



DSC 8XXX: Site Readiness Instructions

b) Site Requirements:

Bench Space

Instrument	Dimensions			
	Width	Depth	Height	Weight
DSC 8XXX	18 in/45.7 cm	25 in/63.5 cm	11.5 in/29.2 cm	48 lbs/21.8 kg
DSC 8XXX w/AS	18 in/45.7 cm	25 in/63.5 cm	19.5 in/49.5 cm	48 lbs/21.8 kg
Computer (approx)	7 in/17.5 cm	17 in/44.0 cm	15.8 in/40.2 cm	24 lbs/11.0 kg

A bench top of 100 cm (39.4 in) W x 76.2 cm (30 in) D will accommodate a DSC 8XXX system with no accessories.

An autosampler system requires additional clearance above the DSC. 36 in/91.4 cm is required for the autosampler dust cover clearance.

With accessories (Intracooler 2V/3V, CLN2 Liquid Nitrogen Cooling System, Printer, Plotter,) additional bench space will be required.

NOTE: With all cooling accessories a coolant transfer line attaches to the left side of the DSC 8XXX. Consideration must be given for location of dewar relative to the DSC 8XXX. Typically, the DSC is located at the left end of the bench. Floor space required for the dewar is approximately 60 cm (24") square. The dewar is 120 cm (48") tall and may NOT fit under the lab bench.

Peripherals, Accessories

Accessories	Dimensions			
	Width	Depth	Height	Weight
Water Circulator	8.25 in/ 21 cm	15.75 in/40 cm	22.5 in/57.1 cm	70 lb/32 kg
Intracooler 2 V	15.0 in/38.1 cm	21.0 in/53.3 cm	29.0 in/73.7 cm	90 lb/40.8 kg
Intracooler 3V	14.0 in/35.6 cm	21.5 in/54.6 cm	34 in/86.4 cm	154 lb/69.9 kg
CLN2	15.0 in/38.1 cm	21.0 in/53.3 cm	29 in/73.7 cm	90 lb/40.8 kg

c) Electrical Requirements:

Power Consumption

DSC 8XXX	400 Watts Maximum
Computer	Not Available
Circulator	1440 Watts Maximum

Intracooler 2V	1440 Watts Maximum
Intracooler 3V	Not Available
CLN2	150 Watts Maximum

Power Specifications

DSC 8XXX	240 VAC, 1.1A
Computer	Not Available
Circulator	240 VAC, 7 Amps
Intracooler 2V	230 VAC, 6 Amp
Intracooler 3V	230 VAC, 16 Amp
CLN2	240 VAC, 1.0 Amp

This equipment is designed to operate within 10% of the selected line voltage (Except 240VAC +6%, -10%).

The supply must be smooth, clean and free of transient voltages over 40 volts.

Earth grounding: less than 1 ohm resistance between the grounds of any 2 components of the system

Power Outlets

All outlets should share a common earth ground.

DSC 8XXX	1 standard outlet
Additional Accessories	1 separate outlet each

d) Gas Requirements:

Gas dew point must be lower in temperature than the minimum temperature of the cooling accessory.

All systems require a "Sample Gas" and "System Gas."

Sample gas flow is controlled by the mass flow controller. This is the gas that is purging the sample cup area. Two inputs are provided, Sample Gas A and Sample Gas B to allow purge gas switching experiments. The flow rate is controlled through the instrument control software.

Gas	Pressure	Flow	Purity (Minimum)	Dew Point
Operation at or Above Ambient Temperatures				
Sample Gas: such as argon, nitrogen, air, oxygen	20-40 psi/2-3bar	20-40 cc/min	99.95	<-20 °C
Sub-ambient operation using Intracoolers 2V/3V				
Sample Gas: such as argon, nitrogen, air, oxygen	20-40 psi/2-3bar	20-40 cc/min	99.95	<-70/<-100 °C
System Gas: nitrogen, dry	20-40 psi/2-3 bar	0.6– 8 l/min	99.95	<-70/<-100 °C
Sub-ambient operation using CLN2				
Sample Gas: Helium, exceptionally dry	20-40 psi/2-3 bar	20-40 cc/min	99.95	<-190 °C
System Gas: nitrogen, dry	20-40 psi/2-3 bar	0.6– 8 l/min	99.95	<-190 °C
CLN2 Pressure source: Nitrogen	20-50 psi/2-3 bar	N/A	99.95	<-190 °C

e) Environmental Requirements:

Laboratory Environment

Clean and dust-free

Indoor use only on level, vibration-free work surface

For working with floppy disks, a clean work area free of strong magnetic fields, out of direct sunlight and away from heating and cooling units and ducts must be provided.

Intracooler must not be located in an enclosed area.

f) Safety Requirements:

Gas Cylinders and Gas Delivery Lines

Lock down straps should be present on all gas cylinders.

Ventilation

Do not operate the Differential Scanning Calorimeter in an enclosed environment without adequate ventilation.

The liquid nitrogen system of PerkinElmer's Differential Scanning Calorimeter emits a small amount of nitrogen during normal operations. If your laboratory is not properly ventilated, the level of oxygen in the laboratory may fall below the normal range. Please follow the applicable laboratory ventilation standards to ensure that an appropriate oxygen level is maintained.