

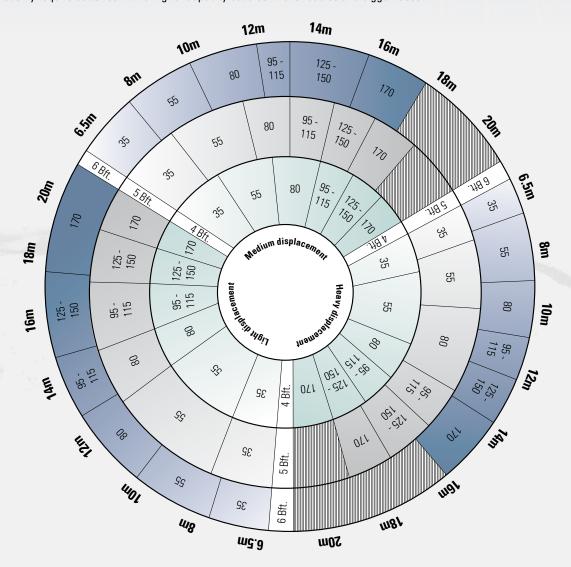
We have made a thruster selection guide to give you an idea of the thruster suitable for your boat. Your dealer will assist you in selecting the correct thruster.

Follow the steps below to find your Craftsman Marine thruster:

Step 1.	Select your type of boat. In the graph are three boat types: light displacement, medium displacement and heavy displacement. Rotate the graph so that your boat type is facing upward.	
Step 2.	Select the length of your boat.	
Step 3.	Choose under what wind conditions you want to be able to manoeuvre the boat. You can choose between 4bft, 5bft or 6bft (bft = beaufort).	

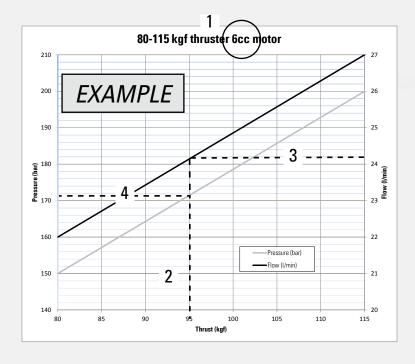
As you will see, the type of bowthruster can vary by as much as three types depending on the chosen weather conditions.

Take into consideration that most of the times manoeuvring will be in a sheltered harbor. Manoeuvring with the wind on the bow will also require less force than wind from the side, so choose your berth carefully. For installation of the biggest thruster possible you not only require batteries with a higher capacity but also thicker cables and bigger fuses.

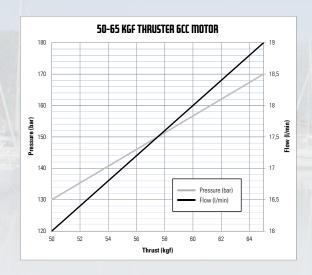


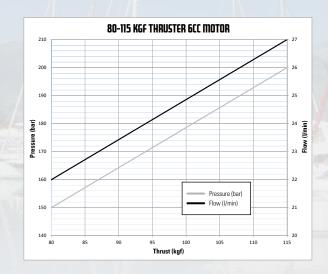


Use the following performance curves to check the necessary flow and pressure for your hydraulic thruster.



- Carefully check if the correct thruster is selected with the correct hydraulic motor.
- 2. Choose the desired thrust in the bottom of the graph and draw a vertical line upwards.
- Where the vertical line intersects the black line, draw a horizontal line to the right and find the necessary flow.
- 4. Where the vertical line intersects the grey line, draw a horizontal line to the left and find the necessary pressure.









Optional equip page 71 for a c thruster panels

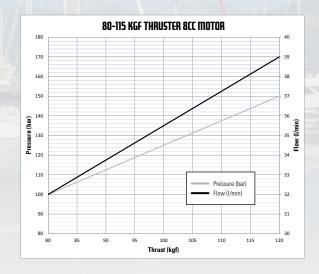
Optional equipment: please se page 71 for a complete range of thruster panels.		
HYDRAULIC THRUSTER		

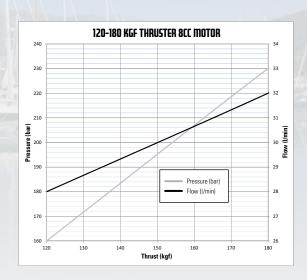


	50-65 kgf 6cc	
Article code:	BA.150.20006	
Thrust:	50-65 kgf	
Inside diameter of tunnel:	150 mm	
Weight:	6.5 kg	
Hydraulic motor:	6 cc/rev	
Power:	3-3.8 kW	
Pressure:	130-170 bar	
Flow rate:	16-19 l/min	
Hose connections:	G1/2	
Drain:	G1/4	

200	HYDRAULIC THRUSTER 80-115 kgf 6cc
Article code:	BA.185.20006
Thrust:	80-115 kgf
Inside diameter of tunnel:	185 mm
Weight:	8 kg
Hydraulic motor:	6 cc/rev
Power:	4-6 kW
Pressure:	150-200 bar
Flow rate:	22-27 l/min
Hose connections:	G1/2
Drain:	G1/4

All thrusters are fitted with a zinc anode as standard. Aluminium anodes are available separately.









**Optional equipment:** please see page 71 for a complete range of thruster panels.

	HYDRAULIC THRUSTER 80-115 kgf 8cc	
Article code:	BA.185.20008	
Thrust:	80-115 kgf	
Inside diameter of tunnel:	185 mm	
Weight:	8 kg	
Hydraulic motor:	8 cc/rev	
Power:	4-6 kW	
Pressure:	100-150 bar	
Flow rate:	32-39 l/min	
Hose connections:	G1/2	
Drain:	G1/4	

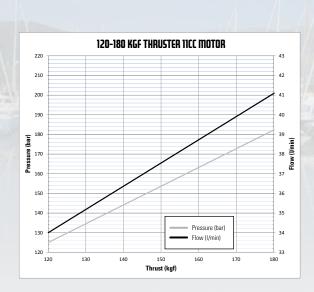




**Optional equipment:** please see page 83 for a complete range of remote controls.

	HYDRAULIC THRUSTER 120-180 kgf 8cc
Article code:	BA.250.20008
Thrust:	120-180 kgf
Inside diameter of tunnel:	250 mm
Weight:	12 kg
Hydraulic motor:	8.4 cc/rev
Power:	6.5-12 kW
Pressure:	160-230 bar
Flow rate:	28-32 l/min
Hose connections:	G1/2
Drain:	G1/4

All thrusters are fitted with a zinc anode as standard. Aluminium anodes are available separately.







**Optional equipment:** please see page 71 for a complete range of thruster panels.

HYDRAULIC THRUSTER

	120-180 kgf 11cc
Article code:	BA.250.20011
Thrust:	120-180 kgf
Inside diameter of tunnel:	250 mm
Weight:	12 kg
Hydraulic motor:	10.8 cc/rev
Power:	6.5-12 kW
Pressure:	125-180 bar
Flow rate:	34-41.5 l/min
Hose connections:	G1/2
Drain:	G1/4



# **Hydraulic thruster panels**

When you are looking for a switch-joystick to control your hydraulic thruster, searchlight or any other application that requires just a simple switch, the Craftsman Marine joystick is the control for you. It matches the looks and feel of the microprocessor controlled thruster panels.

- Maximum switching current 10A
- One step switch joystick

All thrusters are fitted with a zinc anode as standard. Aluminium anodes are available separately.





## **Thruster panels**

All panels work with a very wide voltage input of 10.5-28V DC. The panel has a dip-switch which makes it possible to change factory settings to your own wishes. This makes the panels suitable for all boat types. With the splitter cables a connection to a fly-bridge panel can be made very easily.





#### The following functions are controlled by a microprocessor:

- Visual and audible alarms
- Automatic switch-off of the panel
  - switch-off after 30 (factory setting), 60 or 120 minutes
  - don't switch-off automatically
- Time delay of 1 second when changing the direction switch from/to starboard and portside (factory setting).
   This function can be disabled.
- Protection against continuous operation
   This function can be disabled, but as extra the LED and audible alarm will indicate that the thruster is continuously enabled for a longer time than 2 minutes

- Built-in temperature protection
  - Automatic switch-off of the thruster when the thruster motor temperature is too high. In case of a high temperature it is always possible to use the thruster in a "pulse mode" by releasing the push button or joystick and then activating it again; the thruster motor will be enabled for 3 seconds, each time until the temperature is cooled down
- "Child protection" to ensure that the panels are not switched on by accident
- Wire break detection. Visual alarm if the electrical connection to the thruster relay is broken

### **Extension cables for thrusters and anchor windlasses**

The Craftsman Marine extension cables are available in lengths of 7m, 10m, 15m and 20m. It is possible to connect different cable lengths together. To protect the electrical installation against moisture, salt, water, dust or dirt, all our cables are fitted with waterproof connectors.





Article codes	
BF.010.20000	Fly-bridge splitter cable
BF.010.20007	Connection cable 7m
BF.010.20010	Connection cable 10m
BF.010.20015	Connection cable 15m
BF.010.20020	Connection cable 20m

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### Wireless remote

The new wireless remote control by Craftsman Marine is one of a kind in pleasure craft. It utilises the 2.4 GHz ISM band and can be used for a multitude of devices. It gives you control over the operations of your choice.

Five different layouts are available for you to choose from, for your bowthruster, stern thruster or windlass. The Craftsman Marine remote control is a perfect addition to your thruster panel to give you even more flexibility. It is IP67 waterproof rated and floats when dropped overboard! Controlling your thruster or windlass has never been easier.













### **How it works**

The wireless remote uses a constant changing frequency in the 2.4GHz range to get a stable communication without interference from engine noise, WiFi equipment or any other wireless equipment.

Multiple transmitters can be used with a single receiver. The transmitters and receivers use a unique 32 bit code, named Electronic Serial Number (ESN). After pairing the transmitter with the receiver it is impossible to get interference from your neighbour with the same system. The range exceeds 20 metres. The transmitter uses a replaceable button cell that will last for several years with regular use.

Specifications	
Operating voltage receiver	8-30V DC
IP rating transmitter	IP67
Dimensions transmitter	40 x 120 x 15mm
Range	max. 150m
Battery life transmitter	> 1 year
Approvals	CE and ETSI (Europe) IC and FCC (USA)