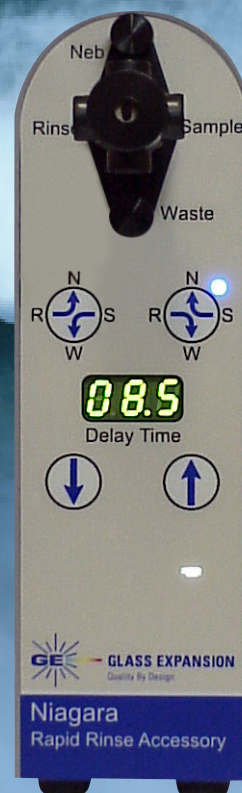


# Niagara

## Rapid Rinse Accessory

Reduce typical analysis time by 30%

- More samples analyzed
- Reduced argon costs



Most ICP systems incorporate an autosampler. With these systems there is a significant delay between the time when the autosampler probe enters the sample and the time when the sample reaches the nebulizer and further time is lost as the probe moves between sample and rinse. If these delays could be eliminated, the analysis time per sample could be reduced significantly and the sample throughput increased.

This is what the new Niagara Rapid Rinse Accessory achieves.

The Niagara begins the rinsing of the nebulizer and spray chamber the instant the sample measurement is completed and continues to rinse until the next sample is ready. Thus the rinse is carried out in the time that is usually wasted waiting for the sample solution to flow from the autosampler to the nebulizer. The time that is saved is around 30% for a typical analysis. This significantly reduces the cost per sample for busy laboratories such as those analyzing environmental, geochemical and oil samples.

The Niagara is compatible with most ICP-AES and ICP-MS spectrometers and autosamplers. Contact Glass Expansion to find out how to save time and money on your ICP analyses.



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The Niagara incorporates an electronically controlled switching valve. During the sample measurement time, the rinse solution is pumped through the valve to waste (see Fig.1).

At the completion of the sample measurement, the valve switches instantly and the rinse solution is directed to the nebulizer (see Fig. 2).

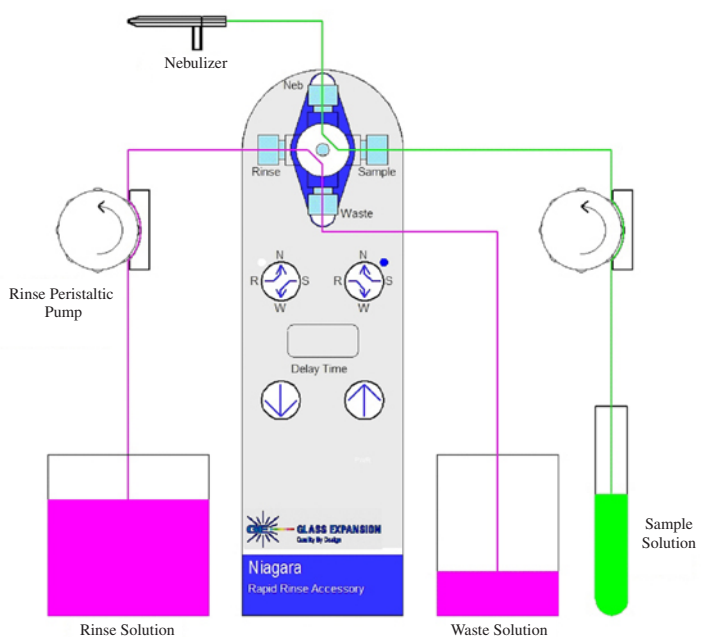


Fig.1. Sample to Nebulizer, Rinse to Waste

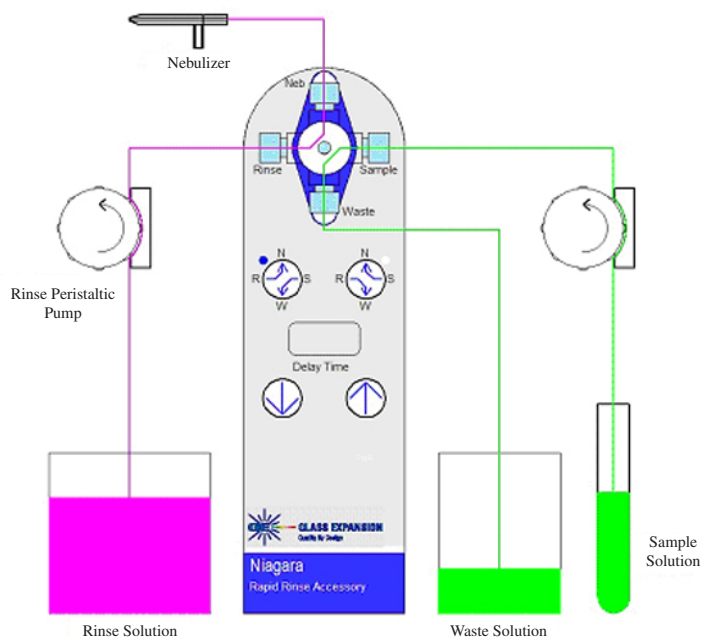


Fig.2. Rinse to Nebulizer, Sample to Waste

The valve stays in this position while the autosampler probe moves to the rinse position (this is only for a short period to rinse the probe and sample uptake tubing) and then on to the next sample. Only when the next sample has made its way through the full length of the uptake tubing does the valve switch back to the position shown in Fig. 1.

## The Niagara Benefit

	Samples without Niagara	Samples with Niagara	Extra Samples
Hour	45	65	20
8 hour day	360	520	160
40 hour week	1,800	2,600	800
20 day month	7,200	10,400	3,200
Year	86,400	124,800	38,400

Numbers are based on an 80 second analytical cycle without Niagara and a 55 second cycle with Niagara.

NOTE: The Niagara Benefit will vary depending upon the specific conditions under which each instrument is operated. To estimate the Niagara Benefit for your laboratory, check the Niagara Time Saving Calculator on our website at [www.geicp.com](http://www.geicp.com).