

Chicago White Metal Casting

*High-Tech Al, Mg, & Zn Die Casting and
Miniature Zn & ZA-8 Four-slide Die Cast Parts*
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Hot-chamber mag die casting was the robust choice for the new SonoSite TITAN™ cart-based modular ultrasound machine.

Over 10,000 hand-carried all-digital ultrasound systems are in medical use worldwide, based on elegant new SonoSite circuit design technology and advanced product packaging.

Light weight, durability under abuse, and fail-safe shielding against the ultra-high EMI noise levels of hospital environments are constant material and process considerations for SonoSite devices— as is design freedom and production of intricate features with minimum assembly.

Higher-resolution ultrasound

When SonoSite developed their unique TITAN™ cart-based ultrasound system, its heart would be an 11.9 x 10.9 x 3 in. housing with self-contained display and keypad, instantly removable from its mobile docking system for total flexibility.

In-depth experience with plastics rejected a resin-based design, based on thicker walls, lower drop strength, and the difficulties of assured EMI/RFI shielding.

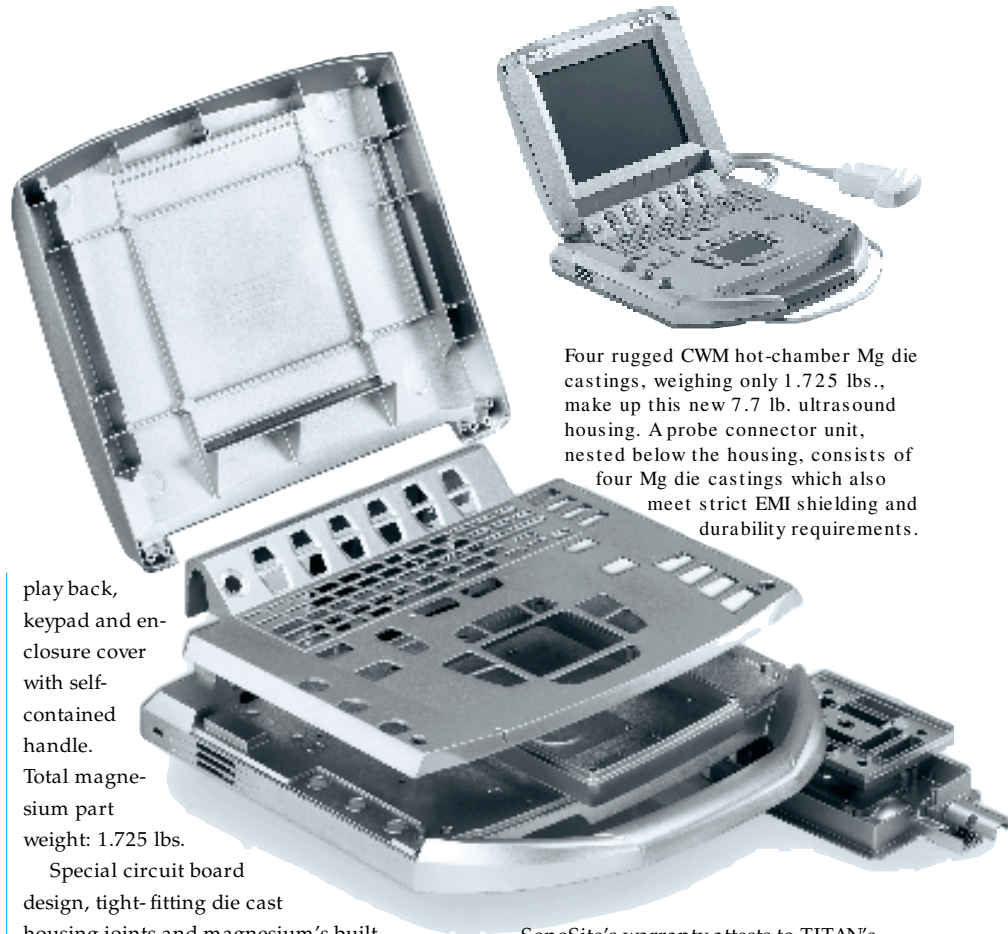
Both mag die casting and thixotropic metal molding were carefully evaluated. While metal molding could meet the shielding advantages and ruggedness of die cast Mg, it could not meet the minimum wall thicknesses required— achievable with advanced die casting.

Optimum solution in magnesium

The new housing consists of four hot-chamber die cast parts produced by Chicago White Metal Casting in high-purity Mg alloy— an internal shield and three external panels: dis-

Hot-chamber Mg: cost-effective solution for unique ultrasound system

Lighter than Plastic, with Fail-Safe EMI/RFI Shielding



Four rugged CWM hot-chamber Mg die castings, weighing only 1.725 lbs., make up this new 7.7 lb. ultrasound housing. A probe connector unit, nested below the housing, consists of four Mg die castings which also meet strict EMI shielding and durability requirements.

play back, keypad and enclosure cover with self-contained handle. Total magnesium part weight: 1.725 lbs.

Special circuit board design, tight-fitting die cast housing joints and magnesium's built-in shielding characteristics provide total EMI/RFI isolation without the use of additional plating or EMI gasketing.

A total of 155 holes and openings are cast in the four housing parts, 139 die cast to size. Post-casting machining by CWM consists of drilling, tapping and milling to final specs. A conversion coating is applied and external parts are 1- and 2-color powder coated, silkscreened and pad printed. The handle receives a special "Soft-Touch" clear coating.

SonoSite's warranty attests to TITAN's quality: every part is covered against damage— no exceptions.

To capitalize on innovative custom die casting production in net-shape Al, hot-chamber Mg and Zn, and miniature Zn and ZA-8 die cast parts, contact your regional CWM Sales-Engineering Representative for more details. For locations, see the CWM website at: www.cwm diecast.com/

Or contact the CWM Sales Dept at 630-595-4424, or E-mail sales@ cwm tl.com. ■