

# Single Carcass Catenary Hose

## '21' SERIES

EMSTEC provide a range of high quality, high performance, oil suction and discharge hoses, extensively used at offshore moorings throughout the world. The EMSTEC **Single Carcass Catenary** hoses are utilized in high integrity floating offloading installations such as FPSO, FSO tandem offloading to DP Shuttle Tankers (i.e. Reel, Chute, Cantilever hang-off arrangements).

The EMSTEC hose fully complies with the requirements of the "Guide to Manufacturing and Purchasing Hoses for Offshore Moorings, **OCIMF/GMPHOM 2009 - 5th Edition**".

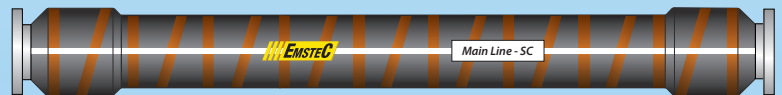
All hoses are designed and manufactured under a quality system in accordance with ISO 9001.

For performance characteristics and specification, please refer to EMSTEC data sheet 'Single Carcass Hose Specification'.

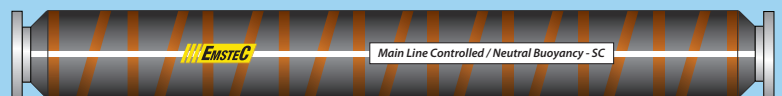
### 21410 SCSC - End Reinforced (i.e. FPSO)



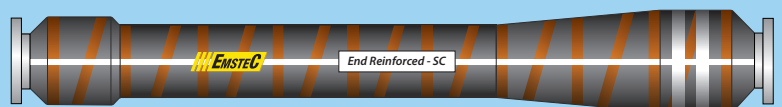
### 21420 SCSC - Main Line



### 21430 SCSC - Main Line - Controlled / Neutral Buoyancy (for special applications)



### 21440 SCSC - End Reinforced (i.e. Shuttle Tanker)



# Single Carcass Hose Specification

## '21' SERIES

EMSTEC Single Carcass Submarine, Floating & Catenary hoses fully comply with the requirements of the "Guide to Manufacturing and Purchasing Hoses for Offshore Moorings, **OCIMF/GMPHOM 2009 - 5th Edition**".

### PERFORMANCE CHARACTERISTICS & CONSTRUCTION

<b>Nominal Bore (mm):</b>	150 (6"), 200 (8"), 250 (10"), 300 (12"), 400 (16"), 500 (20"), 600 (24") <i>(non-standard diameters available on request)</i>
<b>Standard Length:</b>	9.1M (30'), 10.7M (35') & 12.2M (40') <i>(non-standard less than 12.2M also available)</i>
<b>Hose Construction:</b>	Liner Tube – <i>NBR based Rubber, resistant to hydrocarbons with aromatic content up to 60%.</i> Main Carcass – <i>Elastomer reinforced with multi-layers of high tensile textile cords and embedded steel wire helix.</i> Floatation Material (Floating Hoses only) – <i>Closed Cell Foam</i> Outer Cover – <i>Fibre reinforced smooth elastomer cover, resistant to ageing, abrasion, weathering, sunlight, tearing and oil and seawater penetration.</i> <i>(Polyurethane coating available on request).</i>
<b>Flanges:</b>	<i>ANSI B16.5 Class 150 or 300 Flat Face (FF) or Raised Face (RF), Hot Dip Galvanisation in accordance with BS729 Part 1, EN ISO 1461</i>
<b>Pressure Rating:</b>	<i>15 BAR (225 PSI), 19 BAR (275 PSI), 21 BAR (305 PSI) (higher pressure ratings on request)</i>
<b>Minimum Burst Pressure:</b>	<i>75 BAR (1090 PSI), 95 BAR (1375 PSI), 105 BAR (1525 PSI)</i>
<b>Flow Velocity:</b>	<i>Maximum of 21m/s</i>
<b>Fluid Product:</b>	<i>Crude Oil and Liquid Petroleum Products (other than liquefied petroleum gases and liquefied natural gases).</i>
<b>Temperature Range:</b>	<i>Fluid Temperature from -20°C to 82°C.</i> <i>Ambient Temperature from -29°C to 52°C.</i>
<b>Minimum Bend Radius:</b>	Submarine Hose - <i>4 x hose Nominal Bore Diameter.</i> Floating Hose – <i>6 x hose Nominal Bore Diameter</i>
<b>Electrical Continuity:</b>	<i>Electrically Continuous or Discontinuous as required.</i>

For information regarding hose types and applications, please refer to relevant EMSTEC hose data sheets.

### DESIGN APPROVAL & QUALITY ASSURANCE

All of the hoses are designed and manufactured under a quality system in accordance with ISO 9001. Prototype Hose manufacture and testing witnessed and verified by Bureau Veritas & Det Norske Veritas (Certifying Authorities) and GDC International (Industry Consultants).



ISO 9001  
Design



ISO 9001  
Manufacture



Prototype Approval  
(BV)



Prototype Approval  
(DNV)



Prototype Approval  
(GDC)

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