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Since the beginning of 2013 Max Power has been heavily invested in, following the action plan to upgrade its production processes, quality systems and logistics structure. Investments also included a tailor-made WMS and an SAP ERP system.

Max Power offers a full vessel maneuverability range, from simple tunnel thrusters to top-of-the-range retractable thrusters, ensuring complete freedom of choice. Backed up by an extensive range of accessories, power options and customized solutions, Max Power has become a leader in its market with a dedicated group of followers.

Renowned for supplying high quality products, Max Power has remained dedicated to designing and producing innovative and often unique solutions which all strive to bring ultimate performance into the world of everyday yachting.

With more than 25 years of experience in designing and manufacturing leisure marine products, there is certainly a Max Power bow thruster, stern thruster or related equipment to meet your requirements.

www.max-power.com







## p2 PRODUCT SELECTION

Tunnel thrusters
Retractable thrusters

Bow thrusters and stern thrusters

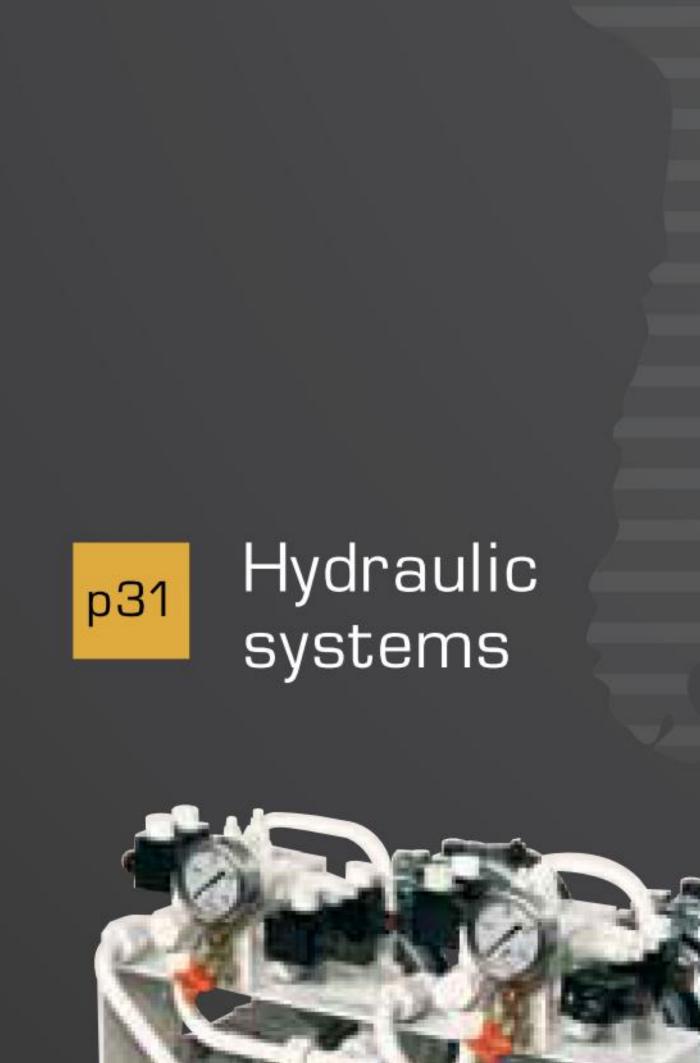
Electric or hydraulic power



Electric tunnel thrusters



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Thruster





p14 Hydraulic tunnel thrusters

p12 Ignition protected thrusters



p17 Stern pod thruster



Control panels & remote control





p21 Hydraulic retractable thrusters



## Select the right thruster

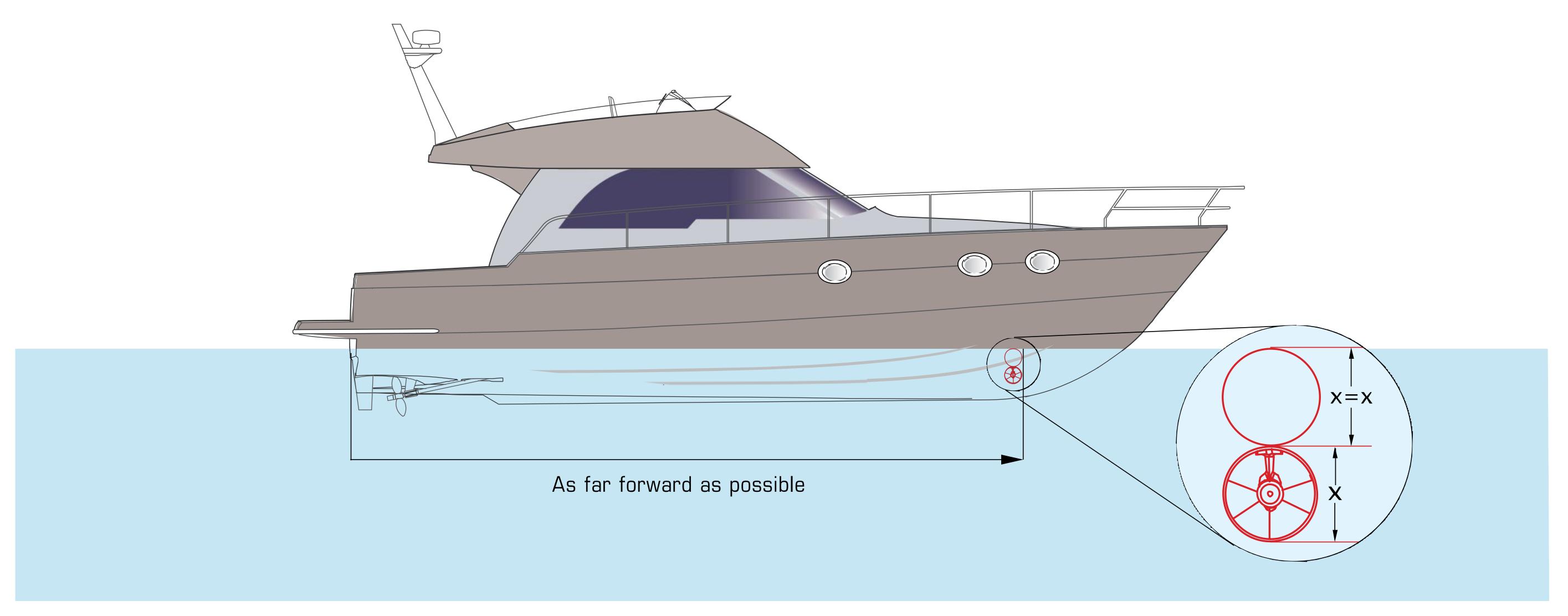
### Tunnel thrusters

Positioning thrusters is often as important as choosing the right thrust output when seeking a suitable thruster for your yacht.

The thruster's turbine needs to be placed one full propeller diameter under the water line to achieve optimal thrust. The thruster must also be positioned as far forward in the bow or as far back in the

stern as possible. A thruster stepped back from the bow (or stern) would need to be more powerful than one mounted further forward (or aft), to achieve the same turning effect on the yacht.

With this in mind, tunnel thrusters offer an ideal solution for motor yachts and even deep-footed sailing yachts when sailing performance is not paramount.



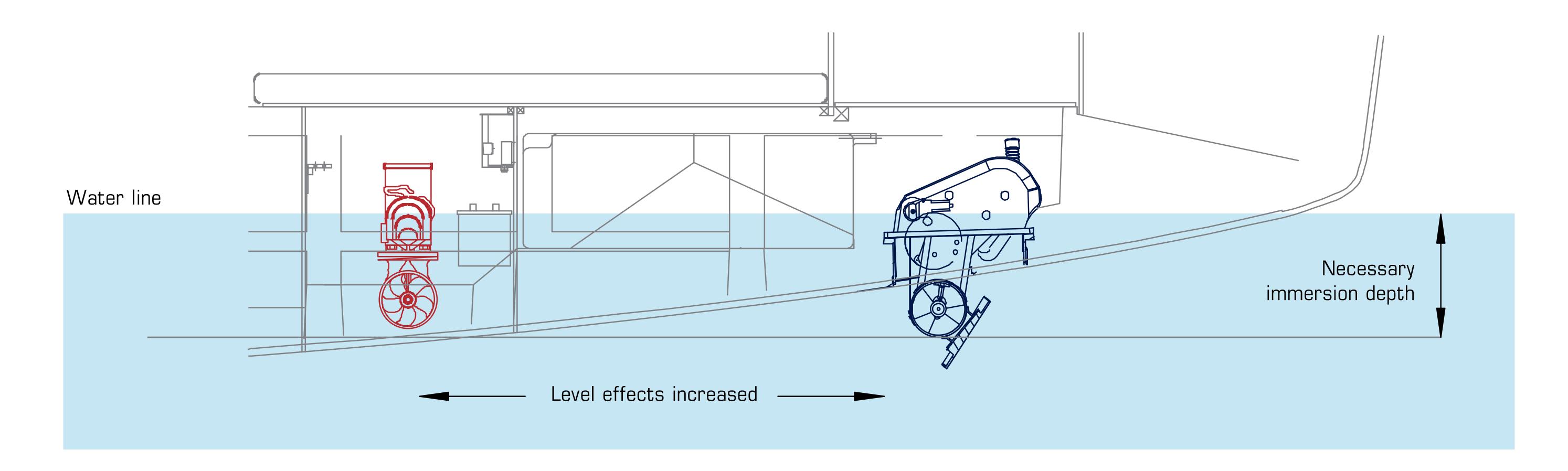
Ideal immersion depth =  $1 \times T$ unnel diameter

### Retractable thrusters

Retractable thrusters are easily installed far forward in the bow whilst still achieving the required immersion depths. This results in a thruster that has a good turning effect on the yacht, often allowing a unit with a lower thrust rating than its tunnel equivalent to be used with excellent results.

When retracted these units have no effect on the yacht's drag and do not reduce sailing performance in light winds.

Most modern sailing yachts are better suited to retractable thrusters.

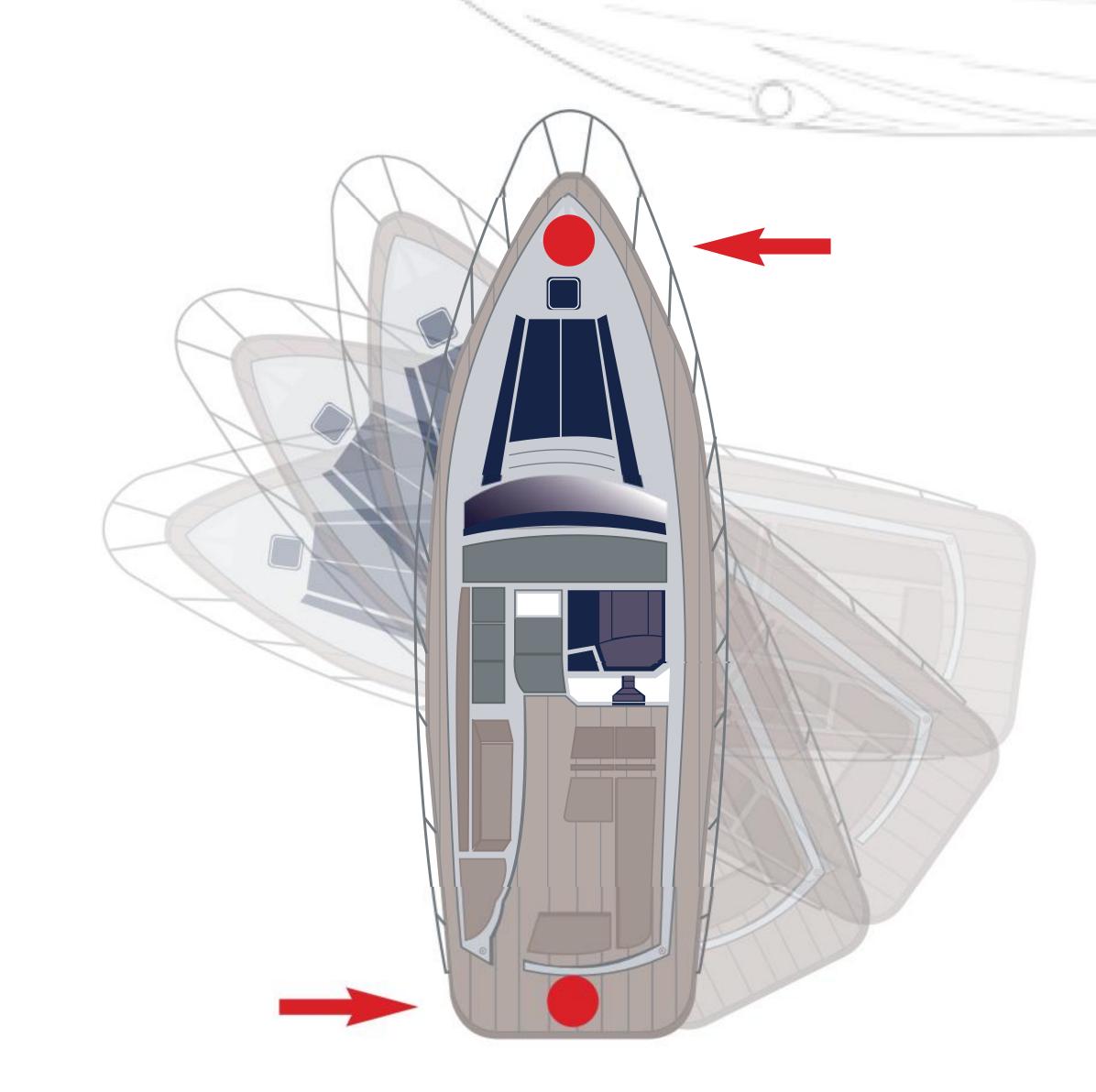




### Bow thrusters

The combined use of a bow and stern thruster adds a greater level of control when manoeuvring in difficult conditions or tight corners.

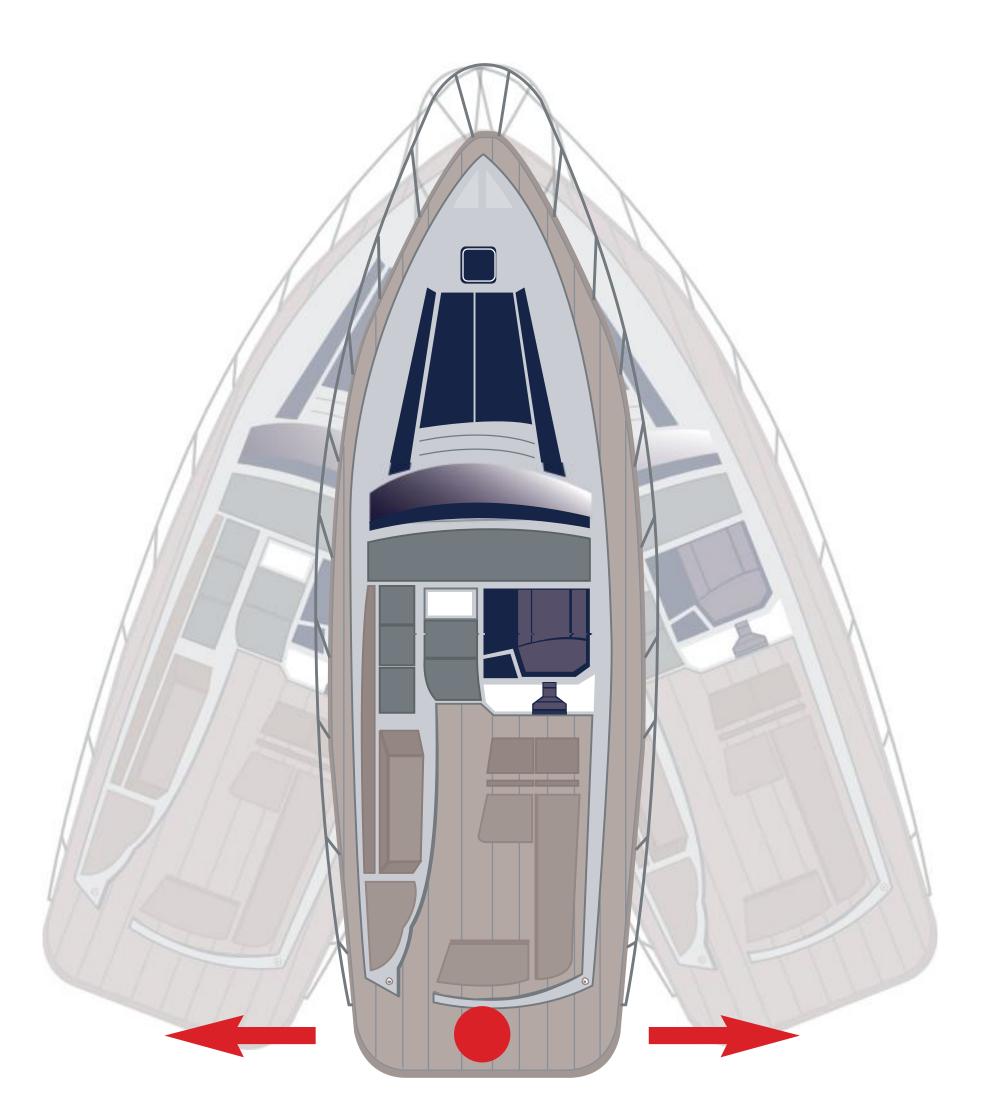
Turning on the spot or even stepping the entire yacht sideways becomes possible. Max Power offers stern thruster adapters for the entire tunnelthruster range. A range of Ignition Protected thrusters is also available enabling the use of a stern thruster in habitually damp zones.



Bow and stern thruster







Stern thruster alone

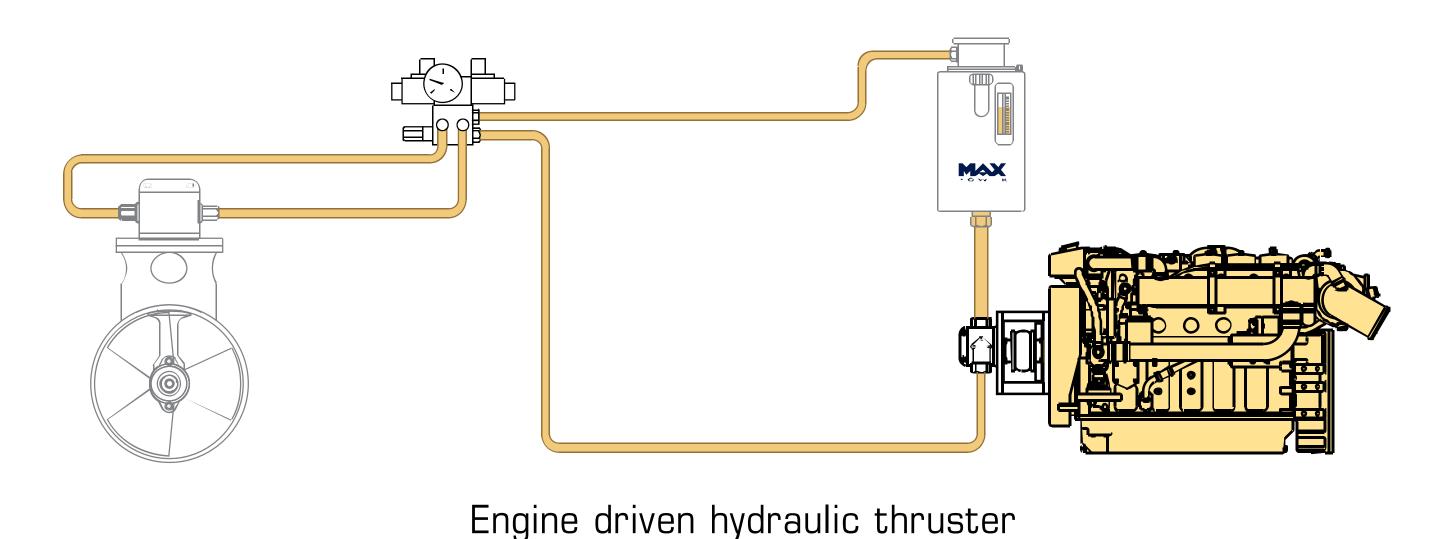


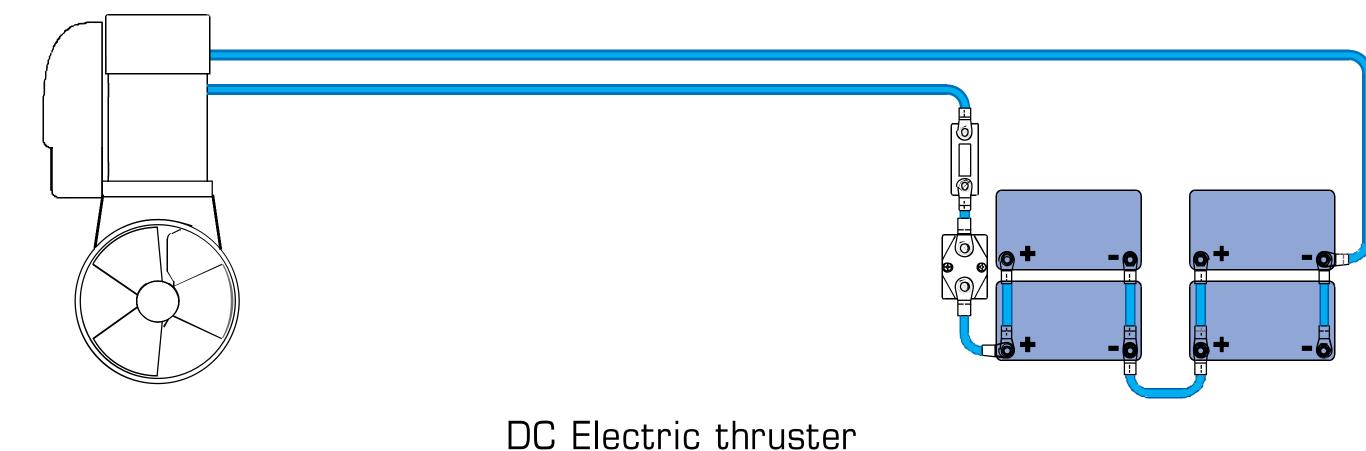
Bow and stern thruster

## Electric or hydraulic power source

Bow and stern thrusters whether retractable or tunnel require a power source. On a yacht this can be either a 12/24V DC electric motor or a hydraulic motor.

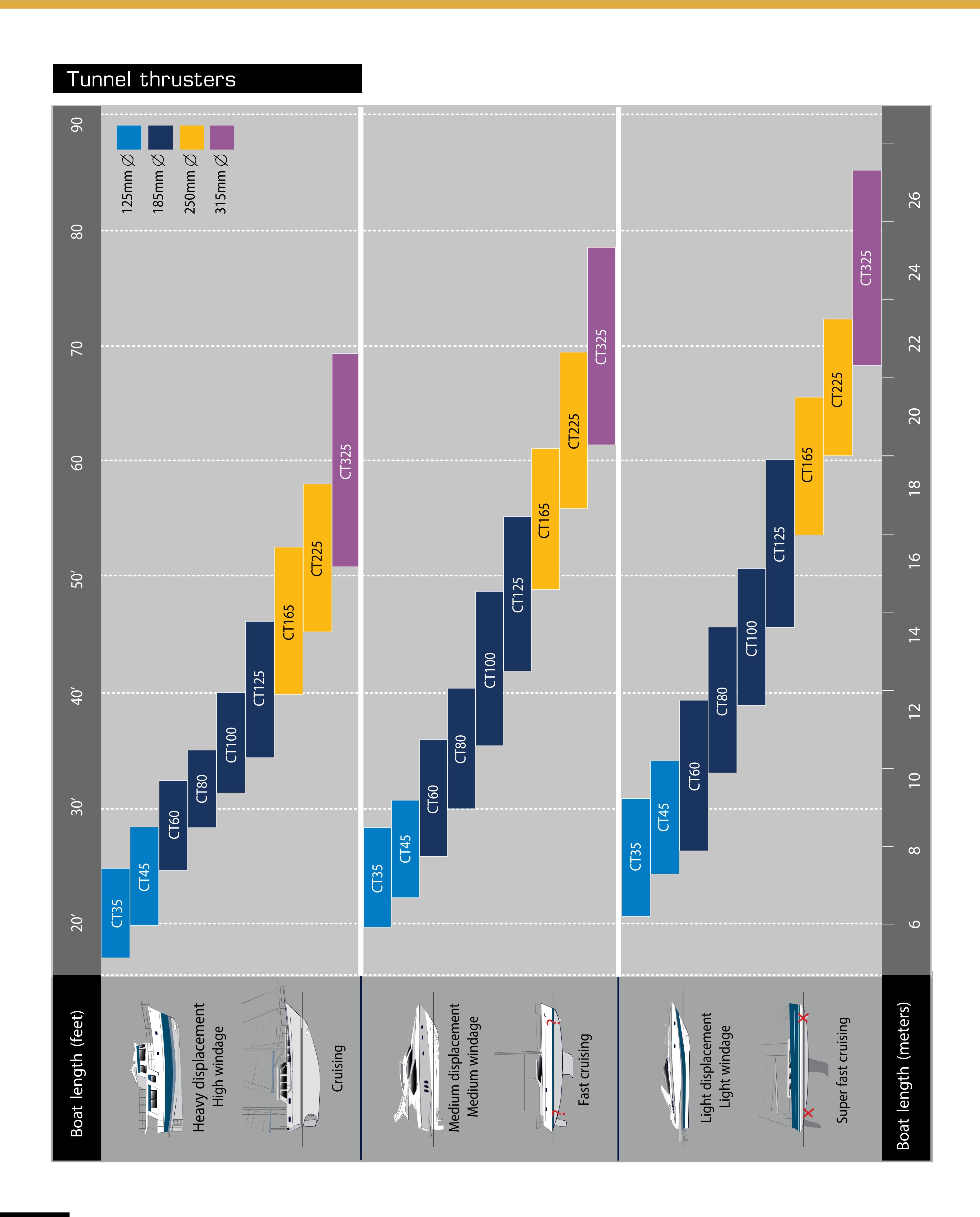
The hydraulic motor will need to draw power from a thermal engine (via a hydraulic pump) or a remote mounted DC motor (also via a hydraulic pump). The DC motor will draw power directly from a battery bank as do direct electric thrusters

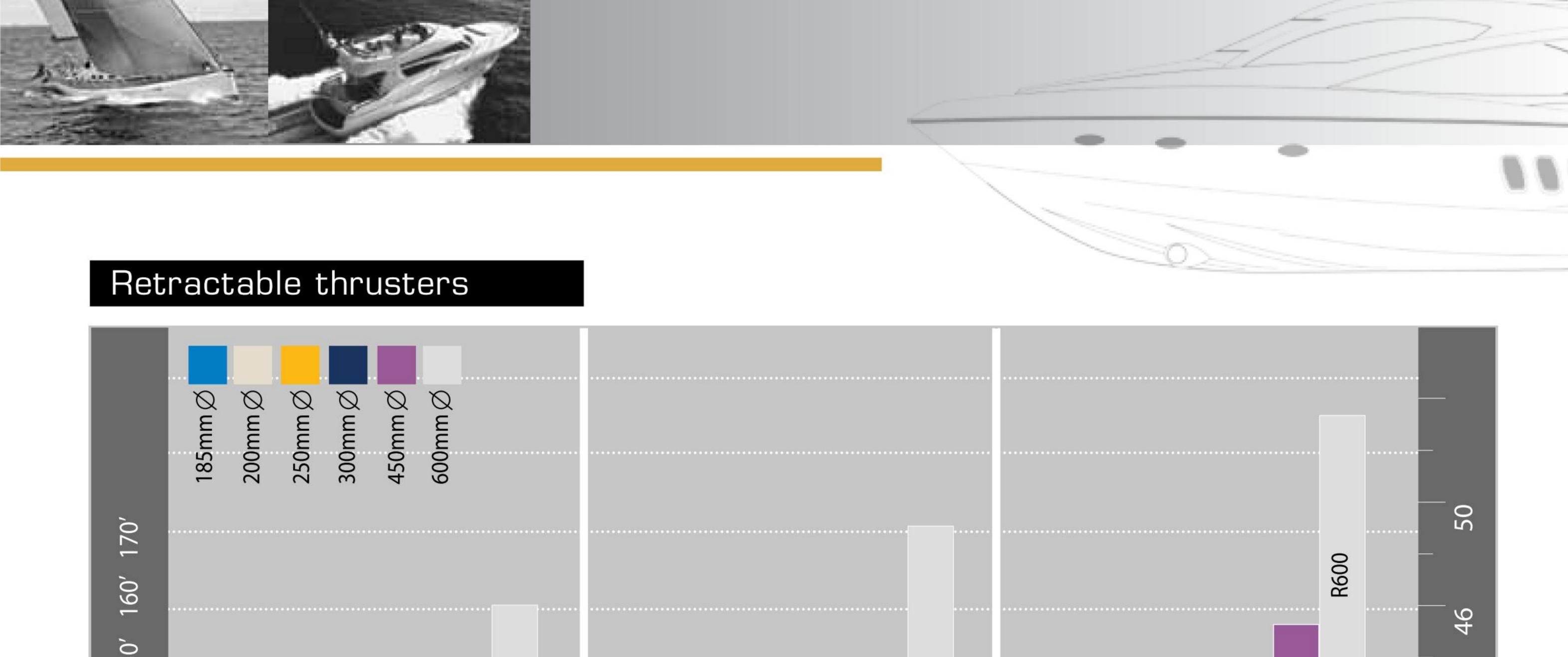


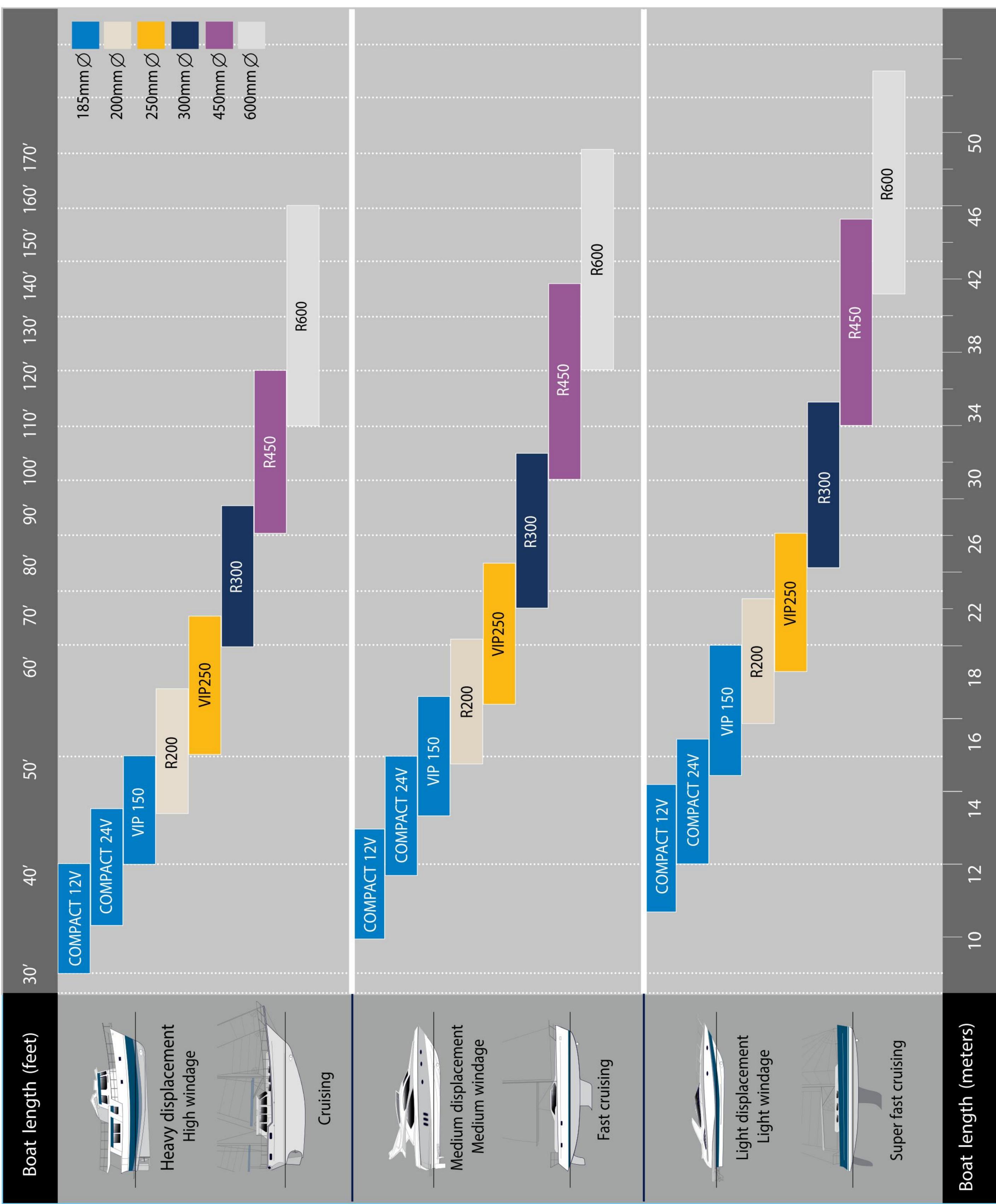




## Select the right thruster









## Electric tunnel thrusters



Max Power offers a complete range of 12/24V composite electric tunnel thrusters to suit motor yachts and deep footed sailing yachts from 17-85'. Designed for performance and durability, each model is easy to fit, highly cost effective, and integrates a variety of unique features.

- Patented composite drive legs
- Zero maintenance
- Case hardened spiro-conical gears
- Line shields
- Purpose built DC motors
- Electronic control boxes for unrivaled safety features
- Safe, high power connections
- Purpose built high specification DC contactors



Corrosion free composite drive legs eliminate the need for anodes and offer high manufacturing tolerances.



Drive legs are pre-filled with oil and then sealed for life for zero maintenance.



Case hardened spiro-conical gears guarantee a silent, smooth operation, and a long lifespan.



Line shields protect oil seals from fishing lines and fouling.



High efficiency, purpose built DCmotors ensure outstanding performance and long runtime ratings.



Electronic control boxes offer unique and unrivaled safety features.



Solid copper contact bars guarantee safe, high power connections.



Purpose built high specification DC contactors are both safe and durable.





## CT 35

#### Code: 42529

Voltage\*:

12V

Thrust (kg/lbs)\*\*:

35 / 77 Propellers:

Mono Power (kw/hp):

2.69 / 3.6

Weight (kg):

9.6

### **Dimensions (mm)**

A: 190

B: 140

C: 210

D: 125

E: 4 to 5



Code: 317603

Voltage\*:

12V

Thrust (kg/lbs)\*\*:

30 / 88

Propellers:

Duo

Power (kw/hp):

3.23 / 4.3

Weight (kg):

9.65

### **Dimensions (mm)**

A: 190

B: 140

C: 210

D: 125 E: 4 to 5



### Code: 42531

Voltage\*: Voltage\*: 12V 24V

Thrust (kg/lbs)\*\*: Thrust (kg/lbs)\*\*:

58 / 128 63 / 139 Propellers: Propellers: Mono Mono

Power (kw/hp): Power (kw/hp): 4.35 / 5.8 4.4 / 5.9 Weight (kg): Weight (kg):

14.7 14.8

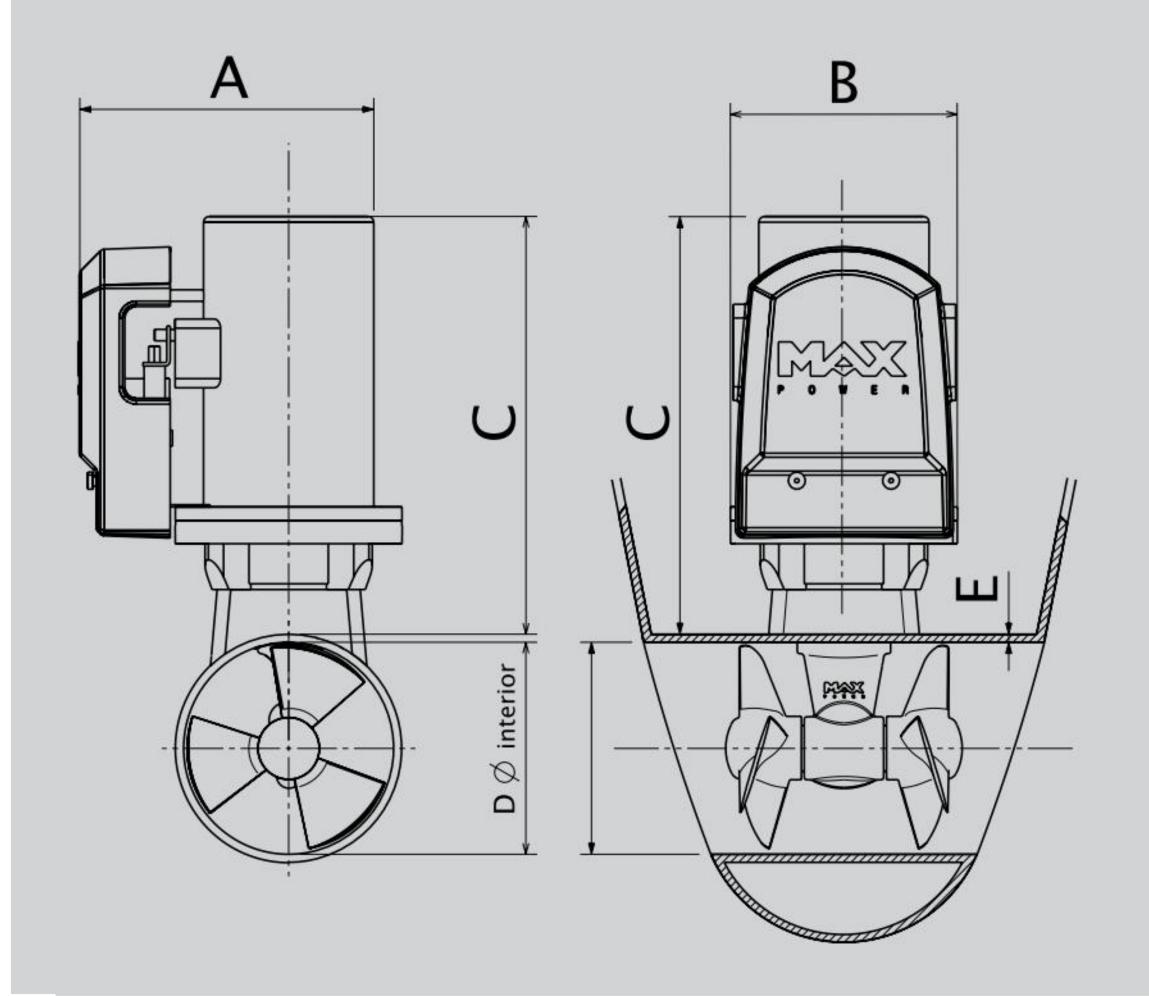
### **Dimensions (mm)**

A: 210

B: 140

C: 275

D: 185 E: 6 to 7







## Electric tunnel thrusters



CT 80

Code: 42533 Code: 42532 Voltage\*: Voltage\*: 24V 12V

Thrust (kg/lbs)\*\*: Thrust (kg/lbs)\*\*: 75 / 165 69 / 152

Propellers: Propellers: Duo Duo

Power (kw/hp): Power (kw/hp): 5.28 / 7.1 4.79 / 6.4

Weight (kg): Weight (kg): 15.1

**Dimensions (mm)** 

A: 210

15

B: 140

C: 275

D: 185 E: 6 to 7 NB: Images are not to scale.

\* Thrusters are designed to run at 10.75V on 12V units and 22V on 24V units. Higher voltages will result in higher thrust ratings, higher power consumption, and a reduced duty cycle.

\*\* Performance data is given for a thruster installed at an immersion depth of one tunnel's diameter, in a tunnel no longer than twice the tunnel's diameter, and this within a variation of + / - 6%. Longer tunnels will result in lower thrust ratings and higher power consumption.

\*\*\* Model only available with bronze driveleg.



CT 100

Code: 42534

Voltage\*:

12V

Thrust (kg/lbs)\*\*:

96 / 212 Propellers:

Duo

Power (kw/hp):

7.1 / 9.5

Weight (kg):

**Dimensions (mm)** 

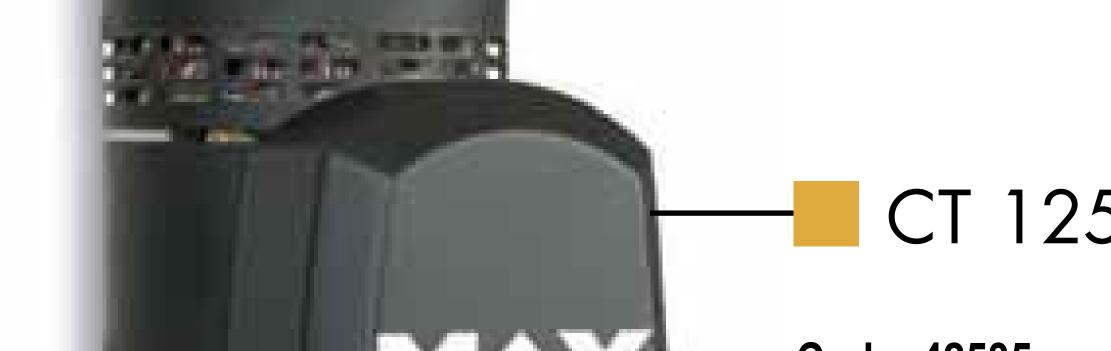
A: 250

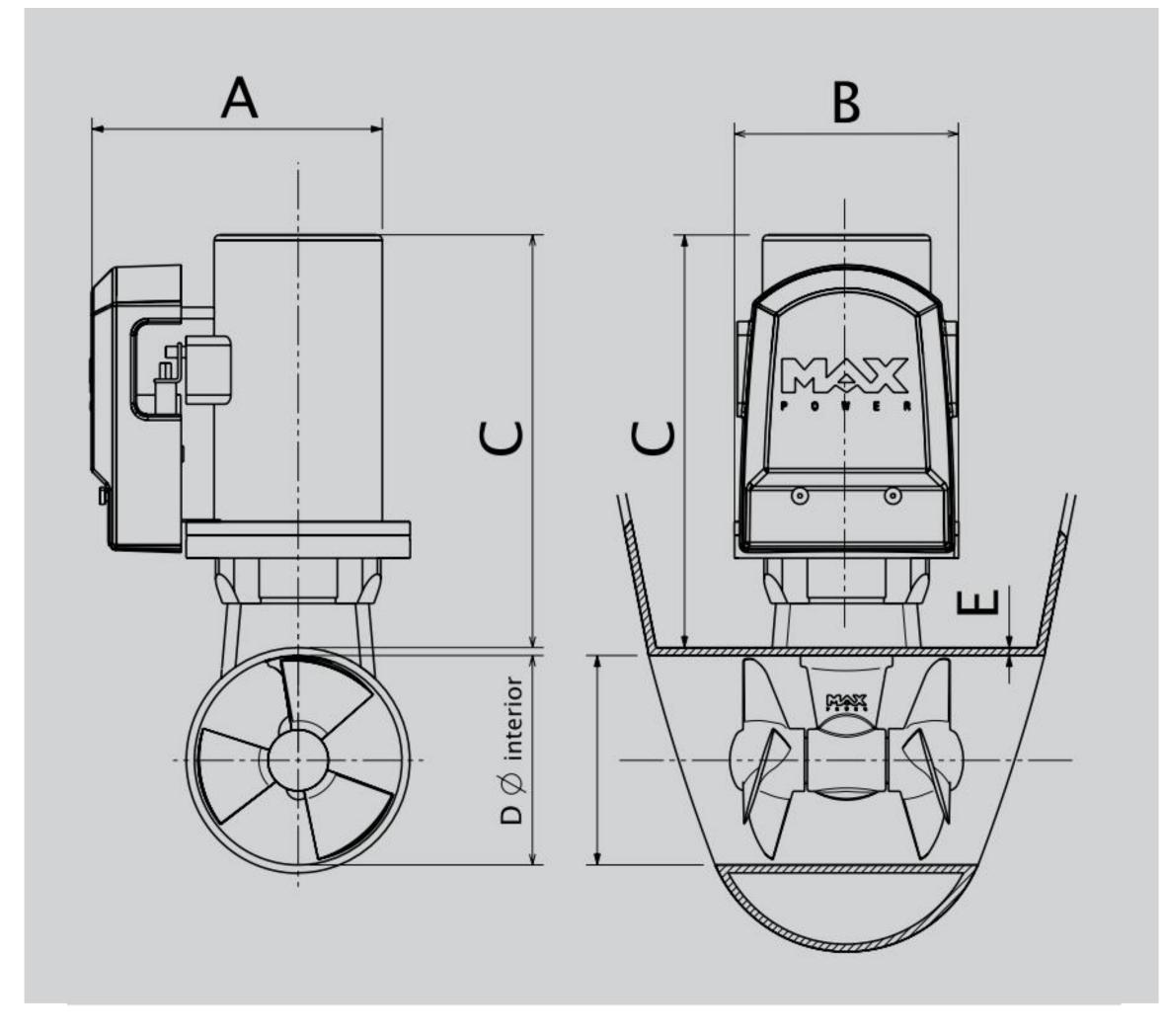
B: 200

C: 365

D: 185

E: 6 to 7









## CT 165

#### Code: 317557

Voltage\*: 24V

Thrust (kg/lbs)\*\*:

160 / 353

Propellers:

Duo

Power (kw/hp):

11.88 / 15.9

Weight (kg):

36

#### **Dimensions (mm)**

A: 250

B: 200

C: 430

D: 250

E: 7 to 8



## CT 225

#### Code: 317558

Voltage\*:

24V

Thrust (kg/lbs)\*\*:

195 / 430

Propellers:

Duo

Power (kw/hp):

14.96 / 20

Weight (kg):

37

### **Dimensions (mm)**

A: 270

B: 200

C: 405

D: 250 E: 7 to 8



## CT 300

### Code: 317606

Voltage\*:

24V

Thrust (kg/lbs)\*\*:

255 / 562

Propellers:

Duo

Power (kw/hp):

19.7 / 26.4

Weight (kg):

58.5

#### **Dimensions (mm)**

A: 250

B: 250

C: 480

D: 300 E: 9 to 10



## CT 325

Code: 42542\*\*\*

Voltage\*: 24V

Thrust (kg/lbs)\*\*:

255 / 562

Propellers:

Duo

Power (kw/hp):

19.69 / 26.4

Weight (kg): 59

### **Dimensions (mm)**

A: 250

B: 250

C: 480

D: 315

E: 9 to 10



## Ignition protected thrusters



Max Power's new range of Ignition Protected tunnel thrusters is available for models CT35 to CT125. Certified ISO 8846, this range allows the safe use of an electric tunnel thruster in petrol / gas engine vessels where there may be potentially flammable gases. IP thrusters can also be installed in habitually wet or damp areas such as sail lockers, or in the transom of deep "V" shaped motor yachts.

- Ignition Protected to ISO 8846 and water resistant
- Easy to connect thruster
- Patented composite drive leg
- Zero maintenance
- Case hardened spiro-conical gears
- Line shields
- Purpose built DC motors
- Electronic control boxes for unrivaled safety features
- Safe, high power connections
- Purpose built high specification DC contactors



Ignition Protected and water resistant.



Easy to connect thruster.
Robust metallic frame.



Unique composite drive leg design. See page 8 for full details.



High specification electric motors. See page 8 for full details.







CT 100-IP

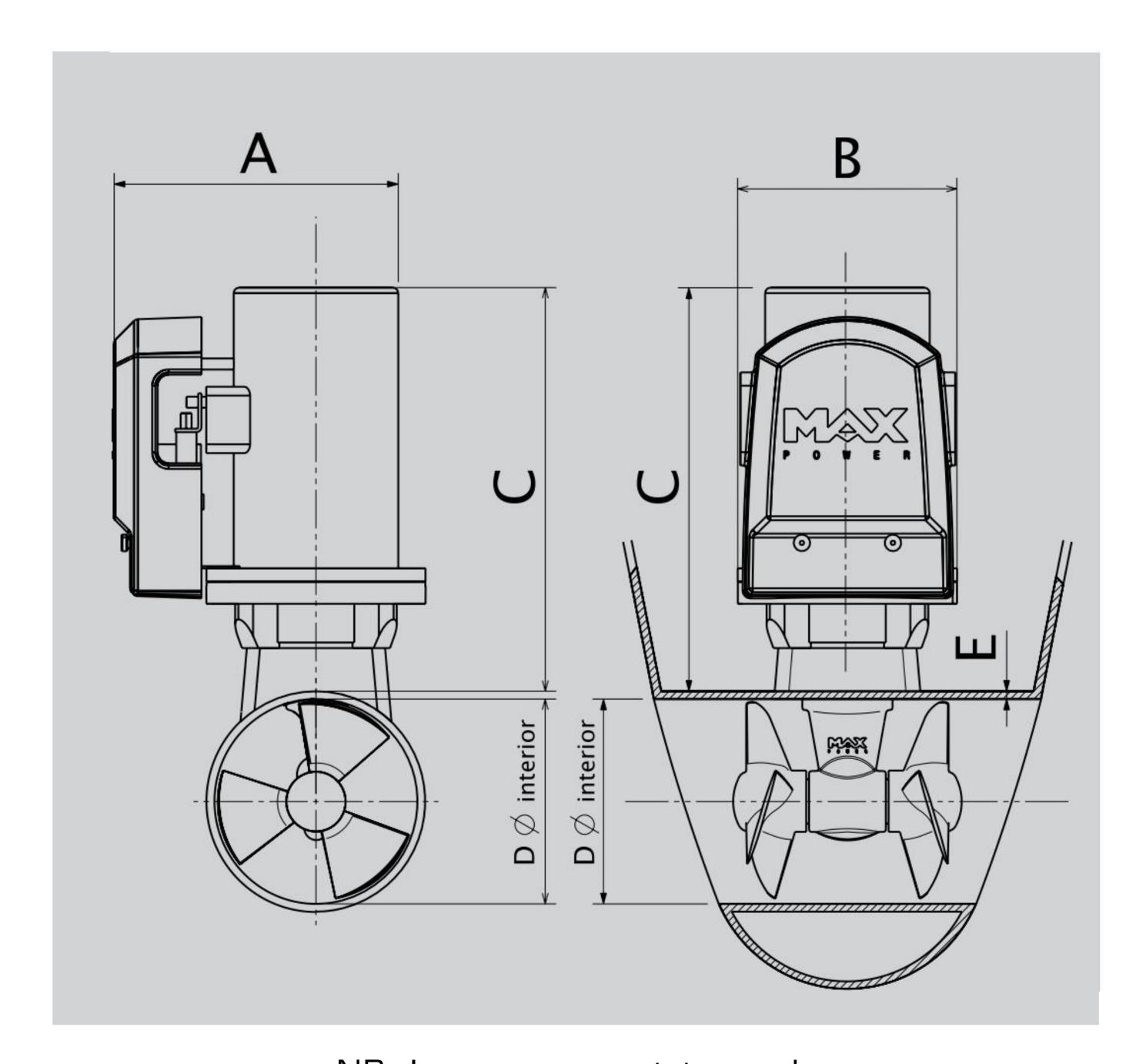
Code: 317615 12V Weight (kg): 27.2

#### **Dimensions (mm)**

## CT 125-IP

Code: 317616 24V Weight (kg): 27.2

**Dimensions (mm)** 



NB: Images are not to scale. For IP thruster specifications, see corresponding electric tunnel thruster model.



## Hydraulic tunner thrusters



Max Power's range of hydraulic tunnel thrusters are suitable for medium to heavy displacement, high windage vessels from 40-85'. Designed for durability and performance, hydraulic tunnel thrusters are ideal when long runtimes are required. Manufactured using corrosion free components, these models are robust, water resistant and integrate a variety of unique features.

- Branded hydraulic components
- Long runtimes
- Water resistant
- Patented composite drive legs
- Zero maintenance
- Case hardened spiro-conical gears
- Line shields
- Electronic control boxes for unrivaled safety features



Branded hydraulic components for international serviceability.



Can be installed in habitually damp areas such as sail lockers.



Unique composite drive leg design. See page 8 for full details.



Electronic control boxes offer unique and unrivaled safety features.





## CT HYD 125

Code: 317588\*

Max. thrust (kg/lbs)\*\*:
140/308

Hydraulic power (kw):

13.5 Propellers:

Duo Weight (kg):

12

Code: 317589\*
Max. thrust (kg/lbs)\*\*:

90 / 198

Hydraulic power (kw):

Propellers:

Duo Weight (kg):

12

Code: 317590\*

Max. thrust (kg/lbs)\*\*:

120 / 264

Hydraulic power (kw):

11

Propellers:

Duo

Weight (kg):

12

**Dimensions (mm)** 

A: 210 B: 210 C: 215 D: 185 E: 6 to 7 <u>Dimensions (mm)</u>

A: 210 B: 210 C: 215 D: 185 E: 6 to 7 **Dimensions (mm)** 

A: 210 B: 210 C: 215

D: 185 E: 6 to 7



## CT HYD 225

#### Code: 317591\*

Max. thrust (kg/lbs)\*\*: 200 / 441
Hydraulic power (kw):

13.5

Propellers: Duo

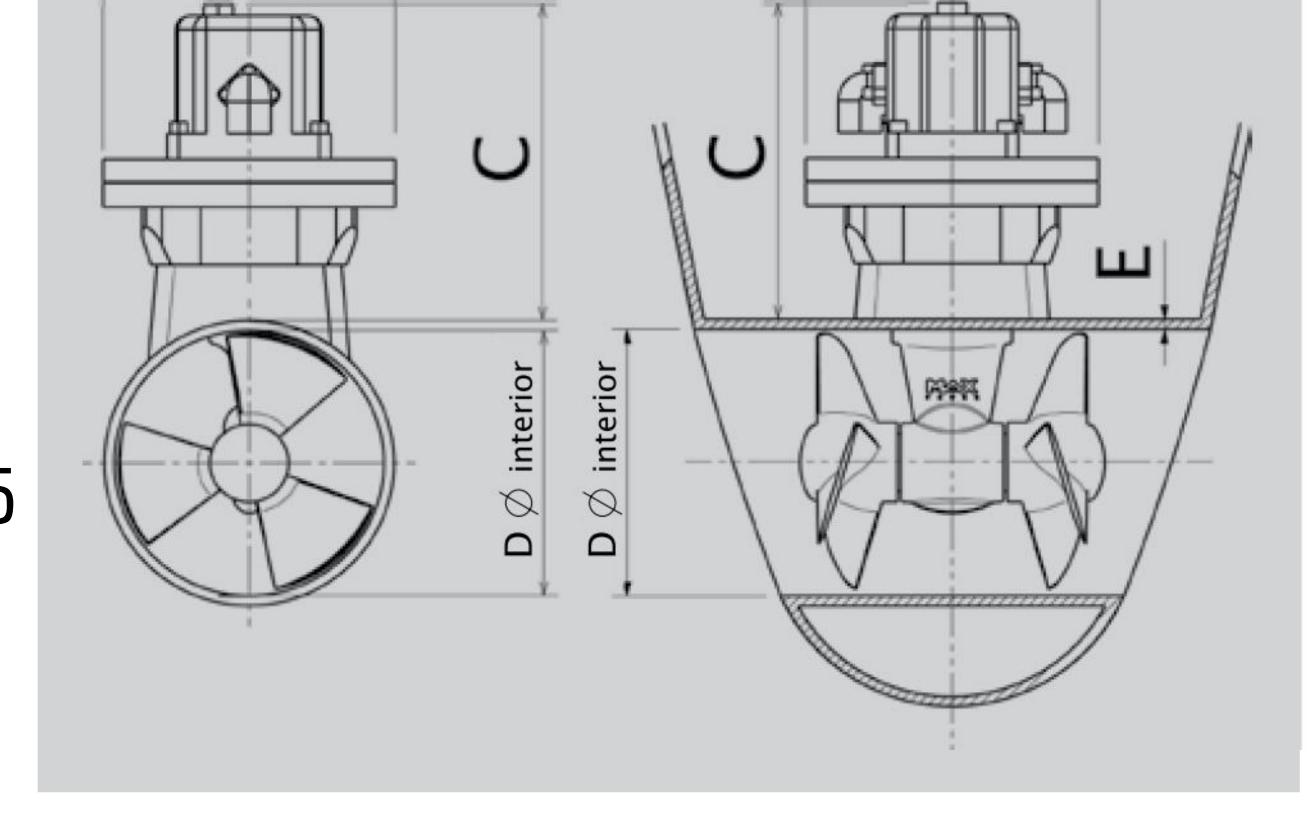
Weight (kg):

**Dimensions (mm)** 

A: 220 B: 220

C: 220

D: 250 E: 7 to 8

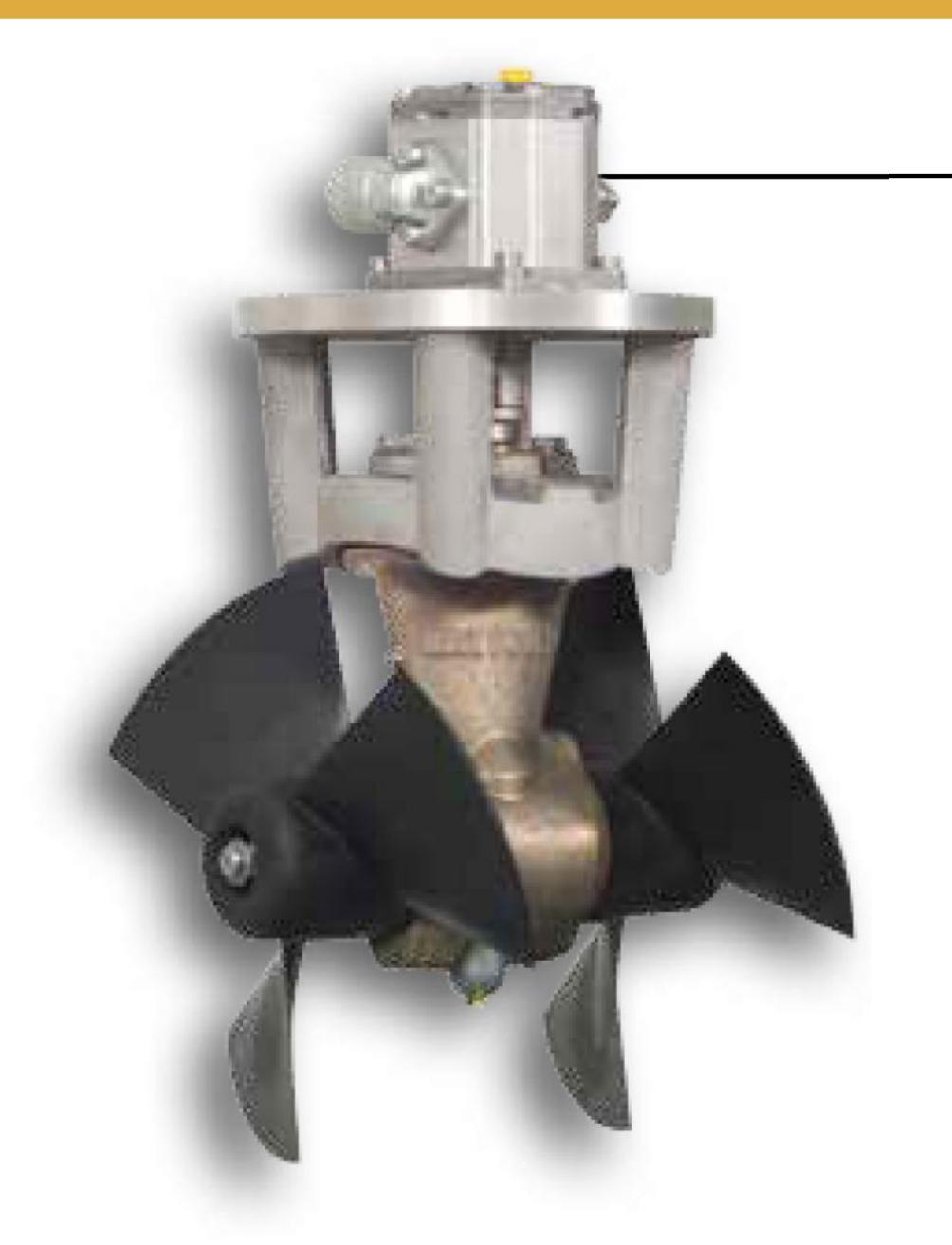


### NB: Images are not to scale

- \* Several versions of each model are available. Please consult your local Max Power distributor.
- \*\* Performance data is given for a thruster installed at an immersion depth of one tunnel's diameter, in a tunnel no longer than twice the tunnel's diameter, and this within a variation of +/-6%. Longer tunnels will result in lower thrust ratings.
- \*\*\* Model only available with bronze driveleg.



## Hydraulic tunner thrusters



## - CT HYD 300

### Code: 317607\* / \*\*\*

Max. thrust (kg/lbs)\*\*:

240/529

Hydraulic power (kw):

19.5

Propellers:

Duo

Weight (kg):

24

#### **Dimensions (mm)**

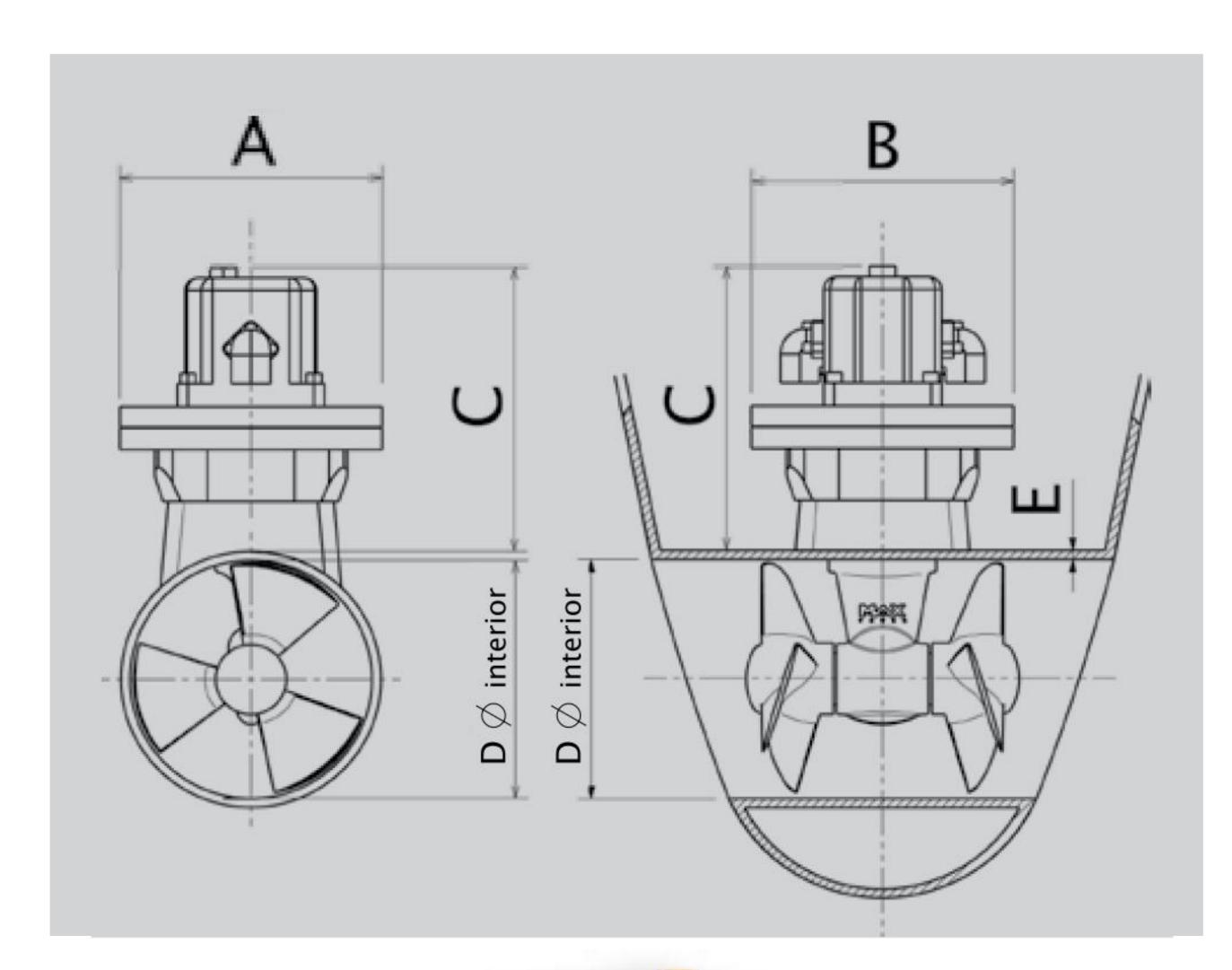
A: 240

B: 240

C: 240

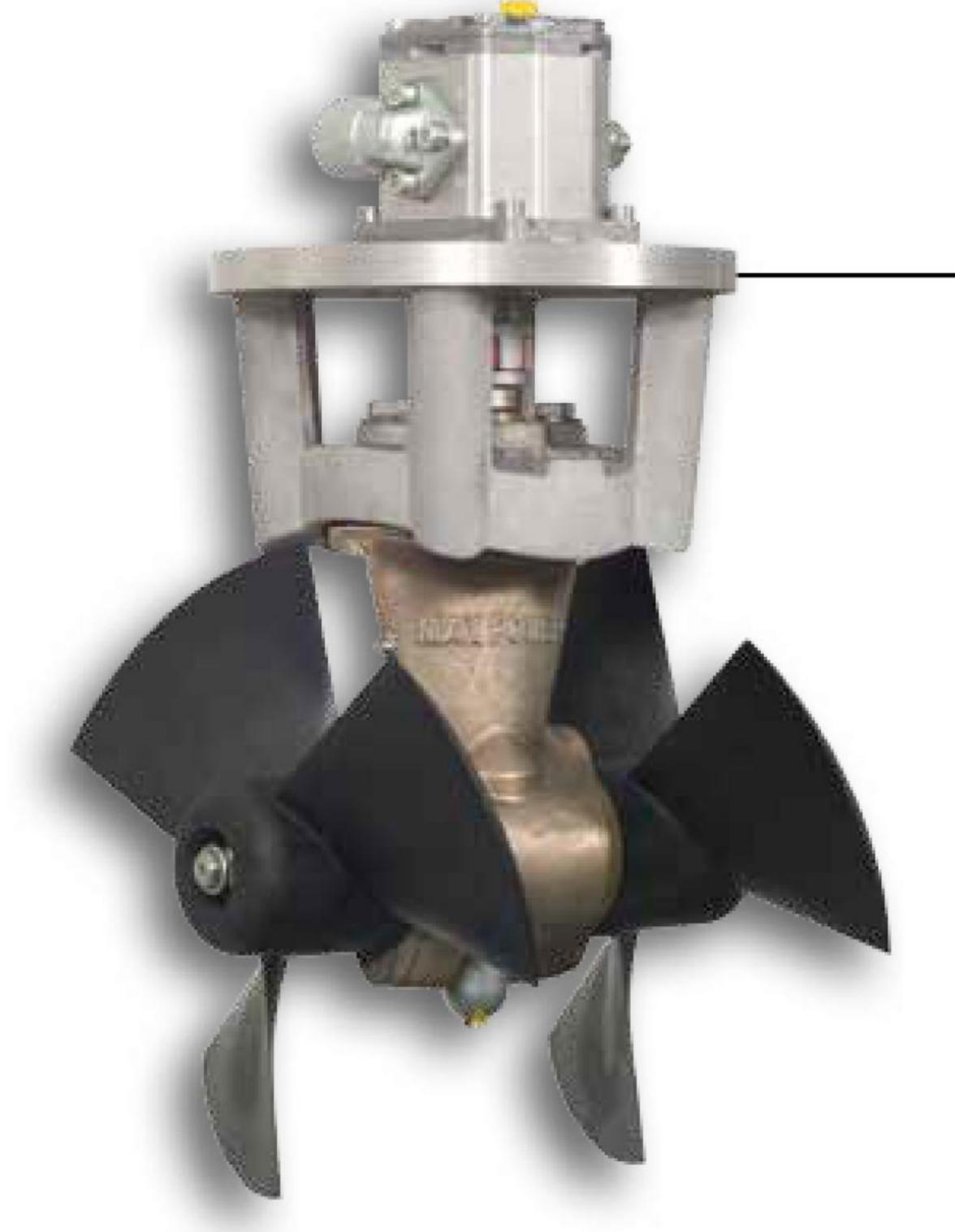
D: 300

E: 9 to 10



NB: Images are not to scale

- \* Several versions of each model are available. Please consult your local Max Power distributor.
- \*\* Performance data is given for a thruster installed at an immersion depth of one tunnel's diameter, in a tunnel no longer than twice the tunnel's diameter, and this within a variation of + / 6%. Longer tunnels will result in lower thrust ratings.
- \*\*\* Model only available with bronze driveleg.



### CT HYD 325

Code: 317598\* / \*\*\*

Max. thrust (kg/lbs)\*\*:

250 / 551

Hydraulic power (kw):

14

Propellers:

Duo

Weight (kg):

24

Code: 317599\* / \*\*\*

Max. thrust (kg/lbs)\*\*:

275 / 606

Hydraulic power (kw):

20

Propellers:

Duo

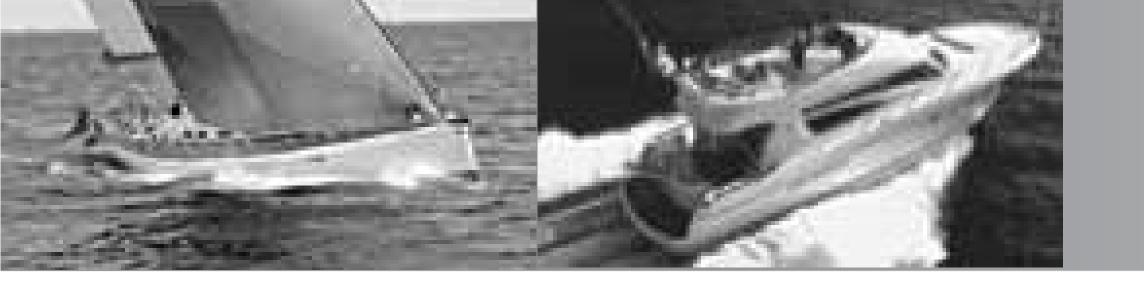
Weight (kg):

24

### <u>Dimensions (mm)</u>

A: 240
B: 240
C: 240
C: 240
D: 315
E: 9 to 10

A: 240
D: 315
E: 9 to 10



## Stern pod thruster



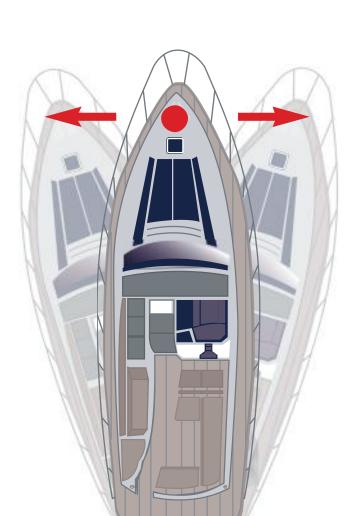
stern of modern motor yachts.

Combining a dry area on the stern with correct immersion depth and suficient access is often a challenge.

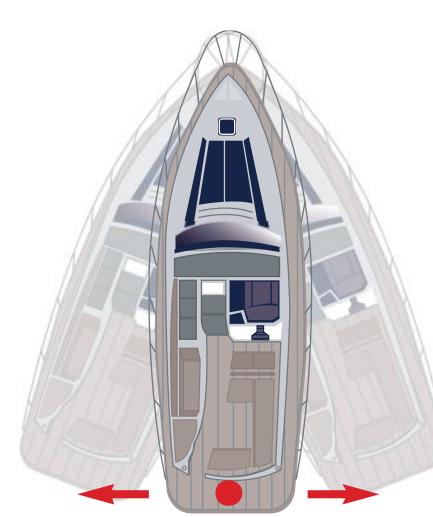
Designed with these constraints in mind, Stern Pod units can be installed entirely from the outside of the transom, reducing greatly the need for inside access. This allows greater immersion depth to be achieved.

The Stern Pod housing is waterproof and ignition protected (ISO 8846) designed to withstand the corrosive damp atmsphere of the bilge.

Entirely assembled and tested in our factory, Stern Pod units guarantee long term trouble-free opertion with only minimal maintenance care.



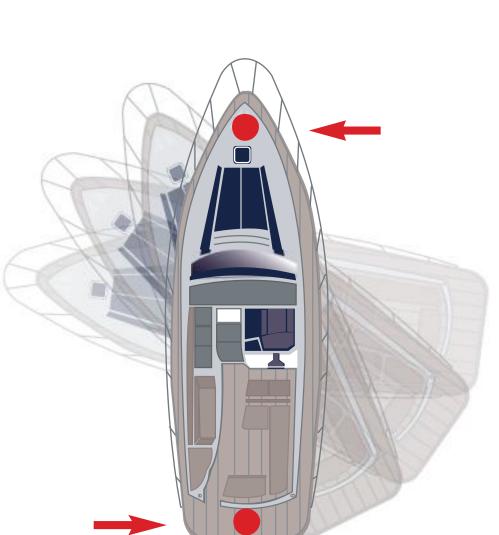
Bow thruster alone



Stern thruster alone



Bow & Stern thrusters



Dual propeller

Bow & Stern thrusters

Code	317625	317628	317629	317630	317631	317632	317633
Model	CT45	CT80		CT100	CT125	CT165	CT225
Boat size	6m - 10.5m 20 - 34'	8.5m - 14m 28 - 46'		9.8m - 15.5m 32 - 51'	10.5m - 18m 34 - 59'	12m - 20m 40 - 66'	14m - 22m 46 - 73'
Voltage	12 V	12 V	24 V	12 V	24 V	24 V	24 V
Thrust up to	45 kg	69 kg	75 kg	96 kg	115 kg	160 kg	195 kg
Power	3.2 kW / 4.3 hp	4.8 kW / 6.4 hp	5.3 kW / 7.1 hp	7.1 kW / 9.5 hp	8.6 kW / 11.5 hp	11.9 kW / 15.9 hp	15 kW / 20 hp
Weight	21 kg	31 kg	31 kg	41 kg	41 kg	61 kg	61 kg



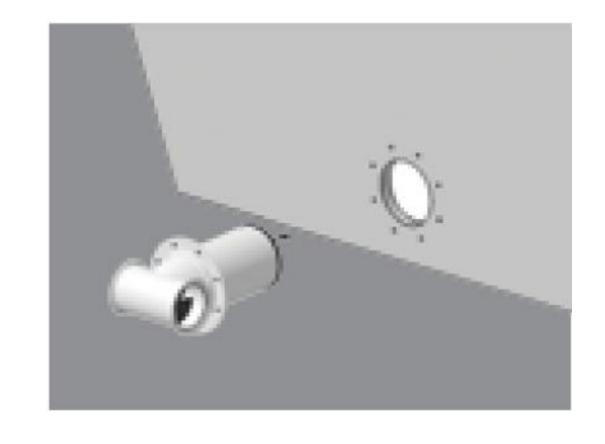
Case hardened spiro-conical gears.



Ignition protected and water resistant.



Watertight seals ensure extra protection



Easy external installation

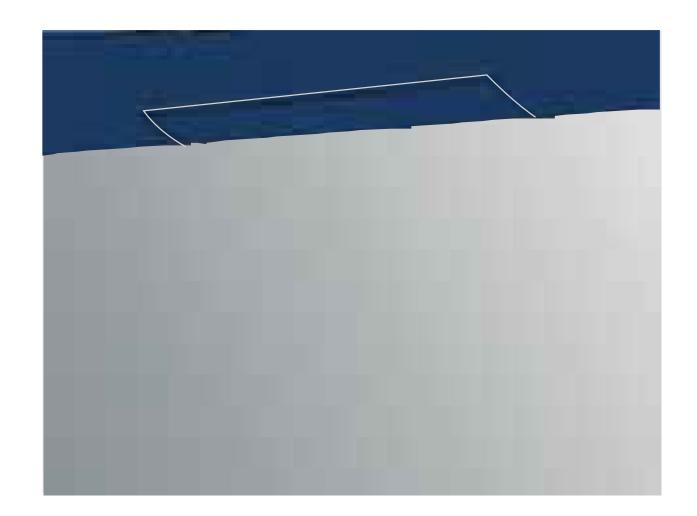


## Electric retractable thrusters



Combining the cost effective simplicity of DC electrics with the high performance characteristics of retractable units, this range is ideally suited to modern sailing yachts and super fast motor yachts. Max Power offers two different types of electric retractable thrusters: the low profile Compact RetractTM and the vertically retracting VIP 150 Electric, catering for yachts from 30-60'. (Max Power patented designs).

- Retract to leave smooth hull lines
- When deployed ideal immersion depth is achieved
- Patented composite drive legs
- Zero maintenance
- Case hardened spiro-conical gears
- Line shields
- Purpose built DC motors
- Electronic control boxes for unrivaled safety features
- Safe, high power connections
- Purpose built high specification DC contactors



When retracted hull lines are left smooth and unaffected.



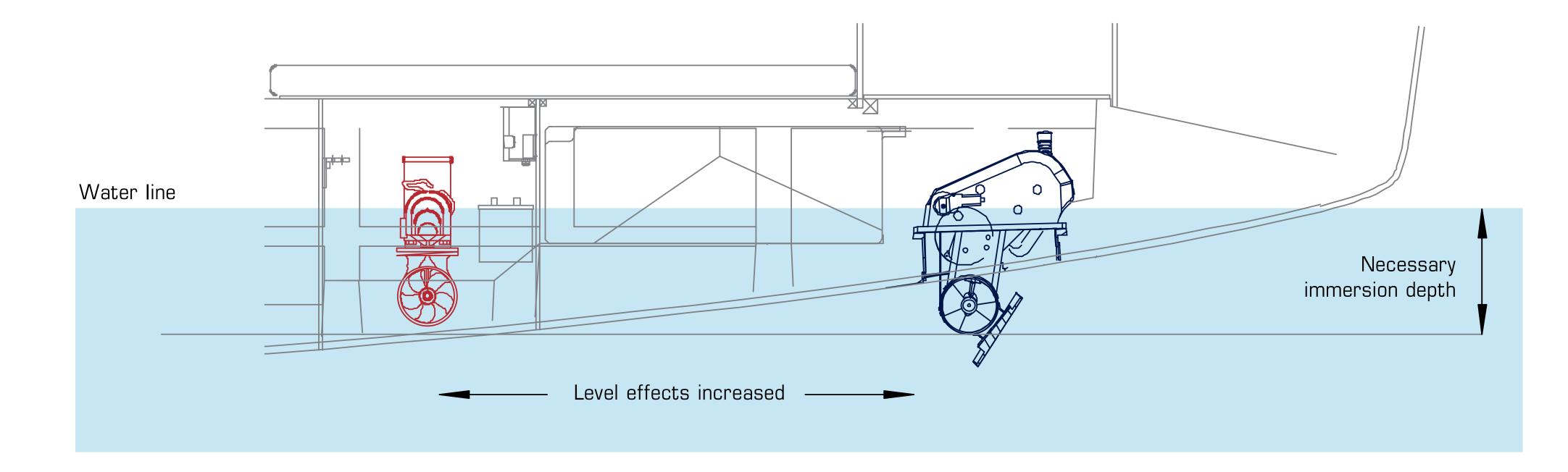
When deployed ideal immersion depth is achieved.



Unique composite drive leg design. See page 8 for details.



High specification electric motors. See page 8 for details.



Installed further forward (or aft) in the hull than is possible with a tunnel thruster, retractable units offer a far better turning moment on the yacht thus producing greater manoeuvrability.





Code: 317821\*\*\*Code: 317822\*\*\*Voltage\*:Voltage\*:12V24V

Thrust (kg/lbs)\*\*: Thrust (kg/lbs)\*\*: 70 / 154 85 / 187

Propellers: Propellers: Duo

Power (kw/hp): Power (kw/hp): 4.79 / 6.4 5.28 / 7.1 Weight (kg): 40 40

### **Dimensions (mm)**

A: 555

B: 388

C: 385

D: 185 E: 241

Designed for yachts from 9 to 16 metres (30-52'). This lightweight electric retractable thruster, the first of its kind, has been a major success with shipyards from the start.

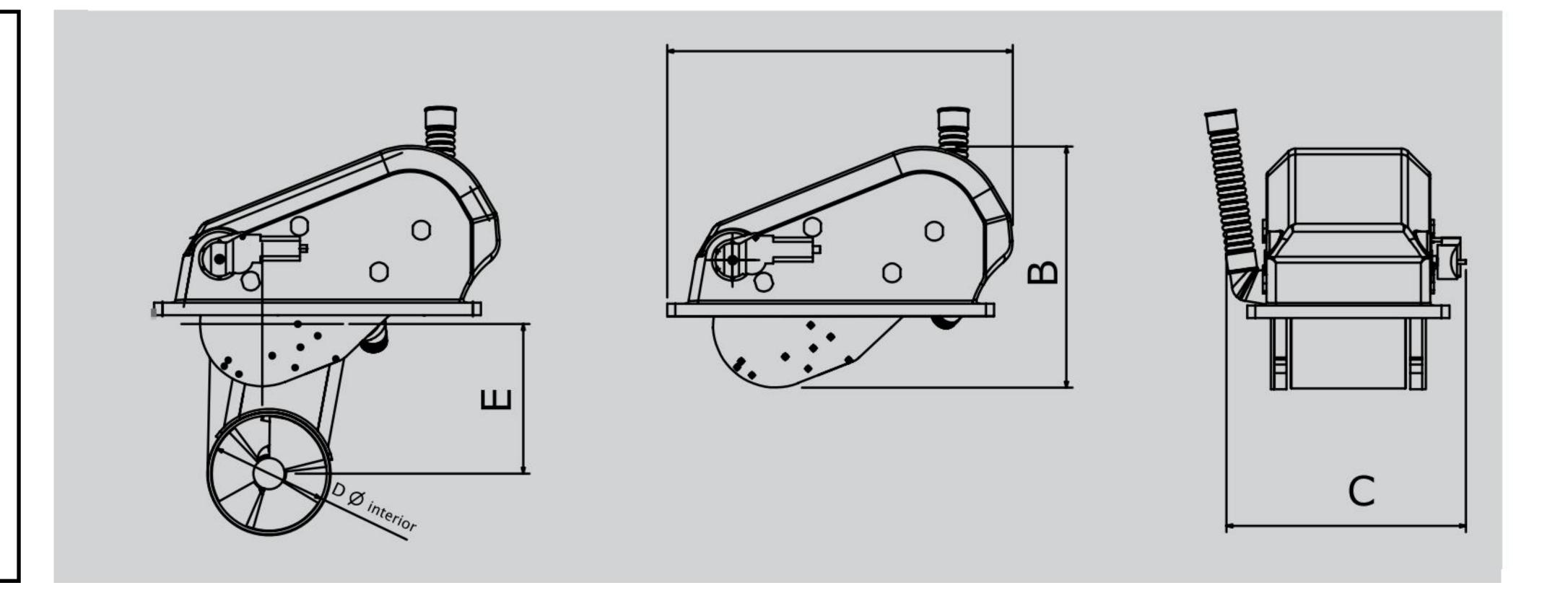
- Lightweight composite construction.
- Lowest profile and smallest hull opening on market.
- Bolted onto flange, not directly laminated into the hull.
- Rapid deployment.

- No exposed moving parts inside yacht.
- Splash resistant inside yacht.
- Intelligent position detection.

The compact retract is delivered with grey joystick and control system cable. Mounting base and other accessories must be ordered separately (see page 29-30)

#### NB: Images are not to scale

- \* Thrusters are designed to run at 10.75V on 12V units and 22V on 24V units. Higher voltages will result in higher thrust ratings, higher power consumption, and a reduced duty cycle.
- \*\* Performance data is given for a thruster deployed at an immersion depth of one tunnel's diameter, and this within a variation of + / 6%.





## Electric retractable thrusters



Max Power's vertically retracting VIP thrusters use a unique and patented thrust plate design. The largest electric thruster in the Max Power range, the VIP 150 is available in both 12V and 24V and is ideally suited to high performance sailing yachts and super fast motor yachts 40-60'

### VIP 150 ELECTRIC

 Code: 35023\*\*\*
 Code: 35024\*\*\*

 Voltage\*:
 Voltage\*:

 12V
 24V

Thrust (kg/lbs)\*\*:

96 / 212

Propellers:

Duo

Thrust (kg/lbs)\*\*:

115 / 254

Propellers:

Duo

Power (kw/hp): Power (kw/hp): 7.1 / 9.5 8.56 / 11.5 Weight (kg): 40 40

#### **Dimensions (mm)**

A: 330

B: 290

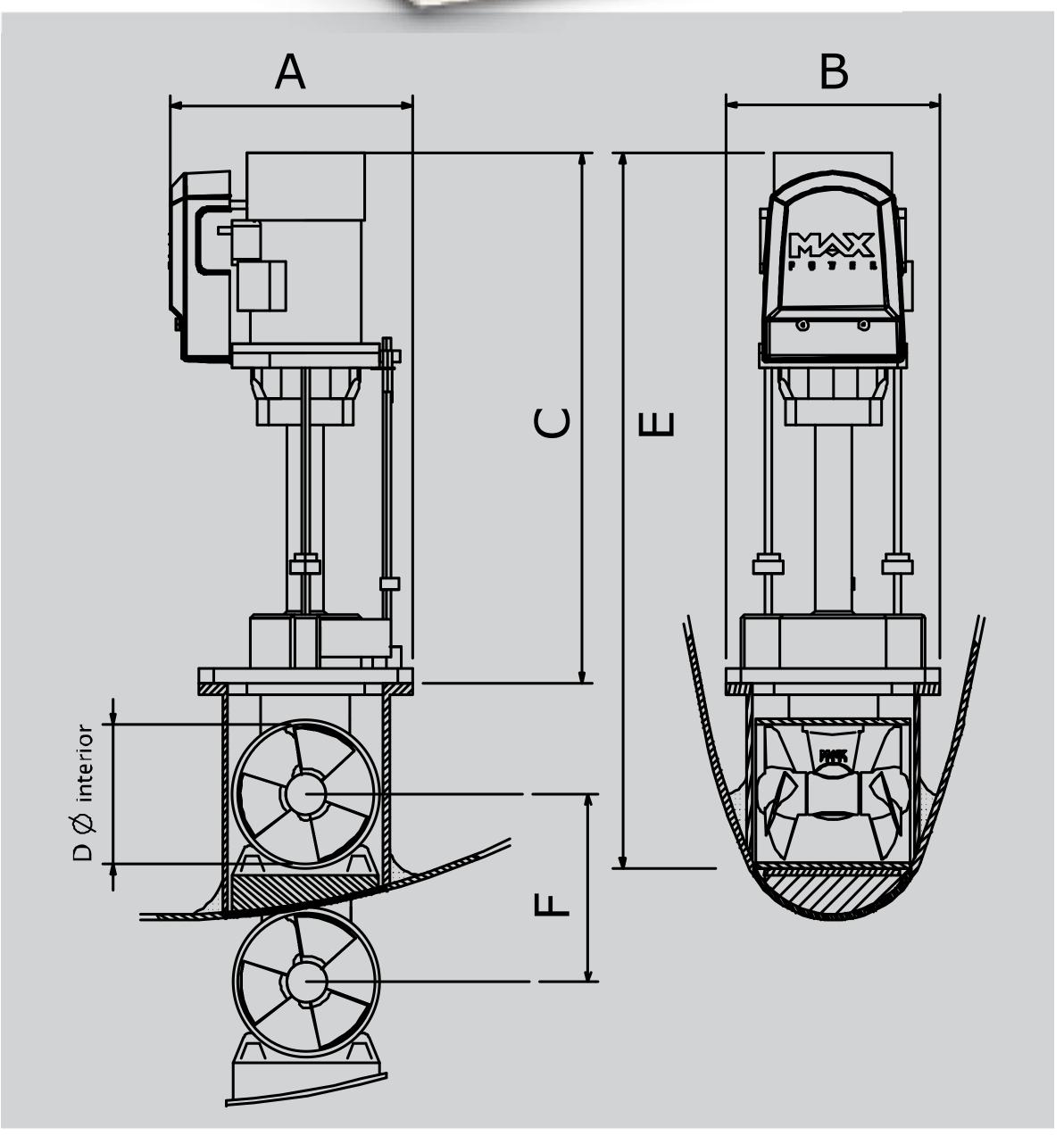
C: 710

D: 185

E: 970

F: 240

The VIP 150 is delivered with black joystick control box and 25m control system cable. Mounting base and other accessories must be ordered separately (see page 29-30)





NB: Images are not to scale

- \* Thrusters are designed to run at 10.75V on 12V units and 22V on 24V units. Higher voltages will result in higher thrust ratings, higher power consumption, and a reduced duty cycle.
- \*\* Performance data is given for a thruster deployed at an immersion depth of one tunnel's diameter, and this within a variation of + / 6%.

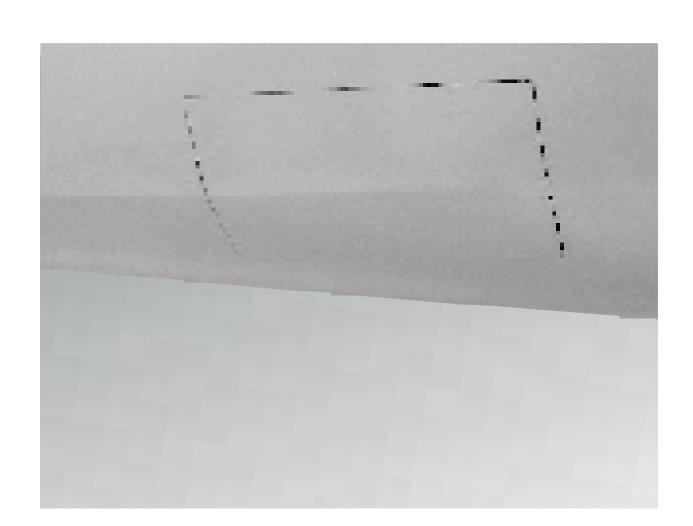


## Hydraulic retractable thrusters

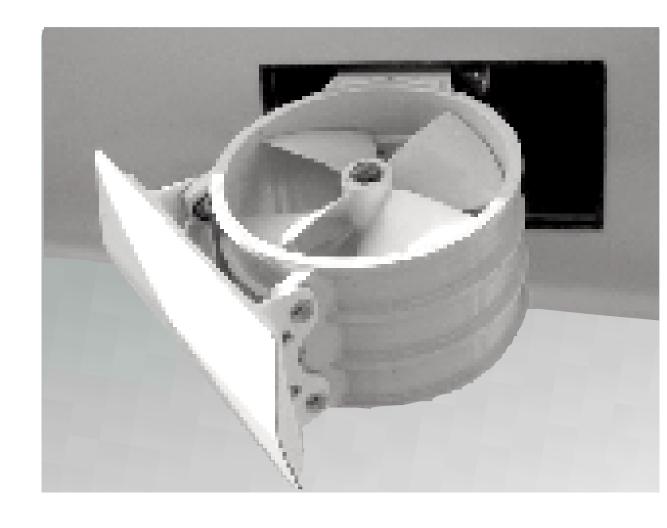


When performance is paramount, hydraulic retractable thrusters provide a perfect solution. Lightweight, powerful and allowing near perfect weight distribution, designers and prestigious yards have consistently specified Max Power thrusters over the years. Max Power offers two product ranges in this family: the vertically retracting VIP HYD range and the top end Retract<sup>TM</sup> folding series.

- Retract to leave smooth hull lines
- When deployed ideal immersion depth is achieved
- Water resistant
- Allow ideal weight distribution
- Ideal for high performance yachts
- Unique patented thrust plate design (VIP)
- Unique patented folding movement (RetractTM)
- Case hardened spiro-conical gears
- Lightweight design



When retracted hull lines are left smooth and unaffected.



When deployed ideal immersion depth is achieved.



Can be installed in habitually damp areas such as sail lockers.



Allow ideal weight distribution in high performance yachts.



## Hydraulic retractable thrusters



## VIP 150 HYD

Code: 317702 - 12V control **Code: 317703** - 24V control

Max. thrust (kg/lbs)\*:

120/264

Hydraulic power (kw):

Propellers:

Duo

Weight (kg):

28

### **Dimensions (mm)**

A: 290

B: 290

C: 580

D: 185

E: 810

F: 240



### VIP250 HYD

Code: 317705 - 24V control

Max. thrust (kg/lbs)\*:

200 / 441

Hydraulic power (kw):

13.5

Propellers:

Duo

Weight (kg):

#### **Dimensions (mm)**

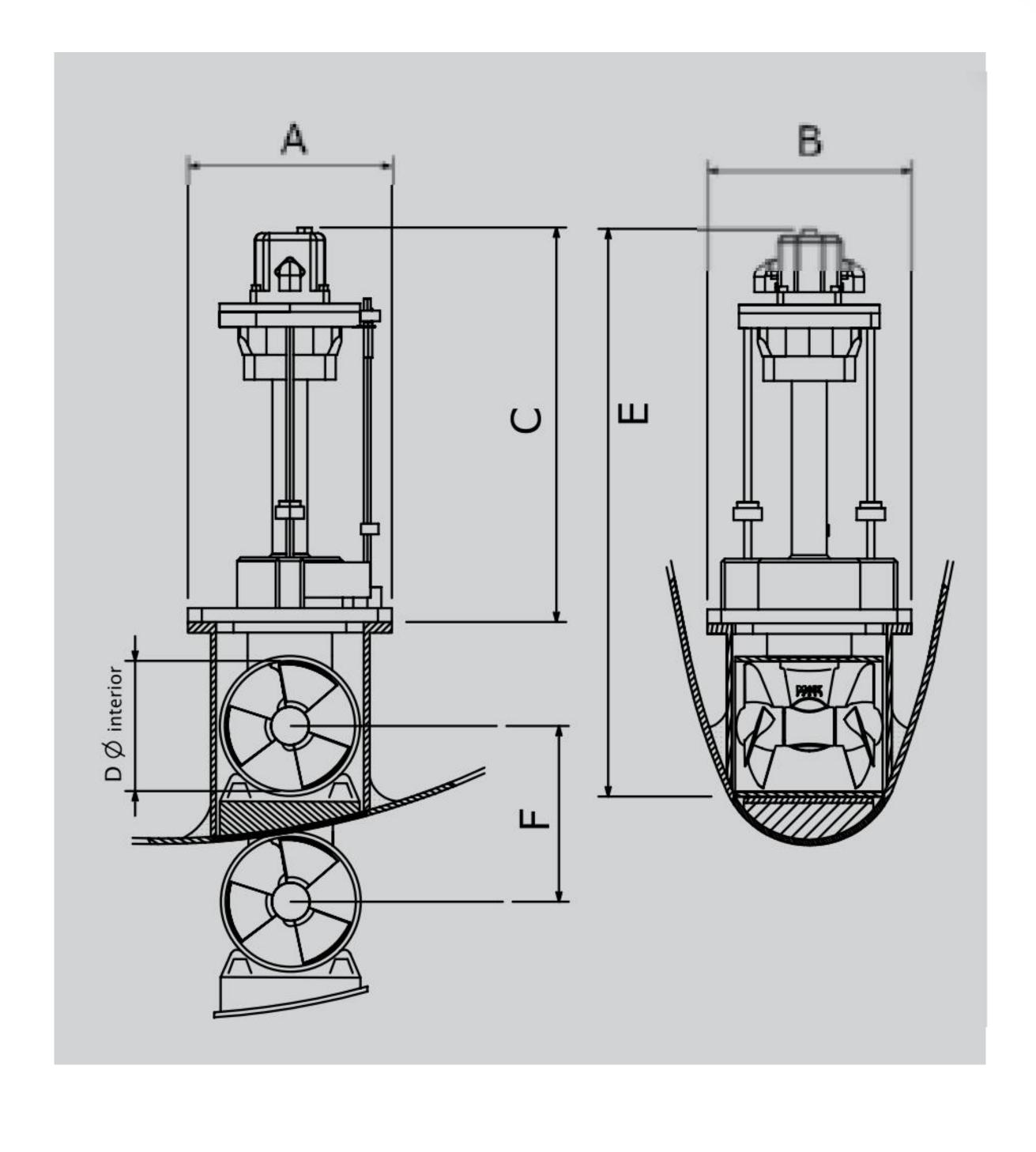
A: 360

B: 360

C: 620 D: 250

E: 950

F: 295



NB: Images are not to scale

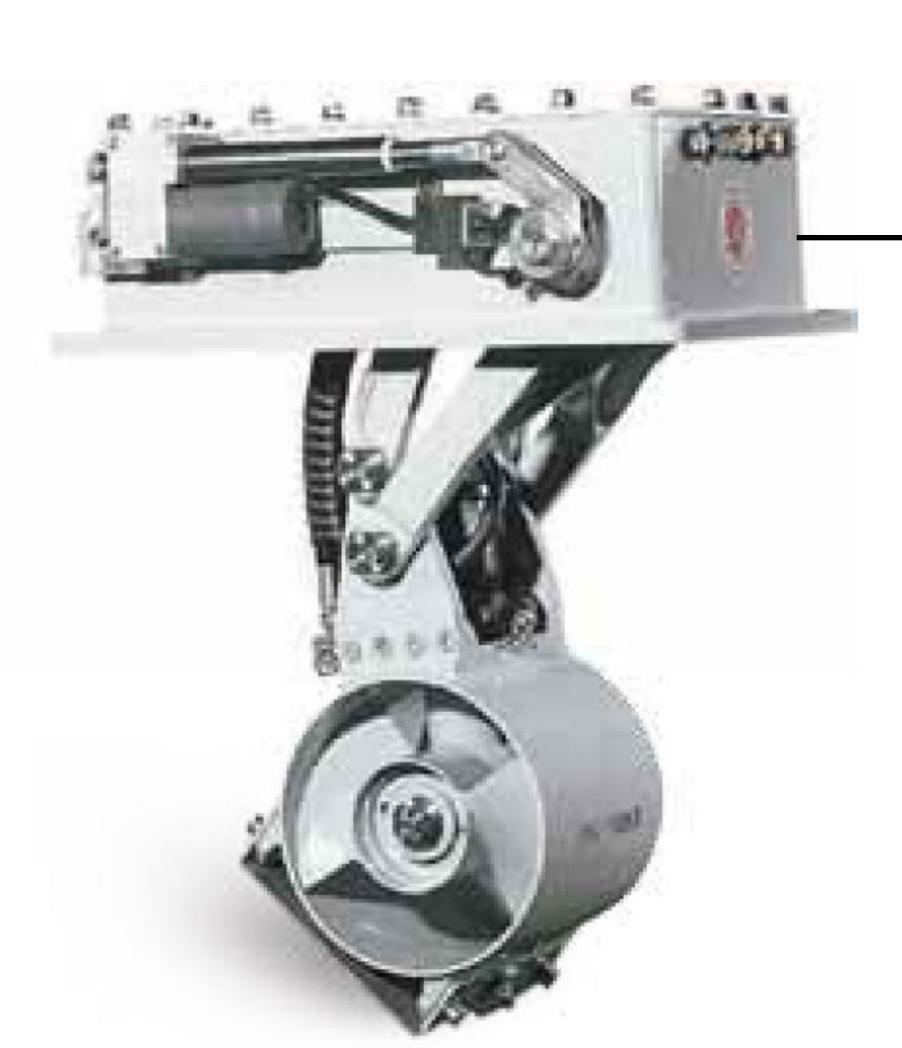
\*Performance data is given for a thruster deployed at

one tunnel diameter immersion depth, and this within

a variation of + / - 6%.

For more in-depth information on this range, please visit our website:

www.max-power.com



## R200/6 - R200/8

Code: 317801\* - 24V Code: 317802\* - 24V

Code: 31/802" - 24V
Thrust:
10 kg per kw

Max. hydraulic power (kw):

13

Propellers:
Duo, 2 blades
Weight (kg):

35



A: 500

B: 355 C: 320

(kw): D: 200

E: 255







R300/15 - R300/21

Code: 317807\* - 24V Code: 317809\*

Thrust:

11 kg per kw

Max. hydraulic power (kw):

25

Propellers: Duo, 3 blades

Weight (kg):

73

### **Dimensions (mm)**

A: 665

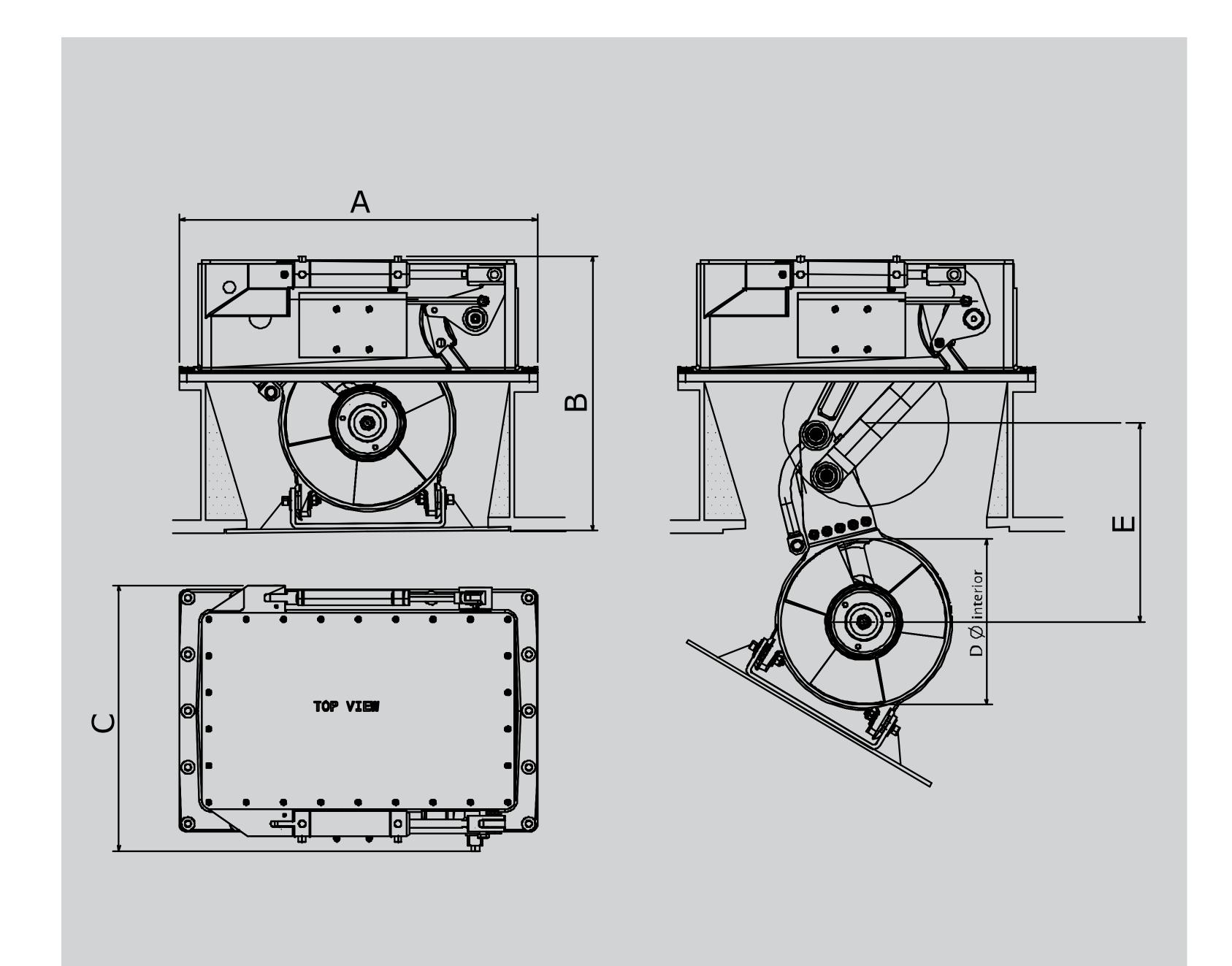
B: 500

C: 450

D: 300

E: 360

\*Codes refer to full package units. For further details on full package units, assemblies and components, please refer to page 25.



#### Custom Services

Several versions of each RetractTM model are available.

Hydraulic flow and pressure can be customised to suit hydraulic system specifications.

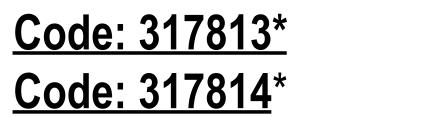
Many of the larger units in this range are manufactured to order. Specified by designers and architects alike, these technically superior retractable units are supplied to many of the world's finest custom yacht builders.

For more in-depth information on this range, please visit our website:

www.max-power.com







Dimensions (mm) A: 940

Thrust: 11 kg per kw

B: 748 C: 460

Max. hydraulic power (kw): 40

D: 450 E: 540

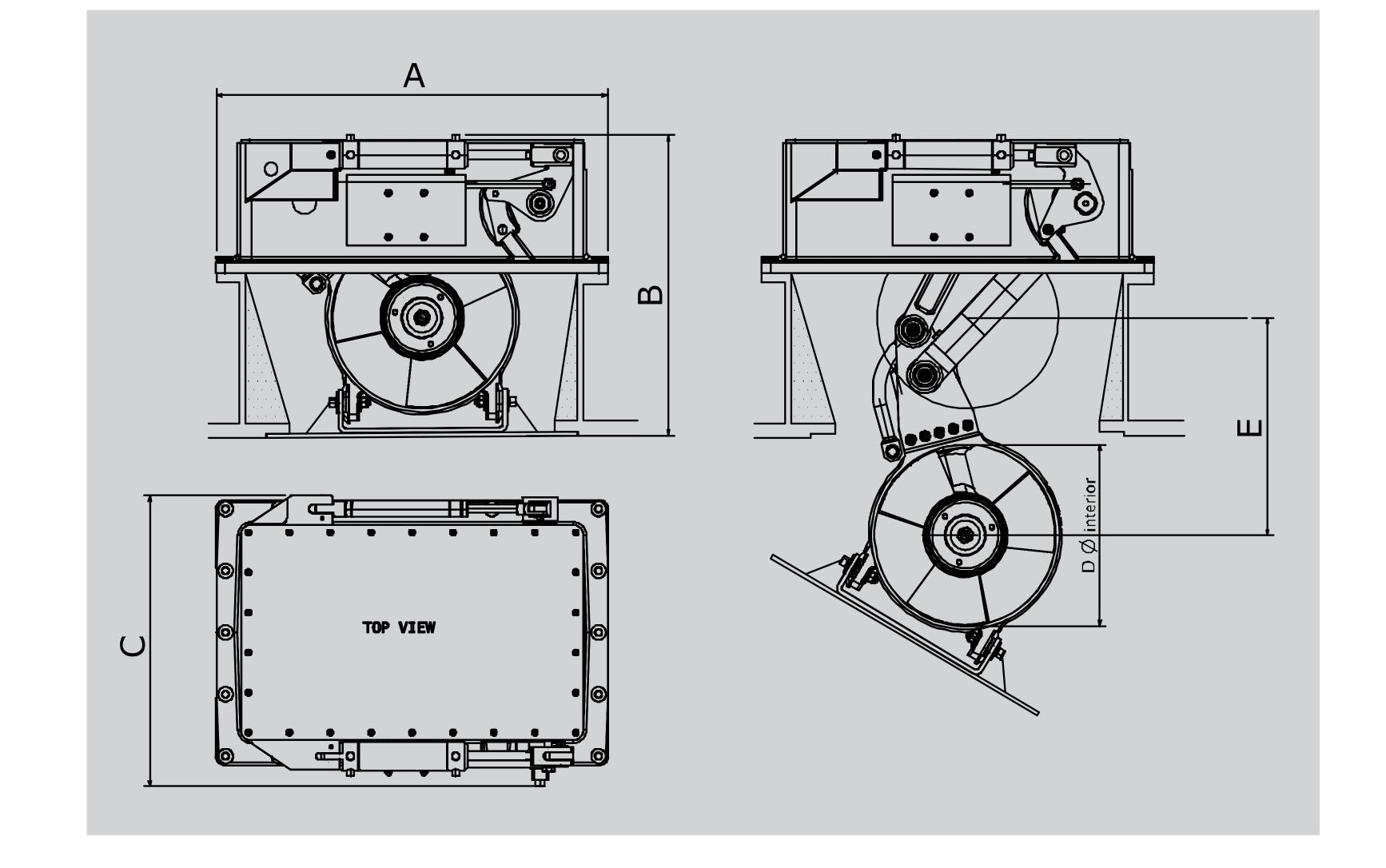
Propellers:
Duo, 5 blades

Weight (kg): 165

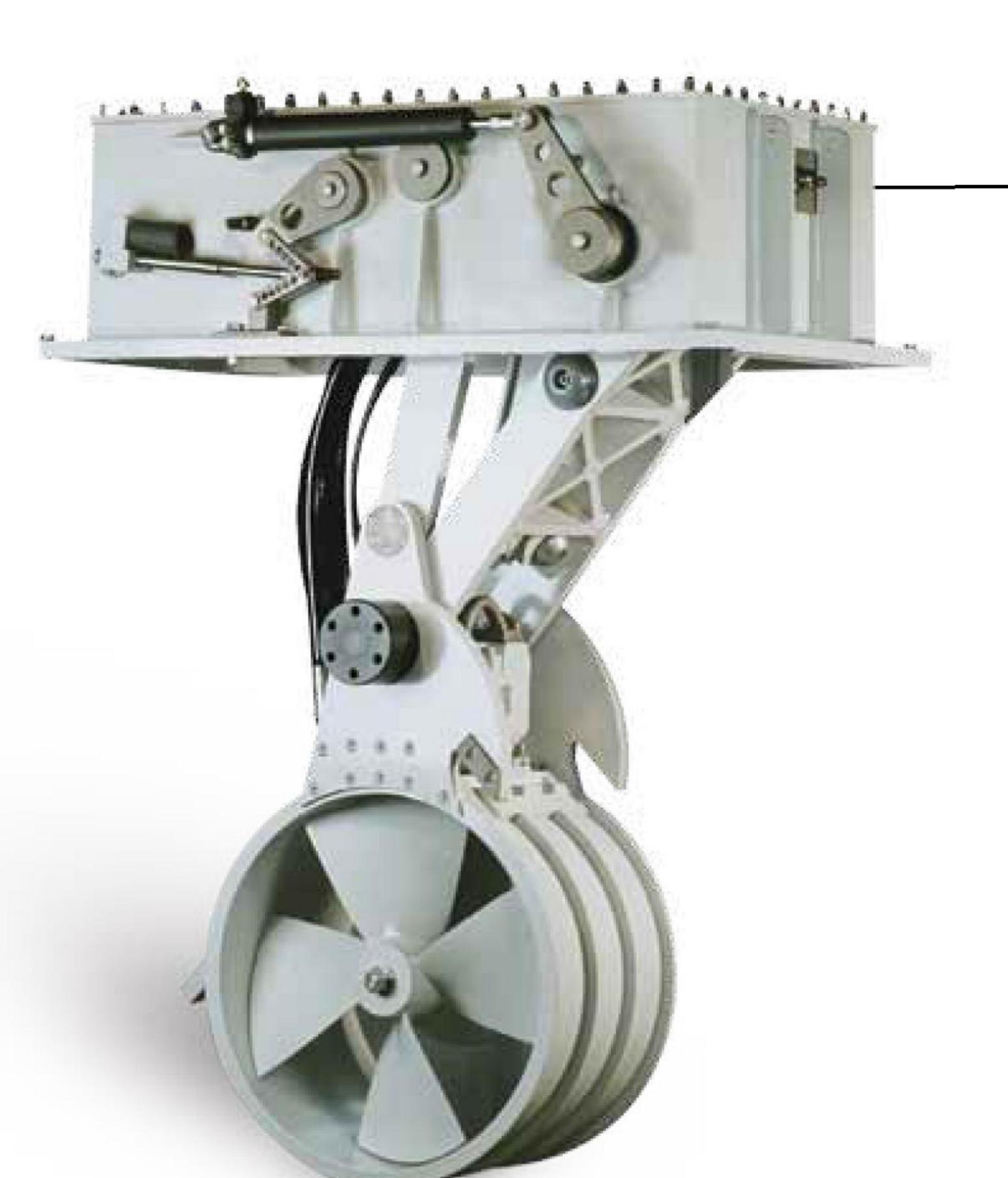
E: 540







\*For further details on units, assemblies and components, please refer to page 25.



## R600

Code: 317819\*

Thrust:

12 kg per kw

Max. hydraulic power (kw):

83

Propellers:

Mono, 4 blades

Weight (kg):

320

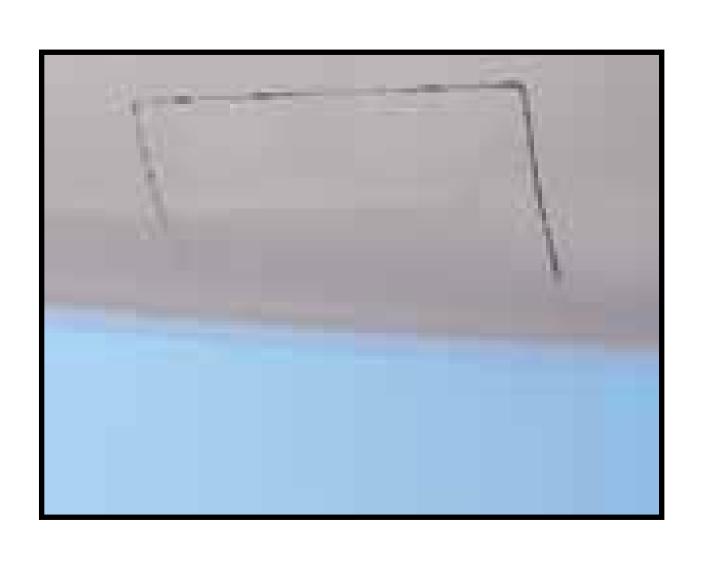
#### **Dimensions (mm)**

A: 1210

B: 967

C: 985

D: 600 E: 772

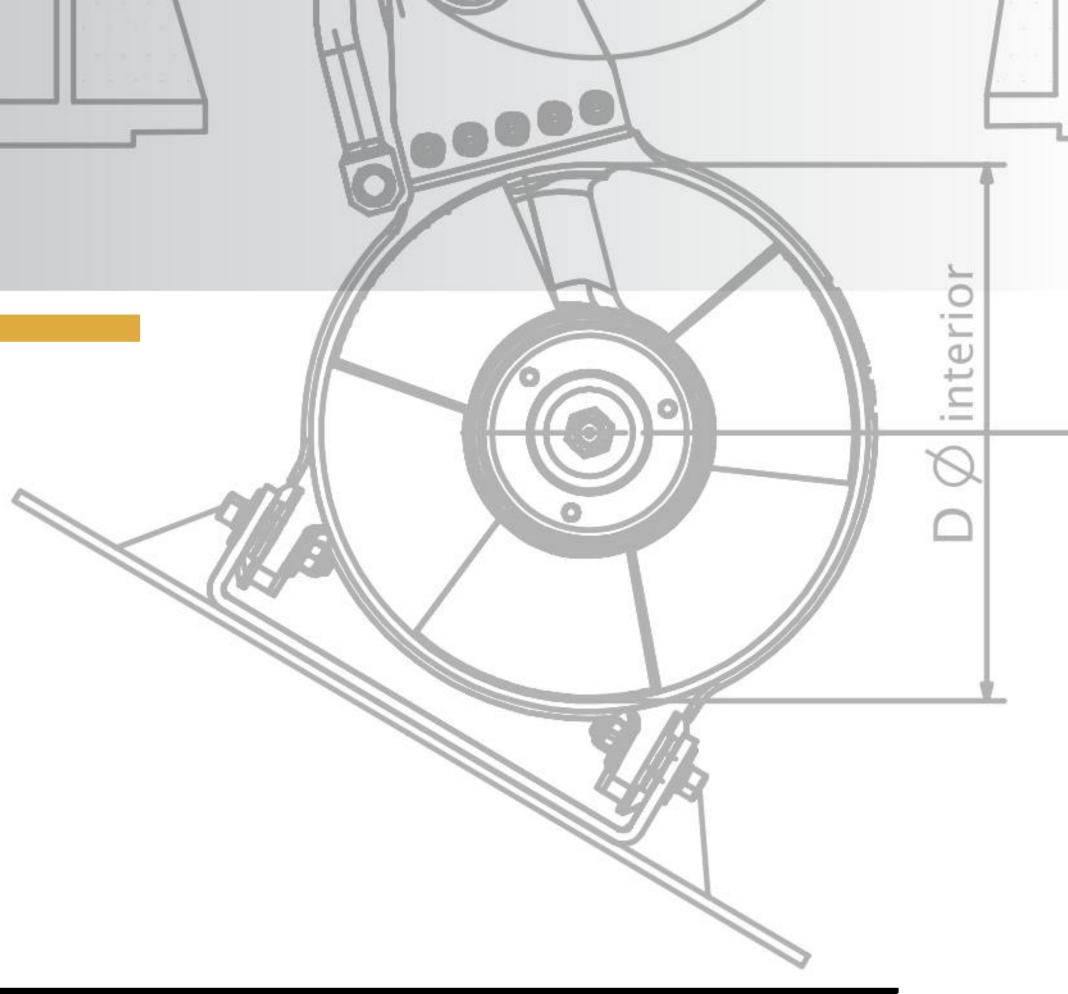






# RETRACT RANGE: FULL PACKAGE UNITS, ASSEMBLIES & COMPONENTS

Model	Code	HP	KW	FLOW	PRESSURE	MOTOR
R200/6	317801	10,72	8	22 LPM	220 B	6 cc
R200/8	317802	16,08	12	30 LPM	240 B	8 cc
R300/15	317807	14,74	11	29 LPM	240 B	15 cc
R300/21	317809	23,59	17,6	44 LPM	240 B	21 cc
R450/34	317813	44,23	33	90 LPM	220 B	34 cc
R450/40	317814	54,06	40,33	110 LPM	220 B	40 cc
R600	317819	111,7	83,33	200 LPM	250 B	60 cc



	Code	Description
	317801	RETRACT R200/6 24V (Complete Package)
	317802	RETRACT R200/8 24V (Complete Package)
Full Package Units	317807	RETRACT R300/15 ELECTRO PUMP 24V (Complete Package)
	317809	RETRACT R300/21 ELECTROHYDRO (Excludes Electro-pump)
	317803	THRUSTER ASSEMBLY R200/6
	312950	ELECTRONIC CONTROLLER VIP/R200
	318224	JOYSTICK VIP & RETRACT GREY
	316504	MAX POWER DISTRIBUTION BLOCK
317801	313456	TANK 8Ltr WHITE COMPLETE (filter etc.)
R200/6 Package includes	35017	FUSE HOLDER T1
RZUU/O Package Iliciuues	35020	FUSE 200A T1 FOR THRUSTERS
	318401	BATTERY CUT-OFF RELAY 24V
	316511	ELECTROPUMP BK8/8.5cc
	634136	MOTOR SUPPORT (2 PCS)
	317804	THRUSTER ASSEMBLY R200/8
	312950	ELECTRONIC CONTROLLER VIP/R200
	318224	JOYSTICK VIP & RETRACT GREY
	316504	MAX POWER DISTRIBUTION BLOCK
317802	313456	TANK 8Ltr WHITE COMPLETE (filter etc.)
R200/8 Package includes	35017	FUSE HOLDER T1
RZUU/O Package Iliciuues	35022	FUSE 315A T2 FOR THRUSTERS
	318401	BATTERY CUT-OFF RELAY 24V
	316509	ELECTRO HYDRAULIC PUMP BK13/11cc
	634136	MOTOR SUPPORT (2 PCS)
	317810	THRUSTER ASSEMBLY R300/15
	633652	ELECTRONIC CONTROLLER R300
	318224	JOYSTICK VIP & RETRACT GREY
	316501	MAX POWER DISTRIBUTION BLOCK
317807	313450	TANK 12Ltr WHITE COMPLETE (filter etc.)
317007	35017	FUSE HOLDER T1
R300/15 Package includes	35022	FUSE 315A T2 FOR THRUSTERS
	318401	BATTERY CUT-OFF RELAY 24V
	317905	ELECTRO HYDRAULIC PUMP BK14/11cc
	634136	MOTOR SUPPORT (2 PCS)
	316515	LIFTING PUMP R300 ( > 2007)
	317811	THRUSTER ASSEMBLY R300/21
247000	633652	ELECTRONIC CONTROLLER R300
317809	318224	JOYSTICK VIP & RETRACT GREY
R300/21 Package includes	316501	MAX POWER DISTRIBUTION BLOCK
	316515	LIFTING PUMP R300 ( > 2007)
	247042	DETDACT D150/21 (Thrustor Accombly ONII V)
Thruster Accemblice	317813	RETRACT R450/34 (Thruster Assembly ONLY)
Thruster Assemblies	317814	RETRACT R450/40 (Thruster Assembly ONLY)
	317819	RETRACT R600/60 (Thruster Assembly ONLY)
317813	316515	LIFTING PUMP R450
R450/34 & 317814-R450/40	317820	ELECTRONIC CONTROLLER R450 + KAMEWA OPTION
Additional Components	318224	JOYSTICK VIP & RETRACT GREY
047040	313352	POWER LIFT R600
317819 R600/60	318224	JOYSTICK VIP & RETRACT GREY
Additional Components	JIULLT	CONTROL BOX Upon Request
		JOHN TO LOW OPON NO GUOST

All parts can be ordered individualy



## Control panels & Remote Control



All control panels are specially designed for use with Max Power's complete range of tunnel and retractable thrusters. Fitted using a simple hole saw cut-out, panels are easy to install and benefit from a simple and easily replaceable weatherproof clip-on cover. Each panel is complete with both male and female connectors using a reusable connection system.

- Available in black or grey
- Water resistant
- Easy to fit
- Replaceable clip-on cover
- Safety features
- Control panels
- Water



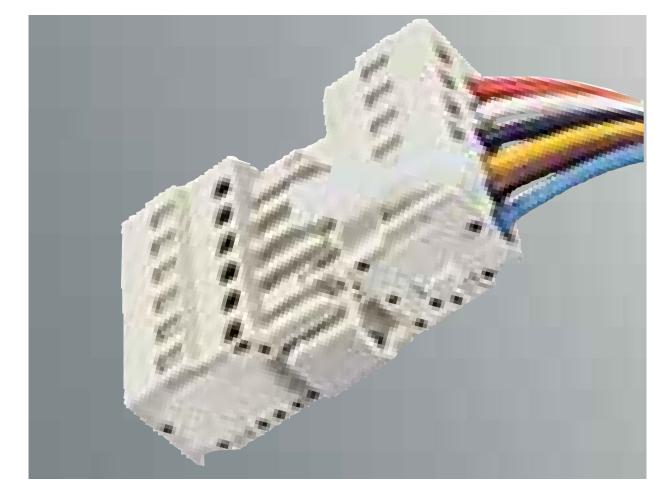
Water resistant.



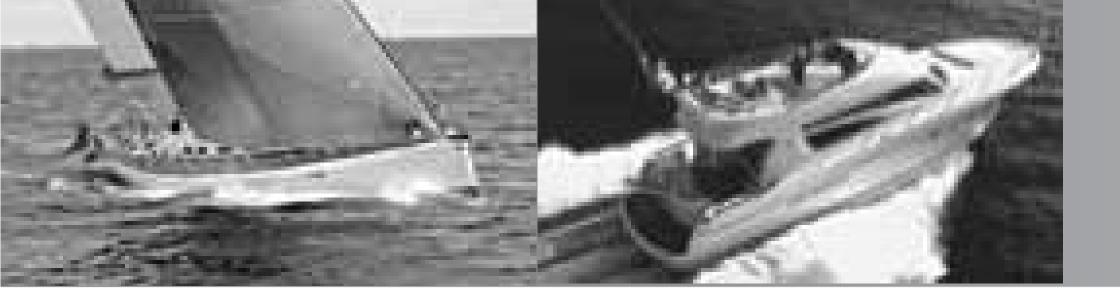
Easy to fit.



Easy to replace clip-on cover.



Reusable connections.



### Control system safety features

Max Power's thruster control systems are childproof and incorporate unique safety features.

The control system software monitors for incoherent signals, stray voltage, and abnormally long thrust signals in order to help protect against malfunctions caused by water ingress and short circuits. Visual and audio alarms provide a 10 second warning before the overheat shutdown function is activated. If left idle for thirty minutes, the system switches itself off automatically.

Designed with technical details such as independent control power supply (protects relays against damage due to low voltage), and standard remote electric battery isolator control, Max Power's system is clearly ahead of the competition. These effective mechanisms ensure that your Max Power thruster is both safe and reliable thus guaranteeing peace of mind onboard.

- Childproof activation
- Automatic shutdown after 30 minutes of inactivity
- Visible and audible motor overheat warning
- Motor overheat shutdown after prior warning
- Standard automatic battery isolator control
- Time delay switch between port and starboard thrust
- Software protection against short circuits

Max Power strongly recommends the installation of an automatic battery isolator device when installing thruster systems.





## Control panels & Remote Control

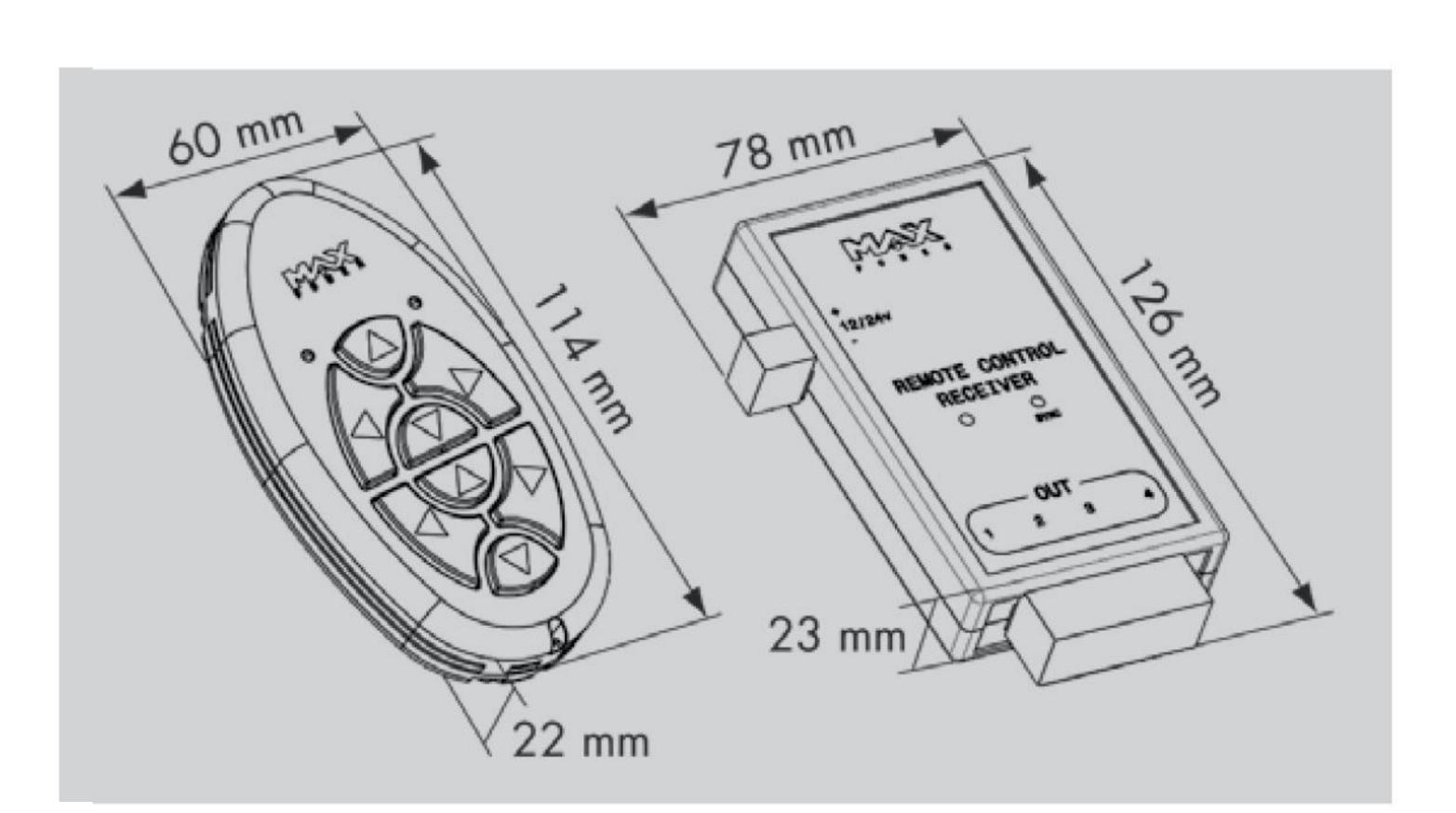
The Boat control panel simplifies the combined use of a bow and stern thruster. Full and simultaneous control of both thrusters is possible via one easy to use manipulator. Stepping the boat sideways or turning  $360^{\circ}$  on the spot become smooth, simple operations, and each thruster can still be used independently.



### Radio remote controls

Max Power's radio remote control is designed to work with our entire range of tunnel and retractable thrusters. The remote control can also be used to operate additional onboard equipment such as windlasses, passerelles, cranes, etc.

- Supports up to 8 independently controlled channels
- Each receiver can switch 4 channels (12/24 V 5 A)
- Each transmitter can handle 2 receivers (8 channels)
- Digital recognition avoids accidental activation of other systems
- Available in 868 MHz (Europe/Australia) and 915 MHz (USA/Canada)
- Transmitter power supply: 12/24V dc
- Zero power consumption when in standby mode (transmitter)
- Easy to install and set up, simple to use



Code	312973	312974	312971	312972	312969	312970
Frequency	868 MHz	915 MHz	868 MHz	915 MHZ	868 MHz	915 MHz
Description	Transmitter + Receiver (EU)	Transmitter + Receiver (USA)	Additional receiver (EU)	Additional receiver (USA)	Spare transmitter (EU)	Spare transmitter (USA)

<sup>\* 868</sup> MHz is the authorised frequency for Europe and Australia. 915 MHz is the authorised frequency for Canada and the USA. Retail sales and use of non-authorised frequency transmitters and receivers is prohibited. For all other countries please consult the local regulation in force.





## Accessories

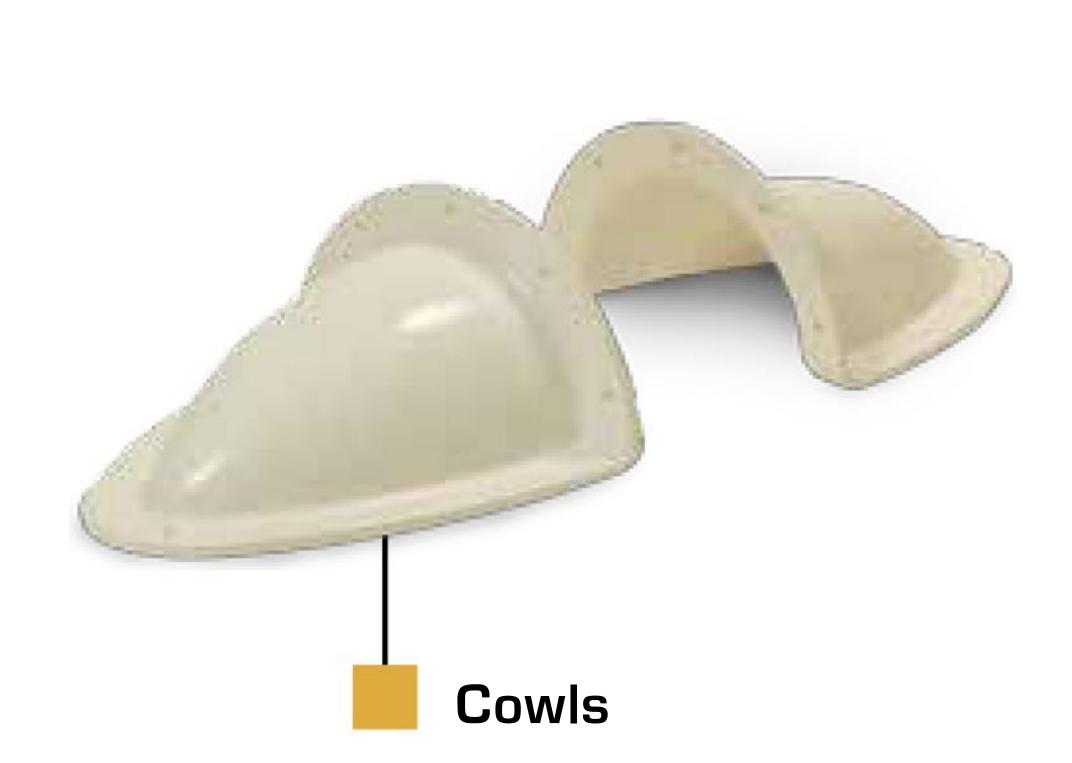




Manufactured from fully isophtalic resin and pre-gel coated, Max Power's high quality tunnels have the added advantage of a first coat of matt before being filament wound. Cutting and drilling can therefore be carried out without the risk of damaging the gel coat on the inside surface of the tunnel.



Also manufactured from fully isophtalic resin, Max Power's range of stern adaptors are SMC moulded (sheet moulding compound) in a male / female steel mould. This ensures perfect resin fibre ratio and exceptional reproduction of form.



Cowls are easily fitted to the stern adaptors and allow the use of stern thrusters in relatively shallow draft applications.

Thruster model	CT35/45	CT60/80/100/125	CT165/225	312969	312970
Tunnel diameter	125 mm	185 mm	250 mm	300 mm	315 mm
Tunnel length			Reference		
500 mm	45546	-		-	-
750 mm	42547	42549		-	-
1000 mm	313804	42550	42553	_	-
1250 mm	313809	-	-	-	-
1500 mm	-	42551	42554	313811	35004
2000 mm	-	-		313812	42557
2500 mm	42548	42552	42555		
Stern adaptors	315389	315392	315395		35015
Stern adaptor fixation kit			35016 (for all models)		
Stern adaptor cowls	315398	315399	315400		



### Mounting bases

Mounting bases to suit all of our retractable thrusters are available to facilitate installation. Manufactured from isophtalic GRP, they can be easily integrated into new builds or retro-fitted. Aluminium yachts are catered for with suitable aluminium flanges. These are designed to be welded to the top of a mounting base constructed in the hull.

Code	311362	35025	313760	35026	
Description	Aluminiur	n flange	GRP Mounting Base		
Suitable for Compact Retract		VIP 150	Compact Retract	VIP 150	



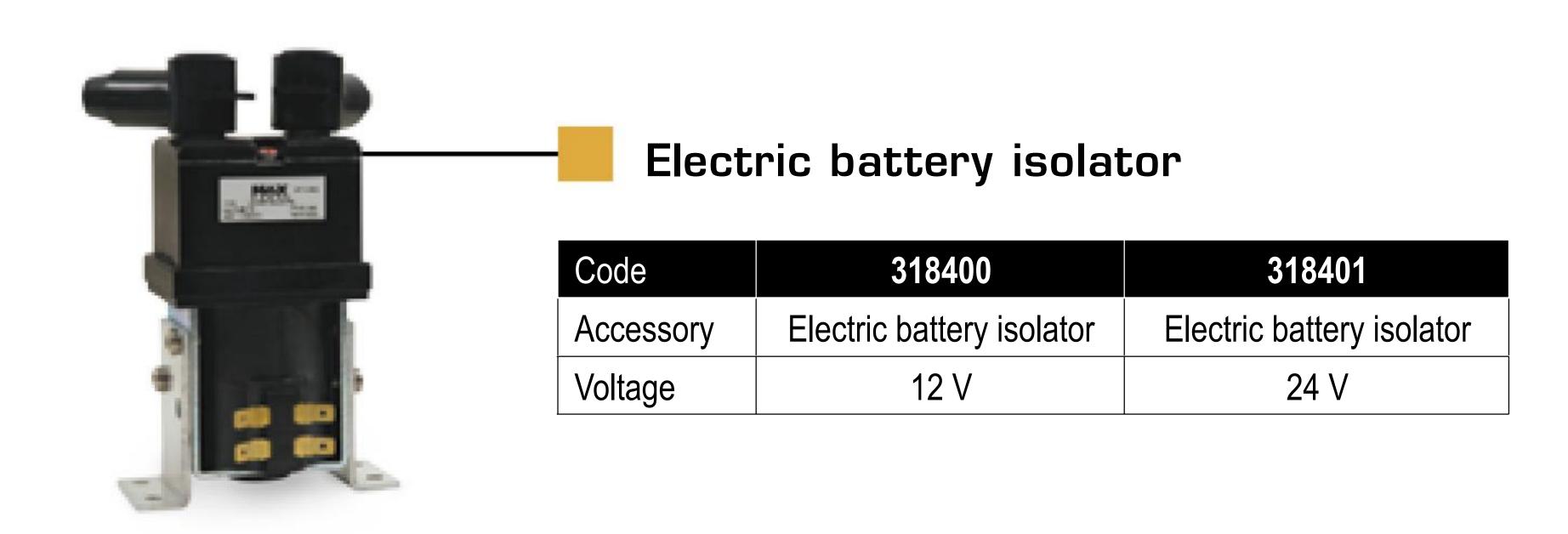
## Accessories

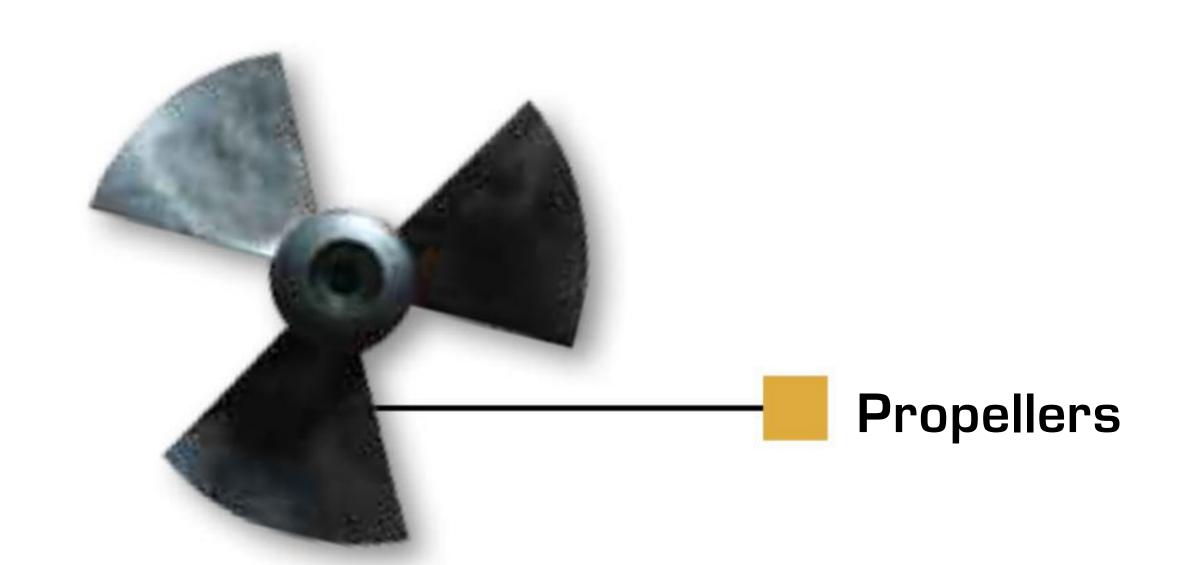


Fuses (electric tunnel and retractable thrusters)

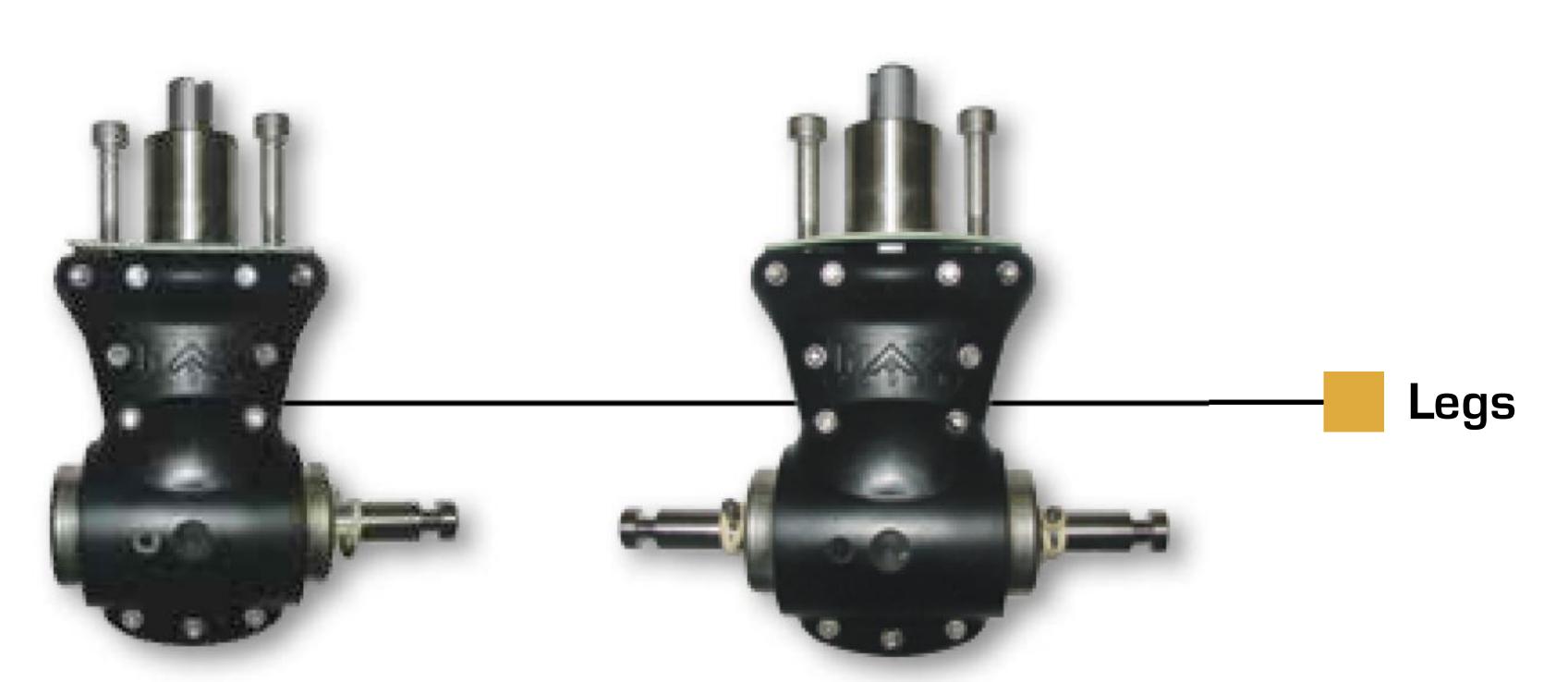
Max Power offers a range of calibrated fuses specifically selected model by model and tested to offer an increased level of protection over standard ANL fuses. Chosen taking into account each fuse's specific blow curve, Max Power fuses match the requirements of each thruster system.

Thruster model	CT35/45	CT60	CT80 / C. Retract	CT60 / CT80 / C. Retract	CT100 / VIP150	CT125 / VIP150	CT165 / 225	CT300 / 325
Voltage	12 V	12 V	12 V	24 V	12 V	24 V	24 V	24 V
Amp	125 A	160 A	200 A	125 A	315 A	200 A	250 A	400 A
Fuse	35021	35019	35020	35021	35022	35020	35027	35028
Fuse holder	35017	35017	35017	35017	35018	35017	35018	35018
Extractio handle	312882 (for all models)							





Code	35030	35031	313775	35032	313810	35033
Thruster Model	CT35 / 45	CT60 / 80 / 100 / 125 & VIP	Compact retract	CT165 / 225	CT300	CT325
Diameter (mm)	Ø 125	Ø 185	Ø 185	Ø 250	Ø 300	Ø 315



Code	315318	310376	35034	315321	35035	315388	315324	315411
Thruster model	CT35	CT45	CT60	CT165 / 225	CT80 / 100 / 125	CT300	CT325	CT325
Contruction	Composite					Bro	nze	Aluminium
Diameter (mm)	Ø 125	Ø 125	Ø 185	Ø 250	Ø 185	Ø 300	Ø 315	Ø 315
Proppelers	Mono	Duo	Mono	Duo	Duo	Duo	Duo	Duo



## Integrated hydraulic systems

As of 2013, a strong partnership has been built among Lofrans' and Max Power thrusters creating a synergy in yacht control and maneuvering solutions.

As a natural evolution from simple stand-alone independent units, Max Power is able to offer fully integrated hydraulic systems for sailing yachts. Whether running winches, wind-lasses, bow thrusters, stern thrusters, hydraulic davits or complex keel lifting mechanisms, our complete hydraulic solutions are used by many of the world's large sailing yacht manufacturers. Unique in their flexibility, Our systems are built using a common central line principle.

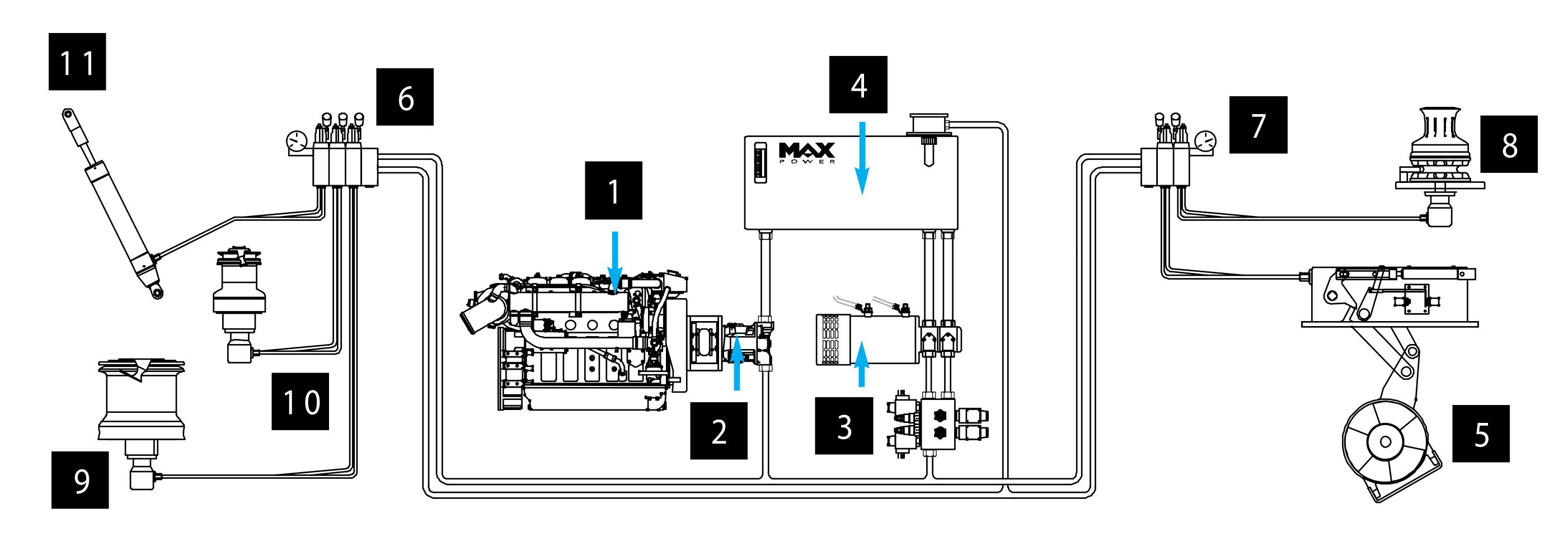
This means any function can be run from any power source thereby allowing a high level of user control. The use of load sensing pumps and valves ensures efficient and silent operation over a wide range of hydraulic flows and pressures. Our experience in designing and supplying complete solutions ensures that a Max Power-Lofrans' integrated system will be efficient, flexible and reliable.



Sailing yacht power systems typically include one or several generator mounted hydraulic pumps and in addition will require a DC power pack for silent sailing and light maneuvering. The PowerValve<sup>TM</sup> power pack range used in our systems, offers exceptional flexibility and power efficiency over a wide range of hydraulic flows.

Available as single or twin motor units, each motor pump can deliver 3 flow ratings at two predetermined system pressures, thereby accommodating a wide variety of hydraulic functions.

From high pressure, low flow keel, to a powerful high flow windlass, each function only draws the amperage needed for that specific application.



- **1** Generator with PTO
- 2 Variable displacement pump
- 3 DC power pack
- 4 Oil tank with filtration and gages
- **5** Thruster
- 6 Control Valve

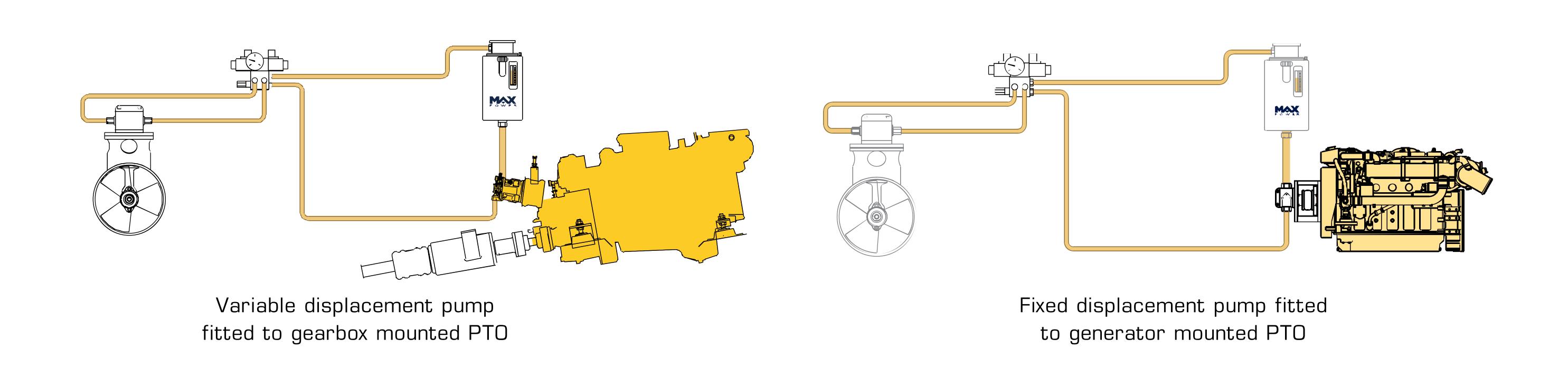
- **7** Control Valve
- 8 Windlass
- 9 Winch
- 10 Winch
- 11 Hydraulic ram

Code	316511	317908	317909	317907					
Motor	1 x 8 KW	2 x 8 KW	1 x 13 KW	2 x 13 KW					
Settings	3	6	3	6					
Flow range	10 < 30 lt/min	10 < 60 lt/min	10 < 30 lt/min	10 < 60 lt/min					
Pressure		140 < 214 bar							
Weight	35 kg	76 kg	39 kg	83 kg					



## Thruster only hydraulics systems

Hydraulic thrusters need a carefully designed hydraulic system to run them reliably and efficiently. Often this system may only be required for the yacht's thruster(s). The most common form of thruster only system uses an engine as its power source. These can offer unlimited run times and do not need batteries or high power cables. Two types of hydraulic pumps can be used for these dedicated systems.

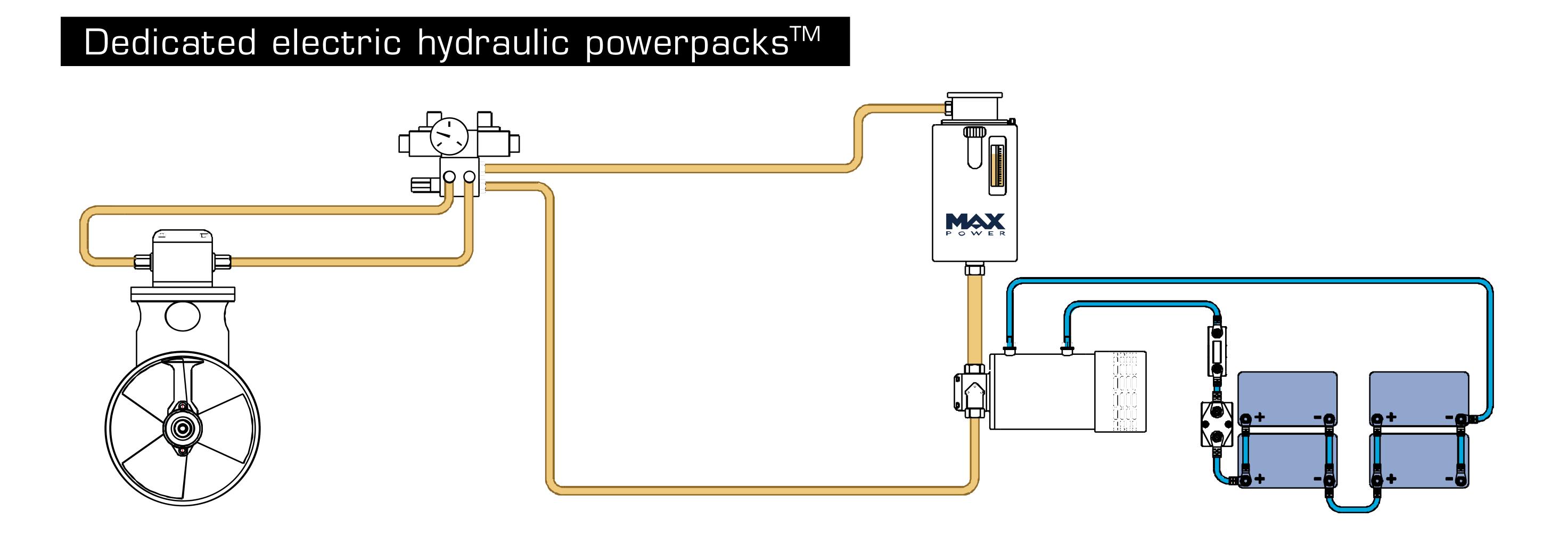


#### Variable displacement pumps

A variable displacement pump can be used when a fixed flow is needed but the engine RPM is likely to vary. This would typically be a main engine or gearbox mounted pump. Often used on large powerboats, these systems offer a powerful solution for larger thrusters.

#### Fixed displacement pumps

Used when a generator with a PTO (power take off) is available, fixed displacement pumps give a single (fixed) flow at a given engine RPM. Highly robust, these systems are simple to install and cost effective.



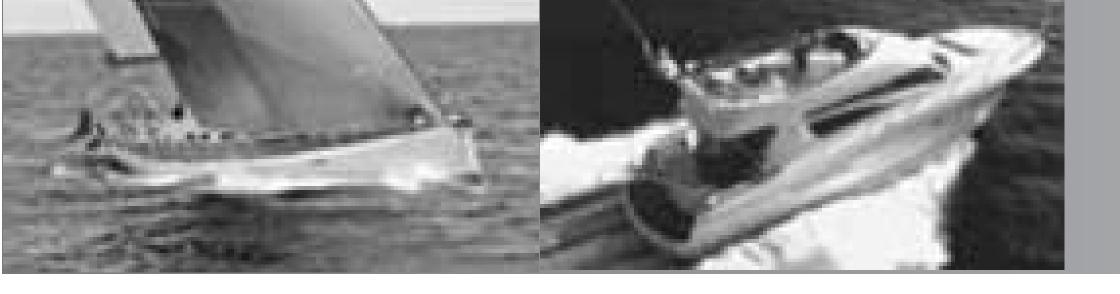
Sometimes an engine driven pump may not be feasible, if this is the case Max Power manufactures a range of dedicated DC power packs specifically designed to run our range of hydraulic thrusters both retractable and tunnel. These have been designed to supply a fixed flow of oil at a specific pressure.

Although still fundamentally a DC thruster, a hydraulic unit run from a DC power pack offers a host of advantages over conventional DC thrusters.

- Better weight distribution in the yacht
- The ability to fit the thruster unit in habitually damp and even wet areas such as sail lockers
- Allows the DC motor to be placed close to the batteries that supply it, whilst still enabling the installation of the thruster(s) in the yacht's extremities

Whether run from a DC motor or an engine, Max Power can supply a full range of components including all necessary accessories such as a variety of oil tanks and control valves.

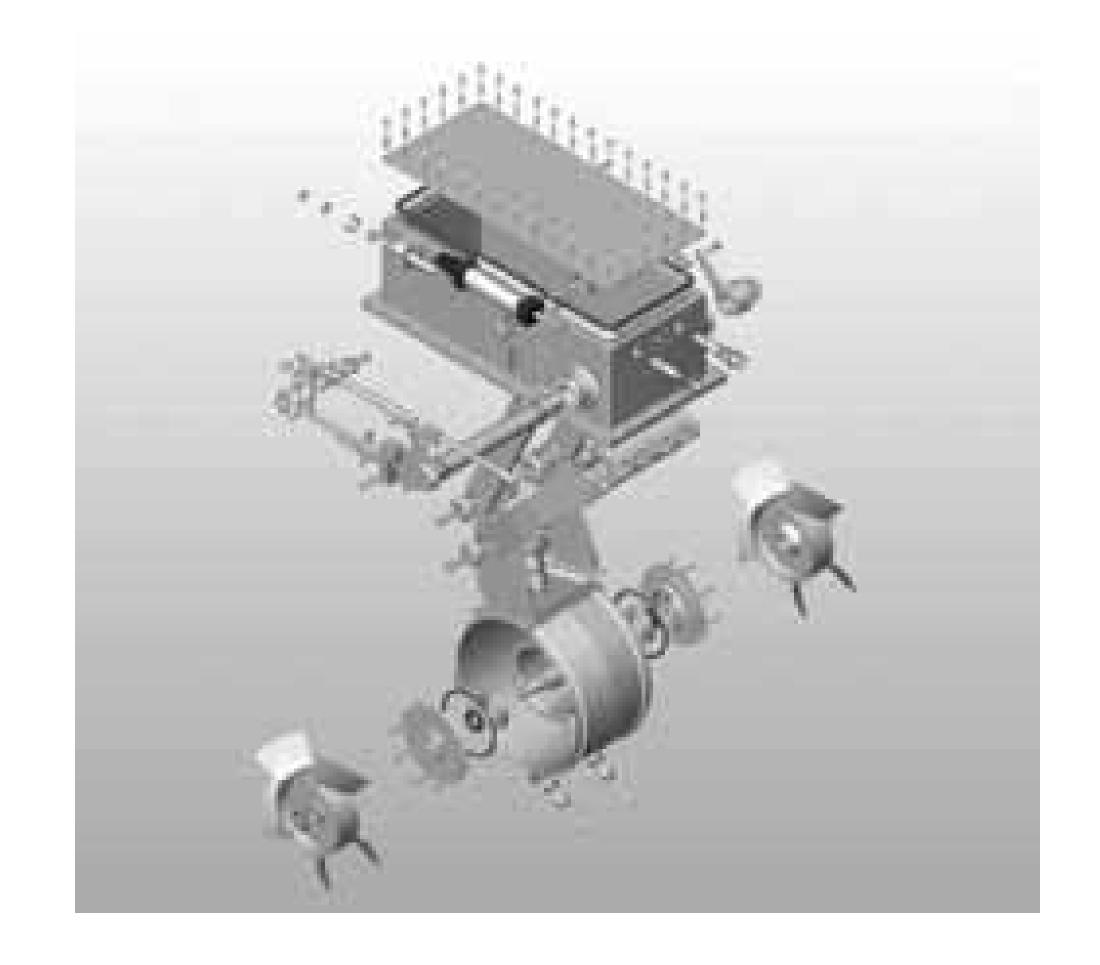
In both cases Max Power can advise and assist in the design of an efficient system suited to your needs.



## R-Range Hydraulic Thruster Revision



- The Max Power Thruster Revision Program is carried out at our production facilities in Monza.
- Initial inspection and complete disassembly of your Retractable Hydraulic Thruster.
- Inspection and full report on the condition of all components, with photos of all parts requiring replacement.
- Replacement of all seals and bearings.
- Repair cost analysis through a comprehensive and detailed quotation.
- Rebuild of your unit following your approval to proceed.
- Extra option of grit-blasting of all casted parts and re-painting
- Delivery of your thruster in as "As-good-as-new" condition, with a warranty period of one year.











The Revision program is carried out by our experienced technical personnel, having developed through a series of educational seminars by our engineers and marine professionals.

For further details on Revision Program please contact Max Power at contact@max-power.com.



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