

BTAC Series

REV 003A



April, 2026

ELECTRICAL THRUSTERS

BTAC 250 200

BTAC 300 300 - 300 350

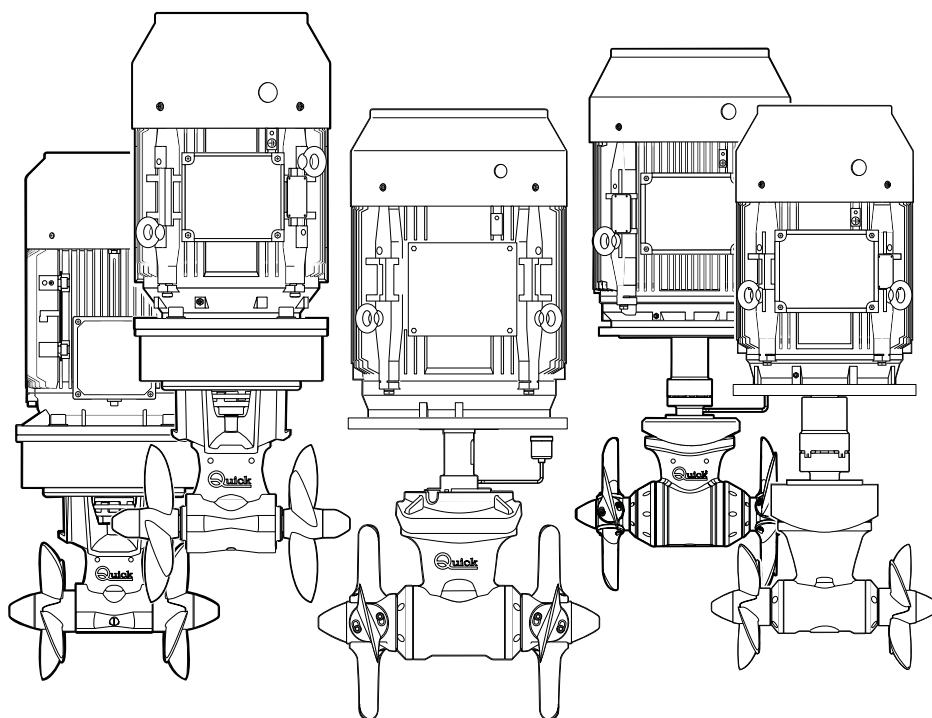
BTAC 300 400HD

BTAC 386 420 - 386 450

BTAC 386 450HD - 386 520HD - 386 550HD - 386 620HD

BTAC 513 750 - 513 900 - 513 1000

BTAC 610 1200 - 610 1400



***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.

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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.

BTAC SERIES ELECTRICAL THRUSTERS

Marine accessory designed to assist with docking manoeuvres when approaching the quay. The BTAC Series comprises a range of propellers powered by a three-phase asynchronous 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 propellers may be made of either plastic or aluminium-bronze alloy, depending on the model.

2 - Important information

BTAC Series

This manual provides boatyards and nautical equipment installers with instructions on how to assemble the specified BTAC 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	BTAC250200	BTAC300300	BTAC300350	BTAC300400HD
No. of Propellers	2 counter rotating		2 counter rotating (NIBRAL)	
Tunnel Ø	250 mm (9" 27/32)	300 mm (11" 13/16)	300 mm (11" 13/16)	300 mm (11" 13/16)
Motor type	Electric, 2-pole			
Motor power	15 kW	15 kW	22 kW	30 kW
Voltage	400/690 V	400/690 V	400/690 V	400/690 V
Thrust	200 kgf (441 lbf)	300 kgf (661 lbf)	350 kgf (771 lbf)	400 kgf (881 lbf)
Tunnel thickness limit values	min. 6.5 mm - max 11 mm (min. 1/4" - max 7/16")	min. 9.5 mm - max 13.5 mm (min. 3/8" - max 17/32")		
Weight	160 kg (353 lb)	167 kg (368.2 lb)	216 kg (476.2 lb)	288 kg (635 lb)

MODELS	BTAC386420	BTAC386450	BTAC386450HD
No. of Propellers	2 counter rotating	2 counter rotating (NIBRAL)	
Tunnel Ø	386 mm (15" 13/64)		
Motor type	Electric, 2-pole	Electric, 4-pole	
Motor power	30 kW	30 kW	30 kW
Voltage	400/690 V	400/690 V	400/690 V
Thrust	420 kgf (925 lbf)	450 kgf (992 lbf)	
Tunnel thickness limit values	min. 8 mm - max 15 mm (min. 5/16" - max 19/32")		
Weight	282 kg (621 lb)	300 kg (661 lb)	310 kg (683 lb)

MODELS	BTAC386520HD	BTAC386550HD	BTAC386620HD	BTAC513750
No. of Propellers	2 counter rotating		2 counter rotating (NIBRAL)	
Tunnel Ø	386 mm (15" 13/64)			513 mm (20" 13/64)
Motor type	Electric, 2-pole	Electric, 4-pole		
Motor power	37 kW		45 kW	45 kW
Voltage	400/690 V	400/690 V	400/690 V	400/690 V
Thrust	520 kgf (1146 lbf)	550 kgf (1212 lbf)	620 kgf (1367 lbf)	750 kgf (1653 lbf)
Tunnel thickness limit values	min. 8 mm - max 15 mm (min. 5/16" - max 19/32")			min.12 - max 22 mm (15/32" - 55/64")
Weight	315 kg (694 lb)	385 kg (848 lb)	510 kg (1224 lb)	495 kg (1091 lb)

MODELS	BTAC513900	BTAC5131000	BTAC6101200	BTAC6101400
No. of Propellers	2 counter rotating (NIBRAL)			
Tunnel Ø	513 mm (20" 13/64)		610 mm (24" 1/64)	
Motor type	Electric, 4-pole			
Motor power	55 kW	75 kW	75 kW	90 kW
Voltage	400/690 V	400/690 V	400/690 V	400/690 V
Thrust	900 kgf (1984 lbf)	1000 kgf (2205 lbf)	1200 kgf (2646 lbf)	1400 kgf (3086 lbf)
Tunnel thickness limit values	min.12 - max 22 mm (15/32" - 55/64")		min.14 - max 25 mm (35/64" - 63/64")	
Weight	570 kg (1256 lb)	800 kg (1763 lb)	830 kg (1830 lb)	909 kg (2004 lb)

4.1 - 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.

4.2 - Standard supply and material included in the package

- AC thruster
- Drilling template
- Gasket
- O-ring for assembly (250/300 models only)
- Installation and use manual
- Conditions of warranty

4.3 - Recommended Quick® accessories not included

- **TCD 2022 • TCD 2042 • TCD 2044 • TCD 2062** thruster controls
- **PCS TJ1 • PCS TJ2** thruster proportional controls
- **PCS DTW** monitor for PCS system
- **AC POWER CONTROL** device for electrical connections with motor
- **INVERTER** speed variator for AC motors
- **AJ1 Thruster Command** thruster control with proportional system
- **PAJ 1T AMC • PAJ 2T AMC** thruster proportional controls
- **AMC** central unit for AMC system

5.0 - General instructions and precautions

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

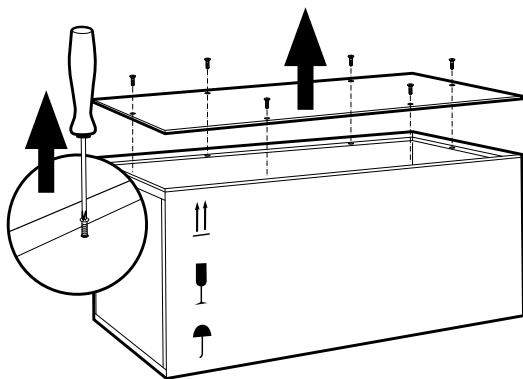


The handling and transport of the BTAC must be carried out by skilled personnel, capable of fastening loads correctly and in compliance with local regulations regarding work safety.

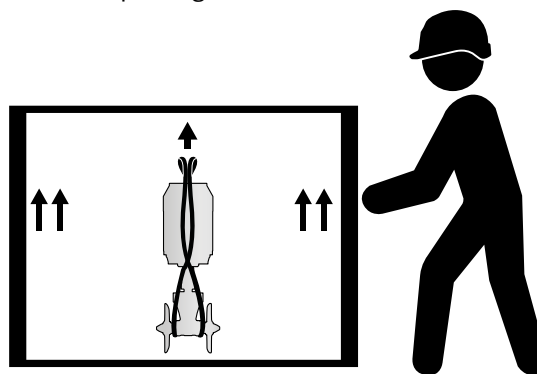
- Lift the BTAC with a mechanical aid, especially when handling the motor.
- Care must be taken when removing the BTAC from packaging or when lifting it, taking care NOT to cause damage to the equipment or impact with the ground.

5.1 - Removing the crate and lifting the BTAC Series

A. Remove the top panel of the crate.



B. Lift the BTAC from the crate with the mechanical aid using straps/slides to be tied to the BTAC.



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

6.0 - Tools required for installation

BTAC 250	• Drill and drill bits Ø 11 mm (7/6") • Hollow mill Ø 46 mm (1" 13/16) • Male hex. wrenches: 4 mm, 5 mm, 8 mm and 10 mm • Fork or polygonal wrench: 24 mm
BTAC 300	• Drill and drill bit 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 or polygonal wrench: 27 mm
BTAC 386	• Drill and drill bit Ø 16 mm (5/8") • B00 Hollow mill Ø 80 mm (3" 5/32) • C00 Hollow mill Ø 120 mm (4" 23/32) • Male hex. wrenches: 4mm, 6mm, 5 mm, 8 mm and 14 mm • Fork or polygonal wrench: 27 mm
BTAC 513	• Drill and drill bit Ø 18 mm (45/64") • Hollow mill Ø 140 mm (5" 33/64) • Male hex. wrenches: 5 mm, 8 mm and 14 mm • Fork or polygonal wrench: 32 mm
BTAC 610	• Drill and drill bit Ø 18 mm (45/64") • Hollow mill Ø 160 mm (6" 19/64) • Male hex. wrenches: 5 mm, 8 mm and 14 mm • Fork or polygonal wrench: 32 mm

6.1 - Installation requirements

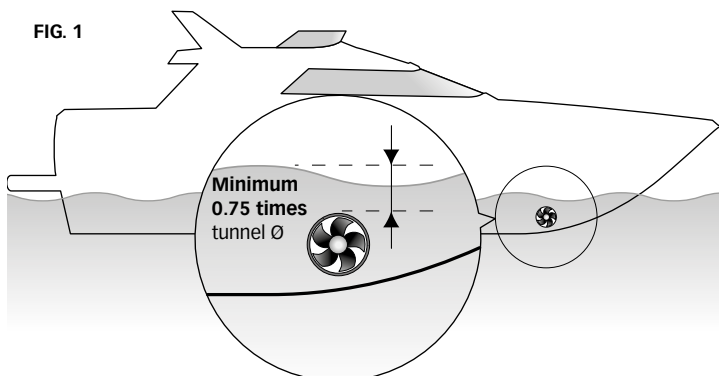
We recommend you entrust preparation and positioning of the tunnel in the hull to a skilled professional.

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

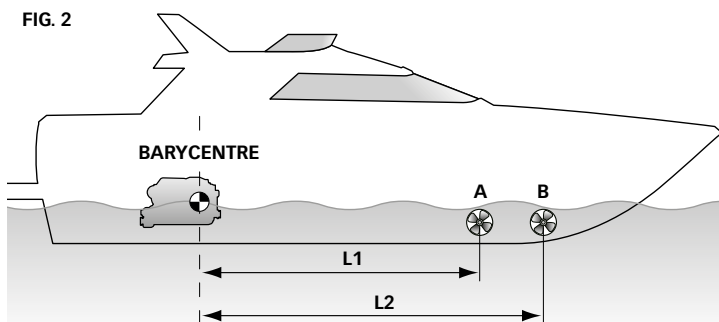
FIG. 1



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

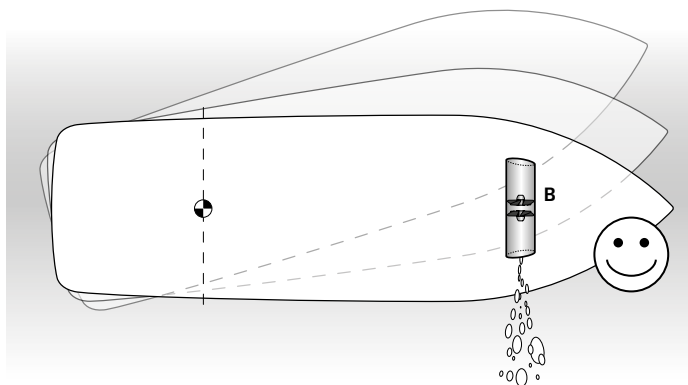
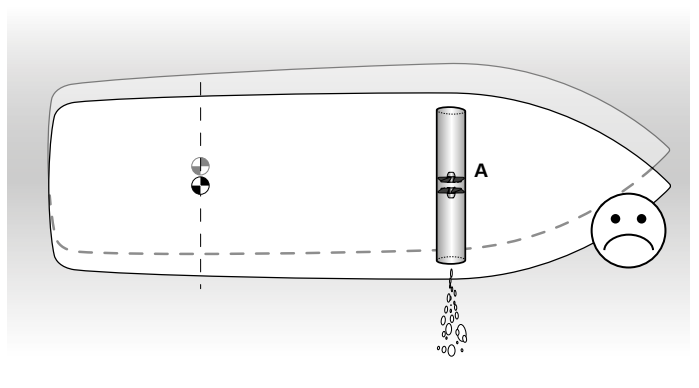
- **FIG. 1** In order to avoid cavitation in the propeller, the tunnel should be placed as deep as possible. The optimum tunnel position will be at least 0.75 times the diameter of the tunnel from the waterline.

FIG. 2



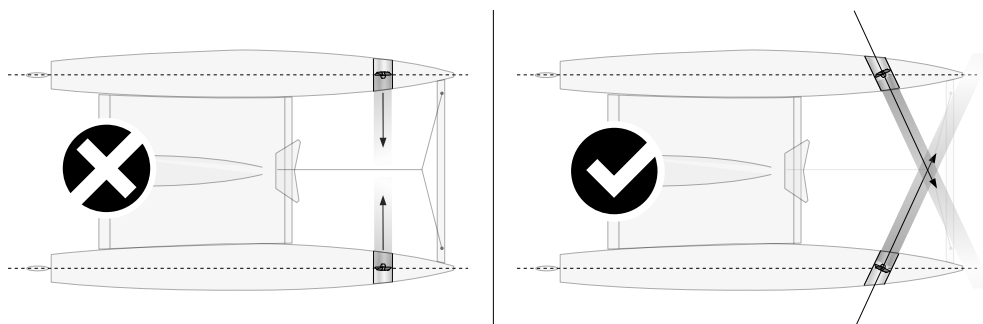
- **FIG. 2** The lever effect in the boat is proportional to the increase of the distance (L1 and L2) between the barycentre and the position of the tunnel A and B.

FIG.3



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

6.3 - Propeller installation on catamarans



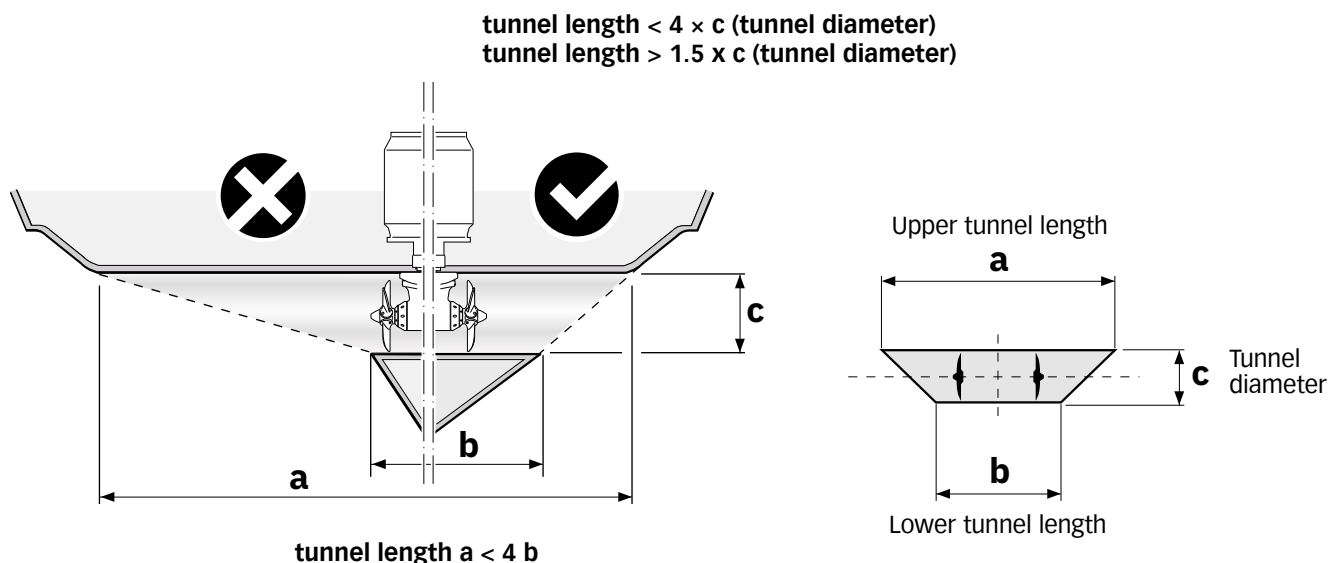
- When installing propellers on a catamaran, the tunnel axes must not be aligned or directly opposed. The installation angle may vary depending on the catamaran size and model.
- The angle should be kept to a minimum to ensure greater Thruster efficiency.

6.4 - Tunnel Length

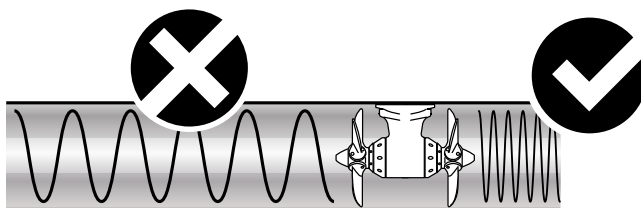
The correct tunnel length depends on various factors, including hull type, operational characteristics and environmental conditions.

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.

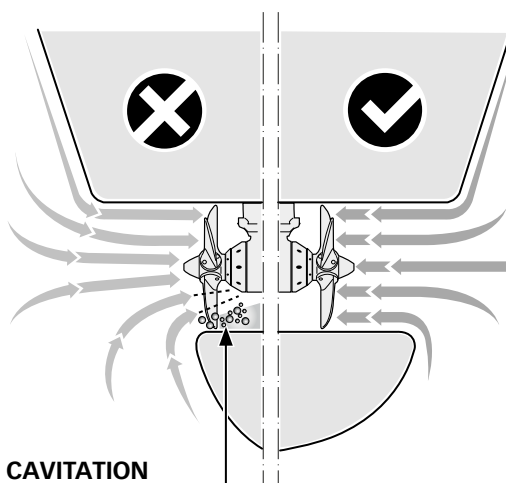
- 1. For a proper use of the thruster, we recommend a length equal to 1.5 to 4 times the tunnel diameter. To limit losing charge, a ratio of up to 6 times the diameter can be tolerated. Refer to the diagram below for proper tunnel dimensioning.



- 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 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

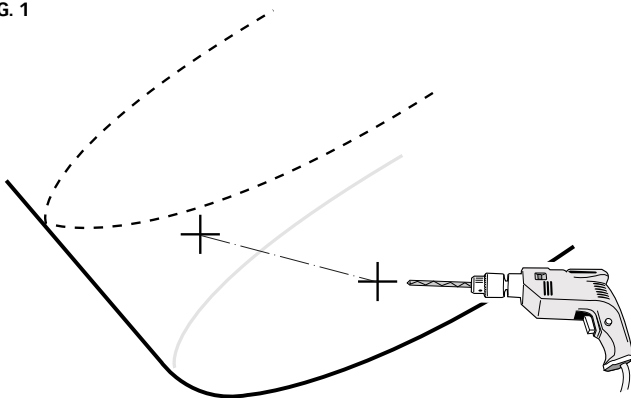


FIG. 2

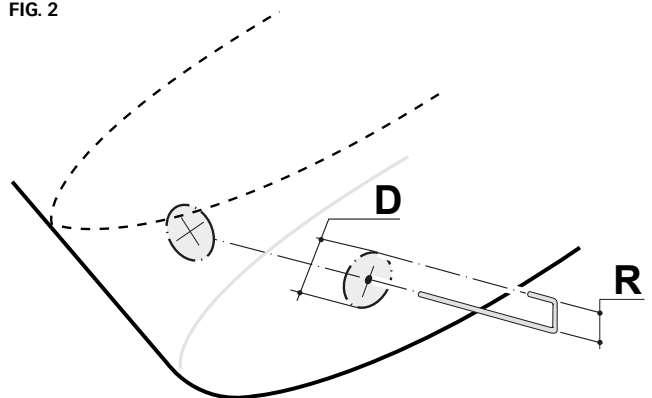


FIG. 3

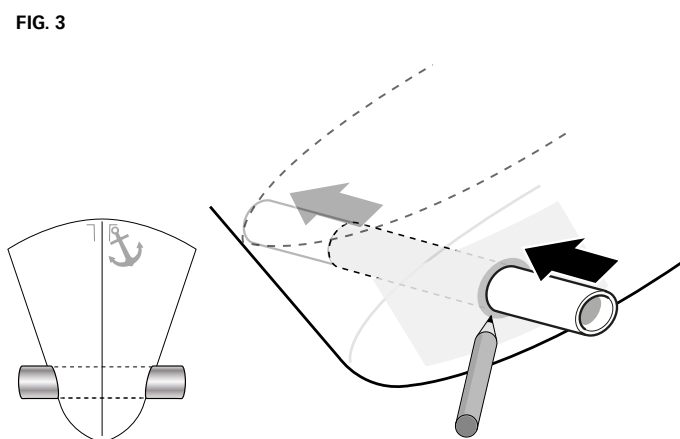
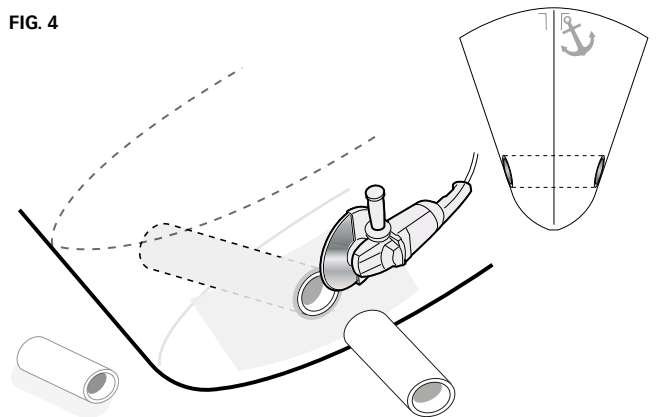
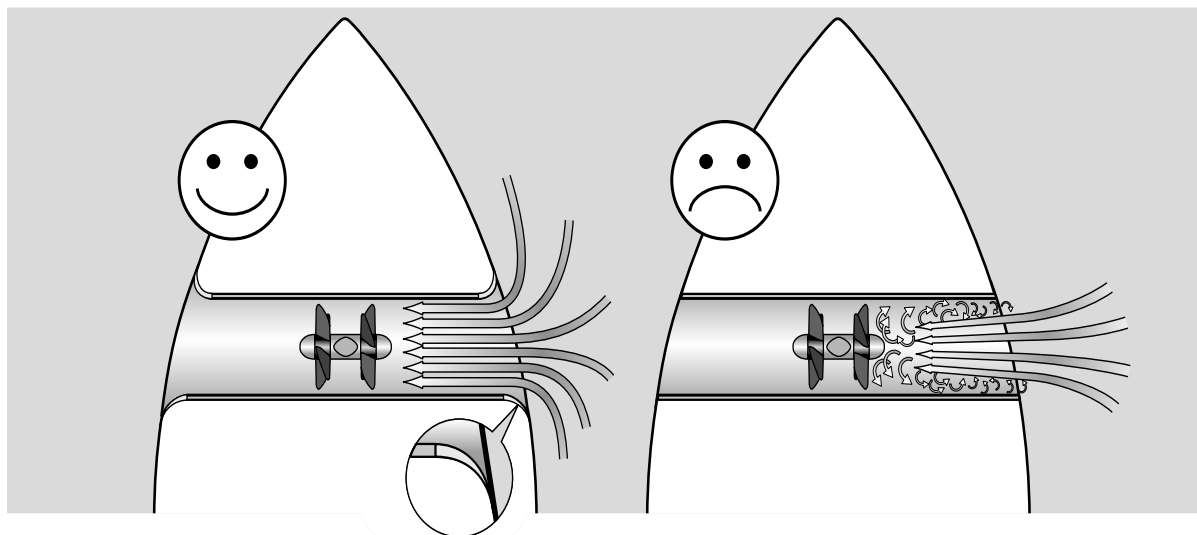


FIG. 4

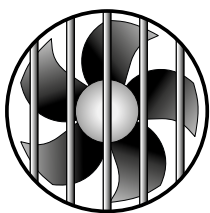
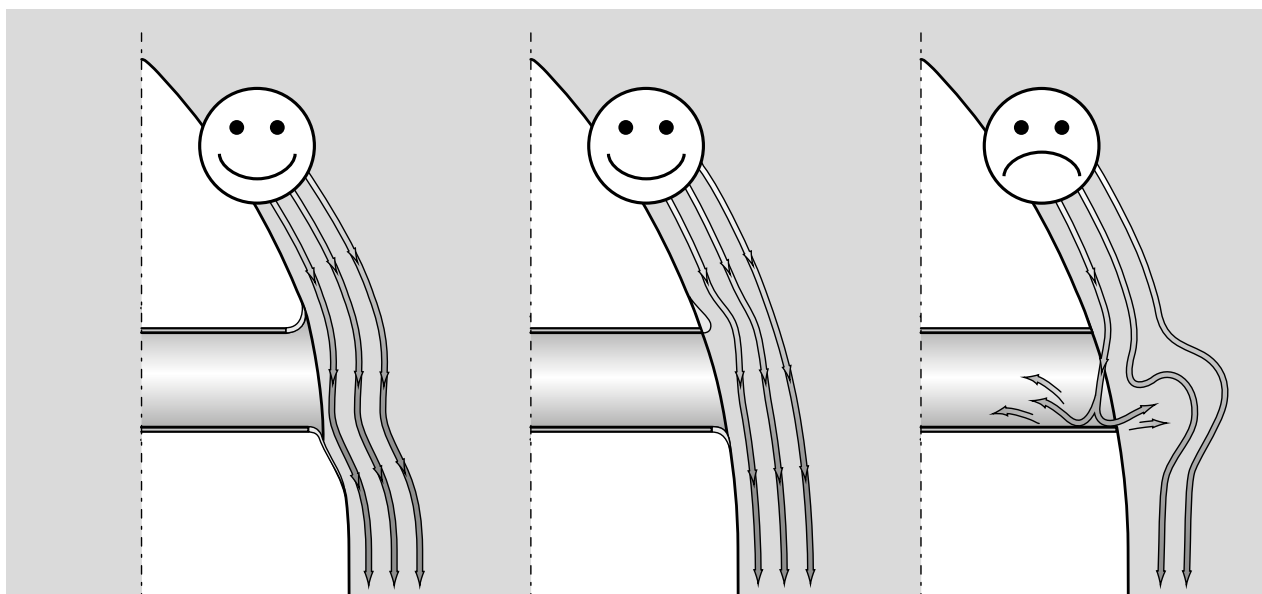


6.6 - Tunnel

- 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

- We recommend installing the thruster with a support. The motor is supplied with support feet, which are already fitted.

FIG. 1

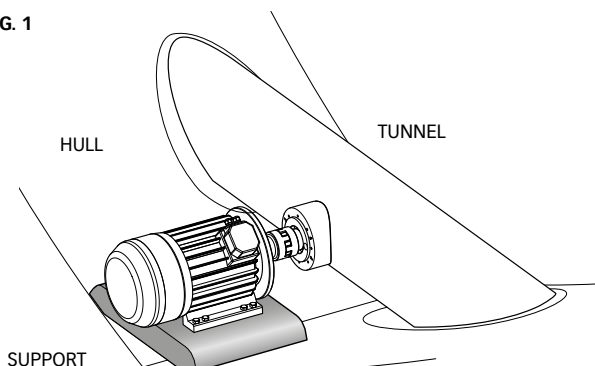


FIG. 2

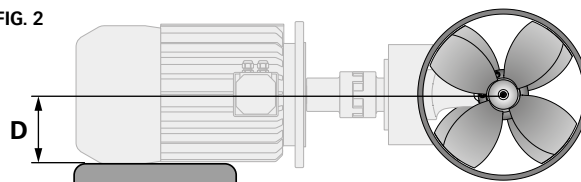
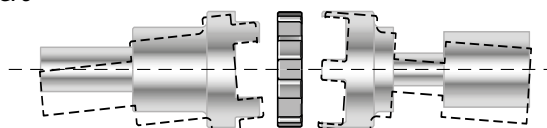


FIG. 3



- **FIG. 1** The AC motor must be installed on a support adequately sized to support the specified weight and power (see table on page 4).
- **FIG. 2** The distance (D) between the centreline of the tunnel and the motor support must allow for correct alignment of motor axle to gearbox axle.
- **FIG. 3** The angle between the two shafts (gearbox and motor) shall not exceed $\pm 1.5^\circ$.
- **FIG. 4** To properly position the thruster, find the tube half-way point.
- **FIG. 5** Use the flange to mark the centre of the holes on the tube.

FIG. 4

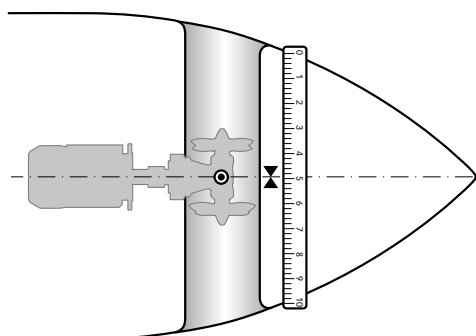
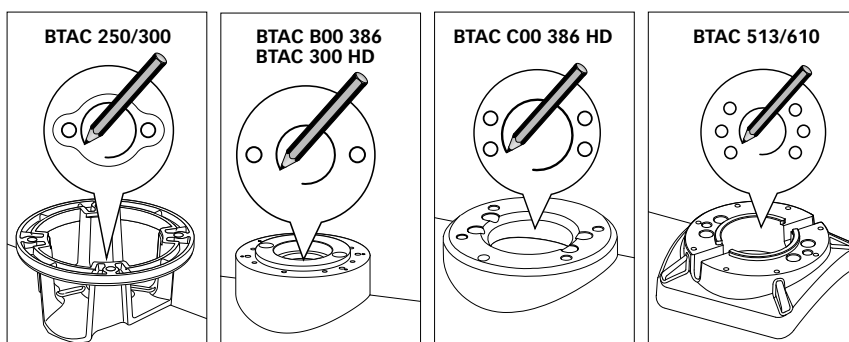


FIG. 5

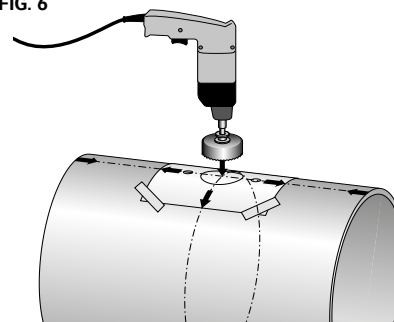


- **FIG. 6** Fix the drilling template on the reference points, making sure they are aligned with precision at the half-way point of the tube.



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

FIG. 6



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.

• Fig. 7A / Fig. 7B

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

FIG. 7 A

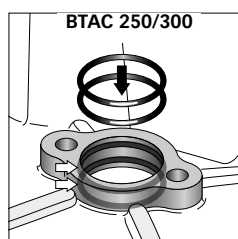
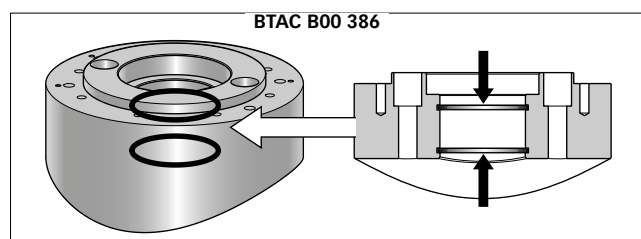
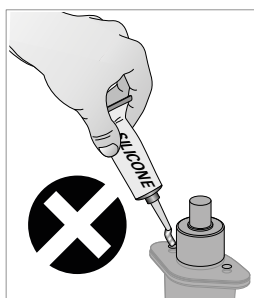


FIG. 7B



6.8 - Gearleg and motor support flange for 250/300 models

- **FIG. 1** 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 to the flange using the special screws and washers.



**DO NOT APPLY
SEALANT IN THE
HOLES**

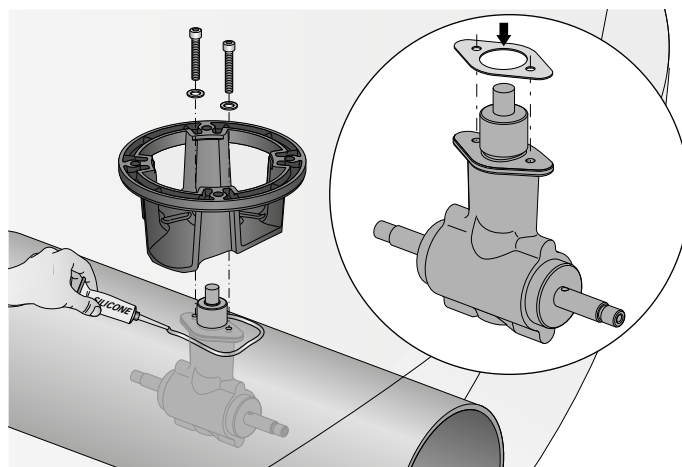
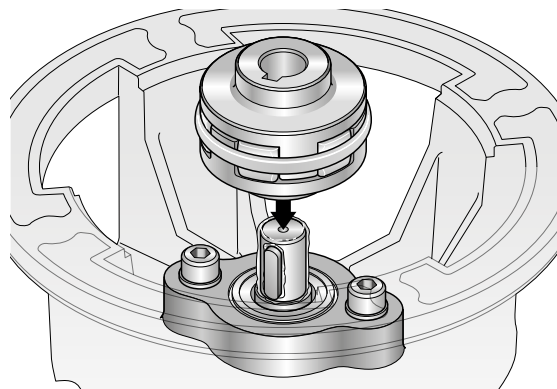
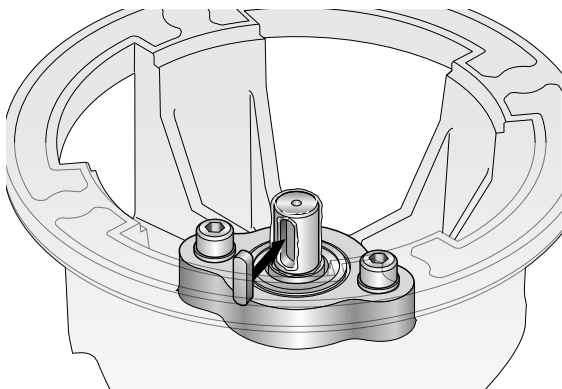


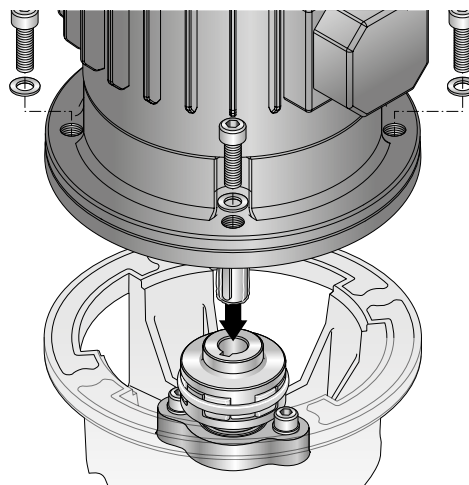
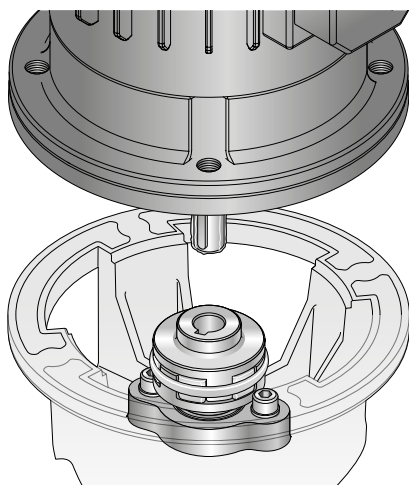
FIG.2

FIG.3



- **FIG. 2** Grease the end of the gearleg shaft and fit the small key into its seat.

- **FIG. 3** Insert the elastic coupling in the end of the gearleg shaft.



- **FIG. 4** Grease the end of the drive shaft.

- **FIG. 5** Insert the motor onto the elastic coupling and secure it with the 4 screws and washers supplied.

6.9 - Gearleg and motor support flange for 300HD/386 models



DO NOT APPLY SEALANT IN THE HOLES

- **FIG. 1** 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 the flange using the special screws and washers: 2 screws for gearboxes 300HD, 386, B00 and 386 C00HD - 4 screws for gearboxes 386 and C00HD.
- **FIG. 2** Grease the terminal part of the gearleg shaft; fit the small key into its seat.

FIG.1

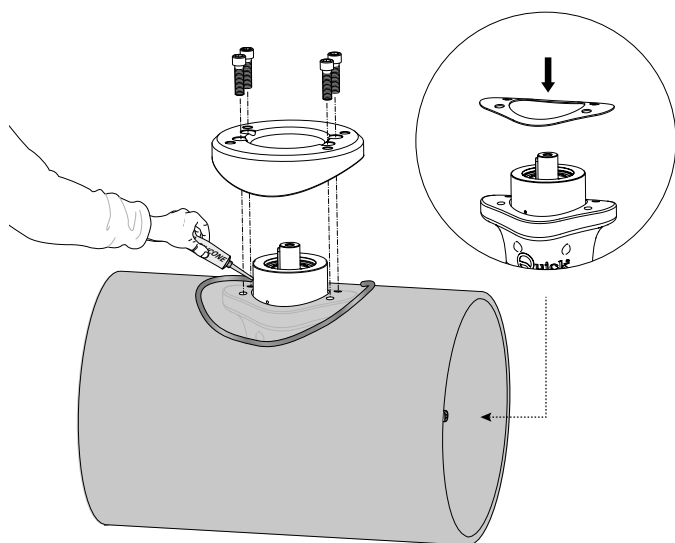
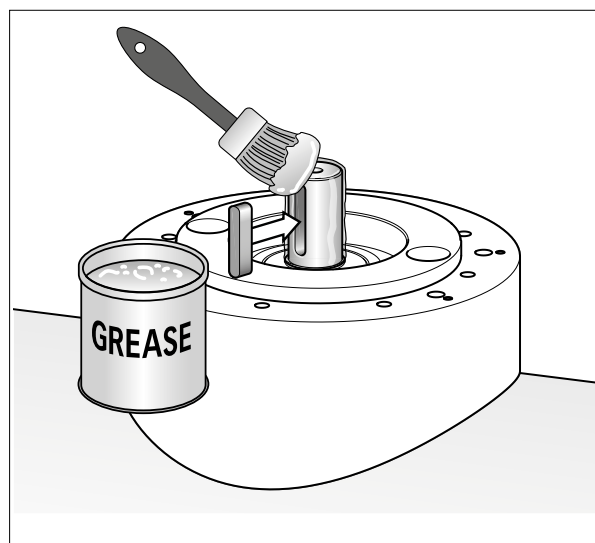


FIG.2



6.10 - Gearleg and motor support flange for 513/610 models



DO NOT APPLY SEALANT IN THE HOLES

FIG.1

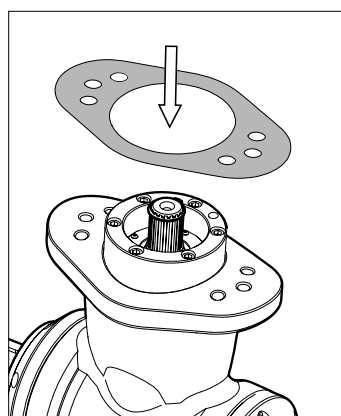


FIG.2

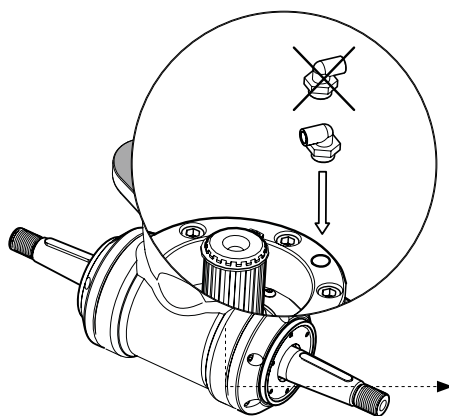
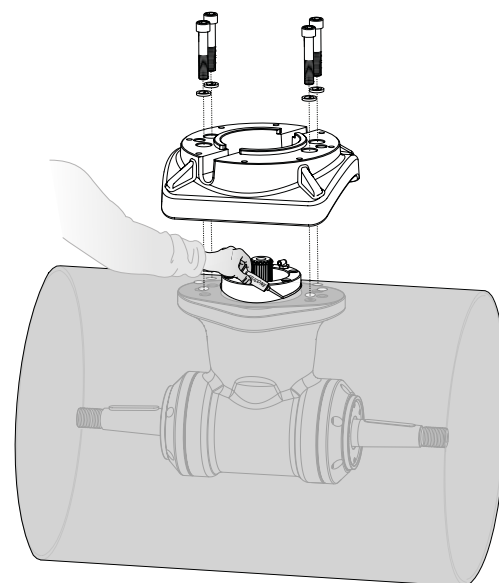


FIG.3



- **FIG. 1** Fit the gearbox with the special seal gasket.
- **FIG. 2** Remove the cap on the gearbox and insert the fitting to later connect the oil tank. Screw in and position the head of the fitting towards the inside to facilitate assembly with the flange.
- **FIG. 3** Fit the gearleg. For further protection against the entry of water, apply silicone for nautical use around the point of contact between flange and tube. Fasten the flange using the special screws.

6.11 - Rilsan hose and oil tank

- FIG. 1 Remove screw and gasket
- FIG. 2 Tighten the fitting provided
- FIG. 3 Insert the Rilsan hose onto the fitting and the tank

BTAC 386 B00

FIG.1

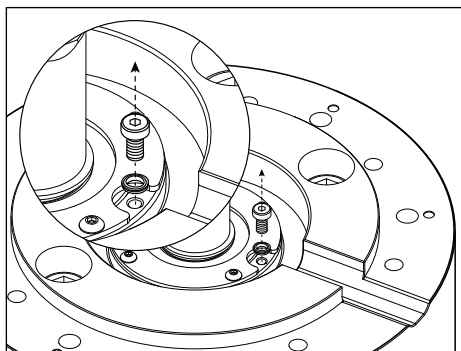


FIG.2

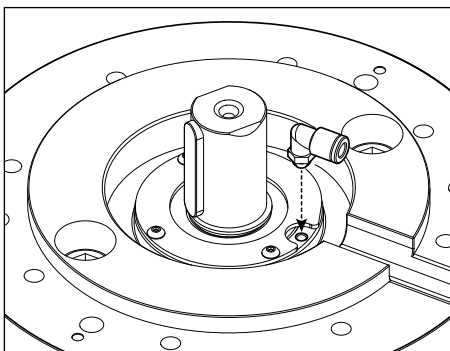
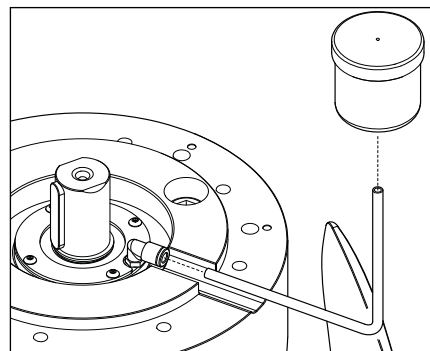


FIG.3



BTAC 386 C00

FIG.1

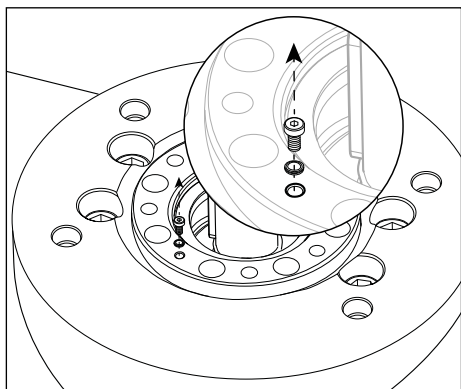


FIG.2

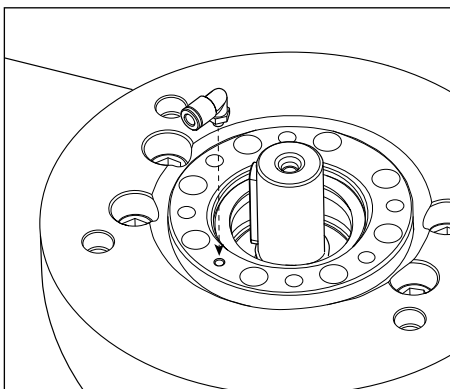
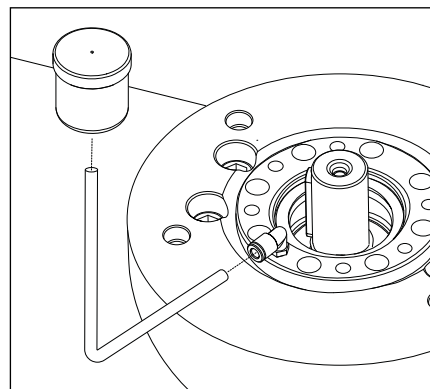


FIG.3



BTAC 513/610

- FIG. 1 After fastening the flange, turn the fitting clockwise and align it with the flange recess.
- FIG. 2 Insert the Rilsan hose with oil tank into the fitting.

FIG.1

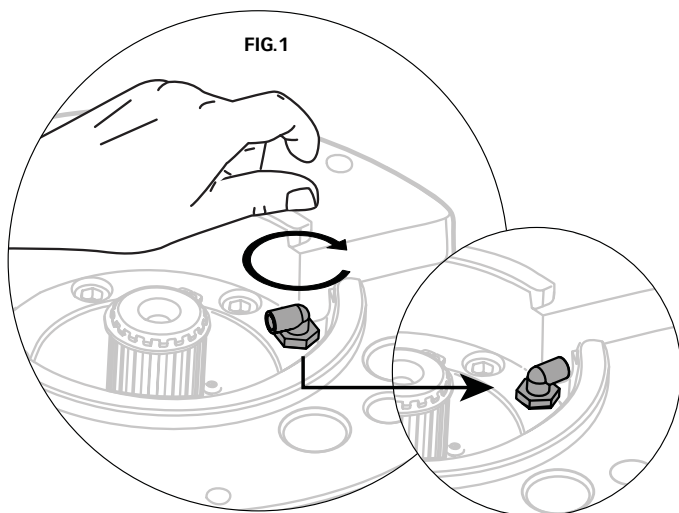
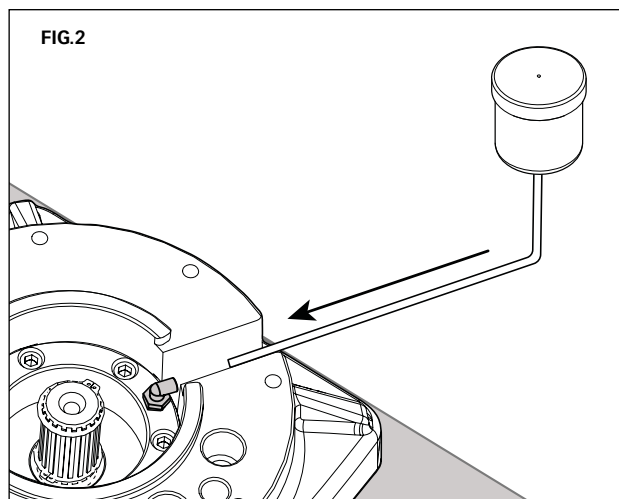
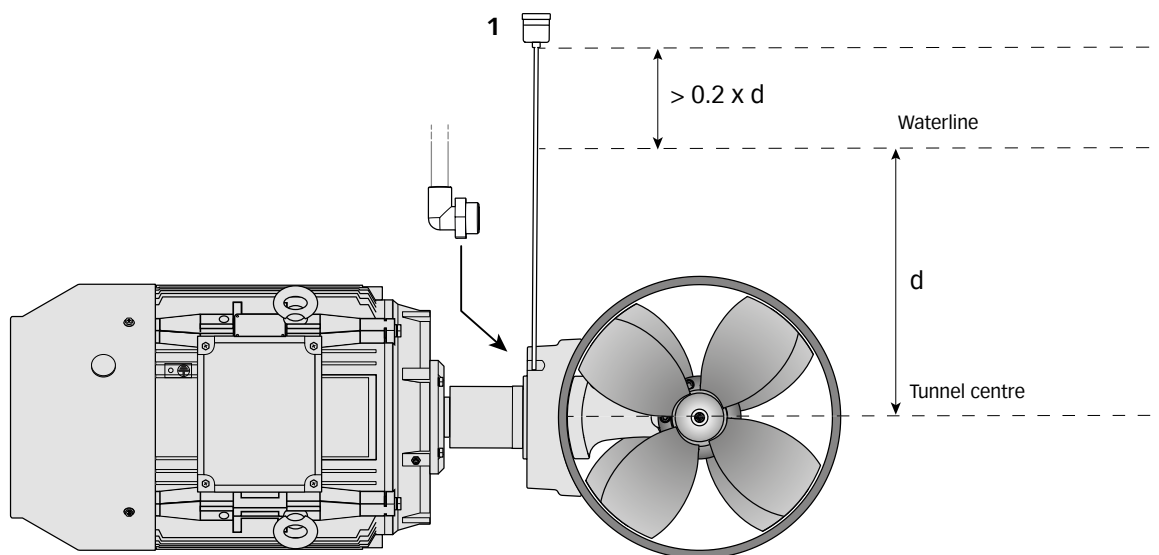


FIG.2

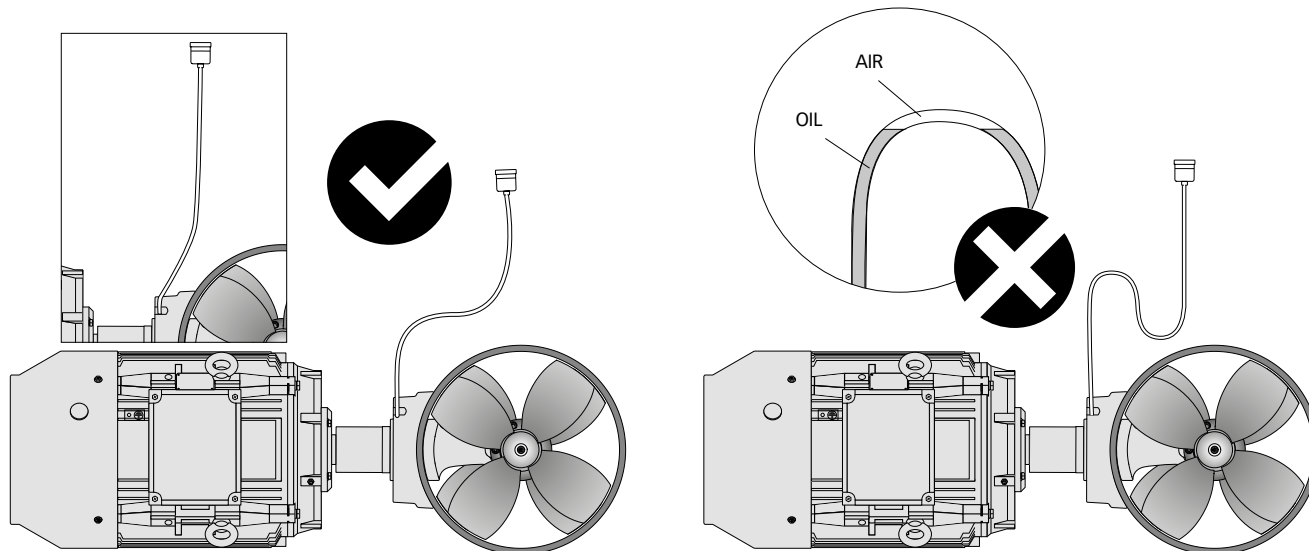


6.12 - Positioning of fitting and oil tank

- Install the oil tank (1) above the waterline by at least 20% of the distance between the waterline and the centre of the tunnel (distance d). This is to ensure sufficient oil overpressure.
- Fill the oil tank with gear oil category PAG ISO VG 320.



**POSITION THE TUBE CORRECTLY IN ORDER TO AVOID A "SIPHON" EFFECT.
THE TANK MUST ALWAYS BE IN A VERTICAL POSITION.**



6.13 - Motor coupling installation

- **FIG. 1** Grease the terminal part of the gearbox .
- **FIG. 2** Insert the lower half-coupling, secure it with the snap ring (BTAC 513/610 only) and the cush drive damper into the end of the gearleg shaft.

NOTE: On the BTAC 386HD C00, tighten the set screw of the lower joint.

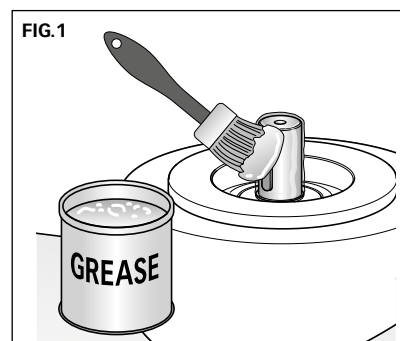


FIG.2

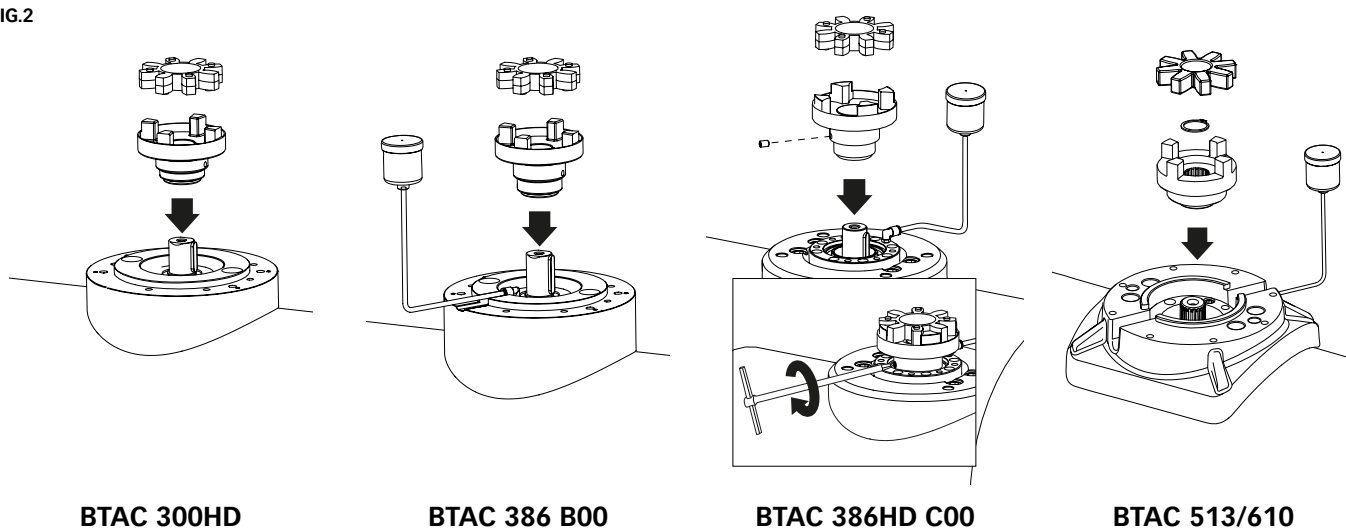


FIG.3

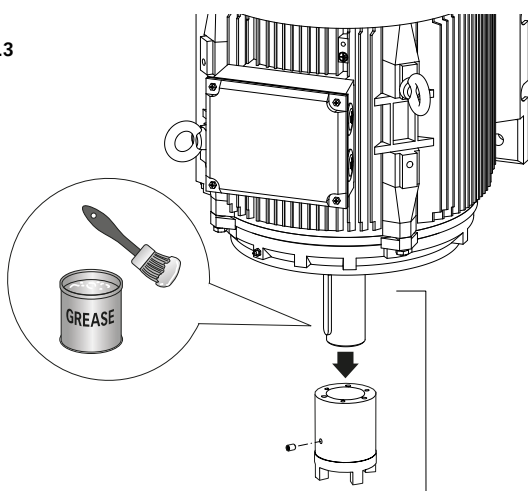
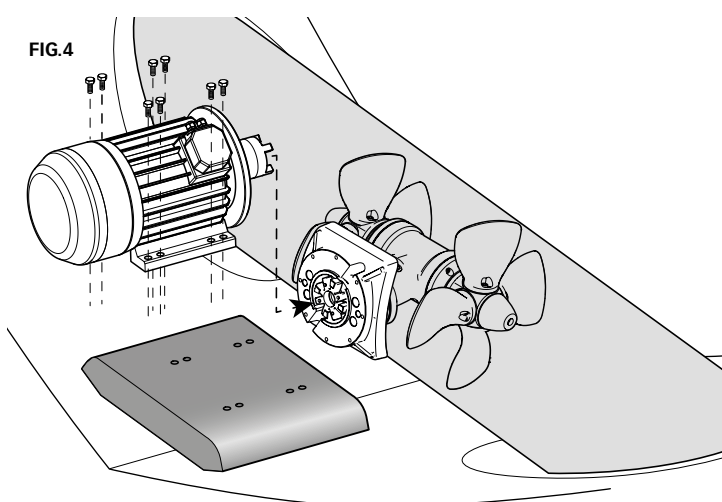
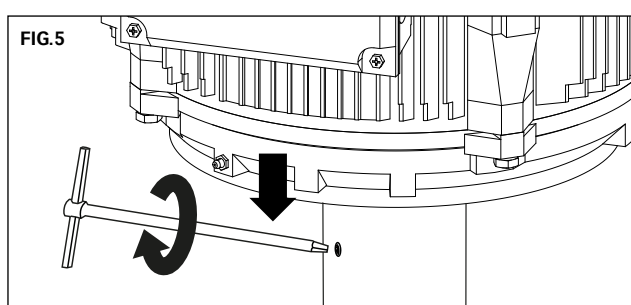


FIG.4

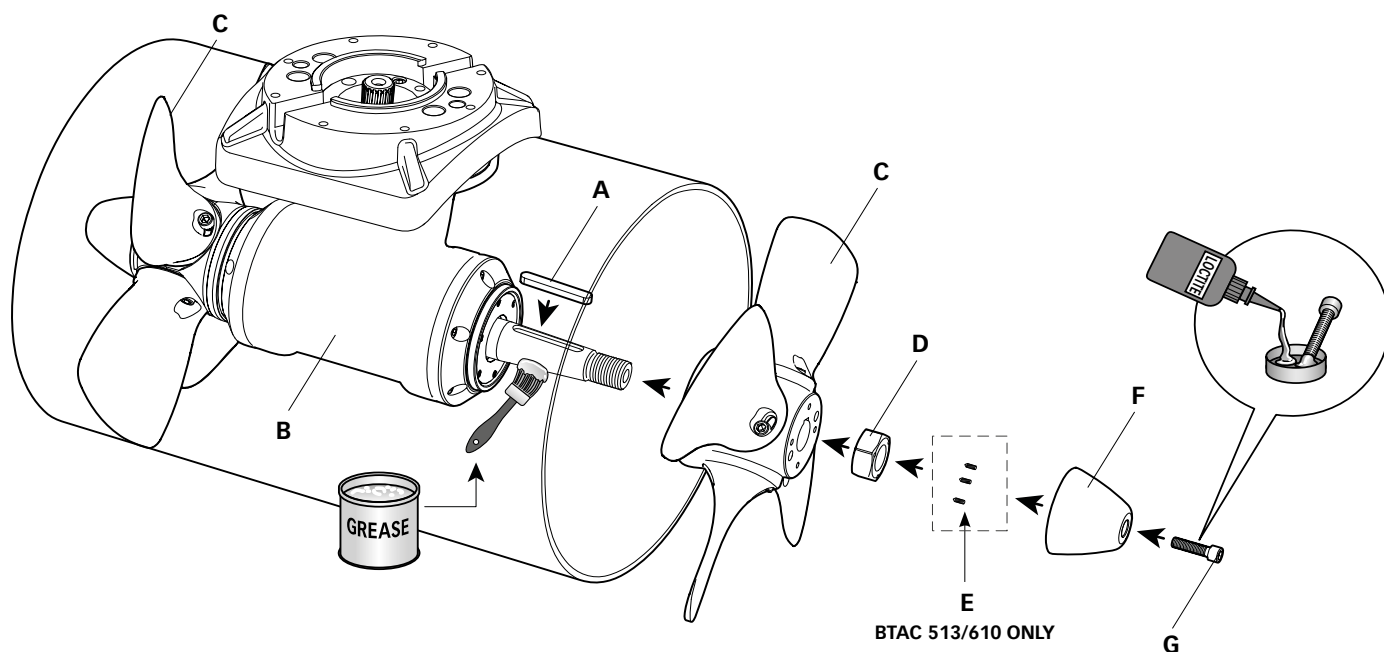


- **FIG. 3** Grease the end of the drive shaft and fit the upper half-coupling.
- **FIG. 4** Fit the motor on the gearbox and secure it to the support.
- **FIG. 5** Tighten the screw of the upper joint, holding it towards the gearbox.

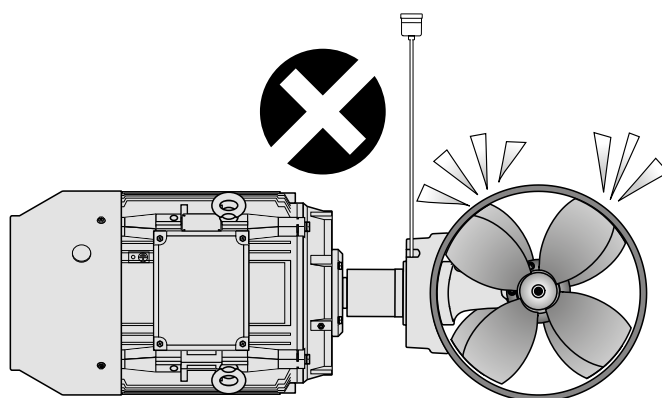
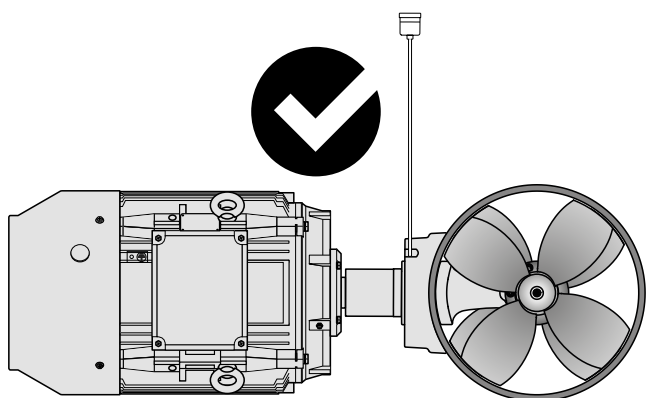


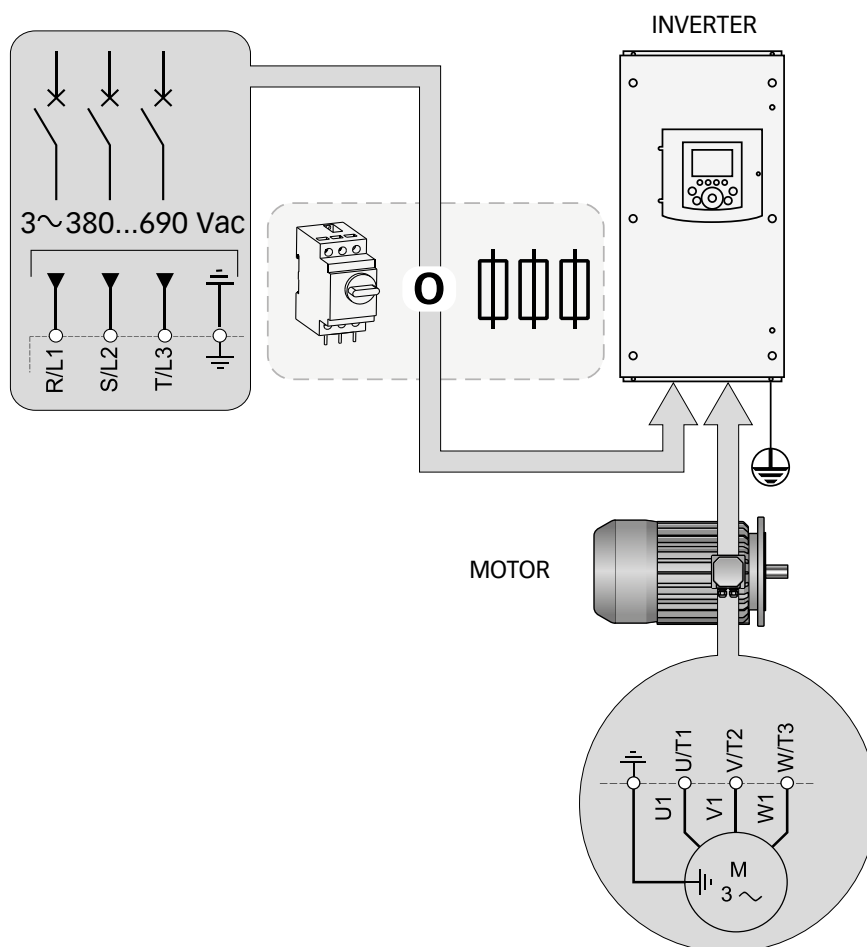
6.14 - Propeller installation

Insert the drive keys **A** into the holes in the shafts of the gearleg **B**, assemble the propellers **C** to the gearbox by engaging them to the drive keys **A**, secure the propellers with the self-locking nuts **D**, (and dowels **E**, only for **BTAC 513/610**). Secure the anodes **F** with screws **G** previously smeared with structural adhesive (such as Loctite).



WARNING: once assembly is complete, make sure that the propeller is properly centred within the tunnel.





Use shielded cables to connect the inverter to the motor.

MODEL	MOTOR POWER	VOLTAGE	INVERTER POWER	ABSORPTION ON GENERATORS*
BTAC250200	15 kW	400 V	15 kW	19 kW
BTAC300300	15 kW	400 V	15 kW	21 kW
BTAC300350	22 kW	400 V	22 kW	27 kW
BTAC300400HD	30 kW	400 V	30 kW	30 kW
BTAC386420	30 kW	400 V	37 kW	33 kW
BTAC386450	30 kW	400 V	37 kW	35 kW
BTAC386450HD	30 kW	400 V	37 kW	35 kW
BTAC386520HD	37 kW	400 V	37 kW	40 kW
BTAC386550HD	37 kW	400 V	37 kW	40 kW
BTAC386620HD	45 kW	400 V	45 kW	50 kW
BTAC513750	45 kW	400 V	55 kW	55 kW
BTAC513900	55 kW	400 V	55 kW	55 kW
BTAC5131000	75 kW	400 V	75 kW	90 kW
BTAC6101200	75 kW	400 V	75 kW	75 kW
BTAC6101400	90 kW	400 V	75 kW	90 kW

*Data relating to operation in S3 - For any changes please contact Quick®

8.0 - Precautions for safety and use of the BTAC Series



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, as these actions will void the warranty, thus lifting any responsibility from Quick®.



Make sure no swimmers or floating objects are in the vicinity before switching on the motor.



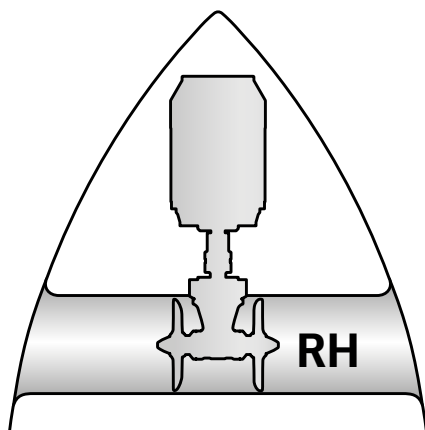
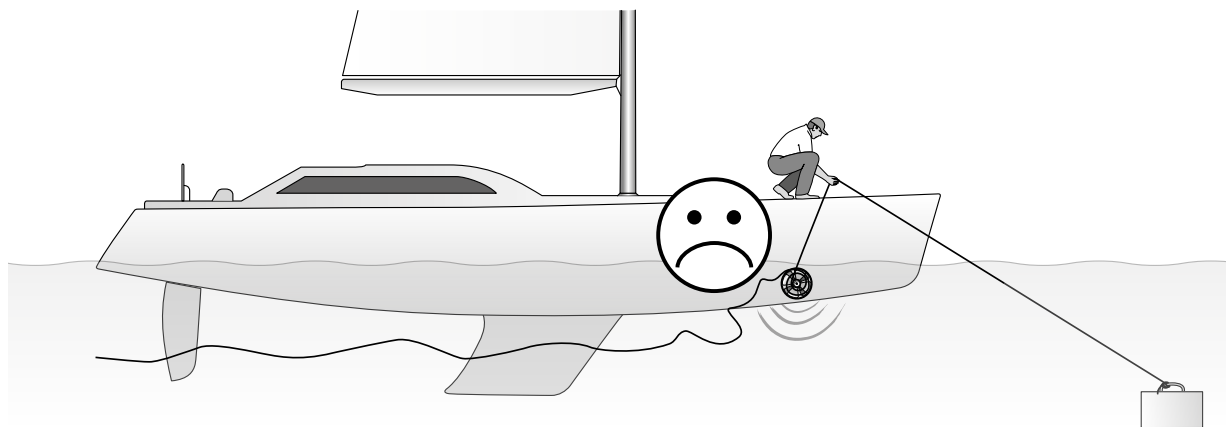
There must not be flammable materials in the peak or in the area where the thruster motor is.



Do not operate the 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.



NOTE: the thruster must be installed with the **RH** propeller on the right-hand side of the gearleg.

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

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



- Make sure that the power supply to the electric motor is not switched on when maintenance operations are carried out.
- Do not paint the anodes, the sealings and the gearleg's shaft where the propellers are lodged.

Dismantle once a year, following the points below:

- Clean propellers, tunnel and gearleg.
- Replace the anodes (carry out this operation more often if needed).
- Replace the propellers 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.

REMOVING THE GEARBOX FLANGE 386

- **FIG. A** Remove the various components (2 - 3 - 4 - 5) of the motor (1).
- **FIG. B** To help separating the gearbox flange (6) from the tunnel, use 4 screws M12x80.

FIG. A

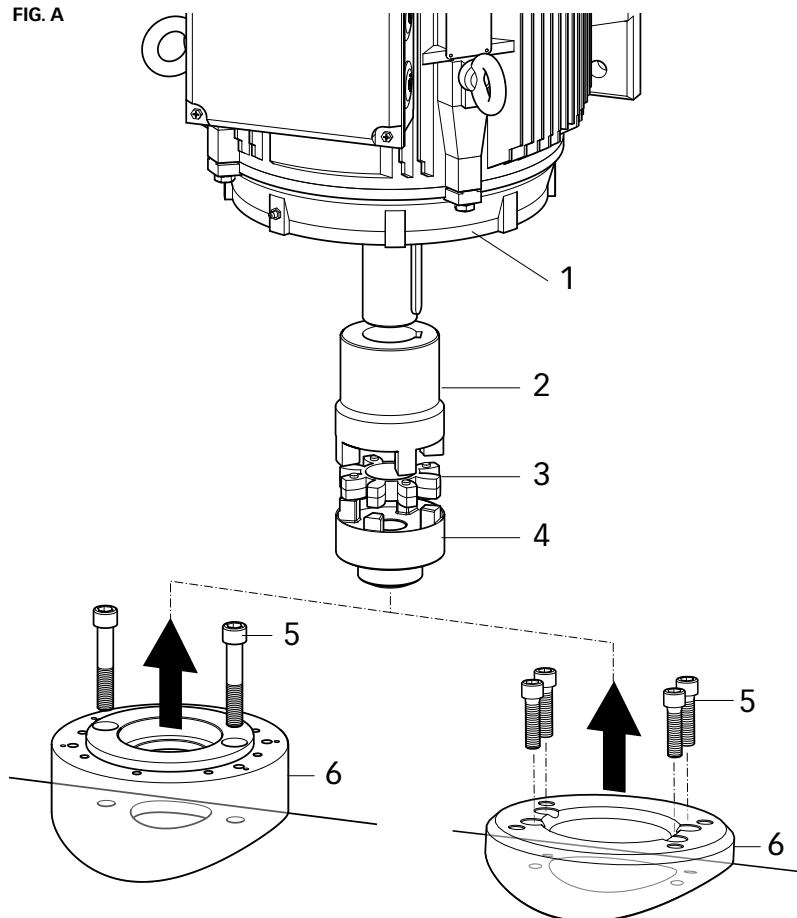
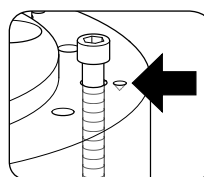
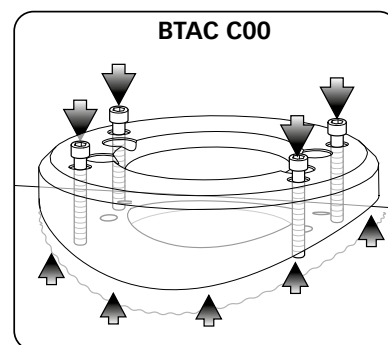
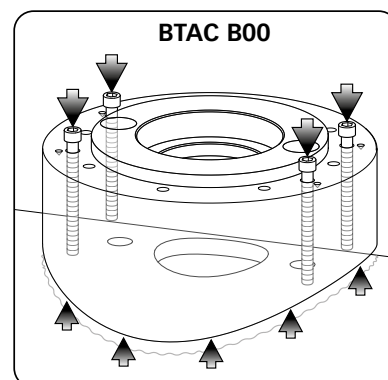
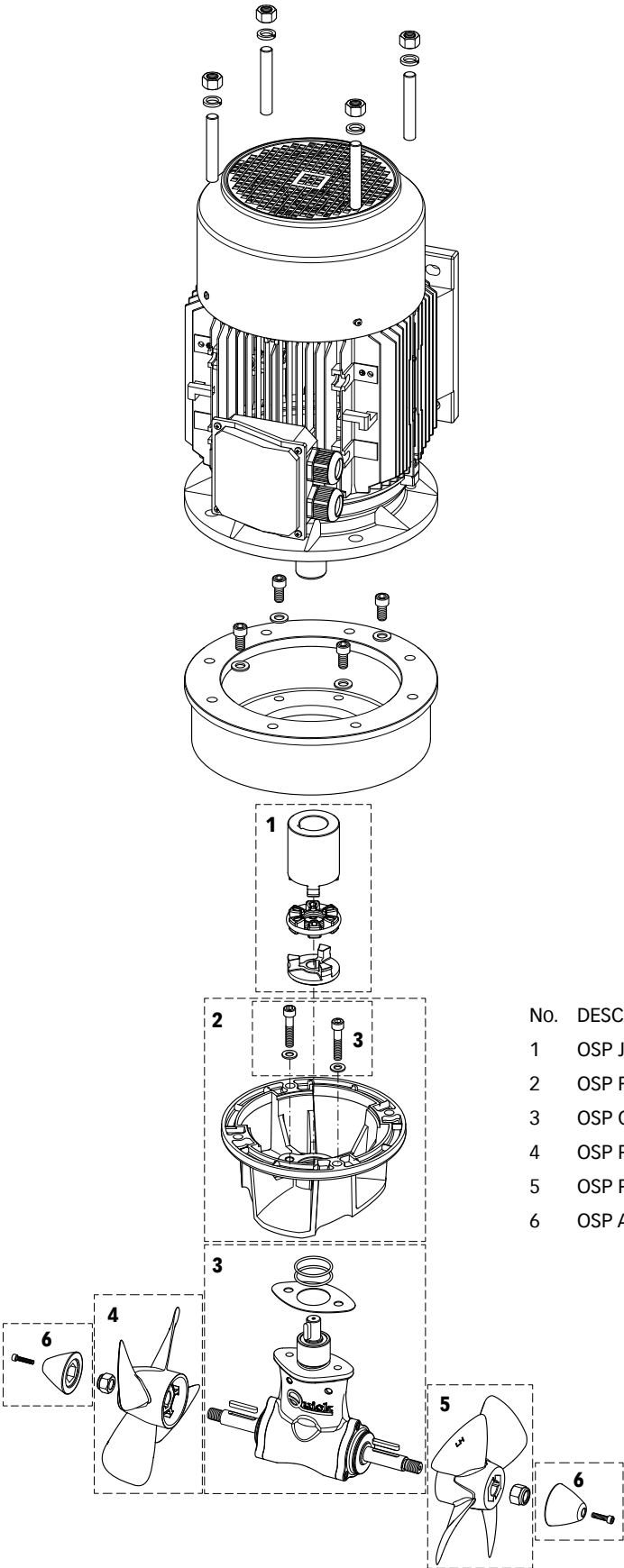


FIG. B



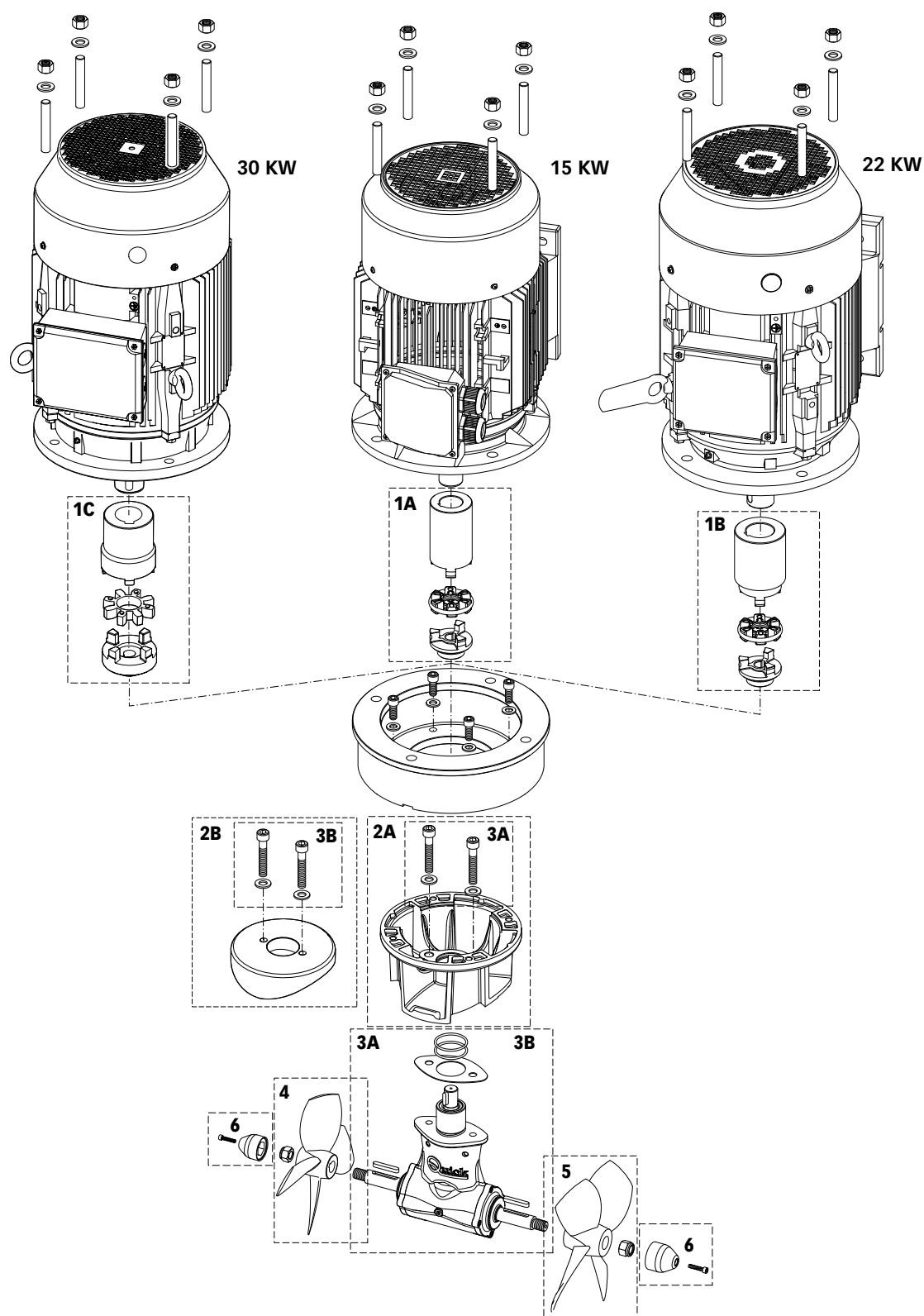
The 4 holes where screws should be started are marked by small tapered holes.

10.0 - BTAC 250



No.	DESCRIPTION	CODES
1	OSP JOINT KIT BTAC 250 MOTOR	FVSGG250AC00A00
2	OSP FLANGE FOR PROPELLER KIT BT 250	FVSGFLBTQ250A00
3	OSP GEARBOX KIT BT 250	FVSGGBBT2500A00
4	OSP PROPELLER KIT D250 RH	FVSGEL250R00A00
5	OSP PROPELLER KIT D250 LH	FVSGEL250L00A00
6	OSP ANODES FOR PROPELLER KIT - BT 250 ALL	FVSGANBTQ25AA00

10.1 - BTAC 300 - BTAC 300HD



No. DESCRIPTION

CODES

1 A OSP JOINT KIT BTAC 300 MOTOR 15KW	FVSGG300AC00A00
1B OSP COUPLING KIT BTAC 300 AC MOTOR 22KW	FVSGG300AC22A00
1C OSP COUPLING KIT BTAC 300 HD MOTOR 30KW	FVSGG300AC30A00
2 A OSP FLANGE FOR PROPELLER KIT BT 300	FVSGFLBTQ300A00
2B OSP PROPELLER FLANGE KIT BTAC 300 HD 30KW	FVSGFLBTA303C00

3 A OSP GEARBOX KIT BT 300

FVSGGBBT3000A00

3B OSP GEARBOX KIT BT 300 HD

FVSGGBBT3000C00

4 OSP PROPELLER KIT D300 LH NIBRAL

FVSGEL300N00A00

5 OSP PROPELLER KIT D300 RH NIBRAL

FVSGEL300RN0A00

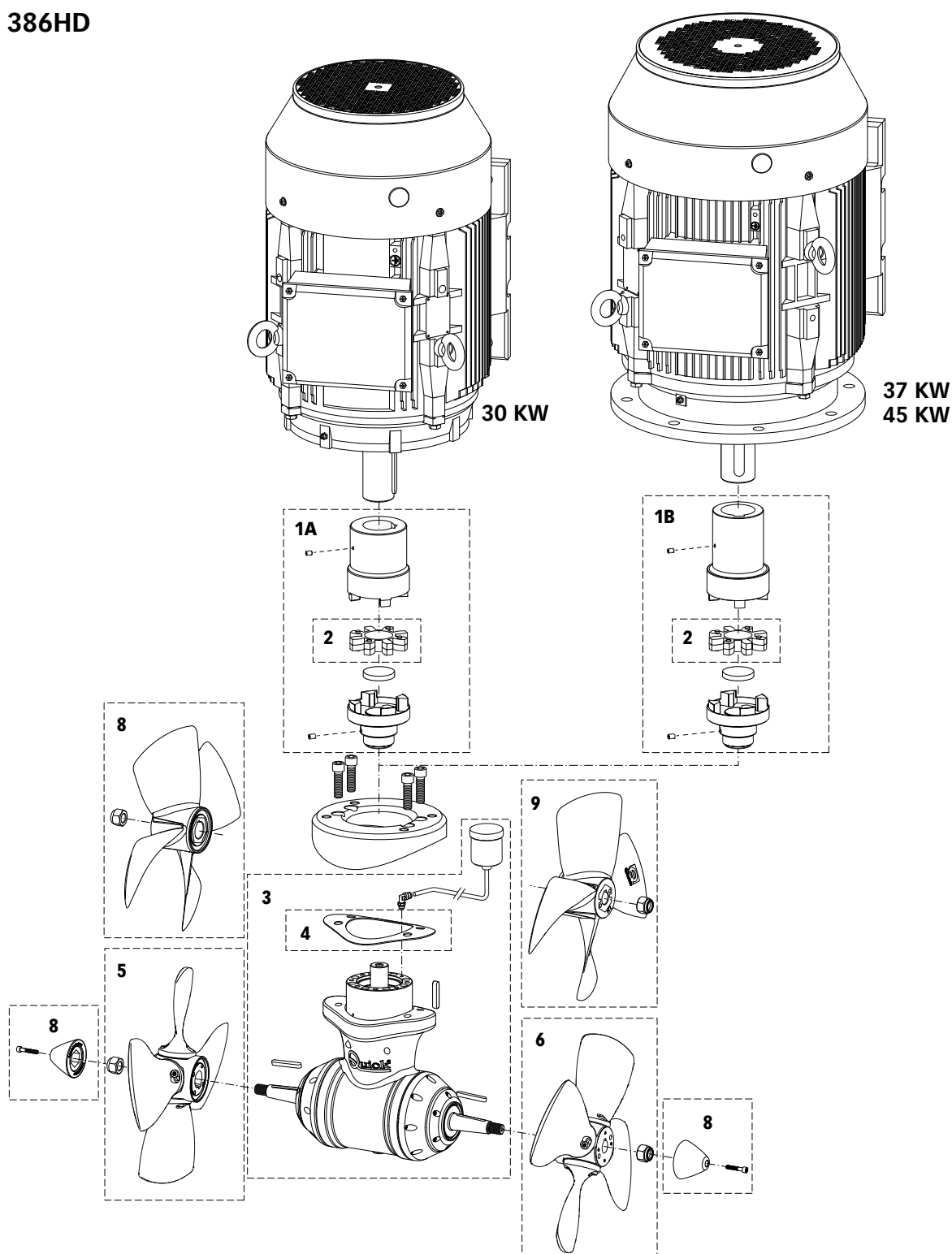
6 OSP ANODES FOR PROPELLER KIT - BT 300 ALL

FVSGANBTQ30AA00

10.2 - BTAC 386

No.	DESCRIPTION	CODES
1	OSP COUPLING KIT BTAC 386 B00 MOTOR 30KW	FVSGG3863255A00
2	OSP CUSH DRIVE DAMPER KIT D109 386	FVSGGPVP1090A00
3	OSP GEARBOX KIT BT Ø386 B00	FVSGGBBT3860B00
4	OSP ANODES FOR PROPELLER KIT Ø386	FVSGANBTQ38AA00
5	OSP PROPELLER KIT Ø386R NYLON COMPLETE	FVSGEL386R3PA00
6	OSP PROPELLER KIT Ø386L NYLON COMPLETE	FVSGEL386L3PA00
7	OSP GASKET + KEYS KIT Ø386 B00	FVSGGRCBT386B00
8	OSP KIT BT513/386 TANK RILSAN HOSE	FVSGTBRLSSRBA00
9	OSP PROPELLER KIT D386L P740 COMPLETE	FVSGEL386L50A00
10	OSP PROPELLER KIT D386R P740 COMPLETE	FVSGEL386R50A00

10.3 - BTAC 386HD

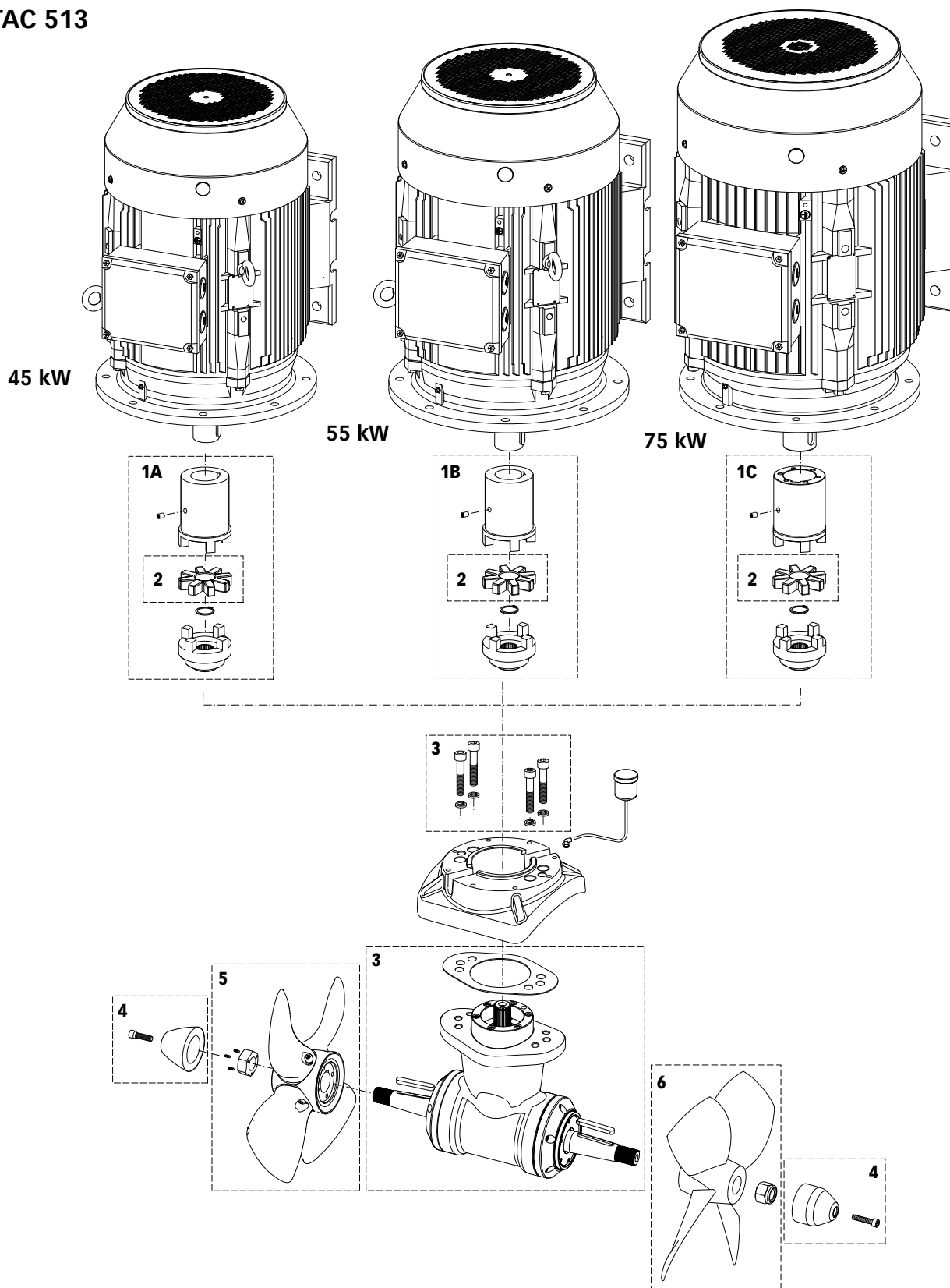


No. DESCRIPTION

CODES

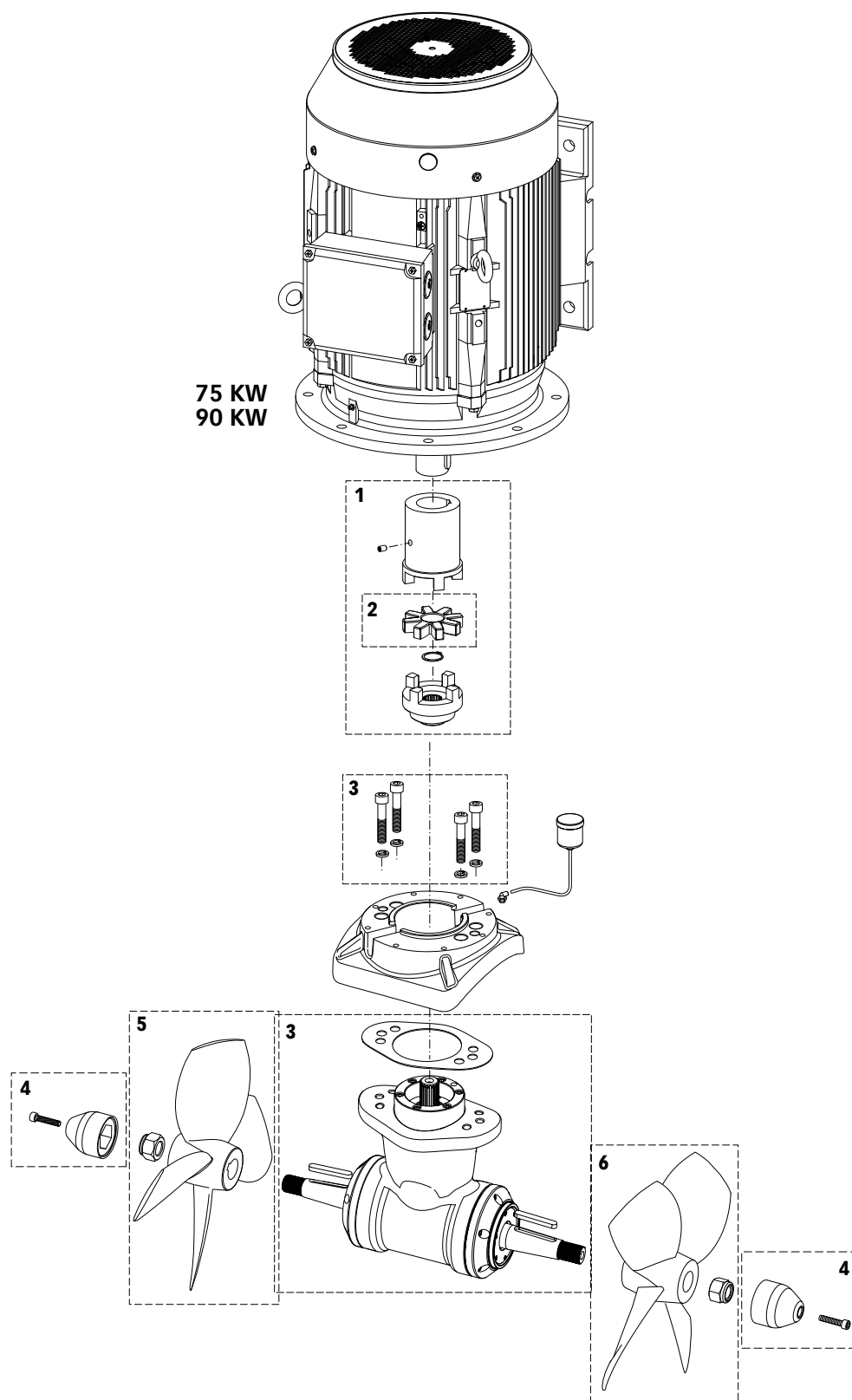
1 A OSP COUPLING KIT BTAC 386 C00 MOTOR 30KW	FVSGG3863255C00	4	OSP GASKETS KIT BT 386 R2	FVSGGRBT3862A00
1B OSP COUPLING KIT BTAC 386 C00 MOTOR 37KW	FVSGG3863263C00	5	OSP PROPELLER KIT D386L P740 COMPLETE	FVSGEL386L50A00
1C OSP COUPLING KIT BTAC 386 C00 MOTOR 45KW	FVSGG3863260C00	6	OSP PROPELLER KIT D386R P740 COMPLETE	FVSGEL386R50A00
2 OSP CUSH DRIVE DAMPER KIT D109 BT 386	FVSGGPVP1090A00	7	OSP ANODES FOR PROPELLER KIT - BT 386 ALL	FVSGANBTQ38AA00
3 OSP GEARBOX KIT BT 386 R2	FVSGGBBT3862A00	8	OSP PROPELLER KIT D386R NYLON COMPLETE	FVSGEL386R3PA00
		9	OSP PROPELLER KIT D386L NYLON COMPLETE	FVSGEL386L3PA00

10.4 - BTAC 513

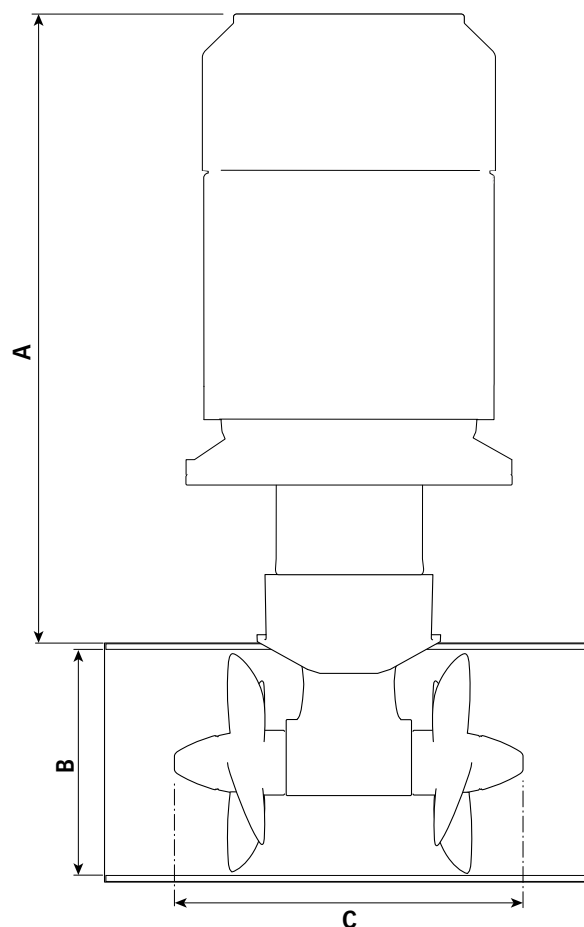


No.	DESCRIPTION	CODES	4	OSP ANODES FOR PROPELLER KIT - BT 513 ALL	FVSGANBTQ51AA00
1 A	OSP JOINT KIT BTAC 513-750	FVSGG513750AC00	5	OSP PROPELLER KIT RH BTAC 513 P600	FVSGEL513R40A00
1 B	OSP JOINT KIT BTAC 513-900	FVSGG513900AC00	6	OSP PROPELLER KIT LH BTAC 513 P600	FVSGEL513L40A00
1 C	OSP JOINT KIT BTAC 513-1000	FVSGG513100AC00	7	OSP PROPELLER KIT D513R P480 COMPLETE	FVSGEL513R30A00
2	OSP CUSH DRIVE DAMPER KIT 513	FVSGGPVP1200A00	8	OSP PROPELLER KIT D513L P480 COMPLETE	FVSGEL513L30A00
3	OSP GEARBOX KIT BT 513	FVSGGBBT5130A00			

10.5 - BTAC 610



No.	DESCRIPTION	CODES	5	OSP PROPELLER KIT D610 RH NIBRAL	FVSGEL610RN0A00
1	OSP COUPLING KIT BTAC 610	FVSGGP61000AC00	6	OSP PROPELLER KIT D610 LH NIBRAL	FVSGEL610LN0A00
2	OSP CUSH DRIVE DAMPER KIT D160 BT 610	FVSGGPVP1600A00			
3	OSP GEARBOX KIT BT 610	FVSGGBBT6100A00			
4	OSP ANODES FOR PROPELLER KIT - BT 610 ALL	FVSGANBTQ61AA00			



BTAC 250	BTAC 250 15kW
A	691 (27 13/64)
B	Ø 250 (9 27/32)
C	371 (14 39/64)

BTAC 300	BTAC 300 15kW	BTAC 300 22kW	BTAC 300HD 30kW
A	701 (27 19/32)	772 (30 25/64)	880 (34 41/64)
B	Ø 300 (11 11/16)	Ø 300 (11 11/16)	Ø 300 (11 11/16)
C	434 (17 3/32)	434 (17 3/32)	434 (17 3/32)

BTAC 386	BTAC 386 30kW
A	923 (36 11/32)
B	Ø 386 (15 13/64)
C	508 (20)

BTAC 386 HD	BTAC 386 30kW	BTAC 386 37kW	BTAC 386 45kW
A	860 (33 55/64)	902 (35 33/64)	927 (36 1/2)
B	Ø 386 (15 13/64)	Ø 386 (15 13/64)	Ø 386 (15 13/64)
C	566 (22 19/64)	566 (22 19/64)	566 (22 19/64)

BTAC 513	BTAC 513 45W	BTAC 513 55kW	BTAC 513 75W
A	906 (35 43/64)	985 (41 29/64)	1051 (41 3/8)
B	Ø 513 (20 13/64)	Ø 513 (20 13/64)	Ø 513 (20 13/64)
C	738 (29 1/16)	738 (29 1/16)	738 (29 1/16)

BTAC 610	BTAC 610 75W	BTAC 610 90kW
A	1117 (43 31/32)	1168 (45 63/64)
B	Ø 610 (24 1/64)	Ø 610 (24 1/64)
C	748 (29 29/64)	748 (29 29/64)

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

[illegible]

BTAC Series

REV 003A



ELECTRICAL THRUSTERS

BTAC 250 200

BTAC 300 300 - 300 350

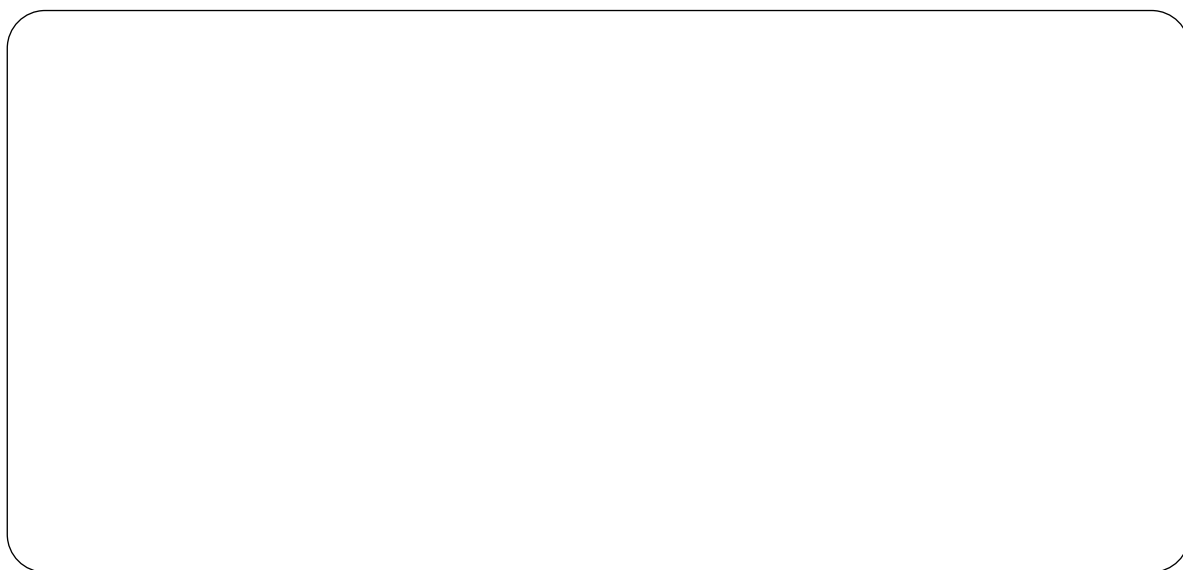
BTAC 300 400HD

BTAC 386 420 - 386 450

BTAC 386 450HD - 386 520HD - 386 550HD - 386 620HD

BTAC 513 750 - 513 900 - 513 1000

BTAC 610 1200 - 610 1400



Product serial number



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