IT'S BEEN THE FOCUS OF OUR BUSINESS FOR NEARLY A CENTURY. WE'VE BUILT A WORLDWIDE REPUTATION ON OUR ABILITY TO DESIGN, DEVELOP AND MANUFACTURE EFFICIENT, RELIABLE POWER TRANSMISSION SYSTEMS FOR DIVERSE APPLICATIONS.

We understand the varying demands of on/off-road vehicles. Speed. Agility. Brute strength. Rugged durability. Heavy payload. High productivity. We engineer and build transmission systems that combine any or all these criteria.

Off-road roots.

What started in 1918 as a clutch design to make farm tractors more reliable and more productive has grown into a science of all-terrain mobility.

Today, Twin Disc automatic transmission systems mobilize all kinds of vehicles in every region of the globe. Aircraft Rescue Fire Fighting (ARFF) and all-wheel drive vehicles rely on Twin Disc equipment to quickly reach accident sites and then “pump and roll” to dispense their extinguishant while maneuvering around the fire. We’ve designed systems for vehicles that haul 45 tons of equipment over Alaskan permafrost. Oil rig servicing vehicles that traverse Siberian oil fields. Tunnel cleaning machines in the subways of Atlanta. Forestry service vehicles climbing the mountains of the Northwest. Hauling and transporting the grinding wheel of the world.

With our unique engineering skill and manufacturing expertise, we deliver systems that offer incomparable effectiveness and efficiency in the most specialized vehicles under the most grueling conditions. Our transmission systems have met the requirements of many global certification societies. And we still make four wheel drive agricultural equipment more productive.

Twin Disc knows power transmissions better than anyone on earth.
More control with less effort.

A Twin Disc automatic transmission system lets the vehicle do more of the work, so the driver works better. In some cases, "getting there" is the whole objective. Whatever the terrain, whatever the payload, the Twin Disc transmission system offers the performance and reliability to make the trip easier.

The electronic control's microprocessor senses when to shift the transmission without slowing or stopping the vehicle. It knows when to deliver maximum acceleration and traction in all conditions, when to change gear to prevent overloading the axle, and how to prevent the kind of abuse that can shorten component life.

With enough training and experience, the driver could do all of this. But the transmission's microprocessor can do it faster, better, and error-free. That frees the driver to focus on the terrain and the job at hand. It makes the operator and the vehicle safer and more productive. And it protects the vehicle's driveline from harsh shifting errors.

Off-the-shelf or in our head.

Through our experience in engineering power transmission systems for so many different kinds of vehicles, we've developed an impressive line of transmission products and a virtual brain trust of expertise. We probably have an existing transmission system that's suitable for your application. But more importantly, we have the skills and resources to develop one that's ideal.

The Twin Disc TD-61-1175 Integrated Vehicle Automatic Transmission System provides the driver of this Tatra all-wheel drive truck with superior control under grueling terrain conditions.

Twin Disc's Automatic Transmission System consists of an engine-mounted modulated clutch torque converter with integral lock-up clutch and power take-off, independently mounted six-speed automatic transmission with Twin Disc patented managed biasing differential, and Twin Disc advanced microprocessor technology.

An independently mounted Twin Disc integrated vehicle automatic transmission system with patented managed biasing differential eliminates the need for separate transfer case. This remarkable configuration allows flexibility in the weight distribution of the vehicle while smoothly applying power to the wheels.

A Tatra HET (Heavy Equipment Transport) equipped with TD-101-3600 10-Speed Automatic Transmission System performs in rigorous desert conditions.
Rather than simply supplying individual components, Twin Disc designs a carefully matched mobility system. Each element of the system coordinates with the others, providing superior performance and reliability.

The system starts with an engine-mounted modulated clutch torque converter. Variable-speed control provides precise power dividing low-speed while a lockup clutch provides a mechanical connection to engine power at higher speeds. An advanced electronic control center coordinates communication between the drivetrain elements, extending service life by protecting the system from driver error and optimizing power relationships between components. With Twin Disc’s powerful and customizable microprocessor, we can customize the system’s operation to meet your specific operating requirements.

We are able to successfully build systems for so many diverse applications because we control every step of system development, from research to engineering to manufacturing to sales and service.

Twin Disc has the engineering experience to anticipate the power transmission challenges a vehicle will face, and the resources to develop a specific product or system solution to meet those challenges, using computerized systems modeling, torsional vibration analysis and finite element analysis and finite element analysis. We can design your system for optimum efficiency.

Perfecting the new solution.

Twin Disc’s system approach has proven itself time and time again in so many different types of vehicles. Our systems are specialized enough to excel in the most unique applications, and flexible enough to be adapted to new, experimental vehicles. We’re constantly breaking new ground.

Let Twin Disc analyze your application needs. Whether it’s a system to revolutionize performance in an existing application, or a solution to the challenges of an entirely new piece of equipment, we can customize a power transmission system to give you optimal mobility and performance anywhere on earth.