



BALDOR LAUNCHES NEW DRIVES LINE...

INTRODUCING BALDOR V*S DRIVES

Baldor is proud to introduce a complete new family of innovative drives designed to meet virtually all application needs. The new Baldor V*S Drive line includes two models of high-performance variable speed AC drives with powerful processors and advanced design features, three microdrive models offering a cost effective solution for basic adjustable speed applications, and a pump and fan drive designed to provide the control needed for maximizing energy savings without sacrificing functionality.

On the following pages you'll learn more about this exciting new line of drives...products that have been designed to meet every possible need, from the simplest out-of-the-box application, to the most complex AC vector control with Ethernet networking. Built to the highest standards of quality and reliability, every Baldor V*S drive is guaranteed to meet or exceed your application requirements.



V*S HIGH PERFORMANCE VARIABLE SPEED AC DRIVES CONTROL TO THE HIGHEST POWER

Built on Baldor's popular H2 technology platform, the Baldor VS1SP sensorless vector drive and VS1GV closed loop vector drive are high-performance variable speed AC drives designed to tackle difficult and demanding applications regardless of what voltage, power rating, or performance level the application demands. With their powerful processor and advanced design features, these drives provide high performance control of your application.



VS1SP AC Drive

The Baldor VS1SP model uses a traditional V/Hz control method. Its easy setup, quick startup, and right-out-of-the box operation make it a good choice for variable speed motor control. It is also ideal for applications where multiple motors are operated simultaneously from one motor control.

For single motor operation, the VS1SP drive supports sensorless vector control, which allows better speed and current control for high-performance, open-loop applications.

VS1SP drives are available in horsepower ratings from ¼ to 125 HP and in versions for 115 VAC, 230 VAC, 460 VAC, and 575 VAC.

For larger horse power applications, Baldor H series drives are available up to 1,500 HP.



VS1GV Vector Drive

The Baldor VS1GV vector model offers three modes of operation: closed-loop vector, sensorless vector, or the traditional V/Hz method. These drives are available in horsepower from $\frac{3}{4}$ to 125 HP and in versions for 115 VAC, 230 VAC, 460 VAC, and 575 VAC. VS1GV drives incorporate a variety of features and design innovations that assure dependable performance.

For larger horse power applications, Baldor H series drives are available up to 1,500 HP.

Closed-Loop Vector For the Ultimate Control of AC Induction Motors

The closed-loop vector method provides the ultimate control of AC induction motors. Using a motor-mounted encoder, it precisely controls motor torque and associated operating speed.

With its fast microprocessors and current sensors, the VS1GV vector drive can segregate motor current into components that produce torque from the currents that produce motor heating. By minimizing the heating component of current and accurately controlling the torque component of applied current, the motor will behave very much like a DC motor – without the maintenance.

Sensorless Vector Control For Tight Speed and Current Control in Open-Loop

For closed-loop performance without the concerns of additional wiring and setup, a sensorless vector control mode is the best solution. It is particularly effective in applications such as mixing or in a process where tight speed control is required.



VS1 AC MICRODRIVES

COMPACT. COST EFFECTIVE. RELIABLE.

Baldor VS1 microdrives are compact workhorses that feature user-friendly interfaces and design elements that assure consistent motor control throughout a wide range of voltages, horsepower, and enclosure types. Three cost-effective microdrive models are available; the VS1MD microdrive/inverter, the VS1MX for harsh environments, and the VS1SM single phase drive. Ranging from ½ to 10 HP, these three performance-proven microdrives are well-suited for a wide range of applications.



VS1MD Microdrive Compact Size Superior Torque

With an extended capability up to 10 HP (7.5 kW), the VS1MD microdrive is among the most powerful and cost competitive in its class. Its compact size, user-friendly interface, higher horsepower, and superior motor torque make it ideal for a wide variety of applications.

VS1MX microdrive Harsh-Duty Engineered

Considered the ultimate drive for harsh environments, the Baldor VS1MX microdrive is a compact, easy-to-use, low-power AC variable speed drive. This drive features a dust-tight NEMA 12/IP55 enclosure, making it ideal for use in pumping, chemical, waste water, and HVAC applications.

The drive is also available in a washdown duty NEMA 4X enclosure, making it ideal for food, beverage, and pharmaceutical applications. The

VS1MX-NEMA 4X is a cost-effective, washdown duty microdrive for low-HP situations. Ready for high-pressure washdown, this drive can mount directly on processing equipment.

VS1SM Single-Phase Drive

This drive offers sensorless vector control all in an easy-to-use package. World-wide acceptance with optional built-in EMC/RFI filter and configurable PNP/NPN digital inputs, The VS1SM is the perfect drive for OEM's who ship around the globe.



FULLY OPTIMIZED PUMP AND FAN AC DRIVES

TARGETED DESIGN. FULL-FEATURED CAPABILITY

The new Baldor VS1PF drive, available from 5 to 700 HP, is a feature rich drive ideally suited for the pump and fan industry. With its energy saving features, the VS1PF drive provides significant savings over mechanical variable speed solutions as well as higher performance drives.



VS1PF AC Drive Optimum Versatility Maximum Control

Its automatic energy savings mode adjusts output automatically based on load for optimum savings. The VS1PF drive uses a traditional inverter V/Hz

control method with linear, fan/pump, or customer curves, as well as sensorless vector control for the tougher constant torque pump and fan applications.

Its easy setup, quick startup, and right-out-of-the-box operation make it

user friendly and ideal for applications where multiple motors are operated simultaneously from one motor control.



Asphalt pavement is usually about 95 percent aggregate—stone, sand or gravel—and five percent binder, which is a by-product of oil refining that acts to glue the aggregates together. To make asphalt, these ingredients are combined with recycled material, heated, and then mixed together. Next, the hot pavement material is loaded into trucks and taken to the construction site, or it may be stored in silos. Throughout this process you'll find bucket elevators, drag conveyors, horizontal traverse conveyors, and screw conveyors moving both raw and finished product from one phase of the process to the next.

“Dodge has the reputation for making a quality bearing and offering it at a reasonable price. We know that there are other manufacturers that could provide similar styles of bearings, but we’ve selected Dodge because it’s a good product.”

Eddie Bingham, Astec applications engineer

Located in Chattanooga, TN., Astec, Inc. is the leader in the hot-mix asphalt equipment market, designing and manufacturing a complete line of

continuous and batch-process facilities that produce HMA for the world’s road builders. These continuous-mix plants are available in stationary, portable, and relocatable versions.

In such an established market, Astec keeps its competitive edge by providing customers with better products that solve problems and increase profitability. When you consider how much conveying and mixing of materials takes place in the HMA process, it’s easy to understand why Astec has made Dodge gearing and bearings its top choice.

Reputation for Reliability

Throughout the multitude of conveying applications you’ll find in the asphalt mixing process, the gear box used is the Dodge TORQUE-ARM™ and TORQUE-ARM II shaft-mounted speed reducer.

“Over the years Dodge TORQUE-ARM reducers have established a reputation for quality in our industry,” explains Eddie Bingham, Astec applications engineer. “We want to give our customers what they want, and customers who have a preference almost always ask for Dodge gearing.”

Bingham says their customers can’t afford un-planned downtime. They choose Dodge because they can count on the product’s reliability.

“The fact is that the Dodge gear boxes don’t break down very often,” says Bingham. “It’s a rugged product. We’ve shipped HMA plants with Dodge reducers across the world, from Argentina to Russia, and they hold up in any environment. We don’t hesitate to



send TORQUE-ARM gear boxes to any location and the reason is that we've just not heard anything negative about the products."

Consistent Product Support Over Time

Beyond quality and dependability, Astec engineers also look for products that will continue to be available in a consistent design and will also be supported years down the road. Bingham explains that while there have been advances in the design of the Dodge product, the critical elements of the reducer have not changed.

"It's important for our customers to be able to get the same ratio product when they need to replace an old unit, no matter how long it's been," says Bingham. "With Dodge, you pull the old reducer off and put the new one on and everything works. That's not the case with many other products. The fact that Dodge has been around forever and still supports the product line in this way is unique."

TORQUE-ARM II is the Future

With the commitment to give their customers the best technology and the most value, Astec looks carefully at the new products introduced by their current suppliers. Astec engineers have been especially pleased with TORQUE-ARM II and its twin-tapered bushing mount to the driven shaft.

"One of the things that we like about the TAI is the power density of the product," says Bingham. "You can get the same amount of power out of a smaller box – allowing us to maintain the service factor we need, but in a smaller size."

According to Bingham, customers also need the short-shaft bushing option with the TAI. "This really helps when a customer needs to retro-fit a shorter shaft," explains Bingham. "Replacing a shaft in the field is hard to do, but Dodge offers something that will fit. We find this option to be a real problem solver."

Bingham says he doesn't hesitate using the latest and greatest from Dodge gearing because he believes that it will become the new standard in the industry.



“We think the TAII is the wave of the future, and based on past history, we know that we will still be able to get this product 20 to 30 years from now.”

“One of the things that we like about the TAII is the power density of the product. You can get the same amount of power out of a smaller box – allowing us to maintain the service factor we need, but in a smaller size.”

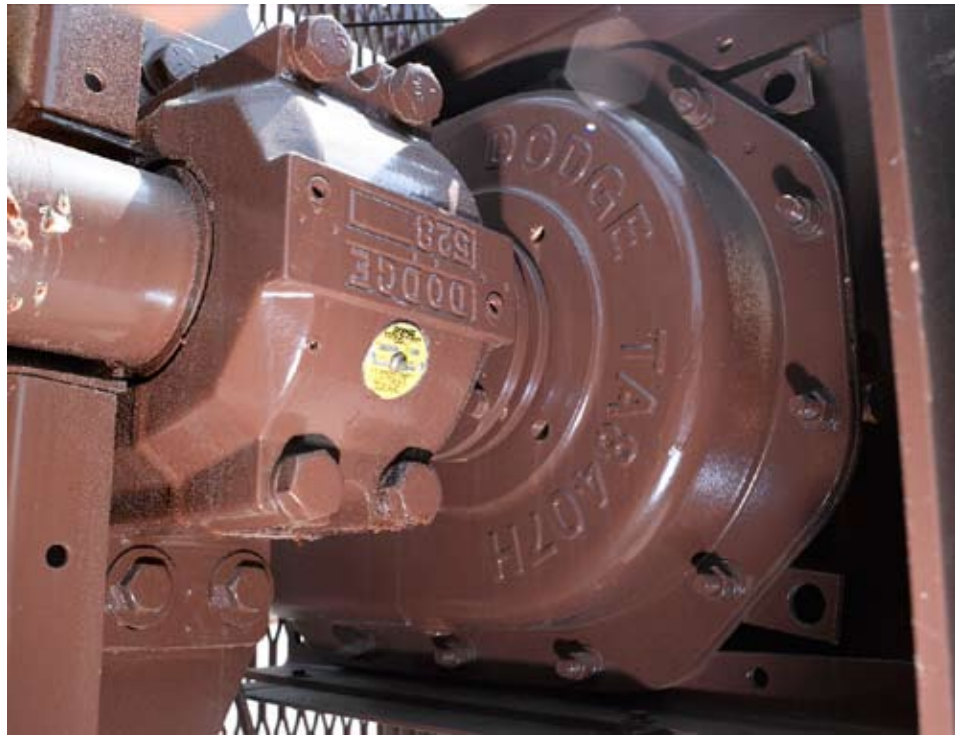
Eddie Bingham, Astec applications engineer

The Unmatched Quality of Dodge Bearings

Another aspect of the Astec commitment to providing superior equipment to its customers is their selection of Dodge bearings. Bingham states that Astec uses Dodge ball and roller bearings as the standard for the equipment.

With the broad range of applications for these products, you’ll find a wide variety of Dodge bearings on the Astec equipment, including SC, SCM, Type E[®], S2000[™], USAF, and the IMPERIAL[®] bearing. According to Bingham the reasons for using the Dodge bearings are clear to anyone in the industry.

“Dodge has the reputation for making a quality bearing and offering it at a reasonable price,” says Bingham. “We know that there are other manufacturers that could provide similar styles of bearings, but we’ve selected Dodge because it’s a good product. It all goes back to the idea that there is a level of quality that must be met, and Dodge bearings comfortably exceed that.”



Repeat Business through Lower Total Cost of Ownership

Keeping close to their customers and responding to their needs has helped Astec become the hot-mix asphalt plant market leader. Bingham believes they are successful because they don’t just look at the initial cost of key products that go on the equipment but instead consider the performance of the equipment over time.

“Most of our business is repeat business,” explains Bingham. “We know that if we don’t build a good product, we will lose customers. So instead of buying the cheapest products to put on our equipment, we choose quality products. We believe that what’s good for the customer is good for us.”

Clearly, Dodge gearing and bearings are good for both.

People.

It takes great people to build a great company.

Baldor, Dodge and Reliance are fortunate to have so many great people who have earned a reputation of being the best in the industry in product marketing, design and manufacturing.

Now we have brought these three great companies together. Combined, our company is over 8,000 employees strong, committed to a common goal of “producing the highest quality products for our valued customers.”

Our experienced people in manufacturing facilities and sales offices around the world will carry forward a combined 300-year heritage, writing the next chapter in the book of manufacturing excellence, product innovation and customer service.

www.baldor.com



Bringing the Best Together

