

# Arsenic Valved Cracker

## Description

The SVTA-VC-45 Arsenic valved cracker provides optimal cracking efficiency and excellent flux uniformity for quality growth of III-V materials. Its unique design features two independently controlled thermal zones for the bulk evaporator and cracking head for generating pure Arsenic ( $As_2$ ) fluxes. The integrated water-cooling jackets for the bulk evaporator and valve body provide efficient cooling for the source.



SVTA-VC-45-AS

A high purity crucible and selected materials for the cracking tube assembly guarantee high purity operating conditions. Implementation of the optional computer controlled valve (SVTA-VC-ACM) mechanism allows expanding versatility. It allows for precise and rapid control over the valve position during growth. The valve function can be integrated with RoboMBE process software. The valve aids in material growth and repeatability, but also eliminates charge oxidation while the growth chamber is up to atmospheric pressure for refilling other source charges.

SVT Associates offers 200 cc and 500 cc capacity.

## Specifications

Crucible Size	200 cc, 500 cc
Temperature (Bulk, Cracking Head)	Ambient to 800/1,200 °C
Power (Bulk, Cracking Head)	0 – 160/320 Watts
Temperature Stability	+/- 0.1 °C
Thermocouple	Type C
Standard in Vacuum Length	12" (30.5 cm)
Mounting Flange	4.50" CF
Electrical Connectors	Filament: Amphenol Circular T/C: Omega Subminiature
Access	25' Cables (VCEC-25)
Optional Equipment	Power Supply ( VCPS-2) Temperature Controller (VTC-2) Motorized Valve and Controller (VC45-MRS)

