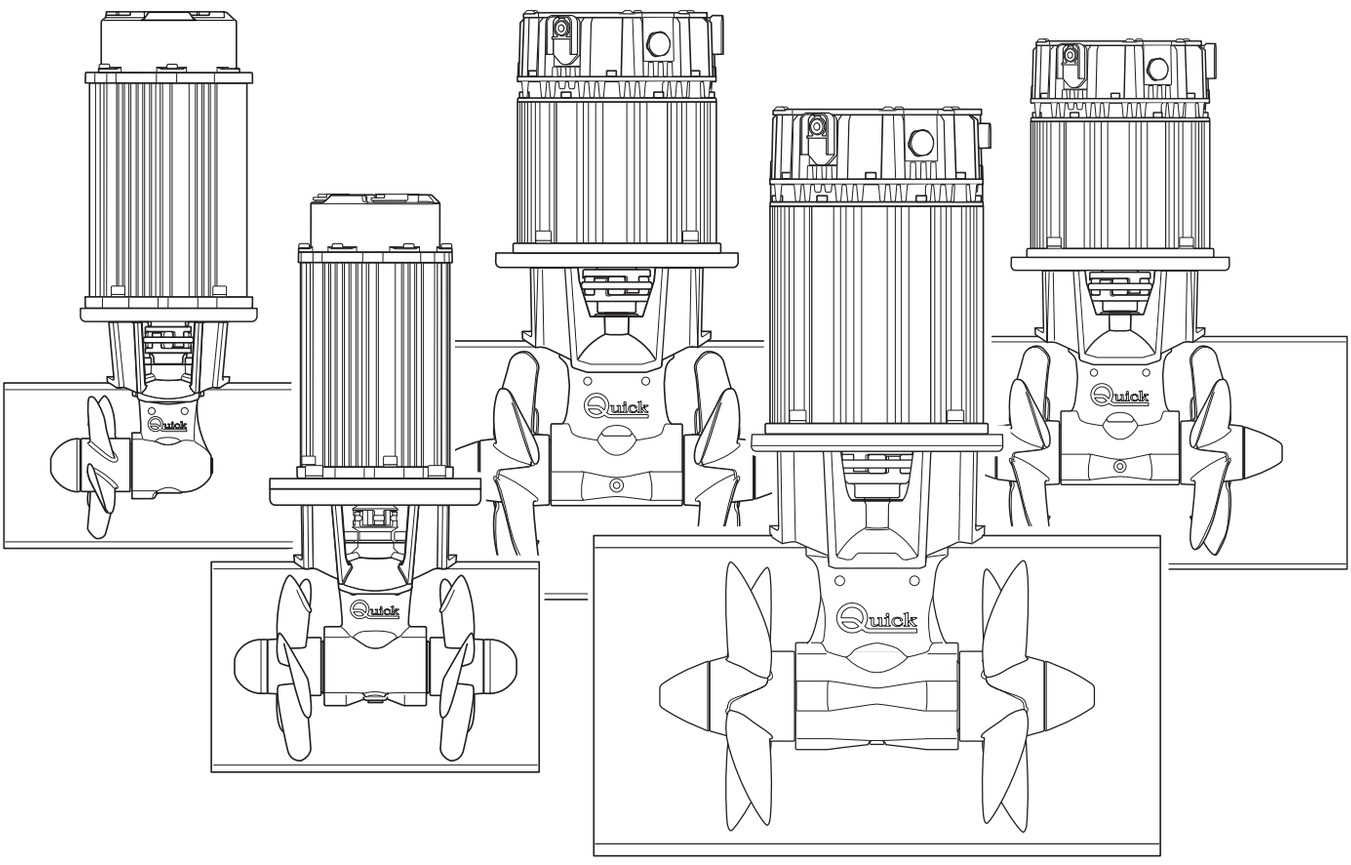
BT QSY Series

REV 007A

07/2026

SINGLE AND DOUBLE PROPELLER - SYNCHRONOUS MOTOR

BT QSY 140
BT QSY 185
BT QSY 215
BT QSY 250
BT QSY 300



***EN -** INSTALLATION AND USER'S MANUAL
General instructions

*Other languages available by scanning the QR code on the back of this manual or on the label on the product.

IT *Altre lingue disponibili scansionando il codice QR presente sul retro del seguente manuale o sull'etichetta alloggiata sul prodotto.

ES *Otros idiomas disponibles escaneando el código QR en la parte posterior de este manual o en la etiqueta del producto.

FR *Autres langues disponibles en scannant le code QR au dos de ce manuel ou sur l'étiquette du produit.

DE *Andere Sprachen sind durch Scannen des QR-Codes auf der Rückseite dieser Betriebsanleitung oder auf dem Aufkleber am Produkt verfügbar.

PT *Outros idiomas disponíveis, digitalizando o código QR no verso deste manual ou no rótulo do produto.

Quick®
Nautical Equipment

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1 - Foreword

Thank you for choosing a **Quick Spa** nautical accessory.
Quick Spa is an international leader in the production and marketing of nautical accessories. The Italian plant designs, engineers and manufactures all the products in the Quick range.

BT QSY SERIES THRUSTERS WITH SYNCHRONOUS MOTOR
Marine accessory designed to assist with docking manoeuvres when approaching the quay. The BTQSY series comprises a range of thrusters powered by a permanent-magnet synchronous electric motor, featuring an integrated driver. Components in contact with water are made of suitable materials, such as the gearbox, manufactured in aluminium-bronze alloy. The anode is made of aluminium and the output shaft of stainless steel. The thrusters may be made of either plastic or aluminium-bronze alloy, depending on the model..

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2 - Important information

BT QSY Series

This manual provides boatyards and nautical equipment installers with instructions on how to assemble the specified BT QSY Quick® and operate it correctly.
READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE USING THE PRODUCT.
IF IN DOUBT, CONTACT YOUR QUICK® DEALER.

Keep the manual in a safe place for future reference. If lost, it can be downloaded from the company website www.quickitaly.com

Quick® reserves the right to modify the technical characteristics of the equipment and the contents of this manual without prior notice. In case of discordance or errors in translation between the translated version and the original text in the Italian language, reference will be made to the Italian text.

2.0 - Abbreviations and symbols

ABBREVIATIONS

BT = Bow Thruster
EX = Example
P. = Page

SYMBOLS

This manual features Warning and/or Caution symbols that are important for safety.
Please follow the instructions provided.

	**Warning** symbol for **dangerous** situations.
	**Warning** symbol for feet and/or hand crushing hazard (yellow triangle)
	**Danger** symbol for crushing hands by gears (red circle)
	**Danger** symbol for crushing hands by chain (red triangle)
	**Caution** symbol to prevent direct or indirect damage to the product.
	**Caution** symbol to prevent direct or indirect damage to the installer/end user.

3.0 - General precautions

Quick® Thrusters have been designed and constructed only for nautical use.
- Do not use these products for any other type of operation.
- Quick® shall not be held liable for direct or indirect damage caused by improper use of the product.
- The product is not designed to support loads generated in particular atmospheric conditions (storms).
- Operate the product from a position where it is possible to supervise the work area.
- Always deactivate the product when not being used.
- For improved safety, we recommend installing at least two controls to operate the product in case one is damaged.
- The installer shall bear full responsibility for any problems caused by defective installation of the tunnel.
- This equipment is not intended for use by people (including children) with reduced physical, sensory or mental capabilities.
- Do not install the electric motor near easily inflammable objects.

3.1 - Precautions for the installer and PPE



CARRY OUT THE INSTALLATION IN GOOD LIGHTING CONDITIONS.
It is advisable to wear suitable clothing and personal protective equipment (PPE).

All personal protective equipment must comply with the relevant national legislation and must be checked, maintained and used in accordance with the manufacturer's instructions.

PPE for the installer and the routine maintenance technician		
Identification pictogram	Description	Notes
	**HELMET**	Use of safety helmet to prevent damage caused by suspended loads during work and impact to structures.
	**SAFETY GLOVES**	Use of protective gloves to prevent cuts, perforations or punctures during work operations.
	**SAFETY SHOES**	Use of safety shoes to prevent damage caused by falling materials from above during stabilizer installation operations.
	**SAFETY CLOTHING**	Use of suitable protective clothing to prevent entanglement with moving and transported parts.

The product is not suitable for installation in potentially explosive environments and/or atmospheres.
Installation and subsequent inspection or repair work must only be carried out by qualified personnel.

CARRY OUT INSTALLATION/MAINTENANCE WORK MAKING SURE THAT THE PRODUCT IS DISCONNECTED FROM THE ELECTRICAL SYSTEM.

Quick® accepts no responsibility for inadequate connection of users to the electrical/hydraulic system and its inadequate safety.

READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE USING THE PRODUCT. IF IN DOUBT, CONTACT YOUR QUICK® DEALER.

QUICK® RESERVES THE RIGHT TO MODIFY THE TECHNICAL CHARACTERISTICS OF THE EQUIPMENT AND THE CONTENTS OF THIS MANUAL WITHOUT PRIOR NOTICE. IN CASE OF DISCORDANCE OR ERRORS IN TRANSLATION BETWEEN THE TRANSLATED VERSION AND THE ORIGINAL TEXT IN THE ITALIAN LANGUAGE, REFERENCE WILL BE MADE TO THE ITALIAN TEXT.

4.0 - Technical Data

MODELS		BT QSY 140-50-12	BT QSY 185-85-12	BT QSY 185-85-24	BT QSY 185-100-24
Propeller type		**Single (technopolymer)**	**2 Counter rotating (technopolymer)**		
Tunnel ø		140 mm (5" 1/2)	185 mm (7" 9/32)	185 mm (7" 9/32)	185 mm (7" 9/32)
Motor power		2,8 kW	5 kW	5 kW	8 kW
Voltage		12 V	12 V	24 V	24 V
Fuse		225 A CNL DIN	325 A CNL DIN	175 A CNL DIN	250 A CNL DIN
Thrust		50 kgf (110 lb)	85 Kgf (187.4 lb)		100 kgf (220.5 lb)
Weight		14,5 kg (31 lb)	16,6 kg (36.6 lb)		
Tube thickness limit value		min. 4,5 mm - max 6,5 mm (min. 11/64" - max 1/4")			
Recommended cable cross-section (*) (**)	**L < 5 m**	95 mm^2 (AWG 3/0)	2x70 mm^2 (2xAWG 2/0)	50 mm^2 (AWG 0)	95 mm^2 (AWG 3/0)
	5.1 < L < 10 m	95 mm^2 (AWG 3/0)	2x70 mm^2 (2xAWG 2/0)	50 mm^2 (AWG 0)	95 mm^2 (AWG 3/0)
	10.1 < L < 20 m	120 mm^2 (AWG 4/0)	150 mm^2 (2xAWG 3/0)	50 mm^2 (AWG 0)	95 mm^2 (AWG 3/0)

MODELS		BT QSY 215-120-24	BT QSY 215-120-48	BT QSY 215-140-24	BT QSY 215-140-48
Propeller type		**2 Counter rotating (technopolymer)**			
Tunnel ø		215 mm (8" 15/32)	215 mm (8" 15/32)	215 mm (8" 15/32)	215 mm (8" 15/32)
Motor power		6,5 kW	6,5 kW	8 kW	8 kW
Voltage		24 V	48 V	24 V	48 V
Fuse		A CNL DIN	A CNL DIN	A CNL DIN	A CNL DIN
Thrust		120 kgf (264,5 lb)	120 kgf (264,5 lb)	140 kgf (308 lb)	140 kgf (308 lb)
Weight		32 kg (70 lb)			
Tube thickness limit value		min. 6,5 mm - max 11 mm (min. 1/4" - max 7/6")			
Recommended cable cross-section (*) (**)	**L < 5 m**	95 mm^2 (AWG 3/0)	35 mm^2 (AWG 2/0)	120 mm^2 (AWG 4/0)	50 mm^2 (AWG 0)
	5.1 < L < 10 m	95 mm^2 (AWG 3/0)	35 mm^2 (AWG 2/0)	120 mm^2 (AWG 4/0)	50 mm^2 (AWG 0)
	10.1 < L < 20 m	95 mm^2 (AWG 3/0)	35 mm^2 (AWG 2/0)	120 mm^2 (AWG 4/0)	50 mm^2 (AWG 0)

(*) L = positive cable + negative cable
(**) Other solutions are allowed, provided that they are supported by the connecting terminals. Respect minimum cross-section indicated.

4.0 - Dati tecnici

MODELS		BT QSY 250-140-24	BT QSY 250-140-48	BT QSY 250-170-24	BT QSY 250-170-48
Propeller type		**2 Counter rotating (technopolymer)**			
Tunnel ø		250 mm (9" 27/32)	250 mm (9" 27/32)	250 mm (9" 27/32)	250 mm (9" 27/32)
Motor power		7 kW	7 kW	8 kW	8 kW
Voltage		24 V	48 V	24 V	48 V
Fuse		225 A CNL DIN	125 A CNL DIN	275 A CNL DIN	150 A CNL DIN
Thrust		140 kgf (308 lb)	140 kgf (308 lb)	170 kgf (375 lb)	170 kgf (375 lb)
Weight		34,3 kg (75,6 lb)	34,3 kg (75,6 lb)	39,6 kg (87 lb)	39,6 kg (87 lb)
Tube thickness limit value		min. 6,5 mm - max 11 mm (min. 1/4" - max 7/6")			
Recommended cable cross-section (*) (**)	**L < 5 m**	70 mm² (AWG 2/0)	95 mm² (AWG 3/0)	120 mm² (AWG 4/0)	95 mm² (AWG 3/0)
	5.1 < L < 10 m	70 mm² (AWG 2/0)	95 mm² (AWG 3/0)	120 mm² (AWG 4/0)	95 mm² (AWG 3/0)
	10.1 < L < 20 m	70 mm² (AWG 2/0)	95 mm² (AWG 3/0)	150 mm² (2xAWG 2/0)	95 mm² (AWG 3/0)

MODELS		BT QSY 250-200-24	BT QSY 250-200-48	BT QSY 250-250-48
Propeller type		**2 Counter rotating (technopolymer)**		
Tunnel ø		250 mm (9" 27/32)	250 mm (9" 27/32)	250 mm (9" 27/32)
Motor power		11 kW	11 kW	16 kW
Voltage		24 V	48 V	48 V
Fuse		350 A CNL DIN	200 A CNL DIN	275 A CNL DIN
Thrust		200 kgf (440,9 lb)	200 kgf (440,9 lb)	250 kgf (551 lb)
Weight		39,6 kg (87,3 lb)	39,6 kg (87,3 lb)	39,6 kg (87,3 lb)
Tube thickness limit value		min. 6,5 mm - max 11 mm (min. 1/4" - max 7/6")		
Recommended cable cross-section (*) (**)	**L < 5 m**	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	120 mm² (AWG 4/0)
	5.1 < L < 10 m	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	120 mm² (AWG 4/0)
	10.1 < L < 20 m	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	120 mm² (AWG 4/0)

MODELS		BT QSY 300-240-24	BT QSY 300-240-48	BT QSY 300-300-48	BT QSY 300-350-48
Propeller type		**2 Counter rotating (technopolymer)**			
Tunnel ø		300 mm (11" 13/16)	300 mm (11" 13/16)	300 mm (11" 13/16)	300 mm (11" 13/16)
Motor power		12 kW	12 kW	16 kW	23 kW
Voltage		24 V	48 V	48 V	48 V
Fuse		400 A CNL DIN	225 A CNL DIN	325 A CNL DIN	400 A CNL DIN
Thrust		240 kgf (529,1 lb)	240 kgf (529,1 lb)	300 kgf (660 lb)	350 kgf (772 lb)
Weight		56,8 kg (125,2 lb)	56,8 kg (125,2 lb)	56,8 kg (125,2 lb)	62 kg (136,7 lb)
Tube thickness limit value		min. 9,5 mm - max 13,5 mm (min. 3/8" - max 17/32")			
Recommended cable cross-section (*) (**)	**L < 5 m**	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	120 mm² (AWG 4/0)	2x70 mm² (2xAWG 2/0)
	5.1 < L < 10 m	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	120 mm² (AWG 4/0)	2x70 mm² (2xAWG 2/0)
	10.1 < L < 20 m	2x70 mm² (2xAWG 2/0)	70 mm² (AWG 2/0)	150 mm² (2xAWG 2/0)	2x70 mm² (2xAWG 2/0)

(*) L = positive cable + negative cable
(**) Other solutions are allowed, provided that they are supported by the connecting terminals. Respect minimum cross-section indicated.

4 - Information about the product

4.1 - Recommended battery table

TUNNEL (mm Ø)	MODEL	THRUST (kgf)	POWER (kW)	VOLT (V)	MIN. BATTERY GROUP RECCOMENDED (Ah)	CCA (Cold Crancing Amps) SAE J537
140	BTQSY1405012	50	2,8	12	100 - 130	750 - 1000
185	BTQSY1808512	85	5	12	150 - 200	1200 - 1500
	BTQSY1808524	85	5	24	80 - 100	600 - 750
	BTQSY1810024	100	8	24	115 - 150	900 - 1150
215	BTQSY2112024	120	6,5	24	115 - 150	900 - 1150
	BTQSY2112048	120	6,5	24	60 - 80	450 - 600
	BTQSY2114024	140	8	48	125 - 160	950 - 1200
	BTQSY2114048	140	8	48	70 - 90	550 - 650
250	BTQSY2514024	140	7	24	100 - 130	750- 1000
	BTQSY2514048	140	7	48	50 - 70	400 - 550
	BTQSY2517024	170	8	24	125 - 160	950 - 1200
	BTQSY2517048	170	8	48	60 - 80	450 - 600
	BTQSY2520024	200	11	24	160 - 200	1200 - 1500
	BTQSY2520048	200	11	48	90 - 120	700 - 900
	BTQSY2525048	250	16	48	120 - 150	900 - 1150
300	BTQSY3024024	240	12	24	170 - 220	1300 - 1700
	BTQSY3024048	240	12	48	100 - 130	750 - 1000
	BTQSY3030048	300	16	48	130 - 170	1000 - 1300
	BTQSY3035048	350	23	48	170 - 210	1300 - 1600

4.2 - Tightening torques

TIGHTENING TORQUE	Nm
M6	6.5
M8	16
M10	31
M12	55
M14	87
M16	135

Indicative values for stainless steel screws, consider tightening by assessing the material of the surface to which it will be fixed.

4.3 - Standard supply and material included in the package

- Thruster
- Drilling template
- Gasket
- O-ring
- Installation and use manual
- Conditions of warranty
- QSY ON/OFF interface (ON/OFF models only)
- Adapter M12-23 poles (only for 250/300)
- TCD QSY wiring cable (ON/OFF models only)

4.4 - Recommended Quick® accessories not included

- AMC EX cable
- AMC QSY ADP cable
- PCS QSY ADP cable
- QSY EX cable
- PCS QSY ADP
- TCD SP cable
- TCD EX cable

5 - Handling and transport

5.0 - General instructions and precautions

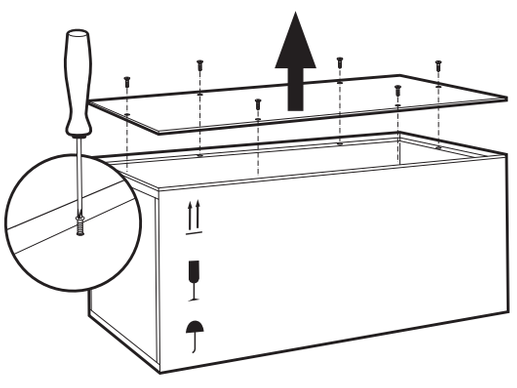
Consider the weight for lifting the BT QSY, refer to section 4 “product information”, sub-section “technical data” in this manual.

The handling and transport of the BT QSY must be carried out by skilled personnel, capable of fastening loads correctly and in compliance with local regulations regarding work safety.

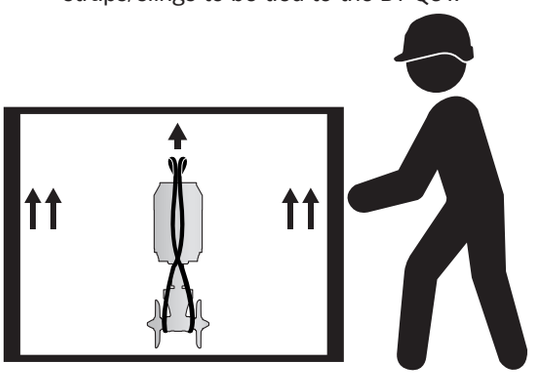
- Lift the BT QSY with a mechanical aid, especially when handling the motor.
- Care must be taken when removing the BT QSY from packaging or when lifting it, taking care NOT to cause damage to the equipment or impact with the ground.

5.1 - Removing the crate and lifting the BT QSY Series

A. Remove the top panel of the crate.



B. Lift the BT QSY from the crate with the mechanical aid using straps/slings to be tied to the BT QSY.



The images are purely indicative and may not fully reflect the product characteristics.

6.0 - Tools required for installation

BT QSY140
- Drill and drill bits Ø 7 mm (9/32")
- Hollow mill Ø 27 mm (1" 1/16)
- Male hex.wrenches: 4 mm, 5 mm and 6 mm
- Fork wrench: 17 mm

BT QSY185
- Drill and drill bits Ø 9 mm (3/8")
- Hollow mill Ø 35 mm (1" 3/8)
- Male hex.wrenches: 5 mm, 6 mm and 8 mm
- Fork wrench: 19 mm

BT QSY215
BT QSY250
- Drill and drill bits Ø 11 mm (7/16")
- Hollow mill Ø 46 mm (1" 13/16)
- Male hex.wrenches: 4 mm, 5 mm, 8 mm and 10 mm
- Fork wrench: 24 mm

BT QSY300
- Drill and drill bits Ø 15 mm (19/32")
- Hollow mill Ø 53 mm (2" 3/32)
- Male hex.wrenches: 4 mm, 5 mm, 8 mm and 12 mm
- Fork wrench: 27 mm

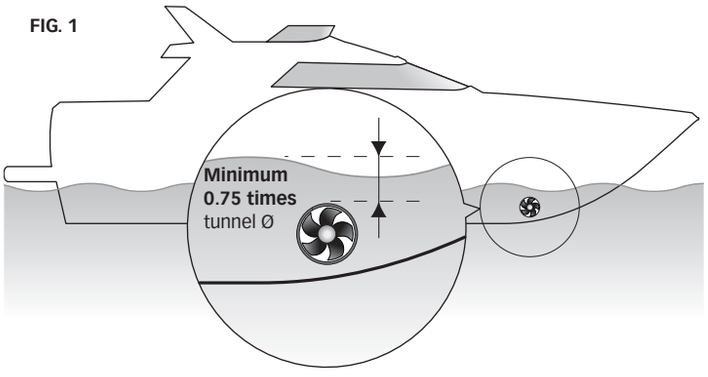
BT QSY300
- Drill and drill bits Ø 15 mm (19/32")
- Hollow mill Ø 53 mm (2" 3/32)
- Male hex.wrenches: 4 mm, 5 mm, 8 mm and 12 mm
- Fork wrench: 27 mm

6.1 - Installation requirements

We recommend you entrust preparation and positioning of the tunnel in the hull to a skilled professional.
These are generic instructions and do not give details of the preparatory operations for installing the thruster, since this is the competence of the boatyard. The installer shall bear full responsibility for any problems caused by defective installation.
Although all the components and mechanical moving parts are of high quality, the correct installation of the driving unit is an essential basis for the safe and effective use of the boat as well as the driving unit itself.
The installation of such a unit is an operation that requires experience as well as technical skills. It is recommended that the installation be carried out by competent personnel and that the manufacturer or naval architects be consulted to fully assess the scope of the work.

6.2 - Propellers

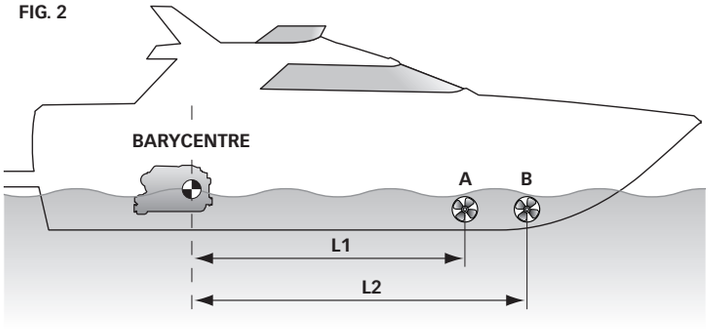
FIG. 1



The position of the tunnel will depend on the interior and exterior shape of the boat's bow.

- **FIG. 1** In order to avoid cavitation in the propeller, the tunnel should be placed as deep as possible. The optimum tunnel position will be at least 0.75 times the diameter of the tunnel from the waterline.

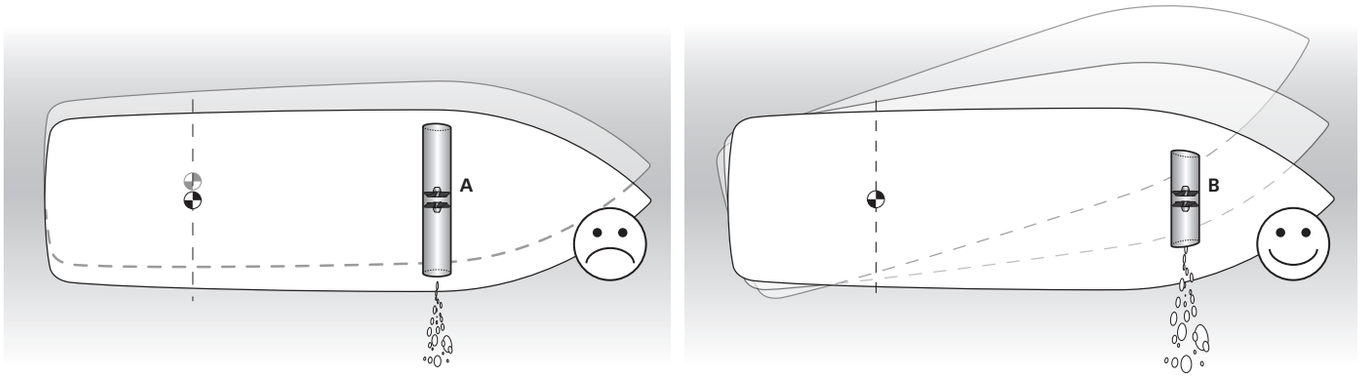
FIG. 2



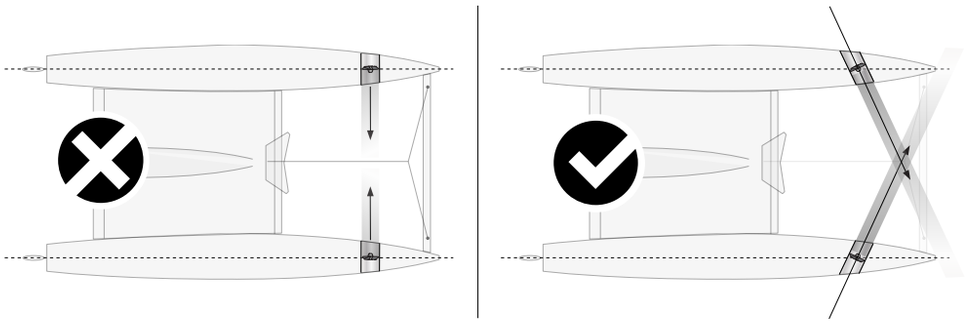
- **FIG. 2** The lever effect in the boat is proportional to the increase of the distance (L1 and L2) between the barycentre and the position of the tunnel A and B.

- **FIG. 3** For greater lever effect prefer position B.

FIG.3



6.3 - Propeller installation on catamarans



- When installing propellers on a catamaran, the tunnel axes must not be aligned or directly opposed. The installation angle may vary depending on the catamaran size and model.
- The angle should be kept to a minimum to ensure greater Thruster efficiency.

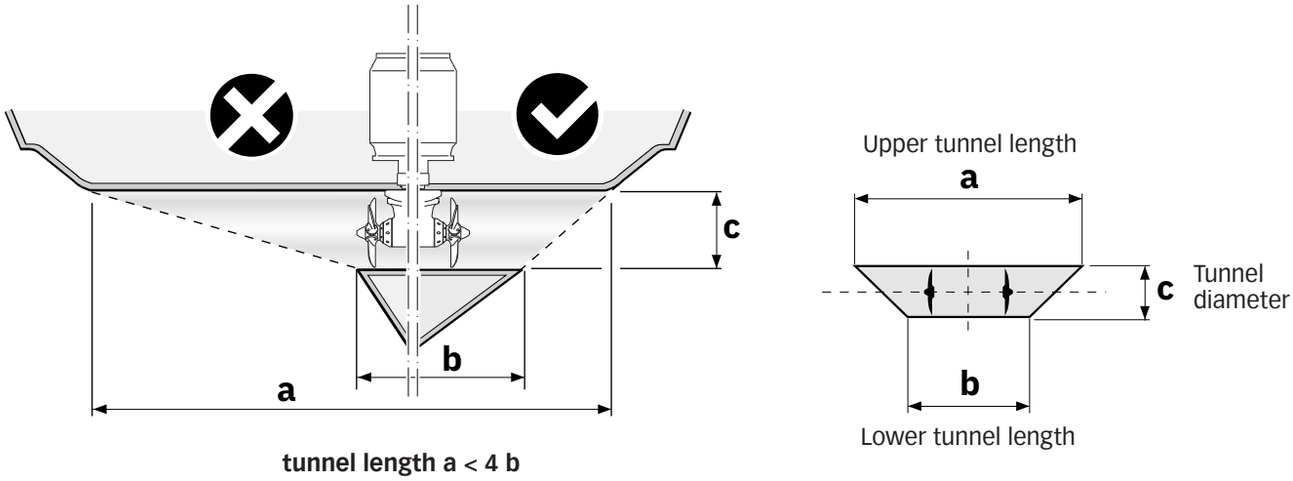
6.4 - Tunnel Length

The correct tunnel length depends on various factors, including hull type, operational characteristics and environmental conditions.

NOTE: Installing a tunnel that is excessively long may lead to flexing or deformation over time and may require additional structural support. Consult a qualified naval engineer.

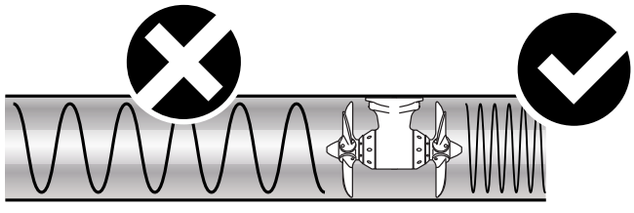
- 1. For a proper use of the thruster, we recommend a length equal to 1.5 to 4 times the tunnel diameter. To limit losing charge, a ratio of up to 6 times the diameter can be tolerated. Refer to the diagram below for proper tunnel dimensioning.

tunnel length < 4 × c (tunnel diameter)
tunnel length > 1.5 x c (tunnel diameter)

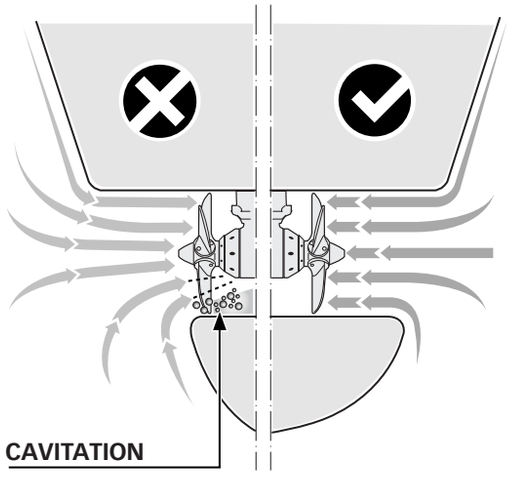


tunnel length a < 4 b

- 2. The length of the tunnel upper section (**a**) must be less than 4 times the length of the lower section (**b**) to ensure Thruster performance.
- 3. An increase in the length of the tunnel increases the effect of the loss of charge, decreasing the nominal driving force.



- 4. If the tunnel is too short (typically only in the lower section), cavitation may occur due to insufficient “straightening” of the water flow before it reaches the propeller. Cavitation reduces performance and increases operational noise.



6.5 - Tunnel installation

NOTE: Following are general guidelines only and do not cover the specific details of fibreglass work.
Any issues arising from incorrect tunnel installation are the sole responsibility of the installer. Contact a professional boatbuilder for hull modifications.

- 1. Identify the installation location on the vessel, taking into account the guidelines previously outlined in this manual and the dimensions applicable to the thruster model being installed. Mark the centre of the tunnel on both sides of the hull. Drill a horizontal hole at the marked positions (FIG. 1).

- 2. Mark the circular opening of the tunnel (tunnel external diameter) and cut the hole accordingly (FIG. 2).

- 3. Insert the tunnel and trace its outline to ensure proper fitting onto the hull (FIG. 3).

- 4. Trim the ends of the tunnel to the required shape and lightly sand the surface. Clean the area using acetone or a similar solvent before applying fibreglass (FIG. 4).

FIG. 1

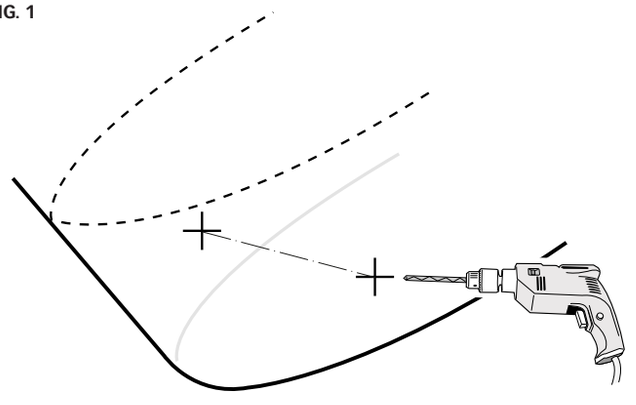


FIG. 2

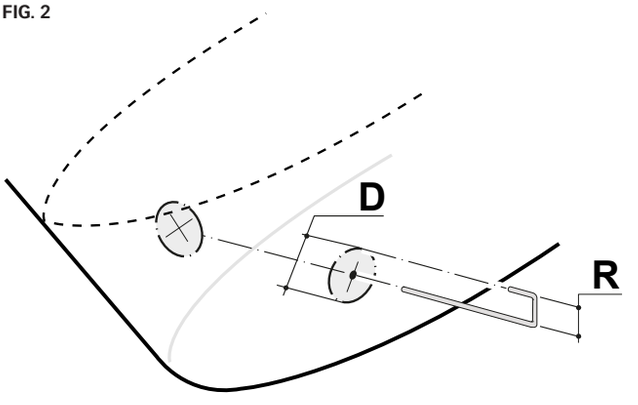


FIG. 3

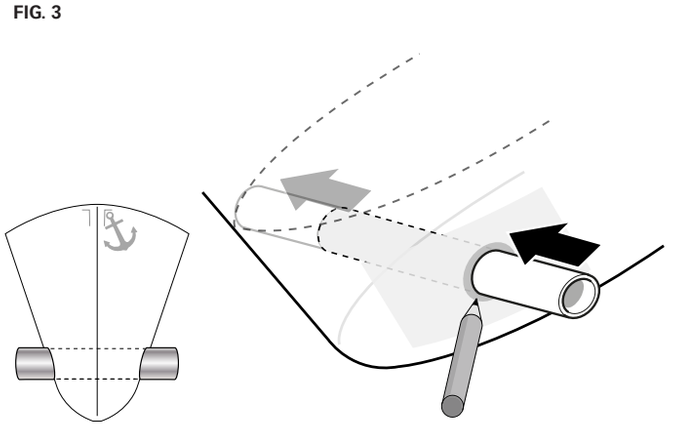
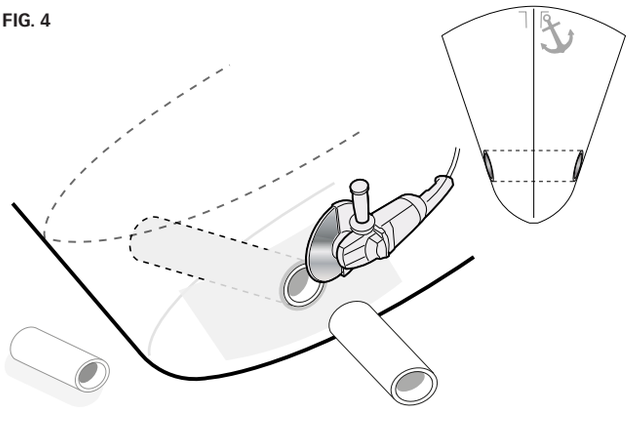
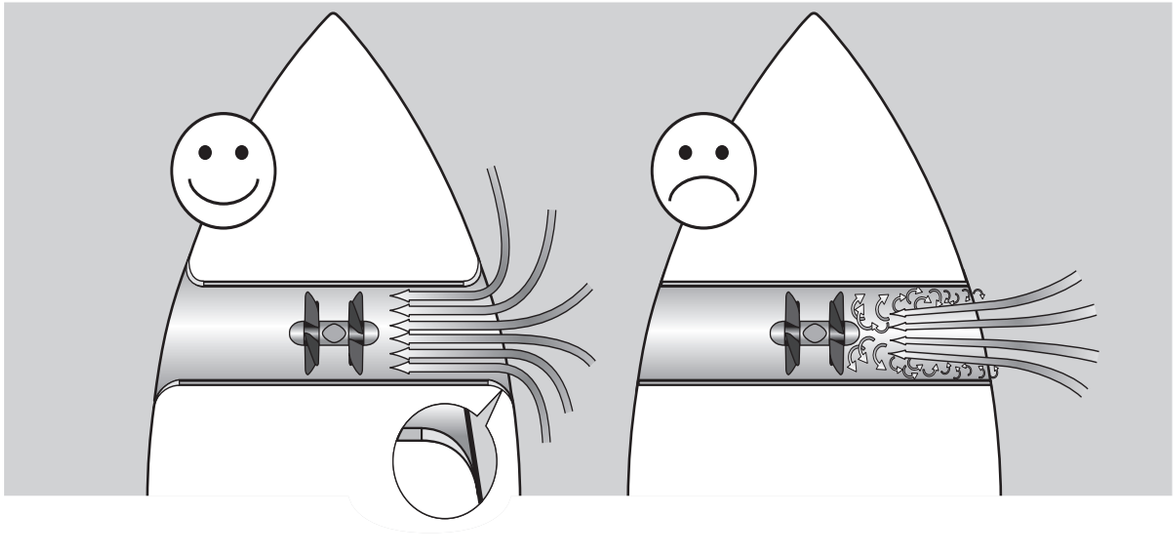


FIG. 4

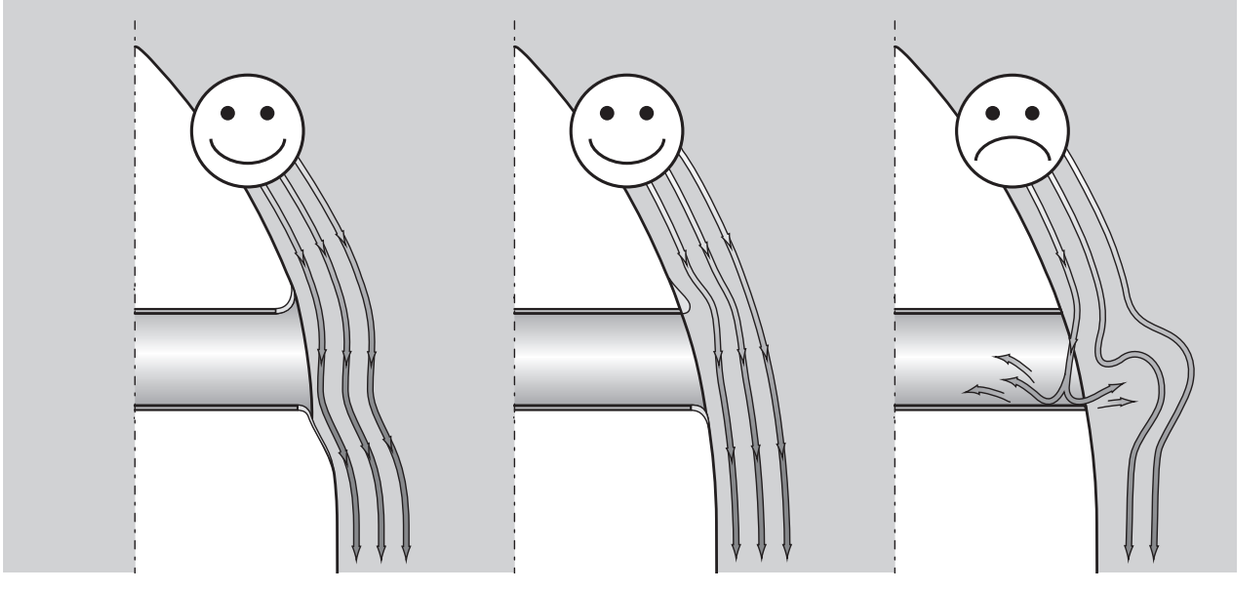


6.6 - Tunnel

- The rounded ends of the tunnel limit the creation of turbulence and cavitation, improving performance of the propeller thrust and reducing noise levels to a minimum.



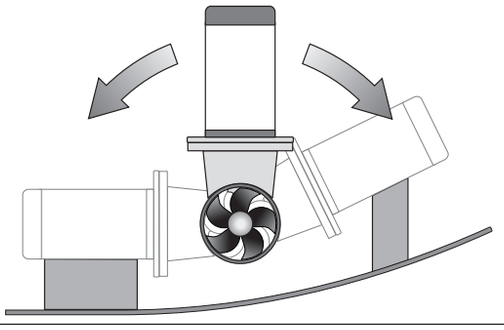
- The force produced by the flow of the water when the boat is moving produces resistance on the rear face of the tunnel, which is an area exposed frontally to the water flow. To limit this phenomenon, prepare an indentation in the rear part of the tunnel. The indentation will depend on the shape of the hull. Otherwise, create a deflector on the front part of the tunnel.





- If the tunnel is near the waterline, it is advisable to fit a grating at the end of the tube. The grating must have as large a vertical mesh as possible to avoid contrasting the propeller thrust. The vertical mesh prevents the entry of most of the floating objects.

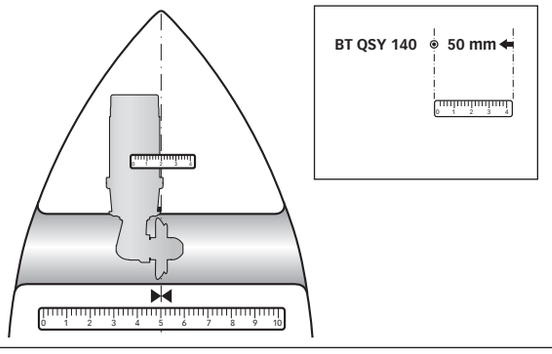
6.7 - Thruster



- The thruster can be installed at any angle within 90° from the vertical.
- If the electric motor is positioned at an angle of more than 30° from the vertical, an appropriate support (saddle) must be installed.

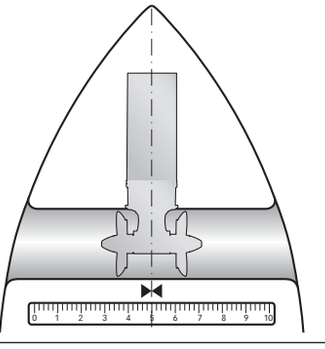
SINGLE PROPELLER

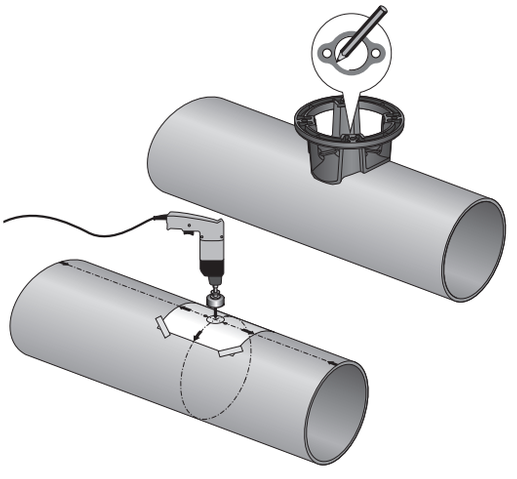
- To position the thruster in the tube, find the half-way point of the tube and move by the value indicated (left or right, see box) in the diagram below so that the propeller is positioned exactly in the middle of the inner length of the tunnel.



DOUBLE PROPELLER

- To position the thruster in the tube, find the half-way point of the tube and move by the value indicated (left or right, see box) in the diagram below so that the propeller is positioned exactly in the middle of the inner length of the tunnel.





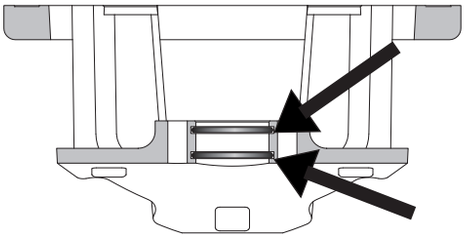
- Use the flange to mark the centre of the holes on the tube.
- Fix the drilling template on the reference points, making sure they are aligned with precision at the half-way point of the tube.

N.B. All holes must be exactly aligned with the half-way point of the tunnel, since tolerance between propeller and tunnel is minimal.

- Take care that there are no resin residues in the contact area between flange and tube; this could cause misalignment. Any resin residues and any other hindrance to correct contact must be removed with sandpaper.

BTQ SY Ø140/185/250/300

- Insert two O-rings into the special seats inside the flange.



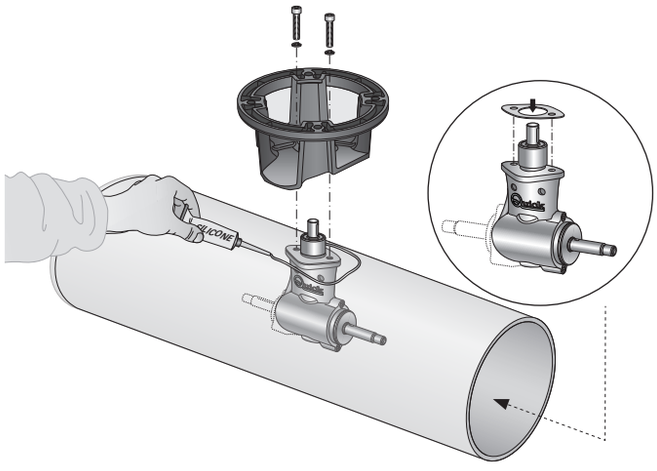
6.8 - BT QSY 140/185/215/250/300 Gearleg and motor support flange

- Fit the gearleg with the special seal gasket.
- For further protection against the entry of water, apply silicone for nautical use around the point of contact between flange and tube.
- Fasten everything with the flange using the special screws and washers.

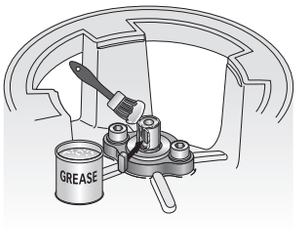




DO NOT APPLY SEALANT IN HOLES

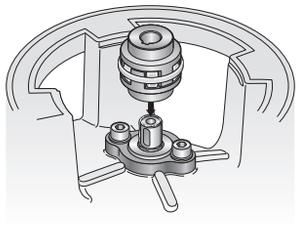


1



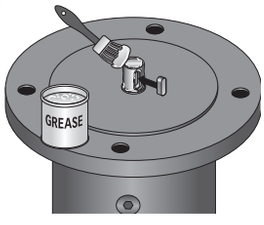
- Grease the terminal part of the gearleg shaft; fit the small key into its seat.

2



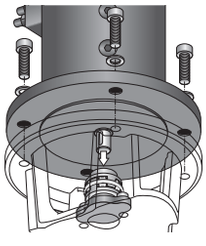
- Insert the elastic coupling in the terminal part of the gearleg shaft.

3



- Grease the terminal part of the drive shaft; fit the key into its seat.

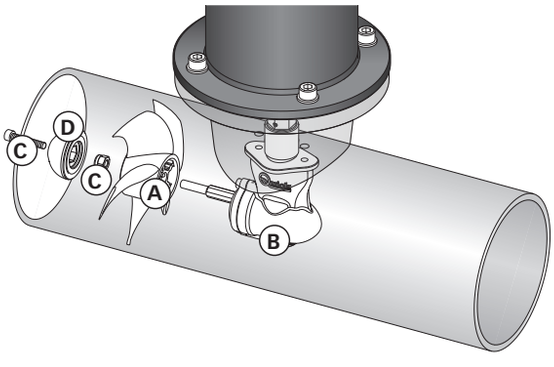
4



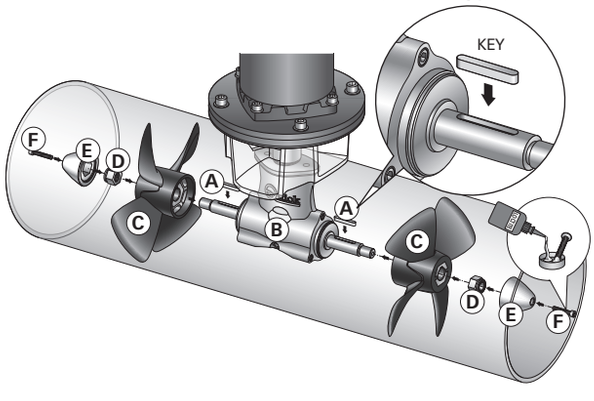
- Insert the motor onto the elastic coupling; secure it with the 4 screws and washers supplied.

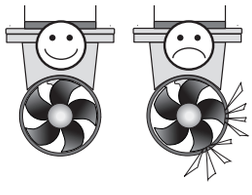
4.4.0 - Single & double propeller assembly

Single propeller assembly
Insert propeller **A** on the shaft of gearleg **B**, secure the propeller with the self-locking nut **C**, insert anode **D** and lock it with the other self-locking nut **C**.



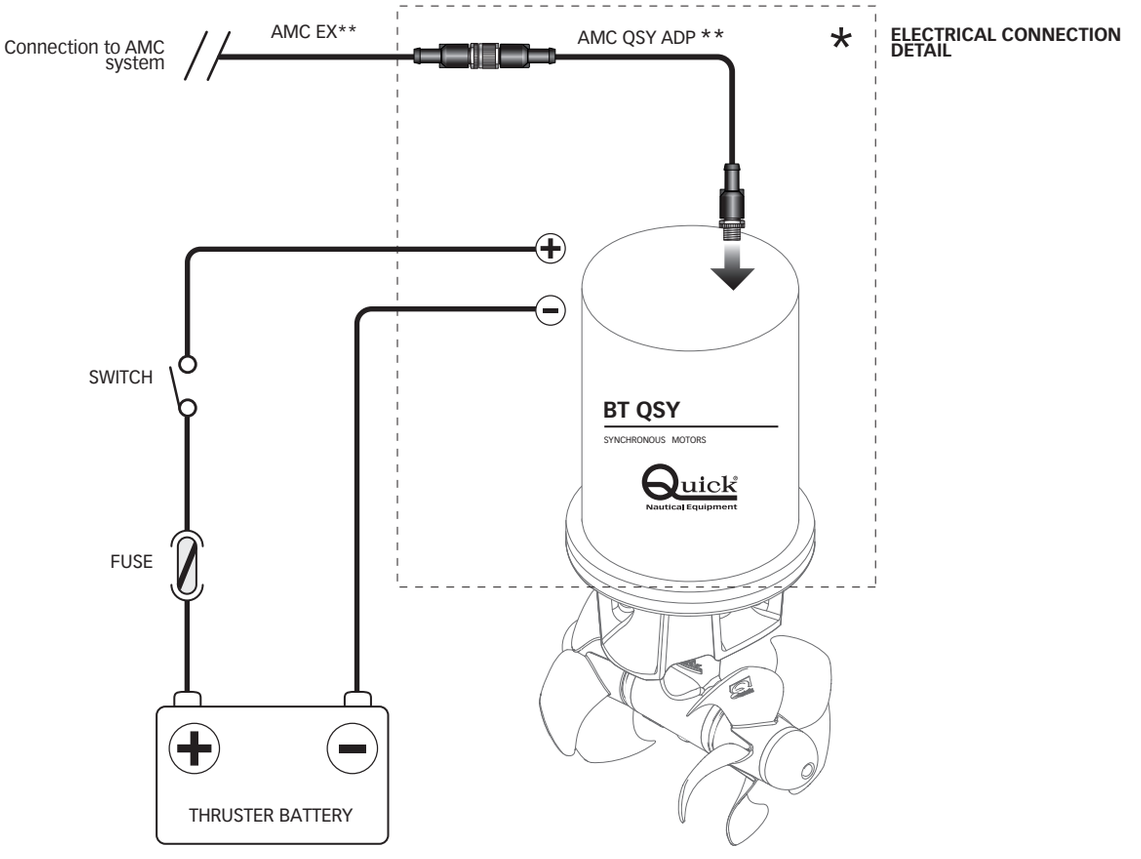
Propeller assembly
Insert the drive key/pin **A** on gearleg **B**; fit the propeller **C** to the gearleg by engaging it to the drive key/pin **A**; secure the propeller with the self-locking nut **D**. Insert anode **E** on nut **D** and lock it with screw **F** smeared with threadlocker (loctite type).



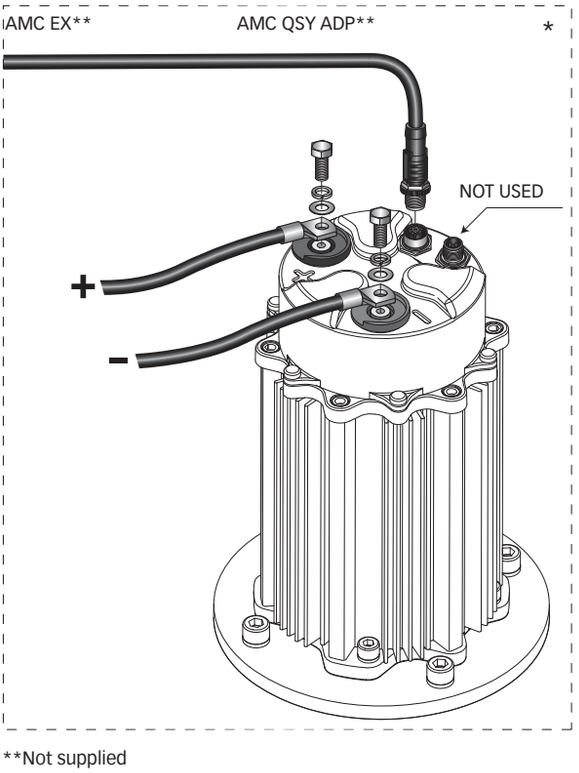


WARNING: on conclusion of assembly, make sure that the propeller is exactly positioned at the central point of the tunnel.

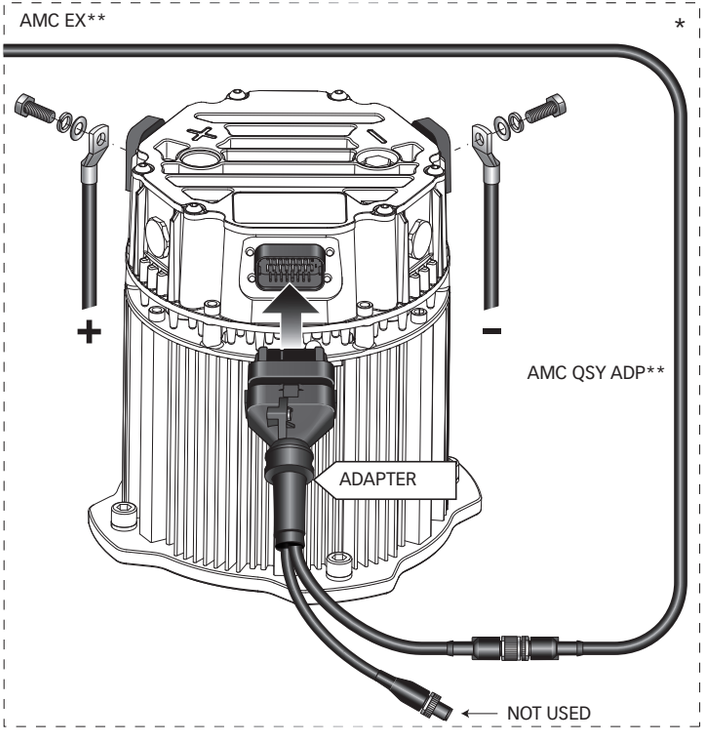
7.0 - General BT QSY basic system, AMC connection



Electrical connection
BT QSY 140 and BT QSY 185



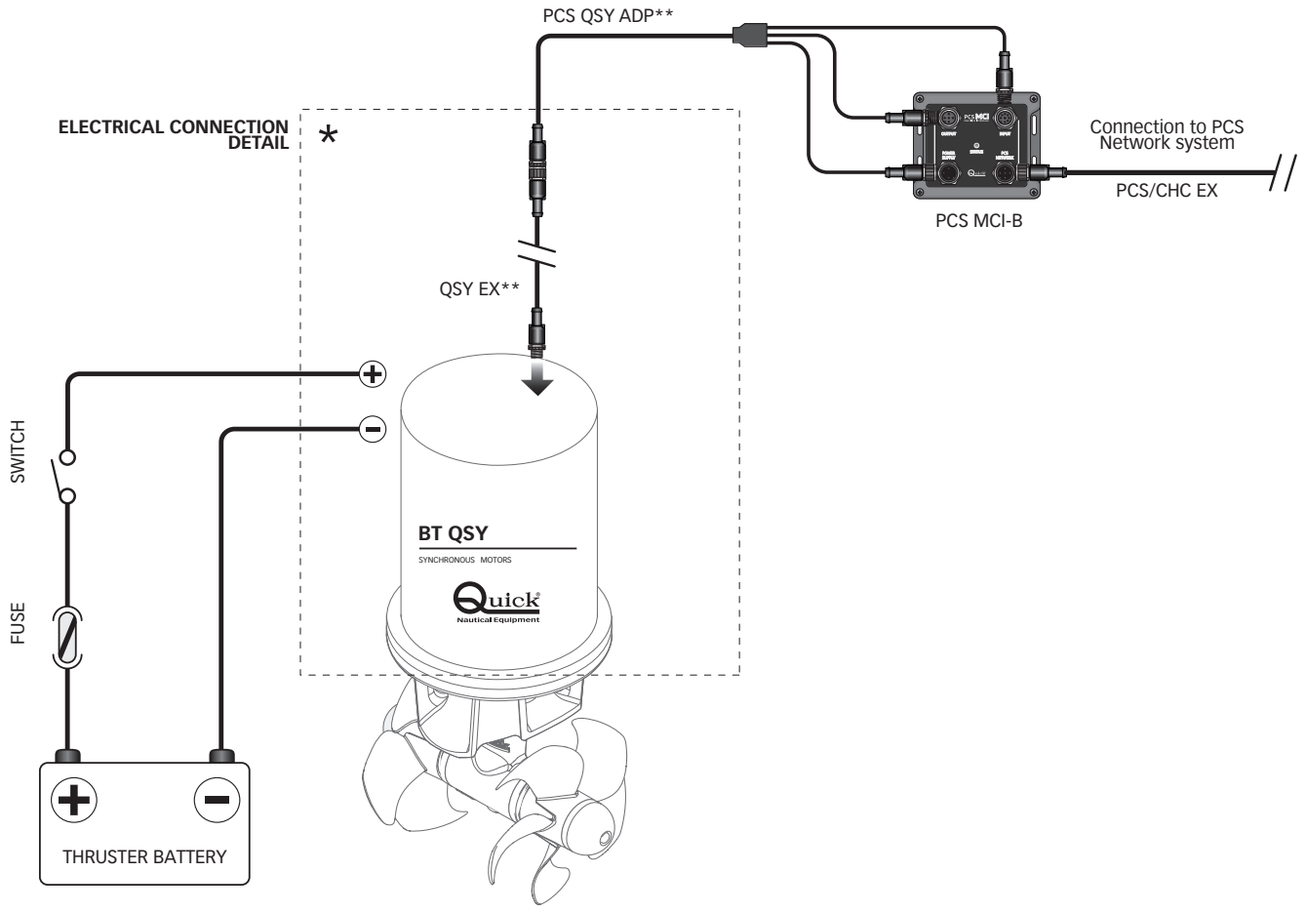
Electrical connection
BT QSY 250 and BT QSY 300



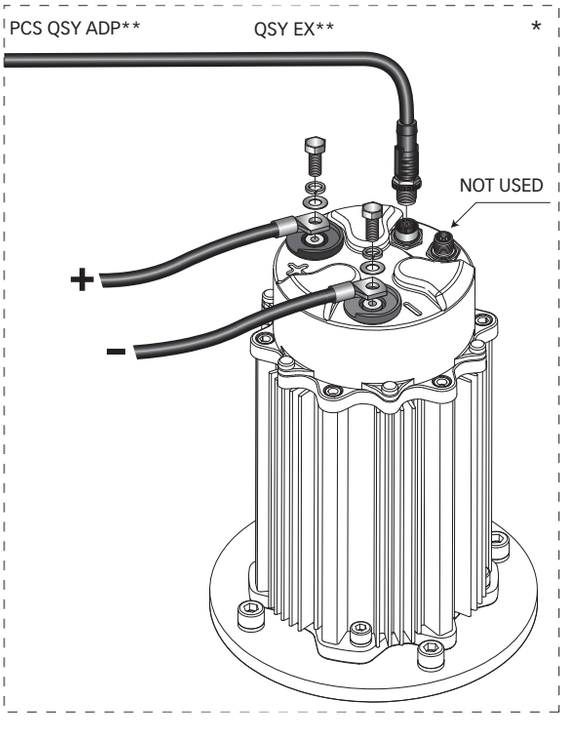
**Not supplied

7 - Wiring diagram

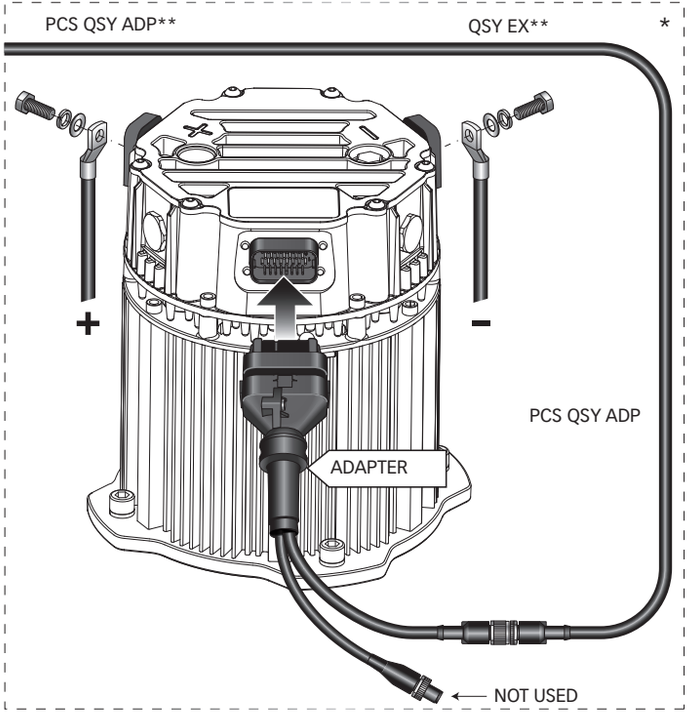
7.1 - General BT QSY basic system, PCS connection



Electrical connection
BT QSY 140 and BT QSY 185

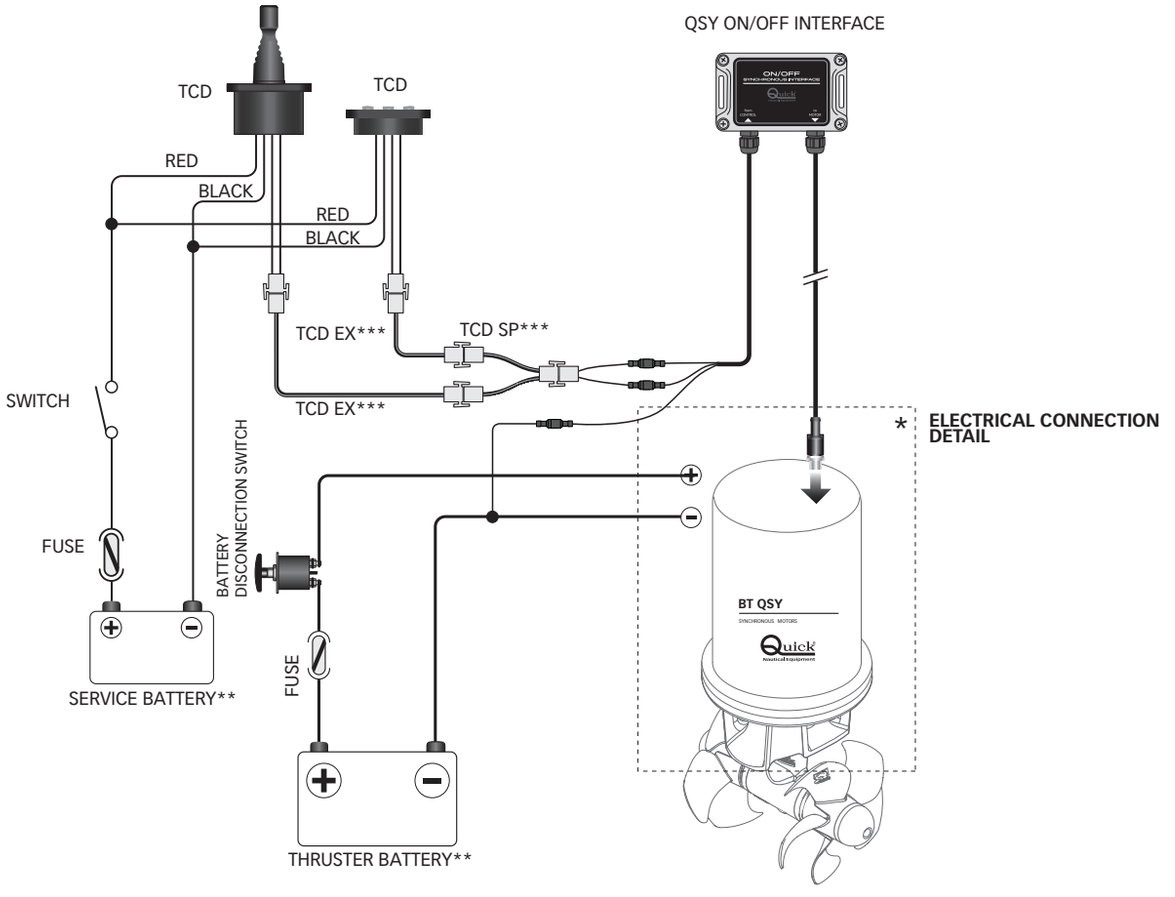


Electrical connection
BT QSY 215, BT QSY 250 e BT QSY 300

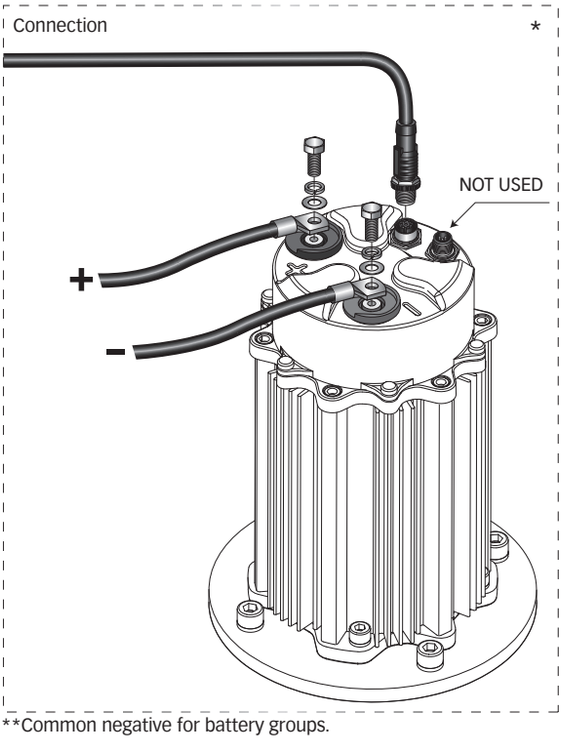


**Not supplied

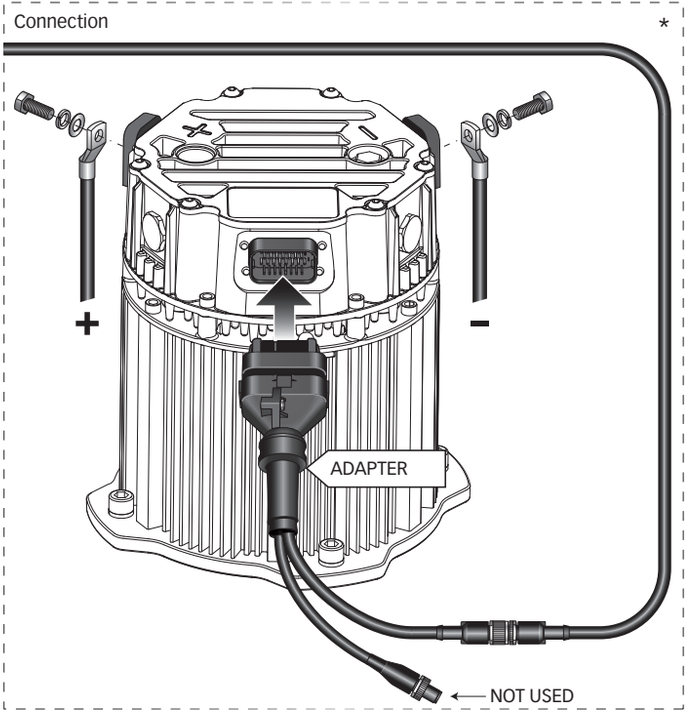
7.2 - General BT QSY basic system, TCD connection



Electrical connection
BT QSY 140 and BT QSY 185

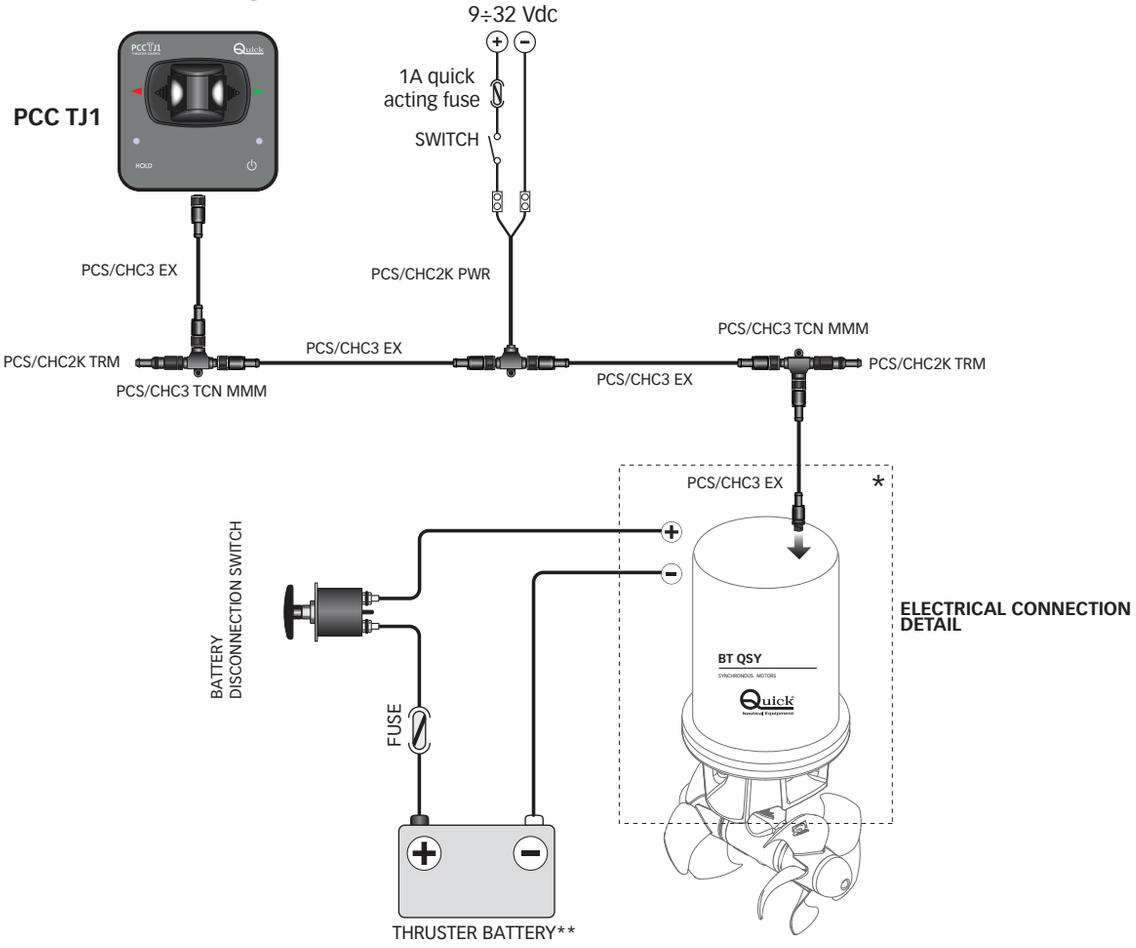


Electrical connection
BT QSY 215, BT QSY 250 e BT QSY 300

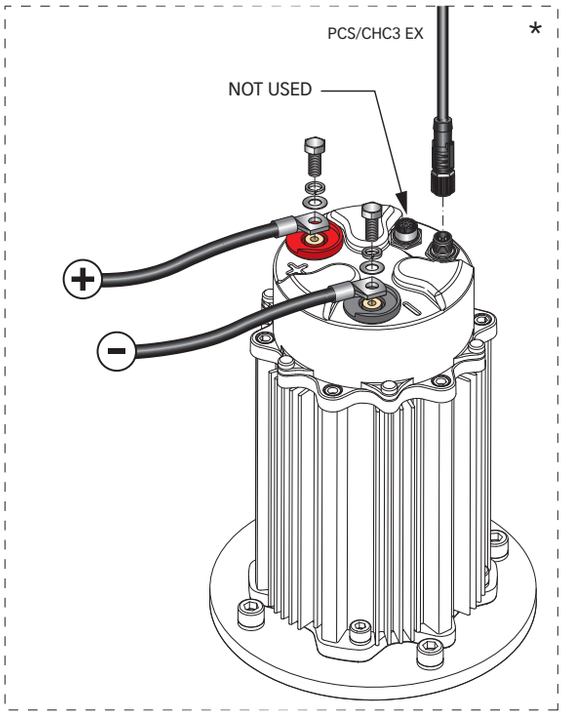


**Common negative for battery groups.
***Not supplied

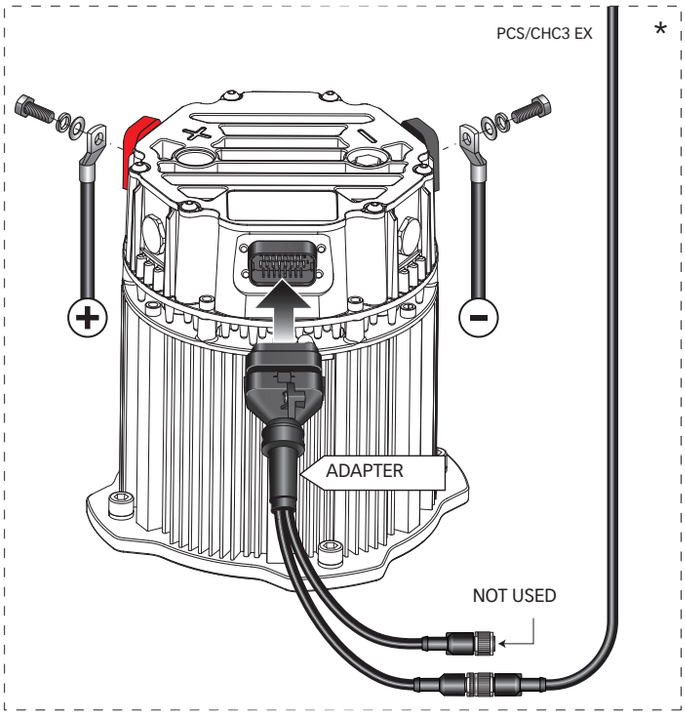
7.3 - General BT QSY basic system, PCC TJ1 connection



Electrical connection
BT QSY 140 and BT QSY 185

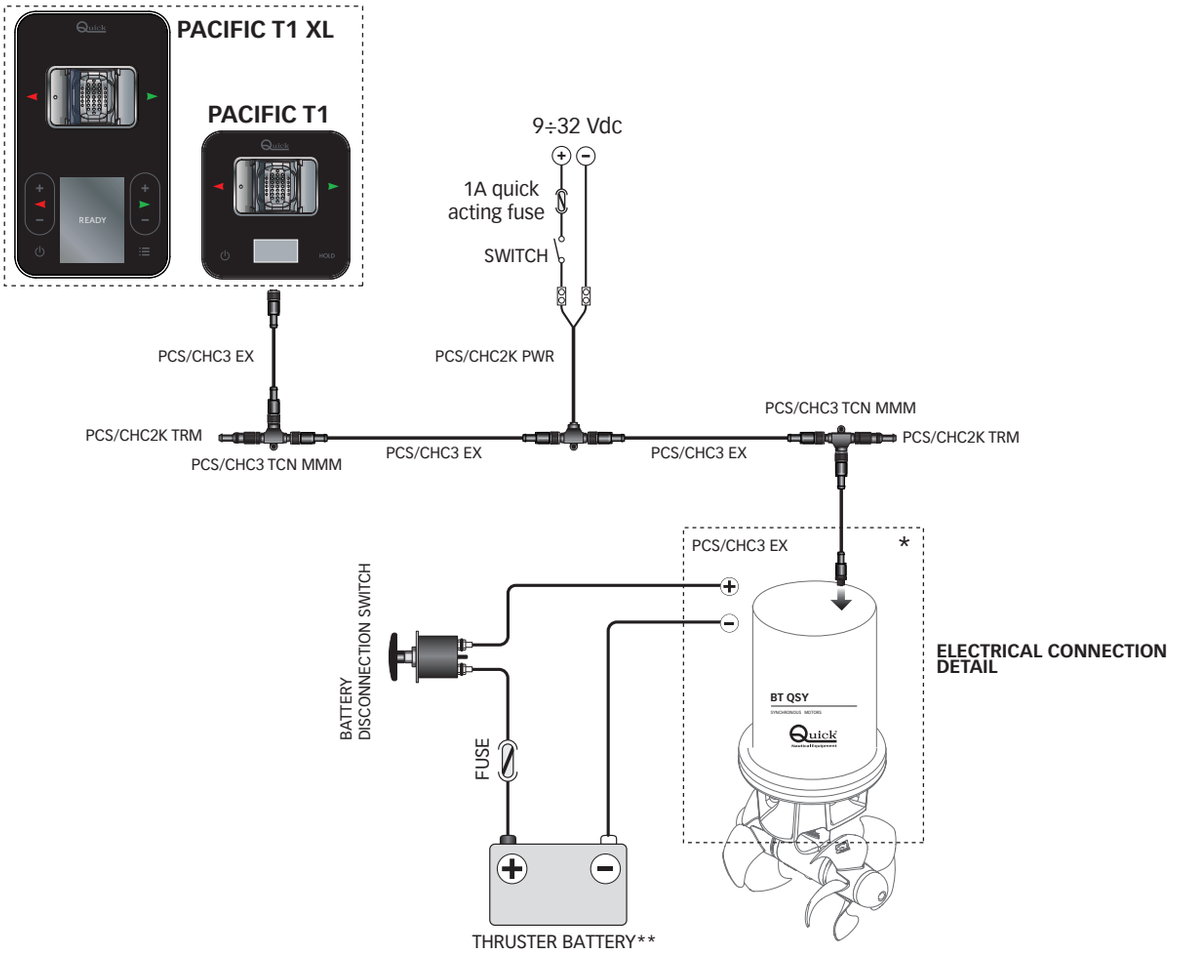


Electrical connection
BT QSY 215, BT QSY 250 e BT QSY 300

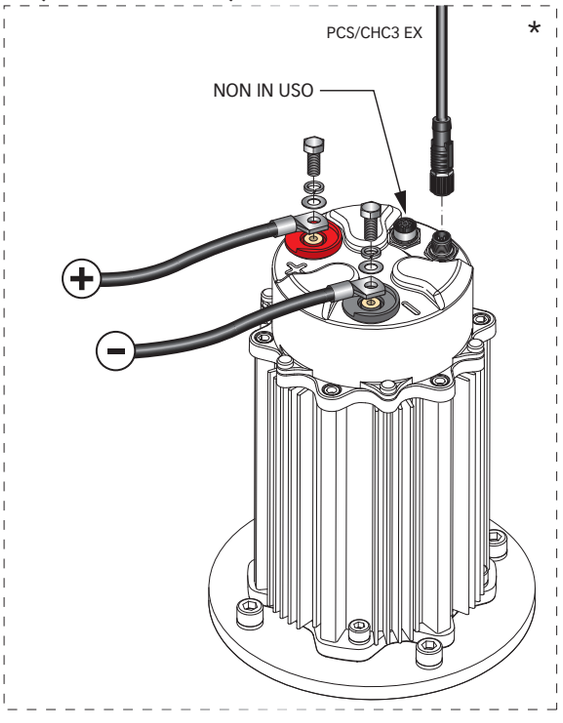


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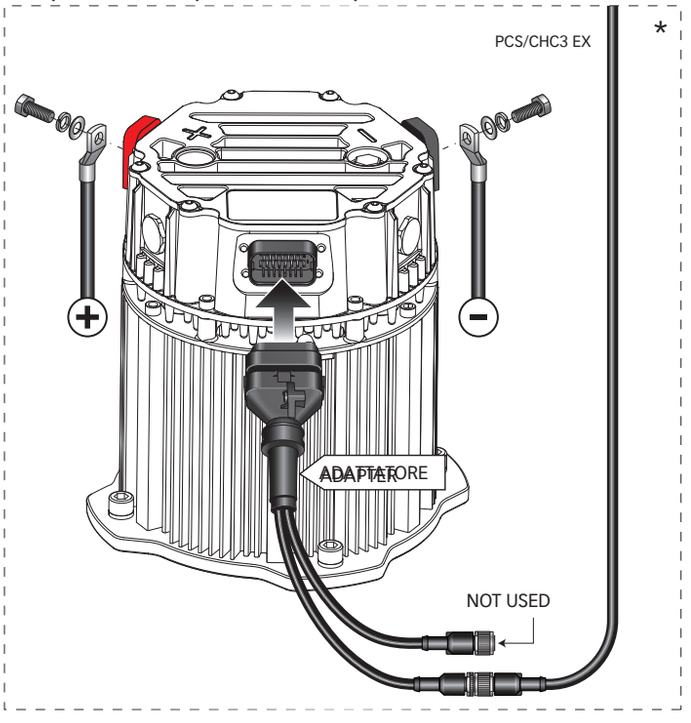
7.4 - General BT QSY basic system, PACIFIC - T1 / T1 XL connection



Electrical connection
BT QSY 140 and BT QSY 185



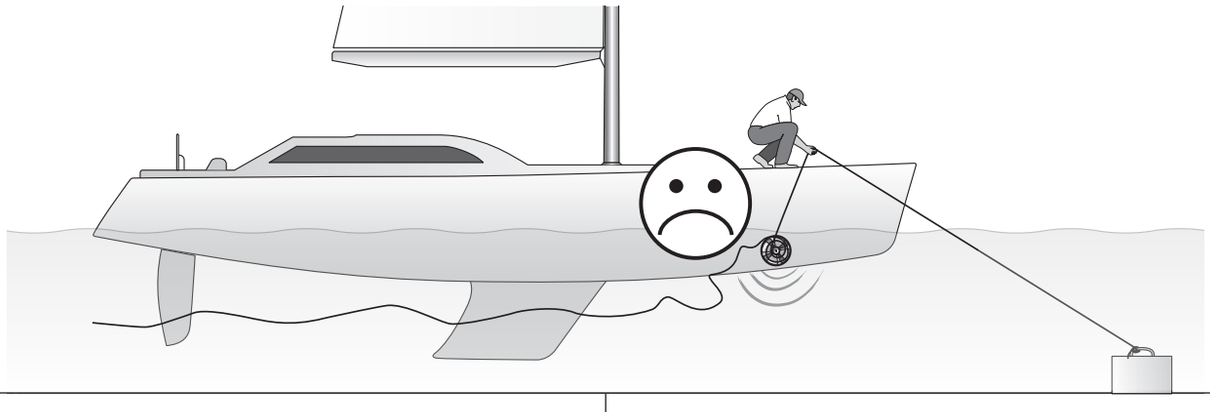
Electrical connection
BT QSY 215, BT QSY 250 e BT QSY 300



**Not supplied

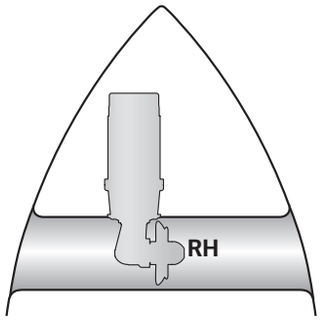
8.0 - Important cautions

- This thruster is not designed for continuous use. It is equipped with protections which limit its operation at a maximum time span, as reported on the controls' manual. It is strongly forbidden to bypass or modify such protections in order to increase the operating time span, lest voiding the warranty and thus lifting any responsibility from Quick® SPA.
- Make sure no swimmers or floating objects are in the vicinity before switching on the thruster.
- There must not be flammable materials in the peak or in the area where the Thruster motor is.
- Do not operate the bow thruster out of the water for more than 10 seconds.
- During mooring, it is recommended not to leave in the water any free line, which may be sucked in by the propellers, thus leading them to break.



SINGLE PROPELLER

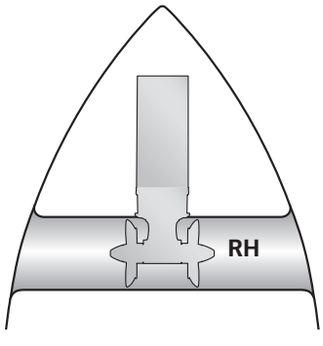
NOTE: the bow thruster must be installed with the propeller to the right of the gearleg (see figure).



If it is necessary to install the bow thruster in the opposite position, the connection of the two cables (blue and grey) of the control cable on the reversing contactor must be reversed.

DOUBLE PROPELLER

NOTE: the bow thruster must be installed with the RH propeller to the right of the gearleg (see figure).



8.1 - Thruster use

Start-up
Start-up happens following activation of a TCD panel.
To use the propeller, refer to the TCD control manual.

9.0 - Single/double propeller maintenance

Quick® Thrusters are made in materials that are resistant to the sea environment: in any case, it is indispensable to periodically remove deposits that form on the outer surfaces to avoid corrosions and obstructions with consequent system inefficiency.

WARNING: make sure that the power supply to the hydraulic motor is not switched on when maintenance operations are carried out.

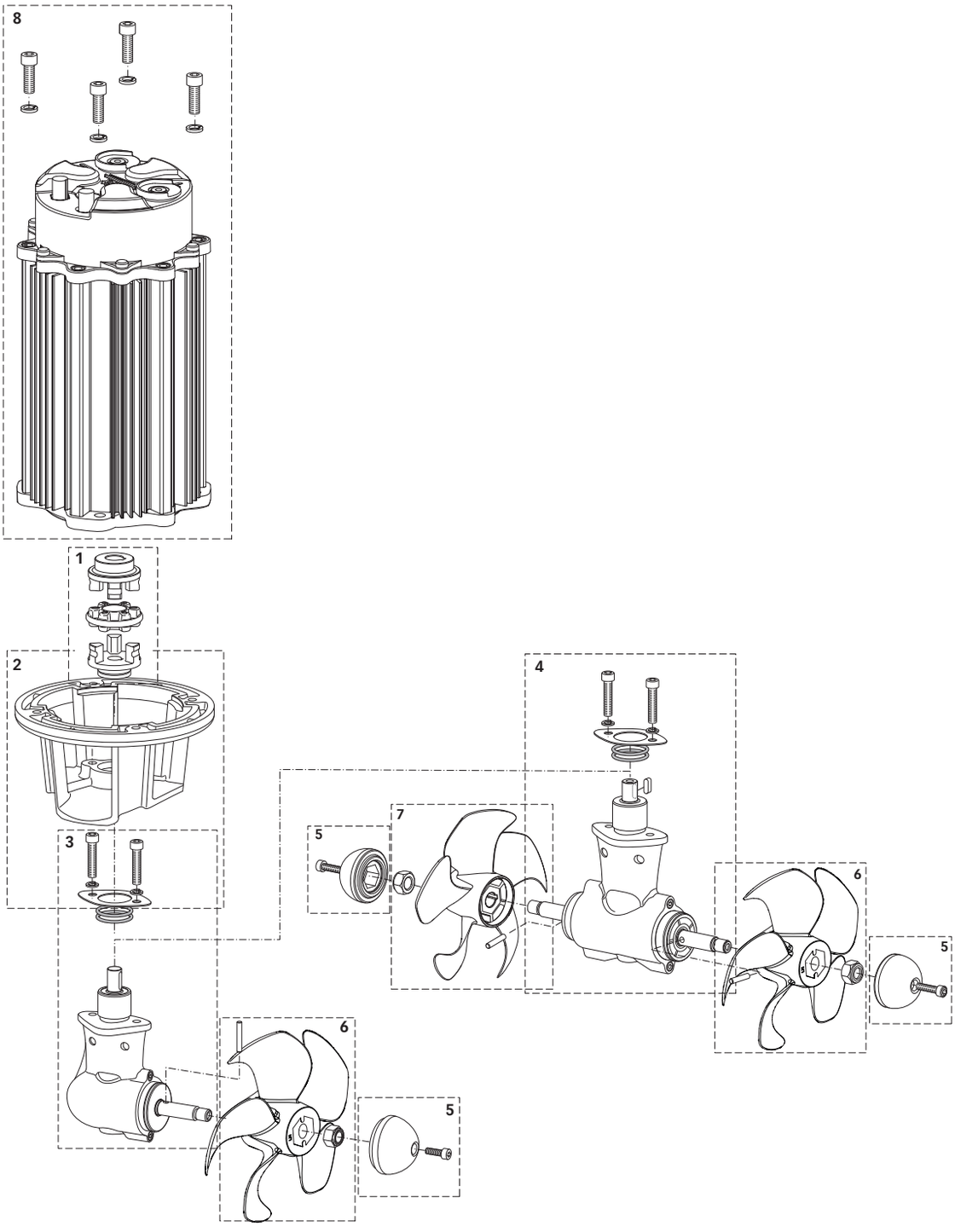
DEPENDING ON USE, PERIODICALLY CHECK THE TIGHTNESS OF THE OIL SEALS AND REPLACE THEM IF NECESSARY.

Dismantle once a year, following the points below:

- Clean propeller, tunnel and gearleg.
- Replace the anode (carry out this operation more often if needed).
- Replace the propeller if damaged or worn out.
- Check the tightness of all screws.
- Ensure that there is no water seepage inside.
- Check that all electrical connections are well tightened and oxide-less.
- Check that the batteries are in good conditions.

10.0 - BT QSY 140/185

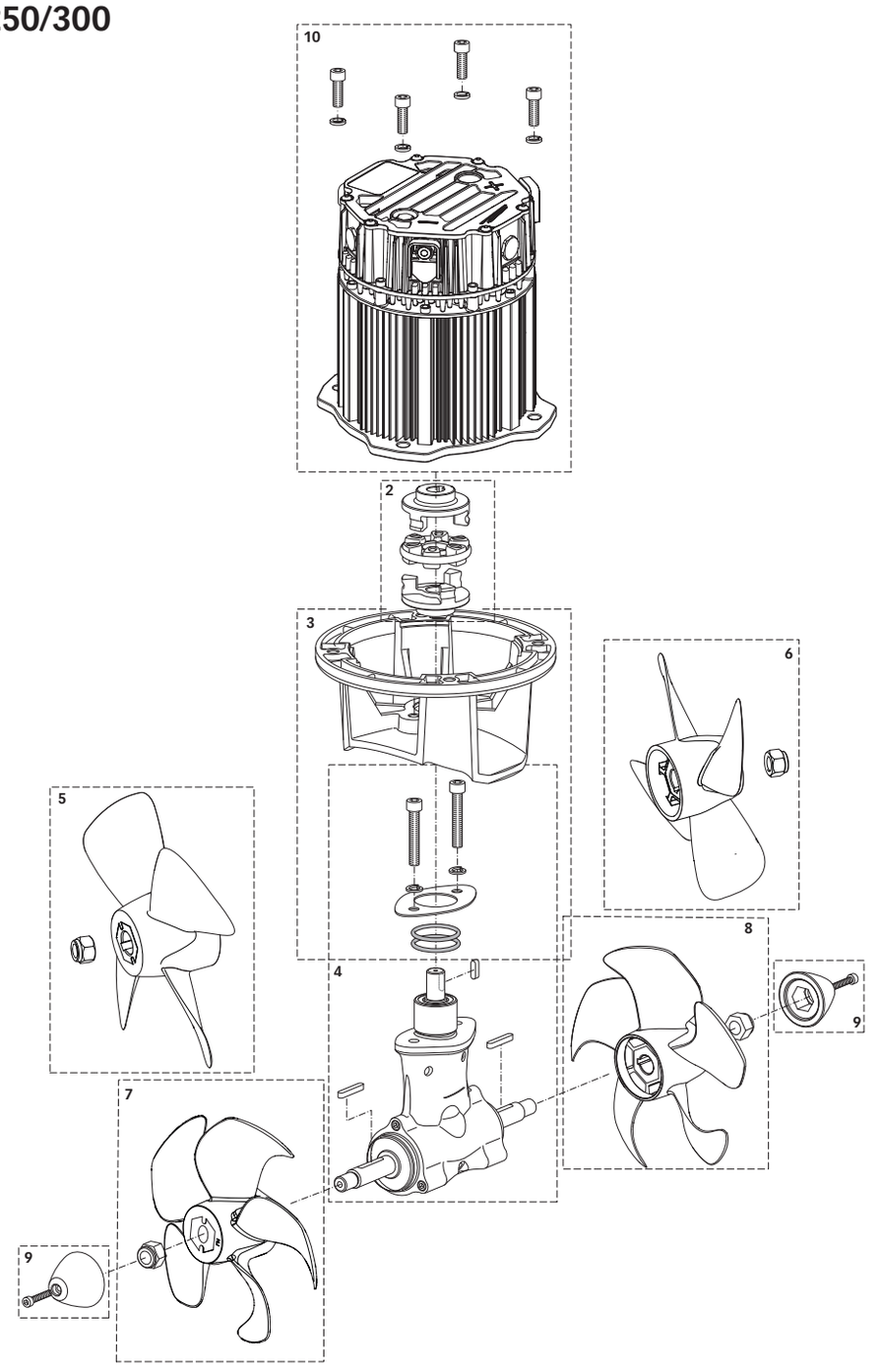
BTQSY 140-50
BTQSY 185-85
BTQSY 185-100



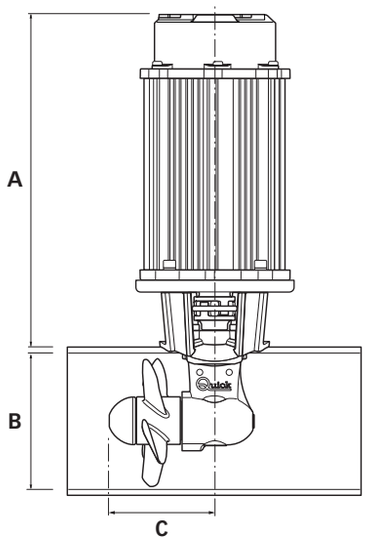
N°.	DESCRIZIONE	CODICI
1A	OSP COUPLING KIT BTQ 140	FVSGG141114SA00
1B	OSP COUPLING KIT BTQ 185	FVSGG1851414A00
2A	OSP FLANGE KIT FOR PROPELLER BTQ140	FVSGFLBTQ140A00
2B	OSP FLANGE KIT FOR PROPELLER185	FVSGFLBTQ185A00
3A	OSP GEARBOX KIT BTQ140	FVSGGBBT1400A00
4	OSP GEARBOX KIT BTQ185 DP	FVSGGBBT185DA00
5A	OSP ANODE KIT FOR PROPELLER BTQ140	FVSGANBTQ14AA00
5B	OSP ANODE KIT FOR PROPELLER BTQ185	FVSGANBTQ18AA00
6A	OSP PROPELLER D185 RH QUICK 5 BLADES BLACK	FVSGEL185R05A00
6B	OSP PROPELLER D140 RH QUICK 5 BLADES BLACK	FVSGEL140R05A00
7	OSP PROPELLER D185 LH QUICK 5 BLADES BLACK	FVSGEL185L05A00
8A	OSP PROPELLER MOTOR QSY EPX D140 2,8KW 12V	FVEPX1402120A00
8B	OSP PROPELLER MOTOR QSY EPX D185 5,0KW 12V	FVEPX1805120A00
8C	OSP PROPELLER MOTOR QSY EPX D185 5,0KW 24V	FVEPX1805240A00
8D	OSP PROPELLER MOTOR QSY EPX D185 8,0KW 24V	FVEPX1808240A00

10.1 - BT QSY 215/250/300

BTQSY 215-120
BTQSY 215-140
BTQSY 250-140
BTQSY 250-170
BTQSY 250-200
BTQSY 300-240
BTQSY 300-300
BTQSY 300-350

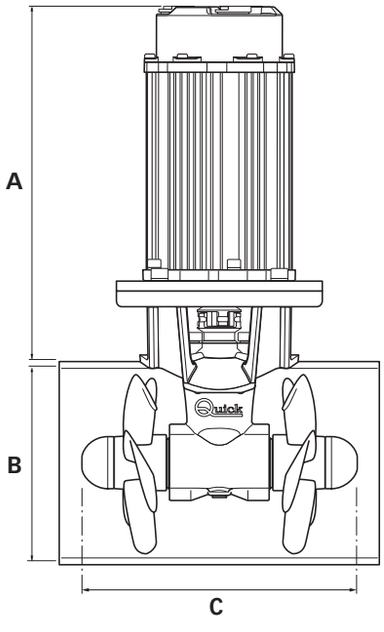


N°.	DESCRIZIONE	CODICI
2A	OSP COUPLING KIT BTQ 215/BTQ250	FVSGG2501919A00
2B	OSP COUPLING KIT 300-300 48V	FVSGG3000048A00
3A	OSP FLANGE KIT FOR PROPELLER BTQ215	FVSGFLBTQ215A00
3B	OSP FLANGE KIT FOR PROPELLER BTQ250	FVSGFLBTQ250A00
3C	OSP FLANGE KIT FOR PROPELLER BTQ300	FVSGFLBTQ300A00
4A	OSP GEARBOX KIT BTQ215	FVSGGBBT2150A00
4B	OSP GEARBOX KIT BTQ250	FVSGGBBT2500A00
4C	OSP GEARBOX KIT BTQ300	FVSGGBBT3000A00
5	OSP PROPELLER KIT D300 R NIBRAL	FVSGEL300RN0A00
6	OSP PROPELLER KIT D300 L NIBRAL	FVSGEL300LN0A00
7A	OSP PROPELLER D215 LH QUICK 5 BLADES BLACK	FVSGEL215L05A00
7B	OSP PROPELLER D250 RH QUICK 5 BLADES BLACK	FVSGEL250R05A00
8A	OSP PROPELLER D215 RH QUICK 5 BLADES BLACK	FVSGEL215R05A00
8B	OSP PROPELLER D250 LH QUICK 5 BLADES BLACK	FVSGEL250L05A00
9A	OSP ANODE KIT FOR PROPELLER BTQ215/BTQ250	FVSGANBTQ25AA00
9B	OSP ANODE KIT FOR PROPELLER BTQ300	FVSGANBTQ30AA00
10A	OSP PROPELLER MOTOR QSY EFX D215 6,5KW 24V	FVEFX2106240A00
10B	OSP PROPELLER MOTOR QSY EFX D215 8,0KW 24V	FVEFX2108240A00
10C	OSP PROPELLER MOTOR QSY EFX D215 6,5KW 48V	FVEFX2106480A00
10D	OSP PROPELLER MOTOR QSY EFX D215 8,0KW 48V	FVEFX2108480A00
10E	OSP PROPELLER MOTOR QSY EFX D250 7,0KW 24V	FVEFX2507240A00
10F	OSP PROPELLER MOTOR QSY EFX D250 7,0KW 48V	FVEFX2507480A00
10G	OSP PROPELLER MOTOR QSY EFX D250 8,0KW 24V	FVEFX2508240A00
10H	OSP PROPELLER MOTOR QSY EFX D250 8,0KW 48V	FVEFX2508480A00
10I	OSP PROPELLER MOTOR QSY EFX D250 11KW 24V	FVEFX2511240A00
10L	OSP PROPELLER MOTOR QSY EFX D250 11KW 48V	FVEFX2511480A00
10M	OSP PROPELLER MOTOR QSY EFX D250 16KW 48V	FVEFX2516480A00
10N	OSP PROPELLER MOTOR QSY EFX D300 12KW 24V	FVEFX3012240A00
10O	OSP PROPELLER MOTOR QSY EFX D300 12KW 48V	FVEFX3012480A00
10P	OSP PROPELLER MOTOR QSY EFX D300 16KW 48V	FVEFX3016480A00
10Q	OSP PROPELLER MOTOR QSY EFX D300 23KW 48V	FVEFX3023480A00



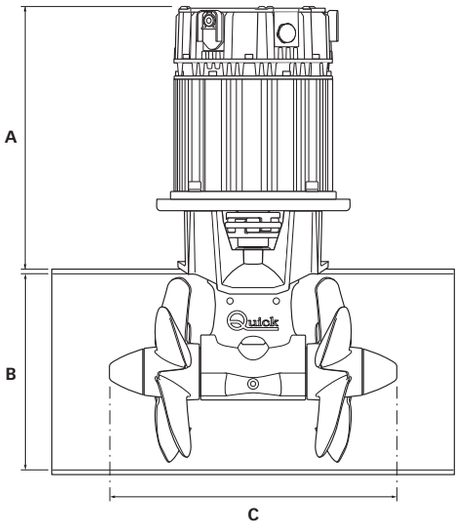
SINGLE PROPELLER

BT QSY140	BT QSY140-50
A	338 (13″ 5/16)
B	140 (5″ 1/2)
C	107 (4″ 1/4)



DOUBLE PROPELLER

BT QSY185	BT QSY185-85-12	BT QSY185-85-24	BT QSY185-100-24
A	350 (13″ 3/4)	350 (13″ 3/4)	350 (13″ 3/4)
B	185 (7″ 5/16)	185 (7″ 5/16)	185 (7″ 5/16)
C	268 (10″ 9/16)	268 (10″ 9/16)	268 (10″ 9/16)

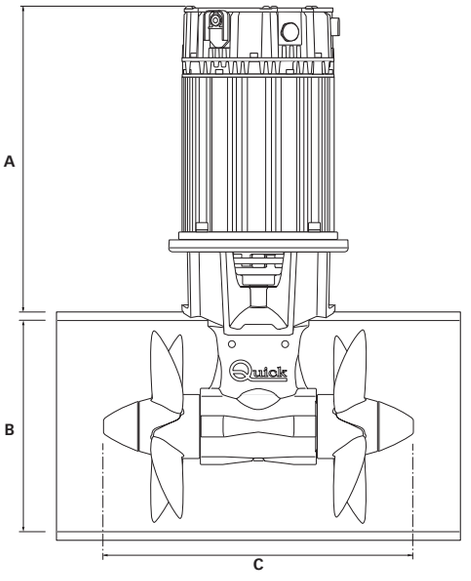


DOUBLE PROPELLER

BT QSY215	BT QSY215-120-24	BT QSY215-120-48	BT QSY215-140-24	BT QSY215-140-48
A	338 (13 5/16'')	338 (13 5/16'')	338 (13 5/16'')	338 (13 5/16'')
B	250 (9" 13/16)	250 (9" 13/16)	250 (9" 13/16)	250 (9" 13/16)
C	372 (14" 5/8)	372 (14" 5/8)	372 (14" 5/8)	372 (14" 5/8)

BT QSY250	BT QSY250-140-24	BT QSY250-140-48	BT QSY250-170-24	BT QSY250-170-48
A	338 (13 5/16'')	338 (13 5/16'')	401 (15 13/16'')	401 (15 13/16'')
B	250 (9" 13/16)	250 (9" 13/16)	250 (9" 13/16)	250 (9" 13/16)
C	372 (14" 5/8)	372 (14" 5/8)	372 (14" 5/8)	372 (14" 5/8)

BT QSY250-200-24	BT QSY250-200-48	BT QSY250-250-48
401 (15 13/16'')	401 (15 13/16'')	401 (15 13/16'')
250 (9" 13/16)	250 (9" 13/16)	250 (9" 13/16)
372 (14" 5/8)	372 (14" 5/8)	372 (14" 5/8)



DOUBLE PROPELLER

BT QSY300	BT QSY300-240-24	BT QSY300-240-48	BT QSY300-300-48	BT QSY300-350-48
A	413.5 (16 1/4'')	413.5 (16 1/4'')	413.5 (16 1/4'')	413.5 (16 1/4'')
B	300 (11" 13/16)	300 (11" 13/16)	300 (11" 13/16)	300 (11" 13/16)
C	434 (17" 1/16)	434 (17" 1/16)	434 (17" 1/16)	434 (17" 1/16)

12 - Product disposal at end of life cycle

Your contribution to protecting the environment



The crossed out bin symbol indicates that the product must be delivered for proper disposal.
The user is responsible for erasing any personal data from the electronic equipment to be disposed.
Proper separate collection helps to avoid possible negative effects on the environment and health and promotes the recycling of the materials of the equipment.

Disposal of packaging

The purpose of the packaging is to protect the goods from transport damage. The packaging materials used are recyclable, as they are selected in an environmentally friendly and easy-to-dispose manner.
The packaging may be retained for possible shipment to the authorized technical service department in the event of damage or equipment failure.
The individual components of the packaging may be collected separately in accordance with separate collection criteria.
Returning packages to the material collection circuit saves raw materials on one hand and reduces the volume of waste on the other.

Product disposal

Electrical and electronic equipment often contains useful materials. They also contain substances, compounds and components that were necessary for the operation and safety of the equipment. Improper disposal could be harmful to health and the environment.

The product consists of metal and plastic materials which, when separated, can often contain useful materials. Improper disposal could be harmful to health and the environment.
The user is therefore advised to separate the materials prior to disposal in order to ensure correct delivery of the materials including for possible reuse. In any case, follow the applicable delivery regulations of the country in which the product is used.

For EU countries

Disposal of waste electrical and electronic equipment (WEEE), in compliance with Directive 2012/19/EU and implementation of its transposition into national law.

For non-EU countries

Dispose of the equipment in accordance with the applicable waste electrical and electronic equipment regulations.

Notes

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BT QSY Series

REV 007A

SINGLE AND DOUBLE PROPELLER - SYNCHRONOUS MOTOR

BT QSY 140
BT QSY 185
BT QSY 215
BT QSY 250
BT QSY 300

Product serial number

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