Yield Strength	Elongation	Reduction of Area	Brinell Hardness Number <sup>1</sup>
	psi	psi	%	%	
A105	70,000min.	36,000min.	22min.	30min.	187max.

#### Chemical Composition(%)

ASTM Specification Number	C	Mn	P (Max.)	S (Max.)	Si
A105	0.35max.	0.60 - 1.05	0.040	0.050	0.35max.

#### Pressure Temperature Rating

(1) Temperature (Degrees Fahrenheit)	(2) Pressure Rating (Pounds per Square Inch Gage)			(1) Temperature (Degrees Celsius)
	Nominal Pressure Rating			
	Class 75	Class 150	Class 300	
100	140	285	740	37.8
200	130	260	675	93.3
300	115	230	655	148.9
400	100	200	635	204.4
500	85	170	600	260.0
600	70	140	550	315.6
650	60	125	535	343.3
700		110	535	371.1
750		95	505	398.9
800		80	410	426.7
850		65	270	454.4
900		50	170	482.2
950		35	105	510.0
1000		20	50	537.8

#### Notes

- (1) Material temperature
- (2) Rating are based on material specifications ASTM A105 and A216 WCB. Limitations on the use of these materials shall be per the applicable code.