

World Class Lay-Flat Hoses

Agriculture



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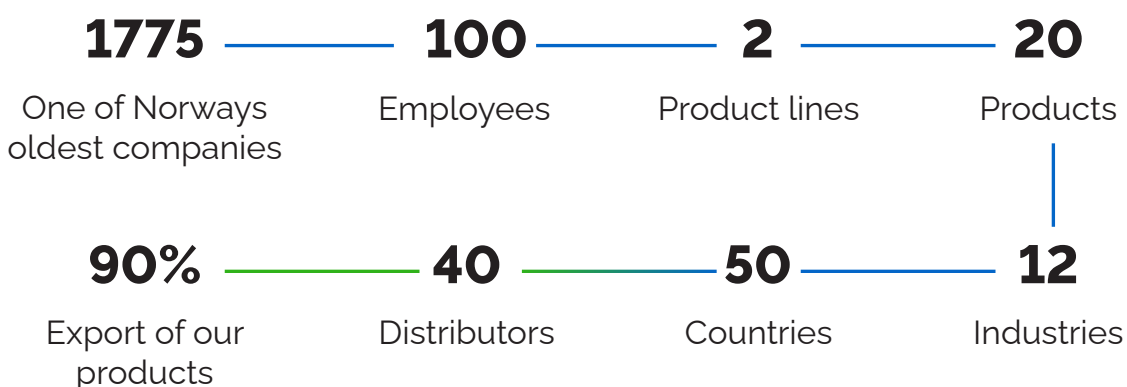
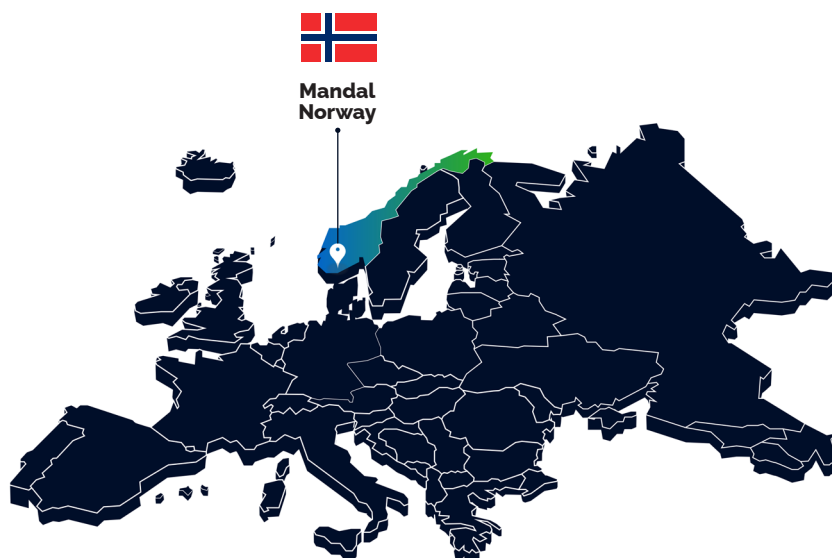
Abbreviations

AG	Agriculture
HVT	High Volume Transfer
NBR	Nitrile Rubber
TPU	Thermoplastic Polyurethane

About Us

Mandals specializes in the manufacturing of high quality lay-flat hoses, liners, 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. 90% of our products are exported and are found across the globe thanks to our long-standing partners and distributors.



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 quality in the production process and products. All lay-flat hoses and looms are produced in-house, meaning that you can be assured we produce quality without compromise.

Our Materials

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 fabric, ensuring excellent bonding between cover and lining to prevent delamination. Thanks to the interlocking between the warp yarns and the weft of the circular weave, the hose has a 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 is among the highest available, and our TPU hoses also have excellent resistance against the most commonly used chemicals, UV radiation, hydrolysis, and fungus degradation.

▶ Rubber Hoses



▶ Thermoplastic Polyurethane (TPU) Hoses



Our Agriculture Hoses

Dragman Series

TPU Drag Line



Superman HVT

TPU Supply Line



Ultraman & Ultraman HVT

Multipurpose TPU Transfer Hose



Flexitex Series

Rubber Supply Line



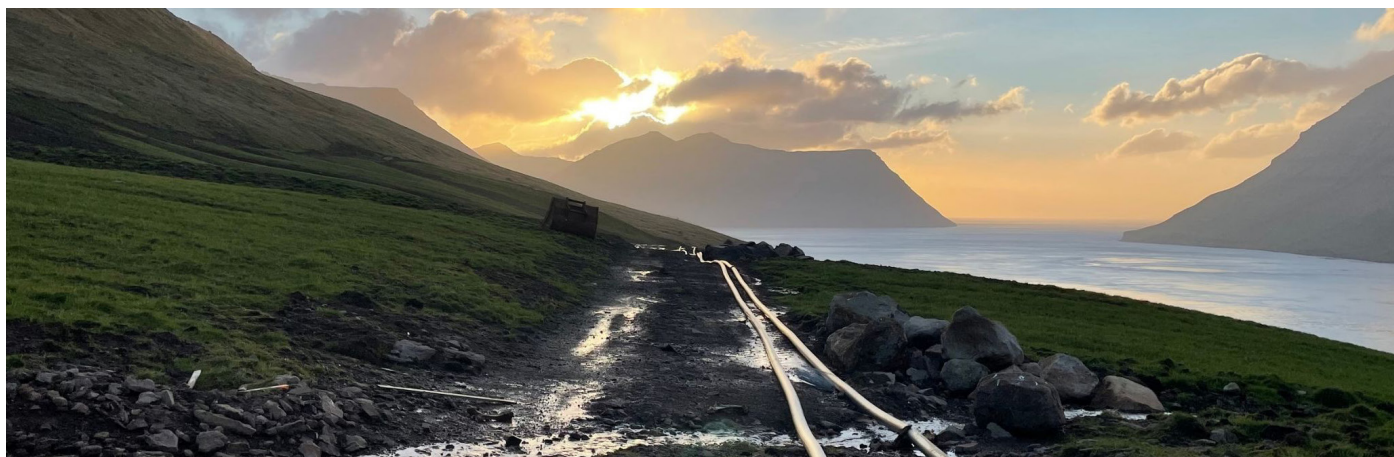
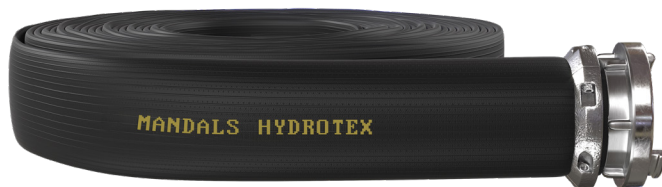
Irriman PU

Multipurpose PU Irrigation Hose



Hydrotex

Rubber Irrigation Transfer Hose



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



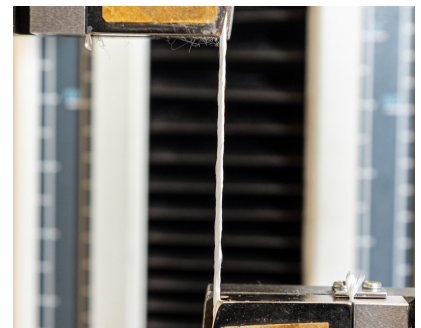
Quality

One of the values we live by is "**Legacy Through Innovation**", 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 our customers' unique challenges.

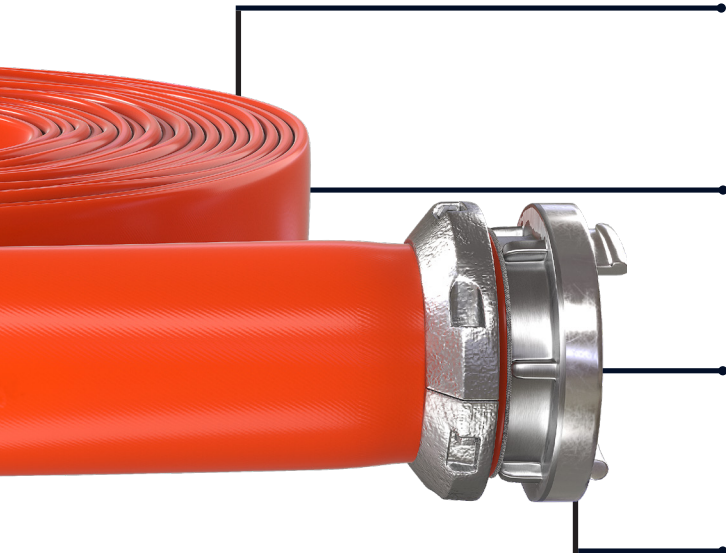
Raw materials and finished products are tested and documented according to international standards.

Examples:

ISO 4671 - methods of measurement
ISO 1402 - hydrostatic testing
ISO 8033 - adhesion
BS 6391 - abrasion
NS 4016 - heat resistance



Long lasting hoses for demanding use require **durability** and **wear 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



Agriculture Lay-Flat Hoses



Umbilical Drag Hose & Irrigation Systems

Dragman Standard has a medium thickness of TPU. This gives good abrasive resistance and long service life on a soil not too abrasive and rough. Very high tensile strength and low kink radius.

Dragman Premium is designed to handle smaller fields effectively, with a superior kink resistance on sharper turns. It has high TPU thickness and adhesion, giving an optimal resistance to wear and tear even on rougher surfaces.

Dragman Extra Performance has increased TPU cover thickness, optimal for larger fields and rockier soils. This gives a hose with added strength and resistance to wear and tear.

Mandals Superman HVT is a hose intended for large volume transfer under high pressure and is widely used as supply hoses for large agricultural systems.

Mandals Ultraman is a multipurpose transfer hose, which is suitable as a feeder hose or even as a drag hose in smaller umbilical systems.

Mandals Flexitex Standard is a heavily reinforced fluid transfer hose series with long track record. A general purpose hose for use in agricultural systems.

Mandals Flexitex Extra is a more reinforced fluid transfer hose for agricultural systems, but may also serve as a drag hose in smaller umbilical systems.

Mandals Flexitex Performance is a heavily reinforced fluid transfer hose with long track record. The versatile design and high-quality rubber has made it popular across many applications worldwide.

Mandals Hydrotex rubber hose has been specially designed in cooperation with irrigation specialists as a lightweight water transport hose for static irrigation systems, meeting the highest construction quality standards for long service life and excellent cost-efficiency.

Mandals Irriman PU has been specially designed as a lightweight supply hose for linear irrigation systems, meeting the highest construction quality standards for long service life and excellent costefficiency.



Dragman (series)



Superman HVT



Ultraman HVT



Ultraman



Flexitex (series)



Hydrotex



Irriman PU

Drag Line



Dragman Series

TPU Hoses

Our Dragman hoses are high quality flexible lay-flat hoses designed for especially rough use with umbilical drag hose systems for distribution of slurry and manure in agricultural fields. Hoses are connected between slurry reservoirs (lagoons), where the drag hoses are used closest to the tow tractor. Between the lagoon and the edge of the field, the slurry/manure is transferred using supply line hoses.



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

Primary Uses & Applications

- Umbilical drag systems.
- Distribution of slurry and manure.

Features

- Low kink radius.
- Designed to withstand the extreme tensile loads and abrasion seen in umbilical slurry systems.
- High diameter and extension stability.
- High puncture resistance.
- Excellent UV and weathering resistance.

Construction

- Covered and lined with Thermoplastic Polyurethane (TPU).
- Extrusion through the weave technology - ensuring excellent adhesion between TPU and the weave.
- Heavily reinforced weave ensuring required longitudinal tensile strength and burst pressure.

Properties

- Lengths up to 600m for some dimensions.
- Color options: Orange (standard).
- Operating temperature from -50°C to +65 °C (-58°F to +149°F).

Thermoplastic polyether
polyurethane



Engineered with excellent
tensile strength and
abrasion properties

Extruded through
a circular woven
jacket

Dragman Standard

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
DRS090	3 1/2	90	0.13	3.4	0.70	1.05	305	21	610	42	28.7	13.0
DRS102	4	102	0.14	3.6	0.91	1.35	305	21	610	42	32.9	14.9
DRS114	4 1/2	114	0.15	3.8	1.11	1.65	260	18	520	36	37.5	17.9
DRS127	5	127	0.15	3.8	1.14	1.70	230	16	460	32	43.9	19.9

Dragman Premium

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
DRP102	4	102	0.16	4.2	1.14	1.70	265	18.5	535	37	37.5	17.9
DRP114	4 1/2	114	0.17	4.3	1.22	1.82	250	17.5	510	35	43.9	19.9
DRP127	5	127	0.17	4.3	1.31	1.95	215	15	435	30	48.3	21.8
DRP140	5 1/2	140	0.17	4.3	1.44	2.20	215	15	435	30	56.4	25.5
DRP152	6	152	0.17	4.4	1.54	2.30	215	15	435	30	60.4	27.3
DRP203	8	203	0.21	4.7	2.28	3.40	215	15	435	30	103.2	46.9

Dragman Extra Performance

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
DRXP114	4 1/2	114	0.19	4.8	1.35	2.00	250	17.5	510	35	30.3	13.7
DRXP127	5	127	0.19	4.8	1.48	2.20	215	15	435	30	48.3	21.8
DRXP140	5 1/2	140	0.19	4.9	1.65	2.45	215	15	435	30	56.4	25.5
DRXP152	6	152	0.20	5.0	1.85	2.75	215	15	435	30	60.4	27.3
DRXP165	6 1/2	165	0.20	5.1	2.30	3.40	290	20	580	40	81.2	36.8
DRXP178	7	178	0.21	5.3	2.35	3.50	290	20	580	40	81.2	36.8
DRXP184	7 1/4	184	0.21	5.3	2.38	3.55	290	20	580	40	81.2	36.8

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.

Supply Line & Irrigation

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 and cutting.

The Mandals Superman HVT series is superior in properties when compared to Ultraman HVT.



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



High Quality Materials

Primary Uses & Applications

- Heavy-duty firefighting systems and fire monitors.
- Emergency water removal during floods.
- Industrial plants.
- Refineries.
- Tank farms.
- Tank to ship vessels and vice versa.
- Long-distance water transfer.
- Mining.
- Supply hose for large agricultural systems.

Features

- Resistant to a wide range of chemicals.
- High diameter stability and diameter recovery after pressure release.
- Excellent hydrolysis and fungus resistance.
- Superior UV, Ozone, and weathering resistance.
- Excellent abrasion and puncture resistance.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The TPU is extruded through a circular woven reinforcement, creating a strong bond between cover and lining that prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- Length up to 200m. Longer lengths on request on certain sizes.
- Color options: Black (standard).
- Different coupling options available.
- Operating temperature from -50°C to +75°C (-22°F to +167°F) for pure water.

State of the art “through the weave” extrusion technology



Excellent adhesion between cover/lining and the weave

Full diameter recovery after pressure release

Superman HVT

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
ULY127	5	127	0.14	3.5	1.07	1.60	325	22.5	650	45	34.8	15.8
ULY152	6	152	0.15	3.7	1.34	2.00	320	22	640	44	44.0	21.0
ULY178	7	178	0.16	4.0	1.61	2.40	305	21	610	42	70.0	31.8
ULY203	8	203	0.17	4.2	2.15	3.20	305	21	610	42	81.5	37.0
ULY254	10	254	0.17	4.3	2.73	4.10	260	18	520	36	101.0	46.0
ULY305	12	305	0.18	4.5	3.38	5.05	215	15	435	30	120.0	54.5
ULZ305	12	305	0.20	5.2	3.69	5.50	300	20	600	41	154.0	70.0

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.





Supply Line & Irrigation

Ultraman HVT

TPU Hose

The Mandals 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. Mandals Ultraman HVT is a lightweight multipurpose hose. Its high operational pressure combined with lightweight and compact storage makes it ideal for use within several industries.

The Ultraman is complemented by Ultraman HVT to form a full range up to 12". Ultraman and Ultraman HVT are lighter and more flexible than Superman HVT equivalent dimensions.



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

Primary Uses & Applications

- Firefighting.
- Refineries.
- Civil defense.
- Emergency water transfer.
- Feeder and supply hose within agriculture.

Features

- Resistant to a wide range of chemicals.
- Full diameter recovery after pressure release.
- Excellent hydrolysis and fungus resistance.
- Superior UV, Ozone, and weathering resistance.
- Field proven hose with a long track record.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The TPU is extruded through a circular woven reinforcement, creating a strong bond between cover and lining that prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- Length up to 200m.
- Color options: Black (standard).
- Different coupling options available.
- Operating temperature from -50°C to +75°C (-22°F to +167°F) for pure water.

State of the art “through the weave” extrusion technology



Excellent adhesion between cover/lining and the weave

Full diameter recovery after pressure release

Ultraman HVT

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
ULH203	8	203	0.16	3.9	1.82	2.7	305	21	610	42	815	37.0
ULH254	10	254	0.16	4.0	2.35	3.5	260	18	520	36	101.0	46.0
ULH305	12	305	0.17	4.2	2.83	4.2	215	15	435	30	120.0	54.5

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.



Supply Line & Irrigation



Ultraman

TPU Hose

The Mandals 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.

The Ultraman is complemented by Ultraman HVT to form a full range up to 12". Ultraman and Ultraman HVT are lighter and more flexible than Superman HVT equivalent dimensions.



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

Primary Uses & Applications

- Dewatering in industry and open pit mines.
- Bypass line for sewage.
- Bypass line for slurry.
- Feeder hose for irrigation.
- Drag hose in smaller umbilical systems.

Features

- Resistant to a wide range of chemicals.
- Full diameter recovery after pressure release.
- Excellent hydrolysis and fungus resistance.
- Superior UV, Ozone, and weathering resistance.
- Field proven hose with a long track record.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The TPU is extruded through a circular woven reinforcement, creating a strong bond between cover and lining that prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- Length up to 200m. Longer lengths upon request for some sizes.
- Color options: Black (standard).
- Different coupling options available.
- Operating temperature from -50°C to +75°C (-22°F to +167°F) for pure water.

State of the art “through the weave” extrusion technology



Excellent adhesion between cover/lining and the weave

Full diameter recovery after pressure release

Ultraman

Article Number	Inner Diameter		Wall Thickness		Weight		Maximum Working Pressure ¹		Burst Pressure		Nom. Tensile Strength ²	
	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
ULS065	2 1/2	65	0.11	2.8	0.44	0.66	400	28	810	56	14.3	6.5
ULS076	3	76	0.11	2.9	0.56	0.84	360	25	725	50	17.4	7.9
ULS090	3 1/2	90	0.12	3.0	0.66	0.98	310	21.5	620	43	20.0	9.1
ULS102	4	102	0.13	3.2	0.81	1.20	305	21	610	42	22.2	10.1
ULS114	4 1/2	114	0.13	3.2	0.93	1.39	265	18.5	535	37	23.8	10.8
ULS127	5	127	0.13	3.3	1.02	1.52	250	17.5	505	35	26.4	12.0
ULS152	6	152	0.13	3.3	1.16	1.73	218	15	435	30	32.8	14.9
ULS178	7	178	0.13	3.4	1.38	2.05	195	13.5	390	27	37.6	17.1

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.



Supply Line & Irrigation

Flexitex Series

Rubber Hose

Mandals Flexitex is a heavily reinforced fluid transfer hose series with long track record. The versatile design and high-quality rubber have made it popular across many applications worldwide.

The Flexitex series is comprised of Standard, Extra, and Performance. Extra is thicker and has a higher pressure than Standard. Performance is the Extra series with an even thicker outer layer.



**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**

Primary Uses & Applications

- Feeder hose for any type of water transfer application.
- General water transfer hose for non-flammable liquids in construction, mining and industry.
- Supply hose for irrigation.
- Feeder hose for slurry systems.
- Drill water supply.
- Used as a flexible pipeline for industrial firefighting teams.

Features

- Highly durable.
- Light weight and easy to deploy and retrieve.
- Adapts well to the terrain and can be routed around obstacles.
- Minimum axial elongation and snaking.
- Field proven hose with a long track record.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The rubber blend is extruded through a circular woven reinforcement made from filament polyester yarn.
- A strong bond between cover and lining prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- Lengths up to 200 meters.
- Color options: Black (standard), orange (optional), green (optional).
- Different coupling options available.
- Operating temperature normal grade: -30°C to +60°C (-22°F to +140°F)
- Operating temperature tropical grade: -20°C to +75°C (-4°F to +167°F), with intermittent use up to +80°C (+176°F).

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

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

Flexitex Standard

Article Number		Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
Normal	Tropical	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
AFS051		2	51	0.09	2.2	0.29	0.43	330	23	665	46	8.4	3.8
AFS065		2 1/2	65	0.09	2.2	0.36	0.53	330	23	665	46	9.3	4.2
AFS076		3	76	0.10	2.5	0.49	0.73	330	23	665	46	11.5	5.2
AFS090		3 1/2	90	0.11	2.7	0.67	1.00	305	21	610	42	17.6	8.0
AFS102		4	102	0.11	2.7	0.74	1.10	290	20	580	40	25.1	11.4
KFS127		5	127	0.12	3.0	1.01	1.53	305	21	610	42	32.2	14.6
KFS150		6	150	0.14	3.5	1.24	1.85	265	18	535	37	35.5	16.1
	KFT152	6	152	0.14	3.6	1.31	1.95	305	21	610	42	37.5	17.0

Flexitex Extra

Article Number		Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
Normal	Tropical	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
MFXT076	MFT076	3	76	0.12	3.1	0.64	0.95	360	25	720	50	20.1	9.1
MFXT090	MFT090	3 1/2	90	0.13	3.3	0.79	1.18	320	22	640	44	22.3	10.1
MFXT102	MFT102	4	102	0.13	3.3	0.80	1.20	290	20	580	40	25.1	11.4
MFXT114	MFT114	4 1/2	114	0.13	3.4	1.04	1.55	250	17	505	35	27.6	12.5
KFX127	KFT127	5	127	0.14	3.6	1.15	1.71	305	21	610	42	34.7	15.7
KFX150		6	150	0.15	3.8	1.41	2.10	305	21	610	42	37.5	17.0
KFX152		6	152	0.15	3.8	1.43	2.13	305	21	610	42	37.5	17.0

Flexitex Performance

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
-	inch	mm	inch	mm	lbs / ft	kg / m	psi	bar	psi	bar	X1000 lbs	X1000 kg
MFY076	3	76	0.14	3.5	0.72	1.07	330	23	670	46	22	10
MFY090	3 1/2	90	0.15	3.7	0.91	1.35	320	22	640	44	26	12
MFY102	4	102	0.15	3.8	0.94	1.40	305	21	610	42	35	16

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.

Supply Line & Irrigation

Hydrotex

Rubber Hose

Mandals Hydrotex rubber hose has been specially designed in cooperation with irrigation specialists as a lightweight water transport hose for static irrigation systems, meeting the highest construction quality standards for long service life and excellent cost-efficiency.

The Hydrotex rubber hose line complements the Irriman PU hose series, offering ease of handling, low pressure loss, and high kink resistance.



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

Primary Uses & Applications

- Water transfer hose for irrigation systems.
- Bypass line for water and wastewater.

Features

- Optimized construction with excellent durability.
- Best-in-class resistance to delamination and kinking.
- Full diameter recovery after pressure release.
- Light weight and easy to deploy and retrieve.
- Superior resistance to UV, Ozone, and weathering.
- Complies with original equipment manufacturer (OEM) specifications.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The rubber blend is extruded through a circular woven reinforcement made from filament polyester yarn.
- A strong bond between cover and lining prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- Lengths up to 200m.
- Color options: Black (standard), other colors available on request.
- Various coupling options available.
- Operating temperature from -30°C to +75°C (-22°F to +167°F).

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

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

Hydrotex

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Weight pr. 100m water filled @ 4 bar		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	lbs	kg	psi	bar	psi	bar	X1000 lbs	X1000 kg
KHT051	2	51	0.07	1.9	0.25	0.37	570	260	290	20	580	40	8.4	3.8
KHT065	2 1/2	65	0.08	2.1	0.34	0.51	880	400	290	20	580	40	9.3	4.2
KHT076	3	76	0.09	2.2	0.37	0.55	1200	550	230	16	460	32	12.0	5.0
KHT090	3 1/2	90	0.09	2.2	0.46	0.69	1630	740	230	16	460	32	15.5	7.0
KHT102	4	102	0.09	2.3	0.56	0.84	2100	950	230	16	460	32	19.0	8.5
KHT110	4 1/3	110	0.09	2.4	0.68	1.01	2430	1100	230	16	460	32	20.5	9.0
KHT114	4 1/2	114	0.09	2.4	0.71	1.05	2650	1200	230	16	460	32	21.5	9.5
KHT127	5	127	0.10	2.6	0.87	1.29	3220	1460	230	16	460	32	25.0	11.0
KHT152	6	152	0.11	2.6	1.10	1.63	4600	2080	200	14	400	28	31.9	14.0

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.



Supply Line & Irrigation

Irriman PU

TPU Hose

Mandals Irriman PU has been specially designed as a lightweight supply hose for linear irrigation systems, meeting the highest construction quality standards for long service life and excellent cost-efficiency.

The Irriman PU hose line has been developed in cooperation with irrigation specialists in order to meet the field requirements: from 3 to 12" in diameter, offering top abrasion resistance, low pressure loss, and high kink resistance.



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

Primary Uses & Applications

- Supply hose for linear irrigation systems.
- Transfer hose for long distances.
- Bypass line for water, slurry & digestate, and wastewater.

Features

- Premium construction with exceptional durability.
- Best-in-class resistance to delamination and kinking.
- Full diameter recovery after pressure release.
- Excellent resistance to hydrolysis and fungi.
- Superior resistance to UV, Ozone, and weathering.
- Complies with original equipment manufacturer (OEM) specifications.

Construction

- A high tensile polyester reinforcement jacket enveloped by a high-grade thermoplastic polyurethane (TPU) lining and cover material.
- The TPU is extruded through a circular woven reinforcement, creating a strong bond between cover and lining that prevents delamination, as well as firmly encapsulating the reinforcing polyester.

Properties

- High burst resistance, suitable for both low and high pressure systems.
- Improved abrasion resistance (highest test results).
- Lengths up to 800m, depending on size.
- Color options: Green (standard), other colors available on request.
- Various coupling options available.
- Operating temperature from -50°C to +75°C (-58°F to +167°F) for pure water.

State of the art “through the weave” extrusion technology



Excellent adhesion between cover/lining and the weave

Full diameter recovery after pressure release

Irriman PU

Article Number	Inner Diameter ¹		Wall Thickness		Weight		Weight pr. 100m water filled @ 4 bar		Maximum Working Pressure ²		Burst Pressure		Nom. Tensile Strength ³	
	inch	mm	inch	mm	lbs / ft	kg / m	lbs	kg	psi	bar	psi	bar	X1000 lbs	X1000 kg
ULS065GK	2 1/2	65	0.11	2.8	0.44	0.66	900	410	400	28	810	56	14.3	6.5
ULS076GK	3	76	0.11	2.9	0.56	0.84	1250	560	360	25	725	50	17.4	7.9
ULS090GK	3 1/2	90	0.12	3.0	0.66	0.98	1700	770	310	21.5	620	43	20.0	9.1
ULS102GK	4	102	0.13	3.3	0.81	1.20	2200	980	305	21	610	42	22.2	10.1
ULS114GK	4 1/2	114	0.13	3.3	0.93	1.39	2700	1210	265	18.5	535	37	23.8	10.8
ULS127GK	5	127	0.13	3.3	1.02	1.52	3300	1480	250	17.5	505	35	26.4	12.0
ULS152GK	6	152	0.13	3.3	1.16	1.73	4600	2070	218	15	435	30	32.8	14.9
ULS178GK	7	178	0.13	3.4	1.38	2.05	6200	2800	195	13.5	390	27	37.6	17.1
ULH203GK	8	203	0.16	3.9	1.82	2.7	8100	3670	305	21	610	42	81.5	37.0
ULH254GK	10	254	0.16	4.0	2.35	3.5	12500	5650	260	18	520	36	101.0	46.0
ULH305GK	12	305	0.17	4.2	2.83	4.2	17900	8120	215	15	435	30	120.0	54.5

Note: ¹Tolerance range based on ISO1307 Type C. ²Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support. ³Calculated value. Use a reduction factor of 0.75 for realistic maximum tensile strength values.





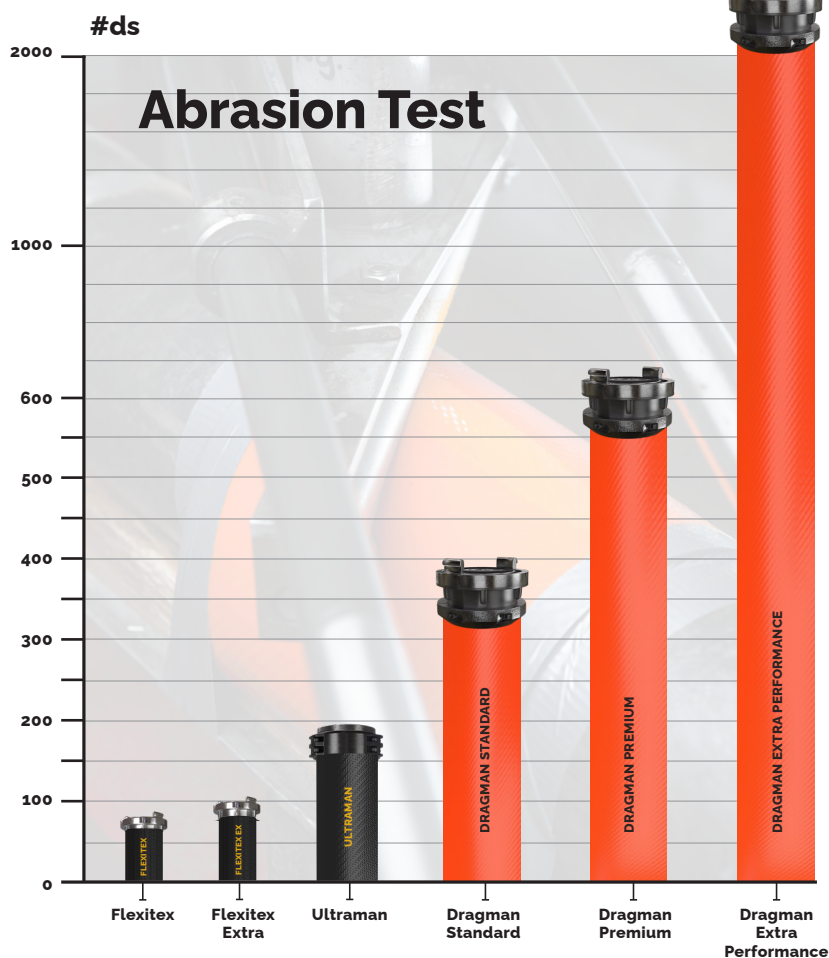
Abrasion Resistance

Abrasion resistance is a measurement that indicates how well a hose can handle wear and tear. The TPU or rubber quality, along with the thickness of the layer will be the main factors that determine a hose score on this metric.

Abrasion tests are performed with a piece of sand-paper mounted on a mechanical arm. The mechanical arm is dragged back and forth over the hose until the weave is exposed. A counter registers the amount of double strokes (#ds) each hose can handle.

Mandals performs measurements at the thinnest area of the hose and have also added an extra load to the test arm compared to BS 6391 test requirements.

Mandals does regular benchmark testing to compare Mandals' products to the rest of the market, and our hoses consistently delivery high scores on this metric. This is due to the high quality materials we use in our products.



Tensile Strength

Flexitex Standard

inch	X1000 lbs	Tons
4"	25.1	11.4



Flexitex Extra

inch	X1000 lbs	Tons
4"	25.1	11.4



Flexitex Performance

inch	X1000 lbs	Tons
4"	35	16



Ultraman

inch	X1000 lbs	Tons
4"	22.2	10.1



Dragman Standard

inch	X1000 lbs	Tons
5"	43.9	19.9



Dragman Premium

inch	X1000 lbs	Tons
5"	48.3	21.8



Dragman Extra Performance

inch	X1000 lbs	Tons
5"	48.3	21.80

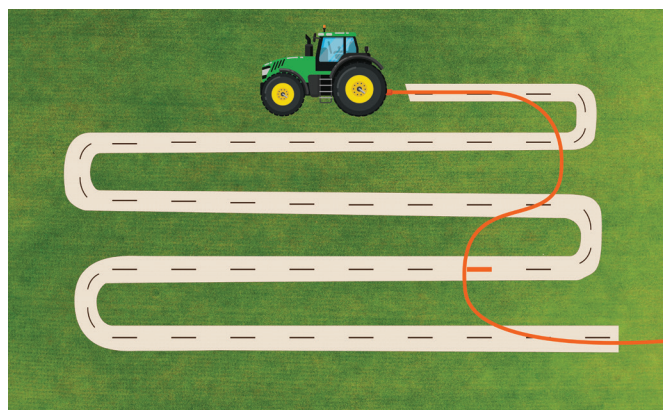


Drag Hoses vs. Slurry Tanks



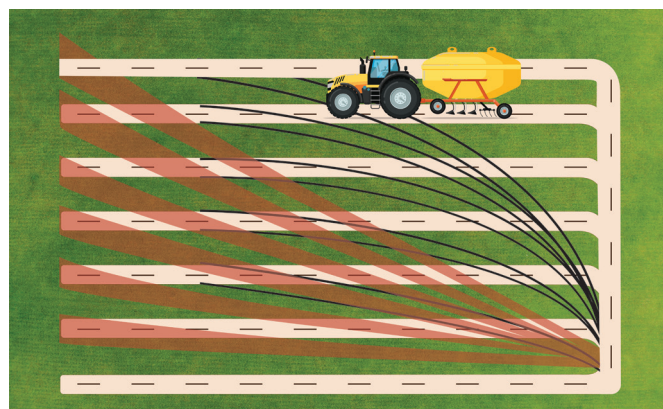
Drag Hose System

- No soil compression.
- Lighter equipment.
- Immediate volume - no down time.
- Continuous flow - no refill.
- Flexible supply line from lagoon / pit.
- No occupancy of surroundings (public roads).
- Flexible hose dimensions available.
- Easy deployment and retrieval.
- Manure spreading also possible in soft or wet soil.



Using a drag hose system, the purpose can be accomplished with a single pass with lower weight on the field.

Slurry Tank System



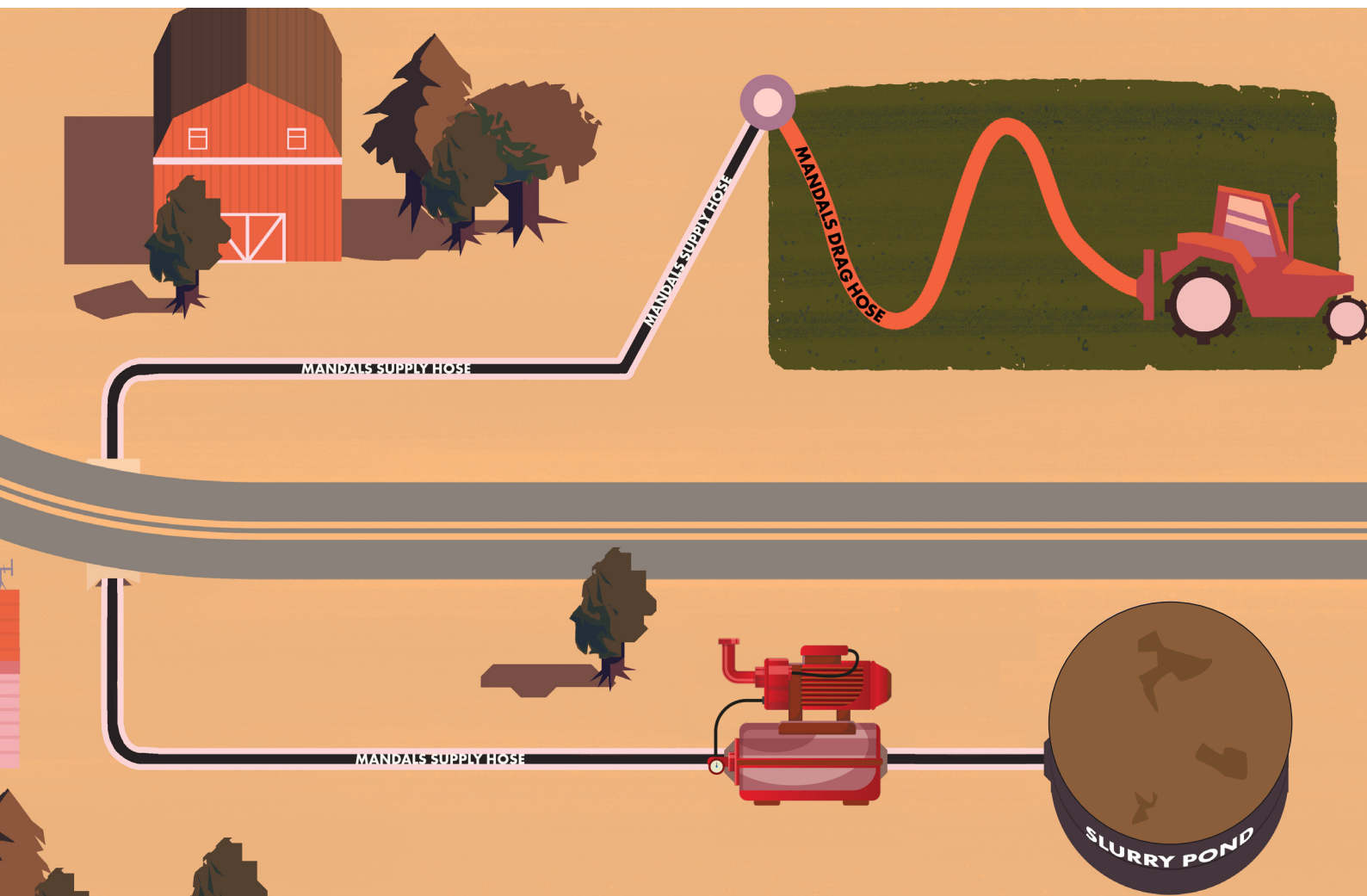
A visualization of the way a tractor with a slurry tank travels on a field. A tractor with a tank can reach a total weight of 40 tons, compressing the soil leading to lower yields. Fuel consumption and roadway driving are also important factors.

The Power of an Umbilical Drag Hose System

Efficient slurry distribution starts with the right system – and that's why farmers turn to umbilical drag hose setups. This high-capacity system delivers a continuous flow of manure and slurry without the need for heavy tankers to drive across the field. The result? Minimal soil compression, maximized spreading efficiency, greater flexibility in application, and a significantly lower CO₂ footprint.

Why Choose an Umbilical Drag Hose System?

- **Protects soil structure:** Eliminates deep ruts and reduces long-term compression.
- **Maximizes efficiency:** Continuous slurry flow means no refilling, no downtime.
- **Adaptable to terrain:** Works seamlessly on hills, wet ground, and soft fields.
- **More control, less waste:** Uniform distribution and low-emission placement improve slurry and manure uptake.
- **Lower CO₂ footprint and reduced smell:** Less driving, fewer emissions, and minimal disturbance to surroundings.



World Class Lay-Flat Hoses

Agriculture

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 sales managers will get in touch with you shortly to help you with your challenges and suggest appropriate solutions for your needs.



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