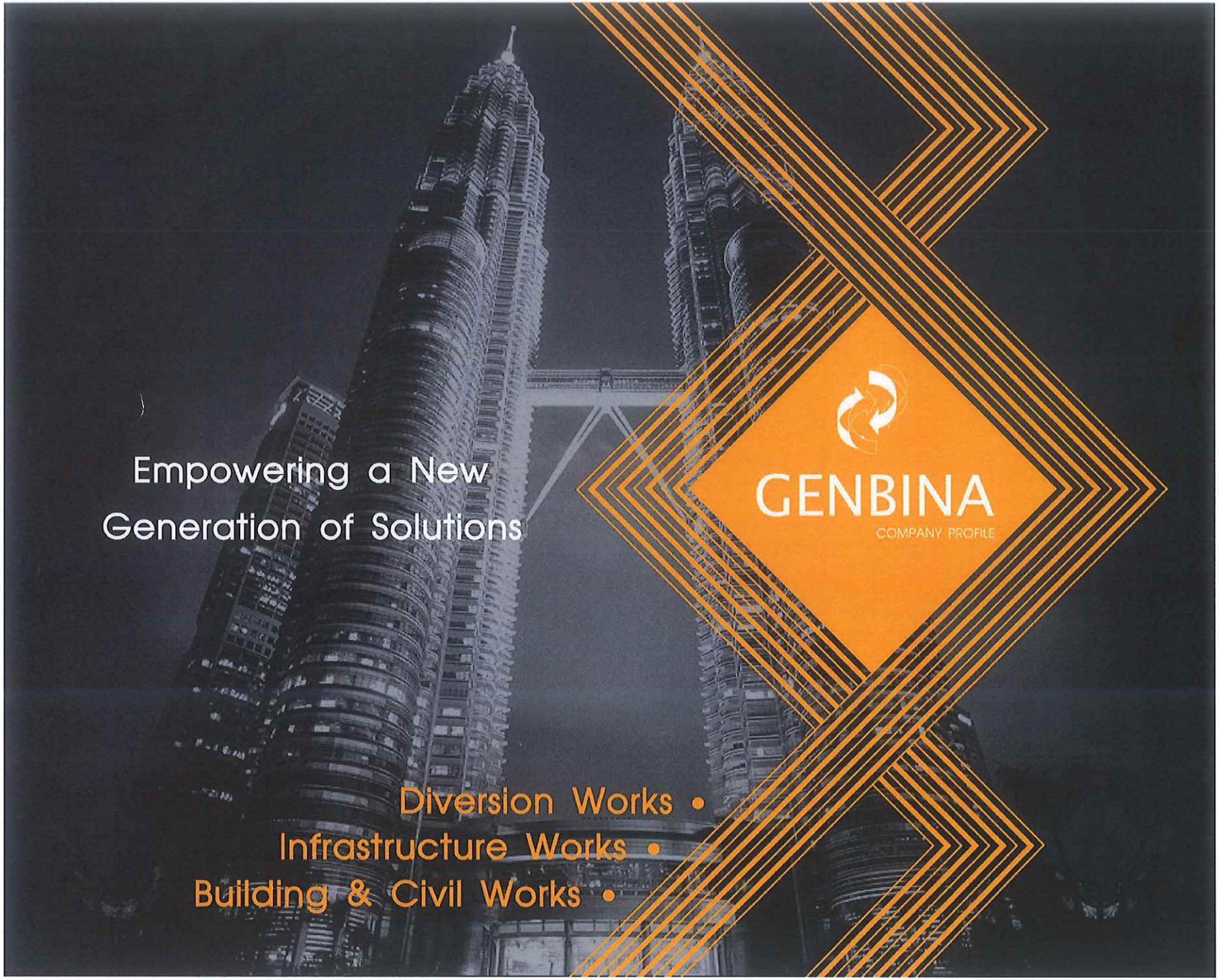
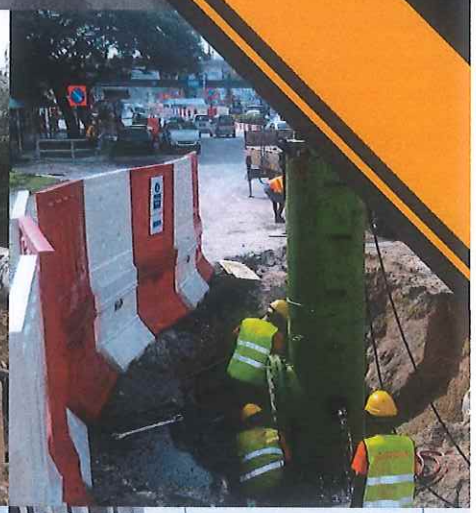
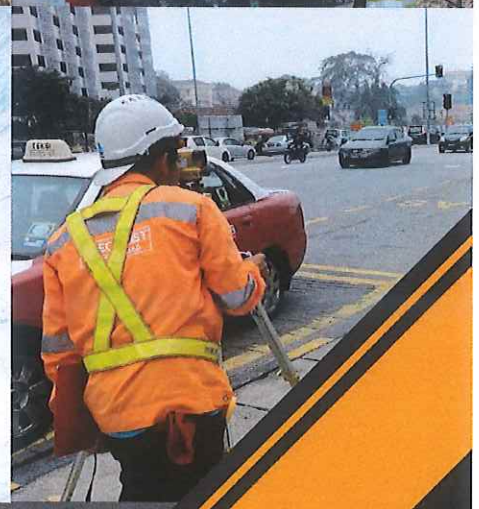

Empowering a New
Generation of Solutions
GENBINA
COMPANY PROFILE
Diversion Works •
Infrastructure Works •
Building & Civil Works •

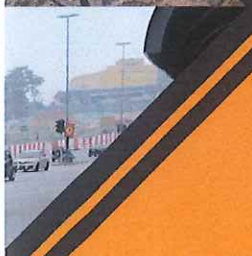




Genbina VISION

Genbina is dedicated to be the innovative and leader in providing cutting-edge technological solutions service provider nationally, regionally and globally.



Genbina MISSION

Genbina is committed to be the leading and respected Research and Development organization, offering efficient technology, products and services, coupled with strong partnership and exceptional service and support to provide continuous improvement while maintaining the highest standard of quality at competitive prices.

BID Business Initiative Directions

Principles of the QC100 Total Quality Management Model

Commitment of GENBINA GROUP OF COMPANIES to Quality

Our company accepts quality as a factor of development to became more competitives.

GENBINA GROUP OF COMPANIES is committed to publicizing this Quality Culture with employees, suppliers, clients and the community, supported by the QC100 Total Quality Management Model, the principles of which are the following:

1. Quality is a consequence of valuing customer satisfaction and obtaining positive business results.
2. Meet the quality levels established in the company in accordance with the QC100 Point of Quality.
3. Encourage participation and teamwork for decision making.
4. Satisfy the needs of our clients and meet their expectations.
5. Provide human resources, both technical and economic, to achieve continuous improvement and respect for the environment.
6. Manage human resources in our company to achieve the maximum potential.
7. Make employees aware of the importance of concentration on the most profitable areas of activity, to achieve the best business results.

The achievement of these seven principles by **GENBINA GROUP OF COMPANIES** will foster improvement for clients, employees, suppliers and all of the other persons who make up the company.

New York, May 25, 2009

General Manager
GENBINA GROUP OF COMPANIES

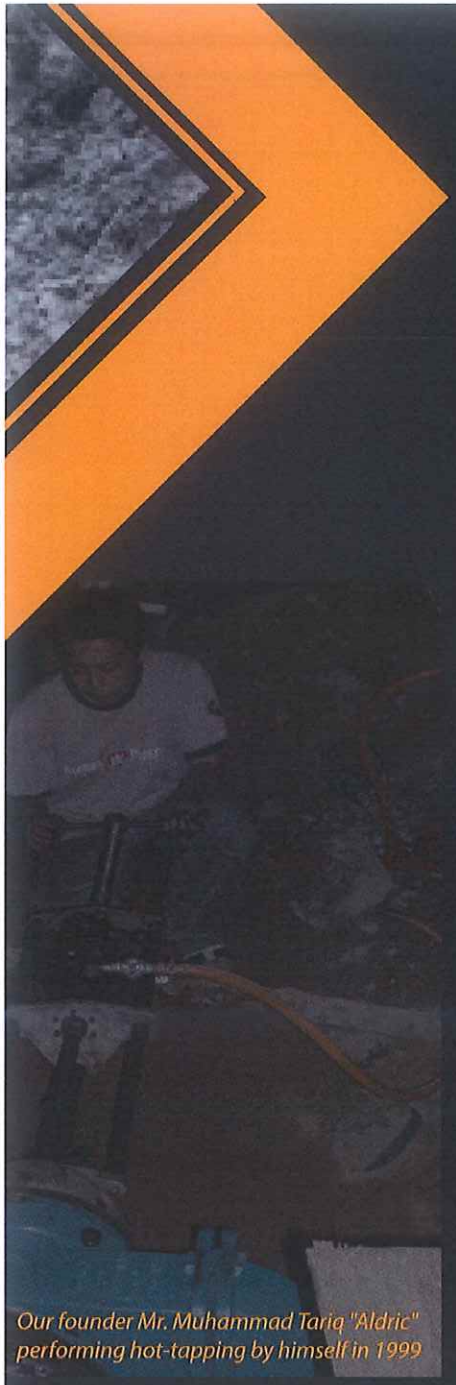
The criteria expressed in this document is the ideological support of the International Quality Summit Award, administered by B.I.D. Business Initiative Directions and endorsed by the QC100 Total Quality Management Model.

INTERNATIONAL
ACCREDITED COMPANY 0046
BS EN ISO 9001 : 2008

UKAS MANAGEMENT SYSTEMS

ONTENT


ABOUT US



Our founder Mr. Muhammad Tariq "Aldric" performing hot-tapping by himself in 1999

Genbina provides holistic technology and service solutions to the water and wastewater industry. Our expert technology and innovations encompass a wide range of products and services for water and wastewater applications from treatment to network.

Genbina's core business begun as a pioneer and leading company in Under-Pressure Technology (UPT) for the water and wastewater industry. With strong product and industry expertise, Genbina is at the technological forefront of UPT, providing UPT solutions saving millions of wastages in water resources. Genbina's dynamic team of experienced leaders as well as dedicated staff has a renowned reputation in delivering UPT services since 1998.

Together with our technological alliances with many international associate companies, Genbina has excelled in providing hot tapping and line stopping services to the water industry in Malaysia and in many other countries around the South East Asia region including Philippines and Thailand.

The Group has developed into a multi-facet water expertise the delivers innovate and environmental friendly water technological solutions.

Genbina
Awards & Accolades

National Record

THE MALAYSIA BOOK of RECORDS

This Is To Certify That

GENBINA SDN BHD

is listed in

The Malaysia Book of Records

for constructing the

BIGGEST INTERCONNECTION PIPEWORKS IN RECLINING POSITION USING HOT-TAPPING METHOD

Size : 2.1 M in diameter

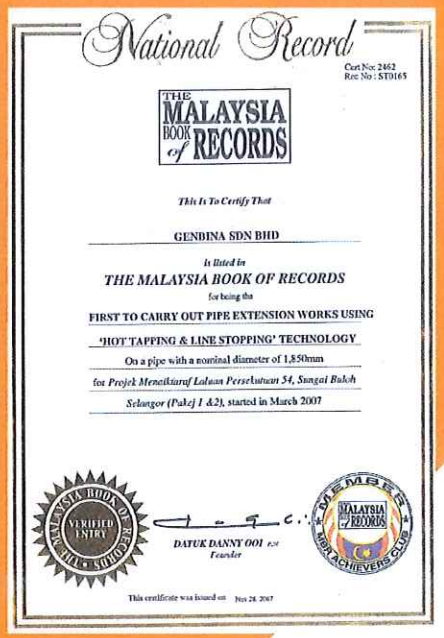
Complete tapping these 4 points on January 29, 2013

Location : Bestari Jaya, Kuala Selangor, Selangor

"Projek Mitigasi Kekurangan Bekalan Air Selangor, Wilayah Perseketuan Kuala Lumpur & Putrajaya"

Record Entered By
THE MALAYSIA BOOK OF RECORDS

DATUK DANNY OOI
Founder



National Record

Cert No: 2462
Rec No : ST0165

THE MALAYSIA BOOK of RECORDS

This Is To Certify That

GENBINA SDN BHD

is listed in

THE MALAYSIA BOOK OF RECORDS

for being the

FIRST TO CARRY OUT PIPE EXTENSION WORKS USING

'HOT TAPPING & LINE STOPPING' TECHNOLOGY

On a pipe with a nominal diameter of 1,850mm

for *Projek Meningkatraf Laluan Perselutuan 54, Sungai Buloh Selangor (Pakej 1 &2)*, started in March 2007

VERIFIED ENTRY

DATUK DANNY OOI
Founder

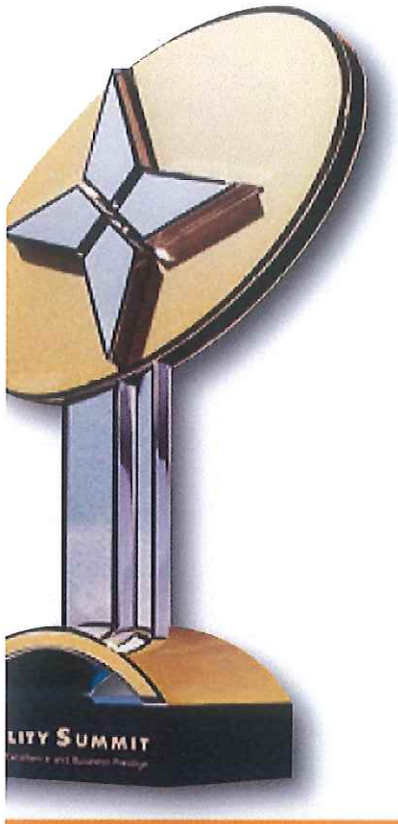
MEMBER MALAYSIA BOOK OF RECORDS HIGH ACHIEVERS CLUB

This certificate was issued on Nov 28, 2007

THE MALAYSIA BOOK of RECORDS

Genbina
Awards & Accolades

As a major player in the water industry, Genbina has achieved many recognitions and accolades that have firmly positioned Genbina as a key player in the water industry of Malaysia and the Asia region.



International Quality Summit Award 2009

Genbina won the 2009 International Quality Summit Gold Award on May 25 in New York. Sponsored by Business Initiative Directions (BID), the award recognizes Genbina for its commitment to quality, leadership, customer satisfaction, technology and innovation.

The Malaysia Book of Records

Genbina was recorded in The Malaysian Book of Records as the first to carry out pipe extension works using hot-tapping & line-stopping technology. Genbina accomplished this in early 2007 at the site location, "Project: Upgrading of Federal Expressway 54 , Sungai Buloh, Selangor. The tapping/line-stopping of the main was 1,850mm in diameter.

In 2014, Genbina recorded another history in The Malaysian Book of Records as the first to perform largest hot-tapping in reclining position at Bestari Jaya Kuala Selangor, Selangor for Projek Mitigasi Kekurangan Bekalan Air Selangor for size 2100mm in diameter.

UPT Technology

UPT Technology

The ingenuity of Genbina's UPT technology is manifested in its ability to eliminate a complete water system shutdown while pipe works are undergoing repair or replacement, avoiding major water supply disruptions. Genbina's UPT Hot Tapping and UPT Line Stopping reduce maintenance labor, often elimination overtime premium; and cut repairs and maintenance cost significantly. Most of all eliminates consumer complaints.

Genbina offers comprehensive and economical solution specially tailored for water utility companies.

Genbina's line-stopping equipment is available for sale for 4"-36" pipe diameter applications and contract services are offered for the 4"-88" inch diameter range. Inherent benefits from utilizing this equipment include uninterrupted fire protection assuring reasonable safety; enabling 24 hour water services, especially to large users such as hospitals, factories and schools; eliminate high costs for emergency repair works can be carried out anytime.

Genbina's UPT expertise and services are available for:

- Pipe Relocation
- Pipe Replacement
- Pipe Connection
- Valve Replacement
- Valve Insertion
- Erection of S Bend Crossings

..... Services and work above can be carried out without any interruption of water supply

Genbina UPT : Hot-Tapping

UPT Hot Tapping enables new pipeline connection to the main pipe while the main pipe is still supplying and distributing water. UPT Hot Tapping enables the process of cutting/tapping to be carried out in a pressurized or non-pressurized pipeline without loss of pressure or flow in the pipeline. This delicate process is achieved through precise planning using Genbina's innovation valve, fitting and sealed tapping machine.

Genbina UPT : Line-Stopping

UPT Line Stopping Technology enables the insertion of a temporary valve in a pipeline when one presently does not exist. The installation of this stopper eliminates the need for a complete water shutdown which creates major service disruption while repair or replacement is being done. Line Stopping can also enable a By-Pass in a single or one-way feed water line to carry out repair works on the faulty line while the water supply is constantly and continuously supplied to users.

Genbina's UPT Line Stopping Technology is designed and built according to specific requirements and subjected to existing site environment.

What is Hot-Tapping?

UPT Hot Tapping is carried out to core a hole in the existing pipeline without shutting it down. The tapping can be used as a branch off for a new pipeline or for line stopping purpose.

The Cutter for the hot tapping process is custom built for various pipe materials and pipe size. Coupled with the relevant Pilot Drill and Cutter Housing, the Hot Tapping machine can be utilized to hot tap virtually any pipes in the water and wastewater industry.

A hot tap in its simplest form, involves drilling or cutting a hole in an existing pipe, while the pipe is under pressure, and at operating temperature. If someone wants to establish a new service to an existing pipe, and it is not convenient or practical to take the system out of service, therefore a hot tap is required. For example, shutting the main line down might involve shutting one or more valves down, which could involve days, or weeks of lost revenue, plus a considerable cost

The work. For a simple hot tap, there are three major components necessary to safely tap into a pipe, the fitting, the valve, and the hot tap machine (which includes the cutters, and housing). The fitting is attached to the pipe, normally by welding. On to this fitting, a valve is attached, and the hot tap machines is attached to the valve. For hot taps, new studs, nuts, and a new sluice valve should always be used, as the studs, nuts, and valve will become part of the permanent facilities and equipment. The fitting/valve combination, is attached to the pipe, and is normally pressure tested before use. The pressure test is very important, so as to make sure that there are no structural problems with the fitting, and so that there are no leaks in the welds (it makes no sense to cut a hole in a perfectly good pipe, and to create a "new" leak in the system).

The hot tap cutter, is a specialized type of hole saw manufactured under stringent quality control by our in-house facility, with a pilot bit in the middle, mounted inside of a hot tap adapter housing. The hot tap cutter is attached to a cutter holder, with the pilot bit, and is attached to the working end of the hot tap machine, so that it fits into the inside of the tapping adapter. The tapping adapter will contain the pressure of the pipe system, while the pipe is being cut, it houses the cutter, and cutter holder, and bolts to the valve.

Our sprcialists can offer customers for Hot-Tapping for following sizes:
With our UPT300SE:
50mm, 75mm, 100mm, 150mm, 200mm, 250mm, 300mm, 400mm, 450mm, 500mm, 550mm, 600mm, 675mm.
With our UPT1000HT:
700mm, 750mm, 800mm, 840mm, 900mm, 1000mm, 1100mm, 1200mm.
And with our UPT2000EX:
1300mm, 1500mm, 1600mm, 1800mm, 1850mm, 2000mm, 2200mm, 2500 mm.

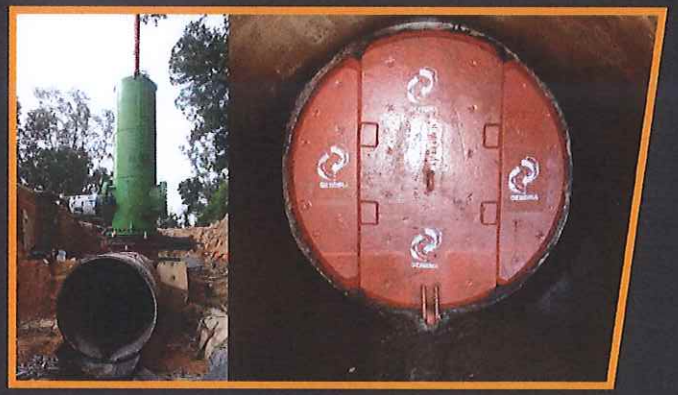
The Hot Tap Machine is made in one continuous process, the machine is started, and the cut continues, until the cutter passes through the pipe wall, resulting in the removal of a section of pipe, known as the coupon is normally retained on one or more u-wires, which are attached to the pilot bit. Once the cutter has cut through the pipe, the hot tap machine is stopped, the cutter is retracted into the hot tap adapter, and the valve is closed. Pressure is bleed off from the inside of the Tapping Adapter, so that the hot tap machine can be removed from the line. The machine is removed from the lines, and the new service is established.
Genbina proudly designed and manufacture 100% Malaysian-made Hot-Tapping machine. Machinery sales are also available.

What is Line-Stopping?

UPT Line Stopping are means of temporary isolation on the pipeline. This has proved effective in areas where valves are unavailable for maintenance, relocation of pipelines and emergency situations. With the proper solution and bypass, work can be carried out in the pipeline without the interruption of water supply.

Line-stops (sometimes called "plugging") start with a hot tap, but are intended to stop the flow in the pipe. Line-stops are of necessity, sometime more complicated than normal hot taps, but they start out in much the same way. A fitting is attached to the pipe, a hot tap is performed prior. Once the hot tap has been completed, the valve is closed, then another machine, known as UPT Stopper is installed on the pipe. The line-stopper is used to insert a plugging head into the pipe, the most common type being a pivot head mechanism, which is designed for working pressure of up to 10 bar.

The Work. The Line-stop Setup includes the hot tap machine, plus an additional piece of equipment, a UPT Line-stopper. The Line-stopper can be either mechanical (screw type), or hydraulic, it is used, to place the line-stop head into the line, therefore stopping the flow in the line. The Line-stopper is bolted to a Line Housing, which has to be long enough to include the line-stop head (pivot head, or folding head), so that the Line-stopper, and Housing, can be bolted to the line-stop valve. Line-stops are normally performed through temporary valves owned by GENBINA who performs the work, once the work is completed, the fitting will remain on the pipe, but the valve and all other equipment is removed. A Line-stop starts out the same way as does a Hot Tap, but a larger cutter is used. The larger hole in the pipe, allows the line-stop head to fit into the pipe. Once the cut is made, the valve is closed the hot tap machine is removed from the



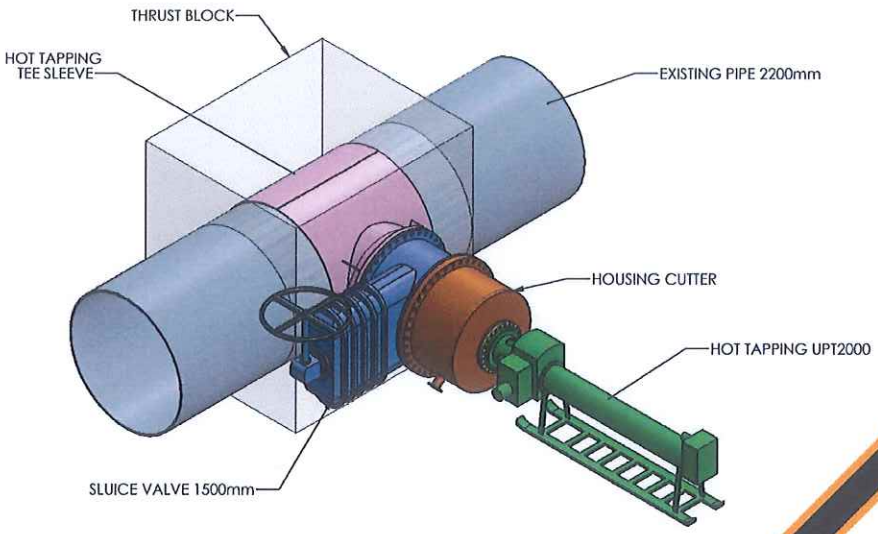
Line, and a Line-stopper is bolted into place. New gaskets are always to be used for every setup, but "used" studs and nuts are often used, because this operation is temporary operation, the valve, machine, and the stopper are removed at the end of the job. New studs, nuts, and gaskets should be used on the final completion, when a blind flange is installed outside of the completion plug. The Line-stopper is operated, to push the plugging head (line-stop head), down, into the pipe, the common pivot head, will pivot in the direction of the flow, and form a stop, thus stopping the flow in the pipe. A final Completion plug is set below the valve, once set, pressure above the plug can be bled off, and the valve can then be removed.

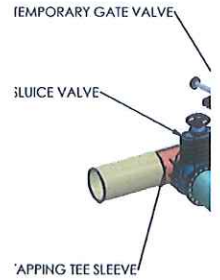
Genbina is the ONE and ONLY specialist in Malaysia who has proven track records with equipments fully made in Malaysia. UPT Line-Stopping services from Genbina is the most affordable and competitive available for sizes as small as 150mm to 2500mm in diameter.

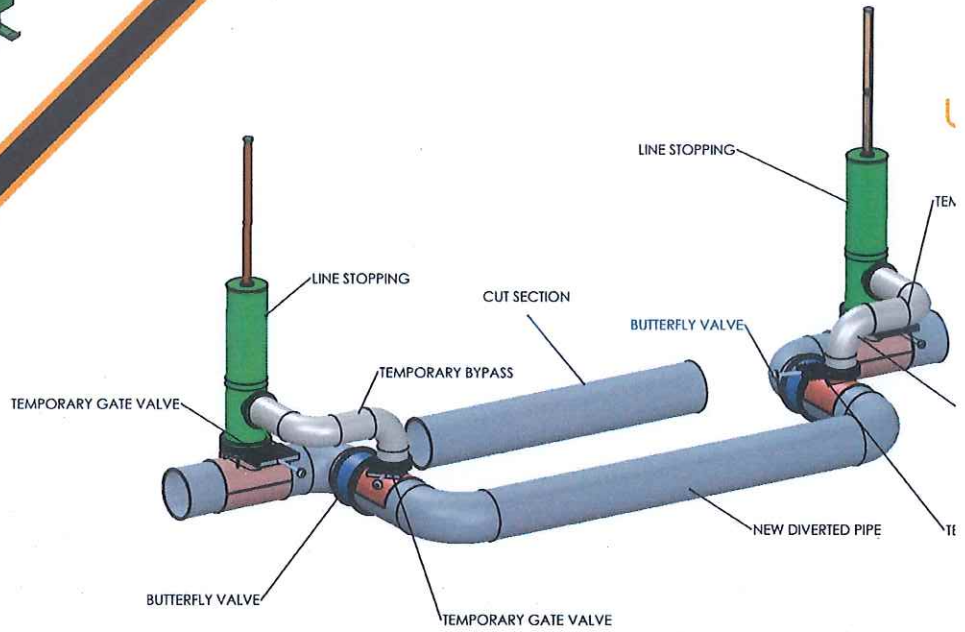
Our quality work has been recognized internationally with a Gold Award at The International Quality Summit in New York in 2009. And enlisted on the Malaysia Book of Records for being the First & Largest Pipe Diversion Works carried out with UPT Hot-Tapping & Line-Stopping in 2007.

To date Genbina completed over 200 pipe relocation works and has undertaken projects for pipe sizes of 250mm, 300mm, 450mm, 500mm, 600mm, 675mm, 700mm, 750mm, 800mm, 840mm, 900mm, 1000mm, 1100mm, 1200mm, 1300mm, 1600mm, 1800mm, 1850mm, 2050mm & 2200mm.

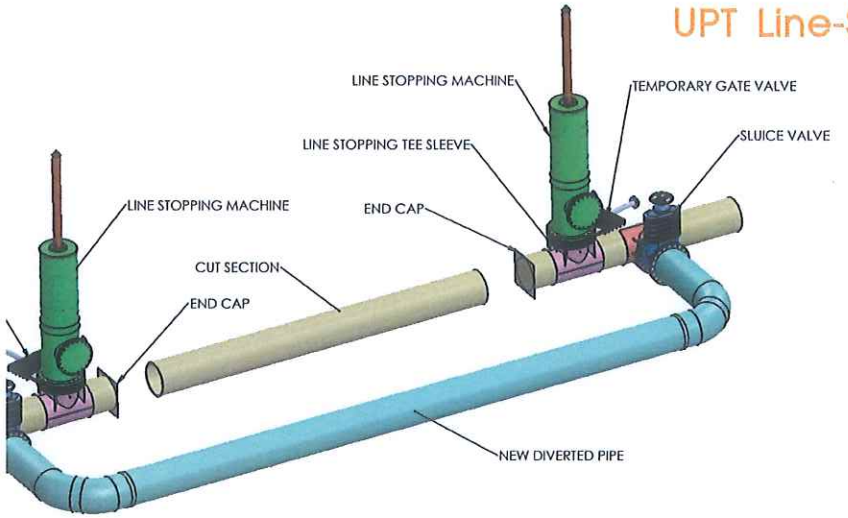
Typical Hot-Tapping Medthod







UPT Line-Stopping Method 1

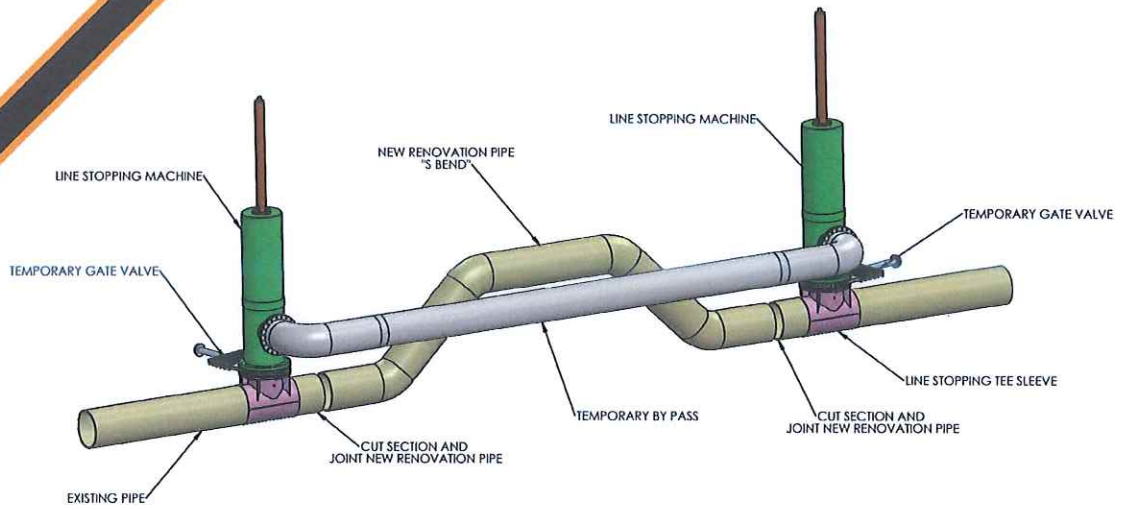


UPT Line-Stopping Method 2

EMPORARY GATE VALVE

TEMPORARY BYPASS

TEMPORARY GATE VALVE

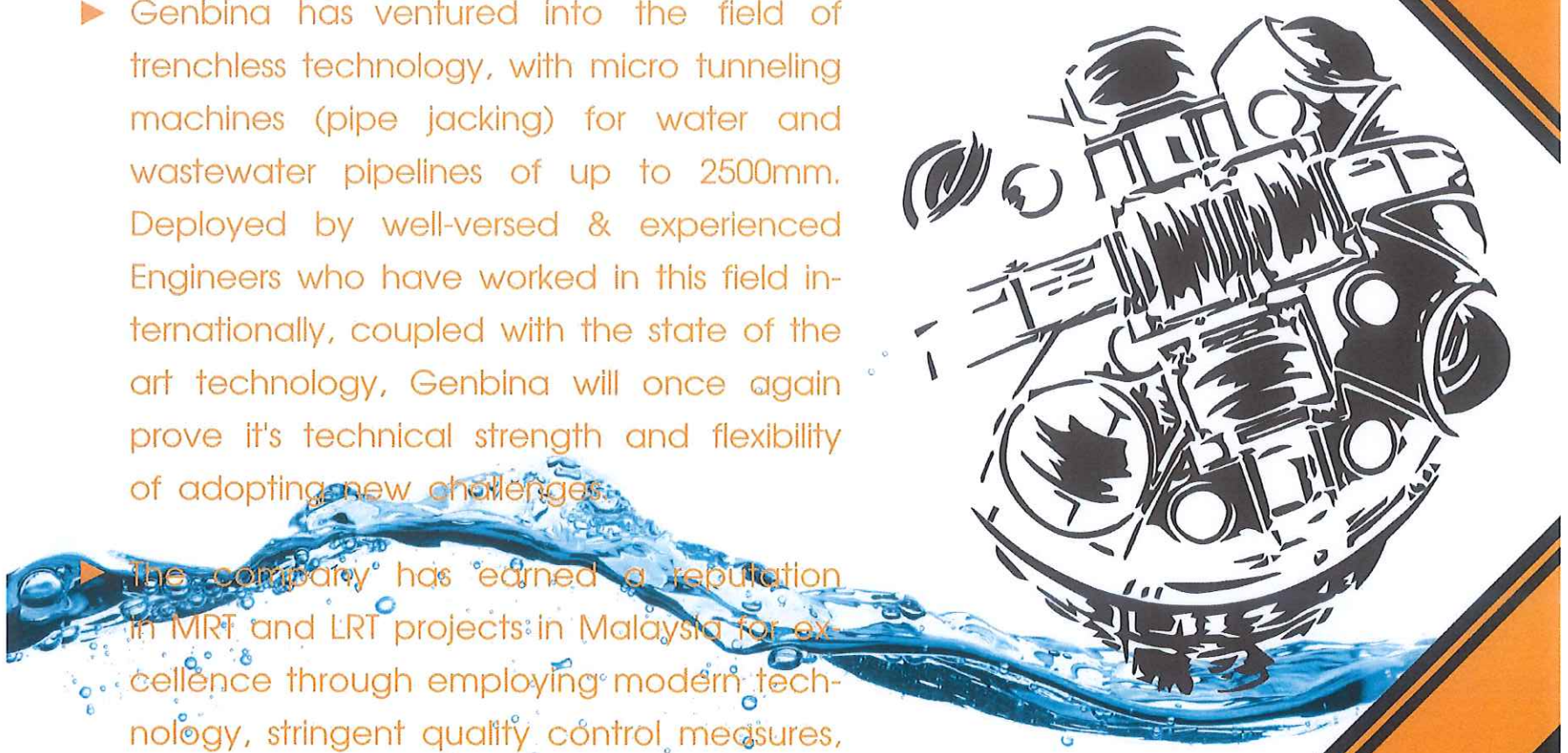


UPT Line-Stopping Method 3

GOING TRENCHLESS
creating value thru'challenges

- Genbina has ventured into the field of trenchless technology, with micro tunneling machines (pipe jacking) for water and wastewater pipelines of up to 2500mm. Deployed by well-versed & experienced Engineers who have worked in this field internationally, coupled with the state of the art technology, Genbina will once again prove it's technical strength and flexibility of adopting new challenges.

- The company has earned a reputation in MRT and LRT projects in Malaysia for excellence through employing modern technology, stringent quality control measures, timely execution and continuous research and development.



Capability in variety of soil conditions
225 mm to 2,500 mm

Ordinary Soil & Hard Soil

Gravel

Soft Rock

Boulder Mixed

Medium Hard Rock

Microtunnelling

Microtunnelling is a trenchless, remotely controlled, steerable, pipe jacking technique for installingunderground pipelines from a 150mm diameter upwards.

▶ A wide variety of applications

Microtunnelling can be used to install pipelines beneath obstacles such as highways, rivers, railways, canals, buildings and environmentally sensitive areas. With the use of laser guided systems to maintain the line and level of the installation, along with normal surveying techniques, microtunnelling can be utilised to navigate the strictest of parameters.

The most critical factor in any microtunnelling project is geology.

▶ Extensive Ground Investigation

Extensive ground investigation should be carried out to determine the soil characteristics along the proposed alignment. Modern technology has enabled this method to be applied to a wide range of ground conditions from solid rocks, waterlogged sands andgravels through to soft, stiff, dry or waterlogged clays and mudstones.

Microtunnelling operations require launch and reception shafts at opposite ends of each drive.

▶ Straight or curved shafts via guidance systems

A microtunnel boring machine (MTBM) is advanced forward by hydraulic jacks mounted within the launch shaft. Pipes are lowered into the launch shaft and inserted between the jacking frame and the MTBM or the previous pipe and driven until the reception shaft is reached. Most microtunnelling drives are straight between shafts, although in recent years various companies have developed guidance systems that enable curved drives to be completed, particularly onlonger length, larger diameter bores.

The fundamental components to a microtunnelling operation includes:

▶ Launch and Reception Shafts

The launch shaft is the epicenter of any microtunnelling project. It contains the pipe jacking system which supports the MTBM, slurry system and essential components such as power supply, sensorsand lasers. The reception shaft is at the opposite end of the launch shaft.

▶ Boring Machines

MTBMs are guided and remotely controlled from the control station. Generally there are two types of MTBMs, both of which have face support capabilities.

Pressurised slurry MTBMs push the excavated materials from the face of the machine, via the slurry pipes, to the slurry system installed above ground. Auger machine MTBMs move the excavated materials to the launch shaft with a cased screw auger.

▶ Control Station

Microtunnel boring machines are controlled from the surface, with location and operation of the machine being continuously monitored.

▶ Slurry system

When using pressurised slurry MTBMs, good slurry management is important to ensure the success of the microtunnelling project.

Slurry is a water based fluid that flows through a closed loop slurry system to transport excavated materials from the MTBM to a separation tank on the surface. Here the slurry and excavated materials are separated, allowing the-

slurry water to be redistributed back to the MTBM for continued excavation.

▶ Microtunneling Pipes

The most common materials used for pipe jacking are concrete pipes and vitrified clay. Steel, glassfiber reinforced plastic (GRP) and PVC are other materials used in certain circumstances. The choice of material can be influenced by the pipe diameter, length of drive, ground conditions or the intended end use of the pipeline.

MICROTUNNELLING WORK PROCESS

▶ Length of a pipejack

The length of a pipejack is dependent upon variable factors such as the stability and friction characteristics of the geology, the self weight and strength of the pipes, the diameter of pipe, the type of excavation method and the available jacking reaction. Major restrictions can come from the type of ground and the ground water characteristics. Various techniques can be employed to reach an optimised distance.

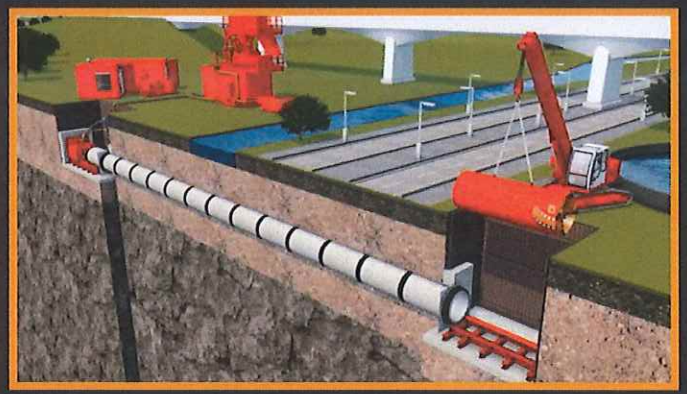
▶ Intermediate jacking stations

To redistribute the total required jacking force on the pipeline, smaller intermediate jacking stations (interjacks) can be utilised between sections of the tunnel liner. The interjack separates the piping and due to the friction caused from the launch shaft behind the interjack, the front section of piping is forced forward using a considerably lower force. Interjacks therefore reduce the loads that are transmitted through the shaft structure. This is particularly useful when ground conditions at the launch pit are at a poor or low inherent strength.

▶ Minimizing friction

As the length of the drive shaft increases, so too does the friction of the ground around the pipe. In order to minimise friction, the machine is designed to overcut and produce a small overbreak to the external diameter of the pipeline. By injecting an ecologically friendly lubricant, such as bentonite and/or polymers, into this gap the pipeline can be jacked more readily through a fluid medium.

The friction can be reduced however it can never be eliminated as in practice fluid loss may occur. This technique does result in considerable reductions in jacking forces and hence allows for longer jacking lengths.



Slurry Shields Tunnel Boring Machine (TBM)

Slurry Shields Tunnel Boring Machine (TBM)

Slurry shields are TBM fitted with a full face cutter head which provides face support by pressurizing boring fluid inside the cutter head chamber. These machines are most suited for tunnels through unstable material subjected to high groundwater pressure or water inflow that must be stopped by supporting the face with a boring fluid subjected to pressure.

The cutter head acts as the means of excavation, whereas face support is provided by slurry counter pressure, namely a suspension of bentonite or a clay and water mix (slurry).

This suspension is pumped into the excavation chamber where it reaches the face and penetrates into the ground forming the filter cake, or the impermeable bulkhead (fine ground) or impregnated zone (coarse ground) which guarantees the transfer of counter pressure to the excavation face. Excavated debris by the tools on the rotating cutter heads consists partly of natural soil and partly of the bentonite or clay and water mixture (slurry).

Slurry Shield TBM are especially suited to excavate ground with limited self-supporting capacity. In granular metric terms, slurry shields are mainly suitable for excavation in sand and gravels with silts.

The installation of a crusher in the excavation chamber allows any lumps, which would not pass through the hydraulic mucking system to be crushed. The use of disc cutters enables the machine to excavate in rock. Polymers can be used to excavate ground containing much silt and clay. These machines are also especially suited for working in the presence of pressurized groundwater.

Pilot Auger/H.D.D.

Pilot Auger Boring (PAB) Machine

Pilot tube guided auger boring and pipe jacking both involve installing a small pilot tube on line and grade. The pilot tube is guided using an LED target mounted inside the steering head and a theodolite and camera sighted down the center of the pilot tube. This view is displayed on a video screen at the operators console. Once the pilot tubes are installed a casing and auger is attached to the pilot tube and the casing is bored to the reception shaft following the pilot tubes. The pilot tubes are removed in the reception shaft as the casing is bored forward. Although this method has been used in some adverse ground conditions with limited success it is generally intended for use in soil that will displace as the pilot tube is steered to the reception shaft. Typical pilot tube installations are less than 100 meter span.

Genbina can offer PAB method with the most capable machine from Bohrtec (Austria) and Speeder (Japan).

Horizontal Directional Drilling (HDD)

HDD can be used in a variety of differing soil conditions and product installations. It is an economical way of installing conduits, ducts, and pipes in most soil conditions. Especially suited for water, gas, communications, and electrical installations. Line and grade sewer installations have come a long way however they require a reasonable grade tolerance (usually 1% or greater) and good soil conditions. The experience of the driller cannot be stressed enough on line and grade bores. Almost all soil conditions including rock and mixed soil can be drilled with the right equipment and experience.

Wastewater Treatment System

Wastewater treatment and operations requirements play an important role in directly impacting our surrounding environments for a sustainable future.

Genbina is recognized for its expertise in wastewater treatment system and offers a full range of solution and service to treat wastewater, with a team of experienced engineers in designing such applications.

Our expertise includes:

- Advance Dissolved Air Flotation Clarifier
- Sequential Batch Reactor (SBR) System
- Sludge Dewatering Systems
- Oil & Grease Separation
- Aerobic & Anaerobic Oxidation Filtration System (Bio-Robic)
- Microbe Enzyme Odor Purification
- Wastewater recycling & Reuse System

Steel Engineering & Fabrication

GENBINA works with strength of diversity into an engineering company engaged in many aspects of engineering work as well as civil construction work. Our scope of work include - steel fabrication, storage tank, piping work and other forms of machinery engineer

SCOPE OF WORK

- Steel fabrication incld. platform, storage tank, separation tank, microtunnelling entrance and exit ring etc.
- Plant & Machinery fabrication such as Pipe Jacking frames, Hot-tapping machine etc.
- Piping work
- Buildling steel structural engineering

Our commitment to deliver quality work and customer satisfaction has helped the Company to gain the trust and confidence of our customers, including foreign owned and locally owned corporations in SEA region.

GENBINA

UNDER PRESSURE TECHNOLOGY (UPT)
WATER & WASTEWATER SOLUTIONS

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