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| --- |
| ***Insert Laboratory Specific Name Here*** |
| **NextSeq 500 Pre-Installation Checklist** |

**Equipment Name: Illumina NextSeq 500**

Before purchasing equipment, verify that the following requirements are, or can be, met:

| Requirement | Requirement Met? | Comments |
| --- | --- | --- |
| Electrical[ ]  100-240 VAC at 50/60 Hz. An electrical ground is required. If the voltage fluctuates more than 10%, a power line regulator is required[ ]  NEMA 5-15P Input Connection | Yes [ ]  No [ ] Yes [ ]  No [ ]  |  |
| Wattage[ ]  Power Supply Rating 600 Watts, maximum | Yes [ ]  No [ ]  |  |
| Required Power Protection[ ]  Uninterrupted Power Supply (APC Smart-UPS 1500 VA LCD 120V US Part# SMT1500C, recommended, other similar UPS acceptable)  | Yes [ ]  No [ ]  |  |
| WaterAccess to one of the following types of laboratory grade water:[ ]  Deionized Water[ ]  Illumina PW1[ ]  18 Megohm water[ ]  Milli-Q water [ ]  Super-Q water[ ]  Molecular biology-grade water | Yes [ ]  No [ ]  |  |
| Waste[ ]  Reference SOP: “Illumina NextSeq 500 Waste Disposal Procedure”  | Yes [ ]  No [ ]  |  |
| Ventilation[ ]  Sufficient for NextSeq thermal output of 2048 BTU/h Note: Position the instrument to allow proper ventilation and access for servicing.  | Yes [ ]  No [ ]  |  |
| Operating Temperature Range [ ]  19˚-25˚CNote: Verify with facilities that the temperature range is maintained 24 hours a day, 7 days a week; monitor prior to instrument arrival. During a run, do not allow the ambient temperature to vary more than ±2°C. | Yes [ ]  No [ ]  |  |
| Operating Humidity Range[ ]  20–80%, noncondensing | Yes [ ]  No [ ]  |  |
| Elevation[ ]  Below 2,000 meters (6,500 feet) | Yes [ ]  No [ ]  |  |
| Air Quality[ ]  Indoor Environment, maintain air particulate cleanliness levels per ISO 14644-1 Class 9 (ordinary room air), or better | Yes [ ]  No [ ]  |  |
| Vibration SpecificationsDuring sequencing runs, use the following best practices to minimize continuous and intermittent vibrations and ensure optimal performance:* Limit environment vibration
	+ Dedicated, sturdy, and immobilized lab bench away from sources of vibration (i.e., no shaker, vortex, centrifuge, etc. on the same bench)
* Keep the clearance area free of clutter
* When the instrument is sequencing, do not open the reagent compartment door, buffer compartment door, right service panel, or flow cell door
* Do not place objects on top of the instrument

Note: Equipment is sensitive to vibrations | Yes [ ]  No [ ]  |  |
| Network ConnectionsYes [ ]  No [ ]  Note: Use a 1 gigabit connection between the instrument and your data management system. This connection can be made directly or through a network switch. Upon connection to a network, configure Windows Update so that the NextSeq does not automatically update. Illumina recommends waiting one month after a Windows release before allowing an update. | Yes [ ]  No [ ]  | If No, explain how data will be transferred: |
| External Data StorageYes [ ]  No [ ]   | Yes [ ]  No [ ]  | If Yes, specify:If No, explain: |
| Door/Elevator/Access Point Clearance for DeliveryCrated Dimensions and Weight* Height: 38 in
* Width (side to side): 35.5 in
* Depth (front to back): 35.5 in
* Weight: 334 lbs
 | Yes [ ]  No [ ]  |  |
| Lab Bench Requirements* The instrument includes precision optical elements. Place the instrument on a sturdy and level lab bench away from vibration
 | Yes [ ]  No [ ]  |  |
| Operating ClearanceInstrument Dimensions* Height: 23 in
* Width (side to side): 21 in
* Depth (front to back): 25 in
* Weight: 183 lbs.

Clearance Requirements* Back Clearance: 4 in
* Side Clearance: 24 in (each side)
* Top Clearance: 24 in
* Usage Access: The power switch is on the left side, back panel of instrument. Position the instrument so that the power cord is accessible and can be easily disconnected from the outlet.
 | Yes [ ]  No [ ]  |  |
| Storage Requirements for NextSeq Sequencing ConsumablesReagent Cartridge* Storage Temp: -25°C to -15°C

Buffer Cartridge* Storage Temp: 15°C to 30°C

HT1* Storage Temp: -25°C to -15°C

Flow Cell Cartridge * Storage Temp: 2°C to 8°C
 | Yes [ ]  No [ ] Yes [ ]  No [ ] Yes [ ]  No [ ] Yes [ ]  No [ ]  |  |
| Dedicated Physically Separate Areas (If using NextSeq for sequencing PCR amplicons)[ ]  Dedicated physically separate pre-PCR laboratory space where pre-PCR processes are performed (DNA extraction, quantification, and normalization[ ]  Dedicated physically separate post-PCR laboratory space and equipment (pipettes, incubators, heat blocks, etc.) for generation and manipulation of post-PCR products for where PCR products are made and processed[ ]  Dedicate separate full sets of equipment and supplies (pipettes, incubator, heat block, vortexer, centrifuge, etc.) to pre-PCR and post-PCR lab processes. Do not share equipment and supplies between processes[ ]  Dedicated separate storage areas (freezers and refrigerators) for pre-PCR and post-PCR reagents and consumablesNote: Do not use the same sink to wash pre-PCR and post-PCR materials. Do not share water purification systems for pre-PCR and post-PCR processes. Store all supplies used in pre-PCR protocols in the pre-PCR area, and transfer to the post-PCR area as needed. | Yes [ ]  No [ ] N/A [ ]  |  |
| Documentation[ ]  Training Documents[ ]  Equipment Maintenance Documents[ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Yes [ ]  No [ ]  |  |
| Ancillary equipment required Access to or acquisition of the following:[ ]  Thermocycler[ ]  Instrument for flourometric based quantitation (e.g., Qubit)[ ]  Instrument for sizing, quantitation, and quality check of DNA (optional) (e.g., Bioanalyzer, TapeStation)[ ]  Instrument for shearing DNA (e.g., Covaris) (optional depending on library prep method)[ ]  Automated Liquid Handler (optional)[ ]  Other: ­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Yes [ ]  No [ ]  |  |
| Other Requirement(s)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  [ ]  N/A | Yes [ ]  No [ ]  |  |

**\*References:**

NextSeq 500 and NextSeq 550 Sequencing System; Site Prep Guide Doc # 100000035337 v07 March 2019

NextSeq 500 and NextSeq 550 Waste Disposal Standard Operating Procedure

**Completed By (print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Completed By (signature): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Approved By (print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Approved By (signature): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**