Multiple Dimension Measuring Device

An Instrument That Makes Multiple Measurements To Determine the Length, Width and height of a parcel or palletized freight

The instrument began as a measuring device to determine volume of objects for optimizing warehouse logistics.

Over time the instruments capability has increased to dimensioning parcels on belts, tilt tray sorters, cross belt sorters as well as static and dynamic palletized freight and often include weighing devices.

System Configuration

Multiple Dimension Measuring Devices are varied in there use and design with devices being in locations that weights and measures might not visit.



Pocket Size



Handheld



Static Countertop

System Configuration

MDMD are extensively used in parcel sorting here are some examples of dynamic belt systems.



Dynamic Belt



Cross Belt



Tilt Tray

System Configuration

MDMD static and dynamic palletized Freight



Static Palletized Freight



Dynamic Palletized Freight

System Locations

The locations of MDMD are varied and often are in places that are unexpected.



Shipping Kiosks



Parcel Stores



Delivery trucks

System Locations

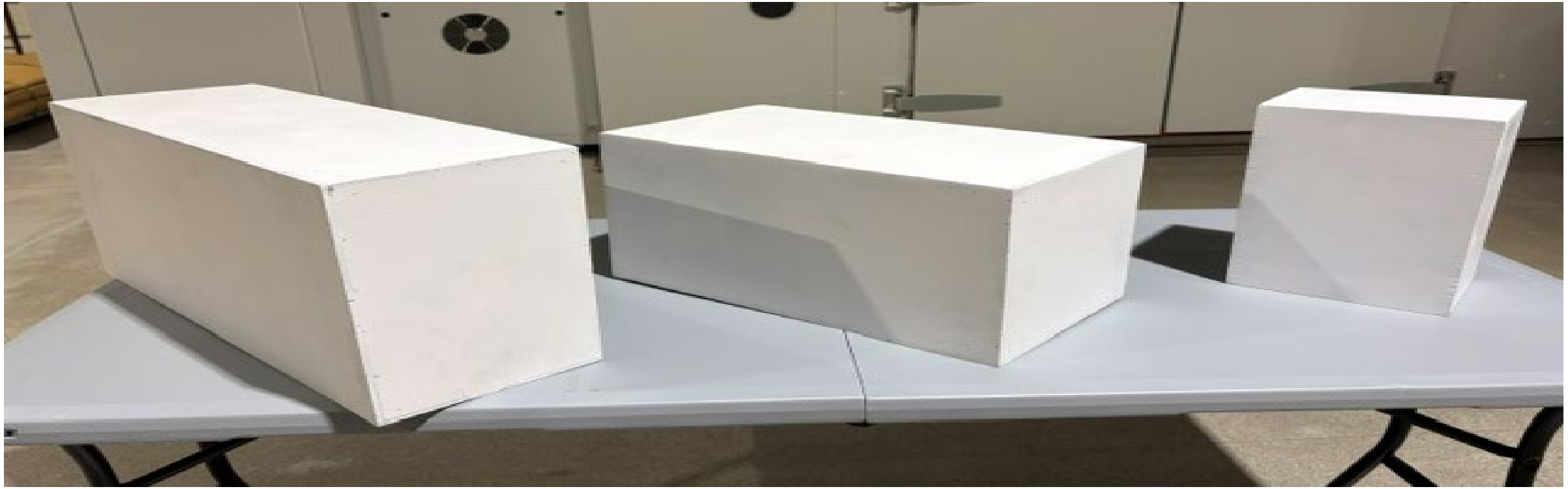


LTL Terminals



Parcel Sorting Facilities

Test Standards for field verification of static or dynamic MDMD



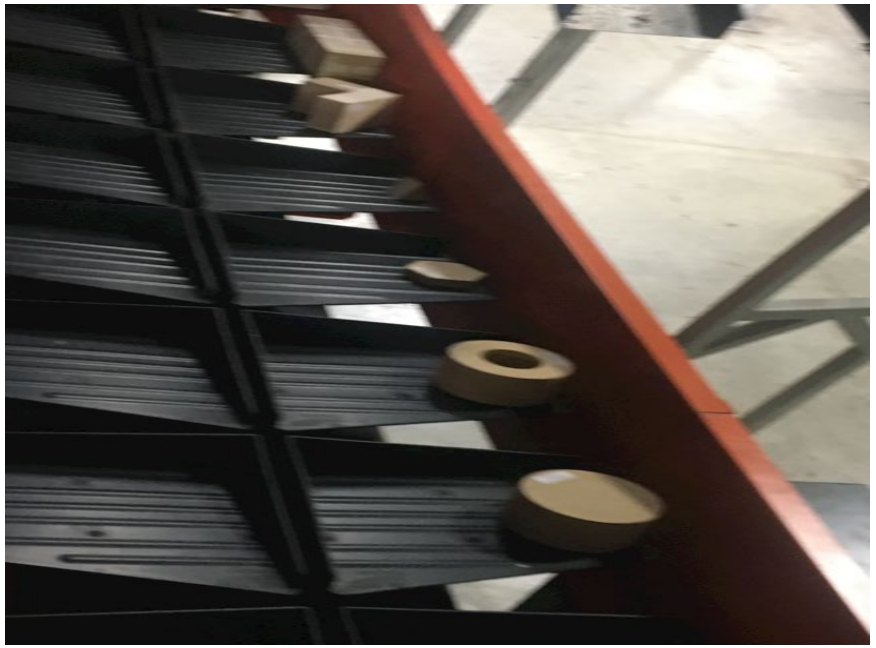
24-inch x 12-inch x 8-inch

18-inch x 10-inch x 10 inch

12-inch x 8-inch x 6-inch

Test Standards for field verification of static or dynamic MDMD

Verification testing is performed by using a know test standard that can satisfy Fundamental considerations of Handbook 44.



Irregular test standards



Palletized Freight Test Standard

Test Standard traceability for field verification of static or dynamic MDMD

One method to have traceability for the MDMD field test standard is using a rigid steel rule or steel tape measure that has traceability.

There are also metrology laboratories than can give you calibration certificates for the test standards.

Tolerances for field verification of static or dynamic MDMD

An MDMD giving length width and height measurements has a 1dtolerance. Acceptance and maintenance tolerance are the same, there are no break points or accuracy classes.

MDMD as a device type either work or they do not. There is not a degradation of the device due to usage as found in scales or meters.

Operation of a static MDMD

Static MDMD are typically activated by the user placing the object to be dimensioned in the dimensioning area and can dimension cuboidal or irregular shapes.

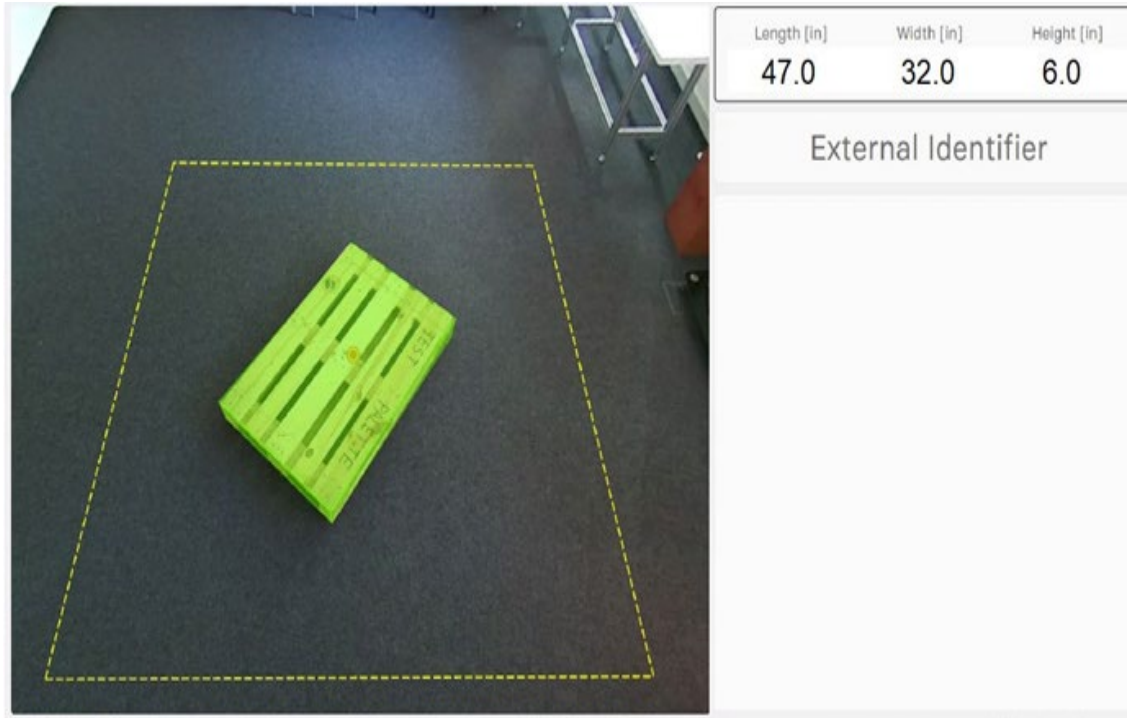
Palletized freight MDMD are typically activated automatically once the fork truck has cleared the dimensioning area but can also be operator activated and can dimension cuboidal or irregular shapes.

Static Field Verification Testing

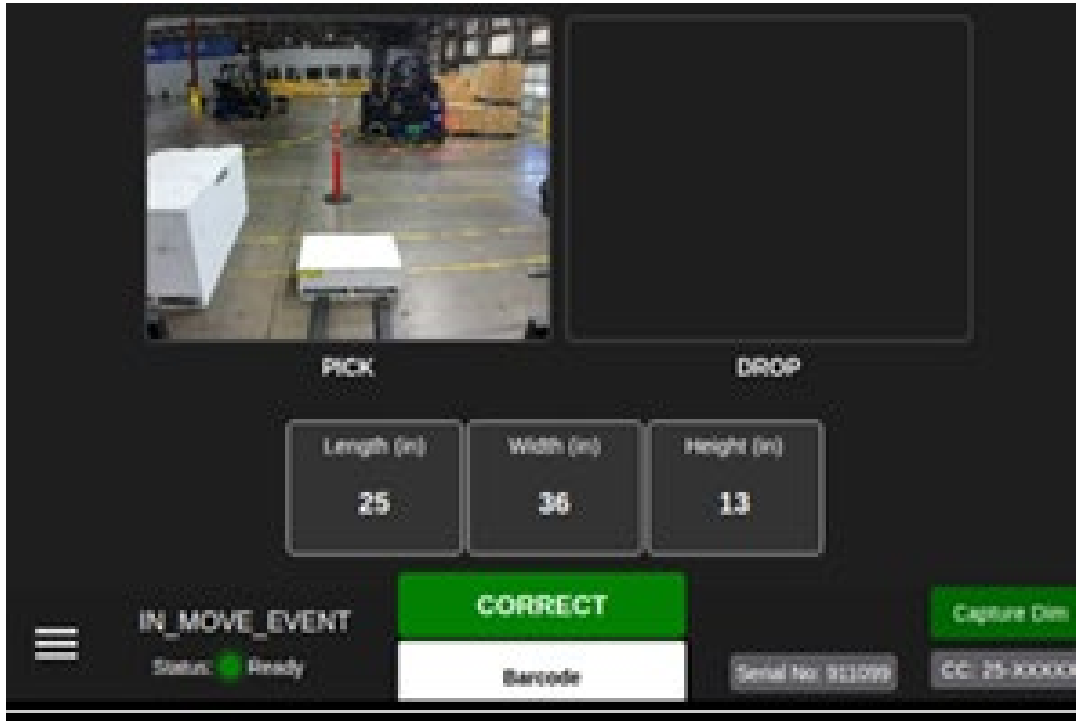
The test standard is placed on the dimensioning platform, belt, lift truck forks or pallet in the designated dimensioning area.

The dimensioner is activated and if the test object is not below minimum measurements or above maximum measurements in length, width or height a measurement result will be given

Static Measurement Result



Countertop parcel measurement



Palletized freight measurement

Operation of a Dynamic MDMD

The systems are used to dimension cuboidal and irregular shaped parcels on belts and palletized freight.

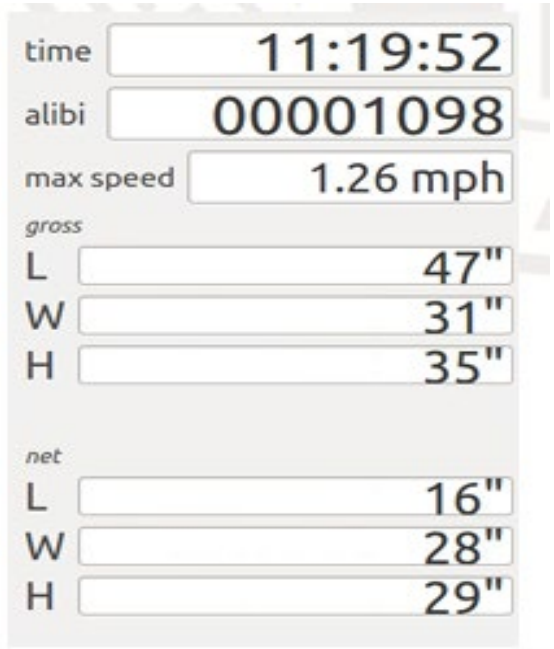
Belt speeds range from 0 fpm to 680 fpm and fork truck speeds range from 0 mph to 10 mph. The systems can have single, bi-directional stop and go and forward and reverse capability.

Dynamic Field Verification Testing

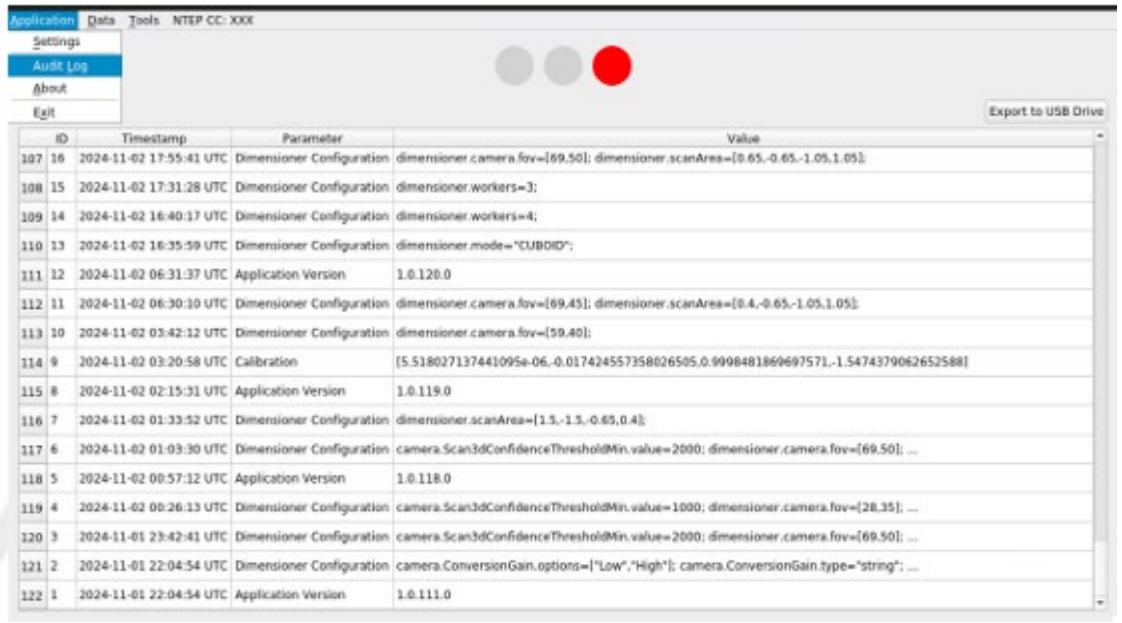
Belt Dimensioning Systems: The field test standard is placed on the belt, cross belt or tilt tray. Multiple test standards can be run at the same time allowing cuboidal and irregular test standards to be verified in one test and activation is usually automatic.

Palletized freight dimensioning systems: The field test standard is placed on a pallet or the forks of a lift truck and is passed thru the dimensioner. The system is usually automatic.

Dynamic Measurement Result



Palletized Freight Measurement display



Belt Conveyer Measurement display

Thank You for attending this presentation. What questions do you have regarding MDMD.

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