Kilstant RETICULATION SYSTEM

An innovative approach towards termite management

Local and global expansion

The Kilstant Reticulation System was founded by our parent company Kilstant White Ants & Kilstant Sdn Bhd. What was a humble beginning in Ipoh soon expanded to two of Malaysia's most highly populated states: Selangor and Kuala Lumpur. Our goal is to extend our cutting-edge termite reticulation system all over South East Asia and beyond.

In 2021 we expanded our service and system into Dubai, United Arab Emirates.

Trusted by many, beyond satisfactory to all





VIP Majlis for HH Sheikh Mohammed bin Rashid Al Maktoum, Dubai



Hospital Putrajaya, Wilayah Persekutuan



Royal Villa at Za'abeel Palace for HH Sheikh Mohammed bin Rashid Al Maktoum



Hospital Sri Aman, Sarawak



Istana Hinggap Negeri Sembilan, Bukit Perseketuan



Hospital Tawau, Sabah



Bungalow Mr. Lim, Valencia



Bungalow Dato Johannis, Tropicana



Bungalow Lakefield



Bungalow Dato Zamri, 20 Trees Ampang



Stanley Bungalow, Bukit Permai



Bungalow Tropicana Golf & Country Resort



Bungalow Mr. Mazela, Rawang



Bungalow Dato Sri KK Yap, Desa Park City



Bungalow Jason Mok, Klang



Bromma Factory Ipoh

Visit www.kilstant.my/projects for more

Cutting-edge termite solution to keeping your building safe **Kilstant Reticulation** System installation overview Patent pending in Malaysia

with ID number: (PI 2015703934).

Since its establishment in 1975, Kilstant White Ants focuses on the development and delivery of a secure and effective, yet robust termite reticulation system.

We had two goals in mind when developing our latest solution: functionality and cost. From there, we invented the Kilstant Reticulation System – **the first of its kind globally**.

The system secures an underground network of pipes and dispensers that effectively distribute termiticide across the ground structure. The termiticide is easily replenishable, thereby **cutting maintenance cost by 30%**.

Do we need a termite reticulation system?

Termites are prevalent in South East Asia thanks to its humid climate and rich soil properties. Both landed properties and high-rise buildings are at risk of being damaged by termites.

If left unattended to, the damage could cause the building to be unlivable. Many are unaware that general housing insurance policies do not cover damages from a termite infestation.

Kilstant Reticulation System keeps your building safe from the colonies of white ants. A one-time investment that gives peace of mind.

A single system, a wide range of advantages



Lifetime Investment

Do not worry about another termite infestation. If they do appear, termiticide is easily replenishable without having to damage the flooring.



Future-proof

Designed to last throughout the life of the building, the system also readily accommodates more advanced eco-friendly termiticides.



Termiticide is Easily Replenished The termiticide is pumped into the injection box and is evenly distributed throughout our network of pipes and dispensers.



Reduced Exposure to Chemicals Say goodbye to open-air spraying. As an enclosed system, Kilstant Reticulation keeps its occupants safe from chemicals and the intoxicating odour emitting from the termiticide.



Low Maintenance Cost The injection points make it easy to replenish the termiticide. This reduces the need for manual

labour and cuts maintenance cost by 30%.



Free from Blockage

We use high quality dispensers to protect the nozzles, and non-woven geotextile filters that ensure a one-way flow of the termiticide from dispensers to soil.

*All geotextile filters are accredited under ISO/IEC 17025 by Department of Standards Malaysia, Laboratory Accreditation Scheme Malaysia (SAMM) and Geosynthesis Accreditation Institute (USA).



Flexible and Aesthetic in Design

Each system is tailored according to the blueprint of the building. It is so well hidden underground that it goes unnoticeable once completed.



Child-proof

The termiticide injection box comes with a safety feature that requires a specific tool to unlock.



Customer Care

Comes with a 55-year system warranty, and a 2-year chemical warranty with 4 periodical inspections for protected properties. A 5-year chemical warranty will be issued for government projects.



Proper Documentation

Each stage of the installation is properly documented and a warranty certificate is issued to the building owner.

Pre-construction

Don't miss this opportunity to safeguard your property from termites!





STAGE 1 Consultation & Design

property. A structural and architectural plan of the

points, critical areas, and sanitary points. Relevant accredited certificates, patent, and letter of recommendations will be given along with the proposal. Preparation and construction of the system will begin upon your approval and satisfaction.



STAGE 2 Ground Beam & -**System Installation**

Our standard practice is to safeguard both sides of the ground beam. A series of fishbone formation is formed at the centre of the flooring to distribute the termiticide through the system of pipes and dispensers. The dispensers are installed between 3.5ft at maximum of 5ft apart from each other. Soil Trenching and Ground Beam pipe sleeve will be advised by Kilstant to the main contractors.

STAGE 3 Flow Distribution Testing

A round of quality inspection is conducted. Each pipe is tested with a high-pressured pump to:

- · ensure smooth circulation of the termiticide
- · identify and repair any leakage found
- replace faulty parts
- tighten loose ends

Contractors may backfill to cover the network of pipes and dispensers. Sand bedding is recommended.



Pre-construction

STAGE 4 Chemical Application Ground -Soil Treatment (Round 1)

Fresh termiticide is sprayed over the backfilled soil or sand bedding, based on the recommended dosage and dilution from the manufacturer. Lean concrete work can commence after the soil treatment is completed.





STAGE 5 Injection Box & Point Installation

Brass covers are used to lock the injection points. They are housed in IP66 waterproof heavy-duty plastic boxes with ALUMINIUM COVER which are built into the wall at approximately 300mm from ground level. These are installed outside unless required otherwise. The number of injection boxes required depends the building size.

STAGE 6 Chemical Injection via the System (Round 2) -

A second round of fresh termiticide is pumped into the injection points upon the completion of the project. The chemical warranty starts from the date of the chemical injection.





STAGE 7 Documentation -

The entire installation process is documented into a comprehensive report. It is then handed over to the building owner together with the warranty certifications and owner's manual.

Post-construction / Renovations

So seamlessly installed that even you won't notice it

STAGE 1 Consultation & Design

We begin with a consultation to best understand your property. A structural and architectural plan of the building is required for an optimal layout of the termite reticulation system to secure all possible termite entry points, critical areas, and sanitary points. Relevant accredited certificates, patent, and letter of recommendations will be given along with the proposal. Preparation and construction of the system will begin upon your approval and satisfaction.







STAGE 2 Slab Trenching

A trench deep enough is neatly cut along the internal and external perimeter of the building to place the network of pipes and dispensers. Trenching is also carried out at the centre of the flooring to form a series of fishbone formations. Trenching to be performed by the main contractors on Kilstant's advise to accommodate the system installation.

STAGE 3 Slab Coring

A high-powered coring machine is used to core holes through the slab and ground, to house the dispensers. The holes are cored 3.5ft at maximum of 5ft apart from each other.







STAGE 4 System Installation

Once the coring is done, pipes are installed horizontally and the dispensers are installed vertically through the slab. They are interlocked to form a comprehensive termiticide distribution system that covers all critical areas such as the perimeter of the building, centre of the flooring, and sanitary points.

Post-construction / Renovations

STAGE 5 Flow Distribution Testing

A round of quality inspection is conducted. Each pipe is tested with a high-pressured pump to:

- ensure smooth circulation of the termiticide
- identify and repair any leakage found
- replace faulty parts
- tighten loose ends





STAGE 6 Injection Point & Box Installation

Brass covers are used to lock the injection points. They are housed in IP66 waterproof heavy-duty plastic boxes with ALUMINIUM COVER which are built into the wall at approximately 300mm from ground level. These are installed outside unless required otherwise. The number of injection boxes required depends on the building size.

STAGE 7 Finishing Touches

A layer of cement is used to conceal the trenches, pipes and dispensers. The termite reticulation system then becomes invisible to the occupants and guests of the building. Contractors can proceed with the construction work once this stage is completed.





STAGE 8 Injection of Chemicals

Fresh termiticide is pumped into the injection points upon the completion of the project. The chemical warranty starts from the date of the chemical injection.

STAGE 9 Documentation

The entire installation process is documented into a comprehensive report. It is then handed over to the building owner together with the warranty certifications and owner's manual.



Outdoor Landscape

Continue to impress, this time without worry



If a landscape plan is provided, a reticulation shop drawing is drawn to lay out an optimal arrangement of the pipes and dispensers. If a landscape plan is not available, a thorough assessment is conducted at ground level and from the top. The system will then be installed to cover all possible termite entry points. Relevant accredited certificates, patent, and letter of recommendations will be given along with the proposal of the system.







STAGE 2 Design Outline

Pipes and dispensers are laid out loosely on the ground. forming a three-dimensional layout of the blueprint. A final review is done before the dispensers are tightly coupled to the pipes.

STAGE 3 Testing (Round 1)

The first round of quality inspection is conducted. Each pipe is tested with a high-pressured pump to:

- ensure smooth circulation of the termiticide
- identify and repair any leakage found
- replace faulty parts
- tighten loose ends



Outdoor Landscape

STAGE 4 Trench Formation

The soil is dug at a depth just enough to securely plant and house the pipes and dispensers. Each trench is dug with precision to retain the natural beauty of the landscape surrounding it.





STAGE 5 Testing (Round 2)

Another round of quality testing is conducted to inspect the distribution and flow of the termiticide, after the dispensers are planted into the ground.

STAGE 6 Backfill

The soil is backfilled into the trenches to neatly cover the pipes and dispensers. The beauty of your outdoor landscape is preserved and no one would have guessed that a termite reticulation sysrem has been installed.





STAGE 7 Injection Point & Box Installation

Brass covers are used to lock the injection points. They are housed in IP66 waterproof heavy-duty plastic boxes that are mounted onto the nearest wall. No hacking is required.

The injection boxes are installed once the placements have been approved by the owner of the building. All injection boxes are installed within the compound of the landscape unless required otherwise.

Where quality matters

All pipes and dispensers use high quality premium BBB pipes and Hansen fittings with materials approved by SIRIM and SPAN, and comply with the Malaysian Standards (MS1058), British Standard BS 5114: 1975 (1981) (AMD.2 – 1987), and International Organisation of Standardisation (ISO 22391-3; ISO 4427-2).

PIPES			- DISPENSERS		
Diameter	20mm	Heig	ght	150mm	
Туре	High Density Polypipe (HDPE)	Wid	th	40mm	
Fitting	PN or Class 16				

*Materials used for the dispensers are approved by SIRIM.

Accreditation:



The BBB pipes have undergone specified laboratory tests as follow:

- Appearance, dimensions and ovality
- Hydrostatic strength at 80°C for 165 hours
- Hydrostatic strength at 80°C for 1,000 hours
 Oxidation Induction
- Oxidation inductio Time (OIT)
- Melt Flow Rate (MFR)

BBB[™] PLASTIC PIPING SOLUTION

HANSEN

Benefits of using BBB pipes or Hansen fittings

- Lightweight
- Sturdy and reliable
- Flexible
- Cost efficient
- UV stabilised
- Leak-proof
- Patented
- Consistent pipeline
 performance
- Excellent hydraulic flowAble to withstand high
- Able to withstall pressure
- Non-corrosive
- Non-toxic
- Chemical and microbiological resistant
- Water resistant

The Hansen fittings have undergone specified tests as follow:

- \bullet Cyclic pressure shock at 23°C for 10,000 cycles
- Hydrostatic pressure
- Hydrostatic bending stress bent to a radius 20 times the diameter
- Resistance to pull out of
 assembled joint
- External pressure at 0.80 bar above atmospheric pressure
- Effects of water
- Opacity



Contact us

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