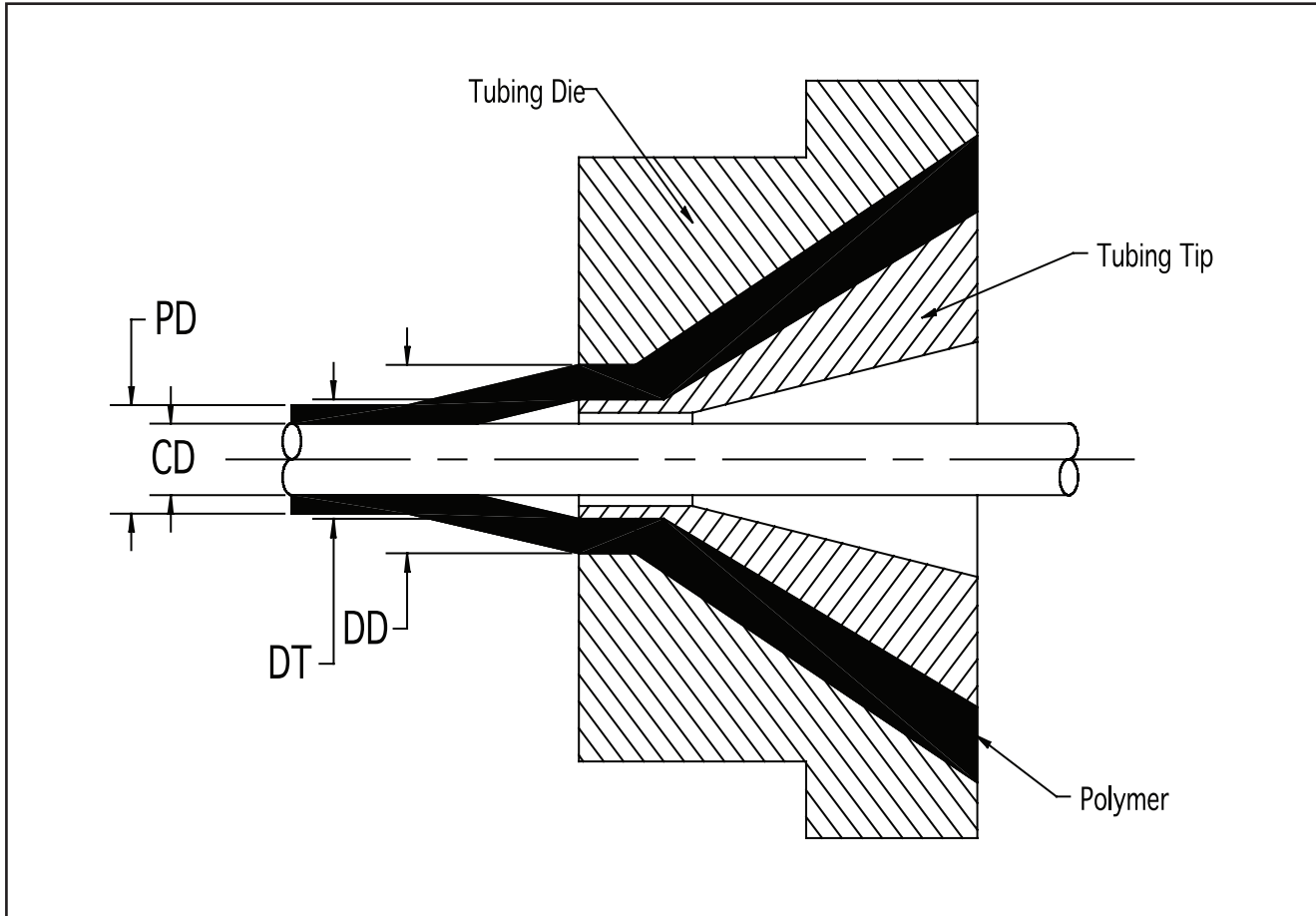


DRAW DOWN RATIO CALCULATION INSTRUCTIONS



DD = Diameter of Extrusion Die
 DT = Outside Diameter of Tip
 PD = Product Diameter
 CD = Core Diameter

The Draw Down Ratio (DDR) is calculated by comparing the cross sectional area of the extrusion. For a tube this is calculated by the following formula:

$$DDR = \frac{DD^2 - DT^2}{PD^2 - CD^2}$$

The Draw Ratio Balance (DRB) is the balance between the rates that the outside & inside of the polymer cone is drawn down. It is calculated by the following formula:

$$DRB = R1/R2$$

$$R1 = DD/PD$$

$$R2 = DT/CD$$
 DRB of 1.00 to 1.10 is typical

MATERIAL	DDR	DRB
PVC (Flex)	2.0-4.0	0.95-1.05
PVC (Semi Rigid)	1.5-2.5	0.95-1.01
PE	2.0-5.0	0.98-1.02
Nylons	4.0-20.0	0.95-1.05
FEP & Teflon's	3.0-300.0	0.95-1.15
T.P.R.	2.0-3.0	0.98-1.01