

SUPERYACHT

ANCHORING EXCELLENCE

WINDLASSES, CAPSTANS and ACCESSORIES



MAXWELL SUPERYACHT

ANCHORING EXCELLENCE

For over four decades Maxwell has been supplying anchoring solutions to the global marine market. The unique requirements of the Superyacht industry have driven Maxwell to excel in this demanding market. Quality, reliability, performance and style are a must. Superyacht owners and captains depend on the finest equipment aboard their luxurious vessels to see them safely around the world and have come to rely on Maxwell over the years.

Maxwell's strength comes from its commitment to its customers. The company drives itself to take care of its clients by understanding the industry's requirements and understanding the latest technology. This ensures that the anchoring equipment installed on every vessel serves to strengthen Maxwell's reputation.

A commitment to manufacturing only the finest products and ensuring that they meet the international classification standards demanded by Superyacht builders, owners and captains, is the motivation behind Maxwell's recently built in-house Superyacht equipment testing facility in Auckland, New Zealand. It is no accident that this tiny country is now seen as a leader in the manufacture of not only quality vessels, but also a wide variety of marine hardware. New Zealand provides a demanding testing ground right off its shores. Windlasses and anchoring

equipment are Maxwell's core business and the company confidently designs and builds products that will endure and serve their customers reliably on any of the world's oceans.

Maxwell draws from long experience and always considers the trends and requirements of the industry. To this end the company has embraced the quality assurance discipline of ISO9001 and follows CE certification whenever required. Design is always undertaken with classification body requirements as essential criteria. With the expectation that Lloyd's, DNV, ABS, GL and other recognised certification authorities are the benchmark that all Superyacht equipment is expected to meet, Maxwell designs and builds to exceed that mark.

MAXWELL



MOTOR YACHT LORETTA ANNE (EX ALLOGANTE) ALLOY YACHTS



LSX92 LAZZARA



POROSITY JET TERN



TO-KALON BURGER BOAT COMPANY



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SHAMROCK V CAMPER & NICHOLSONS



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AUCKLAND NEW ZEALAND – HOME OF MAXWELL SUPERYACHT DIVISION

COURTESY OF ORAMS MARINE SERVICES

In the demanding world of Superyachts, Maxwell has long recognised the need for speedy distribution and global back up service. Over the years Maxwell distribution centres and service agents have been established in virtually every part of the globe. Whether you need a winch sent to the Marquesas or have it serviced in Fort Lauderdale, Maxwell ensures that your demands will be met.

Although Maxwell's head office and production facility is based in Auckland, New Zealand, they have established their own distribution and service centres in Florida, USA, Queensland, Australia and in Holland for Europe. In addition, Maxwell has well established and trained distributors and agents throughout North and South America, Europe, the Middle East and Gulf States, South Africa, China, and South East Asia, ensuring that you will always be close to delivery, back up service, information, help of any kind, or whatever may be needed.



VWC11000 ABOUT TO BE SHIPPED

Maxwell continues its extensive product development of Superyacht equipment into the second decade of the new millennium; including:

- The expansion of the “SY” series windlasses, capstans and chain handling systems for yachts in excess of 100 metres, accommodating up to 44mm stud link chain.
- Innovative design and quality manufacture which can only occur when backed by rigorous testing. To conduct dynamic testing of load handling equipment for large Superyachts, Maxwell has built an in-house test rig; which is fully equipped with a brake to simulate various loading conditions on the windlass over an unlimited period of time. Completely designed and constructed by Maxwell's own engineers, to rigorous ISO9000 standards, Maxwell is now able to perform all required tests proscribed by international classification societies to obtain Approval Certificates for their full range of windlasses, whether hydraulic or electric, using up to 44mm U3 stud link chain, as well as for all their ancillary anchoring deck equipment.
- The extension of the Maxwell range of chain compressors and pawl type chain stoppers, which incorporate anchor tensioning systems, designed to handle the larger “Megayacht” chain sizes.
- The continuing development of Superyacht deck gear to meet the demands of new and unique bow configurations found in these increasingly complex vessels.
- The manufacture of the highest standard of stainless steel deck gear polished to a mirror finish.
- New ancillary anchoring equipment such as a chain counting system that interfaces with the yacht's computer and ergonomic, light weight wired and wireless hand held windlass remote controls and chain counters which have the capacity to direct other functions such as bow and stern thrusters, deck wash, deck lights or dinghy davits.

Maxwell's continuous development of products for Superyachts will ensure that the boat designer, builder, project manager, captain and owner, get the most modern designs and the most durable performance available.

Up to date technical data and specifications for all Maxwell Superyacht equipment is available at:
www.maxwellmarine.com



MAXWELL SUPERYACHT
HEAD OFFICES ●
MAXWELL SUPERYACHT
DISTRIBUTORS/REPRESENTATIVES ●

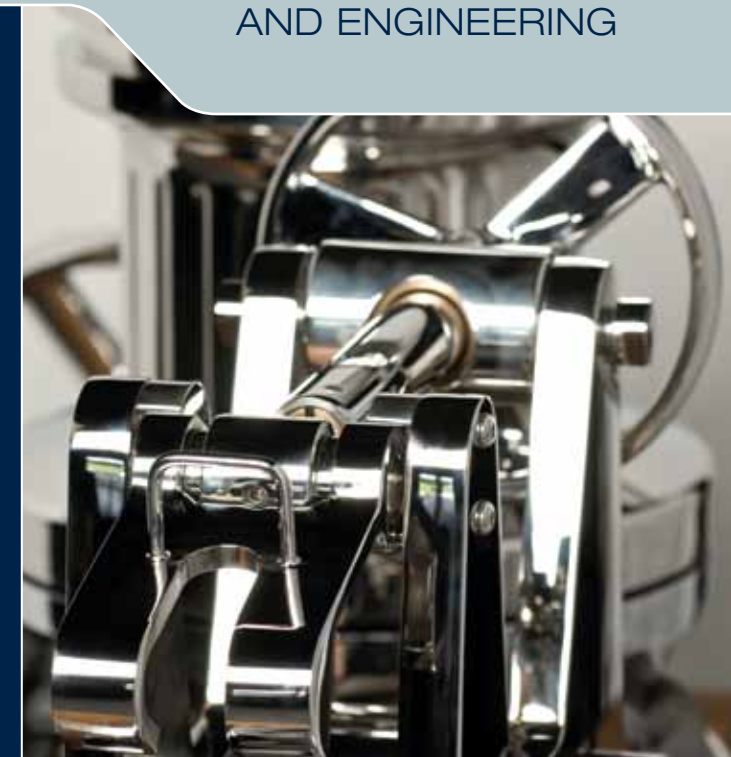
SUPERYACHT
ANCHORING EXCELLENCE



CAD/CAM TECHNOLOGY

SUPERYACHT ANCHORING EXCELLENCE

MAXWELL SUPERYACHT WINDLASSES, CAPSTANS AND DECK GEAR SHOULD BE A PART OF EVERY VESSEL'S DESIGN. MAXWELL STYLE, PERFORMANCE AND RELIABILITY PROVIDE THE PEACE OF MIND THAT DESIGNERS, BUILDERS, CAPTAINS AND OWNERS STRIVE FOR WHEN DEMANDING THE ULTIMATE ANCHORING SOLUTION. BY WORKING WITH THE MAXWELL TEAM YOU ARE NOT ONLY ASSURED OF SUPERB PRODUCT, BUT YOU ALSO INHERIT THE EXPERTISE OF INSTALLATION DESIGN AS A MATTER OF COURSE.



PRECISION ENGINEERING ACHIEVES A PERFECT FINISH

Maxwell has long been recognised as the industry leader when it comes to innovative design of anchoring equipment. By employing top calibre people with solid theoretical and practical background in the marine industry, Maxwell is able to satisfy the needs of the demanding Superyacht market, providing designs and products that consistently exceed the expectations of its customers.

By applying the latest in CAD design and practical R&D to every project Maxwell guarantees that when a product is introduced, it will be to the highest engineering standards, most current innovation and of sound reliability. Even though Classification Society approval many not be required, Maxwell designs their equipment to exceed the demanding requirements of these certifying authorities.

Maxwell is committed to ensuring that their production facility and machinery are to the highest standard. They strive to produce anchoring equipment that will be the benchmark for the Superyacht industry.

The initial engineering design is translated via sophisticated CAD/CAM technology to the factory floor where conceptual design becomes solid product. All new products are rigorously tested before the final manufactured equipment is released to the market. Clients from the Pacific Islands to the Mediterranean have come to rely on Maxwell's attention to detail and their understanding of the rigorous environment in which their product will be used.

Maxwell's exacting manufacturing standards and commitment to quality spans the entire production process. Every Maxwell employee is empowered with the authority to accept or reject any component that does not come up to the highest standard.

All employees are trained with excellence in mind. Quality engineering is assured by instilling in everyone the basic adage, "Would I want this product on my boat?"

During assembly, compliance testing is carried out ensuring that every windlass and capstan will perform to the exact design specification, and lastly a quality check and sign off is performed by one of Maxwell's qualified engineers.

Maxwell's goal is to deliver the highest quality product, on time, and exceed the demands of their customers world wide.



MAXWELL'S PRECISION ENGINEERING IS DESIGNED FOR THE WORLD'S MOST SOPHISTICATED SUPERYACHTS



SUPERYACHT

ANCHORING EXCELLENCE

Maxwell will provide the ultimate solution for any anchoring requirement. Renowned in the Superyacht arena, Maxwell has the expertise and capability to offer “Anchoring Solutions”. Working with the vessel’s designer and builder, Maxwell is committed to a project from the design concept to final launch, smoothing the process of equipment design and installation for any type of vessel, whether it be displacement or the newest high tech design.

Wherever your dream boat is being built, whether in New Zealand, the USA, Europe, the Gulf States, Asia or anywhere else in the world recognised for the quality of the Superyachts it produces, Maxwell will not only supply the windlasses required but all other ancillary anchoring equipment needed for trouble free anchoring.

Maxwell appreciates that no two Superyachts are ever the same and whether they be expedition style, traditional sailing or sleek trideck design, Maxwell will tailor the exact “Anchoring Solution” for that particular vessel; custom designing where necessary, but always providing the most rugged and reliable product that owners worldwide have come to expect from Maxwell.



WESTPORT 130 WESTPORT YACHTS

PRINCESS K KINGSHIP YACHTS



TWIN VWC4500 UNITS INSTALLED ABOARD OBRIGADO MCP YACHTS



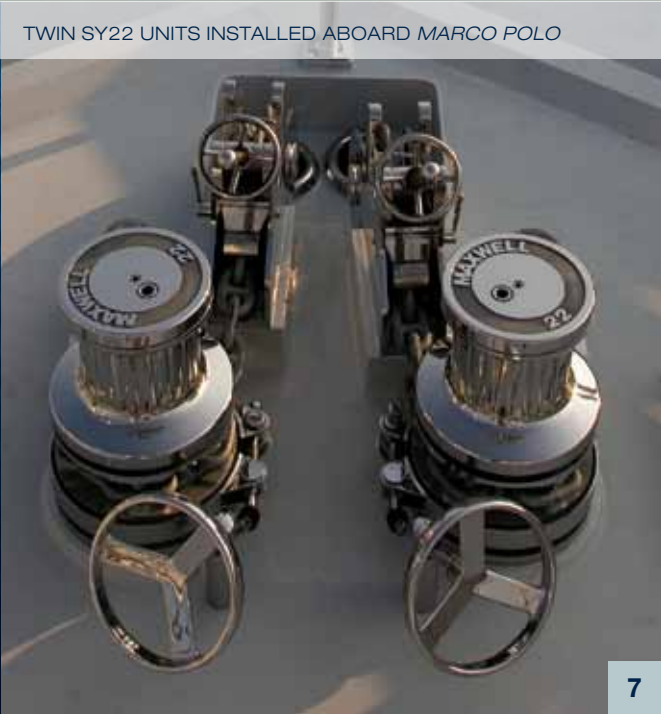
JANICE OF WYOMING ALLOY YACHTS



PRINCESS K WINDLASS INSTALLATION



MARCO POLO CHEOY LEE



TWIN SY22 UNITS INSTALLED ABOARD MARCO POLO



HAPPY DAYS DELTA MARINE

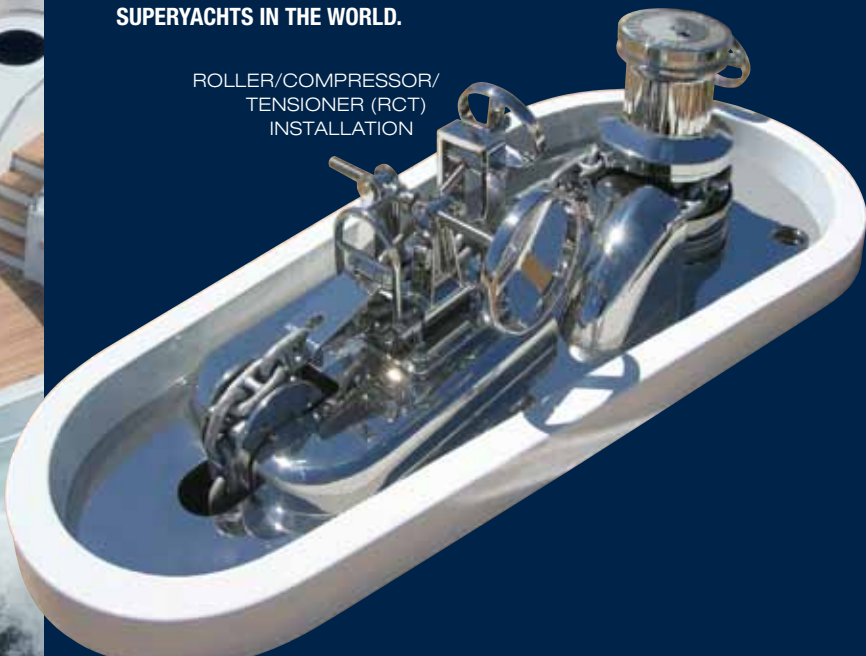
SUPERYACHT

ANCHORING EXCELLENCE

MAXWELL IS AWARE THAT IN TODAY'S SUPERYACHT AND MEGAYACHT WORLD, IT IS NOT ONLY FUNCTION AND RELIABILITY THAT COUNT, BUT THAT APPEARANCES ARE ALSO ALL IMPORTANT. IN A CLASSICAL EXAMPLE OF FORM FOLLOWING FUNCTION, MAXWELL DESIGNS THEIR WINDLASSES AND ANCILLARY DECK GEAR TO ENHANCE AND GRACE THE FOREDECK OF THE SLEEKEST OR MOST TRADITIONALLY DESIGNED SUPERYACHTS IN THE WORLD.



ROLLER/COMPRESSOR/
TENSIONER (RCT)
INSTALLATION



VWC4500

TWIN VWC4500 WINDLASSES INSTALLED ABOARD COMO ALLOY YACHTS

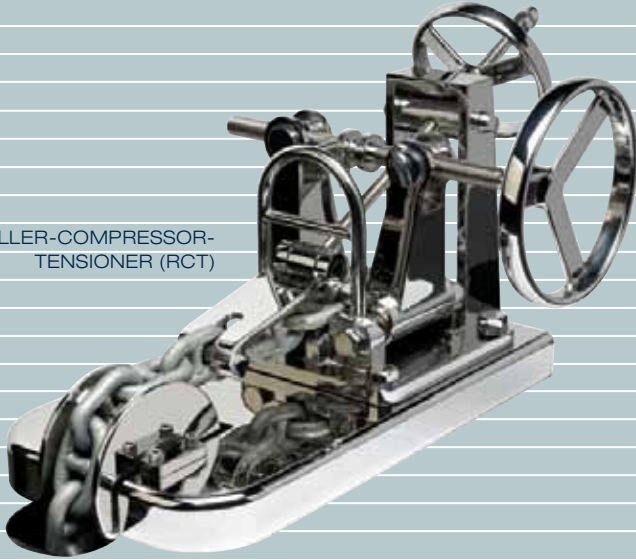


VWC 6000 INSTALLATION

MISS ROSE HORIZON YACHTS



LOW PROFILE 11000 WINDLASSES



ROLLER-COMPRESSOR-
TENSIONER (RCT)



COMPLETE ANCHORING
SOLUTION COMPRISING SY26,
CHAIN PIPE-ROLLER AND RST

MONDANGO ALLOY YACHTS





SY32



SY26 WITH ANCILLARY DECK GEAR



THE FIT OF CHAIN TO CHAIN WHEEL IS CRITICAL



VC11000 CAPSTAN



STERN MOORING CAPSTAN



AC DRIVE UNIT WITH DOL

WINDLASS

The windlass is used to raise the chain and anchor and to control the lowering of the anchor.

Whilst riding at anchor a yacht needs to be securely held by the ground tackle. A chain stopper is required to transfer the holding forces directly to the yacht. The windlass, a raising and lowering device, should not be used to secure a yacht when at anchor. Never anchor off the windlass.

For any given vessel and any given anchorage situation, there is a safe anchor type and size and a safe chain strength and size.

In the unlikely event that a Superyacht will experience “worst case scenario” anchoring conditions, it is vital that the safety equipment does not fail. Therefore reasoned and conservative requirements have to be applied. There is no better way than to be guided by an independent classification body. They exist for this very purpose.

When ordering a windlass, the type and size of chain must be correctly specified. It may be necessary to supply a minimum two metre chain sample to ensure that the correct chainwheel will be provided.

Certification: Maxwell windlasses are fully compliant with current rules of major classification societies. Witness test certificates and full design approval certificates are available upon request.

Please refer to 15 Easy Steps to Windlass Selection (Page 12)

CHAIN

The vessel’s equipment number (EN) will dictate the size and length of the chain, the weight of the anchor and the length and breaking strength of the mooring line.

Weight of the anchor and chain: The windlass has to be capable of retrieving the full length of chain and anchor on board the vessel and have some extra power to break the anchor free from the sea bottom.

Chain type and size: Make sure that the windlass can handle the type and size of chain aboard the vessel. The chainwheel must have at least five chain link pockets to ensure safe and reliable operation of the windlass. Windlass size, chain locker volume and acceptable weight in the bow are all factors in selecting suitable chain of approved material and strength.

Please refer to the Maxwell Website: www.maxwellmarine.com

Click on “Support” and go to “Chainwheel Selection”.

CAPSTAN

The mooring line requirements for a yacht can be determined from the classification rules; the requirements being stated in terms of breaking strength. The strength of the chosen material for line will then determine the rope diameter.

Diameter of mooring line: At least three wraps of mooring line around the capstan are required to ensure adequate grip. The capstan must be tall enough to allow for this, and the wraps would appear as four rope layers above the point of rope entry. The most effective way of increasing grip between the capstan and the rope for high load applications is to apply more wraps around the capstan, but no more than five wraps are ever required.

DRIVE

Some windlasses are available with AC, hydraulic or DC drives; others with only AC or hydraulic drives.

Drive Options:
AC Direct On Line: (DOL) is the simplest method for starting and AC windlass. DOL simply connects a power source directly to the motor. Relays and a manual switch operate the contactor that carries the high current to the motor.

AC Variable Frequency Drives: (VFD) are a more sophisticated starting solution for AC motors. A VFD is able to start a windlass at full torque with no surge current. Different speed settings, variable speed and user defined ramp up and down operation are part of the VFD capability.

Hydraulic Drives: These are light weight, reliable and compact. The windlass speed can easily be controlled by adjusting the fluid flow. Hydraulic windlasses have different load limits when lowering and retrieving the anchor. This protects the chain pipe and deck from damage if a knot of chain attempts to enter the chain pipe. It is possible to achieve the same pull capacity and speed with several different combinations of fluid flow and pressure.

DC Drives: These are very practical on smaller boats as DC power can be stored, allowing the windlass to be battery powered without the need to run a generator. DC motors that are not fan cooled cannot run continuously without overheating.

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15 EASY STEPS TO WINDLASS SELECTION

	DATA IN <i>What you will need to provide...</i>	THE PROCESS <i>To work with Maxwell or others to do...</i>	DATA OUT <i>The result of the information and the analysis process will be...</i>
CHOOSE CRITERIA	1 Owner's requirements for certification . If there are no formal requirements the consideration of one or more standards to be used as a guide is recommended.	2 Use rules as selected by the owner or investigate various certification bodies such as Lloyds, DNV, ABS. Alternatively consider other advisory standards such as Coastguard or other local authorities.	3 The classification body and ruling type to adopt as a guide or a requirement for the project.
SIZE THE APPLICATION	4 Gather the following information: - Classification body - Ruling type - Side profile - Yacht displacement - Front profile	5 The Equipment Number (EN) is a single figure relating to the physical parameters of the yacht. Use the chosen standard to determine the Equipment Number. This in turn dictates the yacht's equipment strength and capability requirements.	6 You now have the very important Equipment Number (EN) .
SIZE ANCHOR AND CHAIN	7 With the Equipment Number proceed to determine the chain and anchor details.	8 Typically the Equipment Number is first used to calculate the anchor and chain size. The anchor is defined by weight for a particular type, commonly High Holding Power (HHP). The chain is defined by size, material grade (commonly U2) and length.	9 The following items are now defined: - Anchor type and weight - Chain size and grade - Chain length
WINDLASS REQUIREMENTS	10 Using the three key parameters - Anchor type and weight - Chain size and grade - Chain length The windlass and anchoring accessories can be specified.	11 Compare the demand of the classification rule and the total load of chain and anchor and work to the most stringent one. Maxwell recommends increasing these requirements in some circumstances.	12 The following windlass criteria are now understood: - Static holding - Short term pull - Long term pull
WINDLASS SELECTION	13 Knowing the installation specific requirements including the static holding, short term pull, long term pull and the type of power available (hydraulic or electric), the correct windlass and gear selection can be made.	14 Select the Maxwell windlass and ancillary gear that suits the installation and functional requirements of the project whilst complying with the performance prerequisites that have been derived.	15 Now the Maxwell windlass and gear data , to meet the vessel's requirements, is available for installation details to be finalised.

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Once you have decided on the windlass size, you can look at different topworks and drive options.

Maxwell offers several variations of topworks to meet the different demands of a range of installation requirements.



VWC8000 UNITS ABOARD 'ZEFIRA'. FITZROY YACHTS NZ

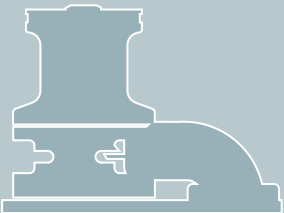
VC Vertical Capstan A simple capstan that is driven in one direction and which is used to control mooring lines.



VW Vertical Windlass This consists of a capstan and chain wheel, without an integrated chain pipe. It suits installations where the chain pipe has to be further away from the windlass, or the chain is too large to fit through an integrated chain pipe. It can also be used to haul a combined rope and chain anchor rode when the maximum weight of the rode permits this function.



VWC Vertical Windlass with Chain pipe
The most commonly used topworks, comprises capstan, chain wheel, and chain pipe integrated on the deck plate. This compact design, requires a very small deck area, yet offers handling of both anchor chain and mooring rope.



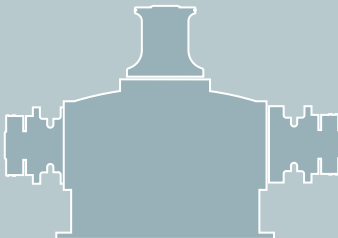
VWCLP Vertical Windlass with Chain pipe in Low Profile
This is a very convenient design for installation under a hatch or where space is limited. A VWCLP can be used whenever a low profile is required, such as on the deck of a sailing yacht.



HWC Horizontal Windlass and Capstan
This type has all its components (including drive) above deck. It is suitable where excessive deck thickness makes vertical installation impractical or where the under deck space is limited, e.g. multihull vessels. This model has chain wheels and/or capstans mounted on a horizontally laid shaft.



HWVC Horizontal Windlass with Vertical Capstan
This is the same as the HWC with the addition of a vertically installed capstan. Any combination of horizontal capstans and chainwheels to port or starboard is available.



WW SERIES

MAXWELL

All Maxwell vertical series windlasses combine modern, compact design with rugged dependability. They are available with AC, hydraulic and DC drives. DC units are available up to a maximum of 16mm stud link chain only.

Bolt on installation is simplified by the modular design which guarantees precise alignment of gearbox, shaft and above deck components. The warping capstan can be operated independently of the chain wheel. The band brake allows smooth and safe control during free fall operation.

All above deck components are manufactured from quality, corrosion resistant stainless steel or chromed bronze.



SY26 Hydraulic with Band Brake



Chain Pipe-Roller

SATIN FINISH VW6000 INSTALLED ABOARD *ERMIS*® MCMULLEN AND WING



WINDLASS SELECTION

VWC SERIES

Maxwell's vertical range is offered in three main variations. The VWC and VWCLP Series deckplate has an integrated chainpipe that does not require independent mounting or alignment. Where this is not practical, Maxwell offers the VW Series, requiring a separate chain pipe. The new Chain Pipe-Roller unit gives the builder the advantage of an integrated chain pipe concept with the ability to mount it separate to the windlass.

The below deck assemblies, including motor, valves and gearboxes, are protected by a two coat marine grade paint system. Wherever practical, Maxwell incorporates marine grade aluminium castings to reduce weight and eliminate corrosion.

VWC windlasses and VC capstans can be ordered with minimum depth, wd-series low-profile gearboxes for installations that cannot accommodate the standard Maxwell gearbox arrangement. This optional configuration offers the most compact size unit to date, while maintaining comparable levels of performance to standard gearboxes.



VWC6000 Hydraulic with Band Brake



VWC11000 AC Electric with Band Brake

SURPRISE MCMULLEN AND WING



SY SERIES

MAXWELL

The SY Series gives Maxwell the ability to offer customers highly competitive, top quality equipment, without over or under specifying power, strength, reliability or performance. Both electric and hydraulic drives, in either vertical or right angle configurations, are available to accommodate the boat designer's every requirement.

Developed and engineered in response to the demand for bigger and stronger anchor windlasses for today's larger Superyachts and Megayachts, Maxwell has once again broken through the innovation boundary.

The above deck components are styled to perfection in a grade and finish of stainless steel that is world class, and workmanship of the highest order is evident at first glance.

The superbly styled SY Series represents a revolutionary level of modularity and flexibility that is being demanded by today's Superyacht and Megayacht naval architects and engineers. The SY Series enables them to source windlasses capable of handling up to 38mm stud link chain (SY38) and plans are already on the drawing board for SY44, as Maxwell anticipates the supply of anchoring equipment for Megayachts in the 130 metre (400ft plus) range.



SY32 with Horizontally Mounted AC Electric Motor and Band Brake

WINDLASS SELECTION



WINDLASSES ON BOARD MY SLIPSTREAM



85M LUXURY SUPERYACHT (H230) FITTED WITH SY32 WINDLASSES AND RST UNITS MARCO YACHTS

MY SLIPSTREAM, CMN



HWC SERIES

Maxwell's HWC Series windlasses offer a hydraulically powered, totally above deck anchoring solution. The chainwheels can be operated separately by the simple release of the clutch cones, allowing for smooth and safe control during a free fall operation. For rope handling, the capstans can be operated independently of the chainwheels.

The windlass housing is cast in marine grade aluminium, powder coated and finished with a two component white polyurethane paint.



HWC6000 Hydraulic

HWVC6000 Hydraulic

SUPERYACHT ANCHORING EXCELLENCE

VC SERIES MAXWELL

STERN HANDLING CAPSTANS

Maxwell caters for the mooring of a Superyacht with a full range of stern handling capstans. Mooring a vessel in the confines of a marina can be a daunting task made simpler by using stern handling capstans. Maxwell's well proportioned capstans give the operator full control of mooring lines.

A range of capstans and power sizes are available to provide a solution for all warping situations.

Capstans are available with hydraulic motor, AC or DC drive variations.



VC11000 AC Electric

SUPERYACHT ANCHORING EXCELLENCE

HWVC 6000 HYDRAULIC WINDLASS

BEOTHUK KUIPERS WOUDESEND

VC8000 STERN MOUNTED CAPSTAN

LSX92 LAZZARA STERN



SUPERYACHT

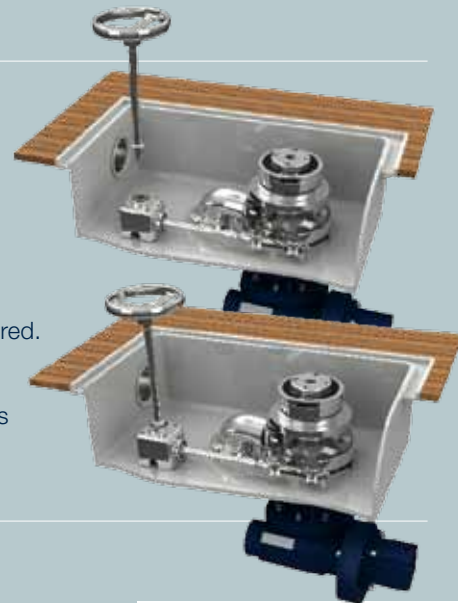
ANCHORING EXCELLENCE

Maxwell offers complete anchoring system packages including ancillary deck gear, controls, circuit protection, anchors, chain, etc. When it comes to anchoring, Maxwell provides the ultimate anchoring solution, backed by sound advice and after sales service.

BAND BRAKE WITH REMOVABLE HANDWHEEL

Maxwell now offers a new bevel gearbox, particularly suitable for concealed band brake installations, allowing greater flexibility in the layout of components for below deck anchoring systems.

This gearbox allows the handwheel with shaft to be easily fitted in and removed, as required. Transferring rotation through 90 degrees allows the handwheel to be facing upwards vertically for easier operation. The bevel gearbox can be used with all Maxwell windlasses from 4500 series upwards.



CHAIN PIPE-ROLLER

An ideal windlass installation may require the chain locker to be situated away from the windlass. This is possible when using a VW model windlass in conjunction with a remote chain pipe. The Chain Pipe-Roller provides the best possible solution to such a requirement. The roller (mounted on a self lubricating bearing), ensures low friction and therefore efficient and reliable movement of the chain from the locker to the windlass. The chain pipe covers the entry to the locker, reducing water intake. It also acts to guard the moving chain while providing an elegant look in keeping with the windlass design.



NORDHAVN 68 ICEBERG EXPERIENCE - TROPICAL TO ARCTIC ANCHORING MADE SAFE WITH MAXWELL



DECK GEAR

CHAIN STOPPERS

Chain stoppers stop the chain and take the load off of the windlass. They are used to set and ride on the anchor, break free the anchor and prevent accidental free fall of the anchor while under way. Chain stoppers are also necessary for VW Series rope and chain systems to hold the chain while changing over from rope to chain. Maxwell windlasses must be used in conjunction with a chain stopper and/or alternative snubbing device to take the load off the windlass while laying at anchor. The chain stopper and alternative snubbing system should also be used to secure the anchor in the fully raised position while under way.



ROLLER-STOPPER (RS) UNITS

Maxwell's innovative range of Roller-Stopper (RS) units grew out of one of anchoring's most basic and essential pieces of equipment – the chain stopper.

Customers asked if Maxwell could incorporate a chain roller into the chain stopper to form a compact and integrated unit. Thus was the Roller-Stopper unit developed and introduced, gaining instant market acceptance.



STOPPER-TENSIONER (ST) AND ROLLER-STOPPER-TENSIONER (RST) UNITS

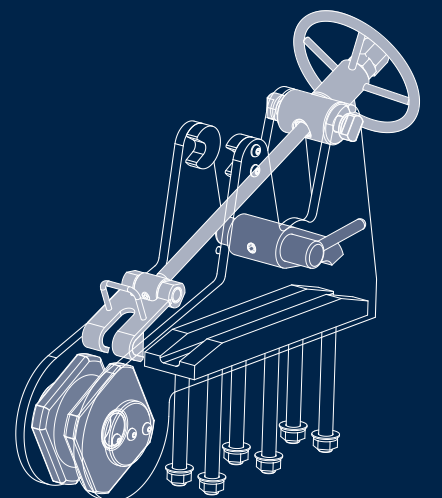
Boat designers and builders also asked if Maxwell could incorporate a tensioning device into the chain stopper and roller-stopper units. Thus were born the Stopper-Tensioner (ST) and Roller-Stopper-Tensioner (RST) units.

The RST became an instant success by giving the boat builder a unit that he could bolt to the deck in front of the windlass and have a completely integrated system allowing safe and easy handling of anchor deployment and retrieval with any side pocket anchor installation.



"DEVILS-CLAW" CHAIN TENSIONER

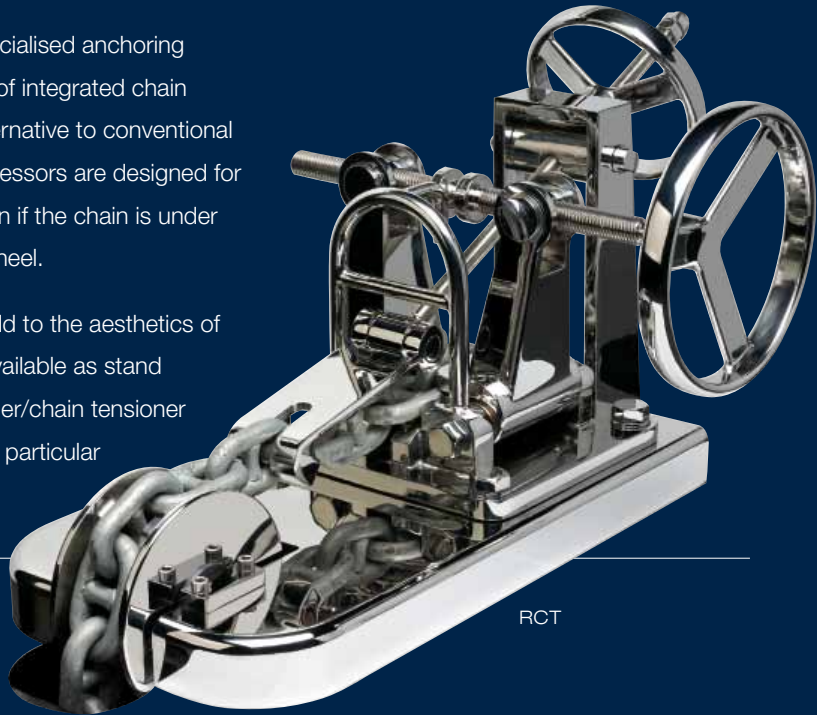
A yacht should never be underway without the anchor tightly stowed and a windlass should only be used for lowering and raising the chain and anchor. Therefore, a device other than the windlass is required to hold the anchor snug when it is stowed. Maxwell's stopper/tensioner (ST) and roller/stopper/tensioner (RST) incorporate a "Devil's Claw"; a double hook device on the tensioner which engages the chain and allows the chain to be tensioned, thus securely stowing the anchor in the fully raised position.



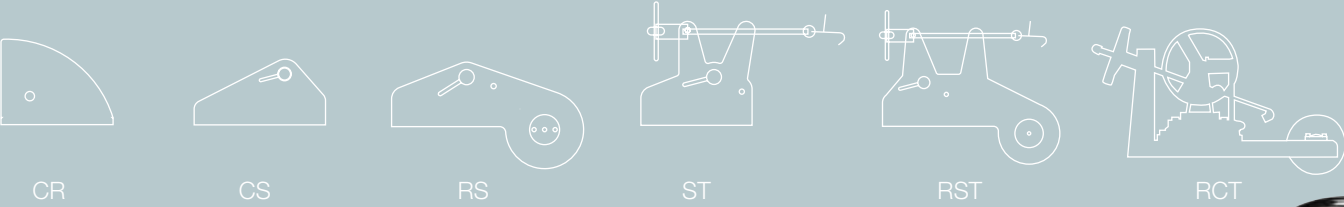
ROLLER-COMPRESSOR-TENSIONER

As Superyachts become larger, so do the demands for specialised anchoring equipment. Maxwell has designed and introduced a range of integrated chain compressor (clamp stopper) roller-tensioner units as an alternative to conventional chain stoppers and stopper tensioners. These chain compressors are designed for safe, effortless chain engagement and disengagement, even if the chain is under tension, by using an easy operable lead screw and hand wheel.

Manufactured in stainless steel and mirror polished, they add to the aesthetics of every vessel's bow area. Maxwell chain compressors are available as stand alone units or mounted on a platform together with bow roller/chain tensioner (devil's claw) systems. Chain rollers are designed to fit each particular chain size, ensuring smooth, quiet operation.



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All Superyacht Roller-Stoppers, Stopper-Tensioners and Roller-Stopper-Tensioners come in a variety of sizes to suit Maxwell's complete windlass range.

TWIN RST AND VWC6000 UNITS MOUNTED ON DECK OF VVS1

ALLOY YACHTS



CONTROL GEAR

FOOTSWITCHES

Foot operated switch allows for both hands to be free to control capstan mooring lines.

- Heavy-duty and weather resistant units have a UV stabilised water proof diaphragm
- Rated at 120 Amps and suitable for 12 or 24 Volt applications
- Nickel-plated copper contacts ensure corrosion-free reliable operation
- Available in UV stabilised plastic or polished stainless steel covered versions which prevent accidental operation
- With DC electric motors, it is recommended that a solenoid be used in conjunction with a footswitch to start and run the capstan



MAXWELL AUTOANCHOR WIRED ROVING REMOTE CONTROL UNITS

Enables operator to visually check anchor retrieval or lowering from the bow if vision from the helm is obstructed.

- Use for Windlasses, Davits, Thrusters and other Marine Equipment
 - Electrical protection against back-emf.
 - Rubber over-moulding for shock protection and grip
 - Stowage cradle.
 - Operate in parallel with all AutoAnchor™ products, toggle switches, foot switches or other control equipment
 - Connect to DC, AC and Hydraulic systems.
 - Rugged 4m coiled cable and connectors
 - All products are rated to IP67 including cables, plugs and sockets
 - Deck socket with 2m flying lead reduces potential for corrosion
 - Other Maxwell AutoAnchor controllers are available
- Check with your local Maxwell distributor



LSX 92 LAZZARA INSTALLED WITH TWIN VWC4000



SUPERYACHT

ANCHORING EXCELLENCE

MAXWELL AA560

PANEL MOUNT WINDLASS CONTROLLER AND RODE COUNTER

- SPECIAL FEATURES:
- Preset stopping point on retrieval
 - One-touch function to deploy and retrieve a preset length of rode
 - Adjustable back lit display in feet, metres or fathoms
 - Graphic LCD screen featuring intuitive user interface for simple operation
 - Displays windlass speed and direction
 - Safety lock to help protect against accidental windlass deployment
 - Logs windlass operation hours to help ensure regular windlass maintenance
 - Weather cover and choice of black or gray console



MAXWELL AA710

WIRELESS, HAND HELD REMOTE WINDLASS CONTROLLER AND RODE COUNTER

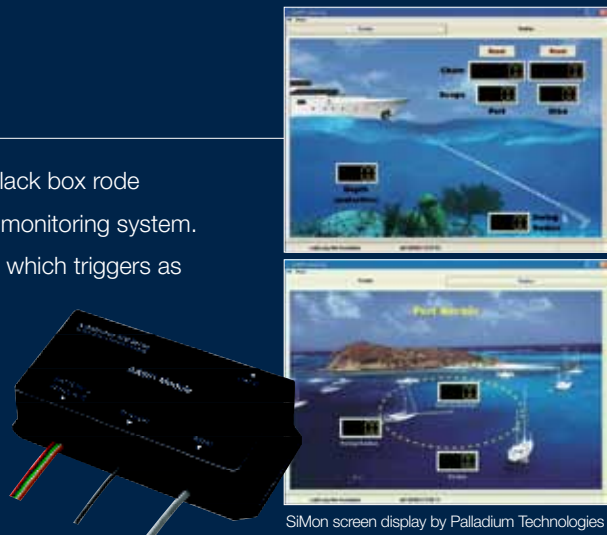
- All the features of the AA560 plus options to control other marine equipment.
- High level wireless transmission security with unique ID
 - Hand held controller displays rode count plus signal strength and battery level
 - Ergonomic shape with lanyard connector
 - Rubber over moulding for grip and non slip protection
 - Console holder and protective cover
 - Shockproof
 - Waterproof to IP67
 - Operates on 2.4GHz ISM band, IEEE 802.15.4 compliant
 - Antenna available if wireless communication is impeded



MAXWELL AA601

WINDLASS MONITORING

The AA601 provides electronic windlass monitoring from the helm. This black box rode counter is designed to integrate with an on board computer or electronic monitoring system. It displays the rode count in feet, metres or fathoms, has a docking alarm which triggers as the anchor approaches the boat and logs windlass operating hours for maintenance. Use the standard Windows based screen display provided, or ask your monitoring systems supplier to design a display to fit their system. All software protocols are supplied.



AC DOL STARTER AND THERMISTOR RELAY

For starting and accelerating an AC motor from stationary up to running speed.

- Warning light to indicate motor cut out due to thermal overload protection. Thermistor relay resets automatically when the motor cools down.
- Available for single and two speed motors
- Lower cost compared to Variable Frequency Controller
- A simple solution for starting an AC motor
- Simple and reliable design
- Quality components
- Tailor made to complement windlasses and capstans
- Environmentally protected to IP56
- Toughened PVC enclosure
- Bulkhead mounting



VARIABLE FREQUENCY AC MOTOR CONTROLLERS

Superior technology option for starting and controlling an AC powered windlass.

- Programmable to suit the individual requirements of the vessel
- Achieves multiple speeds with a standard, single speed motor, which is simpler, smaller and less expensive than an equivalent, two speed changing motor
- Eliminates high current requirement at start up and during speed change on two speed, pole changing motors
- Soft starting and speed change to avoid mechanical shocks to windlass and chain
- Superior speed control capability, including pre-set speeds as well as infinite speed adjustment
- Ability to increase motor speed by up to two times the nominal speed
- Accurate overload protection by monitoring both the motor temperature and current
- LCD display with a wide range of messages to help with programming and troubleshooting



DC CONTROL BOX

A control box containing single or dual direction solenoids and circuit breaker/isolator. The solenoids are used for starting and for overload protection of DC motors.

- Available in 12V or 24V and single and dual direction configurations
- Wiring is simplified and electrical components are neatly contained in a weatherproof enclosure
- Installation in a dry area is recommended

CIRCUIT BREAKER/ISOLATOR PANEL

Maxwell circuit breaker/isolator panels are available to suit a wide range of DC windlasses and capstans.

- For protection of the main conductor circuit for DC winches and the control circuit for hydraulic winches
- Mount as close as possible to the battery power source to ensure protection against short circuit and to reduce the risk of DC motor burn-out in the event of winch overloading
- Enables the battery, or electrical supply, to be isolated when winch is not in use
- Suitable for 12V or 24V DC systems



SUPERYACHT

ANCHORING EXCELLENCE

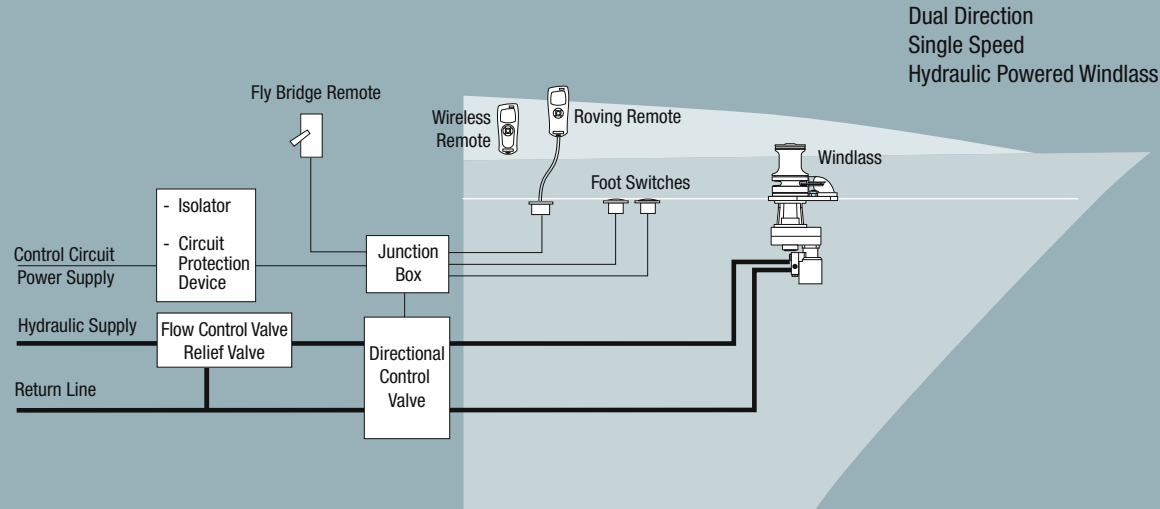
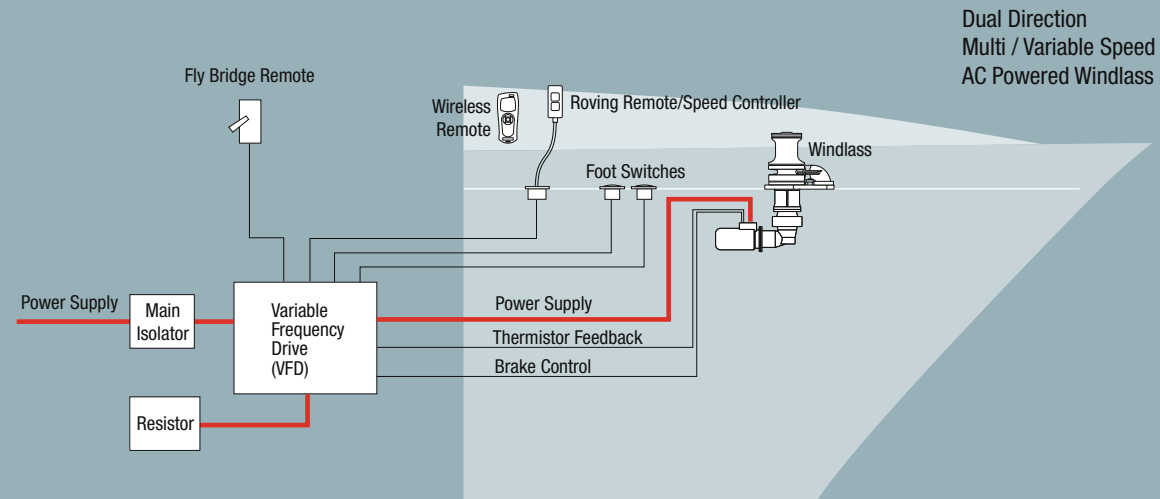
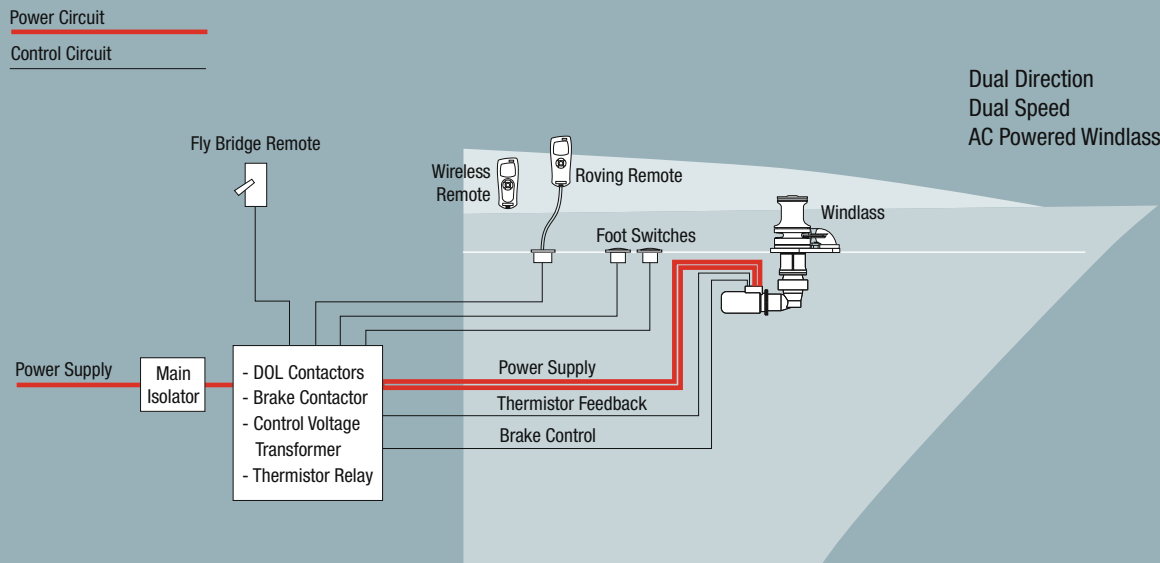
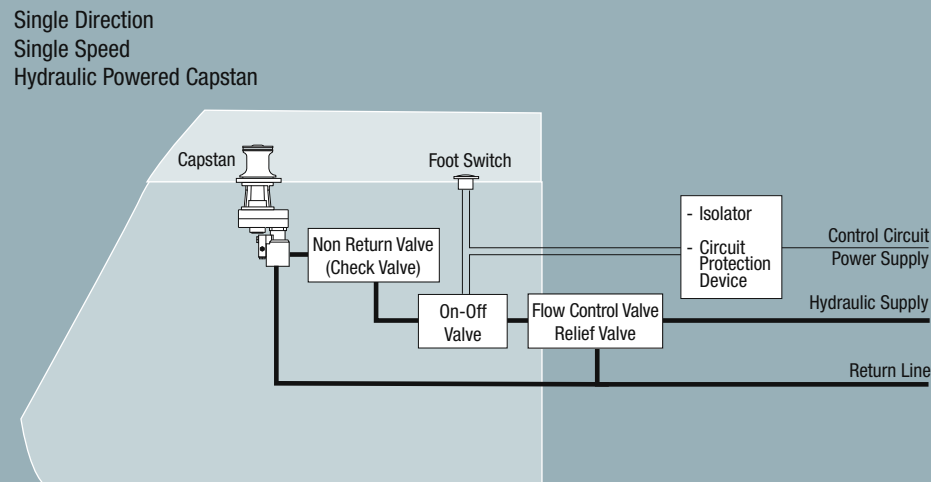
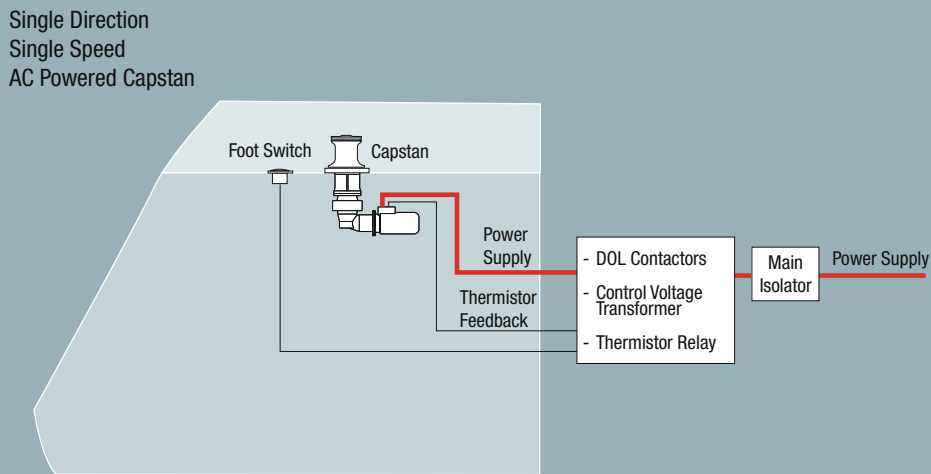
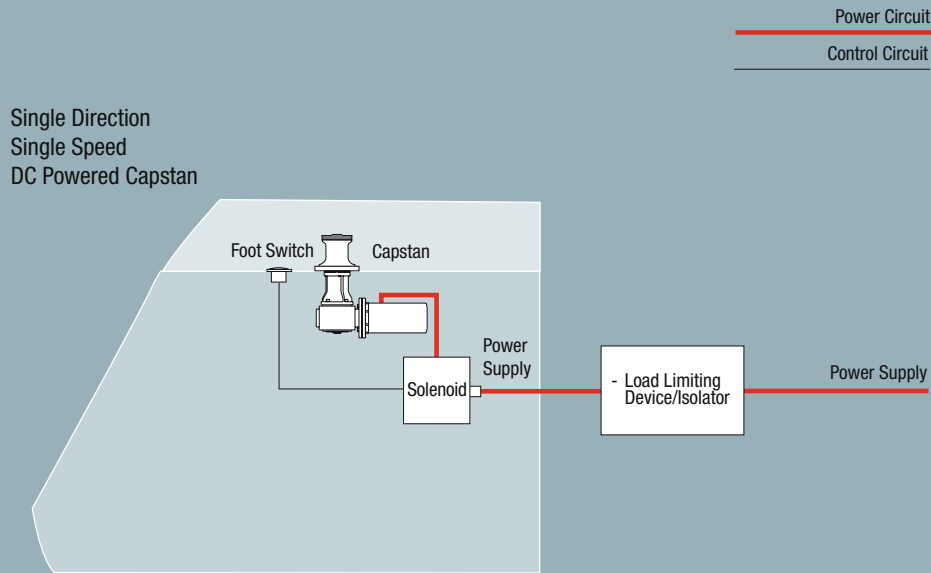
SUPERYACHT
ANCHORING EXCELLENCE

The following schematic diagrams illustrate the basic requirements for various power supplies.

They are to be used as a guide only; specific details will vary depending on the actual equipment being used.

There are three AC electric options shown to illustrate the differences between wiring single, dual and variable speed.

The hydraulic schematic is shown for single speed only. Dual or variable speed control is also achievable.



GLOSSARY OF TERMS

Bollard: An upright round post with projecting arms, for belaying and snubbing dock or anchor lines.

Capstan: Often referred to as a drum, rope drum, or warping drum used for hauling rope whilst being tailed by the operator.

Chain locker: The compartment in which the chain is stored.

Chain Pipe: Mounted on deck, it is the conduit that guides the chain from deck level to below deck. It can be a separate item or integral part of a windlass.

Chain Stopper: Located between the winch and bow roller, it secures the chain and anchor and takes the load off the windlass. A chain stopper must be used for systems utilising all chain and for rope and chain systems.

Chainwheel: Often referred to as gypsy, cable lifter or wildcat. A special wheel with pockets, to accommodate a specified chain size, for hauling up the chain and anchor. With automatic rope/chain systems the gypsy is designed to haul both rope and chain.

Contactor(s): A heavy duty relay(s) for opening and closing a power circuit, typically to a motor.

Displacement: The weight of sea-water displaced by the submerged part of a boat when it is afloat.

Draught (Draft): The depth of water which a vessel requires to float her.

Fly bridge: A control station on top of the deckhouse that provides high visibility for deep sea fishing and navigation.

Free Fall: Release of the winch clutch mechanism allowing the anchor and rode to run out freely with no engagement of winch gearbox or motor.

Gypsy: See **Chainwheel**

Hauling: Often referred to as weighing or lifting. The operation of lifting the anchor and rode.

Hawse pipe: Mounted between the deck and the hull it is the conduit that guides the chain from deck to the hull where the anchor is stowed. It can accommodate the anchor shank when stowed.

Horizontal: Pertaining to the winch or windlass. Drive shaft, capstan and chainwheel axis is positioned horizontally to the deck.

Line: A rope used for a specific purpose aboard a vessel.

Maximum Pull: Sometimes referred to as rated lift, stall load, or simply lift/pull. The maximum pull or lift load of the winch.

Rode: An anchor line. Refers to chain, rope or rope/chain lines.

Rope: Generally speaking when a piece of rope is put to use on a vessel it becomes a line.

Snub: To check the movement of a line by taking a turn around a snubbing capstan, a cleat or a post.

Spurling pipe: Mounted below deck it is the conduit that guides the chain within or to the chain locker.

Tailing: Controlling the exit or entry of a line at the top of a capstan. The tailing force is a reduction of the hauling load due to the grip of the line wraps around the capstan.

Tensioner: The device used to hold the anchor tight to avoid the anchor flogging against the yacht due to the yacht's motion.

Topworks: The parts of the windlass that are above the deck.

Vertical: Pertaining to the windlass or capstan. The drive shaft, capstan and gypsy axis is positioned vertically to the deck.

VFD: Variable Frequency Drive. An electronic device used to control AC motors by varying the alternating frequency of the voltage supplied to the motor from a consistent source.

Warping - warp: To move a vessel from one place to another by means of a rope made fast to some fixed object, typically in a marina situation. A warp is a piece of rope used for warping.

Weigh: To lift, as to weigh anchor.

Windlass: A machine designed to raise or lower an anchor.

Working load: Often referred to as the normal working load or the typical lift of the winch. The working load should approximately correspond to the total weight of the anchor and rode aboard the boat.

Maxwell has been producing Superyacht anchoring equipment for the global marine industry for decades. During this time thousands of Superyachts have been fitted with Maxwell anchoring systems.

Over the past quarter century many changes have occurred in the Superyacht industry. Most notably, these high worth vessels have been getting bigger and bigger. So big, that as we entered the new millennium, Megayacht became a common term for boats in excess of 60 metres (200 feet).

Maxwell has continued to respond to market demand in terms of both innovative and larger products. In anticipation of even larger Megayachts, Maxwell has begun to develop windlass and ancillary anchoring equipment which will be capable of handling up to 44mm stud link chain.

VVS1 ALLOY YACHTS

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These truly impressive Megayachts will demand truly impressive anchoring equipment; not only in terms of performance and reliability, but in terms of pleasing aesthetics in keeping with the awesome design and appearance of these amazing pleasure craft.

www.maxwellmarine.com

Maxwell Superyacht Division
(Head Office & APAC Region)
P.O. Box 100-703
Auckland 0745
New Zealand
TEL +64 9 985 6600
E-MAIL sysalesnz@maxwellmarine.com

Maxwell Superyacht Division
(North & South America)
2628 NE 11th Court
Fort Lauderdale, Florida
33304 USA
TEL +1 954 566 1236
E-MAIL sysalesusa@maxwellmarine.com

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