Tech Talk No: T025

Product: AN INTRODUCTION TO APT AND WEAVER

A) Advanced Polymer Technology Inc.

Advanced Polymer Technology (APT) is a U.S. based company formed as a joint venture with EBW Inc, a leading U.S. supplier of valves, fittings, nozzles and overfill protection devices for the tank truck and service station industries.

APT developed Polytech, an integrated underground piping system for the storage and distribution of flammable and hazardous liquids. Polytech to date, has been predominantly used in the retail petroleum industry as one of the worlds most environmentally secure methods of connecting both underground and above ground tanks to pumps and dispensers.

Polytech is one of a number of flexible piping systems on the market presently, but is the only system available in Australia to offer an entire range of flexible piping including product, vent, vapour and fill lines. Flexible piping is steadily becoming more accepted than the steel and fibreglass, as flexible piping:

- i) is easier to install,
- ii) is invulnerable to severe temperature changes and seismic movement,
- iii) offers true secondary containment with no buried elbows or joints.

The 3rd point is perhaps the most important as traditionally most leaks occur at a joint or elbow. In a Polytech system, no elbows are required and all connections are contained within sumps, either at the tank or under the bowser. Any leaks at the fitting or conveyed by the secondary containment will spill into the sump. This helps ensure that fuel never comes in contact with the soil.

Polytech is one of the only brands in the world to offer separate pressure and suction product lines. Note that underground piping systems can be either pressure, consisting of submersible pumps positioned at the tank pushing fuel through the pipework, (in this case the bowsers are merely meters) or suction where pumps are located in the bowsers and fuel is drawn through the pipework from the tanks.

In the U.S., only pressure systems are used but Polytech developed suction piping for the export market. Suction piping does not require the overall strength of pressure piping and is subsequently of cheaper construction. Please note the difference in the pressure and suction pipe layouts in section 2.

Product lines and associated fittings in both pressure and suction are UL and ULC listed.

Principal Polytech components and accessories include:

* Product piping - Flexible single and double wall ranging

from 1/2" to 3".

* Vent / vapour recovery piping - Flexible single wall 2" and 3".

* Remote fill piping - Flexible single and double wall in 3" and

4".

* Pipe fittings - Male and female threaded hose clamp

style fittings to suit piping range.

* Containment sumps - Adjustable tank and under dispenser

sumps to suit all bowser types.

* Flexible entry & test boots - Nitrile rubber boots to suit piping range.

* Composite manholes - Access manholes to suit tank risers and

sumps.

* Intermediate sumps - For the containment of "mid run"

connections and fittings.

* Conversion sumps - Allows conversion of above ground steel

to underground Polytech.

In conjunction with EBW Inc, APT can offer the full equipment requirement for a service station fuel system excluding only the underground tanks, pumps and dispensers.