

## A.8.13 EXPANSION

• **EXPANSION**

$$\text{Expansion (mm)} = L_0 \times \alpha \times t$$

Where :

- $L_0$  = Length of pipe between anchors(m)
- $t$  = Temperature difference (°C)
- $\alpha$  = Expansion coefficient

For Temperature Range	-30	0	0	100	0	200	0	315	0	400	0	485	0	600	0	700
Mild Steel 0.1-0.2% C	12.8		14.0		15.0		15.6		16.2		17.8		17.5			-
Alloy Steel 1% Cr. 1/2% Mo	13.8		14.4		15.1		15.8		16.6		17.3		17.6			-
Stainless Steel 18% Cr. 8% Ni	19.4		20.0		20.9		21.2		21.8		22.3		22.7			23.0

Expansion Coefficient  $\times 10^3$   
 Example  $12.8 \times 10^{-3} = 0.0128\text{mm/m}$