Water Tank Selection Matrix

Application · recommended system · material · points to confirm

Use this matrix for early screening. It is not a substitute for a project-specific design review: the final system depends on water chemistry, structural loads, local code, site access and the required documentation.

Application matrix

Application	Recommended system	Material	Confirm
Fire reserve	Bolted or welded stainless; HDG/GFS where accepted	SS304/316; coated steel	Fire flow and duration, usable volume, AHJ, outlet
Potable water	Bolted or welded stainless	SS304/316/316L	Water analysis, chlorine, NSF/WRAS requirement, cleaning
Wastewater	GFS / BDF / stainless	Glass coating; SS316L	pH, chloride, sulfide, abrasion, cover and vent
Industrial process	Welded stainless; GFS for suitable duty	SS304/316L	Chemistry, temperature, pressure, mixing, CIP
Irrigation	HDG / GFS / BDF / stainless	Coated steel; stainless	Cost/m³, silt, remote access, foundation, wind
HVAC buffer	Welded or bolted stainless	SS304/316L	Plant-room access, insulation, stratification, pressure

System comparison

System	Relative capex	Site labour	Corrosion resistance	Best fit
HDG bolted	Low	Moderate	Moderate; water-quality dependent	Irrigation, stormwater, neutral water
BDF bolted	Medium-low	Moderate	Good with duplex coating	Industrial and irrigation where coating accepted
GFS bolted	Medium	Moderate	High for many wastewater duties	Municipal wastewater, large storage
Bolted stainless	Medium-high	Moderate	High; grade dependent	Potable, fire, process, export projects
Welded stainless	High	Higher if site welding	High; grade dependent	Hygienic, high-head, irregular shape, HVAC

Six inputs that change the answer

- Water chemistry, especially chloride, pH, sulfide and temperature
- Usable volume versus nominal volume; fire duration and make-up
- Site loads: wind, snow, seismic, roof or ground bearing
- Access: container, road, crane and plant-room door size
- Required standard, certificate, listing or AHJ approval
- Cleaning, inspection and confined-space procedure

Need a specific recommendation?

Send the application, volume, water analysis, site location, connection schedule and named standard. We will confirm the system, material and documentation scope, or state what is missing.