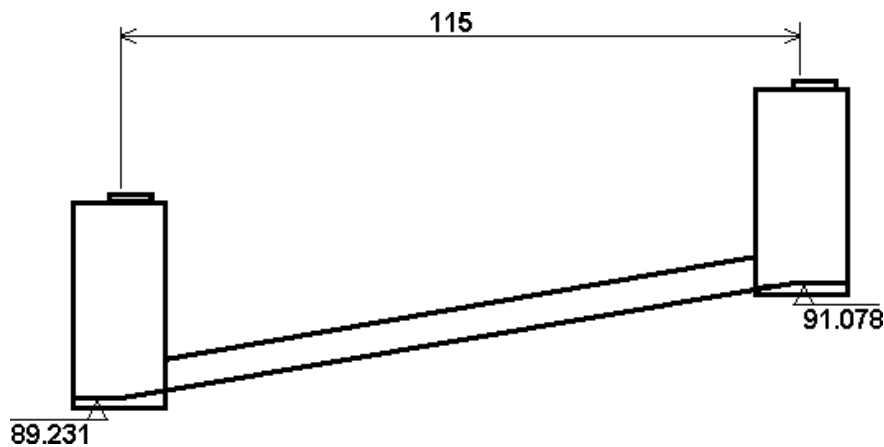


HOW TO CALCULATE PIPELASER READING



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

$$\begin{aligned} \text{Laser Reading} &= \frac{100}{85} \\ &= 1.175 \end{aligned}$$

Note:

- 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
- + grades always RISE away from the laser

$$\begin{aligned} \text{Laser reading} &= \frac{\text{Difference in Level}}{\text{Distance}} \times 100 \\ &= \frac{91.078 - 89.231}{115} \times 100 \\ &= 1.606 \end{aligned}$$

- grades always FALL away from the laser

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