



Parts Down Under

Automaker Hyundai's Australian subsidiary maintains high service levels with lean inventory

When automaker Hyundai began its march across the globe to make its brand a household name, Oceania was a natural target due to its proximity to Hyundai's first manufacturing plant in Korea. In fact, Hyundai entered the Australia market in 1986, the same year it entered the United States market. In Australia and New Zealand the automobiles have long been popular, whether it's a city car like the new Getz or the company's first luxury car, the Grandeur (known as the Azera in the US). In addition, Hyundai markets some of the same automobiles to Oceania as it does to Europe, such as the Terracan SUV and the Trajet (pronounced *tra-jay*, from the French word meaning "travel in comfort"), a seven-seat multipurpose vehicle.

According to the Detroit-based weekly Automotive News, Hyundai Motor Company and its subsidiary Kia Motors Corp. registered an 11.6 percent jump in global sales in 2005, overtaking Nissan to take sixth place in the world ranking of the largest automotive manufacturers. In Australia Hyundai cars are distributed by Hyundai Motor Company Australia Pty Ltd., a wholly owned subsidiary of the parent company in Korea. Inventory controller Russ Dixon is responsible for replenishing the auto parts supply for Australia and supporting New

Zealand as a secondary backup when parts are needed quickly. (Hyundai US also uses Demand Solutions—see *DS Magazine* Fall 2004 or visit Case Studies at www.demandsolutions.com.)

Dixon started working with the operation in 1999 before it was acquired by Hyundai, and it was using a UK-origin ERP system, an integrated suite of manufacturing, distribution and financial software based on the IBM AS/400 series. In 2004 Dixon began searching for a system that was more suited to the company's needs.

"Our forecasting needed a fresh start," Dixon said. "We looked at four other systems, and most of them consisted of satellite systems or third-party enhancements to our existing system." After attending a few conferences and being impressed with what he saw at a breakfast meeting hosted by Demand Solutions Australia, Hyundai purchased Demand Solutions on Dixon's recommendation.

"Demand Solutions had flexibility and an engaged support team," Dixon said. He had spent the previous 20 years supporting Volvo/Renault in Australia—15 of those years dedicated to forecasting parts and logistics support for the car, truck and bus markets—and was present for several software installations.

“This was the smoothest implementation I have ever seen. Obviously we had the initial bumps to bring forth the results we wanted, but as far as the software, operation and support went, I’m not aware of any problems that occurred during the installation or even six months afterward,” he said.

With 37,500 active SKUs, Dixon’s organization stocks four warehouses in Australia. The main warehouse where he is located in suburban Sydney typically stocks 25,000 line items. A support warehouse in Perth has nearly 10,000 line items and two satellite warehouses in Brisbane and Melbourne have fewer than 100 SKUs each at any time. There are three users within Hyundai Automotive Distributors Australia, two of which use Demand Solutions on a daily basis. To further complicate replenishment, Australia requires that a percentage of parts be locally produced, so one planner is dedicated to locally sourced product.

“Our industry is unique in that we replenish the warehouse based on client demand,” Dixon said. “We don’t set sales targets, because no one wants to put a spare bonnet arrangement in their garage. We wanted to optimize the warehouse space by working a little bit above the JIT principle, making sure our product is available eight to 10 weeks away from the supply source and between six and 10 days within the area.”

This degree of accuracy requires a lot of tightening of the exception filters, but the users don’t need computer science degrees. “We don’t have to do anything to maintain Demand Solutions,” Dixon said. “The pertinent data goes in and out of the system, we get automatic updates, and you know the month-to-date information on the button because Australia doesn’t have a problem where it’s morning on one side of the continent and night on the other.”

Before Dixon arrived, the Hyundai parts service level hovered in the low-to-mid 90s. “When we were reviewing whether to update our method of replenishment, we were enjoying a 97 or 98 percent service level,” Dixon said. “The main reason we were looking further was because we’re a large-volume supplier. We were putting in too much time trying to manage the day-to-day things and not enough on the small bits that have better margins. We still have some stitches to work on, but we’re now up to a 99 percent service level, which we think is very good considering the lead time we have.”

The inventory scenario Dixon found upon his arrival was a bit more severe. “About 50 to 60 percent of inventory was slow-moving to obsolete due to low

volumes and other factors,” he said. When Dixon “turned the switch” over to Demand Solutions, the organization held inventory of about \$17 million. “Currently we maintain our service levels with stock worth about \$10.5 million” in Australian dollars, about \$8 million in US dollars. “Our ultimate aim is to reduce stock to about \$6 million US, which is why Demand Solutions has been key to managing the stock. We’ll be close to reaching our goal in another 12 months.”

Hyundai Australia held \$17 million worth of inventory. Currently they are carrying \$10.5 million and maintain a 99 percent service level.

Dixon said that because of Demand Solutions the company has been able to hold much tighter stock in the Perth warehouse. “Our warehouse there is purely a support warehouse. It carries only product that has sold in the last 12 months. Anything older is returned to the Sydney warehouse. We do that quarterly with all three satellites. It reduces company commitment as far as debt goes.”

Dixon said the company analyzes a 12-month history exclusively across all parts. “We see very little seasonality and we find the 12-month window gives us a very good perspective for stocking the part. If you try to extrapolate over two or three years, you see volumes are a lot higher than what is available to you. I’ve found the 12-month window is enough that you don’t overstock and you can phase out items before you’re faced with too much unsalable product.”

Models on the move

One of the challenges Dixon will ultimately face is a reinvigorated management team that wants Hyundai to introduce more models in a country where 60 percent of the cars are more than 10 years old. While Dixon has to ensure the standbys such as oil filters and belts are competitively priced, Hyundai also recently introduced the turbocharged diesel engine Terracan in Australia.

“We started with three or four, then it went to six or seven, and now there are 10 models sold in Australia,” Dixon said. “That puts a degree of strain on inventory, but our turnover volumes are much better than they were. Our highest-volume product is turning over six times a year. It’s the low end of the slow-to-moderate movers that causes all the problems.” 