ULTIMATE GUIDE TO CHOOSING AND USING YOUR CUBISCAN

Supercharge Your Warehouse Management System With Accurate SKU Dimensional Master Data

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Introduction

As the Product Manager in Australia, New Zealand, and Singapore for CubiScan, I've had many conversations with supply chain managers and WMS vendors about stock keeping units (SKUs).

These conversations about SKUs are not as boring as might seem. Often they include a mild 'eureka' moment in which the supply chain manager realises that someone else really understands their requirements, the drivers behind them and that there is an almost perfect solution just waiting to solve their problem.

And that problem is: how to accurately, efficiently, and with as little human intervention as possible, identify, weigh, and dimension a huge warehouse full of SKUs. And, just as importantly, get this critical data into their WMS or ERP IT system.

More than ever WMS optimisation modules have the ability to drive SKU-level efficiencies in warehousing and distribution centre (DC) operations. Huge benefits and cost savings are possible. There's just one catch: first, you need to weigh and cube all of the SKUs.

Great solutions to do this do exist, so let's run through the various factors to determine if you should get one and if so, which CubiScan model might be right for you?

Rhett Talley,
Cubiscan Product Manager
Australia I New Zealand I Singapore I Malaysia

Behold: The CubiScan 150. Beautiful, isn't it?

But please read on to see if this particular model is right for your needs.

Why Dimension Stock Keeping Units (SKUs)?

Cutting costs and increasing efficiences is worth the investment.

Many supply chain managers already know that they need to dimension the thousands or tens of thousands of SKUs in their warehouse and a decision has been made to do so. If you're in the category of must-have certainty then you may wish to jump straight into *Chapter 5: Which CubiScan Model is Right for You?*

However, many other managers are still in that early stage of awareness and consideration and the rest of this guide may help you in this further investigation process. So, let's think about the whole concept a bit further.

With increasing competition and ever decreasing margins, anything a supply-chain-oriented business can do to cut costs and increase efficiencies is worth investigating. Combined with the right warehouse management systems, including effective optimisation programmes, introducing a regime of cubing and weighing SKUs can revolutionise a supply chain business.

Cubing, or dimensioning - in other words, measuring the length, width and height of a box; or, in the case of an irregular shaped item, say a basketball, determining the smallest cuboidal shape the item would fit into, is now everywhere, worldwide.

Here in the land Down-Under, Australia Post's *recent initiative* to charge shipping customers for dimensional weight based on the greater of the weight or cubic dimensions according to a dimensional weight (dim-weight) formula – and the launch of their super depots in Melbourne and Sydney, backs up the trend to cube everything in sight.

HANDY TIP

Compare the cubic weight to the actual weight of your parcel – always declare whichever is greater, or as per stated in your contract.

From the Australia Post Helpful Guide for Cubing.

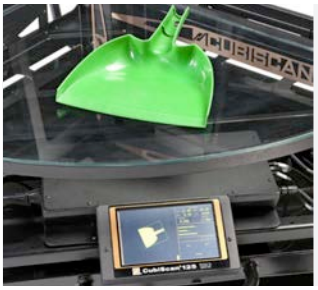
Australia Post is only pursuing the same recent *dim-weight policies as global players like UPS and FedEx* regarding rule changes to account for the greater of the cubic weight or dead weight.

The issue of cubing in general and dimensioning SKUs, in particular, is a global phenomenon and is the subject of conversation in various logistics and supply chain journals around the world. Here you can also read *Three Reasons Why Your Cubing and Weighing Equipment is More Important Than Ever*.

Cubing and Weighing SKUs in Warehouse and DC operations can deliver tremendous benefits.

If you think about it, almost every customer order begins its life as a SKU, waiting patiently to be picked. Whether the order is made up of just one lonely SKU or a packed or boxed bundle of a dozen mixed SKUs, the order is comprised of SKUs. And shipping the order, now converted into an individual item of freight, means that somewhere someone is going to cube it and charge us accordingly – or back-charge us accordingly as the case may be.

Because of this, we know we want to ship an order in the smallest package or carton the order will fit into. In other words, we don't want to pay to ship air, right? Space is money. So, just for this one reason alone, the importance of having accurate SKU dimensional data available for the purposes of optimising cartonisation outcomes, we know we need the cubic dimensions – and, while we're at it, the weight of each and every SKU in the DC.



Cube a dustpan?

Yes, you can!

A prerequisite, however, for implementing cartonisation or any other type of optimisation software, whether on its own or as part of the wider warehouse management system (WMS) initiative, is the creation of an accurate database of the weight and cubic dimensions of every SKU in the warehouse. It might sound like an impossible undertaking, especially if you have tens or hundreds of thousands of SKUs, but it can be much easier than you think.

And just to be clear, the dimensioning and weighing of SKUs and getting this data quickly into the WMS includes those SKUs already in the DC and those SKUs that are incoming on a daily or periodic basis.

Not just shipping optimisation: there's more, much more.

There are actually many more reasons why you should cube and weigh your SKUs. In the next chapter, we'll review the top ten reasons.

Ten Ways to Supercharge Your WMS with Accurate SKU Dimensional Data

1 Facility design

When a company starts planning for a new Distribution Centre, one of the first things the DC designer will need is the detail on the products that will be stored there: What are their dimensions? The smallest? The biggest? Their shapes? How much do they weigh? Will they be stored individually or on pallets? Seems obvious, right?

The answers will dictate everything from the design of the facility's picking and packing areas to the type(s) of storage systems that will be used.

2 Storage

Good dimensional data can help DCs maximise their storage space. Once stock-keeping units (SKUs) have been weighed and measured, their profiles can be uploaded to a warehouse management system (WMS) for use in determining the optimal storage location for each item — where it should go and whether it should be stored in flow racks, shelving, or other storage mediums.

Not only does this help optimize storage space, but it also ensures that the SKUs will actually fit in their assigned spaces.

3 Slotting

Dimensional data can help streamline the slotting process. Once the SKUs' dimensions have been captured, they're imported into special slotting software (say, dynamic slotting), which uses that information—in conjunction with data on order characteristics like pick frequency—to determine how to arrange products within the pick zones to optimise order fulfillment.

4 Picking

When workers pick directly into shipping cartons, dimensional data can be key to preventing carton selection errors. Often, pickers are left to make their best guesses as to what size carton to use, but that can prove costly and time-consuming. If the box is too small, the packer has to remove the items and repack them, slowing throughput. Dimensional data can help ensure the right size carton is used.

In addition, the data can be helpful in determining where individual items should go in a carton and the order in which they should be picked to ensure everything fits neatly inside the box without crushing the items on the bottom. Also, accurate weight information on SKUs can promote good ergonomic practices by ensuring that order cartons weigh no more than, say, 20kg.

Ten Ways to Supercharge Your WMS with Accurate SKU Dimensional Data *Continued*

5 Verification

Once a SKU's weight has been captured and uploaded to the WMS, the information can be used to verify picking.

As each order is received, the WMS calculates how much it should weigh, based on the weight of the carton itself plus each of the items it contains. After the order has been assembled, the carton is 'check-weighed'—perhaps via an in-line scale on a conveyor system. If the actual weight differs from the expected weight, the carton can be set aside for further examination. Automated verification can cut down on the need for manual order inspections, resulting in substantial savings in time and labour.

6 Packing & Carton Optimisation

Dimensional data helps DCs optimise their packaging. Shipping items in oversized cartons stuffed with filler can lead to big waste and inefficiency. Some companies are shipping cartons that are 40 to 60 percent too large and so are paying to ship air. Dimensional data can also help with packaging optimisation in operations that use standard-sized cartons. For example, the data can be used in computer-aided carton selection as well as for decisions about the optimal amount of void fill and other packing materials to use. SKU level designations like "nestable" "semi-nestable" "stackable" "foldable" can assist in optimising carton selection.

7 Pallet & Load Building

Dimensional data can be very helpful when it comes to building stable pallets or loading shipping containers, trailers or other conveyances. Once the data has been entered into the WMS, the system can use it to determine how items should be stacked on the pallet (typically with larger and heavier items on the bottom) to ensure load stability.

8 Goods to Person / Robot Automation

These days there is more to an SKU than just length, width, height, and weight. Increasingly intelligent SKU-level automation like goods to person (GTA) or goods to robot (GTR) are redefining SKU metrics by now also including SKY physical characteristics. This is particularly important when the smallest sellable item is often irregular shaped inner or each SKU and must be slotted, picked, conveyed, and packed all by automation or even by robot grippers at some point. Here CubeMaster Software enables more than 20 unique user-defined fields to become part of the information in an SKU export file from the CubiScan.

9 Shipping

The advent of dim-weight billing has changed the economics of parcel shipping. Good dimensional data will help shippers avoid costly mistakes. Under the carriers' dim-weight rules, a shipper must define the package's actual weight and its L/W/H dimensions or its cubic volume.

If the dimensional weight exceeds the actual weight, that becomes the basis for the freight charge. By gathering precise dimensional data on their packages, shippers can ensure they're rating their parcels correctly and avoid chargebacks by carriers.

But it's not just about avoiding chargebacks. Good dimensional data also allows shippers to estimate carrier charges for rate shopping purposes.

10 Customer Service

Good service includes providing customers with good data. By providing accurate dimensional data on your products, you give customers the opportunity to use that information to benefit their own operations. Plus, if you charge for shipping, you can boost your credibility with customers by including the relevant dimensional and weight data on invoices. That way, they can be assured

WHAT NEXT?

If the above represents the type of thinking taking place in your discussions with fellow stakeholders then you are on the right track.

The next consideration is whether to measure and weigh SKUs by hand or to introduce automation for the task. This depends on quantity.

Which CubiScan Model is Right for You?

Choosing the best model for your unique requirements

HOW MANY INDIVIDUAL SKUS HAVE YOU GOT?

This is one of the most critical questions to answer. If you've got over, say, ten thousand SKUs and they are spread through the warehouse. If you are continually receiving more into the DC then you will definitely want to do this automatically. And, you will likely want to permanently own the solution that you decide is right for you. This will ensure you have a consistent, operator-independent methodology in place for this critical task.

We mention the concept of ownership in contrast to the capability of hiring a solution, in some cases this is also a good option.

HERE'S THE BOTTOM LINE

You will definitely want to invest in a CubiScan model of some description if;

- You have over 5-10,000 SKUs and you continue to receive more SKUs every month or year;
- And, you have a modern WMS that can make smart decisions with SKU dimensional data.

CubiScan 25

IDEAL IF YOU HAVE >5,000 MOSTLY SMALL IRREGULAR SHAPED SKUS

Captures dimensions and weight of tiny and smaller irregular shapes. From 2 x 2 x 2mm LWH up to 450 x 350 x 305mm LWH and weight from 2 grams up to 6kgs. Ideal for cosmetics, pharmaceuticals, small parts and those warehouses or even manufacturers that have mostly small irregular shaped items that fall within the measurement zones.

CubiScan 100

IDEAL IF YOU HAVE > 5-10,000 BOX SHAPED SKUS

The all-round solution for cartons. Captures dimensions and weight of small to large cartons, boxes, and cuboidal shapes only. From 5 x 5 x 5cm LWH up to 60 x 60 x 90cm LWH and weight from 20 grams up to 60kgs. Again, cuboidal shapes only, not suited to irregular shapes. Ideal for warehouses whose SKUs to measure are mostly cartons and boxes.

CubiScan 325

THE TOP OF THE RANGE FOR IRREGULAR SHAPES IDEAL FOR E-COMMERCE, AUTO, MEDICAL, PHARMA, FMCG, MINING, ELECTRICAL, AND ALL IRREGULAR & BOX SHAPED SKUS.

The universal measure-almost-anything solution. Captures dimensions and weight of tiny to medium-large size cartons, boxes and irregular shapes. Measure all shapes: from 2 x 2 x 2mm LWH up to 900 x 600 x 600mm LWH in 1-gram increments! And weight from 2 grams up to 25 grams in 2-gram increments! The number one selling CubiScan model for Warehouse SKUs.

CubiScan TROLLEY

TURNS YOUR CUBISCAN INTO THE ULTIMATE MOBILE DIMENSIONING MACHINE

The CubiScan 25, 100, and 325 units are typically supplied fitted onto a heavy-duty, purpose-built trolley suited to the size of the particular model. Supplied with a rechargeable battery and PowerStation enabling full system use over a normal eight-hour shift. This means you take the mobile CubiScan to the SKUs, wherever they are in the DC, rather than trying to bring the SKUs to the CubiScan.

CubiScan 150

IDEAL IF YOU WANT COMBINED FREIGHT DISPATCH AND MEASUREMENT OF CARTON SKUS

Ideally suited to capturing the cubic dimensions and weight of packed orders at the freight dispatch section of the warehouse. It can be supplied with a variety of host IT interface options including a PC running freight integration software that enables a robust interface to your host shipping application. The CubiScan 150 is also available in a legal-for-trade version.

The CubiScan 150 captures dimensions and weight of small to large cartons, boxes, and cuboidal shapes only. From 8x6x6 cm LWH up to 120x100x100cm LWH and weight from 40 grams up to 70kgs. Again, cuboidal shapes only, not suited to irregular shapes.

Although it is mobile it is not as easy to move around as the other CubiScan Trolley models above.

CubiScan 1200 AKL

IDEAL IF YOU WANT COMBINED DIMENSIONING OF OUTGOING PALLETISED FREIGHT ORDERS AND HAVE >5,000 LARGE SKUS.

The ideal solution to cube and weigh large and extra-large boxed or irregular shaped SKUs. Engine blocks, auto parts, mufflers, garden tools, hardware, you name it. It can also be used to cube and weigh outgoing packed freight orders at dispatch to ensure the warehouse records the legal for trade dimensions of the freight item for easy reconciliation of invoices and freight charges received from the freight carriers. SCACO also supply freight integration software that enables a robust interface to your host shipping application.

The CubiScan 1200 AKL captures dimensions of any shaped item up to 3.5m l x 2.5m W x 2.5m H. Almost any weight range is possible with a variety of flexible weighing options to suit particular user needs.

All Data captured is easily formatted into a variety of file types for easy export to your host IT applications – including via SCACO's CubeMaster WMS integration software.

CubiScan 25
A CLOSER LOOK

PHYSICAL SPECIFICATIONS

Length 813mm **Width** 712mm
Height 297mm **Weight** 28kg

PERFORMANCE SPECIFICATIONS

Measurement Time < 5 Seconds

Weight Increment 0.002kg

Measurement Range
Length 2mm to 450mm
Width 2mm to 350mm
Height 2mm to 305mm

Weight Capacity 0.002 (2 grams) to 6kg

TECHNICAL SPECIFICATIONS

Data Output
Serial (1), Ethernet (1), USB (1)

Humidity 0 to 90% non-condensing

Measure Sensor Infrared light beam

Operating Temperature
32° to 104°F (0° to 40°C)

Power Requirements
100 – 240VAC, 50 – 60Hz

Weight Sensor Four load cells

The CubiScan 25 is an innovative dimensioning and weighing system designed to specifically measure and weigh smaller, irregular-shaped items for distribution, packaging and warehousing applications.

Designed to maximize storage space and enhance cartonisation methods, the CubiScan 25 can reduce the use of packaging materials and potentially decrease upcoming dimensional based shipping costs. It can also benefit the environment by reducing packaging waste and minimizing transportation fuel costs and carbon emissions.

THE CUBISCAN 25 IS IDEALLY SUITED TO

- Pharmaceuticals
- Cosmetics
- Smaller Parts
- Hardware Items

CubiScan 100

A CLOSER LOOK

PHYSICAL SPECIFICATIONS

Length 813mm **Width** 813mm
Height 1,220mm **Weight** 32kg

PERFORMANCE SPECIFICATIONS

Measurement Time 1 - 2 Seconds

Dimensional Increment
2mm/for LFT 5mm for LWH

Weight Increment 0.02kg (20grams)

Measurement Range
Length 13mm to 610mm
Width 13mm to 610mm
Height 13mm to 914mm

Weight Capacity 60g to 50kg

TECHNICAL SPECIFICATIONS

Data Output EIA RS-232-C, bi-directional

Humidity 90%

Measure Sensor Ultrasonic

Operating Temperature -10°C

Power Requirements
95 – 250VAC, 47 – 63Hz

Weight Sensor Load cell

The CubiScan 100 gives you total control in any distribution centre or warehouse application. Imagine the benefits of collecting your package information (weight and size) quickly and consistently–there's no need for second guessing, no room for human error, no reason to re-enter data, and no data corruption. And, the information is easily transferred to your data processing system where it can be used immediately.

An integrated digital display and control panel allow finger-tip control. The innovative software gives you numerical dimensions and weight and an instantaneous, three-dimensional graphical representation of the parcel being measured. So check into the CubiScan 100. You'll discover what hundreds of users already know. Time is money. And so is real estate. Make the best use of both.

Tested and certified as a type-approved, legal-for-trade cubing and weighing device, the CubiScan 100 (LFT version) is a valuable tool in freight manifesting. Quicker and more reliable than manual measurements, the CubiScan 100 helps shippers get it right the first time by applying the correct dimensional-based shipping charges and eliminating those costly charge-backs. For carriers, you can easily and reliably audit the freight you receive from customers.

CubiScan 325

A CLOSER LOOK

The CubiScan 325 is a static cubing system that uses a proprietary infra-red cubing tunnel design patented by CubiScan to measure and weigh irregular-shaped parts and components as well as boxed items. Now even the tiniest SKUs up to larger cartons and irregular shapes can all be measured on single CubiScan device.

It has an integrated control panel/display and outputs to a personal computer. Each unit has one active serial communication port, one Ethernet port, and one USB port. A heavy-duty mobile trolley and useful accessories such as a portable power supply, handheld barcode scanner and label printers are available to create a completely mobile cubing, weighing and identification workstation.

The CubiScan 325 combines powerful sensing technologies to create a flexible and economical solution for today's most demanding cubing and weighing applications.

PHYSICAL SPECIFICATIONS

Length 1,250mm **Width** 970mm
Height 970mm **Weight** 78.5kg

PERFORMANCE SPECIFICATIONS

Measurement Time 3 - 7 Seconds

Dimensional Increment
10mm for all shaped items

Weight Increment 0.002kg

Measurement Range (Boxed & Irregular)
Length 20mm to 900mm
Width 20mm to 600mm
Height 20mm to 600mm

Weight Capacity 0.02kg to 25kg

TECHNICAL SPECIFICATIONS

Data Output
Serial (1), Ethernet (1), USB (1)

Display
TFT LCD touchscreen

Humidity 0% to 90%

Measure Sensor
Infrared light beam and ultrasonic

Operating Temperature 0°C to 40°C

Power Requirements
95 – 250VAC, 50 – 60Hz

Weight Sensor Three load cells

THE CUBISCAN 325 IS IDEALLY SUITED TO

- Apparel
- Medical
- Pharmaceuticals
- Hardware
- Consumer Goods

PHYSICAL SPECIFICATIONS

Length 1,620mm **Width** 1,070mm
Height 2,210mm **Weight** 195kg

PERFORMANCE SPECIFICATIONS

Measurement Time 1 - 2 Seconds

Dimensional Increment (for LFT version)
LWH 0.5cm

Weight Increment (for LFT version)
0.02kg (20grams)

Measurement Range (for LFT version)
Length 8cm to 120cm
Width 6cm to 100cm
Height 6cm to 100cm

Weight Capacity 0.02kg to 70kg

TECHNICAL SPECIFICATIONS

Data Output ASCII

Humidity 90%

Measure Sensor Ultrasound (50Khz)

Operating Temperature -10°C to 40°C

Power Requirements
100-240 VAC, 47 – 63 Hz, single phase

Weight Sensor Resistive load cell

CubiScan 150

A CLOSER LOOK

The CubiScan 150 is robust, with a maximum measurement range of 100 x 100 x 120 cm and a net weight capacity of 70 Kg. Yet it is precise, with a measurement resolution of 0.2 cm and weight resolution of 20 g.

The CubiScan 150 is mounted on locking casters, so it can be operated in a fixed position or quickly moved and redeployed when necessary. Each unit has a USB port, two active serial communication ports, one serial printer port, and an ethernet port allowing for network connection and data transfer. With an optional PC-based interface, the CubiScan 150 is capable of buffering thousands of data records, can interface to barcode scanning equipment, label printing devices, and can communicate directly (in batch or real-time mode) with your manifesting or warehouse management system.

CubiScan 1200 AKL

A CLOSER LOOK

The CubiScan 1200 AKL is ideal for use as a large static CubiScan device that can determine the weight and cubic dimensions of large SKUs of almost any shape. In other words, the same concept of use as with the smaller mobile CubiScan units.

It can also be used to cube and weigh outgoing packed orders of palletised or larger freight items. In fact, both dual uses are possible with the one device!

The CubiScan 1200-AKL is a large-scale static dimension scanning device that can work in conjunction with a heavy-capacity floor scale (or in a stand-alone position when weight is not required). Its overhead-mounted sensor configuration provides a comprehensive view of the freight measurement area while allowing access from any direction. In certain cases (depending on location and facility characteristics) it can be ceiling-mounted, providing unobstructed access for the user and protection against equipment damage. The powerful and accurate sensors measure freight in any orientation and of virtually any shape, colour, or package material.

The CubiScan 1200-AKL utilises advanced Class 1 infrared laser sensing technology that is safe for operators and freight. Two laser scanners are fixed to parallel guides that pass over the freight (normally taking five seconds). The system scans a three-dimensional measurement area without special illumination or contact. In its standard configuration, it is capable of measuring from 3.5 x 2.5 x 2.5 m LWH. Measurements resolution is 2 cm in length and width and 1 cm in height.

With a panel-mounted PC controller, touchscreen monitor, and integrated data collection software, the CubiScan 1200-AKL can process multi-piece shipments (having parcels of the same or random sizes), initiate parcel tracking tasks, and prepare the collected dimensional and weight data to be transferred to the customer's data processing system. An accessory high-resolution digital camera and a special software module can be integrated to allow for easy file transfer to your host IT application. Finally, the system can be programmed to work with a wide variety of floor-scale and digital display units. Barcode label scanning and printing devices can also be used with the 1200-AKL to create a turnkey cubing, weighing, and tracking workstation.

The CubiScan 1200-AKL is a type-approved (Legal-for-Trade) dimensioning device per NTEP (US), OIML/MID (EU) and NMI (AU).

CubiScan 1200 AKL

Continued

PHYSICAL SPECIFICATIONS

Length 1,067mm **Width** 1,118mm
Height 1,321mm **Weight** 59kg

PERFORMANCE SPECIFICATIONS

Measurement Time 5 Seconds

Dimensional Increment
Length 2cm
Width 2cm
Height 1cm

Weight Increment TBA

Measurement Range
Length up to 3,500mm
Width up to 2,500mm
Height up to 2,500mm

Weight Capacity Subject to chosen solution *(refer to image to the right)*

TECHNICAL SPECIFICATIONS

Data Output ASCII

User Interfaces
Integrated display & keypad/
SCACO Software

Humidity 0% - 85% (non-condensing)

Measure Sensor
Two infrared laser scanners, 905 nm, Class 1, according to DIN EN 60825-1

Operating Temperature 0°C to 40°C

Power Requirements
95 – 240 VAC 47 – 96 Hz, single phase

PLATFORM SCALE

Typically SCACO supply a 3,000kg, 1,500mm x 1,500mm heavy duty platform scale.

Larger scales with greater capacities are available.

CubeMaster Software, Automation and WMS Interface

With the CubiScans, an integrated system PC runs a configurable software program called CubeMaster and all of the relevant SKU data is imported into the SQL database. A flat screen monitor on a pivoting arm and a keypad are included. Loading up to 500,000+ SKUs is not uncommon so the system needs to be ergonomic and easy for an operator to use.

Up to 20 unique user fields can be defined and configured so it is easy to validate and record very detailed SKU data. In addition to the obvious fields of LWH and weight, the system records data such as barcode, part number, description, and so on. For example, you can define various SKU units of measure: each, inner, outer, carton, and so on; and you can validate use-by dates, Dangerous Goods class, or just about any SKU data field you wish to validate. There are search functions and override features. You can add a SKU on the fly. Almost everything you can think of is possible.

Once you've finished using the CubiScan for the day, simply plug it in to be recharged and plug a network cable into the port of the PC. Once the CubiScan is on your network a variety of WMS interface options are available. Other than supervising the measurement of the SKU and validating the integrity of the data the operator really doesn't need to do anything more.

CubeMaster Flow

CUBISCAN

Gets weight & volumetric data

Sends data over serial coms

CUBEMASTER

Displays item information and data from CubiScan

Saves measured data to database

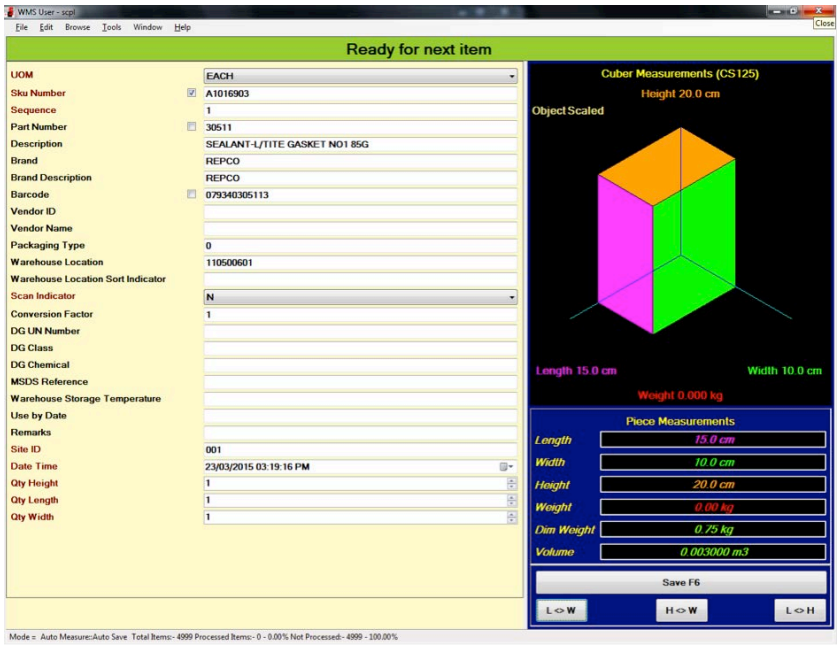
Can import or export data

DATABASE

Contains all product information

Contains configuration for Cubemaster

Handles important procedures for Cubemaster



CubeMaster Screen Shot

Black User Fields are User-Specific and Configurable

PROPOSED INTEGRATED PC DESCRIPTION

Intermediate PC System required to run CubeMaster Software

Specification

Small form factor I7 – either Dell or HP

Windows 7 (Required)

64-bit 16G RAM

2 serial ports

Price includes

Flat screen monitor, mouse, keypad and set-up and pre-delivery testing.

PC System configured and tested for use and compatibility with the Mobile Trolley and CubeMaster software.

The Mobile Trolley and Rechargeable Power Station

1

1 CubiScan 125 heavy duty trolley

2 CubiScan 100 mobile trolley

3 CubiScan 100 mobile trolley

4 Power supply station door closed and locked. Note also the trolley locking foot pedal.

5 Power supply, circuit breakers, charger, and inverter housed neatly within the vented lockable enclosure. On the opposite side of the trolley, also within a vented enclosure is the 200 amp hour gel battery.


2


3


4


5

Operating the CubiScan

The operation of the CubiScan models 25, 100, 325 and 150 is actually very simple.

However, each model does come with a 100-page technical operation manual in the form of a CD or USB stick from the CubiScan manufacturer. Please note that in all CubiScan Trolley installations a friendly SCACO technician will come to site, unpack the system, assemble it, test it and then demonstrate the use of the CubiScan itself and the use of the CubeMaster software programme.

Our technician will also run through some helpful maintenance and trouble-shooting procedures.

Starting the day

First, remove the cover from the CubiScan that was placed on it from the previous night's conclusion.

Then turn on the main power switch at the side panel. This powers up the CubiScan device, the PC running CubeMaster, the monitor, the barcode scanner, and so on.

Next, turn on the CubiScan itself by switching the 'on' button. Then press the 'zero' button to zero the scale. You are almost ready.

Next, switch on the PC itself just like you might your own work or home PC. Next, enter the username and password. We always program wms in lower case for both the username and password. Then mouse click on the CubeMaster icon on the desktop display. This will open up the CubeMaster program and voila! You are ready to start dimensioning SKUs. It's that easy.

Operating the CubiScan *Continued*

Now grab a SKU

Next, simply grab a SKU (remember that in most cases all the SKU information has already been imported into the database) and scan the barcode or enter the part number as may apply. This will retrieve the SKU data fields to the operator screen (monitor). Now place the SKU on the CubiScan in the correct position. The CubiScan will capture the weight and the LWH and this will display on the LED display. The operator should take the opportunity to verify that the item measured is, in fact, the SKU as per the record and that she is happy with the measurement result. If so, press F-4 on the keypad to save. And you are done. Grab another SKU repeat process and so on. That's it!

Once you are finished for the day, simply return the CubiScan Trolley back to base, plug it into a normal power point to recharge for the night.

You should also simply reverse the start-up process by switching 'off' and powering down the system like you would your own PC. And don't forget to put the nifty protective cover back on!

Some things to keep in mind

The time it takes for, say, the CubiScan 100 or 125 to weigh and cube boxes or irregular shapes will mostly be around the same time: just a few seconds to get the actual measurement and have it display on the CubiScan or operator screen. However, remember there is a material flow sequence to each SKU measurement that is entirely the responsibility of the operations staff.

Have dozens of SKUs been grabbed all at once and someone else will put them away later? Or does the CubiScan operator need to move the trolley bit by bit through the warehouse, grab a SKU one at a time and replace it afterward, and so on?

Also, if a SKU does not have a barcode the operator will need to input the unique identifier (i.e. the part number) via the keypad into the system. Then the system will locate and bring up the SKU data.

How fast or slow does the operator work? How awkward is the SKU – or how heavy is the box? And so on. It always pays to be conservative when trying to calculate the time it will take. I would try to underpromise and over deliver if time is the critical element.

At CubiScan, we think that time saved and data integrity are both equally important. And, having a consistent operator-independent measurement method, helps to protect the integrity of your data and your brand.

At best it might take 10-15 seconds per sequence. In the real world with real people, it might more likely average out to 1-2 minutes per sequence because anything can happen with operators. These overall times hold true for either CubiScan Trolley version and for any shape of SKU – provided it is within the measurement capability of the particular unit.

But don't forget

Overall you are saving huge amounts of time via the automation of getting both the precise measurement data automatically, getting all of this data into digital form and automatically exported without any other operator intervention. Needless to say, doing this manually creates the opportunity for a lot of human error.

The time savings and accuracy results are phenomenal and in almost every case we find that customers tell us the CubiScan units on a mobile trolley are the perfect solution to supercharge their warehouse with accurate SKU dimensional data!

DELIVERING SUPERIOR VALUE VIA OUR PROBLEM-SOLVING EXPERTISE AND INNOVATIVE TECHNOLOGIES

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