

Underwater Contour Probes

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These underwater probes are electromagnets capable of inducing a strong magnetic field in ferromagnetic alloys. The coil is wound on the center body section and then encapsulated in a molded nylon housing using a special polyurethane.

Articulating legs provide for maximum surface contact and allow for precise application of the magnetic field. The lower leg assemblies may be removed for cleaning and oiling.

The upper leg section entering the center body are sealed to prevent water intrusion. A metal strain relief is mounted at the rear and will accommodate a power cable up to a maximum of .420 inches O.D. Each unit comes standard with 3 feet of 16/3 SJOW cable.

General Operation

Generally the strongest magnetic field, and most sensitive test is achieved by placing the Contour Probe on the section with both legs squarely in contact with the surface. The test section completes the magnetic loop and maximum flux is available for particle entrapment. Magnetic particles are introduced between the legs with power on. After each use in salt water, wash and dry the unit and lightly oil the legs.



UW-115 Probe

The UW-115 operates from a 115 VAC, 4 amp, 50-60 Hz power source with a suitable Ground Fault Interrupter (GFI)*. Never operate the UW-115 from a DC power source. To ensure that the flux strength is adequate at the end of the umbilical cable, the AC current input should be monitored. As long as the AC current input remains above 1.5 amps, and when the probe is in contact with the work surface, the lifting force is above 10 lbs, as measured under standard test conditions. Any bracket or fixture used to attach a light or handle to the UW-115 should be nonmetallic, so the induction heating does not occur.

UW-12 Probe

The UW-12 operates from a 12V full wave DC, 2.5 amp power supply, with suitable DC isolation from any AC circuits. Pure DC, as from a battery may also be used. Duty cycle is 100%. Currents as low as .3 amps (produced by 4V FW DC across the probe coil) will provide adequate lifting force to meet applicable specification, the same field limitations apply as for the UW-115.

*To preclude any shock hazard that could exist from a damaged power cord or flooded instrument, the UW-115 should never be operated from an AC line without the protection of a GFI. Duty cycle is 100%.

Ordering Information	
UW-115	Mini Underwater Contour Probe 115 VAC
UW-12	Mini Underwater Contour Probe 12 VDC
Specifications	
Dimensions	9.15 in. L x 2.10 in W x 7.4 in. H
Weight	7.5 lbs

Magnetic Weight Lift Test Bars

SEE BELOW

The TB-10 is a 10 pound magnetic weight lift test bar providing for the calibration and certification of MPI yokes traceable to NIST. The following specifications require that the MPI yokes be capable of lifting 10 pounds with AC power and 40 pounds with DC power

Ordering Information	
TB-10	Magnetic Weight Lift Test Bar (Single Bar for AC Units)
TB-10S	Magnetic Weight Lift Test Bar Set (4 Bars for DC Units)



Notch Defect Test Bar

NA-16

The NA-16 notch test bar complies with the requirements of Mil-Std-271 E and F (ships), para. 4.3.1.2 to certify performance. The yoke is energized and placed on the test bar over the unpainted circle, when the powder is applied a notch will appear.

