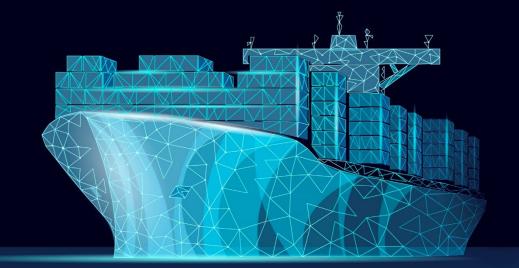


船舶科技講【6月場】

## **船用淨油機** 維修保養攻略



26 June 2025

Classified by Alfa Laval as: Business

### Separator

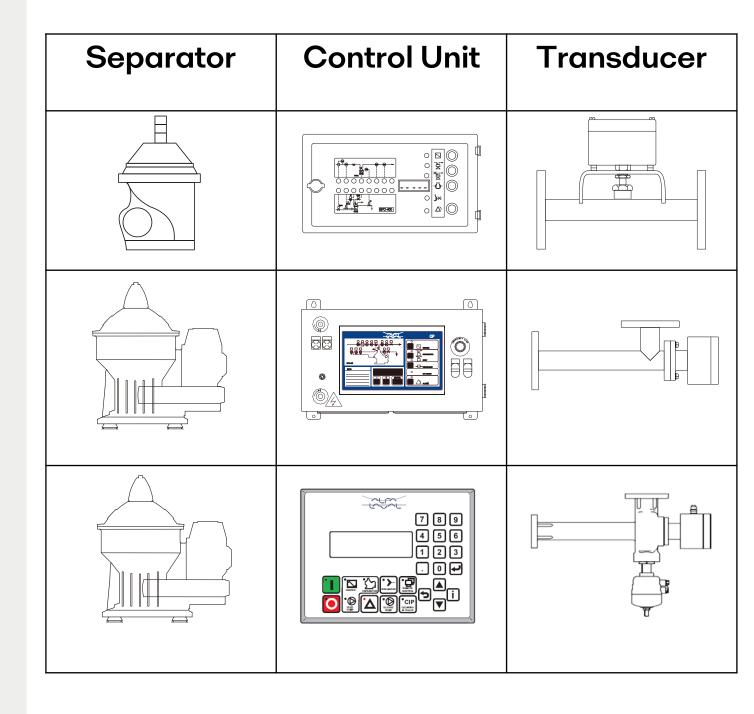
-Introduction & Design



- For hard-to-clean heavy fuel oils that vary both in density and in the type of impurities
- Application: Distillate fuels; Biofuels (FAME, HVO); Lubricating oils
- Based on ALCAP technology
  - **A**lfa
  - **L**aval
  - Clarify
  - **A**nd
  - **P**urify

### ALCAP

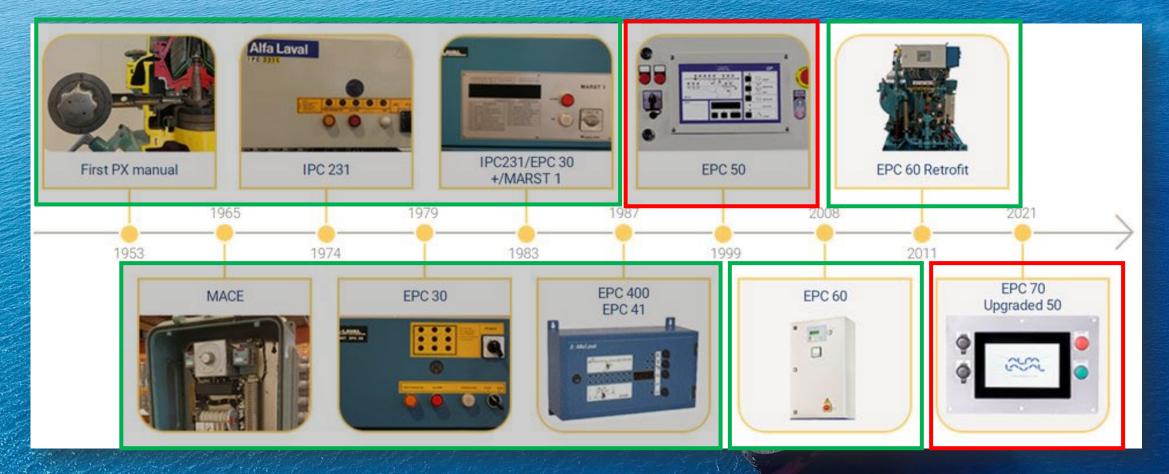
- Automatic interruption-free operation
- Discharge cat fines and other solids
- Automatically discharge water
- Maximum separation Efficiency
- Minimum oil waste



### EPC - Control System Development

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4



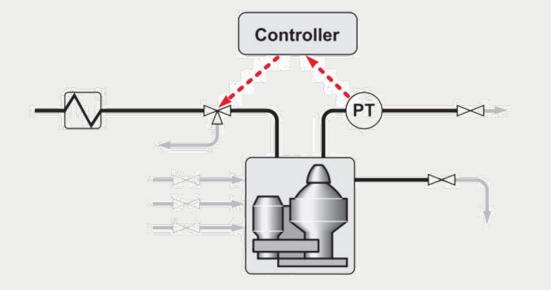
### EPC70 upgraded50

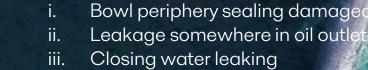
- State of the art control system with latest generation of components
- Available spare parts
- Reduced cost of spare parts (I/O card instead of complete electronic board)
- Easier operation & troubleshooting (touchscreen, I/O card LEDs, etc.)
- Future proof (Connectivity, software upgrade, etc.)
- Cost-effective solution!

### Common Alarm

#### - Oil Leaking from Bowl A57 - Oil Backpressure PT4 Low A51 - Sludge in Bowl A131 - Discharge Feedback Error A97 - Transducer No Response **A83** - High Water Content **A84**

### A57 Oil Leaking from Bowl



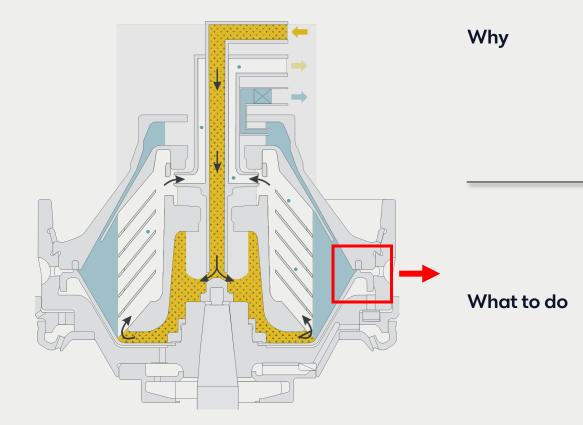


Why

i.Check for oil inlet (3-ways valve)What to doii.Check operating water flowiii.Check/change sealings and plugs.

iv. Check/change rubber rings and valve plugs.

### **A51** Oil Backpressure PT4 Low



#### i. Decreased throughput

ii. Regulating valve open too much

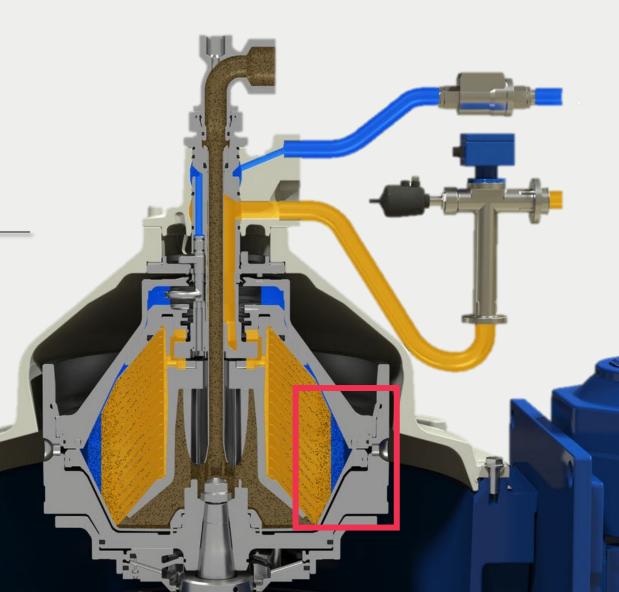
- iii. Change over valve V1 in recirculation position
- iv. Strainer and piping in the operating water supply is clogged
- v. Too little or no water in the operating water
- vi. Hoses between the supply valves and separator are incorrectly fitted
- vii. Nozzle in bowl body clogged. Rectangular ring in discharge slide is defective
- viii. Valve plugs are defective
- ix. Supply valves SV15 and SV 16 are leaking
- i. Check feed pump and adjust flow
- ii. Adjust back pressure valve
- iii. Check air pressure, solenoid valve SV1 and output from EPC
- iv. Clean the strainer and check the and check the whole system fore limestone deposits
- v. Measure the water flow in the three hoses from the water block and compare with correct values
- vi. Fit hoses correctly
- vii. Clean the nozzle
- viii. Renew the rectangular ring
- ix. Renew all plugs
- x. Rectify the leak
- (Service Kit Recommended)

### **A131** Sludge in Bowl

Why i. Too much sludge in bowl

#### What to do

- i. Wait until STAND STILL is indicated
- ii. Investigate cause and remedy
- iii. Reboot the system (Press 'yes' on the screen 3 times in a row ) after cleaning the bowl

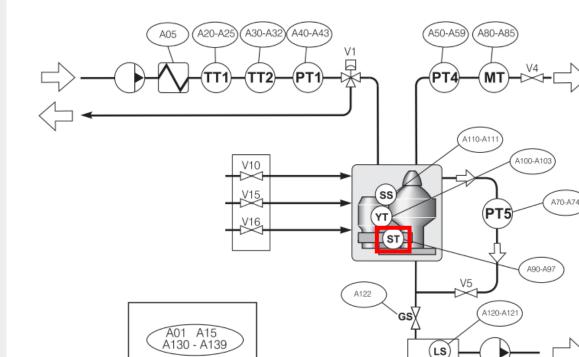


### **A97** Discharge Feedback

- i. Strainer in the operating water supply is clogged
- ii. Water flow too low
- iii. Hoses between the supply valves
- iv. and separator are incorrectly fitted
- v. Rectangular ring in the operating slide is defective

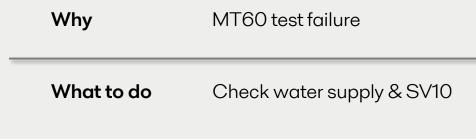
i. Clean the strainerii. Check opening water flow (SV 15) into the bowliii. Fit hoses correctly (nozzle)

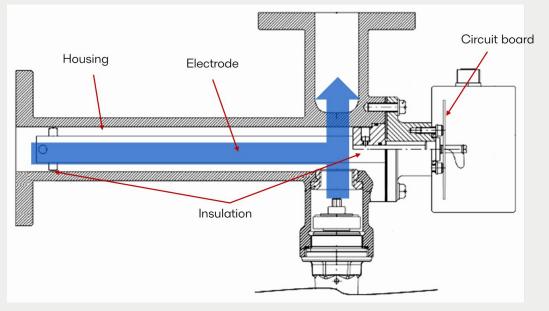
iv. Replace the rectangular ring



What to do

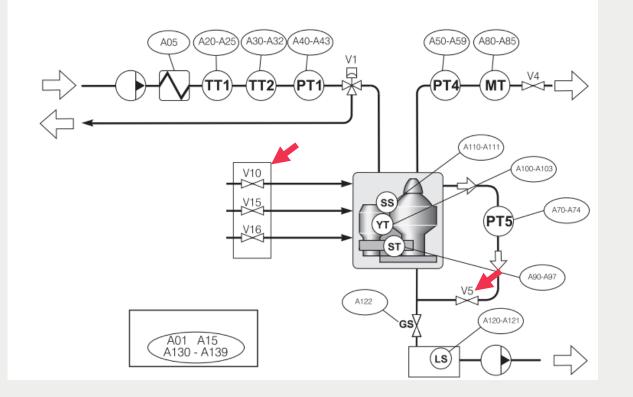
### **A83** Transducer No Response







### **A84** High Water Content



Why

Too much water in oil outlet Much water in the feed ii. iii. Paring tube not moving properly.

What to do

i.

ii.

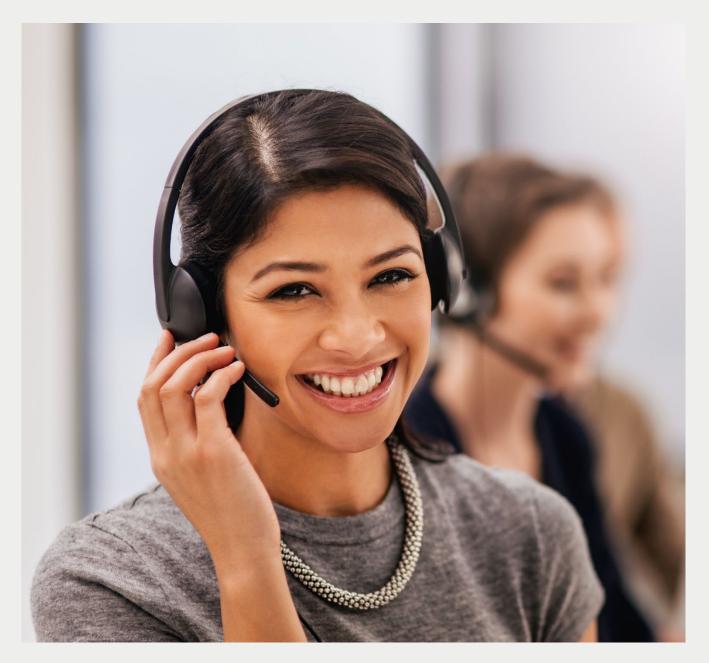
Investigate cause and Remedy Check where the water is coming from Check that movement is not impeded by friction iii.



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# Pioneering Positive Impact