

# COPENHAGEN SUBSEA A/S

THE POWER OF SILENCE



Electrical Subsea Thrusters

## Reliability as the Highest Priority

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The revolutionary range of powerful and silent subsea thrusters from Copenhagen Subsea A/S have been developed with reliability as the highest design priority. This goal to produce reliable thrusters has been verified with intensive testing – additionally the technology has proven its validity through key customers' intensive use over long time periods.

The performance and durability of our thrusters have been certified by in-water endurance tests. The tests consists of 1,000 operating hours at maximum power. The tests showed no degradation , and no decrease of performance.

The thrusters are responsive, powerful and easy to integrate – and will provide vehicles with a unique combination of silent power and high maneuverability.

## Unique Product Features

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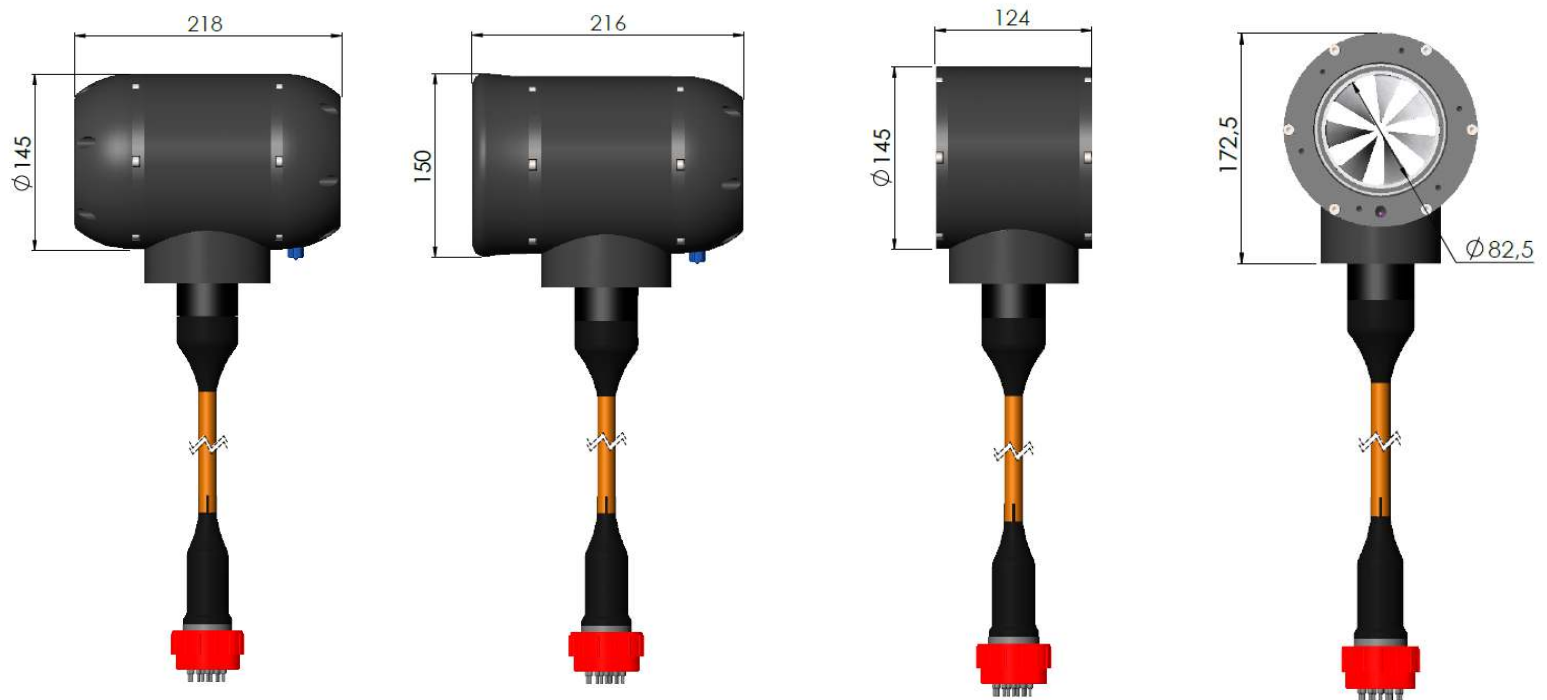
- Fast response time - high maneuverability.
- Only one moving part - low acoustic sound signature.
- Only solid molded parts - no sealing needed, no oil inside and no air inside.
- Ultra high reliability
- Low friction - seawater lubricated bearings provide high efficiency.
- Hubless propeller - low risk of entanglement.
- Easily exchangeable propeller.
- Compact format - unprecedented power/size ratio



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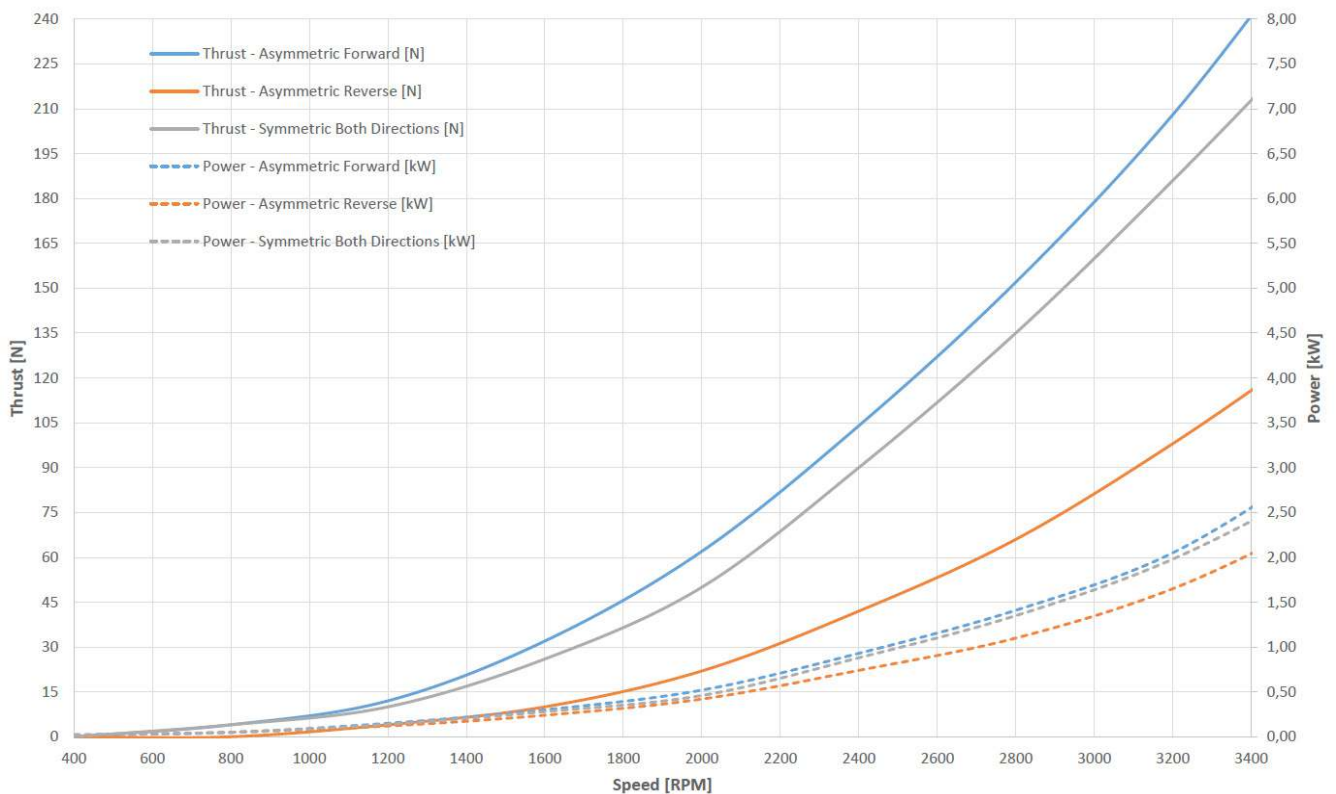
### Version Small (VS)



Propeller Diameter	Weight in Air	Weight in Water	Depth Rating
83 mm	4.4 kg (Compact)	3.4 kg	Up to 3.000 meter

Specifications on this page may change without prior notice

### VS Performance Data

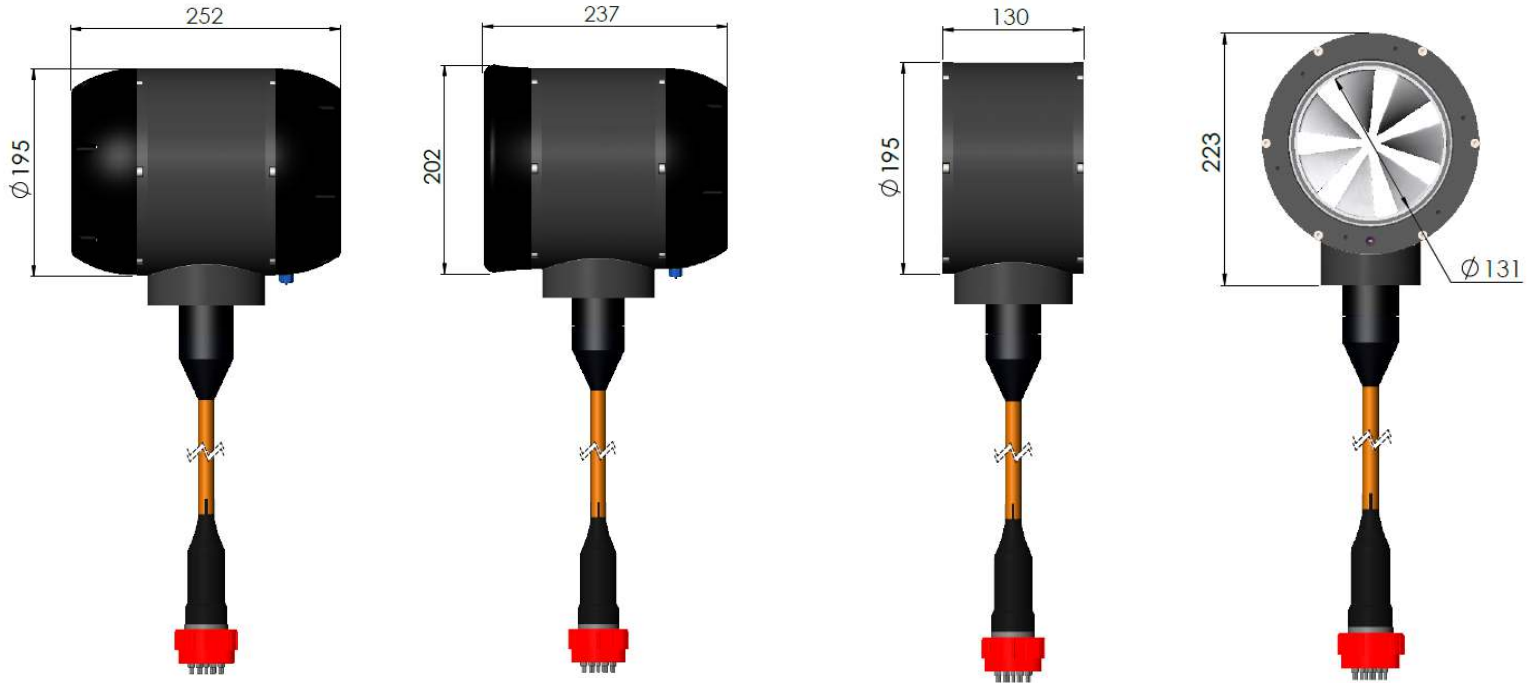


The power consumption shown in the above graph is the power consumption of the thruster, excluding efficiency loss in the motor controller or power loss in cables. The maximal power is only achievable in cool water - see website for more information.

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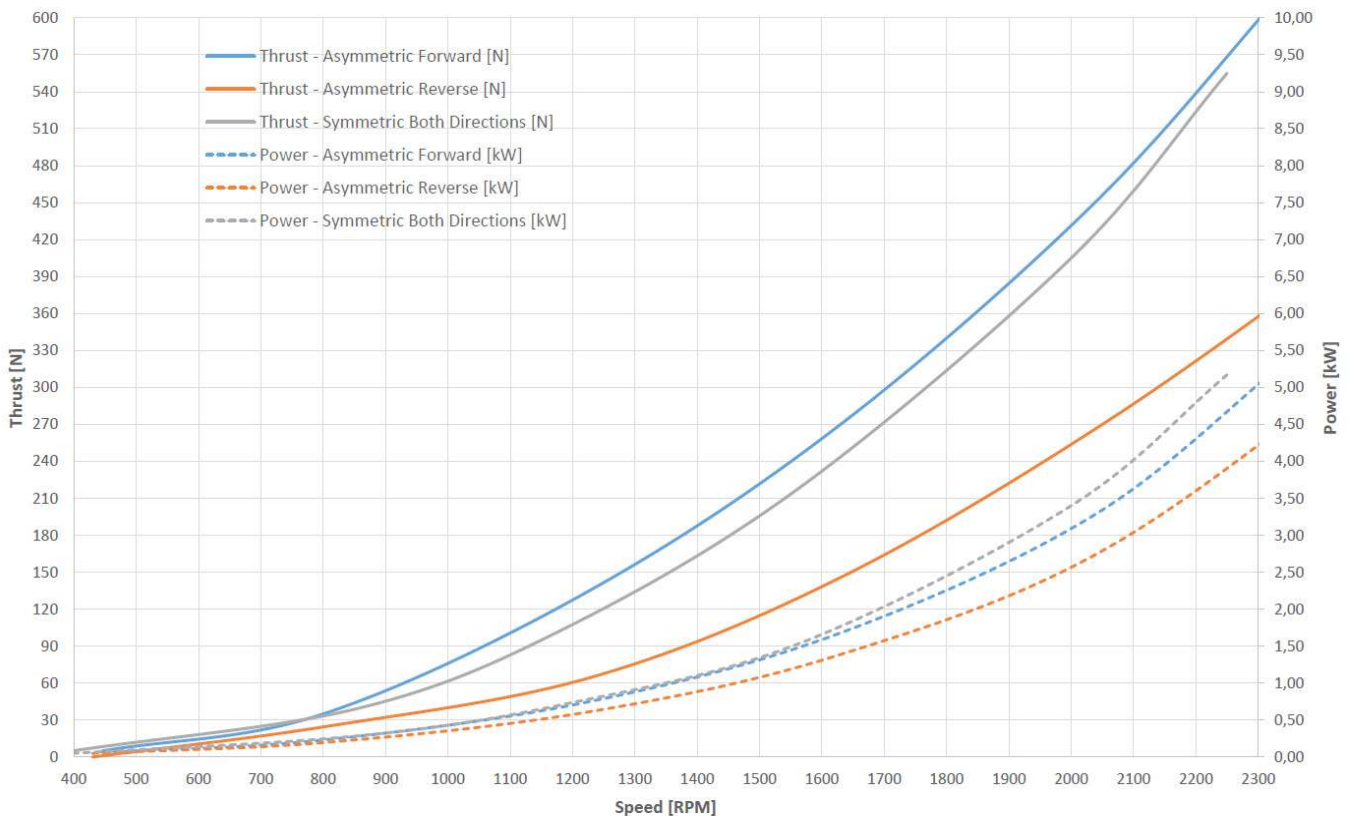
### Version Medium (VM)



Propeller Diameter	Weight in Air	Weight in Water	Depth Rating
131 mm	5.6 kg (Compact)	4.6 kg	Up to 3.000 meter

Specifications on this page may change without prior notice

### VM Performance Data

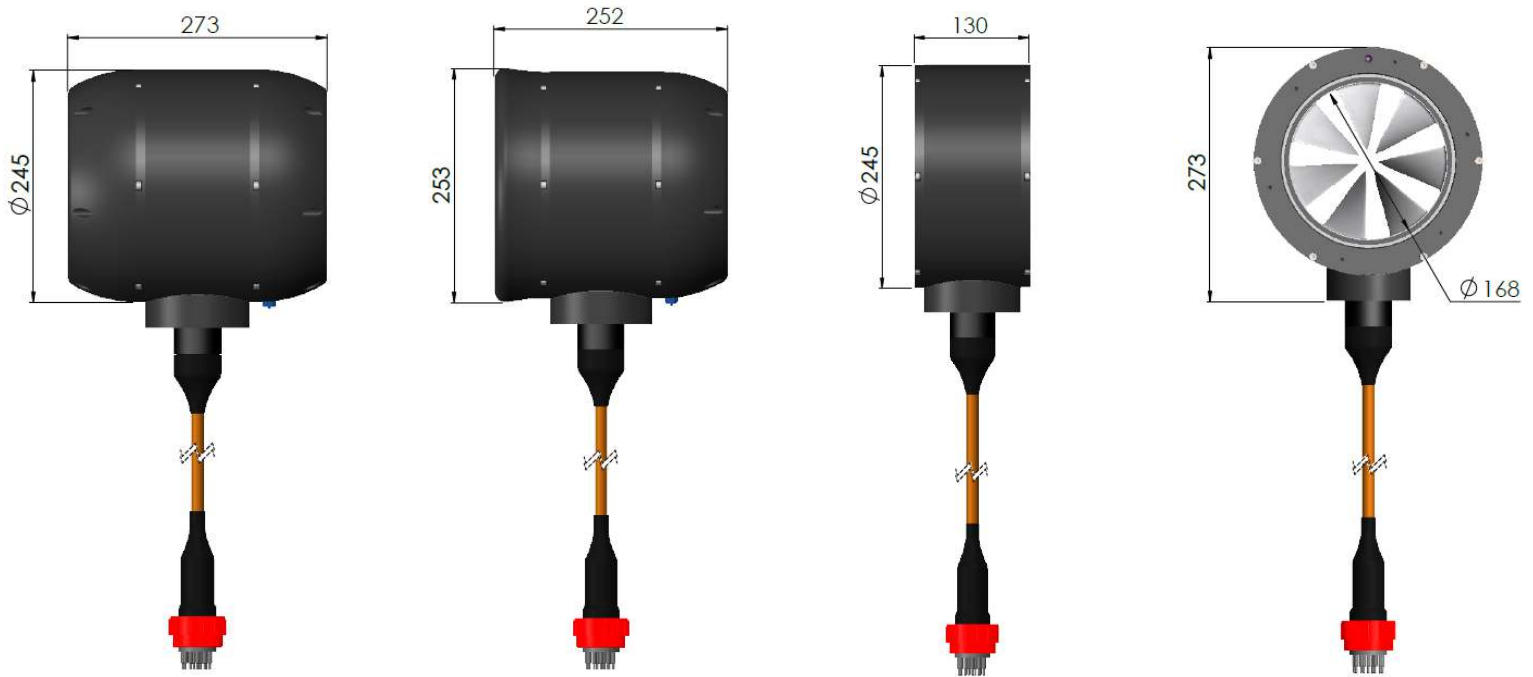


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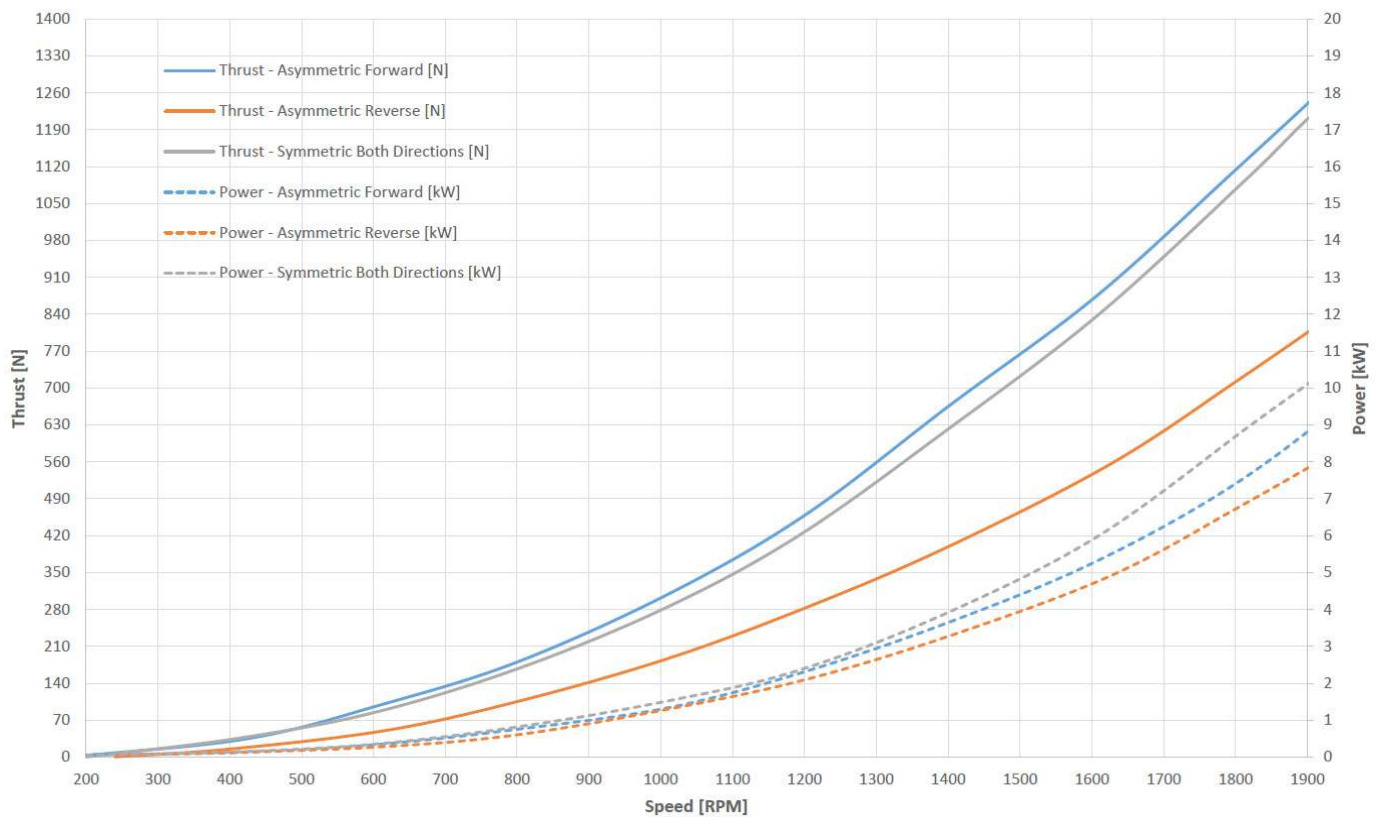
### Version Large (VL)



Propeller Diameter	Weight in Air	Weight in Water	Depth Rating
168 mm	9 kg (Compact)	5.8 kg	Up to 3.000 meter

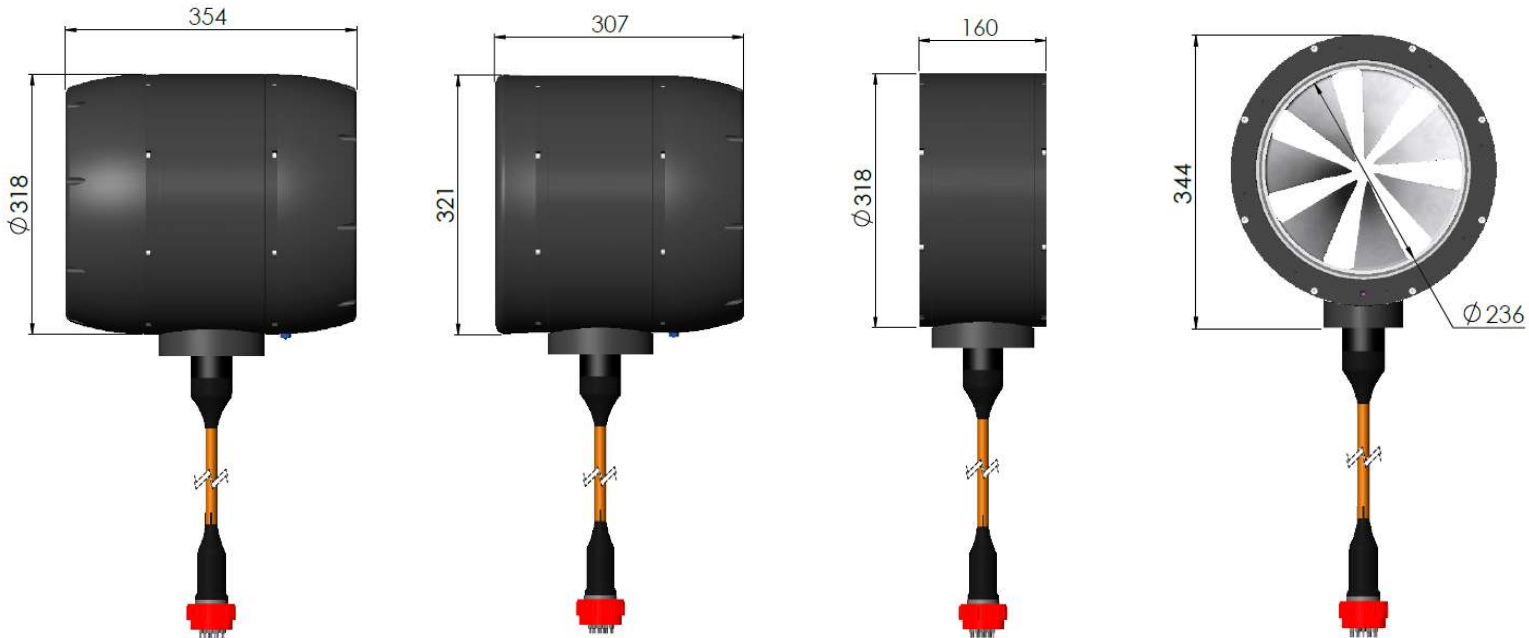
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### VL Performance Data



The power consumption shown in the above graph is the power consumption of the thruster, excluding efficiency loss in the motor controller or power loss in cables. The maximal power is only achievable in cool water - see website for more information.

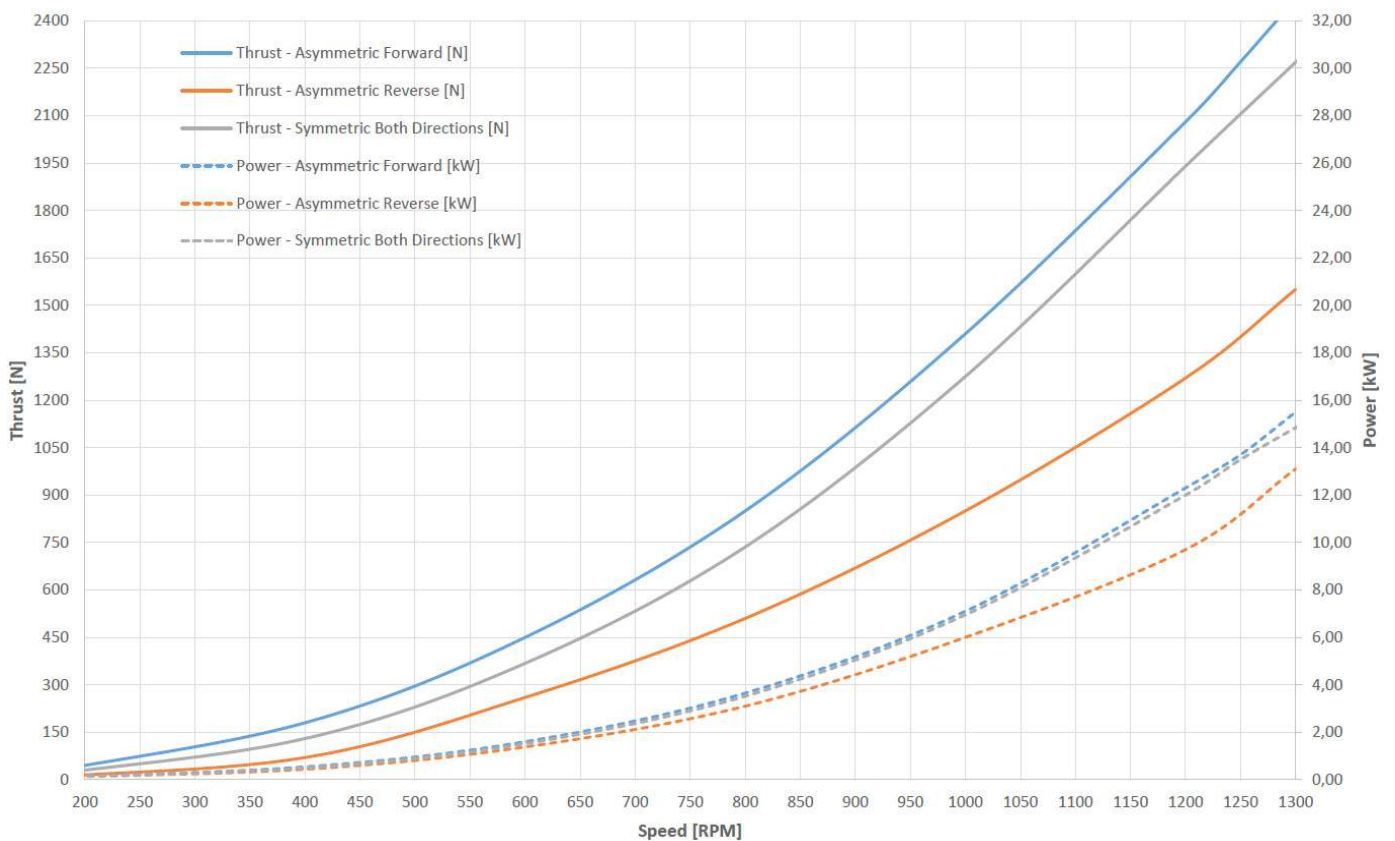
## Version Extra Large (VXL)



Propeller Diameter	Weight in Air	Weight in Water	Depth Rating
236 mm	17.8 kg (Compact)	12 kg	Up to 3.000 meter

Specifications on this page may change without prior notice

## VXL Performance Data



The power consumption shown in the above graph is the power consumption of the thruster, excluding efficiency loss in the motor controller or power loss in cables. The maximal power is only achievable in cool water - see website for more information.



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