

# GM Cooler Probing System

Model : **KREUS-GmC-PS**



- Cooled with GM cryo cooler system / no liquid helium
- Turn on switch and cool down to below 20 K
- Mechanical vibration is effectively isolated

## CONSTRUCTION

1. GM cryo cooler
2. Probe vacuum chamber
3. Temperature control unit
4. Four probe manipulators
5. CCD camera & mono scope
6. LCD monitor
7. System stand
8. Vacuuming pump

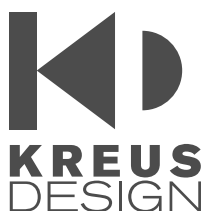
## SPECIFICATIONS

- Temp. range :** below 20 K ~ 300 K
- Sample size :** 25mm x 25mm
- Probe stroke :** X, Y  $\pm$  15mm ; Z  $\pm$  6mm
- Feed through :** 4 triaxial connectors
- Vacuum :**  $\sim 10^{-4}$  Pa
- System size :** W 720mm x D 700mm x H 1300mm

## CRYOCOOLER OPTIONS AND ESTIMATED TEMPERATURE SPECIFICATIONS

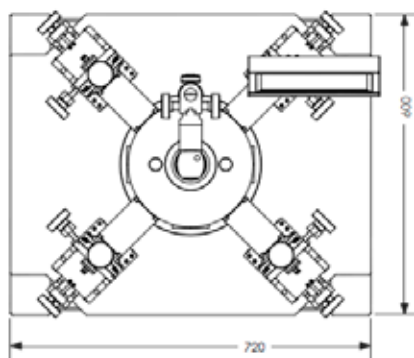
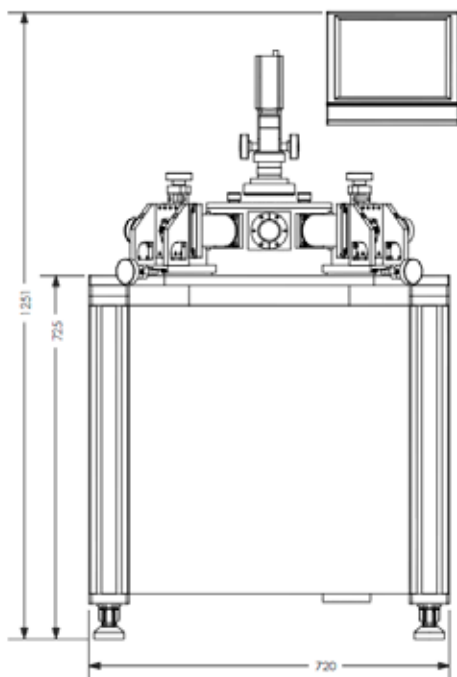
Cooling Options	Cooling Power (Spec, 60Hz)	Achievable temp*	Possible ultimate temp*	Power consumption
RDK - 415D	1.5 W @ 4 K	< 10 K	5 K	8.5 kW
RDK - 101D	0.1 W @ 4 K	< 20 K	15 K	1.5 kW
CH204N - HC8E4	3 W @ 10 K	< 15 K	10 K	4.5 kW
CH204 - HC8E4	2.2 W @ 20 K	< 20 K	15K	4.5 kW

\*Temperature at sampleholder. Specifications are not guaranteed but depending on system configuration.



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## SYSTEM REFERENCE DRAWING

Extra space for compressor unit, vacuuming pump, water connection is needed.

## MANIPULATOR / MICROWAVE MEASUREMENT SET UP

### OPTIONS

1. Bias measurement unit (~100V)
2. Ultra low noise application ( $< \pm 1\text{pA}$ )
3. Lower temperature to below 5K
4. High vacuuming system
5. Convection vacuum gauge ( $\sim 10^{-4}$  Torr)
6. Probe side monitor (CCD microscope & monitor)
7. Tungsten probe needle
8. Gold plated BeCu probe needle
9. Tungsten ultra thin probe needle
10. Soft contact dumper
11. BNC / triaxial / SMA adopter connectors

