

Simcenter Flomaster

Gradual Transitions out of range of the Lower & Upper Fence Curves?

Updated February 18, 2017

Flomaster



<https://support.sw.siemens.com/knowledge-base/MG595885>

SUMMARY

How can we consider the behaviour of the Diffuser/Gradual Transitions out of range of the "Lower & Upper Fence Curves"?

DETAILS

The non dimensional values $N/R1$ and $(A2/A1) - 1$ are outside of the range set by the upper and lower fence curves.

If there is a case where the geometry of the diffuser is outside of the range set by the upper and lower fence curve, a warning will appear to let you know that the loss data will be taken from the x and y values on the fence curve. It does not mean that we can't use this Diffuser, but if a more accurate solution is needed we need to:

1. Replace the "Transition:Gradual" Component

Replace by a discrete loss with an appropriate loss coefficient (found from other sources).

or

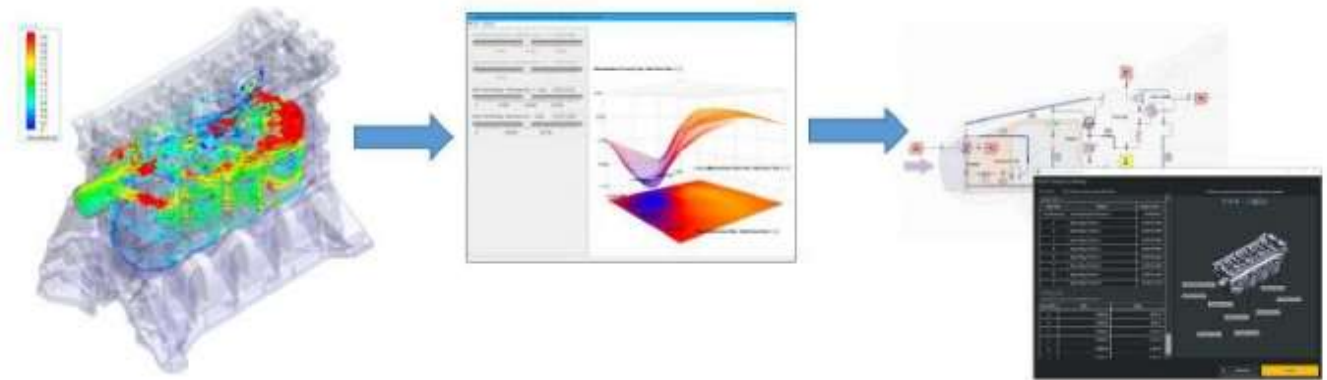
By decreasing the length of the diffuser and modelling it as a diffuser + an outlet pipe.

2. Use Manufacturers data to create a custom curve

3. Replace the diffuser by a N-Arm Component

In FloMASTER V8, it's possible to characterise the pressure drop and enthalpy changes of any 3D component in your system.

To get accurate loss data for the diffuser it is possible to characterise the 3D behaviour of the diffuser which can then be imported into FloMASTER and used in 1D simulations.



KB Article ID# MG595885

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ASSOCIATED COMPONENTS

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Yes	✓	No	✗
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