

BTQ Series

REV 005A



september 2025

SINGLE AND DOUBLE PROPELLER - ELECTRIC MOTOR

BTQ 110

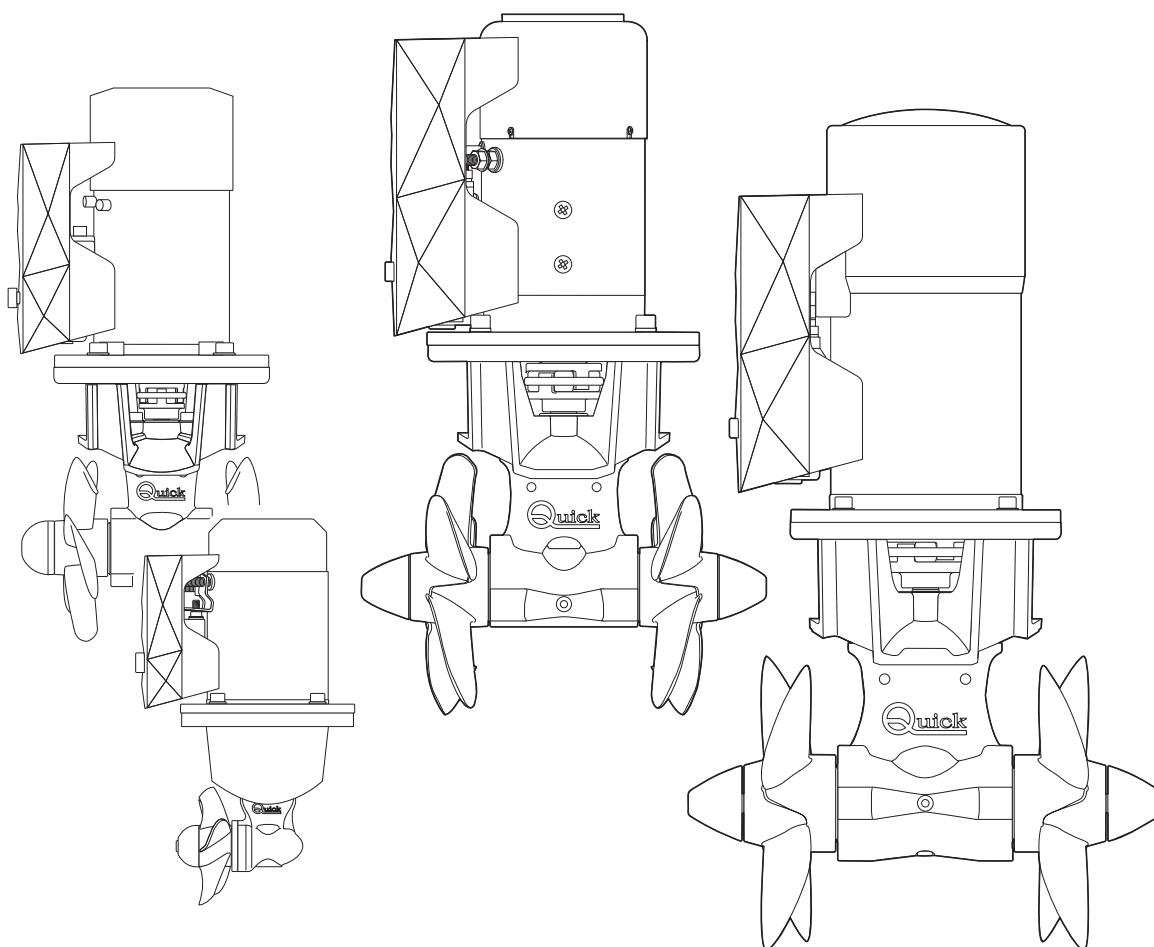
BTQ 125

BTQ 140

BTQ 185

BTQ 250

BTQ 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.

1 - Foreword	5
2 - Important information	5
2.0 - Abbreviations and symbols	5
3 - Safety information	6
3.0 - General precautions	6
3.1 - Precautions for the installer and PPE	6
4 - Information about the product	7
4.0 - Technical Data	7
4.1 - Recommended battery table	9
4.2 - Tightening torques	10
4.3 - Standard supply and material included in the package	10
4.4 - Recommended Quick® accessories not included	10
5 - Handling and transport	11
5.0 - General instructions and precautions	11
5.1 - Removing the crate and lifting the BTQ Series	11
6 - Installation	12
6.0 - Tools required for installation	12
6.1 - Installation requirements	12
6.2 - Propellers	13
6.3 - Propeller installation on catamarans	13
6.4 - Tunnel Length	14
6.5 - Tunnel installation	15
6.6 - Tunnel	16
6.7 - Thruster	17
6.8 - BTQ 110/125 Gearleg and motor support flange	18
6.9 - BTQ 140/185/250/300 Gearleg and motor support flange	19
7 - Wiring diagram	20
7.0 - BTQ110 basic system	20
7.1 - BTQ125 basic system	20
7.2 - BTQ140/185/250/300 basic system	21
8 - Precautions and use	22
8.0 - Important cautions	22
8.1 - Thruster use	22
9 - Maintenance	23
9.0 - Single/double propeller maintenance	23
10 - Spare parts	24
10.0 - BTQ110/125	24
10.1 - BTQ140/185	25
10.2 - BTQ250/300	26
11 - Dimension	27
12 - Product disposal at end of life cycle	28

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.

BTQ SERIES THRUSTERS WITH ELECTRIC MOTOR

Marine accessory designed to assist with docking manoeuvres when approaching the quay. The BTQ series comprises a range of thrusters powered by a brushed electric motor. 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.

2 - Important information

BTQ Series

This manual provides boatyards and nautical equipment installers with instructions on how to assemble the specified BTQ 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		BTQ 1102512	BTQ 1253012	BTQ 1254012	BTQ 1403012	BTQ 1404012
Propeller type		Single (technopolymer)				
Tunnel ø		110 mm (4" 21/64)	125 mm (5")	125 mm (5")	140 mm (5" 33/64)	140 mm (5" 33/64)
Motor power		1.3 kW	1.5 kW	2.2 kW	1.5 kW	2.2 kW
Voltage		12 V	12 V	12 V	12 V	12 V
Fuse		130 A CNL DIN	225 A CNL DIN	325 A CNL DIN	150 A CNL DIN	225 A CNL DIN
Thrust		25 kgf (55.1 lb)	30 kgf (66.1 lb)	40 kgf (88.2 lb)	30 kgf (66.1 lb)	40 kgf (88.2 lb)
Weight		9.3 kg (20.5 lb)	10.0 kg (22.0 lb)	10.9 kg (24.0 lb)	11.3 kg (24.9 lb)	12.2 kg (26.8 lb)
Tube thickness limit value		min. 3 mm - max 6.5 mm (min. 1/8" - max 1/4")			min. 4.5 mm - max 6.5 mm (min. 11/64" - max 1/4")	
Cable cross-section Recommended (*) (**)	L < 5 m	35 mm² (AWG 2)	50 mm² (AWG 1)	70 mm² (AWG 2/0)	35 mm² (AWG 2)	50 mm² (AWG 1)
	5.1 < L < 10 m	50 mm² (AWG 1)	70 mm² (AWG 2/0)	2 x 50 mm² (2 x AWG 1)	50 mm² (AWG 1)	70 mm² (AWG 2/0)
	10.1 < L < 20 m	70 mm² (AWG 2/0)	95 mm² (AWG 3/0)	2 x 70 mm² (2 x AWG 2/0)	70 mm² (AWG 2/0)	95 mm² (AWG 3/0)

MODELS		BTQ 1805512	BTQ 1805524	BTQ 1807512	BTQ 1807524	BTQ 1809512	BTQ 1809524
Propeller type		Single (technopolymer)					
Tunnel ø		185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)
Motor power		3.0 kW	3.0 kW	4.0 kW	4.0 kW	6.0 kW	6.0 kW
Voltage		12 V	24 V	12 V	24 V	12 V	24 V
Fuse		250 A CNL DIN	150 A CNL DIN	350 A CNL DIN	250 A CNL DIN	350 A CNL DIN	250 A CNL DIN
Thrust		55 kgf (121.2 lb)	55 kgf (121.2 lb)	75 kgf (165.3 lb)	75 kgf (165.3 lb)	95 kgf (209.4 lb)	95 kgf (209.4 lb)
Weight		16.7 kg (36.8 lb)	16.9 kg (37.2 lb)	17.0 kg 37.5 lb	19.6 kg 43.2 lb	26.6 kg (58.6 lb)	24.2 kg (53.3 lb)
Tube thickness limit value		min. 4.5 mm - max 6.5 mm (min. 11/64" - max 1/4")					
Cable cross-section Recommended (*) (**)	L < 5 m	50 mm² (AWG 1)	35 mm² (AWG 2)	70 mm² (AWG 2/0)	50 mm² (AWG 1)	2 x 50 mm² (2 x AWG 1)	50 mm² (AWG 1)
	5.1 < L < 10 m	70 mm² (AWG 2/0)	50 mm² (AWG 1)	2 x 50 mm² (2 x AWG 1)	70 mm² (AWG 2/0)	2 x 70 mm² (2 x AWG 2/0)	70 mm² (AWG 2/0)
	10.1 < L < 20 m	95 mm² (AWG 3/0)	70 mm² (AWG 2/0)	2 x 70 mm² (2 x AWG 2/0)	95 mm² (AWG 3/0)	2 x 95 mm² (2 x AWG 3/0)	95 mm² (AWG 3/0)

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

MODELS		BTQ 1806512	BTQ 1806524	BTQ 1808512	BTQ 1808524	BTQ 1810512	BTQ 1810524
Propeller type		2 Counter rotating (technopolymer)					
Tunnel ø		185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)	185 mm (7" 18/64)
Motor power		3.3 kW	3.3 kW	4.3 kW	4.3 kW	6.3 kW	6.3 kW
Voltage		12 V	24 V	12 V	24 V	12 V	24 V
Fuse		275 A CNL DIN	175 A CNL DIN	400 A CNL DIN	275 A CNL DIN	400 A CNL DIN	275 A CNL DIN
Thrust		65 kgf (55.1 lb)	65 kgf (55.1 lb)	85 Kg (187.4 lb)	85 Kg (187.4 lb)	105 Kg (231.5 lb)	105 Kg (231.5 lb)
Weight		17.6 kg (38.8 lb)	17.8 Kg (39.2 lb)	17.9 kg (39.4 lb)	20.5 kg (45.2 lb)	27.5 kg (60.6 lb)	25.1 Kg(55.3 lb)
Tube thickness limit value		min. 4.5 mm - max 6.5 mm (min. 11/64" - max 1/4")					
Cable cross-section Recommended (*) (**)	L < 5 m	70 mm ² (AWG 2/0)	50 mm ² (AWG 1)	2 x 50 mm ² (2 x AWG 1)	70 mm ² (AWG 2/0)	2 x 70 mm ² (2 x AWG 2/0)	70 mm ² (AWG 2/0)
	5.1 < L < 10 m	2 x 50 mm ² (2 x AWG 1)	70 mm ² (AWG 2/0)	2 x 70 mm ² (2 x AWG 2/0)	2 x 50 mm ² (2 x AWG 1)	2 x 95 mm ² (2 x AWG 3/0)	2 x 50 mm ² (2 x AWG 1)
	10.1 < L < 20 m	2 x 70 mm ² (2 x AWG 2/0)	95 mm ² (AWG 3/0)	2 x 95 mm ² (2 x AWG 3/0)	2 x 70 mm ² (2 x AWG 2/0)	2 x 120 mm ² (2 x AWG 4/0)	2 x 70 mm ² (2 x AWG 2/0)

MODELS		BTQ 2512012	BTQ 2512024	BTQ2514024	BTQ 2524024
Propeller type		2 Counter rotating (technopolymer)			
Tunnel ø		250 mm (9" 27/32 in)	250 mm (9" 27/32 in)	250 mm (9" 27/32 in)	250 mm (9" 27/32 in)
Motor power		6.5 Kw	6.5 Kw	8 Kw	10 Kw
Voltage		12 V	24 V	24 V	24 V
Fuse		500 A CNL DIN	275 A CNL DIN	275 A CNL DIN	500 A CNL DIN
Thrust		120 kgf (265 lb)	120 kgf (265 lb)	140 kgf (308 lb)	240 kgf (529 lb)
Weight		35.5 Kg (78.2 lb)	34.2 Kg (75.4 lb)	34.2 Kg (75.4 lb)	49.1 Kg (108.2 lb)
Tube thickness limit value		min. 6.5 mm - max 11 mm (min. 1/4" - max 7/16")			
Cable cross-section Recommended (*) (**)	L < 5 m	2 x 70 mm ² (2 x AWG 2/0)	70 mm ² (AWG 2/0)	70 mm ² (AWG 2/0)	2 x 50 mm ² (2 x AWG 1)
	5.1 < L < 10 m	2 x 95 mm ² (2 x AWG 3/0)	2 x 50 mm ² (2 x AWG 1)	2 x 50 mm ² (2 x AWG 1)	2 x 70 mm ² (2 x AWG 2/0)
	10.1 < L < 20 m	2 x 120 mm ² (2 x AWG 4/0)	2 x 70 mm ² (2 x AWG 2/0)	2 x 70 mm ² (2 x AWG 2/0)	2 x 95 mm ² (2 x AWG 3/0)

MODELS		BTQ 3025024	BTQ 3027024	BTQ 3030048	BTQ 3030048 NYLON
Propeller type		2 Counter rotating (technopolymer)		2 Counter rotating (nibral)	2 Counter rotating (technopolymer)
Tunnel ø		300 mm (11" 13/16 in)	300 mm (11" 13/16 in)	300 mm (11" 13/16 in)	300 mm (11" 13/16 in)
Motor power		10 Kw	12 Kw	15 Kw	15 Kw
Voltage		24 V	24 V	48 V	48 V
Fuse		400 A CNL DIN	500 A CNL DIN	500 A CNL DIN	500 A CNL DIN
Thrust		250 kgf (551 lb)	270 kgf (595 lb)	300 kgf (661 lb)	300 kgf (661 lb)
Weight		46.7 Kg (102.9 lb)	55.9 Kg (123.2 lb)	66.7 kg (147 lb)	60 kg (132 lb)
Tube thickness limit value		min. 9.5 mm - max 13.5 mm (min. 3/8" - max 17/32")			
Cable cross-section Recommended (*) (**)	L < 5 m	70 mm ² (AWG 2/0)	95 mm ² (AWG 3/0)	95 mm ² (AWG 3/0)	95 mm ² (AWG 3/0)
	5.1 < L < 10 m	2 x 50 mm ² (2 x AWG 1)	2 x 95 mm ² (2 x AWG 3/0)	2 x 70 mm ² (AWG 2/0)	2 x 70 mm ² (AWG 2/0)
	10.1 < L < 20 m	2 x 95 mm ² (2 x AWG 3/0)	2 x 120 mm ² (2 x AWG 4/0)	2 x 95 mm ² (2 x AWG 3/0)	2 x 95 mm ² (2 x AWG 3/0)

(*) L = positive cable + negative cable

(**) Other solutions are allowed, provided that they are supported by the connecting terminals. Respect minimum area indicated.

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
110	BTQ 1102512	25	1,3	12	115 - 150	450 - 800
125	BTQ 1253012	30	1,5	12	115 - 150	450 - 800
	BTQ 1254012	40	2,2	12	150 - 210	800 - 1100
140	BTQ 1403012	30	1,5	12	80 - 115	450 - 550
	BTQ 1404012	40	2,2	12	115 - 150	450 - 800
185	BTQ 1805512	55	3	12	115 - 150	550 - 800
	BTQ 1805524	55	3	24	80	450
	BTQ 1807512	75	4	12	160 - 210	800 - 1100
	BTQ 1807524	75	4	24	120 - 150	450 - 800
	BTQ 1809512	95	6	12	200 - 250	1000 - 1100
	BTQ 1809524	95	6	24	120 - 150	550 - 800
185-DP	BTQ 1806512	65	3,3	12	120 - 150	550 - 800
	BTQ 1806524	65	3,3	24	80 - 115	450 - 550
	BTQ 1808512	85	4,3	12	200 - 250	1000 - 1100
	BTQ 1808524	85	4,3	24	150 - 200	800 - 1000
	BTQ 1810512	105	6,3	12	250 - 300	1100 - 1600
	BTQ 1810524	105	6,3	24	150 - 200	800 - 1000
250	BTQ 2512012	120	6,5	12	250 - 300	1100 - 1600
	BTQ 2512024	120	6,5	24	120 - 150	550 - 800
	BTQ 2514024	140	8	24	120 - 150	550 - 800
	BTQ 2524024	240	10	24	200 - 250	1000 - 1100
300	BTQ 3025024	250	10	24	150 - 200	800 - 1000
	BTQ 3027024	270	12	24	250 - 300	1000 - 1100
	BTQ 3030048	300	15	48	200 - 250	1000 - 1100

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

4.4 - Recommended Quick® accessories not included

- TCD 2022 remote control
- TCD 2042 remote control
- TCD 2044 remote control
- TCD 2062 remote control (with integrated line switch)
- TSC 2000 integrated line switch control
- TMS line switch
- THF3 - THF6 fuse holde

5.0 - General instructions and precautions

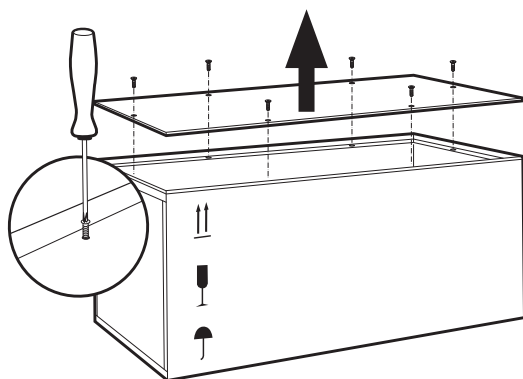
Consider the weight for lifting the BTQ, refer to section 4 “product information”, sub-section “technical data” in this manual.

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

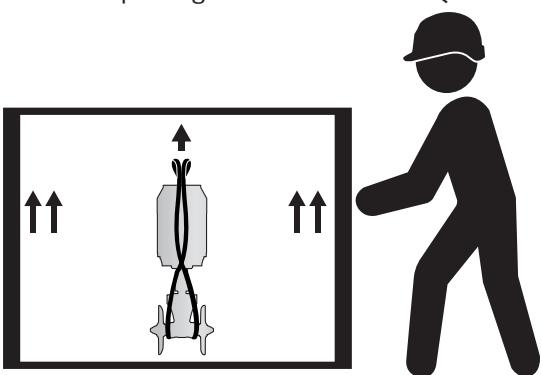
- Lift the BTQ with a mechanical aid, especially when handling the motor.
- Care must be taken when removing the BTQ from packaging or when lifting it, taking care NOT to cause damage to the equipment or impact with the ground.

5.1 - Removing the crate and lifting the BTQ Series

A. Remove the top panel of the crate.



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



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

6.0 - Tools required for installation

- | | |
|-------------------|--|
| BTQ110/125 | <ul style="list-style-type: none">• Drill and drill bits Ø 7 mm (9/32")• Hollow mill Ø 25 mm (63/64")• Male hex.wrenches: 4 mm, 5 mm and 6 mm• Fork wrench: 10 mm |
| BTQ140 | <ul style="list-style-type: none">• 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 |
| BTQ185 | <ul style="list-style-type: none">• 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 |
| BTQ250 | <ul style="list-style-type: none">• 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 |
| BTQ300 | <ul style="list-style-type: none">• 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

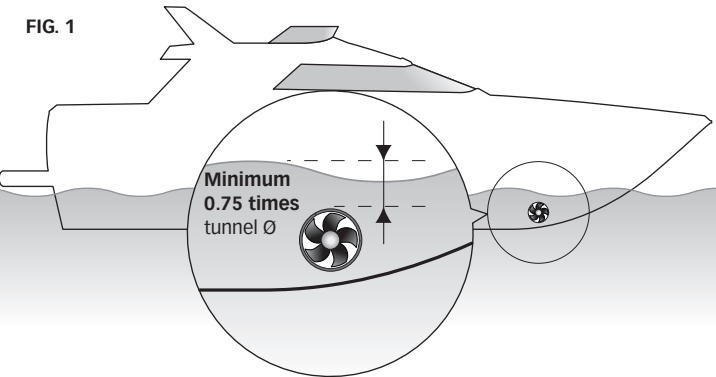
We recommend you entrust preparation and positioning of the tunnel in the hull to a skilled professional.

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.

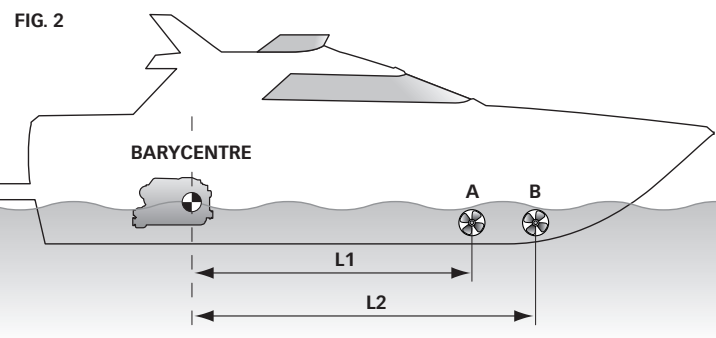
The installation of such a unit is an operation that requires experience as well as technical skills. It is recommended that the installation be carried out by competent personnel and that the manufacturer or naval architects be consulted to fully assess the scope of the work.

6.2 - Propellers



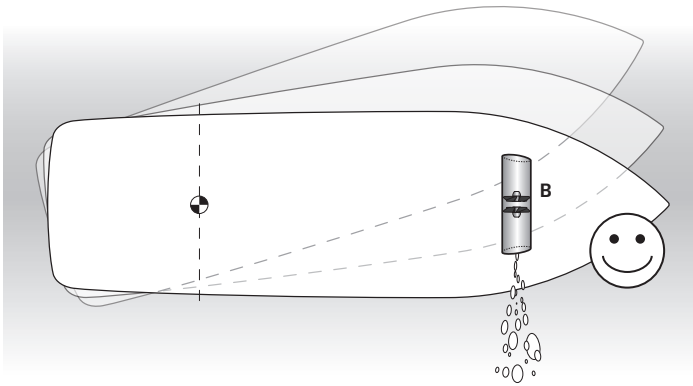
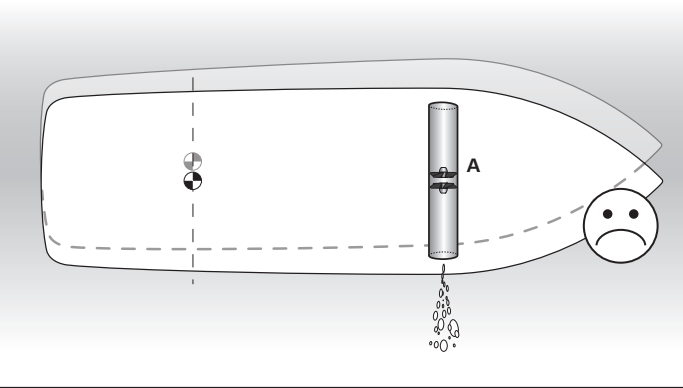
The position of the tunnel will depend on the interior and exterior shape of the boat's bow.

- **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.



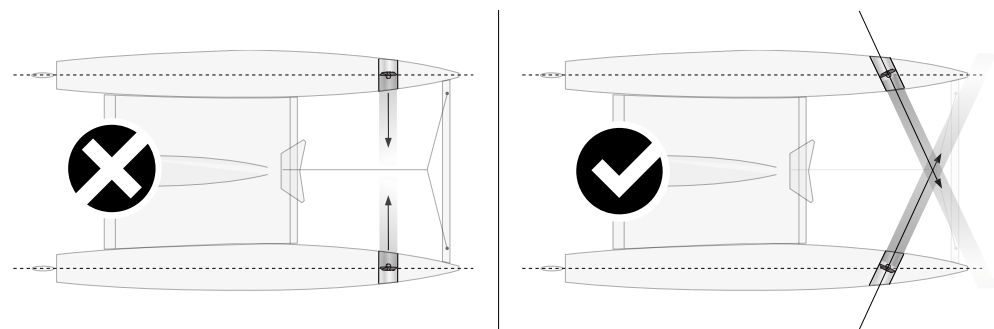
- **FIG. 2** The lever effect in the boat is proportional to the increase of the distance (L1 and L2) between the barycentre and the position of the tunnel A and B.

FIG.3



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

6.3 - Propeller installation on catamarans



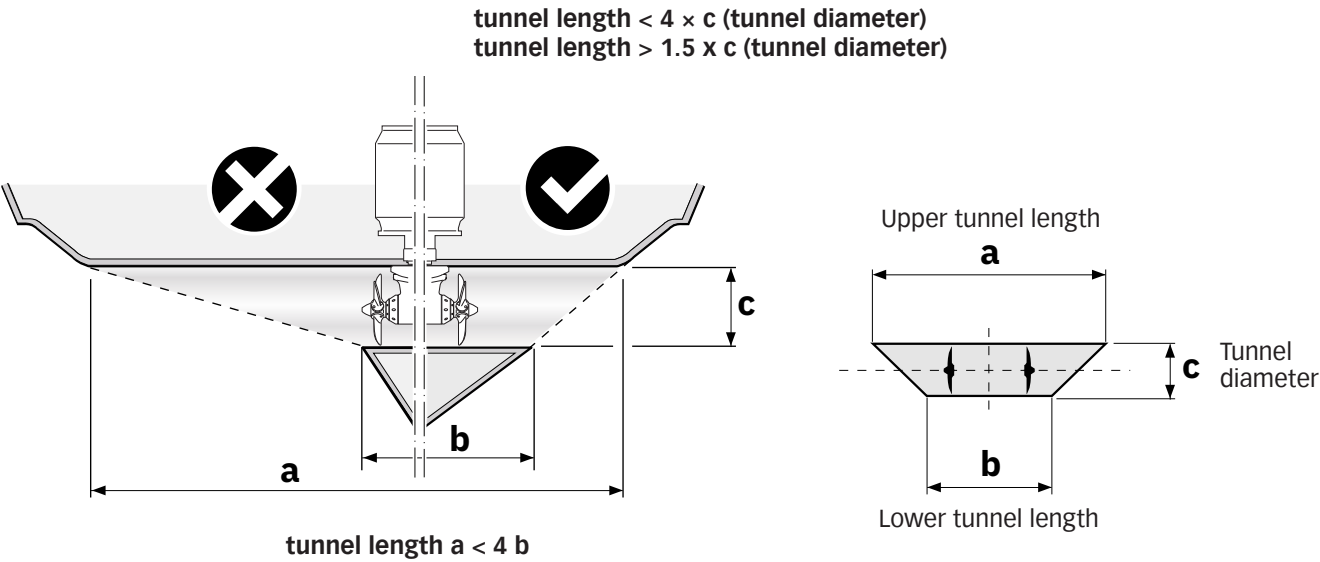
- When installing propellers on a catamaran, the tunnel axes must not be aligned or directly opposed. The installation angle may vary depending on the catamaran size and model.
- The angle should be kept to a minimum to ensure greater Thruster efficiency.

6.4 - Tunnel Length

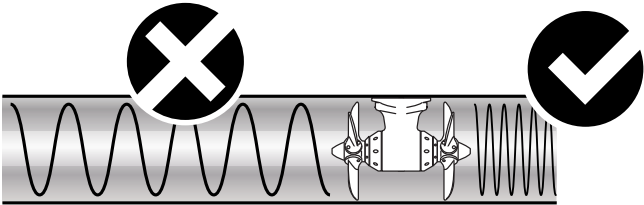
The correct tunnel length depends on various factors, including hull type, operational characteristics and environmental conditions.

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.

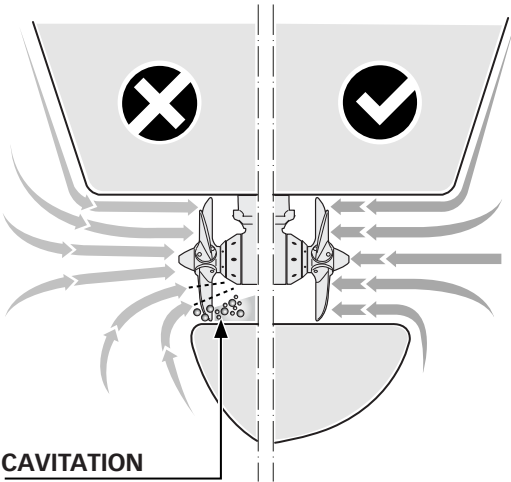
- 1. For a proper use of the thruster, we recommend a length equal to 1.5 to 4 times the tunnel diameter. To limit losing charge, a ratio of up to 6 times the diameter can be tolerated. Refer to the diagram below for proper tunnel dimensioning.



- 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 fiberglass 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 fiberglass (FIG. 4).

FIG. 1

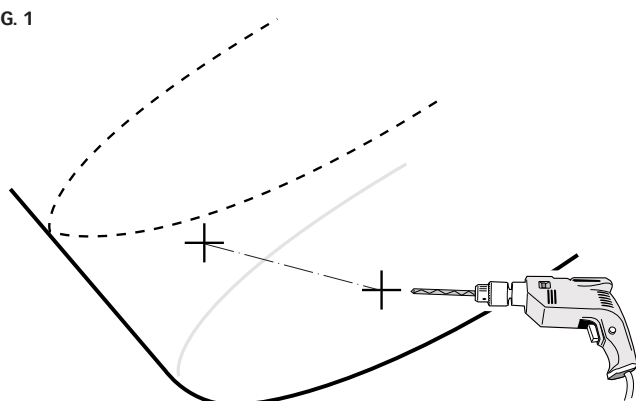


FIG. 2

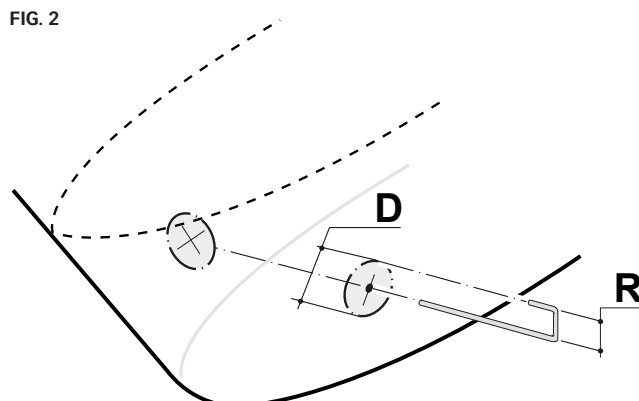


FIG. 3

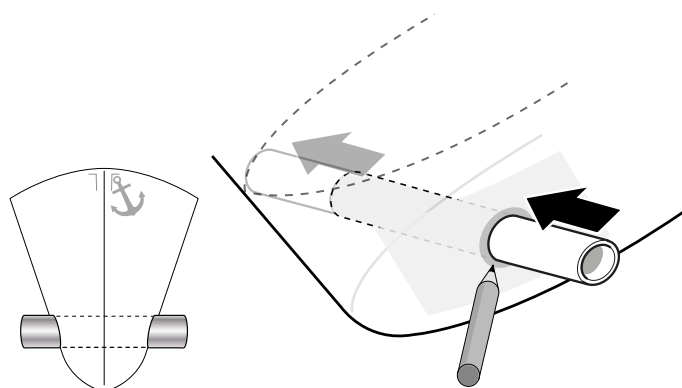
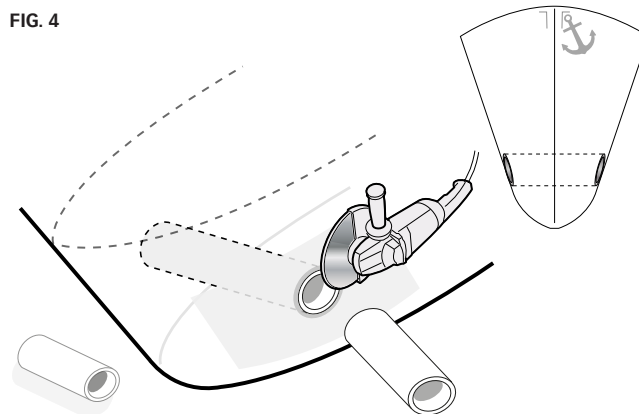
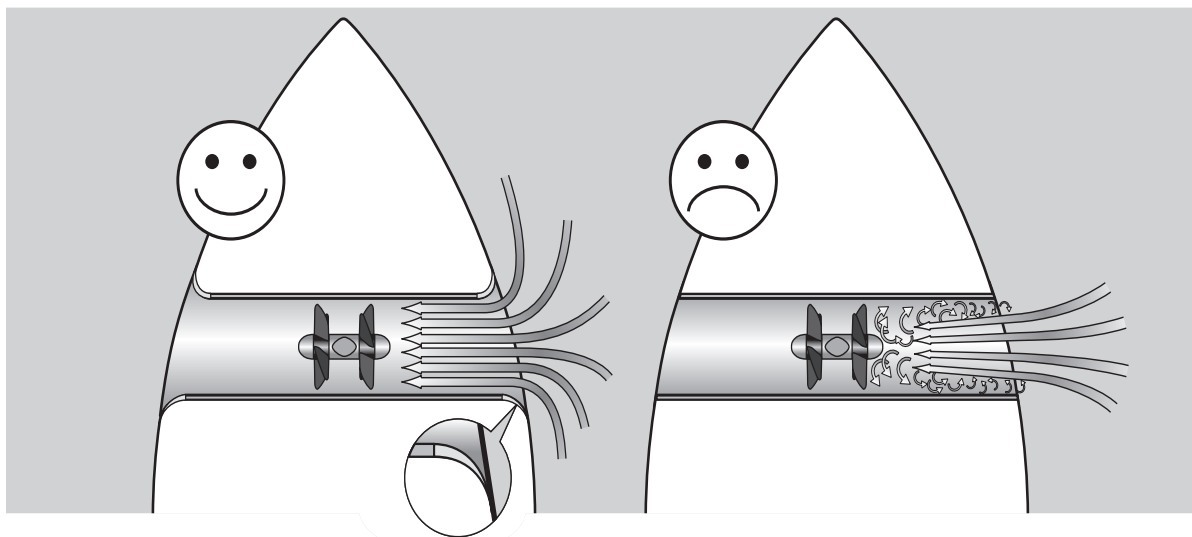


FIG. 4

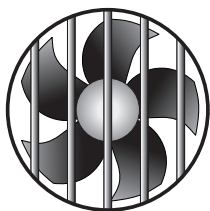
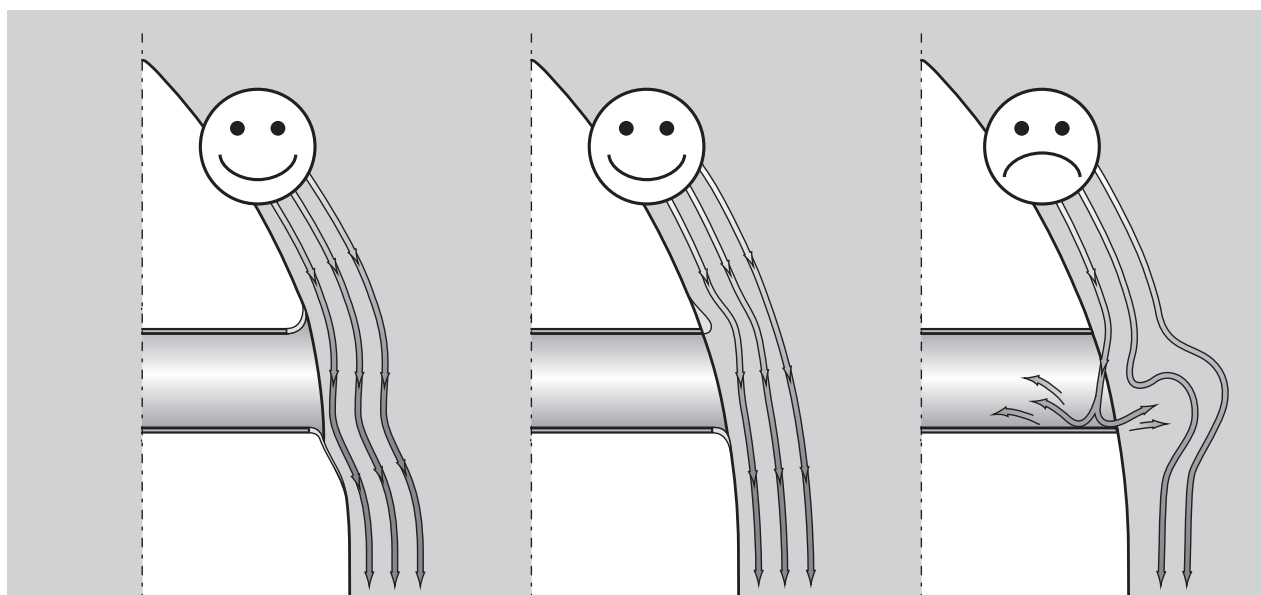


6.6 - Tunnel

- 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.

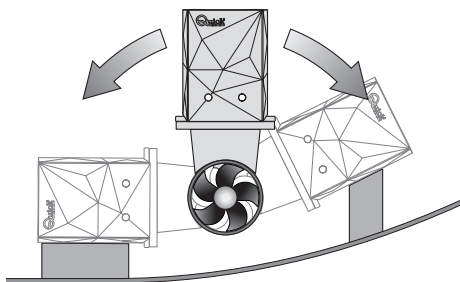


- The force produced by the flow of the water when the boat is moving produces resistance on the rear face of the tunnel, which is an area exposed frontally to the water flow. To limit this phenomenon, prepare an indentation in the rear part of the tunnel. The indentation will depend on the shape of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

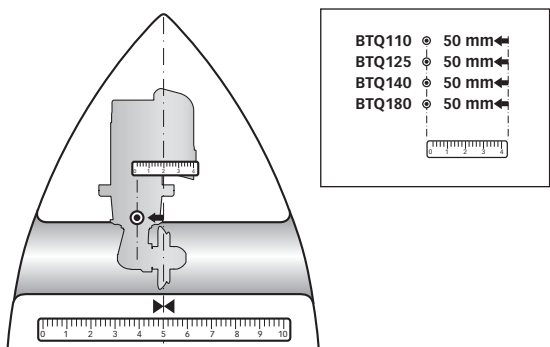
6.7 - Thruster



- 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.

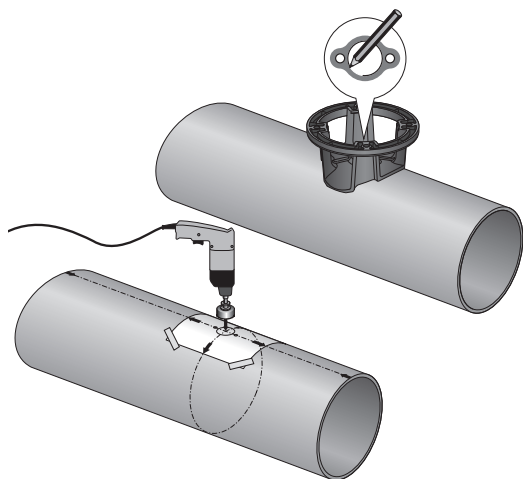
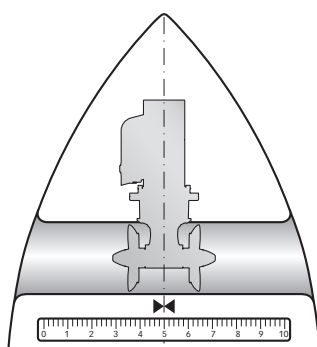
SINGLE PROPELLER

- 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.

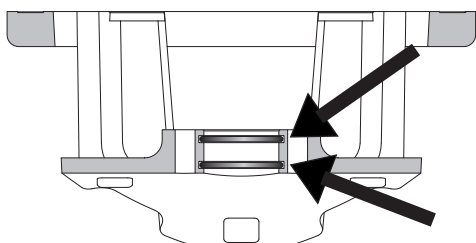
- Fix the drilling template on the reference points, making sure they are aligned with precision at the half-way point of the tube.

 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.

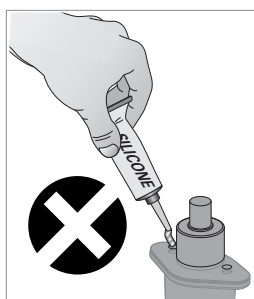
BTQ Ø140/185/250/300

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



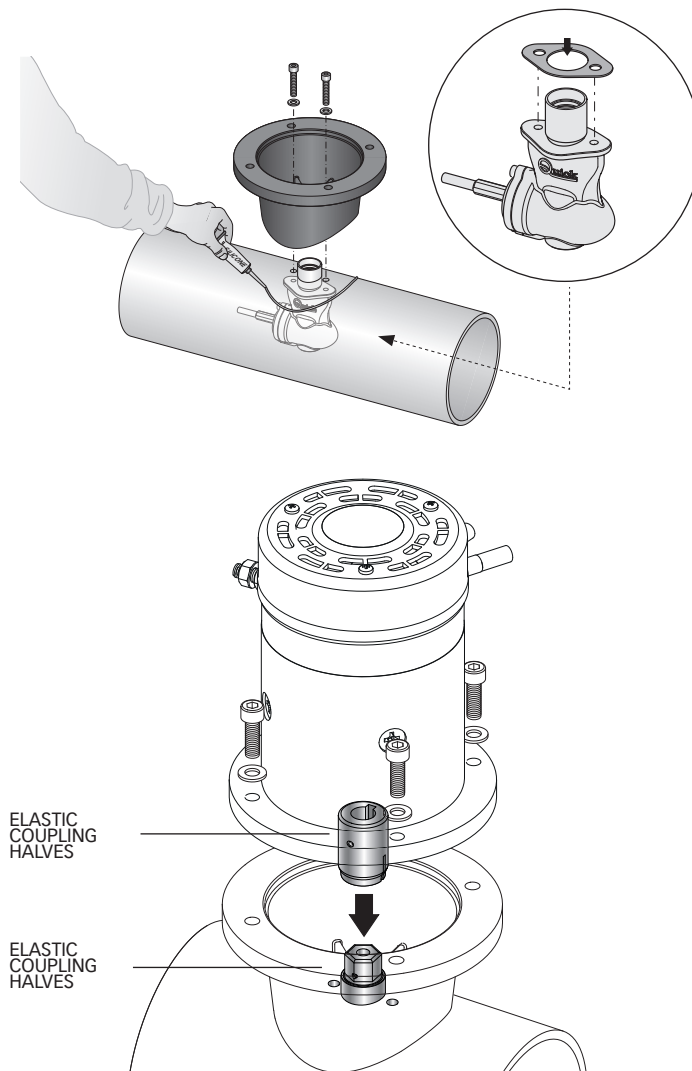
6.8 - BTQ 110/125 Gearleg and motor support flange

- 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.



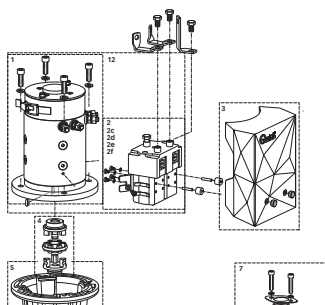
**DO NOT APPLY
SEALANT IN HOLES**

- Insert the motor on the flange by coupling the two elastic coupling halves. Secure with the 4 screws and washers supplied.

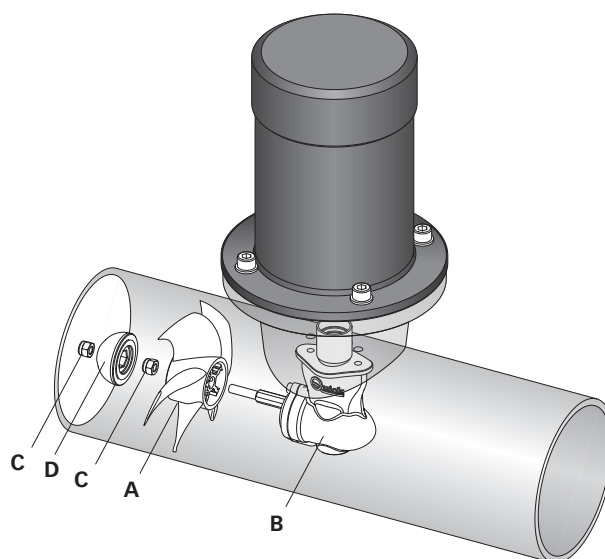


6.8.0 - BTQ110/125 Propeller assembly

- 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.



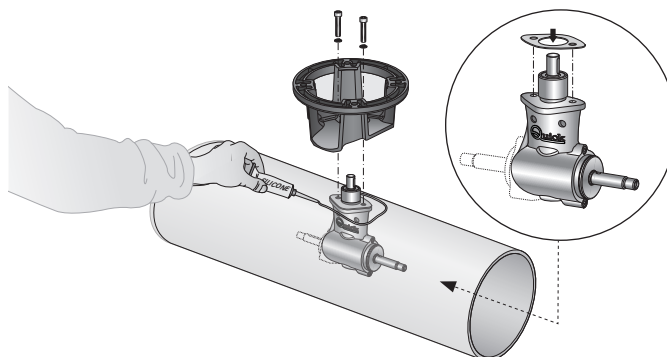
WARNING: on conclusion of assembly, make sure that the propeller is exactly positioned at the central point of the tunnel.



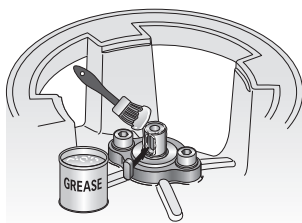
6.9 - BTQ 140/185/250/300 Gearleg and motor support flange

**DO NOT APPLY SEALANT IN HOLES**

- 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.

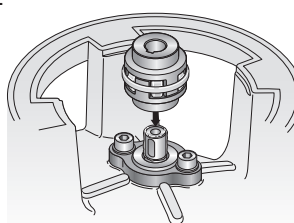


1



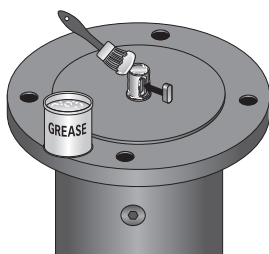
- Grease the terminal part of the gearleg shaft; fit the small key into its seat.

2



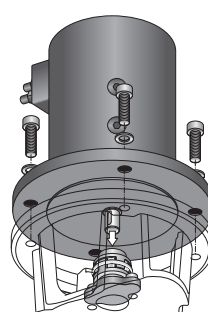
- Insert the elastic coupling in the terminal part of the gearleg shaft.

3



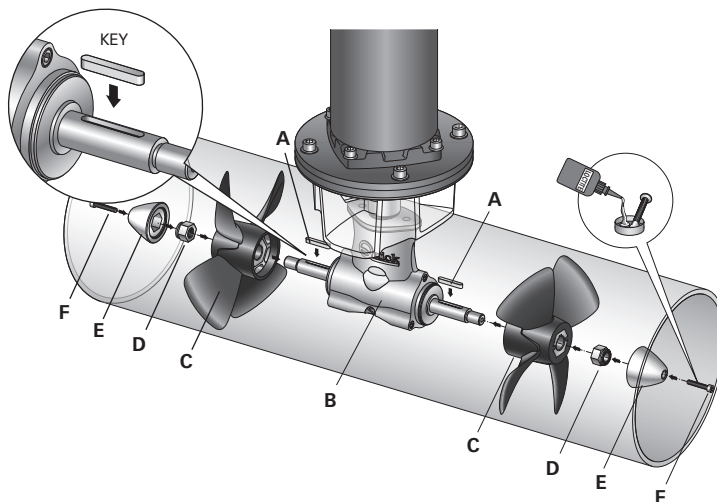
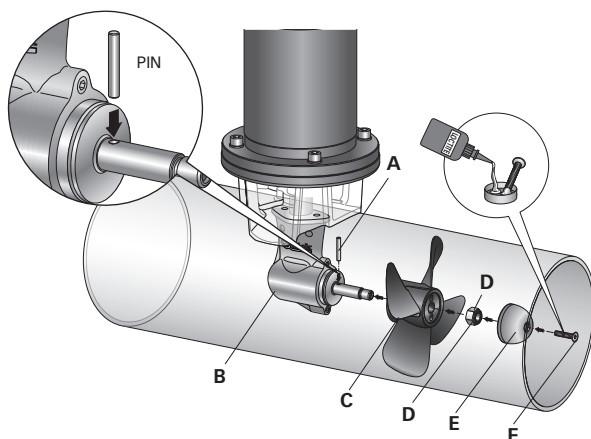
- Grease the terminal part of the drive shaft; fit the key into its seat.

4

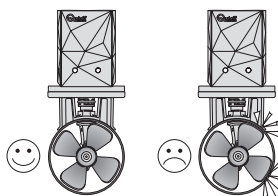


- Insert the motor onto the elastic coupling; secure it with the 4 screws and washers supplied.

6.9.0 - BTQ140/185/250/300 Single propeller/double propeller assembly

**Propeller(s) assembly**

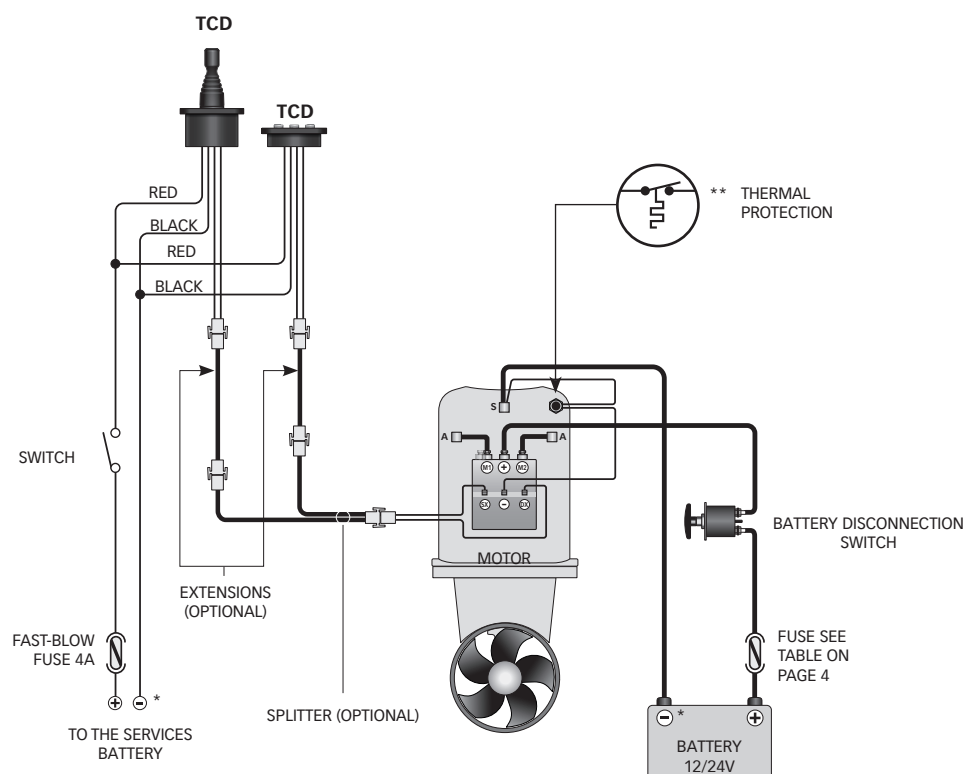
Insert the drive key/pin **A** on gearleg **B**; fit the propeller **C** to the gearleg by engaging it to the drive key/pin **A**; secure the propeller with the self-locking nut **D**. Insert anode **E** on nut **D** and lock it with screw **F** smeared with threadlocker (loctite type).



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

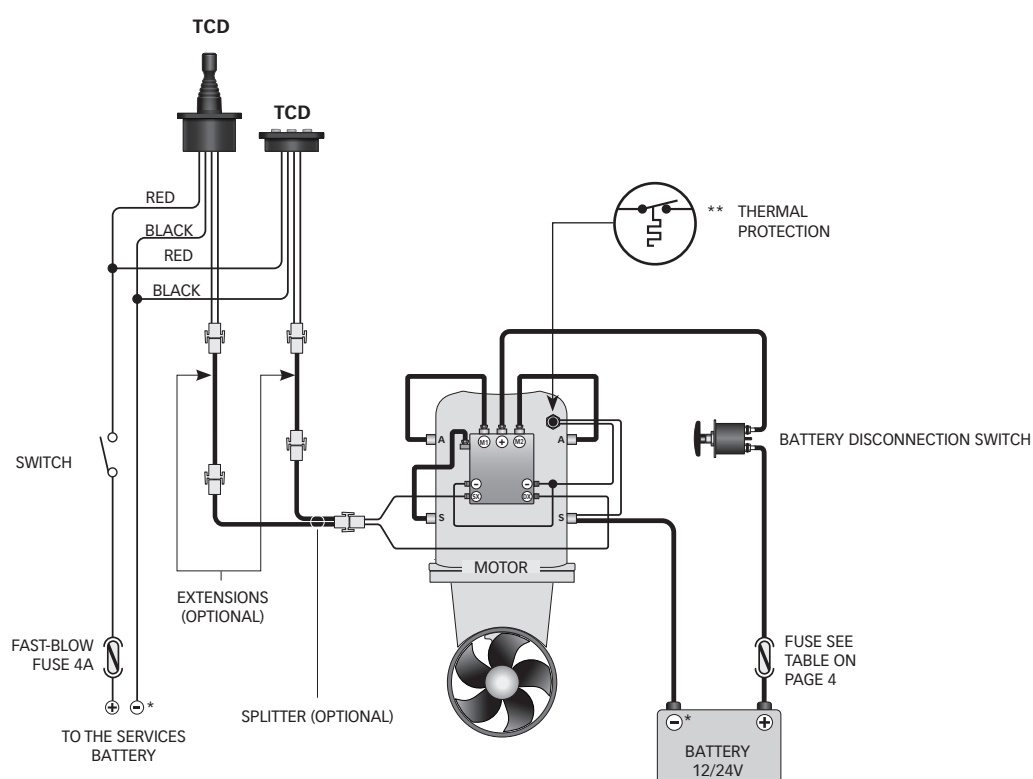
7.0 - BTQ110 basic system

Example of connection



7.1 - BTQ125 basic system

Example of connection

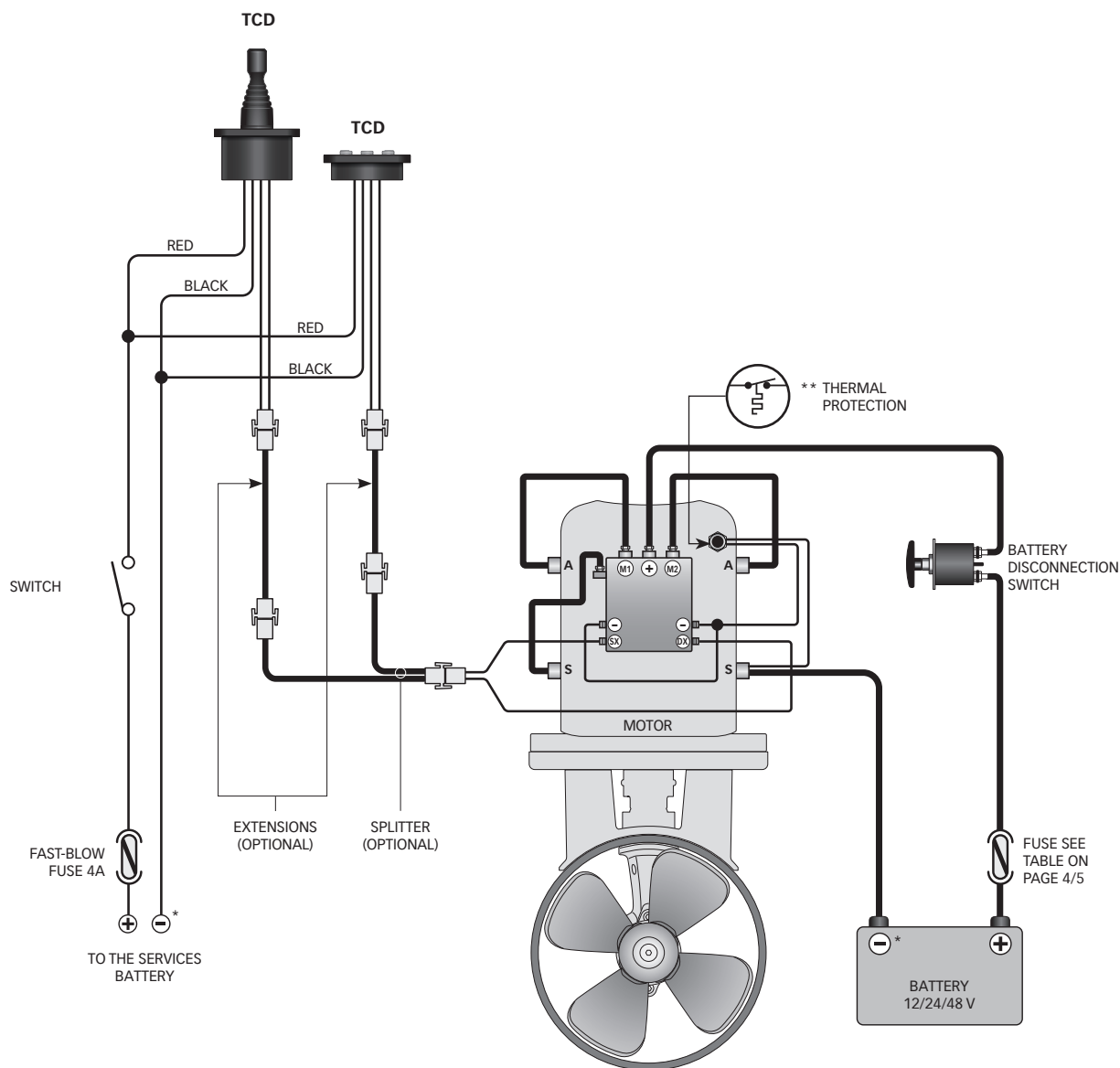


* Common negative for battery groups.

****WARNING:** in case of overtemperature, the thermal protection on the motor will open and interrupt the negative contact on the contactor. Wait for the time needed for reactivation.

7.2 - BTQ140/185/250/300 basic system

Example of connection



* Common negative for battery groups.

****WARNING:** in case of overtemperature, the thermal protection on the motor will open and interrupt the negative contact on the contactor. Wait for the time needed for reactivation.

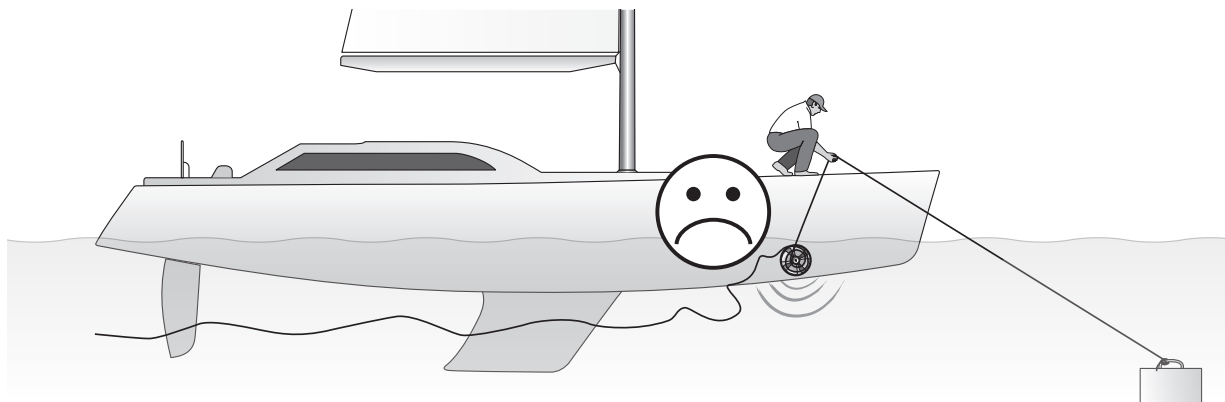
CONTROL PANEL

For control panel installation, please refer to the "TCD" user's manuals.

8.0 - Important cautions

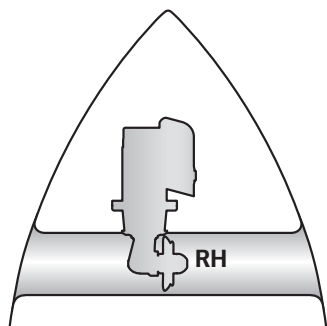


- This thruster is not designed for continuous use. It is equipped with protections which limit its operation at a maximum time span, as reported on the controls' manual. It is strongly forbidden to bypass or modify such protections in order to increase the operating time span, lest voiding the warranty 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

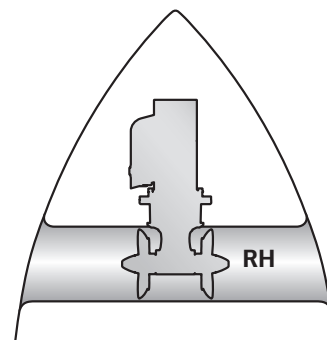
NOTE: the bow thruster must be installed with the propeller to the right of the gearleg (see figure).



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.



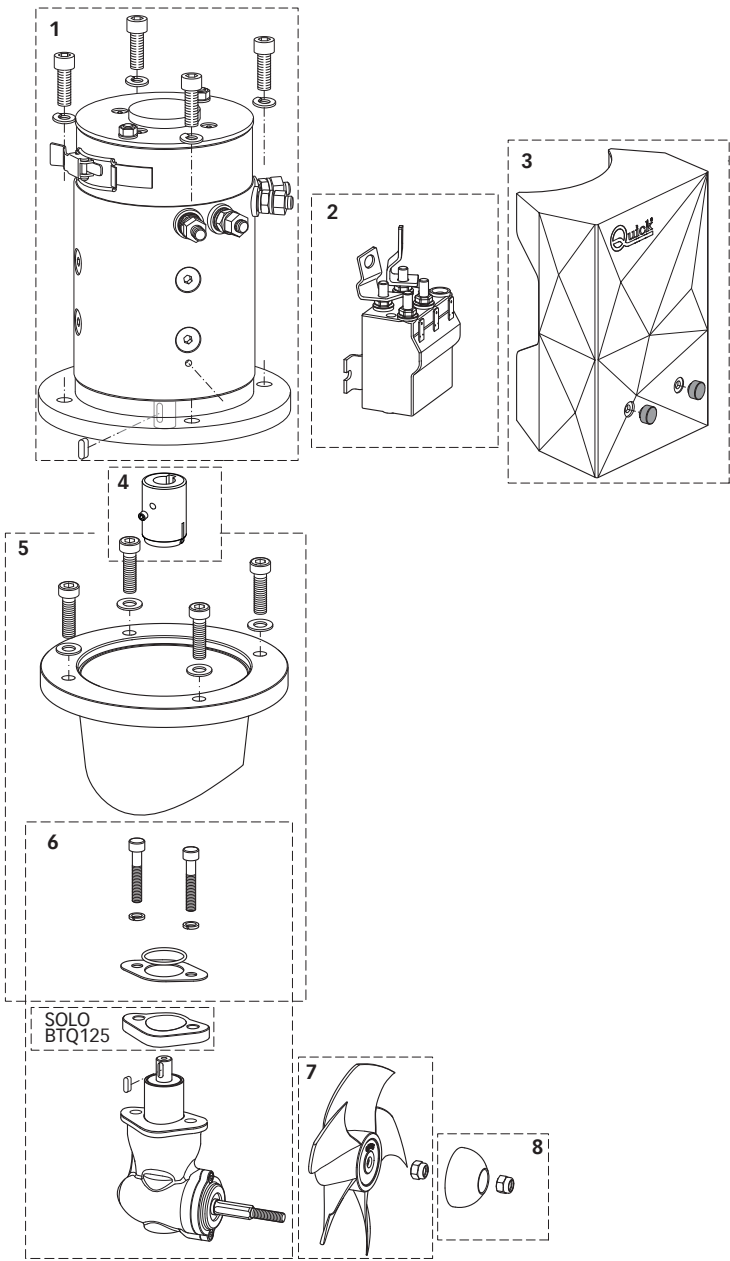
DEPENDING ON USE, PERIODICALLY CHECK THE TIGHTNESS OF THE OIL SEALS AND REPLACE THEM IF NECESSARY.

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 - BTQ110/125

ELICA SINGOLA
BTQ 1102512
BTQ 1253012
BTQ 1254012

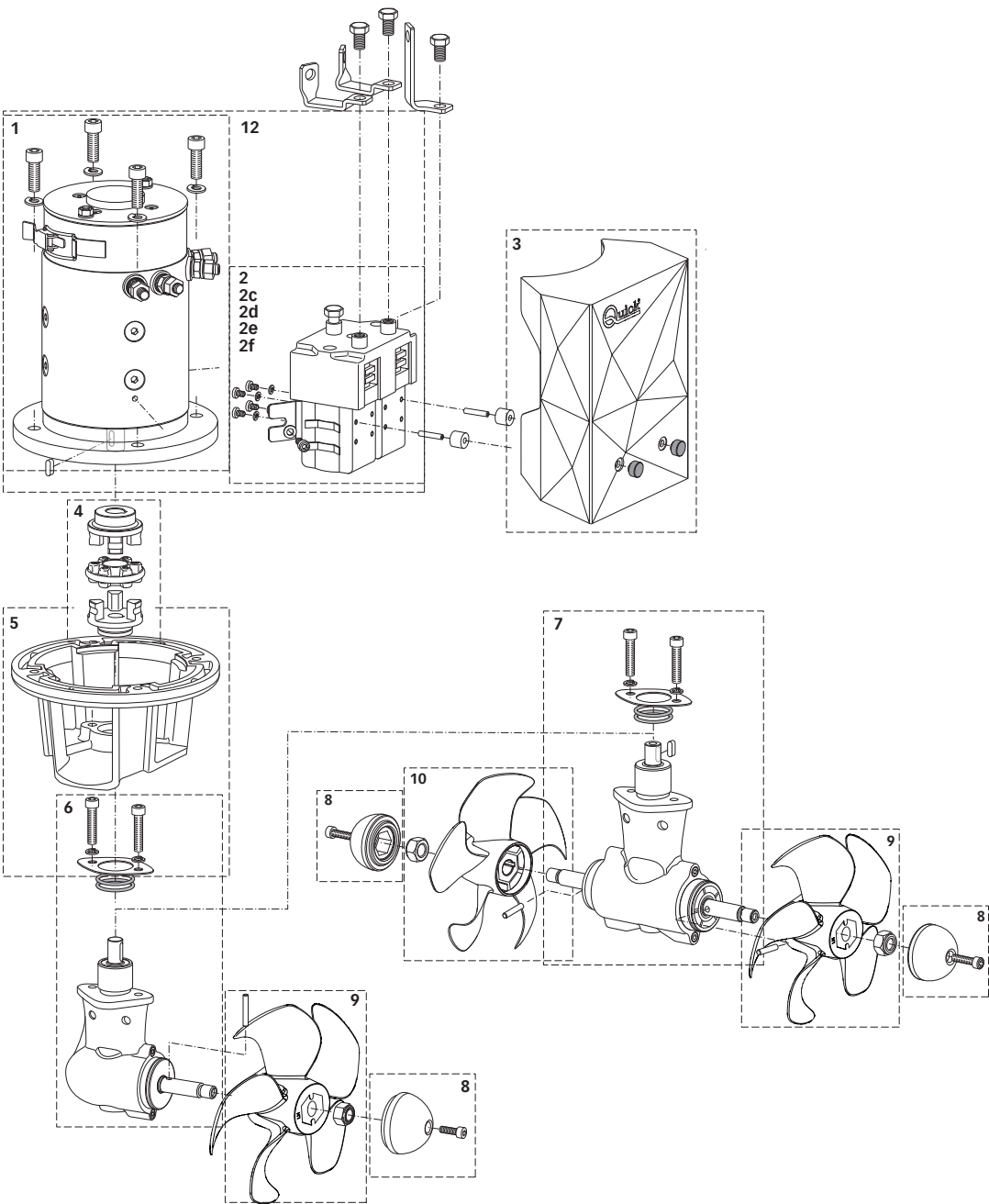


No.	DESCRIPTION	CODES		
1A	OSP MOT 1300W 12V BTQ 110+T	FVEMFEL13120000	4	OSP COUPLING HALF KIT BTQ 110/125 PL FVSGG110125PA00
1B	OSP MOT 1500W 12V BTQ 125+T	FVEMFEL15120000	5	OSP PROPELLER FLANGE KIT BTQ110-125 FVSGFLBTQ110A00
1C	OSP MOT 2200W 12V BTQ125-140+T	FVEMFEL22121400	6A	OSP GEARBOX KIT BTQ110 FVSGGBBT1100A00
1D	OSP MOTOR 2200W 12V BTQ 125+T	FVEMFEL22120000	6B	OSP GEARBOX KIT BTQ125 FVSGGBBT1250A00
2	OSP REV. CONTACTOR BOX KIT T6411-12 BTQ	FVST64111200A00	7A	OSP PROPELLER KIT D110 FVSGEL110000A00
3A	OSP CASING 'A' KIT BT BLACK	FVSGCARBTQR1A00	7B	OSP PROPELLER KIT D125 FVSGEL125000A00
3B	OSP CASING 'C' KIT BT BLACK	FVSGCARBTQR1C00	8	OSP PROPELLER ANODE KIT BTQ110-125 FVSGANBTQ110A00

10.1 - BTQ140/185

ELICA SINGOLA
BTQ 1403012
BTQ 1404012
BTQ 1805512
BTQ 1805524
BTQ 1807512
BTQ 1807524
BTQ 1809512
BTQ 1809524

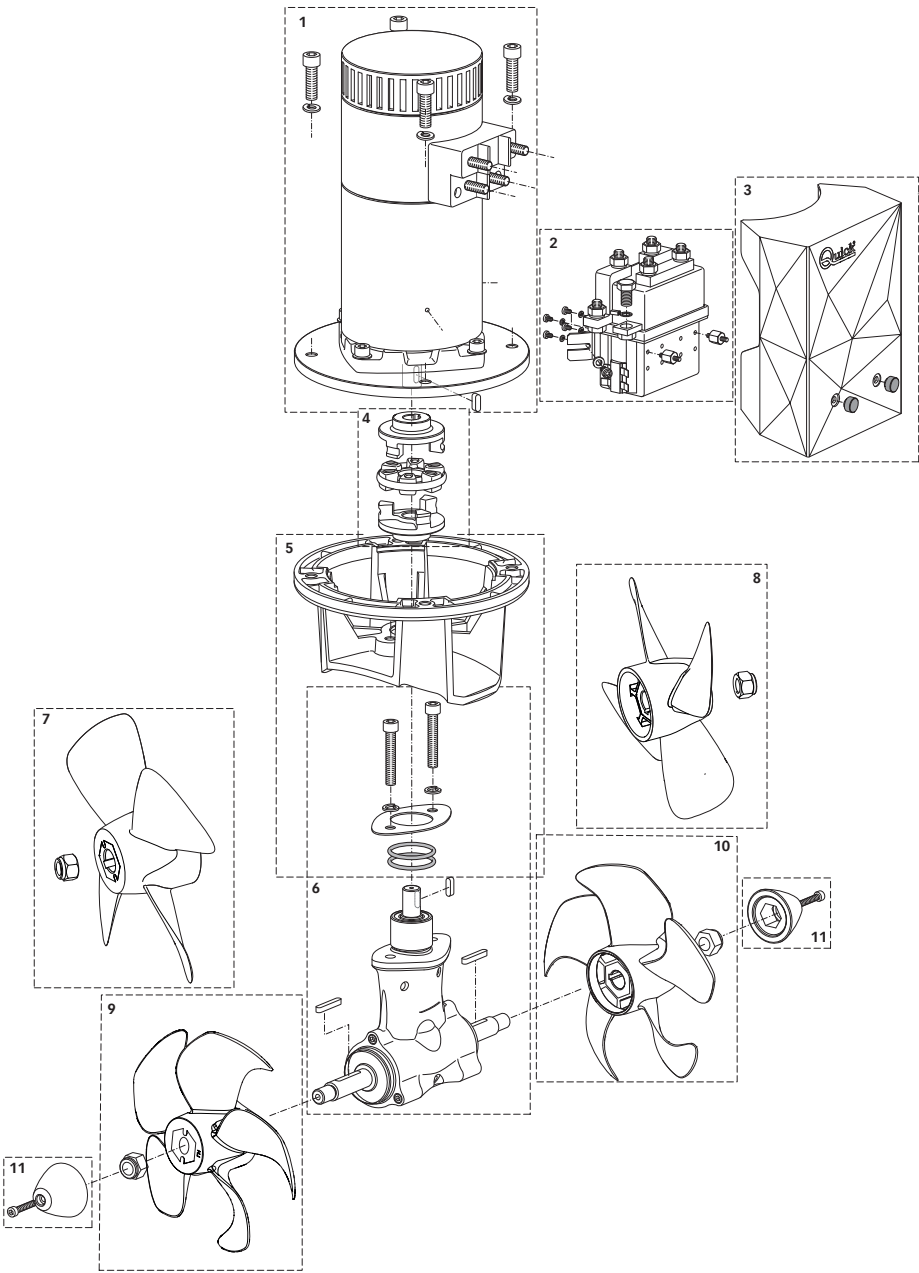
ELICA DOPPIA
BTQ 1806512
BTQ 1806524
BTQ 1808512
BTQ 1808524
BTQ 1810512
BTQ 1810524



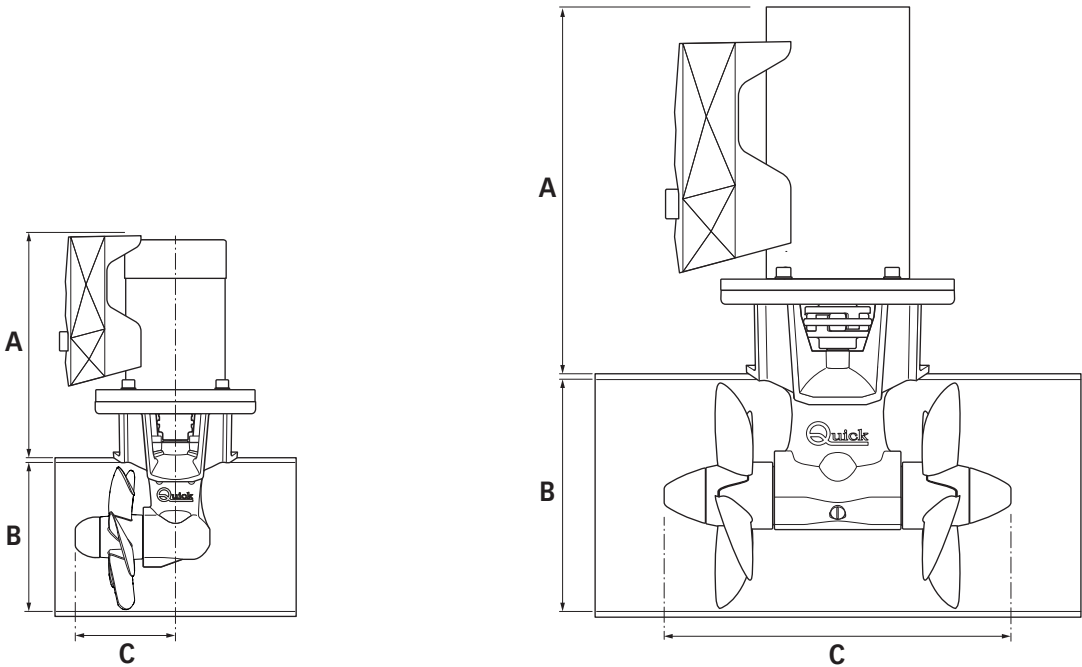
No.	DESCRIPTION	CODES	2B	OSP REV. CONTACTOR BOX KIT 150A 24V	FVSGRCT15024A00
1A	OSP MOTOR 1500W 12V BTQ 140+T	FVEMFEL15121400	3A	OSP CASING 'A' KIT BT BLACK	FVSGCARBTQR1A00
1B	OSP MOTOR 2200W 12V BTQ 140+T	FVEMFEL22121400	3B	OSP CASING 'B' KIT BT BLACK	FVSGCARBTQR1B00
1C	OSP MOTOR 3000W 12V BTQ185+T	FVEMFEL30121800	4A	OSP COUPLING KIT 140 30/40KG S	FVSGG141114SA00
1D	OSP MOTOR 3000W 24V BTQ185+T	FVEMFEL30241800	4B	OSP COUPLING KIT BTQ 185	FVSGG1851414A00
1E	OSP MOTOR 3300W 12V BTQ185+T	FVEMFEL33121800	5A	OSP FLANGE KIT FOR PROPELLER BTQ140	FVSGFLBTQ140A00
1F	OSP MOTOR 3300W 24V BTQ185+T	FVEMFEL33241800	5B	OSP FLANGE KIT FOR PROPELLER BTQ185	FVSGFLBTQ185A00
1G	OSP MOTOR 4000W 12V BTQ185+T	FVEMFEL40121800	6A	OSP GEARBOX KIT BTQ140	FVSGGBT1400A00
1H	OSP MOTOR 4000W 24V BTQ185+T	FVEMFEL40241800	6B	OSP GEARBOX KIT BTQ185	FVSGGBT1850B00
1I	OSP MOTOR 4300W 12V BTQ185+T	FVEMFEL43121800	7	OSP GEARBOX KIT BTQ185 DP	FVSGGBT185DA00
1J	OSP MOTOR 4300W 24V BTQ185+T	FVEMFEL43241800	8A	OSP ANODE KIT FOR PROPELLER BTQ140	FVSGANBTQ14AA00
1K	OSP MOTOR 6000W 12V BTQ185+T	FVEMFEL60121800	8B	OSP ANODES KIT FOR PROPELLERS BTQ185	FVSGANBTQ18AA00
1L	OSP MOTOR 6000W 24V BTQ185+T	FVEMFEL60241800	9A	OSP PROPELLER D185 RH QUICK 5 BLADES BLACK	FVSGEL185R05A00
1M	OSP MOTOR 6300W 12V BTQ185+T	FVEMFEL63121800	9B	OSP PROPELLER D140 RH QUICK 5 BLADES BLACK	FVSGEL140R05A00
1N	OSP MOTOR 6300W 24V BTQ185+T	FVEMFEL63241800	10	OSP PROPELLER D185 LH QUICK 5 BLADES BLACK	FVSGEL185L05A00
2A	OSP REV. CONTACTOR BOX KIT 150A 12V	FVSGRCT15012A00			

10.2 - BTQ250/300

BTQ 2512012
BTQ 2512024
BTQ 2514024
BTQ 2524024
BTQ 3025024
BTQ 3027024
BTQ 3030048



No.	DESCRIPTION	CODES		
1A	OSP MOTOR BT 6500W 12V BTQ250+T	FVEMFEL65122500	4C	OSP COUPLING KIT BTQ 300-300 48V FVSGG3000048A00
1B	OSP MOTOR BT 6500W 24V BTQ250 +T	FVEMFEL65242500	5A	OSP FLANGE KIT FOR PROPELLER BTQ250 FVSGFLBTQ250A00
1C	OSP MOTOR BT 8000W 24V BTQ250 +T	FVEMFEL80242500	5B	OSP FLANGE KIT FOR PROPELLER BTQ300 FVSGFLBTQ300A00
1D	OSP MOTOR BT 10KW 24V BTQ250 +T	FVEMFEL1K242500	6A	OSP GEARBOX KIT BTQ250 FVSGGBBT2500A00
1E	OSP MOTOR BT 10KW 24V BTQ300 +T	FVEMFEL1K243000	6B	OSP GEARBOX KIT BTQ300 FVSGGBBT3000A00
1F	OSP MOTOR BT 12KW 24V BTQ300 +T	FVEMFEL2K243000	7	OSP PROPELLER KIT D300 R NIBRAL FVSGEL300RN0A00
1G	OSP MOTOR BT 15KW 48V BTQ300 +T	FVEMFEL5K483000	8	OSP PROPELLER KIT D300 L NIBRAL FVSGEL300LN0A00
2A	OSP REV. CONTACTOR BOX KIT 350A 12V	FVSGRCT35012A00	9A	OSP PROPELLER D250 RH QUICK 5 BLADES BLACK FVSGEL250R05A00
2B	OSP REV. CONTACTOR BOX KIT 350A 24V	FVSGRCT35024A00	9B	OSP PROPELLER KIT D300 R FVSGEL300R00A00
3	OSP CASING 'B' KIT BT BLACK	FVSHCARBTQR1B00	10A	OSP PROPELLER D250 LH QUICK 5 BLADES BLACK FVSGEL250L05A00
4A	OSP COUPLING KIT BTQ 250	FVSGG2501919A00	10B	OSP PROPELLER KIT D300 L FVSGEL300L00A00
4B	OSP COUPLING KIT BTQ 300	FVSGG3001924A00	11A	OSP ANODES KIT FOR PROPELLER BTQ250 FVSGANBTQ25AA00
			11B	OSP ANODES KIT FOR PROPELLER BTQ300 FVSGANBTQ30AA00



SINGLE PROPELLER

BTQ110/125	BTQ1102512	BTQ1253012	BTQ1254012
A	240 (9" 29/64)	260,5 (10" 1/4)	262 (10" 5/16)
B	110 (4 21/64)	125 (4")	125 (4")
C	84 (3 5/16)	84 (3 5/16)	84 (3 5/16)

BTQ140	BTQ1403012	BTQ1404012
A	266 (10" 15/32)	268 (10" 9/16)
B	140 (5 1/2)	140 (5 1/2)
C	108 (4 1/4)	108 (4 1/4)

BTQ185	BTQ1805512	BTQ1805524	BTQ1807512	BTQ1807524	BTQ1809512	BTQ1809524
A	292 (11" 1/2)	278 (10" 15/16)	329 (12")	280 (11")	410 (16" 9/64)	374 (14" 23/32)
B	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)
C	123 (4" 27/32)	123 (4" 27/32)	123 (4" 27/32)	123 (4" 27/32)	123 (4" 27/32)	123 (4" 27/32)

DOUBLE PROPELLER

BTQ185	BTQ1806512	BTQ1806524	BTQ1808512	BTQ1808524	BTQ1810512	BTQ1810524
A	292 (11" 1/2)	278 (10" 15/16)	329 (12")	278 (10" 15//16)	410 (16" 9/64)	374 (14" 23/32)
B	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)	185 (7" 9/32)
C	265 (10" 7/16)	265 (10" 7/16)	265 (10" 7/16)	265 (10" 7/16)	265 (10" 7/16)	265 (10" 7/16)

BTQ250	BTQ2512012	BTQ2512024	BTQ2514024	BTQ2524024
A	389 (15" 5/16)	393 (15" 15/32)	394 (15" 1/2)	471 (18" 1/2)
B	250 (9" 27/32)	250 (9" 27/32)	250 (9" 27/32)	250 (9" 27/32)
C	373 (14" 11/16)	373 (14" 11/16)	373 (14" 11/16)	373 (14" 11/16)

BTQ300	BTQ3025024	BTQ3027024	BTQ3030048	BTQ3030048 NYLON
A	410 (16" 9/64)	481 (18" 15/16)	521 (20" 33/64)	520 (20" 15/32)
B	300 (11" 13/16)	300 (11" 13/16)	300 (11" 13/16)	300 (11" 13/16)
C	434 (17" 3/32)	434 (17" 3/32)	434 (17" 3/32)	434 (17" 3/32)

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.

[illegible]

[illegible]

[illegible]

BTQ Series

REV 005A



SINGLE AND DOUBLE PROPELLER - ELECTRIC MOTOR

BTQ 110

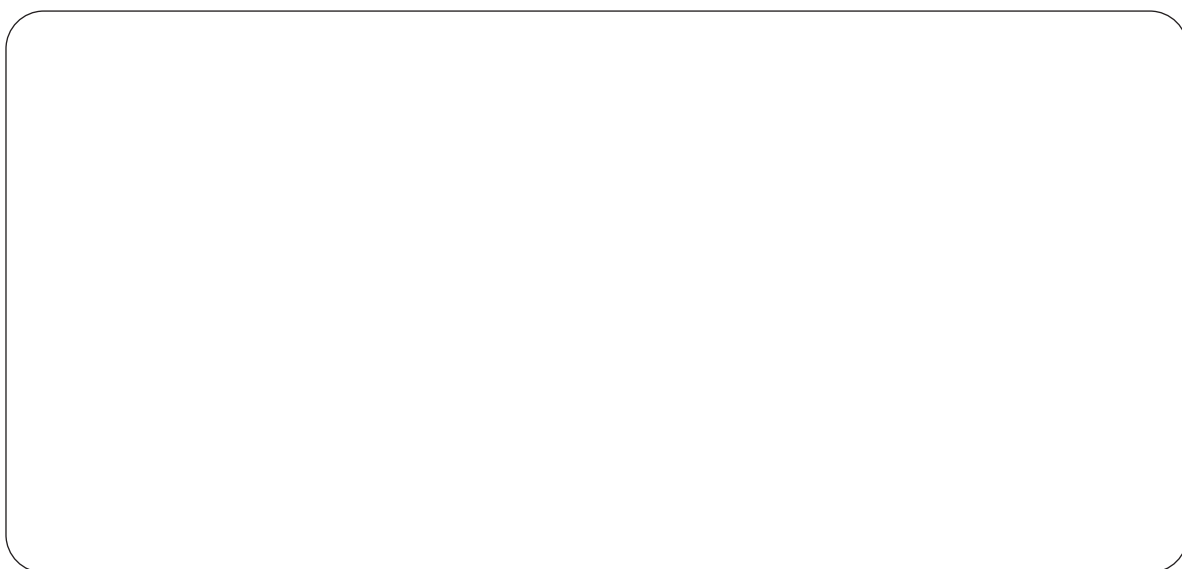
BTQ 125

BTQ 140

BTQ 185

BTQ 250

BTQ 300



Product serial number



QUICK® S.p.A. - Via Piangipane, 120/A - 48124 Piangipane (RAVENNA) - ITALY
Tel. +39.0544.415061 - Fax +39.0544.415047 - www.quickitaly.com - quick@quickitaly.com