

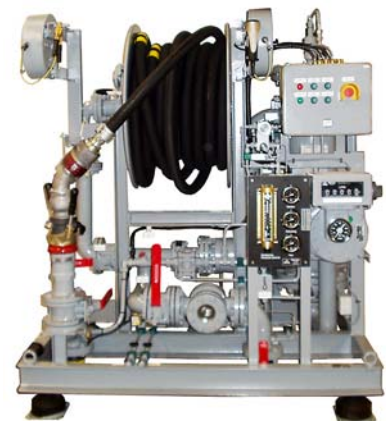
# Refuelling System for Helicopter Carrier



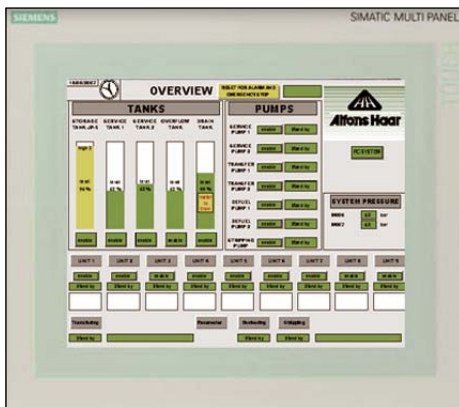
Service- and Transfer Filter Units SFU / TFU



Refuelling Module RM

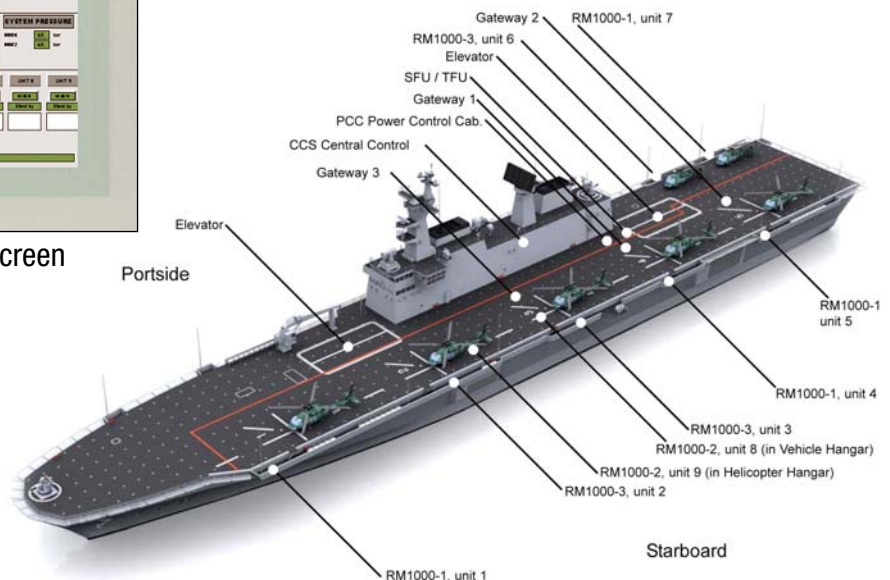


Refuelling Module RM



System Control by Touch Screen

Example:



# Refuelling System for Helicopter Carrier



**The refuelling system comprises pump-filter- and refuelling modules as well as the control system. The system is redundant designed for increasing the reliability. The refuelling system is used for pressure and gravity fuelling of helicopters and vehicles on board of a helicopter carrier with fuel. It also can be used for defuelling, quality assurance of fuel and bunkering.**

The system is to be operated by the Flight Officer (FO), using the touch screen in the central control station, and by using the local operator panels.

The service- and transfer filter modules are tandem-filter aggregates for supplying the service-tanks and the supply-ring-line as well as for monitoring the service-, transfer- and defuelling pumps by flow-sensors.

Each module consists of two filter water separators (FWS) and pneumatic line valves which are controlled by ASi-modules.

The refuelling modules are installed on the catwalk surrounding the flight deck as well as in the helicopter- and vehicle-hangar. Essentially, the modules are consisting of a mechanical meter with pulser, an automatic valve, an inline control, an operator panel, a hose reel with refuelling hose and hand crank and a pressure refuelling coupler HEPCV. Alternatively the gravity-, the defuelling- or the HIFR-unit can be connected to the refuelling hose.

## Technical data:

Refueller media:	JP5 (F-44)
Viscosity:	1,8 to max. 9,5 cSt
Density:	780 to 815 kg/m <sup>3</sup>
Temperature range:	Media: 0°C to +40°C Below-deck / hangar: 0°C to +50°C Flight deck: -30°C to +40°C
Nominal pressure:	approx. 10 bar
Pneumatic supply:	10 bar
Flow rate:	Bunkering: max. 4000 l/min Transferring: max 2200 l/min +5%/-10% Refuelling: max 2200 l/min +5%/-10% Flushing: max 2200 l/min +5%/-10% Defuelling: max 400 l/min +5%/-10%
Power supply:	440 / 240 V; 60 Hz
Painting:	As required
Materials:	Pipes and valves: stainless steel
Climate:	Offshore compatible
Ex-protection area:	None
Tightnesses:	Shock-and vibration reliable according to BS043/043
EMV:	MIL-STD-461

Installation: by customer