

FLANGE DESIGN WEBINAR

Webinar FAQs

When UG-44 does not pass, can ASME Section VIII, Div 1 Appendix 2 be applied as an alternative method?	Yes. UG-44(b) uses "may" indicating it is not mandatory. "Shall" in the code requires consideration for external loadings on flanges but does not specify the method. This means that the designer must show consideration for external loadings on the flanges, but it does not have to be through UG-44(b). If you are doing a weld neck flange and it passes UG-44(b), you can just use that method as it's usually approved. If it does not pass, many
	other options can be used like Appendix 2 with the equivalent pressure method being one option, but using the equivalent pressure may be too onerous in some cases. This is supported in DesignCalcs.
	Another option that is more likely to benefit the user is 4.16 from Division 2. Since Division 1, Appendix 2 does not have explicit coverage for external loadings, it is an easy justification through U-2(g) and Appendix 46 to go to D 4.16 for a D1 design and utilize the built-in external loadings method.
	Finglow makes it easy to do this evaluation for D1 or D2 vessels. If you are DesignCalcs customer interested in this, you can import your vessel into Finglow for faster evaluation.
Can you paste external loads from multiple load cases from Excel into the DesignCalcs, Finglow, or FlangePRO?	No for DesignCalcs. Yes for Finglow, but only one load case at a time. And no for FlangePRO, but the software supports values for all the external loads including, external loads, axial, shear, overturning moment, and torsion (no others are needed).
Is it possible to modify the geometry of the calculated flange as per e.g., EN13480?	Altering the flange makes it non-standard, but FEPipe can be used to make modifications to the model.

Do you provide solutions that can consider moments and forces from bending in DesignCalcs, Finglow, and FlangePRO? Can the FEA evaluation in FlangePRO include the shell?	DesignCalcs can consider bending moments and forces for both rated flanges (UG-44(b), Kellogg, Koves, and custom flange design (Kellogg). Finglow can handle overturning moments and forces for custom flange design per the 4.16 method and EN-1591 (EN 13445-3 Annex G). FlangePRO can handle overturning moments, torsional moments, and forces using the finite element method (FEM). Yes, the PRG Suite includes options for shell evaluation.
Can FlangePRO import data from COMPRESS files?	FlangePRO does not directly import from COMPRESS, but PRG Suite's VesselLink can import vessel files from DesignCalcs, Finglow, and COMPRESS.
Can FlangePRO evaluate shell attachments like clips, lifting lugs, pipe supports, etc.?	Yes, the PRG Suite can design and analyze these items.
In the flange stress/leakage analysis, where does NC-3658.3 stand compared to other methods?	It's a simple calculation similar to the Koves method, determining allowable bending or torsional moments without altering the pressure rating.
How does ASME B31.3 address flange class upgrades due to high loadings?	Flange and pipe are evaluated differently. Increasing flange class to meet an evaluation does not necessarily require increasing the pipe wall.
Can I get the presentation material as a download or PDF?	No downloads, but a streaming link is available on demand <u>here</u> .
Can I get any CEUs or PDH for attending?	Not pre-certified for CEU or PDH, but you get 45 minutes of content available for audit via the streaming link available here .

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