mandals
since 1775
A Michelin Group Company

World Class Lay-flat Hoses

Mining

www.mandals.com
Legacy Through Innovation

Made in Norway

Content

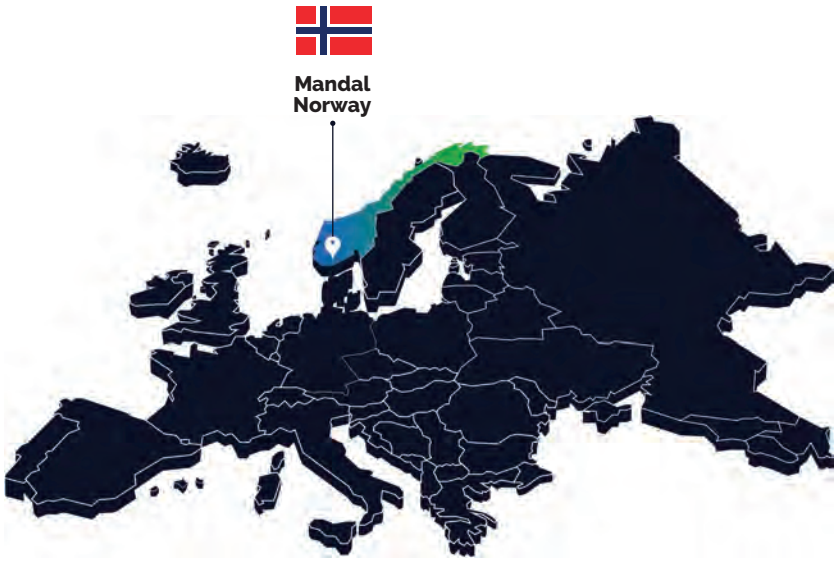
Abbreviations

HVT	High Volume Transfer
NBR	Nitrile Rubber
TPU	Thermoplastic polyurethane

About us

Mandals specialize in the manufacturing of high-quality lay-flat hoses and circular shuttle looms. We are based in Mandal, on the southern coast of Norway and have been in business in the same location for nearly 250 years.

We have come a long way since our establishment in 1775, and today we are one of the world´s most recognized manufacturers of lay-flat hoses and looms. 85% of our production is exported and Mandals products are found across the globe thanks to our long-standing partners and distributors.



1775 — One of Norways oldest companies

90 — Employees

2 — Product lines

21 — Products

85% — Export of our products

41 — Distributors

50 — Countries

12 — Industri

21 — mill € sales 2021

01

Why Mandals?

We strive to grow long-term, loyal partnerships. Our core values are People, Planet and Profit and we will always focus on people first. As a partner with Mandals we will do our best to put you first, aiming to offer you the best service in all aspects of the partnership. We expect active partners that will challenge, inspire and help us grow and build business together.

We define ourselves as a trustworthy supplier with high focus on service, product quality, and innovation. All our lay-flat hoses and looms are produced in-house, meaning that you can be assured that we produce quality without compromise.

Our Mining hoses

Our lay-flat hoses can contribute as an important part of a functional water management system.

Effective mine dewatering and slope depressurization systems are important components of surface and underground mining operations. Our hoses are used in a variety of industrial applications like high flow and deep well dewatering systems when delivering or removing plenty of water in mines.

Lay-flat hoses have the advantage of quick and comfortable use, while also offering better performance with their flexibility and lightweight compared to other traditional dewatering methods.

- **Rubber hoses**
- **Thermoplastic polyether-based polyurethane (TPU) hoses.**

Rubber hoses

Mandals rubber hoses are made from a blend of nitrile rubber and PVC, with an added UV barrier. The rubber is fully extruded through the circular woven polyester fabric, ensuring excellent bonding between the cover and lining to prevent delamination. Thanks to the interlocking between the warp yarns and the weft of the circular weave, the hose has high lengthwise stability and a full-diameter recovery after use. The abrasion and puncture resistance of Mandals rubber hose is by far superior to any regular uncovered textile hose.

TPU hoses

Our TPU hoses are among the most innovative lay-flat hoses in the world, which are made from extruded thermoplastic polyurethane (TPU) with excellent wear and tear properties. The TPU is extruded through the weave, which is made of high tenacity filament polyester yarns. This method gives a very strong bonding between cover and lining as well as firmly encapsulating the woven polyester yarn. The abrasion resistance of the Mandals TPU hoses are among the highest available, and our TPU hoses also have excellent resistance against the most commonly used chemicals, UV radiation, hydrolysis and fungus degradation.

Our Mining hoses

Superman HVT

Mandals Superman High Volume Transfer (HVT) is our market-leading all-purpose hose for fluid transfer. Not only is Superman HVT designed for higher working pressures when transporting fluids, the hose is also heavily reinforced with exceptional resistance to abrasion and cutting. This is a hose you can rely on for a lifetime.

Flexited

The Flexitex series consists of premium lay-flat hoses made from a blend of nitrile rubber and PVC, with an added UV barrier to prevent damage from UV radiation. The hose is ideal for use as a feeder hose for any type of water transfer application.

Wellman 120

Designed for use in water wells with electric submersible pumps, Wellman 120 is a permanent alternative to traditional materials such as steel, fiberglass, PVS, and polyethylene.

Wellman 300

With Wellman 300, you get a lay-flat hose with excellent hydraulic performance that is designed for rapid installation and removal of submersible pumps.

Mantex

This Mandals Mantex HP is a world class layflat hose designed for compressed air at high working pressures, while still offering a light-weight solution easy to deploy and store.

Mantex HP

This Mandals Mantex HP is a world class lay-flat hose designed for compressed air at high working pressures, while still offering a light-weight solution easy to deploy and store.

Ultraman

Mandals Ultraman is the perfect transfer hose for a variety of industries because of its numerous advantages. For example, Ultraman has a high operational pressure and compact, lightweight storage. In addition, Ultraman is made from extruded Thermoplastic polyether based polyurethane (TPU) with excellent wear & tear properties.

Ultraman HVT

Mandals Ultraman high-volume transfer hose, extruded "through the weave" by a polyether-based, high-quality TPU, is ideal for use within several industries because of its high operating pressure and compact, lightweight storage.

Advantages of Mandals hoses

Quick deployment and retrieval, combined with **excellent flow rates** and long lifetime, **reduces operation cost**

High abrasion resistance and tensile strength

Excellent mechanical adhesion between the layers provides the best quality hose with a long lifetime

Highly flexible hoses = Kink resistant and minimal pressure loss

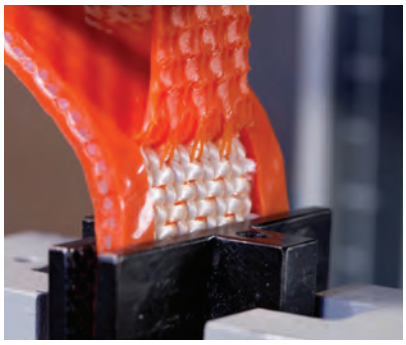
Continuous development & quality control

One of the values we live by is **innovation through legacy,** meaning that we will always work to further develop our products, our production processes and the way we do business with our partners. We are following the trends in the market and continuously working to develop new products and solutions for your unique challenges.

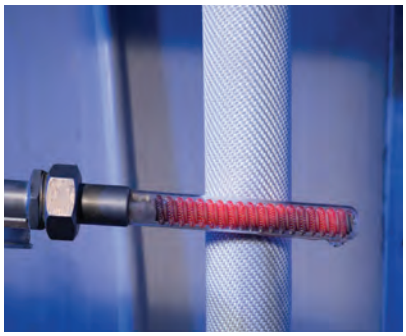
Raw materials and finished products are tested and documented according and compliant to international standards

Examples:

ISO4671 - Wall Thickness
ISO1402 - Hydrostatic testing
ISO8033 - Adhesion
BS6391 – Abrasion
BS6391 – heat resistance








05

Durability and **wear resistance** provide for long lasting hoses for demanding use

Resistant to most industrial chemicals, ozone and UV-rays

Durable even in the **roughest environments**

Small logistical footprint required for transport and storage

Unique weave design that is specially developed for each hose

Easy to handle - less heavy lifting

Looms & Spares

We pioneered the lay-flat hose a century ago and developed our first circular loom in 1935. Today you can find our machines in over 30 countries, some of which have been in service for over 50 years. Our machines continue to define the standard for quality and reliability in circular looms.

Scan the QR code if you would like to know more about our looms

07

mandals
since 1775
A Michelin Group Company

Mining
Lay-flat hoses

Mandals lay-flat hoses are an important part of an optimal water management system. Effective mine dewatering and slope de-pressurization systems are important components of many surface and underground mining operations.

In high flow and deep well dewatering systems for mines, lay-flat hoses are used to deliver or remove the many thousand gallons of water needed per minute. In mines where pit slope de-pressurization is essential to maintain stable slopes, lay-flat hoses offer ease of handling, deployment and retrieval. And if the mining operation is to be taken to a deeper level, bore hoses are used to remove ground water.

Lay-flat hoses are ideal for rapid large volume dewatering due to less pressure drop over large distances. Not to forget the rapid and flexible deployment compared to other types of rigid hoses or steel pipes.

Mine dewatering takes place in the harshest of environments. This requires extremely abrasion resistant hoses to withstand being deployed down steep, rocky mountain sides, lowered into deep wells and to carry the weight of a full set of submersible pumping equipment.

Superman HVT

Flexitex

Wellman 120

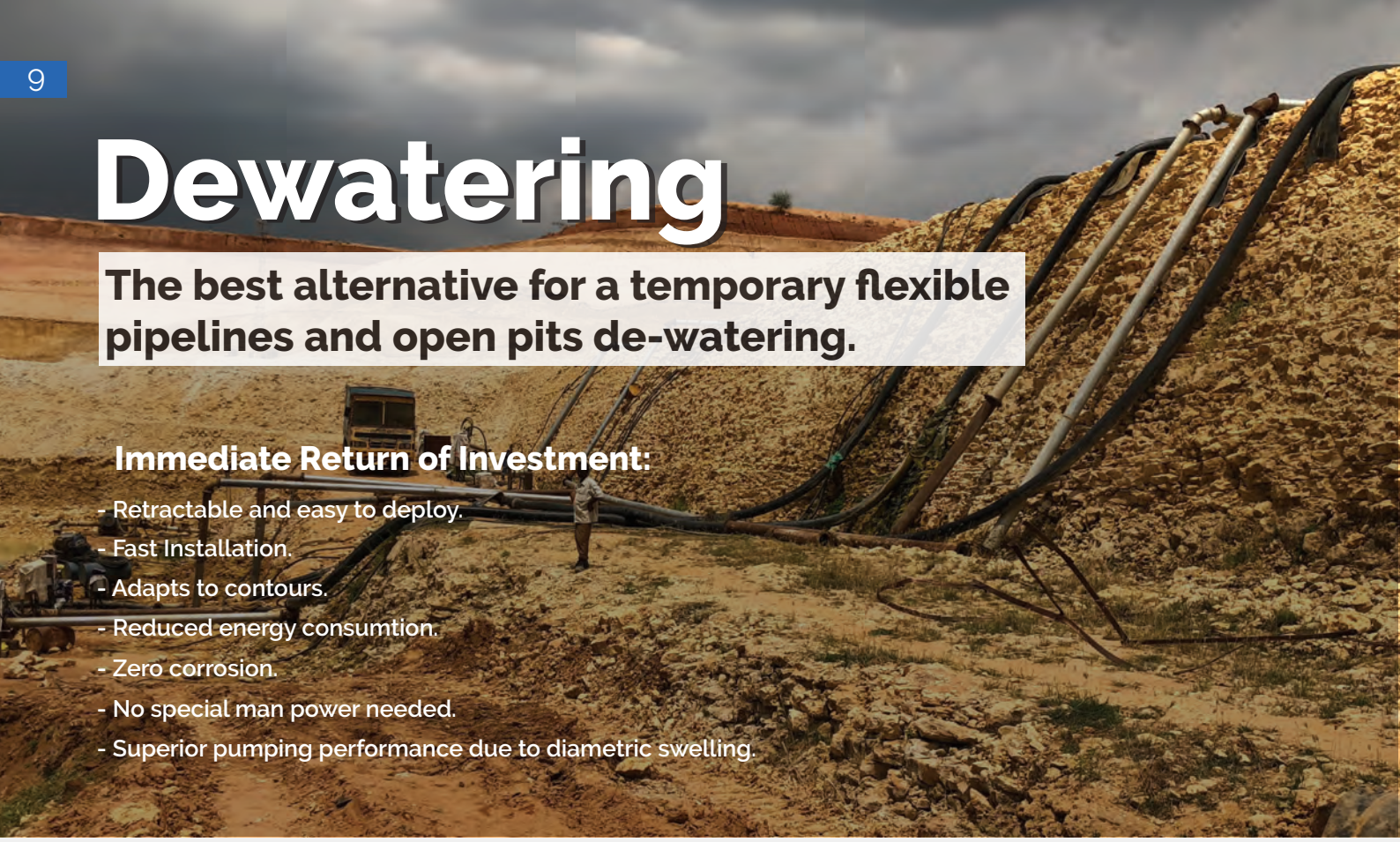
Wellman 300

Mantex HP

Mantex

Ultraman HVT

Ultraman



Dewatering

The best alternative for a temporary flexible pipelines and open pits de-watering.

Immediate Return of Investment:

- Retractable and easy to deploy.
- Fast Installation.
- Adapts to contours.
- Reduced energy consumtion.
- Zero corrosion.
- No special man power needed.
- Superior pumping performance due to diametric swelling.

Superman HVT

TPU Hose

Mandals Superman High Volume Transfer (HVT) is our market-leading all-purpose hose for fluid transfer. Not only is Superman HVT designed for higher working pressures when transporting fluids, the hose is also heavily reinforced with exceptional resistance to abrasion

- **High Diameter and Dimension Stability**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **High Abrasion and Kink Resistance**
- **Minimal Snaking of Pressurizes Hose**
- **High Puncture Resistance**
- **Long Lifetime and Low Maintenance**
- **High Quality Materials**

Key Features

- Light-weight, safe and easy-to-use concrete boom hose.
- Ideal for ICF forms as well as tall walls, and columns with limited space.
- Improved flow control and placement rate compared to conventional concrete discharge hoses.
- Excellent abrasive resistance.
- Operating temperature from -50˚C to + 65 ˚C (-58˚F to +149˚F).

Advantages

- 1/3 lighter the traditional flexible boom hose.
- Safer operations and excellent maneuverability.
- Outstanding abrasive resistance.
- Custom various lengths.
- Easy pouring in high areas.
- Bright color for visibility and safety.
- Simple maintenance and cleaning operations.
- Coils up for storage and transportation.

Designed with premium thermoplastic polyether-based polyurethane (TPU) and is extruded with our state-of-the-art "through the weave" extrusion technology

The heavily reinforced and stabilized weave combined with great abrasion and puncture resistance makes for a hose you can rely on

Available in lengths up to 700 meters

Superman HVT (Technical data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
5	127 + 2.5	0.14	3.5	1.07	1.60	650	45	34.8	15.8
6	152 + 3.0	0.15	3.7	1.34	2.00	650	45	44.0	21.0
7	178 + 3.0	0.16	4.0	1.61	2.40	650	45	70.0	31.8
8	203 + 3.0	0.17	4.2	2.15	3.20	610	42	81.5	37.0
10	254 + 5.0	0.17	4.3	2.73	4.10	520	36	101.2	46.0
12	305 + 5.0	0.18	4.5	3.38	5.05	435	30	120.0	54.5

Water Transfer

Lightweight flexible pipeline for horizontal pumping

Steel on reel - Immediate increase in flow rate when replacing steel with Lay-flat hoses.

- Deployable in sandy and grassy conditions for high pressure pumping.
- No snaking - will allow booster pumps to operate safely.
- Expands for an increased flow and returns to set dimension during downtime.
- UV resistant and best in class PU material for longest lifetime.
- Non-corrosive material
- Max 2% elongation.

Ultraman HVT

TPU Hose

Ultraman high volume transfer (HVT) is a lightweight multipurpose hose, extruded "through the weave" by a polyether-based, high-quality thermoplastic polyurethane (TPU). Its high operational pressure combined with lightweight and compact storage makes it ideal for use within several industries.

Ultraman HVT has properties and dimensions similar to Mandals Superman HVT, but with a reduced thickness on the protective coating.

- **High Diameter and Dimension stability**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **High Abrasion and Kink Resistance**
- **As Light as a NBR Hose - Best In Class**
- **High Puncture Resistance**
- **Long Lifetime and Low Maintenance**
- **High Quality TPU**

Key Features

- Low weight combined with high pressure ratings.
- High strength, added UV barrier, high quality materials and excellent adhesion between weave and outer rubber layer gives a hose with a long life expectancy.
- Operating temperature from -30˚C to +75˚C (-22˚F to +167˚F). Intermittent use up to +80˚C (+176˚F).

Advantages

- Field proven hose with a long track record.
- Lengths up to 200 meters.
- Made from a blend of nitrile rubber with added UV barrier to prevent damage from UV radiation.
- Lengths up to 200 meters.
- A strong weave completely embedded in the nitrile rubber gives a very solid hose.

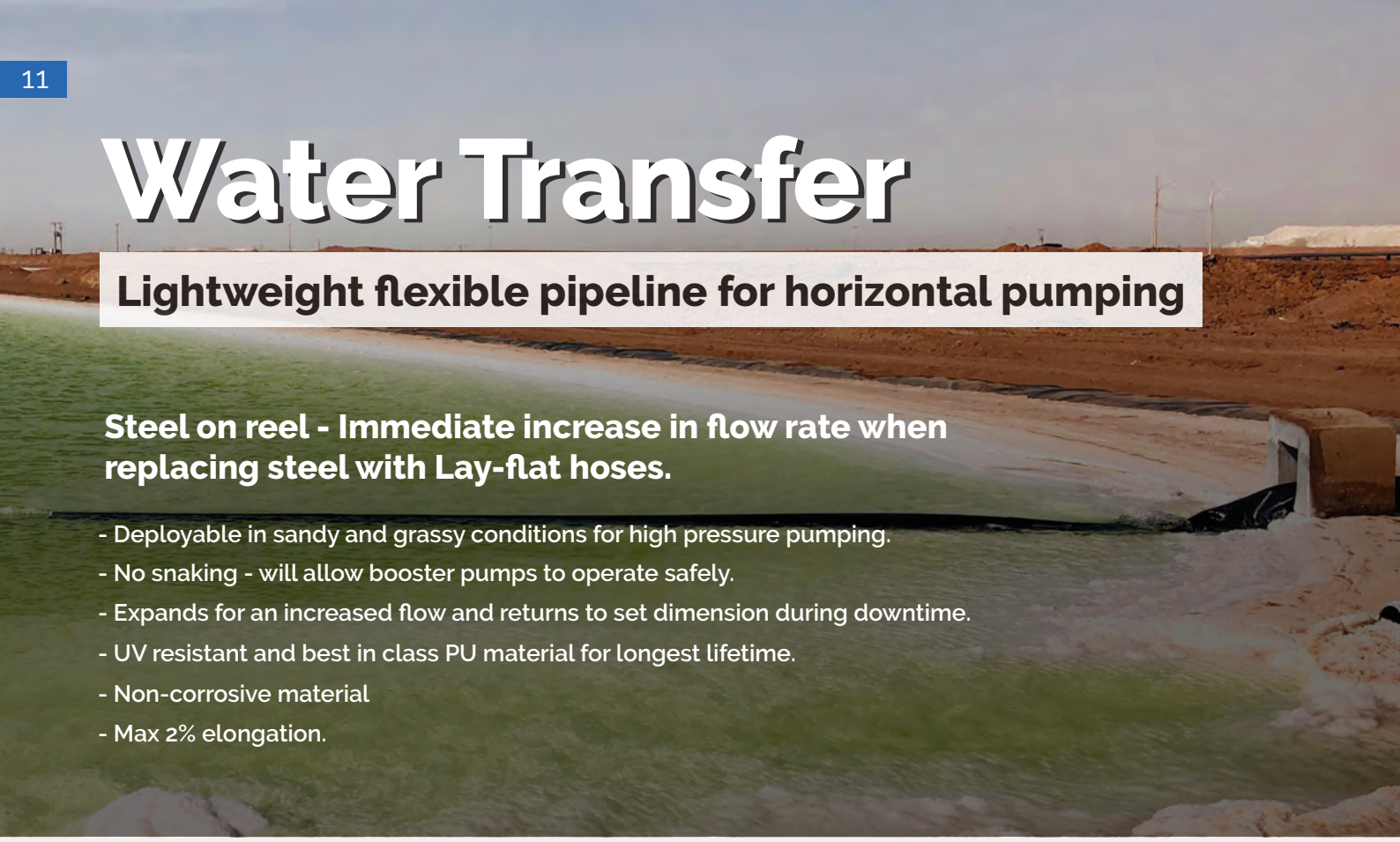
State of the art "through the weave" extrusion technology

Excellent adhesion between cover/lining and the weave

Excellent adhesion between cover/ lining and the weave

Ultraman HVT (Technical Data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
8"	203 + 3.0	0.16	3.9	1.82	2.7	610	42	81.5	37.0
10"	254 + 5.0	0.16	4.0	2.35	3.5	520	36	101.0	46.0
12"	305 + 5.0	0.17	4.2	2.83	4.2	435	30	120.0	54.5



Water Transfer

Lightweight flexible pipeline for horizontal pumping

Steel on reel - Immediate increase in flow rate when replacing steel with Lay-flat hoses.

- Deployable in sandy and grassy conditions for high pressure pumping.
- No snaking - will allow booster pumps to operate safely.
- Expands for an increased flow and returns to set dimension during downtime.
- UV resistant and best in class PU material for longest lifetime.
- Non-corrosive material
- Max 2% elongation.

Ultraman

TPU Hose

Durable and Lightweight All-Round Hose

Ultraman is designed as a lightweight transfer hose, meant for all-around use in mining, energy, and agriculture. Easy handling and a long service life make it very cost-effective.

Ultraman differs from our other high-volume transfer hoses in that it is a lighter construction and comes only in dimensions up to 7".

- **High Diameter and Dimension stability**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **High Abrasion and Kink Resistance**
- **Minimal Snaking of Pressurized Hose**
- **High Puncture Resistance**
- **Long Lifetime and Low Maintenance**
- **Light Weight**

Key Features

- Low weight combined with high pressure ratings.
- High strength, added UV barrier, high quality materials and excellent adhesion between weave and outer rubber layer gives a hose with a long life expectancy.
- Operating temperature from -30˚C to +75˚C (-22˚F to +167˚F). Intermittent use up to +80˚C (+176˚F).

Advantages

- Field proven hose with a long track record.
- Lengths up to 200 meters.
- Made from a blend of nitrile rubber with added UV barrier to prevent damage from UV radiation.
- Lengths up to 200 meters.
- A strong weave completely embedded in the nitrile rubber gives a very solid hose.

State of the art "through the weave" extrusion technology

Excellent adhesion between cover/lining and the weave

Excellent adhesion between cover/ lining and the weave

Ultraman (Technical Data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
2 1/2	65.0 + 2.0	0.11	2.8	0.44	0.66	810	56	14.3	6.5
3	76.0 + 2.0	0.11	2.8	0.54	0.84	780	54	17.4	7.9
3 1/2	90.0 + 2.0	0.11	2.9	0.66	0.98	620	43	20.0	9.1
4	102.0 + 2.5	0,13	3.2	0.80	1.20	610	42	22.2	10.1
4 1/2	114.0 + 2.5	0,13	3.2	0.93	1.39	535	37	23.8	10.8
5	127.0 + 2.5	0,13	3.2	1.02	1.52	505	35	26.4	12.0
6	152.0 + 3.0	0,13	3.2	1.16	1.73	435	30	32.8	14.9
7	178.0 + 3.0	0.13	3.2	1.37	2.05	390	27	37.6	17.1

Title

Title

Flexitex

Rubber Hose

Flexitex is made to be the ideal rubber fluid transfer hose, for agriculture and other industries. With a premium blend of nitrile rubber and PVC, this hose offers flexibility as well as is easy to deploy and store. It's made from a reinforced jacked of filament polyester yarn that the rubber blend has been extruded through – this gives a very strong adhesion between the cover and lining. The rubber blend has excellent chemical resistance and little or no reaction to h2S or saline content.

- **High Diameter and Dimension Stability**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **High Abrasion and Kink Resistance**
- **Excellent UV and Weather Resistance**
- **High Puncture Resistance**
- **Long Lifetime and Low Maintenance**
- **High Quality Materials**

Key Features

- Used as feeder hose for any type of water transfer application.
- General purpose, water discharge rubber hoses.
- Operating temperature from -30˚C to +75˚C (-22˚F to +167˚F). Intermittent use up to +80˚C (+176˚F).
- Very strong bonding between cover and lining as well as firmly encapsulating the reinforcing polyester.
- The rubber blend is extruded through a circular woven reinforcement made from filament polyester yarn.

Advantages

- Adapts well to the terrain and can be routed around obstacles. Preferred supply hoses for irrigation and as feeder hoses for slurry systems.
- The hose is also used as a light weight wash down or transfer hose for water based and non polar liquids in construction and general industry.
- Made from a blend of nitrile rubber and PVC, with added UV barrier to prevent damage from UV radiation

The rubber blend is extruded through a circular woven reinforcement made from filament polyester yarn

Made from a blend of nitrile rubber and PVC, with added UV barrier to prevent damage from UV radiation

Very strong bonding between cover and lining as well as firmly encapsulating the reinforcing polyester

Flexitex

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
1 1/2	38.0 + 1.6	0.09	2.3	0.21	0.33	940	65	6.4	2.9
2	51.0 + 2.0	0.09	2.2	0.29	0.43	670	46	8.4	3.8
2 1/2	65.0 + 2.0	0.09	2.2	0.36	0.53	670	46	9.3	4.2
3	76.0 + 2.0	0.10	2.5	0.49	0.73	670	46	11.5	5.2
3 1/2	90.0 + 2.0	0.11	2.7	0.67	1.00	610	42	17.6	8.0
4	102.0 + 2.5	0.11	2.7	0.74	1.10	535	37	19.4	8.8
6	150.0 + 3.0	0.13	3.2	1.19	1.78	535	37	35.5	16.1

Flexitex Extra

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
3"	76 + 2,0	0.12	3.1	0.64	0.95	720	50	20.1	9.1
3 1/2	90 + 2,5	0.13	3.3	0.79	1.18	640	44	22.3	10.1
4	102 + 2,5	0.13	3.2	0.80	1.20	610	42	25.1	11.4
4 1/2	114 + 3,0	0.13	3.2	0.96	1.43	510	35	27.6	12.5
5	127 + 4,0	0.13	3.4	1.13	1.68	440	30	30.2	13.7
6	151 + 4,0	0.15	3.8	1.41	2.10	610	42	z37.5	17.0

Flexible Rising Main

Wellman 120 is designed for superior hydraulic performance, with a reinforced textile, designed for swell under operation conditions up to 15%.

Wellman 120

TPU Hose

Wellman 120 is designed for superior hydraulic performance, with a reinforced textile, designed for swell under operation conditions up to 15%. This unique feature gives a nominal increase in riser diameter, reducing friction loss and improving performance.

The small storage footprint allows for transportation by smaller vehicles and requires less manpower when handled. In certain circumstances, Wellman 120 can be installed by hand, which is particularly useful when installation is required in remote locations with limited access. Wellman 120 can be delivered in lengths up to 120m.

- **Cost Efficient**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **Less Impact on the enviroment**
- **Drinking Water Approved**
- **High Working Pressure**
- **Long Lifetime and Low Maintenance**
- **High Quality Materials**

Key Features

Rapid Installation and Retrieval of the Submersible Pump

- Transfer large volumes of water with high working pressures.
- Lightweight and easy to deploy.
- Premium abrasion resistance.
- Minimum extension in length.

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 20%. This feature gives a nominal increase in riser diameter, reducing friction loss and improving hydraulic performance.

Easy to store and transport

Wellman 120 has a small storage footprint compared to rigid pipe, allowing transportation by smaller vehicles and requiring less manpower. In certain circumstances, Wellman 120 can be installed by hand. Particularly useful when installation is required in remote locations with poor access.

Supplied in a single length to the required pump setting

All synthetic materials of construction mean that there is zero corrosion and no scale build up

The textile reinforcement is designed to swell under operating conditions up to 15%.

Wellman 120 (Technical Data)

Diameter	mm Inch	32 mm 1 1/4 "	51 mm 2"
Wall diameter	m ft	2.2 0.09	2.4 0.09
Maximum pump setting	bar psi	120 400	120 400
Burst pressure	bar psi	50 725	48 700
Maximum operating pressure	kg lb	25 365	24 350
Effective tensile strength	kg lb	2.000 4.400	3.100 6.850
Maximum continuous end load	kg/m lb/ft	800 1.770	1.200 2.650
Weight (hose only)	kg lb	0.31 0.21	0.50 0.34
Weight (Mandals coupling)	mm in	0.3 0.6	0.6 1.2
Mandals coupling O/D	mm in	59 2.3	80 3.1
Maximum extension under load con- ditions	%	+2	
Maximum diameter swell	%	+ 20	
Maximum water temperature	°C °F	- 40 to + 50. (with intermittent use up to 80) - 40 to +122 (with intermittent use up to 176)	
Water quality Below 30 °C / 86 °F Above (or equal) 30 °C / 86 °F	pH	4 - 9 5 - 9	
Pressure loss at maximum flow	bar psi	2 29	
Velocity at maximum flow	m/s f/s	2.9 1.0	3.7 1.3
Velocity flow rate a nominal 250m / 820 ft pump setting	l/s gpm	2.9 44	9.2 146

Flexible Rising Main

The best flexible Solutions for Groundwater Abstraction

Wellman 300 holds several international drinking water certifications, including NSF61, WRAS, KTW-DVGW, AS-NZS4020-2005 and PZH. Wellman 300 can be delivered in lengths up to 300m.

Wellman 300

TPU Hose

Wellman 300 is manufactured using 'through-the-weave' technology, where the high-grade HDPE lining and cover are formed in a single process to provide a tough one-piece composite riser.

Continuous circular weaving of synthetic yarns forms a lightweight, high-strength, seamless reinforcement, the design of which gives Wellman its tensile strength.

- **Cost Efficient**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **Less Impact on the environment**
- **Drinking Water Approved**
- **High Working Pressure**
- **Long Lifetime and Low Maintenance**
- **High Quality Materials**

Key Features

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 head works. 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 drop pipe diameter, reducing friction loss and improving hydraulic performance. Often this can be translated into a smaller Wellman diameter than conventional rigid pipe, giving

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.

Supplied in a single length to the required pump setting,

All synthetic materials of construction mean that there is zero corrosion and no scale build up

The textile reinforcement is designed to swell under operating conditions up to 15%.

Wellman 300 (Technical Data)

Diameter	mm Inch	51 mm 2"	76 mm 3"	102 mm 4"	127 mm 5"	152 mm 6"
Maximum pump setting	m ft	300 1,000	300 1,000	300 1,000	280 930	280 930
Burst pressure	bar psi	62 900	62 900	62 900	58 840	58 840
Maximum operating pressure	bar psi	31 450	31 450	31 450	29 420	29 420
Effective tensile strength	kg lb	4,600 10,150	8,000 17,650	14,000 31,000	20,000 44,100	23,000 50,700
Maximum continuous end load	kg lb	1,800 4,000	3,200 7,050	5,600 12,350	8,000 17,650	9,200 20,300
Weight (hose only)	kg/m lb/ft	0.7 0.5	1.0 0.7	1.6 1.1	2.0 1.3	2.5 1.7
Weight (Mandals coupling)	kg lb	1.4 3.1	3.4 7.5	6.3 13.9	11.3 25.0	15.6 34.4
Mandals coupling O/D	mm in	80 3.1	115 4.5	145 5.7	177 7.0	200 8.0
Maximum extension under load conditions	%	+ 2				
Maximum diameter swell	%	+ 15				
Maximum water temperature	°C °F	- 40 to + 50. (with intermittent use up to 80) - 40 to +122 (with intermittent use up to 176)				
Water quality Below 30 °C / 86 °F Above (or equal) 30 °C / 86 °F	pH	4 - 9 5 - 9				
Pressure loss at maximum flow	bar psi	2 29				
Velocity at maximum flow	m/s f/s	2.4 8	3.0 10	3.0 10	4.2 14	4.5 15
Velocity flow rate a nominal 250m / 820 ft pump setting	l/s gpm	8 127	18 285	41 650	78 1,238	105 1,665

Compressed Air

Mantex HP

TPU hose

Mantex HP is a world-class lay-flat hose designed for compressed air at higher working pressures. The hose is designed with a double jacket, meaning that both the inner and outer layer is made with premium thermoplastic polyether-based polyurethane (TPU).

Mantex HP is designed to be a flexible and lightweight hose that adapts to the terrain, making it possible to easily operate in difficult areas. For your convenience, the hose has been designed to be easy to coil for storage and transportation.

- **High Burst Pressure**
- **Easy to Deploy and Store**
- **Great Adhesion and Tensile Strength**
- **Safety First**
- **Light Weight and Flexible**
- **High Puncture Resistance**
- **Long Lifetime and Low Maintenance**
- **High Quality Materials**

Key Features

- The low weight, combined with a high-pressure rating, makes the hose popular and easy to use.
- The hose does not stretch when pulled and has a very high-pressure rating versus wall thickness.
- Excellent abrasive resistance.
- Double Jacket hose with outer and inner layers of high-quality TPU.
- Operating temperature from -50˚C to + 110˚C (-58˚F to +230˚F).

Advantages

- We offer a range of diameters and lengths for this hose, depending on the version. The diameters range from 51mm to 75mm, and for some diameters, the hose can be delivered in lengths up to 40m.
- Field-proven hose with long track record
- High working pressure (WP).
- Low weight.
- High Flexibility.
- Easy handling – low weight compared to a conventional hose.

Double Jacket hose with TPU in the outer layer / Inner layer

Covered and lined with high-tenacity polyester weaves for maximum abrasion resistance

Lengths up to 40 meters

Mantex HP (Technical Data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
2	51 + 2.0	0.17	4.4	0.55	0.82	2535	175	31.7	14.3
3	75 + 2.0	0.18	4.5	0.83	1.24	1740	120	46.6	21.0

Compressed Air

Mantex

Rubber hose

Mantex combines lightweight and flexibility with the highest pressure ratings and safety. The hose is designed for high burst pressure compressed air applications and is highly resistant to abrasion and kinking. Nitrile rubber and PVC are blended together to create a high-quality hose with a UV barrier to prevent UV damage.

Mantex is designed to be your ideal rubber hose for compressed air applications, but the hose can also be used for other applications such as transporting liquids. For your convenience, the hose has been designed to be easy to coil for storage and transportation, storage and transportation.

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- **High Quality Materials**

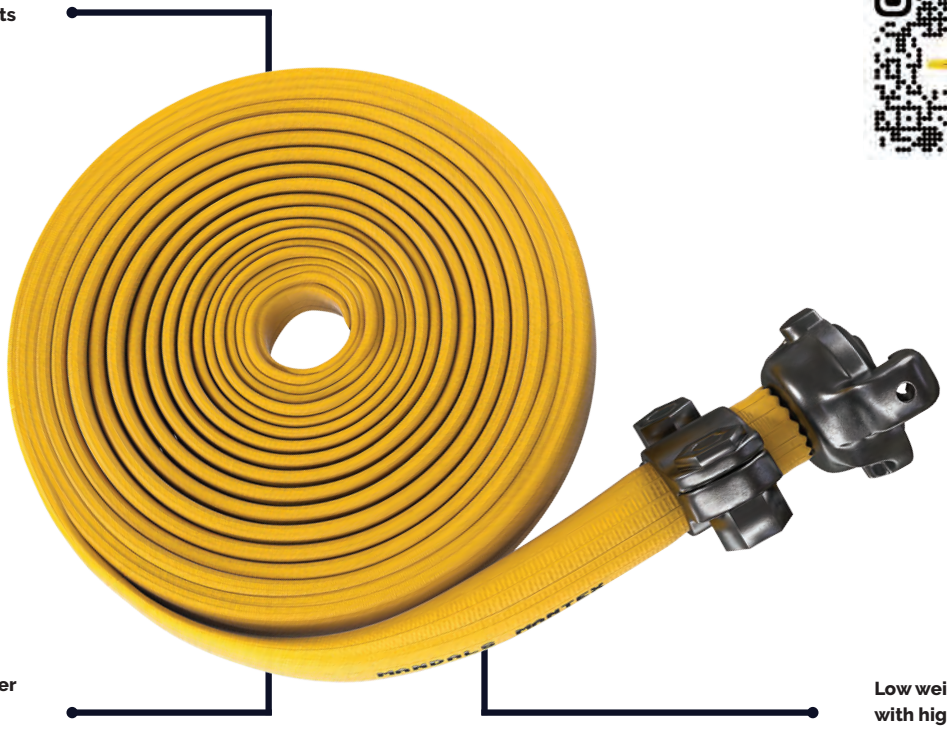
Key Features

- Low weight combined with high pressure ratings.
- High strength, added UV barrier, high quality materials and excellent adhesion between weave and outer rubber layer gives a hose with a long life expectancy.
- Operating temperature from -30˚C to +75˚C (-22˚F to +167˚F). Intermittent use up to +80˚C (+176˚F).

Advantages

- Field proven hose with a long track record.
- Lengths up to 200 meters.
- Made from a blend of nitrile rubber with added UV barrier to prevent damage from UV radiation.
- Lengths up to 200 meters.
- A strong weave completely embedded in the nitrile rubber gives a very solid hose.

The weave is fully embedded in the nitrile rubber, giving the product its strength



Made from a blend of Nitrile rubber with added UV barrier to prevent damage from UV radiation

Low weight combined with high pressure ratings

Mantex (Technical Data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
3/4	20.0 + 1.6	0.09	2.3	0.14	0.21	1450	100	4.2	1.9
1	25.4 + 1.6	0.10	2.5	0.18	0.27	1450	100	5.1	2.3
1 1/2	38.0 + 1.6	0.10	2.5	0.25	0.38	1235	85	7.7	3.5
2	51.0 + 2.0	0.10	2.5	0.35	0.53	870	60	10.4	4.7
2 1/2	65.0 + 2.0	0.11	2.9	0.45	0.68	725	50	14.8	6.7
3	76.0 + 2.0	0.12	3.1	0.63	0.95	725	50	17.9	8.1

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By scanning the QR code below, you will be able to fill in your information and choose the products you would like to learn more about. One of our sales managers will reach out shortly to help you out with what you need.

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