

Comparison of Manual and Automatic Sampling		
	Manual	Automatic
Cost	<input checked="" type="checkbox"/> Low capital cost <input checked="" type="checkbox"/> High labor cost	<input checked="" type="checkbox"/> Low labor cost
Flexibility	<input checked="" type="checkbox"/> Able to compensate for various situations	<input checked="" type="checkbox"/> Inflexible
Variability	<input checked="" type="checkbox"/> Probability of increased variability due to sample handling	<input checked="" type="checkbox"/> Probability of decreased variability caused by sample handling
Consistency	<input checked="" type="checkbox"/> Inconsistent handling	<input checked="" type="checkbox"/> Consistent samples
Capabilities	<input checked="" type="checkbox"/> Able to collect extra samples in a short time when necessary <input checked="" type="checkbox"/> Able to note unusual conditions	<input checked="" type="checkbox"/> Capable of collecting multiple bottle samples for visual estimate of variability and analysis of individual bottles <input checked="" type="checkbox"/> Restricted in size to the general specifications
Maintenance	<input checked="" type="checkbox"/> No maintenance required	<input checked="" type="checkbox"/> Considerable maintenance for batteries and cleaning because of susceptibility to plugging by solids
Other	<input checked="" type="checkbox"/> Repetitious and monotonous task for personnel	<input checked="" type="checkbox"/> Potential for sample contamination <input checked="" type="checkbox"/> Subject to damage by vandals

Adapted from table 2.2, Advantages and Disadvantages of Manual and Automatic Sampling, from the *Handbook for Sampling and Sample Preservation of Water and Wastewater* (Armstrong Laboratory: AL-HB-1992-0002/EPA-600/4-82-029).

OR (as it is originally in the Armstrong Manual document):

Comparison of Manual and Automatic Sampling		
	Advantages	Disadvantages
Manual	<ul style="list-style-type: none">• Low capital cost• Ability to compensate for various situations• Note unusual conditions• No maintenance• Can collect extra samples in short time when necessary	<ul style="list-style-type: none">• High labor cost*• Probability of increased variability due to sample handling• Inconsistency in collection• Repetitious and monotonous task for personnel
Automatic	<ul style="list-style-type: none">• Consistent samples• Probability of decreased variability caused by sample handling• Minimal labor requirement for sampling• Has capability to collect multiple bottle samples for visual estimate of variability and analysis of individual bottles	<ul style="list-style-type: none">• Considerable maintenance for batteries and cleaning; susceptible to plugging by solids• Restricted in size to the general specifications• Inflexibility• Sample contamination potential• Subject to damage by vandals

*When several samples are taken daily, sampling sites are far apart, and labor is used solely for sampling.