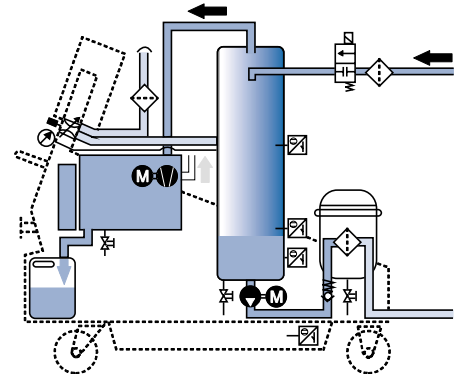


Vacuum Dehydrator

SVD



Description

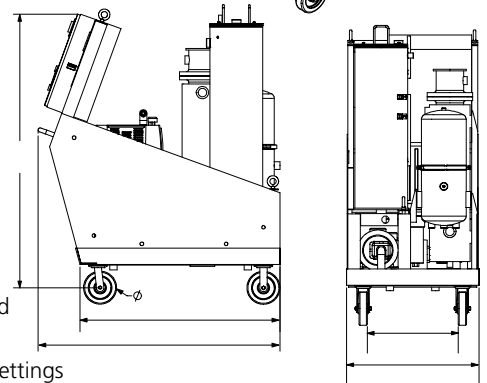
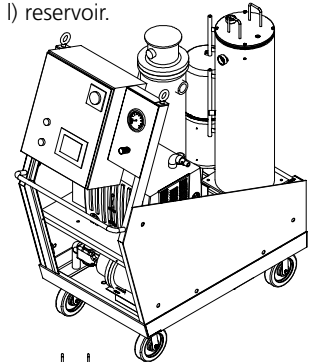
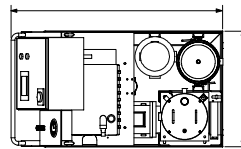
Centrifuge and condensation methods typically only remove free water. The SVD, which uses mass transfer, can remove both free and dissolved water from the oil, as well as dissolved gases. In addition, solid contaminants are also removed by highly efficient membrane elements. The SVD is intended to be used on large hydraulic and lubricating circuits that have a minimal 200 gallon (760 l) reservoir. Unit automatically shuts down when desired % saturation is reached.

Negative effects of water in hydraulic oil:

- Depletion of additives
- Reduction in lubricity
- Increased acidity of oil
- Accelerated aging of components

Principle of Operation

When connected to the hydraulic reservoir of a system with wet oil, the SVD unit draws the oil in its chamber. Oil slowly cascades down in the reactor chamber. Water is separated in the form of vapor and is removed by the vacuum pump. This vapor can be released to atmosphere or condensed into a separate reservoir. The purified oil is drained from the reactor chamber through a pump back to system reservoir at a continuous flow rate. This oil is now dry and free of water (within the specifications provided).



Metric dimensions in ().

Features

- TWS-C standard on all units
- Removes 100% of free and over 90% of dissolved water and as well as 100% of free and over 90% of dissolved gases
- Automatic mode with automatic shutdown based on user settings
- Four models are available to accommodate various flow rates
- Use of a vacuum pump avoids any dangerous chemically reactive by-products
- Maintenance, operating, troubleshooting instructions are in HMI (touch screen)

Applications

- Mobile equipment/equipment used outdoors
- Plastic injection and die cast machines
- Pulp and paper plants
- Reclaimed fluids
- Power generation plants

Schroeder Vacuum Dehydrator

The Schroeder Vacuum Dehydrator (SVD) can remove both free and dissolved water from oil, as well as dissolved gases.

Separates and removes 100% of free & over 90% of dissolved water & gases

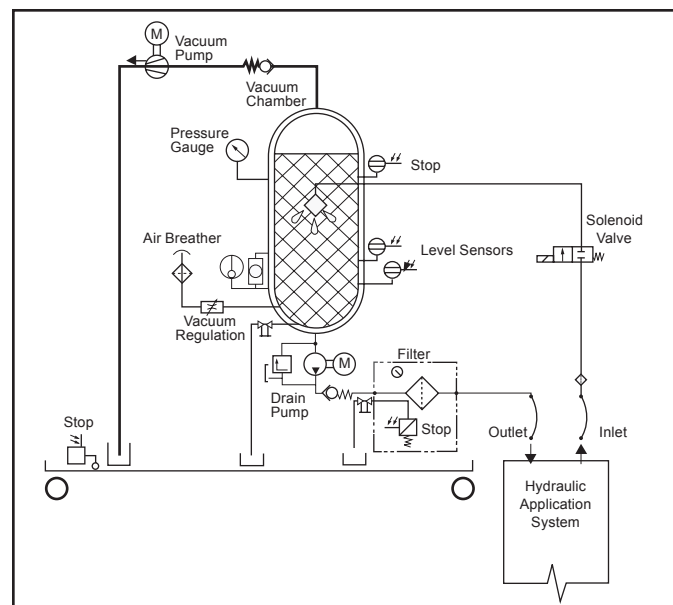
Variable Flow Rates are available with the maximum effective surface area in each vacuum chamber

Domestically produced and available for delivery



FEATURES

- Saturation and temperature sensors are now standard
- Frame is 48" at the bottom, allowing it to fit in the bed of a full size pickup truck
- SVD is controlled through a Siemens touch screen
- This touch screen has 2 operation modes, manual and automatic
- Touch screen contains the operation, maintenance, and troubleshooting manuals.
- Common control panel will be used for units with and without a heater, allowing a customer who purchased a unit without a heater to have it retrofitted for a heater at minimal cost
- New competitive pricing



Sizing Chart

Model	Tank Volume (gallon)	Free Water Removal
SVD 05	1,000 to 2,000	0.75 gph
SVD 10	2,000 to 4,000	1.00 gph
SVD 16	4,000 to 7,000	1.50 gph
SVD 23	7,000 and up	2.00 gph

Attainable water content: <100ppm



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Vacuum Dehydrator

Sizing Chart
(continuous water ingestion)

Tank Volume (gallons)	SVD Model
1000 to 2000	SVD05
2000 to 4000	SVD10
4000 to 7000	SVD16
7000 and up	SVD23

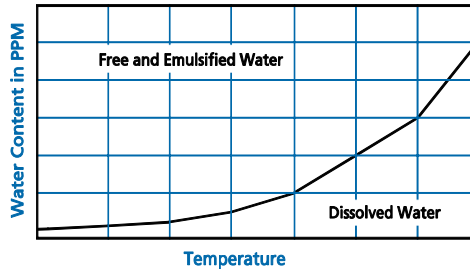
Sizing

Sizing of the SVD is normally done through periodic measuring of the water content which will determine the hourly ingestion of water. The typical dewatering speed of the SVD is listed in the technical data table above. If there is a continuous ingestion of water (i.e. condensation) the recommended flow rate of the SVD can be determined by the the system size (total gallons.) It should circulate 3 or 4 times through the SVD every day.

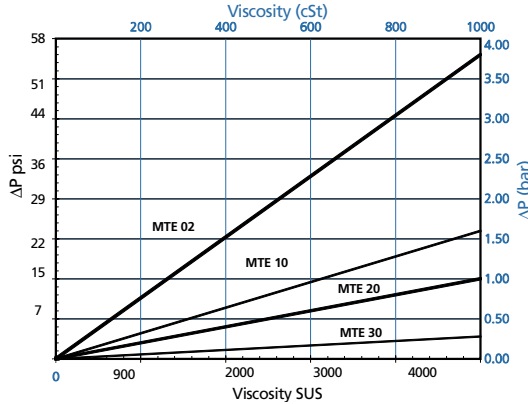
Factors That Affect Water Removal Rate

Factor (increasing/decreasing)	Dewatering Speed
Water Content ↑	↑
Fluid Temperature ↑	↑
Detergent Additives ↓	↓
Absolute Pressure in Vacuum Chamber ↓	↑
Humidity ↓	↑
Flow Rate ↑	↑
Ester Oils ↓	↓

Hydraulic Oil Saturation Curve



Differential Pressure at 3.96 gpm (15 L/min)



Element Pressure Drop

- TCM
- TCM-FC
- TMU
- SMART® Kit
- TPM
- TIM
- CTU
- TWS-C
- ET-100-6
- HMG 3000
- EWC
- EPK
- HTB
- GS
- Trouble Check Plus
- Test Points
- Adapters
- Hose Joiners
- Microflex Hose
- Pressure Limiters
- Pressure Gauges
- Test Kits
- Probalizer
- AFM
- MSS, MDS
- MFS, MFD
- AMS, AMD
- KSS, KSD
- KLS, KLD
- AKS, AKD
- KLC
- X Series
- HFS
- MTS
- SVD**
- Appendix