

V-Wing™

Towed Underwater Depressor



Portable Underwater Mapping, Research, and Reconnaissance

The Dartmouth Ocean Technologies V-Wing is a towed underwater depressor for diverse applications including deep-water mapping, water quality monitoring, side-scan surveys, and reconnaissance.

The V-Wing's unique dihedral wing design enables rapid descent, submerges to unlimited depths, stability during operations, and minimal drag.

Additionally, V-Wing transmits real-time data to a command ship via a connected cable. Command ship operators control V-Wing's set depth based on the length of cable in the water and boat speed.

To simplify operations, the available software program helps operators determine the appropriate V-Wing depth.



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Benefits

By eliminating the need for motorized propulsion, V-Wing reduces potential points of failure, product weight, and component costs. The V-Wing design also provides the flexibility to mount a variety of marine technologies for commercial and government applications.

The V-Wing is available in five models and is customizable. Designed for high reliability and ease-of-use, V-Wing specifications include:

- A fiberglass hull for harsh underwater conditions
- A coated 6061-grade aluminum tail for high performance and corrosion resistance
- 316-grade stainless steel (SS) trim tabs to enhance maneuverability
- A rugged tow fitting that supports a variety of pod enclosure sizes to protect instrumentation (316-grade SS)



Photo courtesy of GeoSpectrum Technologies Inc.

Product Specifications

V-Wing Model	Length	Width	Height	Dry Weight
460	460 mm [18 in]	510 mm [20 in]	150 mm [6 in]	8 kg [18 lbs.]
600	610 mm [24 in]	710 mm [28 in]	200 mm [8 in]	11 kg [25 lbs.]
760	760 mm [30 in]	890 mm [35 in]	250 mm [10 in]	16 kg [35 lbs.]
914	914 mm [36 in]	1092 mm [43 in]	483 mm [19 in]	64 kg [140 lbs.]
1220	1220 mm [48 in]	1420 mm [56 in]	838 mm [33 in]	58 kg [126 lbs.]

Lift-to-Drag Comparisons*

Model		Speed in Knots			
		2	4	6	8
Type 460	Lift (lbs.)	22	52	86	131
	Drag (lbs.)	3.7	7.5	14	23
Type 600	Lift (lbs.)	30	80	135	211
	Drag (lbs.)	5	11	23	40
Type 760	Lift (lbs.)	103	207	311	456
	Drag (lbs.)	19	41	62	91
Type 914	Lift (lbs.)	135	215	433	760
	Drag (lbs.)	20	32	88	120
Type 1220	Lift (lbs.)	195	390	645	869
	Drag (lbs.)	39	74	121	147

* These numbers are guidelines and actual performance in the ocean may vary

