

**Moldex3D**

# **Moldex3D R11: Mixed Runner Symmetry**

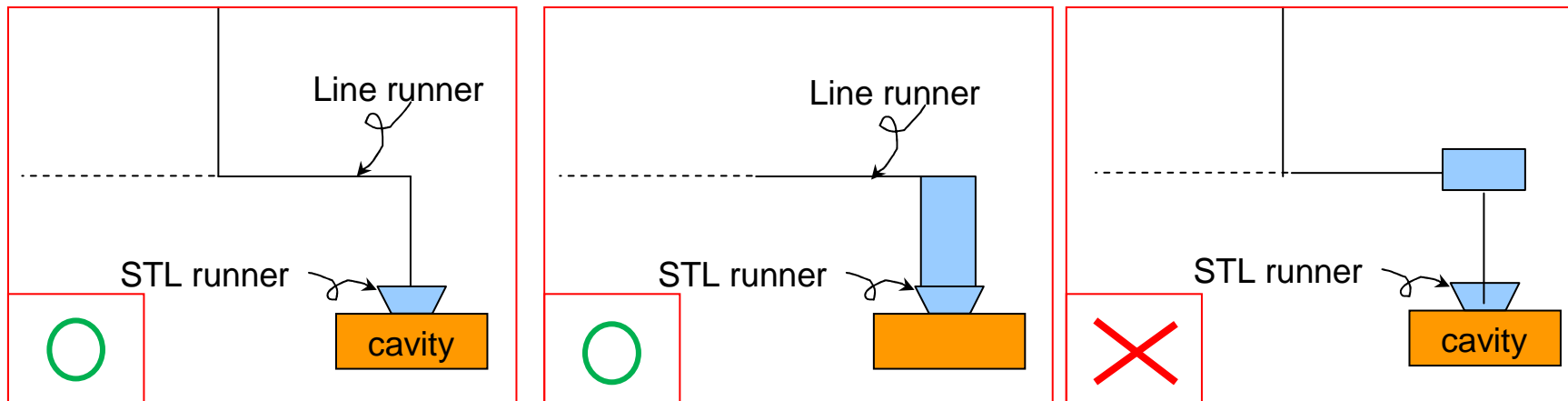


**Moldex3D\_TIPs\_20120120**

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CoreTech System Co., Ltd  
[www.moldex3D.com](http://www.moldex3D.com)

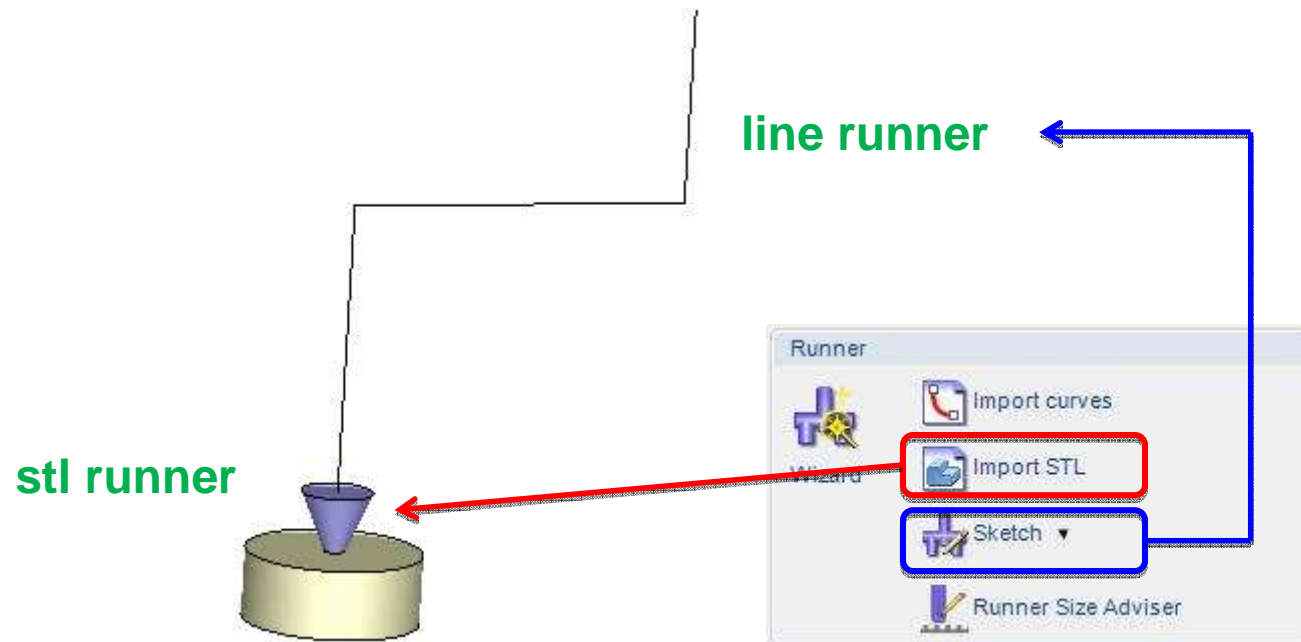
- R11 eDesign supports the symmetry setting of mixed type runner (stl + line) to efficiently simulate multi-cavity model. The benefits of this new feature include the following:
  1. The mesh resolution per cavity can be raised to achieve better accuracy.
  2. Reduce the memory requirement for multi-cavity analysis
- This week's Moldex3D tips gives a brief explanation on the setting up of symmetry configuration for mixed runner system.



# Mixed Runner Symmetry

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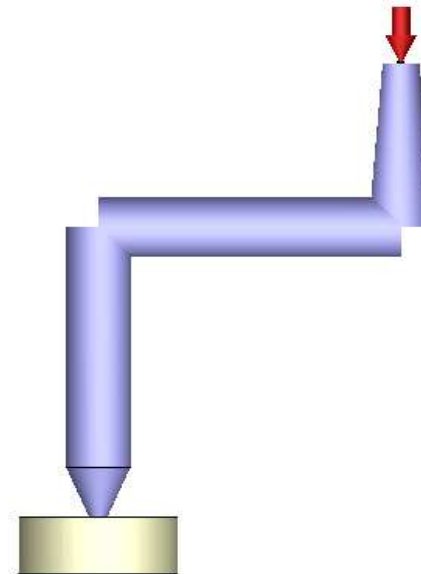
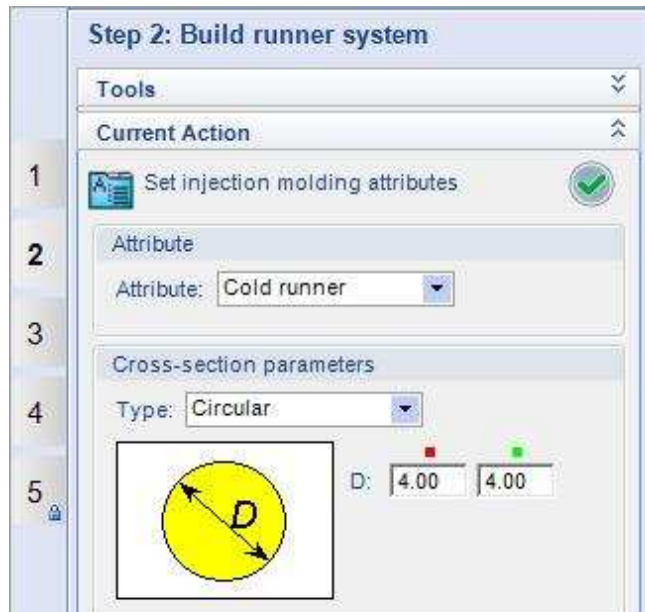
- **Step 1: Import the cavity and the stl runner segment. Then use the “Sketch” function to draw the “line” runner.**
  - **Note: The stl runner segment must be connected to the cavity.**



# Mixed Runner Symmetry

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- Step 2: Assign attribute to the lines drawn as “Cold Runner” or “Hot Runner”
- Step 3: Assign melt entrance manually.
  - **Note: Melt Entrance wizard does not support automatic locating of mixed runner system.**

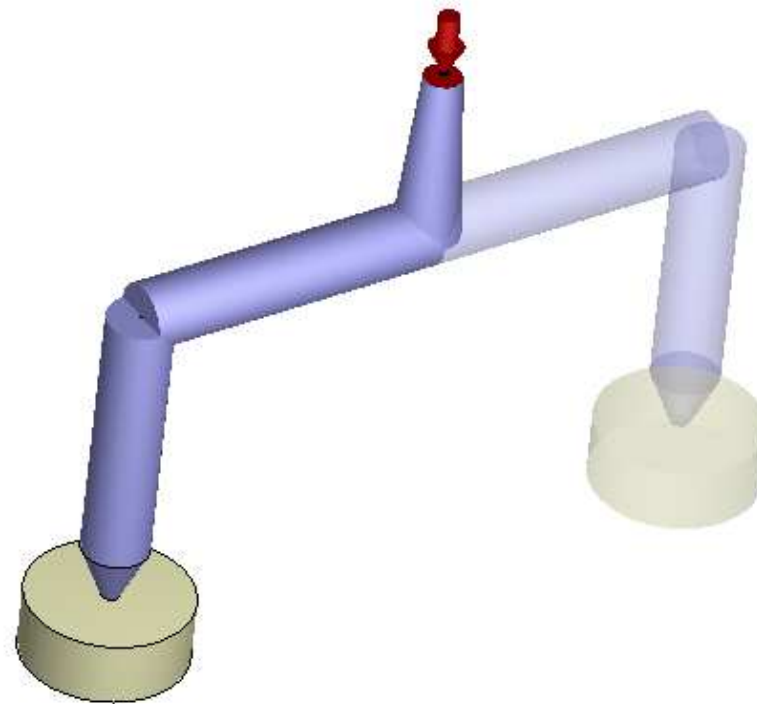
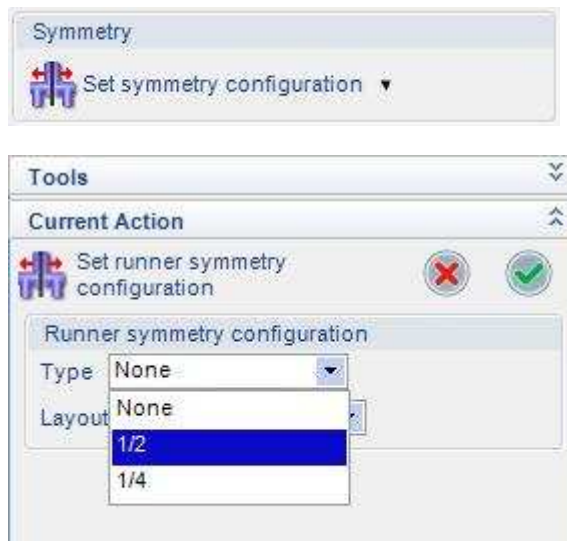


Auto melt-entrance doesn't support these runners consist of stl runners and runner lines

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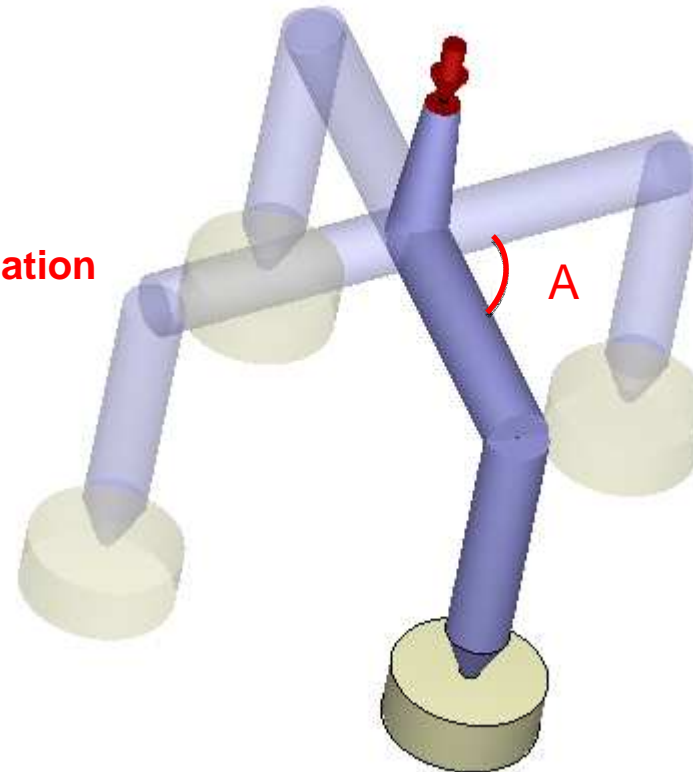
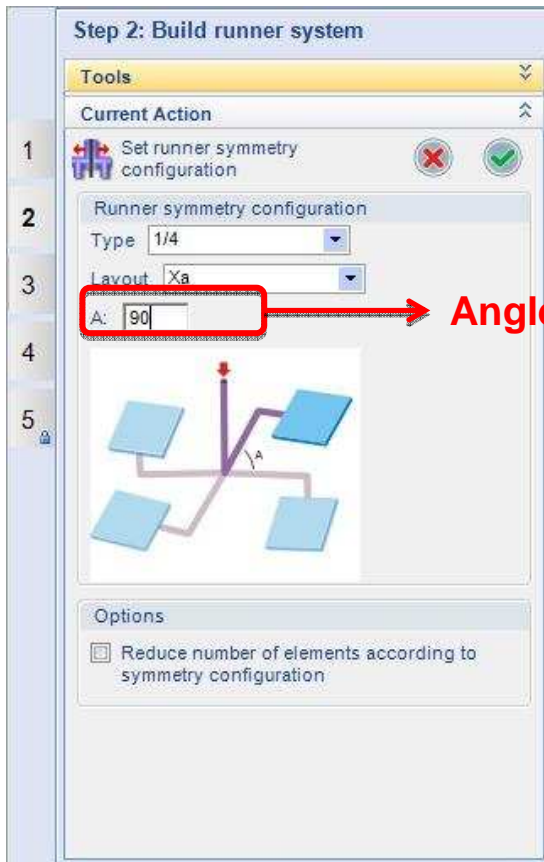
- **Step 4: Set symmetry configuration using the icon shown below. Two types of symmetry configuration are offered:  $\frac{1}{2}$  and  $\frac{1}{4}$  depending on users' needs. Different symmetry layouts are available as well.**



# Mixed Runner Symmetry

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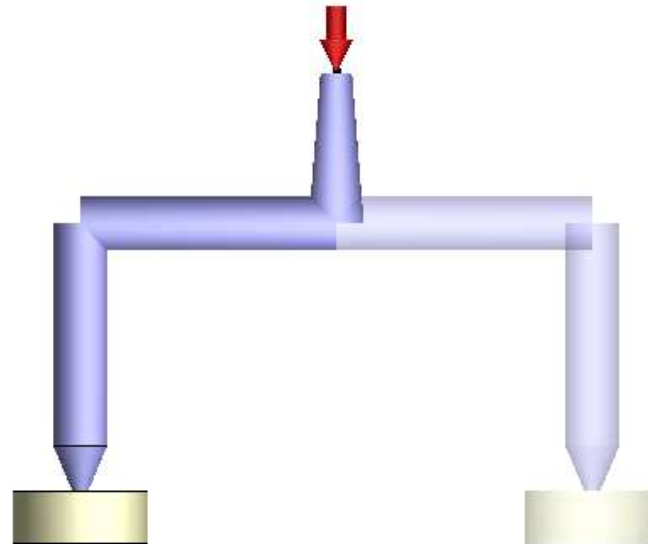
- **Note:** For  $\frac{1}{4}$  symmetry setting, the angle between the original runner design and the symmetric runner can be defined.



- **Note:** Users can choose to reduce the number of elements according to symmetry configuration to speed up calculation. For example, for a  $\frac{1}{2}$  symmetrical model with original number of elements of 10 million, the total number of elements will be reduced to 5 million with this option being checked. However, this function is not recommended for models with complicated geometry.

## Options

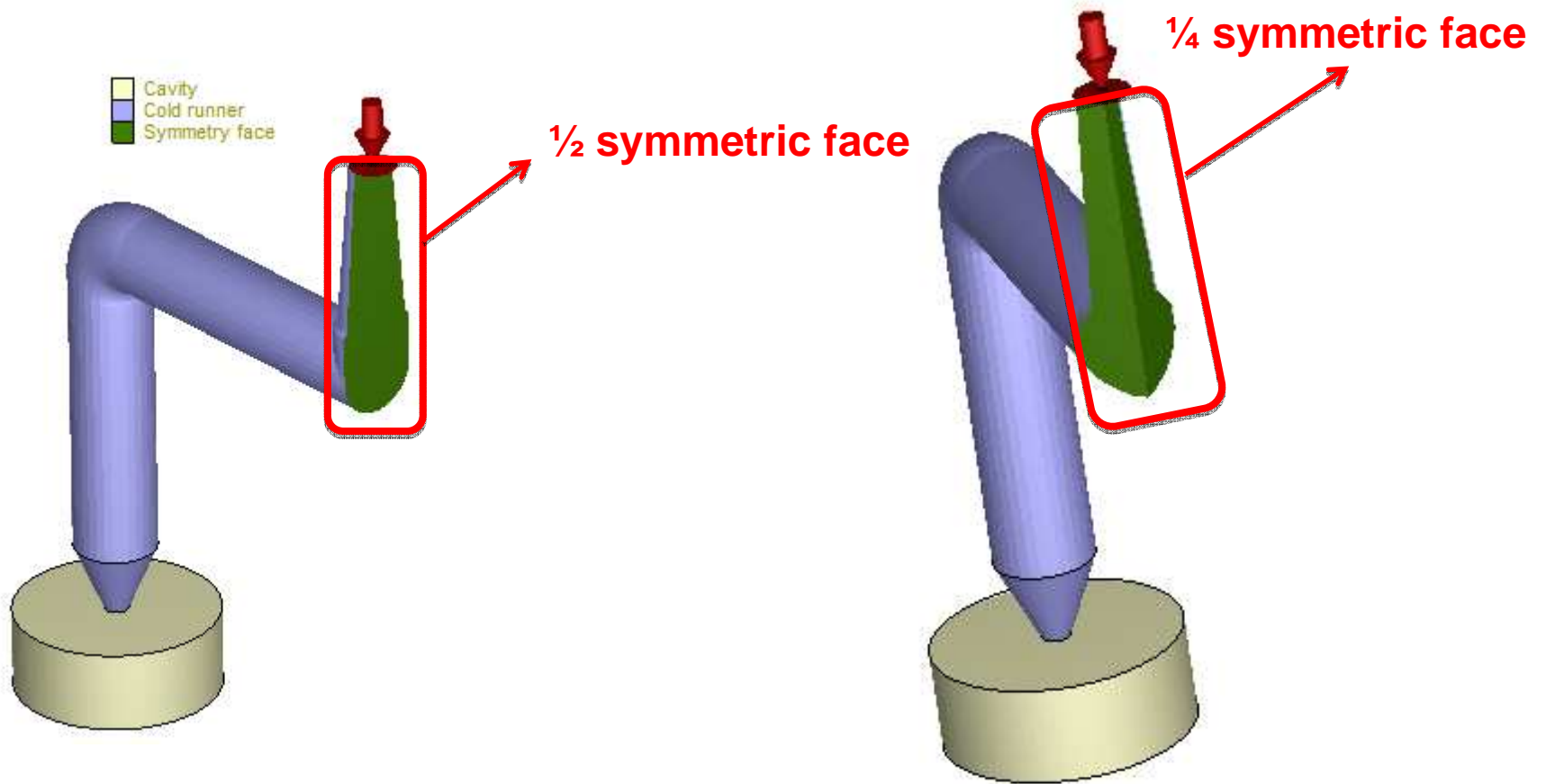
- Reduce number of elements according to symmetry configuration



# Mixed Runner Symmetry

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- After solid mesh generation, the symmetric runner surface will be shown.



**Thank you for your attention!**