



Qatar German Pipes Company W.L.L.



About Qatar

Qatar - beautiful and bountiful, has become one of the most exciting countries in the Middle East. The State of Qatar continues to surge forward as the place to be. With a predominantly young population, an expanding economy and the soon to be host of the 2022 Fifa World Cup, Qatar has captured the world's imagination.

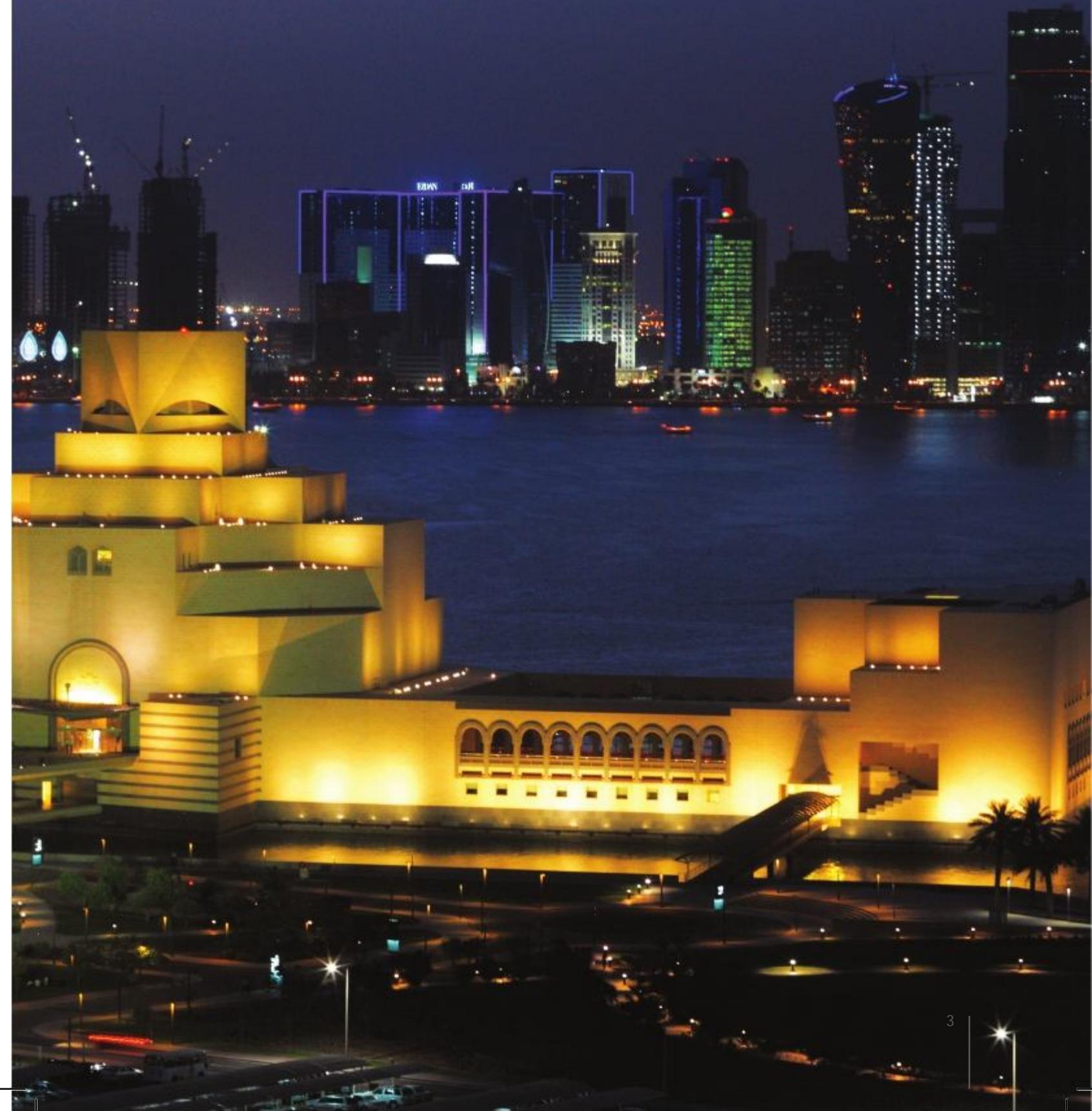
A member of the six-nation Gulf Cooperation Council, Qatar has played host for events for the World Trade Organization and the Organization of the Islamic Conference, as well as a successful Asian Games in 2006. It is one of the most ambitious and far reaching centers for education and research in the Middle East.

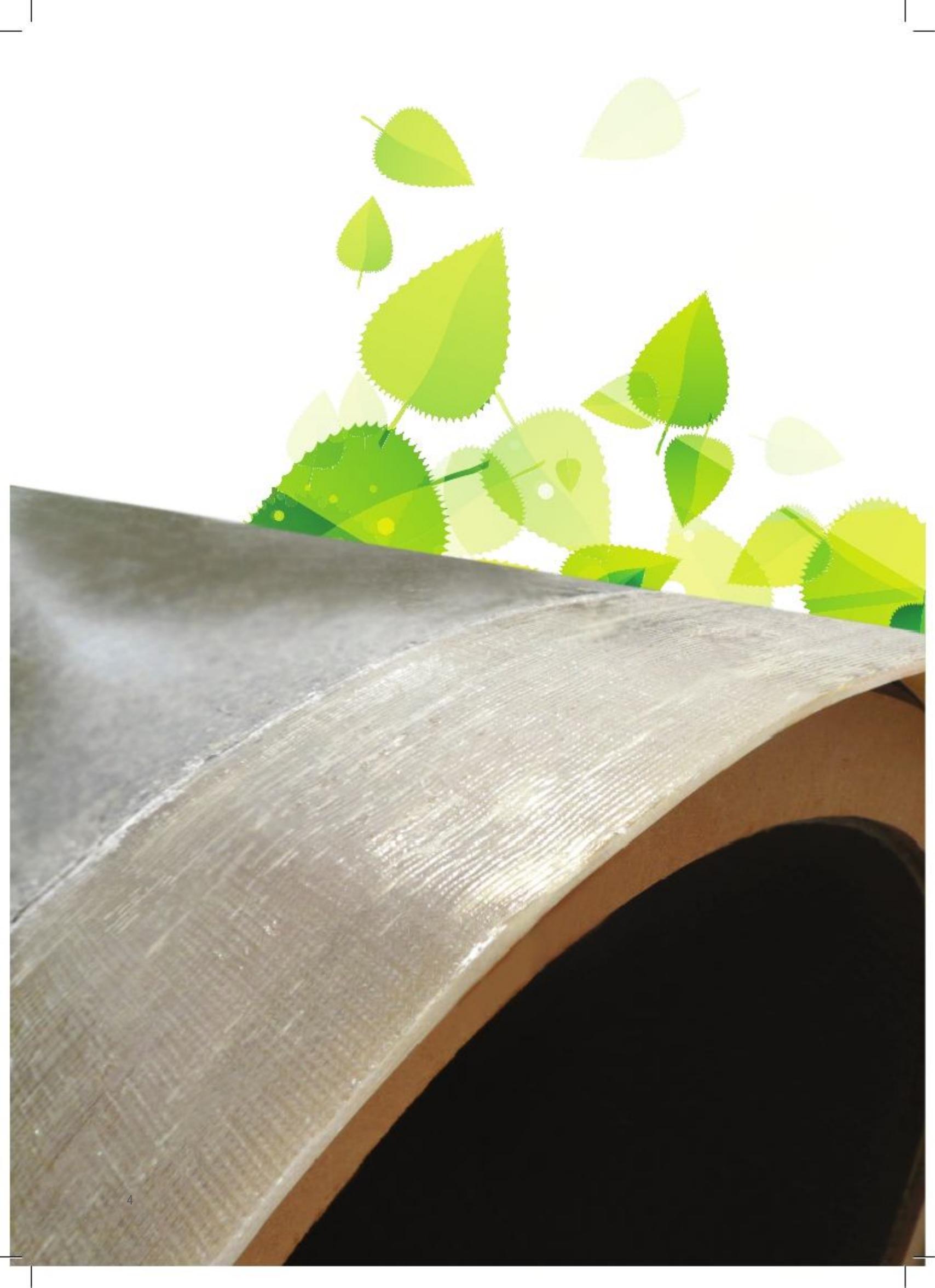
Qatar's rapid growth is evident in the expansion of industrial complexes, the vast selection of shopping complexes, hotels, sports facilities and the boom in construction all across the state.



A peninsula of some 5,000 square miles, Qatar has a landscape of sand dunes in the south and flat, rocky desert with scattered cultivation in the north. The climate is mild and pleasant in winter with occasional rainfall, while the summers are hot and frequently humid.

Rich in history and culture, Qatar continues to blend old world traditions with modern living. For centuries, economic activity centered on camel breeding, fishing and pearl diving. In the twentieth century, the economy was transformed by the discovery of oil and, later on, of vast reserves of gas off the northeast coast.





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HOW THE IDEA INVOLVED?

The idea sprang up in our mind when we saw the product. The product is very special from many angles. It is eco friendly. The technology used in the manufacture of the product has a track record of 35 years during which it has proved its competence. No cement or water is used in its manufacture. Consequently, it saves Cement as well as water which is scarce in the region and large cost is needed for its extraction. On the other hand 90% the raw materials used in the manufacture of the product is local. The remaining 10% is produced in the GCC countries. Moreover, nobody has established such a project in Qatar before.

The product is eco friendly. No waste is left after its manufacture. No harmful chemicals are used. The great leap in the development in Qatar especially and in the GCC countries in general and the true directions of the State in supporting and expanding the base of small and medium scale industries are the factors that helped make up our mind to take the steps required to establish the project that can contribute to filling the need for the product by providing it locally rather than importing from foreign countries.

HOW THE COMPANY WAS FORMED?

Qatar German Pipes Co. (QGPC) was established by virtue of Ministerial decree no. 2121 licensing industrial project issued by the Ministry of Industry and Energy and a Commercial license no. 37683. It is owned 95% by Qatari part and 5% by German part. After establishment of QGPC the next step was to choose the company that has the technology. Meyer Rohr + Schacht (MRS) was chosen. MRS is the forerunner in manufacturing polymer concrete jacking pipes globally. An agreement was signed with MRS to use the technology and to supply the equipments and machinery required for the establishment of the factory. The project has acquired the support and financing of the Qatar Development Bank.

The production capacity of the factory is 50,000 tons per year. The actual production is expected to start in April 2011. The factory is hoped in short time to achieve the international quality accreditation which will help it to enter various markets. The product is used in the drainage projects especially where micro tunneling jacking pipes are used.





Pipe Green™ Jacking Pipes

Quality and Safety Above All

Underground pipe jacking requires high quality pipes and successful safe installations: PIPE GREEN™ jacking pipes are corrosion resistant and provide the very high axial compressive strength required for jacking. PIPE GREEN™ jacking pipes are made of aggregate and polyester resin with properties and dimensions specified in German Standard DIN 54815.

MICROTUNNELLING, The Technology For The Future.

Successful Pipe Installations depend on Quality Pipe

Microtunnelling technology has developed rapidly in recent years and reached a high standard worldwide because it is environmentally friendly and cost-effective. Microtunnelling projects to be successful require high-quality, high strength jacking pipes which are easy to install.

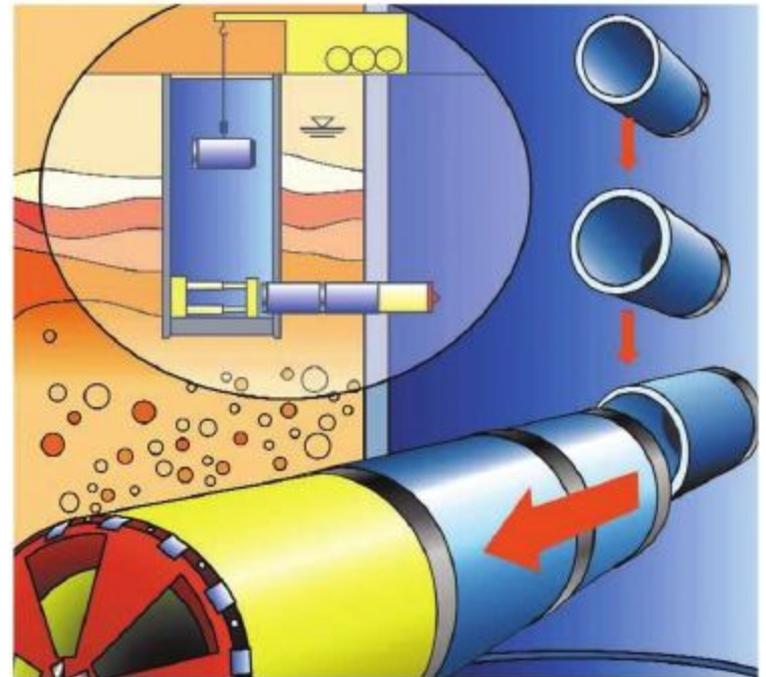
Polymer Concrete – the ideal Sewer Material

PIPE GREEN™ jacking pipes by QGPC are made up of aggregate, filler and polyester resin. Cement and water are not used. Polyester as bonding agent provides excellent resistance to corrosion. The material properties and dimensions are specified in German Standard DIN 54815.

The material is commonly called polymer concrete (PRC). This composite material conforms with DIN 16946, part 2, type 1140. The homogeneous bond of resin and aggregate materials combine to provide very high axial compressive strengths and bending strengths with a thinner wall thickness and less weight than other jacking pipes.

Other Advantages of the Material include:

- Polyester is extraordinary resistance to most acid and caustic solutions
- The quartz aggregate resists chemical attack
- The material structure is capillary-free and does not allow water absorption or gas diffusion.



These features make PIPE GREEN™ jacking pipes resistant to sewage, gases, corrosive solutions, and aggressive soil (pH range 1.0 to 10).

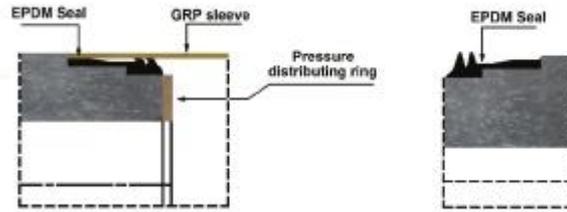
The PIPE GREEN™ Jacking Pipe

Pipes are manufactured in 1, 2 or 3 meter lengths depending on pipe diameter and jacking equipment requirements. Connections to manholes are manufactured in shorter lengths in accordance with the requirements of the client.

Production in metal molds ensures accurate size and smoothness of the interior and exterior pipe surfaces. The inner pipe diameter is identical with the nominal diameter (DN). The outer pipe diameter is compatible with most standard microtunnelling and jacking equipment and can be adapted to meet specific structural requirements and machine sizes.

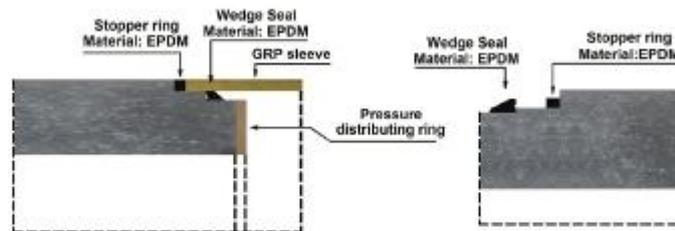


PIPE GREEN® Jacking Pipes DN 400 - DN 1143



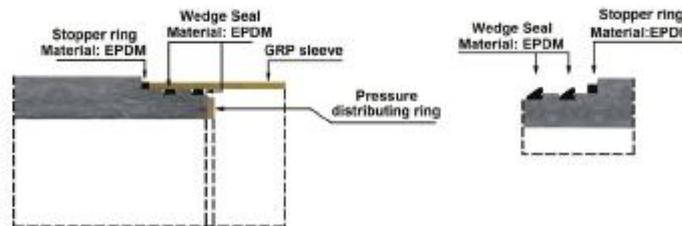
internal diameter		external diameter		wall thickness		length		permitted compressive force			pipe weight	
mm	in.	mm	in.	mm	in.	m	ft.	t	kN	sh. in.	kg/m	lbs./ft.
400	15,7	550	21,7	75	3,0	1 and 2	3,3 and 6,6	150	1500	169	249	167
482	19,0	622	24,5	70	2,8	2,44	8	150	1500	169	269	181
500	19,7	660	26,0	80	3,1	2	6,6	190	1900	214	324	218
534	21,0	674	26,5	70	2,8	2,44	8	167	1670	188	300	202
600	23,6	760	29,9	80	3,1	2	6,6	224	2240	252	380	255
700	27,6	860	33,9	80	3,1	2	6,6	240	2400	270	435	292
762	30,0	942	37,1	90	3,5	2,44	8	350	3505	394	535	359
800	31,5	960	37,8	80	3,1	2	6,6	272	2720	306	490	329
900	35,4	1100	43,3	100	3,9	2	6,6	448	4480	504	700	470
932	36,7	1120	44,1	94	3,7	2,44	8	404	4045	455	680	457
1067 I	42,0	1295	51,0	114	4,5	2,44	8	648	6480	729	950	638
1067 II	42,0	1321	52,0	127	5,0	2,44	8	744	7440	837	1070	719
1143	45,0	1403	55,2	130	5,1	2,44	8	841	8410	946	1175	790

PIPE GREEN® Jacking Pipes DN 1000 - 1800



internal diameter		external diameter		wall thickness		length		permitted compressive force			pipe weight	
mm	in.	mm	in.	mm	in.	m	ft.	t	kN	sh. in.	kg/m	lbs./ft.
1000	39,4	1184	46,6	92	3,6	3	9,8	414	4140	466	700	470
1200	47,2	1482	58,4	141	5,6	3	9,8	570	5700	641	1327	891
1400	55,1	1720	67,7	160	6,3	3	9,8	740	7400	833	1750	1175
1600	63,0	1940	76,4	170	6,7	3	9,8	895	8950	1007	2100	1410
1800	70,9	2160	85,0	180	7,1	3	9,8	1072	10720	1206	2500	1678

PIPE GREEN® Jacking Pipes DN 2000 - DN 2600



internal diameter		external diameter		wall thickness		length		permitted compressive force			pipe weight	
mm	in.	mm	in.	mm	in.	m	ft.	t	kN	sh. in.	kg/m	lbs./ft.
2000	78,7	2390	94,1	195	7,7	3	9,8	1330	13300	1496	3000	2013
2200	86,6	2630	103,5	215	8,5	3	9,8	1670	16700	1878	3700	2483
2400	94,5	2870	113,0	235	9,3	3	9,8	2060	20600	2317	4450	2987
2600	102,4	3100	122,0	250	9,8	3	9,8	2415	24150	2717	5200	3491

QUICK CONNECTIONS.

Manhole Connections

For diameters up to DN 800 and lengths of 1 to 2 meters pipe jacking from round shafts is usually preferred.

Rectangular shafts are predominantly used for larger pipe diameters or longer lengths of pipe. Installing manholes at the insertion and reception shafts is very costly, especially for large diameter pipe. It is more economical to install PIPE GREEN™ prefabricated manholes featuring the same properties as the PIPE GREEN™ jacking pipes.

PIPE GREEN™ prefabricated manholes are installed in the insertion and reception shafts. The manholes have standard-size connection sleeves. The remaining space between the jacking pipes and a manhole is usually bridged by a closure pipe and a push-on tightening sleeve.

House Connections

House connections are made directly to the sewer. Bells and spigot ends of standardized pipe materials are typically used. The necessary tapping can be made using commercial core drilling equipment.

Pipe jacking of house connections (sewer laterals) makes economic sense if the house connections can be made from the same shaft used for the jacking of the sewer.

The complete System:

- Reinforced concrete insertion and reception shafts DN 2000 - DN 3200
- PIPE GREEN™ jacking pipes DN 400 - DN 900 for microtunnelling
- PIPE GREEN™ jacking pipes DN 1000 - DN 2600 for microtunnelling
- PIPE GREEN™ jacking pipes DN 800 - DN 1800 with kite shaped cross-section
- PIPE GREEN™ manholes DN 1000 - DN 2600

The complete system is available from a single source offering easy and quick coordination of supplies.



MICROTUNNELLING - THE TECHNOLOGY FOR THE FUTURE.

RELIABLE AND SAFE.

PIPE GREEN™ jacking pipes meet the requirements of Standard A 125 of ATV (German Association for Water Pollution Control). This standard requires parallel pipe ends perpendicular to the pipe axis. This is guaranteed by milling each individual pipe. Parallel pipe ends perpendicular to the pipe axis ensure an even distribution of jacking forces over the entire pipe wall. The exterior pipe surface is very smooth which lowers friction during pipe jacking.

Pipe quality is monitored in accordance with the Quality Control and Testing Regulations of Deutsche Bahn AG (German Rail) by MPA NRW (Material Testing Institute of North Rhine-Westphalia, Germany).

Upon receipt of an order QGPC prepares the static calculations based on ATV-Standard A 161. The installation requirements should be indicated in as much detail as possible. Please ask for QGPC's form „LOAD DATA for PIPE GREEN™ Jacking Pipes conforming to DIN 54815“.

Jacking Pipe Joints

A sealing element and a guide sleeve make up the jacking pipe joint. For diameters up to DN 1143 the sealing element is fixed to the pipe and the guide sleeve is a floating element. For larger diameters the sealing element and the guide sleeve is fixed to the pipe. Only materials specified by ATV-Standard A 125 are used for seals and guide sleeves. The quality of the pressure distribution ring is essential for the even distribution of axial forces on the pipe.

Chipboard or knot-free soft wood rings are used to distribute the jacking forces on the end of the pipe. The pressure distribution rings are supplied with the pipe and can be installed on request.

THE FULL RANGE.

PIPE GREEN™ Jacking Pipes DN200 – DN900 for Microtunnelling

With PIPE GREEN™ jacking pipes it is possible to microtunnel two manhole reaches at one time – with subsequent installation of a manhole midway between the two manholes. The superior capacity of PIPE GREEN™ jacking pipes to carry high compressive loads allows this time and cost saving procedure. A steel sleeve provides the optimum in safety for a flawless pipe connection, even with unfavorable ground conditions.

PIPE GREEN™ Jacking Pipes DN 1000 – DN 2600

The high jacking load capacity of PIPE GREEN™ jacking pipes makes very long drives possible. To achieve still longer drives intermediate jacking stations are used. For PIPE GREEN™ jacking pipes we supply intermediate jacking stations, including the specially designed leading and trailing PIPE GREEN™ interjack pipes, the steel guide collar, and the steel and wooden pressure distribution rings. Intermediate jacking stations can

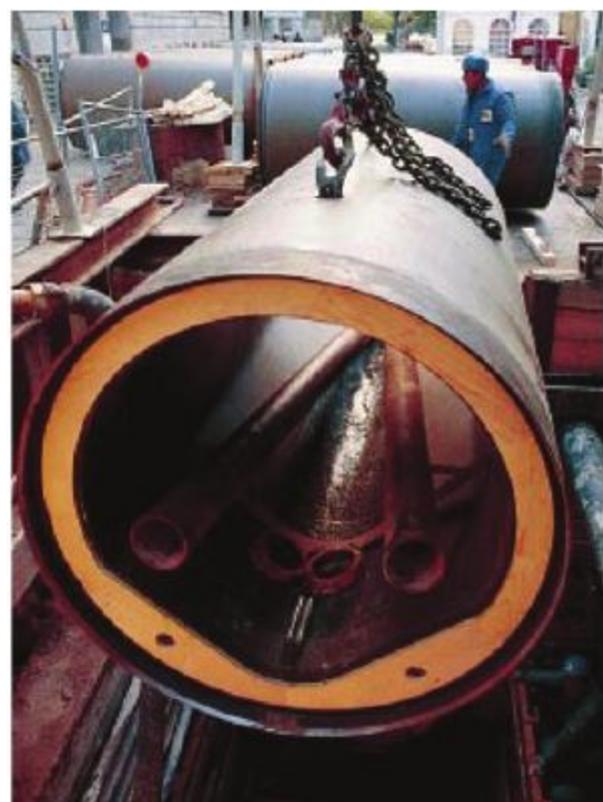
also be made to customer specifications. The microtunnelling/jacking equipment supplier will provide the hydraulic jacks.

Bentonite is usually injected through injection nipples in the pipe wall to reduce surface friction. The injection nipples are installed in the PIPE GREEN™ jacking pipe at our plant.

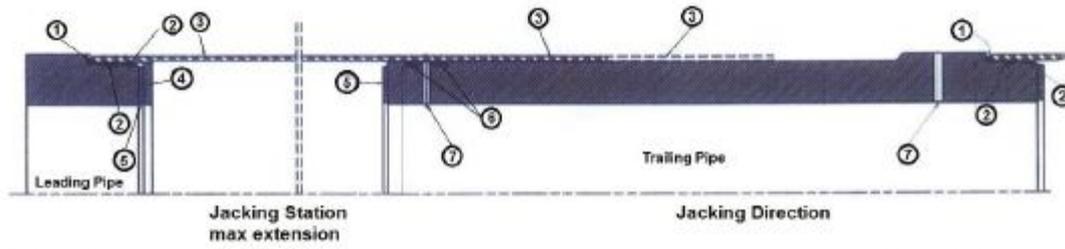
The nipples can be our design, made to customer specification or be supplied by the customer to us for installation. In case curved drives are necessary we will make the required alterations to the pipes, sleeves, and pressure distributing rings in order to achieve a maximum of safety during jacking.

PIPE GREEN™ Jacking Pipes DN 800 – DN 1800 with kite-shaped Cross-Section

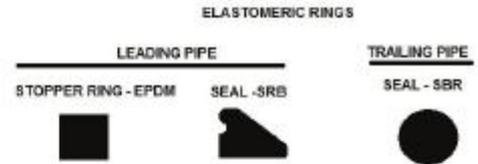
Jacking pipe with kite-shaped cross-section was developed in Hamburg to meet the specific hydraulic requirements of that City. Compared to pipe with a circular cross-section this new jacking pipe ensures a higher flow speed at low water levels, increasing the self-cleaning effect. When old Hamburg egg-shaped brick sewers are replaced by PIPE GREEN™ jacking pipes with a kite-shaped cross-section a significant gain in valuable storage volume is achieved.



Intermediate Jacking Station



1. STOPPER RING - EPDM
2. SEAL - SBR
3. WEATHERING RESISTANT STEEL SLEEVE
4. WEATHERING RESISTANT STEEL RING, WELDED ON STEEL SLEEVE
5. PRESSURE DISTRIBUTING RING
6. SEALING RING
7. INJECTION OPENING WITH INNER TREAD FOR LUBRICANT

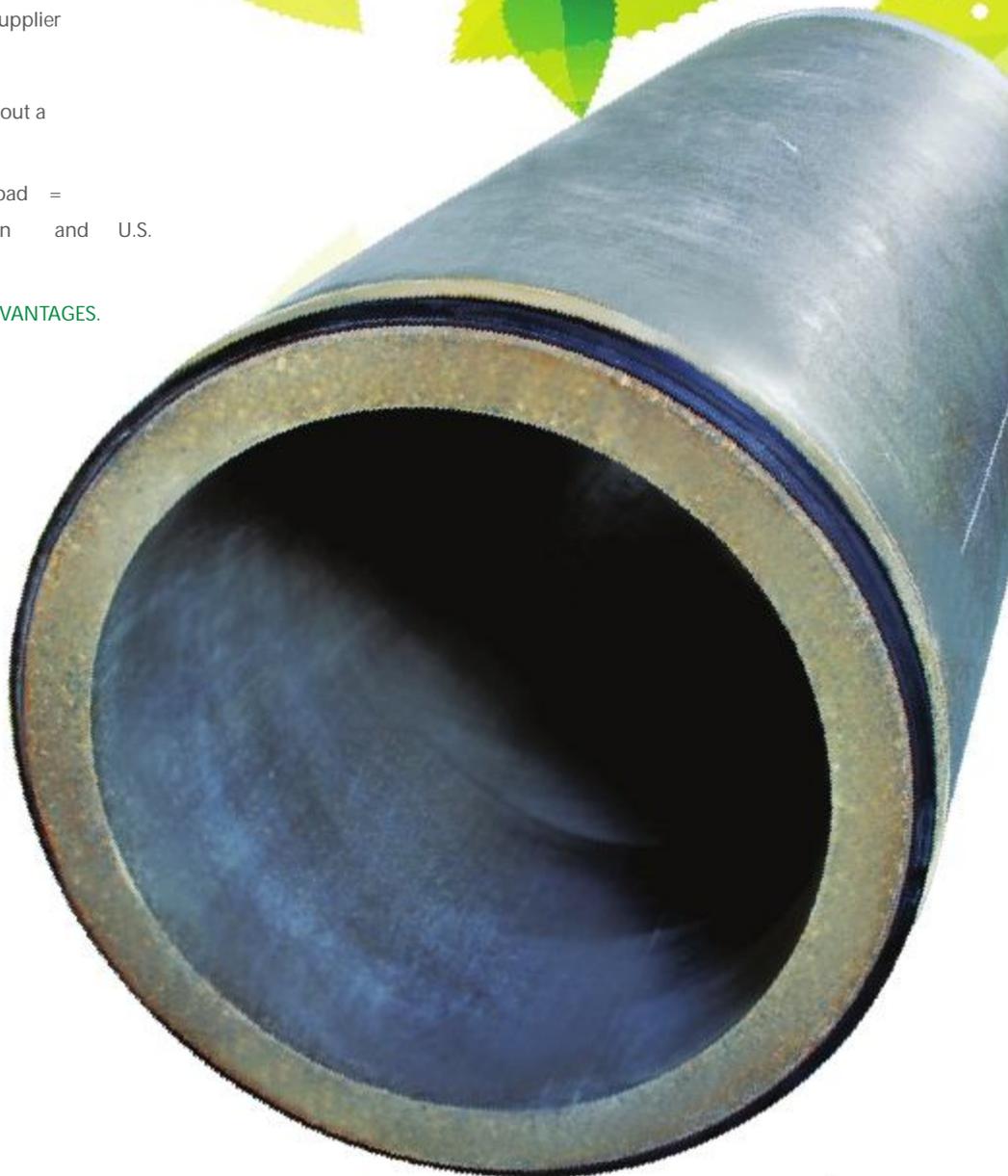


TO THE POINT

PIPE GREEN™ Jacking Pipes stand out for:

- High compressive strength = high jacking force and maximum safety
- Steel guide collar = maximum safety during jacking
- Smooth, even, non-absorbing outer pipe surface = reduced friction
- Parallel pipe ends = uniform distribution of jacking forces
- High dimensional accuracy = no ovality, tight joints, and perfectly matching pipes
- Elasticity = reduced point loading and risk of rupture
- Low weight = ease of installation
- Adaptable dimensions = suitable for all microtunnelling and jacking equipment
- Complete system = reinforced concrete insertion and reception shafts, PIPE GREEN™ jacking pipes, and PIPE GREEN™ system manholes all from the same supplier
- Smooth, even inner surface = high flow rate
- High corrosion resistance = reliability throughout a long service life
- Tested fatigue strength under cyclic load = installations under German, Canadian and U.S. railroad tracks

**YOUR PROJECT CAN BENEFIT FROM THESE ADVANTAGES.
JUST CONTACT US. THE EARLIER, THE BETTER.**







Qatar German Pipes Company W.L.L.

Certificate

Standard **ISO 9001:2008**

Certificate Registr. No. 01 100 127757

Certificate Holder: **Qatar German Pipes Company W.L.L.,**
P.O. Box – 40064,
New Industrial Area,
Doha, Qatar

Scope: Manufacturing of Polymer Resin Concrete Jacking Pipes

Proof has been furnished by means of an audit that the requirements of ISO 9001:2008 are met.

Validity: The certificate is valid from 2015-05-17 until 2018-05-16.
First certification 2012

2015-05-04



TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln



www.tuv.com

 **TÜVRheinland®**
Precisely Right.



Bothar Boring & Tunnelling Operations W.L.L.
Doha- Qatar
Micro-Tunneling • Tunneling • HDD
Auger Boring • Rehabilitation

Date : 07 June 2015 **Telephone Nr.** : (+974) 4410 9109
Reference : BQ/GEN/QCPC/029 **Facsimile Nr** : (+974) 4410 9100
Attention : Mr. Roger Rex Conlu **Mobile Nr.** : (+974) 5043 0546
Company : Qatar German Pipes Co. (QGPC) **Email Contact** : Admin@pipegreen.com
No. of Pages : 1

Subject : POLYMER CONCRETE JACKING PIPES (PIPEGREEN™)

Dear Sir;

On behalf of Bothar Boring & Tunneling – Middle East, we highly recommend, without hesitation, the use of POLYMER CONCRETE JACKING PIPES (PIPEGREEN™) produced by Qatar German Pipes Company.

This product pipe has already been approved by ASHGHAL for use and currently we are using these pipes on our GCC project – Reference : Road & Infrastructure for Commercial St in Al Khor Area Project Code IA/13-14/C 02 ST (GTC 20).

It may also be noted that this type of pipe has already been used in many projects of importance worldwide as well as on a number of projects here in Qatar and other GCC countries.

The materials used in the production of this Polymer Concrete Jacking Pipes is resin based. Polymer Concrete Jacking Pipes does not require any additional lining materials such as GRP and HDPE and can carry out the required jacking forces we apply for microtunnelling activities.

We will consider this product pipes for any of our future projects.

This letter issued as per the request of Qatar German Pipes Co. (QGPC) without any responsibility from Bothar Boring and Tunnelling.

Yours faithfully,

Bothar Boring & Tunnelling Operations W.L.L.

Ziad AlZagezoug
Deputy General Manager - Middle East Operations





Date: 18/11/2014

M/S QATAR GERMAN PIPES COMPANY WLL
P.O. BOX 40064
DOHA, STATE OF QATAR

TEL: +974 440 9109
FAX NO. +974 4410 9100
Email: info@pipegreen.com

For the Attention of Mr Abdullah Salem S. Al Sulaiteen - Chairman

PROJECT CODE : IA 13/14 C 39 M
BUDGET TITLE : DOHA AND RAYYAN SEWERAGE SCHEMES
PROJECT TITLE : INNER DOHA RESEWERAGE IMPLEMENTATION
STRATEGY (IDRIS)
PACKAGE 1 – LATERAL INTERCEPTOR SEWERS
CONTRACT LIS-01: CENTRAL DOHA,
CONTRACT LIS-02: AL WAKRA AND
CONTRACT LIS-03: MESAIEED INDUSTRIAL CITY (MIC)
PROJECT NO. : CIVIL PROJECT 727/1, C727/2 & C727/3
CONTRACT NO. : TBC
PROVISION NO. : 2013/02/8853
BUDGET REF/CODE : 1460010/11320
TENDER NO. : MRPSC/008/2014-2015/L

SUBJECT : QATAR GERMAN PIPES COMPANY WLL
POLYMER CONCRETE JACKING PIPES

REFERENCE:

1. Letter ref. QGPC/SP/EF/048/2014 dated 06 Nov. 2014, from QGPC to PoPWA-PWA

Thank you for your letter under ref. # 1 above, which the President of PWA has passed to this Department to respond.

Please be updated that a Tender Circular was issued on 12th November 2014 to the tenderers for the subject three (3) contracts informing them that Pipe Materials used in microtunnelling and pipe jacking applications shall be made of any of the following:

- (i) Reinforced Concrete Jacking Pipe (RCJP) with GRP (also referred to as "concrete encased GRP jacking pipe");
- (ii) GRP Jacking Pipe (GRPJP);
- (iii) Casing Pipe with Carrier Pipe; or
- (iv) Polymer Concrete Pipe (PCP).

Page 1 of 2

Cc: Jassim Salman A Al Sayegh; Nasser Yousef A Fakhroo; Infrastructure Affairs; President Office

ص.ب: ٤٢١٨٨ - الدوحة - قطر ، تليفون : +٩٧٤ ٤٤٩٥٠٠٠٠ ، فاكس : +٩٧٤ ٤٤٩٥٠٩٠٠

P.O. Box : 22188 , Doha - Qatar , Tel. : +974 44950000 , Fax : +974 44950900

www.ashghal.gov.qa



FAXED

No. 25 SEP 2012 Ref: 004/35365

M/s. Qatar German Pipes Company WLL
P.O. Box: 40664
Doha, Qatar
Phone: +974-44000000 Fax: +974-44000000

Dear Sirs,

Subject: Request for the Vendor Approval of Polymer Concrete Jacking Pipes Manufactured By M/s Qatar German Pipes Company WLL, Qatar

References: Technical Submittal Ref: QGPC/SPE/002/2012, dated 10th April 2012 and Re-submittal Ref: QGPC/SPE/005/2012, dated 07th June 2012 and the Additional Technical Clarification Submittal Ref: QGPC/SPE/006/2012, dated 27th July 2012

We refer to above submittals to the Public Works Authority (ASHGHAL); requesting Ashghal to approve the above mentioned manufacturer for inclusion in ASHGHAL's Approved Vendors List as an approved manufacturer of above mentioned type of Polymer Concrete Jacking Pipe Materials.

The technical review team (T.R.T) or Infrastructure Affairs has reviewed your submittal and comments upon the above product offered as follows:

- 1. Upon the revision of the above technical submittals, TRT found these proposed Polymer Concrete Jacking Pipe Materials are generally suitable for the sewage and treated sewage effluent applications and we do not have any objection in principle to the product that you market.
2. While PWA Infrastructure Affairs does not have an approved manufacturers list for such type of jacking pipe manufacturers, you may seek approvals project by project basis where the similar type of jacking pipes specified in project specifications.
3. Similarly, it is the responsibility of M/s Qatar German Pipes Company WLL, Qatar to ensure that the above product is in full compliance with the requirements of the Qatar Construction Standards (QCS) 2010 or any updates thereto together with particular project specifications.

Accordingly, it is your responsibility to market your product where the similar jacking pipe systems are specified.

If & when you propose the product in the ASHGHAL's projects, the supervising consultant on those particular projects will be reviewed your product under the regular materials review and approval procedure.

Yours faithfully,

Nasser Ghailh Al-Kuwari
Manager of Drainage Projects Department, Infrastructure Affairs

Director - M. Mohamed Hammad Bin Al-Yaqubi - M&E Unit in Charge - CEO, M.
Manager - Design Department, W. Abdulla Thumani Al-Saba - Sr. Electrical Engineer - DSM, AA.
Head of Dept. - Sr. Electrical Engineer - CEO, M. Khalid Al-Obaidy - Head of Treatment Plants - DSM, AA.
D&S Manager - Sr. Electrical Engineer - CEO, M. Karamallah Kattan - Materials Engineer - CEO, M.
D&S Manager - Damage Report - CEO, M. W. Ashraf
Kevin P. Richards - Sr. Projects Engineer - CEO

Public Works Authority contact information including website and phone numbers.



Memorandum

To: MEB/001/M-272/2014
From: Director, Materials Engineering Directorate
To: Directors, SUPPLY, SECURITY, RPD, RPS, BMD, CFB, SFD

SUBJECT: Material Compliance Report (MCR)

We wish to advise that M/sr. United Enterprises Trading Co. W.L.L. (Bahrain) had requested us to assess their Polymer Concrete Jacking Pipes "Pipegreen" manufactured by Qatar German Pipes Co. W.L.L. (Qatar) for consideration in M/W projects.

Following MED standard procedure for assessing materials/vendors please find attached for your information Material Compliance Report (MCR 638/2014) for the aforementioned products.

For any further clarification please do not hesitate to contact the undersigned or the Chief of Consultancy and Research Section at 17 01 24 00 or facsimile at 17 01 24 19.

Regards,

Samaar Affoum

cc: Section Chief CBS / MAQ P/M 1000 - RR



Ministry of Works contact information including website and phone numbers.



Qatar German Pipes Company w.L.L.

Tel.: +974 4443 4990, Fax: +974 4443 4603, P.O. Box No. 8588, Doha - Qatar
Email: qgpcdoha@gmail.com, info@pipegreen.com