

How To

Get Instant Changeover

Losing production time because of your machines design?

The machine is an investment that may provide great return while it is running. But it is sitting idle while operators slowly make changeover adjustments. Downtime during changeover is an accumulation of minutes – and dollars!

Manufacturing is not just about how efficiently your machine runs – how efficient is your machine between runs? Efficiency is about reducing downtime and eliminating waste. A product that helps you do that is an investment that can quickly pay for itself.

What's the problem with changeover?

When you're a manufacturer with more than one product, changeover is a necessary evil. Machine spindles and axes often need to be adjusted by hand. For some machines, adjustments are made by estimation. A test product is made and examined to make sure it has the right measurements. If the test is off, the process is repeated, so the waste piles up, while deliverable products aren't being made.

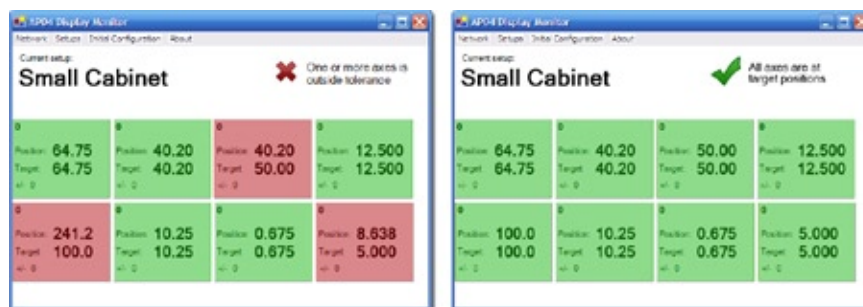
One solution to this problem is to outfit the machine axes with position indicators. A dial or counter indicator will give a more exact readout and dramatically reduce waste, but changing a multi-axis machine to run an array of different products is still a burden. Knowing where the new axis positions should be often requires a clipboard or data sheet with a long list of products, axes, and numbers. Time to make a product change? Get out the clipboard, find the new value on the list, change the axis position, double-check the value, and repeat for every single axis, while your machine just sits there, inactive.

Down with downtime, up with profit

Most changeover steps can be eliminated with an automated target changeover system. No more eyeballing the positions, no more checking a clipboard to make sure all the measurements are correct.

It's now possible to display target positions directly on the machine axis with a low-cost electronic position indicator. Modern electronic position indicators give numeric readouts of current position and target position simultaneously.

Replace the clipboard with software running on



High-end electronic position indicators can be monitored and controlled with a PC or PLC.

a simple PC or PLC. Store every target value for thousands of unique products. Set up for a different product with a few keystrokes or mouse clicks. The current positions, along with the new target positions, are automatically shown on the position indicator, so adjustment is as easy as matching two numbers.

Got a brand-new product? Make the adjustments, save all the axes positions in an instant, and retrieve those values in a flash.



The AP04 indicator from SIKO is a leading absolute, electronic position indicator.

It's quicker than ever; downtime drops as quickly as profit climbs. When changeover time is reduced to almost nothing, it won't take long for the new system to pay for itself.

Setting up your automated changeover system

Common protocols like RS485 allow dozens of position indicators to link up in a single loop. Once all the indicators are daisy-chained, a single connection to a PC or PLC gives you the ability to monitor and instantly change configuration and target values of any number of indicators.

Of course, you'll need the right software to control your devices. A good manufacturer will have free, open-source controller software available for their customers. Have a PLC or a proprietary control system? Write your own program- documentation should be readily available, and the better companies may even have software to help your developers with the technical details.

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SIKO adjustable position indicator AP04:
Automated hand work

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