

# VERIFICATION MANUAL



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# **1. Introduction**

## **1.1 Purpose of Document**

This document is a validation of calculations performed by COMPRESS against published example problems (see 1.3 below). It shall be used to assess that the software has sufficient coding quality and accurate mathematical calculations. Any discrepancies between COMPRESS and published example calculations are explained at the end of each problem. All COMPRESS files referenced are included in the project file labeled 'SampleProject' and can be accessed in the *Window* menu by activating the *Project Toolbar* option.

## **1.2 Scope of Software**

COMPRESS is a software application that is used to model, calculate, and create detailed reports for pressure vessels and heat exchangers using the latest Edition of the ASME Boiler and Pressure Vessel Code. The purpose of this software program is to provide users with a powerful, accurate, and user-friendly tool that will enhance engineering productivity and simplify vessel design.

## **1.3 Published Examples**

Examples from several published manuals are included in this document. These include: ASME Section VIII - Division 1 Example Problem Manual (ASME PTB-4-2013), ASME Section VIII - Division 2 Example Problem Manual (ASME PTB-3-2013), and Taylor Forge Bulletin 502 Edition VII.

## **1.4 Intellectual Property Statement**

This document and its contents are considered to be proprietary. This material shall not be copied or distributed to other parties without the express written consent of Codeware, Inc.

### 3. References

1. ASME B&PV Code, Section VIII, Division 1, *Rules for Construction of Pressure Vessels*, 2013, ASME, New York, New York, 2013.
2. ASME B&PV Code, Section VIII, Division 2, *Rules for Construction of Pressure Vessels - Alternative Rules*, 2013, ASME, New York, New York, 2013.
3. ASME PTB-4-2013: ASME Section VIII - Division 1 Example Problem Manual
4. ASME PTB-3-2013: ASME Section VIII - Division 2 Example Problem Manual
5. Taylor Forge Bulletin 502 Edition VII