TECHNICAL DATA

Dezincification

As a major part of the Aquafax business is devoted to non ferrous metals, we take great interest and care in the material specification and suitability for our type of business. We are able to call on the expertise of either major manufacturers or federations for additional information to help or answer any enquiries.

BRONZE UNI 5273

There are various types of bronze designed for particular applications but where referred to in the Aquafax catalogue, the specification is as follows:

- Also known in the UK as **Gunmetal LG2**
- Highly suitable for salt water use

Composition	Min	Max
Copper	Remainder	
Tin	4.0%	6.0%
Lead	4.0%	6.0%
Zinc	4.0%	6.0%
Nickel	-	2.0%
Total impurities (aluminium, iron, arsenic, etc.)	0.8%	

BRASS CW617N

The exact specification of brass changes both for different forms of application but also different manufacturing methods i.e. hot stamping, casting, shell mounting, cold forming etc.
Below is an approximate material specification.

Brass is susceptible to dezincification.

Composition	
Copper	59%
Lead	2.5%
Tin	0.3%
Aluminium	0.05%
Iron	0.4%
Nickel	0.3%
Zinc	Remainder
Trace Elements	0.2%

- This material may also be known as CZ122 Brass,Tonval Brass, OT58 Brass
- It is not really recommended for seawater use

DZR BRASS CW602N

Dezincification Resistant Brass for Marine Application
Experimental work by the BNF Metals Technology Centre has shown that the dezincification resistance of CW602N (CZ132) alloy is maintained in sea water high in chlorides and other aggressive agents. Use in a fully submerged sea water filter for one year resulted in less than 0.20 mm (0.0008in.) of corrosion of CW602N (CZ132) compared with five times as much on naval brass CW712R (CZ112).

Lloyds Register of Shipping Yacht and Small Craft Department now have no objection to the use of DZR brass in through-hull fittings. Provided it is made to correct specification Dezincification Resistant Brass CW602N (CZ132) is commonly referred to as DZR brass.

The metal is heated treated and monitored in production to achieve the strict specification necessary to meet B.S. requirements. For pressure die casting the specification changes slightly.

Composition	
Copper	61%
Lead	2.25%
Arsenic	1%
Zinc	Remainder

- This material may be known as A-Metal or Alphametal

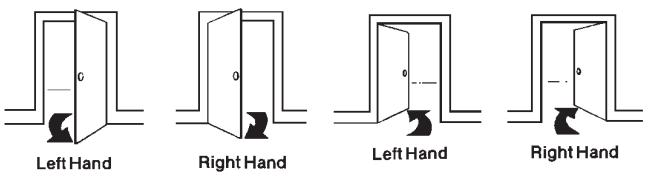
Choosing The Right Anode Materials

In general, the type of anode material depends on the kind of water the vessel is on. We suggest that the same anode material is used in all applications on the vessel where possible.
The following is a useful anode material guide:

Water Type	Anode Material
Salt water	Zinc or Aluminium
Brackish water	Aluminium
Fresh water	Magnesium

Choosing Hinges

This illustration should help in selecting between left hand and right hand.



Pumps

Flexible Impeller Pumps

Flexible impeller pumps provide an efficient solution to most marine pumping needs and have self priming capabilities.

Impeller pumps fitted with neoprene impellers are suitable for general raw water or fresh water applications such as engine cooling water or wash down pumps. Nitrile impellers are oil resistant and better suited for pumping fuels and or oily water.

Note, both the impeller and pump seals rely on water for lubrication and cooling and should not run dry for more than 30 seconds. Service kits and wear parts are available for most standard impeller pumps from stock.

Pump Pulley Diameter Belt Drive

$$\frac{\text{Engine RPM}}{\text{Pump RPM}} \times \text{Engine Pulley Dia.} = \text{Pump Pulley Dia.}$$

TECHNICAL DATA

General Electrical Information

Power & Current

Watts = Volts x Amps

$$\text{Amps} = \frac{\text{Watts}}{\text{Volts}}$$

Cable Voltage Drop

$$\text{Voltage Drop} = \frac{\text{Amps} \times \text{Distance*} \times 0.0164}{\text{Cable Cross Section (mm}^2\text{)}}$$

** Please note, The distance is from the power source e.g. battery to the equipment and back to the source. This should be calculated in metres when using this formula.*

Battery Charger Capacity

Generally a battery charger should be a minimum of 10% of the amp hour capacity of the battery bank it is supporting. The maximum charge output should take into consideration the type of battery technology being charged.

Recreational Craft Directive (RCD) & Boat Safety Scheme

As a guide, we have listed below some of the standards for watercraft under the Recreational Craft Directive. The latest standards should be referred to when designing and installing equipment to ensure the vessel meets the appropriate requirements suitable for the type of vessel, the use and the local regulations.

Title	Standard
Small Craft – Permanently installed fuel systems	BS EN ISO 10088
Small Craft – Fire resistant fuel hoses	BS EN ISO 7840
Small Craft – Liquefied petroleum gas (LPG) systems	BS EN ISO 10239
Guidance for the design, commissioning and maintenance of LPG systems in small craft	PD54823
LPG – Rubber & plastic hoses, tubing and assemblies for use with propane, butane and their mixture in the vapour phase	BS EN 16436 Class 2 BS EN 16436 Class 3
Small Craft – Electrical devices – Protection against ignition of surrounding flammable gases	BS EN ISO 8846
Small Craft – Electrical systems – Extra low voltage d.c. installations	BS EN ISO 10133
Small Craft – Electrically operated direct current bilge pumps	BS EN ISO 8849
Small Craft – Steering gear, cable and pulley systems	BS EN ISO 8847
Small Craft – Hydraulic steering systems	BS EN 10592
Small Craft – Seacocks and through hull fittings part 1 – Metallic	BS EN ISO 9093-1
Small Craft – Seacocks and through hull fittings part 2 – Non-metallic	BS EN ISO 9093-2
Small Craft – Bilge pumping systems	BS EN ISO 15083
Small Craft – Waste systems – Part 1 Waste water retention	BS EN ISO 8099-1
Small Craft – Fire protection	BS EN ISO 9094
Small Craft – Windows, port lights, hatches, deadlights and doors – strength and water tightness requirements	BS EN ISO 12216

Aquafax undertakes to supply equipment such as LPG appliances and fittings, electrical products, equipment for fuel and steering systems or mechanical products on the assumption that the installer is qualified and competent.

TERMS OF BUSINESS

Aquafax undertakes to supply bona fide trade customers only, Trade accounts may be opened on the completion of our credit account application form and acceptance by Aquafax of the references given.

1. On the basis that the purchaser has accepted the following terms by submitting an order, Aquafax hereon referred to as the Company, undertake to supply.

2. MINIMUM ORDER: Orders less than £25 are not normally accepted. Orders less than £25 will be accepted if paid in advance at full retail plus postage & VAT.

3. Terms net monthly.

4. General Carriage terms are published on our recommended selling pricelist and are subject to change without notice.

5. The purchaser accepts responsibility to inform the carrier and sender in writing on arrival of goods damaged in transit, retaining contents and packing materials for possible inspection.

6. Shortages must be notified in writing within three days of arrival.

7. The Company only accepts returned goods, which may be subject to a handling charge of at least 10%, if the Company has agreed in writing, and the relevant invoice numbers are quoted.

8. All goods are subject to the manufacturers' warranty terms. Suitability for application is responsibility of purchaser. The Company does not accept work to be carried out on equipment supplied and considered faulty without prior written agreement.

9. The Company cannot be held responsible for delivery delays outside their control. Any delivery dates given by us are approximate only and no liability can be accepted for any loss, damage or expenses consequent upon any delay in delivery from any cause whatsoever.

10. Prices are subject to alteration without notice.

11. The Company retain title and ownership of all goods supplied by them until payments of goods has been received in full otherwise purchaser may only transfer title as our agent, irrespective of incorporation of goods in manufactured product, on condition that they act as trustee, responsible and accountable for any monies outstanding.

12. The Company cannot be held responsible for errors in typing, description, illustration and specification which are intended only as a guide.

13. Customers requiring any form of certification for goods supplied MUST inform Aquafax at time of placing order.

14. V.A.T. is chargeable to all E.C. sales unless V.A.T. number is provided with order. Outside European Community V.A.T. is chargeable but redeemable to customer on proof of export.

15. The Company reserve the right to charge interest at 3% above bank base rate on overdue accounts

16. If our products are unobtainable through retail chandlers then we reserve the right to supply direct, at the recommended retail prices including V.A.T. plus carriage charges, on payment with order.

17. The company has a Privacy Policy in place & complies with GDPR regulations - See our website for further details

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