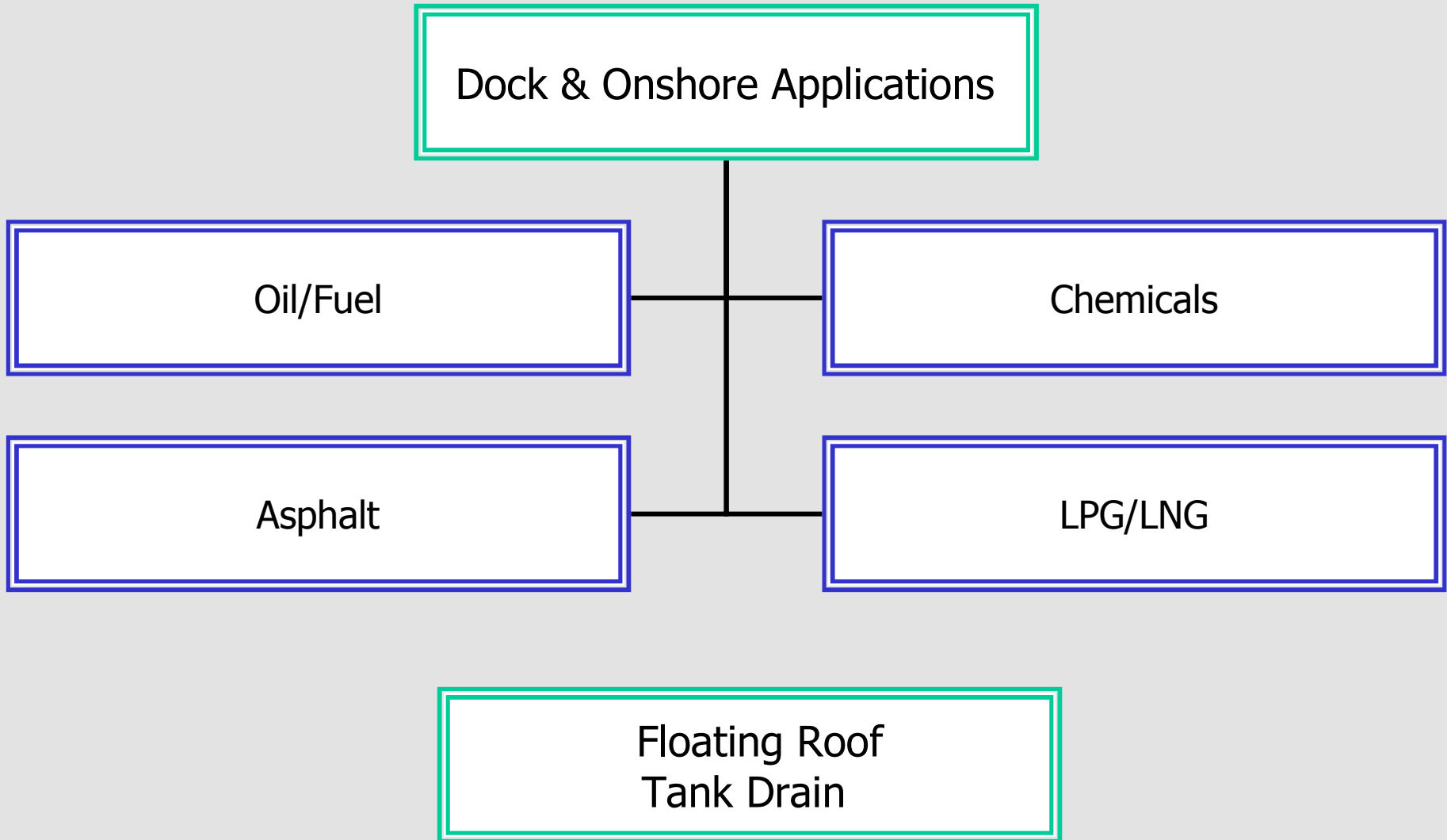


Dock and On Shore Hoses

Floating Roof Tank Draining Hoses

Mooring Hoses



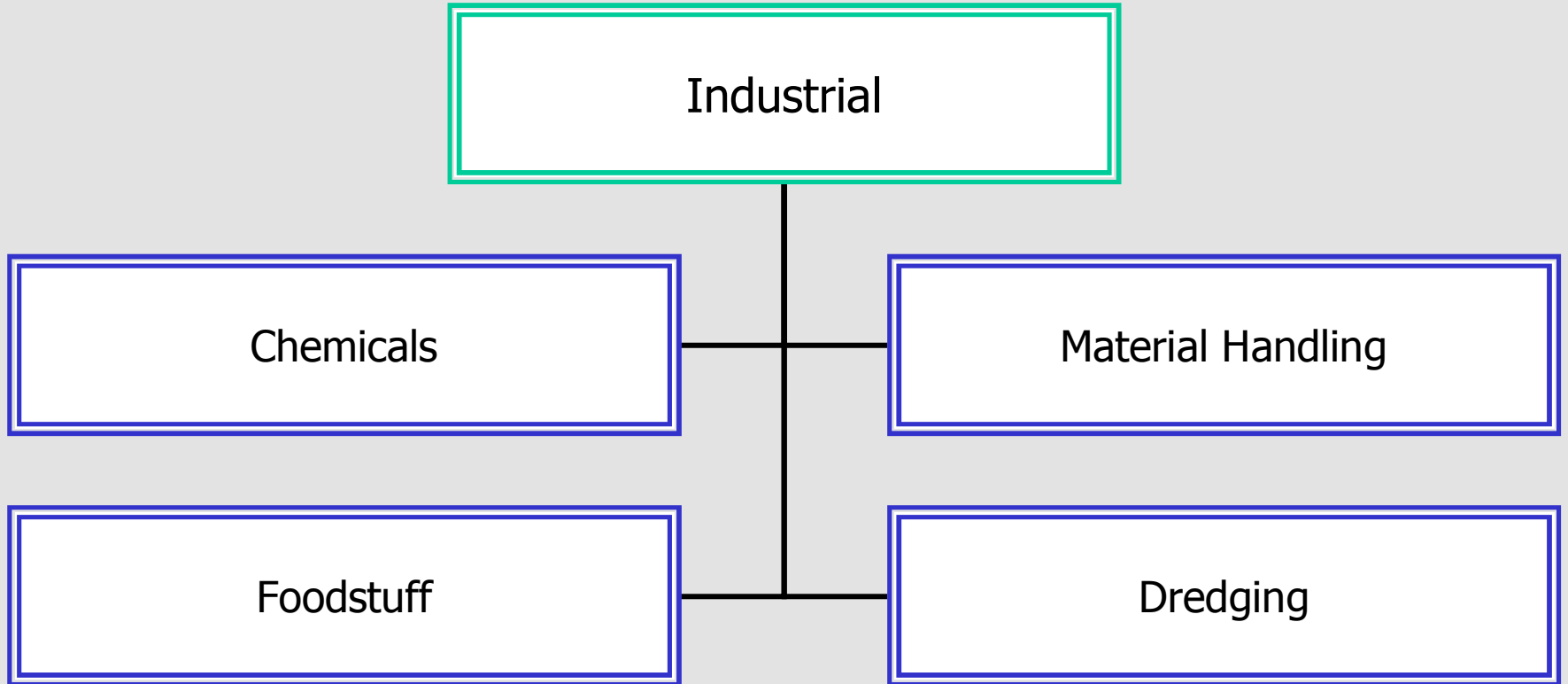
Industrial

Chemicals

Material Handling

Foodstuff

Dredging



Oil/Fuel

- Main Applications
 - Ship to Ship
 - Ship to Shore
 - Dockside Applications



Dock Hoses - Fuel & Oil – Operating Pressure				EN 1765 : 2004
Hose Type	Description	Working Pressure bar/psi	Standard Safety Factor	HD Series Safety Factor
S7	Smooth Bore S / D	7 / 100	4	
S10	Smooth Bore S / D	10 / 150	4	5
L10	Smooth Bore D	10 / 150	4	
S15	Smooth Bore S / D	15 / 225	4	5
L15	Smooth Bore D	15 / 225	4	

D = Delivery Only S / D = Suction & Delivery

Dock Hoses - Fuel & Oil Resistance			EN 1765 : 2004
Hose Type	Aromatic Content ≤ 55 %	Aromatic Content up to 100%	BioFuel up to 100%
S7	T-60A	T-60B	T-60C
S10	T-60D	T-60E	T-60F
L10	T-64A	T-64B	T-64C
S15	T-60G	T-60H	T-60I
L15	T-64D	T-64E	T-64F
S10 HD	T-60R	T-60S	---
S15 HD	T-60J	T-60K	---

HD = Heavy Duty

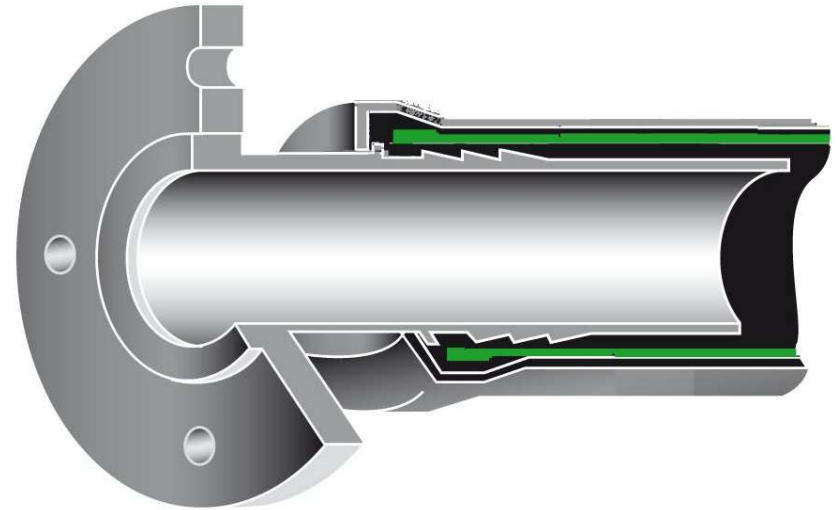
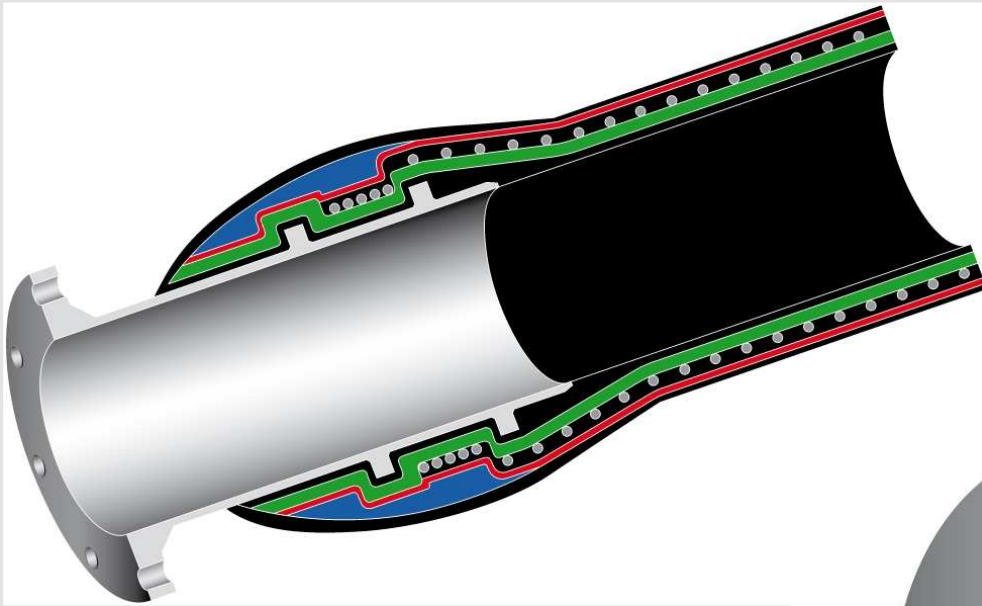
Dock Hoses – Temperature Range			EN 1765 : 2004
Hose Type	Working Temperature	Flow Velocity m/s	Notes:
S7	-20°C +82°C (-4°F +180°F)	12	
S10	-20°C +82°C (-4°F +180°F)	12	
L10	-20°C +82°C (-4°F +180°F)	12	
S15	-20°C +82°C (-4°F +180°F)	15	
L15	-20°C +82°C (-4°F +180°F)	15	
S15 HD	31°C +93°C (-24°F +200°F)	18	Heavy Duty
S15 HD	31°C +93°C (-24°F +200°F)	18	Heavy Duty

Dock Hoses – Standard Length		EN 1765 : 2004
Nominal Bore mm	Length ft / m	
100	40 / 12,20	
150	40 / 12,20	
200	40 / 12,20	
250	40 / 12,20	
300	40 / 12,20	

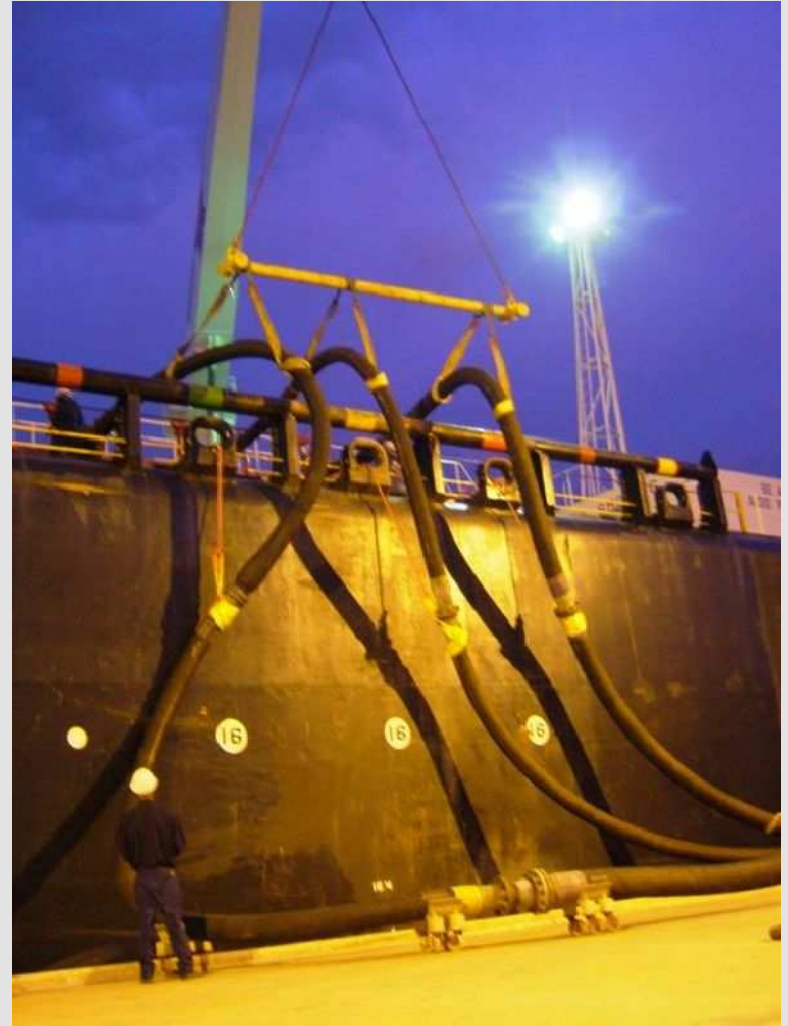
100 mm and 150 mm : special lengths on request

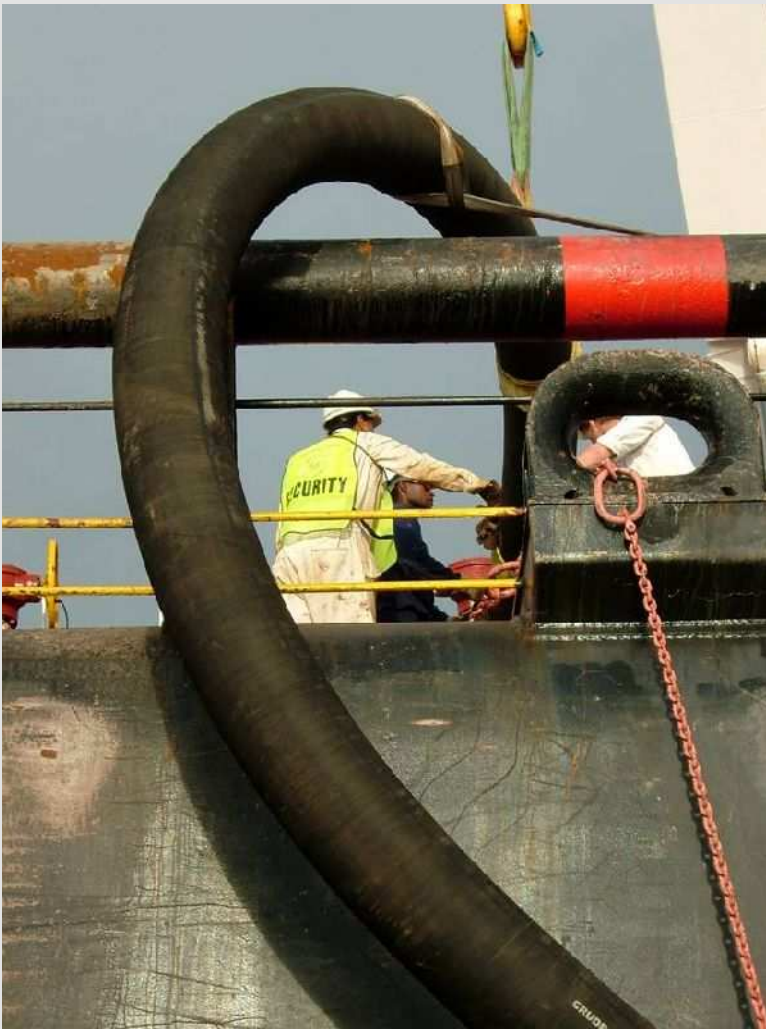
Dimensions in inches are not specified in the Standard

Built-in Fitting



Swaged-on Fitting







LPG/LNG

LPG		BS 4089 : 1999		
Hose Type	Description	Working Pressure bar/psi	Standard Safety Factor	Notes:
TYPE 2	Smooth Bore D	25 / 375	4	Lightweight
TYPE 3	Smooth Bore S / D	25 / 375	4	
TYPE 6	Smooth Bore S / D	25 / 375	4	Inox Steel Wire Helix

D = Delivery Only S / D = Suction & Delivery

LPG		BS 4089 : 1999	
Hose Type	Working Temperature	Fittings	Notes:
TYPE 2	-40°C +45°C (-40°F +113°F)	Clamped or Built-In	ANSI 300 Flanges
TYPE 3	-20°C +45°C (-4°F +113°F)	Built-In	ANSI 300 Flanges
TYPE 6	-50°C +45°C (-58°F +113°F)	Built-In	ANSI 300 Flanges ASTM A 350 LF3

LPG		BS 4089 : 1999 TYPE 3/6
Nominal Bore inches	Nominal Bore mm	Length ft / m
4	100	Up to 40 / 12,20
6	150	Up to 40 / 12,20
8	200	Up to 40 / 12,20
10	250	Up to 40 / 12,20

100 mm and 150 mm : special lengths on request

TYPE 2 : up 3 inches / 75 mm

Chemicals

Hose Lining	Description	Working Pressure bar/ <i>psi</i>	Standard Safety Factor	Note
FKM	Smooth Bore S / D	5,10,15 / 75,150,225	5	wide range of oils and solvents; especially all aliphatic, aromatic, and halogenated hydrocarbons, acids, animal and vegetable oils
IIR	Smooth Bore S / D	5,10,15 / 75,150,225	5	animal and vegetable oils and oxidizing chemicals
EPM	Smooth Bore S / D	5,10,15 / 75,150,225	5	fairly good in ketones and alcohols
CR	Smooth Bore S / D	5,10,15 / 75,150,225	5	moderate chemicals, fats, greases and many oils and solvents.

D = Delivery Only S / D = Suction & Delivery

Chemicals		
Nominal Bore inches	Nominal Bore mm	Length ft / m
4	100	Up to 40 / 12,20
6	150	Up to 40 / 12,20
8	200	Up to 40 / 12,20
10	250	Up to 40 / 12,20

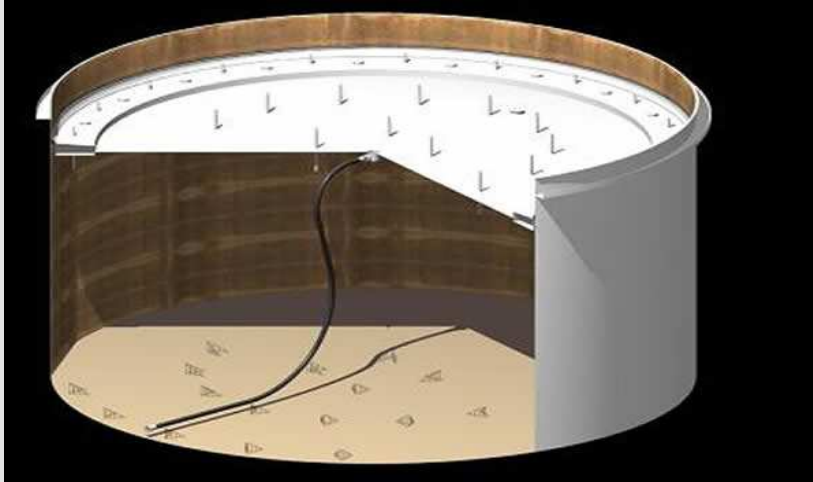
100 mm and 150 mm : special lengths on request

Chemical Resistance Table (example)

Fluid or material	CR	EPDM	IIR	CR	FKM
Acetaldehyde	2	2	2	2	3
Acetic Acid, glacial	3	2	2	3	3
Acetic Acid 10%	2	1	1	2	2
Acetic Acid 50%	3	2	2	2	2
Acetic Anidride	3	2	2	3	3
Acetone	3	1	1	3	3
Acetone cyanohidrin	-	1	2	-	-
Acetophenone	-	2	2	-	-
Acetyl Acetone	3	1	2	3	3
Acetyl chloride	3	2	2	3	1
Acetylene dichloride	3	3	3	3	1

Etc.

Floating Roof
Tank Drain



Floating Roof Tank Draining	
% Aromatic	Alfagomma
80 %	T-906 AA
100 %	T-905 AA

Mooring Terminals OCIMF Hoses

Main Mooring Hose Configurations

C.A.L.M.
Catenary Anchor Leg Mooring
"Chinese Lantern"

C.M.B.M.
Conventional Multi Buoy Mooring

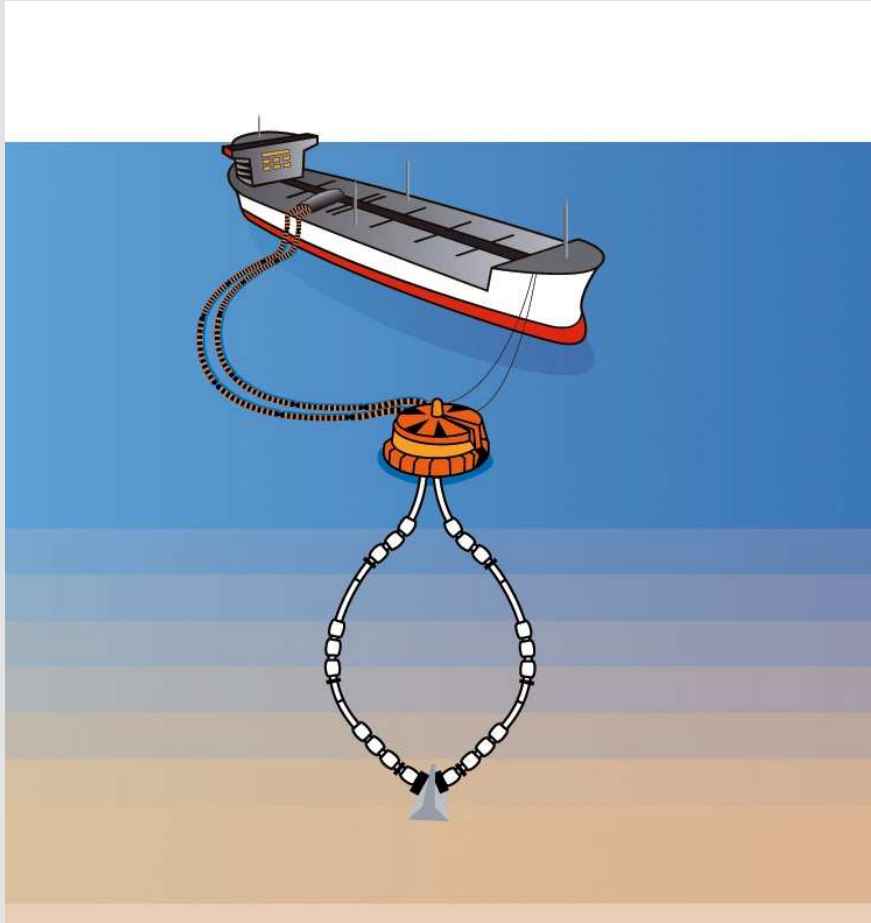
C.A.L.M.
Catenary Anchor Leg Mooring
"Step S"

S.T.M.
Single Tower Mooring

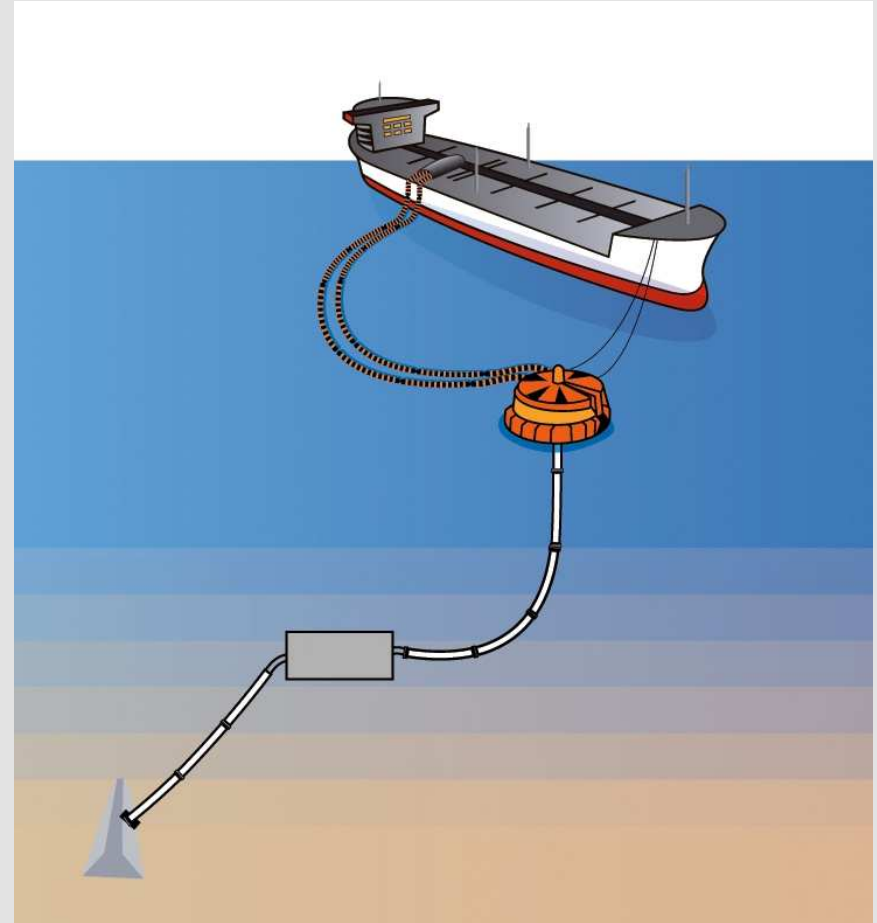
C.A.L.M.
Catenary Anchor Leg Mooring
"Lazy S"

S.A.L.M.
Single Anchor Leg Mooring

Main Mooring Hose Configurations - 1

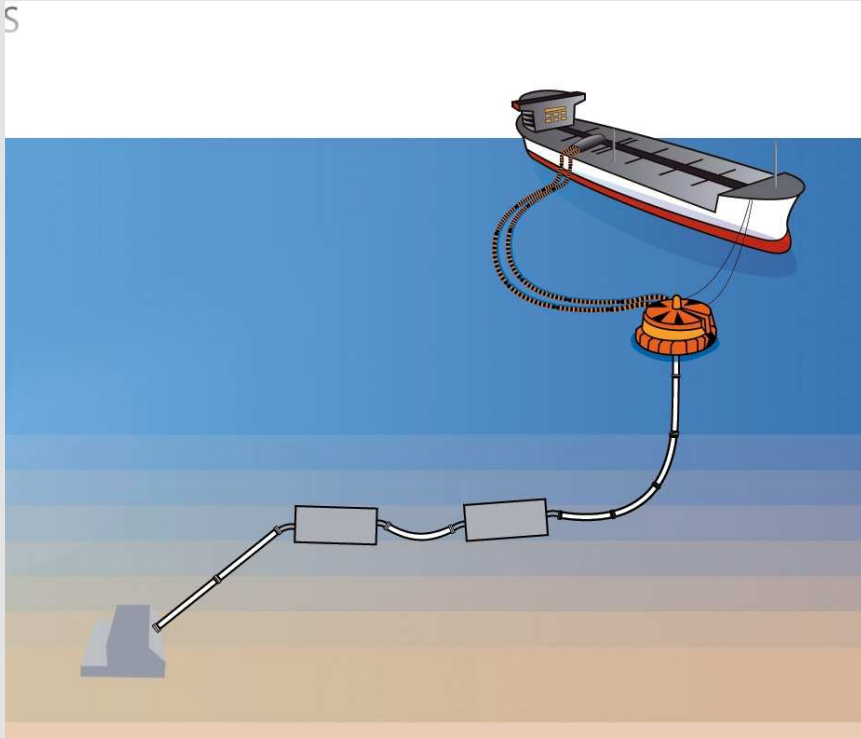


C.A.L.M.
Catenary Anchor Leg Mooring
"Chinese Lantern"

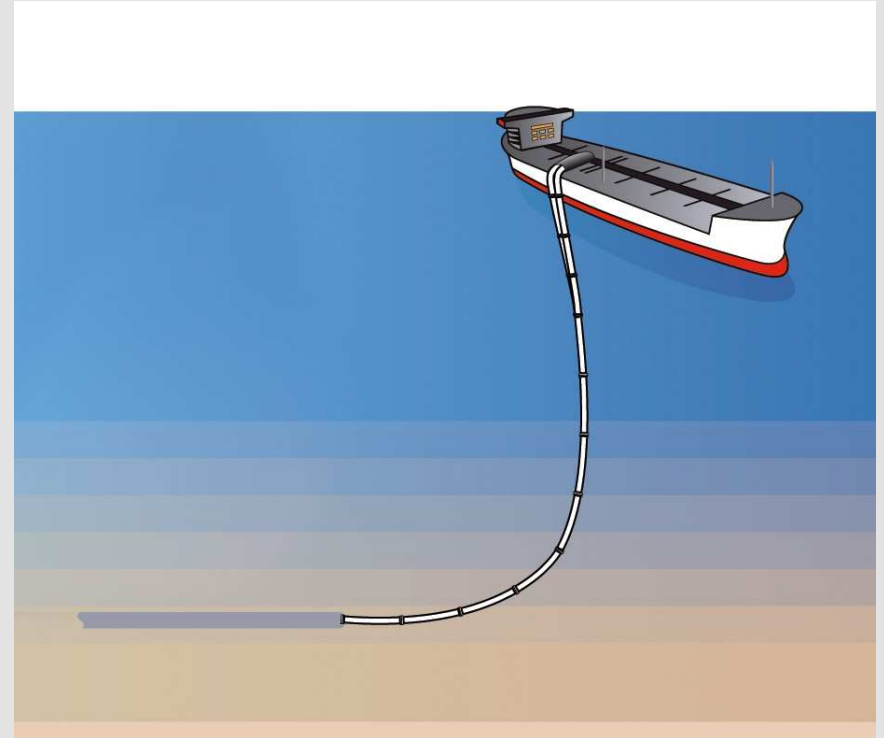


C.A.L.M.
Catenary Anchor Leg Mooring
"Step S"






Main Mooring Hose Configurations - 2






C.A.L.M.
Catenary Anchor Leg Mooring
"Lazy S"



C.M.B.M.
Conventional Multi Buoy Mooring

Submarine Hoses		OCIMF Fourth Edition – 1991	
Working Pressure bar/psi	AG Hose Type	Description	
15/225	62A	Submarine	
‘ ‘	62B	Submarine With Built-in Collars	
‘ ‘	62C	Submarine One End Reinforced	
‘ ‘	62D	Submarine Both End Reinforced	
‘ ‘	62E	Submarine Tanker Rail	

Submarine Hoses		OCIMF Fourth Edition – 1991
Nominal Bore in	Nominal Bore mm	Standard Lengths For Submarine Hoses
6	150	9,1 m / 30 ft
8	200	‘ ‘
10	250	‘ ‘
12	300	‘ ‘
16	400	‘ ‘
20	500	‘ ‘
24	600	‘ ‘

Floating Hoses		OCIMF Fourth Edition – 1991	
Working Pressure bar/psi	AG Hose Type	Description	
15/225	63A	Full Body	
‘ ‘	63B	Half Body One End Reinforced	
‘ ‘	63C	Tanker Rail “Barbell”	

All Hoses Suction & Delivery – Safety Factor = 5 - Aromatic Content <= 55 %

Floating Hoses		OCIMF Fourth Edition – 1991
Nominal Bore in	Nominal Bore mm	Standard Lengths except Tanker Rail Hose
6	150	10,67 m / 35 ft
8	200	‘ ‘
10	250	‘ ‘
12	300	‘ ‘
16	400	‘ ‘
20	500	‘ ‘
24	600	‘ ‘

Tanker Rail Hose Length = 9,1 m / 30 ft