Thermal Diffusivity Instruments

DXF-200, DXF-200+

Site Preparation Guide

Revision B Issued August 2026

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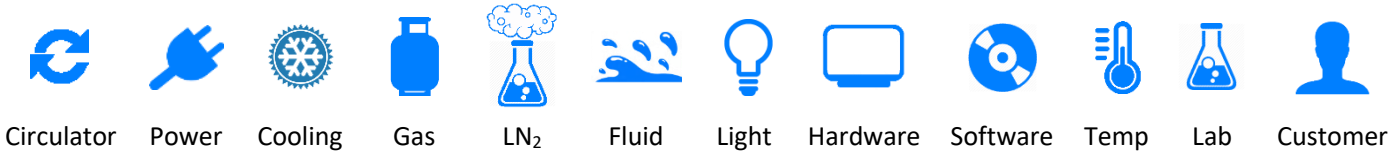


Ideal Setup

IDEAL PLACEMENT AND BENCH MEASUREMENTS

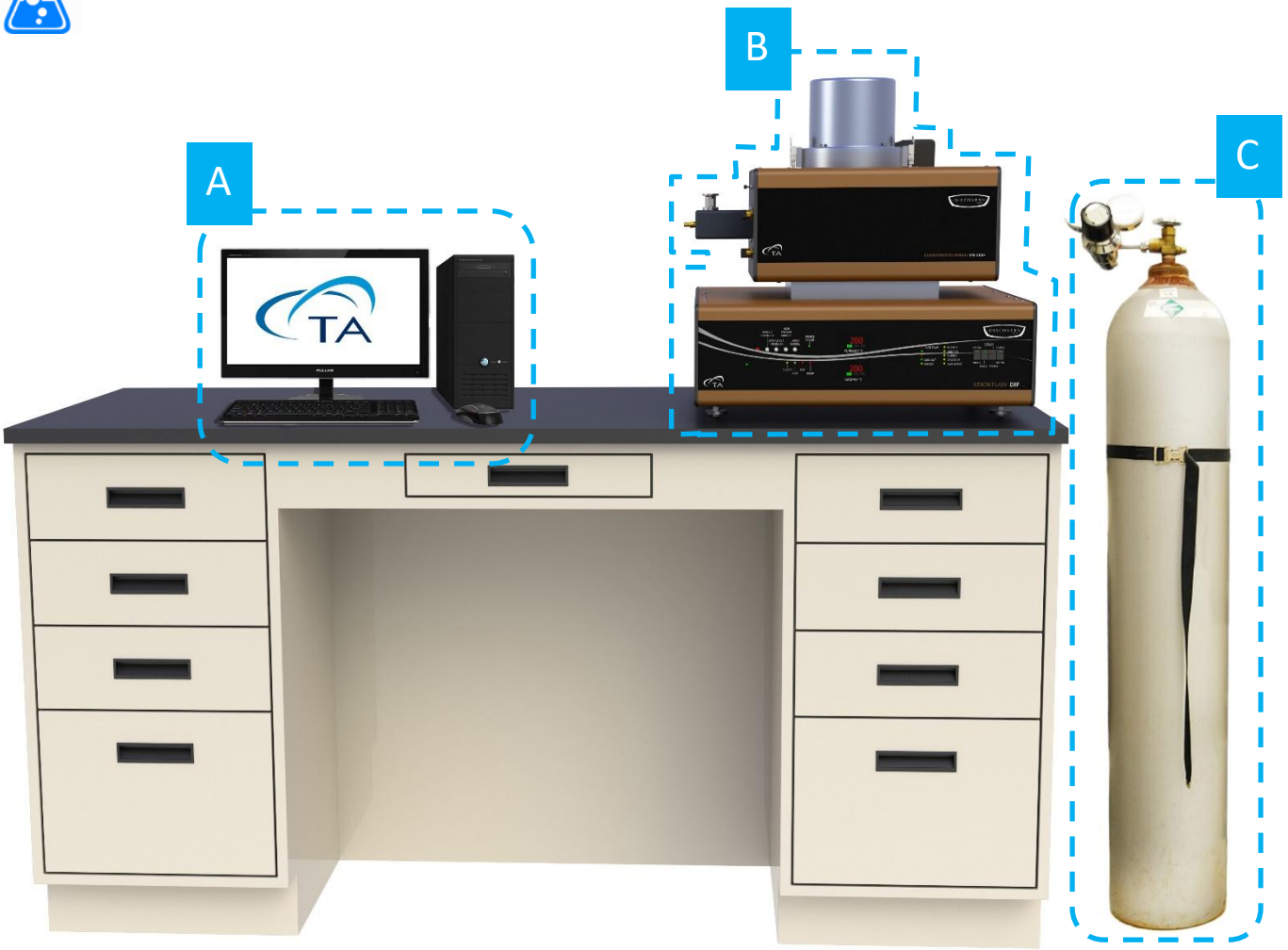
Select a location with adequate floor space and a rigid laboratory bench that is level and is in a vibration-free environment. For optimal performance it is recommended that the instrument be placed by itself on a separate marble table.

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

Head open

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)

NOTE

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	• Instrument: NEMA 6-15P plug, 2.4 m (7.75 ft) long • Computer • Monitor • Vacuum } NEMA 5-15 plug, 2.4 m (7.75 ft) long NEMA 5-15 plug NEMA 6-15P plug	

Use power cords with plugs appropriate for your circuit!

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

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

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	• Must be from a **gas cylinder**, **Grade 5 purity**! • 50-liter capacity LN_2 tank • For running sub ambient tests, use a low pressure (22 psi) bulk LN_2 tank.
Inlet Pressure	• Minimum: 15 psi (1 bar) • Maximum: 20 psi (1.3 bar) CAUTION Pressure exceeding 20 psi will damage the instrument.

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.

Computer Requirements

HARDWARE REQUIREMENTS

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

- 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	• Windows 10 64-bit Ultimate, Enterprise, & Professional • Home version not supported
Network	• *Waters 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	*Waters is not responsible for resolving hardware/software conflicts created by the addition of third-party hardware or software to the computer.*

Site Preparation Checklist

Thermal Diffusivity Instruments – DXF 200+, DXF 200

	Sufficient bench space for instrument, computer, and vacuum pump (if applicable): ☐ Width: 2.10 m (7 ft) ☐ Depth: 90 cm (36 in)
	☐ Instrument power is 198–242 VAC, 50/60 Hz ☐ 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 ☐ Grade 5 purity cylinder ☐ Maximum 20 psi (1.3 bar) pressure ☐ Dew point is -10°C or better Liquid Nitrogen ☐ 50-liter capacity tank ☐ Low pressure (22 psi) bulk LN_2 tank if running sub ambient tests
	☐ The Customer assumes responsibility for any damage that occurs when the instrument is moved by someone other than a trained Waters 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.

Waters Technologies Corporation Offices

For information on our latest products, contact information, and more, see our website at: http://www.tainstruments.com.

To find your local Waters office and contact information, visit http://www.tainstruments.com/contact/ta-directory/

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