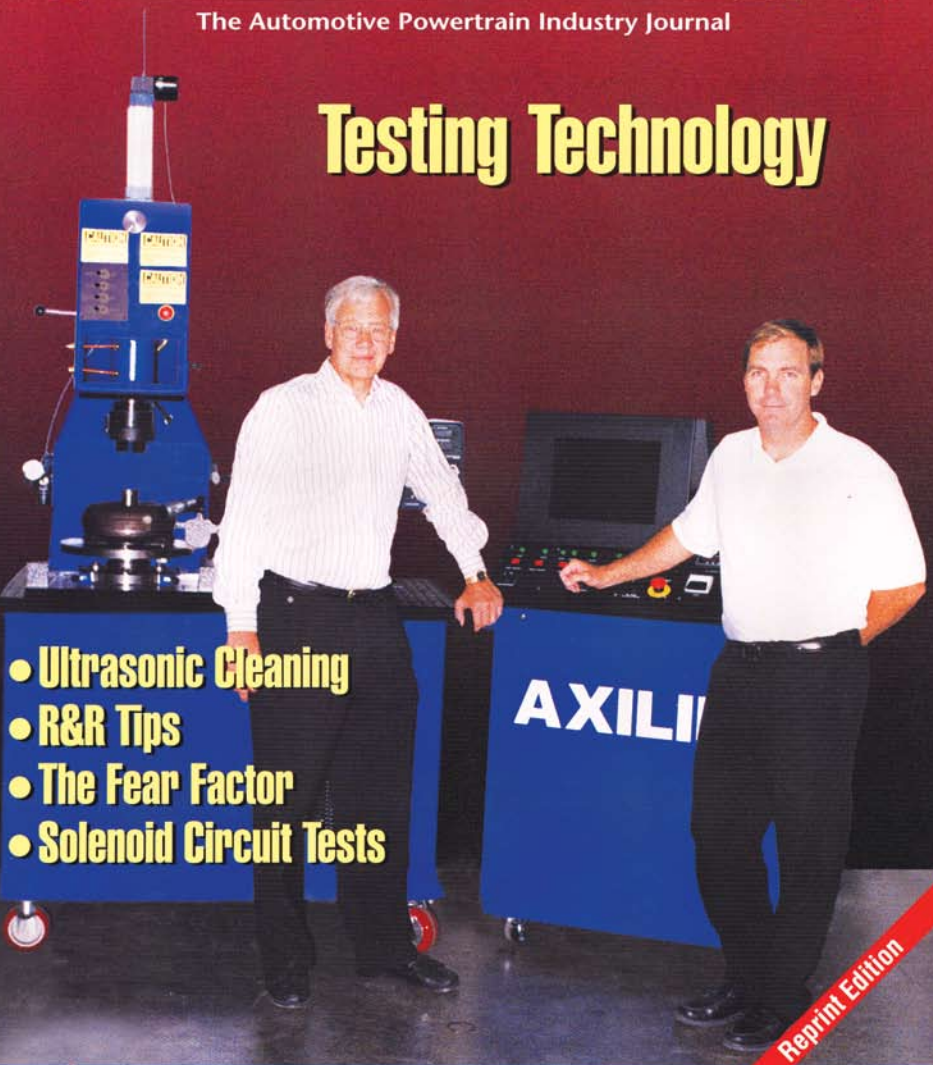


TRANSMISSION DIGEST

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Reprint Edition

Ultrasonic System Offers Quick, Non-Toxic Valve-Body Cleaning

By Len Gutman

Charles Carr knows that cleanliness is absolutely mandatory for quality transmission rebuilding. Carr bought his AAMCO Transmission shop in Joplin, MO, three years ago after managing it for nine years, and late last year he began looking for a faster and safer way to clean valve-body casings and other intricate, hard-to-clean transmission components.

Like many transmission-shop owners, Carr had been using air agitation with solvents to clean parts. A former junior-high science teacher, he spent time researching alternative cleaning systems in an attempt to find a cost-effective solution that would save time and money. He also was well aware of the harmful effects of solvents on both his mechanics and the environment.

"The two things that were really paramount in my mind were the saving of time and then the environmental," Carr said. "In the near future OSHA is going to just about outlaw the use of solvent, especially the way we're using it."

Carr's research led him to ultrasonic parts washing, which he said

has reduced the time it takes him to clean parts and has eliminated the use of toxic solvents. He noted that ultrasonic cleaning has been used in watch making for a long time but was just now starting to find a niche in automotive applications.

"It has reduced the time tremendously – probably one-third as much time as we used to use," he said.

Carr bought an ultrasonic cleaner in April. The 2,000-watt machine offered a 5-cubic-foot tank, which was designed specifically

for mid-to-large transmission shops and industrial machining operations.

The cleaner also is helping Carr reduce the use of solvents in his shop. It uses a non-toxic soap that meets Environmental Protection Agency guidelines.

"California has already outlawed solvents, and although so far we haven't had a problem with disposal of our excess and waste solvent, that's just around the corner," he said.

Ultrasonic cleaning has proved to work particularly well for valve bodies. Unlike spray washers, ultrasonic cleaners are able to get into the intricate crevices of a valve body where dirt, grease and metal shavings accumulate. Additionally, ultrasonic cleaners often are able to take tiny scars and scratches out of the metal – flaws that often lead to costly replacements.

Saving on spray cleaners

For a large transmission shop, even a small-sized ultrasonic cleaner can save time and money by reducing the use of more-costly spray cleaners. Mike Stewart owns



Cleaning transmission components in an ultrasonic machine is as simple as loading the parts into a washer basket, closing the lid and pushing a button.



Ultrasonic cleaning machines come in a variety of sizes, many small enough to sit directly on or adjacent to a workbench, making them convenient to use.

Mike's Transmissions in Lancaster, CA. Stewart bought a 3.5-cubic-foot ultrasonic cleaner to supplement his existing cleaning process.

"We've really been expanding, and we needed a secondary washer," Stewart said. "I've got a friend who has a unit he's been using for quite a few years, and he's been very happy with it."

Stewart keeps his ultrasonic cleaner next to his toolbox. He said it does a good job on aluminum parts, particularly small parts.

"I've got three builders in my area on this side of the shop, and the ultrasonic machine saves us from having to go over to the other area of the shop and use the spray-wash cabinet," he said. "Basically, it's saving us a lot of money on spray cleaners, because we're not having to use them as much as we used to."

Stewart still uses a jet washer to clean larger parts but says the ultrasonic system works better on transmission-rebuild parts and is easy to use.

"You just put the parts in the

basket and drop them down in there and hit the switch," he said. "It's a really good supplemental machine for us, and it saves us a lot of traffic at the big machine for stuff we don't really need to have in there."

Cleaning the machine is quick and easy as well, according to Stewart. He said he cleans it about every 10 working days, drains the soap solution and stores it with his other wastewater.

"We bought it in February, and I think it really saved us enough to probably pay for itself," he said.

Low-Cost Operation

Lee Cheesborough owns and operates Cheesborough Transmissions in Augusta, Ga. He recently bought a second ultrasonic cleaner, primarily to clean valve assemblies.

"I wanted the most wattage I could get per cubic foot of liquid, and the Omegasonics model fit that description," he said. "One of the main reasons I bought it was that it was cheap to operate and it



Cleaning transmission parts ultrasonically gets them as clean as or cleaner than conventional spray washers, their manufacturers say, and the ultrasonic action is perfect for small parts with intricate crevices, as in valve bodies.

was heated electrically."

Cheesborough said the new cleaner has saved him considerable money already.

"Before I started with the ultrasonic systems I was using hot vats that were gas fired and spray cleaners that were gas fired," said Cheesborough, whose shop has been in business in the same location since 1907. "My gas bills alone were running like \$400 a month, and I completely eliminated the gas bill."

His shop still uses a spray cleaner for cases but uses the ultrasonic cleaner more and more. "It's well designed and has a good filtration system on it," he added. "I'd definitely recommend ultrasonic parts washers to friends and business associates." **TD**

Len Gutman is a freelance writer representing OmegaSonics, a manufacturer of ultrasonic parts-cleaning machines.

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