A Happy Customer

FOLLOWING a two-year study, a major automotive parts manufacturer converted their multiple shot peening machines, one at a time, from cast steel peening shot to Pellets stainless steel (302/304 alloy) conditioned cut wire shot. After several months of using the stainless steel cut wire shot, the customer reported positive results to the Pellets’ staff.

The study and conversion began primarily because of the threat of dust fires in the dust collection system. The customer was looking for an alternative shot peening media to reduce dust and therefore the threat of dust collection fires. The study began in the summer of 2016.

First, of course, the customer wanted to make sure the Pellets stainless steel cut wire shot would produce the peening results that were needed on their automotive parts. After months of study, the results were in and the customer’s Product Development Group reported in June of 2017 that the peening results were excellent and met or exceeded all of their specifications and requirements.

And so they began to plan for the conversion of their peening machines—one at a time. This would be time consuming but the customer wanted to make sure no mistakes were made along the way. In an initial 24-hour study, the amount of undersized media produced with the stainless shot was three pounds compared with 60 pounds from the cast steel shot. The study personnel also commented that the operation was a lot cleaner using the stainless steel shot. And so the conversion of each machine began.

The customer historically consumed approximately 250,000 pounds of cast steel shot per year with the commensurate disposal of the spent shot.

After several months of operation, the customer outlined these results:

1. Our customers are reporting much cleaner and brighter parts.
2. Our employees like the media because it produces significantly less dust.
3. Management is impressed with the reduction in dust and the safety department has given us an A+ for the resulting risk reduction of dust fires.
4. Our outside lab reported that the cast steel disposal had a flammability issue and had to be disposed of as hazardous material. The stainless steel waste did not have a flammability issue and therefore did not have to be classified as hazardous ignitable waste material.
5. We no longer need to use a lubricant sheet in the blast machines to keep the parts from sticking together.
6. Consumption of media was less than 1/3 of the cast steel peening shot, resulting in significant cost savings and much less waste.
7. There is a strong possibility that the used undersized stainless steel shot can be recycled and reused by someone that needs smaller conditioned cut wire shot.
8. We couldn’t be happier with the improved safety issues, the cleanliness improvement and the overall reduction in media required for our shot peening operations (and the resulting waste removal reduction).

While the initial cost of the stainless steel cut wire media was quite a bit more expensive than cast steel peening shot, the end result of using 2/3 less material and therefore 2/3 less waste resulted in a substantial cost reduction.

The U.S. Shot Peening Seminar and Workshop is earlier than usual this year. For more information and to register, go to www.shotpeeningtraining.com.

U.S. Shot Peening Seminar and Workshop
Disney Springs in Orlando, Florida
September 30 - October 2