

WELLMAN

FLEXIBLE RISER MAIN



Wellman flexible rising main is designed as a permanent alternative to traditional materials such as steel, fibreglass, PVC and polyethylene in water wells with electric submersible pumps

ADVANTAGES OF THE WELLMAN SYSTEM INCLUDE:

RAPID INSTALLATION AND RETRIEVAL OF THE SUBMERSIBLE PUMP

Supplied in a single length to the required pump setting, there are no flanges or joints, except at the pump and headworks. Installation options include by crane or with a vehicle allowing for rapid restoration of service in the event of routine maintenance or pump failure.

LOW MAINTENANCE

All synthetic materials of construction mean that there is zero corrosion and no scale build up. The high grade polyurethane lining and cover material is resistant to hydrocarbon fuels, many chemicals, ozone and UV, abrasion and microbial attack.

SUPERIOR HYDRAULIC PERFORMANCE

The textile reinforcement is designed to swell under operating conditions up to 15%. This feature gives a nominal increase in riser diameter, reducing friction loss and improving hydraulic performance. Often this can be translated into a smaller Wellman diameter than conventional rigid pipe, giving additional financial benefits.

EASY TO STORE AND TRANSPORT

Wellman has a small storage footprint compared to rigid pipe, allowing transportation by smaller vehicles and requiring less manpower. Particularly useful when installation is required in remote locations with poor access.



INTERNATIONAL DRINKING WATER CERTIFICATION

UK	WRAS approval to BS6920
USA	NSF61 listed
Germany	KTW-DVGW approved
Australia	AS-NZS4020-2005 approved
Poland	PZH approved
Israel	IS 5452



TYPICAL APPLICATIONS INCLUDE

- Groundwater abstraction – potable and brackish
- Beach wells in R.O. desalination plant applications
- Environmental monitoring
- Mine dewatering
- Land stabilisation
- Leachate removal in landfill sites
- Offshore rig fire water and service pumps

TECHNICAL DATA

Diameter		51 mm 2"	76 mm 3"	102 mm 4"	127 mm 5"	152 mm 6"
Wall thickness	mm	3.0	3.2	3.6	4.0	4.4
Weight (hose only)	kg/m	0.59	0 0.93	1.40	1.94	2.5
Weight (Mandals coupling)	kg	1.4	3.4	6.3	11.3	15.6
Mandals coupling O/D	mm	80	115	145	177	200
Burst pressure	bar	62	62	62	58	50
Max. working pressure	bar	31	31	31	29	25
Effective tensile strength	tonnes	4.6	8.0	14.0	22.0	26
Max. continuous end load	tonnes	1.7	3.0	5.2	8.1	9.6
Maximum extension under load conditions	%	+ 2				
Maximum diametric swell	%	+ 15				
Maximum pump setting	m	300	300	300	280	240
Maximum water temperature	°C	- 40 to + 50. (with intermittent use up to 80)				
Water quality Below 30 °C Above 30 °C	pH	4 - 9 5 - 9				

THE STANDARD PRODUCTION LENGTH IS 200 METRES. LONGER LENGTHS CAN BE SUPPLIED ON REQUEST

Wellman is manufactured using 'through-the-weave' technology, where the high grade polyurethane lining and cover are formed in a single process to provide a tough composite riser. The textile reinforcement is designed to support the weight of the submersible pump, the column of water, the power cable and the riser itself, with a minimum 2:1 safety factor. Additionally, torque on pump start-up is accommodated without damage to the riser. The Mandals company also manufactures the textile weaving machines used by all the major hose companies throughout the world so their understanding of textile design and technology is unparalleled.

Wellman is the main component of a complete system, which includes couplings, power cable attachment equipment, lifting clamps and wellhead rollers. All ancillary equipment can be supplied and factory-trained installation engineers are available to provide assistance and training if required.

**IT IS IMPORTANT THAT ONLY APPROVED ACCESSORIES ARE USED WITH THE WELLMAN RISER.
THE USE OF ALTERNATIVE COMPONENTS WILL COMPROMISE THE INTEGRITY OF THE COMPLETE SYSTEM.**

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