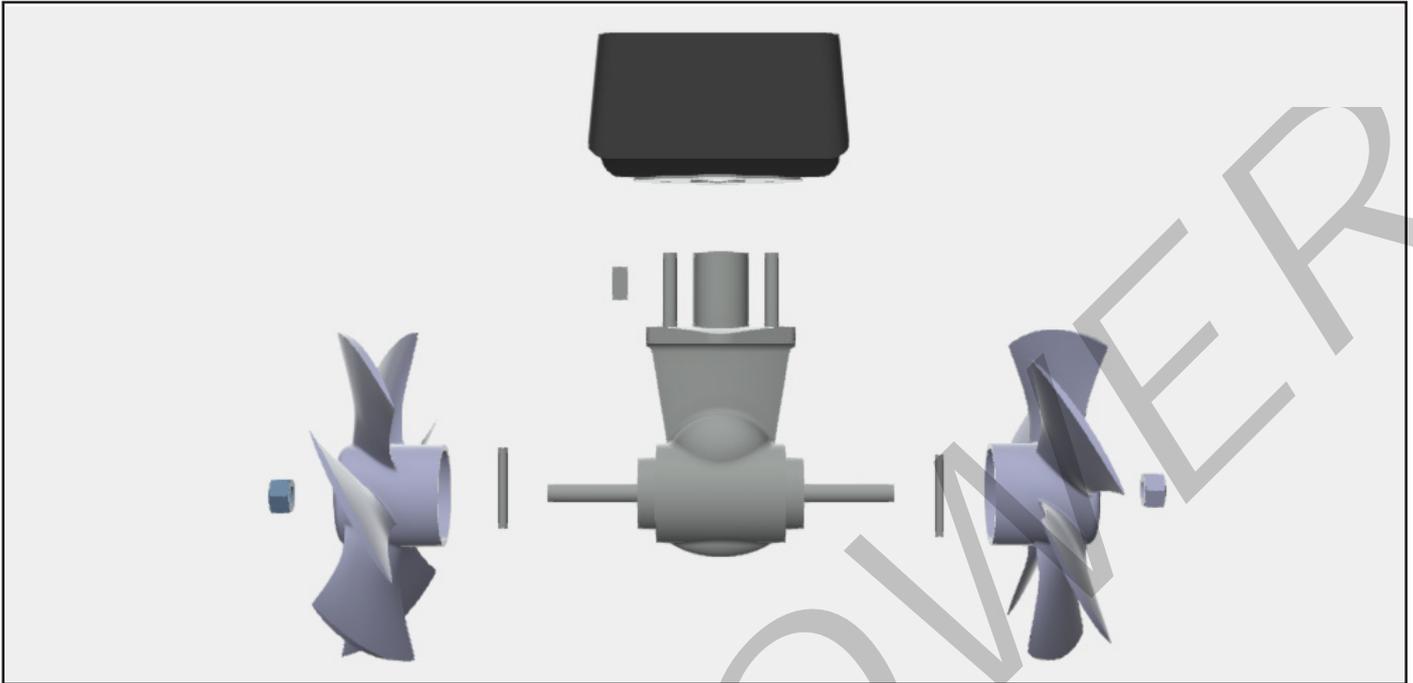


MAX
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**Steps to upgrade your thruster
from CT
to ECO - PROPORTIONAL Series**

The Eco Pro 90 (24V), 110 (24V) and 130 (48V) brushless models are fully compatible with the existing tunnel installations of the CT60, CT80, CT100 and CT125 tunnel models. The existing CT installation concerning the drive leg, propellers and lower mounting base on the tunnel are the same for the Eco Pro series as well therefore there is no need to make any modification to the tunnel, in order to mount the Eco Pro units:



Consider Dimensions: The first step is to take into account the dimensions of the Eco Pro model you want to mount in relation to the previous installed CT model in terms of the available space onboard. The Eco Pro models are more compact in relation to the CT models, however it is possible that the Eco Pro unit will be in contact with some equipment onboard. Before you proceed with the installation we recommend to create a mock-up model of the Eco Pro thruster and position it on the existing CT installation. The area in which the Eco Pro thruster will be installed must be dry and well ventilated away from any flammable material.

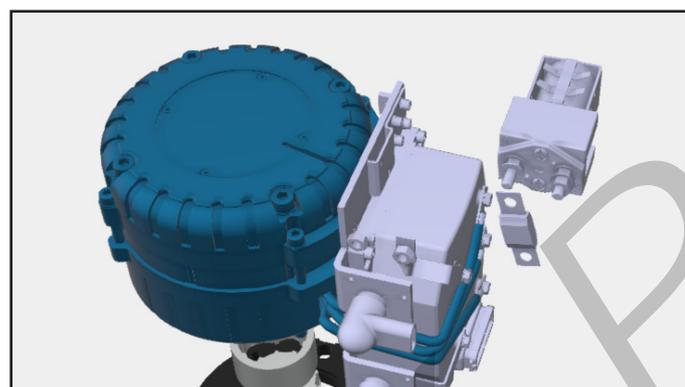
Dimensions in mm

<i>ECO - PROPORTIONAL Series</i>	<i>CT Series</i>																														
	<table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Model</th> <th style="width: 10%;">A</th> <th style="width: 10%;">B</th> <th style="width: 10%;">C</th> <th style="width: 10%;">D</th> <th style="width: 10%;">E</th> </tr> </thead> <tbody> <tr> <td>CT 60</td> <td>210</td> <td>140</td> <td>275</td> <td>185</td> <td>6 to 7</td> </tr> <tr> <td>CT 80</td> <td>210</td> <td>140</td> <td>275</td> <td>185</td> <td>6 to 7</td> </tr> <tr> <td>CT 100</td> <td>250</td> <td>200</td> <td>356</td> <td>185</td> <td>6 to 7</td> </tr> <tr> <td>CT 125</td> <td>250</td> <td>200</td> <td>365</td> <td>185</td> <td>6 to 7</td> </tr> </tbody> </table> <div style="margin-top: 20px;"> </div>	Model	A	B	C	D	E	CT 60	210	140	275	185	6 to 7	CT 80	210	140	275	185	6 to 7	CT 100	250	200	356	185	6 to 7	CT 125	250	200	365	185	6 to 7
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CT 125	250	200	365	185	6 to 7																										

Spare parts needed: Depending on the existing CT model the spare part codes needed to install the Eco Pro model are indicated in the table below:

Existing Model	Code needed	Quantity	Description
CT60 / CT80	313714	1	MAXPOWER MOTOR SUPPORT COMPO REINFORCED MP08
	634133	4	Screw socket head DIN912 8x55 A4
	630487	1	Maxpower coupling hub PG56 Ø20 alu 165/225
	633743	1	Maxpower coupling sleeve PG56-SF 165/225x 633746
	633746	1	Maxpower coupling hub PG56 Ø16 alu shoulder
	312211	1	MAXPOWER KEY 15X5X18 SHOULDER COUPLING
	636677	1	MAXPOWER THRUSTER ECO 90 MOTOR KIT
	636678	1	MAXPOWER THRUSTER ECO 110 MOTOR KIT
	636679	1	MAXPOWER THRUSTER ECO 130 MOTOR KIT
CT100 / CT125	636677	1	MAXPOWER THRUSTER ECO 90 MOTOR KIT
	636678	1	MAXPOWER THRUSTER ECO 110 MOTOR KIT
	636679	1	MAXPOWER THRUSTER ECO 130 MOTOR KIT

Electrical Installation: The Eco Pro series have a megafuse and battery isolator located above the controller, which is mounted on the thruster motor (photo below), therefore the existing automatic battery isolator (if present) from the CT installation is not required and can be removed. We only recommend to keep a manual battery isolator near the positive terminal of the battery.



Regarding the specs of the power supply cables, the main power fuse near the positive terminal of the battery and the battery bank, please download the manual of the Eco Pro series from our website and check the corresponding specs advised in pages 6 and 7. If the existing power supply cables and battery bank are in good condition and are bigger in cross section than the ones advised in the manual then no modification is required.

Download link: [Installation_Manual_Eco-Pro_Series](#)

Depending on the voltage of the existing charging line onboard and the voltage of the Eco Pro model to be installed, the charging system and power supply circuit of the thruster might need modifications (battery coupler, charger, etc) for which the installer is responsible to upgrade the available charging system onboard.

Command Circuit: The Eco Pro series use CAN Bus protocol for the command circuit therefore the existing command harness will need to be replaced completely. The controller of the Eco Pro series can support up to three CAN-Joysticks for the same thruster, the Eco Pro kit includes one CAN-Joystick and a 10 meter CAN-Cable:

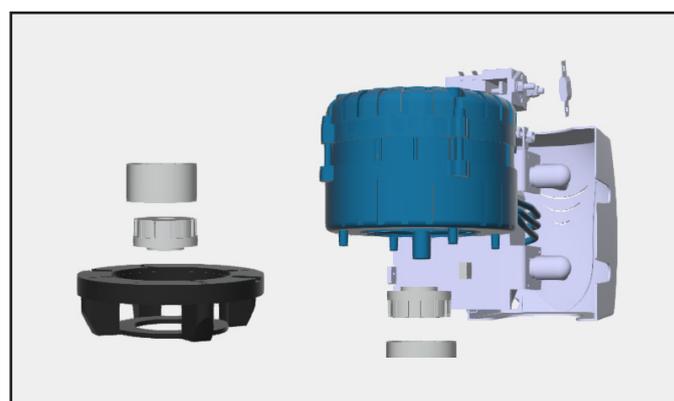


Steps for upgrade: To upgrade the existing CT thruster assembly in order to accommodate the Eco Pro kit the following steps will need to be performed:

1. Turn off the main power switch of the thruster
2. Remove all cables from the thruster (put labels on the positive and negative cables)
3. Remove the 4x screws that secure the CT motor on the existing mounting base
4. Remove the CT motor
5. Clean the installation area
6. Insert the 1x 312211 key to the drive leg (for CT60/CT80 models)
7. Position the upper mounting base on top of the existing lower mounting base (for CT60/CT80 models):



8. Tighten the 4x 634133 screws in sequential and even turns with maximum torque 33Nm (for CT60/CT80 models).
9. Install the coupling assembly (for CT60/CT80 models) and position the brushless motor as described in page 5 of the Eco Pro installation manual (check that the key is on the motor shaft):



10. Connect the power supply cables to the motor (wiring available in page 14 of the manual).



For any additional clarification required please contact us directly:

<https://www.max-power.com/contact>

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