



THIS IS CONFIDENTIAL INFORMATION.  
THIS DRAWING & DESIGN IS THE PROPERTY OF LIQUIP INTERNATIONAL PTY LIMITED.  
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WHATSOEVER &/OR PASSED ON  
TO ANY THIRD PARTY WITHOUT WRITTEN AUTHORITY.

LIQUIP INTERNATIONAL PTY LIMITED - ENGINEERING DEPARTMENT - 13 HUME RD SMITHFIELD SYDNEY NSW AUSTRALIA 2164  
PH: +61 2 9725 9000 FAX: +61 2 9609 6459 EMAIL: engineering@liquip-nsw.com.au

## Tech Talk 0080

### Pressure Test for Tanker Pipe Work to AS2809.2

#### AS2809.2 Section 2.7

**2.7.3 (a)** A piping system subject to pumping pressure shall be tested to a pressure 1.5 times the maximum working pressure or 200kPa whichever is the greater.

This translates as follows:

#### **(A) Tanker Outlet Pipe Work**

Subjected to bottom loading pressures or gravity head pressures.

**TEST TO 200kPa -0, +20kPa.**

(Max bottom loading pressure is typically less than 35kPa which is when overfill occurs against the emergency vent, plus static head of 20kPa max.

Therefore max pressure in tank and pipe when bottom loading is typically 55 kPa.

Therefore test pressure is 200 kPa, being the greater number).

**AIR OR HYDRAULIC, MAINTAIN FOR 10 MINUTES.**

#### **(B) Bulk Pump Outlet Pipe**

(Bulk pumps are used for non – metered systems discharging through large diameter bulk hoses, not hosereels).

**TEST TO 675kPa, -0, +25kPa.**

This is based on bulk pumps being set at a standard 450kPa by pass pressure. Otherwise, test at 1.5 times the by pass pressure setting.

**HYDRAULIC TEST, MAINTAIN FOR 10 MINUTES.**

#### **(C) Dispenser System Outlet Piping**

Dispensing systems are metered pumping systems with hosereels.

**TEST TO 1,200kPa -0, +50kPa.**

(Older pumping systems used to be set at 600kPa by pass pressure. However, modern systems supplied by Liquip Victoria are set up so they are registering 800kPa outlet pressures at maximum delivery rates).

**HYDRAULIC TEST, MAINTAIN FOR 10 MINUTES.**



THIS IS CONFIDENTIAL INFORMATION.  
THIS DRAWING & DESIGN IS THE PROPERTY OF LIQUIP INTERNATIONAL PTY LIMITED.  
IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WHATSOEVER &/OR PASSED ON  
TO ANY THIRD PARTY WITHOUT WRITTEN AUTHORITY.

LIQUIP INTERNATIONAL PTY LIMITED - ENGINEERING DEPARTMENT - 13 HUME RD SMITHFIELD SYDNEY NSW AUSTRALIA 2164  
PH: +61 2 9725 9000 FAX: +61 2 9609 6459 EMAIL: [engineering@liquip-nsw.com.au](mailto:engineering@liquip-nsw.com.au)

**2.7.3 (b)** “Valves, manifolds, piping and fittings in a bottom loading system which can be subjected to surge pressures due to the closure of some valve in the system shall be tested to 1,600kPa.

**(D)** Such a system is very rare in Australia. It only occurs in tanks with manifolds with butterfly valve closure or some aviation re-fuellers with pressure – balanced foot valves. It never occurs in “normal” road tankers.

**(E)** TEST TO 1,600kPa -0, +100kPa

***HYDRAULIC TEST, MAINTAIN FOR 10 MINUTES***

**Overseas Standards**

Testing to the above also cover requirements for the USA & Europe.

DG 26.07.07