

FILTERSAFE CASE STUDY



POLISHING FILTER FOR EFFLUENT TREATMENT IN REFINERY AND PETROCHEMICAL PLANT

BACKGROUND & CHALLENGE

The custodian of Malaysia's national oil and gas resources, Petronas, constructed a refinery and integrated petrochemical plant which involved the largest effluent treatment plant in Asia. Their challenge was to maximize water reuse by polishing the treated effluent from fine particles, while minimizing footprint and water consumption.

FILTERSAFE SOLUTION

Filtersafe's products and technologies were evaluated by the awarded EPC company and found to be the most suitable. Constructed from reliable materials, Filtersafe's fine filtration units allow for removal of high TSS and oil levels; minimize pollutants disposal; minimize the environmental footprint; and they comply with the DOSH Malaysian standard. Filtersafe provided 3 parallel horizontal automatic filtration units. Two working units were installed with an additional filter on standby. This configuration allows for continuous operation, minimal downtime and easier maintenance. The filters were successfully supplied and commissioned in February 2018.

Product	Horizontal FS603H 16"
Filtration degree	20 µm, patented 4 layered smartweave™ screen
Flow rate	2,250 m ³
Design standard	ASME VIII (Div 1)
Design temperature	75°C
Removal efficiency	98%

INDUSTRY

Refinery and Petrochemical

LOCATION

Southern Johor Malaysia

APPLICATION

Polishing Filter for Effluent Treatment

FILTERSAFE

- 30 years filtration experience
- 3000+ installations
- 10 microns upwads & 50-5,000 m³/hr.
- Modular filter technology

BENEFITS TO CUSTOMER

- Smaller footprint compared to conventional filters
- Superb cleaning efficiency with minimal downtime using patented technology and screen design
- Far lower power consumption
- Low discharge of backwash wastewater

GENERAL EFFLUENT TREATMENT PROCESS

