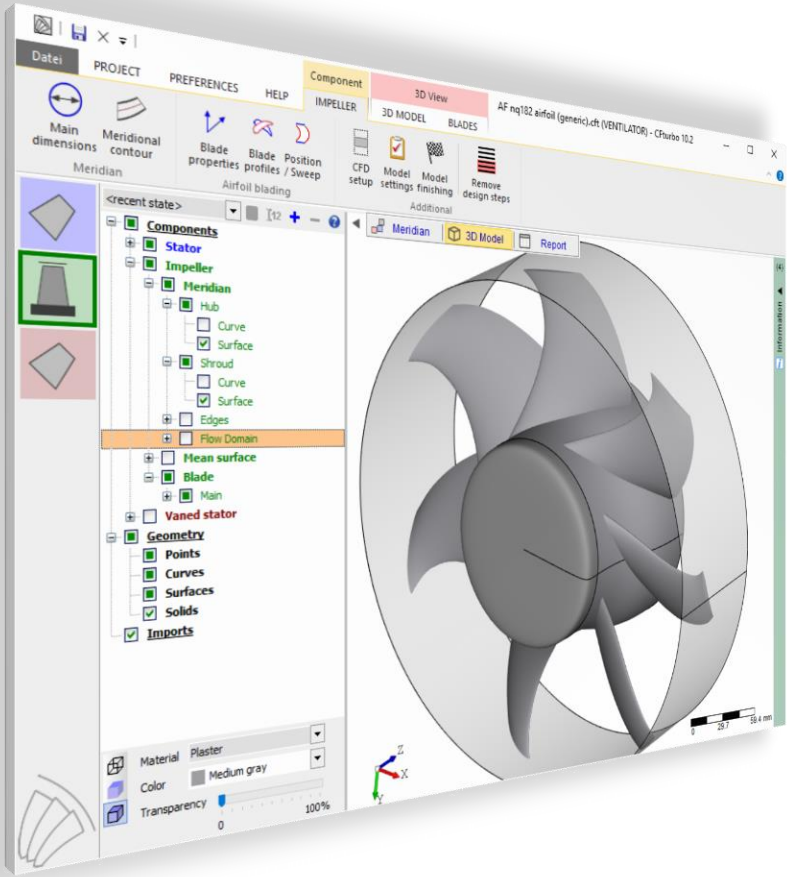

Axial Impeller design by **CFturbo®**

8 steps to design an axial impeller

CFturbo®

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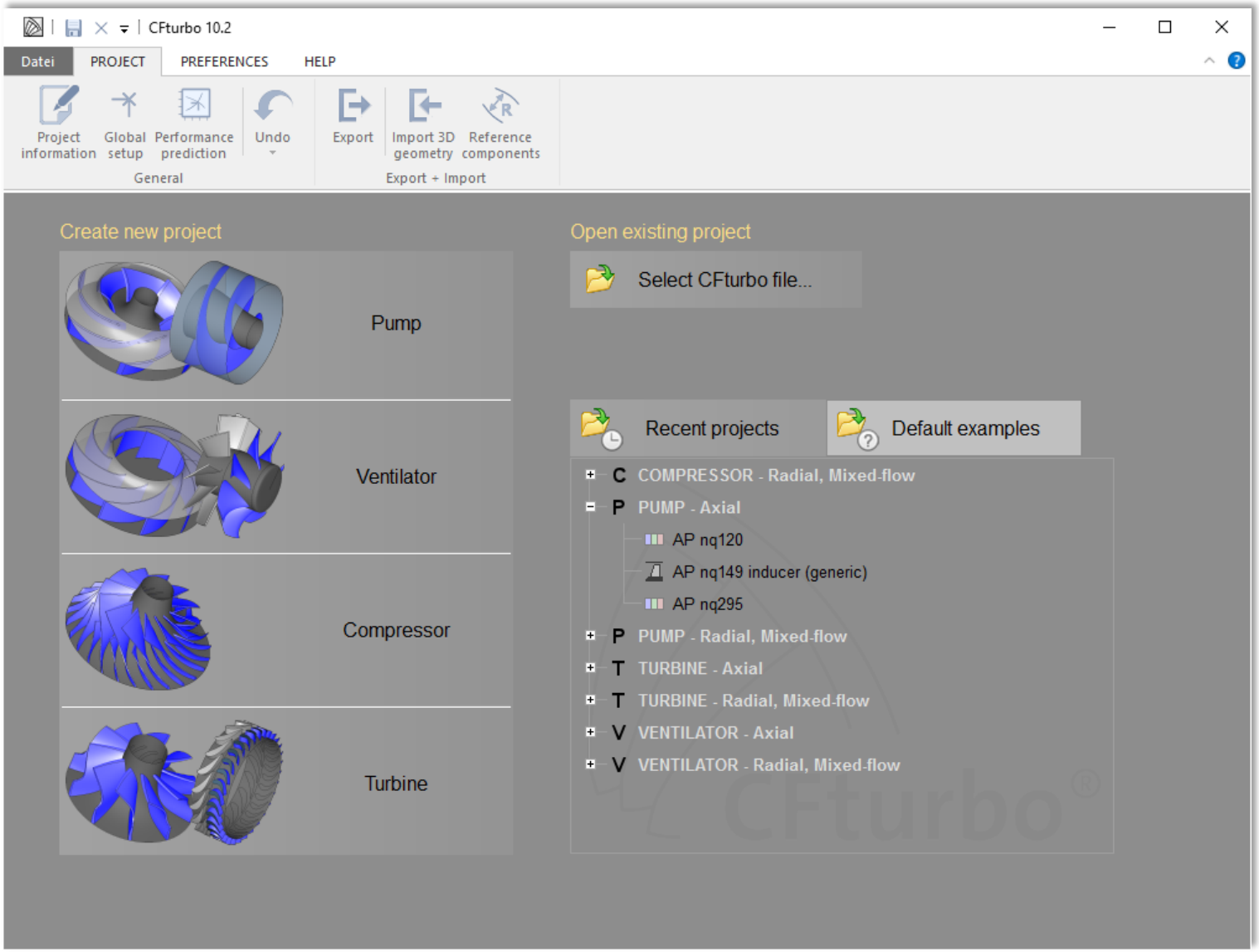
Dresden/Munich, Germany
www.cfturbo.com

1 Create new project

Select desired machine type



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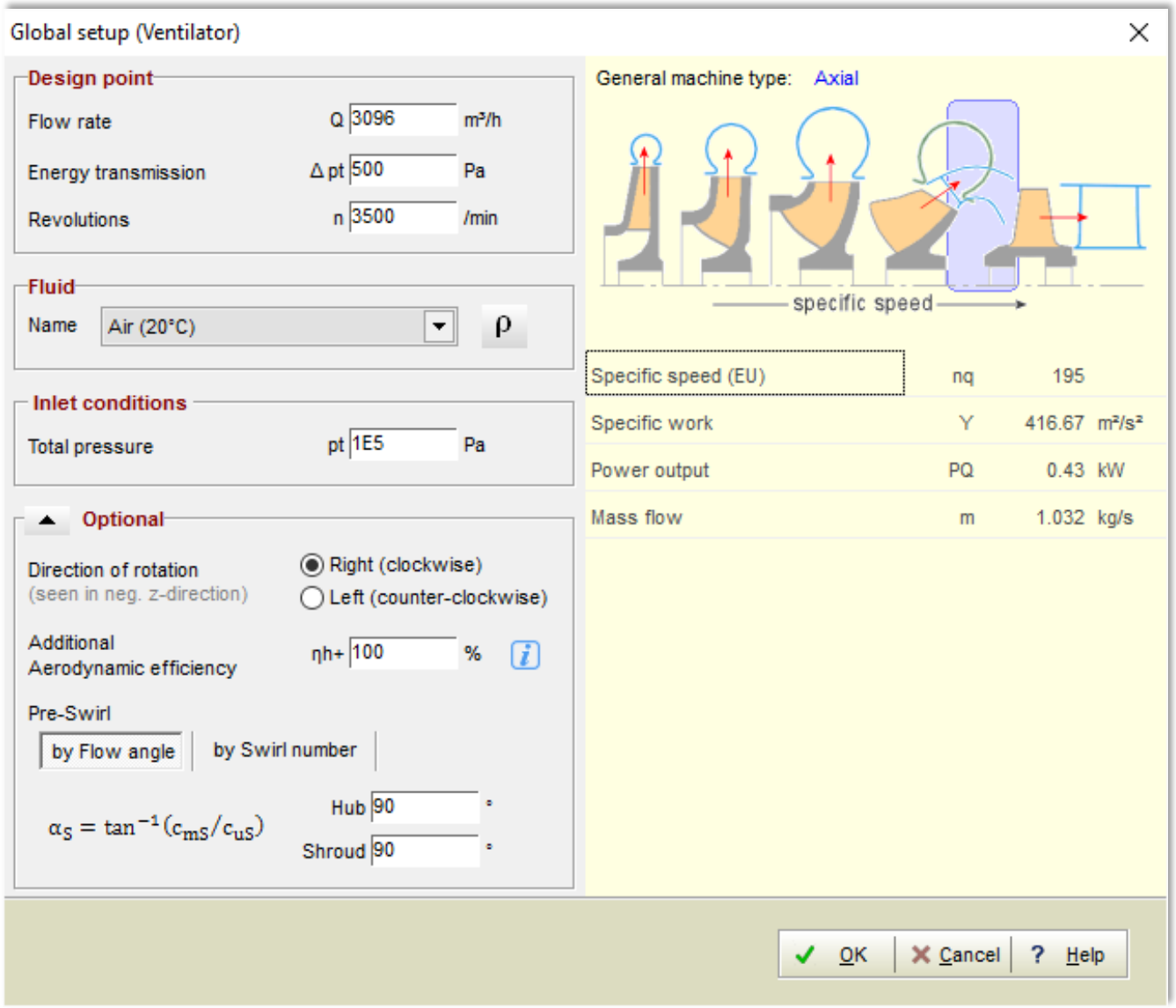
2 Global Setup

Specify Design point values and fluid



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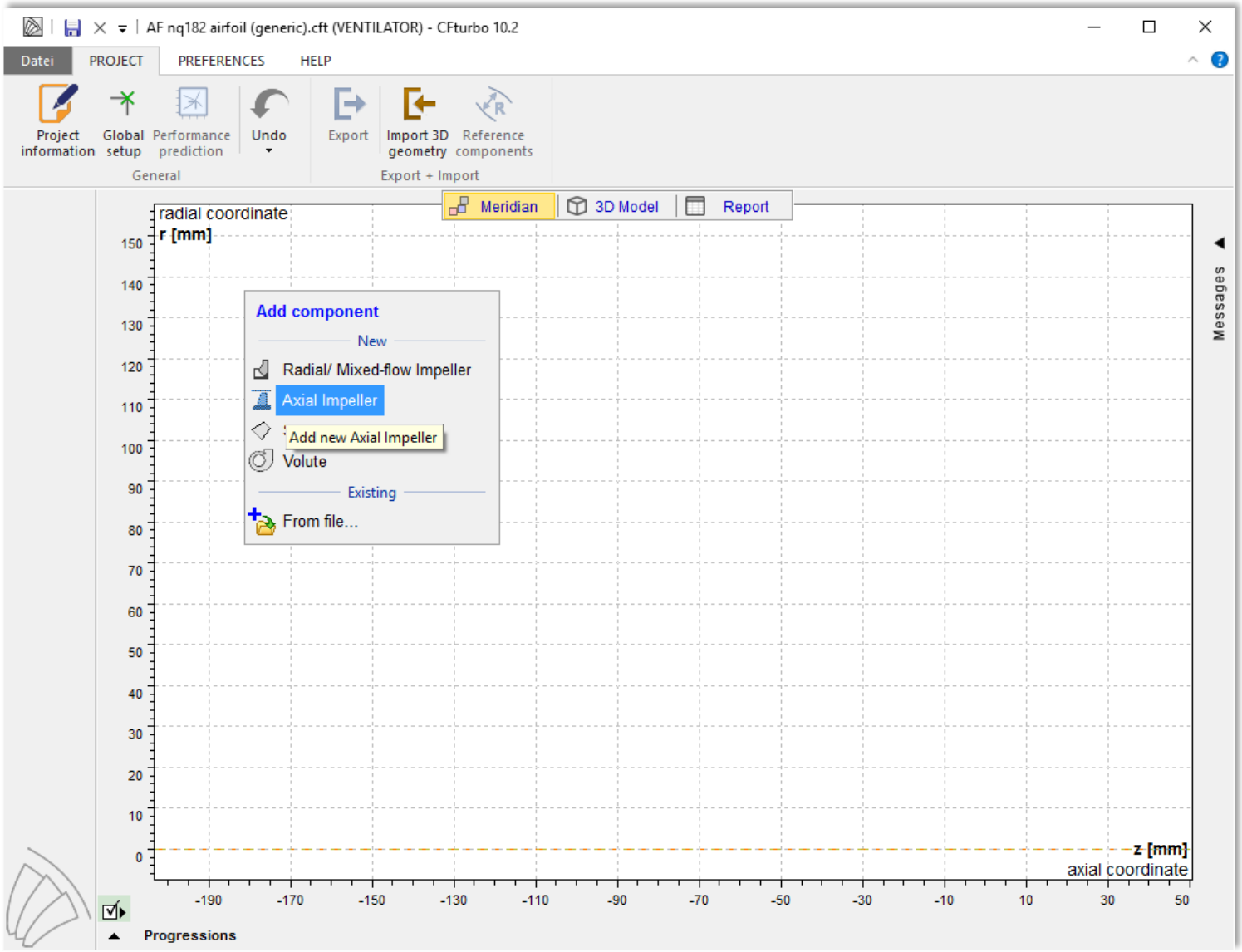
❸ Add impeller component

Select New Impeller in the diagram



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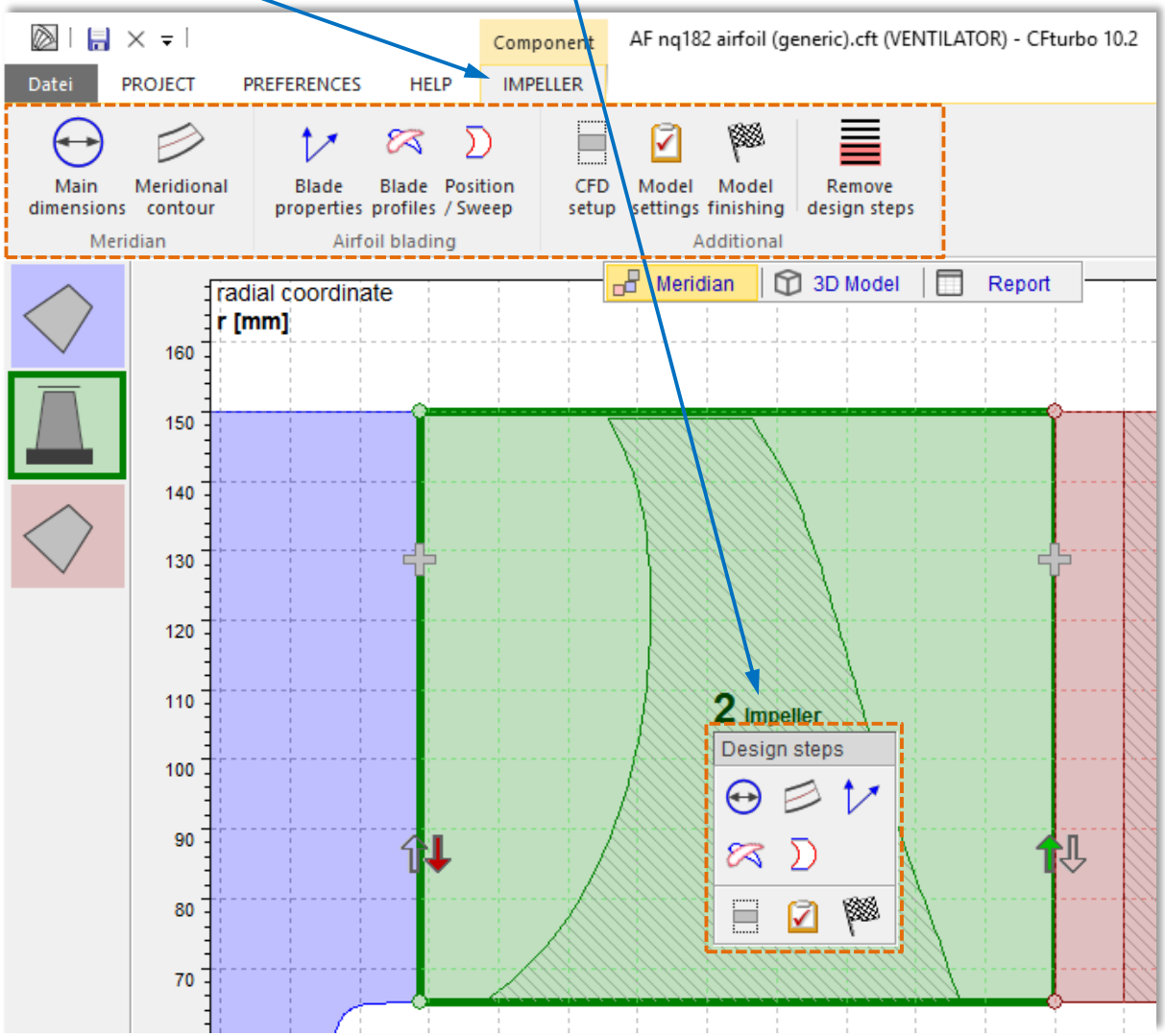
How to access the single design steps?

Use Impeller menu or components toolbar inside the Meridian shape



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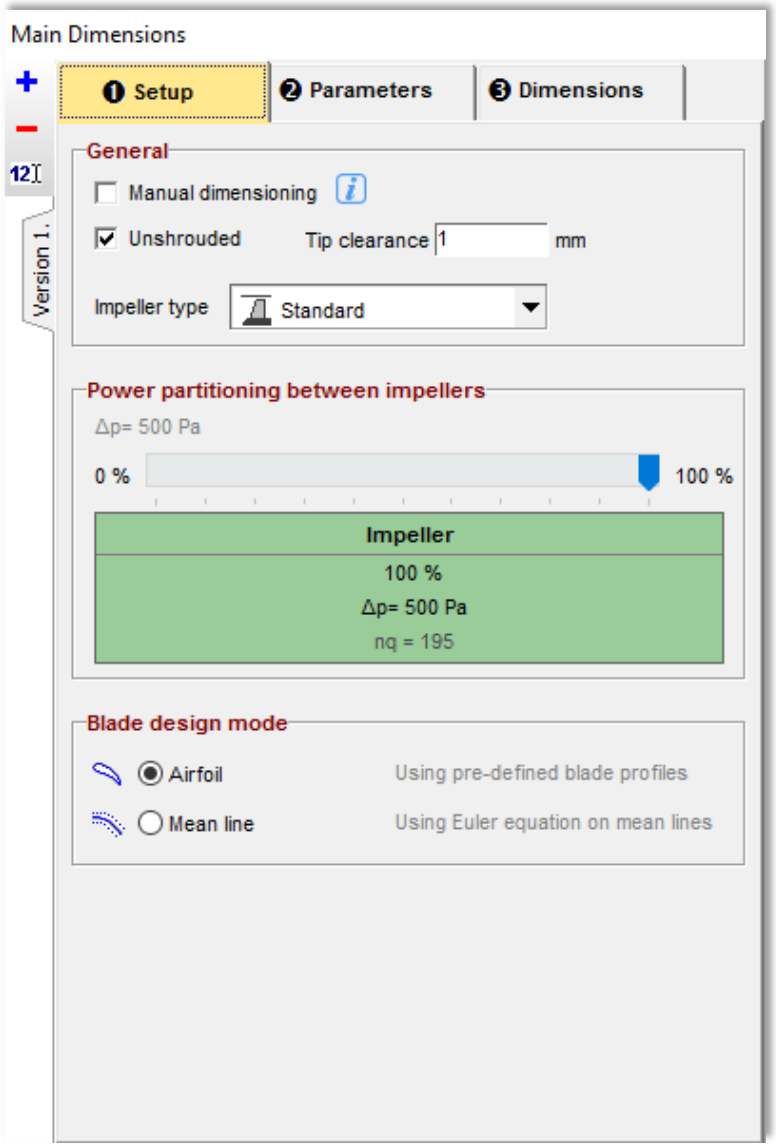
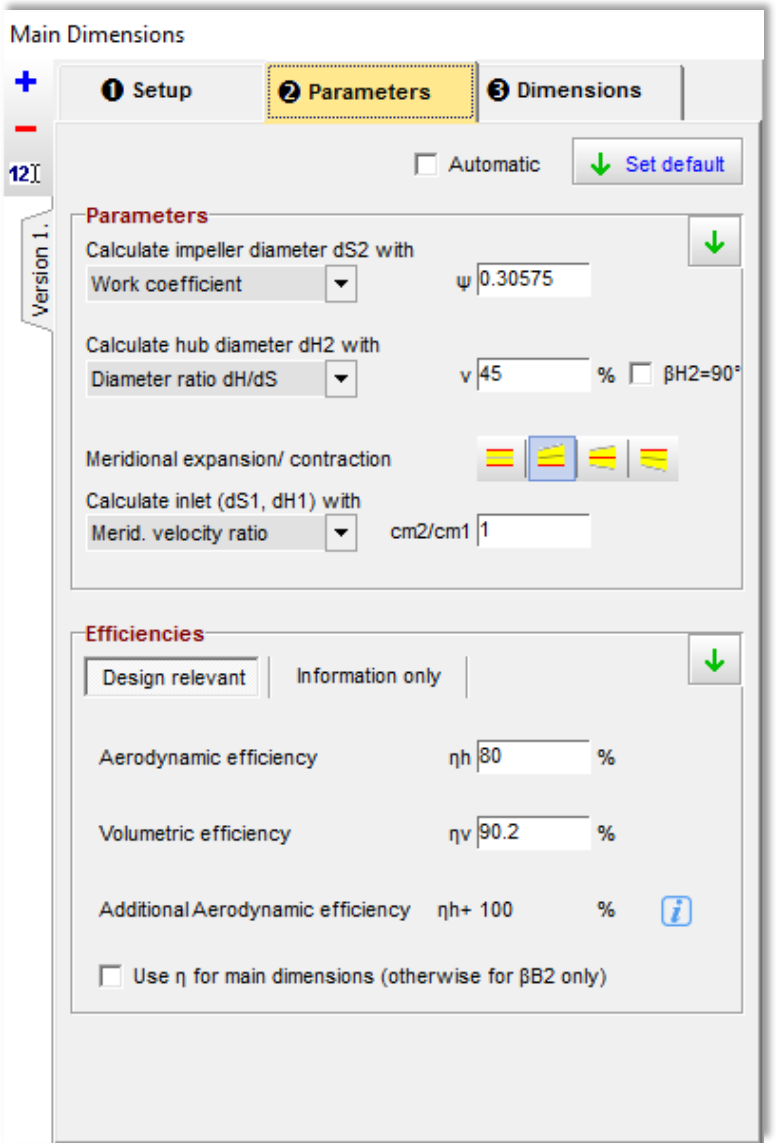
4 Main dimensions

a) General setup



b) Empirical parameters



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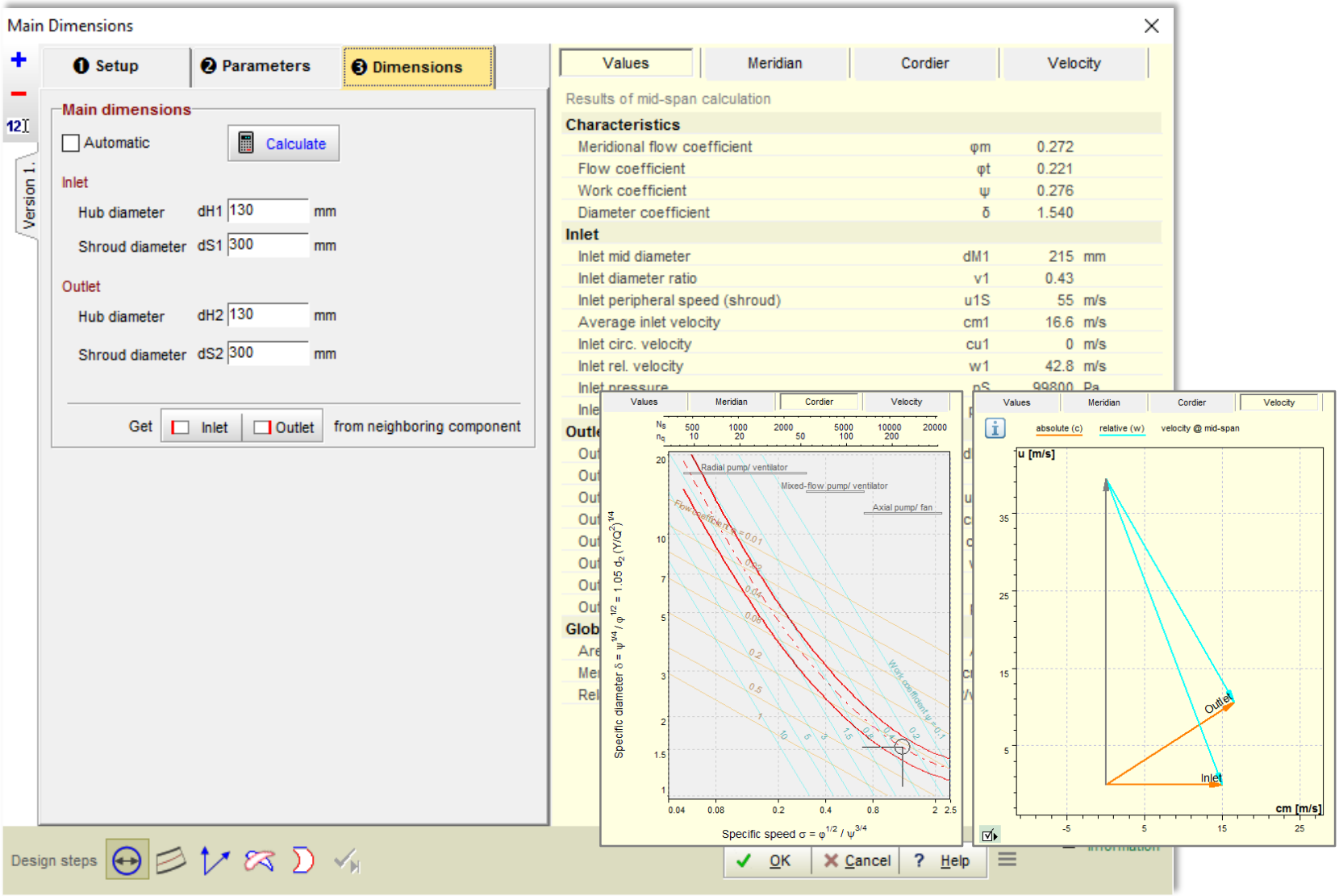
4 Main dimensions

c) Calculate/ adapt main dimensions



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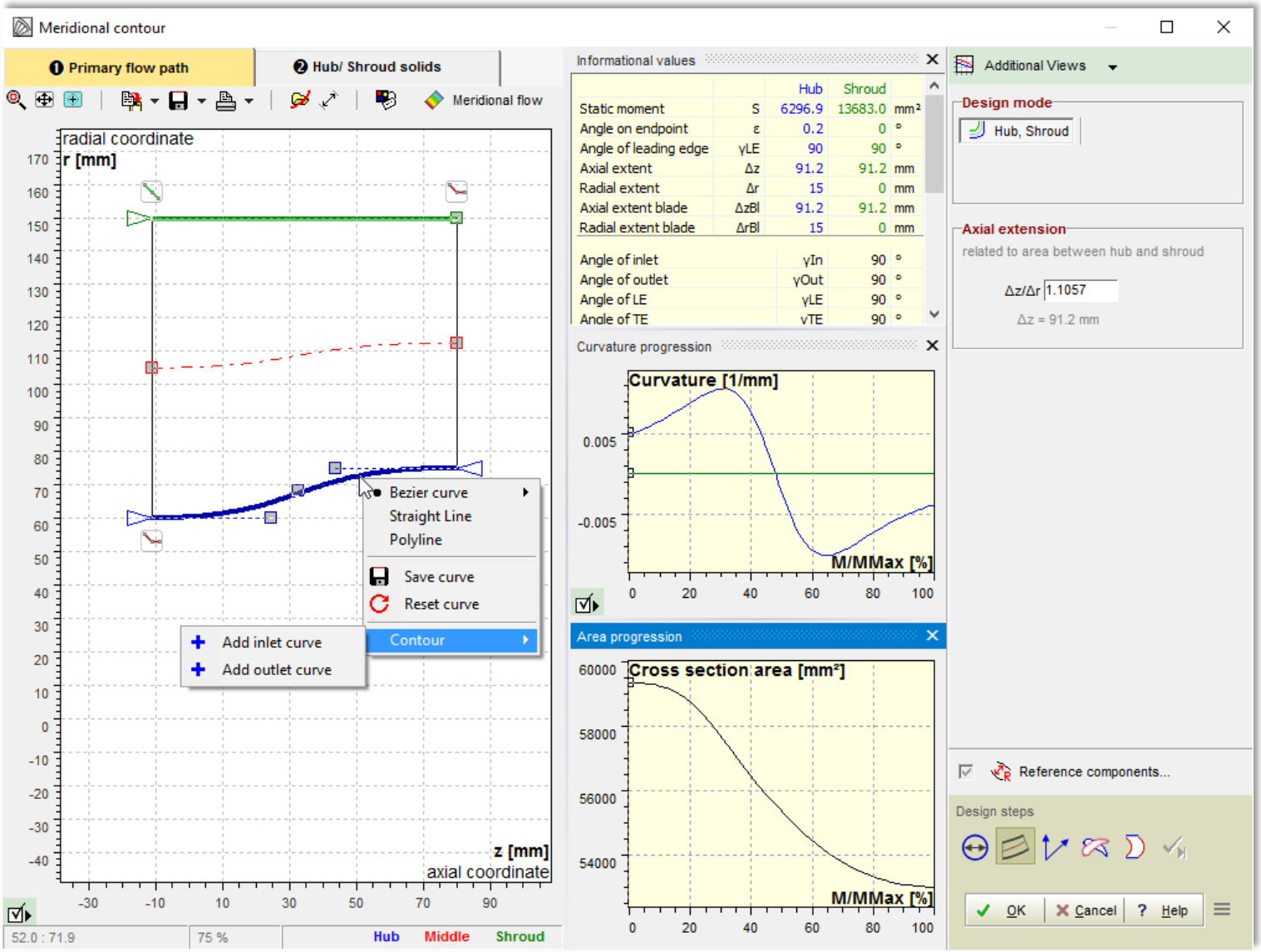
5 Meridional contour

Design hub & shroud



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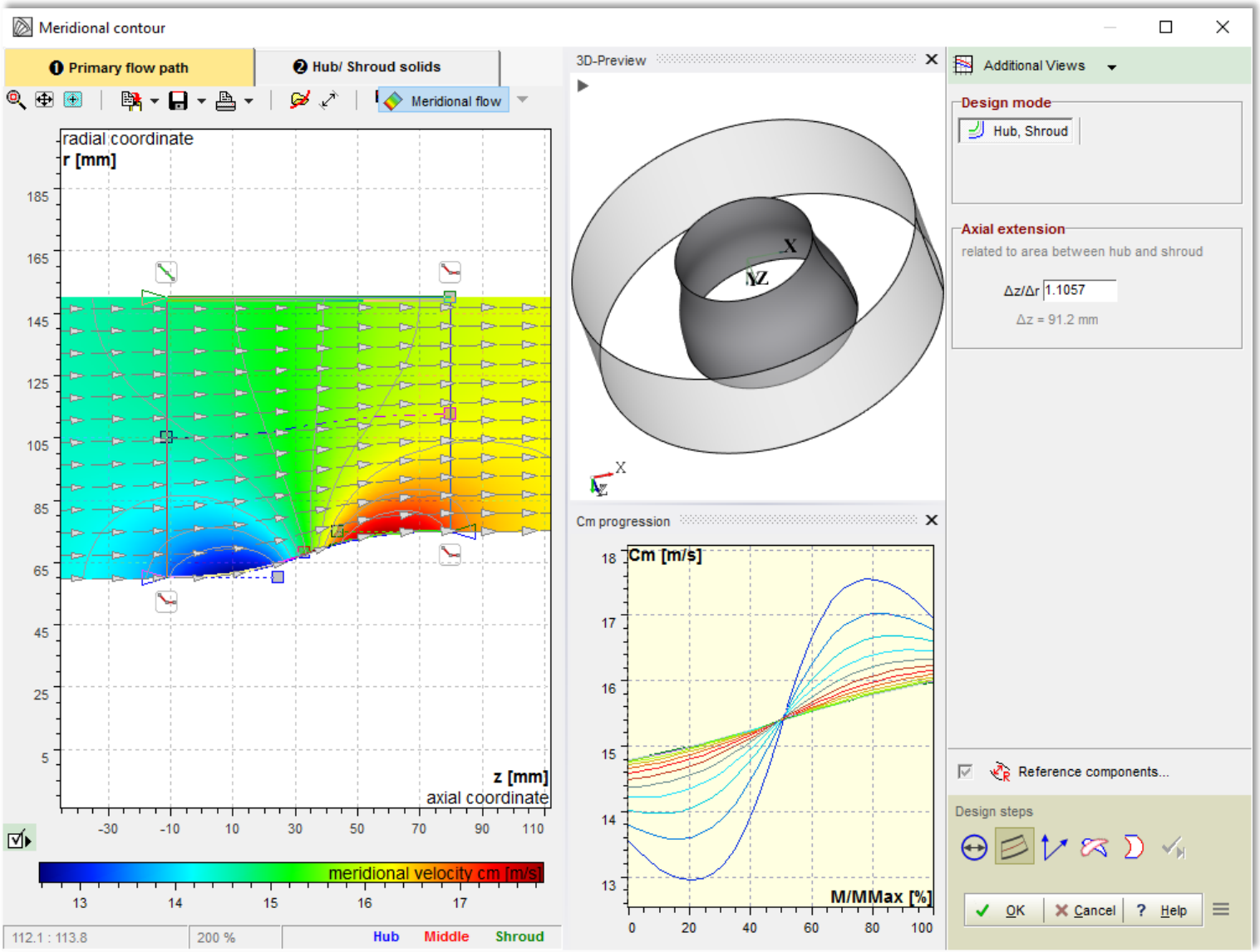
5 Meridional contour

Meridional flow calculation (2D, frictionless)



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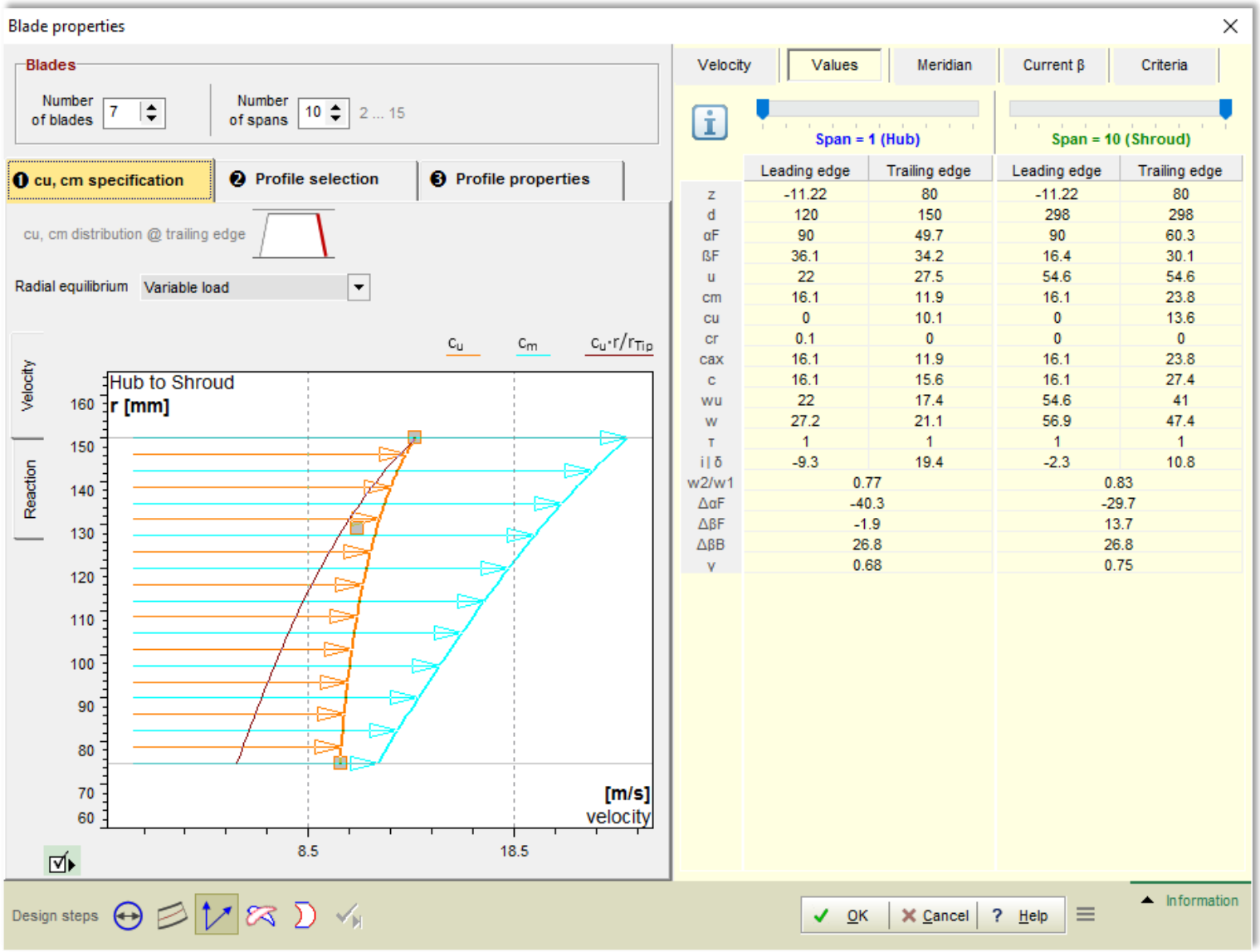
6 Blade properties

a) Velocity distribution at outlet



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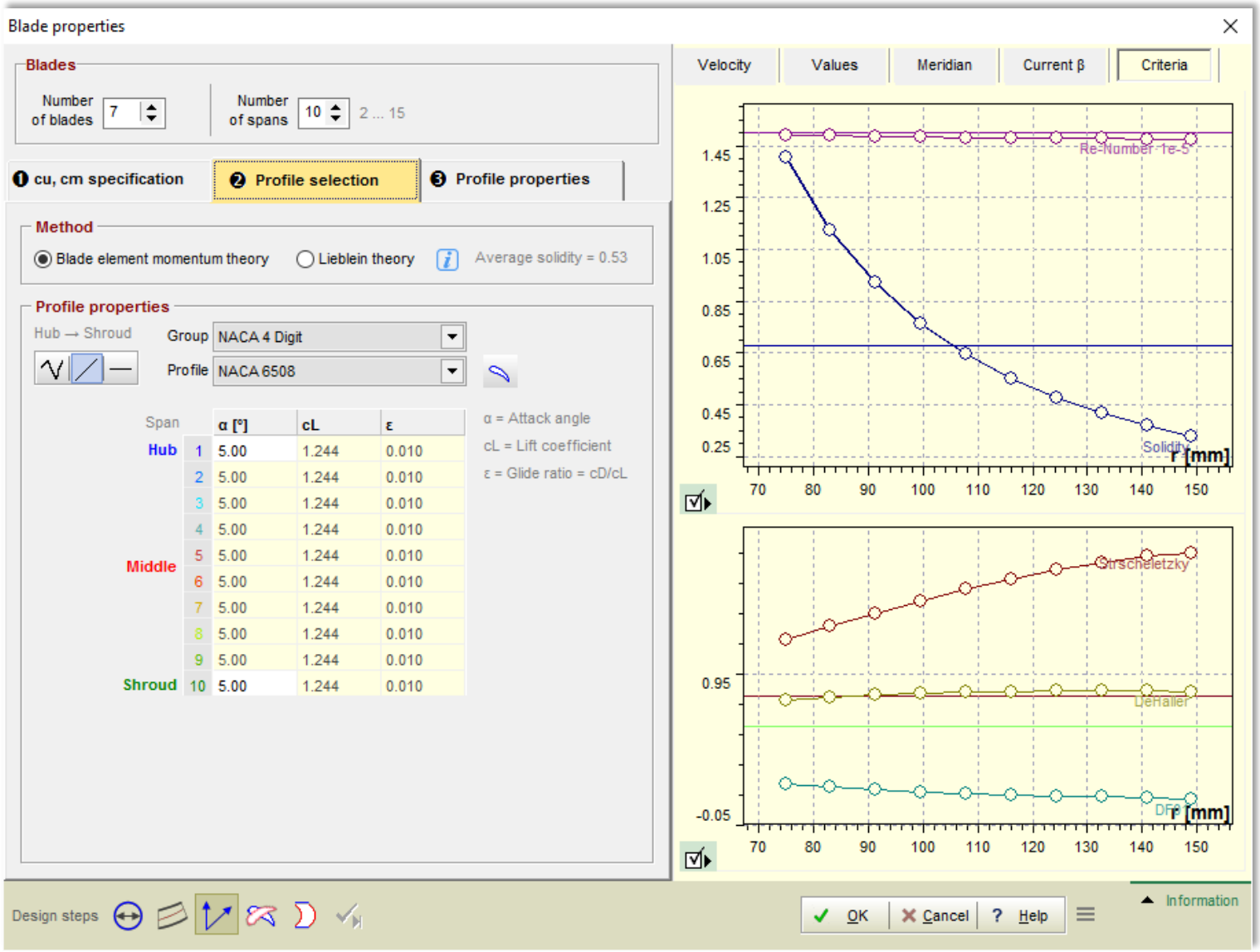
6 Blade properties

b) Blade profile selection



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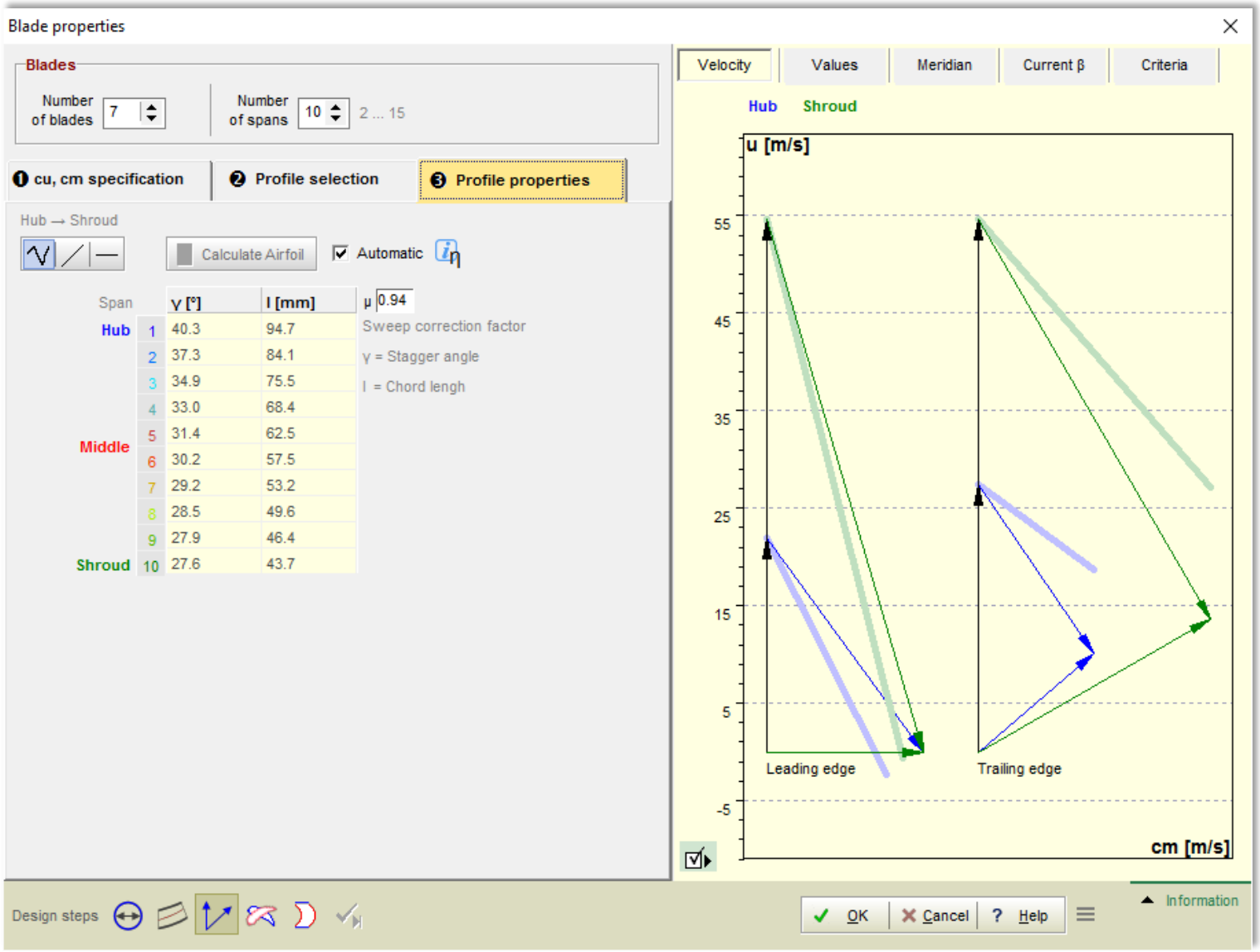
6 Blade properties

c) Stagger angle, chord length



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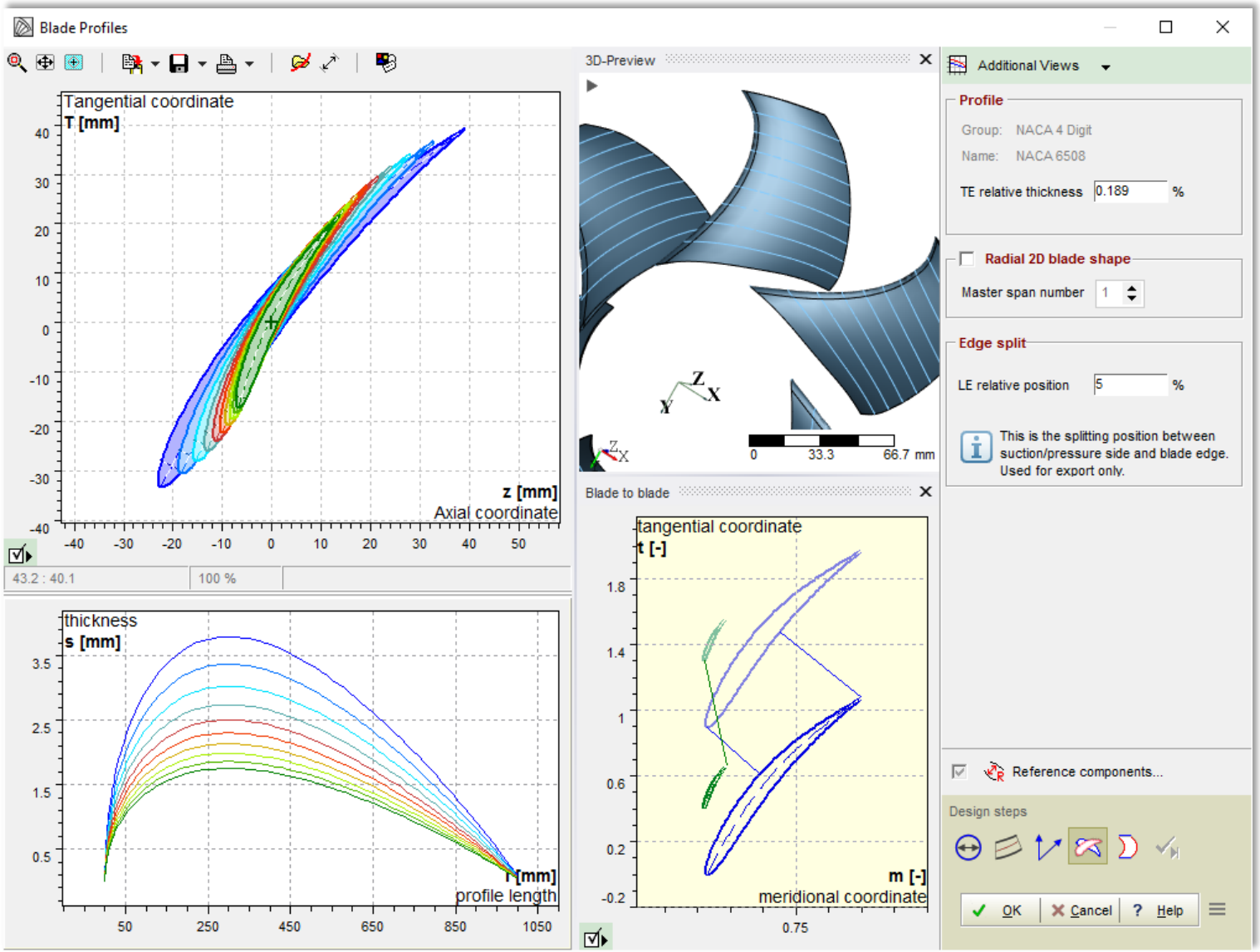
7 Blade profiles

Rotated and scaled profiles on each span position



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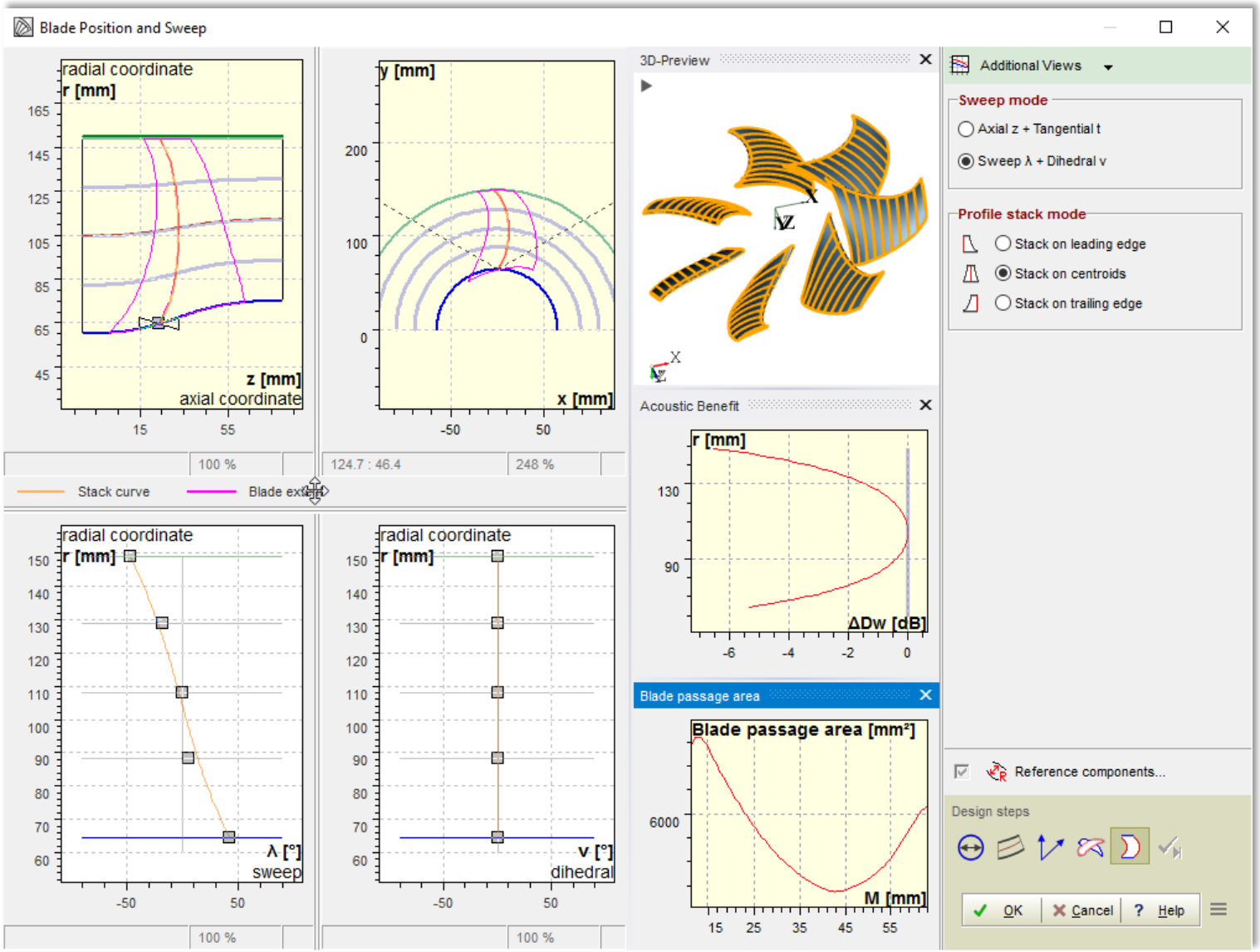
8 Blade sweep

Swept blade for acoustic reasons



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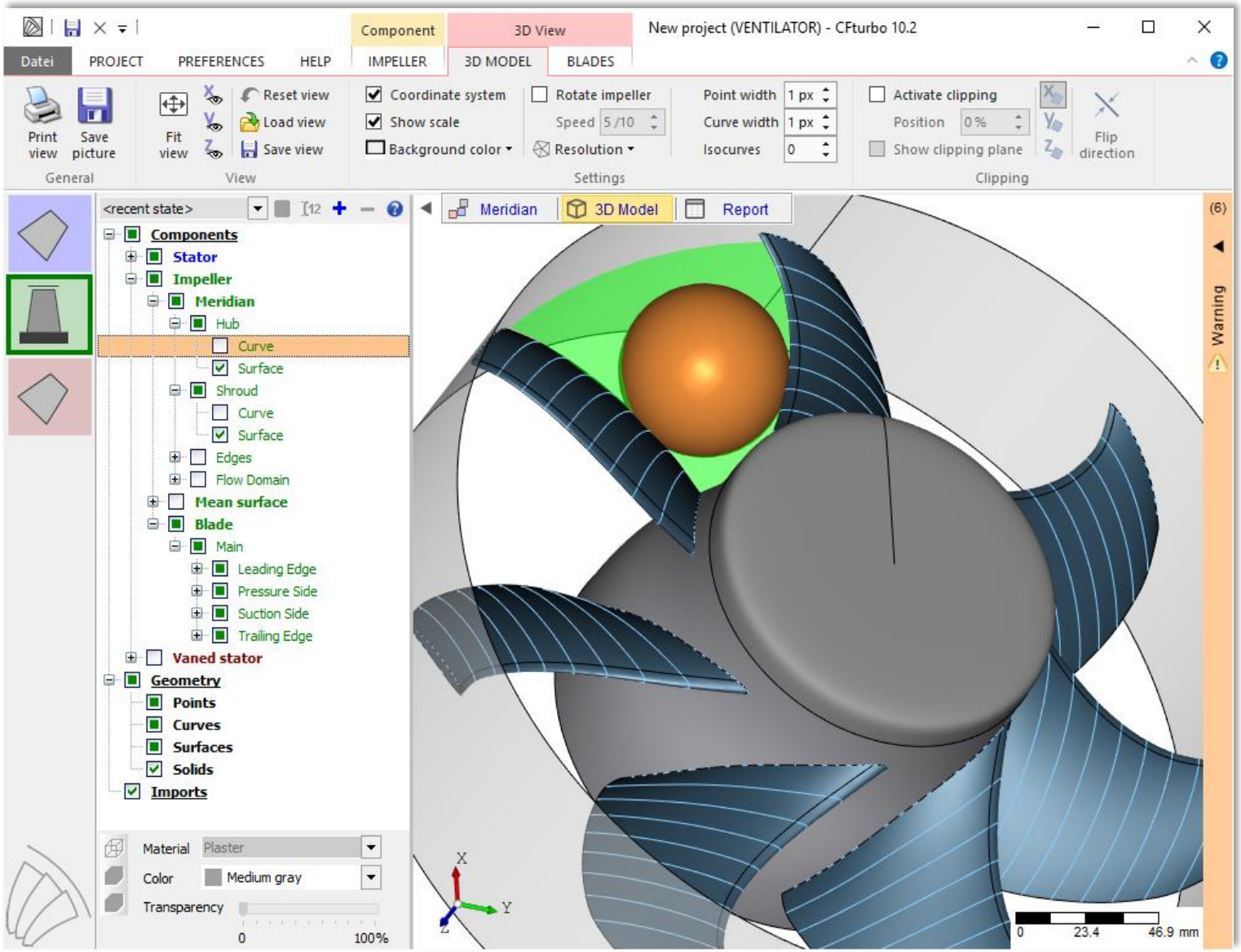
3D CAD model

Surface and solid modeling



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More information

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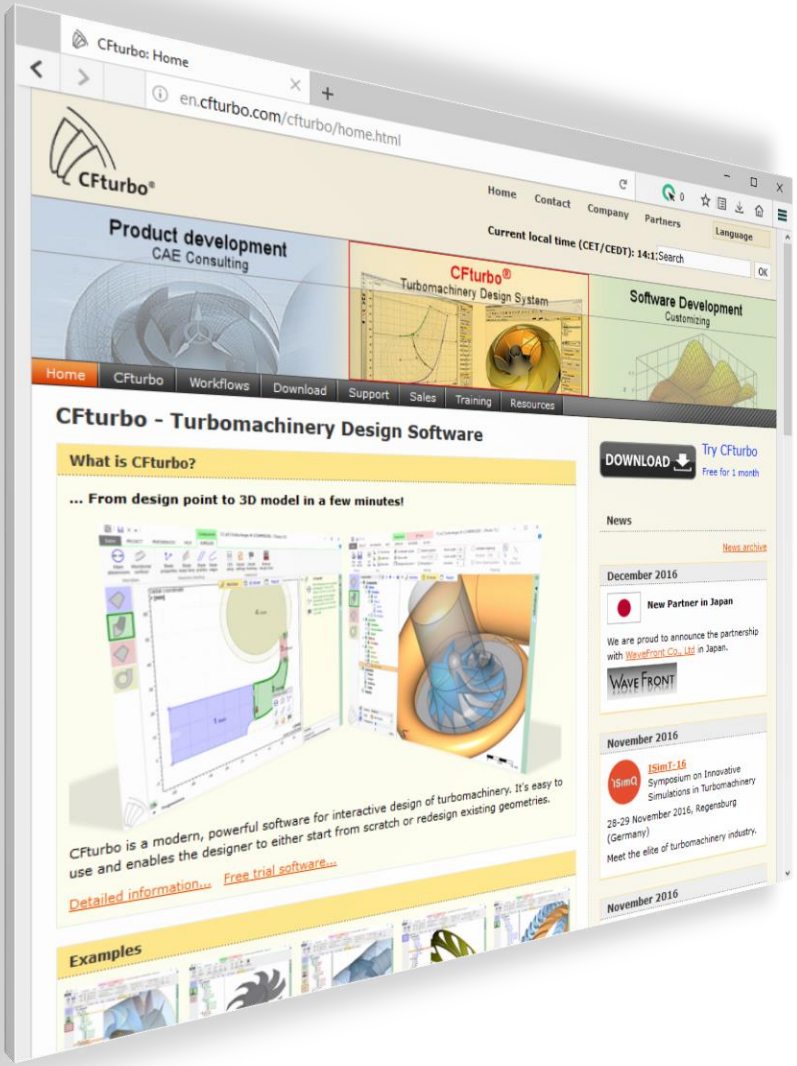

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