The Prelude Turret Mooring System is a key component of Shell Australia’s floating liquefied natural gas (FLNG) facility, which will be deployed at the Prelude gas field off the North West coast of Australia. Moored some 200 kilometres from the nearest land, the Prelude FLNG facility will produce gas from offshore fields and liquefy it onboard via a cooling process. The Shell Prelude FLNG facility will be the largest floating offshore facility in the world, measuring 488 metres long and 74 metres wide and weighing close to 600,000 tonnes. The TMS’s overall dimensions exceed 30 metres in diameter and is almost 100 metres in height. The facility will be able to withstand the extreme weather conditions experienced in the North West of Australia including a 1 in 10,000 year storm – which exceeds a category five cyclone.
The Turret Mooring System’s primary function is to keep the Prelude facility on station, and limit excursions to protect its riser-system which receives gas from the subsea architecture. Four groups of four mooring lines secure the Prelude FLNG to anchor points at water depths of 250 metres which.

Specifically designed to allow the facility to remain on station for 25 years in extreme weather conditions, the turret allows the vessel to weathervane around its moorings. SBM’s proprietary turret design consists of five modules – all of which were delivered to SHI’s Goeje shipyard for integration into the hull.