Hydrastore Hydraulic Reservoir Sizing Checklist

Use this checklist to make sure your reservoir spec covers everything it needs to. Whether you're designing from scratch or reviewing an existing setup, this is a quick way to catch problems before they cost you in downtime, heat, or cavitation.

Flow & Volume

☐ Have you confirmed the pump's flow rate in L/min?
☐ Is the reservoir sized at 3x flow (stationary) or 1.5–2x (mobile)?
☐ Have you accounted for surge from actuator return flow?
☐ Does the reservoir include buffer for thermal expansion?

Thermal & Environment

☐ Will this system run continuously or intermittently?
☐ Is ambient temperature range going to affect fluid viscosity?
☐ Is cooling required (or already integrated into design)?
☐ Can heat dissipate through tank surface area alone?

Design Details

☐ Is there baffling to prevent short-circuiting between return and suction?
☐ Does the reservoir include a fill breather and return diffuser?
☐ Is a sight gauge and/or level sensor included?
☐ Is there a drain port and clean-out access?

Maintenance & Access

☐ Can filters and breathers be accessed without disassembly?
☐ Are ports labelled and service points reachable without special tools?
☐ Is there enough clearance for inspections during service intervals?

When this checklist is complete, you should be confident your hydraulic reservoir design will support stable flow, reduce contamination, and extend the life of your hydraulic power unit.