

DRAINTEC

For external Floating Roof Tanks

COMPOTEC®

DRAINTEC HD COMPLETE HOSE DRAINING SYSTEM

Draining rain water from an external floating roof is important to make sure the external floating roof will not built up too much water on top, which could even cause sinking of the roof. **COMPOTEC®** has developed an excellent solution by introducing Tank Drain hoses for this application. The major advantage of a hose is that it does have a minimum number of connections, therefore eliminating much of the potential problems with other draining systems.

As the **COMPOTEC® DRAINTEC** hose is a complete system, including the connections, the lead ballast cable and the suspension system, it is easily installed by a contractor crew. Each hose is individually tested prior the shipment, to ensure its performance. As a result of the flexible nature of the drain hose, it will even be able to deal with frozen rain water inside.

Product description: COMPOTEC® Draintec Hose system is designed for immersion inside storage tanks to drain rain water from a floating roof, to ensure the proper drainage of water from the aboveground storage tank's floating roof. Specially compounded covers are used to resist immersion in high aromatic or corrosive liquids.

Lining: Polypropylene or PTFE lined hose, depending on the type of hose specified or required

Reinforcement: Textile reinforcement with a double high tensile wire helix to resist collapsing by external pressure when immersed.

Pressure: Although these hoses are rainwater drains experiencing low pressures when in use, the integrity of the hose assemblies is checked, after ballasting, by testing to 15 bar with water and vacuum testing to - 1 bar. Full and detailed test and material certificates are supplied as a standard.

Cover: Wrapped fabric finish in following options:
- **ANTISTATIC Polypropylene** fabrics, to resist at 100% aromatic content.
- **NANOTEC®** Pure Teflon Cross laminate film (*MATEC® Deposited Patent*) resistant to all solvents, Chemicals and aromatics at any concentration.

Lead ballast: On Request, each hose assembly incorporates (inside) a permanently attached stainless steel cable and lead discs to prevent the hose from floating in the stored product.

Repeatable lay pattern: **COMPOTEC® Draintec** hoses are installed to form a single coil repeating lay pattern with a 360° coil.

Antistaticity: All hoses are supplied electrically continuous.

Installation: 2 Polyurethane SCUFFRING Support saddles and chains for roof attachment, are supplied and the roof end of each hose is marked as follows: "ATTACH THIS END TO ROOF"

Flanges: Generally mild steel nipples with fixed ASA150 R/F flanges are supplied. Other flanged drillings and material types are available including swivel flanges and bronze flanges. The ballast connection is a stainless steel wire rope section permanently welded to the hose nipple.

COMPOTEC® Draintec hoses are designed, tested and manufactured to customer specifications to offer the following features:

Draintec hoses are installed to form a single coil repeating lay pattern (360° coil)

Draintec hose is installed with polyurethane support saddles, clevis and chain to be fixed to the underside of the floating roof
Draintec features full flow steel fittings permanently fitted.

Draintec system ensures less maintenance, less product loss, reduced shut-downs and maximum service life.

Draintec hose is designed for continuous service in a wide range of PH solutions and chemicals. (both internally and externally).

Internal ballast is highly recommended to ensure negative buoyancy in the tank (to be specified in case of order)

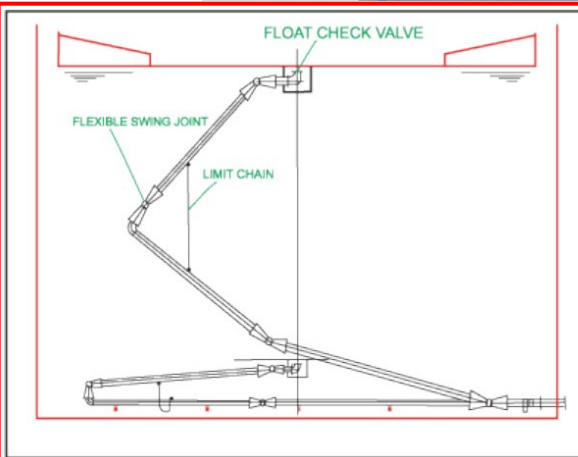
Draintec hoses are tested at 14 bar for 1 hour and certified acc to EN 13765:2010.



DRAINTEC HD COMPLETE HOSE DRAINING SYSTEM



DRAINTEC SUPERFLEX HINGE JOINT DRAINING SYSTEM



HEAVY DUTY DRAINTEC EN 13765:2010 TYPE 3

Size		Max. W.P.		Safety factor	Bend Radius EN ISO 1746		Weight		Production length	
mm	inch	Bar	Psi		mm	inch	Kg/mt	Mt	Feet	
50	2"	14	200	5:1	180	7	2,19	40	132	
65	2 1/2"	14	200	5:1	220	8,5	3,13	40	132	
75/80	3"	14	200	5:1	300	11	3,80	40	132	
100	4"	14	200	5:1	400	16	5,29	40	132	
150	6"	14	200	5:1	500	20	12,21	40	132	
200	8"	14	200	5:1	800	32	17,14	40	132	
250	10"	14	200	5:1	1200	40	24,92	25	82	
300	12"	14	200	5:1	1500	59	33,82	25	82	

DRAINTEC

TYPE	DRAINTEC HD		DRAINTEC SUPERFLEX	
Applications	Full hose draining systems		Hinge Joint draining systems	
Code	XZ	XX	XZ	XX
Colour	White			
Temperature	-40 +80°C			
Inner wire	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Outer wire	Carbon Steel	Stainless Steel	Carbon Steel	Stainless Steel

DRAINTEC SUPERFLEX Hinge Joint Draining System

The **COMPOTEC® HINGE DRAINTEC SYSTEM** was designed to innovatively provide a better solution to floating roof drainage problems. It combines both the flexibility of composite and hose systems with the strength found in rigid pipe/swivel joint systems. The **HINGE DRAINTEC SYSTEM** is basically a steel pipe drain system with an Angular flexible joints that withstand an extremely wide range of service conditions. **COMPOTEC® HINGE DRAINTEC SYSTEM** offers Long Maintenance-Free Service and effectively provides positive roof drainage with maintenance-free and worry-free operation. This results in extended service life, with no hose kinking or clogging, and there is no stress loading on O-rings, bearings or seals. Instead of costly swivels, the **HINGE DRAINTEC SYSTEM** employs unique flexible joints in a straight-line design, with no offsets to cause unbalanced loading.

The **COMPOTEC® HINGE DRAINTEC SYSTEM** is easily installed in a fixed position, requiring a minimal operating area. With a designed continuous slope, the Hinge does not allow sediment to become trapped in the system. It is designed for submerged service with no lubrication required, and there are no corrosion freeze-ups. All components are compatible with 100% aromatic products and can withstand high design pressures.

Advantages of COMPOTEC® HINGE DRAINTEC SYSTEM compared to traditional Swivel Joint Systems:

- Straight-line design - no offsets to cause unbalanced loading
- No O-rings, bearings or seals
- No moving parts to lubricate
- Designed for submerged service
- No flow restrictions
- Load Stresses transferred across joint, not through it
- Easy installation

Advantages of COMPOTEC® HINGE DRAINTEC SYSTEM Compared to Hose Drain Systems:

- Continuous slope design - no sediment traps
- Small operating area - no tank layout required, minimizing downtime
- Fixed position - no damage due to interference
- 100% aromatic resistant components
- Higher design pressure
- No kinking or collapsing
- No dragging or scraping action across tank bottom
- No ballasting needed

Other Advantages of COMPOTEC® HINGE DRAINTEC SYSTEM:

- Ease of design and installation
- No measuring of roof legs other internals required prior to design
- Immediate delivery of system compon., reducing tank downtime
- Minimal field welding required for system installation
- No piping runs required on underside of floating roof
- **COMPOTEC® HINGE DRAINTEC** flexible joints can be used for internal floating suctions
- **COMPOTEC® HINGE DRAINTEC** Roof Drain Systems can be designed for dual use Fire Fighting Foam Delivery Systems

Construction Features:
COMPOTEC® HINGE DRAINTEC flexible joint is designed with inner and outer stainless steel wire helixes to maintain hose rigidity when subjected to internal or external pressures. Multiple inner layers of polar and non-polar thermoplastic materials, prevent product permeation through the hose, even from such products as MTBE. The outer layers in Antistatic woven fabric, protect the inner hose materials. Its high design pressure also makes the **COMPOTEC® HINGE DRAINTEC** System suitable for use with fire fighting foam delivery systems. The **DRAINTEC** flexible joint hinge-pin design uses stainless steel & Teflon bushings and spacers to eliminate binding and assure flexibility. No lubrication is required. The reinforced side plates transfer the load around the flexible hose, eliminating stress on the hose end connections and minimizing the possibility of hose end failure.

These side plates are available carbon steel (galvanized or prime coated) and stainless steel materials. Diameters from 2" to 12" are available.



DRAINTEC



DNV Det Norske Veritas Cert. n. CERT-04193-99-AQ IND-SINCERT
EN 13765:2010, approved from CEN
Directive 97/23/CE "PED" with operating Procedures certified from DNV - CE PED 07.0056.06/2585
Directive 94/9/CE "ATEX" hose for explosive atmospheres, Cert. held by DNV Rec. nr. CE ATE 08.0117.06/2617 - (AS 2430.1-1987)
BS 5842:1980 (Conf. 1986)
BS 3492:1987
AS 2683-2000 (Hose & hose assemblies for distribution of petroleum and petroleum products)
AS 2117-1991 (Hose & hose assemblies for petroleum and petroleum products - Marine suction and discharge)
NAHAD Guidelines (NAHAD 600/2005)

Test procedures:

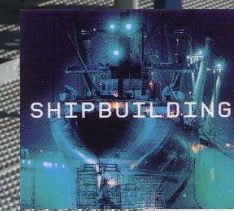
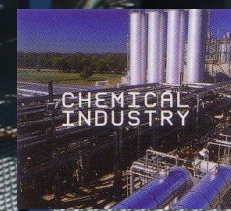
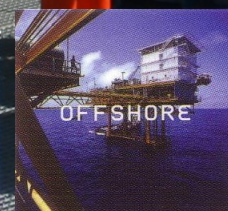
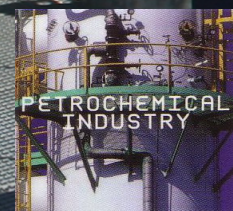
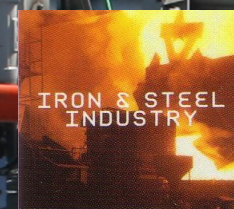
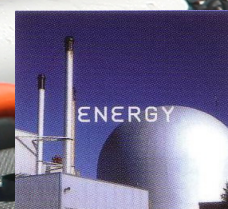
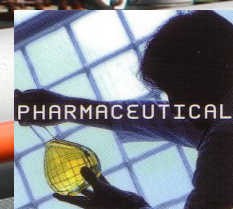
BS 5173-102.10:1990 section 102.10 - (EN ISO 1402)
AS1180.5-1999 (method 5)
AS 1180.13B (Electrical resistance)
AS1180.13C (Electrical continuity)

Type Approval

Lloyd's Register Type Approved - Cert. N° 13/00002
DNV - Det Norske Veritas - Type Approval Cert. N° P-12369
RINA - Registro Italiano Navale - Cert. N° MAC/81398/1/TO/99
Russian Maritime Register of Shipping
IBC Code Chapter 5 - Ship's Cargo hoses
IMO Chemical Carrier Code - Paragraphs 2:12 and 5:7

Welding Process

in according to EN 15608:2005 - EN 439:1996 - EN 15614-1:2005 - EN 6848:2005 - EN 12072:2001 certified by DNV - Det Norske Veritas
in according to ASME IX certified by RINA



MATEC GROUP SRL
VIA I MAGGIO, 7 - PESCHIERA BORROMEO (MILANO) - ITALIA
Tel. +39 02 55 30 17 88 - Fax +39 02 54 72 158
matec@matecgroup.com
www.matecgroup.com

COMPOTEC®