



CASE STUDY

RFID fuels carwash loyalty

Durable windshield tags speed Cruz Thru Express Carwash service

Problem:

Americans spend more than \$24 billion annually to have their vehicles cleaned at over 100,000 car washes in North America, according to the International Carwash Association. Still, competition in the carwash business is fierce, particularly in urban markets where carwash penetration has reached the saturation point.

Carwash owners are always looking for ways to keep their customers coming back, and membership programs have become a common tactic for securing a carwash's customer base, raising car counts and dollar-per-car income.

Cruz Thru Express Carwash – locally owned and operated in Bakersfield, California – knew a membership program would be a cornerstone of their competitive position when they opened in 2002. The full service carwash wanted to offer an easy-to-use membership program on top of the attractive facility, friendly staff and quick, effective wash they knew customers would expect.

But the company was ahead of the curve in delivering automatic electronic payment and automatic ID of member vehicles.

It was relatively easy to create the payment systems. Cruz Thru offers Unlimited Wash memberships where payment is secured at sign-up and automatically deducted each month. Customers may also load a Prepaid Card to speed their payment.

However, the technology to deliver automatic vehicle ID – a truly effortless member experience -- didn't exist.

So, Raymond Roselle, one of Cruz Thru's founding partners, set out to develop *fastPass* – a technology platform that made carwash visits fast and easy in order to retain and add value to memberships.

Solution:

Roselle's *fastPass* pilot project used barcodes as a means of verifying membership and delivering the proper wash. Barcode labels adhered to member vehicles were scanned by an attendant at the point of wash entry.

“That was a very popular pilot,” says Roselle. “So, when we built our second location, we dedicated a lane to members and invested in more automation.”

Roselle built the first generation of the *fast*Pass automation using license plate recognition technology. The system was typical of such access control systems. When vehicle approached the Members Lane, a magnetic floor switch triggered a camera to read the license plate and, based on a match in a database of memberships, open the gate and perform the appropriate wash services.

Unlimited Monthly Members would simply pull up to the Members Lane and the gate would open. Prepaid Card members swiped at the Lane entry before the gate opened. The dedicated Members Lane was saving time.

Indeed, most customers loved it, but the license plate recognition system was prone to errors – dirt, sun, headlights, damaged plates and other factors were creating delays for some customers.

Meanwhile, Roselle had been exploring RFID as a means of error-proof automation of member access.

In 2004, he found Metalcraft’s Website and began exploring tag options for Cruz Thru with Metalcraft’s RFID sales manager Clyde Church. Church and Roselle worked with Metalcraft’s engineers to explore a custom tag designed specifically for the Cruz Thru application.

By 2007, Metalcraft was working with KSW Microtec’s Windshield RFID inlay to create an adhesive label that could be read on glass without a foam standoff like other windshield tag designs.

Metalcraft's construction encapsulated the inlay between thin layers of polypropylene adding a bar code and human readable information to one side and a windshield-compatible adhesive to the other. The encapsulation process protected the inlay and reduced the effects of electrostatic discharge (ESD) while the windshield-compatible adhesive protects against the harmful UV rays.

And the new tag design was able to deliver this performance at a lower cost.

“Clyde and his team stayed connected with me,” said Roselle. “Metalcraft showed great interest in our challenge and kept working to create an RFID label at a cost we could live with.”

So, Roselle helped Metalcraft test the durability of the new design by sticking RFID Windshield Tags on a sheet of plexiglass mounted in a carwash tunnel for 45 days – equivalent to two years of carwashes. There were no problems with the label surface or readability of the inlay.

It was time to deploy RFID at Cruz Thru.

Result:

Today, Cruz Thru Express Carwash has more than 5,000 members at five locations around Bakersfield. RFID has replaced the license plate readers in all of their *fastPass* Members Lanes.

“The benefit of our RFID-enabled *fastPass* is customer loyalty and ease of service,” said Roselle. “Customers don’t understand the difference in technologies, but they know Cruz Thru will provide better service and time-saving steps to have them return time and time again.”

Roselle says his *fastPass* system is at the heart of what his industry needs to deliver – service and convenience. Cruz Thru can accommodate 150 cars per hour.

“I love technology,” said Roselle. “And I knew we could improve the carwash business. Cruz Thru is dedicated to improving our trade.”

Roselle sees many applications for Metalcraft’s RFID Windshield Tag, too.

“Lube shops should be tagging vehicles, too,” said Roselle. “RFID Windshield tags are a technology that the automotive industry needs to use.”

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