

GETTING YOU UP TO SPEED





It started with a love of boats and a vision on how to make them run and work better. Over the course of 75+ years, Twin Disc has forged a reputation worldwide on our proven ability to design, develop and manufacture the most efficient, reliable marine propulsion products for a wide variety of applications.

First used in rigorous commercial fishing applications in the Great Lakes during the 1930s, Twin Disc marine transmissions proved themselves reliable under the most demanding conditions. Even war. Allied forces depended on Twin Disc marine transmissions to drive some 40,000 landing craft loaded with troops and supplies onto beaches during the invasion of France and throughout the South Pacific during World War II.

Today, you will find Twin Disc marine products propelling all kinds of vessels, on all kinds of water, all around the world.

And, our off-highway transmission products are used in agricultural, all-terrain specialty vehicle and military applications. We have built a worldwide reputation on our ability to engineer and manufacture products that offer incomparable effectiveness and efficiency under the most grueling conditions.

ENGINEERED TO WORK. REAL HARD.

Twin Disc marine products are designed, engineered and built to perform real tasks, really well, in the real world. Sometimes it's glamorous work; sometimes it's not so pretty. But it's always necessary. From luxurious pleasure craft to stealthy military vessels to hard working tugs, pushboats, fishing boats and crew boats. Twin Disc products optimize the control of the engine's horsepower, contributing to the boat's overall performance, productivity, operating efficiency and cost-effectiveness.

WE KNOW. WE LISTEN. WE DELIVER.

Our array of marine propulsion products and their diverse applications are a reflection of our years of experience and expertise in the marine marketplace. Twin Disc has developed products based on what we know the market needs and wants. Our in-depth knowledge of all sorts of marine craft — pleasure and commercial — and the various owner, operator and task requirements, provides us with both observations and feedback that lead to successful, relevant products.

WE'RE THERE WHEN YOU NEED US.

We know Twin Disc marine products are a critical component in the productivity and performance of a boat. That's why we have a worldwide sales and service network — 129 distributors in 77 countries — to supply and support our products wherever they are used. Twin Disc is dedicated to achieving and maintaining optimum results for those who specify and use our products.



WE PUT HORSEPOWER TO WORK[®]



MARINE PRODUCTS

You will find Twin Disc marine products — transmissions (including the revolutionary QuickShift® transmissions), electronic controls, waterjets and Arneson Surface Drives — propelling all kinds of vessels, on all kinds of water, all around the world.



Arneson Surface Drives

For the ultimate in speed, maneuverability, efficiency and dependability, nothing matches

Arneson Surface Drives. Their surface-piercing propeller design reduces underwater drag by 50% compared to conventional submerged propeller drive systems. The only surfaces to contact the water are the propeller blades and a protective skag. This results in higher overall speed, quicker acceleration and a better payload-to-power ratio. And 50% less drag significantly improves fuel economy while lowering operating costs.

Marine Control Drives

These unique variable speed drives provide boat operators with the capability to split and control engine power. Twin Disc Marine Control Drives incorporate a modulated clutch with slip control that allows precise control of propulsion and permits power-splitting capabilities between propulsion and other critical activities — bow thrusters, fire pumps and winches.

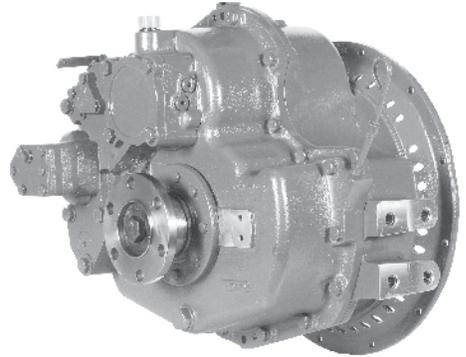


Marine Power Transmissions

From mid-size and large diesel-powered pleasure craft to a myriad of commercial boat applications, Twin Disc has marine transmission systems that precisely fit the horsepower and operating needs of each.

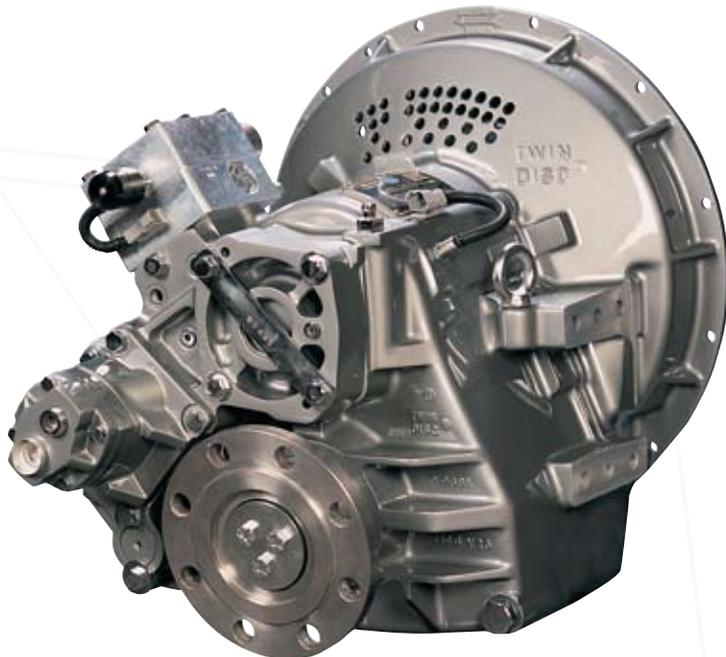
Our standard marine transmissions feature helical gearing for quieter operation; hydraulic-controlled and oil-cooled clutches for smooth, fast shifting; identical reduction ratios in forward and reverse, in most cases full power forward and reverse, and minimal external plumbing.

Some models are available with down angle output to provide near-level engine installation, a feature of particular interest to boat builders for optimizing space within the vessel. For additional space savings, remote mounted V-drive and direct-mounted V-drive models are available.



QuickShift® Transmissions — You've Got To Feel It To Believe It.

No other marine transmission in the world shifts as fast and smooth as the Twin Disc QuickShift, yet it provides amazing slow speed control at five knots or less. With its patented, completely internal and integrated clutch actuating system, QuickShift instantly delivers cushioned torque to the driveline when shifting from neutral to anywhere from full ahead to full reverse. It eliminates driveline shock while optimizing power to the driveshaft. And all this happens literally within milliseconds. So you have a steep but smooth power curve, whether you go full out or just nudge the throttle.



New Hybrid QuickShift with slow speed capability gives you QuickShift functionality with the advantages of a green system. You'll get the responsiveness, power and quietness of electric drive propulsion during docking, idle and slow-speed maneuvering.



Marine Electronic Propulsion Control Systems

Leading the industry in quality, style and performance, Twin Disc electronic control systems are designed to interface with all popular electronic engines and transmissions. They are versatile, rugged and easy to install. With literally one finger on one lever, the operator can control the boat's speed and direction. Multiple drivetrains and multiple control heads can easily be accommodated. And multiple electronic control stations can be placed around the boat.



Express Joystick System®

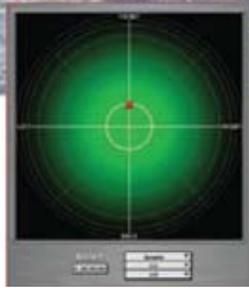
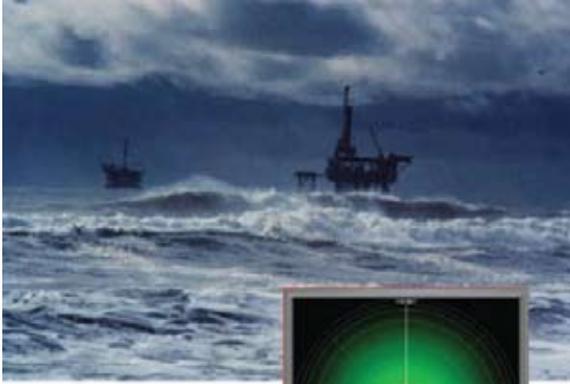
The Twin Disc Express Joystick System (EJS™) absolutely revolutionizes docking and slow speed maneuvering of diesel-powered, conventional driveline boats.

With easy fingertip movements you control direction and speed — *instantaneously*. No lagging. No lugging. No lurching. No clunking. All thanks to proven QuickShift transmission and EC300 control technology.

The EJS smoothly and simultaneously actuates and controls engines, transmissions and thrusters. You can effortlessly move the boat in any direction and even pivot it on its own axis. Its performance dramatically exceeds any other propulsion system.

The Twin Disc Express Joystick System brings incomparable control and enjoyment to even the most difficult docking situations. Once you try it, you can't imagine driving your next boat without it.





Dynamic Positioning Systems

If you want high performance DP with the lower cost of standard shaft designs, Twin Disc has the answer. QuickShift marine transmissions, combined with EC 300DP control systems, can put you in position for huge fleet savings.

The Twin Disc DP propulsion control package allows instantaneous, shockless and virtually constant forward and reverse shifting to keep supply vessels on station as directed by the craft's dynamic positioning system. Drivelines can execute directional reversals at variable torque levels more than 30 times per minute to hold station with the full requirements of the DP class.

Rolla Propellers

The Rolla name has been synonymous with the highest efficiency, highest quality propellers in the world since 1963. Rolla stainless steel and NiBrAl surface piercing propellers range from 28 inches to 9.8 feet in diameter and include lines specifically designed for all major surface drive systems, including Arneson Surface Drives.

Rolla offers a wide variety of service for every aspect of propeller design, manufacture and application, from complete hydrodynamic analysis and engineering capabilities to computational fluid dynamic (CFD) hull analysis to sea trials.



Introducing MasterTrim™

Now you can obtain an even higher level of control, performance and operating efficiency from the Arneson system. Twin Disc MasterTrim adjusts the trim position of the Arneson Surface Drives and the boat's trim tabs for maximum efficiency and effective performance of your boat under various and changing operating conditions. This leaves you free to focus on the safe navigation of the craft. At any time, you can take full control of the drive and tab positions to manually position them.





GO WITH WHO YOU KNOW.

With our vast network of locations around the world, Twin Disc offers you unprecedented sales and service support. We can put engineering and service expertise on location virtually anywhere. We'll work with you on your particular application and product to ensure optimum results. We're more than just a name you know, Twin Disc is a name you can trust.

For more information, visit www.twindisc.com



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