## **Cinnabar Cyclonic - the low volume spray chamber for all ICPs**

The Cinnabar spray chamber is a mini-cyclonic spray chamber which gives good sensitivity at very low uptakes. The Cinnabar's design and low volume is ideal for the reduction of memory and matrix effects and very fast washout.

- Material: Borosilicate glass
- Volume: 20ml
- Physical reproducibility ~1%
- Matrix effects 5 times lower than with coaxial chambers
- Low RSD's due to highly accurate construction
- Positive stop for reproducible nebulizer insertion
- Application uptake range ~20 to 400 microlitres/min
- Ideal for use with MicroMist nebulizers



20-809-0164HE

## Jacketed Cinnabar spray chamber (borosilicate glass material)

The Jacketed Cinnabar spray chamber is made with an external jacket for the introduction of coolant for temperature control. Thermostatting to constant temperature helps ensure highly reproducible results and long term stability. Can also be cooled to suppress volatilization, allowing the direct aspiration of highly volatile solvents such as naphtha and petrol/gasoline. Ideal for use with MicroMist nebulizers.



20-809-0207HE

## **Customer comments**

I replaced my cross-flow system with your MicroMist and Cinnabar spray chamber and get much better performance. Also, I am getting the same counts as I was getting on my cross-flow at twice the uptake rate.

Environmental service laboratory - USA

I would suggest the MicroMist nebulizer + Cinnabar spray chamber from Glass Expansion. I did some work on certification of Hg isotopic reference materials and it worked very well. I used this setup in the self-aspirating mode and gained wash-out times for Hg 10 ng/g (solution) 10 times better than with a usual Crossflow nebulizer.

Research institute - Germany

After using a GE MicroMist nebulizer and Cinnibar spray chamber on our ICP-MS for several years with excellent results, I bought the same setup for our new PE 4300 ICP-OES for some applications with very small sample sizes. Sensitivity and precision are the same as with the standard cross-flow/Scott combination. Washout is maybe even better, since the Cinnibar washes out very nicely.

Marine science institute - USA