

Cross-section of All Purpose Skimmer with Inclined Plane and Ice Separation System

Length ~46', Center Module Width ~6', Hull Depth ~7.5' Aluminum construction, 3/16" to 1/2", with 3/16" SS armor on bottom and inclined plane face. A three-module unit has up to 3,000 bbl/hr pumping capacity. Both the pumps and brush rollers are powered with hydraulic fluid lines bundled with air hoses, power, oil sensor and control cables to the deck level above. The system should exhibit very high recovery efficiencies, >90% TE, with a high range of tolerance for oil viscosities, ice or debris content. Recovery efficiency barely degrades in seas up to 12' and currents up to 4 knots and operations can continue above 15' seas in freezing spray with TE >50%. Recovered oil can be easily conditioned for resale by heating with floating coil trays, straining debris, spraying de-emulsifier, pumping hot oil to storage and settling/decanting of water content in a inboard set of baffled oil/water treatment holds. The entire recovery process could be automated from outrigger and boom deployment to conditioned oil transfer utilizing video and sensor feeds to a few laptops and monitors on the bridge.

