

DENSO DIGEST



INTERNATIONAL EDITION

WINN & COALES INTERNATIONAL LTD

This edition of the Denso Digest is devoted to the global activities of Winn & Coales International Ltd. With subsidiaries based in six countries, we have developed various corrosion control and sealing systems to deal with a wide range of environments and some of these are illustrated on the following pages.

Over sixty years of experience in dealing with corrosion prevention and control enables the company to offer a world-wide service tailor-made to its customer needs.

WINN & COALES (DENSO) LTD
DENSO HOUSE, CHAPEL ROAD, LONDON SE27 0TR, ENGLAND.
TEL: 0181-670 7511 FAX: 0181-761 2456



ARCHCO-RIGIDON LTD
DENSO HOUSE, CHAPEL ROAD, LONDON SE27 0TR, ENGLAND.
TEL: 0181-761 6244 FAX: 0181-761 2456



SPRAYGLASS INTERNATIONAL LTD
40 RICH INDUSTRIAL ESTATE, CRAYFORD, KENT DA1 4HA, ENGLAND.
TEL: 01332-528 255 FAX: 01322-559 489

**Sprayglass
International**

DENSO (AUSTRALIA) PTY LTD
PO BOX 45, WEST BRUNSWICK, VICTORIA 3055, AUSTRALIA.
TEL: 03 387 1377 FAX: 03 387 6973



DENSO (NEW ZEALAND) LTD
PO BOX 76-167, MANAKAU CITY, AUCKLAND, NEW ZEALAND.
TEL: 09 262 2479 FAX: 09 262 2494



DENSO NORTH AMERICA INC
75 SHIELDS COURT, UNIT 3, MARKHAM, ONTARIO, L3R 9T4 CANADA.
TEL: 905 940-8255 FAX: 905 940-8258



DENSO NORTH AMERICA INC
18211 CHISHOLM TRAIL, HOUSTON, TEXAS 77060, UNITED STATES OF AMERICA
TEL: 713 821 3355 FAX: 713 821 0304



DENSO SOUTH AFRICA (PTY) LTD
PO BOX 647, UMHLANGA ROCKS 4320, DURBAN, REPUBLIC OF SOUTH AFRICA.
TEL: 031 561 2395 FAX: 031 561-4640



SEASHIELD INTERNATIONAL
DENSO HOUSE, CHAPEL ROAD, LONDON SE27 0TR, ENGLAND.
TEL: 0181 670 7511 FAX: 0181 761 2456



SEASHIELD INTERNATIONAL
PO BOX 45, WEST BRUNSWICK, VICTORIA 3055, AUSTRALIA.
TEL: 03 387 1377 FAX: 03 387 6973





12m x 1.06m (40' x 42") lengths of steel pipe for road and river crossings protected by Protal 5900 over F.B.E. mill coating ready for rail transportation to job site.

Gas transmission North America

The foundation for the safe and reliable delivery of natural gas supplies in North America is the 459000km (285,000 mile) natural gas transmission system (pipeline network).

Long line large diameter pipeline (up to 1.2m (48")) effectively links major producing areas in northern Canada, the southeast and southwest, both onshore and offshore to areas of consumption throughout the continent.

Transmission pipeline construction expenditures have increased steadily over the past five years to more than \$15 billion, and the trend will continue into the next century.

Denso North America Inc are now into the fourth year of supplying Denso Protal 5900 epoxy urethane coating

for the protection of large diameter girth welds, valves and 12m (40') and 24m (80') lengths of pipe for road and river crossings.

Application of this system is all year round with temperatures ranging from +35°C (+95°F) in summer to -40°C (-40°F) plus windchill factors in winter. Winter construction is necessary as areas in the far north will not accept heavy construction equipment until permafrost sets in.

We have, to date, supplied in excess of 300,000 litres (79300 gal US) of Denso



Protal 5900 being applied by roller to 1.06m (42") girth weld in -28°C (-20°F) winter conditions.

Protal 5900 to such large transmission companies as Trans Canada Pipelines; N.O.V.A. and Enron on their Florida Gas Phase III, 1300km (800 mile) project; Panhandle and Texas Eastern, and are specified with numerous other U.S. and Canadian pipeline projects.

Most recently, we were successful in acquiring the contract to protect all the girth welds on a 500km (310 miles) oil pipeline project transporting oil from Canada to the U.S.

Currently, our research and development team are working on a second generation of liquid coatings in an effort to keep ahead of the fierce competition in this industry in North America.

Large valve being spray protected with Protal 5900 prior to shipment to field.



Tok road products take hold!

Late in 1993, efforts were made by Denso North America Inc to introduce the range of Tok Road Products to several municipalities in the southern part of the province of Ontario, the most densely populated and industrialised area in the country.

With the City of Toronto being the largest municipality in the country it was the natural starting point and we were successful in demonstrating both Tokband Spezial and Tok Reinstatement Tape for asphalt patch repairs.

As Canadian asphalt plants are shut down during the harsh winter months, a project was under way throughout this period to ensure the product range was developed

two other municipalities. In the latter part of August, we supplied Tok Paving Tape on a road project in a third community.

Additionally, demonstrations involving the complete product range have been confirmed with six cities.

There has been an extremely high level of interest in these products as they offer a cost effective alternative to hot poured bitumen joint sealing.

One of the main advantages of the use of the Tok tapes is that they are cold-applied and produce an extremely durable, high tack, continuous seal on asphalt joints.

Based on the success of the 1994 construction season and use of Tok Products, we can safely state that Tok has "taken hold" and will contribute to the expansion of our market in the years to come.



Tokband Spezial used to form an effective seal between a concrete curb and an asphalt reinstatement

in readiness for the 1994 construction season. This season usually begins in earnest in April and May of each year.

During 1994, the company was successful in obtaining sales of all Tok products currently in our range. We are presently supplying Tokband Spezial in 15mm (0.6") profile to the Region of Sudbury, as well as Tok Overbanding Tape and Tok Reinstatement Tape to



Tokband Spezial used to form a flexible seal between an iron manhole cover and the asphalt wearing course.

Denso solution for Cheyenne Stage 1 pipeline rehab

One of the nation's largest engineering firms, CH²M Hill, was hired by the City of Cheyenne, Wyoming to write specifications for rehabilitating a forty mile stretch of 26" diameter steel water pipeline. The pipeline was built in the 1960s to supply water to Cheyenne from pristine highland lakes in the Rocky Mountains. This ingenious system is completely gravity fed and incorporates a series of air release and blow off valves.

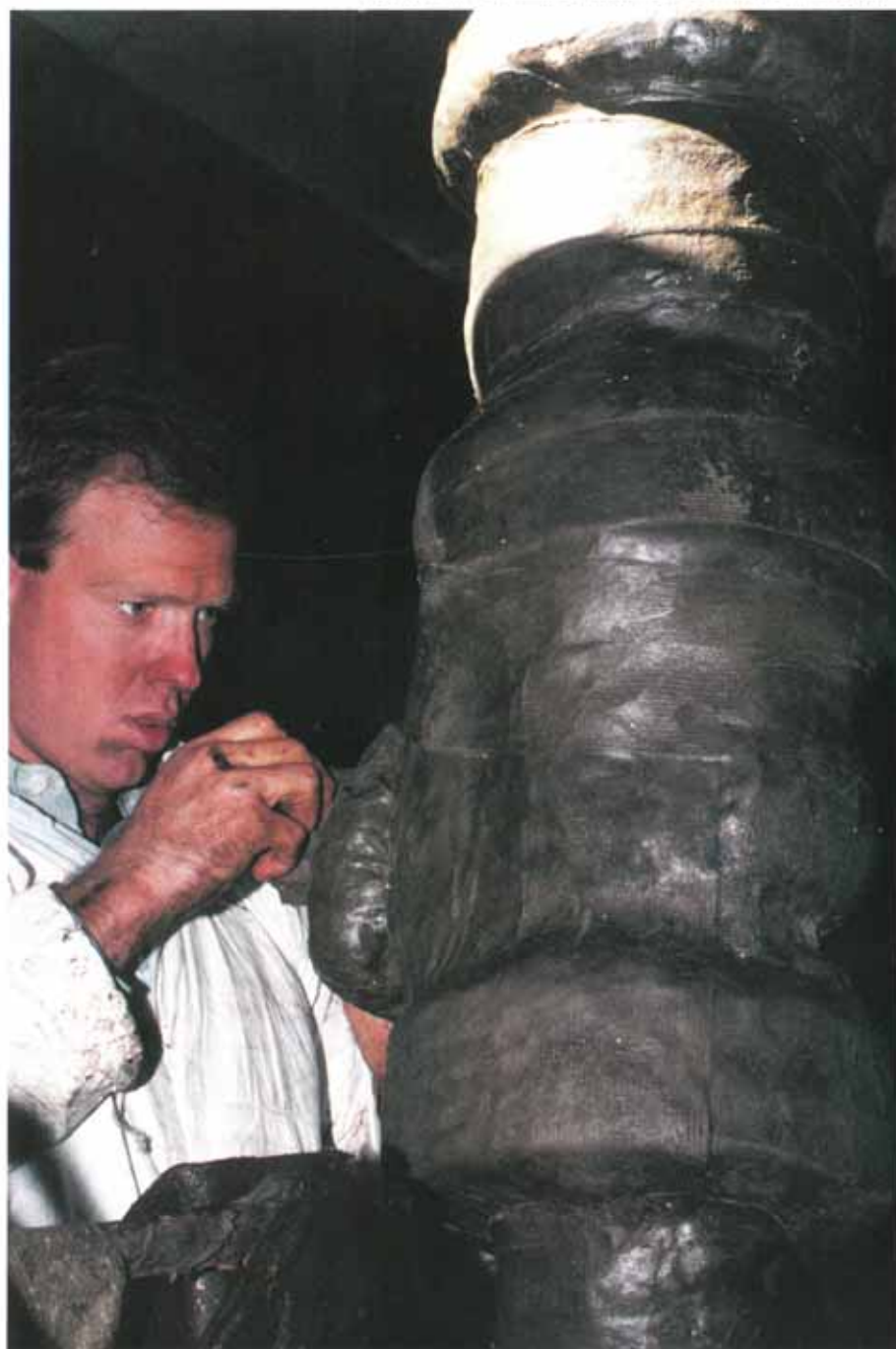
Complications arose in specifying the coating of the valves and fittings which were situated in concrete vaults. The vaults are located on hill tops and valleys in remote Southern Wyoming and many of the valves were partially submerged or underwater.

Therefore, a coating system tolerant to wet conditions and minimal surface preparation was needed.

Denso North America Inc was contacted to give a coating demonstration using our system, consisting of Denso Paste, Denso Profiling Mastic and Denso Petrolatum Tape. The engineers were impressed by the minimal surface preparation (hand tool cleaning) and the ability of the product to conform to the irregular surfaces, especially on partially submerged valves. The engineers and owners were satisfied that money could be saved in time and equipment using this system.

CH²M Hill specified the system and awarded the project to High Plains Construction of Wyoming. The contractor has successfully applied the Denso Petrolatum Tape System to over 100 valves and fittings.

Over 100 water valve assemblies were protected with the Denso Petrolatum Tape System.





The SeaShield Series 40 System was used to protect timber piles of Piers 13 & 14 at the New York Health & Racquet Club.

SeaShield Series 40 protects New York City piers

The consultant, Han-Pandron Associates and New York City Economic Development Corporation approved the SeaShield Series 40 System (patent pending) for Piers 13 & 14 in Manhattan, New York. The piers were built in the 1940s and currently contain tennis courts for the New York Health & Racquet Club. Over the years the timber piles received marine borer damage which threatened the structural integrity of the piers. This major rehabilitation project called for more than 25,000 lft. of timber piles to be protected with SeaShield Series 40.

The contractor, Brand Marine Services Inc, stated, "The system was diver friendly and provided a quality installation". The ease of application allowed the contractor to complete the installation ahead of schedule.

The SeaShield Series 40 System uses a proven, durable, u.v. resistant polyethylene outercovers. In this application the piles were protected with a

30 mil outercovers from two foot below the mud line to low tide line. The low tide line and above was protected with 60 mil outercovers to provide additional protection against the aggressive marine environment and accidental impact. A stagnant film of water is created between the pile and outercovers. This action kills the marine borer activity within the piling and



The SeaShield Series 40 Timber Pile Protection System.

those outside cannot penetrate the SeaShield barrier.

The outercovers were custom fabricated to accommodate diameter and length of piles, including bracing and support members. With the SeaShield Series 40 System, Denso North America Inc provided an effective and economic solution to the marine borer infestation of Piers 13 & 14.

Coating for offshore oil rigs

Britain is likely to be self sufficient in oil for some years according to experts. With production heading for another peak, analysts expect more than 90 new fields to be developed in the North Sea over the next 20 years. Six years ago Archco-Rigidon Ltd developed Rigspray to satisfy demand for a corrosion resistant coating providing many years protection for steel substrates subject to the most aggressive marine environments where abrasion and erosion are prevalent.

Typical areas requiring protection on gas and oil rigs are the splash-zones, riser pipes, under-deck areas, helidecks and main deck surfaces.

Rigspray is an isophthalic polyester glass flake filled system giving excellent corrosion, erosion and abrasion resistance. Corrosion resistance is obtained due to Rigspray's exceedingly low permeability to corrosive ions. It can be spray applied in a single coat application up to 1mm thick and its rapidity of cure drastically reduces maintenance down-time and costs.

Rigspray has been used on Amoco UK rigs such as 27 Alpha, 18 Bravo and Montrose on riser pipes and frames, it has also been used on Shell and BP rigs. The future potential of Rigspray looks very promising.



Spray application of Rigspray.



Sections of oil rig riser protection frames coated with Archco-Rigidon Rigspray material for Amoco.

SeaShield – 12 years of tests and trials

by Colin Bowley

In 1991 SeaShield International started to investigate alternatives to the bitumen laminate tape used as the armouring in the Denso Two Tape Pile Protection System, later to be known as the SeaShield Series 80 System.

A major user of Denso products in Japan was having great success using a pre-moulded glass reinforced plastic resin jacket (GRP or FRP) as a tough outer protection to the inner petrolatum tape wrapping (SeaShield Series 300 System).

In 1982 jackets, to a modified specification, were manufactured in the UK. Through our contacts with an engineer with responsibility for the maintenance of a pier on the south coast of England, we were allowed to install the jackets on two piles in the tidal zone, on the sandy beach under the pier. The two piles each have two jackets and are fully exposed and immersed twice a day. As well as colonisation by barnacles and



Series 300 System inspection June 1989.

of the GRP, they are in fine condition. Despite the undoubted good performance of the GRP armouring we have not been able to sell this system in the UK, the barrier being the relatively high cost of the system.

The following year we decided to investigate the use of off-the-shelf plastic sheeting from which to make outer armouring. The obvious choices were polyethylene, polypropylene and pvc. Again, the assistance of the pier engineer was enlisted and two piles were protected, one with pvc and one with polypropylene, both being coloured light grey. These two materials were chosen because they had a track record in the construction, chemical and food processing industries and were readily available in the 2mm thickness that we required.

As the installation was primarily to monitor the performance in harsh marine conditions, little thought was given to the securing system. Eventually we elected for a simple wrap-around sheet secured with 316 stainless steel

bands and buckles. After 11 years these two experimental installations are still in place.

Further development of SeaShield seemed to be linked by fate to this particular south coast pier. In 1981 new steel piles had been factory wrapped in the Denso Two Tape System and placed in previously bored holes at the top of the beach. These were to support a completely rebuilt pavilion that stood at the shoreward end of the pier.

The upper part of the beach consists of flint pebbles ranging from pea size to that of a man's fist. As a result of several extremely bad winters, with low temperatures and violent storms, six of the piles located at high water level had badly damaged wrappings. After discussions with the engineer we offered him a new armouring system that we had designed using 2mm thick polypropylene sheet secured with marine grade brass bolts, nuts and washers. A trial on one pile was organised and he agreed that if it withstood the battering of one winter's storms he would authorise its use on the six piles at greatest risk.



Series 200 System half buried in shingle.

The trial was successful and the following summer of 1984 saw the installation of the SeaShield Series 200 System on six piles. These covers withstood the onslaught for six winters and only finally succumbed to the attention of vandals armed with knives and crowbars.

In the autumn of 1984 a pile on the tidal beach, close to the previous trial



Series 300 System.

mussels, they have been subjected to storms and constant abrasion from wave borne sand. To date, apart from a dulling of the surface

installations, was protected with the SeaShield Series 200 System and again, to date, this is in excellent condition after 10 years.

The installations on the pier of various SeaShield developments have been made to monitor the mechanical performance of the systems. The anti-corrosion performance is not monitored as all the piles, apart from the new steel ones already mentioned, are Edwardian wrought iron. The efficiency of the petrolatum tape system for preventing corrosion in marine conditions has already been proven.

The pier structure stretches out over a sandy beach and has easy access at low tide, enabling test pieces to be placed easily and cheaply. Low levels of pollution give conditions for heavy marine growth, mainly barnacles and mussels, the S.W. aspect, facing into the English Channel, ensures severe winter storms with the associated abrasion from beach sand.



Series 200 System installation
December 1984.



Above installation inspection
November 1989.

has easy access at low tide, enabling test pieces to be placed easily and cheaply. Low levels of pollution give conditions for heavy marine growth, mainly barnacles and mussels, the S.W. aspect, facing into the English Channel, ensures severe winter storms with the associated abrasion from beach sand.



Series 80 System installed 1982.

As a result of the above work we gained a further trial installation for the SeaShield Series 200 System on an aggregate loading jetty that was subjected to a high level of beach sand abrasion. This installation has now been in place for 10 years with only minor damage to two of the beach level jackets.

Other long term trials carried out included monitoring the SeaShield Series 80 System. The full system was applied over a 2 metre length of pile at about mid-tide level so that it was completely immersed and dry



Series 80 System inspection July 1986.

twice a day. This installation was monitored for marine growth and abrasion damage.

The outer wrapping of bitumen laminate tape finally gave out after 6 years. It was virtually unrecognisable due to the amount of marine growth. The displacement of the outer tape had exposed the underlying petrolatum tape which was quickly eroded by sand abrasion.

When the SeaShield Series 100 System was developed we again used our trusty pier and beach to test out the Densorin Banding System.

As previously mentioned, the Series 200 System

succumbed to vandals, therefore we offered the engineer the fusion welded SeaShield Series 150 System with a 4.7mm thick polyethylene cover. This system was installed on the six high water level piles. The conditions were not ideal, it was February and half the 2 metre length of pile had to be excavated from the shingle. This involved scraping the stones back to form a saucer-shaped pit around each pile. We used the now redundant mechanical method for tightening the jackets before fusing. That was in 1992 and so far, the jackets have resisted the vandals.

Many other trials have been placed over the years. These include variations on bitumen laminate tapes for SeaShield Series 80; water catalysed resin tapes for armouring and novel securing systems for wrap-around plastic jackets. The pier and beach have proved so useful over the past 12 years that we will continue to use it for as long as we can for trials and developments.



Series 80 System at the end of its life.

Long-life protection of high pressure water mains

Yorkshire Water plc chose the Denso Covercoat System to give long-life protection to two large diameter high pressure water pipes at Crossflats, between Bingley and Keighley.



Denso Solvent-free Epoxy Coating is easily applied by brush.

The 42" and 48" pipes are part of the high pressure water mains system and emerge above ground for some 160 metres at the Crossflats valley bottom, where they are supported in parallel on reinforced concrete piers. The pipes were originally coated by the pipe supplier with a bituminous coating. As part of a recent maintenance programme, Yorkshire Water engineers had to decide whether to repair the original coating and repaint, or to select a long life protection system. They decided on the later as it offered the advantage of reducing future maintenance.

After looking at several systems, they chose Denso Covercoat, which consists of a reinforced tape wrap system overcoated with a two-pack solvent-free epoxy coating. Winn & Coales (Denso) Ltd carried out the work on a 'supply and fix' basis using specialist sub contractor JCM Civil Engineering.



Application of Denso Covercoat Tape

The completed Denso Covercoat System



Nu-Tank 400E System

The Nu-Tank lining system for potable water tanks was launched by Sprayglass International Ltd in 1991 and quickly became one of the most specified linings for this type of work.

The original lining system was glass mat reinforced, which was reflected in the price. To maintain our lead in an increasingly competitive market, a cheaper alternative was required.



Manual cleaning in progress.

Nu-Tank 400E was introduced at a more competitive price, yet retained all the excellent qualities of the original Nu-Tank system, giving us the opportunity to offer three linings with varying guarantees to cover every need.

A number of prestigious jobs have been secured and two of these are worth particular mention:

Sprayglass International Ltd have recently completed the lining of a large sectional tank for the John Lewis Partnership in London using the following system:

- Hand clean to remove flakes of rust and other loose material from the surface (blasting is not necessary).
- Apply one coat of Nu-Tank 400E primer which is specifically manufactured for manually prepared steel.



Application of stripe coat to edges and external angles.

- Apply stripe coat to edges and external angles to ensure correct thickness.
- Apply intermediate (cream) coat of Nu-Tank 400E.
- Apply second stripe coat as above.
- Apply Nu-Tank 400E topcoat (blue).

We have so much confidence in the system that we are able to offer a ten year guarantee.

Our second job involved the lining of a water tank on the roof of Arlington House in the West End. This is where Michael Caine stays when filming in the UK (not a lot of people know that!).

The management were so concerned that the residents should not come into contact with one of our operatives wearing dirty overalls that scaffolding was erected on the outside of the building so our men could gain access to the tank on the 13th floor.

A second stripe coat is applied after the application of the intermediate (cream) coat.



Final application of Nu-Tank 400E topcoat (blue).



South African innovations

South Africa's return to the Commonwealth during the latter half of 1994 coincided with the launching of major reconstruction and development projects which have stimulated the economy.

Real and meaningful cost savings by way of long term protection of capital assets such as buried steel pipelines and above ground steel structures are provided for industry by Denso South Africa (pty) Ltd with additional benefits of reductions in maintenance coating costs.

Based upon on-going research programmes, products manufactured at the Denso factory situated in KwaZulu - Natal, are constantly improved to ensure benefits for clients, market leadership and competitive advantage.

Recent development work has resulted in the improvement of buried pipeline tape wrap systems. Plastic backing films have been pre-treated in order to change the atomic structure to create a barrier layer which is totally resistant to oil and petrol spillage.

Thick 1mm heavy duty outer wraps are easily stretched under heat during application and shrink and fuse to double sided adhesive three ply inner wraps to form an extremely robust coating at an economical price.

Additional mechanical protection of the tape wrap via a new Denso Airshield system has been introduced. Airshield is extremely light in weight due to the construction of the air filled material and the 'cushion' effect ensures excellent resistance against rough handling and severe backfill conditions.

International patent rights for the novel hydrocarbon resistant CPT pipeline tapes

and Airshield products have been applied for.

A new corrosion prevention system for mounded LPG storage vessels has also been developed by Denso S.A.

Self-adhesive polymer modified Densotherm 30 requires minimal heat from a gas torch to achieve exceptional bonding properties to steel surfaces and to self. The product conforms to all awkward profiles and offers an overall thickness of 5mm average. The more robust Densotherm 40 system averages 7mm in thickness and is selected for projects where additional impact resistance is required.

Dome ends of the vessels are coated using a radial 'petal' pattern and Densoflex Acrylic is specified to provide u.v.



One of the two huge cranes based at a Nuclear Power Station in The Cape fully coated with the Fire Resistant Denso Covercoat System, which has a service life six times greater than conventional heavy duty paint systems applied to wire brushed steel surfaces. The crane project involved 12,000 m² of Covercoat and was selected by the S.A. Corrosion Institute as one of the top three outstanding coating contracts of the year.

Densotherm 30 Coating being applied to mounded LPG Storage Vessels for the Afrrox Project in the Transvaal.



pipes in Southern Africa. Blast cleaning is rarely a necessity prior to hand application of the Covercoat System, which sets to form a very tough but flexible coating averaging 2mm in thickness.

Cradles on road trailers are padded with Denso Airshield. Hundreds of kilometres of water and oil line-pipe coated and wrapped under controlled conditions with Denso CPT Tape Wrap Systems have been transported great distances to site without damage to the tape coating.

protection when the vessels are exposed to the sun for long periods.

The proven Denso Covercoat System, designed to provide a thirty year service life in aggressive above ground conditions, has been further improved with the introduction of fire resistant materials which self extinguish when subjected to open flame.

Covercoat protects thousands of tons of process plant steelwork and exposed service



Densoflex Acrylic provides U.V. protection.



Mobil LPG Bullets

In November 1993, two LPG Bullets were installed at Mobil Refinery, Pt Stanvac, Southern Australia. These LPG Bullets were 4.2 metres in diameter, 48.5 metres in length and mounted on web saddles supported by two concrete plinths. Instead of the usually specified liquid bitumen coating, the Denso Petrolatum System was chosen to afford the most complete anti-corrosion protection.



Bullets after whip blasting

The Denso Petrolatum System was specified due to its ability to handle possible soil stresses, remain intact during the expansion and contraction caused by the varying volume of LPG and its flexibility should the bullets move whilst buried.

The potential problems in wrapping vessels this size had to be resolved. After consultations between Denso (Australia) Pty Ltd, Mobil and the contractor, we were able to define the works procedure applicable to a job of this magnitude. Although the

Denso Petrolatum System is surface tolerant, a whip blast to Class 1 was specified. Once this was completed the wrapping proceeded.

The domed ends were tackled first, primer was applied, followed by strip application of Denso Tape. The tape ends were secured by the spiral wrap applied to the body of the vessel.

Due to the enormity of the job, only 13 metres could be completed in a 10 hour working day. The support saddles were the most difficult



Application to domed ends.

area to protect; it was expedient to wrap the main body of the vessel, leaving protection of the saddles until last.

The saddles were welded to plates and bolted to the concrete. The Denso Tape had to tie in with the main vessel wrap. This was achieved by following work procedure.

- Surface primed with Denso Primer.
- Denso Mastic applied to all corners and bolts within webbed structure.
- Strip application of Denso Tape with 55% overlap lifted and placed over substrate and then tied in to main vessel wrap.
- MP/HD Overwrap applied in same fashion and tied in to main vessel overwrap.

Once the bullets were fully wrapped, which took 3 weeks, the cathodic protection system was connected. Burying commenced with a fine washed sand mixed with clay to hold it in place. It took 8000 tonnes of sand and six weeks to completely bury the bullets. Once completely buried, the reventment mattress was placed over the sand and stitched. Final civil works were then completed.

Burying Bullets with fine washed sand, required 8000 tonnes.



Machine aided wrap

Man – Machine and Rockrap 3000 provided excellent protection for a 200 metre x 180mm OD spiral welded concrete lined aerial domestic sewer for Hamilton City Council.

Local contractors were a little sceptical about product adhesion due to the surrounding damp conditions. Obviously they were unaware that the temperature of swiftly



The protected domestic sewer line.



Close up of machine wrapped pipe.

perform, ensuring ease of tape application, constant tape tension and more importantly, uniform overlap widths.

Using copper mill slag the sandblasting team quickly and efficiently removed the old degraded coal tar coating and within minutes, Rockrap

Primer 'D' was applied. Wrapping commenced using the Densomat I machine. After slight tension and overlap adjustments, the contractor applied the Rockrap 3000 Tape with a 50% overlap and was soon wrapping 8.5 metres of pipe per hour.

The successfully completed contract was given final approval by Council engineers.

flowing domestic effluent gathering lines ran slightly warm in certain conditions driving away surface moisture and providing excellent dry pipe for primer application.

The team from Denso New Zealand Ltd arrived – one man – one machine and Rockrap 3000, completely confident the recently modified Densomat wrapping machine would

WINN & COALES INTERNATIONAL LTD

WINN & COALES (DENSO) LTD – LONDON

DENSO NORTH AMERICA INC – HOUSTON

ARCHCO-RIGIDON LTD – LONDON

DENSO NORTH AMERICA INC – ONTARIO

SPRAYGLASS INTERNATIONAL LTD – CRAYFORD

DENSO SOUTH AFRICA (PTY) LTD – DURBAN

DENSO (AUSTRALIA) PTY LTD – WEST BRUNSWICK

SEASHIELD INTERNATIONAL – LONDON

DENSO (NEW ZEALAND) LTD – AUCKLAND

SEASHIELD INTERNATIONAL – WEST BRUNSWICK



Winn & Coales (Denso) Ltd is a subsidiary of Winn & Coales International Ltd as are:
Archco-Rigidon Ltd, Sprayglass International Ltd, Denso International Pipeline Products Ltd,
Denso North America Incorporated, Denso (Australia) PTY Ltd, Denso (New Zealand) Ltd,
Winn & Coales Southern Holdings (PTY) Ltd.

Most Denso Products are covered by patents and the words "DENSO", "DENSYL",
"ARCHCO-RIGIDON", "DENSOPOL", "DENSOCLAD", "TOKSTRIP", "CORROKLAD",
"SYLGLAS", and "PROTAL", are registered trade names in the UK and many other countries.

