

Glass sphere for instrument housing and flotation

Okamoto Glass is manufacturing pressure-resistant glass spheres which are used for deep sea ocean research activities, and they can withstand 12,000m depth of deep sea.

Our glass sphere are made of original borosilicate glass “H-3” with an excellent thermal shock resistance, weather resistance and high-transparent characteristics. “H-3” is widely utilized in many glass products especially installed in a harsh environment, for example, the cover glass for automobile headlight and laundry machine etc.



Our glass spheres are highly accurate in shape and are ideal for the purpose of video-shooting or photographing by installing shooting devices inside of glass sphere. We can also design layout for devices, batteries, and lightings, etc.

Glass sphere has holes in order to connect equipment inside and outside of the glass sphere. Even micro-defects can lead to accidents in the deep seafloor where water pressure is high. Our precision glass molding and high-precision processing technology minimize micro-defects that can lead to cracks and realize safe use even at a depth of 8,000m or more. We have been supplied many glass spheres so far and have never had a single one break. You can use the glass sphere repeatedly with confidence.



Standard sizes of glass sphere are 8, 10, 13, 17 inches in diameter. Standard hole angles are 30°, 40°, 47.5°, 55.5°, 60°, 65°, 66.5°, 70° based on the top of glass sphere. For other size is upon requests.

Applications :

Cover glass of marine laser scanner, mooring system, OBS

■ Glass sphere lineup

Model	Max. depth	Diameter	Thickness	Weight	Net buoyancy
GB-13-4000	4,000m	331mm (13 inch)	10mm	7.7kg	11.6kg
GB-13-6000	6,000m	331mm (13 inch)	11mm	8.3kg	10.9kg
GB-17-6700	6,700m	432mm (17 inch)	14mm	18.2kg	25.0kg
GB-8-7000	7,000m	212mm (8 inch)	9mm	2.8kg	2.3kg
GB-13-8000	8,000m	331mm (13 inch)	12mm	9.0kg	10.0kg
GB-10-8000	8,000m	250mm (10 inch)	9mm	4.0kg	4.0kg
GB-10-10000	10,000m	250mm (10 inch)	12mm	5.2kg	3.3kg
GB-13-12000	12,000m	331mm (13 inch)	17mm	12.0kg	7.0kg