

AREA 1 FIELD - GULF OF MEXICO:

FPSO Miamte - MV34 Disconnectable Tower Yoke Mooring System

Under
Construction



Scope of Work

SOFEC will design, construct, and fabricate a Disconnectable Tower Yoke Mooring System for the FPSO Eni Mexico Area 1 which will be deployed in the Amoca – Area 1 Field some 10 km off the coast of Mexico.

This Disconnectable Tower Yoke Mooring System (DTYMS) represents the first Tower Yoke Mooring System in the world which will be a “Disconnectable Type” in which the FPSO can be disconnected from the Tower during the survival condition and sail away to some safe location. In addition, this is the first development by an international oil company to establish operating and production in Mexico.

This SOFEC Disconnectable Tower Yoke Mooring System will be ABS classed.

General Description

Client Name:	Eni Mexico S. de R.L. de C.V.
Contract Award:	October 2018
Installation Date:	Planned for 2021
First Oil:	Planned for 2021
Vessel Size:	153,000 dwt

Storage Capacity:	900,000 bbls
Water Depth:	32 m [105 ft]
Fabrication of DTYMS:	Tower Topsides: China Jacket, Piles, Yoke, Link Arms, MSS: Mexico Topsides: Mexico Vessel Conversion: China

Design Environmental Criteria (100-year storm)

Tower with Vessel Connected in 10-yr Winter Storm

Sig. Wave Height:	7.38 m [24.21 ft]
Wind Velocity:	22.59 m/s [43.91 kts]
Current:	0.85 m/s [1.65 kts]

Only Tower (No Vessel) in 1000-year Winter Storm

Significant Wave Height:	10.33m [33.9 ft]
Wind Velocity:	24.54 m/s [43.91 knots]
Current:	0.47m/s [0.91 knots]

Mooring System

Jacket with 8 Skirt Piles

FPSO Miamte - MV34

(Continued)

Fluid Swivel Assembly

Fiber Optic / Low Voltage Electrical Optical Slip Ring (FO/LVEOSR)

Medium Voltage Electrical Slip Ring (MVESR)

Toroidal Depressurization Swivel (1 x 4-inch Inlet & Outlet – Class 900)

Toroidal Gas Export Swivel (1 x 10-inch Inlet & Outlet – Class 900)

Toroidal Production Swivel-2 (2 x 16-inch Inlet & Outlet – Class 600)

Toroidal Production Swivel-1 (2 x 16-inch Inlet & Outlet – Class 600)

Toroidal Fire Water Swivel (1 x 12-inch Inlet & Outlet – Class 150)

Toroidal Water Injection Swivel (1 x 12-inch Inlet & Outlet – Class 1500)

Swivel Stack Support Base

Product 10"; 90 barg; 110 deg C

Product 10"; 90 barg; 110 deg C

Water Injection 12"; 243 barg; 70 deg C

Amoca WHP3

Product 8"; 90 barg; 100 deg C

Electrical Cable 33kV

Spares

Product 10"; 90 barg (TBC); 100 deg C (TBC)

Product 10"; 90 barg (TBC); 100 deg C (TBC)

Water Injection 12"; 243 barg (TBC); 70 deg C (TBC)

Electrical Cable 33kV

Riser System

12 Risers and 3 Electrical Cables = Total 15 Lines from different Platforms in different Blocks

Mizton WHP1:

Product 10"; 93 barg; 100 deg C

Product 14"; 93 barg; 100 deg C

Water Injection 12"; 243 barg; 70 deg C

Gas 10" (Export); 143 barg; 70 deg C

Electrical Cable 33kV

Tecaolli

Product 8"; 90 barg; 100 deg C

Amoca WHP2