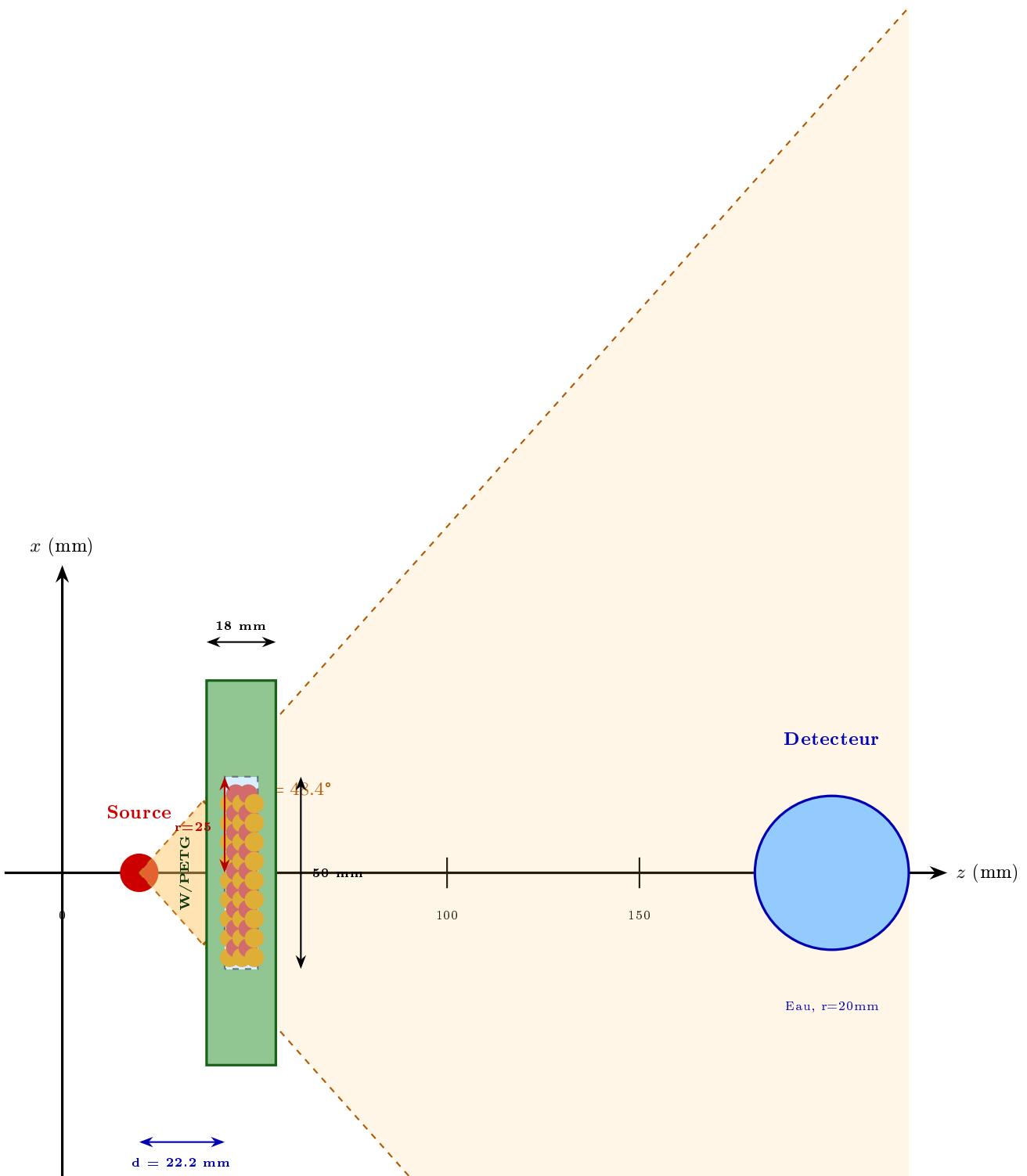


## Coupe XZ – Cone inscrit dans la cavite

Demi-angle  $\theta = 48.4^\circ$



## Calcul du demi-angle du cone

### Donnees geometriques

- Position source :  $z_s = 20$  mm
- Centre plaque :  $z_{plaque} = 46.5$  mm
- Epaisseur cavite :  $h = 8.53$  mm
- Face avant cavite :  $z_c = 42.2$  mm
- Section cavite :  $50 \times 50$  mm $^2$
- Rayon inscrit :  $r = 25$  mm

### Calculs

Distance source → cavite :

$$d = z_c - z_s = 42.2 - 20 = 22.2 \text{ mm}$$

Demi-angle du cone :

$$\theta = \arctan\left(\frac{r}{d}\right) = \arctan\left(\frac{25}{22.2}\right) = 48.4$$

Angle total :  $2\theta = 96.8$

Angle solide :  $\Omega = 2\pi(1 - \cos \theta) = 2.11 \text{ sr}$