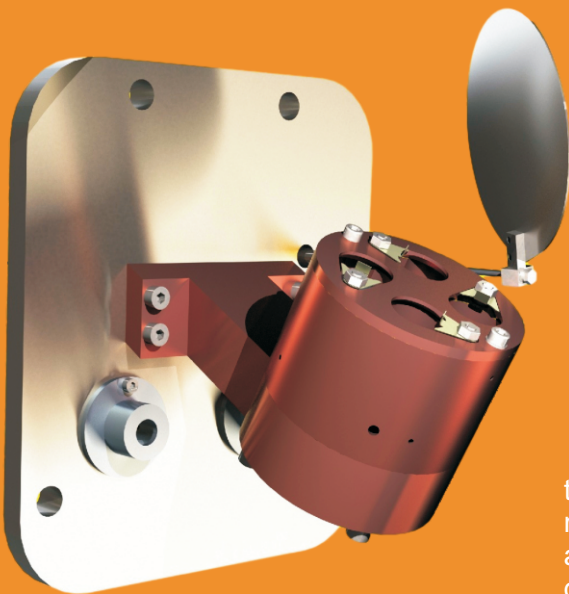




KORVUS TECHNOLOGY

TAU Series

ELECTRON BEAM EVAPORATION SOURCES



Each pocket in the source is equipped with a flux monitoring plate, which captures the small fraction of ions in the evaporant beam and which is proportional to the overall evaporation rate. This measurement is highly sensitive and allows sub-monolayer films to be grown accurately while also coping with higher rates. The TAU-4 source uses one monitoring plate for each of its 4 independent pockets allowing independent rate monitoring, even when co-evaporating.

Electron-beam evaporation allows direct heating of target materials and is consequently useful for evaporating even the most difficult materials such as tungsten. Other thermal evaporation techniques employ radiative heating, which limits the evaporation temperature of the target to substantially below the temperature of the heating element. In E-beam evaporation, a high-energy electron beam is directed towards the target material, thereby heating it to evaporation temperature.

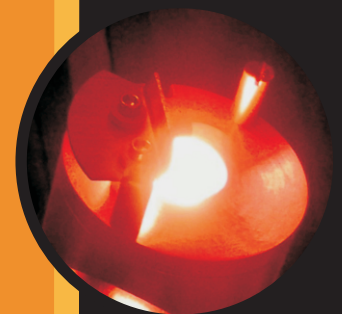
The TAU series evaporators are 'mini' sources, which operate with the target material at high voltage and the emission filament at low voltage, eliminating the need for the beam-bending magnets seen in larger sources.

The sources accept either rods of conducting target materials or crucibles which will can hold either metallic or insulating materials (for advice on the correct choice, please contact Korvus).

The TAU sources use an enclosed, cooled head, which ensures that the thermal load on the chamber is reduced to a minimum. This makes the sources particularly useful for lift-off processes and evaporation onto other sensitive substrates as the source can be run much closer to the samples than other techniques allow. An additional benefit is that this allows highly efficient use of expensive materials such as gold, particularly when evaporated from a collimating crucible.



**Co-evaporation
of up to 4 materials
Integral flux monitor**

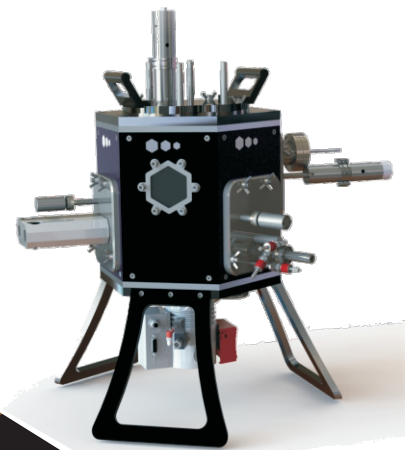
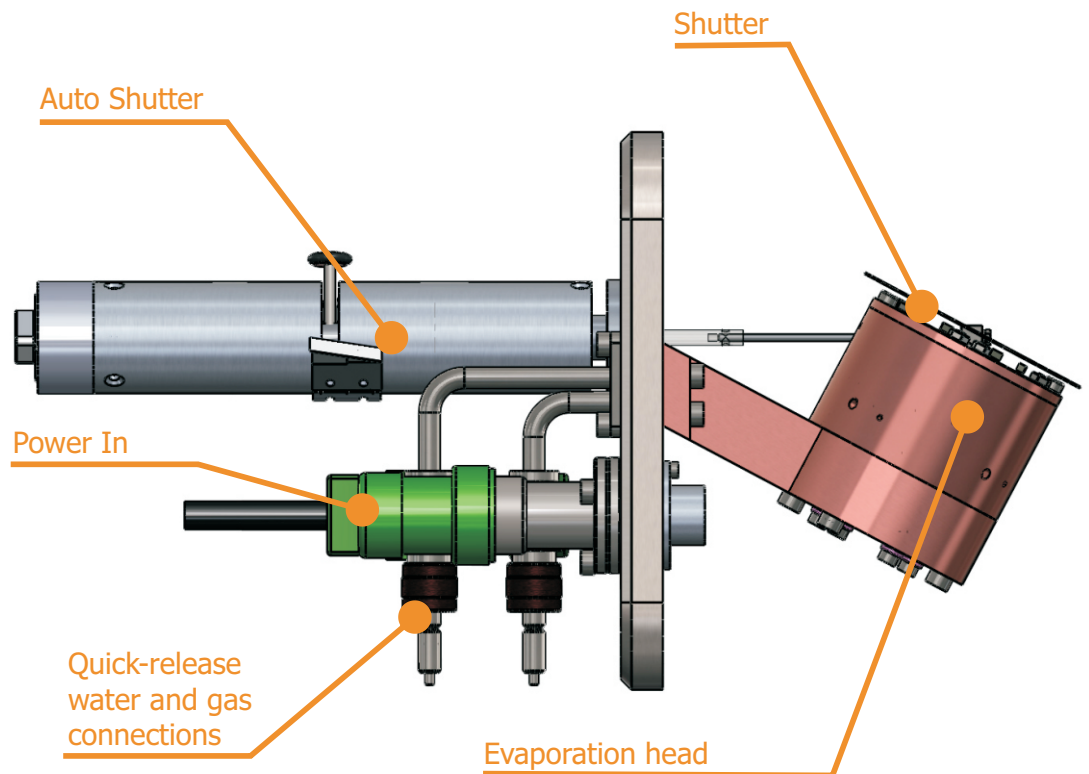


**Metallisation
Lift-off process
Refractory materials**

TAU SERIES

Technical Specifications

	TAU-S	TAU-4
Pockets:	1	4
Maximum Power:	250W (500W optional)	250W (500W optional)
Flux monitoring:	Yes	Yes
Materials:	Rods (max 4mm dia), crucibles	Rods (max 4mm dia), crucibles
Co-evaporation:	No	Yes
Cooling:	Water (min 0.5l/min)	Water (min 0.5l/min)



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