

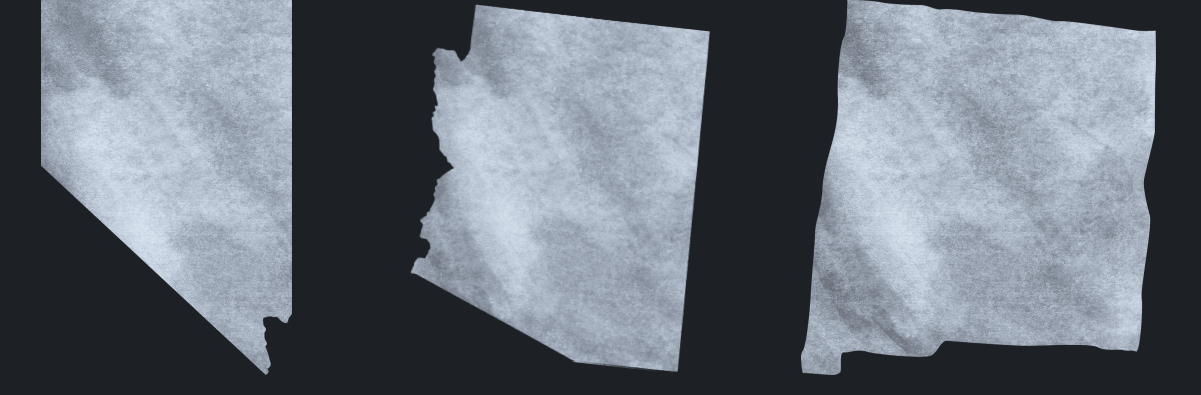
why you need to partner with

AIR & HYDRONIC SPECIALTIES

"STRENGTH IN SERVICE"



to build the future of AI factories



right here



in the Southwest

“

you're not just building another data center - you're engineering an AI Factory.

”

I'm Rob Warnell, your local partner at Air & Hydronic Specialties (AHS) in Las Vegas. With over 20 years in HVAC and hydronics, and as the founder here, I live and breathe mission-critical cooling every day. You're not just building another data center—you're engineering an AI Factory. These facilities push racks past 50–100+ kW with GPU clusters that demand direct liquid-to-chip cooling to hit ASHRAE TC 9.9 Class HI thermal guidelines (tight 18–22°C inlet bands for high-density AI/HPC). Air cooling alone can't keep up anymore, and that's where AHS delivers the **complete, reliable hydronic backbone that sets your project apart.**

We're not another distant distributor pushing catalogs. AHS is your Southwest-based manufacturers' rep (Nevada, Arizona, New Mexico) with deep expertise in ASHRAE TC 9.9 liquid cooling classes (W1–W5 facility water and TCS technology cooling systems). We help you achieve higher delta-T operation, economization, waste-heat recovery, and PUEs under 1.1—while guaranteeing zero-downtime resilience. Our lineup covers every critical component in your primary chilled-water loop, CDU secondary loops, manifold distribution, and rack-level liquid-to-chip circuits. One call gets you integrated solutions from the industry's best brands—no finger-pointing, no delays.

Here's how AHS stands out from the competition and powers your AI Factory success:



1

corrosion-free,
leak-proof piping systems
built for liquid cooling

Aquatherm PP-RCT polypropylene piping (the iconic blue pipe):

the gold standard for direct-to-chip and CDU loops. Fully corrosion-free with a non-stick interior that maintains constant flow rates for 50+ years—**no scale, no rust, no chemical inhibitors needed.** Natural R-value of ~1 reduces insulation needs and condensation risk. Heat-fusion joints create **monolithic, leak-proof systems** that handle the high pressures and temperatures of GPU coolant loops. Lightweight (up to 70% lighter than steel) and faster to install—perfect for modular pods or hyperscale rollouts. Already proven in hyperscale data centers and the world's most powerful supercomputers.

Conex Banninger press fittings (copper, carbon, stainless) + **REMS Tools:** Press-and-go connections that **slash labor time and eliminate flames, glues, or welding** in your dense data hall.

Macon Balancing and NuTech Hydronic Specialty Products:

Manual/automatic balancing valves, pressure-independent control valves (PICVs), and venturi flow meters. These ensure every rack, every manifold, and every cold plate gets **exactly the right flow**—critical for ASHRAE-compliant liquid cooling where even minor imbalances create hot spots on \$30K+ GPUs.

Flo-Tite ball valves, Max-Seal butterfly valves, and Titan Flow Control check valves + strainers:

Isolation, protection, and control throughout your loops. Titan strainers keep debris out of pumps and heat exchangers in high-velocity coolant circuits.

2

precise flow
control & balancing
for uniform chip cooling



Maid-O-Mist automatic and manual air vents + Flo-Fab air separators and expansion tanks:

Air is the #1 enemy of liquid cooling efficiency (cavitation, reduced flow, hot spots). Our components keep your closed loops air-free and pressure-stable 24/7.



MAIDOMIST

Flo-Fab hydronic pumps:

Reliable, efficient pumps for primary and secondary loops—matched perfectly with our tanks and separators for turnkey CDU support.

air and pressure management
the unsung heroes of liquid loops

3



Vortek Instruments high-accuracy flow meters:

Real-time visibility into your cooling performance for optimization and ASHRAE compliance reporting.

North American Safety Valve relief valves and Titan pressure regulators:

Code-compliant safety for pressurized systems.

Watson McDaniel steam traps, regulators, and condensate pumps (plus Victory Energy boilers or Weishaupt burners if your facility includes any steam or backup systems) can offer complete hydronic + steam coverage under one roof.

monitoring, safety, and steam support
(where needed)

4

why our integrated package

BEATS THE COMPETITION
every time:

single source accountability

No more coordinating 6-8 different vendors. We spec, support, and stand behind the entire hydronic ecosystem.

Local speed & service – Based right here in Las Vegas, we respond same-day or next-day. No waiting on coastal reps while your AI Factory schedule slips.

True engineering partnership – I'll sit with your team (or join the MEP engineer/contractor call) to run ASHRAE TC 9.9 calculations, model liquid-to-chip flow regimes, and optimize for your exact rack densities, climate (desert free-cooling advantages!), and PUE goals.

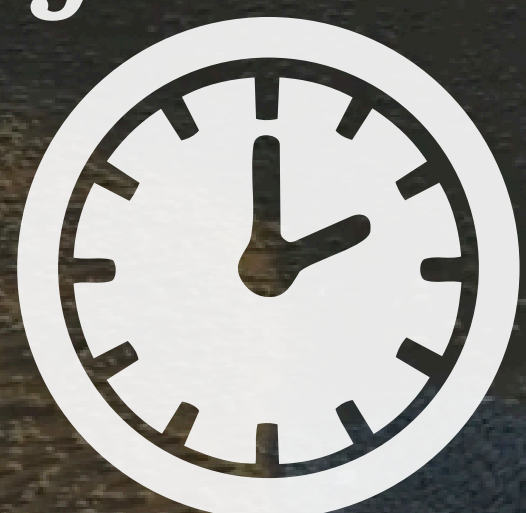
Lower TCO, faster install, zero surprises – Corrosion-free Aquatherm + press/pre-fab piping cuts material and labor costs. Precise balancing and air management slash pump energy and maintenance.

Result?

and

a system
FUTURE PROOFED
for the next wave of AI accelerators

higher



UPTIME

lower



OP-EX

optimized



CASHFLOW



Whether you're the specifying engineer chasing ASHRAE Class H1 compliance, the mechanical contractor racing against tight data-hall timelines, the building owner demanding 99.999% uptime and energy rebates, or the architect designing the next flagship AI campus—**AHS is your unfair advantage.**

Let's schedule a quick 20-minute call or site walk-through. I'll bring product samples, Aquatherm fusion demos, and a custom spec package tailored to your project. Together, we'll make your AI Factory the most efficient, reliable, and cost-effective in the Southwest.

Looking forward to building the future with you.

THE BOTTOM LINE

Best Regards,

Robert Warnell, Founder and Principal
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