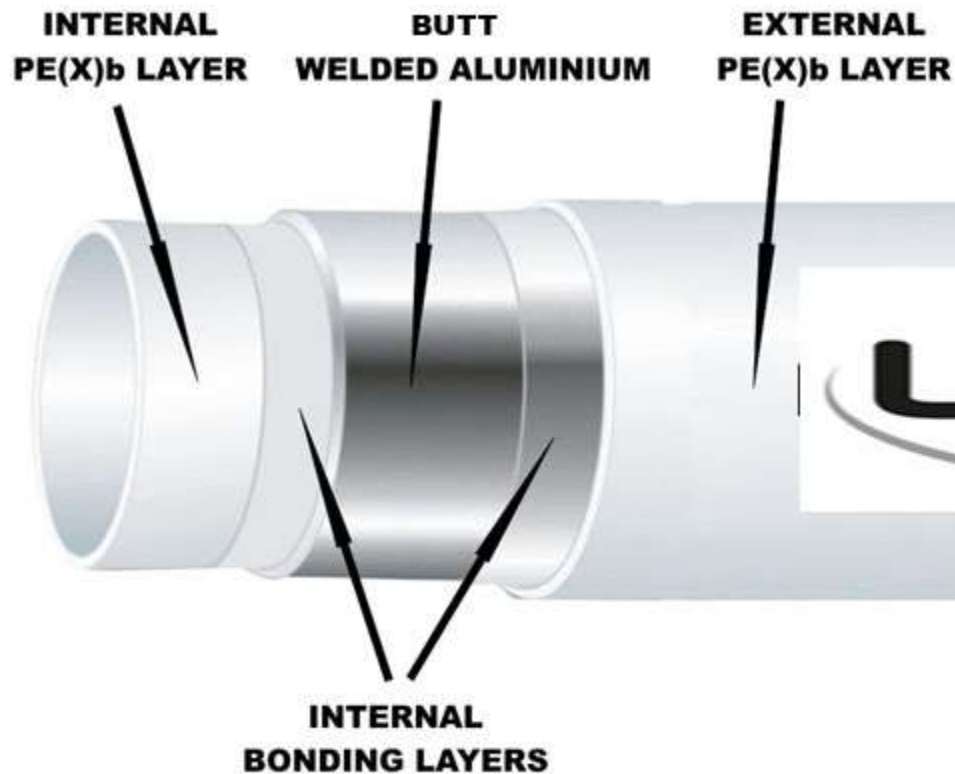


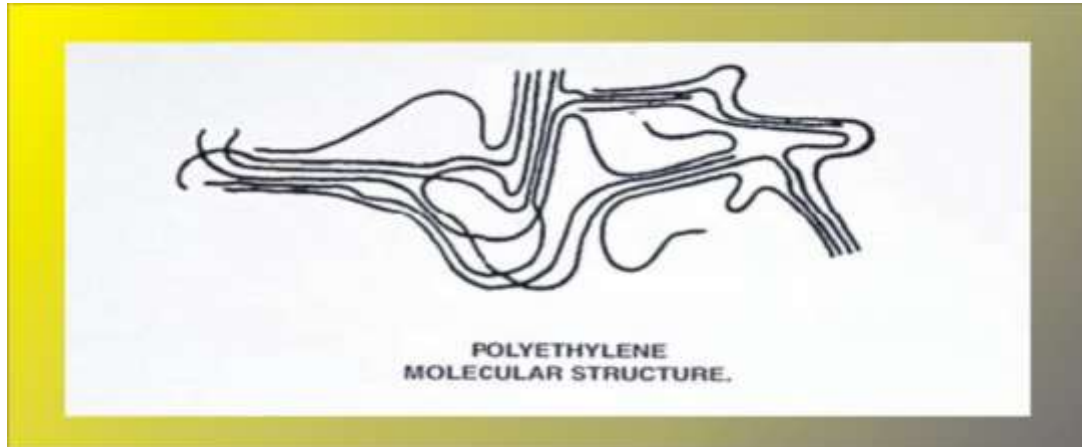
TECHNICAL PRESENTATION

PIPE CONSTRUCTION

WHAT ARE THE DIFFERENT LAYERS MADE OF?

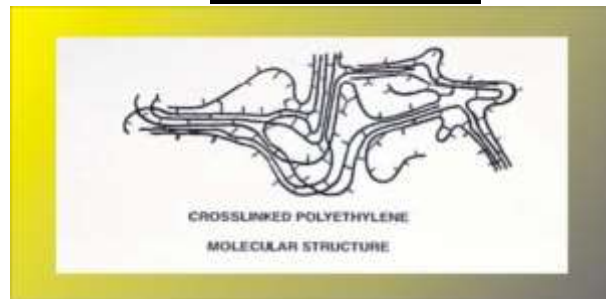


Polyethylene



- Non-linked long chain carbon based polymer.
- Essentially a weak intermolecular chain.
- Lack of heat resistance allows molecules to move freely.
- Heat results in material becoming softer and offers no creep resistance.

Cross-linked polyethylene PE(x)b



- Creates direct bonds between the chains.
- This restricts the movement between the chains, preventing deformity and creep.
- Excellent heat resistance and structural strength, can be thermally aged at 190°C without losing its shape.
- Temp. resistance (Thermoplastic to thermo-elastic polymer)

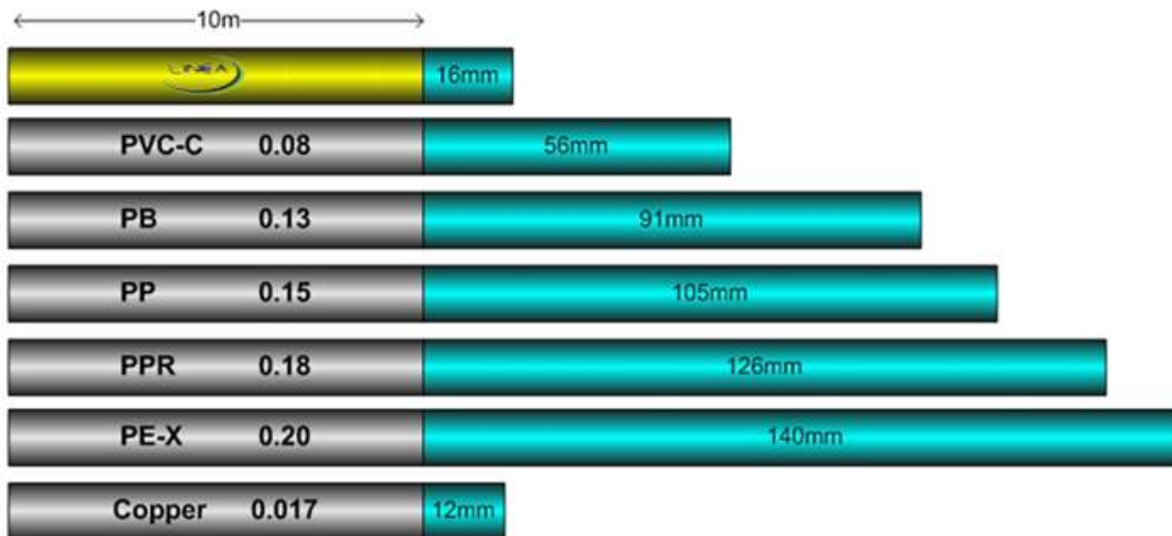
THERMAL EXPANSION

The permanent bond of Pex layers to the aluminium considerably reduces heat expansion.

EXAMPLE OF INCREASE IN LENGTH OF A 10M LENGTH OF PIPE WITH A 70Deg C TEMPERATURE RISE

Physical principle: All materials expand as temperature increases. If the temperature falls, the material contracts.

Comparison to other pipe materials expansion coefficients



Rule of thumb:

Cold water:

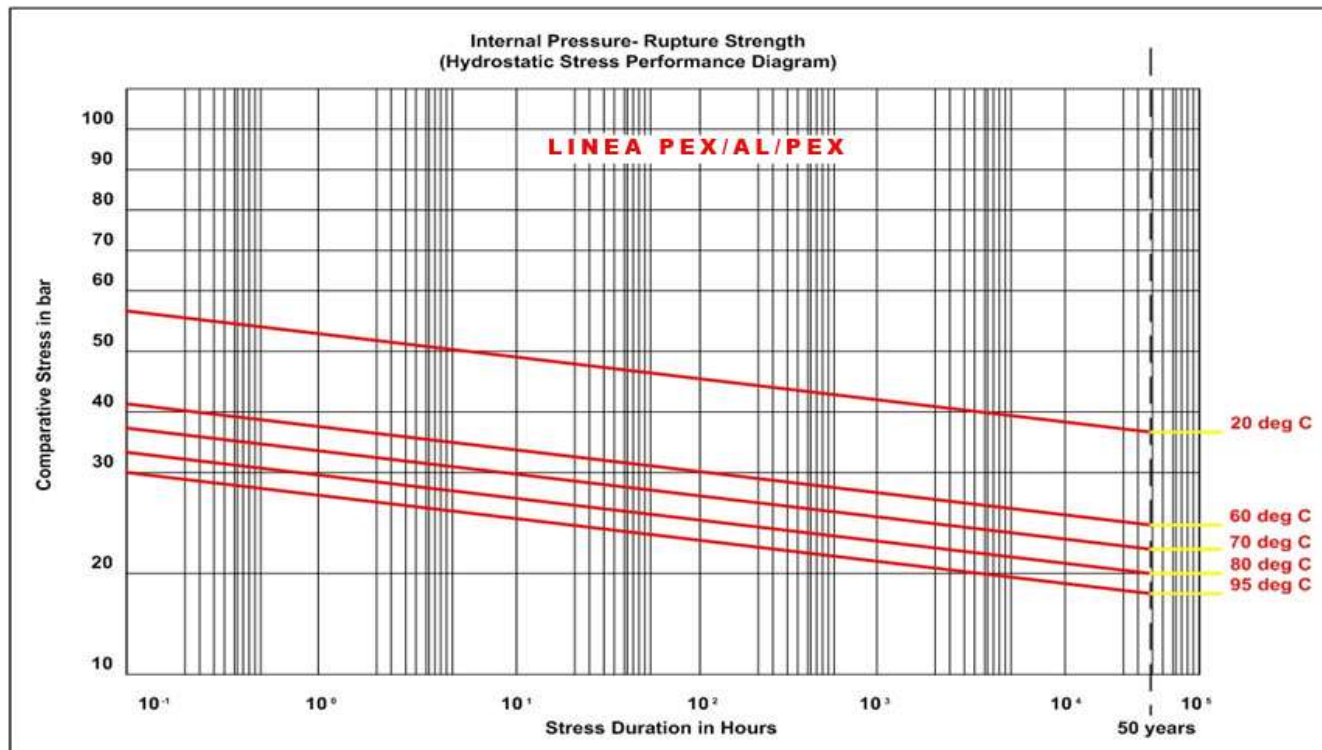
- ☐ No particular measures are necessary.

Hot water:

- ☐ No particular measures are necessary for straight  pipe sections of less than 12 m.
- ☐ An anchor point is necessary for straight  pipe sections of more than 12 m.

INTERNAL PRESSURE-RUPTURE STRENGTH

The combination of plastic and metal makes LINEA a permanently reliable system for its use in all common HOT and COLD water installations. Internal Pressure- Rupture Strength tests have proven, that LINEA pipe exceeds the general required DVGM standards 70 degC / 10 bar / 50 years by far. Therefore , up to 95 deg C water temperature in heating systems are no problem at all, also in the long term. It can also be confirmed that up to 80 bar burst pressure is quite usual.



Applications

- Water services
- Solar
- Heat pumps
- Chilled water
- Under-floor heating
- Compressed air
- Industrial
- Gas

HEALTH AND SAFETY

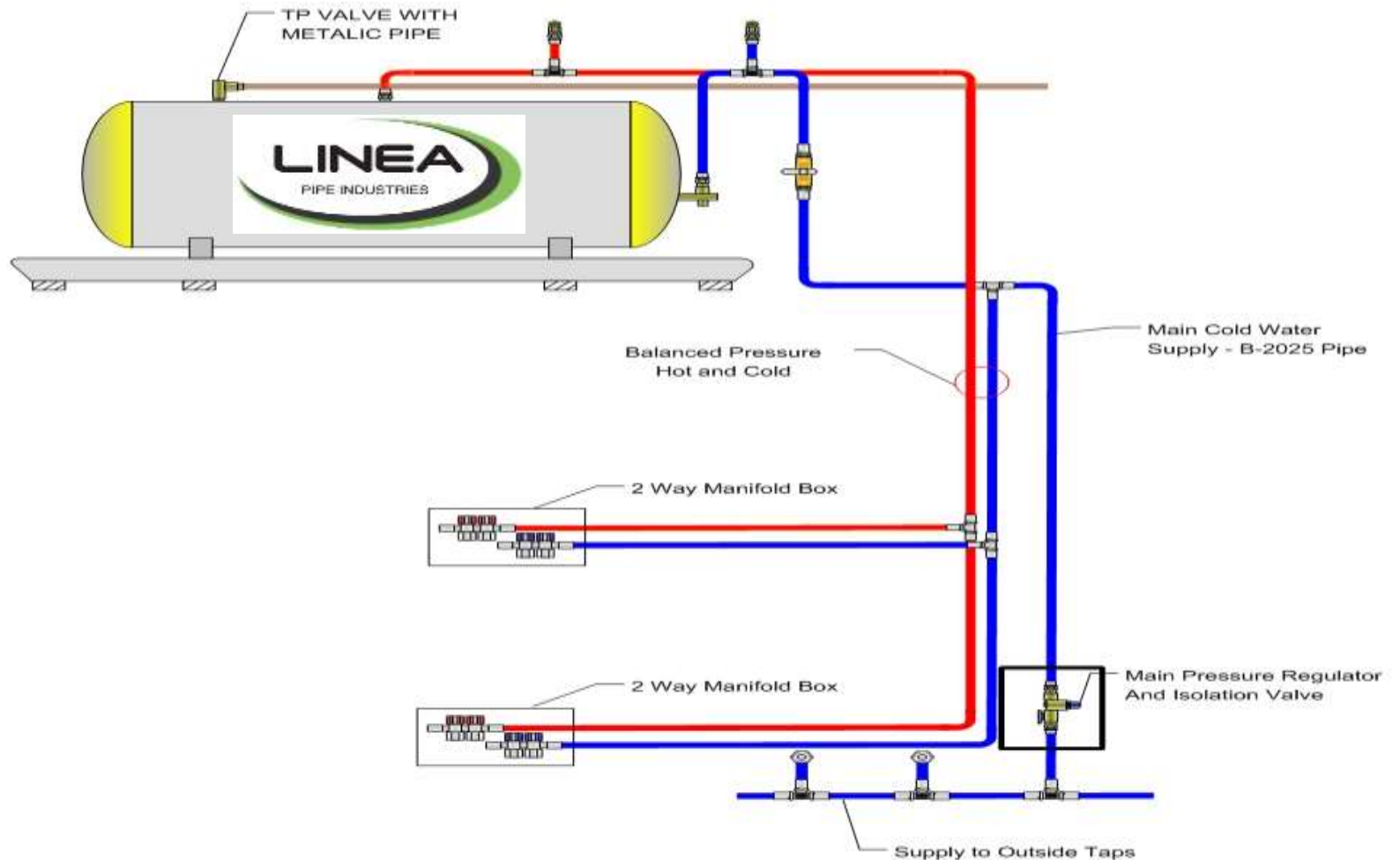
- Less chasing of walls – Less dust
- Less structural damage.
- No heat - no hot work permits.
- No sharp edges or burrs after cutting pipe.
- Light weight pipe coils 200m 16mm weighs 24 Kg's.
- No injuries from hard drawn piping.
- Flame Retardant.
- No micro organism growth - No scale build up.

FITTINGS

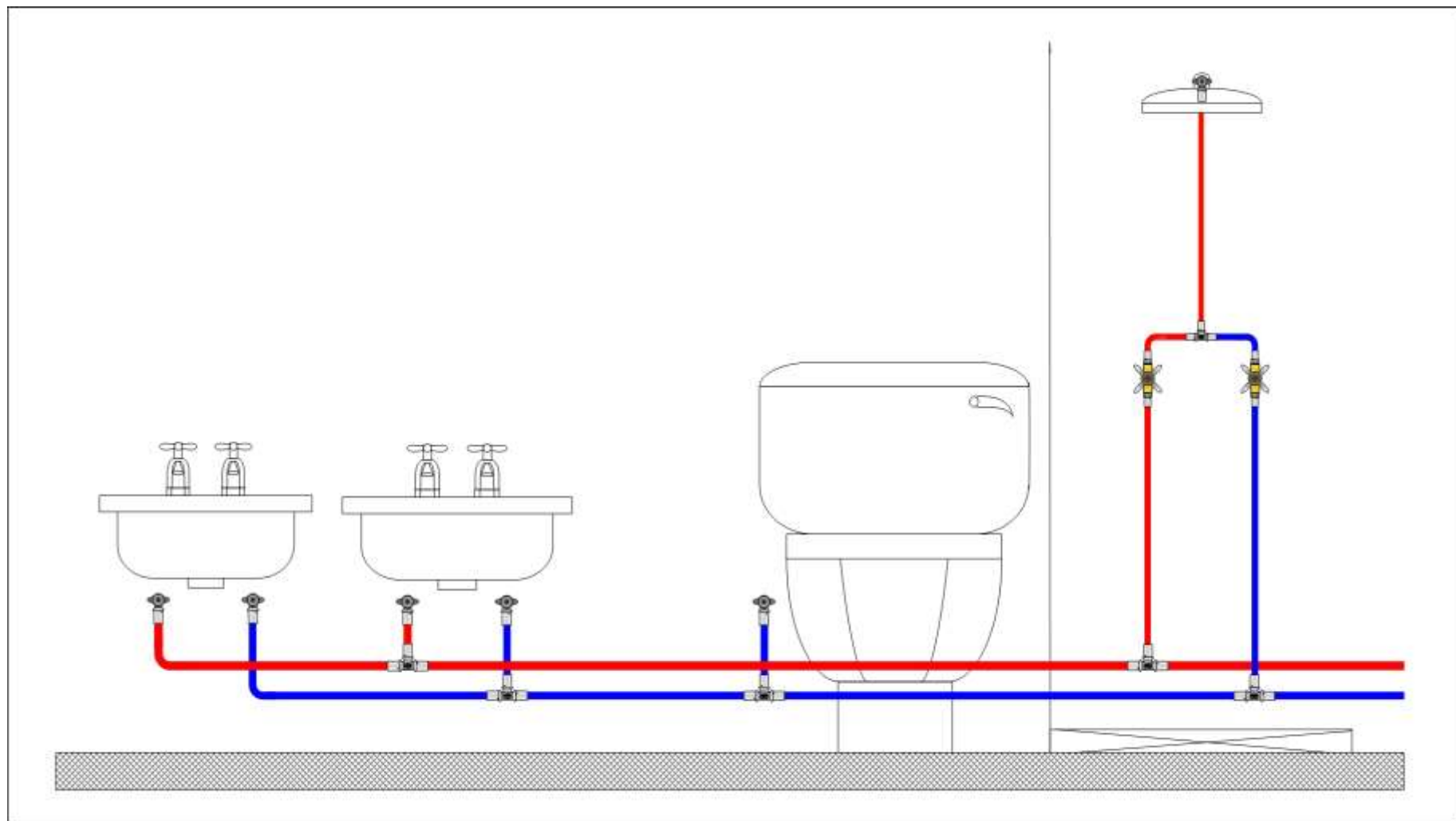
The range of LINEA fittings, consisting of couplings, elbows, tees and a large number of other system components leaving nothing to be desired.



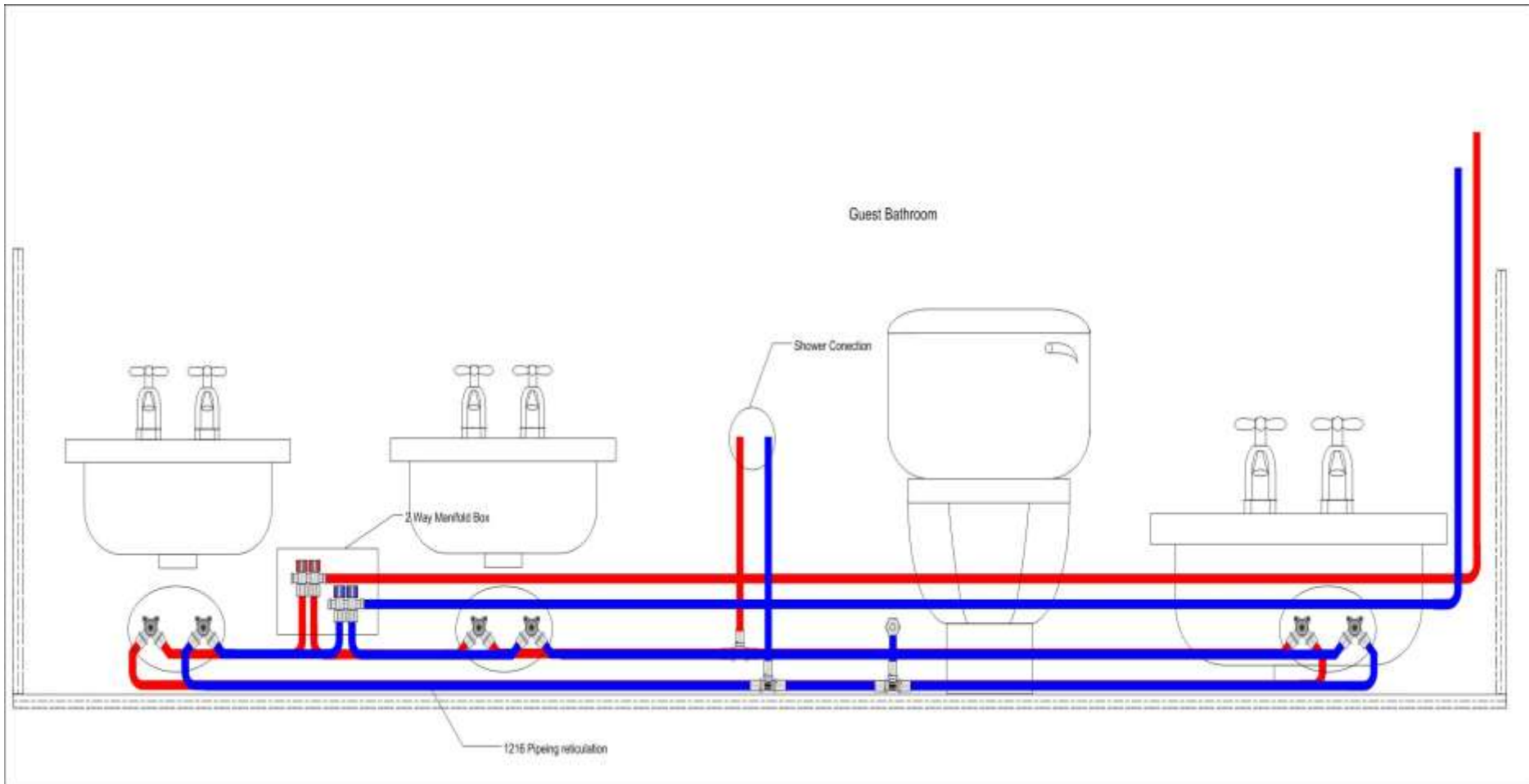
GEYSER INSTALLATIONS



TYPICAL INSTALLATION USING TEE'S



TYPICAL INSTALLATION USING DOUBLE WALL PLATE ELBOWS



Manifold Installation



Manifold Installation



Manifold Installation



Manifold Installation





Summation

- The most advanced solution for hot and cold water reticulation systems in South Africa today.
- Manufactured from the best materials as well as the best technology available.
- Our piping system offers versatile solutions, simple installations and safety.
- Our multi-layer pipe offers the quality and convenience of polymer pipes, with the sturdiness of metal pipes.

Summation

- Our pipe offers the combination of stability and flexibility in a single pipe , ensuring simple , fast and safe installations.
- Oxygen spread and permeability common to polymer pipes are eliminated by the alumimium barrier , preventing crystallization and slimy sediments.
- No theft value of pipes or fittings.
- Better flow rates – long lengths and fewer fittings.
- Costs less than conventional piping.
- No flux , solder , gas required.
- All joints are guaranteed leak free.
- Life-span in excess of 50 years (corrosion free).

References

- SABS Laboratories - Pretoria – Complete
- King Shaka International – Durban - Complete
- The Spinnaker – Point - Complete
- The Pearls- Umhlanga – Complete
- African Palms- Umhlanga Ridge - Complete
- Aldrovande Palace – Umhlanga Ridge - Complete
- Clifton Hills –Hillcrest – Complete
- Cotswold Downs –Hillcrest – Complete
- Plantations –Hillcrest – Complete
- Le Domaine –Hillcrest – Complete
- Simbithi – Ballito – Complete
- Zimbali – Ballito – Complete
- Sheffield Gardens –Sheffield Beach - Complete

References

- Westbrook Beach Apartments- Westbrook - Complete
- Brettonwood Coastal Estate -Sheffield Beach - Complete
- Multi Corp-Port Edward - Complete
- Colonial Sands –Margate - Complete
- Casuarina – Margate - Complete
- Tahiti Margate - Complete
- Banyon Mercy –Uvongo – Complete
- St Michaels Sands Uvongo - Complete
- Admiralty Protea Hotel – Richards Bay – Complete
- Olive Groves – Richards Bay – Complete
- The Olives – Richards Bay – Complete
- Nandi Mews – Richards Bay – Complete

The Pearls - Durban



The Pearls Group5 Pandev WSP Water Services Engineers & Starling Plumbers



Alvorande Palace - Durban



African Palms - Durban



Westbrook Beach Apartments - Durban



Simbithi - Durban



Simbithi - Durban



The Spinnaker - Durban



Zimbali - Durban



Solar Heating Application - Durban



Solar Heating Application - Durban



Solar Heating Application - Durban



LINEA
PIPE INDUSTRIES

Mozprop Xai Xai Mozambique



Indigo Construction Ponto Do Ouro Mozambique



Indigo Construction Ponto do Ouro Mozambique



San Martinho Beach Club Belien Mozambique - Natucon Projects



Radisson Hotel Maputo - Stefaneutti and Bressan



Kindlewood Estate Jurgens Plumbers Durban



Kindlewood Estate Jurgens Plumbers Durban



LINEA
PIPE INDUSTRIES

Illala Ridge - Durban Crescent Construction & TJP Plumbers



Riversend Apartments Model Builders & Flying Plumber - Durban

