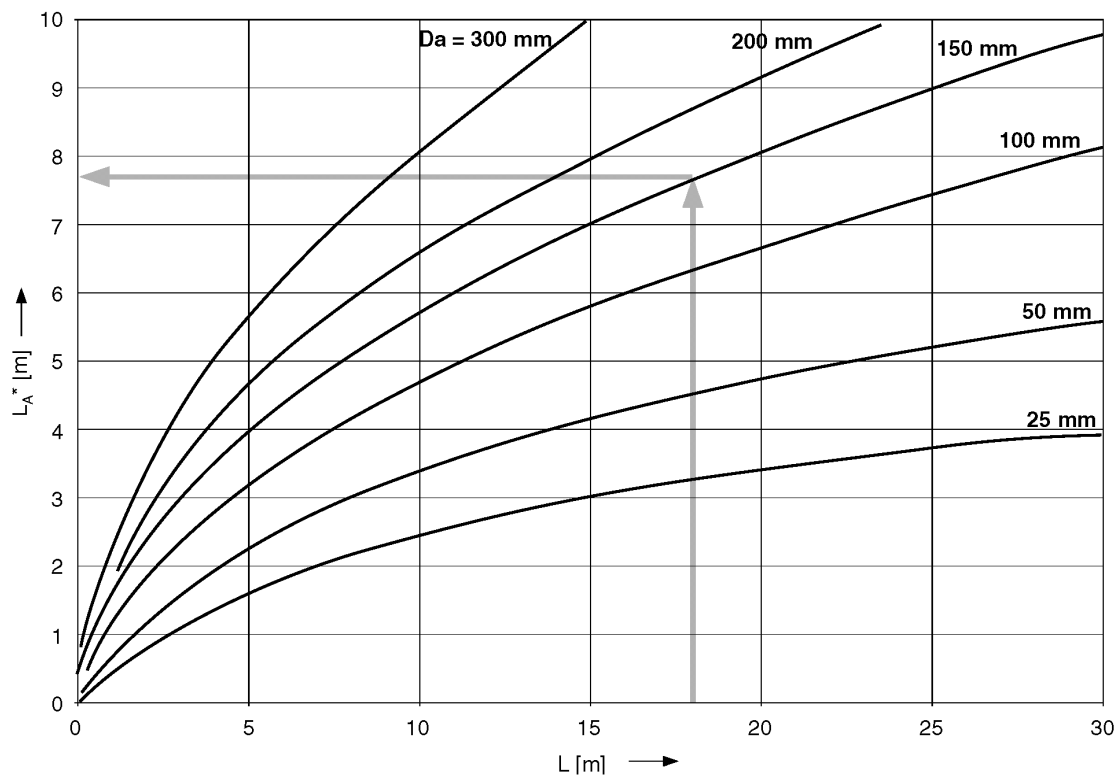


## Ekspansjonslegg $L_A$ , minste lengde, i rørstrekk med f.eks. varme

### Rørledning av stål (Ferritisk og austenitisk)



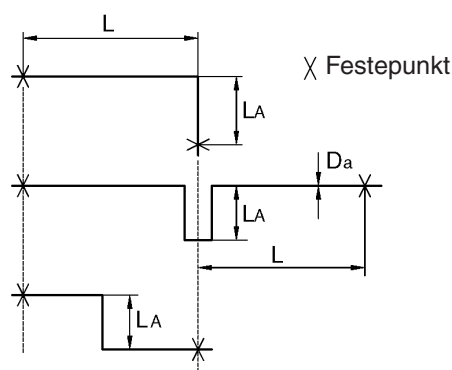
$$L_A = \frac{T(^{\circ}\text{C})}{300} \cdot L_{A^*}$$

#### Eksempel:

$L = 18 \text{ m}; \text{DN } 150; T = 120^{\circ}\text{C}$

1) Avlest diagram  $L_{A^*} = 7,7 \text{ m}$

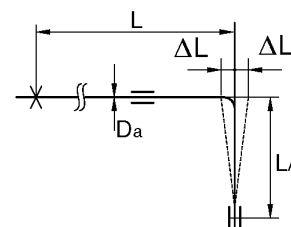
2) Beregnet  $L_A = \frac{120}{300} \cdot 7,7 \text{ m} = 3,1 \text{ m}$



### Rørledning av kunststoff

Materiale	Material-Konstant C
HDPE	26,0
PP	30,0
PVC	33,5
PVDF	21,6

$$L_A = C \cdot \sqrt{D_a \cdot \Delta L}$$



#### Eksempel:

PP;  $L = 8 \text{ m}; D_A = 160 \text{ mm}; T_{\text{Drift}} = 80^{\circ}\text{C}; T_{\text{Innallasjon}} = 20^{\circ}\text{C}$

1) Lengdeutvidelse:

$$\Delta L = 8 \text{ m} \cdot 0,0150 \cdot 60 \text{ K} = 72 \text{ mm}$$

$$2) L_A = 30 \cdot \sqrt{160 \text{ mm} \cdot 72 \text{ mm}} = 3200 \text{ mm}$$