

mandals
since 1775
A Michelin Group Company

World Class Lay-Flat Hoses

Construction



www.mandals.com
Legacy Through Innovation



Content

1	About Us	2
2	Why Mandals?	3
3	Our Materials	3
	● Rubber	
	● TPU	
4	Our Construction Hoses	4
5	Advantages of Mandals Hoses	5
6	Quality Control	5
7	Looms & Spares	6
8	Concrete Boom-End & Compressed Air Hoses	7
9	Mortar	9
10	Mantex HP	11
11	Mantex	13



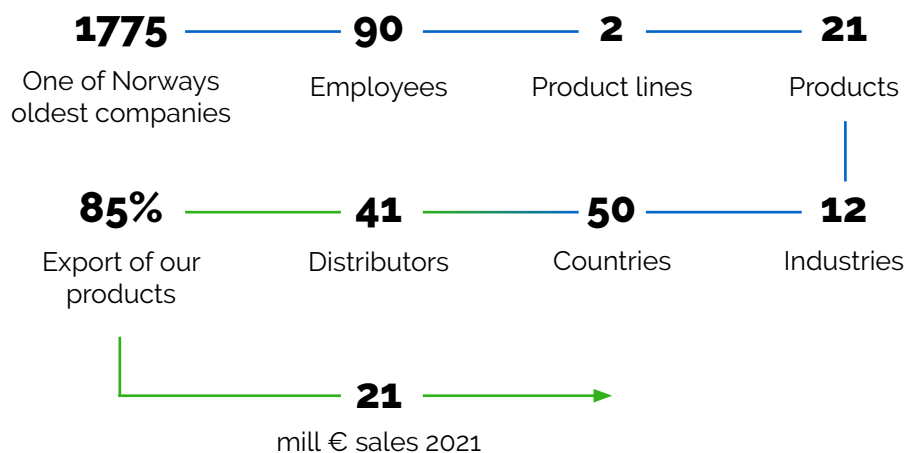
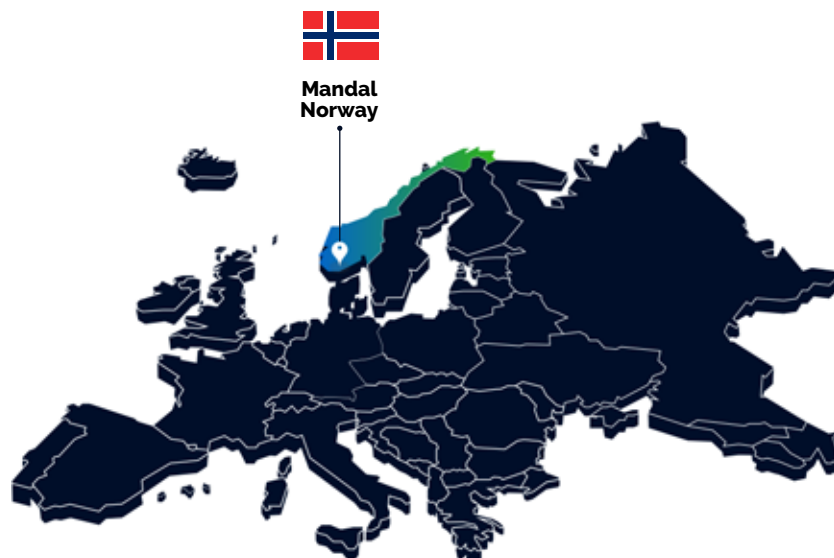
Abbreviations

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.



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 the 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 Construction Hoses

The construction industry is one of the most demanding in terms of safety. Our lay-flat hoses are specifically designed for this industry that requires efficient, and modern techniques. The lay-flat design allows better flow control and lower placement rates while being designed for safe use.

Our concrete boom end hose is a lightweight and flexible lay-flat hose with many advantages in the construction industry. It is operator friendly, makes it easy to pour concrete, and has a long lifespan, meaning it will not wear out as quickly as other hoses.

Our market-leading compressed air hoses combine lightweight and flexibility with the highest pressure ratings and safety. The long lengths mean it can easily be deployed and moved around in otherwise inaccessible areas. All hoses are designed for longitudinal failure mode, with a minimum safety factor of 4:1 between burst pressure and maximum working pressure. The dual-layer Mantex HP is additionally designed so that failure of a layer still ensures the structural integrity of the second layer.



Rubber 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.



Thermoplastic polyether-based polyurethane (TPU) hoses.

Our Construction Hoses

Mortar

TPU concrete boom-end hose



Mantex HP

TPU compressed high-pressure air hose



Mantex

Rubber compressed air hose



Advantages of Mandals Hoses

Durability and **wear resistance** provides for long-lasting hoses for demanding use

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

High abrasive resistance and tensile strength

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

Highly flexible hoses = Kink resistant and minimal pressure loss



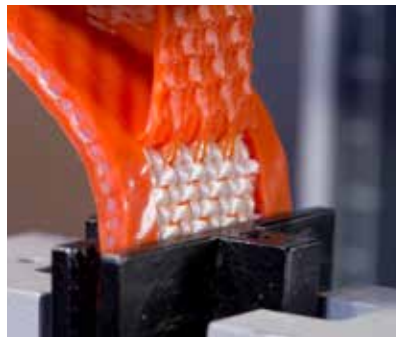
Continuous Development & Quality Control

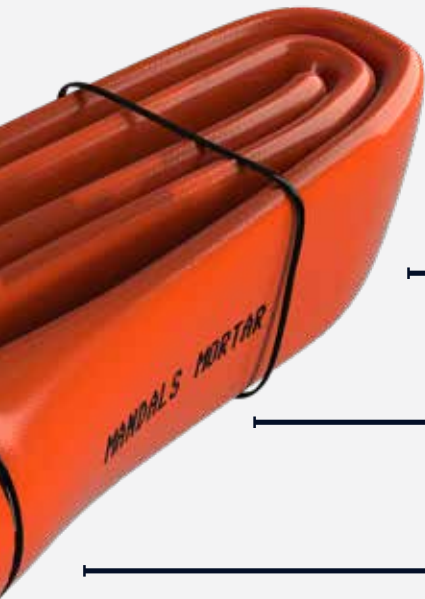
One of the values we live by is **innovation through legacy**, meaning that we will always work to further develop our products, our production processes and the way we do business with our partners. We are following the trends in the market and continuously working to develop new products and solutions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

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

Examples:

- ISO4671 - Wall Thickness
- ISO1402 - Hydrostatic testing
- ISO8033 - Adhesion
- BS6391 - Abrasion
- BS6391 - Heat Resistance





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



mandals
since 1775

A Michelin Group Company

**Lay-Flat Hoses
for Construction**



Reliability in Demanding Situations

The construction industry is one of the most demanding in terms of safety. Our lay-flat hoses are specifically designed for this industry that requires efficient, and modern techniques. The lay-flat design allows better flow control and lower placement rates while being designed for safe use.

Our concrete boom end hose is a lightweight and flexible lay-flat hose with many advantages in the construction industry. It is operator friendly, makes it easy to pour concrete, and has a long lifespan, meaning it will not wear out as quickly as other hoses.

Our market-leading compressed air hoses combine lightweight and flexibility with the highest pressure ratings and safety. The long lengths mean it can easily be deployed and moved around in otherwise inaccessible areas. All hoses are designed for longitudinal failure mode, with a minimum safety factor of 4:1 between burst pressure and maximum working pressure. The dual-layer Mantex HP is additionally designed so that failure of a layer still ensures the structural integrity of the second layer.

01



Mortar

02



Mantex HP

03



Mantex



Cost-Efficient

Incorporating our easily deployable hoses with your existing equipment saves you money.



Quick

Get the work done in a shorter time frame, with a more effective solution, less manual labor, and equipment.



User-friendly

Our hoses have been designed with the operator in mind, making them easy to use and simplifying the job.



Safety First

Our hoses are made with the highest pressure ratings, and will always split longitudinally for safety reasons.

Concrete Boom-End Hose

Mortar

TPU hose

Mortar is a lightweight and flexible boom end hose perfect for the construction industry. It is operator friendly, making it easy to pour concrete, and has a long lifespan, ensuring it will last long after you stop using it.



High Diameter and Dimension Stability



Easy to Deploy and Store



Great Adhesion and Tensile Strength



Improved Safety – No Hose Whip



Light Weight and Flexible



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 rates 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 than 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.

The design prevents hose whip, an important safety feature.



The bond is very strong between cover and lining and encapsulates the reinforcement

“Through the weave extruded hose” of TPU and ultra-strong Aramid yarns

Mortar (Technical data)

Inner diameter		Wall Thickness		Weight		Burst Pressure		Tensile Strength	
Inch	mm	Inch	mm	Lbs / ft	Kg / m	Psi	Bar	X1000 lbs	Tons
4"	110.5 + 2.0	0.17	4.2	1.16	1.73	2500	172	178	80
5"	135.5 + 2.0	0.18	4.5	1.64	2.45	2500	172	218	98



Compressed Air

Mantex HP

TPU hose

For piling and compressors with additional horsepower.

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).



High Burst Pressure



Easy to Deploy and Store



Great Adhesion and Tensile Strength



Improved Safety – No Hose Whip



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

- Field-proven hose with long track record.
- Lengths up to 40 meters.
- High working pressure.
- 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

For smaller compressors and handheld jackhammers.

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.



High Burst Pressure



Easy to Deploy and Store



Great Adhesion and Tensile Strength



Improved Safety – No Hose Whip



Light Weight and Flexible



High Puncture Resistance



Long Lifetime and Low Maintenance



High Quality Materials

Key Features

- Low weight combined with high-pressure ratings.
- High strength, added UV barrier, high quality materials and excellent adhesion between the weave and the 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).

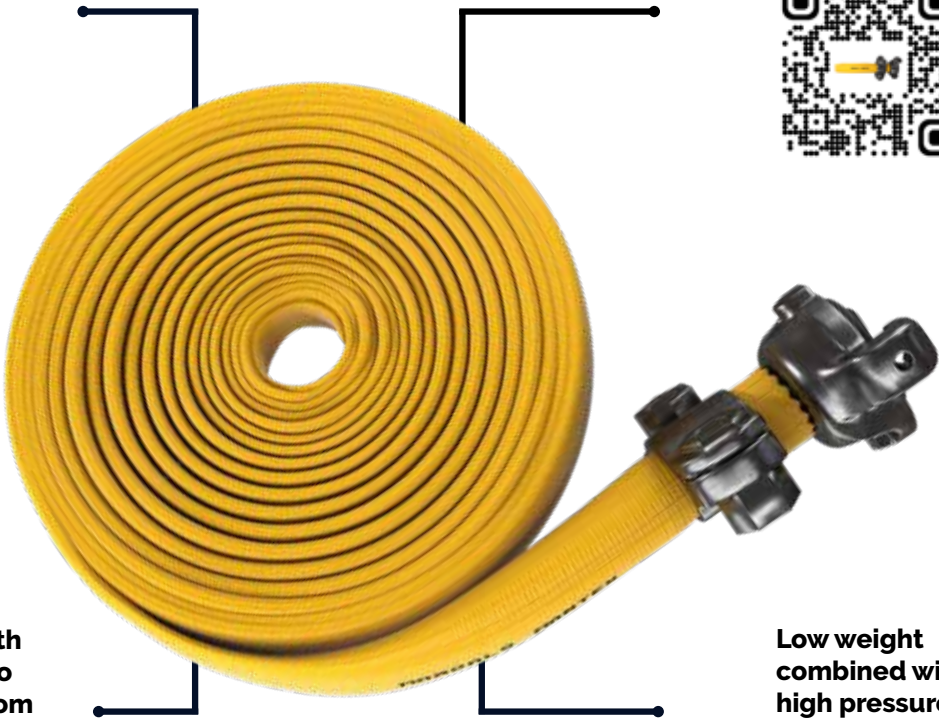
Advantages

- 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



World-Class Lay-Flat Hoses

Construction

Let Us Contact You!

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 salesmanagers will reach out shortly to help you out with what you need.



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