

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

RT SINGLE CARCASS 19 bar
1000 Series



1710F RT

Flexomarine half floating hose with one reinforced end (first off FPSO)



1720F RT

Flexomarine integral full-floating hose for mainline



1730F RT

Flexomarine integral full-floating hose with built-in reducer



1740F RT

Flexomarine integral full-floating hose for tail



1752F RT

Flexomarine integral full-floating tanker end hose (Jumbo)



1770BCRT

Flexomarine integral buoyancy control hose
Designed upon request



1731S RT

Flexomarine submarine hose with one reinforced end for connection to the FPSO (First-Off FPSO).



1732S RT

Flexomarine standard mainline submarine hose



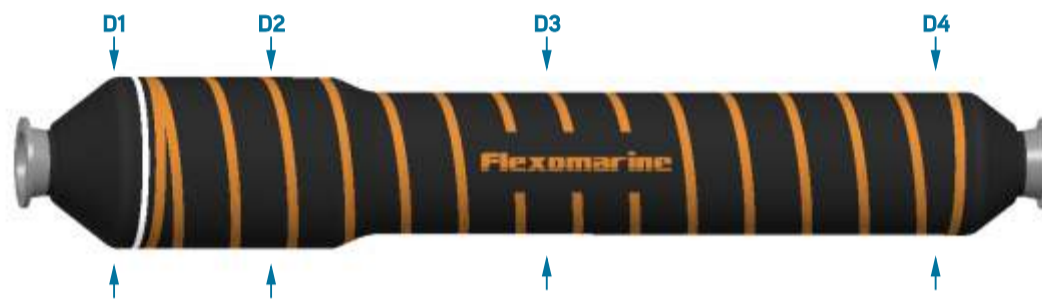
1735S RT

Flexomarine submarine hose for tanker end

RT REINFORCED SINGLE CARCASS HOSE

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

Type 1710 F RT **First Off FPSO HOSE**

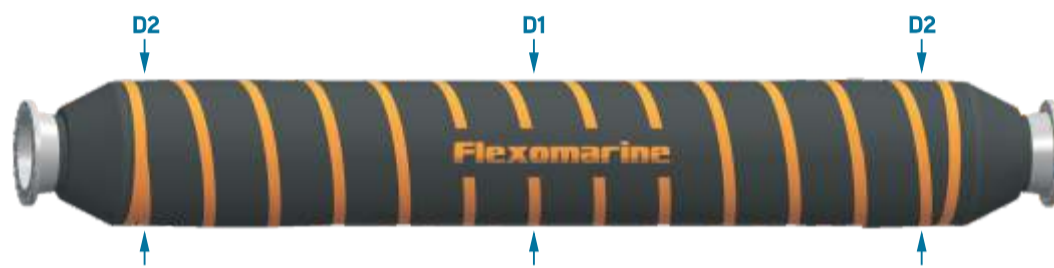


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	800	730	630	650	1797 2465	2056 2842	2299 3195	1.8
400 (16")	960	890	790	810	2437 3523	2785 4061	3110 4566	2.4
500 (20")	1090	1020	920	940	3158 4881	3607 5633	4028 6338	3.0
600 (24")	1220	1200	1060	1080	4167 6674	4771 7719	5338 8699	3.6

- Single Carcass Hose FLEXOMARINE One End Reinforced to be used in the FPSO Offloading connection
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Continuous or as requested

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

Type 1720 F RT **Mainline Hose**



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	630	650	1431 2100	1622 2407	1800 2696	1.8
400 (16")	790	810	2084 3170	2364 3640	2626 4082	2.4
500 (20")	920	940	2754 4477	3126 5152	3475 5785	3.0
600 (24")	1060	1080	3679 6186	4192 7140	4673 8034	3.6

- Single Carcass Hose FLEXOMARINE Mainline to be used as the main floating hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

GMPHOM 2009

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series Reeling Hose

Type 1730 F RT Reducer Hose

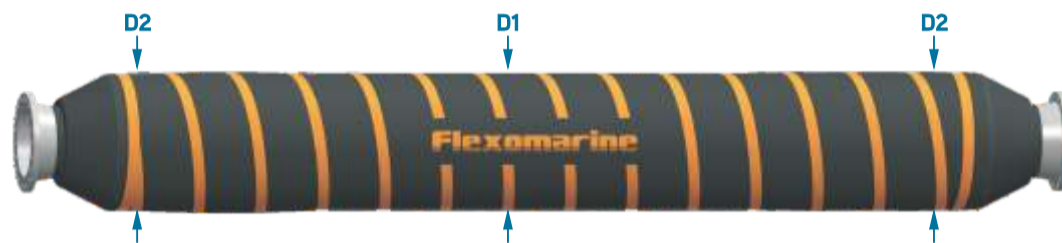


Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
400/300 (16"/12")	810	630	650	1439 2107	1630 2415	1809 2705	1.8
500/400 (20"/16")	940	790	810	2094 3180	2376 3652	2639 4095	2.4
600/500 (24"/20")	1080	920	940	2767 5275	3141 6089	3492 6853	3.0

- Single Carcass Hose FLEXOMARINE Reducer Bore for use to connect larger mainline hose to smaller tail hose
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

Type 1740 F RT **Tail Hose**

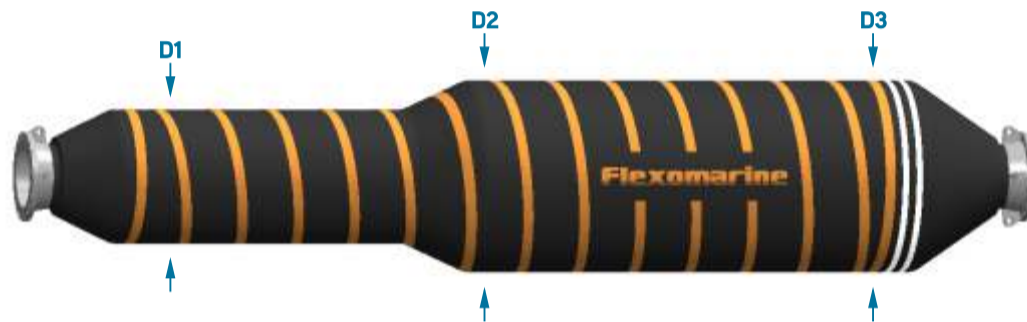


Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	630	650	1562 2230	1777 2562	1978 2874	1.8
400 (16")	790	810	2160 3246	2456 3732	2733 4188	2.4
500 (20")	920	940	2822 4545	3208 5234	3571 5881	3.0
600 (24")	1060	1080	3675 6182	4188 7136	4669 8030	3.6

- Single Carcass Hose FLEXOMARINE Tail for use to connect end connection hose and the main floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

Type 1752 F RT **Tanker End (Jumbo) Hose**



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	810	1020	1180	1877 2545	2119 2904	2344 3240	1.2
400 (16")	1000	1380	1430	2590 3676	2924 4201	3235 4691	1.6
500 (20")	1080	1470	1520	3389 5113	3823 5849	4227 6537	2.0
600 (24")	1230	1550	1600	4234 6741	4705 7652	5175 8536	2.4

- Single Carcass Hose FLEXOMARINE Tanker End for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- In the hose fittings liftings lugs can be welded to attach pick up device
- Each lug are tested to support Safe Working Loads as follow:
12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of NSV (North Sea Valve) up to 2,5 ton
- Electrical Continuity: Discontinuous or as requested

RT REINFORCED SINGLE CARCASS 19 bar 1000 Series **Reeling Hose**

Type 1770 BC RT **Buoyancy Control Hose**



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	510	650	1395 2063	1579 2365	1751 2647	1.8
400 (16")	620	810	2020 3106	2288 3565	2540 3996	2.4
500 (20")	720	940	2665 4388	3021 5047	3355 5665	3.0
600 (24")	850	1080	3583 6090	4078 7026	4542 7903	3.6

- Single Carcass Hose FLEXOMARINE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**



1810F RT

Flexomarine half floating hose with one reinforced end (first off FPSO)



1820F RT

Flexomarine integral full-floating hose for mainline



1830F RT

Flexomarine integral full-floating hose with built-in reducer



1840F RT

Flexomarine integral full-floating hose for tail



1852F RT

Flexomarine integral full-floating tanker end hose (Jumbo)



1870BCRT

Flexomarine integral buoyancy control hose
 Designed upon request



1831S RT

Flexomarine submarine hose with one reinforced end for connection to the FPSO (First-Off FPSO).



1832S RT

Flexomarine standard mainline submarine hose



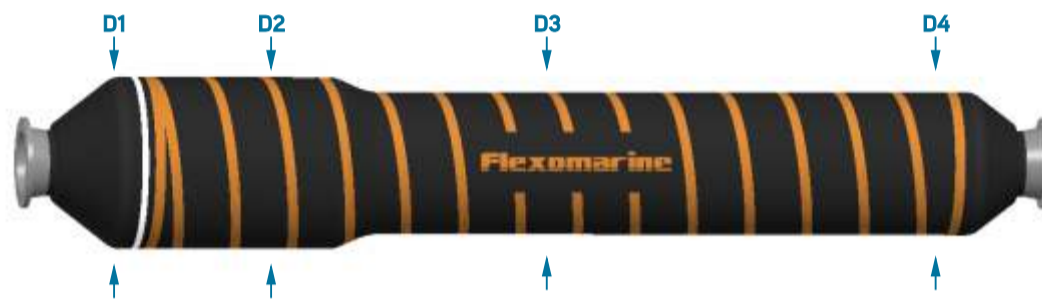
1835S RT

Flexomarine submarine hose for tanker end

RT SINGLE CARCASS 21 bar
 1000 Series

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**

Type 1810 F RT **First Off FPSO HOSE**

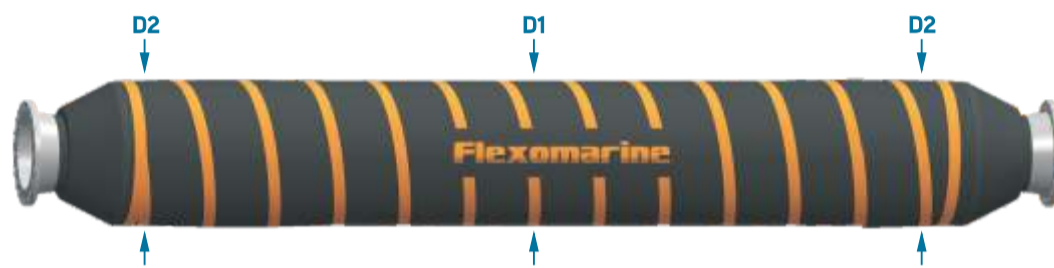


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	D4	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	800	730	630	650	1853 2521	2120 2905	2370 3266	1.8
400 (16")	960	890	790	810	2513 3599	2871 4147	3206 4662	2.4
500 (20")	1090	1020	920	940	3256 4979	3719 5745	4152 6463	3.0
600 (24")	1220	1200	1060	1080	4296 6803	4919 7867	5503 8864	3.6

- Single Carcass Hose FLEXOMARINE One End Reinforced to be used in the FPSO Offloading connection
- Identified by one circumferential white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Continuous or as requested

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**

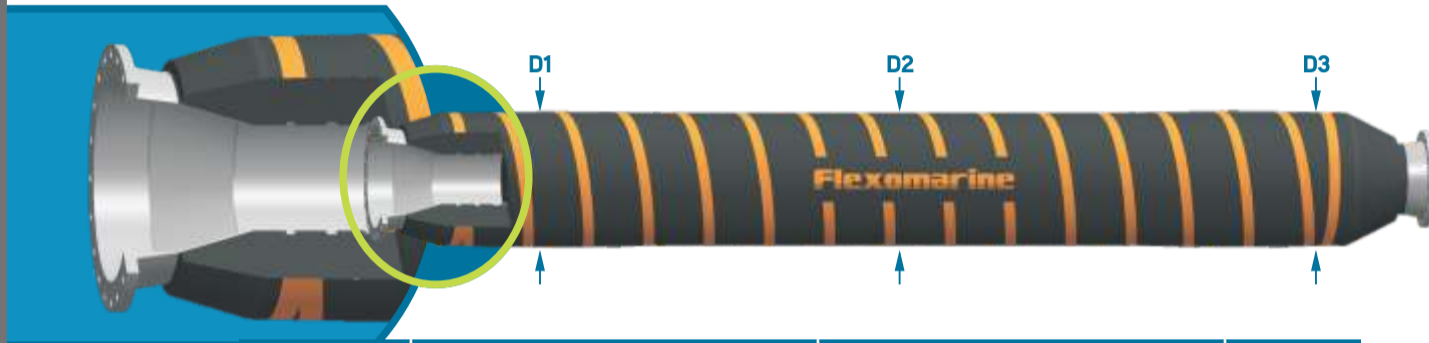
Type 1820 F RT **Mainline Hose**



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	630	650	1476 2144	1672 2457	1856 2751	1.8
400 (16")	790	810	2148 3234	2437 3714	2707 4163	2.4
500 (20")	920	940	2839 4562	3222 5249	3582 5892	3.0
600 (24")	1060	1080	3793 6300	4322 7270	4818 8179	3.6

- Single Carcass Hose FLEXOMARINE Mainline to be used as the main floating hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

Type 1830 F RT **Reducer Hose**

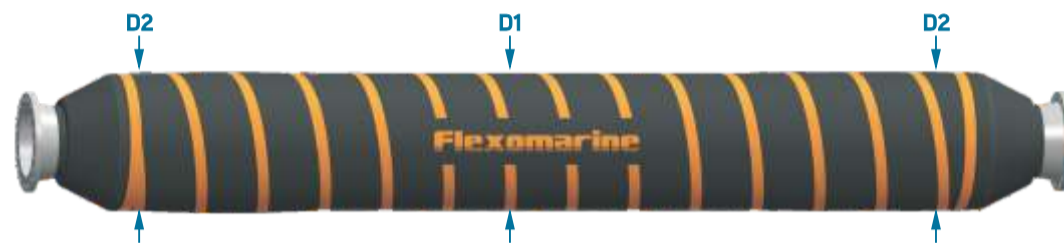


Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
400/300 (16"/12")	810	630	650	1483 2151	1680 2466	1865 2761	1.8
500/400 (20"/16")	940	790	810	2159 3245	2449 3726	2721 4177	2.4
600/500 (24"/20")	1080	920	940	2853 5360	3239 6186	3600 6961	3.0

- Single Carcass Hose FLEXOMARINE Reducer Bore for use to connect larger mainline hose to smaller tail hose
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**

Type 1840 F RT **Tail Hose**

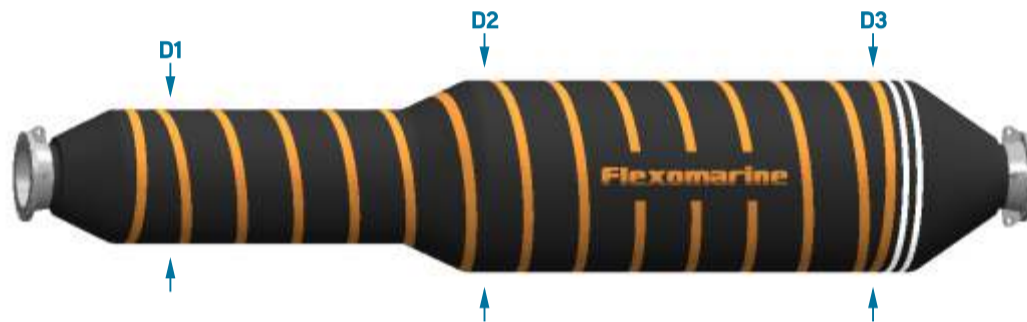


Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	630	650	1610 2278	1832 2617	2039 2935	1.8
400 (16")	790	810	2227 3313	2531 3808	2817 4273	2.4
500 (20")	920	940	2909 4632	3307 5334	3681 5991	3.0
600 (24")	1060	1080	3789 6296	4318 7266	4813 8174	3.6

- Single Carcass Hose FLEXOMARINE Tail for use to connect the end connection hose and the main floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**

Type 1852 F RT Tanker End (Jumbo) Hose



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	810	1020	1180	1935 2603	2184 2970	2417 3312	1.2
400 (16")	1000	1380	1430	2671 3756	3014 4291	3335 4791	1.6
500 (20")	1080	1470	1520	3494 5217	3941 5967	4358 6668	2.0
600 (24")	1230	1550	1600	4365 6872	4850 7798	5335 8696	2.4

- Single Carcass Hose FLEXOMARINE Tanker end for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- In the hose fittings liftings lugs can be welded to attach pick up device
- Each lug are tested to support Safe Working Loads as follow:
 - 12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of NSV (North Sea Valve) up to 2,5 ton
- Electrical Continuity: Discontinuous or as requested

RT REINFORCED SINGLE CARCASS 21 bar 1000 Series **Reeling Hose**

Type 1870 BC RT **Buoyancy Control Hose**



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	510	650	1438 2107	1628 2414	1806 2701	1.8
400 (16")	620	810	2082 3168	2359 3636	2619 4074	2.4
500 (20")	720	940	2747 4471	3114 5141	3459 5769	3.0
600 (24")	850	1080	3693 6201	4204 7152	4682 8044	3.6

- Single Carcass Hose FLEXOMARINE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

RT DOUBLE CARCASS 15 bar 7000 Series

Reeling Hose



7610F RT

Flexomarine half floating hose with one reinforced end (first off FPSO)



7620F RT

Flexomarine integral full-floating hose for mainline



7630F RT

Flexomarine integral full-floating hose with built-in reducer



7640F RT

Flexomarine integral full-floating hose for tail



7652F RT

Flexomarine integral full-floating tanker end hose (Jumbo)



7670BCRT

Flexomarine integral buoyancy control hose
 Designed upon request



7631S RT

Flexomarine submarine hose with one reinforced end for connection to the FPSO (First-Off FPSO).



7632S RT

Flexomarine standard mainline submarine hose



7635S RT

Flexomarine submarine hose for tanker end

RT DOUBLE CARCASS 15 bar
 7000 Series

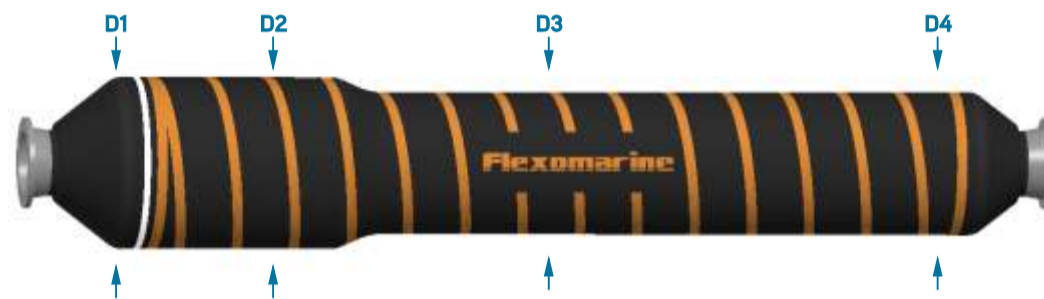
RT DOUBLE CARCASS HOSE

RT DOUBLE CARCASS 15 bar 7000 Series

Reeling Hose

Type 7610 F RT **First Off FPSO HOSE**

FLEXOMARINE SAFE

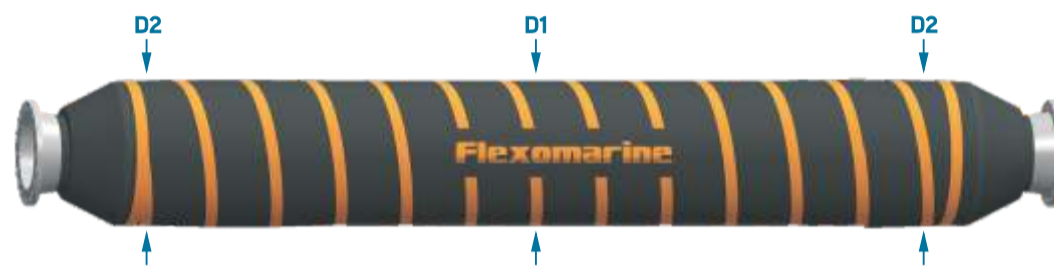


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	800	780	680	700	2175 2843	2468 3253	2742 3638	1.8
400 (16")	950	930	830	850	2894 3980	3279 4556	3640 5095	2.4
500 (20")	1170	1150	990	1020	3653 5377	4151 6177	4617 6928	3.0
600 (24")	1300	1270	1120	1140	4907 7414	5594 8542	6234 9599	3.6

- Double Carcass Hose FLEXOMARINE SAFE One Reinforced End to be used in the or FPSO Offloading connection
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including teh weight of ancillary equipment or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7620 F RT Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	680	700	1936 2604	2183 2969	2145 3311	1.8
400 (16")	830	850	2669 3755	3013 4290	3335 4791	2.4
500 (20")	970	995	3414 5137	3869 5895	4295 6605	3.0
600 (24")	1160	1160	4598 7105	5230 8178	5823 9184	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline to be used as the main floating hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

GMPHOM 2009

RT DOUBLE CARCASS 15 bar 7000 Series

Reeling Hose

Type 7630 F RT Reducer Hose

FLEXOMARINE SAFE

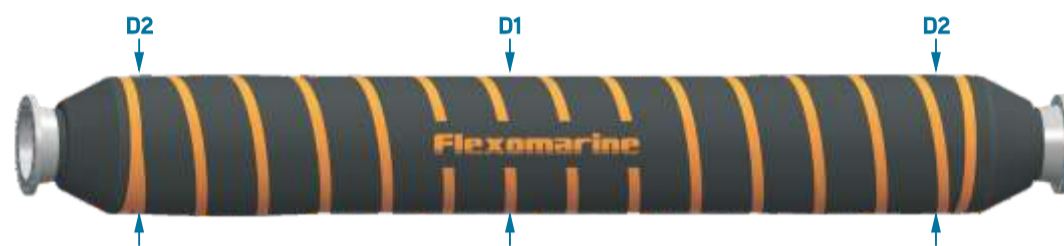


Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
400/300 (16"/12")	850	680	700	1945 2613	2194 2980	2427 3323	1.8
500/400 (20"/16")	995	830	850	2682 3768	3028 4305	3352 4808	2.4
600/500 (24"/20")	1140	970	995	3431 5154	3888 5914	4316 6627	3.0

- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect larger mainline hose to smaller tail hose
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7640 F RT **Tail Hose**

FLEXOMARINE SAFE

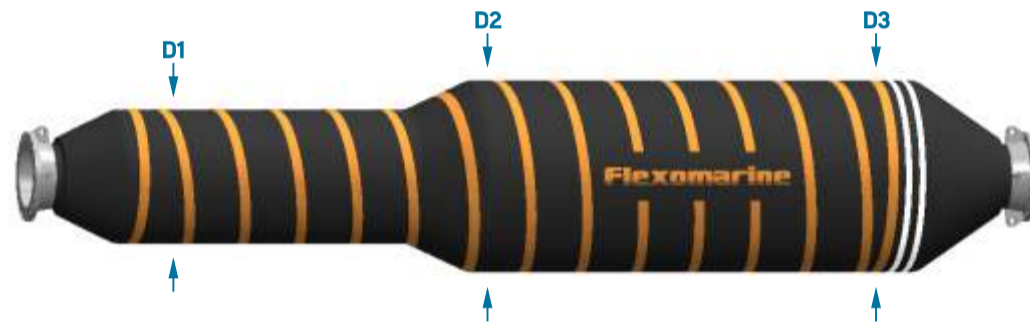


Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	680	700	2028 2696	2295 3081	2546 3442	1.8
400 (16")	830	850	2699 3785	3052 4329	3383 4839	2.4
500 (20")	970	995	3428 5152	3890 5916	4322 6632	3.0
600 (24")	1160	1160	4644 7151	5283 8231	5882 9243	3.6

- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the end connection hose and the main floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7652 F RT Tanker End (Jumbo) Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	880	1200	1250	2398 3066	2696 3482	2974 3870	1.2
400 (16")	1070	1450	1500	3193 4279	3588 4865	3956 5412	1.6
500 (20")	1160	1550	1600	4059 5783	4572 6598	5049 7359	2.0
600 (24")	1300	1600	1630	4821 7328	5357 8305	5893 9254	2.4

- Double Carcass Hose FLEXOMARINE SAFE Tanker End for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferential white bands at the tanker end
- In the hose fittings liftings lugs can be welded to attach pick up device
- Each lug are tested to support Safe Working Loads as follow:
 - 12"= 100 kN 16"= 150 kN 20"= 200 kN
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of NSV (North Sea Valve) up to 2,5 ton
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is inially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7670 BC RT **Buoyancy Control Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	510	700	1882 2550	2120 2906	2343 3239	1.8
400 (16")	620	850	2587 3673	2916 4193	3224 4680	2.4
500 (20")	730	990	3299 5022	3731 5757	4136 6447	3.0
600 (24")	930	1140	4481 6988	5090 7116	5661 7971	3.6

- Double Carcass Hose FLEXOMARINE SAFE buoyancy control for use as the second and the third hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

RT DOUBLE CARCASS 19 bar 7000 Series

Reeling Hose



7710F RT

Flexomarine half floating hose with one reinforced end (first off FPSO)



7720F RT

Flexomarine integral full-floating hose for mainline



7730F RT

Flexomarine integral full-floating hose with built-in reducer



7740F RT

Flexomarine integral full-floating hose for tail



7752F RT

Flexomarine integral full-floating tanker end hose (Jumbo)



7770BCRT

Flexomarine integral with buoyancy control hose
Designed upon request



7731S RT

Flexomarine submarine hose with one reinforced end for connection to the FPSO (First-Off FPSO).



7732S RT

Flexomarine standard mainline submarine hose



7735S RT

Flexomarine submarine hose for tanker end

RT DOUBLE CARCASS 19 bar
7000 Series

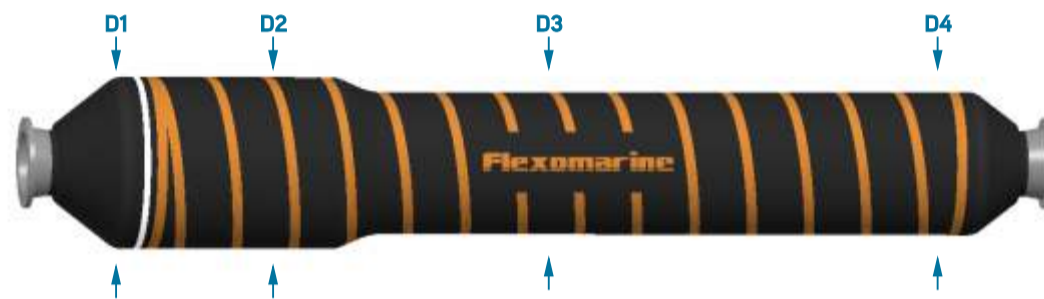
RT DOUBLE CARCASS HOSE

RT DOUBLE CARCASS 19 bar 7000 Series

Reeling Hose

Type 7710 F RT **First Off FPSO HOSE**

FLEXOMARINE SAFE

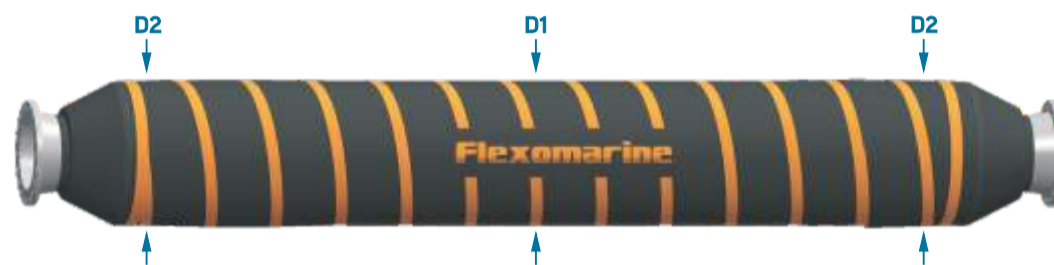


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	830	810	710	730	2245 2913	2554 3340	2844 3740	1.8
400 (16")	980	960	860	880	3023 4109	3437 4714	3825 5280	2.4
500 (20")	1200	1180	1020	1050	3840 5563	4370 6396	4867 7178	3.0
600 (24")	1330	1300	1150	1170	5030 7537	5738 8686	6402 9763	3.6

- Double Carcass Hose FLEXOMARINE SAFE One End Reinforced to be used in the or FPSO Offloading connection
- Identified by one circumferential white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. Its operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7720 F RT Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	710	730	1969 2637	2226 3011	2467 3363	1.8
400 (16")	860	880	2751 3837	3115 4392	3456 4912	2.4
500 (20")	1000	1025	3545 5268	4022 6048	4469 6779	3.0
600 (24")	1170	1170	4661 7268	5302 8250	5905 9266	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline to be used as the main floating hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

GMPHOM 2009

RT DOUBLE CARCASS 19 bar 7000 Series

Reeling Hose

Type 7730 F RT Reducer Hose

FLEXOMARINE SAFE

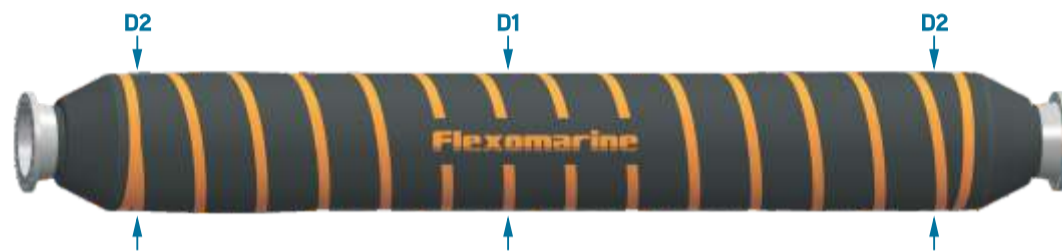


Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
400/300 (16"/12")	880	710	730	2120 2788	2397 3182	2656 3552	1.8
500/400 (20"/16")	1025	860	880	2962 4048	3354 4631	3722 5177	2.4
600/500 (24"/20")	1170	1000	1025	3817 5540	4331 6357	4812 7123	3.0

- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect larger mainline hose to smaller tail hose
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7740 F RT **Tail Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	710	730	2059 2727	2335 3121	2595 3490	1.8
400 (16")	860	880	2780 3866	3152 4429	3501 4957	2.4
500 (20")	1000	1025	3557 5280	4039 6066	4492 6802	3.0
600 (24")	1170	1170	4707 7214	5355 8303	5964 9325	3.6

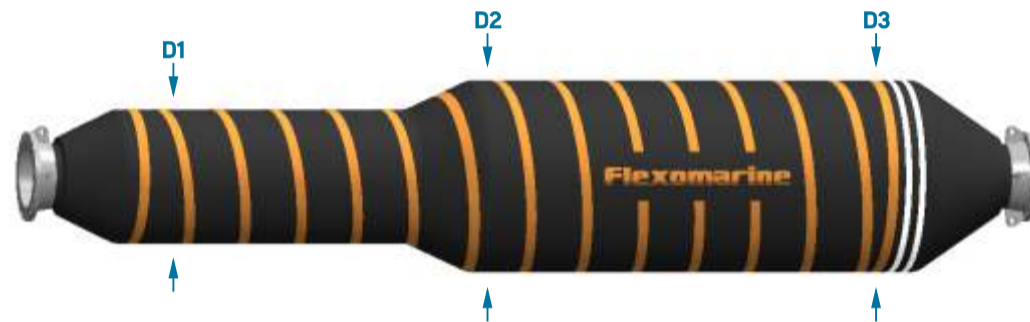
- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the end connection hose and the main floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

RT DOUBLE CARCASS 19 bar 7000 Series

Reeling Hose

Type 7752 F RT Tanker End (Jumbo) Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	880	1200	1250	2432 3100	2740 3525	3027 3923	1.2
400 (16")	1070	1450	1500	3282 4368	3699 4976	4088 5544	1.6
500 (20")	1160	1550	1600	4204 5927	4741 6767	5242 7552	2.0
600 (24")	1300	1600	1630	4972 7479	5587 8535	6146 9507	2.4

- Double Carcass Hose FLEXOMARINE SAFE Tanker End for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferential white bands at the tanker end
- In the hose fittings liftings lugs can be welded to attach pick up device
- Each lug are tested to support Safe Working Loads as follow:
 - 12"= 100 kN 16"= 150 kN 20"= 200 kN
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of NSV (North Sea Valve) up to 2,5 ton
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7770 BC RT **Buoyancy Control Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	540	730	1916 2585	2164 2949	2396 3292	1.8
400 (16")	650	880	2671 3757	3020 4296	3346 4802	2.4
500 (20")	760	1025	3432 5155	3887 5913	4313 6624	3.0
600 (24")	940	1150	4545 7053	5165 8113	5746 9107	3.6

- Double Carcass Hose FLEXOMARINE SAFE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

RT DOUBLE CARCASS 21 bar 7000 Series

Reeling Hose



7810F RT

Flexomarine half floating hose with one reinforced end (first off FPSO)



7820F RT

Flexomarine integral full-floating hose for mainline



7830F RT

Flexomarine integral full-floating hose with built-in reducer



7840F RT

Flexomarine integral full-floating hose for tail



7852F RT

Flexomarine integral full-floating tanker end hose (Jumbo)



7870BCRT

Flexomarine integral buoyancy control hose
 Designed upon request



7831S RT

Flexomarine submarine hose with one reinforced end for connection to the FPSO (First-Off FPSO).



7832S RT

Flexomarine standard mainline submarine hose



7835S RT

Flexomarine submarine hose for tanker end

RT DOUBLE CARCASS 21 bar
 7000 Series

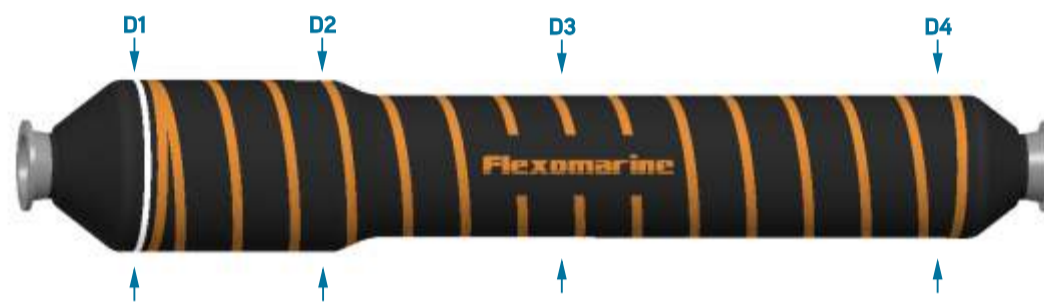
RT DOUBLE CARCASS HOSE

RT DOUBLE CARCASS 21 bar 7000 Series

Reeling Hose

Type 7810 F RT **First Off FPSO HOSE**

FLEXOMARINE SAFE

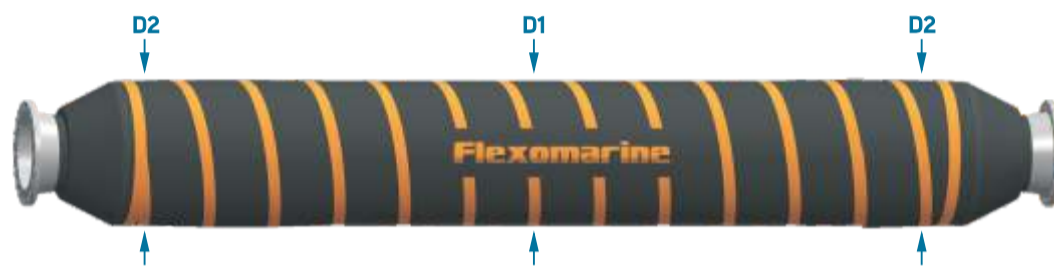


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	D4	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	830	810	710	730	2315 2983	2633 3419	2932 3828	1.8
400 (16")	980	960	860	880	3117 4202	3543 4820	3943 5399	2.4
500 (20")	1200	1180	1020	1050	3958 5682	4505 6531	5018 7328	3.0
600 (24")	1330	1300	1150	1170	5186 7693	5916 8864	6600 9961	3.6

- Double Carcass Hose FLEXOMARINE SAFE One Reinforced End be used in the FPSO Offloading connection
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including teh weight of ancillary equipment or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7820 F RT Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	710	730	2030 2698	2295 3080	2543 3439	1.8
400 (16")	860	880	2836 3922	3211 4488	3563 5019	2.4
500 (20")	1000	1025	3654 5378	4146 6172	4607 6918	3.0
600 (24")	1170	1170	4805 7312	5466 8414	6087 9449	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline to be used as the main floating hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

GMPHOM 2009

RT DOUBLE CARCASS 21 bar 7000 Series

Reeling Hose

Type 7830 F RT Reducer Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
400/300 (16"/12")	880	710	730	2186 2854	2471 3256	2738 3634	1.8
500/400 (20"/16")	1025	860	880	3054 4140	3458 4735	3837 5293	2.4
600/500 (24"/20")	1170	1000	1025	3935 5658	4465 6491	4961 7271	3.0

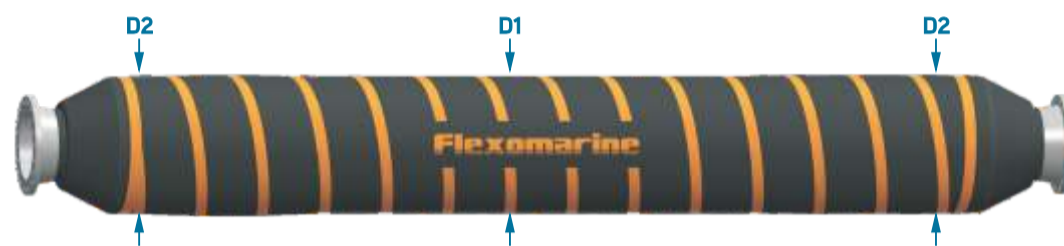
- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect larger mainline hose to smaller tail hose
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

RT DOUBLE CARCASS 21 bar 7000 Series

Reeling Hose

Type 7840 F RT **Tail Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	710	730	2123 2791	2408 3193	2675 3570	1.8
400 (16")	860	880	2866 3951	3249 4526	3609 5065	2.4
500 (20")	1000	1025	3666 5390	4164 6191	4631 6941	3.0
600 (24")	1170	1170	4853 7360	5521 8468	6148 9509	3.6

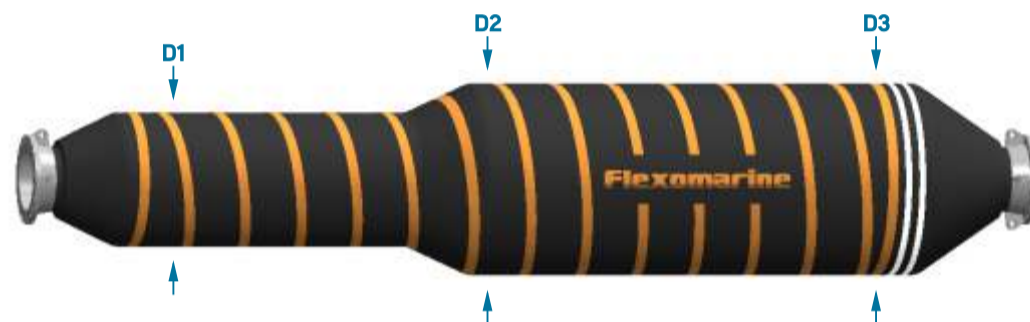
- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the end connection rail hose and the main floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

RT DOUBLE CARCASS 21 bar 7000 Series

Reeling Hose

Type 7852 F RT Tanker End (Jumbo) Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)			Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1	D2	D3	Weight in Air Full of Sea Water (kg)			
				9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	880	1200	1250	2507 3175	2824 3610	3121 4017	1.2
400 (16")	1070	1450	1500	3383 4469	3813 5090	4215 5671	1.6
500 (20")	1160	1550	1600	4334 6057	4887 6914	5404 7714	2.0
600 (24")	1300	1600	1630	5126 7633	5760 8708	6336 9697	2.4

- Double Carcass Hose FLEXOMARINE SAFE Tanker End for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- In the hose fittings liftings lugs can be welded to attach pick up device
- Each lug are tested to support Safe Working Loads as follow:
 - 12"= 100 kN 16"= 150 kN 20"= 200 kN
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of NSV (North Sea Valve) up to 2,5 ton
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inicially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

Type 7870 BC RT **Buoyancy Control Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)		Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End	Weight in Air Full of Sea Water (kg)			
			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
300 (12")	540	730	1976 2644	2231 3016	2470 3366	1.8
400 (16")	650	880	2754 3840	3113 4390	3450 4906	2.4
500 (20")	760	1025	3538 5261	4007 6033	4447 6757	3.0
600 (24")	940	1150	4686 7193	5325 8273	5924 9285	3.6

- Double Carcass Hose FLEXOMARINE SAFE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

**Research,
Development and
Quality Assurance.**

Buoy and Reeling System

	SINGLE CARCASS				SAFE DOUBLE CARCASS				SUFFIX								
	1000 Series				7000 Series				Floating	Submarine	Reeling Type	Catenary	Extra Buoyancy	High Flex	Buoyancy Control	Both Ends Reinforced or Fully Reinforced	Polyurethane Cover
	15 bar 1600	19 bar 1700	21 bar 1800	21 bar 1800	15 bar 7600	19 bar 7700	21 bar 7800	21 bar 7800									
Flexomarine Standard Product Range	Drawings																
Flexomarine (first off the Reel) or half floating hose with one reinforced end (first off the buoy)	1610	1710	1810	1810	7610	7710	7810	7810	●		●	●	●	●	●	●	●
Flexomarine integral full-floating hose for mainline	1620	1720	1820	1820	7620	7720	7820	7820	●		●	●	●	●	●	●	●
Flexomarine integral full-floating hose with built-in reducer	1630	1730	1830	1830	7630	7730	7830	7830	●		●	●	●	●	●	●	●
Flexomarine integral full-floating hose for tail	1640	1740	1840	1840	7640	7740	7840	7840	●		●	●	●	●	●	●	●
Flexomarine integral full-floating tanker rail hose (Dumbell or Barbell type)	1650	1750	1850	1850	7650	7750	7850	7850	●		●	●	●	●	●	●	●
Flexomarine integral full-floating tanker rail hose (Jumbo type)	1652	1752	1852	1852	7652	7752	7852	7852	●		●	●	●	●	●	●	●
Flexomarine integral buoyancy control hose. Designed for buoy or Reeling systems	1670	1770	1870	1870	7670	7770	7870	7870	●		●	●	●	●	●	●	●
Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM	1621	1721	1821	1821	7621	7721	7821	7821	●	●		●	●	●	●	●	●
Flexomarine standard mainline submarine hose with location collars	1622	1722	1822	1822	7622	7722	7822	7822	●	●		●	●	●	●	●	●
Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM	1631	1731	1831	1831	7631	7731	7831	7831	●	●	●		●	●	●	●	●
Flexomarine standard mainline submarine hose	1632	1732	1832	1832	7632	7732	7832	7832	●	●	●		●	●	●	●	●
Flexomarine submarine hose for tanker rail	1635	1735	1835	1835	7635	7735	7835	7835	●	●	●	●		●	●	●	●

MONOBUOY HOSES TYPE



SINGLE CARCASS 15 bar 1000 Series



1610F

Flexomarine half floating hose with one reinforced end (first off the buoy)



1620F

Flexomarine integral full-floating hose for mainline



1630F

Flexomarine integral full-floating hose with built-in reducer



1640F

Flexomarine integral full-floating hose for tail



1650F

Flexomarine integral full-floating tanker rail hose (Dumbbell or Barbell type)



1670BC

Flexomarine integral buoyancy control hose. Designed upon request



1621S

Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM



1622S

Flexomarine standard mainline submarine hose with location collars



1631S

Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM



1632S

Flexomarine standard mainline submarine hose



1635S

Flexomarine submarine hose for tanker rail

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1610F **First Off Buoy Hose**

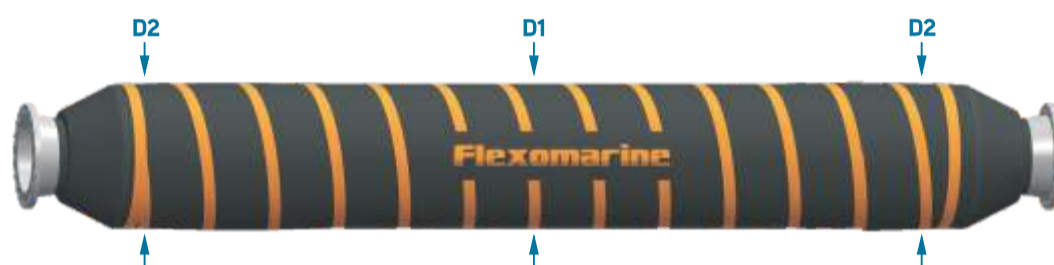


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	335	280	360	380	602 771	691 890	774 1001	0.9
200 (8")	400	335	450	470	813 1109	932 1280	1045 1442	1.2
250 (10")	460	390	530	560	1073 1527	1227 1761	1371 1980	1.5
300 (12")	530	455	590	630	1380 2048	1580 2365	1767 2663	1.8
400 (16")	620	515	735	775	1872 2958	2139 3415	2388 3844	2.4
500 (20")	740	600	845	890	2458 4181	2808 4834	3136 5446	3.0
600 (24")	855	720	1015	1060	3263 5770	3736 6684	4180 7541	3.6

- Single Carcass Hose FLEXOMARINE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1620F Mainline Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	360	385	-	-	571 740	650 849	724 951	0.9
200 (8")	415	445	-	-	727 1023	826 1174	918 1315	1.2
250 (10")	500	535	-	-	981 1435	1113 1647	1236 1845	1.5
300 (12")	555	590	-	-	1174 1842	1328 2113	1472 2368	1.8
400 (16")	705	745	-	-	1723 2809	1949 3226	2161 3617	2.4
500 (20")	840	885	-	-	2322 4045	2630 4656	2919 5229	3.0
600 (24")	985	1035	-	-	3104 5611	3527 6475	3923 7284	3.6

- Single Carcass Hose FLEXOMARINE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1630F Reducer Hose

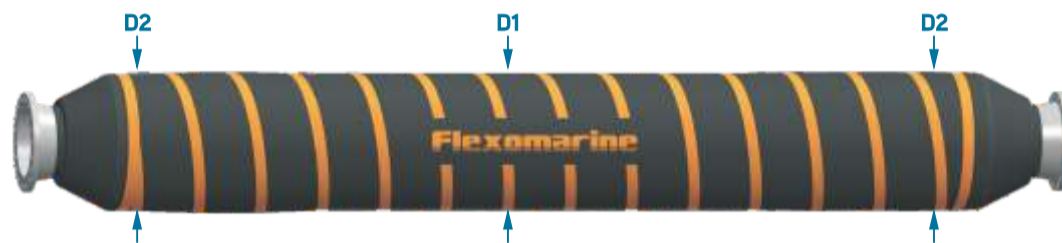


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	390	360	380	-	540 711	617 817	689 917	0.9
250/200 (10"/8")	450	415	440	-	715 1013	817 1166	912 1310	1.2
250/150 (10"/6")	435	360	380	-	546 714	623 821	696 921	0.9
300/250 (12"/10")	545	500	535	-	968 1424	1102 1638	1228 1839	1.5
300/200 (12"/8")	495	415	440	-	722 1017	825 1171	921 1316	1.2
300/150 (12"/6")	465	360	380	-	551 721	629 829	703 930	0.9
400/300 (16"/12")	615	560	600	-	1199 1865	1364 2148	1519 2412	1.8
400/250 (16"/10")	590	500	535	-	977 1430	1107 1645	1240 1846	1.5
500/400 (20"/16")	765	710	750	-	1731 2814	1970 3244	2195 3647	2.4
500/300 (20"/12")	655	560	600	-	1205 1871	1371 2154	1527 2419	1.8
600/500 (24"/20")	905	845	890	-	2322 4042	2646 4668	2949 5255	3.0
600/400 (24"/16")	805	710	750	-	1740 2822	1980 3253	2206 3658	2.4

- Single Carcass Hose FLEXOMARINE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1640F Tail Hose

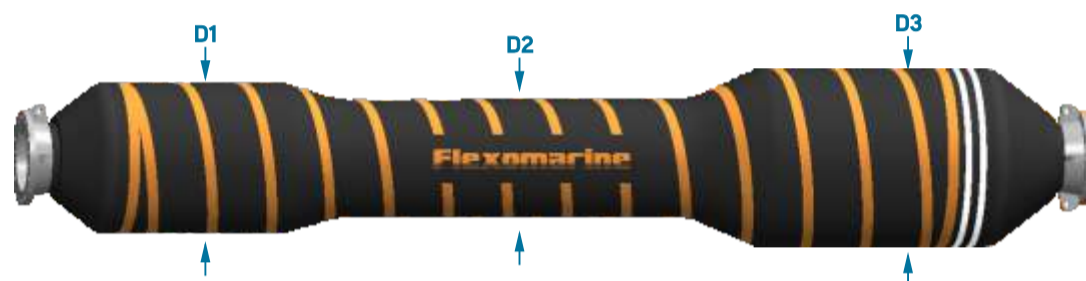


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	370	390	-	-	594 763	677 876	755 982	0.9
200 (8")	420	450	-	-	762 1058	868 1216	966 1363	1.2
250 (10")	505	540	-	-	1020 1474	1158 1692	1288 1897	1.5
300 (12")	565	600	-	-	1291 1959	1466 2252	1630 2526	1.8
400 (16")	710	750	-	-	1797 2883	2036 3313	2260 3716	2.4
500 (20")	845	890	-	-	2394 4117	2715 4741	3016 5326	3.0

- Single Carcass Hose FLEXOMARINE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1650F Tanker Rail Hose

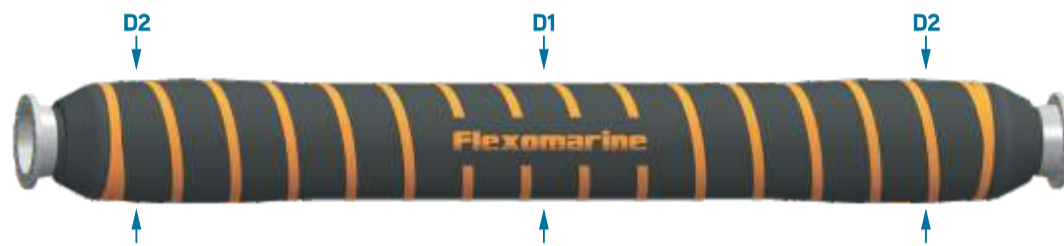


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	435	305	490	-	572 742	646 845	714 941	0.6
200 (8")	495	420	550	-	777 1073	881 1229	979 1375	0.8
250 (10")	615	475	670	-	1038 1492	1172 1706	1297 1906	1.0
300 (12")	685	535	790	-	1350 2018	1526 2312	1691 2587	1.2
400 (16")	830	680	990	-	1853 2939	2095 3372	2320 3776	1.6
500 (20")	1000	795	1215	-	2468 4192	2789 4815	3087 5398	2.0

- Single Carcass Hose FLEXOMARINE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:
6" = 40 kN 8" = 50 kN 10" = 70 kN
12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 15 bar 1000 Series

Type 1670BC Buoyancy Control Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	305	325	-	-	517 686	589 788	658 884	0.9
200 (8")	370	415	-	-	696 992	793 1141	885 1282	1.2
250 (10")	445	510	-	-	943 1397	1072 1606	1193 1802	1.5
300 (12")	510	545	-	-	1161 1829	1319 2105	1468 2364	1.8
400 (16")	625	665	-	-	1665 2751	1893 3170	2107 3562	2.4
500 (20")	735	780	-	-	2232 3955	2539 4565	2827 5137	3.0
600 (24")	885	900	-	-	2985 5492	3407 6355	3803 7164	3.6

- Single Carcass Hose FLEXOMARINE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

SINGLE CARCASS 19 bar 1000 Series



1710F

Flexomarine half floating hose with one reinforced end (first off the buoy)



1720F

Flexomarine integral full-floating hose for mainline



1730F

Flexomarine integral full-floating hose with built-in reducer



1740F

Flexomarine integral full-floating hose for tail



1750F

Flexomarine integral full-floating tanker rail hose (Dumbell or Barbell type)



1770BC

Flexomarine integral buoyancy control hose. Designed upon request



1721S

Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM



1722S

Flexomarine standard mainline submarine hose with location collars



1731S

Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM



1732S

Flexomarine standard mainline submarine hose



1735S

Flexomarine submarine hose for tanker rail

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1710F **First Off Buoy Hose**

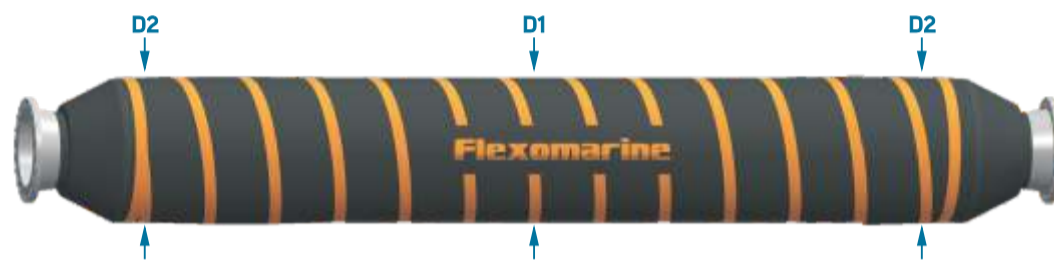


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	375	295	375	410	736 905	843 1042	944 1171	0.9
200 (8")	430	345	460	495	944 1240	1081 1429	1208 1605	1.2
250 (10")	495	405	545	585	1244 1698	1421 1955	1587 2196	1.5
300 (12")	565	470	610	655	1604 2273	1836 2621	2052 2948	1.8
400 (16")	665	540	760	810	2176 3262	2486 3763	2777 4233	2.4
500 (20")	775	655	895	950	2820 4543	3221 5247	3596 5907	3.0
600 (24")	905	780	1075	1135	3788 6295	4338 7285	4853 8215	3.6

- Single Carcass Hose FLEXOMARINE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1720F Mainline Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	360	385	-	-	571 740	650 849	724 951	0.9
200 (8")	420	450	-	-	757 1053	862 1210	959 1356	1.2
250 (10")	505	540	-	-	1017 1471	1154 1688	1284 1893	1.5
300 (12")	560	595	-	-	1214 1882	1375 2161	1526 2421	1.8
400 (16")	710	750	-	-	1771 2857	2005 3282	2225 3681	2.4
500 (20")	845	890	-	-	2379 4102	2697 4724	2996 5306	3.0
600 (24")	995	1040	-	-	3175 5682	3610 6558	4018 7379	3.6

- Single Carcass Hose FLEXOMARINE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1730F Reducer Hose

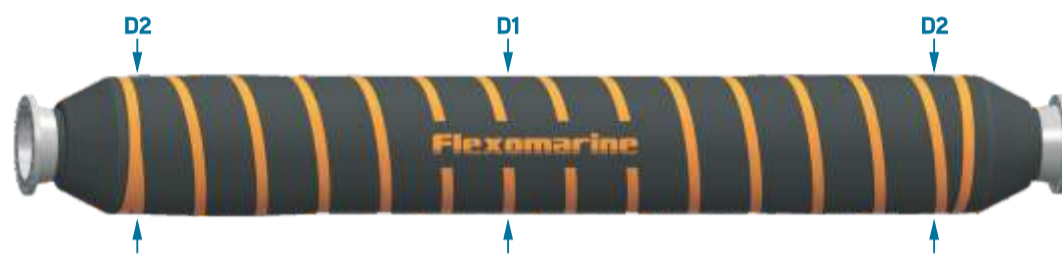


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	410	365	400	-	587 756	666 865	741 967	0.9
250/200 (10"/8")	465	420	455	-	747 1043	846 1194	939 1336	1.2
250/150 (10"/6")	455	365	400	-	593 762	673 872	748 975	0.9
300/250 (12"/10")	560	505	550	-	1021 1475	1156 1690	1283 1892	1.5
300/200 (12"/8")	510	420	455	-	754 1050	854 1202	948 1345	1.2
300/150 (12"/6")	485	365	400	-	599 768	680 879	755 982	0.9
400/300 (16"/12")	635	570	620	-	1284 1953	1455 2241	1615 2511	1.8
400/250 (16"/10")	605	505	550	-	1031 1485	1162 1696	1296 1904	1.5
500/400 (20"/16")	790	725	775	-	1870 2956	2121 3398	2356 3812	2.4
500/300 (20"/12")	675	570	620	-	1291 1959	1462 2248	1623 2519	1.8
600/500 (24"/20")	925	860	910	-	2471 4194	2805 4831	3118 5428	3.0
600/400 (24"/16")	830	725	775	-	1879 2965	2132 3408	2368 3824	2.4

- Single Carcass Hose FLEXOMARINE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1740F Tail Hose

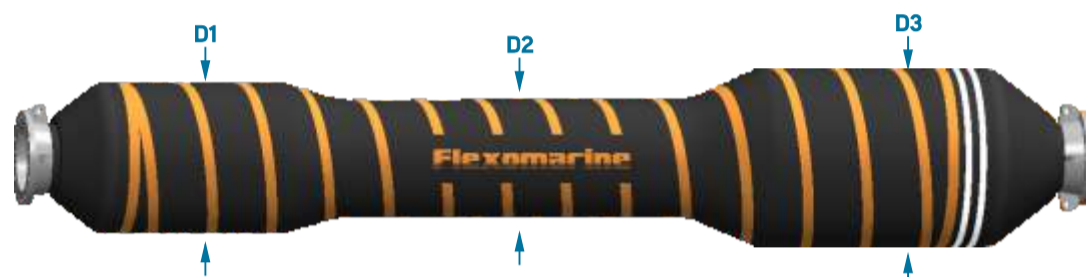


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	370	390	-	-	594 763	677 896	755 982	0.9
200 (8")	425	455	-	-	794 1090	905 1253	1008 1405	1.2
250 (10")	510	545	-	-	1056 1510	1201 1735	1336 1945	1.5
300 (12")	570	605	-	-	1333 2001	1515 2301	1686 2581	1.8
400 (16")	715	755	-	-	1845 2931	2093 3370	2326 3781	2.4
500 (20")	850	895	-	-	2451 4175	2783 4809	3094 5404	3.0

- Single Carcass Hose FLEXOMARINE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1750F Tanker Rail Hose

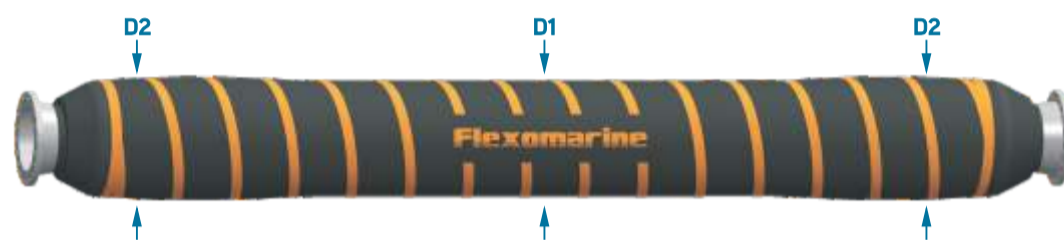


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	465	320	520	-	660 829	742 941	819 1046	0,6
200 (8")	520	430	575	-	856 1152	966 1314	1069 1466	0.8
250 (10")	640	490	695	-	1147 1602	1292 1826	1426 2035	1.0
300 (12")	710	555	820	-	1502 2170	1695 2481	1875 2771	1.2
400 (16")	865	705	1025	-	2072 3158	2339 3616	2588 4044	1.6
500 (20")	1030	815	1245	-	2711 4435	3058 5085	3382 5692	2.0

- Single Carcass Hose FLEXOMARINE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferential white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:
 - 6" = 40 kN 8" = 50 kN 10" = 70 kN
 - 12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 19 bar 1000 Series

Type 1770BC Buoyancy Control Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	310	345	-	-	565 734	640 839	710 937	0.9
200 (8")	370	435	-	-	728 1024	823 1171	913 1310	1.2
250 (10")	450	525	-	-	996 1450	1127 1661	1249 1858	1.5
300 (12")	515	565	-	-	1246 1914	1410 2196	1564 2460	1.8
400 (16")	640	690	-	-	1803 2889	2043 3320	2268 3724	2.4
500 (20")	750	805	-	-	2379 4103	2697 4724	2995 5306	3.0
600 (24")	905	930	-	-	3257 5764	3707 6655	4129 7491	3.6

- Single Carcass Hose FLEXOMARINE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

SINGLE CARCASS 21 bar 1000 Series



1810F

Flexomarine half floating hose with one reinforced end (first off the buoy)



1820F

Flexomarine integral full-floating hose for mainline



1830F

Flexomarine integral full-floating hose with built-in reducer



1840F

Flexomarine integral full-floating hose for tail



1850F

Flexomarine integral full-floating tanker rail hose (Dumbbell or Barbell type)



1870BC

Flexomarine integral buoyancy control hose. Designed upon request



1821S

Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM



1822S

Flexomarine standard mainline submarine hose with location collars



1831S

Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM



1832S

Flexomarine standard mainline submarine hose



1835S

Flexomarine submarine hose for tanker rail

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1810F **First Off Buoy Hose**

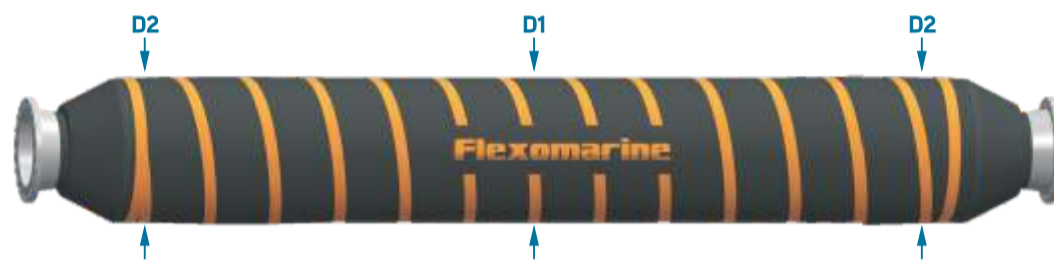


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	375	295	375	410	758 928	869 1068	973 1200	0.9
200 (8")	430	345	460	495	973 1269	1114 1462	1246 1643	1.2
250 (10")	495	405	545	585	1282 1736	1465 1999	1636 2245	1.5
300 (12")	565	470	610	655	1654 2322	1892 2678	2116 3012	1.8
400 (16")	665	540	760	810	2244 3329	2563 3840	2863 4318	2.4
500 (20")	775	655	895	950	2907 4630	3320 5346	3708 6018	3.0
600 (24")	905	780	1075	1135	3905 6412	4472 7420	5003 8364	3.6

- Single Carcass Hose FLEXOMARINE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1820F Mainline Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	370	390	-	-	597 766	680 879	758 985	0.9
200 (8")	420	450	-	-	757 1053	862 1210	959 1356	1.2
250 (10")	505	540	-	-	1017 1471	1154 1688	1284 1893	1.5
300 (12")	565	605	-	-	1253 1921	1421 2207	1578 2474	1.8
400 (16")	715	755	-	-	1821 2906	2064 3341	2292 3748	2.4
500 (20")	850	895	-	-	2439 4162	2768 4794	3077 5387	3.0
600 (24")	1005	1050	-	-	3314 5821	3774 6722	4205 7567	3.6

- Single Carcass Hose FLEXOMARINE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1830F Reducer Hose

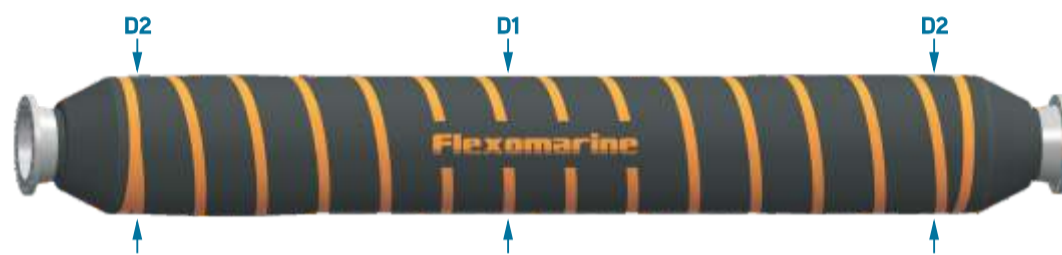


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	410	365	400	-	605 776	687 888	763 992	0.9
250/200 (10"/8")	465	420	455	-	770 1067	872 1222	968 1367	1.2
250/150 (10"/6")	455	365	400	-	611 779	694 891	771 996	0.9
300/250 (12"/10")	560	505	550	-	1052 1509	1192 1728	1322 1934	1.5
300/200 (12"/8")	510	420	455	-	777 1072	881 1227	978 1372	1.2
300/150 (12"/6")	485	365	400	-	617 787	701 900	779 1006	0.9
400/300 (16"/12")	635	570	620	-	1324 1990	1500 2283	1665 2558	1.8
400/250 (16"/10")	605	505	550	-	1063 1515	1198 1735	1336 1942	1.5
500/400 (20"/16")	790	725	775	-	1928 3010	2187 3459	2429 3881	2.4
500/300 (20"/12")	675	570	620	-	1331 1996	1508 2290	1673 2565	1.8
600/500 (24"/20")	925	860	910	-	2547 4266	2892 4913	3214 5519	3.0
600/400 (24"/16")	830	725	775	-	1937 3019	2197 3470	2441 3892	2.4

- Single Carcass Hose FLEXOMARINE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1840F Tail Hose

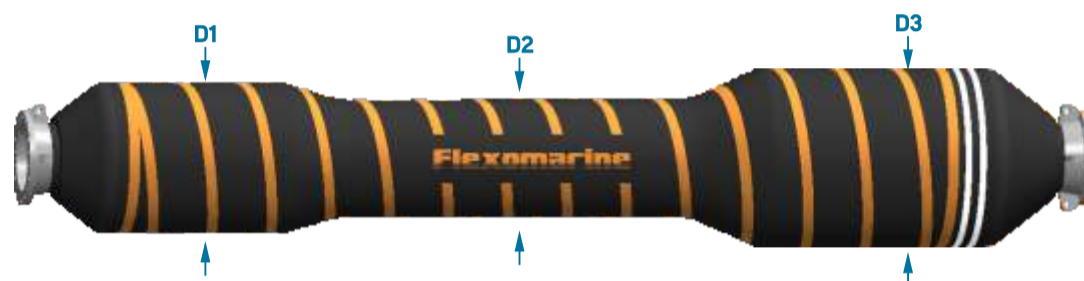


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	375	400	-	-	621 790	708 907	790 1017	0.9
200 (8")	425	455	-	-	794 1090	905 1253	1008 1405	1.2
250 (10")	510	545	-	-	1056 1510	1201 1735	1336 1945	1.5
300 (12")	575	610	-	-	1373 2042	1563 2349	1741 2636	1.8
400 (16")	720	760	-	-	1816 2982	2153 3430	2394 3849	2.4
500 (20")	855	900	-	-	2512 4235	2854 4881	3175 5485	3.0

- Single Carcass Hose FLEXOMARINE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1850F Tanker Rail Hose

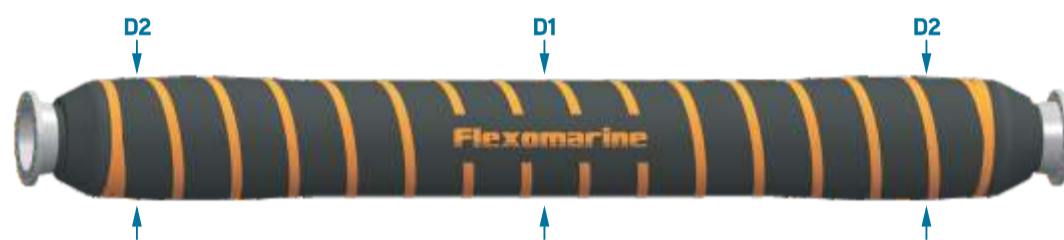


Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	465	320	520	-	680 849	765 964	844 1071	0,6
200 (8")	520	430	575	-	883 1179	996 1344	1102 1499	0.8
250 (10")	640	490	695	-	1183 1637	1332 1866	1471 2080	1.0
300 (12")	710	555	820	-	1548 2216	1747 2533	1933 2829	1.2
400 (16")	865	705	1025	-	2136 3222	2411 3688	2668 4124	1.6
500 (20")	1030	815	1245	-	2795 4519	3153 5179	3486 5797	2.0

- Single Carcass Hose FLEXOMARINE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:
6" = 40 kN 8" = 50 kN 10" = 70 kN
12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested

FLOATING SINGLE CARCASS 21 bar 1000 Series

Type 1870BC Buoyancy Control Hose



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	310	345	-	-	582 751	659 859	732 959	0.9
200 (8")	370	435	-	-	750 1046	849 1197	941 1338	1.2
250 (10")	450	525	-	-	1027 1481	1162 1696	1288 1897	1.5
300 (12")	515	565	-	-	1284 1953	1454 2239	1612 2508	1.8
400 (16")	640	690	-	-	1859 2945	2106 3383	2338 3794	2.4
500 (20")	750	805	-	-	2453 4176	2781 4807	3088 5398	3.0
600 (24")	905	930	-	-	3358 5865	3822 6770	4257 7618	3.6

- Single Carcass Hose FLEXOMARINE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

DOUBLE CARCASS 15 bar 7000 Series



7610F

Flexomarine half floating hose with one reinforced end (first off the buoy)



7620F

Flexomarine integral full-floating hose for mainline



7630F

Flexomarine integral full-floating hose with built-in reducer



7640F

Flexomarine integral full-floating hose for tail



7650F

Flexomarine integral full-floating tanker rail hose (Dumbell or Barbell type)



7670BC

Flexomarine integral buoyancy control hose. Designed upon request



7621S

Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM



7622S

Flexomarine standard mainline submarine hose with location collars



7631S

Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM



7632S

Flexomarine standard mainline submarine hose



7635S

Flexomarine submarine hose for tanker rail

DOUBLE CARCASS 15 bar
 7000 Series

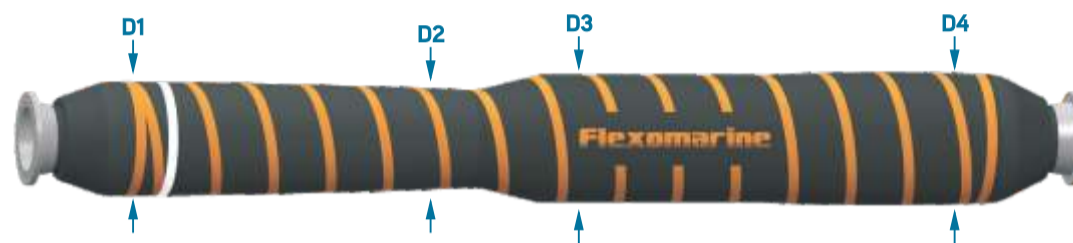
FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7610F First Off Buoy Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	420	325	410	465	873 1042	990 1189	1101 1328	0.9
200 (8")	490	390	500	560	1181 1477	1342 1690	1492 1889	1.2
250 (10")	550	445	580	650	1494 1948	1694 2228	1883 2491	1.5
300 (12")	630	515	650	725	1942 2610	2203 2989	2448 3344	1.8
400 (16")	725	605	825	855	2584 3670	2927 4204	3250 4705	2.4
500 (20")	840	720	965	990	3262 4985	3706 5732	4123 6433	3.0
600 (24")	985	855	1150	1190	4461 6968	5086 8033	5671 9032	3.6

- Double Carcass Hose FLEXOMARINE SAFE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

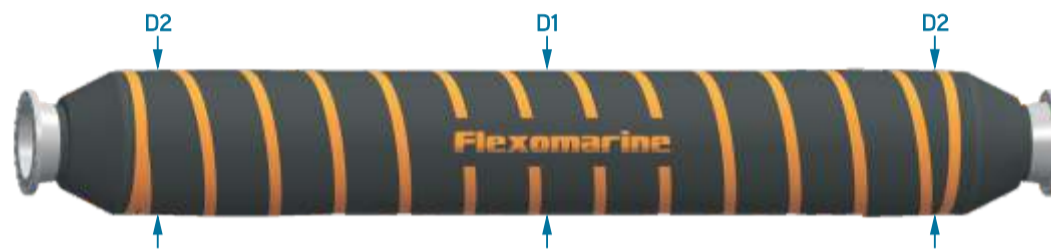
FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7620F Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	405	460	-	-	788 958	890 1089	985 1212	0.9
200 (8")	495	555	-	-	1074 1370	1214 1562	1345 1742	1.2
250 (10")	575	640	-	-	1370 1824	1548 2082	1714 2323	1.5
300 (12")	640	715	-	-	1728 2396	1949 2735	2157 3052	1.8
400 (16")	790	815	-	-	2383 3469	2690 3967	2978 4434	2.4
500 (20")	935	960	-	-	3048 4771	3454 5480	3835 6145	3.0
600 (24")	1095	1130	-	-	4180 6687	4755 7703	5294 8655	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7630F Reducer Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	470	405	460	-	784 956	886 1087	980 1210	0.9
250/200 (10"/8")	565	495	555	-	1068 1367	1208 1559	1338 1738	1.2
250/150 (10"/6")	515	405	460	-	792 960	894 1091	990 1215	0.9
300/250 (12"/10")	650	575	640	-	1363 1820	1540 2077	1706 2318	1.5
300/200 (12"/8")	610	495	555	-	1079 1372	1220 1565	1352 1745	1.2
300/150 (12"/6")	545	405	460	-	800 969	903 1102	1000 1227	0.9
400/300 (16"/12")	730	640	715	-	1737 2401	1959 2740	2167 3058	1.8
400/250 (16"/10")	695	575	640	-	1377 1828	1555 2086	1723 2328	1.5
500/400 (20"/16")	830	790	815	-	2395 3476	2703 3975	2993 4443	2.4
500/300 (20"/12")	770	640	715	-	1745 2408	1969 2749	2178 3068	1.8
600/500 (24"/20")	975	935	960	-	3063 4781	3471 5491	3854 6157	3.0
600/400 (24"/16")	870	790	815	-	2407 3486	2717 3987	3008 4456	2.4

- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. Its operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

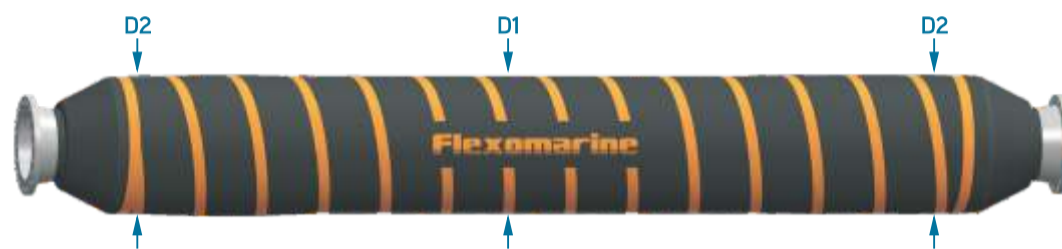
FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7640F Tail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	410	465	-	-	812 981	918 1117	1017 1244	0.9
200 (8")	500	560	-	-	1110 1406	1256 1604	1394 1791	1.2
250 (10")	580	650	-	-	1411 1865	1596 2130	1770 2378	1.5
300 (12")	650	725	-	-	1844 2512	2087 2872	2315 3210	1.8
400 (16")	795	820	-	-	2454 3540	2775 4051	3075 4531	2.4
500 (20")	940	965	-	-	3117 4840	3536 5562	3929 6239	3.0

- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

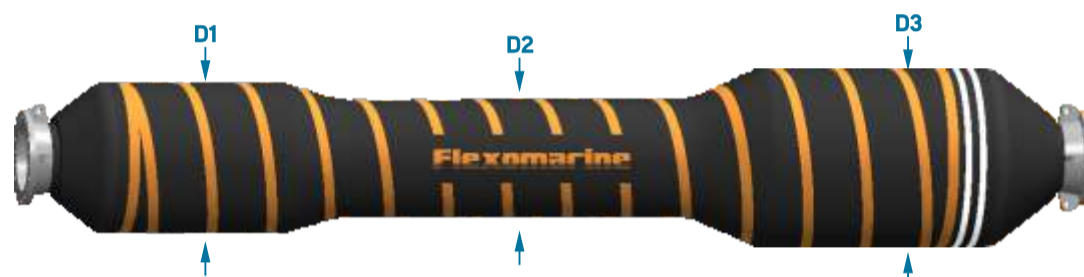
FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7650F Tanker Rail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End	-	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	520	355	570	-	849 1018	951 1150	1045 1272	0,6
200 (8")	585	470	640	-	1152 1448	1296 1644	1431 1828	0.8
250 (10")	705	530	755	-	1466 1920	1646 2180	1815 2424	1.0
300 (12")	780	595	890	-	1919 2587	2157 2943	2379 3275	1.2
400 (16")	930	745	1095	-	2554 3640	2870 4147	3165 4621	1.6
500 (20")	1100	855	1315	-	3248 4971	3657 5683	4039 6349	2.0

- Double Carcass Hose FLEXOMARINE SAFE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:
6" = 40 kN 8" = 50 kN 10" = 70 kN
12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

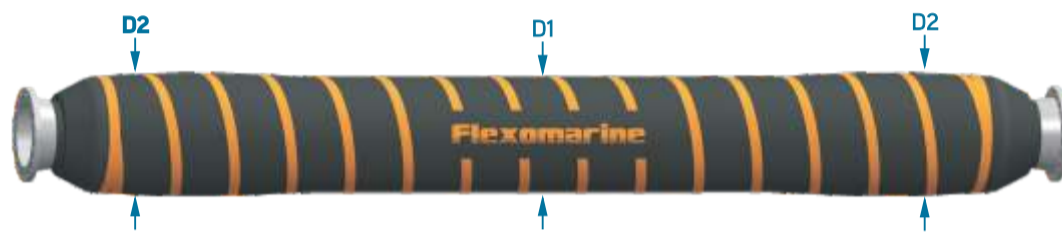
FLOATING DOUBLE CARCASS 15 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7670BC **Buoyancy Control Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	350	405	-	-	762 931	858 1057	949 1176	0.9
200 (8")	445	505	-	-	1044 1340	1179 1527	1305 1702	1.2
250 (10")	495	560	-	-	1325 1779	1495 2029	1653 2262	1.5
300 (12")	565	640	-	-	1680 2349	1893 2678	2092 2988	1.8
400 (16")	685	765	-	-	2310 3396	2603 3880	2878 4334	2.4
500 (20")	795	875	-	-	2945 4669	3331 5358	3693 6003	3.0
600 (24")	960	1020	-	-	4073 6581	4627 7575	5146 8508	3.6

- Double Carcass Hose FLEXOMARINE SAFE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 15 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

DOUBLE CARCASS 19 bar 7000 Series



7710F

Flexomarine half floating hose with one reinforced end (first off the buoy)



7720F

Flexomarine integral full-floating hose for mainline



7730F

Flexomarine integral full-floating hose with built-in reducer



7740F

Flexomarine integral full-floating hose for tail



7750F

Flexomarine integral full-floating tanker rail hose (Dumbbell or Barbell type)



7770BC

Flexomarine integral buoyancy control hose. Designed upon request



7721S

Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM



7722S

Flexomarine standard mainline submarine hose with location collars



7731S

Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM



7732S

Flexomarine standard mainline submarine hose



7735S

Flexomarine submarine hose for tanker rail

FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7710F **First Off Buoy Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	435	340	425	480	923 1093	1051 1250	1171 1398	0.9
200 (8")	500	400	510	570	1203 1499	1370 1718	1525 1922	1.2
250 (10")	575	465	600	670	1577 2031	1791 2325	1992 2600	1.5
300 (12")	645	530	665	740	2005 2673	2281 3066	2539 3435	1.8
400 (16")	745	630	850	875	2699 3785	3068 4345	3415 4871	2.4
500 (20")	865	740	985	1015	3428 5151	3902 5928	4346 6656	3.0
600 (24")	1005	870	1170	1210	4573 7080	5217 8164	5820 9181	3.6

- Double Carcass Hose FLEXOMARINE SAFE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

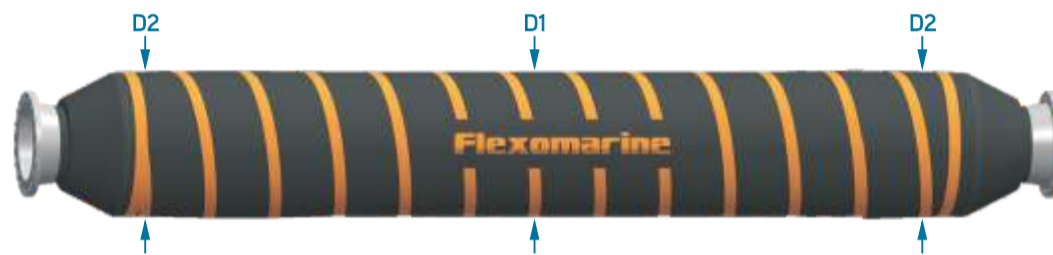
FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7720F Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	415	470	-	-	817 986	924 1123	1026 1252	0.9
200 (8")	500	560	-	-	1071 1367	1212 1560	1344 1741	1.2
250 (10")	585	660	-	-	1422 1877	1608 2142	1781 2390	1.5
300 (12")	655	730	-	-	1758 2426	1987 2773	2203 3098	1.8
400 (16")	810	835	-	-	2456 3542	2781 4058	3086 4542	2.4
500 (20")	950	985	-	-	3165 4888	3591 5617	3990 6301	3.0
600 (24")	1105	1150	-	-	4237 6744	4820 7768	5368 8729	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7730F Reducer Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	480	415	470	-	813 982	920 1119	1020 1247	0.9
250/200 (10"/8")	570	500	560	-	1065 1361	1206 1554	1337 1734	1.2
250/150 (10"/6")	525	415	470	-	821 990	929 1128	1031 1258	0.9
300/250 (12"/10")	670	585	660	-	1415 1869	1600 2134	1773 2381	1.5
300/200 (12"/8")	615	500	560	-	1076 1372	1218 1566	1351 1748	1.2
300/150 (12"/6")	555	415	470	-	829 998	938 1137	1041 1268	0.9
400/300 (16"/12")	745	655	730	-	1767 2435	1997 2783	2214 3109	1.8
400/250 (16"/10")	715	585	660	-	1429 1884	1616 2150	1790 2399	1.5
500/400 (20"/16")	850	810	835	-	2469 3555	2795 4072	3101 4557	2.4
500/300 (20"/12")	785	655	730	-	1775 2444	2007 2793	2225 3120	1.8
600/500 (24"/20")	1000	950	985	-	3181 4904	3609 5635	4010 6320	3.0
600/400 (24"/16")	890	810	835	-	2481 3567	2809 4086	3117 4573	2.4

- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

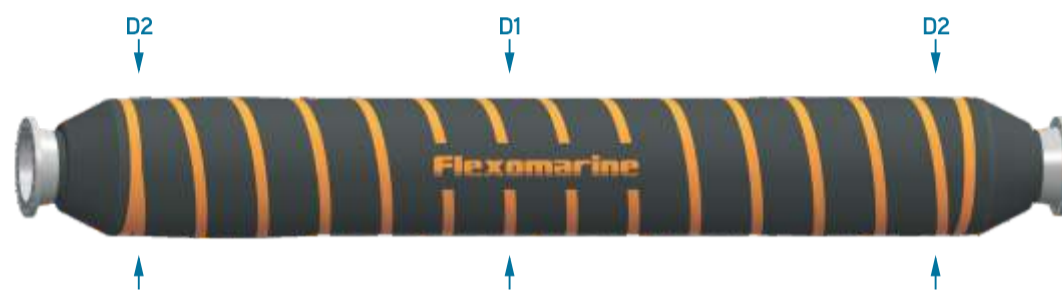
FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7740F Tail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	420	475	-	-	840 1010	953 1152	1058 1285	0.9
200 (8")	505	565	-	-	1106 1402	1254 1602	1392 1789	1.2
250 (10")	595	665	-	-	1463 1918	1656 2190	1837 2446	1.5
300 (12")	660	735	-	-	1872 2540	2123 2909	2359 3254	1.8
400 (16")	815	840	-	-	2527 3613	2865 4142	3183 4639	2.4
500 (20")	955	990	-	-	3233 4956	3672 5698	4084 6394	3.0

- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

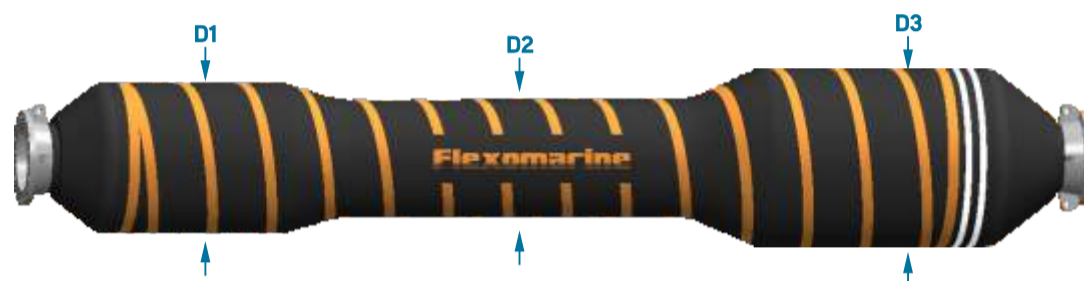
FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7750F Tanker Rail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End	-	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	530	365	585	-	876 1046	984 1183	1085 1312	0,6
200 (8")	590	480	645	-	1147 1443	1292 1640	1429 1825	0.8
250 (10")	720	540	775	-	1519 1973	1707 2241	1883 2492	1.0
300 (12")	790	610	900	-	1945 2613	2192 2977	2422 3318	1.2
400 (16")	950	760	1110	-	2626 3711	2959 4236	3271 4727	1.6
500 (20")	1120	875	1340	-	3363 5086	3793 5819	4194 6504	2.0

- Double Carcass Hose FLEXOMARINE SAFE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:
6" = 40 kN 8" = 50 kN 10" = 70 kN
12" = 100 kN 16" = 150 kN 20" = 200 kN
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

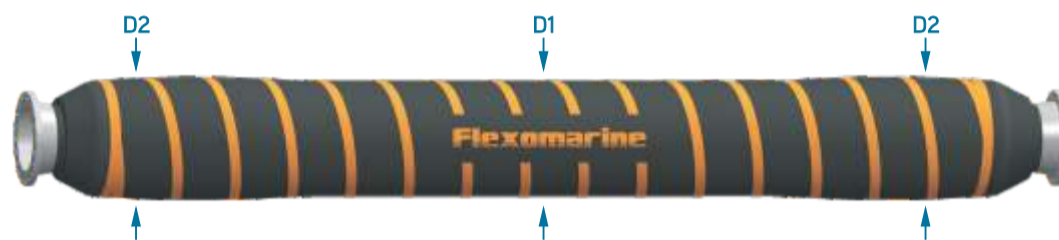
FLOATING DOUBLE CARCASS 19 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7770BC Buoyancy Control Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	360	415	-	-	790 960	893 1092	991 1218	0.9
200 (8")	450	510	-	-	1042 1338	1178 1526	1305 1702	1.2
250 (10")	505	580	-	-	1378 1833	1556 2090	1722 2331	1.5
300 (12")	575	650	-	-	1711 2379	1932 2718	2139 3035	1.8
400 (16")	700	780	-	-	2385 3471	2696 3973	2988 4444	2.4
500 (20")	810	900	-	-	3064 4787	3470 5497	3851 6161	3.0
600 (24")	970	1040	-	-	4132 6640	4696 7644	5224 8585	3.6

- Double Carcass Hose FLEXOMARINE SAFE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 19 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE

Flexomarine

DOUBLE CARCASS 21 bar 7000 Series

	7810F	Flexomarine half floating hose with one reinforced end (first off the buoy)
	7820F	Flexomarine integral full-floating hose for mainline
	7830F	Flexomarine integral full-floating hose with built-in reducer
	7840F	Flexomarine integral full-floating hose for tail
	7850F	Flexomarine integral full-floating tanker rail hose (Dumbell or Barbell type)
	7870BC	Flexomarine integral buoyancy control hose. Designed upon request
	7821S	Flexomarine submarine hose with one reinforced end and location collars for connection to the buoy or PLEM
	7822S	Flexomarine standard mainline submarine hose with location collars
	7831S	Flexomarine submarine hose with one reinforced end for connection to the buoy or PLEM
	7832S	Flexomarine standard mainline submarine hose
	7835S	Flexomarine submarine hose for tanker rail

FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7810F First Off Buoy Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 Body	D4 End	9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	435	340	425	480	952 1121	1084 1283	1208 1434	0.9
200 (8")	500	400	510	570	1241 1537	1412 1760	1573 1969	1.2
250 (10")	575	465	600	670	1626 2080	1846 2380	2053 2662	1.5
300 (12")	645	530	665	740	2067 2735	2351 3137	2618 3514	1.8
400 (16")	745	630	850	875	2783 3868	3163 4440	3520 4976	2.4
500 (20")	865	740	985	1015	3534 5258	4023 6049	4480 6791	3.0
600 (24")	1005	870	1170	1210	4714 7221	5378 8326	6000 9361	3.6

- Double Carcass Hose FLEXOMARINE SAFE One End Reinforced for use in the first off the buoy position
- Identified by one circumferencial white band at the reinforced end
- The hose can be supplied with reinforcement at both ends or fully reinforced
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 5% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inically embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

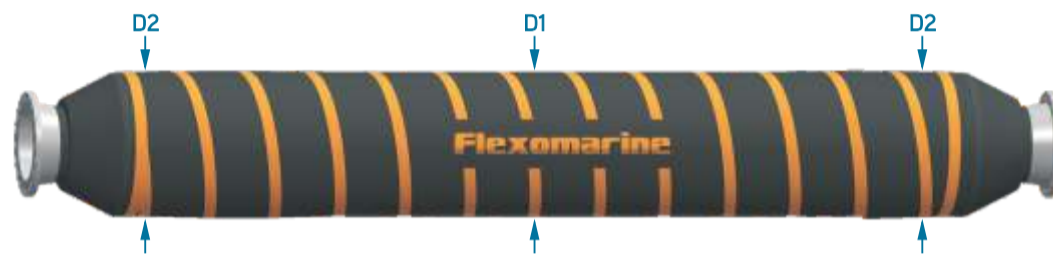
FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7820F Mainline Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	415	470	-	-	842 1011	953 1152	1057 1284	0.9
200 (8")	500	560	-	-	1104 1400	1249 1597	1386 1783	1.2
250 (10")	585	660	-	-	1466 1921	1657 2191	1837 2446	1.5
300 (12")	655	730	-	-	1812 2480	2049 2834	2271 3166	1.8
400 (16")	810	835	-	-	2532 3618	2867 4144	3181 4637	2.4
500 (20")	950	985	-	-	3263 4986	3702 5728	4114 6424	3.0
600 (24")	1105	1150	-	-	4368 6875	4969 7917	5534 8895	3.6

- Double Carcass Hose FLEXOMARINE SAFE Mainline for use as the main floating hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7830F Reducer Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
200/150 (8"/6")	480	415	470	-	838 1009	948 1150	1052 1282	0.9
250/200 (10"/8")	570	500	560	-	1098 1397	1243 1594	1379 1779	1.2
250/150 (10"/6")	525	415	470	-	846 1013	958 1154	1063 1287	0.9
300/250 (12"/10")	670	585	660	-	1459 1917	1649 2187	1827 2441	1.5
300/200 (12"/8")	615	500	560	-	1109 1402	1255 1600	1393 1786	1.2
300/150 (12"/6")	555	415	470	-	855 1023	967 1166	1073 1300	0.9
400/300 (16"/12")	745	655	730	-	1821 2485	2059 2840	2282 3173	1.8
400/250 (16"/10")	715	585	660	-	1474 1924	1666 2196	1846 2450	1.5
500/400 (20"/16")	850	810	835	-	2545 3625	2882 4152	3197 4646	2.4
500/300 (20"/12")	785	655	730	-	1830 2493	2069 2849	2293 3182	1.8
600/500 (24"/20")	1000	950	985	-	3279 4996	3721 5740	4134 6437	3.0
600/400 (24"/16")	890	810	835	-	2558 3636	2896 4165	3213 4660	2.4

- Double Carcass Hose FLEXOMARINE SAFE Reducer Bore for use to connect large mainline hose to smaller tail hose
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

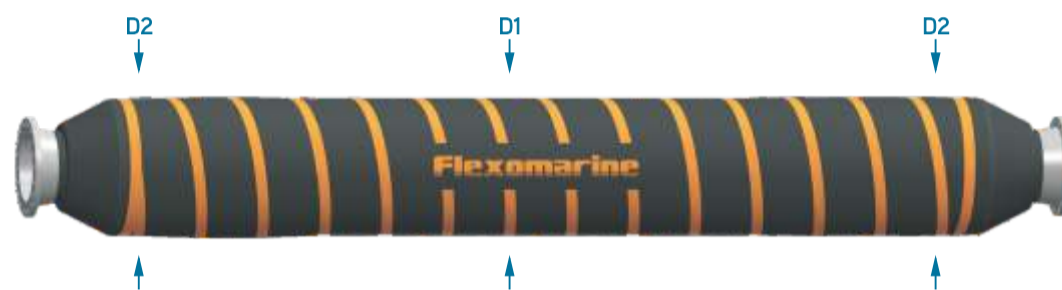
FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7840F Tail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			Weight in Air Full of Sea Water (kg)			
					9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	420	475	-	-	866 1036	982 1181	1090 1317	0.9
200 (8")	505	565	-	-	1140 1436	1293 1641	1435 1832	1.2
250 (10")	595	665	-	-	1509 1963	1708 2242	1894 2503	1.5
300 (12")	660	735	-	-	1930 2598	2189 2974	2432 3327	1.8
400 (16")	815	840	-	-	2605 3691	2954 4231	3281 4737	2.4
500 (20")	955	990	-	-	3333 5056	3786 5812	4210 6520	3.0

- Double Carcass Hose FLEXOMARINE SAFE Tail for use to connect the tanker rail hose and the floating string
- This hose has flexibility enough to support seawater conditions during offloading
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

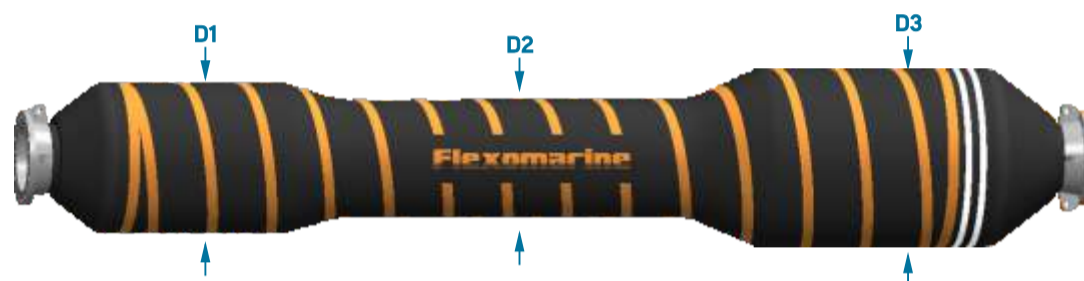
FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7850F Tanker Rail Hose

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 End	D2 Body	D3 End		9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	530	365	585	-	903 1073	1015 1214	1119 1346	0,6
200 (8")	590	480	645	-	1182 1478	1332 1680	1473 1870	0.8
250 (10")	720	540	775	-	1566 2020	1760 2294	1941 2550	1.0
300 (12")	790	610	900	-	2005 2674	2260 3045	2497 3393	1.2
400 (16")	950	760	1110	-	2707 3793	3051 4328	3372 4828	1.6
500 (20")	1120	875	1340	-	3467 5190	3910 5936	4323 6633	2.0

- Double Carcass Hose FLEXOMARINE SAFE Tanker Rail for use to connect the ship's manifold and the floating hose string
- Identified by a double circumferencial white bands at the tanker end
- This hose is extremely flexible to support the curvature demanded during offloading
- The fittings hose are welded lifting lugs to attach pick-up and snubbing chains
- Each lug are tested to support Safe Working Loads as follow:

6" = 40 kN	8" = 50 kN	10" = 70 kN
12" = 100 kN	16" = 150 kN	20" = 200 kN
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: 20% including the weight of ancillary equipment or as requested
- Electrical Continuity: Discontinuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, futhermore a rod installed in each hose end that is inially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

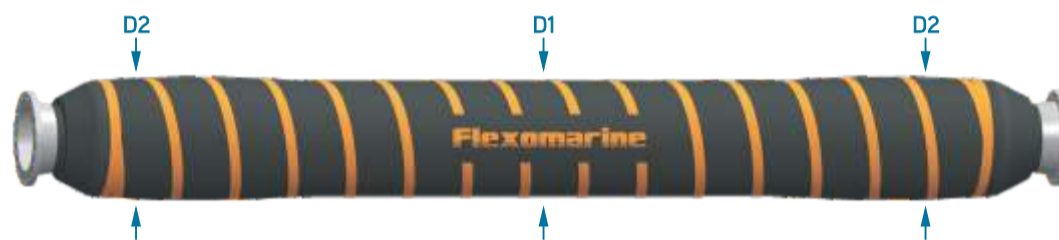
FLOATING DOUBLE CARCASS 21 bar 7000 Series

Double Leak
Detection System

Double carcass hose developed and tested for offshore mooring applications

Type 7870BC **Buoyancy Control Hose**

FLEXOMARINE SAFE



Nominal Bore (mm)	Outside Diameter (mm)				Weight in Air Empty (kg)			Minimum Bending Radius (m)
	D1 Body	D2 End			9.1m (30ft)	10.7m (35ft)	12.2m (40ft)	
150 (6")	360	415	-	-	815 984	921 1120	1022 1249	0.9
200 (8")	450	510	-	-	1074 1370	1214 1562	1346 1742	1.2
250 (10")	505	580	-	-	1421 1875	1604 2138	1775 2384	1.5
300 (12")	575	650	-	-	1764 2432	1992 2777	2205 3101	1.8
400 (16")	700	780	-	-	2459 3545	2780 4056	3080 4536	2.4
500 (20")	810	900	-	-	3159 4882	3578 5604	3970 6281	3.0
600 (24")	970	1040	-	-	4260 6767	4841 7789	5385 8746	3.6

- Double Carcass Hose FLEXOMARINE SAFE Buoyancy Control for use as the second and third hose in the string
- Rated Working Pressure: 21 bar
- Minimum Bending Radius: 6D (up to 2D without any permanent deformation)
- Minimum Reserve Buoyancy: Neutral or as requested
- Electrical Continuity: Continuous or as requested
- Leak Detection: In case of failure of the primary carcass, a double leak detection system (DDEMAS - Double Detection Expansion and Mechanical Anti-Pollution System), confirms the failure of the primary carcass. It's operation combines the natural expansion of the secondary carcass with a change in the hose profile and an increase on its buoyancy, furthermore a rod installed in each hose end that is initially embedded will become visible after the burst of the primary carcass giving additional confirmation of the failure

MARINE HOSES
FLOATING & SUBMARINE
Flexomarine
Hoses for offshore loading and discharge operations

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