FOX Series Heat Flow Meters

FOX 600 FOX 801

Site Preparation Guide

Revision A Issued June 2021

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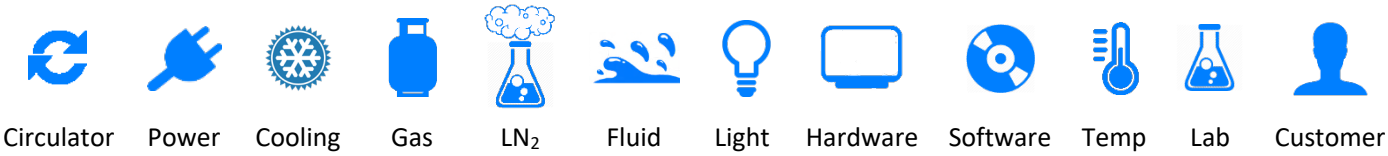
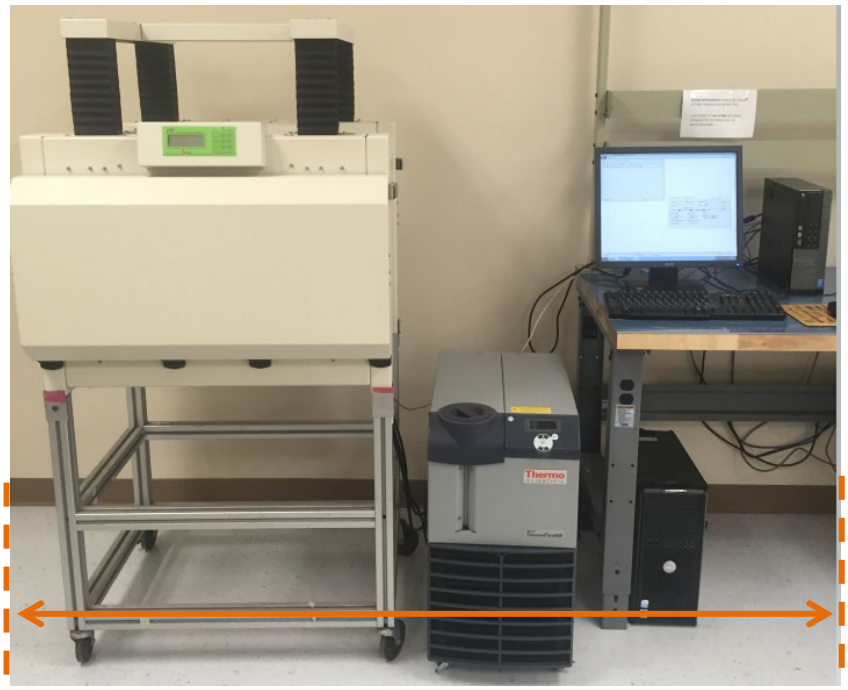


Ideal Setup

IDEAL PLACEMENT AND BENCH MEASUREMENTS

Select a location with adequate floor space and a rigid laboratory bench that is level and is in a vibration-free environment.

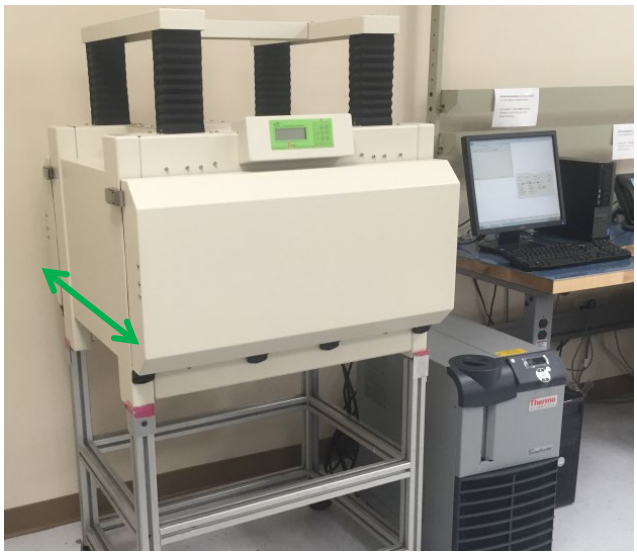


FOX 600 floor space width: 2.2 m (7 ft)

FOX 801 floor space width: 2.5 m (8 ft)

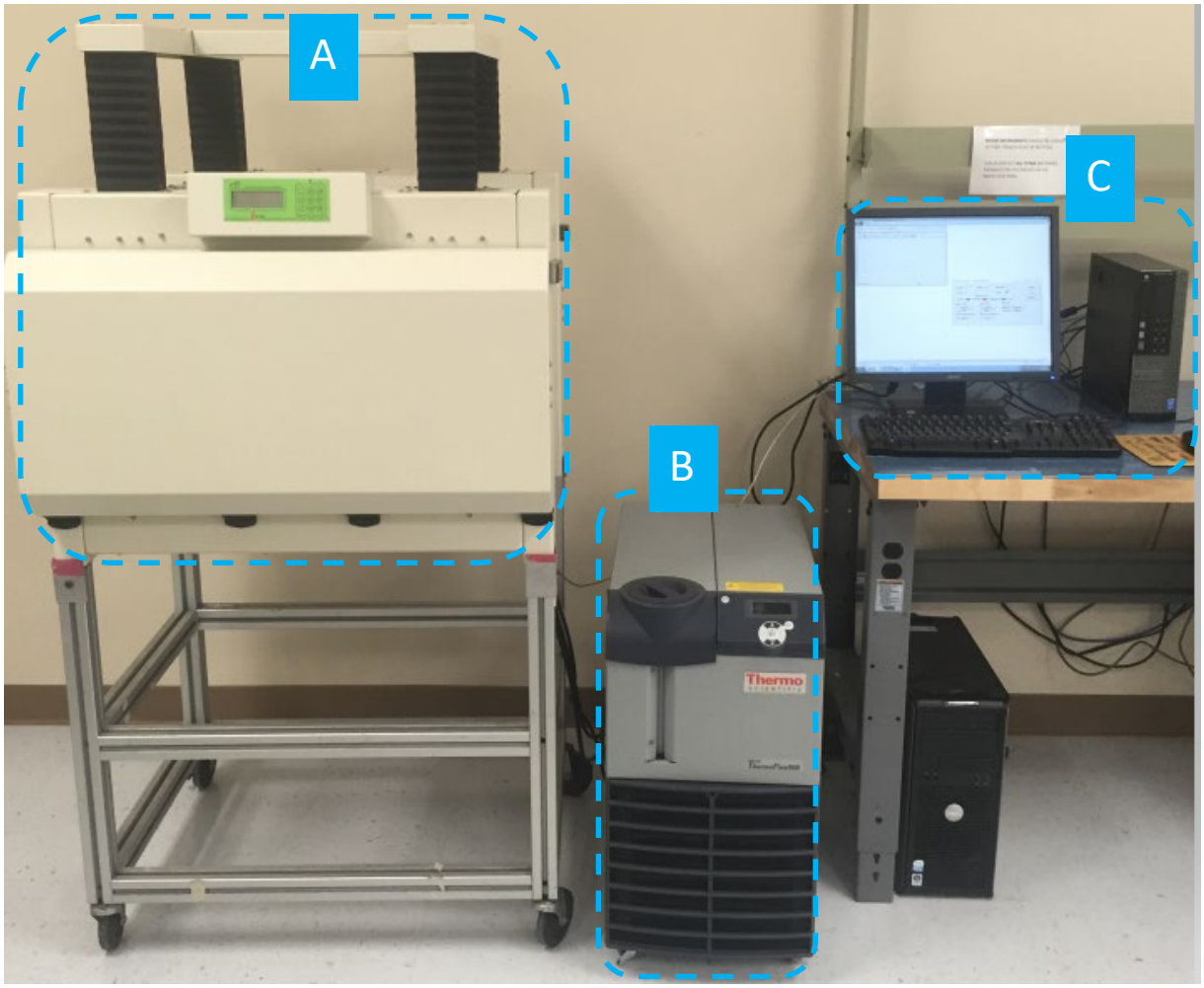
Depth FOX 600: 82 cm (32 in)

Depth FOX 801: 99 cm (39 in)



System Components

MAIN SYSTEM COMPONENTS



A. Instrument

B. Coolant Source

C. Computer (Controller)

Instrument Measurements

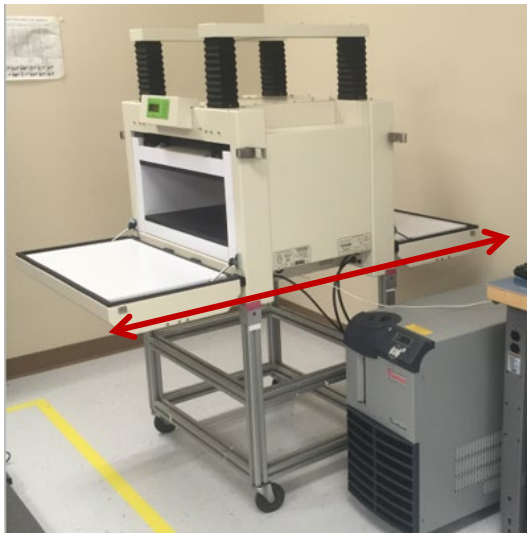
FOX-600 INSTRUMENT

Height: 89 cm (35 in)

Width: 87 cm (34 in)

Depth: 82 cm (32 in)

Weight: 114 kg (250 lbs)



FOX 600 Depth OPEN: 150 cm (59 in)
FOX 801 Depth OPEN: 186 cm (73 in)

FOX-801 INSTRUMENT

Height: 110 cm (43 in)

Width: 102 cm (40 in)

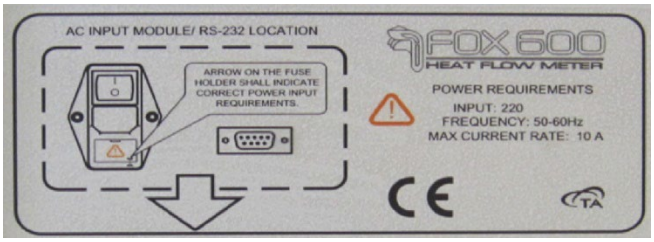
Depth: 99 cm (39 in)

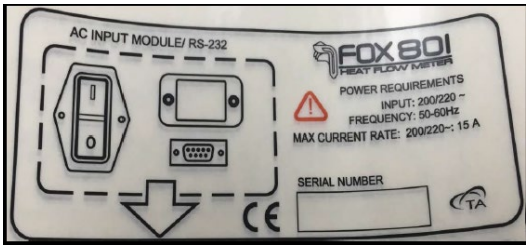
Weight: 159 kg (350 lbs)

Utility Requirements

POWER

Item	FOX 600 Requirement	FOX 801 Requirement
Instrument	200/220 VAC, 10 A max, 50/60 Hz	200/220 VAC, 15 A max, 50/60 Hz
Computer and Monitor	Consult the computer/monitor manufacturer specifications as needed	
Chiller	Consult the chiller manufacturer specifications as needed	
Power cords provided	NEMA 6-15 plug, 2 m (6.5 ft) long 	





CAUTION **Use power cords with plugs appropriate for your circuit.**

CAUTION Supply voltages lower than indicated may result in a degradation of performance.

CAUTION Ensure that the mains assigned do not also supply power to noise generating equipment nearby, such as motors, welders, transformers, etc.

CAUTION An independent heavy GROUND wire must be provided through the power hookup. Improper grounding may cause severe damage for which the supplier will not accept responsibility. All power strips must be fully grounded and carry the ground through to the sockets into which the computer is plugged.

CAUTION Required supply voltages other than the standard 200/220V 50/60Hz should be expressed to the FOX Team at the time of the order.

Utility Requirements

GAS (OPTIONAL)

Item	Requirement
Conditions	Must be dry
Type	Must be **nitrogen** or **air**
Inlet Pressure	Minimum: 25 psig (1.75 bar) Maximum: 40 psig (2.75 bar)
Fittings	Instrument fitting is 5/32”. 5/32” tubing is supplied with the instrument.

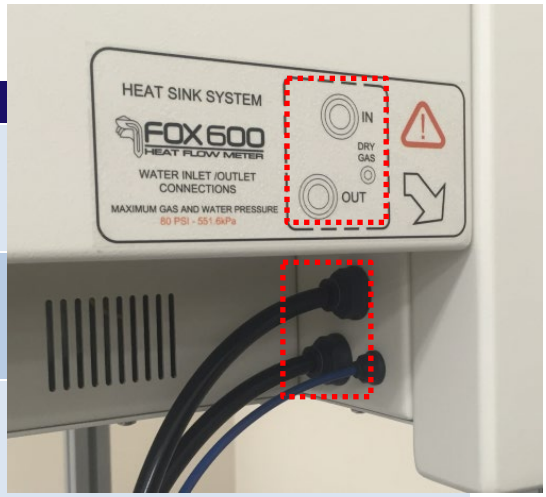
Regulator to monitor pressure

CAUTION

Improperly regulated, pulsating, or poor quality purge gas may cause irregular or erratic instrument operation. Containment of exhaust is recommended if noxious or poisonous gases are released by sample when heated. Venting inert gases into small rooms may reduce the oxygen content of the air and become hazardous to personnel.

Utility Requirements

WATER



Item	Requirement
Cooling Capacity	• FOX 600: 900 W at 18°C • FOX-801: 1100 W at 18°C
Inlet Pressure	• Minimum: 35 psig (2.4 bar) • Maximum: 50 psig (3.4 bar)
Optimal Flow Rate	• 1-2 L/min (15-20 gal/hr • Varies with Inlet pressure
Water Temperature	• Optimal: **18°C** • Permissible: 5°C-30°C
Tubing	Two 2 m (6 ft) lemgth of 3/8” tubing is provided.

CAUTION Operating below minimum pressure may result in erratic operation.

CAUTION If plant wide recirculation is used, a minimum inlet/outlet pressure of 35psi is required.

CAUTION Excessively cold water will result in “sweating” and corrosion of cooled metal surfaces. Warm water may not allow starting a test from below 25°C. After reaching the desired setpoint, if the temperature changes by more than a few hundredths of degree Centigrade, or if the instrument can’t reach the setpoint, the water flow rate probably is not sufficient.

CAUTION Wall mounted supply shutoff, filter (recommended for hard water), open drain, and city water is required if chiller/circulator was NOT ordered.

CAUTION The direction of water flow is key to proper cooling and heating. Typically water flow is downward, meaning that the water flows through the upper plate (Input) then through the lower plate before it exits the system (Output).

Computer Requirements

HARDWARE AND SOFTWARE REQUIREMENTS

Item	Instrument PC	New PC
Unused RS-232 (serial port)	☑	Required
Unused USB port	☑	Required
Windows 7 OS or higher	Required	Required
Instrument drivers	On USB (provided)	
Instrument software	On USB (provided)	
Instrument calibrations	On USB (provided)	

OTHER CONSIDERATIONS

Item	Requirement
Network	• *TA Instruments is not responsible for resolving issues associated with connections to your corporate network.* • *Network cards and/or certain network operation frequently interfere with the operation of the instrument and software.*
Conflicts	*TA Instruments is not responsible for resolving hardware/software conflicts created by the addition of third party hardware or software to the computer.*
Computer	*Computer should not be attached to other analytical instruments or LAN.*

Site Preparation Checklist

FOX 600, FOX 801

	Instrument: ☐ FOX 600 ☐ FOX 801 Sufficient bench/floor space for instrument, computer, and circulator: ☐ Width: 2.2/2.5 m (7/8 ft) ☐ Depth: 82/99 cm (32/39 in)
	Instrument power: ☐ 200/220 VAC, 10/15 A max, 50/60 Hz
	Computer: ☐ Windows 7 or higher
	Purge Gas – Dry nitrogen or dry air ☐ Regulator to allow 25–40 psig (1.75–2.75 bar)
	Water Circulation ☐ Nominal inlet pressure of 35 psig (2.4 bar) ☐ Nominal flow rate of 1-2 L/min ☐ FOX 600: 900 W at 18°C ☐ FOX 801: 1100 W at 18°C
	☐ The Customer assumes responsibility for any damage that occurs when the instrument is moved by someone other than a trained TA Instruments Service Representative.

I hereby acknowledge that all utility requirements have been met per the checklist above and that they will be ready at the agreed time of installation.

<u>If all utility requirements are not met at the agreed time of installation, additional charges may be incurred for a return Service trip.</u>

_____ _____/_____/_____

Customer *DD* *MM* *YYYY*

_____ _____ _____

Company *City* *State* *Country*

Please send a signed copy of the completed checklist to your local Service representative.

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