

### SCM-VPL DE VERTICAL PRESSURE LEAF



#### CONCEPT

The Vertical Pressure Leaf Diatomaceous Earth filter unit is a 840 sq.ft. vertical pressure leaf filter unit mounted in an offshore proof frame. Also including a 10 bbl mix-tank (slurry tank), diesel driven feed pump/ pre-coat and air-driven body-feed pump (1 diaphragm pumps) and improved rotating cleaning device. Diesel will be a Perkins water cooled and air started.

The SCM-VPL DE Unit is completely self-contained and equipped with all necessary auxiliaries to perform an effective filter job. The large filtration area of the SCM-VPL DE filter unit allows filtering fluids with a high dirt load, at a high flow rate, down to low NTU. The process design allows a laminar flow through the filter vessel and leafs. This results in a long filtration cycle and the lowest possible NTU output. There is no need for opening the filter vessel during clean out. This system saves up to 90% down time compared to conventional VPL systems and filter presses.

#### APPLICATIONS

- Completion fluids
- Work over fluids
- Brines
- Seawater
- Waste water treatment

#### FEATURES & BENEFITS

- New revolutionary wash down system, saving time and therefore minimizing downtime of the filter unit (< 10 min)
- New, pneumatic / hydraulic driven cake wash down mechanism for uninterrupted and reliable cake washing
- Compact, lightweight & stackable skid design
- Innovative mixing system
- Designed for offshore duty
- Filter leaves in SS 316 L with updated polypropylene filter cloth design. Filter cloth with velcro for easy replacement
- The cake discharge is efficient and quick
- Safety railing, ladder and service platform
- All major connections on one side
- Closed system
- One frame
- Plate and frame type
- Removes 90 – 98% of solids load from fluid
- 8–10 bbls (Brine) / min throughput (400 sq. ft. unit)
- High efficiency minimizes cartridge use and maximizes cut point efficiency
- Cleaning takes 20 minutes after filtration cycle

## TREATMENT AND DISPOSAL

### SPECIFICATIONS

General	
Model	SCM-VPL DE
Frame design code	DNV 2.7-3 certified
Filtration area	840 sq.ft. (78 m <sup>2</sup> ) - SS316L leaves with polypropylene filter cloth
Number of leaves/vessel	25 pcs
Max. recommended flow rate	15 bbl/min (depending on type and quality of of brine)
Max. working pressure	105 psi (7 bar)
Inlet, Outlet	4" SS union fig.100/206 (o-ring seal type)
Wash water	2" SS union fig.100/206 (o-ring seal type)
Dump line	4" SS union fig.100/206 (o-ring seal type)
Cleaning device	Pneumatic driven rotating cleaning device with high eff. spray nozzles
Frame work	MPI & Load test
Lifting	Forklift pockets and certified hoisting sling
Materials	All wetted parts SS 316L
Instrumentation	Unit can be operated from control board
Instruments	Flow meter (BPM), pressure gauges on control board
Valves	BFV, Stainless steel 316L disc, NBR seat, epoxu coated cast iron body
Safety valves	2" at DE-vessel, set point 7 bar
Pumps	Diesel driven pump, Pump : Ritz centrifugal Normal suction, horizontal. Materials: Cast iron body, impeller/shaft Stainless steel Diesel engine: Perkins type : 404C-22 complete with air starter and air receiver. The pump will be fully protected by gates Air driven Diaphragm pump Wilden T4 (for body feed)
Diesel tank	100 L
Frame	Equipped with improved fall protector, gates to protect the diesel pump and access door for easy maintenance of operation
Frame color	ANY RAL color
Manuals	2 books operation, maintenance and spare parts manual
Data manufacturing book	1 included
Dimensions	
Length	197" ( 5,000 mm)
Width	71" (1,800 mm)
Height	126" (3,200 mm)
Weight	
Net	9,921 lbs (4500 kg)
Utilities Requirements	
Compressed air	Minimum 3000 L/min and 7 bar
Clean wash water	Minimum 20 m <sup>3</sup> /hour at 4 bar (Diesel-driven pump can be used)

### OPTIONAL

- Double execution for continuous filtration
- Non-Pneumatic operated design
- Other vessel/ frame dimensions
- Other design codes (ASME)
- Diesel driven pump on frame

