

UPGRADE OF SABS WATER RETICULATION AT TEST LABORATORY

The SABS were in great need to upgrade the piping for water reticulation at their test lab to stay in line with the vigorous international standards required.

PEX/Al/PEX Multi-layer pipe system combines the strength of metal with the economics, safety and performance of polymer. Made from flexible aluminium tubing permanently bonded to layers of durable X-Linked Polyethylene (PEX) PEX/AL/PEX composite pipes are built to a higher performance standard than other polymer or metal systems. Its strong aluminium core allows for straight alignment of installations that won't sag, guarantees excellent flame and smoke ratings and provides a built-in permeation barrier against ground source contaminants. As a result, PEX/AL/PEX system can be safely installed overhead or in/under concrete slabs. At the same time, it's tough X-linked polyethylene outer and inner layers ensure excellent corrosion resistance and smooth flow without scale build-up even after years of operation.

As seen below pictures of the old corroded galvanized piping system.



As non-corrosive materials, plastics offer obvious advantages compared to metal pipes. Leakage in the systems because of corroded pipes is avoided. This is of specific concern today when water quality is not always appropriate for metal pipes, e.g. low pH value. Most plastic systems for HOT&COLD applications are designed to have a maintenance-free lifetime of at least 50 years! The superior physical and mechanical characteristics of multilayer pipes make it ideal for this application.

The various international quality standards we have declare that our products are of top quality and supplied by a reliable manufacturer dedicated to full customer satisfaction.

As seen below first steps of multilayer pipe installation for flow rate bench, safety valve cycle, SANS1480 cycle, SANS226 cycle and gate valve cycle.



Take note that crimping has not been done at this stage of installation.



One of the most difficult decisions to make was the positioning of the two main pumps for the water supply. Water pressure of up to 2Mpa can be supplied when required.

One of the most difficult aspects of this upgrade was as stipulated by **Mr. Karel Deist (Head of Lab Plumbing,Pipes,Water meters and Solar)** the time it will take to do the change-over from the old piping to the new multilayer pipe installation. This transition period was to be smooth and done in the shortest time duration as possible.

Fortunately this was not to be a problem with the multilayer piping systems. This transition from old to new was done in only 4.5 days.



High Pressure Room.



**Cycle room for TP Valves &
Water Meters.**



Solar room.

