What is Tore®Sep?
Increasing flow rates of produced water from a reservoir can limit oil production. In addition, high water cut can restrict the development of marginal wells. Tore®Sep has been designed to add flexibility and increased operability to the processing of raw well fluids. It is ideal for more mature reservoirs requiring front end de-bottlenecking of increased levels of produced water and marginal wells with a higher cut.

How Tore®Sep works
Tore®Sep utilises flowing wellhead pressure to produce a rotational flow within the Tore®Sep vessel. The Tore within the vessel creates cyclonic acceleration, increasing the rotational flow to up to 50g, providing rapid and effective bulk oil / water separation. The separated oil flows through the Tore®s central discharge pipe, while the bulk of the water discharges tangentially from the separator. Tore®Sep can be fitted with de-oiling hydrocyclones on the water discharge to provide water polishing for discharge in accordance with the latest legislation, or for reinjection.

Tore®Sep is a versatile vertical separator with a small footprint area, making it attractive for offshore installations where space is at a premium. It can be designed to act as a conventional three phase separator where water cut is low, then operate in its specialised role where water cuts reach 60% or higher. Tore®Sep enables operators to manage produced water effectively and flexibly, increasing productivity.

Benefits of using Tore®Sep
- Compact three phase separator which enables operators to manage increased levels of produced water, providing front end de-bottlenecking of separation trains.
- Enables high water cut marginal wells to be developed.
- Provides a contingency against inaccurate reservoir predictions in any field development where water breaks through prematurely or where higher water cuts than anticipated, prevail.
- Reduced residence time - 90 seconds compared to 18 minutes in a conventional separator.