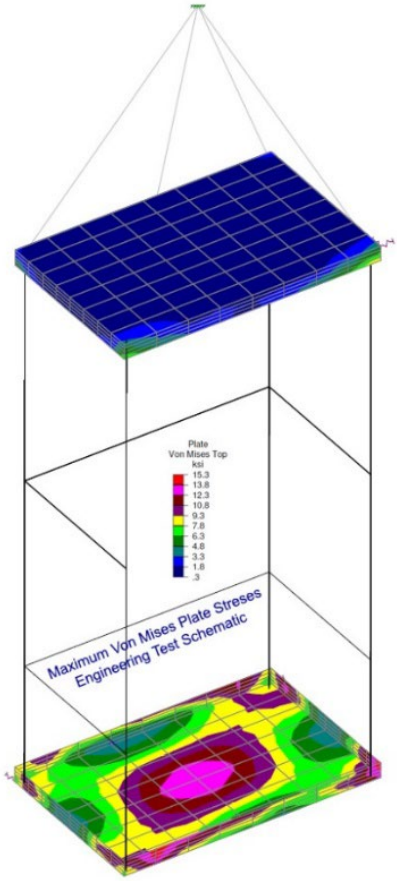
TANK RACK & EQUIPMENT FRAME CERTIFICATION PROCESS

Depending upon the intended application and use, a certified tank rack and equipment frame—like the Nuvair Q-5120-K compressor frame (right) of the Nuvair NUVTR-6 tank storage rack (left)—may be required. Nuvair uses third-party registered professional civil engineering firms for all tank rack and equipment frame design review, analysis, testing, and certification.

Here are the typical steps in the rack/frame certification process:



1. Nuvair submits preliminary rack/frame design plans to the third-party engineering company.
2. The engineering company does weight and strength calculations. The stamped, certified drawings are returned to Nuvair. Depending on the application, the plans meet or exceed one or more of the following codes:
    (a) American Institute of Steel Construction (AISC) 360 Specification and 303 Code
    (b) Occupational Safety and Health Administration (OSHA) Standards
    (c) American Petroleum Institute Recommended Practice 2A (API RP2A)
    (d) American Welding Society D1.1 Code
3. Once fabricated, the rack returns to the engineering company where it undergoes magnetic particle inspection (weld test) where welding flaws are detected.
4. Any welding flaws are remediated by Nuvair.
5. The rack/frame undergoes a second weld test. Once the rack passes weld test inspection it moves on to additional tests.
6. A “pull test” is conducted where twice the rated weight is loaded in the container and the rack/frame is lifted for 10 minutes using pad eyes (also known as lifting lugs or lifting eyes).
7. A “lateral loading” test is also completed.
8. After all testing is completed, another weld test is conducted.
9. If the rack or frame passes final inspection, a certification plaque is affixed to the frame/rack chassis.

1600 Beacon Place • Oxnard CA 93033 USA
Phone +1.805.815.4044 | Fax +1.805.486.0900 | info@nuvair.com
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