



General Material Specifications							
Environment	SEA- Ocean, River, Lakes	SEA- TRANSPORT WITH VESSEL	LAND	LAND & TRANSPORT WITH TRUCK AIR (Inside a plane)	LAND & TRANSPORT WITH CONTAINER (QUAD- ISO 20ft & 40ft)	LAND	AIR
Fluids	Hydrocarbons / Spills / Water	Hydrocarbons / Spills / Water/ Chemicals	Hydrocarbons / Spills / Water/ Chemicals	Hydrocarbons / Spills / Water/ Chemicals	Hydrocarbons / Spills / Water/ Chemicals	Hydrocarbons / Spills / Water	Hydrocarbons / Water
Solids	No	No	No	No	No	Yes	No
Material (Bladder Body)	PVC or Urethane	PVC or Urethane	PVC or Urethane	PVC or Urethane	PVC or Urethane	PVC or Urethane	PVC or Urethane
Material weight	1622 g/m2 to 3,024 g/m2 (48oz/y2 to 89 oz/y2)	950 g/m2 to 1622 g/m2 (28oz/y2 to 48 oz/y2)	950 g/m2 to 1622 g/m2 (28oz/y2 to 48 oz/y2)	950 g/m2 to 1622 g/m2 (28oz/y2 to 48 oz/y2)	950 g/m2 to 1622 g/m2 (28oz/y2 to 48 oz/y2)	950 g/m2 to 1622 g/m2 (28oz/y2 to 48 oz/y2)	1360 g/m2 to 2685 g/m2 (40oz/y2 to 79 oz/y2)
Construction Method	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)	Radio Frequency (High Frequency)
Fittings	Anodize Aluminum	Anodize Aluminum	Anodize Aluminum and PVC	Anodize Aluminum and PVC	Aluminio anodizado y PVC	Anodize Aluminum	Aluminio anodizado y PVC
Fittings available sizes	2", 3", 4" y 6" NPT- Pump Hatch 16" x 25"	2", 3", 4" NPT Man Inspection Hole 10"x16"	2", 3", 4" NPT Man Inspection Hole 10"x16"	2", 3", 4" NPT	2", 3", 4" NPT	2", 3", 4" NPT	2" and 3" NPT
Metalic Structure	Marine Grade Anodized Aluminum 6061-T6	n/a	n/a	n/a	n/a	Marine Grade Anodized Aluminum 6061-T6	n/a
Type of connections	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)	Aluminum Cam-locks - Male & Female (STA-LOK II , or pin with lanyard)
Valves (ball or butterfly)	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water	PVC for Hydrocarbons or Potable Water
Body							
Body Shape	"Cylindrical" main body and matching "Conical" ends	"Pillow" shape	"Pillow" shape	"Rectangular" shape	"Rectangular" shape	Polygonal "circular" shape with modular interchangeable sides	"Conical"
Volumen	5m3 a 250m3 (1,320 a 66,000 US Gal)	1m3 a 20m3 (264 a 5,300 US Gal)	1m3 a 500m3 (264 a 132,000 US Gal)	1m3 a 14.4m3 (264 a 3800 US Gal)	1m3 a 14.4m3 (264 a 3800 US Gal)	2m3 a 190m3 (530 a 50,000 US Gal)	0.2m3 a 2m3 (55 a 530 US Gal)
Certifications							
Quality Control & Manufacturing System	ISO-9001-2015	ISO-9001-2015	ISO-9001-2015	ISO-9001-2015	ISO-9001-2015	ISO-9001-2015	ISO-9001-2015 y "ABS" Weight & Volume
Material PVC or Urethane	Norm DIN y ASTM	Norm DIN y ASTM	Norm DIN y ASTM	Norm DIN y ASTM	Norm DIN y ASTM	Norm DIN y ASTM	Norm DIN y ASTM
Material Type - PVC or Urethane	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61	Hydrocarbons - Military Norm MIL-T-53983; MIL-PRF-32233(B)-- Potable Water : NSF / ANSI Standard 61
Camlocks	MIL-C-27487 y A-A-59326	MIL-C-27487 y A-A-59327	MIL-C-27487 y A-A-59327	MIL-C-27487 y A-A-59327	MIL-C-27487 y A-A-59327	MIL-C-27487 y A-A-59328	MIL-C-27487 y A-A-59329 ; Petroleum Handling
Norms and Body Integrity							
Bladder Body- Pressure Test	ASTM F1599-95	ASTM F1599-95	ASTM F1599-95	ASTM F1599-95	ASTM F1599-95	N/A	ASTM F1599-95
Material Peel Test	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PVC and / or Urethane - Tensile Strength "Peel Test" before construction	ASTME-4 +1%	ASTME-4 +1%	ASTME-4 +1%	ASTME-4 +1%	ASTME-4 +1%	ASTME-4 +1%	ASTME-4 +1%
PVC and / or Urethane - Tensile Strength "Calculations" before construction	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)
Metalic Structure before manufacturing	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	n/a	n/a	n/a	n/a	Finite Element Analysis (FEA) (ANSYS and/ or NASTRAN)	n/a
Webbing harness before manufacturing	ASTM - Destructive test	ASTM - Destructive test	ASTM - Destructive test	ASTM - Destructive test	ASTM - Destructive test	n/a	ASTM - Destructive test