HOW TO CALCULATE PIPELASER READING
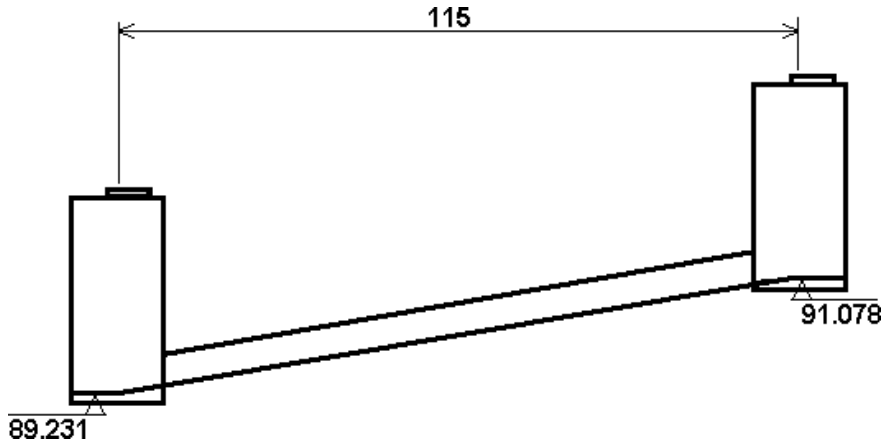

If the gradient between the manholes is given in rise/fall or as a ratio, calculate the Laser Reading as follows:

Rise/Ratio:	1/85 or 1:85 or 1 in 85	
Laser Reading	=	$\dfrac{100}{85}$
	=	1.175

Note:

1. If the rise/ratio is given as 1 in 85 make sure that both dimensions are the same

   e.g.   1" in 240" NOT 1" in 20'
   0.150m in 30m NOT 150mm in 30m
   150mm in 3000mm NOT 150mm in 30m

2. + grades always RISE away from the laser

$$\text{Laser reading} = \frac{\text{Difference in Level}}{\text{Distance}} \times 100$$

$$= \frac{91.078 - 89.231}{115} \times 100$$

$$= 1.606$$

   - grades always FALL away from the laser

3. When using the LASER CONVERSION CHART read the rise/ratio (e.g. 1:85) is in the LEFT hand column the corresponding pipelaser reading (1.176) is in the RIGHT hand column