SUNBO Family

PRODUCED WATER TREATMENT PACKAGE SYSTEM

PRODUCED WATER TREATMENT SYSTEM

SEPERATION SYSTEMS

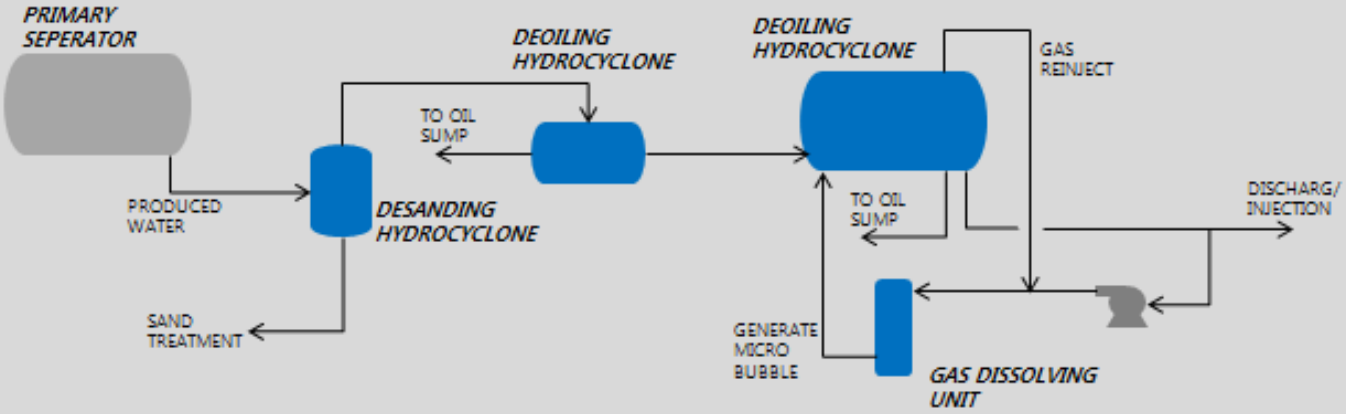
PRODUCED WATER

The constituents of produced water are many and varied, with the major substances being :

- ✓ Water
- ✓ Hydrocarbons
- ✓ Solid, both suspended and dissolved
- ✓ Production chemicals
- ✓ Metals
- ✓ Naturally occurring radioactive minerals

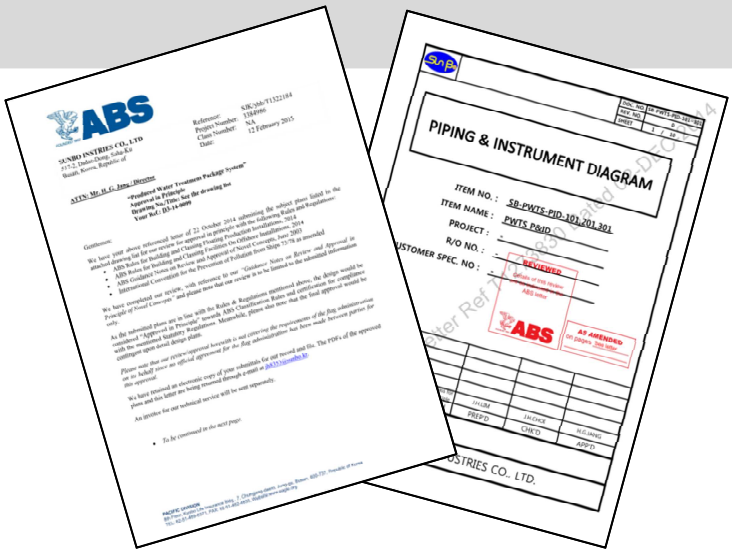
These contaminants need to be treated to enable the produced water to be either injected or safely disposed according to local environmental regulations.

TYPICAL PROCESS



CERTIFICATION

SUNBO is a professional manufacturer, supplying high-quality package products for it's EPC customers, with a focus towards Oil & Gas Industries.
SUNBO has developed Produced Water Treatment Package system and completed its performance test. In addition, SUNBO has gotten a certification that approval in principle of concept design of Produced Water Treatment system from American Bureau of Shipping.



OOOO DESANDING HYDROCYCLONE

SEPARATION SYSTEMS

OVERVIEW

OOOO Desanding Hydrocyclones are used to remove and other solid particles from multi-phase fluid streams. The hydrocyclone uses pressure energy from the flow stream to achieve cyclonic separation of solid. Solid that exit through the apex collect into an accumulation chamber, where they are periodically purged, while the overflow discharges continually.

<INLET SOLID CONTENT>

<OUTLET SOLID CONTENT>

FEATURES AND BENEFITS

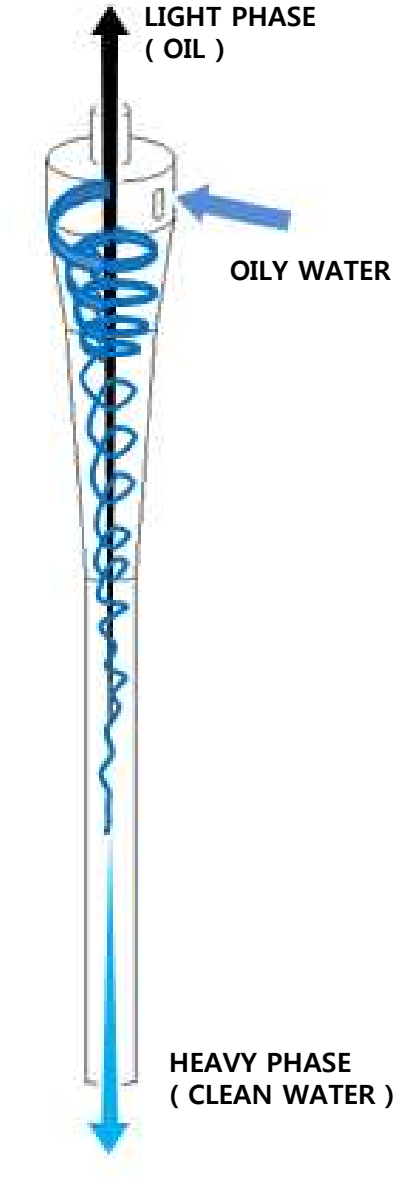
- ✓ Up to 98% removal efficiency of sand particles down to 50㎛
- ✓ High erosion resistance
- ✓ Single removable liners
- ✓ Compact design for reduced footprint and weight
- ✓ No moving parts
- ✓ Wide range of specialty materials available
- ✓ Size and weight reduction over conventional method
- ✓ Lower overall maintenance costs by protection of downstream equipment
- ✓ Scalable size requirement
- ✓ Insensitive to motion
- ✓ High efficiencies at low differential pressures
- ✓ Manual of fully automated

World Best SUNBO Family

OOOO DEOILING HYDROCYCLONE

SEPARATION SYSTEMS

OVERVIEW



Feed enters the deoiling hydrocyclone through an inlet. It's velocity is converted into tangential velocity in the inlet area, imparting a centrifugal force on the fluids. As the feed moves down the conical section, tangential velocity increases as does the centrifugal force. Heavier water and solids move in a vertex near the wall of the liner towards the outlet, whereas the lighter oil and gas will move in a secondary vertex along the axis of the liner in the opposite direction towards in the center of the swirl inducer.

FEATURES AND BENEFITS

- ✓ Exceptional removal efficiency – up to 98% achieved
- ✓ Discharge levels can be below 40ppm
- ✓ Low pressure operation
- ✓ High erosion resistance
- ✓ Compact
- ✓ No moving part
- ✓ High capacity designs
- ✓ Insensitive to motion
- ✓ Large turn down requirement
- ✓ Cost-effective
- ✓ Wide range of material options
- ✓ Removable liner allows easy disassembly, cleaning, inspection and replacement

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SUNBO Family which constantly challenges and makes efforts to be 'The world's best leading company specialized in modules for shipbuilding & on/offshore business sector.

SUNBO Industries.co.,ltd

Small Size Process Module, 3 Factories in Pusan

SUNBO Unitech.co.,ltd

Large Size Process Module, 3 Factories in Pusan

SUNBO Family Business Fields

Ship-building	Ballast Water Treatment System	Purifier Unit	Strainer
		E-Room Unit	Silencer
		Tank Top Unit	Stern tube unit
On & Offshore	Process Package	Chemical Injection System	MEG System
	Fuel Gas System	Stair Tower	Heli-refueling system
	Purifier Skid	Pipe Rack Module	etc.

▸ **Contact Information**

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