

design: www.axis.as rev1002 print: birkeland trykkeri

[www.apl.no](http://www.apl.no)

Advanced Production and Loading AS (APL™) was established early 1993 to develop and commercialise the Submerged Turret Loading (STL™) and Submerged Turret Production (STP™) technology.

APL is responsible for system development, design and fabrication. Based on system components and experience from the proven STL system, APL has developed the Single Anchor SAL™/SAP™ and the BTL floating buoy systems.

Through acquisition of the business activities in Hitec Marine as in 2002, APL has taken over product ownership for the Bow loading System (BLS), Stern Discharge System (SDS), Volatile Organic Compounds (VOC) Recovery and Return and the Sequential Transfer of Tank Atmosphere (STTA) Systems.

#### MAIN OFFICE:

##### **Advanced Production and Loading AS**

Vikaveien 85  
N-4816 Kolbjørnsvik, Norway  
Tel: +47 45 29 70 00 Fax: +47 37 02 41 28

#### **APL FRANCE:**

12, Rue de Buffon  
76000 Rouen, France  
Tel: +33 2 3552 8289 Fax: +33 2 3552 8208

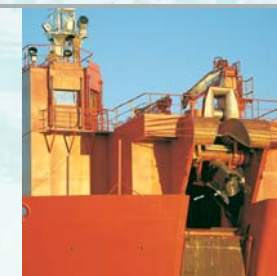
#### **APL Inc.**

2000 Dairy Ashford, Suite 530  
Houston, Texas 77077, USA  
Tel: +1 281 293 7711 Fax: +1 281 293 7707



ADVANCED PRODUCTION AND LOADING AS

# BLS



Bow Loading System







## Bow Loading System for Shuttle Tankers and FSOs

The Bow Loading System (BLS) is providing efficient means for offshore loading and discharge of crude oil or other fluid media.

The BLS is compatible with standardized equipment on FPSOs, FSOs and Loading Towers, as well as APL's SAL and OLS systems.

Based on many years of operational experience from the harsh North Sea, new BLS versions have been launched for use in other areas of the World. The BLS family now incorporates versions for areas with benign weather conditions (Brazil) and for arctic waters (Barents Sea).

An important feature of APL's BLS equipment is the ball joint in the Loading Manifold, which provides a "moment free" connection between the loading hose and the vessel. This enhances the durability and service life of both the loading hose, hose end piece and coupling. The system may also incorporate a sliding chain stopper (SPM Auto), which minimises manual operations during the mooring and unmooring sequences.

The first BLS was delivered in 1992, and since then a significant number of BLS systems have been supplied to ship owners and yards worldwide.

Detailed and updated reference list is available on [www.apl.no](http://www.apl.no)



# BLS

APL 