

Make Your Own Economic Stimulus

By Rod Kurtz, Dawson-Macdonald Co.

During these tough economic times, the catch phrase most heard coming out of Washington is "economic stimulus." This is taken to mean whatever package of financial aid the government has put together to help fix whatever economic problem it is addressing at that particular time. And while we wait for the "economic stimulus" to trickle down to the working level where it ultimately will be put to use, companies continue to languish, the business climate continues to deteriorate, and we wonder pessimistically what tomorrow will bring.

Rather than wait for the government to get this colossal economic engine back up and running again, there are things some of us can do to give ourselves our own "economic stimulus" and, more importantly, take matters back into our own hands.

Consider this...

- Does your operation generate an excessive amount of disposable waste material from an abrasive blasting or shot peening operation? Simply by changing to a more durable abrasive, which generally requires no changes to your machinery, can result in a reduction of your operating costs by 30% or more, due simply to the reduced volume of waste material generated. If the nature of that waste is deemed to be hazardous, then these cost savings are even higher. Additionally, if your operation permits, there are abrasives that can be used that generate little to no waste at all, such as dry ice or bicarbonate of soda.
- In your current abrasive blasting operation, are you using an abrasive media reclaimer? This simple centrifugal device automatically separates good abrasive from bad, redirecting the good abrasive to be used again, and the bad and broken down abrasive to the dust collector. The end result is a cleaner and more efficient blasting operation, reduced wear and tear, and greater utility from your abrasive of choice by maximizing the number of reuses, all of which mean lower total costs.
- Of course, there is also the ultimate solution whereby no abrasive media is used in your abrasive blasting or shot peening operation. New technologies such as laser stripping and laser shock peening use laser light to ablate coatings from surfaces or to create standing shock waves to effectivelypeen the surfaces. Both of these technologies are available and in use today in a growing number of industries. For many applications, waste volumes can be effectively reduced by 95% or more, resulting in a dramatic reduction in operating cost.
- Have you considered automation and/or batch processing? Adapting existing equipment with fully- or semi-automatic controls, or adding new automatic or batch systems, can yield big gains in reduced overhead, increased production, increased quality and consistency, and increased operational efficiency.
- Many types of equipment that use AC electric motors of 15 horsepower or more, and that are subject to varying levels of electrical loads, can benefit from a simple device known as a variable frequency drive (VFD). When added to the drive system, the VFD varies the frequency of the incoming electrical power to match the load on the motor, and hence the speed of the motor. The end result is that the speed of the motor is always in correct proportion to the load, and hence electrical power is used most efficiently with no wasted cost. The additional advantage to using VFDs is that it always assures that your equipment is operating at peak efficiency and that there is no excessive wear and tear, which by themselves can also translate into big cost savings. One ideal application for VFDs is in dust/mist/fume collection systems that can use large AC-driven blowers in a contaminant-laden environment that can change in concentration from minute to minute.
- Speaking of dust/mist/fume collectors, upgrading the cartridges or bags to the newer, more efficient types with better filtering and contaminant-shedding capabilities can also yield big cost savings over the long haul, not to mention a cleaner and healthier work environment. This is another upgrade that can easily be accomplished and which requires no changes to existing machinery. The cost savings, which can be quite substantial, stem from the longer life and fewer number of filter change-outs needed, which results in lower maintenance costs and less downtime. Additionally, providing a work environment with substantially reduced levels of dust, mist, or fumes yields a safer and more productive work area with less potential for lost-time accidents.
- Are you investing in preventive maintenance? As the term implies, avoid problems from shutting down an operation or an essential machine by preventing them in the first place. The added advantage is that preventive maintenance can be planned around your production schedule to minimize its impact on downtime. As is usually the case, production problems always seem to occur at the most inopportune times, and hence are the most costly to the operation. This makes preventive maintenance the best insurance policy available, and should be considered for all essential pieces of machinery.
- Are you buying all of your inter-related items from the same source? In the case of an abrasive blast system, are you buying the abrasive media, nozzles, hoses, and dust collector components all from the same source? A single supplier is in the best position to match all of the proper items into a complete system for optimum performance, and therefore lower operating costs. Additionally, the added purchasing leverage will almost always assure you of paying the lowest prices.

So, as you can see, a few changes in your manufacturing operation now can result in some significant savings in cost later on, and probably well before the effects of any "economic stimulus" from Washington reaches you.

If you are using any of the above types of equipment, and if these suggestions strike a familiar chord with you, consider contacting Dawson-Macdonald Co., located in Wilmington, MA, for further information and assistance. They can be reached toll-free at 800-556-4456; web site, www.dawson-macdonald.com.

