

CET SELECTION SHEET - PRESSURISED



ENQ. No	
ENQ. Date	
Party Name	
Project Name	
Details	Required as per data sheet

TABLE 1
Expansion Coefficient

ΔT(°C)	e
0	0.0002
10	0.0004
20	0.0018
30	0.0044
40	0.0079
50	0.0121
60	0.0171
70	0.0228
80	0.0290
90	0.0359
100	0.0435
110	0.0515
120	0.0603

Tank Volume (LTS) = $\frac{C \times e}{1 - \frac{P_i}{P_f}} + 10\%$ _____ No. 1

C = Water volume in all CHW pipes = _____ LTS
+Extra for heat exchangers / coils (25%) = _____ LTS

Total water capacity in system = _____ LTS

Δ°C = Difference of minimum to maximum water temperature.

e = Expansion coefficient _____ As per table 1

$P_i = \left(\frac{h_1}{10} + 0.5\right)$ Bar +1Bar = _____ (Absolute Pressure)Bar No. 2

h₁ = Static Head/Building height in meter

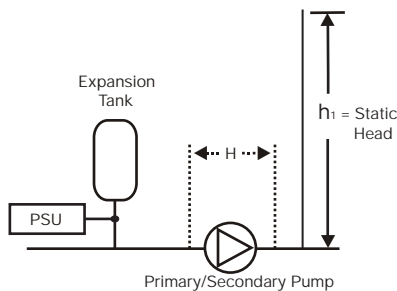
$P_f = \left(\text{Max Design Pressure} - H - \frac{h_2}{10} - 1\right)$ Bar + 1Bar = _____ (Absolute Pressure)Bar No. 3

h₂ = Head of water below tank in meters

H = Secondary Pump Head in bar

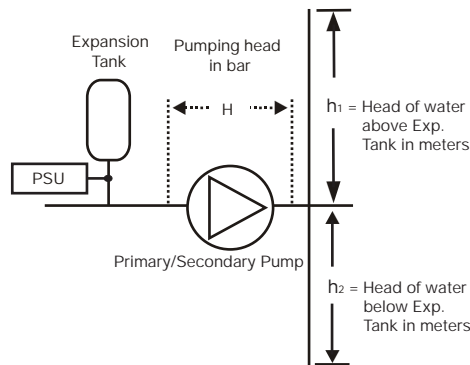
- Notes :-**
1. P_f should never be more than two times of P_i.
 2. For chilled water only applications consider ΔT as 30°C
 3. For hot water applications consider higher ΔT as per difference of min & max hot water temperature.

For Expansion Tank in basement



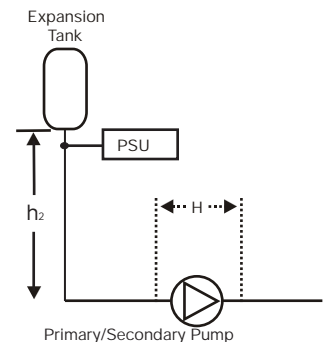
h₁ = Actual (Static Head)
h₂ = 0

For Expansion Tank in service floor



h₁ = Actual (Static Head)
h₂ = Actual

For Expansion Tank at terrace



h₁ = 5m (Always)
h₂ = Actual

Calculated Volume of expansion tank(Gas Based)

C=	LTS	h ₁ =	Meters
Δ°C=	°C	H=	Bar
e=		h ₂ =	Meters

$P_i = \left(\frac{h_1}{10} + 0.5\right) + 1$ Bar = _____ Absolute(Bar) No. 2

$P_f = \left(\quad \right) - \left(\quad \right) - \frac{h_2}{10} - 1$ Bar + 1 Bar = _____ Absolute(Bar) No. 3

Tank Volume LTRS = $\frac{C \times e}{1 - \frac{P_i}{P_f}} + 10\%$ (Safety) = _____ LTRS No. 1

Selected model of tank

Prepared By: _____

Date: _____