

Pipe Coating Solutions

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BREDERO SHAW

A SHAWCOR COMPANY

the GLOBAL LEADER in pipe coating solutions.

WHAT'S INSIDE

- Upcoming Events
- News Updates
- Key Projects
- New Products

IN THIS ISSUE:

NEWS UPDATE 3



CCT Celebrates 40 years 3



Qatargas HSE Day 3

KEY PROJECTS 4



EAR: Projects at Leith Facility 4



Canada: Alberta Clipper Project 5



Far East: Gumusut-Kakap Project 5

NEW PRODUCTS 6



Insul-8® AG 6



Rock Jacket® 7

CONTACT INFORMATION 7

PIPE COATING FACILITIES 8

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Upcoming Events

August

ONS
August 26 - 29, 2008
Stavanger, Norway

September

Rio Oil and Gas
September 15 - 18, 2008
Rio de Janeiro, Brazil

Oil Sands Tradeshow
September 23 - 24, 2008
Edmonton, Alberta, Canada

IPLOCA
September 29 - October 3, 2008
Athens, Greece

International Pipeline Expo
September 30 - October 2, 2008
Calgary, Alberta, Canada

October

APIA Conference and Expo
October 12 - 14, 2008
Perth, Australia

November

ADIPEC
November 3 - 6, 2008
Abu Dhabi, UAE

GASEX 2008
November 12 - 15, 2008
Hanoi, Vietnam

December

DOT
December 3 - 5, 2008
Perth, Australia



On the cover:

The cover photograph features pipes protected with Bredero Shaw's Rock Jacket® pipe coating. Rock Jacket® can now be coated globally in Bredero Shaw's mobile facilities. For more information on this product please refer to page 7.

NEWS UPDATE

Celebrating 40 Years of Compression Coat

In 1968, a new technology for applying a cementitious coating to rotating pipe started a revolution in the pipe coating industry.

Compression Coat was developed as a side-wrap concrete coating process that offers both negative buoyancy and mechanical protection for pipelines in submarine and wet environments. The process became the industry's leading system for concrete weight coating projects requiring rapid mobilization or coating near the right-of-way. The industry was quick to recognize that the new process, (known since under different names rotary concrete extrusion process, side-wrap process, wrap process, and compression wrap process) produced concrete coatings superior to those applied by other methods. As a result, many coating companies around the world today use processes similar to the original Compression Coat for their concrete weight coatings.

The Compression Coat is applied in one pass to produce a uniform coating with almost no material waste and tighter tolerances than those of other concrete coating processes. The original process is managed and improved on today by Compression Coat Technology (CCT), a new Bredero Shaw business unit created in May 2007. CCT and its predecessor company, Compression Coat, Inc. have continuously worked to expand this concrete coating process, with innovations including:

- Improving the equipment, process and related logistics to create the most mobile concrete coating plants in the world;
- Assessing new materials to enhance the performance of the coating, such as by-products of different industrial processes (slag cement, fly ash, heavy slags, etc.), steel fiber reinforcement, or hollow spheres for light weight concrete;
- Applying new products in the CCT plants - Bredero Shaw's Rock Jacket®, the mechanical protection system for onshore pipelines.

We would not be celebrating the 40th anniversary of Compression Coat without the dedicated people who created the process, developed the plant equipment and the concrete coatings, and managed increasingly complex concrete coating projects around the world. Some of these dedicated people who witnessed the exciting first years of Compression Coat are still working today to improve it and to transfer their valuable knowledge to those who will take the Compression Coat heritage into the future.



▲ CCT Team left to right: Pat Case, Bobby Ward, Betty Friedman, Jerry Grigar, Danny Ott & James Buchanan

Bredero Shaw Participates at Qatargas HSE Day

On June 18, 2008, Qatargas Operating Company hosted a Health, Safety and Environment Day in Doha-Qatar to raise awareness for HSE. As a valued partner, Bredero Shaw Middle East participated in this important event on invitation from J. Ray McDermott & Qatargas.

The event, inaugurated by Kerr Johnston, Chief Operating Officer of Qatargas 3 & 4 Joint Asset Development Team, brought together 24 exhibitors and over 1,500 visitors from across the oil & gas industry, as well as other organizations working in the HSE area. Following the event, Mr. Johnston personally thanked Bredero Shaw for its "enthusiasm and hard work in

demonstrating a real commitment to health, safety, and the environment."



After major mobilization activities in 2007, Bredero Shaw Middle East is currently executing two major projects for Qatar, namely Qatargas 3 & 4, a 130 km 38" pipeline & Shell Pearl GTL, a 129 km 30" pipeline, both for offshore application. The applied coating include both internal and external 3LPP & concrete weight coating. With active support from J. Ray McDermott and Qatargas 3 & 4, Bredero Shaw Middle East has been able to improve its safety performance in line with its Incident & Injury Free safety philosophy and culture.

KEY PROJECTS

New Coating Contracts Awarded to Leith Facility

Bredero Shaw was recently awarded two pipe coating contracts which will both be coated in Bredero Shaw's facility located in Leith, Scotland.

Baydaratskaya Bay

Bredero Shaw has received a contract from Gazprom with a value in excess of US\$20 million to provide three layer anti-corrosion and concrete weight coating for the subsea crossing of Baydaratskaya Bay. Baydaratskaya Bay is located in the southern part of the Kara Sea, along the coastline of the Yamal Peninsula in Northern Russia. The contract is for the coating of 20 km of 48" pipe and represents a section of one of several strategic pipelines that will move gas from the Yamal Peninsula to Europe. Bredero Shaw will be upgrading the Leith plant to coat this and other future large diameter pipeline projects. The contract is strategically important for Bredero Shaw given the size of the pipeline market in Russia and further enhances the leadership position Bredero Shaw holds within the global pipe coating market.



▲ Bredero Shaw's Leith, Scotland Facility

Gjøa Offshore Projects

StatoilHydro has awarded Bredero Shaw Norway AS with a contract to provide pipeline coatings for the company's Gjøa offshore projects in the North Sea. The contract is part of a Frame Agreement between StatoilHydro and Bredero Shaw Norway AS. Bredero Shaw will provide the anti-corrosion, internal, and concrete weight coating for the 130 km Gjøa gas pipeline, and the anti-corrosion and concrete weight coating for the 55 km of 16" Gjøa oil pipeline. The 28" pipeline will be installed from the Gjøa field and will be connected to the FLAGS trunkline system, while the 16" pipeline will connect the Gjøa field to the Troll Oljerør II pipeline. Bredero Shaw's facility in Leith, Scotland will provide the coating for this project, valued at over US\$30 million.

▼ Concrete weight coated pipes protected at Bredero Shaw's Leith Facility



Bredero Shaw Leith has a history of delivering projects of this kind on time and on budget. Mark Duns, its General Manager, says "We've historically been involved in some of Europe's largest concrete pipe coating jobs and are delighted to be able to participate in this project. We'll apply the highest standards to both the coating operation and customer service to ensure total customer satisfaction. Leith has an excellent reputation for delivering on good quality, on time and within budget, and we're looking forward to an increased order book over the coming years. Leith has always had a dedicated and conscientious workforce and we plan to expand this as a result of winning the Gjøa project."

KEY PROJECTS

Alberta Clipper Project

Enbridge's Alberta Clipper project is a crude oil pipeline that will extend from Hardisty, Alberta to Superior, Wisconsin, and is expected to be in service by mid-2010. The contract which is valued at approximately \$50 million was awarded to Shaw Pipe, a part of Bredero Shaw.

The project includes protecting approximately 1,600 km of 36" pipe with

fusion bonded epoxy anti-corrosion coating, as well as a dual-layer fusion bonded epoxy coating for sections of the pipeline requiring additional protection during construction. Shaw Pipe will also provide Enbridge with rail car loading services for the coated pipe.

Coating for the Alberta Clipper project will commence in the third quarter of 2008 at Shaw Pipe's pipe coating facility in Regina, Saskatchewan.



▲ FBE coated pipes protected at Shaw Pipe's Regina Facility

Gumusut-Kakap Deepwater Project

Bredero Shaw has received a contract with a value in excess of US\$35 million to provide pipeline coatings for Sabah Shell Petroleum Co. Ltd.'s (SSPC) Gumusut-Kakap Deepwater Project, located in the South China Sea, 120 km offshore Sabah. The contract has been awarded to Bredero Shaw (M) Sdn. Bhd. and the project will be executed at the Bredero Shaw facility in Kuantan, Malaysia.

The scope of the Gumusut-Kakap Deepwater Project requires 40 km of 18" pipe to be protected with fusion bonded epoxy (FBE) and Bredero Shaw's ThermoFlo[®] D insulation coating designed for water depths of 1,200 meters. Specialized processing equipment designed by Bredero Shaw will be mobilized and pre-qualification testing will be completed in December 2008. Upon completion of thorough simulated service testing, the ThermoFlo[®] D insulation coating application will begin by the end of the first quarter of 2009.



▲ FBE coated pipes protected for the Gumusut-Kakap Deepwater Project

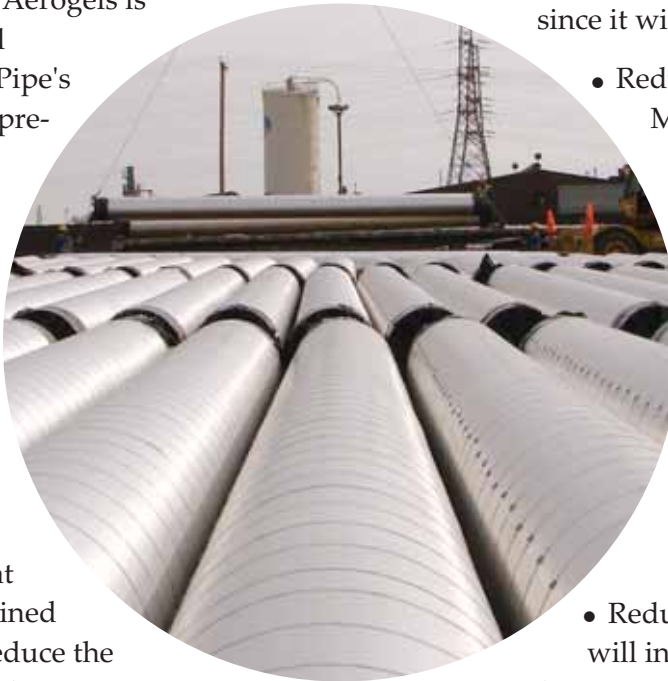
NEW PRODUCTS

Insul-8® AG Enters Oil Sands Market

As the Camrose, Alberta expansion begins another phase, new products like **Insul-8® AG** are positioned to service the growing Oil Sands market. Shaw Pipe has successfully entered into the above-ground pipe insulation market and it took a material with its roots in Aerospace to do it. Aspen Aerogels is providing its leading aerogel insulation material to Shaw Pipe's Insul-8® AG (above ground) pre-insulated pipe, which will reduce total installed costs, installation time and energy costs at the Athabasca Oil Sands reserve in Northern Alberta, Canada.

Pre-insulated pipe is expected to significantly reduce site insulation labour costs and be faster than insulating the pipe in place at the congested, space-constrained Oil Sands sites. It will also reduce the project impact on site traffic that is in close proximity to the pipeline right-of-way.

Insul-8® AG pre-insulated pipe contains Pyrogel® insulation manufactured by Aspen Aerogels. Pyrogel® is supplied in bulk rolls resembling a felt material that is wrapped onto the bare pipe by Shaw Pipe. The increased thermal performance achieved by using Pyrogel® will give the end user the option to eliminate electric heat tracing on pipelines, saving both capital costs and operating expenses (depending on thickness) and extend cool-down windows which are critical for maintenance. End users can also receive coated pipe with heat tracing. Since Aerogel is more efficient than traditional pipe insulation, customers will also see significant energy savings on these sections of pipe.



Insul-8® AG delivers the following benefits:

- Space and weight savings: Aerogel is thinner and lighter than any other insulation, which will enable the pipe to fit in space confined areas. There will also be minimal freight cost for the insulation, since it will be transported on the pipe.
- Reduced impact on site traffic: Materials and workers for insulating the pipe will be off site at Shaw Pipe's facility in Camrose, Alberta.
- Reduced scaffolding: There will be minimal scaffolding requirements.
- Minimized heat loss: Utilizing bolt-on pipe supports in place of welded shoes will reduce heat loss.
- Reduced weather impact: Shaw Pipe will insulate the pipe indoors, eliminating weather-related schedule delays.
- Pyrogel® is hydrophobic; having little or no affinity for water.
- Minimizing of waste disposal and environmental impact.

▼ Aspen Aerogels' Pyrogel® Insulation



NEW PRODUCTS

Rock Jacket® Global Launch

On May 1, 2008 Bredero Shaw officially launched Rock Jacket®, its mechanical protection system for onshore pipelines in markets outside Canada and Australia.

Rock Jacket® is a coating system that was developed to offer excellent mechanical protection to the anti-corrosion coating and the steel pipe of onshore pipelines with the lowest total installed cost, installation time and environmental impact in the industry. Rock Jacket® is a plant-applied reinforced concrete pipe coating that is ideal for rocky terrain, rough terrain configurations such as steep slopes, for road and river crossings, and pipe dragging applications. It has been designed to be buried directly in blasted out rock trenches without the use of other costly protective products and works well for both small and large diameter pipelines.

Although it has proven to be an exceptional mechanical protection solution in hundreds of projects, the growth of Rock Jacket® was previously restricted by the geographical availability, as it was offered only in the markets around the permanent coating facilities in Edmonton, Canada and Kembla Grange, Australia, and by the maximum pipe diameter that could be coated. Continuous product development efforts of the Bredero Shaw and ShawCor teams have recently removed the existing restrictions, ultimately creating a new product. Rock Jacket® can now be applied in the Bredero Shaw mobile plants anywhere in the world for pipe diameters up to 36". A current development project aims to offer Rock Jacket® for the largest pipe diameters in the market.

Bredero Shaw has developed an extensive kit of sales and customer education support materials and has finalized the product training for its business development, marketing and operations teams. The company will now focus on acquiring the first Rock Jacket® projects and on introducing the system's benefits to pipeline owners, engineering companies and contractors in the new markets.



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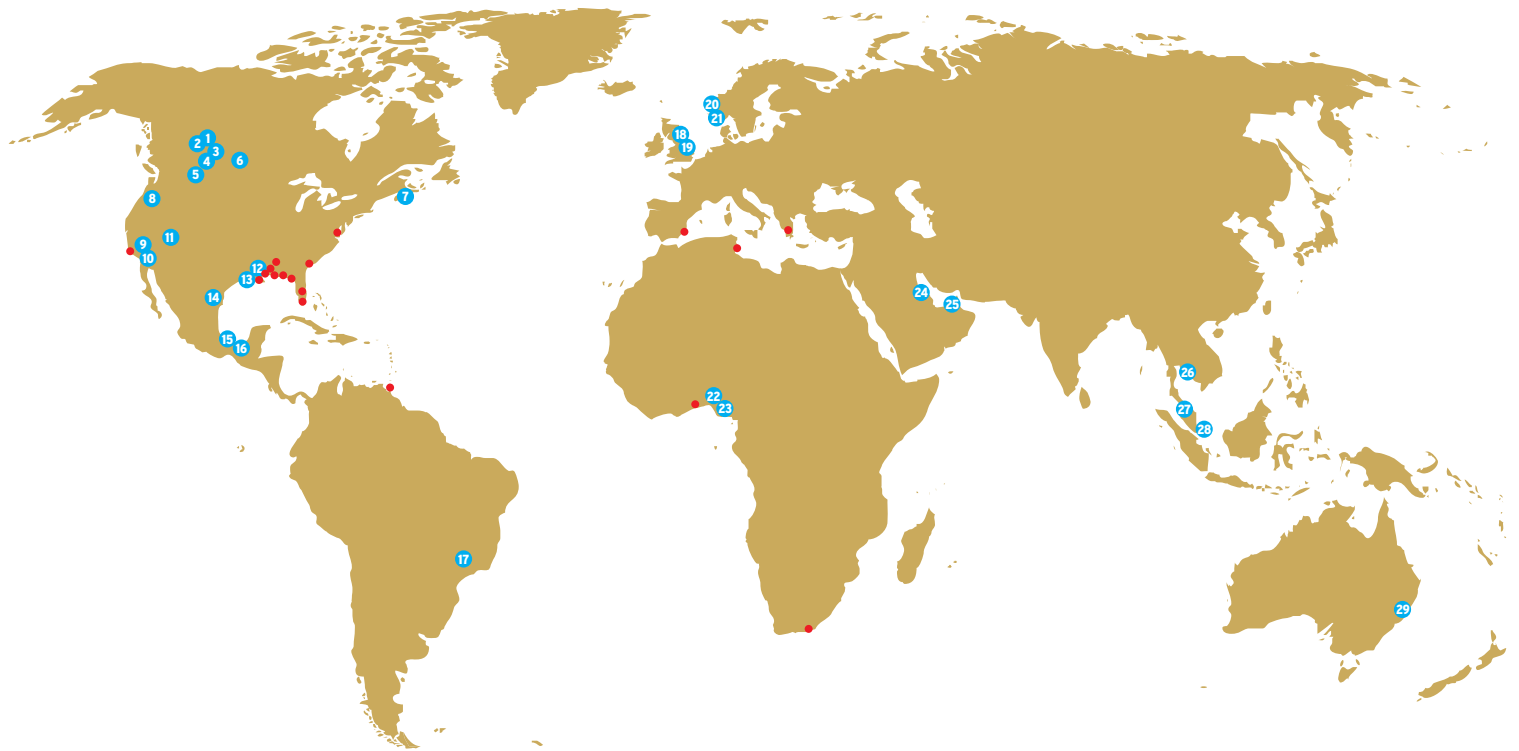
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The World's Leading Pipe Coating Facilities



- **PAST MOBILE FACILITIES**
- **PLANTS**

AMERICAS

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2. 21st Street, Edmonton, Alberta
3. Camrose I, Camrose, Alberta
4. Camrose II, Camrose, Alberta
5. Calgary, Alberta
6. Regina, Saskatchewan
7. Sheet Harbour, Nova Scotia
8. Portland, Oregon
9. Adelanto, California
10. Fontana, California
11. Vineyard, Utah
12. Beaumont, Texas

13. Pearland, Texas
14. Monterrey, Mexico
15. Veracruz, Mexico
16. Coatzacoalcos, Mexico
17. Belo Horizonte, Brazil

EUROPE / AFRICA / RUSSIA

18. Ellon, Scotland
19. Leith, Scotland
20. Orkanger, Norway
21. Farsund, Norway
22. Enerhen/Warri, Nigeria
23. Onne, Nigeria

MIDDLE EAST

24. Jubail, Saudi Arabia
25. Ras Al Khaimah, UAE

ASIA PACIFIC

26. Rayong, Thailand
27. Kuantan, Malaysia
28. Kabil, Batam Island, Indonesia
29. Kembla Grange, Australia

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