

Flow = 7.5 GPM Delta Z = 231 ft

Material: Galvanized CS, Sched 40
DIA 1.5 inch
Area 0.0141377 ft²
Velocity = 1.18 fps

		Unit Le	Qty	Le
Pipe			1	1800
Elbow	90 deg LR	4.03	25	100.75
	45 deg SR	2.15	5	10.75
Weld	r/d = 1	0		0
Weld	r/d = 2	0		0
Miter	45 deg	0		0
Miter	90 deg	0		0
Tee	Thru	2.68	4	10.72
	Branch	8.05	2	16.1
Bend	Close Return	6.71		0
Valve	Gate	1.07	3	3.21
	Swing Check	13.4	1	13.4
	Angle	20.1		0
	Globe	45.6		0
	Butterfly	0		0
Total				1955

from CHD: f = 0.51 ft/cft

hf = 10.0 ft

P1/rho = -10 ft
P2/rho = 0 ft
v1/2gc = 0 ft
v2/2gc = 0 ft
hE = 0 ft

$$hA = (P1-P2/rho) + (v2^2 - v1^2)/2gc + (z2-z1) + hE + hf$$

hA = 251.0 ft

SF 1.15

TDH = 289 ft

Eff = 0.65 <----- ASSUMED 65% EFFICIENCY

BHP = 0.84 HP = 627 Watts