

Thermal Diffusivity Instruments

DXF-200, DXF-200+



Site Preparation Guide

Ideal Setup

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Circulator



Power



Cooling



Gas



LN₂



Fluid



Light



Hardware



Software



Temp



Lab



Customer

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. For optimal performance it is recommended that the instrument be placed by itself on a separate marble table.



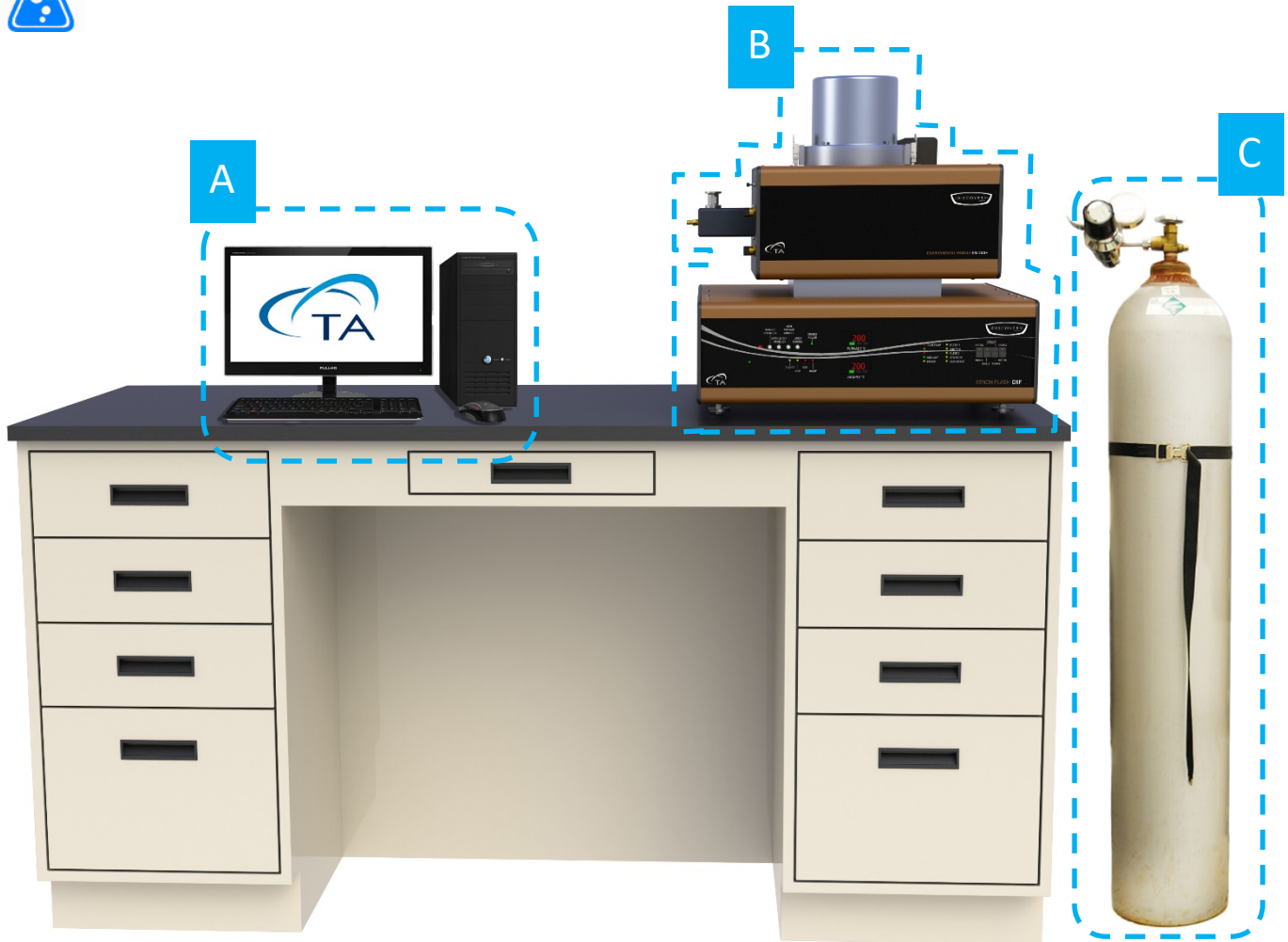
Bench width: 2.10 m (7 ft)

Bench depth: 90 cm (36 in)

System Components



MAIN SYSTEM COMPONENTS



- A. Computer (Controller)
- B. Instrument
- C. Bottled Gas
- D. Vacuum Pump for DXF 200+ (not shown)



The vacuum pump must be installed on different surface from the instrument (floor, separate table, etc.) so that the vibration does not interfere with measurements.

Instrument Measurements



MAIN INSTRUMENT

Head closed



Height (HEAD CLOSED):
DXF 200+: 58 cm (23 in)
DXF 200: 41 cm (16 in)

Height (HEAD OPEN):
DXF 200+: 68 cm (27 in)
DXF 200: 43 cm (17 in)

Width: 63 cm (25 in)

Depth: 66.04 cm (26 in)

DXF Weight: 70 kg (155 lbs)

EM Weight: 40 kg (88 lbs)

Head open





Allow at least 15 cm (6 in) of **additional clearance** behind the instrument for wires, cables, etc.

Utility Requirements



POWER

Item	DXF 200+ Requirement	DXF 200 Requirement
Instrument	198–242 VAC, 10 A, 50/60 Hz	198–242 VAC, 6.0 A max, 50/60 Hz
Computer and Vacuum	120V (US) or 220–240V, 6.4A max, 50/60 Hz	
Power cords provided	<ul style="list-style-type: none"> Instrument: NEMA 6-15P plug, 2.4 m (7.75 ft) long Computer } NEMA 5-15 plug, 2.4 m (7.75 ft) long Monitor } (bracketed with Computer) Vacuum } (bracketed with Computer)   <p>NEMA 5-15 plug NEMA 6-15P plug</p>	

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.

Utility Requirements



GAS



Item	Requirement
Conditions	Must be dry!
Type	Must be nitrogen or argon !
Source	<ul style="list-style-type: none">• Must be from a gas cylinder, Grade 5 purity!• 50-liter capacity LN₂ tank• For running sub ambient tests, use a low pressure (22 psi) bulk LN₂ tank.
Inlet Pressure	<ul style="list-style-type: none">• Minimum: 15 psi (1 bar)• Maximum: 20 psi (1.3 bar) <p> Pressure exceeding 20 psi will damage the instrument.</p>



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.

Computer Requirements



HARDWARE REQUIREMENTS

The instrument comes with a computer already configured. Use the following requirements if using a computer not supplied by TA Instruments:

- Unused RS-232 (serial) port
- Unused USB port



Instrument drivers and software are provided on a CD.



Computer should not be attached to other analytical instruments or LAN.



SOFTWARE REQUIREMENTS

Item	Requirement
Operating System	<ul style="list-style-type: none">• Windows 10 64-bit Ultimate, Enterprise, & Professional• Home version not supported
Network	<ul style="list-style-type: none">• <i>TA Instruments is not responsible for resolving issues associated with connections to your corporate network.</i>• <i>Network cards and/or certain network operation frequently interfere with the operation of the instrument and software.</i>
Conflicts	<i>TA Instruments is not responsible for resolving hardware/software conflicts created by the addition of third-party hardware or software to the computer.</i>

Site Preparation Checklist



Thermal Diffusivity Instruments – DXF 200+, DXF 200

	Sufficient bench space for instrument, computer, and vacuum pump (if applicable): <input type="checkbox"/> Width: 2.10 m (7 ft) <input type="checkbox"/> Depth: 90 cm (36 in)
	<input type="checkbox"/> Instrument power is 198–242 VAC, 50/60 Hz <input type="checkbox"/> Computer, monitor, and vacuum power is 120 V (US) or 220–240 V, 6.4 A max, 50/60 Hz
	Purge Gas – Dry nitrogen or argon <input type="checkbox"/> Grade 5 purity cylinder <input type="checkbox"/> Maximum 20 psi (1.3 bar) pressure <input type="checkbox"/> Dew point is -10°C or better Liquid Nitrogen <input type="checkbox"/> 50-liter capacity tank <input type="checkbox"/> Low pressure (22 psi) bulk LN ₂ tank if running sub ambient tests
	<input type="checkbox"/> 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.

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

Customer *DD* / *MM* / *YYYY*

Company *City* *State* *Country*

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

TA Instruments Offices

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<http://www.tainstruments.com>.

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