

Quality Assurance for Anthropometric Equipment

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How do we ensure the product quality ?

- **Sample Evaluation**
- **Goods Receipt Inspection**
- **Prequalification of suppliers (Factory Inspection)**
- **Pre-delivery & Post-delivery Inspection**

Bid Sample Evaluation, Four parts to be considered :-

- Conformity to specification
- Quality and Workmanship of product
- Durability and Functionality of product
- Compatibility of products

Sample Evaluation Grading

- ◆ Accept with rating (best, better, good or fair)
- ◆ Accept with condition, where improvement is needed.
- ◆ Reject

Why accept with condition?!?

- ◆ Workmanship is not good ENOUGH
- ◆ Some dimension does not conform to spec
- ◆ Some standard or special requirement has to be confirmed by supplier

Sample Evaluation

- ❖ The accepted bid samples are kept as reference for two years, or until LTA is expired
- ❖ Change of manufacturing site; new sample is required for QIU approval

Goods Receipt Inspection

- Conformity of PO-term
- Conformity to Sample Submitted
- Cleanliness & workmanship of product
- Consistency in workmanship and quality
- Pallet Type & Size
- Packing & Marking

Goods Receipt Inspection

UD code meanings:

- ◆ A1 – Acceptable, premium quality
- ◆ A2 – Acceptable meet std. specification
- ◆ A3 – Acceptable with minor deviation from shipping
- ◆ A4 – Acceptable, cert. missing at goods receipt
- ◆ A5 – Acceptable with minor deviation from product
- ◆ A6 – Acceptable with major deviation from shipping
- ◆ R1 - Rejected

3rd Party Inspection Services

- ◆ Works Inspection
- ◆ Pre-delivery Inspection
- ◆ Supervision of Loading
- ◆ Post Delivery Inspection

Pre/Post-delivery Inspection

- Conformity of goods to PO specification
- Quality & workmanship of the goods
- Shipping marks
- Packing condition
- Special requirement by QA

Supervision of Loading

- Report any damages and/or non-optimum aspects observed.
- Ensure full compliance to Packaging Instructions
- Check the general appearance of the packing and/ or palletised supplies.
- Verify storage conditions
- Ensure that the number of packages and shipping marks comply with the contract requirements.
- Witness handling of all loading and unloading operations
- Check the standard of transport, condition of containers
- Ensure the stowing, fastening and wedging on all transport is adequate to withstand the conditions likely to be encountered during shipment.
- Check all relevant documents
- Stamp and Seal, both consignment and container

◆ Photograph of container as it arrived at consignee's site



ISO 2859-1, Sampling procedures for inspection by attributes, Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection is used as a criterion for inspection.

Observations and quality findings- Examples

- ◆ **Material No.: S0114400**
- ◆ **General Description:** Roller-tape type height measuring instrument, wall mounted, (0-2 m).
 - ◆ The scale is only in cm and not in inches
 - ◆ The quality of the print
 - ◆ The print in the middle of the tape is worn out and therefore difficult to read
 - ◆ For hanging, but there was no screw provided
 - ◆ The wall stop does not fit well on top of the storage case

◆ **Material No.: S0145520**

◆ **General Description:** Beam type scale for infants, 16 kg x 10 g

◆ **Material No.: S0145555**

◆ **General Description:** Spring type scale for infants, 25 kg x 100 g.

- ◆ The design is not good enough. The tray is too big and it covers the reading beam. There is no bottom cover.
- ◆ It is difficult to adjust zero state.
- ◆ The tray is fixed by two screws; they are exposed. It is not practical to use the thin cover sheet on tray. The cover sheet covers nearly the entirely reading beam, even more difficult to read and see the hairline!
- ◆ zero must be adjusted nearly every time before weighing
- ◆ accuracy of 200gm is too much for small weight
- ◆ poor design, miss-matching between dial and body
- ◆ metal body is prone to rust as finish is not good enough

- ◆ **Material No.: U482339**
- ◆ **Short Text: Scales & equipment for growth monitoring**
- ◆ **General Description:** Adult/child portable height-length measuring stadiometer
- ◆ It is not for height-length measuring; it is only for height measuring
- ◆ The connection between base and vertical stalk is not well designed
- ◆ Measuring range does not conform to spec
- ◆ Vertical stalk should be collapsible; so the overall length of unit will be shorter than 165cm
- ◆ Poor workmanship
- ◆ No instruction

◆ **Material No.: S0189000**

◆ **General Description:** One size fits all weighing trousers to be used with infant scale types 0145555, 0557000 and 0557100, set of 5

- ◆ Material is too thin; it is not durable.
- ◆ The size is bigger than our spec, especially leg opening and crotch.
- ◆ The suspension strap and the shoulder strap of bag are too short.

◆ **Material No.: S0557200**

◆ **General Description:** Infant sling for use with 0145555, 0557000 and 0557100

- ◆ Inferior denier than requirement (approx. 70x70 denier)
- ◆ This item is meant for S0145555, Spring type scale for infants, 25 kg x 100 g.
- ◆ The material is apparently not strong enough to carry weight of 25 kg.

◆ **Material No.: S0141020**

◆ **General Description:** Electronic scale for weighing adults and infants, 150 kg x 100 g.

- ◆ The accuracy of ± 100 g is valid for tare weight
- ◆ Horizontal levelling is not strongly insisted
- ◆ Display option in lbs is not strongly insisted
- ◆ User instruction (in clear text) will be provided in actual deliveries
- ◆ Foot print mark on the scale surface is not strongly insisted
- ◆ Supplier has to indicate the missing information regarding :
 - 1.-Type and number of batteries / Power consumption
 - 2.-Battery longevity in number of measurements / Humidity range operation
 - 3.-Temperature range operation / Temperature range storage