

BORELINE

the flexible rising main



WRAS
APPROVED
PRODUCT

The easy to install, cost effective, replacement for steel riser pipes.

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PRODUCT DESCRIPTION

BORELINE is a flexible rising main constructed using a blend of high tenacity yarns and thermoplastic materials to produce a superior product of exceptional strength and durability.

BORELINE has been specially designed to replace steel pump risers, which are subject to rust and scaling - especially in aggressive water conditions.

Because of its construction from synthetic materials, **BORELINE** is completely inert to rust and due to its flexibility, no internal scaling can build up.



BORELINE will suit the majority of well applications and is compatible with most submersible borehole pumps throughout the world. It is available in an unrivalled choice of sizes - from 1" to 8" - and in continuous lengths of up to 200m.

BORELINE APPLICATIONS

Groundwater Extraction
for Irrigation and
Potable Supplies

Yield Testing

Groundwater Recharge

Salt Water Barriers

Borehole rehabilitation

Emergency / Standby
Dewatering



Photos above : Birchington, Kent, UK.
Cover photo : Atacama Desert, Chile.



Once on site, **BORELINE** is attached to the pump with stainless steel or bronze (or polymer) patented double ring couplings. The pump is then lowered down the well with the hose & cables being fed in using a simple rolling wheel. Due to its continuous length, the operation of lowering or removing the pump takes no more than a few minutes.



Couplings for the 1", 1½" & 2" **BORELINE** are now also available in a High Tensile Polymer material. Though these have the advantages of lower weight and reduced cost, they retain all other features of the metal couplings.



BORELINE ADVANTAGES

- Continuous lengths up to 200m
- Easy to install and retrieve
- Easy to store, handle & transport
- Tremendous tensile strength
- Low friction loss
- Corrosion free and does not scale
- Immune from microbiological attack
- Long life expectancy - 5 year warranty



“suitable for use in contact with potable water”

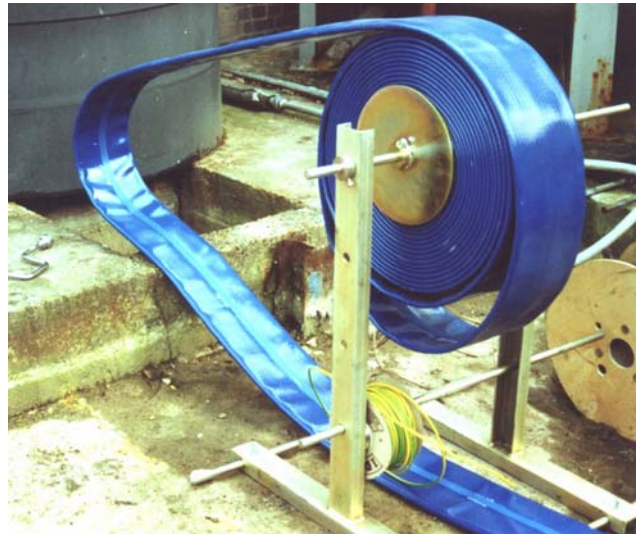




Due to the flexibility of **BORELINE** and its low coefficient of friction, no encrustation will form in the riser. The superb hydraulic characteristics of the riser are, therefore, maintained throughout its life and there is no need for frequent removal of pumps for riser inspection & cleaning. Costs of frequent maintenance are, thus, eliminated as well as the financial burden of increased friction losses.

BORELINE USERS include :

- Water Authorities
- Ministry of Defence
- Major Banking Institutions
- Local Authorities
- Overseas Aid Organisations
- Golf Courses
- Farms
- Breweries
- Zoos & Parks
- Desalination Plants
- Manufacturing Industries



SPECIFICATIONS

BORELINE is suitable for installation to a depth of 200m, can take loads up to 7 tonne*, can operate continuously at pressures up to 40 bar* and to a maximum temperature of 60°C. In practice most wells operate far below any of these figures so **BORELINE** will always be used well within safe limits for its whole operating life. A comprehensive Instruction Manual is supplied with all sales of **BORELINE**. *depends on size – see below

Average Extension : 3%

Maximum Diameter Swell : 15%

Water Quality Limits : pH 4 – 9

Nominal Size	1"	1½"	2"	3"	4"	5"	6"	8"
Inside Diameter	24mm	40mm	50mm	76mm	102mm	127mm	152mm	202mm
Burst Pressure	85 bar	65 bar	65 bar	60 bar	58 bar	58bar	58 bar	58 bar
Operating Pressure	40 bar	30 bar	30 bar	25 bar	25 bar	22 bar	22 bar	22 bar
Tensile Strength *	1.4 tonne	3 tonne	4 tonne	7 tonne	12 tonne	16 tonne	20 tonne	22.2 tonne
Minimum Well Diameter	75mm	102mm	102mm	152mm	203mm	255mm	305mm	406mm
Coupling Torque Setting	10Nm	10Nm	12Nm	30Nm	30Nm	35Nm	40Nm	45Nm
Boreline Weight / m	0.3kg	0.5kg	0.55kg	0.95kg	1.40kg	1.70kg	2.5kg	31kg
Coupling Weight	0.9kg	1.4kg	3.5kg	7.5kg	10kg	14.5kg	18.1kg	42kg

*A safety factor of 3 : 1 is recommended

Specifications may change without prior notice

BORELINE is only available in the UK from : -

PROQUIP DIRECT LIMITED,

Park Road Works, 125, Park Road, Beckenham, Kent. BR3 1QJ

Telephone : 020 8639 0377/8 Facsimile : 020 8639 0379

Websites : www.boreline.co.uk / www.proquipedirect.com

Email : sales@boreline.co.uk / sales@proquipedirect.com



Our Ref: CR/JC

19 January 2006

Proquip Direct Ltd
Unit 1
Park Road Works
125 Park Road
Beckenham
Kent
BR3 1QJ

Dear Sir

WATER REGULATIONS ADVISORY SCHEME
"ITEMS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY - BS 6920"

We refer to your application for the material(s) described below to be approved arising from the results of the tests of effect on water quality that have been carried out on the product(s) so described, it has been decided that there is no objection to its/their use provided the source, nature and manufacturing processes of the ingredients and products are not changed. (See notes overleaf).

HOSING & TUBING

5140

Boreline. Blue coloured extruded polyether - polyurethane hose with white coloured fabric middle layer. Cold water use only.

Test Report: MA3070/H

0512505

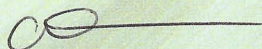
PROQUIP DIRECT LTD

An entry, as above, will accordingly be included in the Water Fittings and Materials Directory, Part Two, under the section headed, "Materials which have passed full tests of effect on water quality".

Your attention is drawn to the statement overleaf. Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that the product as listed, having passed the tests of effect on water quality, is suitable for use in contact with potable water and that a reference to the product will be included in the Materials section, Part Two, of the Water Fittings and Materials Directory: this may be abbreviated to "Water Regulations Advisory Scheme - Approved Product" or "WRAS - Approved Product". **Approval of this product does not signify the approval of its mechanical or physical properties for any use.**

The Technical Committee of the Scheme reserves the right to review approval. This product automatically becomes due for audit reassessment in December 2010.

Yours faithfully



Chris Ramsey (Miss)
Materials Administrator
Water Regulations Advisory Scheme