



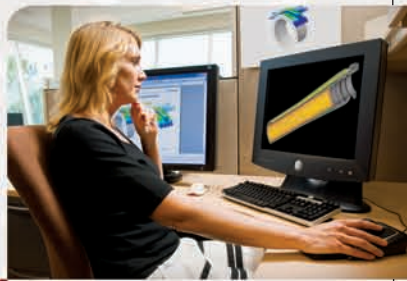
LIGHTWING™ LIGHTERING STS HELIX-FREE HOSE

Ship to ship transfer. Wall to wall reliability.

Goodyear Engineered Products. A name you can trust.

Veyance Technologies, Inc., the exclusive manufacturer of items carrying the Goodyear Engineered Products name, is dedicated to pioneering innovative new rubber compounding technology and products. Our commitment to advancing all aspects of our industry has helped us become the world's largest industrial hose manufacturer.

We are also dedicated to maintaining dynamic and ethical relationships with all our suppliers, distributors and customers. This professional attitude has allowed us to cultivate some of the strongest and longest-lasting customer relationships in the industry.

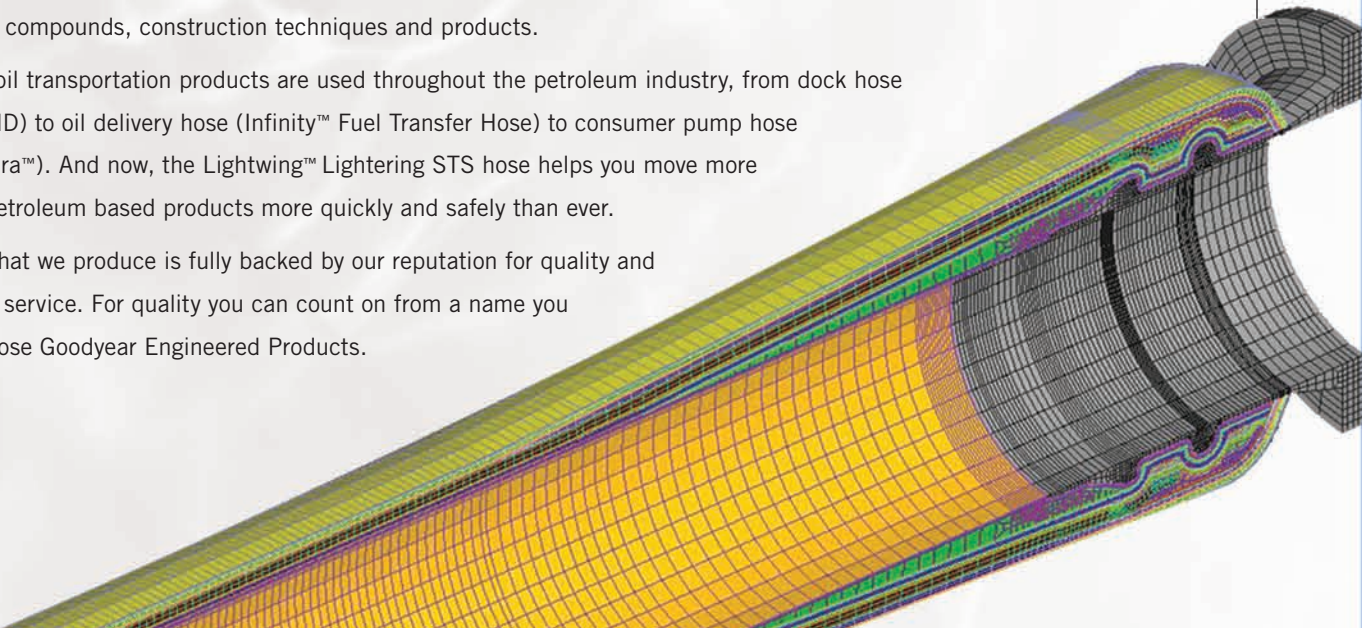


Goodyear Engineered Products. A name synonymous with innovation.

We didn't achieve the position of world's largest industrial hose manufacturer by chance. Our cutting-edge research & development centers across the globe are constantly pushing the boundaries of rubber compounding technology; developing new compounds, construction techniques and products.

Our innovative oil transportation products are used throughout the petroleum industry, from dock hose (Dock Hose RFID) to oil delivery hose (Infinity™ Fuel Transfer Hose) to consumer pump hose (Flexsteel® Futura™). And now, the Lightwing™ Lightering STS hose helps you move more crude oil and petroleum based products more quickly and safely than ever.

Every product that we produce is fully backed by our reputation for quality and commitment to service. For quality you can count on from a name you can trust – choose Goodyear Engineered Products.



Application: Designed for the transfer of crude oil and petroleum based products for ship to ship lightering service, under all types of service conditions. All sizes rated for vacuum. Maximum flow rate 70 ft/sec (21m/s).

Temperature Range

-22°F to 176°F (-30°C to 80°C)

Construction

Tube– Code 541-432 Black nitrile for up to 50% aromatic content

Code 541-718 Black nitrile with static dissipating properties for up to 60% aromatic content

Reinforcement–Helix free, synthetic fabric, heavy duty wall

Cover–Black Wingprene (spiral cloth wrap finish)

Hose Dimensions

Nominal Inside Diameter	Inside Diameter	Outside Diameter	Weight (kg/m)
300 mm (12")	305 mm	382 mm	49.9
250 mm (10")	254 mm	331 mm	42.8
200 mm (8")	204 mm	268 mm	28.9
150 mm (6")	153 mm	203 mm	17.0
100 mm (4")	102 mm	143 mm	9.7

Pressure Rating

- Minus 0.3 Bars (vacuum) to 17 Bars (250 psi)
- Minimum burst pressure of 86 Bars (1,250 psi)

Electrical Continuity

Code 541-432

Available in electrically continuous or discontinuous

Code 541-718

Available in electrically continuous or semi-continuous

- Electrically continuous hose has an electrical resistance less than 0.75 ohms/meter
- Electrically discontinuous assembly has an electrical resistance more than 25,000 ohms per assembly at 500 VDC
- Electrically semi-continuous assembly has an electrical resistance at 500 VDC between 1,000 to 20,000 ohms per assembly

Minimum Bend Radius

The hose will retain its shape under a bend radius of four times the hose diameter when empty or full. In the event the hose gets kinked, it will recover its shape without permanent damage to the hose.

Length and Weights

length meters	7.6		8.5		9.1		10	
	length ft.		length ft.		length ft.		length ft.	
diameter	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.
4	248	113	268	122	281	128	297	135
6	433	197	467	212	490	223	518	235
8	715	325	773	351	812	369	861	391
10	1073	488	1159	527	1216	553	1288	585
12	1314	597	1415	643	1483	674	1567	712

Flow Rates

Diameter	Max flow rated based on 21m/sec max	
	M ³ /Hr	bbl/Hr
4	600	3,800
6	1,350	8,400
8	2,400	15,200
10	3,800	23,900
12	5,500	34,400

Recommended Fittings

Coupled with carbon steel built-in nipples with hot dip galvanized (HDG) flange. Standard flange supplied to bolt hole to ANSI-B16.5 class 150, Flat Face Slip-On (FFSO) or Lap Joint (floating), other specifications are available on demand. Available in Raise Face and Weld Neck type.

Material

Flanges: ASTM A-105 (max carbon content 0.25%)

Nipples: ASTM A106 A or B, or API -5L, or ASTM A285C, or equivalent (max carbon content 0.23%). Other materials available on demand.

Branding

LIGHTWING LIGHTERING STS HELIX-FREE 15 BAR

Dock Hose RFID

All of our lightering hose have factory embedded RFID InfoChips to improve hose management and make it easier than ever to comply with marine regulatory specifications. We have partnered with InfoChip® Systems, Inc. so that all of our lightering products deliver an innovative solution that streamlines hose identification, inspection, inventory and the certification process.

Packaging

Chloroplast sheet wrap.
Also available in corrugated plastic culvert packaging.

Cut Lengths

Built to length.
Max length for closed container shipment 39'
Max length for North America land transport 51'

Design Specification

Lightwing Lightering Hose is designed in accordance with EN1765 L-15 and manufactured in an ISO 9001 certified facility.

Testing

All hose is tested to Coast Guard requirements specified in the code of Federal Regulations, title 33, Chapter 1, Subpart C clause 154.500 and to OCIMF latest edition.

Certification

Hose supplied with hydrostatic test certification.