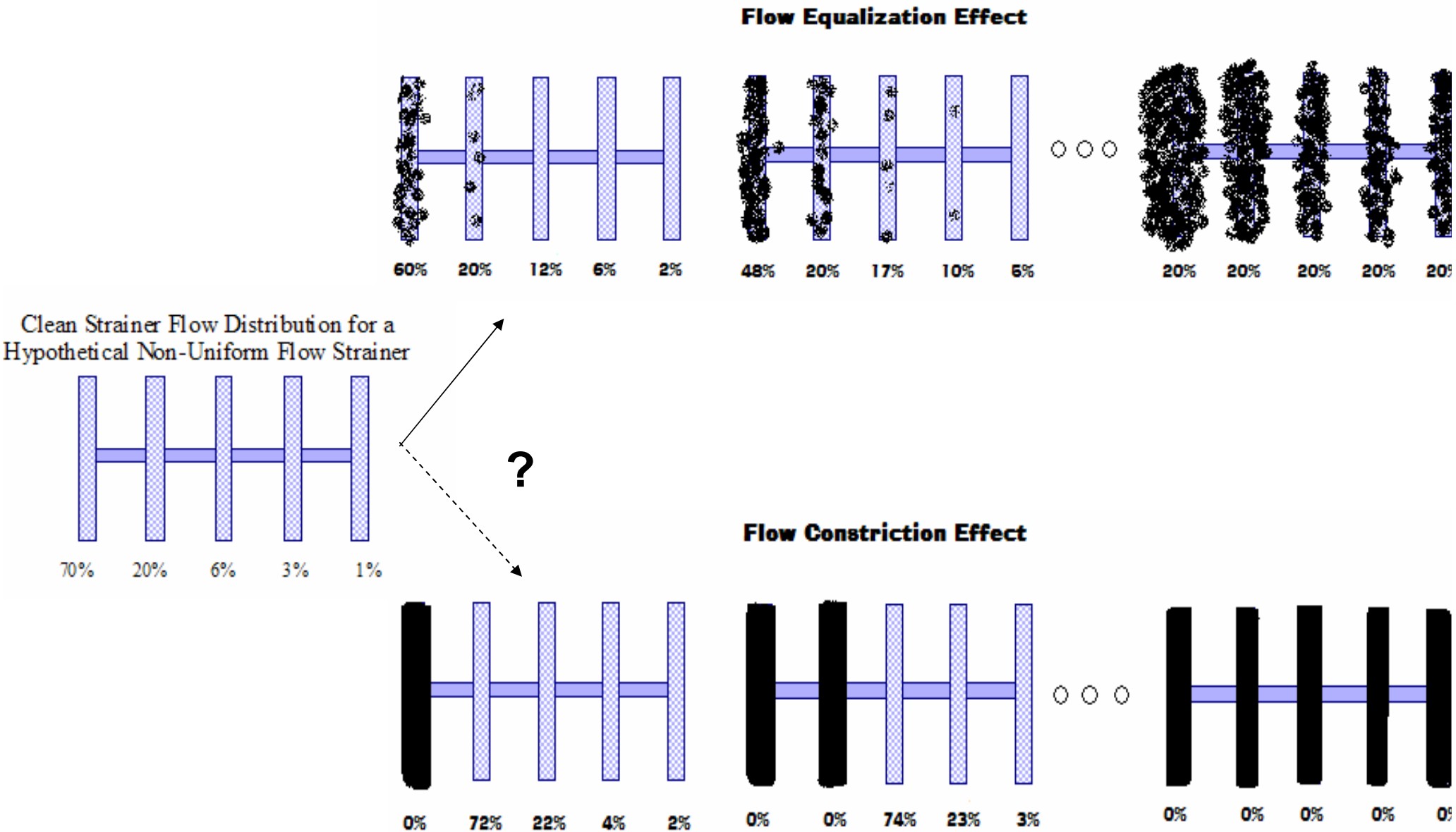
Postulated Flow Constriction Effect

- For some non-uniform flow strainers, local approach velocities could be elevated near pump suction line
- As a result, a compact debris bed with high filtration and flow resistance could form locally
- High local flows could then be redirected to nearest locally clean area and build a similar bed there
- If debris quantity is sufficient, a high flow resistance bed could be formed over entire strainer area, jeopardizing pump net positive suction head margin
- Flow Constriction Effect has not been unequivocally demonstrated as realistic
- Vendors and licensees with non-uniform flow strainers need to address potential for this effect

Potential Debris Accumulation Patterns Under Non-Uniform Flow



Hypothetical Non-Uniform Strainer Approach Velocity Distributions