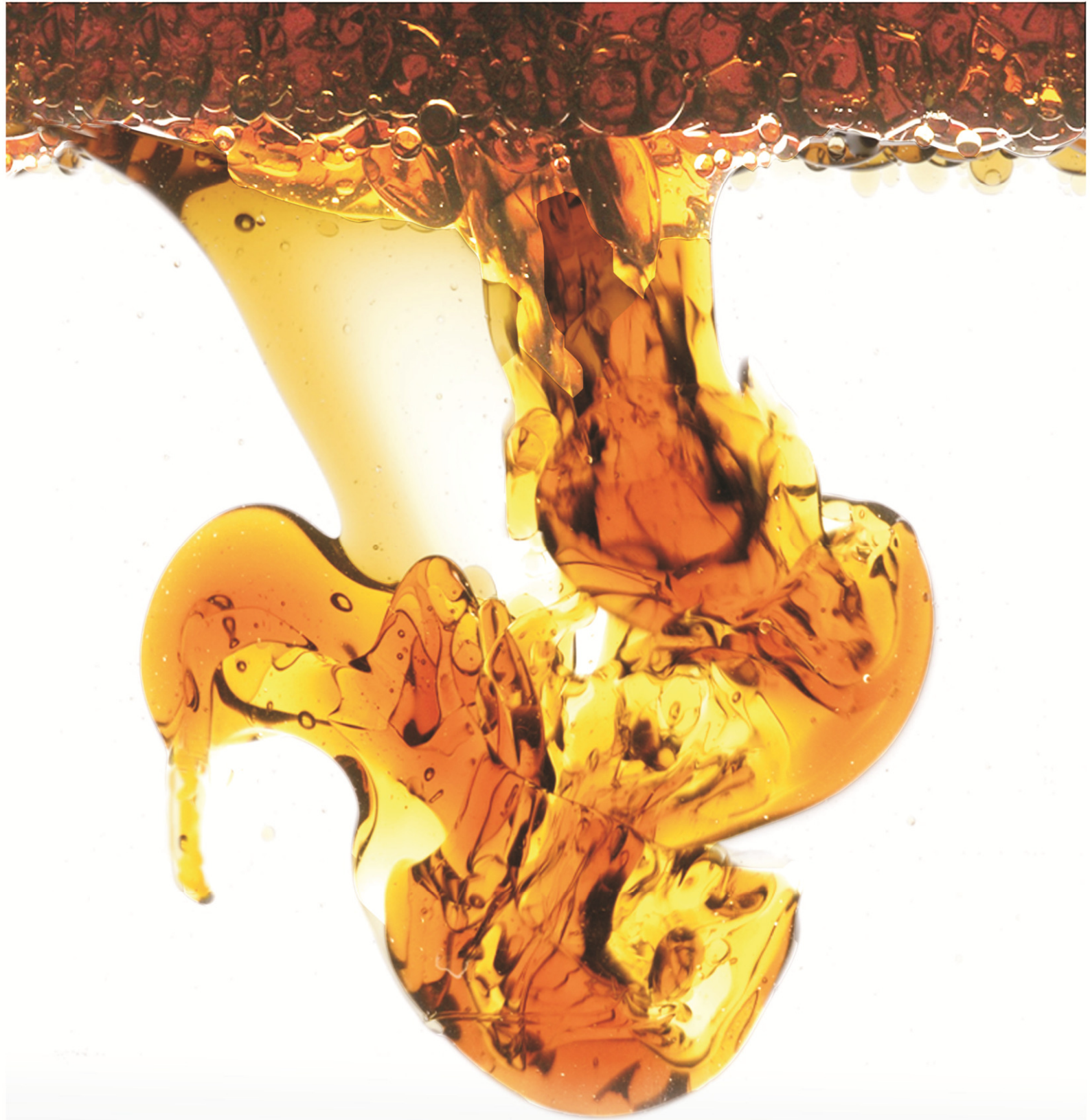




# Wyuna Separation Technology



[www.wyunasep.com](http://www.wyunasep.com)

**Wyuna Separation Technology** - The Australian young company has developed a breakthrough water / waste stream clean up technology for land based applications and other water-intensive industries.



For the emerging trend of finding newer technology with more compact & energy efficient equipment, WyunaSep is making compact & energy efficient separation possible for land based applications.

WyunaSep is helping improve yields, making working and environment healthier by dramatically reducing footprints, energy requirement & HSE risk in handling waste stream & the equipment. For a world short on cleaner waste stream, WyunaSep is the lower-cost and cleaner answer.

We have comprehensive range of products for Mining, Dairy, Food & Pharma, Manufacturing, Automobile, Marine & Power and general industry where liquid to liquid separation, solid to liquid separation or liquid, liquid & solid separation is required in their process.

We say **"The proof of the product is in the performance"**

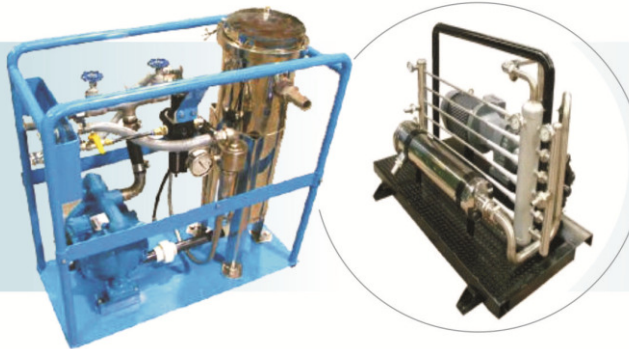
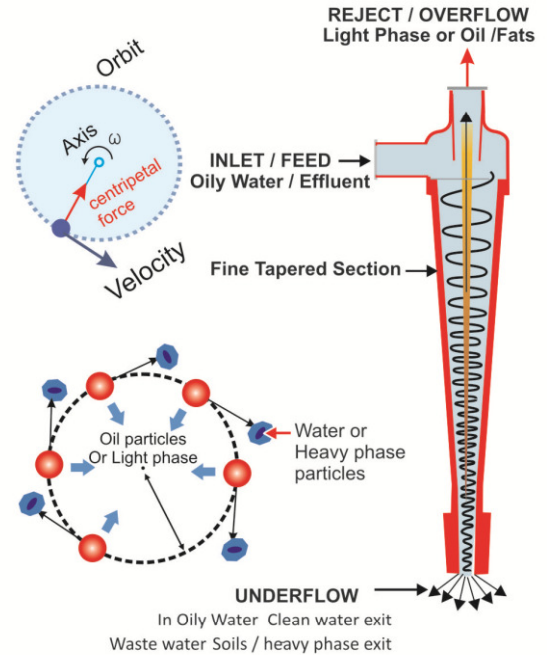
## How it works / Principle of Operation

The Feed stream enters the **WyunaSep** hydrocyclone system through a tangential inlet. Its velocity is converted into tangential velocity in the inlet area, imparting a centripetal force on the fluids. As the fluid moves down the conical section, tangential velocity increases as does the centripetal force in excess of 1000 times the gravity, meaning the force is 1000 times greater in the **WyunaSep** hydrocyclones than the conventional gravity tank separation method.

The heavier water & solids phase, which is subjected to higher centripetal forces, moves to the outer wall of the cyclone and exits the tailpipe of the hydrocyclone by the underflow. The lighter particles / free-oil droplets, are displaced towards the inner core of the cyclone and move axially up the cyclone and exits out the reject orifice as overflow. By maintaining a balanced differential pressure between the overflow and underflow, the light phase /oil core is forced out through the overflow Outlet.

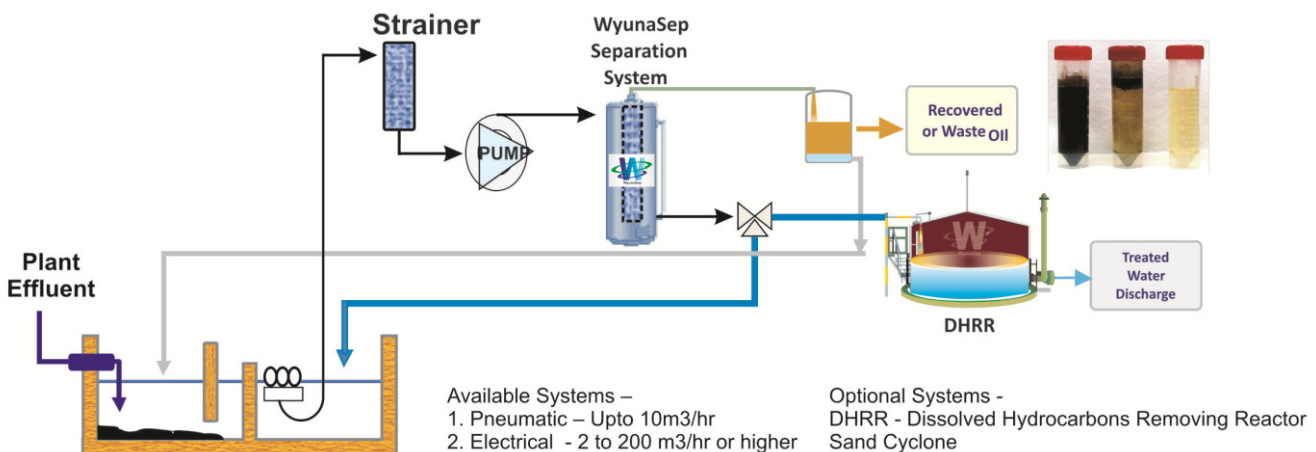
This oil water separator relies on strong centripetal forces for oil separation. Other oil water separators, like coalescing plate packs, gravity weir tanks, petrol interceptors or similar oil separators, rely on weaker gravitational forces for oil separation. The centripetal force generated inside the vortex of the **WyunaSep** hydrocyclone separator is in the order of 1,000 times the force of gravity! With such force, effective oily wastewater treatment can be achieved even with emulsified Oil droplets.

**WyunaSep** has a range of solutions to suit your performance requirements and budget. Tell us your discharge requirements, and we can design a solution to meet your needs.



**We can help you to design the efficient system free of cost during your project design stage.**

**We can provide PFD & P&ID for your design drawings as well – For more details – contact us**





## APPLICATIONS



Refinery  
Waste  
Stream

Tank Farm Waste  
Water



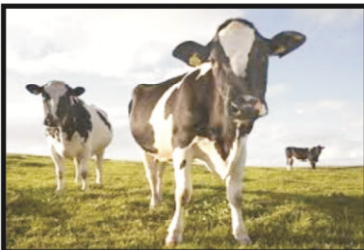
Mining

Effluent  
Pre-Treatment



Cooling Tower  
Side Stream Filtration

Coolant / Cutting oil  
Purification



Dairy Waste Recovery

Oil-Fats Recovery



**Complete Separation Solution**

WyunaSep  
Electric



WyunaSep  
Pneumatic

**“ The Proof of the product  
is in the performance ”**



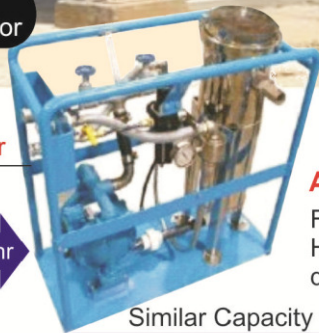


## Why “WyunaSep” is a better technology than conventional systems ???

10 m3/Hr- IOCL Bijwasan site  
–Conventional oily water separator

FuelF- 3 pneumatic – 10m3/hr

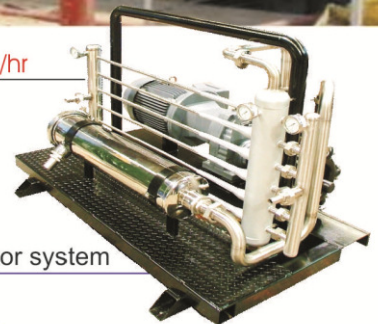
Our Compatible System for 10 m3/hr



FuelF-15 – 15M3/hr

Available module Capacity :

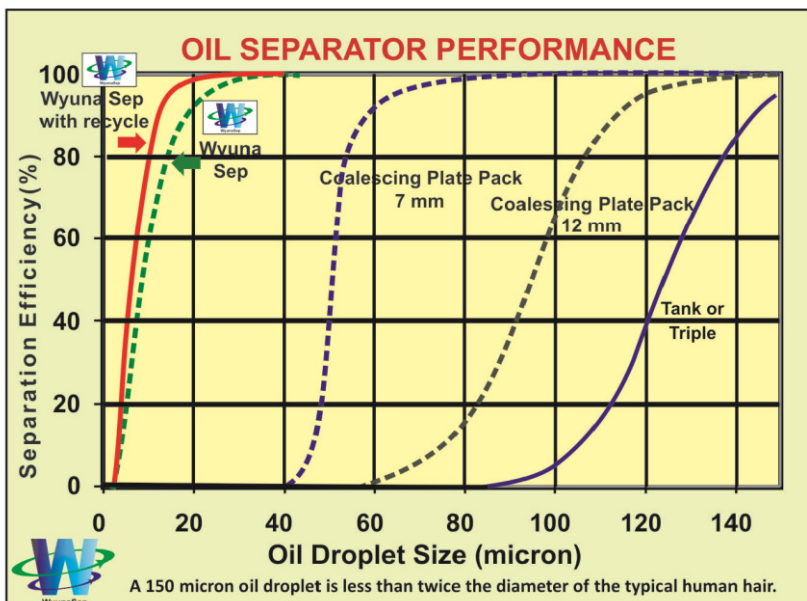
From 2 to 250 m3/Hr,  
Higher capacities can be  
designed on request



Similar Capacity 10m3/Hr Wyuna Oil Water Separator system

### BENEFITS :

- Most efficient and cost effective solution to water treatment problems.
- Clean water with no chemicals – 95% of 20µm oil /TSS droplets removed in single pass.
- Foot Print : Compact, 10% the size and weight of conventional systems. -2 to 24 m3 = 1 to 1.5 m2 area.
- Weather proof MOC, closed loop system.
- Effluent can be recycled for continuous treatment.
- Low maintenance - Hydrocyclone has no moving parts.
- Modular add-on features allows customers to achieve higher production efficiencies -cleaner environmental outcomes while meeting government regulations, compact design for reduced footprint and weight, wear resistant materials of construction for increased reliability and low maintenance.
- Flexible operation for variations in flow-rates.
- Manual or fully automated, fixed or portable systems available -Can be installed vertically or horizontally.
- Very short residence time (in the order of seconds) -Quicker separation of oil & solids reduces many issues like odour, dissolved hydrocarbon process and bacterial / fungi generation etc.
- Highly consistent performance & Proven technology.
- Power supply – only one motor for Pump - Pneumatic version up to 10m3 available.



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