

**SPECIFICATIONS**

**DIMENSIONS/WEIGHTS:**

- Wing ..... 18"L x 30" W x 9"H ..... 43 lbs.
- Carrying case ..... 36"L x 23"D x 14"H ..... 50 lbs.
- Total Shipping ..... 36"L x 23"D x 14"H ..... 97-121 lbs.

**PERFORMANCE/DESCRIPTIONS:**

- Tow speed ..... 1-5 MPH

**MATERIALS/COLOR:**

- Wing .High impact PVC, urethane, stainless/yellow and black

**OPTIONS**

- Underwater Housings

**MAINTENANCE**

Your DDW-1 was designed to be maintenance free. It is constructed of corrosive resistant materials. As with most diving equipment it is recommended that the DDW-1 be rinsed in fresh water after use and stored in a cool, dry place.

**LIMITED WARRANTY**

Your DDW-1 underwent constant inspection during assembly to insure many years of trouble free performance. The DDW-1 is warrantied for TWO FULL YEARS from the date of purchase. During this period, your depressor wing will be repaired free of charge should a failure occur due to materials or workmanship. The warranty does not cover broken or cracked fins, wing, or damage due to dropping or general misuse.

Should service be required, write or phone us explaining the nature of the problem, and we will provide shipping instructions. All repairs are made at our factory. Repairs by unauthorized persons may void the warranty.

**RETURNING EQUIPMENT FOR REPAIR**

If your depressor wing should need service, you can write, or e-mail: [jwfishers@aol.com](mailto:jwfishers@aol.com), phone (508) 822-7330, or fax (508) 880-8949, the factory for instructions. We do not require authorization for the return of equipment.

# DDW-1

## DEEP DIVE DEPRESSOR WING

## OPERATION MANUAL



**JW FISHERS MFG INC**  
1953 COUNTY ST.  
E. TAUNTON, MA 02718 USA

(508) 822-7330; (800) 822-4744; FAX (508) 880-8949  
Email: [info@jwfishers.com](mailto:info@jwfishers.com) WEB: [www.jwfishers.com](http://www.jwfishers.com)

## INTRODUCTION

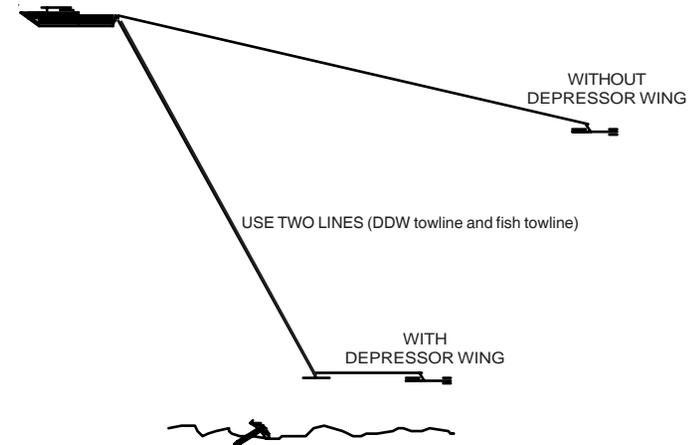
JW Fishers DDW-1 Deep Dive Wing is a low cost depressor wing that will help tow instrument packages to deeper depths. Operating on the principle of hydrodynamic depression rather than just weight, depressor wings overcome the limitations of conventional downrigger systems. The DDW-1 Deep Dive Wing provides a stable platform for towing instrument packages to greater depths with less cable being deployed.

The design of DDW-1 creates a significant downward force that overcomes drag and pulls the tow cable downward as the wing moves through the water. The “dive angle” is determined by the position of the tow point on the wing which is operator adjustable. Larger instrument packages have more drag and require a greater dive angle. Changing the tow point allows different size instrument packages to be towed to the required depth.

The DDW-1 tows standard instruments such as side scan sonars, towed video systems, marine magnetometers, and towed underwater metal detectors. The DDW-1 can tow magnetometers because it is not constructed of ferrous metals and therefore has no magnetic signature. The wing can also be used to tow custom underwater housings containing specialized instruments.

JW Fishers offers a line of low cost underwater housings that can be towed by the DDW-1. The housings range from basic cylindrical tubes with the towpoint in the nose to more elaborate configurations with tow arms and fins for stability. The approximate internal diameter of the housings are: 2”, 3”, 4” and 6”. Their length can be 1’ to 5’. The rear of the housing has an o-ring sealed, clear plexiglass faceplate that can be drilled and tapped for fittings. Standard operating depth is up to 500’ deep. Optional 1,000’ depth rated units are available.

The DDW-1 and underwater housings are constructed of corrosion proof PVC, urethane, and stainless steel for many years of troublefree operation.



## OPERATION

The DDW-1 creates a downward pull on the cable that can easily exceed 100 pounds, even at low speeds. Never attach the DDW-1 directly to the instrument tow line. It is recommended that a separate cable (not supplied) always be used to tow the DDW-1. It is best to use a plastic coated stainless steel towline between the DDW and the surface vessel.

A 10 feet/3 meter rope (not supplied) can be used to connect the wing to your towfish. Attach one end of the rope to the shackle on the DDW-1 and the the other end to the shackle on your towfish. The cable on your towfish does NOT need to be connected to DDW-1 cable. The DDW-1 tow cable should be tied-off at the boat to keep it taught while towing. When properly connected, the DDW should not be exerting any downward pull on your towfish cable.

The DDW has three different attachment points on the towpoint to install the tow line shackle. The hole closest to the front provides the least amount of downward pull. Always use the most forward tow position that will get the job done.