DRAINTEC



COMPOTEC®

## DRAINTEC For externalFloatingRoof Tank

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: Mandrel built, Polypropylene 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: Polypropylene fabrics, to resist at aromatic content up to 100% - NANOTEC® Pure Teflon Cross laminate film (MATEC® Deposited Patent) resistant to all solvents, Chemicals and aromatics at any concentration

Lead ballast: 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 compression sealed, full flow steel fittings permanently fitted.

Draintec system ensures less maintenance, less product loss, reduced shutdowns and maximum service life.

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

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

Draintec hoses are tested at 15 bar for 1 hour and certified acc to EN 13765:2010.

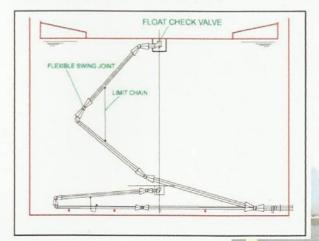




#### DRAINTEC HOSE SYSTEM



#### DRAINTEC PIVOT SYSTEM





# COMPOTEC:® DR/INTEC-EN1.1765.2010

#### HEAVY DUTY DRAINTEC EN 13765:2010 TYPE 3

Size		Maximum W.P.		Safety	Min Work Bend Radius (ENISO1746)		Weight		Vacuum Rating	Vacuum Rating	Maximum Lenght				
mm	Inch	Bar	P.S.I.	Factor	mm	Inch	Kg. / mt	Lb/ft	(in/Hg)	(mm/Hg)	Mt.	Feet			DRAINTEC
75	3"	15	200	5:1	300	11,81	3,6	2,41	29	735,5	40	132	Code	DRAINTEC XZ	DRAINTEC XX
100	4"	15	200	5:1	400	15,75	5,5	3,69	29	735,5	40	132	Applications	For ExternalFloatingRoof Tanks	
150	6"	15	200	5:1	575	22,64	9,5	6,37	29	735,5	40	132	Colour	White	
200	8"	15	200	5:1	800 °	31,5	14	9,38	29	735,5	40	132	Temperatures	-40 + 60(°C) / -40+212 (°F)	
250	10"	15	200	5:1	1200	48	22,5	15,05	29	9 735,5	25	82	Inner wire	Stainless Steel	Stainless Steel
300	12"	15	200	5:1	1500	60	31	20,73	29	735,5	25	82	Outer wire	Galvanised Steel	Stainless Steel

#### COMPOTEC® Pivot Draintec Floating Roof Drain Systems

The COMPOTEC® PIVOT 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 join systems. The PIVOT DRAINTEC SYSTEM is basically a steel pipe drain system with flexible joints that withstand an extremely wide range of service conditions.

COMPOTEC® PIVOT 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 PIVOT DRAINTEC SYSTEM employs unique flexible joints in a straight-line design, with no offsets to cause unbalanced loading.

The COMPOTEC® PIVOT DRAINTEC SYSTEM is easily installed in a fixed position, requiring a minimal operating area. With a designed continuous slope, the Pivot 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. Pivot components are compatible with 100% aromatic products and can withstand high design pressures.

### Advantages of COMPOTEC® Pivot Draintec System compared to 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® Pivot Draintec 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® Pivot Draintec System:

- Ease of design and installation
- No measuring of roof legs, other internals required prior to design
- Immediate delivery system components, reducing tank downtime
- Minimal field welding required for system installation
- No piping runs required on underside of floating roof
- COMPOTEC® Pivot Draintec flexible joints can be used for internal floating suctions

COMPOTEC<sup>®</sup> Pivot Draintec Roof Drain Systems can be designed for dual use Fire Fighting Foam Delivery Systems

#### **Construction Features:**

COMPOTEC® 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 elastomeric materials in the flexible joint prevent product permeation through the hose, even from such products as MTBE. The outer layers of this woven fabric protect the inner hose materials. Its high design pressure also makes the COMPOTEC® Draintec Pivot System suitable for use with fire fighting foam delivery systems.

The Draintec flexible joint pivot-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.



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

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











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