



## HOW TO SELECT THE CORRECT SIZE OF HEAT SHRINK TUBING

### HEAT SHRINK TUBING VOCABULARY

#### I.D. - Inside Diameter

The Inside Diameter of the tubing is measured in inches (in.) or millimeters (mm). Measure the open inside circle. Do not measure the tubing when it is flattened.

#### Expanded I.D. - Expanded Inside Diameter

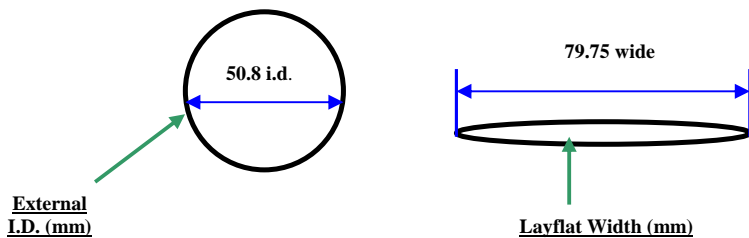
The Expanded I.D. measures the minimum size of the Inside Diameter after the tubing has been expanded. **Heat shrink tubing is sold in its EXPANDED I.D. size.**

#### Lay Flat Width

The Lay Flat Width is the minimum width of the Expanded I.D. heat shrink in its flat form. This needs to be taken into consideration dependant upon its application.

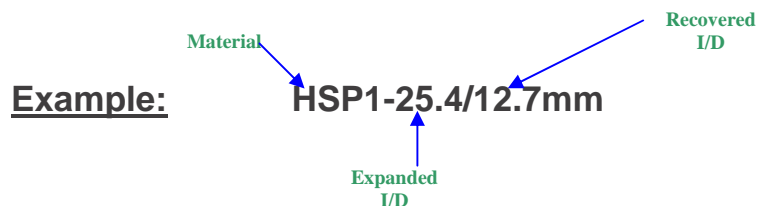
The lay flat width is calculated by multiplying the External I.D. X 1.57, [see example below](#):

#### HSP1-50.8/25.4-Black



#### Recovered I.D. - Recovered Inside Diameter

When heat is applied to expanded tubing, the tubing will shrink or recover. The Recovered I.D. is the measurement of the Inside Diameter of the tubing after being allowed to FULLY SHRINK or RECOVER back to its original extruded size.



### 1. Determine the diameter size of the tubing.

Measure the diameter of the underlying materials to be covered - at the widest part.

Select tubing that is 20% - 30% larger than this measurement by referring to the product's datasheet on the Website

### 2. Determine the shrink ratio of the tubing.

Heat shrinkable tubing is primarily available in 2:1 or 3:1 shrink ratios meaning the tubing has been expanded to twice or three times its fully recovered size. The greater the size variations of the underlying materials being covered, the larger the shrink ratio required.

For example:

2:1 shrink ratio: 50.8mm (2") will recover to 25.4mm(1") — 50% shrinkage.

3:1 shrink ratio: 24.0 (approx 1") will recover to 8mm (approx 1/3") — 67% shrinkage.

### **3. Determine the wall thickness of the tubing.**

Nominal Recovered Wall Thickness - The target thickness of the wall after complete recovery. The Wall Thickness of the tubing is measured in inches (in.) or millimeters (mm). Refer to the tubing's Technical Data to determine the thickness of the wall.

### **4. Determine the length of the tubing.**

Longitudinal Shrinkage: Heat shrinkable tubing has a small loss of length during the recovery process. Take into account the change of length of the recovered tubing (after shrinking). Longitudinal shrinkage varies from 5% to approximately 10% - depending on the material.