

## Lean Manufacturing Mitigates Impact of Recession on Job Loss

### When You get Lean Enough, Everyone is Still Needed; Cutting Back Hours, Rather than Jobs

SCDigest Editorial Staff

Lean has had a profound impact on manufacturing in dozens of ways (see SCDigest's resources page on Lean Manufacturing: [Lean Manufacturing Resources](#)), but here's one many may not have expected – it's actually limiting manufacturing job losses in the face of the deep economic downturn.

The reason is simple: some factories have become so Lean, there simply aren't many positions that can be eliminated and keep the operations going, even at reduced volume. Another factor: the investment in Lean training and techniques in the work force can make the long term cost of layoffs very high for some companies.

While according to employment figures released last week the US has shed some 1.3 million manufacturing jobs since the downturn, many think that the current state of the economy should have resulted in the loss of even more factory jobs – and that Lean has played a key role in mitigating the damage. For example, [Parker Hannifin Corp.](#) of Cleveland, a maker of a wide variety of motion and control system, has become so Lean in its operations that many assembly lines run with just a handful of highly trained workers. With that level of "Lean-ness," it's hard to furlough anyone even at significantly reduced production volumes.

The investment in Lean operators is also a factor. Many companies have invested substantial sums in training factory workers in Lean, and those that have made it to this point are skilled and valuable. Letting them go now, even with the potential to be called back as the economy recovers, increases the risk the employee will be lost forever and the company will have to reinvest in another operator. So the smart

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economic decision may be to keep the current employee on the job, even if he or she is under-utilized right now.

#### **Make to Order also Plays a Role**

There's also another related factor that is constraining manufacturing job losses – the change from make-to-stock to make-to-order delivery models, and the related change in terms of US manufacturing work moving more "upstream," with higher value add.

In the make-to-stock world, there tends to be more workers doing basically the same tasks. So, it's relatively easy to downsize some portions of those workers consistent with the drop in demand. Many of these lower skilled types of manufacturing positions have already moved offshore.

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A recent article in the Wall Street Journal, for example, quoted economist **Kurt Karl** as saying, "When you get down to where we are now, where manufacturing is less than 10% of the employed population, there just isn't that much more you can cut."

In fact, the US had already shed 3.5 million factory jobs as a result of Lean, offshoring, and automation from 2000 to the start of this recession in 2008 – while production output was increasing by 10%.

Of course, jobs are being lost overall, just not as deeply as might otherwise have been the case. Many factories are coping by reducing factory hours for the time being – but at least keeping the job. The hiring of temporary workers is way down.

The Wall Street Journal article shows just how Lean many manufacturers have become. It says that at one Parker Hannifin plant in Spartanburg, SC, just five workers make the tiny plastic rings that become seals on aerosol cans.

"Each member of the group runs a different set of high-speed machines doing a distinct step, such as extruding long noodles of plastic, grinding them or cutting them into final product," the



story says.

In that scenario, while the plant can reduce each of the five employees' hours, "permanently pulling one or two of them out of the mix is far more difficult to accomplish, and could make it impossible for the line to operate efficiently."

The relative cost per employee versus the value of the end product is also way down, meaning the impact to the bottom line from cuts on the shop floor is modest at best.