



SAMPLE DATASHEET

Ref: VEL-FISH-CS5-2026
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VELORA

Cold Storage + 5 t/day Flake Ice Plant

100 m³ modular cold room at –20 °C with integrated 5 t/day flake ice plant.

COLD ROOM

100 m³ · –20 °C

ICE OUTPUT

5 t/day flake

STANDARD

ISO 22000 · EN 378

Engineering-Driven Supply.

Velora Engineering & Trading PLC · Addis Ababa, Ethiopia · www.veloraet.com

SAMPLE / INDICATIVE DATASHEET — actual specification confirmed at quotation

Cold Storage + 5 t/day Flake Ice Plant

Modular cold room (100 m³, -20 °C) with integrated 5 t/day flake ice plant for fish landing and processing sites.

1. System Summary

Cold Room Volume	100 m ³ (≈ 5 × 5 × 4 m internal)
Storage Temperature	-20 °C (adjustable -25 to +5 °C)
Storage Capacity	≈ 25 t frozen fish (block / bin storage)
Ice Production	5 t/day flake ice (24 hr continuous)
Refrigerant	R-404A (R-449A low-GWP option)
Reference Code	VEL-FISH-CS5-2026

2. Cold Room Construction

Panels	150 mm PIR/PUR sandwich · cam-lock joints
Skin	0.5 mm pre-painted galvanised steel · food-grade liner
Door	Heavy-duty hinged freezer door · 1900 × 900 mm · heated frame
Floor	150 mm insulated floor · anti-slip aluminium tread plate
Lighting	IP65 LED, 200 lux at floor level

3. Refrigeration System

Compressor	Semi-hermetic reciprocating · Bitzer / Bock class
Cooling Capacity	≥ 18 kW @ -25/+35 °C
Condenser	Air-cooled · EC fans · IP54
Evaporator	Ceiling-mounted, electric defrost, axial fans
Controls	PLC + HMI · remote temperature logging · alarm relays

4. Flake Ice Plant

Ice Type	Dry sub-cooled flake ice, ≈ 2 mm thick · -7 °C
Capacity	5,000 kg/24 hr (continuous)
Ice Storage Bin	5 m ³ insulated bin with auto-rake discharge
Water Quality	Potable water input · optional UV/RO pre-treatment
Construction	AISI 304 stainless steel ice generator and bin

5. Utilities

Power Supply	400 V · 3-phase · 50 Hz · ≈ 35 kVA total connected load
Water Consumption	≈ 5 m ³ /day (ice production)

Backup Power	Compatible with on-site Velora-supplied generator set
Footprint (typical)	≈ 60 m ² for room + plant + bin

6. Compliance & Standards

- ISO 22000 — Food safety management.
- Codex Alimentarius — Code of Practice for Fish and Fishery Products.
- EN 378 / ISO 5149 — Refrigeration systems safety and environmental.
- IEC 60204-1 — Electrical equipment of machines safety.

7. Documentation Provided

- Equipment datasheets and certificates of conformity.
- P&ID, electrical schematics and general arrangement drawings.
- Cooling load and ice production calculations.
- Commissioning protocol and O&M manual.

Sample configuration. Final capacity, refrigerant and footprint are confirmed against the project requirement at quotation.