



**Kuriyama
Europe**



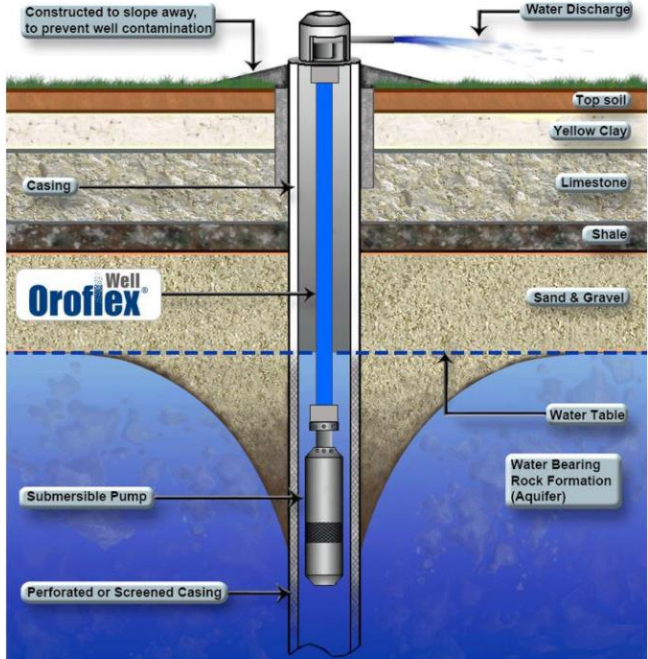
OROFLEX® WELL SYSTEM

The flexible rising main



**Well
Oroflex®**

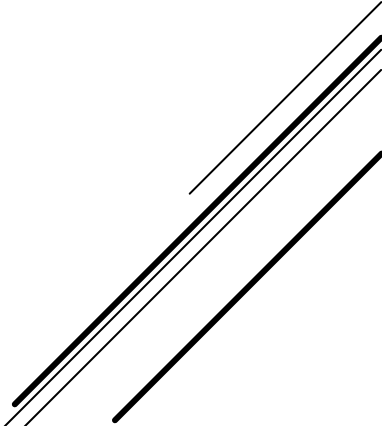
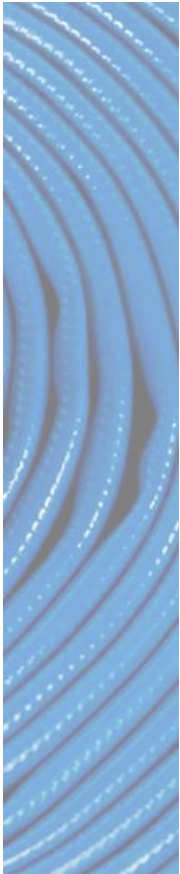
Oroflex[®] Well



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The Whole Solution



Oroflex[®] Well

OROFLEX WELL SYSTEM DESCRIPTION

- **OROFLEX WELL** is a high quality and resistant, flexible and self-supporting lay flat rising main ideal for installing submersible pumps. Installation time and manpower costs are greatly reduced using **OROFLEX WELL SYSTEM**.
- Traditional steel risers are replaced with a single continuous length of **OROFLEX WELL**.

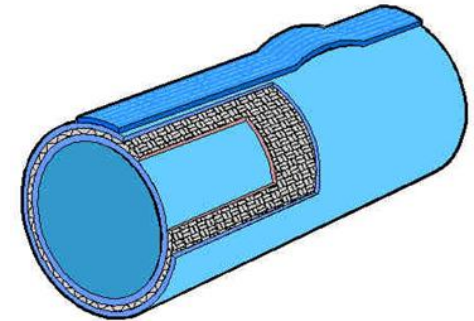


OROFLEX WELL MANUFACTURE

- Continuous circular weaving with synthetic yarns
- Lightweight, high strength, seamless reinforcement
- Simultaneous cover and lining extrusion “through the weave”
- Cable attachment strip

Thermoplastic Polyether Polyurethane provides:

- High abrasion resistance
- Exceptional tensile strength
- High burst pressure
- Total resistance to
 - Microbiological attack
 - Corrosion
 - Long service life
 - Energy savings due to low friction loss



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Special developed
Conical couplings



- 1- Coupling shank
- 2- Clamp
- 3- Allen screws (x4)
- 4- Hexagonal jacking screws (x2)
- 5- Draining fuse (x1)



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Attachment Loops

Attachment loops are provided about every meter on all riser diameters.

On 5, 6 & 8" attachment loops appear on both sides of the Well hose.





A Complete Range

Physical Properties:

Nominal Inner Diameter		Maximum Working Pressure		Burst Pressure		Maximum Depth		Max. Recom. Load *		Max. Recom. Flow		Hose Tensile Strength		Hose Nominal Weight	
inch	mm	psi	bar	psi	bar	ft	m	lb	kg	gpm (US)	lpm	lb	kg	lb/ft	kg/m
1 ¼	32	505	35	1,160	80	990**	300**	1,540	700	50	200	6,600	3,000	0.19	0.29
1 ½	40	435	30	1,015	70	850**	260**	1,540	700	70	270	7,700	3,500	0.24	0.35
2	52	375	26	900	62	850**	260**	3,530	1,600	130	500	12,150	5,500	0.4	0.59
2 ½	65	375	26	840	58	850**	260**	4,850	2,200	210	800	13,250	6,000	0.58	0.87
3	76	375	26	840	58	850**	260**	6,170	2,800	320	1,200	17,650	8,000	0.68	1.02
4	102	375	26	840	58	850**	260**	10,580	4,800	530	2,000	26,450	12,000	0.93	1.38
5	127	375	26	840	58	850**	260**	13,230	6,000	790	3,000	39,700	18,000	1.3	1.94
6	152	375	26	840	58	850**	260**	17,640	8,000	1,190	4,500	63,950	29,000	1.77	2.63
8	203	230	16	600	42	500	150	24,030	10,900	2,110	8,000	77,200	35,000	2.22	3.3

(*) The maximum recommended load includes hose weight, cable, couplings, other accessories, pressure at the top of the well and water column weight.

(**) Installations above 660ft (200m) should be consulted before installing.



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Reusable field-fittable AISI 316 Stainless Steel Conical Couplings								
Coupling Part Number	Emptying Device	Thread	Nominal Inner Diameter		Maximum Diameter		Nominal Weight	
			inch	mm	inch	mm	lb	kg
C655120	-	NPT	1 1/4	32	2.60	66	1.83	0.83
C652995	-	GAS						
C654899	-	NPT	1 1/4	40	2.76	70	2.25	1.02
C654898	yes							
C655013	-	GAS	2	51	3.94	100	5.29	2.40
C655014	yes							
C650089	-	NPT	2	51	3.94	100	5.29	2.40
C655005	yes							
C652990	-	GAS	2 1/4	65	4.33	110	11.02	5.00
C655034	yes							
*	-	NPT	2 1/4	65	4.33	110	11.02	5.00
*	yes							
C655200	-	GAS	3	76	5.12	130	13.67	6.20
C655202	yes							
C650069	-	NPT	3	76	5.12	130	13.67	6.20
C650100	yes							
C652300	-	GAS	4	102	6.50	165	21.38	9.70
C655011	yes							
C654827	-	NPT	4	102	6.50	165	21.38	9.70
C654826	yes							
C654823	-	GAS	5	127	7.72	196	29.98	13.60
C654822	yes							
C652341	-	NPT	5	127	7.72	196	29.98	13.60
C652353	yes							
C652355	-	GAS	6	152	8.94	227	44.31	20.10
C655023	yes							
C652362	-	NPT	6	152	8.94	227	44.31	20.10
C652349	yes							
C652364	-	GAS	8	203	10.63	270	105.82	48.00
C652363	yes							
C655144	-	NPT	8	203	10.63	270	105.82	48.00
C655143	yes							
C655146	-	GAS	8	203	10.63	270	105.82	48.00
C655145	yes							



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Fuse & Plug



Torpedo (Plumb)



Coupling Diameter		Fuse Part Number (AISI 316 Stainless Steel)	Plug Part Number	Torpedo (Plumb) Part Number
(in)	(mm)			
1 1/4	32	-	-	C654340
1 1/2	40	C650000	-	C654340
2	52	C650002	-	C654350
3	76	C650003	-	C654360
4	102	C651497SS	C651498SS	C654370
5	127	C651507SS	C653051SS	C654380
6	152	C651507SS	C653051SS	C654380
8	203	C652325SS	C653051SS	C654380

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Centering Segments



Coupling Diameter		Centering Segment Part Number	Type of Segment	Segment Units
(in)	(mm)			
1 1/2	40	-	-	-
2	52	C654202	1 (small bowl height)	3
3	76	C654202	1 (small bowl height)	3
4	102	C654203	2 (medium bowl height)	3
5	127	C654203	2 (medium bowl height)	4
6	152	C654203 - Option 1	2 (medium bowl height)	4
		C654205 - Option 2	3 (large bowl height)	3
8	203	C654205	3 (large bowl height)	3

Fully adjustable centralizers with no pins, bolts, or welding. Easy and rapid on-site assembly with 3 or 4 lightweight segments depending on the hose diameter.

Oroflex[®] Well

YOU CAN USE OUR HOSES IN THE FOLLOWING SITUATION & APPLICATIONS.

- **Agriculture**

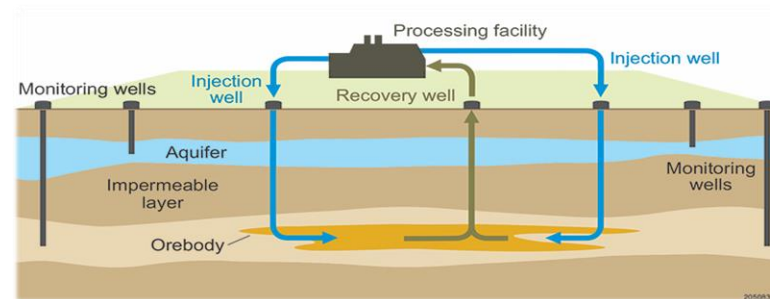
As a water source of irrigation



Water wells



- **Mineral Extraction**



AREAS OF APPLICATION

- **Dewatering**

The OROFLEX WELL hose system is widely used for dewatering in open-pit mines.



- **Industry Water Supply**

As a water source in beverage companies.



AREAS OF APPLICATION

- Draining



- Desalinations Plants



AREAS OF APPLICATION

- Marine and Offshore Industry



OROFLEX WELL ADVANTAGES

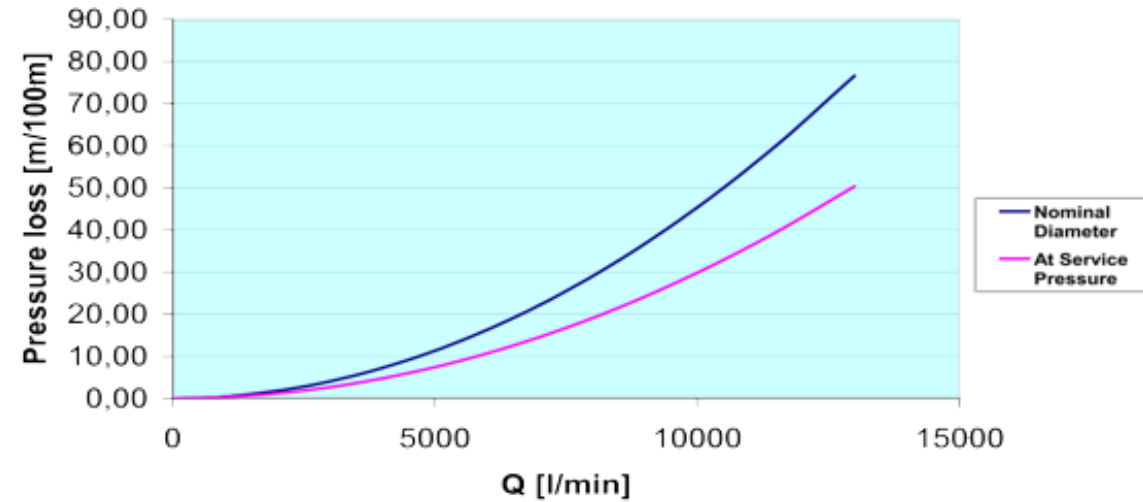
REDUCED INSTALLATION AND OPERATIONAL COST

- Lower transport and storage costs
- Same day installation and retrieval
- Less manpower required
- Reduced expensive equipment hiring



OROFLEX WELL ADVANTAGES

ENERGY EFFICIENT – OROFLEX WELL transports more water than same diameter rigid piping.



Lifetime energy savings of up to 20% over rigid risers due to:

- **Swell properties** - Up to 15% diameter expansion at maximum service pressure
- **Smooth inner walls** – Lower friction loss

- **EASE OF HANDLING** – OROFLEX WELL is easy to deploy and retrieve. It can be coiled on reels, taking little space for easy transport and low storage costs.



One length. No joints.

Up to 90% weight reduction compared to conventional steel pipes.



OROFLEX WELL ADVANTAGES

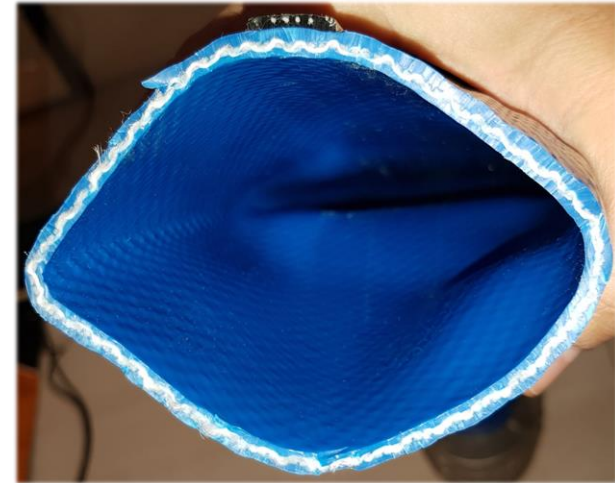
- **REDUCED INSTALLATION COSTS** - OROFLEX WELL can be installed quicker (in one single day/morning) and with less manpower than conventional rigid pipes.



There is no need of hiring expensive equipment.

OROFLEX WELL ADVANTAGES

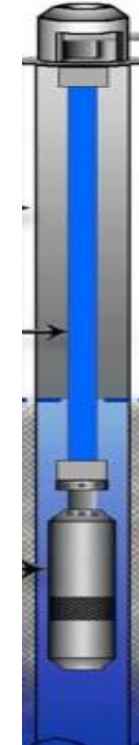
TOTAL CORROSION FREE - Does not corrode and does not suffer from scaling or attacks from microorganisms.



Due to its dynamic properties (swell and elongation), does not permit scaling.

OROFLEX WELL ADVANTAGES

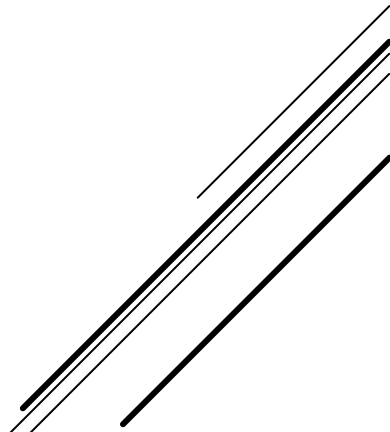
- **MAXIMISES WATER FLOW IN NARROW WELLS** - Where rigid pipes are difficult to install.
- **IDEAL FOR CROOKED WELLS** - Where rigid piping cannot be installed.



Oroflex Well[®]

A COMPLETE SYSTEM OF FLEXIBLE PIPES AND ACCESSORIES

- Couplings
- Lifting Clamps
- Wellhead Roller
- Cable Attachment Straps
- Draining system
- Centering device
- Cable anchoring system
- Technical support



SUMMARY OF OROFLEX WELL BENEFITS

OROFLEX WELL ADVANTAGES - COMPARED TO DIFFERENT BORE WELLS SYSTEM							
	OROFLEX WELL	PE PIPE	PVC PIPE	FIBR GLASS	GALV. STEEL	STAILESS STEEL	NOTES
EASY TO INTALL	Green	Green	Red	Red	Red	Red	- > NEED OF JOINERS EVERY 6M TO 12M
LOW FRICTION LOSS	Green	Red	Red	Red	Red	Red	- > NO EXPANSIONABLE, CONSTANT BORE
ONE CONTINOUS LENGHT	Green	Green	Red	Red	Red	Red	- > NEED OF JOINERS EVERY 6M TO 12M
DEEP BORE DEPTHS (OVER 200M)	Green	Red	Green	Red	Green	Green	- > DUE TO THE HIGHT RESISTANCE CARCASS
HIGH WORKING PRESSURE	Green	Red	Red	Red	Green	Green	- > UP TO 26 BAR
DRINKING WATER APPROVED	Green	Red	Green	Red	Red	Green	- > NSF APPROVED FOR OROFLEX WELL
NO SUPPORT CABLES REQUIRED	Green	Red	Red	Red	Red	Red	- > OROFLEX WELL IS SELF SUPPORTED
TOTALY CORROSION RESISTANCE	Green	Green	Green	Green	Red	Yellow	- > DEPENDS ON THE WATER PH
LONG LIFE SERVICE	Green	Yellow	Yellow	Yellow	Red	Yellow	- > DEPENDS ON THE WATER PH
EASY TO TRANSPORT	Green	Green	Red	Red	Red	Red	- > OROFLEX WELL IS THE MOST COMPACT
LOW SPACE REQUIRED FOR STORAGE	Green	Yellow	Red	Red	Red	Red	- > OROFLEX WELL IS THE MOST COMPACT
LOW COST HANDLING EQUIPMENT	Green	Yellow	Red	Red	Red	Red	- > LOW HANDLING AND LABOUR EFFECTIVE



SUMMARY OF OROFLEX WELL BENEFITS

- ✓ INSTALLATION COST SAVINGS
- ✓ SAVINGS IN ELECTRICITY CONSUMPTION
- ✓ EASY HANDLING
- ✓ EASY TO STORE AND TRANSPORT
- ✓ PREVENTS NOISE AND VIBRATIONS
- ✓ PREVENTS CORROSION AND INCRUSTIATIONS
- ✓ MAXIMISES WATER FLOW IN NARROW WELLS
- ✓ SUITABLE FOR POTABLE WATER
- ✓ CHEMICAL RESISTANCE
- ✓ LONG OPERATIONAL LIFE OF INSTALLATIONS
- ✓ COMPLETE SYSTEM OF FLEXIBLE PIPES AND ACCESSORIES

AREAS OF APPLICATION

- THE FLEXIBLE **OROFLEX WELL** WELLRISER SYSTEM INCLUDES A WIDE RANGE OF FLEXIBLE PIPELINES AND ACCESSORIES SPECIALLY DESIGNED FOR WATER WELLS, FOR USE IN DIFFERENT AREAS OF APPLICATION SUCH AS:
 - ✓ **DEWATERING**
 - ✓ **WELL POINT**
 - ✓ **MINERAL EXTRACTION**
 - ✓ **APPRAISAL OF WATER WELLS**
 - ✓ **WATER MONITORING**
 - ✓ **INDUSTRY WATER SUPPLY**
 - ✓ **AGRICULTURE**
 - ✓ **DRAINING**
 - ✓ **DESALINATION PLANTS**
 - ✓ **MARINE AND OFFSHORE INDUSTRY**
 - ✓ **LEACHATE EXTRACTION ON LANDFILL SITES**

AREAS OF APPLICATION

DRINKING WATER SUPPLY

- ▶ **Municipal companies**
- ▶ **Beverage factories**
- ▶ **Domestic market (Domestic Borewater)**

AREAS OF APPLICATION

DRINKING WATER SUPPLY - CERTIFICATIONS

▶ **US:**

▶ **NSF-61**



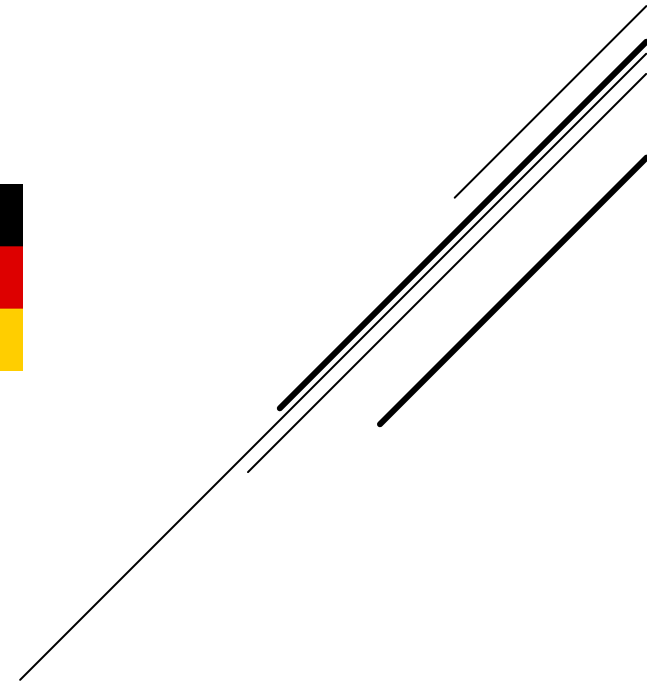
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OROFLEX WELL YOUR FLEXIBLE SYSTEM



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THANK YOU FOR YOUR PRECIOUS TIME



**Kuriyama
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