

### SOLUTIONS FOR ENGINEERED PRODUCTS



# **ENGINEERING SOLUTIONS**









ROADS & BRIDGES RESERVOIRS

**METRO** 



www.bigblue.qa

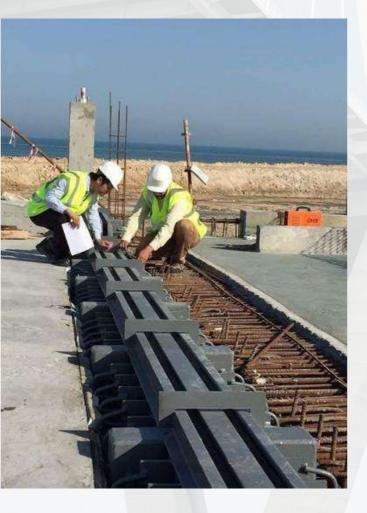
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# WHO WE ARE



Big Blue located in Doha – Qatar is one of the leading suppliers specialized in promoting structural solutions, safety gears & tools under the management of highly qualified, experienced and trained professionals. Big Blue prides itself on implementing engineering solutions that achieves our client's objectives, and is environmentally sustainable to wider domains, including oil & gas, buildings, infrastructure sectors. Our business is founded on the principles of completing customer service and quickening the delivery of products.

Big Blue has collaborated with world's best manufactures, for all complex solutions for infrastructure and real estate projects. Whether hospitals, tunnels or bridges, stadiums, metro projects or event buildings, airports, high-rise buildings or shopping malls, express ways, power plants or wastewater treatment plants – Big Blue shall provide solutions for building the Qatar of tomorrow.



## WHAT WE DO

Our products are widely used in Tunnels, Roads & bridges, High Rise Buildings, Stadiums, Car Parks etc. Few of our products, includes, but not limited to are: Shear Connectors, Zemdrain Liners, Galvanized dowels, Epoxy Coated dowel bars, SS dowels, SS rebars, Bearings & Expansion Joints, Geo Textile, Concrete Spacers etc...

Big Blue develops a close working relationship with each client, fully understanding their needs and employing innovative, cost effective, and practical solutions. Very often our team works as an integral part of the client/project team.

We are committed to delivering the right solution to meet each client's individual needs, Big Blue is the right partner for all your structural engineering requirements.

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# **PRODUCT PORTFOLIO**

STAINLESS STEEL REBARS STAINLESS STEEL DOWEL BARS EPOXY DOWEL BARS GALVANIZED DOWEL BARS PTFE SLIDING PLATES (BEARINGS) SHEAR RAILS (PUNCHING SHEAR) SHEAR FORCE DOWELS SAFETY GEARS



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### **PROJECT PORTFOLIO:**

Since 2012, BIG BLUE has contributed to various infrastructure projects across Qatar serving major clients like Qatar Energy LNG, Ashghal, Kahramaa, Qatar Armed Forces, PEO, Hamad International Airport and many other private customers.



PRODUCT: SS REBARS PROJECT: NORTH FIELD EXPANSION VALUE: USD 3,725,489.00



PRODUCT: SS DOWEL BARS PROJECT: AL KHOR EXPRESSWAY VALUE: USD 117,701.00



PRODUCT:EPOXY COATED DOWEL BARS PROJECT:HAMAD INT'L AIRPORT VALUE: USD 2,502,178.00



PRODUCT: SS REBARS PROJECT: EAST CORRIDOR VALUE: USD 1,143,699.00



PRODUCT: SS DOWEL BARS PROJECT: NEW ORBITAL HIGHWAY VALUE: USD 128,287.00



PRODUCT: SS DOWEL BARS PROJECT: AL WAKRAH BYPASS VALUE: USD 90,367.00



PRODUCT: SHEAR FORCE DOWELS PROJECT: MEGA RESERVOIR VALUE: USD 1,027,528.00



PRODUCT: SS DOWEL BARS & SS REBARS PROJECT: UPGRADE OF RAYYAN ROAD VALUE: USD 705,368.00



PRODUCT: SS DOWEL BARS PROJECT: UPGRADE É'RING ROAD VALUE: USD 117,516.00

MODULAR BRIDGE EXPANSION JOINTS BRIDGE AT USHERIJ VALUE: USD 23,287.00



PRODUCT: SS DOWEL BARS PROJECT: DOHA METRO GREEN LINE



PRODUCT: SS DOWEL BARS PROJECT: DUKHAN EAST CONTRACT VALUE: USD 117.516.00



## **PRESS RELEASE**



Dowel bars are used in expansion joints for the movement of lateral loads and manage stress within a joint. (Image Source: Outokumpu)



 One of the mega reservoirs at a distance. They will be filled with drinking water beginning in 2020. © Big Blue Trading and Contracting



The interior of one of the reservoirs under construction. A green Fusion Bonded Epoxy (FPE) coating protects the steel reinforcing bar against corrosion. © Big Blue Trading and Contracting

Habtoor Leighton Group (HLG), contractor for PRPS 3 and Big Blue, has made a supplier agreement to use stainless steel dowel bars manufactured by Outokumpu for the Mega Reservoirs PRPS-3 at Rawdat Rashed in Qatar

Outokumpu's bars will be supplied in grade Supra 316L/4404 to be used in the expansion joints for rafts and walls of the reservoirs.

Outokumpu will provide 350 MT of round stainless steel dowel bars for the reservoirs. These bars will be debonded and movements are allowed by specially manufactured sleeves by Big Blue, which includes uPVC pipe, compressible filler and end cap. One half of the dowel is embedded into concrete while the other half is debonded to allow the movement at the expansion joints.

### The role of a dowel bar

A dowel bar is a smooth round bar that transfers load uniformly across joints in concrete construction, while still allowing the adjacent concrete slabs to expand and contract independently of one another. Half of the dowel bar is firmly embedded into one concrete slab, while the other half is in a specially designed plastic



 Image: © Big Blue Trading and Contracting

concrete slab. Known as debonding, this allows the dowel bar to move freely in the sleeve with the expansion and contraction of the slabs. The sleeves consist of uPVC pipes that contain half the dowel bar, compressible filler, and an end cap. Once the finished dowel bars are in place, corrosion resistance is crucial as access for maintenance would be complex and costly.

### Supplying water in the desert

Qatar, which the World Resource institute lists as the world's meet water-stressed country, is currently building a number of mega reservoirs to ensure a safe water supply for its growing population. Molybdenum-costaining stainless steel dowel bars are heiping to taskie this incredible challenge.

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## **PRESS RELEASE**



Courtesy: Oatar Tribui

### PICE-Qatar hosts seminar at Oryx Rotana

THE Philippine Institute of Civil Engineers in Qatar (PICEQatar) organised a seminar on 'Fundamentals of Material Testing' at the Oryx Rotana Hotel, recently.

The event, organised in line with group's programme of continuous professional development of its members, was attended by 83 Filipino civil engineers.

The seminar was partly sponsored by Big Blue Trading & Contracting company. Big Blue, which is in partnership with Max Frank, Germany, also provided a bit of product presentation and lectures on 'Durability of Concrete' by David Wilson, 'Reinforcement Technology' by Andy Gibs and 'Unison Expansion Joint' by Bernie Scott. PICE-Qatar is one of the many Filipino organisations in the country. Its primary objective is to support the continuing professional development of its members through education and training. Formed in 2007, it currently has 1,500 active members.

### A few words from the project team

Dr. Steve Jones, commercial manager at Outokumpu, outlined some of the challenges faced when asked to supply the dowel bars for one of the reservoir sites. "We were approached with a demanding set of performance requirements. The dowel bars are exposed to a range of temperatures and corrosive environments. Molybdenum containing stainless steel is a must for this type of application". The 2% molybdenum content in Type 316L stainless steel ensures good resistance to corrosion and a very long service life. Waseem Ameen, Managing Director at Big Blue, the engineering company in charge, describes why Type 316L dowel bars were used. "We needed to be confident that we were using the appropriate grade of stainless steel that would give optimum performance and withstand the rigorous conditions within the challenging environment. The dowel bars will be required to perform without maintenance for many years to come, ensuring the mega reservoirs will supply water reliably to Qatar for the next century and beyond". These massive mega reservoirs will support water security in the most waterstressed country in the world. Their construction is an engineering triumph, unparalleled anywhere. Molybdenum plays a crucial role in ensuring the longevity of the giant concrete tanks, which will supply Qatar with potable water for many decades to come.

### About IMOA

IMOA is a non profit trade association representing the majority of the molybdenum industry worldwide. IMOA works in the interests of our members to develop and maintain access to markets. For information see: www.imoa.info

**OUR LOCATION** 

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