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# Inventory Management for Modern Manufacturers

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# A note from the authors

We've built the first [Smart Manufacturing Software](#) as a result of our own frustration as small manufacturers, trying to find a suitable tool for production and inventory management. All the online tools available on the market were either too complicated to use, ridiculously expensive, or had a clunky interface. We knew there had to be a better way and that's how Katana was born.

We've now compressed our 15+ years of experience of inventory management to reveal the foundation principles every modern manufacturer should know. The e-book is written for manufacturers who want to expand their knowledge and improve the way they run their business regardless of whether they are proven veterans or complete newbies.

Industry expert insights to follow!



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# What is Inventory Management?

Inventory management is the process of keeping track of all the goods your company has in stock.

Inventory management is the process of efficiently controlling the flow of stock your company has, whilst trying to keep costs as low possible. It's hugely important to do it well, as your profit margins rely on timely order fulfillment.

**As a modern manufacturer this means solutions which:**

- Harmonize your raw materials and finished products inventory;
- Help you move on from the burdened world of Excel; and
- Seamlessly incorporate inventory management into your [order fulfillment cycle](#). Which is why we've put together the low-down on everything you need to know about inventory management for small businesses - top to bottom.



# Defining Inventory

There are many definitions of inventory out there. Some offer an interpretation that refers to inventory as the sum of all items used in your business.

This includes anything that gets used in your manufacturing whether that be directly or indirectly.

We believe it's more helpful to think of inventory as the items used in your business that are intended for sale.

That means looking at all the bits that go into getting your products made.



**Pro tip:** “Inventory” and “stock” are interchangeable terms, so don't get confused between the two. What you choose to use is totally up to you!



# Forms of Inventory

You could break down the forms of inventory to the following:

## **Consumables**

Other items you need for the sake of your business, such as safety equipment or office equipment.

## **Raw materials and components**

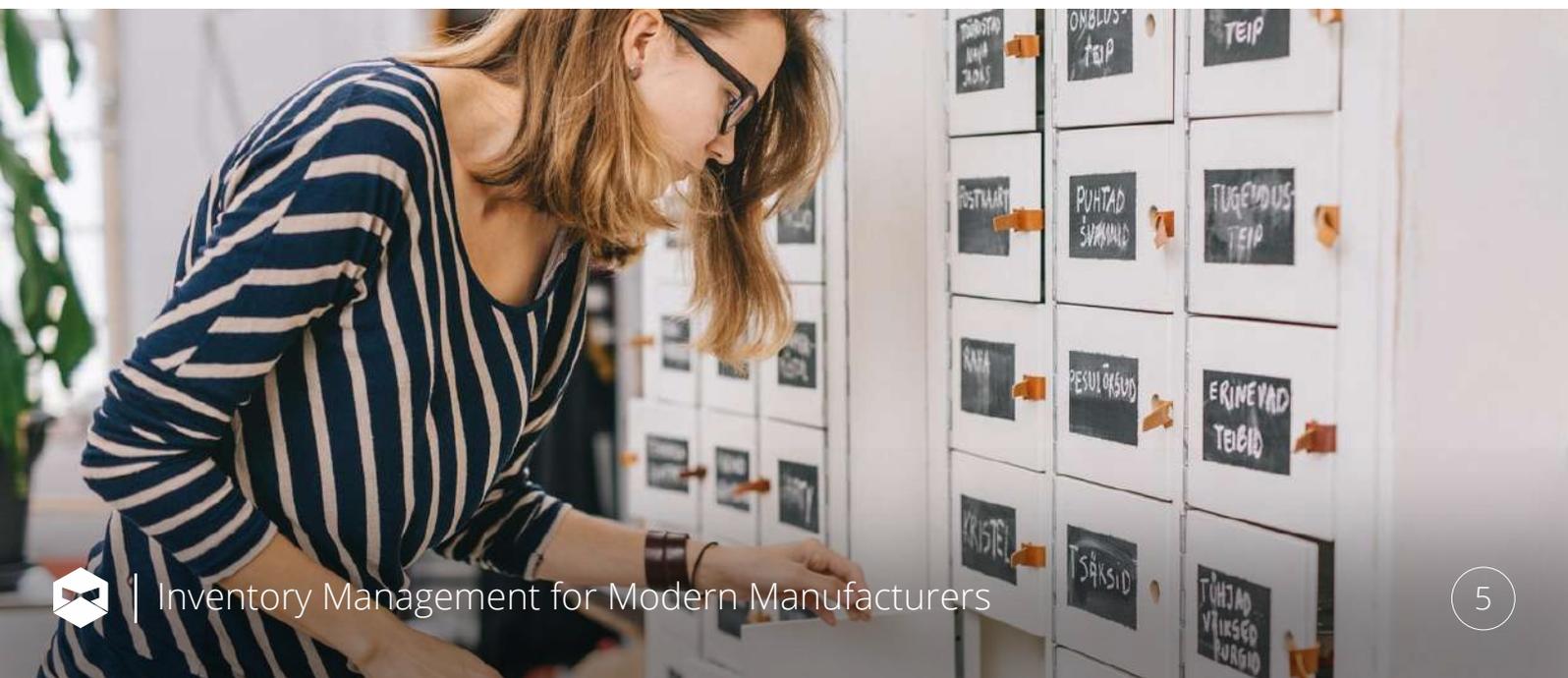
Materials which can be used to create products, such as wax for candles.

## **Work-in-progress stock**

Items in the process of becoming finished products, such as a candle without a wick.

## **Finished goods**

Products that are completed and ready to be sold, such as a fully functioning candle.

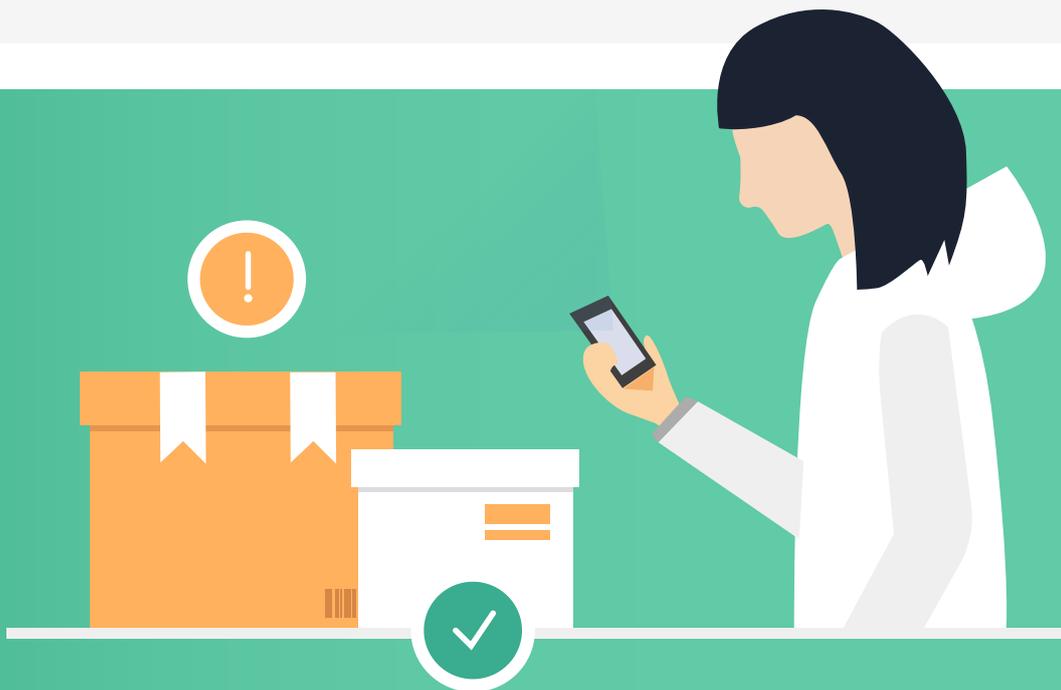


# Aims of Inventory Management

Having aims when managing your inventory can make stacks of difference to the end goal.

Here are the common aims of inventory management to keep in mind:

- Improve the accuracy of your manufacturing and order fulfillment cycle;
- Keep your inventory organized, using space to its full effect;
- Cut down on waste like inventory carrying costs, and transport time; and
- Save time and money by improving organization and lowering production time. You get more out of what you focus on, so place your crosshairs on the positives – reading the best resources and emulating those manufacturers you aspire to be like.



# Types of Inventory Management

Time to get to grips with the popular types of managing inventory today.

The foundations that you need to be taking full advantage of in 2019 and beyond.

They are **widely practiced in manufacturing circles** and are here to stay, so the sooner you get to know them the better.

But one key note before we start: **these models aren't in competition or conflict with each other.**

The optimal approach is to find the most useful aspects of each theory that fits into your business as it stands. In other words, you **find what works for you.**



# Perpetual Inventory

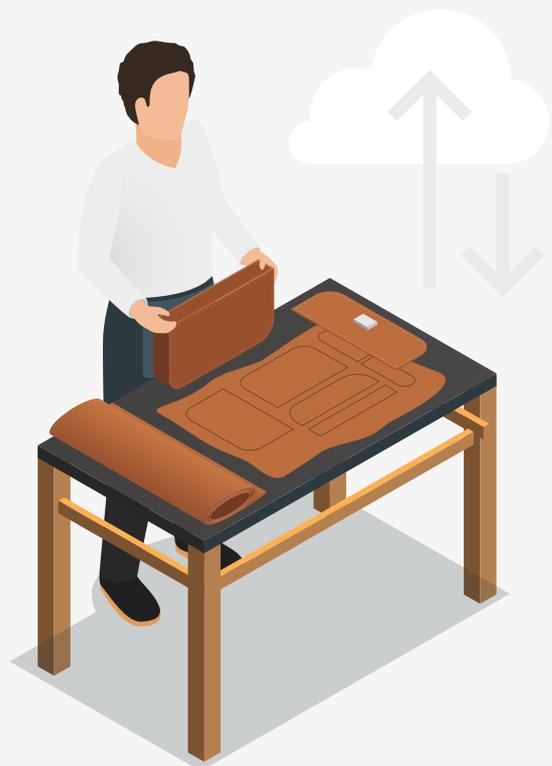
Once upon a time there was a great toss-up between the two main models of inventory management: periodic and perpetual inventory.

Periodic inventory worked by tracking inventory with regular stock-takes every week, month, or longer.

Perpetual inventory was known as the **more accurate method**, but far more time consuming. The way it works is by constantly updating your inventory every time an order is placed, or stock is moved around.

Manufacturers of old would shake their heads and say: “who’s got time for that?”. And back in the day, they would have been right.

But now cloud-based inventory management software exists to accurately keep track of stock 24/7.



# Just in Time Inventory

The goal of just in time (JIT) inventory is to cut down costs from the production process. This is done by careful planning.

All waste and inefficiencies are identified and reduced as much as possible.

These are the elements to focus on if you want to get lean:

- Eliminating waste — look at all your resources here;
- Constant performance evaluation — what could you be doing better?;
- Improving continuously — aim higher with all your processes;
- Become customer-focused — use supply-chain strategies that account for customer demand; and
- Balance your work setting – create a clear and focused atmosphere.

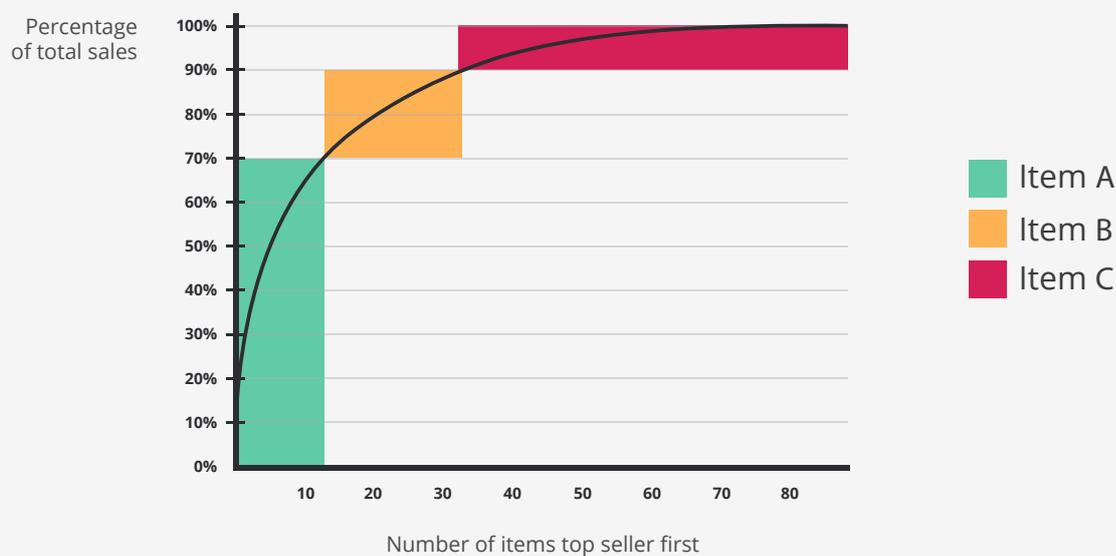


# ABC Inventory

**ABC inventory** (as easy as 123) is a widely used method of categorizing your product inventory into what sells best and what doesn't.

This model supposes that most of a manufacturing business' sales are for a minority of the products you sell.

In other words, 15% of your product variations may account for 70% of your sales (Item A). Conversely, certain products that take up around 50% of your inventory only account for around 10% of your total sales (Item C).



The rest lie somewhere in the middle ground, neither very fast or slow-moving inventory. So, if you have inventory that sticks around for months at a time, it's a good idea to think about cutting loose, because it's taking up space that could be used for more useful (and profitable) products.



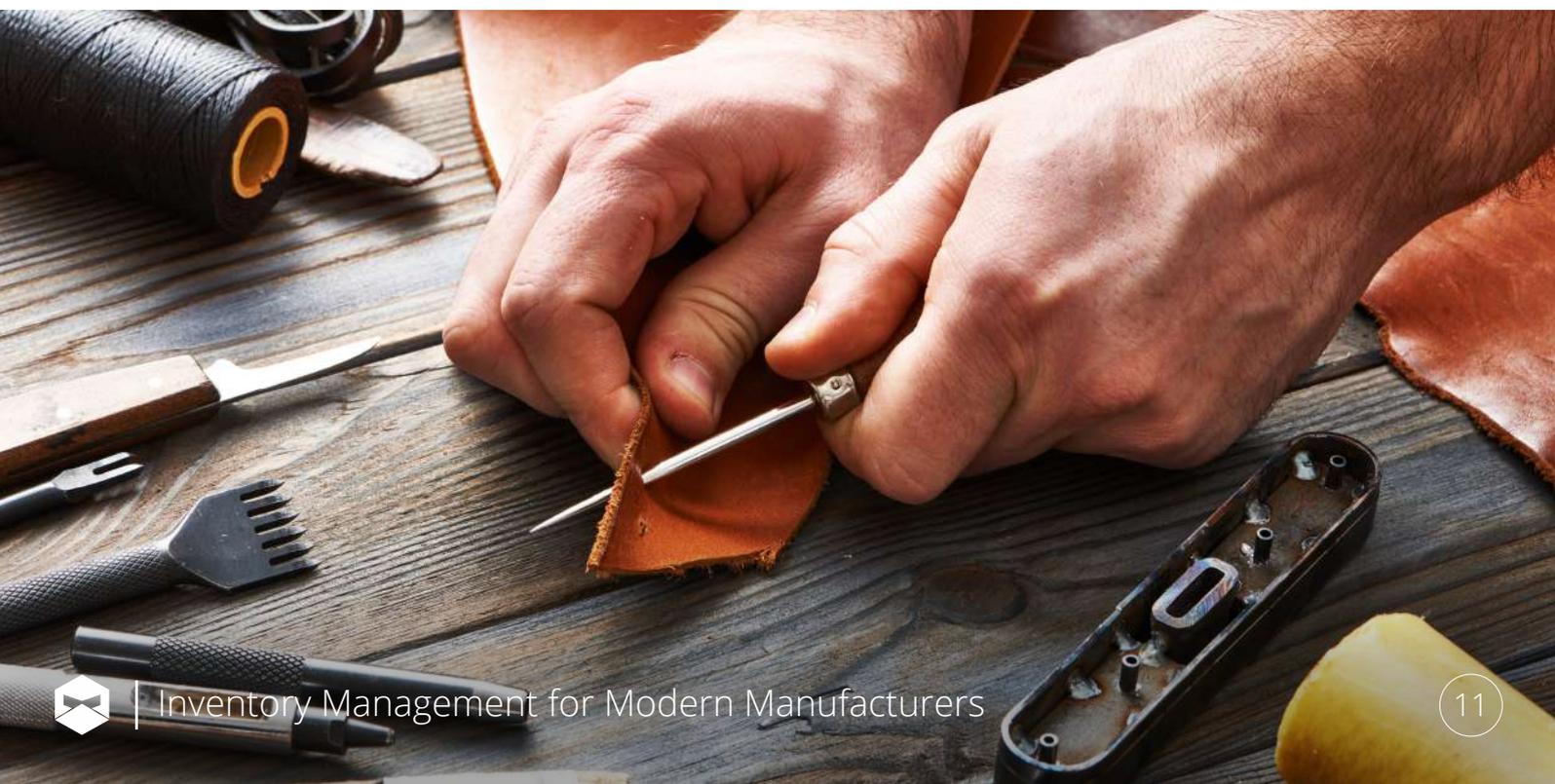
# Consignment Inventory

Consignment inventory is where a manufacturer gives products or materials to a customer (this could be a retailer or a business that uses product) who only pays once the items have been sold to the consumer.

This is a good idea for trying out a product that has had no market research. It could even be used for that purpose because vendors are likely to agree to take stock if they don't have any risk with whether they get sold.

On top of that you get to save a lot of money by reducing the number of deliveries you make. Rather than selling products one by one, you just send off a big batch to a customer and then they return what they didn't sell months later.

It's a specific way of doing things, but if it's right for your business then your stock room is going to be very tidy indeed. Because you're not the one holding onto inventory, it'll be customers themselves.



# Reorder Point and Safety Stock

## Reorder Point

There are a couple essential practices that you need to put in place to make sure you get the most of inventory.

**The first is setting reorder points for your products.**

In short, a [reorder point](#) is a stock threshold that you don't want to go below.

**A safety net that keeps you from falling into stockroom chaos.**

The ideal inventory reorder point allows for adequate time to make a new order before your stock reaches this threshold.

**You set a reorder point to let you know two vital things:**

- ▶ The right time to order more materials from your supplier(s)
- ▶ The right time to manufacture more sub-assemblies and products.
- ▶ Reorder points are an essential inventory management technique that **makes sure your schedule is not delayed or interrupted.**



# Safety Stock

The second practice is known as keeping safety stock.

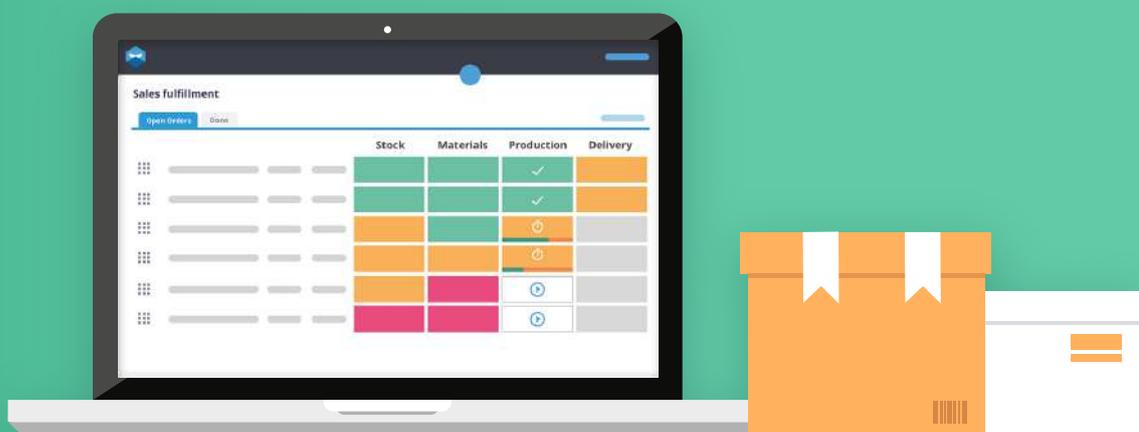
Safety stock describes the amount of inventory a business keeps in the warehouse **to protect against spikes in demand or shortages in supply.**

It's a helpful buffer to help you out in emergencies, like when a supply order does not get to you in time, or you have a particularly busy holiday season.

The make or break periods you could say.

However, the trick (like with every other inventory management principle here) is balance. You don't want to swamp your workshop with safety stock.

That is why you apply a [safety stock formula](#) to make sure you don't go overboard. It probably won't be as much as you expect.



# Quick Tips for Small Businesses

There are a whole bunch of practices you can implement apart from reorder point and safety stock to get the most out of your inventory.

**Here's a few of the most effective:**

**Use [SKUs](#)** — these are unique ID numbers for each product variation. They let your system process orders more accurately and integrate better with e-commerce channels.

**Anticipate changes** — notice and learn trends in customer activity. Then you can keep up with changes in demand without straining your operations.

**Be a good customer** — make sure you're the ideal company for your supplier to work with. Pay invoices early, develop a good relationship, and they'll become a dependable partner. If you're ever in a pinch, you'll be at the top of their list.

**Get to know the cloud** — use cloud-based inventory management so your inventory can be managed from multiple locations, keeping you up-to-date at all times.

**Listen to your customers** — find out about customer satisfaction. How many receive their orders on time, or early even? Research ways to improve management to create a better experience for your customers.



# Inventory Management Software for Small Businesses

Today, thanks to more accessible equipment and manufacturing education **we are experiencing the small manufacturers' revolution.**

As this new form of manufacturing has arisen, businesses have been begging for inventory management techniques that work for them. Especially when it comes to getting a hold on their **raw material availability.**

Inventory management that gives you the space, time and resources to really work on **growing your business.**

**But what are the options for the small manufacturer?**



# Moving up from Excel

Many small businesses start out using Excel spreadsheets for inventory management. However, this functionality is restricted.

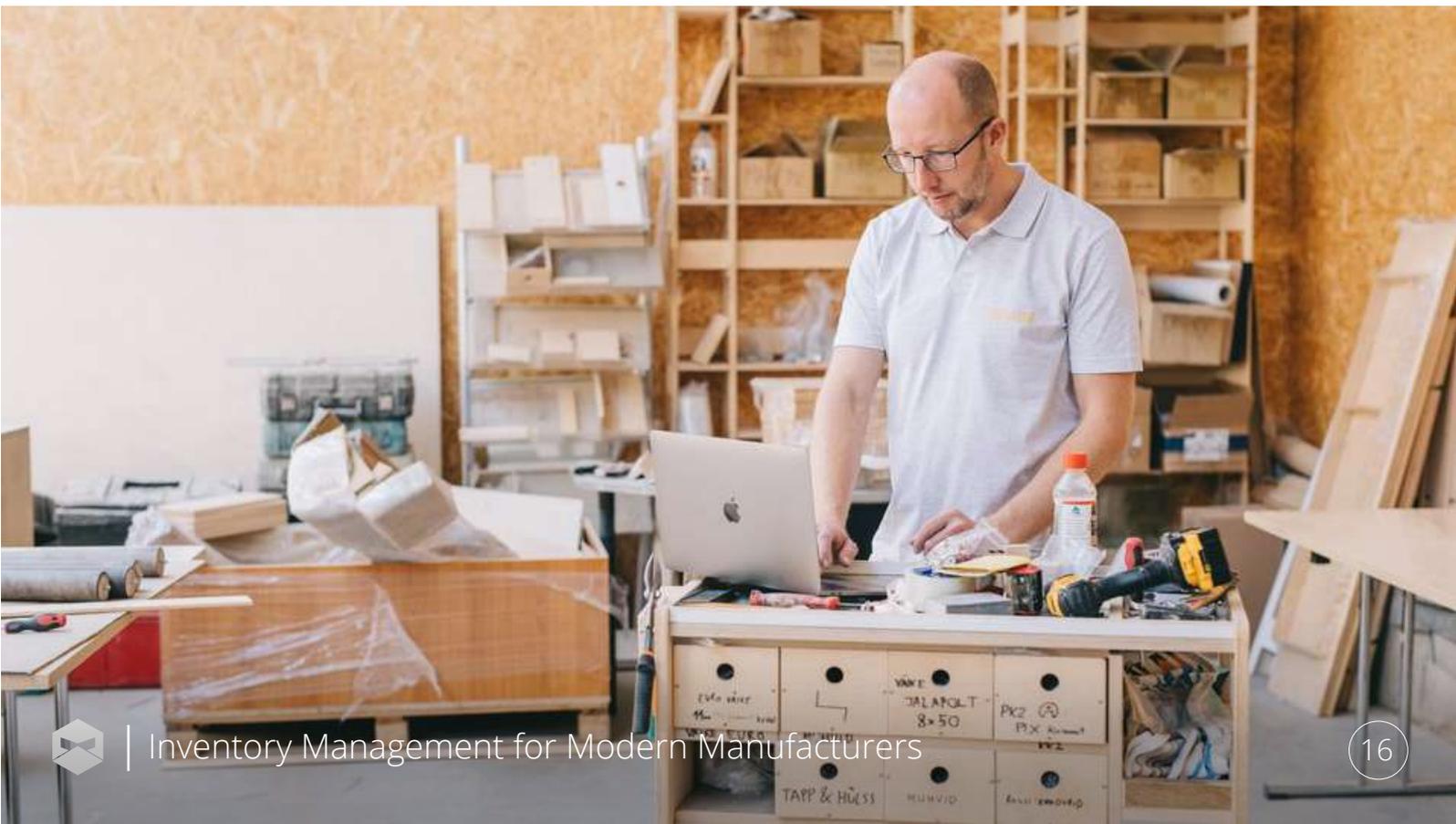
You will have to constantly update a web of spreadsheets to keep your purchases, recipes, raw materials, final products and sales all in check at the same time. In the end, this leads to frustration and inability to scale the business.

## The viable option for small businesses?

### **Inventory management software.**

These are more robust than spreadsheets and come with functions specifically designed for the purpose of inventory management, so you don't have to do any tinkering.

Finding the right one for the job though is another question.



# Challenges for Small Businesses

- Making sure all staff are working from and updating the master copy of the inventory;
- Accounting for lost stock due to manufacturing or employee error;
- Keeping up-to-date whilst not interfering with daily operations;
- Estimating manufacturing time to meet customer demand;
- Finding the best inventory management software that suits your business; and
- Training employees in the use of specialized software.



# Features You Really Need

There's no doubt that inventory management software is the solution for small manufacturers to optimize their inventory.

## So, what are the bits that you really need?

**Here are some features to look out for in good-quality inventory management software:**

- Store your entire product portfolio in one place with no need to enter something twice;
- Attribute as many variations (size, color, embellishments etc.) to each product;
- Enter product recipes and manufacturing processes so you can track your product flow more effectively;
- See orders come in real time so you can get to work straight away;
- Allocate materials to the priority orders in the list, so that it gets out the door first, and minimize work-in-process, and fight over-ordering;
- Track orders from suppliers so you know when stock is expected;
- Manage your team by assigning duties and daily goals on your production schedule; and
- Be accessible to you anywhere while still being secure, also known as cloud inventory management.



# Smart Manufacturing Software in Action

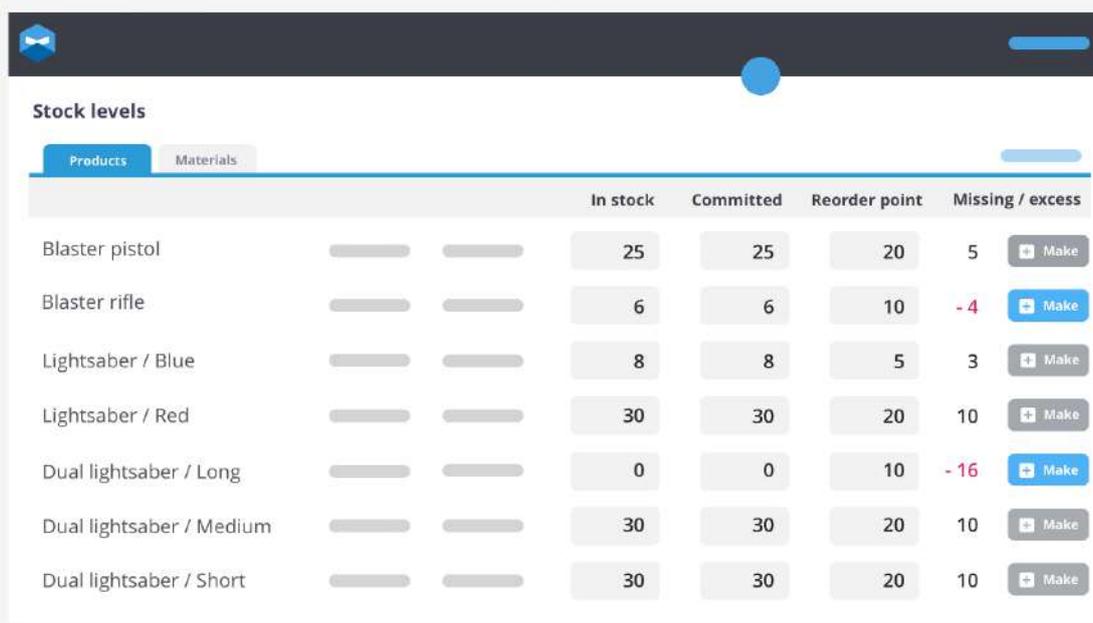
## Real-time Inventory

One of the main problems that makers come across when fulfilling their sales orders and when scheduling their production is the constant need to check inventory - whether that means going into the stock room or trawling through spreadsheets to see what finished goods and raw materials are available.

Katana will do all the hard work for you by keeping an up-to-date inventory, which shifts every time a sales or manufacturing order comes in.

There's no need to be modifying data every time an order comes in, because the system does that for you.

## Setting Reorder Points



The screenshot shows a mobile application interface for 'Stock levels'. It features a navigation bar at the top with a blue icon and a blue circle. Below the navigation bar, there are two tabs: 'Products' (selected) and 'Materials'. The main content is a table with the following columns: 'In stock', 'Committed', 'Reorder point', and 'Missing / excess'. Each row represents a product and includes a visual progress indicator (two horizontal bars) and a 'Make' button. The 'Make' button is grey if the item is in stock and blue if it is missing or in excess.

			In stock	Committed	Reorder point	Missing / excess	
Blaster pistol			25	25	20	5	
Blaster rifle			6	6	10	-4	
Lightsaber / Blue			8	8	5	3	
Lightsaber / Red			30	30	20	10	
Dual lightsaber / Long			0	0	10	-16	
Dual lightsaber / Medium			30	30	20	10	
Dual lightsaber / Short			30	30	20	10	



## Remember these?

Katana allows you to set reorder points for each of your items, so that you always know when to purchase more materials.

You can easily see under the column “Missing/Excess” how close you are to the optimal level of 0. If it’s red you know you’re in the negative and should be filling up on that item.

**Missing/Excess = In Stock - Committed + Expected - Reorder Point**

## Auto-Booking



The screenshot shows a 'Production scheduling' interface with a table of orders. The table has columns for 'Deadline', 'Materials', and 'Production'. The 'Materials' column uses color-coded bars to represent material availability, and the 'Production' column shows progress bars with play icons. The 'Deadline' column shows dates for each order.

				Deadline	Materials	Production
Leia Organa	Blaster pistol			14. Jan	Green bar	Orange bar with play icon
Luke Skywalker	Lightsaber			15. Jan	Green bar	Orange bar with play icon
Han Solo	Blaster pistol			18. Jan	Orange bar	Orange bar with play icon
Lando Carlissian	Blaster rifle			20. Jan	Green bar	Orange bar with play icon
Darth Maul	Dual lightsaber			22. Jan	Orange bar	Grey bar
Mace Windu	Lightsaber			23. Jan	Pink bar	Grey bar

One of the difficulties with making products is that products can share the same materials as each other. This can make keeping stock difficult because you must keep track of where your materials are always being used.

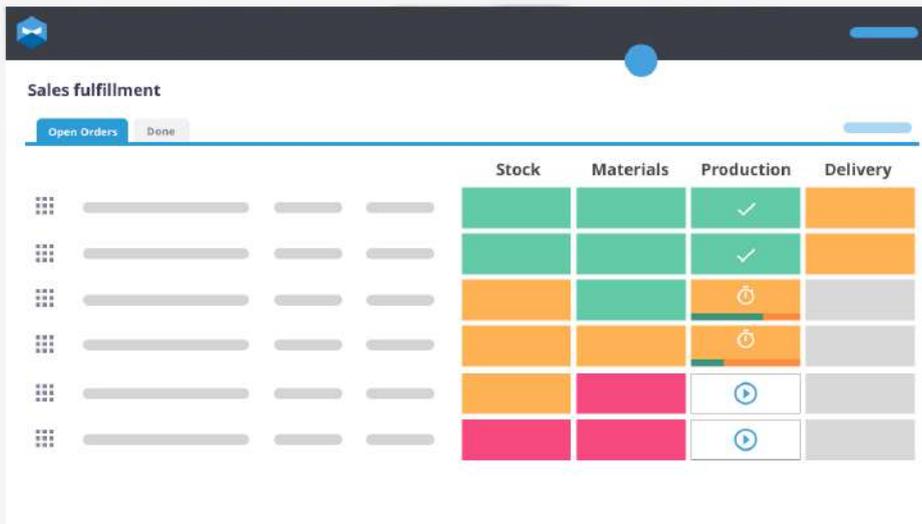
Katana however, will keep track of all these so called “committed” materials so that you never run short.

On top of that, you can prioritize your orders with a simple drag and drop. That means that if you have an order you want to get done faster (maybe the customer is a little bit of a VIP), then you can just pull the order up the line.



The software will automatically book your available material stock to higher priority orders. This means that you can easily see what the effects are going to be on all other production orders, in a color-coded visual chart. Katana will highlight any resulting delay risks of getting the customer orders shipped on time.

## Order Fulfillment



The screenshot shows a 'Sales fulfillment' dashboard with a grid of colored cells representing different stages of order fulfillment. The columns are labeled 'Stock', 'Materials', 'Production', and 'Delivery'. The rows represent individual orders. The cells are color-coded: green for 'Stock', orange for 'Materials', and pink for 'Production'. The 'Production' column contains checkmarks, power icons, and play icons. The 'Delivery' column is greyed out.

	Stock	Materials	Production	Delivery
Order 1	Green	Green	Green with checkmark	Orange
Order 2	Green	Green	Green with checkmark	Orange
Order 3	Orange	Green	Orange with power icon	Greyed out
Order 4	Orange	Orange	Orange with power icon	Greyed out
Order 5	Orange	Pink	Pink with play icon	Greyed out
Order 6	Pink	Pink	Pink with play icon	Greyed out

By having your entire flow from purchasing to sales in one place, it's easy to make decisions and changes. With integrations to Shopify for example, all your sales are synced to Katana, so your inventory doesn't need to be managed in more than one place.

Every time an order comes in on Shopify, your inventory and production line will be adjusted accordingly without any extra input needed on your behalf. You will immediately see whether you have the necessary products in stock or raw materials available to make the products ordered by the customer.

Plus, everything has been color-coded and laid out with the maker's eye in mind, so it's easy to spot when something is off.

But that's just a few of the many benefits that Smart Manufacturing Software can bring you. If you want to know more on how Katana works, we've put together [an explanatory video you simply can't miss.](#)



# Taking the Next Step

We already mentioned how [Smart Manufacturing Software](#) is changing the inventory management landscape for modern businesses.

It brings together every facet of your inventory management while **fitting in the most vital parts of your manufacturing business.**

From purchasing to manufacturing to online sales, with a friendly, visual interface. You can implement all that's been covered in this e-book, by molding it to your specific business needs.

This means being able to spend time on what you really want to be doing – growing your business.

What are you waiting for?





# KATANA

Get in the driver's seat of your product-making business with Katana the Smart Manufacturing Software.

**Are you ready to scale your business?**

**START YOUR 14-DAY FREE TRIAL**



About Katana | [www.katanamrp.com](http://www.katanamrp.com)

Katana is the #1 modern manufacturing & inventory software for scaling businesses. Automate your workflows with Katana's visual interface and smart auto-booking engine, which allow you to prioritize orders and see the availability of raw materials & finished goods in real-time. Easily create bills of materials for your products and their variants, gain multichannel inventory visibility and floor-level control. Seamless integrations with Shopify, WooCommerce, QuickBooks, Xero, etc.

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