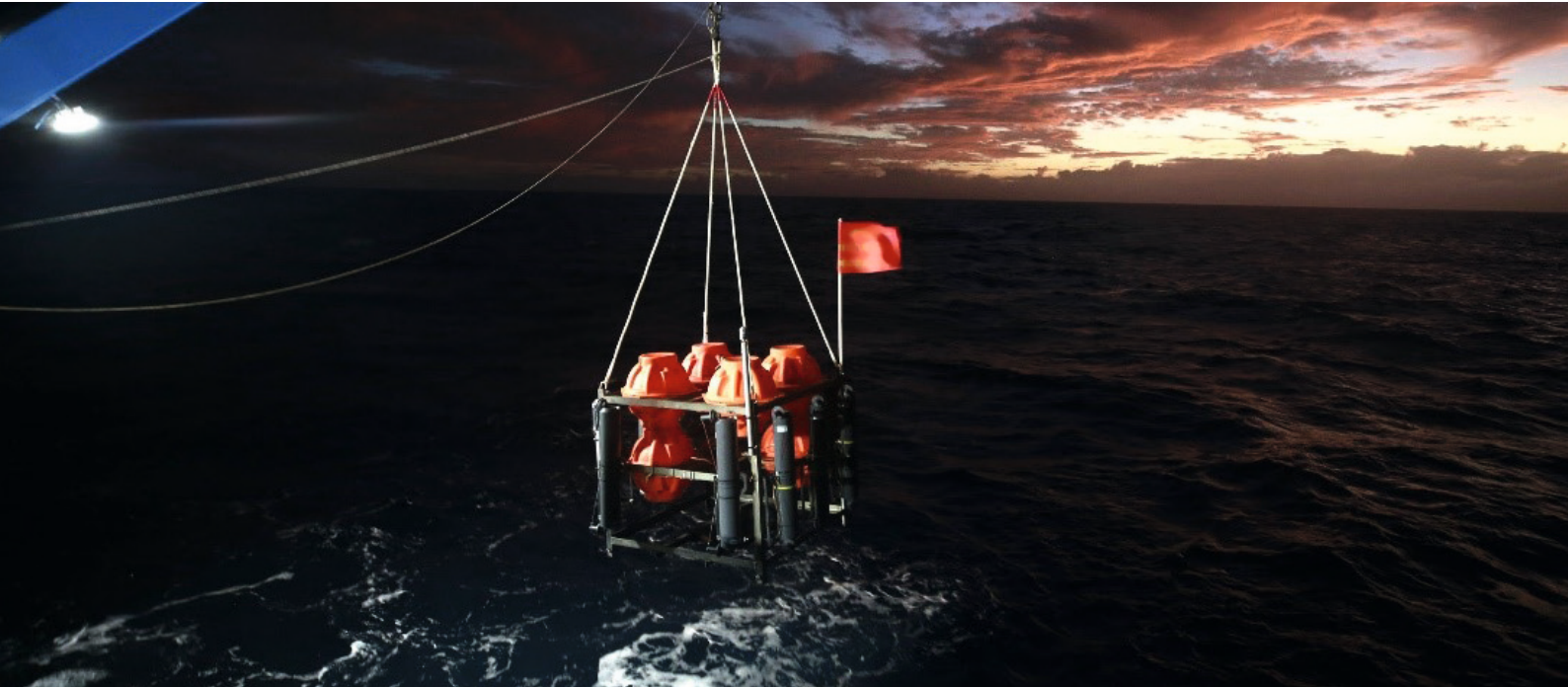


# VITROVEX® glass floatation



Buoyancy for deep ocean explorations to 12,000 meters



VITROVEX® glass floatation spheres made by Nautilus Marine Service provide cost-effective buoyancy to bring moorings, landers, ocean-bottom seismometers and other deep sea instruments safely back to the surface.

VITROVEX® glass properties and high expertise in glass processing by Nautilus Marine Service make it possible to offer glass floatation spheres in different sizes and pressure ratings to full ocean depth.

## Floatation spheres models

VITROVEX® Model <sup>1</sup>	depth rating m	buoyancy		outer diameter		density g/cm <sup>3</sup>
		kg	lbs	inch	mm	
FS-4000-5.4	4,000	0.9	2.0	5.4	138	0.36
FS-6000-3.7	6,000	0.1	0.2	3.74	95	0.67
FS-6000-20	6,000	43.1	95.0	20	508	0.4
FS-6700-17	6,700	26	57.0	17	432	0.41
FS-7000-13	7,000	10.6	23.0	13	330	0.46
FS-9000-17	9,000	21.5	47.0	17	432	0.51
FS-12000-4.5	12,000	0.1	0.2	4.5	114	0.77
FS-12000-5	12,000	0.1	0.2	5	130	0.87
FS-12000-7	12,000	1	2.0	7	180	0.69
FS-12000-7.5	12,000	0.5	1.0	7.5	187	0.88
FS-10000-10	10,000	4.6	10.0	10	250	0.45
FS-12000-13	12,000	8.5	19.0	13	334	0.58
FS-12000-17	12,000	18.3	40.0	17	432	0.59

1) For more detailed information see corresponding product data sheet and technical drawing(s). Figures are based on salinity of 1.025 g/cm<sup>3</sup>.

VITROVEX® spherical glass housings can be completed with neutrally buoyant protective shells in bright orange colour for impact protection, stowing and ease of handling. Depending on the model, protective shells are offered in smooth or ribbed design.



### Superior to other types of flotation

Cost-effective ■ Immense strength to weight ratio  
 High resistance to breakage ■ Corrosion resistant ■ Non-polluting  
 Ecologically acceptable ■ Non-magnetic and non-conductive

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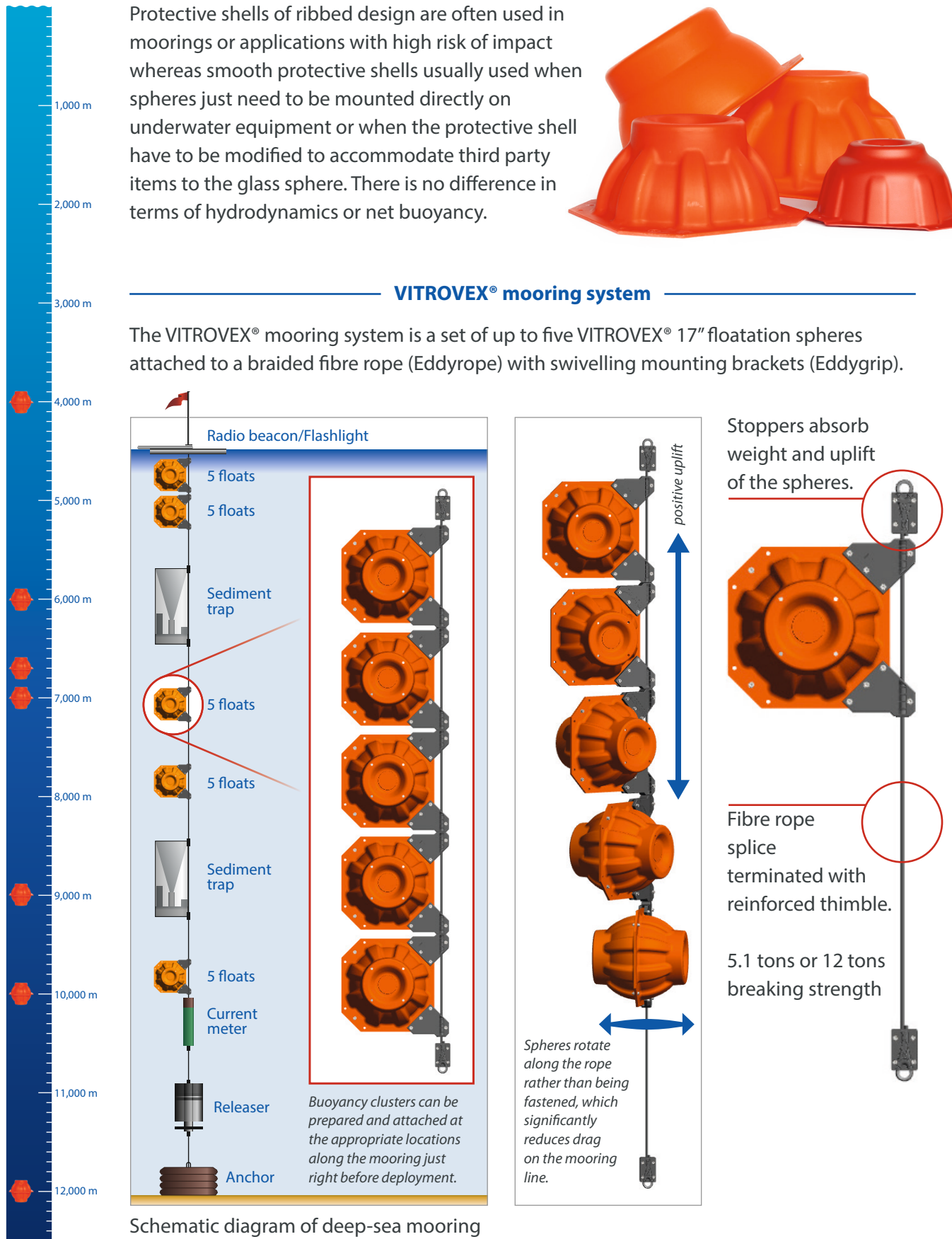
## Buoyancy for deep ocean explorations to 12,000 meters

Protective shells of ribbed design are often used in moorings or applications with high risk of impact whereas smooth protective shells usually used when spheres just need to be mounted directly on underwater equipment or when the protective shell have to be modified to accommodate third party items to the glass sphere. There is no difference in terms of hydrodynamics or net buoyancy.



### VITROVEX® mooring system

The VITROVEX® mooring system is a set of up to five VITROVEX® 17" floatation spheres attached to a braided fibre rope (Eddyrope) with swivelling mounting brackets (Eddygrip).



Schematic diagram of deep-sea mooring