3rd Edition

mit

The Driveline Experts

MARINE | INDUSTRIAL | OFF-HIGHWAY

PRODUCT AND SERVICES BROCHURE

Comprehensive driveline portfolio and bespoke service capabilities

mitgroup.co.uk

THE SPECIALISTS IN COMPLETE MARINE DRIVELINE & PROPULSION, INTEGRATED SOLUTIONS, SPARE PARTS AND AFTERMARKET SUPPORT

Since 1974, we have kept your vessels running smoothly. We offer everything from supply and design through to installation, servicing and repair to most models of marine transmissions. We're experts in providing total marine driveline solutions, propulsion systems, spare parts and aftermarket support to all aspects of the marine market.

We supply, install and commission customised solutions for a wide variety of marine applications, including work boats, fishing, pilot, wind farm maintenance, transfer vessels, tugs, military, search and rescue and leisure marine – we cover the whole market. And our expert team will ensure that your driveline requirements are fully developed with the right solution.

Once our in-house team have created the solution appropriate for you, it will be delivered directly to you. This can be achieved on site or at one of service centres based in the south and north of England. All parts are fitted and tested to the highest degree, so you can be safe in the knowledge that your vessel has been optimised by the marine driveline experts.

WHEN YOU NEED QUALITY AND RELIABILITY

MIT are here to deliver. Whether it's operations provision, boat building, boat yard design or rig maintenance, we have a huge portfolio of driveline and propulsion components and spare parts for marine vessels, including:

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STEERING YOUR BUSINESS TO SUCCESS

Along with a multitude of driveline components and spare parts, we keep your vessel where it needs to be, at sea. Our experts are here to give you the support you need to maintain your profitability and drive your business forward. Our marine portfolio supports a wide array of marine applications.

COMMERCIAL

- Work boats
- Fishing boats
- Pilot boats
- Wind farm maintenance and transfer vessels
- Tug boats
- Search and rescue
- Life vessels
- Research vessels
- Small passenger ferries
- Small pleasure cruisers
- Patrol vessels
- Police watercraft
- Small RoRo car ferries

MILITARY

- Frigates
- Minehunters
- Patrol/fast patrol vessels
- Survey vessels
- Interceptors
- Landing craft

LEISURE

- Super yachts
- Motor yachts
- Power boats
- Ribs
- Barge
- Sail boats
- House boats
- Small passenger ferries
- Small pleasure cruisers
- River cruisers

WE'RE MORE THAN COMPONENT PARTS

Complete design, service, installation and support

WHY COME TO MIT?

- Over 40 years of providing components, maintenance, repair and driveline solutions to the marine industry
- Bespoke solutions, tailored to your needs and specific vessel
- We work with all makes and models of marine driveline component parts and can source whatever product you need
- Competitive project by project pricing
- Comprehensive stock of spare parts
- Emergency breakdown cover
- Track record of excellent response times
- Support when and where you need it, from either our northern or southern service centres or on site at your location
- Excellent customer service, starting with meeting your individual needs and continuing with our well-acknowledged aftersales support.

CUSTOMISED SOLUTIONS BUILT TO YOUR SPECIFICATIONS

Our specialist Design and Applications team ensure that your driveline requirements are fully met and developed. We offer a full consultative service, from identifying and supplying simple modifications, all the way to fully customised system engineering. Our Service Team will deliver the solution directly to you, ensuring it's correctly fitted, tested and commissioned prior to a final handover.

KEEPING YOUR VESSEL ON THE WATER

We understand your need to keep your vessels operational, which is why we provide service, repair and emergency breakdown cover with 24/7 support across the globe. Our team of highly skilled mobile service engineers are equipped to support customers on site or at either of our northern or southern service centres. We have bespoke service solutions, ensuring our customers can remain operational.

At MIT, when you call, we'll be there. Whether it's routine maintenance or breakdown cover, our experts are on hand for your servicing needs. All repairs, maintenance and overhauls are carried out using genuine OEM components to ensure extended lifecycle of your vessels.

EMERGENCY BREAKDOWN & 24/7 SUPPORT

We're here to help, 24 hours a day, 7 days a week.

STOCKED SPARE PARTS AVAILABLE WITH NEXT DAY DELIVERY

We stock a vast array of spare parts, available for next day delivery where possible. No order is too big or small. We work with you to provide you what you need, from the smallest O-ring to the supply of a full spare parts kit, individually tailored to your application and specification.

Whatever your vessel type, if you need a spare part for stock, routine maintenance or emergency breakdown repair, we're the marine driveline experts to call.

- O-rings
- Gaskets
- Filters
- Flanges
- Solenoid Valves
- Clutch Plates
- Bearing Kits
- Seal Kits
- Marine Gear Oil
- And much more!

WORLD CLASS BRANDS

Since 1918, **Twin Disc** have been inventing, engineering and manufacturing products and technologies to make power more productive to a variety of marine applications. Twin Disc transmissions, propulsion systems and controls are precision manufactured, time proven and field tested to provide their users with optimal performance, reliability and cost-effectiveness. Their in-depth knowledge of pleasure craft, commercial and military marine applications puts unparalleled application experience into every Twin Disc product.

With innovation at their core, **Transfluid** have been developing and manufacturing transmissions and components for marine applications since 1957. With a focus on introducing products that continually satisfy needs in a fast-changing market, talent and flair is at the heart of what they do. Transfluid are at the forefront of standard diesel transmission technology, while looking to the future with their electric/hybrid driveline solutions.

Founded in 1979, **Rubber Design** have grown to become an international leading specialist in solutions for noise, shock and anti-vibration problems for a wide range of marine applications. With on site design, engineering, testing and production facilities, Rubber Design offer a wide range of services from the latest standard products to bespoke tailor-made solutions.

Veth Propulsion by Twin Disc is a customer-oriented international manufacturer of auxiliary propulsions and propulsion machinery for ships. Established in Papendrecht in the Netherlands, this family company has 150 people employed and is a global player and a leader in innovation, quality, flexibility and speed.

Since 1920, **Quincy** have been designing and manufacturing reciprocating and rotary screw air compressors, engineered for optimum efficiency and maximum productivity. Suitable for a wide range of marine applications, their cost-effective, innovative solutions have set quality standards and raised the bar for dependability, durability and efficiency.

No other marine surface drives match the speed, efficiency and dependability of Twin Disc **Arneson** Surface Drives. Twin Disc made Arneson Surface Drives available for non-racing applications – pleasure craft, commercial vessels and military applications. Today, Arneson Surface Drives are renowned as the fastest, most efficient, fuel-friendly propulsion systems on the planet.

Established in 1973, **Technodrive** design, develop, assemble and test power transmissions for marine applications operating at varying power outputs. Since joining forces in 1999 with the experts in marine power transmission technology, Twin Disc, Technodrive have been operating as part of the Twin Disc group of companies.

Since 1963, the name **Rolla** has been synonymous with the highest efficiency, highest quality propellers in the world, and today are designing and manufacturing dedicated propellers that are up to three meters in diameter. Rolla offer a complete hydrodynamic engineering service, unique within the industry, starting with CFD analysis of the hull, including sea keeping, to the most sophisticated CFD-designed propellers.

Electric boating starts with **Bellmarine**. In the world of electric propulsion systems, Bellmarine are leading the way with years of experience, quality, innovation and durability, guaranteeing effortless electric boating.

THE RIGHT PART FOR THE RIGHT JOB, FROM THE RIGHT MANUFACTURER

SERVICE PARTNERS

We partner with leading companies to ensure our customers can benefit from our leading service and repair capabilities.

Our team of qualified service engineers offer extensive service, preventative maintenance and overhaul capabilities on most models of marine drivelines, along with being the UK/Ireland distributors for Twin Disc, and official service partners of ZF Marine, Reintjes and Servogear.

Our engineers are equipped with tools and spare parts to visit your vessel no matter the location. All repairs, maintenance and overhaul work are carried out using genuine OEM parts to ensure quality and extend the lifecycle of your application.

ZF SERVICE PARTNER

Founded in 1915, **ZF** is a global leader in driveline technology, supplying marine propulsion systems and components for all types of vessels. This includes motor yachts, defence craft, high-speed ferries, workboats and commercial vessels in power rating up to 14,000kW.

We are the main UK service dealer for ZF and offer service and repair to their complete marine gear and transmissions portfolio, as well as supplying replacement parts and installation for new unit installs.

If you need maintenance or repair on your ZF marine equipment, our Service and Repair team offer effective and fast response times, providing you with engineering support when you need it, whether it's an emergency or regular maintenance.

REINTJES POWERTRAIN SOLUTIONS
Authorised Service Dealer

Reintjes GmbH is a global independent propulsion technology company that manufacturers gearboxes and propulsion systems and are continually expanding its classic product portfolio of marine gearboxes for main drives with power ratings from 250 to 30,000kW. This is alongside dredging gearboxes, complex system solutions such as pod drives and hybrid drives.

We are the number one authorised UK service dealer for Reintjes and offer service and repair to the full Reintjes marine gear and transmissions portfolio. We supply replacement parts and offer installation to new unit commissions.

Our highly skilled team of engineers have been trained directly by Reintjes, operating from our southern and northern service centres, to provide you with engineering support on any Reintjes parts.

SERVOGEAR

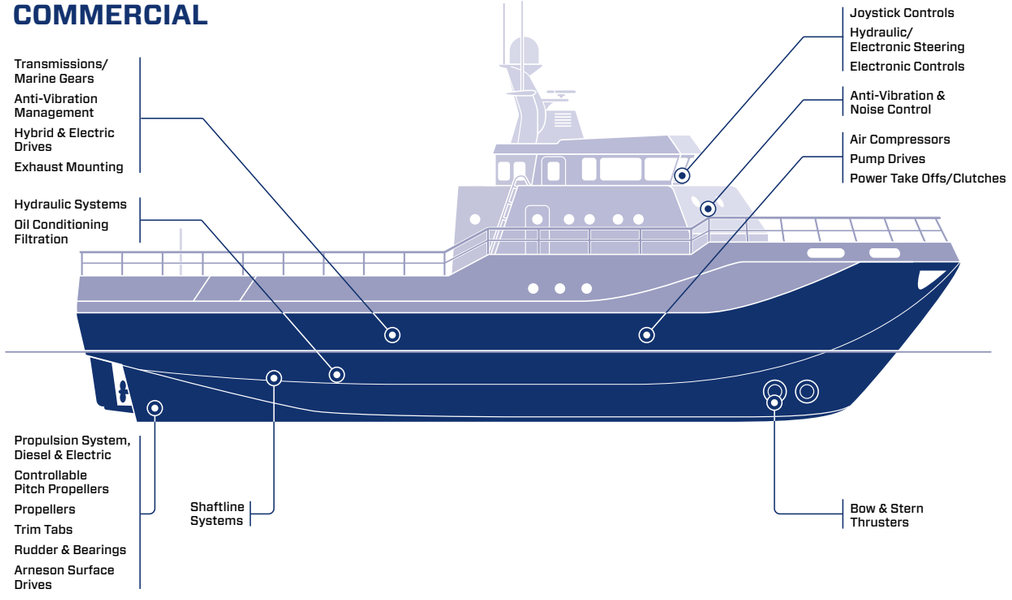
Servogear AS is a leading manufacturer of Controllable Pitch Propeller Systems for high-speed workboats, fast ferries, offshore vessels and yachts. Bespoke tailor-made solutions offer users a unique combination of speed and thrust. Established in 1973, Servogear has delivered more than 1,750 installations worldwide.

Danfoss

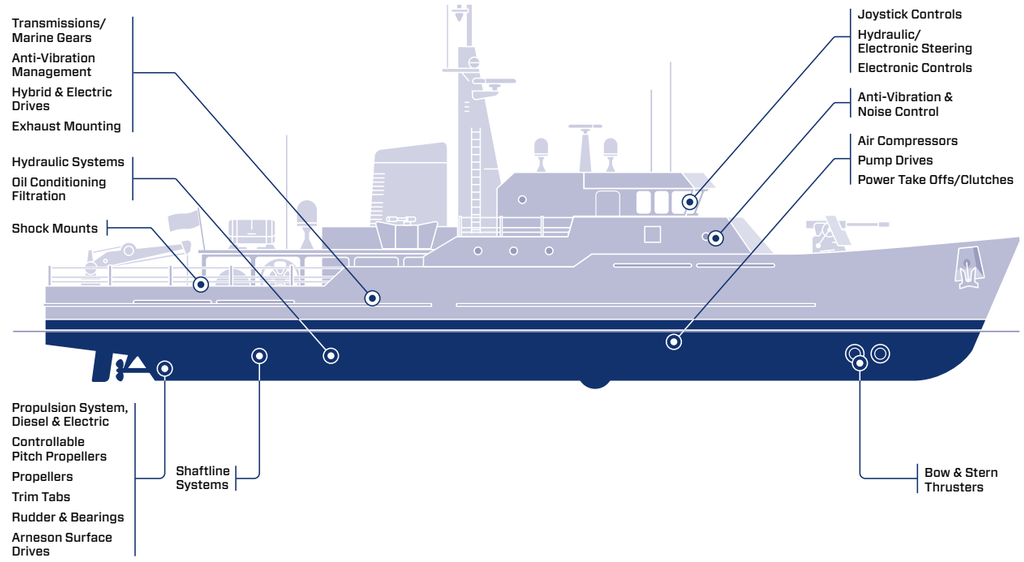
Since introducing the world to AC drives back in 1968, **Danfoss Drives** has continued to lead the charge when bringing variable speed control to electric motors. Drawing on decades of passion and experience within a wide range of industries so they can deliver drives that work with any motor or system

MARINE CAPABILITIES

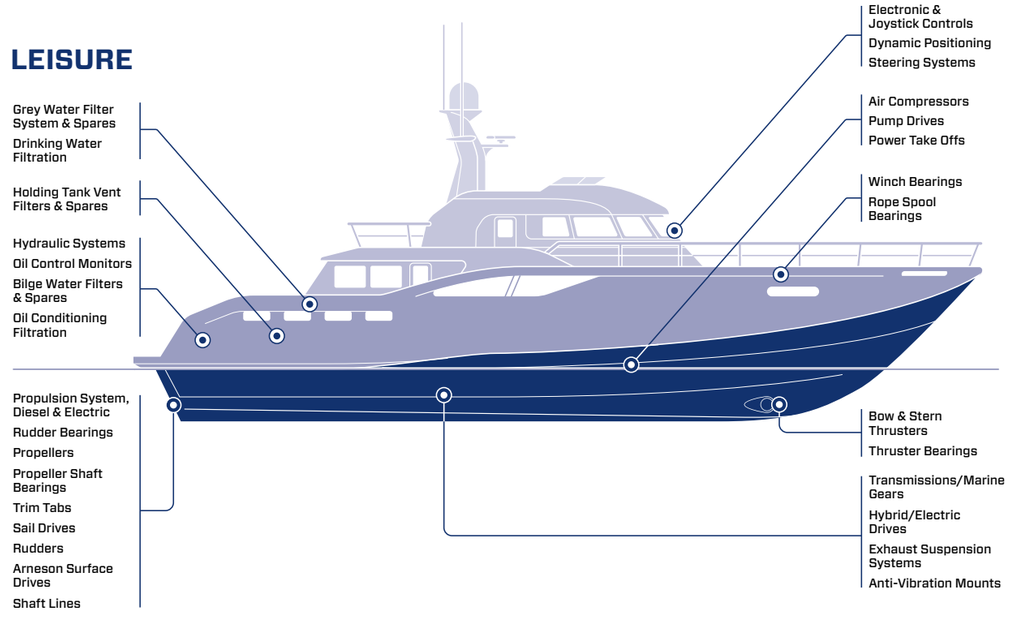
COMMERCIAL



MILITARY



LEISURE



TRANSMISSIONS AND MARINE GEARS

With over 100 different types of marine transmission ranging from 10kw to 2900kW, we have the technology to suit your application. Working with both engine OEMs and end users, our specialist team offer bespoke guidance on the correct gear and ratio, ensuring the correct specification for your vessel.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Quiet operation with helical gearing
- Smooth, fast shifting with hydraulic, oil-cooled clutches
- Full power and identical reduction ratios in forward and reverse
- Minimal external plumbing
- Down-angle output and remote or direct mounted V-drive models
- QuickShift® gearboxes offering world's smoothest, fastest shifting and slow speed control
- Patented internal clutch actuation delivers cushioned torque and optimum power in milliseconds
- Renowned reliability and global aftersale service.

MGX5065A

MG5114SC

MARINE CONTROL SYSTEMS

With precise and ultra-fast clutch engagement, we revolutionise docking and slow speed manoeuvring for diesel and conventional driveline boats. Easy to install to new vessels or as a retrofit option, our fully programmable propulsion control systems put the control in your hands. Also available in models that activate forward and reverse dynamic positioning and trimming capabilities.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

EC300 Power Commander

- Accepts 10 – 30V systems
- Operator selectable minimum shaft speeds in Express
- Troll mode
- Software selectable methods for station transfer
- Proven QuickShift transmission and EC300 control technologies
- Interactive feature allows easy parameter adjustment.

EC300

Express Joystick System

- Push, twist and go directional manoeuvring
- Proven QuickShift transmission and EC300 control technologies
- Simultaneously and instantaneously controls engines, transmissions and thrusters
- During docking, eliminates wheel and control lever activities
- Ergonomically friendly.

Express Joystick System

Veth Control System

- Compatible with most models of Veth propulsion units
- Read out, monitor and analysis of data and alarms
- Low power consumption by deactivation of the system
- Touchscreen panel with colour display
- Third party interface systems compatible, DP, Pilot and VFR.

Veth Control System

Put the control in your hands with Dynamic Positioning

Using the Dynamic Positioning from Twin Disc, the vessel's main propulsion and thrusters can hold a vessel's position and heading within a specified tolerance. Benefits include low fuel consumption, low wear and tear of machinery and thrusters and immediate response and control with 30+ shifts per minute.

HYBRID AND ELECTRIC DRIVES

Looking towards new environmentally friendly drive solutions, MIT's hybrid/electric technology allows the user to operate under both traditional diesel power and emission-free electric propulsion. A perfect option for both new build and retrofit to existing power train arrangements.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Operates at zero emissions with reduced noise
- Lower operational costs
- Lower carbon footprint
- Emission regulation ready
- Improves operator wellbeing
- Suitable for retrofit
- SAE multi-disc clutch system to connect and disconnect the internal combustion engine
- Solenoid clutch-control valve
- Fits on any internal combustion engine with an SAE flywheel and housing and to any type of transmission
- Engine power approved for HM series goes up to 1230kW at 2300rpm diesel power and 300kW electric power.

HM560

HM2000

TRANSFLUID industrial & marine

PROPULSION SYSTEMS, DIESEL AND ELECTRIC

Veth thrusters are suitable for a wide range of vessels due to the flexibility of their models, with several configurations and drivelines to choose from. Veth azimuth thrusters are available in either Z or L drive configurations and can be powered by traditional diesel or electric power, while allowing the control for the azimuth system to be either hydraulic or electric.

Available with open propeller, counter rotating propellers or nozzle.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Z Drive

- Integrated freewheel in the upper gearbox
- Suitable for 100% continuous rated power
- 360° full thrust gives greater manoeuvrability
- 2% more efficiency than a conventional propeller
- Ability to change propeller without docking
- More room for passengers/cargo due to compact construction
- Ideally suited for Dynamic Positioning (DP).

L Drive

- Compact design, high efficiency and minimal noise production
- Outstanding manoeuvrability thanks to the 360° thrust
- Electric motor inside the ship means fewer vulnerable components underwater
- Sip ring cabinet is unnecessary
- Optimal flow of water thanks to 'Shark Tail' on counter-rotating propeller.

Hybrid

- Choose between diesel-direct or diesel-electric drives, or a combination of both
- Better loading of the engine relative to fuel consumption
- Higher redundancy compared to diesel-electric systems but with lower costs
- Lower fuel consumption and maintenance costs
- Possibility to add batteries and sail in complete silence.

VETH PROPULSION BY TWIN DISC

E-MOTION, ELECTRIC PROPULSION

Bellmarine leads the way in environmentally friendly propulsion solutions ranging from 1.2kW to 50kW. Available in a wide range of models and configurations, leisure boaters are assured the highest of quality, technology and service. The motor controller in each electronic propulsion system monitors all components, including battery life and controls both the motor power and cooling system.

LEISURE

KEY FEATURES

- Water resistant motor controller (IP66)
- IFO Vector Control – superior dynamic response, higher operational efficiency and maximum torque
- Integrated DC-DC converter 144. 13.BV 450 Watt
- Additional power boost of 8 seconds
- Quick install
- Easy connect
- Plug and play
- NMEA2000 compatible
- Hybrid function available
- Includes main switch and main fuse.

Note – these are key features of Drivemaster Ultimate and features may vary depending on model.

Drivemaster Ecoline

Drivemaster Cute

Drivemaster Ultimate

Bellmarine® powered by Transfluid

PERMANENT MAGNET ELECTRIC MOTORS AND GENERATORS

The innovative Electric Machine available via MIT replaces a standard design engine, allowing the user to operate fully on electric power. The unit can be used as a motor from 12-100kw or generator at 10-97kw Suitable for a wide range of marine applications, the unit provides both high efficiency and simplicity with a limited weight and size.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Limited weight and size allows for easy installation
- Motor controller allows the machine to work as both a motor and generator
- Cost-effective alternative to diesel power
- Can be used as a retrofit solution
- Reduces operational costs
- Reduces environmental and noise pollution
- Excellent for low speed manoeuvring
- KTY 84-130 thermal sensor equipped as standard
- SIN/COS magnetic sensor optional
- Protects your business against future emissions regulations.

TRANSFLUID® industrial & marine

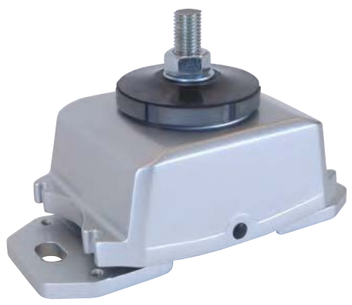
ANTI-VIBRATION CONICAL AND SANDWICH MOUNTS

MIT offer a comprehensive portfolio of anti-vibration mounting and noise insulators, suitable for a wide range of vibration producing marine components. This is along with Conical and Sandwich mountings, and MecLev mechanical levelling mounts, that are suitable for medium-sized diesel engines, auxiliary engines and generator installations.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Expert engineering advice on number of mounts, rubber mix and mounting positions
- All mounts are tested and selected for stiffness prior to delivery
- Calculations based on individual specifications
- Spare part availability
- Reduced noise and vibration pollution
- Protection of rubber from oil and ozone
- Internal deflection limiter avoids overload
- Maintenance free and easy to install
- Helps to align and re-align your machinery, quickly and accurately
- Fast and simple elimination of soft foot under your machinery
- Eliminates time consuming and expensive machining of steel chocks
- Removes the extra work required when installing epoxy resin checks
- MecLev mounts are re-usable
- Self-levelling
- Can handle angular difference between machine foot and foundation up to 4°.



Rubber Design
vibration and noise control

EXHAUST SUSPENSION AND STAINLESS STEEL BELLOWS

MIT supply Rubber Design products that reduce noise and vibrations from diesel transmission exhausts. With hanging and standing flexible fixed-point products, we offer bespoke solutions, tailored to individual driveline arrangements. We also offer single and double expansion to absorb any movement to pipework that runs between two fixed points.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Stabilizers are sized and positioned to allow the maximum thermal expansion of the exhaust system
- Stabilizers must be placed at approximately 90° to support the exhaust piping
- The fixed points support the exhaust system and control the dynamic forces which occur in the system while the vessel is in operation
- The fixed points control the direction of the thermal expansion within the exhaust system
- Stainless steel bellows with a low stiffness, combined with our flexible suspension, achieves the best control of vibrations and forces in pipe systems, providing optimal lifetime
- Standard supply flanges available – DIN 86044, DIN PN 6/10.
- JIS 5K and ANSI 150lbs flanges available.

Rubber Design
vibration and noise control

BOW AND STERN THRUSTERS

We supply Hydraulic Bow and Stern Thrusters, offering complete manoeuvrability in demanding conditions, operated by top of the range systems.

Compact and simplistic design allows the units to be installed in the smallest of spaces, delivering high-quality and reliable performance. Our team can scope the best solution for your vessel, along with supplying a complete range of accessories and spare parts.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Twin Disc Hydraulic Thrusters

- Easy installation
- Quiet operation
- Available for applications up to 40m (131')
- Designed for low hydrodynamic resistance
- Double counter-rotating propeller
- Transmission gears built with high tensile materials
- High-quality materials suitable to the marine environment
- Wide range of hydraulic components in different sizes for a complete system with different configurations
- Bow and stern mounting options
- Conforms to the highest production standards
- Easy access to spare parts.

BP300/400

Veth Bow Thrusters

- Optimum thrust achieved at minimum draft
- Standard and shallow draft options
- Higher efficiency at higher speeds
- Compact and easy to install
- 360° steering
- Low maintenance due to robust construction
- Can be used as propulsion.

Veth Tunnel Thruster

HYDRAULIC AND ELECTRIC STEERING

Hydraulic and Electric options

MIT offer both traditional hydraulic/electric and innovative power steering systems. These state-of-the-art technical solutions are built with high precision that meet the requirements of the best survey authorities, such as RINA, Lloyd's Register, ABS and Bureau Veritas.

E-Steer

The next generation in power steering is based on CAN-bus communication architecture and compliments existing hydraulic steering systems, power assisted steering systems and electric over AC powered hydraulic power packs.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Hydraulic and Electric options

- Wide variety of possible configurations
- Suitable for either small or medium pleasure boats and commercial vessels
- Highly flexible and efficient electronic systems are suitable for applications up to 230"
- Electronic systems support over 100 application types
- Decades of experience in the production of electronic power-assisted steering
- Ensures performance and durability
- Hydraulic cylinders and helm pumps can handle many different applications.

E-Steer

- Speed Sensing™ adaptive steering with dynamic rudder control
- Colour display with intuitive graphics of rudder position, system operating status and fault conditions
- Programmable for turning steering system for optimal vessel performance
- Active Helm Unit has option for auto-return to centre
- Station Transfer for multiple helms
- Electronic tie-bar feature allowing for differing rudder angles for tighter turning and control
- Dual Bus Technology, if one bus is taken down the system still operates off the other
- A second control module provides further redundancy to operate secondary hydraulic rudder systems in the event of failure in the primary system
- Each control has a primary and secondary power input, with audible alarms for loss of either supply
- A hydraulic helm unit can be installed for further backup of the electronic system
- Auto-pilot interface
- Joystick tiller option.

TRIM TABS

We supply Twin Disc Trim Tabs, which deliver controlled stability and enhanced manoeuvrability even in the harshest of conditions. Available in both single and reinforced plate for smaller and larger applications. We offer fully bespoke systems by combining corrosion-resistant steel or aluminium systems with hydraulic kits and an array of accessories to meet individual vessel needs.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

- Stern lifting and better balance
- Faster planing and more inline power
- Listing correction and reduced yawning and wandering
- Increased safety
- Greater manoeuvrability at low speeds
- Improved efficiency
- Better engine performance
- Reduced fuel consumption
- Stay on plane even at slower speeds.

MY4000/5000 Reinforced Tab

TWIN DISC

ARNESON SURFACE DRIVES

Among the most efficient marine propulsion systems in the world, Arneson Surface Drives improve fuel efficiency and reduce under water drag by 50%. As only the propeller blade touches the water, there's a higher overall speed, quicker acceleration and increase in payload to power ratio. Suitable for high-speed commercial and military vessels operating up to a maximum torque of 22440Nm.

MILITARY LEISURE

KEY FEATURES

- 15% - 30% speed increase over conventional systems
- 15% - 30% increase in fuel efficiency
- More efficient than I/Os
- Corrosion resistant
- Low maintenance requirements
- Ability to adjust propeller submergence while underway
- Ability to adjust submergence to match horsepower output permits conversion of more thrust as appropriately needed
- Propellers ventilate to the surface rather than cavitate under the hull, reducing noise and destructive hull and prop erosion
- Flexibility in engine installation location
- Shallow water operation (elimination of underwater appendages)
- Accessible propeller servicing
- Steerage by the positive thrust of the propeller and not by the propeller thrust to the rudder. This is equivalent to sports car rack-and-pinion steering performance
- Less mechanically complex and fragile than other propulsion systems
- Most models are available in Magnesium Bronze or Aluminium
- No limitations to shaft angle, blade top clearance, draft to restrict selection of optimum diameter propeller
- Adaptable to a wide range of engine applications, whether gas, diesel or turbine.

ASD08 Surface Drive

ARNESON SURFACE DRIVES BY TWIN DISC

MARINE CONTROL DRIVES

MIT supply a range of power driving marine control drives, available on both low and high dissipation, across a wide range of power requirements. Designed for vessels requiring highly accurate positioning, extreme low speed manoeuvrability and the need to split main engine power to operate auxiliary equipment, such as high-power firefighting pumps, cable spools and deck winches.

COMMERCIAL MILITARY

KEY FEATURES

- Smooth, gradual propeller speed change results in improved manoeuvrability
- Safer and easier vessel control during slow speed manoeuvring and docking
- Adjustment of propeller speeds below engine speed rating
- Divides the power from the main propulsion engine to eliminate the need for auxiliary engines
- Delivers an instant response when required
- Bearing calculated for high universal joint angles at maximum power
- Dynamic positioning (DP) capable
- High power PTO to drive auxiliary equipment.

SAIL DRIVES

MIT offer the SeaProp 60 sail drive, a propulsion system for sailboats with engines rated up to 56kW (75HP) at 3600rpm. Sailboat manufacturers and operators alike benefit from this system's unique but proven design.

LEISURE

KEY FEATURES

- Eliminates propeller shaft along with stuffing box, cutless bearing, stern tube and strut
- Can be matched with a variety of fixed or foldable propellers
- Overcomes inherent limitations and problems of conventional inboard shaft drive installations with a quicker, more versatile and simplified engine installation process
- Easily mounted facing forward or aft
- Not constrained by shaft angle and offers the builder more versatility in engine placement and a smaller "footprint" – no shaft, stuffing box, or strut aft of the engine
- Increased propulsion efficiency as the thrust is parallel to the boat's waterline
- More efficient, quieter and creates less vibration to the boat, providing an all-round smoother experience
- No water leakage into the bilge through the stuffing box.

SP60 - SeaProp60

PROPELLERS

Fully submerged

Supplying the best in the industry, we offer both fully submerged propellers and surface piecing propellers, suitable for a range of vessels.

Surface piercing

All Rolla propellers are dynamically balanced for better performance, less noise and vibration, longer bearing and wear life. They can be designed to meet any classification register, including RINA, Lloyd's Register and ABS.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Fully submerged

- NiNrAl propellers available in diameters from 24" – 75"
- Power ranges from 500 – 4000HP
- Bespoke application design using proprietary software
- CFD software to fine tune propeller load and detect any potential cavitation or flow.

Surface piercing

- Stainless steel propellers
- Available in diameters 16" – 32"
- NiNrAl propellers available in diameters from 24" – 75"
- We consider lateral, vertical and horizontal thrusts, combined with different diameter and pitch options, to determine the optimum propeller for each surface piercing application.

ROLLA™ A Twin Disc Company

VETH PROPULSION BY TWIN DISC

POWER TAKE OFFS (PTOs) AND CLUTCHES

We offer a selection of mechanical and hydraulic PTOs and clutches, suitable for marine applications. With great design flexibility and safer and easier operation, the units can be front mounted to drive auxiliary equipment or can be mounted on auxiliary engines for disconnecting the drive.

COMMERCIAL MILITARY

KEY FEATURES

- Suitable for applications with a maximum power rating of 1667HP
- Standard flywheel housing dimensions from no.6 through to no.00
- Clutch sizes range from:
  - one-plate 6.5" - 14"
  - two-plate 18"
  - three-plate 11.5" - 21"
- Optional sealed pilot ball or roller bearings
- Free standing and engine mounted models
- Optional sintered iron plates and ball bearing throw out
- No pilot bearing
- Built-in hex nut
- Create 25% higher torque capacity
- Allows for more frequent engagements
- Easy installation and adjustment verification
- Straddle bearing models available
- The KPTO drain type fluid coupling allows the engine to disconnect from the load, granting the following advantages:
  - unloaded engine warm up
  - smooth start up with no belt slip
  - shock and overload protection
  - torsional vibration dampening
  - high radial load capacity
  - remote control by electric valve
  - load positioning
  - cost-effective and easy maintenance
  - longer life thanks to no friction linings to wear out.

SP314

BDS

HPTO

KPTO

TWIN DISC TECHNODRIVE BY TWIN DISC TRANSFLUID industrial & marine

PUMP DRIVES

We supply pump drives in a wide variety of gear ratios, including speed increasing and speed reducing configurations for a range of marine applications with a maximum power rating of 939HP. Can be supplied coupled as a complete solution to marine gear, or stand alone on engines and auxiliary engines.

COMMERCIAL MILITARY

KEY FEATURES

- Modular design options:
  - flexible coupling
  - rubber block drive
  - clutch to match SAE flywheel dimensions
- Optional independent mounting
- SAE and DIN adaptor kits
- Cast iron housings
- Case hardened ground spurs and shafts
- Ball bearings
- Output ratio opposite the direction of input ratio
- Gear ratios identical on all outputs
- Maximum input torque based on theoretically unlimited gear life and a minimum L10 bearing of 10,000 hours life
- Units are self-contained with their own lubrication circuit
- High flexibility allowing up to 8 pump pads
- Torsional coupling for vibration dampening
- PTO kit for pulley and cardan shaft available.

AM330

AM450

Stelladrive MPD

Stelladrive SPD

TECHNODRIVE BY TWIN DISC

TRANSFLUID industrial & marine

COMPRESSORS, ROTARY SCREW AND RECIPROCATING

Supplying compressors for both commercial and leisure marine applications, Quincy are engineered to last with durability a key feature of their design.

Uses range from onboard and static applications, such as: air starting of main engines, powering onboard tools and appliances and supplying driving air to air supply within boat yards and marinas.

We offer a diverse product portfolio of compressors, including both Rotary Screw and Reciprocating systems and a wide range of spare parts, such as: oil, filters, gaskets and piston rods.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Rotary Screw, suitable for static applications

- TEFC motor protected from dirt, moisture and weather
- Pre-package filtration ensures low pressure drop while preventing oil contamination
- Wye-delta starting soft-start motor reduces energy use and component wear
- V-belt drive horsepower offers greater horsepower in less space
- Gear-driven horsepower uses 3% less energy than traditional belt drive
- Air cooled aftercooler ensures proper air temperature at point of delivery.

Reciprocating, suitable for mobile applications

- Intake unloaders allow for loadless starting, system flexibility, energy savings and less wear on the motor as well as lowering operating costs
- Individual valve pockets allow for easy access during routine maintenance
- Increased efficiency and less downtime due to steel valve discs
- Built-in compressor protection hydraulic unloader
- Reduced vibration rifle extends bearings and wrist pin life
- High efficiency cast iron cylinders maintain rigid tolerances for high efficiency.

QGS

QR25

Quincy COMPRESSOR

SEALS AND BEARINGS

MIT have an extensive range of water lubricated seals and composite bearings suitable for a wide range of applications both above and below the water line. This includes rudder bearings, rudder carrier bush & disk, water lubricated propeller shaft bearings, deck equipment, offshore moorings, stern rollers, retractable thrusters and water lubricated stern seals.

Designed and manufactured to withstand the difficulties a marine environment can present, offering superior performance and extended life, along with class approvals from many of the world's foremost classification societies.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Bearings

- High load capability
- Approved for wet and dry operations
- Very low stick – slip
- Short delivery time (repair 48 hours)
- Good elasticity
- Can be freeze fitted
- Classification approval
- Very low swell
- Low wear characteristics – long life
- Maintenance free
- Good dimensional stability
- Competitive price.

Seals

- Environmentally friendly
- Suitable for vessels with water lubricated shafts
- Will not wear propeller shaft sleeve
- Split or fully split variations available on request
- Inflatable seal for emergencies and service supplied in housing as standard
- Available in straight and flange types
- Spares available on short notice
- Classification approval.

ACM L2 Marine bearing

Aegir Prime Blue Sea seal

acm COMPOSITE BEARINGS

AEGIR Marine

WATER FILTRATION AND BILGE WATER MONITORING

Suitable for a variety of marine applications, MIT supply bilge water filtration and monitoring to support cleaner seas and ensure our customers are legislation compliant.

COMMERCIAL MILITARY LEISURE

KEY FEATURES

Filtration

- Wavestream used in all types and size of craft, available in four sizes
- Multiple cartridges and stainless steel systems also available
- Wavestream installed in the system after the bilge pump, ensuring that only clean, oil-free water is discharged overboard
- Cartridge change out should be part of a regular maintenance schedule
- Lloyds Register of Shipping Type approved.

Wavestream

Monitoring

- Scattered light measurement is accurate and reliable in terms of IMO
- Broad range of particle size sensitivity
- Power supply: 24 – 240 V AC/ DC – very low power consumption (typically <2W)
- Magnetically coupled automatic cleaning system
- Unique flow metering – vortex-type, tamper-proof
- Electric valve: switchover sample/ clean water
- 5ppm alarm range limit
- Data logging: beyond IMO demand.

Deckma OMD-24 Series

Wave International

DECKMA HAMBURG

HEAD OFFICE & SOUTHERN SERVICE CENTRE

Queenborough Shipyard,
Queenborough,
Kent ME11 5EE
United Kingdom

Tel: +44 (0) 3303 830333

NORTHERN SERVICE CENTRE

Weeland Road,
Hensall, Nr Goole,
East Yorkshire DN14 0QE
United Kingdom

Tel: +44 (0) 3303 830333

SOUTH COAST OFFICE

Elan House, 5a Little Park Farm Road,
Segensworth,
Fareham, PO15 5SJ
United Kingdom

Tel: +44 (0) 3303 830333

info@mitgroup.co.uk

mitgroup.co.uk

@mitgroupuk

MIT Group

Marine and Industrial Transmissions

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ISO 9001
ISO 45001
INTEGRATED MANAGEMENT
UKAS MANAGEMENT SYSTEMS
0015

Axel Johnson International

Marine & Industrial Transmissions Ltd is part of Axel Johnson International, a privately owned Swedish industrial group operating globally. The group has a dedicated long-term approach to ownership, emphasising sustainable progress and collaboration. The focus lies on acquisitions and the development of companies, specializing in technical components and industrial solutions. The group consists of more than 200 companies and employs 5,700 people in 34 countries, organized into six business groups, each focusing on selected niche markets. Axel Johnson International is a part of the Swedish family-owned corporate group, Axel Johnson.

www.axinter.com