Design rules
Gate system

Prefer fan gate when possible

When submarine / tunnel gate is required, use steel insert
Design rules
Cooling channels

Less cooling channels but of larger diameter, turbulent flow

Distance between channels and from cavity to channels:

- steel molds = 2D x 2D with D = channel \( \varnothing = 8 - 10 \text{ mm} \)
- aluminum mold = 5D x 5D with D = 12 – 14 mm

⚠️ flow rate conditions to meet:
Reynolds number > 4000
(turbulent flow)
Influence of the distance between channels and to the surface

Design rules
Cooling channels