

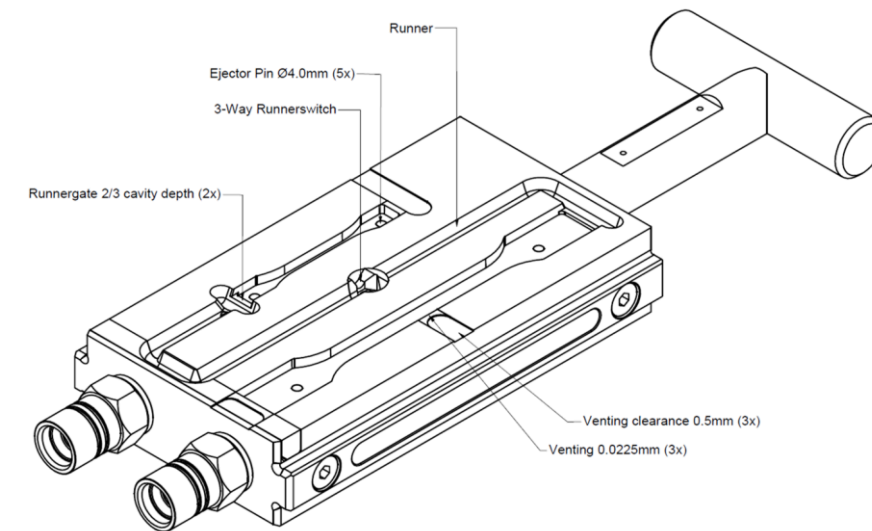
## Potential analysis of thermoplastic elastomers (TPE) for flexible couplings

### Problem

- The production of flexible couplings with elastomers is very energy-intensive. The substitutability of elastomers with TPE is investigated against the background of the higher efficiency, recyclability and process reliability of TPE.
- Typically, the characteristics of the materials are investigated in static tests at the specimen level. Application-related characteristic data from tests under dynamic loads are to be focused on.

### Objective

- Selection of suitable TPEs for flexible couplings
- Investigation of material characteristics under cyclic loads to qualify TPE for dynamic applications
- Conceptual design of a suitable test specimen for the comparison of elastomers and TPEs in terms of stresses and production requirements



*Injection mold for tie rods*