Wisconsin Department of Safety and Professional Services Division of Industry Services 4822 Madison Yards Way PO Box 7302 Madison WI 53707-7302



Phone: 608-266-2112 Web: http://dsps.wi.gov Email: dsps@wisconsin.gov

Conversion Tables Q&As

1. Does Wisconsin have regulations which dictate the parameters of the ASME Code Sec. VIII Div. 1 U1 and therefore a pressure vessel with the limit data shown has to be designed and manufactured according to ASME?

Shell side: Medium: water or mixture of water and ethylene glycol

Tube side: Medium: exhaust gas

Max. pressure 6 barg 0,1 barg (units of bars, above or below atmospheric pressure)

Max. temperature 99°C 500°C

These Exhaust Gas Heat Exchangers (EGHE) are usually designed according to the Pressure Equipment Directive (PED 97/23/EC), which is standard in the European markets.,

Can someone manufacture the EGHE according to PED if the operating parameters of the pressure vessel do not exceed the limit data which are listed?

Answer: Wisconsin requires ASME construction and National Board registration of all boilers and pressure vessels per SPS 341.42. Each unit must have the ASME stamping and should have manufacturer's data U-1A report. Vessels below limit data in applicable ASME Section(s) need not be ASME stamped and shall be verified / shown exempt per specific applicable ASME code sections by the owner / user at installation, preferably with the assistance of the manufacturer.

2. How does someone convert MPa to PSI or PSI to MPa?

Answer: 1 megapascal = 145.037738 pound-force/square inch (PSI) and 1 psi = 0.00689 MPa

The Megapascal Conversion Tool: http://convertmpatopsi.com/