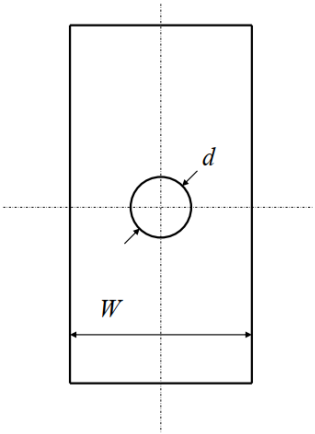
Plane stress

LASTRA FORATA DI PICCOLO SPESSORE

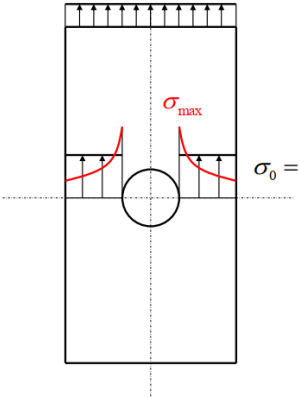


$K_t = ?$

$W = 30\,\text{mm}$

$d = 10\,\text{mm}$

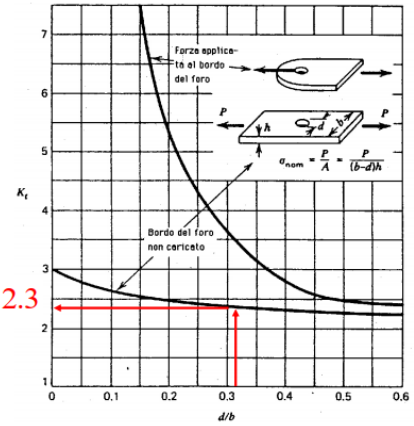
$$\sigma = \sigma_0 \frac{W-d}{W} = 66.7\,\text{MPa}$$



$$K_t = \frac{\sigma_{max}}{\sigma_0}$$

$\sigma_0 = 100\,\text{MPa}$

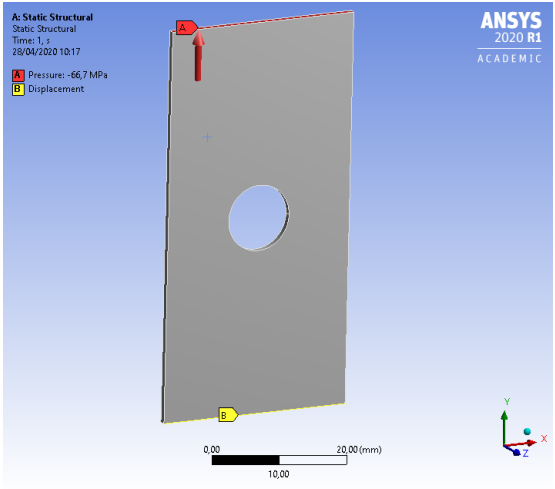
R.C. Juvinall, K.M. Marshek – Fundamentals of machine component design – Wiley



$K_t = 2.3$

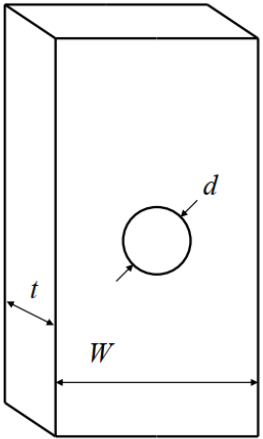
$d / W = 0.333$

Lastra forata di piccolo spessore



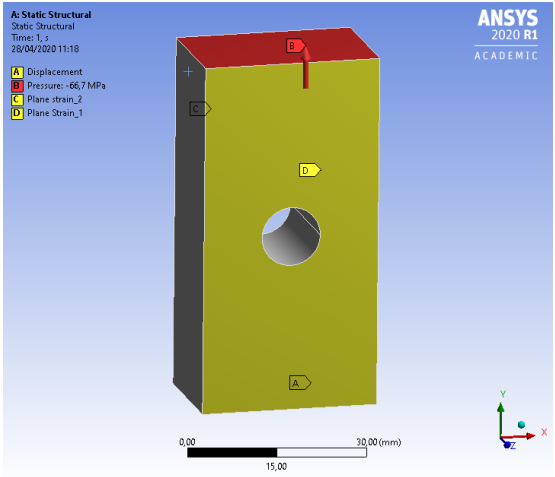
Plane strain

$W = 30$ mm $\quad d = 10$ mm $\quad t = 20$ mm



t, d confrontabili

Lastra forata di elevato spessore



Sommario prima esercitazione

Problemi affrontati

- Calcolo K_t
- Soluzione Plane Stress, Plane Strain e 3D

Funzioni del programma esaminate

- Descrizione comandi base (e.g. mesh, vincoli, carichi, visualizzazione dei risultati di tensione, visualizzazione dei risultati di errore sulla tensione)
- Confronto dei risultati numerici con valori di riferimento (e.g. risultati analitici, risultati sperimentali)
- *Remote Displacement*
- Tool di convergenza della soluzione
- Utilizzo del *Path*