

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Ministry of Fisheries, Marine Resources, and Agriculture

Male', Republic of Maldives



**PREVENT
DOMESTIC
VIOLENCE**

Technical description and specification Refrigerated Seawater Systems (RSW)

The supplier is required to supply and install 50 units of Refrigerated Seawater (RSW) systems on board 50 fishing vessels selected by the government of the Maldives. The RSW systems must be capable of chilling 30 tons of tuna to 15 degree Celsius over a period of 4 hours (from pre-chilled water of 0 degree Celsius).

The RSW system shall accompany a suitable diesel generator to run the RSW system and chill 30 tons of tuna.

1. Designed condition and requirements

Detail	Requirement
Max ambient Temperature	+40 °C
Power supply	400V/ 3 phase (50Hz)
Refrigerant	R507 or any other suitable refrigerant approved for import into the Maldives
Cooling system	Seawater cooling consensor
Cooling requirement	Chill 30 tons of tuna
Time requirement	Chill to 15 °C in 4 hours (from pre-chilled water 0°C Chill to 0-3 °C in 8 hours (from pre-chilled water 0°C
Make up water	Seawater 30 °C

Chiller	
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Chiller requirements

Detail	
Chilling unit type	Titanium chiller Shell and tube
Water inlet temperature	30-32 °C
Main parts	Compressor, condenser, evaporator, solenoid valve, expansion valve, thermal relay, circuit breaker, temperature sensor, HL pressure control, filter drier
Cooling system	Seawater cooling condenser

2. Operational requirement:

- All energy used on the RSW system should come from the diesel generator supplied along with the RSW system
- The diesel generator
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The RSW will be comprised with the following:

- Chilled water circulation system
- Pump system to circulate chilled water through the holds of the vessel
- Piping system to circulate chilled water through the fish hold

3. Duration

- The RSW systems should be delivered and installed in fishing vessels identified by the Ministry of Fisheries, Marine Resources and Agriculture over a period of 8 months. The installation process for the first vessel shall commence within 2 months from the date of signing of the contract for the goods and services and the full installation of 50 units shall be completed over a period of 8 months from the date of contract.
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4. Other provisions

- Import duty for following items imported for the RSW systems will be exempted by the ministry.
 - o The equipment and machinery which are included in the RSW systems