

DUAL FILAMENT CELL

DFC



*For example:
a dual filament
cell built from
molybdenum with
electrical shutter*

This effusion cell is specially designed for the evaporation of gallium, indium, copper etc. Special measures are taken to prevent material condensation at the crucible orifice. An additional heating system with a separate thermocouple is installed at the top end of the crucible. Using two control circuits, this allows the adjustment of the orifice temperature (HOT-LIP-Temperature) independent of the bulk material temperature.

OPTIONS:

- Dual filament cell made from molybdenum
- Crucibles with different inserts

Technical Data

Standard :

Type	DFC
Heating system	Radiation heating, tantalum wires with PBN insulators
Temperature range	200 °C ... 1400 °C bulk zone 200 °C ... 1400 °C hot-lip
Temperature stability	≤0.2 K depending on the PID controller
Max. outgas temp	1600° C bulk zone 1600°C hot-lip
Max. power	360 W bulk zone 120 W hot-lip
Max. current	12 A bulk zone 6 A hot-lip
Bakeout temperature	250°C
Conditioning	Heated to maximum temperature with and without crucible
Shipping	Stainless steel container with valve

Custom :

Flange size	CF 40 / CF 63
Max. outer diameter	38 mm
Length	As specified
Thermocouple type	Two independent TC's type C / WRe 5% - 26%
Crucible material	PBN / PGR / W / Ta
Crucible capacity	5 - 39 ccm

Options :

Integrated Shutter	Optional
Water cooling	Optional
Other dimensions	As specified
Crucible with insert	Optional
Downward looking version	Optional
Molybdenum version	Optional

