

tyco

Flow Control

Flexible Piping Systems

Features

- Cryoflex hoses are suitable for the transfer of a wide variety of cryogenic materials under pressure at low temperatures.
- Cryoflex hoses are used in such applications as roads and rail tanker loading and discharging, storage tank and in-plant use. Larger bores are indicated for ship-to-shore and ship-to-ship transfers.
- Fully refrigerated conveyants down to -50°C include the following as listed in Chap XIX Gas Carrier Code:
 - Ammonia
 - Acetaldehyde
 - Butadiene
 - Butane/Propane mixes
 - Butane/Butylene
 - Dimethylamine
 - Ethylamine
 - Ethyl Chloride
 - Methyl Acetylene
 - Methyl Bromide
 - Propane/Propadiene
 - Propylene
 - Vinyl Chloride
 - Refrigerant Gases
- Cryoflex 50 is also suitable for liquid ethane at -88°C and liquid ethylene at -108°C .
- Cryoflex 200 hoses are designed for similar applications but with liquid gases, such as liquid nitrogen and L.N.G. (methane), at extremely low temperatures down to -200°C . Cryoflex 200 is not suitable for conveying ammonia.

The distribution and use of liquefied gases, the combination of high pressure and low temperature makes the point of transfer the most vulnerable link. Tyco produce a comprehensive range of Cryoflex Composite hoses for handling cryogenics products at temperatures down to -200°C or at pressures up to 25 bar. These are specifically engineered to handle all kinds of transfer applications, notably ship-to-shore, safely and easily.



FLEXONICS

Composite Hoses - Cryogenics

Product Specifications

Type	CRYOFLEX 50	CRYOFLEX 200
Colour	White	White/Green Stripe
Code	0940	0933
Temperatures	-50° to +50°C	-200° to +50°C

Construction: Inner & outer wires - 316 stainless steel

Wall materials: Polymeric fabrics & films selected according to resistance and strength.

CRYOFLEX 50 (0940)

Nominal Internal Diameter mm	Maximum Working Pressure Bar	Minimum Bend Radius mm	Weight kg/m	Maximum Manufacturing Length (M)
25	25	150	0.9	15
38	25	175	1.6	15
50	25	200	2.4	15
75	25	250	4.5	15
100	21	500	7.5	15
150	21	660	13.8	14
200	15	910	18.7	12

CRYOFLEX 200 (0933)

25	10.5	150	0.67	9.14
38	10.5	175	1.20	9.14
50	10.5	200	2.00	18.30
75	10.5	250	3.30	18.30
100	10.5	500	7.50	15.00
150	10.5	660	13.80	15.00
200	10.5	910	18.70	12.00
250	10.5	2500	22.50	10.00

Note:

Standards: Cryoflex assemblies in bore sizes 100,150 and 200mm NB are certified by the UK Marine Safety Agency as complying with paragraphs 5.4 and 5.7 of the IMO Gas Carrier Code.

Construction

Cryoflex 50 is manufactured from multi-layers of polyamide fabric and film whilst Cryoflex 200 utilises polyester fabric and films. Both can be further insulated by an additional rope lagging.

Cryoflex 50 and 200 hoses have 316 stainless steel inner and outer wires achieving dual wire electrical continuity by bonding to the end fittings thus safely dissipating static electrical charges which may be generated during the transfer of fluids.

Cryoflex hoses provide a high degree of safety with hose construction having complete product compatibility to allow LPG, LNG and associated gases to be handled safely. In addition, working pressures across the temperature range are based on a safety factor, 5:1 minimum.

Cryoflex assemblies in 100, 150 and 200mm bore sizes are certified by the UK Marine Safety Agency as complying with the IMO Gas Carrier Code.

Cryoflex hoses are supplied in standard length of 9.14 metres, with optional lengths up to a maximum of 18.30 metres depending on diameter. All hoses have factory-fitted end connections.

