

OCEAN GUARD™ RESILIENT FOAM FILLED BUOYS

The Ocean Guard™ Buoy's resilient surfaces are constructed to withstand the toughest marine applications and environments the world can offer. Ocean Guard™ Buoys are constructed with the latest technology and materials and exemplify state-of-the-art technology in buoy design and functionality. Composite buoys are designed to absorb minor impacts without damaging the buoy body or vessel.

PERFORMANCE FEATURES

UNSINKABLE CONSTRUCTION

The Ocean Guard™ Buoy's closed cell foam filled construction provides a buoy that is unsinkable even if it's punctured.

IMPACT ABSORBING

The resilient outer foam layer and the reinforced elastomeric skin of the Ocean Guard™ Buoy are designed to absorb impacts of vessels without damaging the buoy or the impacting vessel.



NON MARKING

The tough, thick, reinforced elastomeric urethane skin of Ocean Guard™ Buoys is non marking, available in different colors and will not wear off.



END FITTINGS

Ocean Guard™ Buoys' end fittings are available in a variety of styles including mooring tees, padeyes, quick release hooks, swivel eyes, bails, forged eyes, hawse pipe with capture plates and navigational lights.



SUPERIOR TO STEEL BUOYS

Ocean Guard™ Buoys are designed and constructed to be lighter, more corrosion resistant, less maintenance and easier to handle than conventional steel buoys. The abrasion resistant urethane skin will resist the harshest environments without corroding.



CUSTOM DESIGNS

Engineers work closely with the customer to select or custom design an Ocean Guard™ Buoy to meet their specific requirements.

CONSTRUCTION FEATURES

INTERNAL STEEL CENTRAL STRENGTH MEMBERS

The Ocean Guard™ Buoys' construction begins with an ultra heavy duty internal steel central strength member which provides excellent working load performance. The welded steel structure contains load distribution plates which provide outstanding pull-through performance.

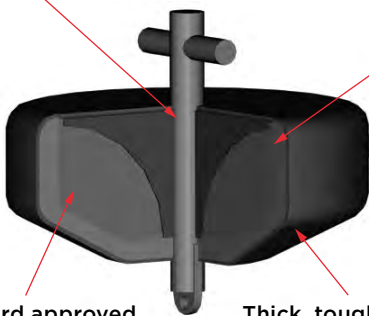


RIGID INNER CLOSED CELL URETHANE FOAM CORE

The second layer in Ocean Guard™ Buoy construction consists of a US Coast Guard compliant rigid inner 100% closed cell urethane foam core. This strong foam core has excellent buoyancy and compression strength properties. The foam is molded directly onto the internal Steel Central Strength Member which provides an unsinkable buoy.

Ultra heavy duty central steel core load distribution construction

Impact absorbing, resilient heat laminated cross-linked polyethylene foam core foam



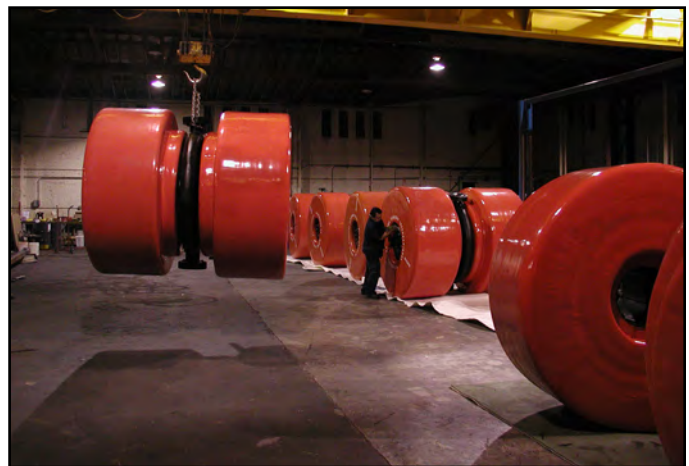
US Coast Guard approved inner closed cell rigid urethane buoyancy foam

Thick, tough filament nylon tire cord reinforced urethane skin



RESILIENT OUTER FOAM CORE

The third layer in Ocean Guard™ Buoy construction consists of an impact absorbing closed cell cross-linked polyethylene foam core. The same heat lamination process used in our Ocean Guard™ fenders produces a thermal bond between the layers of foam which is stronger than the foam itself. It will not delaminate even under the most abusive berthing conditions. This impact absorbing foam core is added to absorb vessel impacts without damaging the buoy or the impacting vessel.



REINFORCED ELASTOMERIC SKIN

The final layer is a tough, thick filament nylon tire cord reinforced elastomer skin. This non-marking, reinforced elastomer fender skin is the wear surface of the fender. The reinforcing filaments are continuously wound in a helix pattern through up to 90% of the elastomer skin and wrap around the buoy's end fittings. This continuous reinforcement of the elastomer skin not only increases the tensile and tear strength of the elastomer, but also distributes loads throughout the fender skin.

This resilient material is specially formulated to withstand the world's harshest environmental conditions, providing superior performance in extreme temperatures, toxic environments, against hydrocarbons, salt water, ozone and ultraviolet radiation.

OCEAN GUARD MOORING BUOYS

BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		DIAMETER OVERALL		HEIGHT BUOY BODY		HEIGHT OVERALL		WORKING LOAD	
	LBS	KG	LBS	KG	FT	M	FT	M	FT	M	LBS	TONS
MB-25	5,512	2,500	1,756	797	6.1	1.9	3.6	1.1	7.6	2.3	100,000	45
MB-35	7,716	3,500	2,340	1,061	7.0	2.1	4.3	1.3	8.5	2.6	150,000	68
MB-50	11,023	5,000	2,371	1,075	7.5	2.3	4.9	1.5	8.6	2.6	150,000	68
MB-70	15,432	7,000	2,938	1,333	8.5	2.6	5.0	1.5	8.6	2.6	200,000	91
MB-90	19,842	9,000	4,657	2,112	10	3.0	5	1.5	8.6	2.6	200,000	91
MB-115	25,353	11,500	5,109	2,317	10	3.0	6.1	1.9	9.5	2.9	200,000	91
MB-135	29,762	13,500	6,017	2,729	10.5	3.2	6.5	2.0	10.0	3.0	300,000	136
MB-160	35,274	16,000	6,333	2,873	11	3.4	6.8	2.1	11.75	3.6	300,000	136
MB-185	40,785	18,500	6,836	3,101	11.1	3.4	7.8	2.4	12.7	3.9	300,000	136
MB-225	49,604	22,500	8,491	3,852	12.0	3.7	8.1	2.5	12.9	3.9	300,000	136
MB-250	55,116	25,000	9,469	4,295	12.5	3.8	8.3	2.5	13.1	4.0	300,000	136
MB-275	60,627	27,500	9,965	4,520	12.6	3.8	8.9	2.7	13.7	4.2	300,000	136
MB-340	74,957	34,000	11,841	5,371	13.83	4.2	9	2.7	13.8	4.2	300,000	136
MB-455	100,310	45,500	14,599	6,622	15	4.6	10	3.0	14.8	4.5	300,000	136

* Actual values for above sizes may vary +/- 15% due to variations in materials and tolerances.



OCEAN GUARD SUPPORT BUOYS

BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		DIAMETER OVERALL		HEIGHT OVERALL		WORKING LOAD	
	LBS	KG	LBS	KG	FT	M	FT	M	LBS	TONS
SB-25	551	250	158	72	2.6	0.8	2.6	0.8	22,000	10
SB-50	1,102	500	285	129	3.2	1.0	3.2	1.0	22,000	10
SB-75	1,653	750	390	177	3.5	1.1	3.5	1.1	22,000	10
SB-100	2,205	1,000	475	215	3.8	1.2	3.8	1.2	40,000	18
SB-125	2,756	1,250	537	244	4.1	1.2	4.1	1.2	40,000	18
SB-150	3,307	1,500	584	265	4.3	1.3	4.3	1.3	40,000	18
SB-175	3,858	1,750	687	312	4.6	1.4	4.6	1.4	40,000	18
SB-200	4,409	2,000	819	371	4.8	1.5	4.8	1.5	40,000	18
SB-250	5,511	2,500	931	422	5.2	1.6	5.2	1.6	40,000	18
SB-300	6,614	3,000	1,200	544	5.5	1.7	5.5	1.7	45,000	20
SB-350	7,716	3,500	1,300	590	5.8	1.8	5.8	1.8	45,000	20
SB-400	8,818	4,000	1,612	731	6.0	1.8	6.0	1.8	45,000	20
SB-450	9,921	4,500	1,712	777	6.2	1.9	6.2	1.9	45,000	20
SB-500	11,023	5,000	1,945	882	6.4	2.0	6.4	2.0	45,000	20
SB-600	13,228	6,000	2,302	1,044	6.8	2.1	6.8	2.1	45,000	20
SB-700	15,432	7,000	2,500	1,134	7.2	2.2	7.2	2.2	45,000	20

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OCEAN GUARD UTILITY CYLINDRICAL BUOYS

BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		DIAMETER OVERALL		BUOY HEIGHT		HEIGHT OVERALL		WORKING LOAD	
	LBS	KG	LBS	KG	FT	M	FT	M	FT	M	LBS	TONS
CB-5	110	50	55	25	1.3	0.4	2	0.6	2.8	0.9	5,000	2.3
CB-10	220	100	79	36	1.5	0.5	2.8	0.8	3.6	1.1	5,000	2.3
CB-15	331	150	93	42	1.7	0.5	3.0	0.9	3.8	1.2	5,000	2.3
CB-25	551	250	160	73	2.2	0.7	3.1	0.9	4.0	1.2	7,500	3.4
CB-45	992	450	222	101	2.5	0.8	4.0	1.2	5.1	1.5	10,000	4.5
CB-70	1,543	700	340	154	3.0	0.9	4.2	1.3	5.3	1.6	10,000	4.5
CB-100	2,205	1,000	439	199	3.3	1.0	5	1.5	6.33	1.9	20,000	9.1
CB-115	2,535	1,150	539	244	3.5	1.1	5.0	1.5	6.3	1.9	20,000	9.1
CB-140	3,086	1,400	606	275	3.5	1.1	6.0	1.8	7.3	2.2	20,000	9.1
CB-180	3,968	1,800	704	319	4.0	1.2	5.8	1.8	7.4	2.3	40,000	18.0
CB-230	5,071	2,300	868	394	4.5	1.4	5.9	1.8	7.5	2.3	40,000	18.0
CB-275	6,063	2,750	973	441	4.5	1.4	7.0	2.1	8.6	2.6	40,000	18.0

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OCEAN GUARD PENDANT BUOYS



BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		DIAMETER OVERALL		BUOY LENGTH		HEIGHT OVERALL		WORKING LOAD	
	LBS	KG	LBS	KG	FT	M	FT	M	FT	M	LBS	TONS
PB-25	5,511	2,500	1,223	555	4.5	1.4	6.8	2.1	7.3	2.2	150,000	68
PB-50	11,023	5,000	2,123	963	6.0	1.8	7.2	2.2	8.7	2.7	150,000	68
PB-75	16,534	7,500	3,184	1,444	6.5	2.0	9.2	2.8	9.2	2.8	150,000	68
PB-100	22,046	10,000	2,735	1,241	6.5	2.0	11.0	3.4	9.3	2.8	150,000	68
PB-150	33,069	15,000	4,020	1,823	8.0	2.4	11.5	3.5	10.9	3.3	150,000	68
PB-200	44,092	20,000	4,922	2,233	8.5	2.6	13.5	4.1	11.5	3.5	200,000	91
PB-250	55,115	25,000	5,827	2,643	9.0	2.7	15.0	4.6	11.8	3.6	200,000	91
PB-300	66,138	30,000	6,688	3,034	9.5	2.9	16.0	4.9	12.8	3.9	200,000	91
PB-350	77,160	35,000	10,581	4,800	10.3	3.1	16.8	5.1	14.5	4.4	250,000	114
PB-400	88,183	40,000	11,449	5,193	10.5	3.2	18.0	5.5	16.3	5.0	250,000	114

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OCEAN GUARD MODULAR ANCHOR PENDANT BUOYS



BUOY MODEL	BUOYANCY NET		NUMBER OF MODULES	DIAMETER OVERALL		THROUGH PIPE DIAMETER	
	LBS	KG		FT	M	IN	MM
MAPB2-4	8,818	4,000	2	6.6	2.0	6.0	152
MAPB4-8	17,637	8,000	4	6.6	2.0	6.0	152
MAPB2-8	17,637	8,000	2	7.5	2.3	6.0	152
MAPB4-16	35,273	16,000	4	7.5	2.3	6.0	152
MAPB2-11	24,250	11,000	2	9.8	3.0	8.0	203
MAPB4-22	48,501	22,000	4	9.8	3.0	8.0	203
MAPB2-17	37,478	17,000	2	10.5	3.2	10.0	254
MAPB4-34	74,956	34,000	4	10.5	3.2	10.0	254
MAPB2-23	50,705	23,000	2	10.5	3.2	10.0	254
MAPB4-46	101,411	46,000	4	10.5	3.2	10.0	254

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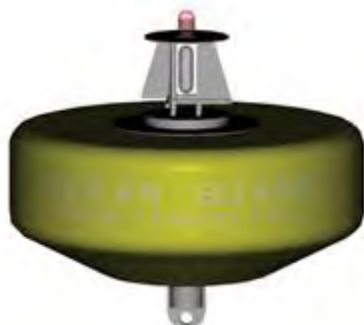
OCEAN GUARD OCEANOGRAPHIC BUOYS



BUOY MODEL	BUOYANCY NET		FLOTATION WEIGHT		TOTAL WEIGHT		DIAMETER OVERALL		DIAMETER INTERNAL		FLOTATION HEIGHT		TOWER HEIGHT	
	LBS	KG	LBS	KG	LBS	KG	FT	M	FT	M	FT	M	FT	M
OG-10	2,205	1,000	60	27	513	233	5.4	1.6	2.2	0.7	2.3	0.7	5.6	1.7
OG-15	3,307	1,500	72	33	606	275	6.1	1.9	2.3	0.7	2.4	0.7	5.6	1.7
OG-20	4,409	2,000	99	45	752	341	6.5	2.0	2.5	0.8	2.6	0.8	6.1	1.9
ATALAS-3	5,000	2,268	130	59	1,200	544	7.4	2.3	3.2	1.0	3.2	1.0	7.0	2.1

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OCEAN GUARD NAVIGATIONAL AND MARKER BUOYS



BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		BUOY DIAMETER		BUOY BODY HEIGHT	
	LBS	KG	LBS	KG	FT	M	FT	M
NAV-100	221	100	194	88	3.0	0.9	2.3	0.7
NAV-200	441	200	399	181	3.8	1.2	3.0	0.9
NAV-500	1,103	500	650	295	4.9	1.5	3.0	0.9
NAV-750	1,654	750	981	445	6.7	2.0	3.3	1.0
NAV-1000	2,205	1,000	1,816	824	8.5	2.6	4.2	1.3
NAV-3000	6,615	3,000	3,112	1,412	10.0	3.0	4.5	1.4
NAV-5000	11,025	5,000	4,462	2,024	10.2	3.1	6.0	1.8
NAV-7500	16,538	7,500	6,703	3,040	11.8	3.6	6.6	2.0
NAV-10000	22,050	10,000	7,845	3,558	13.2	4.0	6.0	1.8

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OCEAN GUARD CHAIN THROUGH BUOYS



BUOY MODEL	NET BUOYANCY		BUOY WEIGHT		BODY DIAMETER		BODY LENGTH		OVERALL LENGTH		THROUGH PIPE DIAMETER	
	LB	KG	LB	KG	FT	M	FT	M	FT	M	IN	MM
CTB-100	2,205	1000	1,170	570	3.6	1.1	5.8	1.7	7.0	2.1	13.0	330
CTB-150	3,307	1,500	1,345	610	4.1	1.3	5.9	1.7	7.1	2.1	13.0	330
CTB-200	4,409	2,000	1,488	675	4.5	1.4	6.2	1.9	7.7	2.4	13.0	330
CTB-225	4,960	2,250	1,842	777	4.9	1.5	6.0	2.0	7.5	2.4	15.0	381
CTB-275	6,063	2,750	2,023	840	5.1	1.6	6.6	2.1	8.0	2.6	15.0	381
CTB-350	7,716	3,500	2,698	1,060	5.1	1.6	8.6	2.9	10.0	3.4	17.0	432
CTB-400	8,818	4,000	2,791	1,159	5.3	1.7	9.0	2.6	10.3	3.1	17.0	432
CTB-450	9,921	4,500	3,076	1,395	5.5	1.8	9.2	2.6	10.5	3.1	19.0	483
CTB-550	12,125	5,500	3,440	1,560	5.8	1.8	9.8	3.2	11.0	3.7	19.0	483

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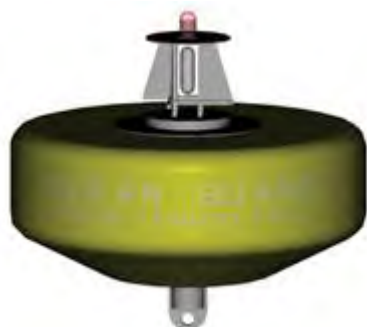
OCEAN GUARD RECTANGULAR ANCHOR PENDANT BUOYS



BUOY MODEL	BUOYANCY NET		BUOY WEIGHT		BUOY DIMENSIONS								WORKING LOAD	
	LBS	KG	LBS	KG	LENGTH		HEIGHT		WIDTH		OVERALL HEIGHT		FT	TONS
RPB-10	2,200	1000	408	185	3.0	0.9	5.0	1.5	3.0	0.9	7.3	2.2	150,000	68
RPB-20	4,400	2000	817	371	3.6	1.1	5.0	1.5	5.0	1.5	7.3	2.2	150,000	68
RPB-40	8,800	4000	1,470	667	4.5	1.4	6.0	1.8	6.0	1.8	9.9	3.0	150,000	68
RPB-60	13,200	6000	3,060	1,388	5.0	1.5	7.0	2.1	8.5	2.6	10.9	3.3	150,000	68
RPB-80	17,600	8000	3,514	1,594	5.4	1.6	7.5	2.3	8.5	2.6	11.4	3.5	150,000	68
RPB-100	22,000	10000	4,312	1,956	6.0	1.8	9.0	2.7	8.1	2.5	12.6	3.8	150,000	68
RPB-120	26,400	12000	4,641	2,105	6.5	2.0	9.5	2.9	8.4	2.6	13.4	4.1	150,000	68
RPB-140	30,800	14000	5,835	2,647	6.5	2.0	10.5	3.2	9.0	2.7	14.8	4.5	200,000	91
RPB-160	35,200	16000	6,442	2,922	6.5	2.0	10.5	3.2	10.5	3.2	14.6	4.5	200,000	91
RPB-180	39,600	18000	7,195	3,264	6.5	2.0	11.5	3.5	11.0	3.4	15.6	4.8	200,000	91
RPB-200	44,000	20000	7,533	3,417	8.0	2.4	11.0	3.4	10.7	3.3	14.8	4.5	200,000	91
RPB-250	55,000	25000	8,427	3,822	8.5	2.6	12.6	3.8	10.8	3.3	16.5	5.0	200,000	91
RPB-300	66,000	30000	9,918	4,499	8.5	2.6	14.4	4.4	11.1	3.4	18.2	5.5	200,000	91

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OCEAN GUARD UNIVERSAL BUOYS



BUOY MODEL	NET BUOYANCY (MIN)		BUOY WEIGHT		BODY DIAMETER		BODY HEIGHT		OVERALL HEIGHT	
	LBS	KG	LBS	KG	FT	M	FT	M	FT	M
UB-1500	1,500	680	710	322	4.2	1.3	2.5	0.8	4.3	1.3
UB-2000	2,000	907	801	363	4.2	1.3	3.3	1.0	5.5	1.7
UB-2500	2,500	1,134	689	313	5.0	1.5	2.9	0.9	5.0	1.5
UB-3000	3,000	1,361	929	421	5.0	1.5	3.3	1.0	5.5	1.7
UB-4000	4,000	1,814	1,488	675	6.0	1.8	3.3	1.0	5.5	1.7
UB-5000	5,000	2,268	1,570	712	6.0	1.8	3.8	1.1	6.0	1.8

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UNIVERSAL BUOY END FITTINGS



Bail Eye



Pad Eye



Pick-Up Tee



Swivel Eye