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Development of a numerical correlation for the discharge coefficient of round inclined holes with low crossflow

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Highlights

- The prediction of the discharge coefficient (C_d) for round holes still represents an open issue.
- The distinct effects of hole length-to-diameter ratio and inclination angle are usually neglected.
- A CFD Design of Experiments is performed to investigate these effects (in addition to pressure ratio).
- The database generated was used to develop a correlation for the estimation of the C_d .

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