

The Building Blocks to Structured Trade

**Understanding the “Key Elements”
in Structured Trading Systems**

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Structured Trade

Made up of a number of elements

- Storage facilities Warehouse/Silo Operators;
- GRN;
- Quality Control;
- Warehouse Receipts;
- Contracts;
- Dispute resolution;
- Commodity Exchanges (settlement of contracts);
- Insurance;
- Escrow account (against performance);
- Collateral Managers;
- Contract Farming.

Structured Trade

What is missing?

Trade finance!

A Thought?

“I would not say that the future is necessarily less predictable than the past. I think the past was not predictable when it started.”

Donald Rumsfeld

Confused?



Focus On

Proposed Minimum
Requirements for Registered
Storage Facilities for use in
Trading of Staple Foods in the
EAC Region and beyond

Minimum warehouse requirements

- **Warehouse site**
- Warehouse must be easily accessible throughout the year.
- Warehouse must be sited above flood plains and must not be liable to flooding and the area must have good drainage.

Warehouse building

- Has a minimum capacity of 500 metric tonnes.
(Note, this may vary from country to country, but to make warehousing both viable for the owners and at the same time attractive to depositors, it makes sense to have higher volume facilities).
- There must be a quality analysis room on site for grading and moisture testing.
- An Office for administration work must be incorporated.
- Separate storage room for non food items.

Floors

- Must be above ground level with sufficient elevation to allow drainage
- Must be crack-free without loose soil

Walls

- The floor must have a vapor proof barrier in the walls to prevent dampness rising in the walls from the ground.
- Inside surface must be plastered with cement/sand and mortar (essential for cleaning and pest control)
- Must have ventilators
- At least 2 walls must have a door wide enough for receiving and out loading.

– Roof

- Must be designed to shed water quickly without leaking.
- Must keep out pest like rodents, birds, insects, dust and reduce heat
- Roof overhang at eaves level should be sufficient to shed rain-water clear of walls.
- Translucent roof sheets must be put in to Improve lighting in dark areas

Doors

All doors must rodent proof

Must be secure and lockable

Must be large enough to facilitate intake, dispatch and permit effective use for supplementary ventilation

The store must be well ventilated for the reduction of humidity. Large doors can provide sufficient, controllable ventilation in the absence of eaves-level ventilation in stores that are regularly opened daily when full.

- Pest Proof - Complete exclusion of pests is difficult but all possible points must be screened.
- Hygiene - As with any grain warehouse, the interior should be designed and built to allow easy cleaning.

Equipment

- The grading room must have basic grading equipment like moisture meter, sampling probes, grading sieves, grading scales, dividers, test density etc.
- Minimum 500 kg platform scale dial
- 1 fumigation sheet
- 2 Knapsack sprayer
- Bag stitching machine

Equipment continued

- Pest control chemicals
- 20 000 empty bags minimum
- 1000 Stacking pallets
- Warehouse cleaning equipment
- Stacking ladder

Minimum warehouse requirements

Staff and systems

- Trained grain storage warehouse supervisor
- Trained grader
- Approved commodity management system
- Storage manual

Examples of Storage Facilities



Grain Storage Solutions Ltd. (GSS) Lusaka, Zambia

Examples of Storage Facilities



Grain Storage Solutions Ltd. (GSS) Lusaka, Zambia

Examples of Storage



Refurbished WFP Warehouse in Kasese, Uganda

Examples of Storage Facilities Outdoor Storage



Safe and secure open air bag storage, Nyanga Zimbabwe

Silo Storage

Different Silo suppliers have different designs for their structures. However every silo must achieve the main objectives of handling, storing and preserving the quality of grain. These objectives cannot be achieved by the silo structure alone but also through a good management process and the expertise of the personnel running the facility.

Silo Storage

- This is a guide to what is required of a **WRS** silo facility, however each facility must be assessed individually to determine if it achieves the stated storage objectives since there are many different designs.

1. Silo site

- Should be easily accessible
- Should be sited above flood plains and should not be liable to flooding and the area must have good water drainage.
- There must be sufficient space to maneuver delivery or collection vehicles

Silo Storage

2. The silo structure

- Floors must be above ground level with sufficient elevation to allow drainage
- Floors must be crack-free reinforced concrete without loose soil
- The floor must have a vapor proof barrier up to the walls to prevent dampness rising in the walls from the ground

Silo Storage

3. Walls

- If metal it must reflect heat and sunlight to keep the inside cool.
- If concrete the inside and outside surfaces must be plastered with cement
- Must keep out pest like rodents, birds, insects, dust

4. Roof

- Must be designed to shed water quickly without leaking
- Must keep out pest like rodents, birds, insects, dust and heat

Silo Storage

- The ancillary conveyor system must enable grain recycling back into the bin or to another bin for inspection and aeration.
- The facility should allow for pest control through fumigation or other methods of chemical control.
- Quality analysis facilities must be available on site for sampling, moisture testing and determining the quality of grain and this must be manned by a trained grader.

Silo Storage

- Firefighting equipment must be available on sight.
- Weighing equipment must have been assized in the past 12 months by the appropriate legal authority.
- Proper grain accounting system must be in place
- Must have insurance policy

Silo Storage

- Any new facility constructed using approved engineering standards, will generally meet the physical requirements of a storage silo suitable for use in a WRS which should be supplemented by good management systems and trained staff.

General Provisions

- Area around the storage facility should be cleared and free of vegetation;
- Area around the storage facility should facilitate the easy movement of vehicles in and out;
- Where possible, the storage facility should have weighbridges;

Silo Storage

Feed the Future Regional Meeting - Focus on Structured Trade Dar es Salaam 8th and 9th December, 2011



Built in 1895, this grain elevator in Fleming, Saskatchewan is the oldest existing elevator in western Canada

Silo Storage



Silo Storage



Silo Storage

Thank You.